

Building America Duct Characterization FAQ Sheet

1. What is the purpose of this study?

Center for Energy and Environment is conducting this study on behalf of the U.S. Department of Energy to learn how effectively your ductwork is functioning. This is part of a wider study and effort to assess the status of residential HVAC and expand efficiency improvements in the upper Midwest with confidence and at scale. Your participation will provide us with insight into the health of central air ductwork in this region and allow us to better characterize the existing ductwork in preparation for heat pump retrofits.

2. What kind of measurements will be taken and where?

We will measure airflow on ducts throughout your home, accessing the supply and return registers where we are able. We will also conduct a blower door test and need access to the air handling unit (e.g., furnace or heat pump) to collect information about the HVAC system operation. Measurements will be taken in all conditioned areas of your home and in the utility areas where your air handling unit resides. We will also record measurements of your house and insulation levels to calculate space heating and cooling requirements.

3. How will the measurements affect my duct work or heat pump's performance or my energy bills?

No impact is expected beyond a short period (30–45 minutes) when we have to turn off the heating or air conditioning for the blower door test. The airflow measurements include traveling to each register location with a flow hood but will not impact the performance of your ducts. Think of it like a speedometer in your car — it tells you how fast you're going but doesn't control the speed of the car itself.

Your furnace or heat pump will continue to operate as it did before, as we are only taking spot measurements for airflow rate and pressure. The measurement procedure won't change the heating or cooling output, efficiency, or any other aspect of the HVAC system's performance.

4. Will the equipment be noisy or disruptive?

The blower door test includes use of a moderately noisy fan that may register between 50 and 60 decibels a few feet from the fan, but noise varies depending on location and environmental factors like the presence of carpet in the home. No additional noise is expected from the other measurement equipment.

5. How will my privacy be protected?

Data recorded during your assessment will pertain to your ductwork performance and heating requirements to evaluate the size of the heating system for your house, nothing beyond that. While we might make the test results available to the U.S. DOE, National Renewable Energy Laboratory, the public, or others, the results will be reported anonymously. The test results will reflect the regional location within Minnesota and house type, but will not disclose participant's name without separate, additional consent.

6. Will the measurement equipment be left in my home?

No, all measurement equipment will be removed after the duration of the assessment. It would be convenient to plan for measurement instruments to be placed in a central location during the visit so that analysts/technicians will be able to complete the measurement procedure efficiently.

7. How long will the assessment visit take?

The assessment process will likely take 4–6 hours and include a brief occupant interview.

8. What if I need to reschedule a visit?

While it is not preferable to reschedule due to the complexity of getting all the employee and contractor schedules aligned, we understand that unforeseen life events demanding your attention do and will pop up. It is okay to reschedule, but we request that you let us know as soon as possible and ideally at least two days before your appointment.

9. Will I receive information about the test results?

Yes. We will send you the heating and cooling load (Manual J) report.

10. When and how will I receive the \$50 compensation?

You will receive a \$50 check from CEE about two weeks after the visit. CEE staff are not eligible for compensation.

11. Are there any taxes associated with the compensation?

No.

12. Why was I specifically selected for this study?

You were selected because your house has a centrally ducted heating system and matched specific age and size criteria deemed necessary for a representative sample of houses in the Midwest. Some people were selected because they are participants in the City of Minneapolis' Climate Legacy Initiative (CLI) program or Electrification with Equity project where you received loans for home decarbonization efforts such as the installation of air source heat pumps in your residence.

13. What if I change my mind about participating after signing the agreement?

Your participation in this study remains voluntary even after you've signed the agreement. If you decide to withdraw, please provide a notice of withdrawal from the project to the key CEE personnel listed in the participant agreement, Dave Bohac, dbohac@mncee.org, 612.802.1697.

14. Who can I contact if I have questions or concerns about the testing or the operation of my HVAC system after the testing is complete?

For questions pertaining to the testing and any concerns about the operation of your HVAC equipment that you believe may have been impacted by our testing, please contact the key CEE personnel listed in the participant agreement, Dave Bohac, dbohac@mncee.org, 612.802.1697.