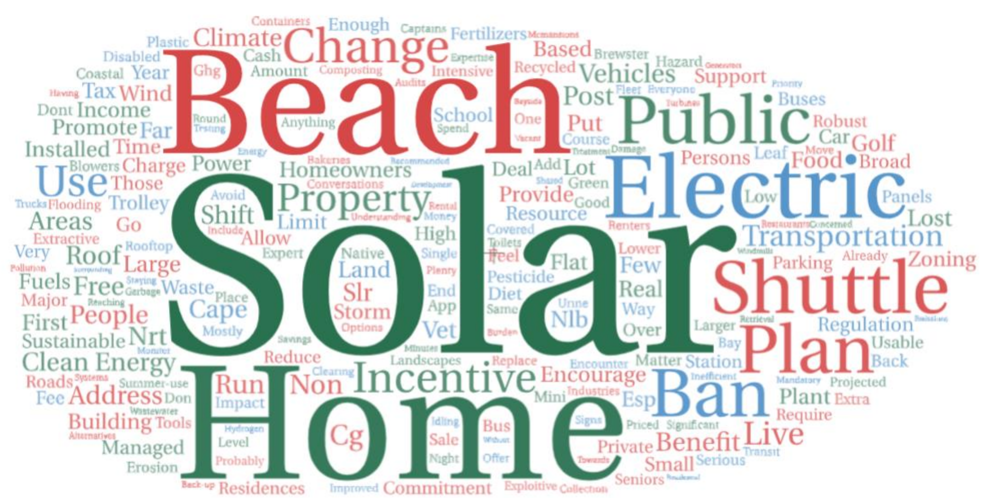
2024 TOWN OF EASTHAM

CLIMATE ACTION SURVEY



DRAFT REPORT

SEPTEMBER, 2024

OVERVIEW

This report presents results from a recent survey of Eastham's residents conducted to provide information needed to develop a Climate Action Plan (CAP). Results will also help the Climate Action Committee fulfill its charge to provide information, education, and technical expertise to residents and town leadership.

Results from the survey suggest a town population that is motivated to address the challenge of climate change. A strong majority of respondents (64%) believe we need "significant changes to to the way we all live now" if the effects of climate change are to be slowed. A similar share believes that the country can manage the economic impacts of addressing climate change.

Given the opportunity to select among a hypothetical set of priorities for community-level action, a majority of respondents supported expanded use of solar energy systems at the municipal level, along with further protecting and expanding natural resources (trees, wetlands, green space). Respondents expressed limited support for public programs designed to incentivize use of electric vehicles, some raising questions about the equity and overall public cost of such programs. Attitudes regarding public transportation options are less clear. There was no question specifically on that subject. However, in open-ended comments a number of people expressed support for more public transportation options, including shuttles to area beaches.

Individual-level action is a vital component of the overall response to climate change. Our survey respondents have taken some action, particularly to alter their personal day-to-day behaviors. However, when it comes to investing more deeply in systems and technologies for their households, there is considerable room to do more. Most Eastham homes lack solar panels or heat pumps, or an EV in the driveway. Why? The reasons offered indicate installation costs, determining return on investment, a need for better information, and the current state of technology. This level of insight will help the town and its residents prioritize future actions and develop the most helpful types of resources for information and education.

Public attitudes on matters as complex as climate change will not be simple. To apply results from the survey will require thoughtful consideration of how those results vary with key groupings of the Eastham population. This report focuses on residency and household economic condition. It explores how respondents' priorities vary based on whether or not one lives in Eastham full time, or on one's economic condition–or on the intersection of those two factors. Results make clear that residency and financial

condition matter to attitudes about climate change, and to decisions about significant actions such as installing solar panels, investing in a heat pump system, or purchasing an electric vehicle.

The survey was designed with the objective of yielding actionable insights, not only for the content of initiatives like the Climate Action Plan, but for how to engage with and support residents. To that end, respondents were asked what types of resources would be most beneficial for them, and what mode of delivery for information and news. The most popular options were newsletters with tips and information on incentives, and fact sheets on core topics; several options involving special events followed. As detailed in the section 2.D discussion, these results can help the town design and deliver resources in the most effective ways.

The survey indicates that Eastham residents are concerned about climate change and feel that changes in public actions and individual behavior are needed to lessen climate change's expected adverse effects. However, there is less agreement on what those public actions might be, and financial considerations and to some extent residential status seem to influence preferences and actions. The Climate Action Committee and the town should continue exploring and developing ways to gather more detailed and precise information on residents' thoughts about policies the town could pursue and barriers to actions they might take. In addition, any public engagement process used in developing the town's Climate Action Plan should particularly strive to involve younger adults who were essentially absent from the survey's respondents.

1. INTRODUCTION

1.A. Survey purpose and approach

The Eastham Climate Action Committee developed the survey as part of a strategy for building a town Climate Action Plan (CAP). Developing a CAP that is tailored to the needs of town residents requires an understanding of their: attitudes about climate change and its impacts; actions to address climate change; priorities for future action both at the individual and community level; and potential barriers to action. The survey includes questions covering these areas, yielding results that will help shape the CAP content and inform how to engage the public in the CAP process. Survey results will also be used by the Climate Action Committee (CAC) as it develops programs and resources to inform and educate the residents of Eastham.

1.B. Development process

The CAC established a working group to develop the survey. The group comprised members with a background in public opinion measurement, clean energy technologies, and engineering, and who are familiar with local, regional and state programs for combating climate change. The working group consulted surveys conducted by other towns for the purpose of developing their climate action plans, and also reviewed national and regional products, including the Cape Cod Commission's 2020 questionnaire for Barnstable County.[1] The survey questionnaire was drafted by the working group, pre-tested, and revised before being submitted to the full CAC for its review and feedback. Another round of revision followed, before the instrument was submitted to town of Eastham leaders for their approval to post and publicize the survey results.

1.C. Methodology

The survey uses a convenience sampling approach. The questionnaire was posted to a publicly-accessible site, and a link to that site publicized through various groups, venues, and media. Survey participation was voluntary and anonymous. Promotional materials were developed in varying formats to support email blasts, social media posts, event listings, meeting handouts. Publicizing the survey included working with local organizations to reach their memberships via email or other means. The survey was available in both printed and electronic versions, which could be completed on smartphones, tablets, or PCs. Surveys were also distributed in hard copy at major town events, including the town meeting on May 6, 2024.

[1] Cape Cod Climate Change Action Plan Survey Analysis, March 2021. The UMass Donahue Institute.

The survey was fielded between March 19 and June 6, 2024. There were 421 completed surveys from 246 full-time Eastham residents, 148 part-time residents, and 27 residents of other towns.

1.D Respondent Representativeness

Almost all of the full-time residents who responded to the survey were 35 or older.[2] How well does this sample of full-time residents compare to Eastham's adult population? First, using data from the U.S. Census, this group represents 5.6% of Eastham's full-time residents older than 35. The Census also provides data on age distribution and employment status for Eastham's adult population. Our sample of full-time respondents under-represents adults between 35 and 54 (12% vs. 22%), over-represents people between 65 and 74, (42% vs 30%), and has comparable proportions in the 55-64 and 75+ age groups.[3] Census data also report that workers are 48% of Eastham's full-time adult population, compared to 40% of the full-time respondents to the survey. Lastly, a study by the Pew Research Center found that 27% of seniors (65 or older) in the US live alone, compared to 20% of the seniors in our sample.[4] These comparisons suggest that the sample is broadly representative of Eastham's full-time adult population over the age of 35.

1.E. Report Overview

Section 2 of this report describes the characteristics of the people who completed the survey, including their demographic and socio-economic characteristics, beliefs and attitudes about climate change, and preferences regarding information and communication. The next two sections then provide analysis results. Section 3 focuses on respondents' ranking of potential actions Eastham might pursue as part of the forthcoming Strategic Plan, which for the first time includes an explicit Climate Action Plan. Section 4 centers on individual actions to reduce greenhouse gas emissions, both (a) day-to-day lifestyle changes and (b) significant commitments to home and transportation systems. The latter includes information on possible obstacles to making such commitments. Section 5 concludes the report with key findings and recommended next steps.

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[2] Two respondents were between 18 and 34 and one was younger than 18.

[3] Given this imbalance, the survey team explored options for weighting the data to match the census age distribution. Results indicated that weighting would not have a meaningful impact on findings and would introduce some additional risk for error in the data.

[4] Pew Research Center, "Older People Are More Likely to Live Alone in the U.S. than Elsewhere in the World," March 10, 2020. https://www.pewresearch.org/short-reads/2020/03/10/older-people-are-more-likely-to-live-alone-in-the-u-s-than-elsewhere-in-the-world/

1.F. Analysis

All analyses that follow in this report are based on the 394 respondents who reside in Eastham. Charts and tables first report results for all respondents. In order to better understand respondents' choices, additional analyses look at groupings created by combining residency status and economic situation. Both are measured at two levels: Residency is Full Time (6 or more months annually) or Part Time; Economic Situation is either Comfortable or Careful (i.e., respondent can meet their basic financial needs but doesn't have much left over for significant discretionary spending). Thus, this profile measure takes on four values, as shown in the figure below. Each respondent categorized as Full Time/Careful, Full time/Comfortable, Part Time/Careful, or Part Time/Comfortable. (Values in parentheses are the count of respondents for each category.) Seven respondents did not complete either the residency or economic condition question.

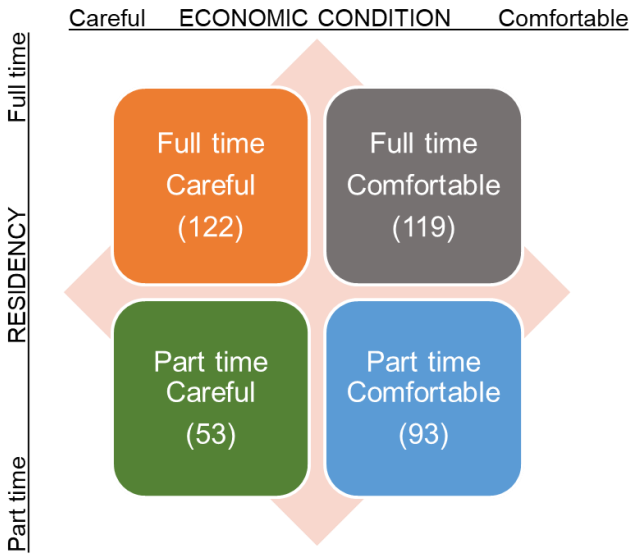

Figure 1.1 Respondent Profile Measure

This combination of characteristics is important for two reasons. First, full-time residents presumably have their primary home in Eastham while part-time residents have their primary residence elsewhere. People with a second home in Eastham that they only occupy for part of the year may make very different assessments of the value–either personally or for affecting climate change–to be derived from making changes to their Eastham home. Second, a respondent's economic situation is important because many of the options explored in the survey require significant investment of either personal or public money. These comparisons will help with understanding the extent to which economic situation constrains or influences respondents' actions.

1.G Open-Ended Comments

This report focuses on respondents' answers to a series of closed-ended questions, i.e. questions with a set of fixed answers from which to choose. In addition, six survey questions offered respondents the opportunity to enter answers or make comments in their own words. Four covered reasons for not having solar panels, a heat pump, or a backup battery system in their home or for not driving an EV; one asked for additional proposals a town might consider, and the last offered the option of sharing general comments about how to address climate change. Nearly half of the respondents, 188 people, made at least one comment and many offered multiple suggestions across the six open-ended fields. The appendix to this report includes all comments received, verbatim.

In this report, comments have been treated as a supplement to the primary data from the closed-ended items, and used primarily to enrich analysis of hypothetical town programs and approaches (see Table 3.D). The comments can be leveraged further for several purposes. The specific options and strategies mentioned in the comments but not covered by the survey questions suggest areas for further investigation. The comments may also reveal areas of poor or incorrect information that can be targeted for increased education through information sheets and presentations. Finally, skeptical or negative comments may help identify concerns that need to be addressed in order to develop and implement policies. Care must be taken not to over-interpret the comments; at the same time, they represent a potentially rich source of information that should be thoughtfully brought to bear.

2. RESPONDENT CHARACTERISTICS

This chapter describes pertinent characteristics of the people who responded to the survey. These include demographic, household, and economic features that may influence their willingness and ability to make changes in response to climate change. They also include beliefs about the significance of climate change and appropriate responses to it.

