5-2023

Determinants of Demand Response Program Participation

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Smart Thermostat Project

Start of Block: Information

consent

Your Household's Electricity Use: We Want to Know Your Opinion

Informed Consent for Survey

This survey is being conducted by Dr. J.M. Chermak from the University of New Mexico Department of Economics in Albuquerque, NM, United States (US). The purpose of the research is to investigate how US households use electricity in their homes and their views towards programs intended to change their timing of electricity use throughout the day. You are being asked to participate because you volunteered to participate in online surveys through Qualtrics or one of their partners.

Your participation will involve answering questions about your energy use in an online survey. The survey should take about 20 minutes to complete. The survey includes questions such as, "During the summer, what temperature do you set on your home cooling device on a typical weekday?". Your involvement in the research is voluntary, and you may choose not to participate. You can refuse to answer any of the questions at any time. There are no names or identifying information associated with your responses. There are no known risks in this research, but some individuals may experience discomfort or loss of privacy when answering questions. Data will be stored on Qualtrics servers with industry standard security. Further information can be found at https://www.qualtrics.com/security-statement/. The de-identified information may be used for future research or shared with other researchers without your additional informed consent.

The findings from this project will provide information on residential electricity usage and views on programs designed to change usage habits. If published, results will be presented in summary form only.

If you have any questions, concerns, or complaints about the research, please feel free to call Dr. J.M. Chermak at [redacted]. If you have questions regarding your rights as a research participant, or about what you should do in case of any harm to you, or if you want to obtain information or offer input, please contact the UNM Office of the IRB (OIRB) at (505) 277-2644 or irb.unm.edu.

- ○ No, I do not agree to participate in this study (0)
- ○ Yes, I agree to participate in this study (1)

Skip To: End of Block If Your Household's Electricity Use: We Want to Know Your Opinion Informed Consent for Survey This... = No, I do not agree to participate in this study

Skip To: End of Block If Your Household's Electricity Use: We Want to Know Your Opinion Informed Consent for Survey This... = Yes, I agree to participate in this study

Display This Question:

If Your Household's Electricity Use: We Want to Know Your Opinion Informed Consent for Survey This... , Yes, I agree to participate in this study Is Not Displayed

surveyfail1 Unfortunately, you do not meet the basic requirements to take this survey. Thank you for your time.

Skip To: End of Block If Unfortunately, you do not meet the basic requirements to take this survey. Thank you for your time. Is Displayed

End of Block: Information

Start of Block: Screener Questions

info111 We are going to begin with some initial questions to determine your eligibility to take part-in the full survey.

Page Break

coolingthermo Does your household have a **controllable thermostat** connected to a **cooling** system (e.g., AC, evaporative cooler, heat pump, etc.)?

- ○ No (0)
- ○ Yes (1)
- ○ I don't have a cooling system in my home (2)

Skip To: End of Block If Does your household have a controllable thermostat connected to a cooling system (e.g., AC, evapo... = No

Skip To: End of Block If Does your household have a controllable thermostat connected to a cooling system (e.g., AC, evapo... = I don t have a cooling system in my home

getsbill Does your household receive a monthly electric bill directly from a power or utility company?

- ○ No (0)
- ○ Yes (1)

Skip To: End of Block If Does your household receive a monthly electric bill directly from a power or utility company? = No

paysbill Is the monthly electric bill you pay only for your household’s electricity use (and not for other houses, other apartments, or any other residential housing unit)?

- ○ No, the monthly electric bill I pay is for multiple houses, apartments, or other residential units (0)
- ○ Yes, the monthly electric bill I pay is only for my household’s electricity use (1)

Skip To: End of Block If Is the monthly electric bill you pay only for your household’s electricity use (and not for other... = No, the monthly electric bill I pay is for multiple houses, apartments, or other residential units

X→

rent Do you rent or own your primary residence?

- ○ Rent (0)
- ○ Own (1)

Skip To: gender If Do you rent or own your primary residence? = Own

Skip To: rentpermis If Do you rent or own your primary residence? = Rent

X→

rentpermis Since you indicated that you rent your primary residence, do you have permission (or could likely obtain permission) from your landlord to upgrade your cooling thermostat?

- ○ No (0)
- ○ Yes, I have permission from my landlord (1)
- ○ Yes, I could likely obtain permission from my landlord (2)

Skip To: End of Block If Since you indicated that you rent your primary residence, do you have permission (or could likely... = No

X→

gender What is your gender?

- ○ Male (0)
- ○ Female (1)
- ○ Other or none of the above (2)

Page Break

age What year were you born?

I was born in the year... (please specify below; **YYYY**)

_____

Page Break

hispanic Do you consider yourself to be Hispanic, Latino, or Spanish?

- ○ No (0)
- ○ Yes (1)

---

race Which of the following best describes your race? Check all that apply.

- ☐ White (1)
- ☐ Black or African American (2)
- ☐ Asian (3)
- ☐ Native Hawaiian or Pacific Islander (4)
- ☐ Native American or Alaska Native (5)
- ☐ Other (please specify below) (6) _____

Page Break

region What region do you live in?

- ○ Midwest (1)
- ○ Northeast (2)
- ○ South (3)
- ○ West (4)

Display This Question:

If Your Household's Electricity Use: We Want to Know Your Opinion Informed Consent for Survey This... , No, I do not agree to participate in this study Is Not Displayed

surveyfail Unfortunately, you do not meet the basic requirements to take this survey. Thank you for your time.

