

**COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF PUBLIC UTILITIES**

*Petition of Massachusetts Electric Company* )  
*and Nantucket Electric Company each* ) **D.P.U. 21-91**  
*d/b/a National Grid for Approval of* )  
*Phase III Electric Vehicle Market Development Program)*

**TRACK 1**

**D.P.U. 21-91 EXHIBIT GECA-MS-2**

**January 5, 2022**

1 **Survey Methodology**

2 Green Energy Consumers Alliance conducted an open-access survey of its Massachusetts-based  
3 members in October 2021. Survey access was limited to Massachusetts residents and members  
4 who have not opted out of email communications. 6,876 members in Massachusetts received an  
5 invitation to participate by email in the survey between October 8-12, and the survey closed for  
6 responses on October 26. Out of the 6,876 individuals who received an invitation to complete the  
7 survey, 1,063 individuals responded, a total response rate of 15%. 90% of respondents currently  
8 participate or have participated in at least one program offered by Green Energy Consumers  
9 Alliance. Only self-reported drivers of EVs answered questions 4-7 about their charging habits  
10 and skipped questions 8-9, whereas non-EV drivers received questions 8-9 and skipped questions  
11 4-7. Responses to open-ended questions are not included in the results below.

12 **About Green Energy Consumers Alliance**

13 Green Energy Consumers Alliance is a membership-based non-profit organization with nearly  
14 19,000 email contacts in Massachusetts. Active members currently participate in one of our  
15 many consumer-oriented energy programs, including:

- 16 • Green Powered, a program to match household or business electricity consumption with  
17 Class I renewable energy for a small adder fee
- 18 • Green Municipal Aggregation, a model of community choice electricity in which  
19 communities opt to receive more Class I renewable energy than is required by  
20 Massachusetts state law

- 1       • Shave The Peak, a notification system that alerts consumers to minimize electricity
  - 2           consumption on the highest-demand days in the summer
  - 3       • Drive Green, a discount program with participating dealerships across Massachusetts to
  - 4           offer fair deals on electric vehicles for those who sign up
  - 5       • Heating Oil Program, a buyers’ group of heating oil customers that negotiates better
  - 6           prices for heating oil for members
- 7   Green Energy Consumers Alliance has also offered limited run pilot programs for energy
- 8   technologies such as heat pumps and solar. Green Energy Consumers Alliance members are
- 9   likely to care about the environment and consider themselves “savvy energy consumers” than the
- 10   general population of Massachusetts residents.

**Green Energy Consumers Alliance Member Survey, October 2021**

Q1. What Green Energy Consumers Alliance programs have you participated in? Check all that apply.

Answer Choices	Responses	
None of the above	10.60%	112
Drive Green	24.12%	255
Green Powered	18.83%	199
Shave The Peak	31.03%	328
Heating Oil	39.17%	414
Solar with EnergySage	7.19%	76
Heat Pump Group Buy	1.61%	17
Donor	13.53%	143
Other - please specify	4.73%	50
	<b>Answered</b>	<b>1057</b>
	<b>Skipped</b>	<b>6</b>

Q2. Who is your electric utility?

Answer Choices	Responses	
Eversource	51.42%	543
National Grid	39.11%	413
Unitil	0.85%	9
A municipal utility (list the name below)	8.62%	91
	<b>Answered</b>	<b>1056</b>
	<b>Skipped</b>	<b>7</b>

Q3. Do you own/drive an electric vehicle (EV)?

Answer Choices	Responses	
Yes	33.02%	351
No	66.98%	712
	<b>Answered</b>	<b>1063</b>
	<b>Skipped</b>	<b>0</b>

Q4. Where do you mostly charge your electric car?

Answer Choices	Responses	
A single-family home that I own	76.32%	261
A single-family home that I rent	0.29%	1
A condo unit I own	6.73%	23

An apartment unit I rent	0.88%	3
Public charging stations	8.48%	29
Work	3.22%	11
Other (please specify)	4.09%	14
	<b>Answered</b>	<b>342</b>
	<b>Skipped</b>	<b>721</b>

Q5. If you ever use public charging stations, where are they located?  
 Please leave blank if you charge using public stations once a month or less.

