

Increasing Energy Efficiency and Beneficial Electrification Programs in Low-Income Households in the Northeast Kingdom

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ENERGY ACTION NETWORK



About Me





Emphasize structural and program barriers for low-income households in the Northeast Kingdom and the need for continued attention on this region.

Suggest several preliminary recommendations for increasing low-income household program participation.



The Northeast Kingdom

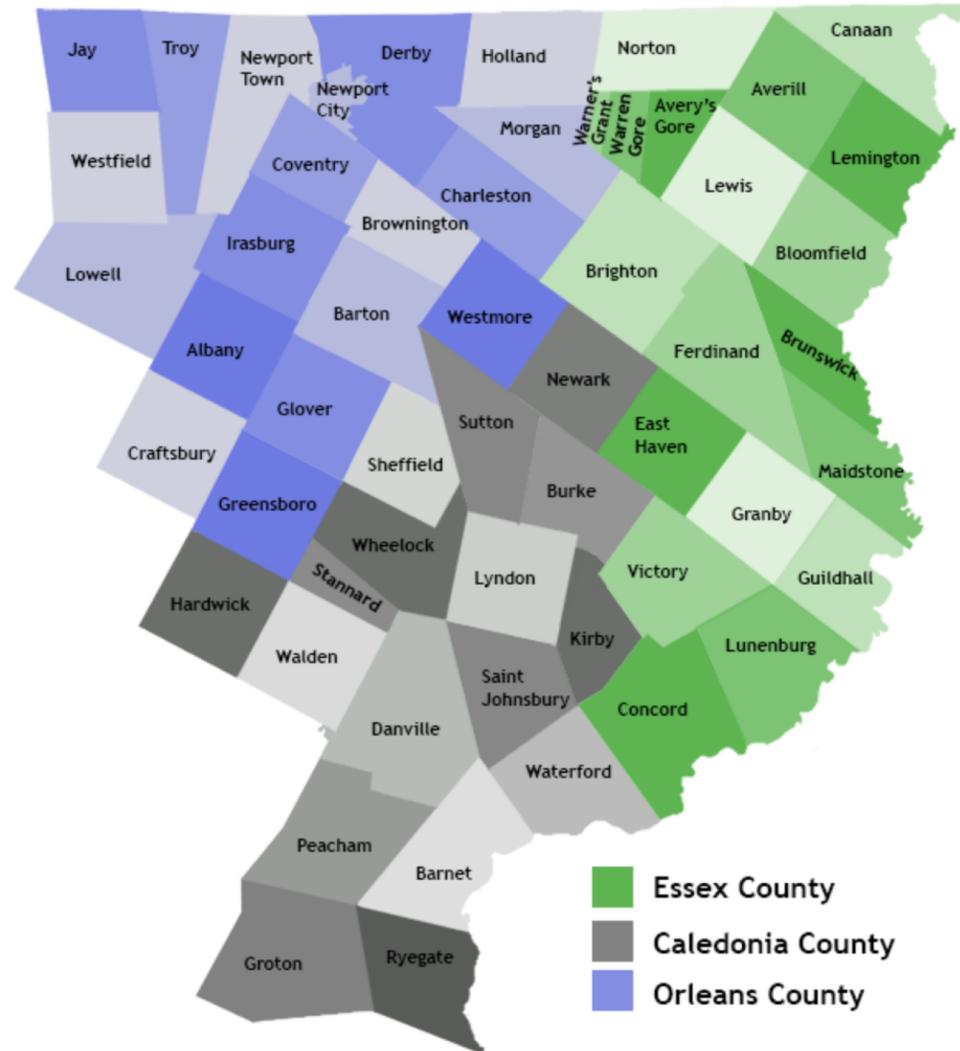
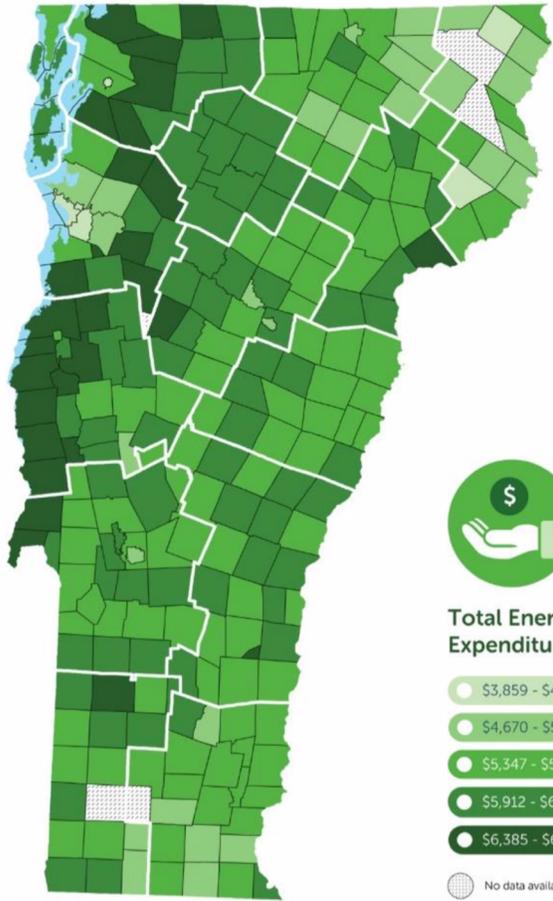


