BUILDING DECARBONIZATION COALITION

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Evaluating All-Electric New Construction from an Energy System Standpoint

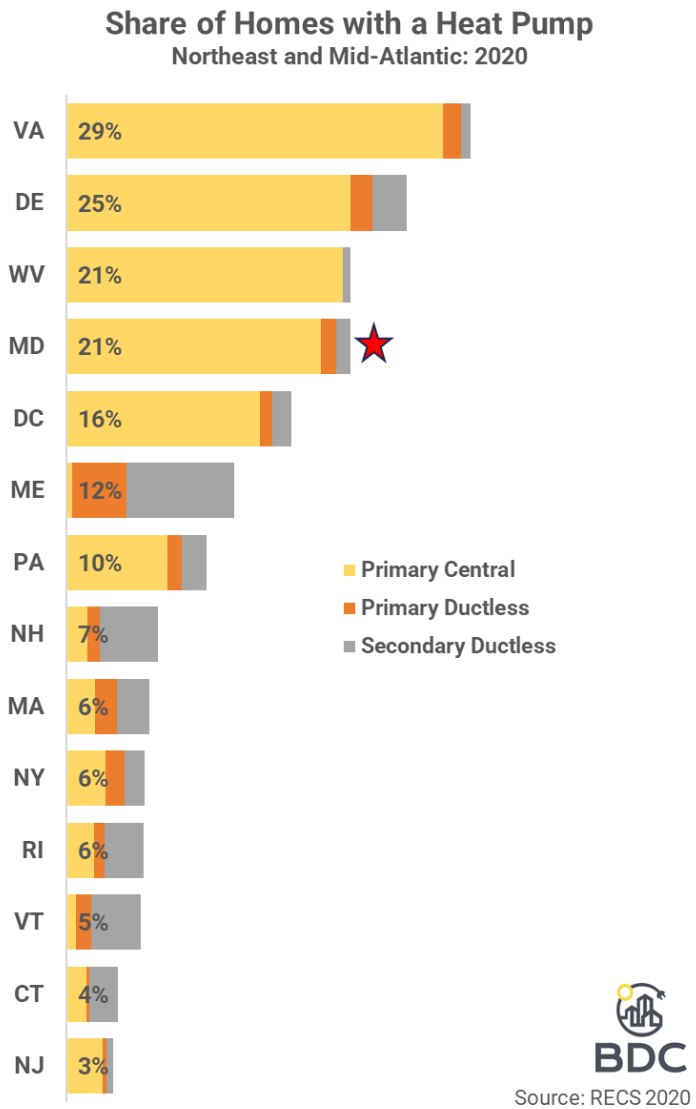
Good afternoon, and thank you so much for the opportunity to speak today. My name is Rose Stephens-Booker. I'm Director of State Mobilization at the Building Decarbonization Coalition (BDC). Our members run the gamut from small towns to major multinational corporations.

The Coalition's manufacturing members together produce about 75% of all HVAC products sold in the U.S. and 90% of water heaters.

Recently, we released a pro-decarbonization statement from these members—the first of its kind. The statement reads, in part:

> "Installing heat pumps in new construction is generally easier than doing so in an existing building. Encouraging or requiring all-electric new construction can help to cost-effectively grow the marketplace for efficient electric space heating and water heating products in the immediate term."

There's a reason why the supply chain is comfortable with electrification in new construction, especially in Maryland. According to the best available data, more than one in every five Maryland homes already has a heat pump installed,[1] and fully half of all residential HVAC products sold in the state is a heat pump.[2]



There is a large and growing marketplace for efficient electric energy systems in Maryland, and there has been since well before the Inflation Reduction Act. Product availability is not an issue.

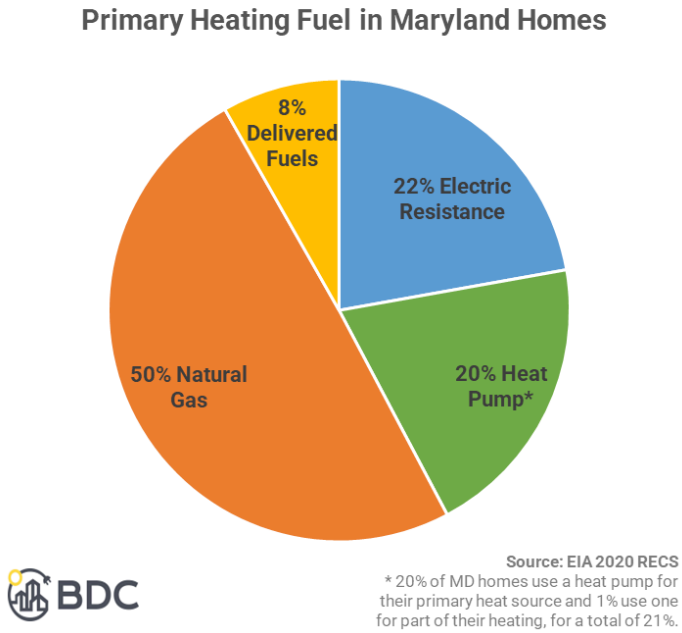
[1] Energy Information Administration (EIA) Residential Energy Consumption Survey (RECS). 2020.
[2] Heating, Air Conditioning, and Refrigeration Distributors International (HARDI). Unitary Market Report. 2021.

On the contrary, all-electric new construction is an infrastructure question. But maybe not in the way you would expect.

BDC's research has shown that new natural gas mains can cost anywhere from $2-5 million per mile. That means that on any given Maryland street, a new or replacement gas pipeline could cost ratepayers up to $70,000 per meter.[3]

Normally, that cost would be amortized over several decades. But Maryland law requires net zero emissions by 2045. Why spend all that money building energy infrastructure that will be obsolete in 20 years, and in the meantime doesn't even give you air conditioning?

And so you might ask whether electrification will strain the electric grid. The truth is that it's going to be easier on the grid in Maryland than it will be in some other states.



NESCAUM, a consortium of air quality agencies in the Northeast, released a report in August of 2023[4] which showed that rolling out heat pumps to every home in Maryland would save nearly 7 million megawatt-hours of electricity annually, which is 25% of all the electricity used in the state's residential sector.

How could that be?

It's because 22% of Maryland homes use the outdated kind of electric heat—baseboard or space heaters. Heat pumps use a third of the electricity that those systems use. Far from straining the grid, you can expect heat pumps to reduce costs and improve resilience in Maryland.

Thanks for the opportunity to speak today. If you have questions, you can find me at rstephensbooker@buildingdecarb.org.

[3] Pipeline and Hazardous Materials Safety Administration (PHMSA). Gas Distribution Annual Data, 2022. https://www.phmsa.dot.gov/data-and-statistics/pipeline/gas-distribution-gas-gathering-gas-transmission-hazardous-liquids

[4] "Residential Building Electrification in the Northeast and Mid-Atlantic." Northeast States for Coordinated Air Use Management (NESCAUM). August 2023. https://www.nescaum.org/documents/Residential-Building-Electrification-Final-Report-August-2023.pdf