Skip To: End of Block If Unfortunately, you do not meet the basic requirements to take this survey. Thank you for your time. Is Displayed

End of Block: Screener Questions

Start of Block: Energy Use

info1 Based on your responses to the screening questions, you are eligible to take-part in the full survey.

This survey involves real policy choices about important issues, and we will provide factual information that we want you to consider when choosing responses. This means that you need to avoid lengthy interruptions during the survey process, so we are asking you to complete the survey in a single sitting. As previously noted, the survey should take only about 20 minutes to complete.

On the next page, we are going to present some background information on US energy policy.

Page Break

coolingown

Policy Background

As part of ongoing US energy policy, the Federal Energy Regulatory Commission is currently studying programs designed to better match residential electricity use with available supplies of electricity. This survey, funded by the National Science Foundation, is part of ongoing national studies of US residential electricity use and energy use policies concerning the long-term reliability of the US electric grid.

The information from this survey may be used by electricity providers across the US to develop residential electricity programs that reward customers for using less electricity during certain parts of the day in order to reduce the likelihood of blackouts (i.e., total loss of electrical service) or brownouts (i.e., reduced voltage).

Whether or not residential electricity use programs are personally worthwhile to your household is one factor that could be considered by US electricity providers and policymakers when developing these programs to meet the Federal Energy Regulatory Commission's policy objectives. Therefore, your answers are important to this study and the decision-making process on future electricity use programs in the US.

We are going to begin by asking you some questions about your household appliance use and your home cooling habits.

Do you have any of the following cooling devices in your home? Check all that apply.

- [ ] Central electric air conditioner ("AC") (1)
- [ ] Evaporative cooler ("swamp cooler") (2)
- [ ] Individual electric window or wall cooling unit (3)
- [ ] Ground heat exchanger or heat pump (4)
- [ ] Fans (ceiling, floor, or tabletop) (5)
- [ ] Other cooling device (6)

Page Break

summertemp .Skin .QuestionBody { overflow-x: hidden; } .Skin .Matrix td.ColumnLabels tr.SpreadLabels td.First, .Skin .Matrix td.ColumnLabels tr.SpreadLabels th.First { text-align: right; border: none; } .Skin .Matrix td.ColumnLabels tr.SpreadLabels td.Last, .Skin .Matrix td.ColumnLabels tr.SpreadLabels th.Last { text-align: right; border: none; } .Skin .GAP .QuestionBody, .Skin .Matrix .QuestionBody, .Skin .SBS .QuestionBody { color: #5c5c5c; font-weight: 400; max-width: 720px !important; } .Skin .Matrix table { border-collapse: collapse; } .Skin .Matrix .Likert .MultipleAnswer table td, .Skin .Matrix .Likert .MultipleAnswer table th, .Skin .Matrix .Likert .SingleAnswer table td, .Skin .Matrix .Likert .SingleAnswer table th { padding: 2px; } During a typical summer day (June-August), what temperature do you set on your primary home cooling thermostat?

	Lower than 64°F (1)	64-69°F (2)	70-74°F (3)	75-79°F (4)	80-84°F (5)	Higher than 84°F (6)
When someone is at home (choose one option) (summertemp_1)	○	○	○	○	○	○
When no one is at home (choose one option) (summertemp_2)	○	○	○	○	○	○
When someone is at home (choose one option) (summertemp_3)	○	○	○	○	○	○
When no one is at home (choose one option) (summertemp_4)	○	○	○	○	○	○

timehome On a typical summer day (June-August), is anyone at your home during the following hours?

	5am - 9am (early morning) (1)	9am - 5pm (daytime) (2)	5pm - 9pm (evening) (3)	9pm - 5am (overnight) (4)
Weekday (Check all that apply) (1)	☐	☐	☐	☐
Weekend (Check all that apply) (2)	☐	☐	☐	☐

Page Break

applianceown Do you have any of the following household appliances? Check all that apply.

- [ ] Washing machine (1)
- [ ] Electric clothes dryer (non-gas) (2)
- [ ] Dishwasher (3)
- [ ] Electric water heater (non-gas) (4)
- [ ] Refrigerator and/or stand-alone freezer (5)
- [ ] ⊗ I have none of the above appliances in my home (6)

applianceuse During a typical summer week, how many times do you or your family members use the following appliances at your home? .Skin .Matrix td.ColumnLabels tr.SpreadLabels td.First, .Skin .Matrix td.ColumnLabels tr.SpreadLabels th.First { text-align: right; border: none; } .Skin .Matrix td.ColumnLabels tr.SpreadLabels td.Last, .Skin .Matrix td.ColumnLabels tr.SpreadLabels th.Last { text-align: right; border: none; } .Skin .GAP .QuestionBody, .Skin .Matrix .QuestionBody, .Skin .SBS .QuestionBody { color: #5c5c5c; font-weight: 400; max-width: 720px !important; } .Skin .Matrix table { border-collapse: collapse; } .Skin .Matrix .Likert .MultipleAnswer table td, .Skin .Matrix .Likert .MultipleAnswer table th, .Skin .Matrix .Likert .SingleAnswer table td, .Skin .Matrix .Likert .SingleAnswer table th { padding: 2px; border-color: black; border-bottom: 1px solid black; border-right: 1px solid black; } .Skin .QuestionBody { overflow-x: hidden; }

	I don't have this device in my home (9)	0 times per week (0)	1 time per week (1)	2 times per week (2)	3 times per week (3)	4 times per week (4)	5 times per week (5)	6 times per week (6)	7 times per week (7)
Washing Machine (choose one option) (applianceuse_1)	○	○	○	○	○	○	○	○	○
Electric Clothes Dryer (choose one option) (applianceuse_2)	○	○	○	○	○	○	○	○	○
Dishwasher (choose one option) (applianceuse_3)	○	○	○	○	○	○	○	○	○

Display This Question:

If Do you have any of the following household appliances? Check all that apply. = Washing machine

washtime_week On a typical summer weekday, when is your household likely to wash clothes at home? Select the option that best applies to your household.