2.A Residence, Demographic and Social Characteristics

Since many people prefer not to report their incomes on a survey, respondents were asked to choose one of three statements that 'best describes your overall economic situation'. Arguably, this measure takes into account expenses as well as income and should be a good barometer of people's ability to spend money on potentially costly

actions to address climate change. The three statements and the percentage selecting each were

- I/we have to be careful about monthly spending (18%)
- I/we don't have a problem with monthly bills, but there's not much left over for large expenditures (27%)
- Right now I/we feel financially comfortable (55%)

Response to this question was excellent with all but seven people selecting one of the options. In the analyses that follow, the first two options were combined into a single category, "financially careful," because of both the subjectivity of the statements and to ensure adequate sample sizes when categorized by residence.

Table 2.A reports respondents' characteristics, first for all respondents and then broken down by residence and economic situation. Full-time residents, defined as people who live in Eastham six or more months per year, comprise almost two-thirds of respondents. This is not surprising given that the survey was fielded before the start of summer. Full-time residents are almost evenly divided between financially careful and financially comfortable economic situations. In contrast, nearly two-thirds of part-time residents described themselves as financially comfortable.

The remaining sections of Table 2.A report the age distribution of survey respondents, their employment status, and their household type. Younger adults, 35-54 year olds, are 13% of the full sample, but represent two to three times as many respondents in the financially careful groups compared to the financially comfortable. People 75 and older are 21% of the full sample but 29% of full-time financially comfortable residents.

Given the high proportion of people over age 65, it is not surprising that working people are only 36% of all respondents. However, they make up 46% and 41% of the financially careful groups. Among workers, business owners are more heavily represented among full-time residents, especially the financially careful.

Lastly, 72% of all respondents live in a household without children and at least one other adult, 15% live in a household with children, and 12% are seniors (65 and older) living alone. Among part-time financially comfortable residents, 85% live with at least one other adult, while only 8% either have children or are 65 or older and live alone. Compared to part-time residents, larger percentages of full-time residents, especially the financially careful, are seniors living alone.

Table 2.A	ALL		Residence by Economic Situation			
			FT $ careful	FT $ comfortable	PT $ careful	PT $ comfortable
Residence						
Full-time (over 6 months per year)	62%		51%**	49%		
Part-time	38%				36%**	64%
AGE						
35-54*	13%		25%	6%	13%	6%
55-64	24%		23%	19%	34%	25%
65-74	42%		34%	46%	34%	51%
75 and older	21%		17%	29%	17%	18%
EMPLOYMENT STATUS						
Employee	23%		26%	12%	35%	27%
Owner	13%		20%	13%	6%	8%
Retired	66%		55%	75%	60%	66%
HOUSEHOLD TYPE						
Household with children (LT18)	15%		18%	17%	19%	8%
Household without children	72%		64%	71%	73%	85%
65 or older living alone	12%		17%	13%	8%	8%
No. of Respondents	387		122	119	53	93
*Includes 3 people under age 35; **21% just able to meet monthly bills; **14% just able to meet monthly bills						

2.B Attitudes and Beliefs about the Significance of Climate Changes

Respondents were asked to select the statement from among three options that best represents how they feel about (1) the need to change how they live in order to slow the effects of climate change and (2) the importance of devoting financial resources to combating climate change. Table 2.B reports the options they were given and the percentages selecting each option.

The survey results indicate that **a most residents believe climate change requires action by everyone and should be a high priority for spending**. Approximately two-thirds of respondents (64%) believe that “Without significant changes to the way we all live now, climate change will inevitably cause major problems.” A similar proportion (67%) believes that spending on climate change will not harm the economy. While 8% believe that changing how we live is unnecessary and 13% indicate that other needs are more important than climate change for spending.

As shown in Table 2.B, people who are financially careful are much more likely to respond that “we don’t have to make major changes to how we live” (11% versus 1% for full-time residents, and 19% versus 55 for part-timers) and that “other needs are more important” for spending than climate change (22% v 4%, and 21% v 7%). Conversely, higher proportions of people who are financially comfortable believe that significant changes in behavior are needed and that spending on climate change is both a high priority in its own right and that climate change spending will not cause economic harm elsewhere. **Regardless of residence, financially comfortable and financially careful people have distinctly different attitudes about the need to change behavior and climate change as a spending priority.**

Table 2.B	Residence by Economic Situation				
NEED TO CHANGE BEHAVIOR TO ADDRESS CLIMATE CHANGE	**ALL**	**FT $ careful**	**FT $ comfortable**	**PT $ careful**	**PT $ comfortable**
Without significant changes to the way we all live now, climate change will inevitably cause major problems.	64%	56%	73%	55%	68%
If most of us make some adjustments to how we live, we can reduce the worst effects of climate change.	29%	33%	26%	26%	27%
We don’t have to make major changes to how we live because technological and scientific advances will limit most of the negative effects of climate change	8%	11%	1%	19%	5%
PRIORITY OF SPENDING ON CLIMATE CHANGE					
It’s possible for the nation to address climate change and still do well economically.	67%	58%	72%	65%	74%
It will be costly to address climate change but whatever the price is we have to pay it.	13%	21%	23%	13%	20%
Climate change matters, but other needs are more important uses for our money.	20%	22%	4%	21%	7%

No. of Respondents	394		122	119	53	93

2.C "Profiles" of Residents Grouped by Residence and Economic Situation

To facilitate comparisons across these four groups in subsequent sections, it is useful to provide summary characterizations, or profiles, of each group. Understanding and keeping in mind key differences among the groups should also help in drawing inferences about factors that might explain differences in responses to survey questions. The following chart presents the profiles drawn from the previous tables and shows the numbers of people in each group.

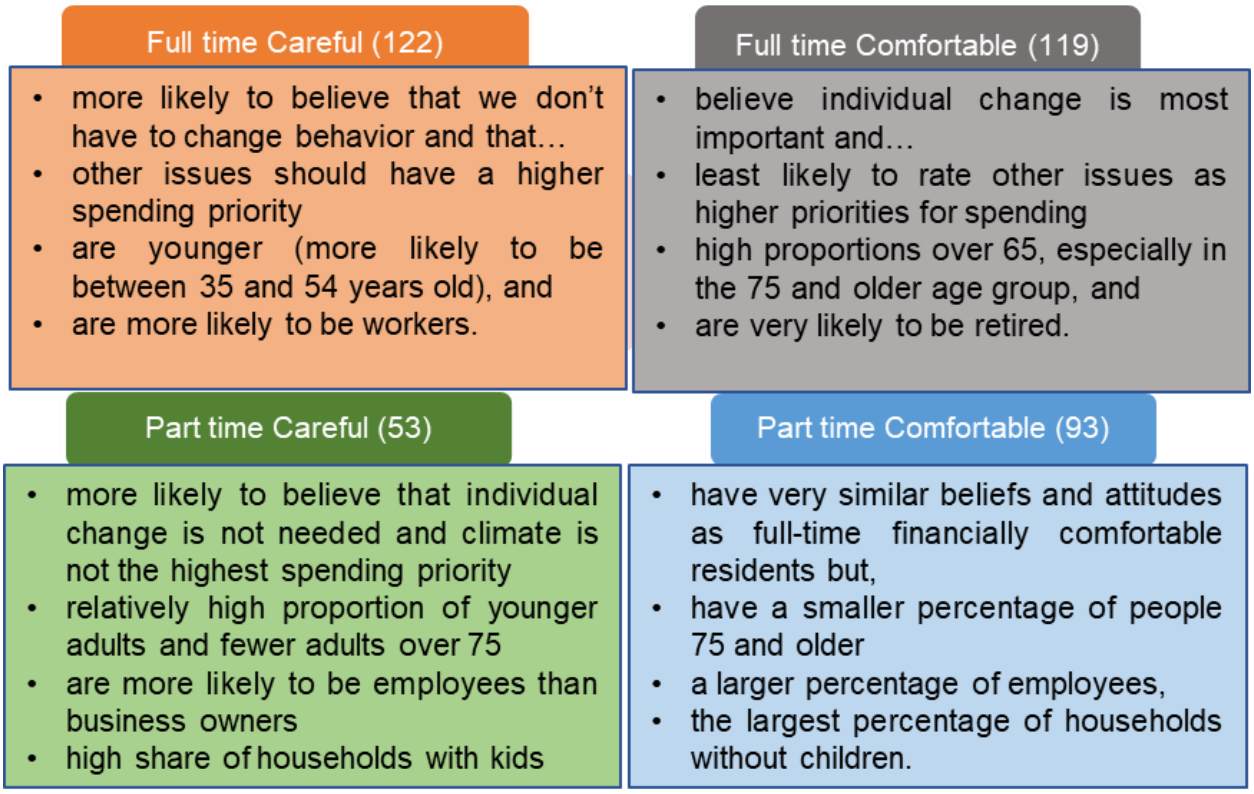

Figure 2.1 Respondent Profiles

2.D Communication and Resources

The survey also asked respondents to indicate their preferred method of receiving "information and town news." Email dwarfed all other options, selected by 80% of respondents. "Web page" was the next closest choice, at 7%.

A related but distinct question asked which “resources and/or information would have the most benefit for you and others who may be considering actions to address climate change?” Given an opportunity to select as many as three, 69% of respondents selected ‘regular newsletters with tips and information on latest available incentives’; the next closest choice was ‘fact sheets on core topics such as solar panels, heat pumps, and electric vehicles’ (50%). ‘Community events on best practices’ was third, with 44%.

These choices may signal a broad preference for modes where material is sent to users and can be consumed at their convenience. After the top two choices follow three options that are experienced primarily in real time and in person (community events on best practices, clinics, and resident talks).

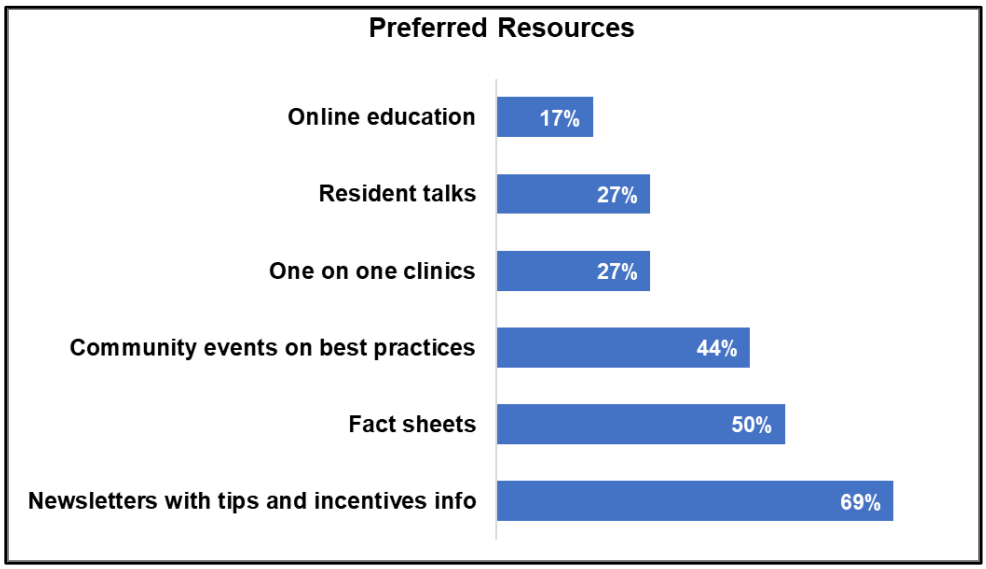

Figure 2.2 Resources of Most Benefit

3. POLICY PREFERENCES AND PRIORITIES

3.A. Questions

The survey was designed to generate information on respondents’ thoughts regarding both individual actions and community initiatives for addressing climate change. Respondents were given two opportunities to share their thoughts on how the town should address climate change. One question asked respondents to select up to five hypothetical proposals that they would support. Another gave them the opportunity to allocate funding across five types of approaches to climate change. Many respondents also took advantage of the option to offer their own ideas for proposals. (These open-

ended comments are recorded in Appendix 1 and will be referenced selectively in the text.)

Results from these policy preference questions can help identify and rank goals and activities for the town's climate action plan. Moreover, understanding variations in respondents' responses to these questions could help the CAC and town communicate more effectively and provide appropriately tailored information to residents.

3.B. Support for Hypothetical Proposals

Respondents were asked to consider a set of hypothetical programs such as might be on a town meeting warrant:

> *Below are proposals similar to ones that might be considered at a town meeting. There are 11 proposals. Which would you be likely to support? Please select up to 5. As best you can, consider the costs and benefits of each proposal.*

The following table lists the proposals presented to respondents in the survey question.

