

# Sharing Solutions:

## Strategies for Lowering Energy Costs in Rural Communities in Maine and Beyond

E2Tech Heating Policy Forum

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# Island Institute

Working to sustain Maine's island and coastal communities, and exchange ideas and experiences to further the sustainability of communities here and elsewhere.



PERCENT OF MEDIAN HOUSEHOLD INCOME THAT GOES TO HOME HEATING AND ELECTRICITY

# Heating on the Islands

- Higher dependency on imported fuels creates host of challenges



**3%**  
U.S.



**8.8%**  
MAINE



**16-18%**  
UNBRIDGED  
ISLANDS

Source: Waypoints, 2017

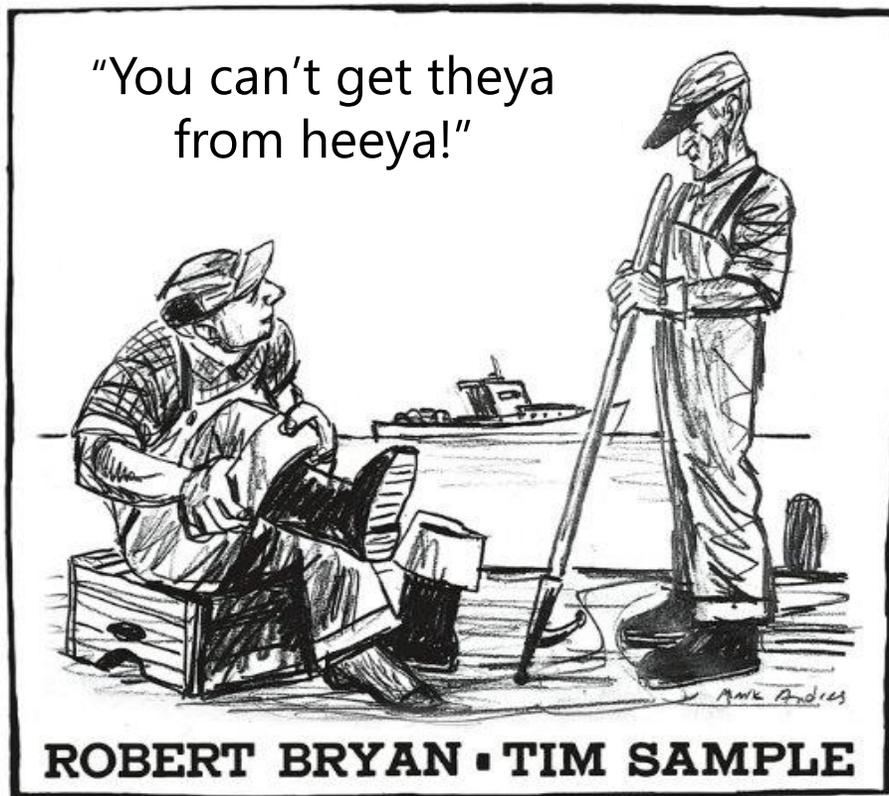


# Heating on the Islands: An Inspiration?



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# Heating on the Islands: Accessing EE



A barge unloads an insulation truck on Monhegan Island, Maine. Source: Portland Press Herald

# Lessons from the Islands: Collective Purchase Impacts & Takeaways

- 380+ island homes air sealed on 14 islands
  - 20% of year-round homes
- >8,500 LEDs delivered
- >1,600 interior storm window inserts built
- >75 heat pumps installed
- Limitations to traditional/market-based approach
- Barriers to awareness, availability of services, and affordability can be addressed by:
  - Utilizing community networks
  - Investing in contractor relationships
  - Leveraging other financial resources

# Heating on the Mainland: Community-based Energy Efficiency

- Scale EE and its benefits by moving beyond a home-by-home approach to leverage:
  - Community networks
    - Community-based social marketing
  - Community resources
    - Financial, volunteer
  - Community development, economic goals



Spray foam insulation installed in a lobsterman's basement on Monhegan Island, Maine. Credit: Portland Press Herald.

