

To Whom It May Concern:

The Center for American Progress appreciates the work EIA is doing to help researchers and policymakers better understand residential electricity use through the RECS. We believe the survey would be strengthened by adding the following 3 questions to provide a fuller picture on the use of HVAC equipment, freestanding air purifiers and the interaction between the two. Based on the most recent draft survey questions, it seems likely these questions would be additions.

Proposed Questions

Does your house have any of the following air filtration devices?

- Central air/heat/heat pump system with disposable / washable filter [<2in thick] (y/n)
- Central air/heat/heat pump system with media / electronic air cleaner / purifier (y/n)
- Central air/heat/heat pump system, no filter, don't know, have never changed / had filter changed
- Freestanding, plug in air filter / purifier that uses a filter (0,1,2,3+)
- Freestanding, Energy Star plug in air filter / purifier that uses a filter (0,1,2,3+)
- Freestanding, plug in air filter / purifier that is electronic [has no filter] (0,1,2,3+)

Do you ever operate any of the following devices JUST for the purpose of filtering the air in your home? (no, rarely, weekly for 1-6 hours / week, daily 1-2 hours/ day, daily 2-8 hours, daily 8-16 hours, daily > 16 hours/day)

- Run your central air/heat/heat pump
- Run just the fan on your central air / heat heat pump
- Run 1 Freestanding, plug in air filter / purifier that uses a filter
- Run more than 1 Freestanding, plug in air filter / purifier that uses a filter
- Run 1 Freestanding, plug in air filter / purifier that is electronic [has no filter]
- Run more than 1 Freestanding, plug in air filter / purifier that is electronic [has no filter]

How often do you change or wash the air filter on your central air / central heat / heat pump system (or have it serviced by a technician, or landlord)?

- Every month
- Every 2-6 months
- Every 7-12 months
- Every 13-24 months
- Every 25 months or more
- Never replaced
- Don't know

These questions are important for 3 reasons. First, a large number of stand-alone air filters are sold, but there is relatively little information about how these are used. Some households operate these devices essentially full time in perpetuity for respiratory conditions, while others may buy these devices in response to a discrete event, such as a severe wild-fire season. The energy use associated with these purchases can vary considerably.

Second, there is a considerable degree of overlap and substitutability between standalone devices and central HVAC systems for these purposes, and understanding how households use these two systems may provide important information that can be used to better understand the net effects of standalone air filters.

Third, the energy use of central HVAC systems obviously varies considerably with installed accessories and maintenance. More information about how the filters for this equipment is maintained will give a better sense of how the devices perform in typical residential settings for both homeowners and renters. The increasing

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adoption of sophisticated thermostats and controls, as well as of indoor air quality accessories also has significant ability to improve estimates. For example, some connected thermostats with multiple temperature sensors operate the fan on an air handler for a minimum number of minutes per hour by default. As HVAC controls and indoor air quality equipment grow more sophisticated in the future, it's likely that collecting some of this information in this wave of the RECS will provide valuable benchmarking in future research.

Respectfully,



Michael Madowitz
Economist, Center for American Progress
mmadowitz@americanprogress.org
202-481-8239