Table 3.A Hypothetical Town Proposals
Adapt public infrastructure (roads, bridges, beaches) to withstand effects of climate change
Charge lower parking fees for electric vehicles (including hybrids) at town beaches
Create a town fund to subsidize home electrification and solar panels for lower income homeowners
Designate suitable, already disturbed town-owned areas (e.g. town hall, unused fields) as potential sites for solar panels
Develop and fund a program to pick up and recycle food waste from restaurants
Expand and improve pedestrian walkways, bike trails, and eBike charging stations
Increase protection for wetlands, plant more trees, and increase green space throughout town
Install free electric vehicle chargers at town beaches and commercial areas
Reduce the town's vulnerability to forest fires by more active management of woodlands by managed burns and creating buffer zones
Require all new building construction to be fossil fuel free for energy needs, except for outdoor grills and back-up generators
Seek financial incentives for commercial property owners to install solar canopies in parking areas

Respondents also had the option of providing an “other” proposal. Approximately 20 individuals included some form of an original idea for town action in their “top 5”.

Support was concentrated heavily in two proposals: designating town-controlled areas for installation of solar panels, and increasing/further protecting wetlands, trees and green space. Over 60% of respondents would support each of those proposals. The next closest proposal–adapting infrastructure to withstand climate change effects–was supported by almost half (48%) of respondents.

EV-focused proposals presented to respondents generated little support relative to other choices–-two proposals focused on electric vehicles were ranked at the bottom of the proposals list. Reviewing the open-ended comments provided by respondents shows skepticism about using town resources to incentivize use of electric vehicles. Of 27 comments received on all of the options in this question, 6 were about the EV-focused options, and 5 were negative.

The EV-specific results may be part of a broader attitude against using taxpayer-generated funds to subsidize behaviors. Note that support was relatively low for proposals that would incentivize commercial installation of solar canopies (29%) and subsidize home electrification for lower income residents (35%). These levels of support are not absolutely low but, given a choice, respondents supported other types of programs more. Further analysis and additional data collection, perhaps through discussion groups, could clarify residents’ positions on these kinds of policies/

Support for the various proposals does not vary consistently with either respondents’ residency or financial condition. On three proposals support is clearly different for full- versus part-time residents, irrespective of financial condition: ‘increase/protect wetlands’, ‘subsidize electric/solar for low-income owners’, and ‘require fossil fuel free construction.’ (See Table 3.B) For the first of these, part-timers were more supportive (68/67% versus 57/62%), and for the other two were less supportive. The story is similar for financial condition, with only two proposals showing a clear consistent relationship. But those two are among the most-supported proposals on this list: ‘designate town areas for solar’, and ‘adapt infrastructure to withstand change’.

Four proposals received similar levels of support regardless of residence or economic situation: ‘expand/improve walkways, trails, eBike stations’ (36% overall); ‘incentivize commercial install of solar canopies’ (29%); ‘manage woodlands to reduce fire vulnerability’ (28%); and ‘lower parking fees for EVs at beaches’ (6%).

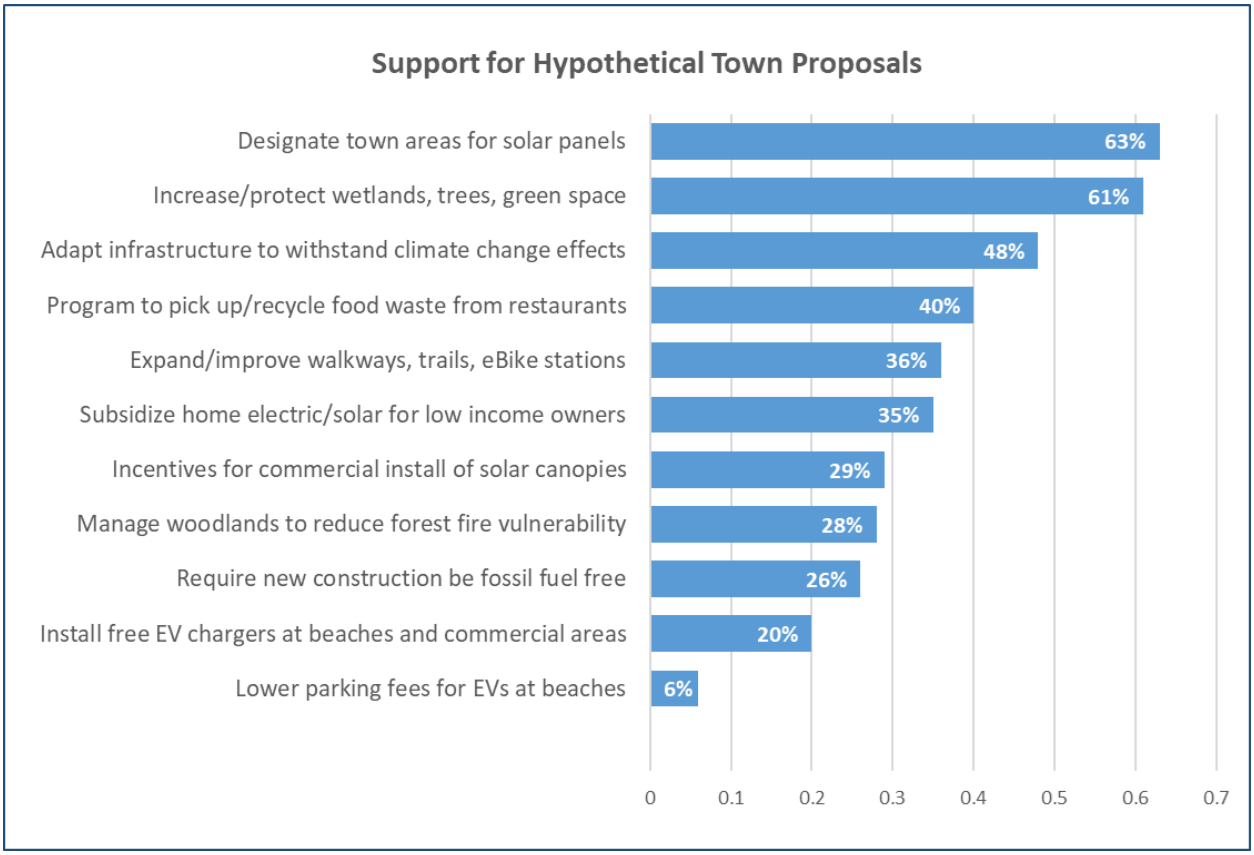

Figure 3.1 Support for Hypothetical Proposals (No. of respondents = 394)

Looking at the most-supported proposals, the level of support for 'designate town areas for solar' is higher among those who are financially comfortable: 69% vs 58%, and 69% vs 53%. Looking at the residency factor there is little difference in support: 58% vs 53%, and 69% vs 69%. (Table 3.B) However, the picture is more mixed for the second widely-supported proposal: full time residents appear to be somewhat less supportive of increasing/protecting wetlands, etc. particularly those full timers who are in a financially careful situation. The story is similar for the third-most supported proposal: 39% of FT careful respondents would support adapting infrastructure to withstand change, versus 49% or more of other groups.

FT financially careful respondents support the most popular proposals relatively less than other groups. So which proposals are they relatively more inclined to support? The clearest answer is one proposal: subsidizing low-income owners for electrification and solar panels. 40% of FT carefuls would support that proposal, higher than any other group.

Lastly, part-time financially comfortable people expressed the highest level of support (29%) for 'free EV chargers at beaches and commercial areas.' This is not surprising since (as shown in the next section) higher percentages of the financially comfortable

own EVs and, though not asked explicitly, part-time residents may be less likely to have EV chargers at their Eastham home.

Table 3.B		Residence by Economic Situation			
Which proposals are you likely to support? Select up to 5	**All**	**FT careful**	**FT comfortable**	**PT careful**	**PT comfortable**
Designate town areas for solar	63%	58%	69%	53%	69%
Increase/protect wetlands, trees, green space	61%	52%	62%	68%	67%
Adapt infrastructure to withstand change	48%	39%	54%	49%	55%
Program to pick up/recycle food waste from restaurants	40%	42%	40%	32%	45%
Expand/improve walkways, trails, eBike stations	36%	36%	38%	34%	33%
Subsidize home electric/solar for low income owners	35%	40%	37%	21%	34%
Incentivize commercial install of solar canopies	29%	29%	29%	32%	31%
Manage woodlands to reduce fire vulnerability	28%	25%	33%	30%	27%
Require new construction be fossil fuel free	26%	26%	37%	19%	18%
Install free EV chargers at beaches and commercial areas	20%	20%	18%	15%	29%
Lower parking fees for EVs at beaches	6%	8%	5%	6%	4%
No. of respondents	394	122	119	53	93

3.C. Thought Experiment Question

The second question presented a “thought experiment” with a broader perspective:

Imagine you are the town planner and you have $100 to spend on climate change. How do you allocate it among these five areas?
1.Promote zero or low-carbon transportation alternatives
2.Manage emissions from waste disposal and composting
3.Increase open spaces, preserve trees and wetlands
4.Promote the use of reliable and clean energy
5.Promote construction of zero or low-carbon homes and buildings

Responses from this exercise echoed those from the eleven more specific proposals. The two most popular approaches centered on open space/trees/wetlands and on expanded use of solar energy. However, the ordering of those two options was the reverse of the previous question: increasing/preserving open spaces, trees and wetlands was allocated nearly 34% of the budget while the approach centered on solar energy solutions ("clean reliable energy") was next, with approximately 22% of the budget.

As with the previous question, the transportation-related approach was at the bottom of respondents' preferences. However, this situation is a bit more complicated. The option in this question is 'zero/low-carbon transportation alternatives'. There is no reference to EVs or a specific program such as reduced parking fees. Also, there is relevant data in the comments offered in response to question #28. From a total of 110 comments, 8 comments supported public transportation. Altogether, these results indicate that these **respondents are likely to de-prioritize programs that use taxpayer dollars to incentivize private transportation alternatives, but likely to support using such funds to expand transportation options for the general public**. More data are needed directly on the question of support for public transportation.

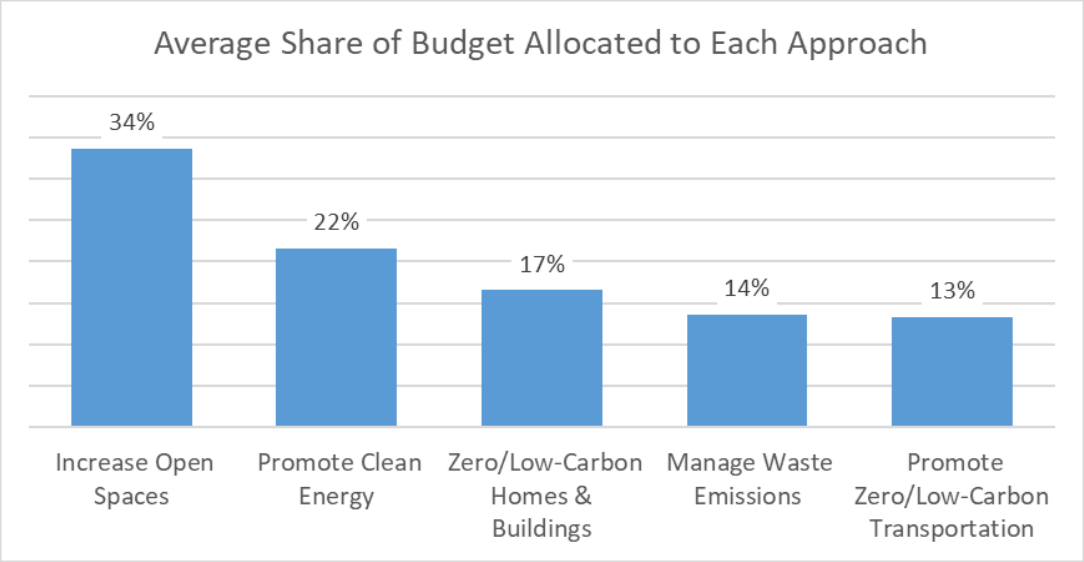

Figure 3.2 Share of Hypothetical Budget Allocated to Each Approach

Looking across the groupings by residency and financial situation shows some noteworthy results. Though the open spaces approach received the highest allocation for all groups, the FT comfortable respondents allocated less to it than other groups. **Unlike other groups, FT comfortable respondents allocated nearly as much to reliable/clean energy as open space/trees/wetlands, and gave the most of any group to promoting transportation alternatives**.

Full time residents–irrespective of their financial condition–allocated more to transportation alternatives. As worded, this approach could refer to both private and public transportation possibilities. Results and comments from the previous question indicate little enthusiasm for efforts to expand the use of electric vehicles privately, but more interest in public transportation generally, with multiple individuals mentioning shuttles. For this question, it may be that full time residents are more supportive of expanding public transportation options, including those that rely on clean energy systems. This is an area worthy of follow-up exploration.