- ○ 6am - 9am (early morning) (1)
- ○ 9am - 2pm (midday) (2)
- ○ 2pm - 8pm (late afternoon/evening) (3)
- ○ 8pm - midnight (late evening) (4)
- ○ Midnight - 6am (overnight) (5)
- ○ I don't wash clothes on weekdays (6)

Display This Question:

If Do you have any of the following household appliances? Check all that apply. = Washing machine

washtime_weekend On a typical summer weekend, when is your household likely to wash clothes at home? Select the option that best applies to your household.

- ○ 6am - 9am (early morning) (1)
- ○ 9am - 2pm (midday) (2)
- ○ 2pm - 8pm (late afternoon/evening) (3)
- ○ 8pm - midnight (late evening) (4)
- ○ Midnight - 6am (overnight) (5)
- ○ I don't wash clothes on weekends (6)

Page Break

Display This Question:

If Do you have any of the following household appliances? Check all that apply. = Electric clothes dryer (non-gas)

dryertime_weekday On a typical summer weekday, when is your household likely to dry clothes at home using an electric clothes dryer? Select the option that best applies to your household.

- 6am - 9am (early morning) (1)
- 9am - 2pm (midday) (2)
- 2pm - 8pm (late afternoon/evening) (3)
- 8pm - midnight (late evening) (4)
- Midnight - 6am (overnight) (5)
- I don't dry clothes on weekdays (6)

Display This Question:

If Do you have any of the following household appliances? Check all that apply. = Electric clothes dryer (non-gas)

dryertime_weekend On a typical summer weekend, when is your household likely to dry clothes at home using an electric clothes dryer? Select the option that best applies to your household.

- 6am - 9am (early morning) (1)
- 9am - 2pm (midday) (2)
- 2pm - 8pm (late afternoon/evening) (3)
- 8pm - midnight (late evening) (4)
- Midnight - 6am (overnight) (5)
- I don't dry clothes on weekends (6)

Page Break

Display This Question:

If Do you have any of the following household appliances? Check all that apply. = Dishwasher

dishtime_weekday During a typical summer weekday, when is your household likely to run the dishwasher? Select the option that best applies to your household.

- 6am - 9am (early morning) (1)
- 9am - 2pm (midday) (2)
- 2pm - 8pm (late afternoon/evening) (3)
- 8pm - midnight (late evening) (4)
- Midnight - 6am (overnight) (5)
- I don't use the dishwasher during weekdays (8)

Display This Question:

If Do you have any of the following household appliances? Check all that apply. = Dishwasher

dishtime_weekend During a typical summer weekend, when is your household likely to run the dishwasher? Select the option that best applies to your household.

- 6am - 9am (early morning) (1)
- 9am - 2pm (midday) (2)
- 2pm - 8pm (late afternoon/evening) (3)
- 8pm - midnight (late evening) (4)
- Midnight - 6am (overnight) (5)
- I don't use the dishwasher during the weekends (8)

Page Break

typethermo What type of thermostat do you currently have at your home for your primary cooling system? If you have multiple thermostats in your home, please select the option that best describes the most common type you own.

- ○ Manual, analog, or mechanical thermostat (non-digital) (1)
- ○ Digital non-programmable thermostat (2)
- ○ Programmable digital thermostat (3)
- ○ Wi-Fi enabled "smart" digital thermostat (4)
- ○ Not sure (5)

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essentialapps Thinking carefully about which devices you would absolutely need to use, no matter what, which of the following devices do you consider to be the most essential in your home? Check all that apply.

- [ ] Cooling system (1)
- [ ] Heating system (2)
- [ ] Fans (ceiling, floor, or tabletop) (3)
- [ ] Water heater (4)
- [ ] Dishwasher (5)
- [ ] Refrigerator and/or stand-alone freezer (6)
- [ ] Clothes dryer (7)
- [ ] Washing machine (8)
- [ ] Other (please specify below) (9)

_____

Page Break

outage_occurrence How long ago was your household's most recent power outage?

- ○ My home has never experienced a power outage (1)
- ○ Less than 6 months ago (2)
- ○ More than 6 months, but less than 1 year ago (3)
- ○ More than 1 year ago (4)
- ○ Not sure (5)

Skip To: dr_experience If How long ago was your household's most recent power outage? = My home has never experienced a power outage

Skip To: dr_experience If How long ago was your household's most recent power outage? = Not sure

outage_recent_length Approximately how long was your household's most recent power outage?

- ○ A few minutes, but less than one hour (1)
- ○ A few hours (1-4 hours) (2)
- ○ Multiple hours (5-11 hours) (3)
- ○ Half a day to a full day (12-24 hours) (4)
- ○ 1-3 days (5)
- ○ 4-6 days (6)
- ○ One week (7 days) (7)
- ○ More than one week, but less than one month (8)
- ○ Greater than one month (9)

outage_longest To the best of your memory, what is the longest power outage ever experienced by your household?

