# Challenges and Investments in Heat Pump Adoption for Energy Efficiency



### Massachusetts Faces Challenges in Meeting Heat Pump Targets

Massachusetts has set ambitious targets to install heat pumps in over 100,000 homes by 2025 and more than 500,000 homes by 2030. However, high electricity prices—currently the fourth highest in the United States—pose a significant challenge. Heat pumps, which can efficiently heat homes using electricity, are essential for reducing building-related greenhouse gas emissions, but their adoption is hampered by the cost disparity between electricity and less expensive fuels like natural gas.

A recent report indicates that switching from natural gas to heat pumps will increase annual heating bills by $400 to $500 for an average-sized home. This financial burden makes it difficult for consumers to justify the switch without substantial incentives, even though heat pumps are about three times more efficient than traditional heating methods. In areas where electricity is cheaper, the savings from switching are minimal, often less than $200 annually.

The report highlights a potential benefit for economically disadvantaged households using electric resistance heaters, which are about five times more expensive to operate than natural gas furnaces. For these households, switching to heat pumps could reduce heating costs by up to two-thirds, potentially saving up to $3,000 per year. The state could target these households for heat pump adoption to achieve its deployment goals and provide financial relief to low-income residents.

For the broader adoption of heat pumps, Massachusetts may need to work on reducing electricity costs. Without addressing the high cost of electricity, achieving the ambitious heat pump installation targets and broader decarbonization goals will be challenging.

### Shropshire Council Invests in Energy Efficiency for Rural Homes

Shropshire Council is celebrating Rural Housing Week by showcasing its Affordable Warmth and Energy Efficiency (AWEE) team's achievements. The team has invested over £2.5 million through the Sustainable Warmth Shropshire scheme to improve insulation and heating in rural off-gas homes. Funded by the Department of Energy Security and Net Zero's Home Upgrade Grant, the scheme aims to upgrade over 500 homes by March 2025, with a total investment of around £10 million.

The scheme has delivered over 270 insulation and heating measures, including air source heat pumps, to rural households. Over 600 households have been deemed eligible and are being supported through the scheme. A partnership with Shropshire Rural Housing Association is enabling the installation of efficient air source heat pump systems in 77 homes across various rural communities.

One tenant reported a 25% reduction in electricity consumption due to the new system. Jane Trethewey, Assistant Director for Homes and Communities at Shropshire Council, emphasized the scheme's importance for tackling fuel poverty and reducing carbon emissions. The council encourages eligible residents to apply before the scheme closes, as it is a time-limited opportunity.

For more information or to apply, residents can visit the Shropshire Council website or contact the Keep Shropshire Warm service.