Table 3.C					
Allocation of Hypothetical Budget to Approaches	**All**	**Residence by Economic Situation**			
		FT $ Careful	**FT $ Comfortable**	**PT $ Careful**	**PT $ Comfortable**
Increase open spaces, preserve trees and wetlands	33%	35%	26%	41%	37%
Promote the use of reliable and clean energy	22%	19%	25%	16%	24%
Promote construction of zero or low-carbon homes and buildings	17%	15%	18%	19%	15%
Manage emissions from waste disposal and composting	14%	15%	13%	13%	14%
Promote zero or low-carbon transportation alternatives	13%	15%	16%	10%	10%
No. of respondents	394	122	119	53	93

3.D. Suggestions from Verbatim Comments

In their comments on both question #20 (selecting among 11 hypothetical programs) and #28 (do you have any additional comments on climate change) respondents often offered substantive suggestions for community-level action. These comments were

categorized based on their substantive focus. Interspersed with ideas for actions were comments expressing attitudes, but not actions. Table 3.D shows the most-mentioned comment categories. Appendix 1 contains a full list of categories and comment counts.

Out of 137 comments that were categorized, the most commonly shared ideas for action (10 comments) were to strengthen waste management (comments supportive of compositing were included) and provide public transportation options (comments supportive of bike and pedestrian pathways were included). In addition to comments on solar, 8 comments were focused on making land use more “responsible”; many of these comments referred specifically to stopping the development of “McMansions.”

Among the expressed attitudes, the most commonly found were arguments for holding other major industrialized nations accountable for their contributions to global warming. This was categorized as an attitude because towns cannot hold nations accountable. The second most-often mentioned attitude–with 10 comments–was from those who expressed doubts about the reality of climate change. Also common were concerns about the costs to taxpayers for implementing some of the options presented in the survey–6 comments out of 137.

Table 3.D Comment categories from questions #20 and #28 (total count 137)

Attitude	**Hold other nations accountable**	**11**
Attitude	**Skeptical about climate change**	**10**
Action	**Strengthen waste management**	**10**
Action	**Provide public transportation and bike lanes**	**10**
Action	**Support solar**	**9**
Attitude	**Questions or observations about EVs**	**9**
Action	**Strengthen land use, particularly stop “McMansions”**	**8**
Attitude	**Taxpayer burden too high**	**6**
Action	**Adapt for resilience**	**5**
Action	**Educate the public**	**5**

4. PERSONAL ACTIONS TO IMPROVE HOME AND TRANSPORTATION ENERGY EFFICIENCY

4.A Changes in Day-to-Day Behaviors to Reduce Carbon Footprint

Respondents were asked if 'In the last few years have you taken any of these actions to reduce your carbon footprint'? The items selected were drawn from other surveys seeking to measure the extent to which people are willing to change relatively costless behaviors that individually have a trivial impact on greenhouse gas emissions, but collectively can have substantial impacts. Table 4.A shows the responses for the full sample and for each of the residence/economic situation groups.

Table 4.A						
Change in Day-to-Day Behavior to Reduce Carbon Footprint	**All**		**Residence by Economic Status**			
			FT $ Careful	**FT $ Comfortable**	**PT $ Careful**	**PT $ Comfortable**
I keep my thermostat lower in winter and higher in summer	73%		66%	78%	79%	72%
I avoid plastic containers	59%		56%	62%	55%	61%
I eat less red meat	56%		46%	68%	40%	65%
I compost food waste	54%		52%	62%	45%	52%
I fly less often	30%		34%	34%	26%	23%
No. of Respondents	394		122	119	53	93

Except for flying less often, a majority of residents (between 54-73%) said that they changed their day-to-day behaviors to reduce their carbon footprint. Over 70% of respondents said that they've adjusted their thermostats to be lower in winter and higher in summer. Between 54-59% said that they compost food waste, eat less red meat, and avoid plastic containers, while only 30% fly less often. Except for flying less often, full-time financially careful residents changed their behaviors less often than financially comfortable residents, especially eating less red meat. Regardless of economic situation, fewer part-time residents said they flew less often.

4.B Actions to Reduce Greenhouse Gas Emissions by Improving Home Energy Efficiency or Driving an Electric Vehicle

Respondents were asked whether they had taken any of five actions to improve the energy efficiency of their homes or auto transportation. Specifically, they were asked if they:

- requested a MassSave home energy audit and acted on the recommendations;
- have solar panels;
- have a heat pump or system of pumps (mini-splits) for winter heating[5];
- installed a backup battery system for protection against power outages; or
- drive a fully electric vehicle (EV) or a plug-in hybrid while they are on the Cape.

The MassSave audit and EV questions offered Yes or No options, while the other three also had the option to answer 'Not yet, but I'm planning on it in the next two years.' Except for the MassSave audit question, if the response was 'No', a follow-up question asked the respondent to select up to three reasons from a list of options for not taking the action and/or provide a verbatim answer.

This section of the report addresses three questions.

- How many people did **not** take these actions to address climate change?
- What were their reasons for not adopting a particular action?
- Did these decisions and reasons vary with residence and economic situation?

People who answered 'Yes' to the MassSave audit question were asked if they followed the audit's recommendations. More than ninety percent said that they did.

People who responded 'Yes, I live in a home with solar panels' were asked whether the panels covered 'some, all, or more than' their electric bill. Table 4.B.1 shows that **sixty percent said that their panels covered either all of their bill (46%) or provided credits in excess of their annual electric bill (14%).** Among full-time residents, a much higher percentage of the financially careful reported that their panels did not cover their total electric bill, 68% compared to 32% of the financially comfortable. This suggests that their solar systems may be undersized, perhaps because of cost. Part-time residents were more likely to report that their systems more than covered their electric costs, which is likely due to sharply reduced demand for energy during the period their Eastham home is unoccupied.

[5] The heat pump question emphasized winter heating because when adopted they typically replace fossil-fuel burning furnaces. While heat pumps may be more efficient than window or whole house air conditioning systems, both are powered by electricity.

Table 4.B.1					
If you have solar panels, do they:	**All Who Have Solar Panels**		**Residence and Economic Status**		
			FT $ careful	**FT $ comfortable**	**All Part Time***
more than cover your annual electricity costs	14%		12%	12%	21%
cover your total annual electricity costs	45%		20%	56%	50%
cover less than your annual electricity costs	40%		68%	32%	29%
No. of Respondents	99		25	50	24
*Too few cases to separate by economic status					

Table 4.B.2 reports the percentages of people who said they had **not** taken any of the five actions, both for all respondents and broken down by residence and economic situation.[6] Just under half of all respondents said that they did not have a MassSave audit within the past five years. Among full-time residents, those who are financially careful were more likely to respond 'No' than the financially comfortable. However, **higher percentages of part-time residents, regardless of their economic situation, reported not having an energy audit.**

Large majorities of people responded NO to the other four actions, especially having a home backup battery system or driving an electric vehicle. **Among full-time residents, more financially careful people responded NO than people who are financially comfortable.** This pattern was less consistent among part-time residents, although part-time residents responded 'No' more frequently than the financially similar full-time residents. These tabulations clearly show a relationship between **both residence and economic situation and people's actions to reduce greenhouse gas emissions.** Almost without exception, fewer financially careful people and part-time residents took these actions (have a MassSave audit, install heat pump, solar panel, or backup battery systems in their home, drive an EV or plug-in hybrid) than their financially comfortable and full-time counterparts.

[6] Tables 4.B.2 - 4.B.4 are excerpted from more detailed tables in Appendix 2.

Table 4.B.2	ALL		Residence and Economic Status			
Percent of People Answering NO to...			**FT $ careful**	**FT $ comfortable**	**PT $ careful**	**PT $ comfortable**
Have you had a MassSave energy audit within the past 5 years?	49%		48%	33%	57%	68%
Does your home have a heat pump system ("mini-split") for heating?	56%		58%	45%	64%	58%
Does your Cape home have solar panels?	65%		68%	44%	85%	75%
Does your home have a back-up battery for storing electricity?	89%		92%	83%	87%	95%
Does anyone in your household drive an all-electric or plug-in hybrid vehicle when on the Cape?	91%		95%	87%	96%	87%
No. of Respondents	394		122	119	53	93

Table 4.B.3 reports the reasons people selected for not taking each of the costly actions included in the survey. **Cost (too expensive to purchase), uncertainty about long-term financial benefit, and lack of knowledge were cited by 19-41% of respondents without a heat pump, solar panels, or backup battery system.** People who don't drive an EV cited cost, waiting to replace their current car, and waiting for improved technology most often. Other frequently cited reasons were 'having a current heating system that works just fine' (heat pump), 'having a backup gas/propane generator' (backup battery system), and for solar panels won't work on my house because of trees or orientation' and 'don't like the way they look'.

Table 4.B.3	Reasons for Not Having A...			
	Heat Pump	Solar Panels	Backup Home Battery	EV or Plug-in Hybrid
Money and Knowledge				
Too expensive to purchase	24%	34%	28%	30%
Not sure that there will be long-term financial benefits	21%	36%	19%	NA
I don't know enough	25%	20%	41%	NA
The cost of electricity to run a heat pump is too high	15%			
Other Reasons				
My current heating system works just fine	54%			
They would not work with my home because of trees and/or orientation		32%		
I don't like the look of solar panels on my home		12%		
I'm only here during the summer			12%	
Waiting for technology to improve			18%	41%
I have a back-up gas/propane generator			28%	
I don't drive enough miles				14%
I'm waiting until I need to replace my current vehicle				41%
No. of Respondents	212	250	338	351

Table 4.B.4 examines whether these reasons vary with residence and economic situation. **Among full-time residents, people who are financially careful are much more likely than the financially comfortable to cite cost. However, for heat pumps and solar panels, financially comfortable people are more likely to cite uncertain long-term financial return.** This may reflect the higher proportions of older people, especially those 75 or older, in the full-time financially comfortable group. Older people presumably have shorter time horizons than younger people for recouping an investment in a heat pump and/or solar panel system for their home. Differences in perceived cost and financial return vary much less between financially careful and comfortable part-time residents.

Table 4.B.4	Residence and Economic Situation			
Reason for Not Having a...	**FT $ careful**	**FT $ comfortable**	**PT $ careful**	**PT $ comfortable**
Heat Pump				
Too Expensive to Purchase	35%	13%	21%	22%
Poor Financial Return	18%	23%	26%	20%
Cost of Electricity to Run a Heat Pump Is Too High	24%	17%	9%	6%
Don't Know Enough	31%	26%	21%	20%
No. of Respondents	71	53	34	54
Solar Panels				
Too Expensive to Purchase	46%	25%	27%	30%
Poor Financial Return	22%	52%	40%	39%
I don’t like the look of solar panels on my home	7%	15%	11%	16%
Don't Know Enough	14%	10%	27%	30%
No. of Respondents	83	52	45	70
Backup Battery System				
Too Expensive to Purchase	41%	24%	26%	17%
Poor Financial Return	19%	16%	20%	22%
I have a back-up gas/propane generator	28%	45%	15%	16%
Don't Know Enough	42%	38%	50%	40%
No. of Respondents	109	96	46	87
EV or Plug-in Hybrid				
Too Expensive to Purchase	41%	22%	43%	17%
I don’t drive enough miles to make buying an EV worthwhile	14%	19%	8%	10%
Waiting for technology to improve	35.3%	34.0%	62.7%	42.0%
No. of Respondents	116	103	51	81

The high cost of electricity to run a heat pump was selected much more often by full-time residents, especially the financially careful, than part-time residents, who presumably would use a heat pump in winter much less frequently. The aesthetics of solar panels are more of an issue for financially comfortable people regardless of residence. Large percentages of full-time residents, especially the financially comfortable, have gas/propane generators that obviate the need for a backup battery system. This reason is cited much less frequently by part-time residents, again presumably because they heat their homes less frequently in winter.

Full-time residents are less likely to cite lack of knowledge as a reason for not having solar panels. However, high proportions of people in each of the four groups indicate that lack of knowledge is a barrier to adopting heat pumps and backup battery systems.

Lastly, full-time residents are more likely to say they don't drive enough miles to justify purchasing an EV relative to part-time residents who presumably drive back and forth to Eastham one or more times each year. Part-time residents, especially the financially careful, cite 'waiting for improved technology' more often than full-time residents. From verbatim comments, this likely reflects a combination of EVs' driving range, the availability of charging stations, and the time required to charge an EV battery.

5. CONCLUSION

5.A. Possible Limitations in Interpreting Survey Results

Although survey promotion was multipronged and widespread, it is possible that people who have a strong interest in climate change and/or have taken action to reduce their greenhouse gas footprint may have been more likely to complete the survey. If so, survey responses may have an "upward" bias relative to the responses of a true random sample.

Very few people younger than 35 completed the survey. Although respondents were broadly representative of Eastham's population 35 and older, the absence of younger people may also be a source of bias.