# Takeaways from the Mainland: Community-based Energy Efficiency

- Investing in shared ownership of EE goals can unlock new opportunities
- Approaching partnerships with reciprocity can further enhance outcomes
  - Support new partners by providing info, time
  - Listen to and learn from their unique perspectives
  - Respect, invest in their mission



**Energizing Maine Communities**  
*Effective strategies for supporting community-based clean energy initiatives*

Maura Adams, Northern Forest Center  
Leigh Cameron, New England Grassroots Environment Fund  
Brooks Winner, Island Institute  
March 2017

A collage of four photographs illustrating community-based energy efficiency initiatives. The top-left photo shows a person in a white protective suit working on a ceiling. The top-right photo shows a sign for a "TODAY ENERGY WEATHERIZATION PROGRAM" with a time of 9-30. The bottom-left photo shows a person holding a baby next to a green energy-efficient appliance. The bottom-right photo shows a person standing next to a green energy-efficient appliance in a store.

Photo credit: Portland Press Herald  
Photo credit: Northern Forest Center  
Photo credit: Center for an Ecology Based Economy

**ISLAND INSTITUTE**  
New England Grassroots Environment Fund  
Northern Forest Center  
Thriving Communities & Healthy Forests

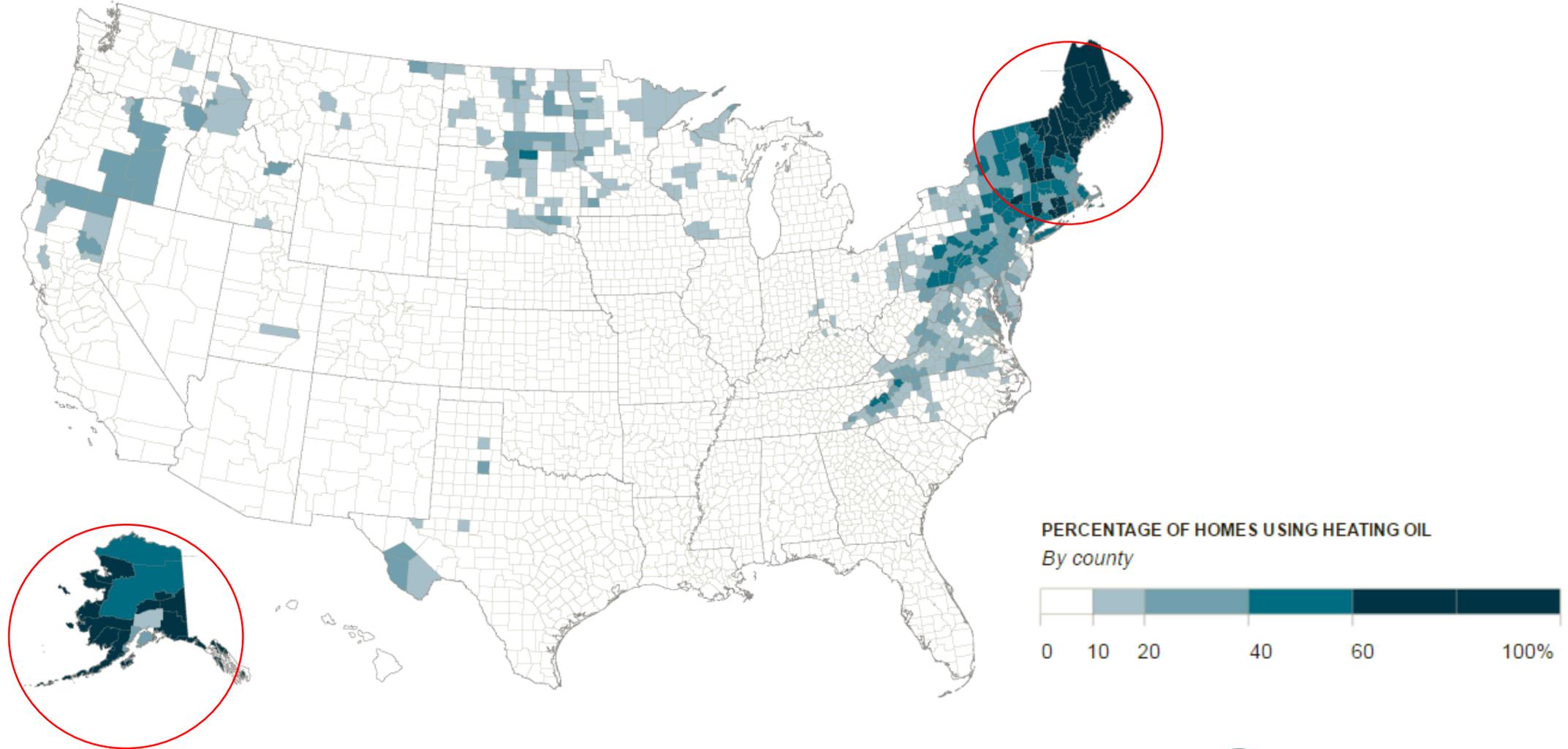


## Toolkit for Collective Purchase Initiatives

Community guide to collective purchase for energy efficiency in Maine



# Heating in the "Region"



# Heating in the "Region": Bridging the Rural Efficiency Gap

 ISLAND INSTITUTE	Maine	Alaska	New Hampshire	Vermont
Number of Households (rank)	553,823 (39th)	251,899 (49th)	518,245 (40th)	257,004 (48th)