Image from NVDA

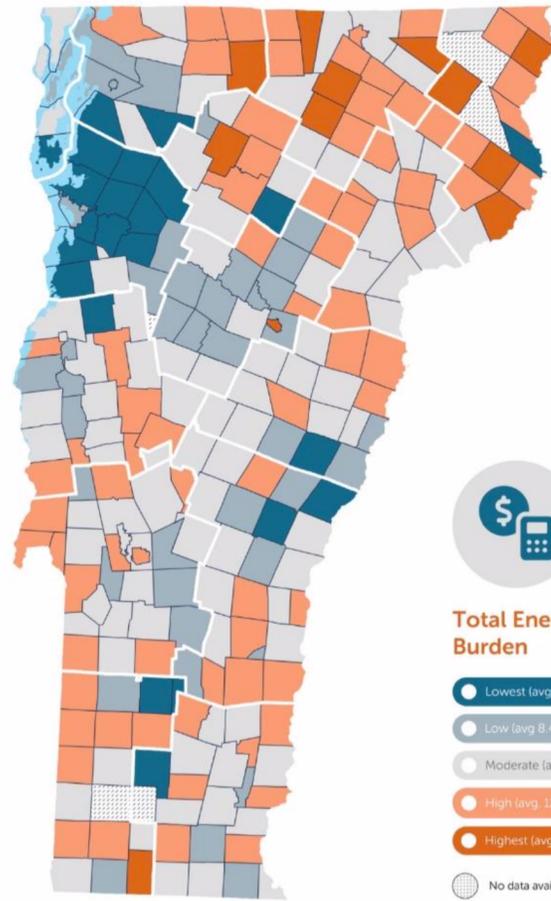


Why the Northeast Kingdom?



Total Energy Expenditure

- \$3,859 - \$4,669
- \$4,670 - \$5,346
- \$5,347 - \$5,911
- \$5,912 - \$6,384
- \$6,385 - \$6,949
- No data available



Total Energy Burden

- Lowest (avg. 6.7%)
- Low (avg. 8.4%)
- Moderate (avg. 10.1%)
- High (avg. 12.9%)
- Highest (avg. 17.4%)
- No data available

2019 Vermont Energy Burden Report

	Northeast Kingdom	Vermont
Population (2010)	64,764	625,741
Median Household Income (2010)	\$40,698	\$54,447
% single family dwellings	76.2%	66.5%
% mobile homes	10.1%	6.8%

Data from NVDA Regional Plan and Food System Plan



Upfront cost

“The number one barrier is upfront cost, particularly for people living with low-incomes and high energy burdens. On top of that, you need to see savings in order to make the investment worth while, and there's an inherent risk in that. You might not see that return for many years.”