Descriptions of the various policy options presented in the survey were necessarily limited. Consequently, different people may have had differing interpretations of the potential details and costs of each option.

5.B. Key Findings

- **A majority of Eastham respondents report being financially comfortable, but almost one in five describe themselves as having to "be careful about monthly spending."**
    - Slightly more than half of respondents described themselves as "financially comfortable," but nearly 20% said that they "have to be careful about monthly spending." Two-thirds of part-time residents described themselves as financially comfortable, compared to half of full-time residents.

- **Many respondents believe addressing climate change requires changing how we live and that spending on climate change should be a high economic priority.**
    - But among our respondents there was meaningful variation in these beliefs. Regardless of residence, fewer financially careful respondents believe that it's necessary to change individual behavior or make spending to mitigate climate change a priority over other needs.

- **Two hypothetical town programs received the most support from respondents:**
    - 'Designate town-controlled areas for installation of solar panels' was supported by 63% and 'increase/further protect wetlands, trees and green space' by 61%.
    - One factor that may explain the relative popularity of these two is relatively low cost. Other proposals clearly have substantial cost implications, many of them likely greater than either of the two that were most-supported.

- **Respondents demonstrated little enthusiasm for electric vehicles for private use.**
    - Few own one, programs to encourage their use received little support, and comments on EVs often expressed skepticism about them. People cited cost and the lack of charging stations as a reason for not owning an EV.

- **This may reflect a broader skepticism about using financial subsidies to change behaviors. This should be explored further as part of any public engagement activity for developing a Climate Action Plan.**
    - In addition to the two EV proposals, relatively low support was given to two other proposals that would provide incentives for commercial installation of canopies and subsidize home electrification for lower income residents.
    - Lack of support for incentive programs may be due to a combination of skepticism about their effectiveness and a reluctance to spend tax dollars.

- **Support for public transportation alternatives may be meaningful.**
    - Public transportation was not specifically referenced in the survey questions, but across questions #20 and #28, ten respondents offered comments supporting public transportation, e.g. shuttles to area beaches.

- **While a majority of Eastham residents have changed some of their day-to-day behaviors to reduce their carbon footprints, few households have invested in the key systems for their household.**
    - Most Eastham homes lack solar panels or heat pumps, or an EV in the driveway, and higher percentages of part-time residents, regardless of their economic situation, reported not having an energy audit.

- **Residency and financial condition matter in decisions about the kinds of actions asked about in this survey.**
    - Almost without exception, fewer financially careful people and part-time residents took these actions than their financially comfortable and full-time counterparts.

- **Survey results indicate a need for better information on available incentives, financing options, determining return on investment, and the current state of technology.**
    - Cost (too expensive to purchase), uncertainty about long-term financial benefit, and lack of knowledge were commonly cited reasons for not having invested in the GHG-reducing options.
    - Among full-time residents, people who are financially careful cited cost much more often than the financially comfortable as a barrier to reducing their carbon footprint.
    - Sixty percent of people who live in houses with solar panels said that their panels covered either all of their bill or yielded a monthly credit.

- **Residents appear to have clear preferences when it comes to the medium for receiving information and the types of resources that would be most beneficial for addressing climate change**.
    - For ‘information and town news’, email is preferred by 80% of respondents (section 2.D). For help addressing climate change, ‘regular newsletters’ were regarded as the most beneficial type of resource, followed by ‘fact sheets on core topics’. These results may indicate that, all else equal, respondents have some preference for modes where material is sent to them and can be consumed at their convenience.

5.C. Next Steps

With the above findings in mind, we recommend the following actions to both leverage and extend information generated by the survey.

Convene a series of focus groups or discussions with various stakeholders. One such group should focus on younger adults. A clear majority of Eastham residents are concerned about climate change and feel that changes in public actions and individual behavior are needed to lessen climate change's expected adverse effects. However, there is less agreement on what those public actions might be. A series of focus groups should be designed based on what was learned in the survey and to fill gaps in that learning. A group of younger adults is needed because that cohort was essentially absent from the survey's respondents.

Develop concise fact sheets on key topics where knowledge may be lagging. There are both financial and informational barriers to broad adoption of several actions to reduce greenhouse gas emissions from homes and automobiles. Providing more detailed information to people through fact sheets, newsletters, and occasional in-person presentations by experts is vital to educating people about alternative policies' effects on climate change, and town and personal finances. For example, older respondents were more likely to cite uncertain long-term financial gain as a reason for not installing solar panels or heat pumps in their homes. If this reflects an expected short time horizon in their current homes, then information about the effects of solar panels and heat pumps on home sale prices would be relevant if it shows that people can recoup much of their investment.

Provide clinics with hands-on informational support to households to assist with questions about financial costs and return on investment. Concerns about costs and financial returns suggest that people would be able to make more informed decisions with up-to-date information on installation costs, financial effects over time, which depend on rebates, tax credits, and financing options, as well as impacts on greenhouse gas emissions. The Climate Action Committee should explore partnering with other towns and community organizations to implement clinics. Another, related topic for these clinics would be deciding when it's time to replace an existing system. Many people said that they did not adopt the more costly home and vehicle changes to reduce greenhouse gas emissions because their current systems (gas or heating oil furnaces, gas backup generators, gas powered-vehicles) are working just fine. Developing information for people in this situation could be very helpful.

Make public transportation a topic for public engagement related to developing the Climate Action Plan. The hypothetical proposals did not include options focused on public transportation and the allocation question included an approach focused on transportation alternatives, but did not distinguish public from private. However, the multiple comments received on the subject of public transportation suggest a meaningful level of support for these types of options.

Continue analysis of open-ended comments. Many respondents took time to offer comments, and in many cases they were detailed, thoughtful, and passionately expressed. Subsequent analysis should include a more thorough evaluation of the verbatim comments as well as an exploration of whether particular types of comments can be associated with identifiable subpopulations.

Prioritize sharing information on community solar. Respondents often reported that solar panels would not work on their homes because of tree canopy shading and/or north-oriented roofs. Information about community solar may be especially relevant for this group. (Community solar is "green energy" generated by off-site solar panel arrays, requires no investment in equipment, and can reduce electric bills by about 5%.[7]) Part-time residents and lower income residents would also be prime targets for this type of information.

Foster collaborations between the Climate Action Committee and key town organizations:

- **The Part-Time Residents Association**. Full and part-time residence were often associated with variations in responses to many of the survey questions. In addition to obtaining better information from both types of residents, it may be useful to improve information distribution to part-time residents.
- **Parent-Teacher Associations.** Families with children were over-represented in the group of financially careful residents. Working with PTAs may be an efficient way to reach parents with helpful information about how to address climate change.
- **The Business Community.** Workers, both owners and employees, were also over-represented in the group of financially careful residents. Business owners may benefit from information directly relevant to their business operations and may also be a good mechanism for providing information to them and their employees about climate change options for their homes.

[7] "What Is Community Solar," Clean Choice Energy, https://cleanchoiceenergy.com/news/what-is-community-solar?https://cleanchoiceenergy.com/difference?type=tof&lob=rr&utm_source=google&utm_medium=cpc&utm_campaign=search_g_dsa_2024_full_funnel&gad_source=1&gclid=Cj0KCQjwrKu2BhDkARIsAD7GBovmOsP5IomV7HqeFE3Ejp2HpAOHyT5L9WQwsobC44EWsBKpWc4-GJkaApqWEALw_wcB

Document feedback and apply it to development of the Climate Action Plan. This report will be emailed to survey respondents who requested information about the survey's findings. Its availability on the Climate Action Committee's website will also be distributed through the Committee's mailing list and the town's distribution list. Feedback to the report will be used to identify and refine the Committee's activities and the development of the Climate Action Plan.

APPENDIXES

Appendix 1 - Comments

Table App 1.1 - Comments by Category, for Q20 and Q28	
Comments Category	**Comments Count (total 137)**
Hold other nations accountable	**11**
Climate change skeptic	**10**
Strengthen waste management	**10**
Provide public transportation and bike lanes	**10**
Support solar	**9**
Questions or observations about EVs	**9**
Strengthen land use, particularly stop "McMansions"	**8**
Taxpayer burden too high	**6**
Miscellaneous	**6**
Supportive of survey	**6**
Adapt infrastructure for resilience	**5**
Educate the general public	**5**
Ban sources of fossil fuel emissions	**4**

Avoid inequity in incentivizing these technologies	**4**
Government must lead	**4**
Ban plastics	**4**
Individual rights are being abused	**4**
Transportation-General	**2**
Support clean energy solutions	**4**
There are bigger problems than climate	**2**
Reduce consumption	**2**
Extend green space	**2**
Technology	**2**
Reduce toxics (pesticides)	**2**
Encourage more use of plant-based foods	**2**
Grid is not clean	**2**
Buildings (existing ones) need to be clean	**1**
Institute a GHG Tax	**1**

Table App 1.2 “Other” comments from question #20
Allow direct beachfront homeowners to work with environmentalists to protect sea errosion
Replace old inefficient buildings and systems - focus there rather than new construction and the specialized stretch energy code
Home installed wind power
You should extend natural gas pipelines throughout the town since natural gas is one of the cleanest burning fuels available. Depending on electricity from the grid does absolutely nothing to solve the problem because the electricity is produced from burning fossil fuels. In the first place, build a nuclear power plant that will provide, electricity without creating air pollution.
Stop pushing alternative energies down everyone's throat. It is an alternative energy people can choose to use if they want it should not be mandated unless the town wants to pay for it, which is ridiculous because our taxes would be what was paying for it. You act like everyone has all the money in the world to spend on what you, God like people dictate.
Stop allowing revetments to protect waterfront property. They are destroying the beaches.
Limit McMansions
too complicated...have attended training and still have no idea what i should do...
Work on all, prioritize with cost and effectiveness in mind
We do a good job in the US. If you are truly worried about climate chamge (ie man made) you need to worry about India, Chima, and Russia!
Be dead certain “climate change” is actually caused by fossil fuel AND simultaneously, get the SAME commitments you ask/ force on ius,from China and India
climate change is a natural event
You folks have really drank the kool aid. Stop shoving wasteful spending down the tax payers throats for democratic pipe dreams.
Vet solar providers with expertise in installing solar for NRT and expert in understanding incentives for mostly summer-use residences.
Homeowners tax incentive for solar on lower income homes

Charge more for electricity for properties without solar panels & shift savings to those who do have; same for back-up generators as not having one is a burden to town resources
Why should taxpayers fund charging stations for other people cars ?
charging stations?? we pay enough taxes.
Nothing should be free. The tax payers end up paying for them.
If EVs are such a good deal, they should not require any subsidies to convince people to use them!
Personalized electric vehicles are resource intensive, extractive, exploitive, and probably not sustainable..
no need for FREE ev chargers, just need more in convenient locations
Anything to support more robust and usable public transportation.
encourage public or shared transportation
Incentivize local businesses to include more plant based food options
Consider a town pilot with urine-diversion toilets to collect data on a third alternative to collecting and diverting nitrogen and phosphorus, and offering a more economical option for people hoping to build affordable housing.
Too good to go is an app used by restaurants and bakeries to post extra food for sale low priced at end of night to avoid food waste. Eastham and surrounding towns could benefit?

Table App 1.3 “Other” comments from question #28
Fix the bridges
Long-term it's inevitable & only so much humans can do; we need to decide how best to shift the population away from the coasts

Communities like ours certainly need to take an active role in addressing our impact on climate change, but also make a serious committment to plan for and mitigate the effects that we are, and will increasingly be, dealing with as climate change worsens. With MA projecting a 2.5 ft SLR by 2050, Eastham and the Outer Cape, all of the Cape, will have real consequences community-wide that require real conversations, appropriate planning no matter how challenging, and serious consideration of managed retreat for high hazard coastal areas. We need to determine what funding is likely available to raise the most significant roads and make a plan for how we will deal with roads that are likely to be lost to SLR and properties and homes that are going to be lost to SLR, erosion, storms and flooding. How feasible will it be to rebuilt or continue to support infrastructure in areas of high coastal hazard and should we? We absolutely need to put in more regulations and make zoning changes to address the changed circumstances of climate change and its impacts. Choices that many people are not going to like but will be necessary for sustainability and safety. And, as a town, we haven't had those conversations, and we need to start doing just that.
Im concerned about flooding esp from stormm damage and dont feel Eastham is addressing this enough
I think the town should not worry so much taxes and housing cost are not sustainable
Other than raising low roads and adding flood drainage systems, wasting money and time on a town effort on climate change is not going to make any difference. None. We have many, many, far more important problems than overblown concerns over something we cannot control.
We have geothermal hvac system
Make home wind mini turbines a priority
Promote the possibility of land-based transformers in Eastham for off-shore wind power to connect efficiently to transmission lines. Wind power is a rational source of clean electricity surrounding the Cape
Less consumption
Stop consuming so much. Of everything. That means you! And me. And everyone
Educate people about the urgency of addressing climate change and how it has affected our life on Cape Cod.
Tie programs to school curriculum
prioritize education regarding risks of doing nothing/very little and more emphasis on what everyone can do. little things do add up
Education of our visitors to Eastham.. concerning community initiatives that protect the town for generations to come.