Answer Choices	Responses	
Shopping area	55.30%	120
Public parking/garage, including municipal parking	58.06%	126
Highways/rest stops while traveling	8.76%	19
School	2.76%	6
Work	9.22%	20
Other (dealerships, park, bank, hotel, gym etc)	16.13%	35
	<b>Answered</b>	<b>217</b>
	<b>Skipped</b>	<b>846</b>

Q6. How often do you charge during "peak" hours - from 1pm to 9pm on weekdays?

Answer Choices	Responses	
Most of the time	15.84%	54
Sometimes	46.33%	158
Never or very infrequently	37.83%	129
	<b>Answered</b>	<b>341</b>
	<b>Skipped</b>	<b>722</b>

Q7. If you often charge your EV between 1pm to 9pm, could your schedule accomodate shifting to charging at nighttime?

Answer Choices	Responses	
Yes	59.20%	206
No	5.46%	19
Not applicable	14.94%	52
I already do	20.40%	71
	<b>Answered</b>	<b>348</b>
	<b>Skipped</b>	<b>715</b>

Q8. Are you considering an electric car for your next vehicle?

Answer Choices	Responses	
Yes	50.13%	386
No	16.75%	129
Maybe	33.12%	255
	<b>Answered</b>	<b>770</b>
	<b>Skipped</b>	<b>293</b>

Q9. Where do you think you would do most of your charging if you owned an electric car?

Answer Choices	Responses	
At home	68.61%	529
Public stations around me	7.39%	57
At work	2.33%	18
I don't know	21.66%	167
	<b>Answered</b>	<b>771</b>
	<b>Skipped</b>	<b>292</b>

Q10. On a scale of 1-5, 1 being the lowest and 5 being the highest, how do you rank the public charging network in Massachusetts currently, with

Answer Choices	Responses	
1 - The existing network does not meet my needs as a driver.	21.40%	184
2	31.74%	273
3	40.47%	348
4	4.88%	42
5 - Charging stations are always exactly where I need them.	1.51%	13
	<b>Answered</b>	<b>860</b>
	<b>Skipped</b>	<b>203</b>

Q11. Provide reasoning for your choice above.

<b>Answered</b>	<b>865</b>
<b>Skipped</b>	<b>198</b>

Q12. Where do you think charging needs to be installed within Massachusetts to allow more people to feel comfortable driving electric cars?

Top Answers	Responses
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gas stations, rest stops, highways	36.16%	311
town centers and municipal lots	6.05%	52
parking lots	13.95%	120
shopping centers, malls and grocery stores	25.58%	220
parks	7.91%	68
restaurants	3.37%	29
schools	3.14%	27
workplaces	6.40%	55
<b>Answered</b>	<b>860</b>	
<b>Skipped</b>	<b>203</b>	

Q13. Where do you personally wish there was more public charging in Massachusetts? Be as specific as possible - a town on Cape Cod, along I-95, etc.

Top Answers	Responses	
Boston	5.70%	44
Mass Pike	4.02%	31
Cape Cod	4.15%	32
Provincetown	1.04%	8
Framingham	0.91%	7
Newton	0.91%	7
Pittsfield	1.04%	8
I-95	4.40%	34
I-90	1.68%	13
I-93	1.17%	9
Berkshires	1.17%	9
North Shore	1.42%	11
Somerville	0.91%	7
Quincy	0.78%	6
Northampton	0.65%	5
Western Mass	2.59%	20
Worcester	1.30%	10
Cambridge	1.42%	11
<b>Answered</b>	<b>772</b>	<b>272</b>
<b>Skipped</b>	<b>291</b>	

Q14. Have you heard of "peak times" related to electricity usage before?

Answer Choices	Responses	
Yes	97.13%	913
No	2.87%	27
	<b>Answered</b>	<b>940</b>
	<b>Skipped</b>	<b>123</b>

Q15. Have you heard of off-peak charging programs that reward electric vehicle drivers for charging mostly at nighttime?

Answer Choices	Responses	
Yes	50.32%	473
No	49.68%	467
	<b>Answered</b>	<b>940</b>
	<b>Skipped</b>	<b>123</b>

Q16. Have you heard of charging programs managed by the utility that automatically lower the electricity use of charging units during peak periods?

Answer Choices	Responses	
Yes	34.61%	326
No	65.39%	616
	<b>Answered</b>	<b>942</b>
	<b>Skipped</b>	<b>121</b>

Q17. On a scale of 1 to 5, if you drive an electric vehicle now or may drive one in the future, how likely are you to participate in an off-peak or managed charging program if it was offered by your utility company and decreased your overall fuel costs?

Answer Choices	Responses	
1 - Not at all likely	2.58%	24
2	0.86%	8
3 - Somewhat likely	8.49%	79
4	11.06%	103
5 - Extremely likely	69.28%	645
N/A	7.73%	72
	<b>Answered</b>	<b>931</b>
	<b>Skipped</b>	<b>132</b>



Q18. Off-peak and managed charging programs must collect data on your charging behavior to reward you accordingly. Please check the data collection methods below that you would be comfortable with.

Answer Choices	Responses	
None of the above	8.82%	81
Data collection device plugged into your vehicle	43.57%	400
Smart WiFi enabled charging station	52.51%	482
Smart meter to replace your existing electric meter	63.51%	583
	<b>Answered</b>	<b>918</b>
	<b>Skipped</b>	<b>145</b>

Q19. Several different programs exist to encourage consumers to use less electricity during peak electricity periods. Do you:

Answer Choices	Responses	
Reduce use due to text or email peak alerts through Green Energy Consumers' Shave the Peak program	50.91%	365
Reduce use due to emails from your utility company on peak days	22.87%	164
Have a smart thermostat enrolled in a "ConnectedSolutions" program	13.81%	99
Have battery storage system enrolled in a "Connected Solutions" program	5.58%	40
Other (please specify)	30.82%	221
	<b>Answered</b>	<b>717</b>
	<b>Skipped</b>	<b>346</b>

Q20. Would you do more to reduce your electricity use during peak periods if you were incentivized to do so, in the form of reduced energy bills or direct payments?

Answer Choices	Responses	
Yes	90.20%	819
No	9.80%	89
	<b>Answered</b>	<b>908</b>
	<b>Skipped</b>	<b>155</b>

Q21. Would you like to know how much electricity you save during peak periods?

Answer Choices	Responses	
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Yes	89.39%	817
No	10.61%	97
	<b>Answered</b>	<b>914</b>
	<b>Skipped</b>	<b>149</b>

Q22. Do you currently have any technology to help you reduce energy consumption during peak times?

Answer Choices	Responses	
Smart thermostat	55.82%	302
Smart EV charger	9.98%	54
Battery storage	3.88%	21
Sense Energy Monitor (or another real-time electricity usage monitor)	5.36%	29
Other (please specify)	40.67%	220
	<b>Answered</b>	<b>541</b>
	<b>Skipped</b>	<b>522</b>

Q23. If given the choice, would you choose to have a smart electric meter in your home?

Answer Choices	Responses	
Yes	74.86%	682
No	3.73%	34
I'm not sure	21.41%	195
	<b>Answered</b>	<b>911</b>
	<b>Skipped</b>	<b>152</b>

Q24. If given the choice, would you prefer to have flat electricity rates, which we currently have, or "time of use" electricity rates, which reduce the cost of electricity when you use electricity during off-peak times? (Off-peak hours are generally during nighttime and weekends.)

Answer Choices	Responses	
Flat electricity rates	9.40%	85
Time of use rates	59.18%	535
I'm not sure	31.42%	284
	<b>Answered</b>	<b>904</b>
	<b>Skipped</b>	<b>159</b>

Q25. Do you have any concerns about smart meters being rolled out in Massachusetts?

Answer Choices	Responses	
Yes	9.40%	85
No	59.18%	535
I'm not sure	31.42%	284
<b>Answered</b>	<b>720</b>	
<b>Skipped</b>	<b>343</b>	

Q26. Do you have any questions or comments related to smart meters?

<b>Answered</b>	<b>574</b>
<b>Skipped</b>	<b>489</b>