Percent Population in Rural Areas (rank)	61.3% (1st)	33.9% (14th)	39.7% (11th)	61.1% (2nd)
Percent of Homes Built Before 1940 (rank)	23% (8th)	1% (51st)	21% (12th)	24% (7th)
Heating Oil Consumption Per Capita (rank)	1st	7th	5th	2nd
Approximate Median Household Income (rank) US Avg: \$50,502	\$46,033 (33rd)	\$67,825 (2nd)	\$62,647 (7th)	\$52,776 (20th)
Median Population Age (rank)	44.5 (1st)	33.5 (50th)	42.7 (3rd)	43.1 (2nd)
Energy Expenditures Per Capita (rank)	\$4,565 (5th)	\$7,487 (1st)	\$3,934 (19th)	\$4,273 (9th)

Sources: U.S. Census, U.S. EIA



# Takeaways from "Region": "Bridging" Models & Tools

- Weatherize Upper Valley (VT/NH)
- Sustainable Southeast Partnership (AK)
- Home Energy Savings Program (ME)
- Hui Up refrigerator exchange (HI)
- On-bill financing
- Upstream rebates
- Staged upgrades



**Weatherize Rockland**

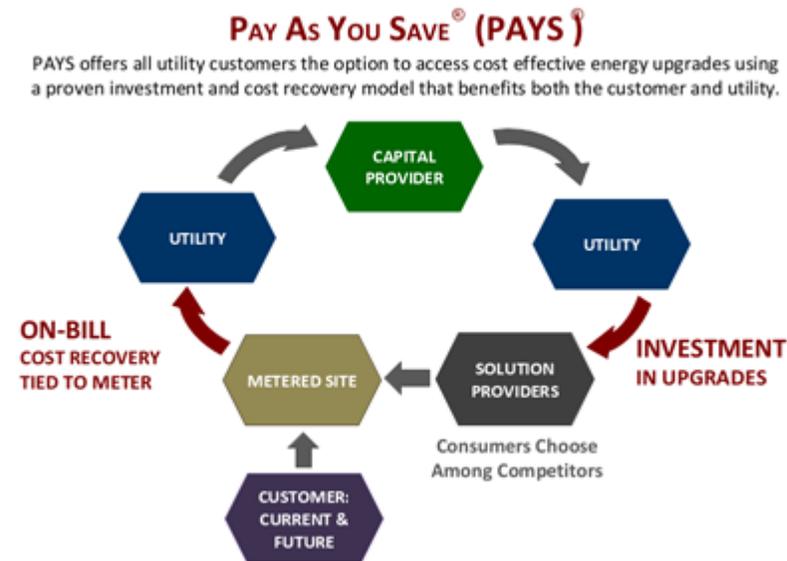


Image Credit: Clean Energy Works



Governor's Energy Office



# Early Takeaways from the “Region”:

- Maine is doing well
- Access to data enables strategic decision-making
- Investing in on-going collaborations enhances ability to meet heating goals
- Complete findings to be published in mid-2018



# Recommendations

- Continue to support policy and program design that reflects the realities of our state's demographics and geography in order to maximize impact
- Look to other sectors, states for input and partnership in designing and attaining our goals
- Resource the work to provide expanding (or at least consistent) access to programs
  - Financial resources, information exchange
- Invest in projects that have the potential to simultaneously address multiple energy and economic challenges



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