Education is key. Teaching people to be mindful of collective resources is hard and expecting them to be responsible is harder.
Climate change initiatives should be planned and accomplished in conjunction with ther public goals such as affordability, equity, and sustainability.other worthy
Right now - Solar & the push to go all electric are only for the wealthy & they reduce energy options in an area with few underground electric wires & which is overdue for a hurricane
This survey is very much directed at the individual responsibility of climate change which was a media campaign from oil companies to try and avoid them taking responsibility. I am deeply concerned about climate change but I am also concerned about the green washing and individualizing of solutions and the PRIVILEGE it takes to afford those solutions. No, I do not want to give people with electric cars free charging and I am not super interested in investing money into the hubs when it largely benefits people of means.
Your suggestion to provide free ev charging or reduced fees at beaches discriminates by subsidizing the wealthy and shifting cost to fixed and lower income
Ban leaf blowers
Post no idling signs in school, beach and other public areas
ban non electric power tools for landscaping, develop a town food waste compost system, move towards electric beach shuttle fleet on the bay beaches,ban asphalt driveways, there is lots we can do.
Ban fire pits
Add a GHG pollution tax based on projected emissions and income level
need to address the institutional causes of climate change not just at the individual level
While individuals can contribute, Local, State and Federal governments need to address this.
While it is important for each individual to contribute to the solution, the biggest impact will have to be accomplished through government regulation and investment in cleaner energy.

have the climate czar fly commercial---along with various federal government cabinet members and staff
We do not need more green space in town. We already are about 35% green open space
Utilize tree canopies better and promote green roofs on large industries.
The push for heat pumps is only beneficial if we start using less natural gas to produce electricity
I am strongly against any mandatory electrification ordinances.
Government needs to stop mandating and politicizing climate change. Stay in your lane by maintaining infrastructure, open space and and encouraging innovation by the private sector.
The use of the word promote is misleading. You might as well stick mandate in there to be more truthful and transparent. Promoting something is one thing but mandating that people follow your dictatorship is something completely different. You have no right to tell me what type of vehicle I can drive and how I can cook my food or heat or cool my home. This is America. The government needs to stop telling people how to run their lives.
incentives to reduce property/land clearing?
stop mcMansioning the Cape!
Also in terms of zoning - why is the town allowing the building of enormous homes that house a few people at most? These homes use a hugely disproportionate amount of fossil fuels compared to traditional Cape homes. These owners may only live in the home a matter of weeks out of the year, yet they run heating, air conditioning non stop. Not the Cape way! These expensive houses also bring up the price of real estate having a ripple effect on those people on fixed incomes.
Also in terms of zoning - why is the town allowing the building of enormous homes that house a few people at most? These homes use a hugely disproportionate amount of fossil fuels compared to traditional Cape homes. These owners may only live in the home a matter of weeks out of the year, yet they run heating, air conditioning non stop. Not the Cape way! These expensive houses also bring up the price of real estate having a ripple effect on those people on fixed incomes.

Limit size of new single family homes to preserve open space, water, and other resources. Limit nonpermeable surfaces.
ban asphalt driveways
The town needs to install more refillable water stations around town.
What is “reliable and clean energy”?
In regards to #25, I do most of the things listed but not for climate change reasons
dairy free (not just red meat); bicycle for close by errands
The USA can do all it can to positively impact climate change, yet no-one talks about the pollution coming from Russia, India, and China. They are the largest polluters on earth.
large corporations need to be held accountable
Boycott products where possible from countries who are heavy polluters.
Travel.You will see that the u.S. is far cleaner than a lot of societys.
No matter what you do if you don’t get the highest poluting countries such as China to change, you won’t make a big enough dent. You over regulate, work goes to China who has no restrictions and we pay them. Sickening that this fact is always hidden.
Get China and India to follow the same guidelines or else you are basically wating your time. There is not protective bubble over Eastham.
Without China and India on board, it will be hard to make a difference.
The biggest problem will become India and China as they grow rapidly with governments that are corrupt.

I'll add that these technologies are extremely exploitive. There is extreme violence in the Congo currently and it is directly tied to our market for batteries. I refuse to pat ourselves on the back for making "green" transitions that are covered in the blood of another people - who don't have access to such technology. The first part of reduce, reuse, recycle - is REDUCE. I will also add that electricity is really expensive right now and isn't sourced from 100% green sources. And I just can't get over the individualizing of climate change when there are very large polluters that need to be addressed.
single use plastic ban with alternatives recommended
Can you stop making plastics?
Out law plastics all together! I hate plastic
No single use water bottles. Do not sell nips.
Cape Cod was formed by a glacier that melted. Climate change caused the glacier to melt. I do not think mankind as much affect on the climate.
It's a hoax. Don't waste your time and our money!
The town has not quantified actual damages from climate change, thus there is no need to actively mitigate anything.
Eating less red meat? Really that’s gonna reduce Co2
Seriously. Less red meat. Please worry about real town problems
Why not draft your “survey” to allow a broader discussion of whether it’s real, or not?
Stop wasting taxpayer dollars and time with this nonsense.
it would help to differenciate human causes of climate change and the Earth's natural climate change
While I think residential solar can be a wonderfully efficient alternative, I think state and local government needs to do a better job policing solar leasing companies. As a Realtor, I've found that many solar lease programs are predatory; homeowners are getting screwed by the leasing companies. It's akin to predatory lending.

I am not an early adopter of very much but I will do what makes sense and works and am willing to pay more to do it. For example, I would love to replace my current roof with solar roof tiles (vs solar panels) but that technology is not yet ready for prime time.
Roof top solar on all public buildings
Why not put solar on more town buildings…offer beach shuttles for a small fee to reduce cars at bayside beaches. (electric bus/trolly
Brewster has solar covered parking at the captains golf course- could we do this at the larger beaches? Do we own the CG beach trolley lot? NLB, first encounter. All large enough and could benefit everyone.
Solar on flat roofs and over parking lots should be mandatory
Eastham is doing quite well in terms of climate change - keep up the great work
Thank you for taking on this important effort.
If we are to effectively lower our carbon footprint and reduce the effects of climate change, all of us have to get behind it and make conscious efforts to reduce our personal greenhouse gas emissions wherever possible.
A thoughtful, well designed survey. Appreciate being asked
Climate change is the most important issue we face.
Let me know if your committee needs more help!
Take it easy and not make the kids feel doomed
If you increase property taxes any more we won't be using low emissions torches or pitch forks with sustainably harvested handles when the peasants revolt.
Incentives and subsidies are needed. When older/retired/well-off people tell the rest of us that affording these things is "easy" it's incredibly isolating and makes people feel like solutions are impossible for the rest of us. Working people are struggling. If it were easy, we'd already be paying for solar and heat pumps and so on.

Don't punish folks for not accepting techology that is not at least as good in all regards as current technology.
We have to invest in tech that can eliminate the problems with the resources we have
pesticide regulation, single use plastic ban with alternatives recommended, incentives to reduce property/land clearing?
Ban pesticides and encourage native landscapes.
Addressing climate change is complicated, such as the environmental problems caused by making electric car batteries. I would like to know more about how do we weight the costs and benefits?
Promote the development and testing of hydrogen fueled vehicles
I drive a hybrid car (not electric) but it still helps
to get an electric car
I am also willing to be somewhat inconvenienced in the process, but I am reticent to purchase an electric car, for example if recharging that car on a long trip will cost me lots of time and effort to plan for and drive to a charging station. And then to replace a very expensive lithium battery in 5-6 years.
The knee jerk reaction has been to embrace e-cars and not anticipate their decommisioning. How about e-bike, as a conventional bike user, I don't want them on the bike patch. -they go too fast. People don't realize that the electricity used to recharge their vehicles can at times be generated from Coal. Consumerism is at it's peak. Tech companies should make their products last longer than 3 years, remember when washing machined would last 20 years, not they expire in 5. THings need to go back to being made in good quality...it's all about volume now.
Monitor the amount of persons staying in rental homes and also limit how many vehicles in in year round homes. Don’t allow trucks to run in residential areas for more than a few minutes don’t allow excavating yes

The commercialization of "green alternatives" doesn't make me feel great either. Electric cars are all well and good but a rail system would be better. Flying less (if you are privileged enough to fly places) is all well and good but (rail would be better) private jets are a way bigger issue. I hate to be that whataboutism person and I do believe change is important on all levels. Question 24 is just steeped in privilege. I eat less/little meat because I can't afford it, I hardly ever fly .. because I can't afford it. The thermostat isn't a choice but a function of what I can afford. That choice isn't made to be more climate friendly, it is that way because we are poor. Last note - I appreciate the work that Cape Light Compact does. Sorry for the rambles, I can't go back and see it all as a paragraph. Thank you for caring and doing the work that you do.
Improving access to public transportation and improving bike and pedestrian safety are very important. For example, the lack of sidewalks on Bridge Rd. Is a major deterrent to walking, and a safety hazard.
Focus on factual educational materials via hard copy, email and town website postings/links. Encourage walking and regular bike riding and small energy efficient autos (Do not promote, encourage or subsidize ebike usage). Continue to enforce low highway speeds through the town, both for safety and for the increased energy efficiency of lower speeds. One of the biggest (and most controversial) jobs for the town in the next 20 to 50 years is to comprehensively and relentlessly educate coastal homeowners that they need to prepare to retreat from their coastal property at their own expense due to the unrelenting rise of sea level and the impossibility of continuing to build/reinforce dunes indefinitely. They need to be educated to the position that a real estate investment is not a guaranteed investment with a guaranteed return. You may be able to use the real world examples near Nauset Light.
Eastham is a small town and transportation could be improved in a major way if the town has a commitment. There are already many seniors and disabled people living in Eastham who could benefit from electric shuttle busses.
Make the entire town pedestrian and bike friendly by linking bike lanes and paths, constructing curbs for them, and enforcing traffic laws against speeders, both bikes and cars.
move towards electric beach shuttle fleet on the bay beaches,ban asphalt driveways, there is lots we can do.
Free shuttles to the beaches
…offer beach shuttles for a small fee to reduce cars at bayside beaches. (electric bus/trolly
improve transportation infrastructure in Eastham - bike and walking paths, shuttle busses

We need to dis is the connection with our food systems & how it connects to the climate. We need to have plant based options in schools to encourage a shift to a plant based diet.
This may strike you as odd, but my point addresses the importance of inter-connective thinking. Eastham needs to deal with wastewater treatment. Easter water treatment is expensive and carbon intensive. A broad and far reaching plan would be for us to spend money instead on composting toilets with urine retrieval systems in place.
Private garbage collection is very inefficient. Make recycling free at the transit station.
Ponds have low oxygenn in summer. We need workable flexible sewage alternatives
develop a town food waste compost system
Town garbage pickup is a carbon hog with multiple trucks running around and additional costs for recycling. The town should consider contracting with or commencing residential pickup.
Print less paper, use less paper towels, wash laundry with cool water
All containers recycle for cash back
Address waste management for all homeowners and renters, provide incentive for home energy audits.