-Justine Sears, VEIC

Transaction costs

- Time and mental energy
- Disruption
- Insufficient outreach/information



Psychological Barriers

- Inattention
- Bounded rationality
- Distrust/skepticism

“People have a lot of competing priorities...It's important to understand the context that people make these decisions in.”
-Laurie Fielder, VSECU

Workforce

“People can't find a contractor quick enough.”
-Kelly Lucci, Efficiency Vermont

“The contractors are a wonderful resource. They're people who are out in the market. **The contractors are really the link for getting people informed** and getting them the tools they need and supporting them. They're the ones that sell the products and the programs.”
-Laurie Fielder, VSECU

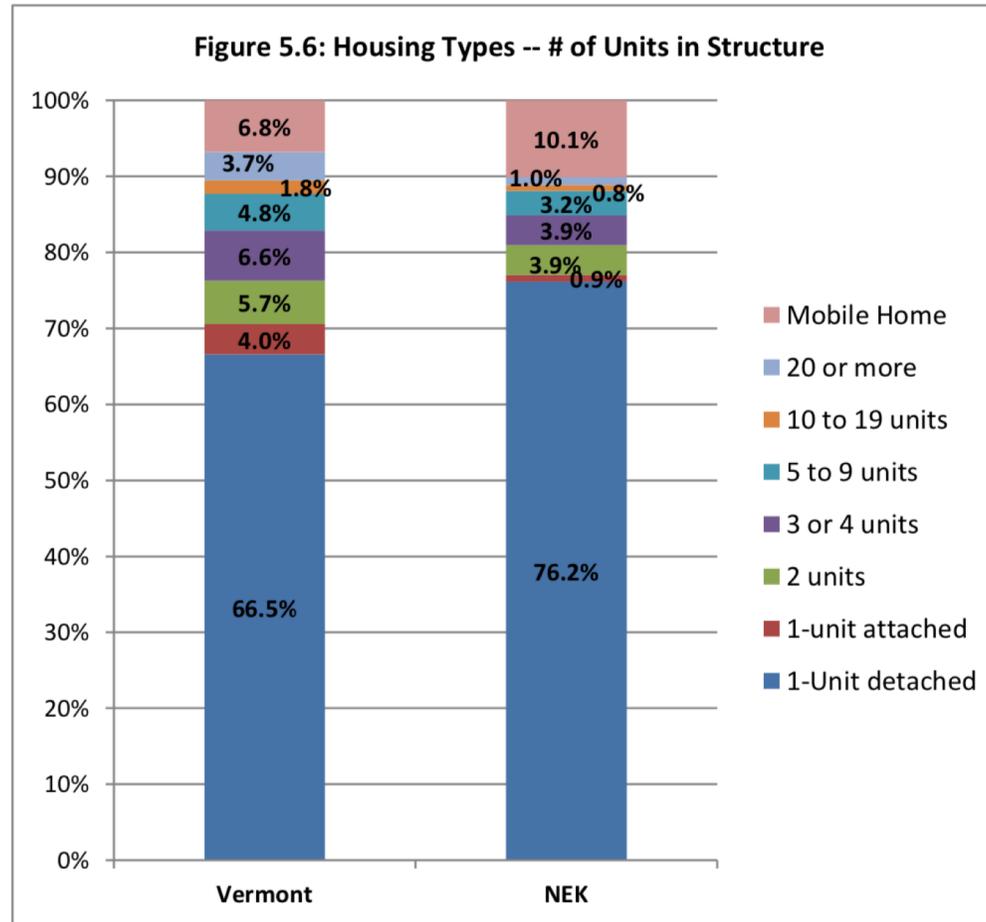
Data Limitations

Funding



Rural Region with Low Population Density

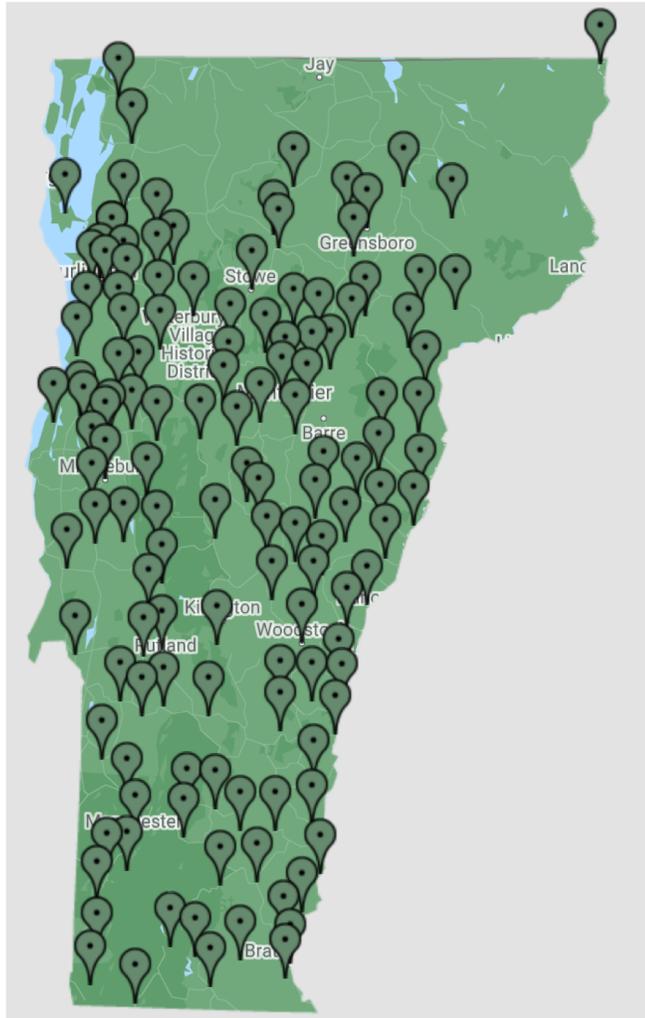
- Non-utility heating sources
- Less cost-effective outreach/maintenance
- Lack of reliable broadband access



Source: US Census Bureau, American Community Survey 5-Year Estimates 2012-2016

Physical Home Attributes

- Single-family dwellings
- Older homes with health and safety issues
- Mobile homes



Lack of Town Energy Committees

“The energy committee network is really key, because they're often seen as more **trusted, reliable**. If they can be the intermediaries telling the success story...then they can articulate the benefits.”
–Joanna Miller, VNRC



Recommendations

Recommendation (1)	Desired Outcome
<p>Develop a specific area focus in the Northeast Kingdom and create an advisory committee made up of a diverse group of stakeholders.</p>	<p>The advisory committee will give local partners a voice in program creation and implementation and will form a feedback link between energy-efficiency and clean energy program implementers and low-income households.</p>