- ○ A few minutes, but less than one hour (1)
- ○ A few hours (1-4 hours) (2)
- ○ Multiple hours (5-11 hours) (3)
- ○ Half a day to a full day (12-24 hours) (4)
- ○ 1-3 days (5)
- ○ 4-6 days (6)
- ○ One week (7 days) (7)
- ○ More than one week, but less than one month (8)
- ○ Greater than one month (9)

X→

outage_longest_lengt How long ago was your household's longest power outage?

- ○ Less than 6 months ago (0)
- ○ More than 6 months, but less than 1 year ago (1)
- ○ More than 1 year ago (2)

Page Break

dr_experience Has your household ever participated (or is currently participating) in a demand response or energy management program with an electricity provider? For example, a program that rewards your household for reducing electricity and/or appliance use during certain hours of the day.

- ○ No (0)
- ○ Yes (1)

Page Break

dr_info
On the next few pages, we are going to present some specific information on energy management programs being considered by US electricity providers.

Page Break

End of Block: Energy Use

Start of Block: Residential Energy Management Programs

remp_info

Residential Energy Management Programs US electricity providers are currently considering two energy programs – called "Program A" and "Program B" – that would reduce residential electricity use during times of day when demand for electricity tends to be highest, such as in the evening and morning.

The programs differ in terms of the level of control that your electric provider would have over your household appliances and cooling system, the prices your household pays for electricity, and the environmental impacts associated with electricity generation.

Each program may have both *market effects* (e.g., on electricity prices, electric grid reliability, general economic activity) and *non-market effects* (on things that are not bought and sold in the market, such as effects on personal comfort, particular ways of life, and the environment) on households in the US. When answering the questions that follow, we ask that you consider both the market and non-market effects, including any impacts that your household personally values.

Page Break

demp_info

Descriptions of the Energy Management Programs

On the next several pages, we will present you with some information on the two energy programs under consideration - Programs A and B. At the end of each description, we will describe the likely impact of the two programs to your household, the electric grid system, and the natural environment. Impacts of the two programs are based on current scientific knowledge. All described impacts are relative to the current level of effects in your community.

While there are no current plans to implement these specific energy programs in your community, there is a possibility that these programs, or programs similar to them, may be offered by your electricity provider in the future. Therefore, we ask you to carefully consider each program's impact to you and your household. Your responses will help inform future US energy policy.

We will begin with a description of Program A.

Page Break

End of Block: Residential Energy Management Programs

Start of Block: Program A1

Display This Question:

If Group = Track1

programA_1

Program A

Consider a program where a free “smart” digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

Once installed, the smart thermostat will operate just like a regular digital thermostat that can be adjusted to a desired temperature setting. However, during the summer months (June-August) the thermostat may: Automatically raise your temperature setting by 2-3°F above your average weekday setting for up to 90 minutes at a time on summer weekdays when there is an increased risk of a blackout or brownout. Automatically raise your temperature setting by up to 5°F (but never higher than 79°F) above your average weekday setting for up to 90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electricity provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program A: Reduced electricity use, which may lower your household’s monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines

Display This Question:

If Group = Track2

programA_2

Program A

Consider a program where a free “smart” digital thermostat will be professionally installed in

your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

Once installed, the smart thermostat will operate just like a regular digital thermostat that can be adjusted to a desired temperature setting. However, during the summer months (June-August) the thermostat may: Automatically raise your temperature setting by 2-3°F above your average weekday setting for up to 90 minutes at a time on summer weekdays when there is an increased risk of a blackout or brownout. Automatically raise your temperature setting by up to 5°F (but never higher than 79°F) above your average weekday setting for up to 90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electric provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program A: Reduced electricity use, which may lower your household's monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines. Small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change.

Display This Question:

If Group = Track3

programA_3

Program A

Consider a program where a free "smart" digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

Once installed, the smart thermostat will operate just like a regular digital thermostat that can

be adjusted to a desired temperature setting. However, during the summer months (June-August) the thermostat may: Automatically raise your temperature setting by 2-3°F above your average weekday setting for up to 90 minutes at a time on summer weekdays when there is an increased risk of a blackout or brownout. Automatically raise your temperature setting by up to 5°F (but never higher than 79°F) above your average weekday setting for up to 90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electric provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program A: Reduced electricity use, which may lower your household's monthly electric bill.Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area.Delay the need for additional infrastructure investments in power plants and transmission lines.Small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change.Fewer power plant air pollution emissions, which might positively impact the health of residents and families across the US.

vote_programA_1 Think about a situation in which your household has the opportunity to participate in Program A for one summer (June-August), such as by signing up on your electricity provider's website or by responding to a form mailed to you by your provider. At the end of the summer, your household would have the option of deciding whether or not to continue its future participation in the program. Keeping in mind the details of Program A, its impacts to your household and the environment, and the fact that it would not cost you anything, would your household participate in Program A for one summer (June-August)?

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Page Break

Display This Question:

If Group = Track1

JS X→ X→

cvbid_continuousA1t1
At this point in time, it is not certain what the monthly electric bill savings would be to any specific household participating in Program A. Therefore, electricity providers are considering offering a monthly financial money reward to encourage household participation in the program.