Table App 1.4 "Other" comments for 'I don't have solar panels because'

ACCESS;
Although we have the perfect roof for solar panels At our age we won live long enough to reap the benefits. ;
As part time resident they don't appear to be cost effective due to reduced power use large portion of year.";
Because we are part time and we do not get tax advantage ;
Cost;
Current technology is too steep a trade-off between solar panels and conventional asphalt shingle roofing. There is no good time to install current panels. I'm waiting for solar panels integrated with roofing at a reasonable price point and useful life.;
End of life disposal of solar panels, as panels need cleaning to stay efficient.;
Future renovation plans;
Hoa documents and they are complicated ;
HOA regulations ;
I am not considering them for my vacation home;
I dont want to compromise my roof and I am very concerned about the lack of a plan to deal with disposal of old panels mm;
I feel I have to wait to replace my roof before making that investment;
I have an Antique home. The roof will not support solar panels. The cost will exceed my life time.;
I have solar on my full time residence, when I have tried to inquire I have been innundated with sales calls. I know that the number of panels is related to electric use and because the house is mostly just occupied in the summer the electric bill doesn't seem to support panels (even though we get a LOT of sun). It would be very helpful to have pre-selected providers who are knowledgable about panels for those of us under taxation without representation.;
I rent;
I think it's a scam ;
I think there are many benefits but I have concerns of the long term risks - financial, equipment wise and impact on resale;
I want to buy; not rent. But with increasing property taxes I cannot afford them ;
I will need to replace my roof in the next 5 years and want to wait until that is done.;
I'll talk to the landlord;

I'm a renter and rent different homes in different years so can't really answer this part of the survey. Have answered "not sure" since an answer is required.;
I’m afraid they’ll wreck my roof and are “political theater”;
Interested but haven’t researched yet;
It's a condo colony, not sure if allowed?;
Just not ready to make the investment at this time/other priorities;
Live span is 25 years;
My home is too far from meter to house and would require upgrade to electric panel. It made installing panels untenable;
My roof need replacement before i can do panels;
Need a new roof first;
Need to tackle other substantial home repair needs first.;
On water so too much wind.. recommended not to have them by insurance company. ;
Part time resident and renovating ft residence right now. Would love to learn more about solar here. Nervous about getting scammed honestly. ;
People we know have had negative experiences;
Planning on renovations and then will reevaluate solar panels;
planning to rebuild;
Roof exposures on our home not favorable (E/W, not N/S).;
Rubber roof;
Safe manufacturing and safe disposal issues;
safety concerns;
Seasonal, unheated therefore not cost effective;
Solar company came and said it wasnt worth the investment;
Tech keeps changing - also no one planning for future disposal of panels;
they may not work on my house and they may be expensive to install;
Too many trees. That a good thing!!!;
Too much emphasis by 3 different sales people on tax breaks rather than educating me on solar specifics;
Waiting to install new roofing before investing. ;
Want a ground solar installation and providers are not readt to offer this;
Was confused by the rebate process;
We are a commercial establishment with a small percentage being our personal living area. We have not yet qualified for rebates. We hope to install in the future.;
we are a residential and commercial operation ;
we are considering it;
we are part of a solar garden and not all people in our home want solar panels on the roof;
We are too old to get long term benefit. ;
We have a condo unit in Brackett Landing. Not sure of what the association regulations are.;
We pay for solar energy from a solar field off Cape ;
We rent the house out in the summer and don’t know if there will be problems with the sys.;
We were told we'd need to redo our roof in 5 years, so we're waiting til then to add them.;

We've had three companies bid but the savings do not justify the costs. ;
Would love to have them but don't have the money to invest in them now. Also don't know what incentives are available ;

Table App 1.5 "Other" comments for 'My home doesn't have a heat pump system for heating because'

Aesthetics - I hate the outside duct work and the ugly indoor wall units;
doesn't cool below 75° in hot weather;
Dries out the air too much ;
expect to rebuild for year round use will consider;
Expensive to convert.
Heat pumps run on electricity produced by burning fossil fuels in the first place. The grid cannot handle the load as it is now. Additional dependency on the grid burns more fossil fuels and causes a price of electricity to go up even more that no one can afford it.;
Heating system is less than 5 yrs old and very efficient.;
I do have mini splits but they were not properly sized and I don't really use them for heat.;
I have a relatively new gas furnace, I have a mini split for AC and heating in one room.;
I have GEOTHERMAL;
I have mini splits, but I use the oil heat baseboard that I have for heating and I don't use them in splits for heating only air conditioning;
I only use the mini-split A/C portion in the summer.;
I read that the units gather mold and are hard to clean.;
I rent;
I would be interested in learning more about heat pumps;
It is efficient but are only here part time and cannot write off ;
New gas HE gas furnace & AC;
part time resident, use minimal heat in winter;
Partner not interested for cooling.;
Possibly looking at heat pump for an above garage addition;
Propane hot water system is relatively new AND provides on demand hot water;
Retrofit heat pump technology is not up to my quality standard yet.;
risk of mold high from what I have read if you don't use all the time and I like open windows, also ugly units outside;
Seasonal, unheated therefore not cost effective;
Small, one-bedroom unit.;

we are converting to gas and are not sure that heat pumps are the way to go for us ;
We have heat pumps however only use for A/C because electricity isn't reliable for heat in the winter so we have gas for heat.;
We have natural gas.;
Would require an upgrade to electricity and costs was higher than expected when we looked into it;

Table App 1.6 "Other" comments for 'No one in our household drives an electric or plug-in hybrid vehicle because'

I currently drive a Hybrid but not a plug in;
again no one is planning for disposal of batteries - we have driven 350,000 miles on current car. would have needed to buy many batteries for an EV;
All electric vehicles do ont have enough range to meet my long distance driving needs;
All new cars are annoying and terrible;
Batteries are bad for the planet;
Concerned about cradle to grave impacts ;
Don't believe what goes into making the batteries are green and replacement and disposal were definitely not thought out;
Don't own a car, rent only;
EV batteries are built with components that use slave labor to harvest them. EVs are a short lived technology. Hydrogen is the way forward.;
EV batteries are nowhere near good enough yet to convince me they will be better in the long run.;
EV's are bullshit. If you want to make everything electric, start with the border wall. Lithium and cobalt mining is modern day slavery. ;
EV's are smoke and mirrors;
Exploring and weighing options, cost, and affordability ;
hoping the incentives improve;
Hybrid but not plug in;
I already okwn a hydrid;
I can not afford a newer vehicle ;
I don't believe EVs are better for the environment.;
I don't trust them on long distance trip Not so many charging stations ;
I don't want one ;
I don't want one ;
I don't want to sit and charge my car;
I drive a hybrid car that gets between 48 and 51mpg. Considering an electric for our next vehicle, possibly one or two years away.;
I drive a hybrid. I don't believe EV's are the way of the future. Electricity needs to be generated somewhere, is the power grid ready? ;

I drive a lot and don't want to have to waste time finding a charging station and/or waiting to charge. ;
I drive a non plug in hybrid ;
I drive a Prius that does not plug in, it's what I can afford. No garage, too cold here for plug in ;
I drive too many miles to have them make sense for me;
I drive too many miles to make it work for me;
I have concerns about long term environmental impacts from battery manufacturing and disposal;
I need a car that goes farther in a day than currently offered;
I need a car that has significant range as I drive long distances regularly. Also, concerned about batteries required for electric vehicles, the lithium that needs to be mined. Finally, we buy our cars outright and use them for a long time - 10 years + at minimum. ;
I own a hybrid. Next car will be EV;
I prefer a gas powered vehicle ;
I try too much to be constrained by charging ;
I would never want a charging station on my property they have not been around long enough to understand the potential long term consequences.;
I'd like to install a home charger but need to upgrade to 200amps at my house first & probably install solar due to electricity costs;
I'd need to upgrade my service to charge the car;
Infeasible at my "full time" urban residence;
infrastructure is not there yet;
Infrastructure is awful. Mandates are worse.;
Insufficient charging stations ;
It would be too expensive to charge at home without solar panels;
Its a joke;
Just bought a non-plug hybrid;
Life cycle analysis of the benefits is inconclusive,;
lifetime of batteries and batteries are not sustainable to dispose of;
like my gas powered truck;
Limited miles on full charge. ;
Long wait for evs when I bought my car so bought a hybrid instead;
love my truck;
Need reliable tow vehicle for travel trailer;
No electric vehicle can do what my truck can do. truck can do. It cannot tow a boat. It cannot do long distance hauling.;
No or insufficient charging stations & take too long to charge;
not affordable for us yet;
not enough charging stations and no work or home hook ups;
Not interested ;
Not reliable for a 1 person household;

Often drive long distance bc of family - ev's aren't competitive in any way shape or form. I prefer not to fund the CCP;
Our car is a non-plug in hybrid.;
own a hybrid/gas;
Safe manufacturing and safe disposal issues;
The amount of greenhouse gases burned to manufacture the EV's and charge them, as well as the inability to protect my family should one catch on fire, are two significant reasons as to why I will not own one ;
The batteries are not environmentally friendly ;
The infrastructure to support them doesn't exist. Further, making them uses extraordinary resources/energy and the "subsidies" to purchase one is almost criminal theft of taxpayer money ;
The mining for the batteries is detrimental to the environment both abroad and currently in Nevada where the mining is depleting the water tables.;
There are limited charging stations on the cape;
There are not enough charging stations ;
They are expensive ;
They are impractical for long distance travel from our home in NJ.;
They don't reduce greenhouse gases at all.;
Waiting for driving distance to increase.;
waiting for infrastructure to improve ;
We already have 2 gas hybrids.;
We drive a hybrid (non-plug in) and are in the market for an electric replacement of an existing vehicle;
We drive a hybrid vehicle that has excellent mileage. We also bicycle and walk when possible.;
We drive hybrids, just not plug-in hybrids;
We drive rentals while on the Cape;
We drive stick shift cars. Also, I'm not convinced that the electric cars solve climate change due to other factors such as mining for battery materials, disposal of batteries and so on.;
We have a battery hybrid. I will NEVER own an electric car. ;
we have a gas vehicle and hybrid vehicle ;
WE HAVE A GAS-HYBRID TOYOTA;
We have a hybrid car and ride a bicycle. By the way the town of Eastham could do a lot more to make bicycling safe. Most roads do not even have sidewalks never mind bike paths too.;
We have a RAV hybrid;
We have a Toyota hybrid which does not require plug in.;
We have half fuel half electric vehicle;
We have one in our main home, but our electrical system on the cape is insufficient to support it and upgrade is prohibitively expensive ;
We own a hybrid;
We used to have a Prius, but sold it and are now a one car family;

Without subsidies they aren't economically feasible;
Worry about getting repair service;

Table App 1.7 "Other" comments for 'My home doesn't have a back-up battery because'

Batteries have limited capacity and we lack storage space;
Don't you need something producing power in order to need a back-up battery?;
Electric power outages are rare and brief;
Excess electricity fed into grid and used locally;
gas fireplace insert;
Getting a generator in the near future.;
Have plenty of firewood ;
I am thinking of getting a NG generator as battery solutions I've looked at don't power enough circuits during an outage / batttery doesn't last long enough. I'd get a battery if we got an EV car for charging it at night off the battery rather than using the grid. ;
I can live with occasional power supply interruptions;
I can not afford;
I don't beleive to cost to purchase, install and maintain a back up generator is worth it. If we lose power, I'll drain the pipes and go to a friends house or hotel untilpower is restored. Even if we did this every year for 2-3 nights, it would likely be less expensive and I don't have the headache of maintaining and securing a back up generator.;
I don't care to buy one ;
I don't have solar;
I have net metering which reduces my utility bill;
I rent;
I rent;
i sell overrage to the grid and considering back-up generator instead;
I would live to have solar and battery back up but solar companies want us to cut down the oak tree that shades our house which I won't do.;
Inability to recharge with solar during an outage makes no sense ;
It's too short term a backup system for this area;
More wasteful technology ;
not needed;
Only Tesla offers these and they are prohibitively expensive.;
power doesn't go out that often, yet;
Seasonal, unheated therefore not cost effective;

Stop using misleading questions. It is not "A" battery it is a series of multiple batteries with an inverter and a converter and additional wiring. Not to mention the impact on the environment by producing the batteries in the first place. This is an insane question. It does more harm to the environment to build the batteries than it does. Any benefits from them.;
Technology is evolving too fast and fire hazard;
the batteries are not ready for 'prime time' too expensive and will not give enough power when there is a long shut down of electricity;
Turn off water when we leave. Close enough to be here often. Home alarms. ;
We don't have solar;
we have portable generators ;
will research when rebuilding;

Appendix 2 - Detailed Tables - Actions to Improve Home and Transportation Energy Efficiency

2.A Response to questions asking whether a particular action was taken, all respondents and by residence and economic situation

Table App2.1	ALL	Residence and economic situation			
Have you had a MassSave energy audit within the past 5 years?		FT $ careful	FT $ comfortable	PT $ careful	PT $ comfortable
No	49.2%	47.5%	32.8%	56.6%	67.7%
Not sure	3.3%	1.6%	2.5%	9.4%	2.2%
Yes	47.5%	50.8%	64.7%	34.0%	30.1%
N	394	122	119	53	93

Table App2.2	ALL	Residence and economic situation			
Does your Cape home have solar panels?		FT $ careful	FT $ comfortable	PT $ careful	PT $ comfortable
No	65.2%	68.0%	43.7%	84.9%	75.3%
Not yet, but I plan to have them within 2 years	8.6%	11.5%	12.6%	0.0%	5.4%
Yes	26.1%	20.5%	43.7%	15.1%	19.4%
N	394	122	119	53	93

