



## UNDERSTANDING IMPACTS OF HOME ENERGY SAVING IMPROVEMENTS ON INDOOR AIR QUALITY

### FREQUENTLY ASKED QUESTIONS

#### What data will we collect?

We will use a small indoor sensor to measure the air in your home – including small particles (PM<sub>2.5</sub>), carbon dioxide (a greenhouse gas), and gases from products like cleaners or paints (Volatile Organic Compounds). The sensors also track temperature and moisture in the air. You'll also be asked to complete a short questionnaire about your home, energy use, home appliances, and daily routines in your home. This takes up to 20 minutes to complete.

#### Will the sensor record sound or images?

No. The sensor does not have a camera or microphone. It only measures air quality, temperature, and humidity — not anything you say or do.

#### Will the sensor increase my energy bill?

The sensors use a very small amount of electricity –about 30 pence each month (less than £5 each year). It connects to your home Wifi so we can collect information without needing to visit you. To help with this, you'll receive up to up to £50 in shopping vouchers per each sensor over the course of the study.

#### When will I receive my vouchers?

You'll receive a £25 voucher after we installed the sensor, and another £25 at the end of the study.

#### Do I need to have a smart home or new energy upgrades to take part?

No. We are working with homes that have and have not made energy-saving improvements. You can take part whether or not your home has been upgraded.

#### What will we do with your information?

All data collected will be anonymous – your name and address will not be linked to any findings.



Your personal and household details will be stored securely and only accessed by the study team. Paper consent forms will be locked away, and digital data will be kept on the University of Birmingham's secure server for up to 10 years before being deleted.

### What happens at the end of the study?

We'll collect the sensor(s) from your home. We will also share a summary of the results with you and your local community. The findings will be shared on our project website (<https://wm-netzero.org.uk>) and in scientific journals and shared with partners to help shape healthier home policies.

### What if I change my mind?

Participation is completely voluntary. You can withdraw at any time by contacting us by letter or email. If you leave the study before it ends (September 2026), we will ask for your permission to use the data you've already provided. If data has already been published, we won't be able to remove it, but it won't be linked to you personally. We will arrange to collect the sensor within two weeks of your withdrawal.

### Who has reviewed the study?

The study has been reviewed and approved by the University of Birmingham Science, Technology, Engineering and Mathematics (STEM) Research Ethics Committee [ERN\_1825-Dec2023] to protect your safety, rights, wellbeing and dignity.