This money reward would be in addition to any reductions in your electric bill due to reduced electricity use under the program. The money reward would be in the form of a monthly dollar credit applied to your electric bill balance during the summer months of June-August.

Since the final amount of the money reward has not been determined by providers, we are asking different households about different amounts. Even if the amount we ask seems very low or very high, please answer carefully. This will allow us to determine whether people think the program is worthwhile for their household at whatever level the final money reward is determined to be.

For this study, it is important that you tell us which money reward you prefer, based only on your personal evaluation of what incentive would be required for your household to participate in Program A.

Aggregate results from this study will be made available to US electricity providers and state and Federal electric regulatory agencies. However, no individual-specific results will ever be shared.
Assuming that you do not know by how much your electric bill would decrease under Program A, would your household participate in Program A for one summer (June-August) if your electric provider gave you a **$${e://Field/cv_bid_A}** monthly money reward for each of the months of June, July, and August? Click Here to Review Program A Info

× **Program A**
Consider a program where a free “smart” digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

Once installed, the smart thermostat will operate just like a regular digital thermostat that can be adjusted to a desired temperature setting. However, during the summer months (June-August) the thermostat may: Automatically raise your temperature setting by 2-3°F above your average weekday setting for up to 90 minutes at a time on summer weekdays when there is an increased risk of a blackout or brownout. Automatically raise your temperature setting by up to 5°F (but never higher than 79°F) above your average weekday setting for up to

90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electricity provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program A: Reduced electricity use, which may lower your household's monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Display This Question:

If Group = Track2

JS X→ X→

cvbid_continuousA1t2
At this point in time, it is not certain what the monthly electric bill savings would be to any specific household participating in Program A. Therefore, electricity providers are considering offering a monthly financial money reward to encourage household participation in the program.

This money reward would be in addition to any reductions in your electric bill due to reduced electricity use under the program. The money reward would be in the form of a monthly dollar credit applied to your electric bill balance during the summer months of June-August.

Since the final amount of the money reward has not been determined by providers, we are asking different households about different amounts. Even if the amount we ask seems very low or very high, please answer carefully. This will allow us to determine whether people think the program is worthwhile for their household at whatever level the final money reward is determined to be.

For this study, it is important that you tell us which money reward you prefer, based only on

your personal evaluation of what incentive would be required for your household to participate in Program A.

Aggregate results from this study will be made available to US electricity providers and state and Federal electric regulatory agencies. However, no individual-specific results will ever be shared.

Assuming that you do not know by how much your electric bill would decrease under Program A, would your household participate in Program A for one summer (June-August) if your electric provider gave you a **$${e://Field/cv_bid_A}** monthly money reward for each of the months of June, July, and August? Click Here to Review Program A Info

× **Program A**

Consider a program where a free "smart" digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

Once installed, the smart thermostat will operate just like a regular digital thermostat that can be adjusted to a desired temperature setting. However, during the summer months (June-August) the thermostat may: Automatically raise your temperature setting by 2-3°F above your average weekday setting for up to 90 minutes at a time on summer weekdays when there is an increased risk of a blackout or brownout. Automatically raise your temperature setting by up to 5°F (but never higher than 79°F) above your average weekday setting for up to 90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electric provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program A: Reduced electricity use, which may lower your household's monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines. Small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change.

○ No (0)

○ Yes (1)

○ Not sure (2)

Display This Question:

If Group = Track3

JS X→ X→

cvbid_continuousA1t3
At this point in time, it is not certain what the monthly electric bill savings would be to any specific household participating in Program A. Therefore, electricity providers are considering offering a monthly financial money reward to encourage household participation in the program.

This money reward would be in addition to any reductions in your electric bill due to reduced electricity use under the program. The money reward would be in the form of a monthly dollar credit applied to your electric bill balance during the summer months of June-August.

Since the final amount of the money reward has not been determined by providers, we are asking different households about different amounts. Even if the amount we ask seems very low or very high, please answer carefully. This will allow us to determine whether people think the program is worthwhile for their household at whatever level the final money reward is determined to be.

For this study, it is important that you tell us which money reward you prefer, based only on your personal evaluation of what incentive would be required for your household to participate in Program A.

Aggregate results from this study will be made available to US electricity providers and state and Federal electric regulatory agencies. However, no individual-specific results will ever be shared.
Assuming that you do not know by how much your electric bill would decrease under Program A, would your household participate in Program A for one summer (June-August) if your electric provider gave you a **$${e://Field/cv_bid_A}** monthly money reward for each of the months of June, July, and August? Click Here to Review Program A Info

× **Program A**
Consider a program where a free “smart” digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

Once installed, the smart thermostat will operate just like a regular digital thermostat that can be adjusted to a desired temperature setting. However, during the summer months (June-August) the thermostat may: Automatically raise your temperature setting by 2-3°F above your average weekday setting for up to 90 minutes at a time on summer weekdays when there is an increased risk of a blackout or brownout. Automatically raise your temperature setting by up to 5°F (but never higher than 79°F) above your average weekday setting for up to 90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electric provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program A: Reduced electricity use, which may lower your household's monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines. Small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change. Fewer power plant air pollution emissions, which might positively impact the health of residents and families across the US.

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Display This Question:

If At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

cvconf_continuousA_n On a scale from zero to ten, where zero means *not at all certain* and ten means *completely certain*, how certain are you that your household would not participate in

Program A for one summer (June-August) if it received a **$${e://Field/cv_bid_A}** monthly money reward for each of the months of June, July, and August?

- ○ 0 - Not at all certain (1)
- ○ 1 (2)
- ○ 2 (3)
- ○ 3 (4)
- ○ 4 (5)
- ○ 5 (6)
- ○ 6 (7)
- ○ 7 (8)
- ○ 8 (9)
- ○ 9 (10)
- ○ 10 - Completely certain (11)

Display This Question:

If At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Yes

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Yes

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Yes

cvconf_continuousA_u On a scale from zero to ten, where zero means *not at all certain* and ten means *completely certain*, how certain are you that your household would participate in Program A for one summer (June-August) if it received a **$${e://Field/cv_bid_A}** monthly money reward for each of the months of June, July, and August?

- 0 - Not at all certain (1)
- 1 (2)
- 2 (3)
- 3 (4)
- 4 (5)
- 5 (6)
- 6 (7)
- 7 (8)
- 8 (9)
- 9 (10)
- 10 - Completely certain (11)

Display This Question:

If At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

protest_noA We would like to know why your household would not participate in Program A. Please select the most important reason.

- ○ I'm opposed to giving my electricity provider automatic control of my thermostat (1)
- ○ The proposed temperature setting changes would make it too hot in my home (2)
- ○ I don't like smart digital thermostats (3)
- ○ I don't feel safe having somebody come into my home to install the thermostat (4)
- ○ I need more information about how my electricity provider would decide on which days to raise my home temperature (5)
- ○ I don't trust my electricity provider (6)
- ○ This program is not worth it to me (7)
- ○ The program lasts too long (i.e., one summer is too long) (8)
- ○ The duration of the temperature change (90 minutes) is too long (9)
- ○ The temperature changes of 2-3°F on normal weekdays and up to 5°F on extremely hot weekdays are too large (10)
- ○ The offered money reward is too small (11)
- ○ I'm concerned that my smart thermostat could be hacked (12)
- ○ Other reason (please specify below) (13)

_____

Display This Question:

If At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Not sure

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Not sure

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Not sure

protest_notsureA We would like to know why your household is not sure if it would participate in Program A. Please select the most important reason.

- ○ I'm opposed to giving my electricity provider automatic control of my thermostat (1)
- ○ The proposed temperature setting changes would make it too hot in my home (2)
- ○ I don't like smart digital thermostats (3)
- ○ I don't feel safe having somebody come into my home to install the thermostat (4)
- ○ I need more information about how my electricity provider would decide on which days to raise my home temperature (5)
- ○ I don't trust my electricity provider (6)
- ○ This program is not worth it to me (7)
- ○ The program lasts too long (i.e., one summer is too long) (8)
- ○ The duration of the temperature change (90 minutes) is too long (9)
- ○ The temperature changes of 2-3°F on normal weekdays and up to 5°F on extremely hot weekdays are too large (10)
- ○ The offered money reward is too small (11)
- ○ I'm concerned that my smart thermostat could be hacked (12)
- ○ Other reason (please specify below) (13)

_____

Page Break

believe_energyA We are going to ask you a few more questions about Program A.

Do you think that Program A would actually reduce your home electricity use?

- No (0)
- Yes (1)

---

believe_billA Without the monthly money reward, do you think that Program A would actually reduce your monthly electric bill?

- No (0)
- Yes (1)

---

believe_gridA Do you think that Program A would actually improve the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area?

- No (0)
- Yes (1)

---

believe_infrasA Do you think that Program A would actually delay the need for additional infrastructure investments in power plants and transmission lines?

- No (0)
- Yes (1)

Page Break

Display This Question:

If Group = Track2

Or Group = Track3

believe_GHGA Do you think that Program A would actually lead to a small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change?

- ○ No (0)
- ○ Yes (1)

Display This Question:

If Group = Track3

believe_healthA Do you think that Program A would actually reduce air pollution emissions by power plants, which might positively impact the health of residents and families across the US?

- ○ No (0)
- ○ Yes (1)

---

autocontrolA In general, how likely are you to give your electricity provider the option of automatically controlling your thermostat at your home, for any part of the day, during the following conditions?

	Very Unlikely (1)	Unlikely (2)	Likely (3)	Very Likely (4)
On a typical summer weekday (autocontrolA_1)	○	○	○	○
On days when the electricity demand is very high (e.g., on an extremely hot day) (autocontrolA_2)	○	○	○	○
During disaster events (e.g., a severe storm, wildfire, earthquake) (autocontrolA_3)	○	○	○	○

End of Block: Program A1

Start of Block: Program B1

infob On the next page, we will describe Program B, the second energy management program under consideration. Please carefully read the program description.

As before, all described impacts are relative to the current level of effects in your community.

Page Break

Display This Question:

If Group = Track1

programb_1

Program B

Consider a program where your electricity provider asks your household to move 20% of its 4pm-9pm summertime (June-August) electricity use to other times of the day, such as in the morning, early afternoon, or late at night. This program is expected to reduce your household's monthly summer electric bill by 10%.

However, if your household moved less than 20% of its use to other times of the day, then your household's monthly electric bill could increase by up to 10%.

Some households might like this program because they can lower their summer electric bill by changing when they use electricity. On the other hand, some households might not like this program because they cannot or do not want to change their summer electricity use habits.

Remember, this program does not ask your household to reduce its total electricity use, just to change when electricity is used.

Impacts of Program B: Lower monthly summer electric bills for households who reduce their electricity use between 4pm-9pm during the summer. Higher monthly summer electric bills for households who do not reduce their electricity use between 4pm-9pm during the summer. Potential improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts. Potentially delay the need for additional infrastructure investments in power plants and transmission lines.

Display This Question:

If Group = Track2

programb_2

Program B

Consider a program where your electricity provider asks your household to move 20% of its 4pm-9pm summertime (June-August) electricity use to other times of the day, such as in the morning, early afternoon, or late at night. This program is expected to reduce your household's monthly summer electric bill by 10%.

However, if your household moved less than 20% of its use to other times of the day, then your

household's monthly electric bill could increase by up to 10%.

Some households might like this program because they can lower their summer electric bill by changing when they use electricity. On the other hand, some households might not like this program because they cannot or do not want to change their summer electricity use habits.

Remember, this program does not ask your household to reduce its total electricity use, just to change when electricity is used.

Impacts of Program B: Lower monthly summer electric bills for households who reduce their electricity use between 4pm-9pm during the summer. Higher monthly summer electric bills for households who do not reduce their electricity use between 4pm-9pm during the summer. Potential improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts. Potentially delay the need for additional infrastructure investments in power plants and transmission lines. Potentially a small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change.

Display This Question:

If Group = Track3

programb_3

Program B

Consider a program where your electricity provider asks your household to move 20% of its 4pm-9pm summertime (June-August) electricity use to other times of the day, such as in the morning, early afternoon, or late at night. This program is expected to reduce your household's monthly summer electric bill by up to 10%.

However, if your household moved less than 20% of its use to other times of the day, then your household's monthly electric bill could increase by up to 10%.

Some households might like this program because they can lower their summer electric bill by changing when they use electricity. On the other hand, some households might not like this program because they cannot or do not want to change their summer electricity use habits.

Remember, this program does not ask your household to reduce its total electricity use, just to change when electricity is used.

Impacts of Program B: Lower monthly summer electric bills for households who reduce their electricity use between 4pm-9pm during the summer. Higher monthly summer electric bills

for households who do not reduce their electricity use between 4pm-9pm during the summer. Potential improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts. Potentially delay the need for additional infrastructure investments in power plants and transmission lines. Potentially a small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change. Potentially less air pollution, which might positively impact the health of residents and families across the US.

X→

vote_programB Think about a situation in which your household has the opportunity to participate in Program B for one summer (June-August), such as by signing up on your electricity provider's website or by responding to a form mailed to you by your provider. At the end of the summer, your household would have the option of deciding whether or not to continue its future participation in the program. Keeping in mind the details of Program B and its impacts to your household and the environment, would your household participate in Program B for one summer (June-August)?

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Display This Question:

If Think about a situation in which your household has the opportunity to participate in Program B f... = No

Or Think about a situation in which your household has the opportunity to participate in Program B f... = Not sure

X→

vote_programB_No You indicated that your household would not or was not sure if it would participate in Program B if it decreased your household's monthly electric bill by 10%. If the program instead decreased your electric bill by 20%, would your household participate in Program B for one summer (keeping in-mind all the details of the program, including that your household would have to move 20% of its 4pm-9pm electric use to other times of day or incur an up to 10% electric bill cost increase)?

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Display This Question:

If You indicated that your household would not or was not sure if it would participate in Program B... = No

Or You indicated that your household would not or was not sure if it would participate in Program B... = Not sure

vote_programB_No2 You indicated that your household would not or was not sure if it would participate in Program B if it decreased your household's monthly electric bill by 20%. What percentage reduction in your monthly electric bill, if any, would persuade your household to participate in Program B for one summer (again, keeping in-mind all the details of the program, including that your household would have to move 20% of its 4pm-9pm electric use to other times of day or incur an up to 10% electric bill cost increase)?

- ○ In order to participate in Program B, my household would need a reduction in our monthly electric bill of _____% for moving 20% of our 4pm-9pm electric use (Fill in bellow, between 20-100%) (0) _____
- ○ My household would never participate in this program no matter the electric bill savings (1)

Display This Question:

If Think about a situation in which your household has the opportunity to participate in Program B f... = Yes

vote_programB_Yes You indicated that your household would participate in Program B if it increased your household's monthly electric bill by up to 10% for not moving 20% of its 4pm-9pm electric use to other times of the day. If the program instead increased your bill by up to 20% for not moving 20% of its electric use to other times of the day, would your household still participate in Program B for one summer (keeping in-mind all the details of the program, including the 10% bill reduction for moving 20% of its 4pm-9pm electric use)?

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Page Break

Display This Question:

If You indicated that your household would participate in Program B if it increased your household's... = Yes

vote_programB_Yes2 You indicated that your household would continue to participate in Program B if it increased your household's monthly electric bill by up to 20% for not moving 20% of its 4pm-9pm electric use to other times. What potential electric bill cost increase, if any, would you have to incur for your household to not participate in Program B for one summer?

- In order to not participate in Program B, my household would have to incur an increase in our monthly electric bill of _____% for not moving 20% of our 4pm-9pm electric use (Fill in below, between 20-100%) (0)

  _____

- My household would always participate in this program no matter the electric bill cost increase for not moving 20% of our 4pm-9pm electric use (1)

Page Break

End of Block: Program B1

Start of Block: Program B2

Display This Question:

If Group = Track1

programb_1_2

Program A

Consider a program where your electricity provider asks your household to move 20% of its 4pm-9pm summertime (June-August) electricity use to other times of the day, such as in the morning, early afternoon, or late at night. This program is expected to reduce your household's monthly summer electric bill by 10%.