Table App2.3	All*	Residence and economic situation			
Does your home have a heat pump system ("mini-split") for heating?		FT $ careful	FT $ comfortable	PT $ careful	PT $ comfortable
No	55.6%	58.2%	44.5%	64.2%	58.1%
Not yet but I plan to have one within 2 years	8.1%	9.0%	9.2%	3.8%	8.6%
Yes	34.8%	32.0%	44.5%	30.2%	31.2%
*Excludes 6 people who responded "Not Sure"					

Table App2.4	ALL*		Residence and economic situation			
Does your home have a backup battery for storing electricity ?			**FT $ careful**	**FT $ comfortable**	**PT $ careful**	**PT $ comfortable**
No	88.7%		92.4%	82.8%	86.8%	94.6%
Not yet, but I plan to get one within 2 years	6.7%		4.2%	11.2%	7.5%	3.3%
Yes	4.1%		3.4%	6.0%	5.7%	2.2%
*Excludes 8 cases who responded Not Sure						

Table App2.5	ALL		Residence and economic situation			
Does anyone in your household drive an all-electric or plug-in hybrid vehicle when on the Cape?			**FT $ careful**	**FT $ comfortable**	**PT $ careful**	**PT $ comfortable**
No	90.9%		95.1%	86.6%	96.2%	87.1%
Yes, a plug-in hybrid	3.8%		3.3%	5.0%	1.9%	4.3%
Yes, an all-electric vehicle	5.3%		1.6%	8.4%	1.9%	8.6%

2.B Reasons for not taking an action, all respondents and by residence and economic situation

Table App2.6	All		Residence and economic situation			
Reasons for Not Having Solar Panels			**FT $ careful**	**FT $ comfortable**	**PT $ careful**	**PT $ comfortable**
Solar panels are too expensive	33.6%		45.8%	25.0%	26.7%	30.0%
I'm not sure that there will be long-term financial benefits	36.0%		21.7%	51.9%	40.0%	38.6%
I don't know enough about solar panels	20.0%		14.5%	9.6%	26.7%	30.0%
They would not work with my home because of trees and/or orientation	32.4%		32.5%	44.2%	33.3%	22.9%
I don't like the look of solar panels on my home	12.0%		7.2%	15.4%	11.1%	15.7%

Table App2.7	All		Residence and economic situation			
Reasons for Not Having a Heat Pump for Heating			**FT $ careful**	**FT $ comfortable**	**PT $ careful**	**PT $ comfortable**
Heat pumps are too expensive to purchase	24.1%		35.2%	13.2%	20.6%	22.2%
Not sure that there will be long-term financial benefits	21.2%		18.3%	22.6%	26.5%	20.4%
I don't know enough about heat pumps	25.5%		31.0%	26.4%	20.6%	20.4%
My current heating system works just fine	54.2%		52.1%	67.9%	52.9%	44.4%
The cost of electricity to run a heat pump is too high	15.1%		23.9%	17.0%	8.8%	5.6%

Table App2.8	All		Residence and economic situation			
Reasons for not having a backup battery system			**FT $ careful**	**FT $ comfortable**	**PT $ careful**	**PT $ comfortable**
Back-up battery systems are too expensive	28.1%		41.3%	24.0%	26.1%	17.2%
I'm not sure that there will be long-term financial benefits	18.9%		19.3%	15.6%	19.6%	21.8%
I don't know enough about battery systems	41.4%		42.2%	37.5%	50.0%	40.2%
I have a backup gas/propane generator	28.1%		28.4%	44.8%	15.2%	16.1%
I'm not sure the technology is mature enough	18.3%		19.3%	22.9%	17.4%	12.6%
I'm only here during the summer	12.4%		0.0%	3.1%	30.4%	28.7%

Table App2.A.9	All		Residence and economic situation

Reasons for Not Driving an EV or Plug-in Hybrid			FT $ careful	FT $ comfortable	PT $ careful	PT $ comfortable
EVs and hybrids are too expensive to purchase	30.5%		41.4%	22.3%	43.1%	17.3%
I'm waiting until I need to replace my current vehicle	41.3%		32.8%	52.4%	35.3%	43.2%
I am waiting for the technology to improve	40.5%		35.3%	34.0%	62.7%	42.0%
I don't drive enough miles to make buying an EV worthwhile	13.7%		13.8%	19.4%	7.8%	9.9%

Appendix 3 - Survey

MAKE A DIFFERENCE
TAKE THE EASTHAM CLIMATE ACTION SURVEY

Eastham is developing a climate action plan, and wants to hear from you. It's easy. You can respond in the time it takes for a cup of coffee.

Eastham, like many other towns across the Commonwealth, is developing a climate action plan for reducing greenhouse gas emissions and the impacts of climate change. The plan will identify actions the town and all of us can take in the areas of energy systems, construction, transportation, infrastructure, and natural resource management.

The action plan can be a powerful tool for our community, but only if it is based on the needs and priorities of local residents. This is where you can make a difference. The Eastham Climate Action Survey is an opportunity to be heard on how you are dealing with climate change, what would be helpful to you, and—most important of all—how you want the town to prioritize use of its resources.

The survey takes about 10 minutes to complete.

All responses are anonymous.

Thank you
Eastham Climate Action Committee

First, tell us a bit about yourself.

1. Which best describes your residency status?

O Eastham O full-time (6+ months) O part-time O seasonal renter
O Other Cape Town O full-time (6+ months) O part-time O seasonal renter
O I am visiting Eastham

2. If you are a part- or full-time Eastham resident, do you

O own or O rent your home?

3. Do you offer your home, or another home in Eastham, for rent during the summer season?

O Yes O No

4. What is your age group?
O under 18 O 18 to 34 O 35 to 54 O 55 to 64 O 65 to 74 O 75 or older

5. Not counting visitors, how many people live in your Cape home? Please indicate how many in each of the age groups below, including yourself.

___under 18 ___ 18 to 34 __ 35 to 54 __ 55 to 64 __65 to 74 __75 or older

6. What kinds of resources and/or information would have the most benefit for you and others who may be considering actions to address climate change? Pick three from the list below.

O Community events/workshops to share best practices and sources of assistance
O Fact sheets on core topics such as solar panels, heat pumps, and electric vehicles
O Clinics with experts providing one-on-one help for questions about climate change or actions I can take to help reduce climate change
O Online course or webinars for education on specific ways we can help to reduce climate change
O Talks with Eastham residents who have made changes to their homes

O Regular newsletters with tips and information on latest available incentives

7. What is your preferred method of receiving information and town news? (Check one)

O Email O Web page O Facebook
O Instagram O Newspaper O U.S. Mail

The next few questions ask about your home on the Cape.

8a. Have you had a MassSave energy audit within the past 5 years?

O Yes O No

8b. If you did have a MassSave audit, did you update insulation and weatherizing using the audit findings?

- **O YES**
- **O NO, the audit didn't recommend any updates.**
- **O NO, because (pick up to 3)**

___ I plan to move in a few years
___ It's not worth the cost and effort
___ I don't think updates would do much to reduce greenhouse gasses
___ I'm a part-time resident and don't heat my home in the winter
___ Other (please describe) _____

9a. Does your Cape home have solar panels?

- **O YES**
- **O Not yet, but I'm planning to get them in the next two years**
- **O NO, because (Pick up to 3)**

___ Solar panels are too expensive
___ I'm not sure that there will be long-term financial benefits

___ I don't know enough about solar panels
___ They would not work with my home because of trees and/or orientation
___ I don't think panels will do much to reduce greenhouse gasses
___ I don't like the look of solar panels on my home
___ Other (please describe) _____

9b. If you have solar panels, do they

- **O cover your total annual electricity costs**
- **O cover less than your annual electricity costs or**
- **O more than cover your annual electricity costs?**
- **O I don't know**

10. Does your home have a heat pump system ("mini-split") for heating?

- **O I don't know**
- **O YES, it covers ___ the whole house ___part of the house**
- **O Not yet, but I'm planning to get one in the next two years.**
- **O NO, because (Pick up to 3)**

___ Heat pumps are too expensive to purchase
___ Not sure that there will be long-term financial benefits
___ I don't know enough about heat pumps
___ I don't think heat pumps would do much to reduce greenhouse gasses
___ I'm not sure heat pumps will work in our climate
___ My current heating system works just fine
___The cost of electricity to run a heat pump is too high
___ I am a part-time resident and don't heat my home in the winter
___ Other _____

11. Does anyone in your household drive an all-electric or hybrid vehicle when on the Cape?

- **O YES, ___ Battery Electric ____Hybrid (plug-in or other)**
- **O NO, because (Pick up to 3).**

___ EVs and hybrids are too expensive to purchase
___ I don't know enough about those vehicles
___ I'm waiting until I need to replace my current vehicle
___ I am waiting for the technology to improve

___ I don't drive enough miles to make buying an EV worthwhile
___ Other _____

12. Does your home have a back-up battery for storing electricity ?

- **O I'm not sure**
- **O YES**
- **O Not yet, but I'm planning to install one in the next two years**
- **O NO, because (Pick up to 3)...**
- **___ Back-up battery systems are too expensive**
- **___ I'm not sure that there will be long-term financial benefits**
- **___ I don't know enough about battery systems**
- **___ I'm only here during the summer**
- **___ I'm not sure the technology is mature enough**
- **___ I have a back-up gas/propane generator**
- **___ Other (please describe)**

This section asks about how to prioritize actions for climate change.
13. Below are proposals similar to ones that might be considered at a town meeting. There are 11 proposals. Which would you be likely to support? Please select up to 5. As best you can, consider the costs and benefits of each proposal.

O Install free electric vehicle chargers at town beaches and commercial areas.

O Require all new building construction to be fossil fuel free for energy needs, except for outdoor grills and backup generators.

O Develop and fund a program to pick up and recycle food waste from restaurants

O Create a town fund to subsidize home electrification and solar panels for lower income homeowners.

O Expand and improve pedestrian walkways, bike trails, and eBike charging stations.

O Reduce the town's vulnerability to forest fires by more active management of our woodlands by managed burns and creating buffer zones.

O Seek financial incentives for commercial property owners to install solar canopies in parking areas.

O Charge lower parking fees for electric vehicles (including hybrids) at town beaches.

O Increase protection for wetlands, plant more trees, and increase green space.

O Designate suitable, already disturbed town-owned areas (e.g. library, town hall, unused fields) as potential sites for solar panels.

O Adapt public infrastructure (roads, bridges, beaches) to withstand effects of climate change.

O Other———————————————————————————

14. Strategies for addressing climate change can be grouped into five areas, which are described below. Imagine you are the town's planner, and you have $100 to spend on climate change. Please indicate how you would allocate your money among these areas. For example, if you think they are equally important, allocate $20 to each. Or, you could spend all of your $100 on one area if you feel it's far more important than the others.

$_____ Promote zero or low-carbon transportation alternatives
$_____ Manage emissions from waste disposal and composting
$_____ Increase open spaces, preserve trees and wetlands
$_____ Promote the use of reliable and clean energy
$_____ Promote construction of zero or low-carbon homes and buildings.

$ 100 TOTAL

15. Please consider each of the following statements about the effects of climate change. Select the one that comes closest to representing how you feel.

O We don't have to make major changes to how we live because technological and scientific advances will limit most of the negative effects of climate change

OR:

O If most of us make some adjustments to how we live, we can reduce the worst effects of climate change.

OR:

O Without significant changes to the way we all live now, climate change will inevitably cause major problems.

16. Please consider each of the following statements about the economic costs of climate change. Select the one that comes closest to representing how you feel.

O It will be costly to address climate change but whatever the price is we have to pay it.

OR:

O It's possible for the nation to address climate change and still do well economically.

OR:

O Climate change matters, but other needs are more important uses for our money.

Lastly, a few more questions about you

17. Are you retired? O Yes O No

18. Are you a business owner (including self-employed)? O Yes O No

19. Which of the following best describes your overall economic situation? (Check one.)

O I/we have to be careful about monthly spending.

O I/we don't have a problem with monthly bills, there's not much left over for large expenditures.

O Right now I/we feel financially comfortable

20. In the last few years have you taken any of these actions to reduce your carbon footprint?

O Yes O No I eat less red meat
O Yes O No I fly less often
O Yes O No I avoid plastic containers
O Yes O No I compost food waste
O Yes O No I keep my thermostat lower in winter and higher in summer

If you have other comments about how to address climate change, please add them here.

_____
_____
_____
_____
_____
_____
_____
_____

Thank you for completing the survey.

If you would like to get information on the survey results, please provide your email address.

_____

If you would like to receive updates from Eastham's Climate Action Committee or information on how we may help answer your questions on solar panels, heat pumps, electric appliances, battery storage, EVs, or MA and Federal incentives, please email us at EasthamClimate@gmail.com. Also, let us know if you would like to become involved with the Eastham Climate Action Committee.