Recommendation (2)	Desired Outcome
<p>Align/streamline multiple home improvement programs to better serve those most in need by providing a variety of services at the same time.</p>	<p>Simplify program participation and reduce overall disruption in the home.</p>



Recommendations

Recommendation (3)	Desired Outcome
<p>Organize and implement a targeted informational and outreach program in the Northeast Kingdom.</p>	<p>Empower local community groups and identify and meet specific community needs.</p>



Recommendation (4&5)	Desired Outcome
<p>(4) Investigate opportunities for energy upgrade financing designed for low- and moderate-income households.</p> <p>(5) Develop a broad and collaborative base of financial support drawing from a range of partnerships.</p>	<p>Increase opportunities for accessible home energy financing for low-income households.</p>



Recommendations

Recommendation (6)	Desired Outcome
<p>(6) Identify or create a significant and steady source of funding for thermal efficiency programs.</p>	<p>Increase program opportunities for low-income households.</p>



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- NVDA Regional Plan. 2018.
- Shoemaker et al. 2018. ACEEE Report: Reaching Rural Communities with Energy Efficiency Programs.
- Vermont Department of Health. 2018. Weatherization + Health: Health and Climate Change Co-Benefits of Home Weatherization in Vermont.

Conversations with:

Alison Lowe, NVDA; Ian Hitchcock, VNRC; Joanna Miller, VNRC; Justine Sears, VEIC; Kelly Lucci, Efficiency Vermont; Laurie Fielder, VSECU; Sarah Brock, Vital Communities.



Thank you!



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