However, if your household moved less than 20% of its use to other times of the day, then your household's monthly electric bill could increase by up to 10%.

Some households might like this program because they can lower their summer electric bill by changing when they use electricity. On the other hand, some households might not like this program because they cannot or do not want to change their summer electricity use habits.

Remember, this program does not ask your household to reduce its total electricity use, just to change when electricity is used.

Impacts of Program A: Lower monthly summer electric bills for households who reduce their electricity use between 4pm-9pm during the summer. Higher monthly summer electric bills for households who do not reduce their electricity use between 4pm-9pm during the summer. Potential improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts. Potentially delay the need for additional infrastructure investments in power plants and transmission lines.

Display This Question:

If Group = Track2

programb_2_2

Program A

Consider a program where your electricity provider asks your household to move 20% of its 4pm-9pm summertime (June-August) electricity use to other times of the day, such as in the morning, early afternoon, or late at night. This program is expected to reduce your household's monthly summer electric bill by 10%.

However, if your household moved less than 20% of its use to other times of the day, then your household's monthly electric bill could increase by up to 10%.

Some households might like this program because they can lower their summer electric bill by changing when they use electricity. On the other hand, some households might not like this program because they cannot or do not want to change their summer electricity use habits.

Remember, this program does not ask your household to reduce its total electricity use, just to change when electricity is used.

Impacts of Program A: Lower monthly summer electric bills for households who reduce their electricity use between 4pm-9pm during the summer. Higher monthly summer electric bills for households who do not reduce their electricity use between 4pm-9pm during the summer. Potential improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts. Potentially delay the need for additional infrastructure investments in power plants and transmission lines. Potentially a small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change.

Display This Question:

If Group = Track3

programb_3_2

Program A

Consider a program where your electricity provider asks your household to move 20% of its 4pm-9pm summertime (June-August) electricity use to other times of the day, such as in the morning, early afternoon, or late at night. This program is expected to reduce your household's monthly summer electric bill by 10%.

However, if your household moved less than 20% of its use to other times of the day, then your household's monthly electric bill could increase by up to 10%.

Some households might like this program because they can lower their summer electric bill by changing when they use electricity. On the other hand, some households might not like this program because they cannot or do not want to change their summer electricity use habits.

Remember, this program does not ask your household to reduce its total electricity use, just to change when electricity is used.

Impacts of Program A: Lower monthly summer electric bills for households who reduce their electricity use between 4pm-9pm during the summer. Higher monthly summer electric bills

for households who do not reduce their electricity use between 4pm-9pm during the summer. Potential improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts. Potentially delay the need for additional infrastructure investments in power plants and transmission lines. Potentially a small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change. Potentially less air pollution, which might positively impact the health of residents and families across the US.

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vote_programB_2 Think about a situation in which your household has the opportunity to participate in Program A for one summer (June-August), such as by signing up on your electricity provider's website or by responding to a form mailed to you by your provider. At the end of the summer, your household would have the option of deciding whether or not to continue its future participation in the program. Keeping in mind the details of Program A and its impacts to your household and the environment, would your household participate in Program A for one summer (June-August)?

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Display This Question:

If Think about a situation in which your household has the opportunity to participate in Program A f... = No

Or Think about a situation in which your household has the opportunity to participate in Program A f... = Not sure

vote_programB_No_2 You indicated that your household would not or was not sure if it would participate in Program A if it decreased your household's monthly electric bill by 10%. If the program instead decreased your electric bill by 20%, would your household participate in Program A for one summer (keeping in-mind all the details of the program, including that your household would have to move 20% of its 4pm-9pm electric use to other times of day or incur an up to 10% electric bill cost increase)?

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Display This Question:

If You indicated that your household would not or was not sure if it would participate in Program A... = No

Or You indicated that your household would not or was not sure if it would participate in Program A... = Not sure

vote_programB_No2_2 You indicated that your household would not or was not sure if it would participate in Program A if it decreased your household's monthly electric bill by 20%. What percentage reduction in your monthly electric bill, if any, would persuade your household to participate in Program A for one summer (again, keeping in-mind all the details of the program, including that your household would have to move 20% of its 4pm-9pm electric use to other times of day or incur an up to 10% electric bill cost increase)?

- ○ In order to participate in Program A, my household would need a reduction in our monthly electric bill of _____% for moving 20% of our 4pm-9pm electric use (Fill in bellow, between 20-100%) (0) _____
- ○ My household would never participate in this program no matter the electric bill savings (1)

Display This Question:

If Think about a situation in which your household has the opportunity to participate in Program A f... = Yes

vote_programB_Yes_2 You indicated that your household would participate in Program A if it increased your household's monthly electric bill by up to 10% for not moving 20% of its 4pm-9pm electric use to other times of the day. If the program instead increased your bill by up to 20% for not moving 20% of its electric use to other times of the day, would your household still participate in Program A for one summer (keeping in-mind all the details of the program, including the 10% bill reduction for moving 20% of its 4pm-9pm electric use)?

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Display This Question:

If You indicated that your household would participate in Program A if it increased your household's... = