

# Sharon Energy Committee

## Sharon Energy Survey 2018

In late 2017, the Sharon Energy Committee was awarded a New England Grassroots Economic Fund “Grow Grant” to:

- Promote awareness of municipal energy planning
- Produce benchmark heating system type and consumption, and
- Solicit community engagement for Energy Committee priorities



The grant enabled outreach resulting in responses from 41% of Sharon households.

Results available here:  
<https://tinyurl.com/ybk5vngn>

*Presentation by: T. Ryan Haac  
Chair, Sharon Energy Committee*

# Survey Methods

- Critical survey functions were performed by our dedicated (paid) “employee.”
  - Printing, stuffing envelopes with volunteers, post office, etc.
  - Data entry
- Multi-modal survey outreach (responses)
  - Town Meeting 2018 (80)
  - Direct mailing (132)
  - Internet (19)
- Direct mailing included:
  - Survey (with return address envelope, no stamp)
  - Cover letter
  - An Act 174 “guidance document”
- The internet version was set up in Google Forms (thanks Ian Hitchcock!)

# Survey Results

- Distributed in four reports:
  - 1) Primary Heating Fuels
  - 2) Firewood and Heating Energy
  - 3) Weatherization and Heating Energy
  - 4) Energy Priorities
- Displayed at Town Meeting 2019
- Available online (shared on listserv):
  - <https://tinyurl.com/ybk5vngn>

## Sharon Energy Survey 2018

### Results Summary - Episode 1

Primary Heating Fuels

2018-12-01

By T. Ryan Haac (Chair, Sharon Energy Committee)

#### Summary

We collected 231 survey responses at Town Meeting 2018, on the internet using Google Forms, and from a postal mailing sent in July 2018.

##	Internet	Mailing	TownMeeting
##	19	132	80

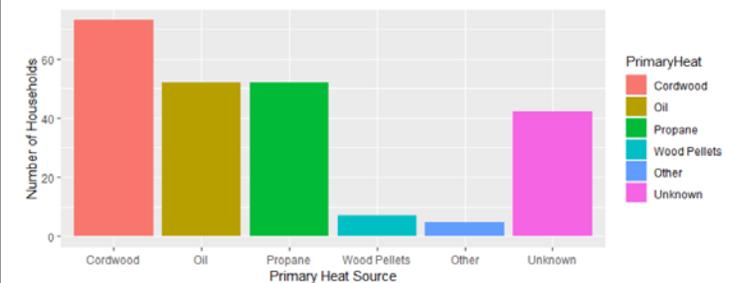
Each survey response represents a household in the town of Sharon, VT.  
Non-response bias was not considered or incorporated into the analysis in any way.

#### Average respondent household:

- Household Size: 2.4 people
- Age of House: 1960
- Size of House: 2343 square feet
- Number of Bedrooms: 3 bedrooms
- Number of Cars in Household: 2.2 cars

#### Primary Heating Fuel

Firewood is the dominant source of heat among respondents.



# 2018 Sharon Energy Survey Overall Results

## **Survey participation**

- 231 responses received (560 surveys mailed) = 41% response rate
- 95% of respondents were homeowners

## **Basic data**

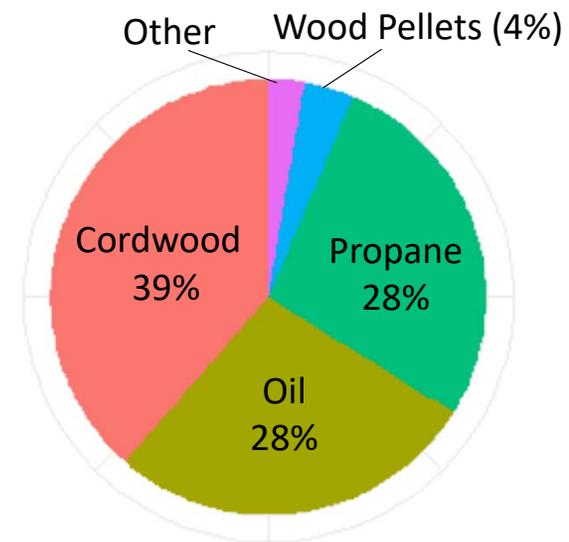
- Household Size: 2.4 people
- Average Age of House: 1960
- Average House Size: 2343 square feet
- Average Number of Bedrooms: 3 bedrooms
- Average Number of Cars per Household: 2.2 cars

Note: Nonresponse bias analysis was not performed. Thus, the “true representativeness” of the responses was not assessed. This would have required additional questions (age, gender, children, education, income), data, and analysis time (\$\$\$)

# Quick Results Overview - Heating

- Propane and Oil are the primary heat sources for more than 50% of households.
- **Wood heat is the primary source of heat source for 43% of households**
- Cordwood usage per bedroom (normalized to woodstove providing 100% of heat load) was
  - Lower in households with EPA certified wood stoves
  - Lower in homes that had been weatherized
- Over 1/3 of those who utilize cordwood as a dominant heat source rely on woodstoves that are not EPA certified.

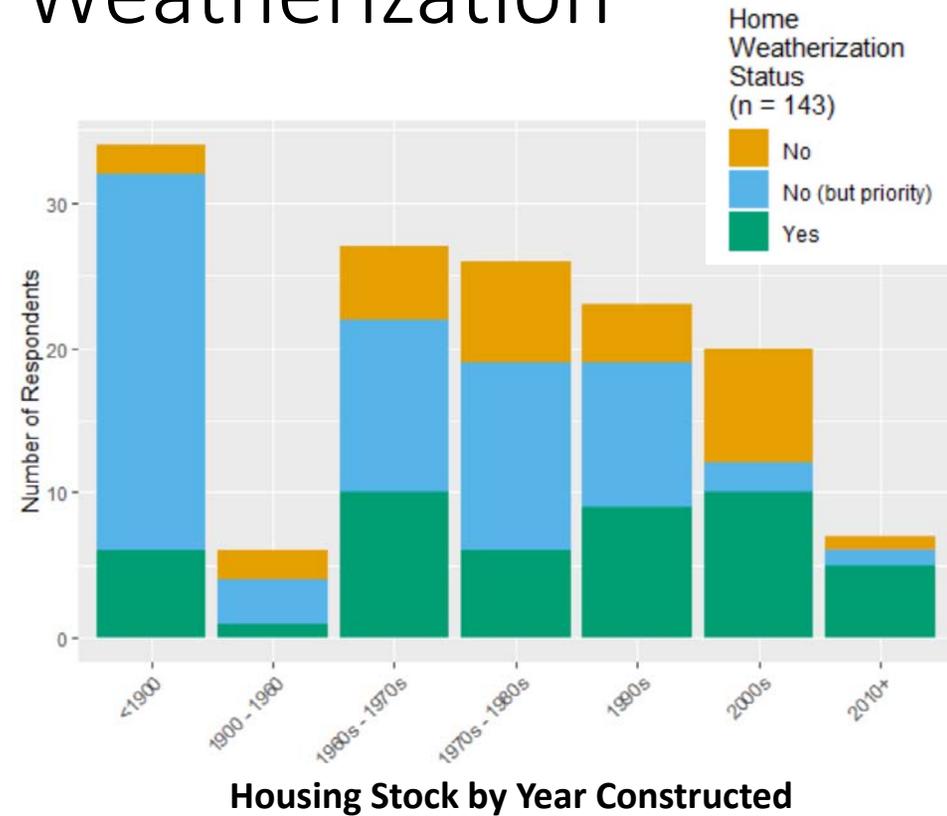
## Primary Heat Sources in Sharon Households



Primary source of heat  
Provides at least 50% of heating load  
(1/2 count for each if 50/50)

# Quick Results Overview - Weatherization

- About 33% of respondent households said that they “already completed” home weatherization\*
- **Among those who have not weatherized their home, weatherization is THE energy priority for 70% of households.**
- Over 80% of homes built prior to 1960 have not been weatherized.
- About 50% of homes built since 1960 have been weatherized.



\*“Home weatherization” was not specifically defined on the Sharon Energy Survey and was thus based on each respondents’ individual understanding of the concept.

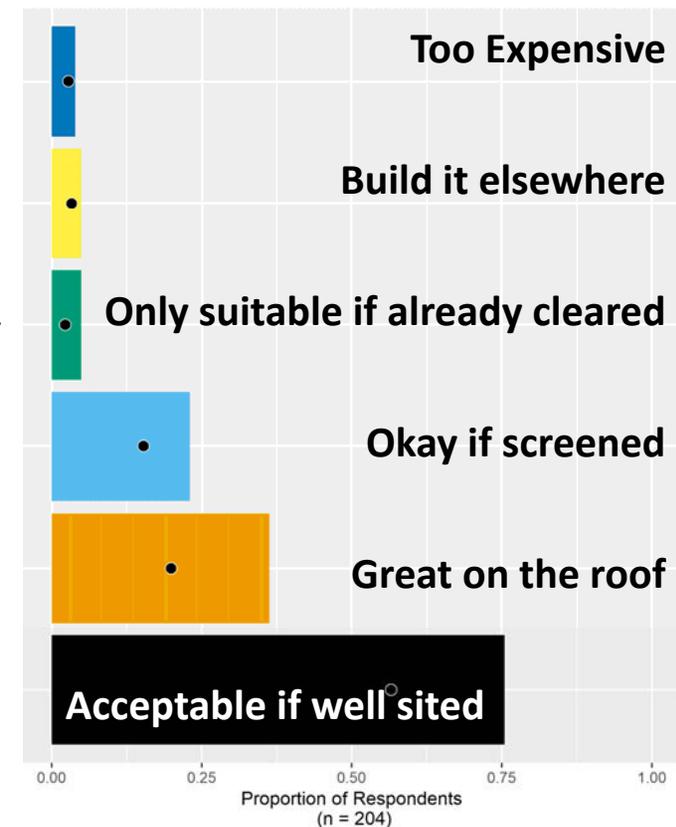
# Quick Results Overview – Electric Vehicles

- 5% of Sharon households currently own electric vehicles.
- Among those that do not own electric vehicles-
  - 14% of respondents (23) expressed interest in Electric Vehicles (EV as 1nd or 2nd energy priority)
- The lack of enthusiasm about electric vehicles in Sharon prompted an informative rant from the report author (me, Report #4)
  - An Aside: the Realities of Transportation

# Quick Results Overview – Energy Siting

- Prevailing opinion: solar energy is appropriate when it is well sited.
- 25% of respondents were concerned about the visual impact of solar arrays
- Less than 7% of respondents expressed markedly negative views about solar energy siting
- One respondent cleverly manipulated the responses to provide their stated preference to solar energy development in Sharon:

*“Acceptable when well sited, Okay, as it is. Great on the roof. Build it here.”*



# Project Take-aways

- Survey offered a benchmark of heating systems and identified residential upgrades and needs in Sharon.
- Project would not have happened without NEGEF grant
- Success with pen and paper response rate
- Selectable survey responses (as opposed to open-ended) were effective
- Valuable data provided for updated Energy Chapter
- Top energy investment priorities:
  - Weatherization and cold-climate Heat Pumps
- Should have inquired about the barriers to realizing indicated priority energy projects

## Age of Woodstoves in Sharon Households

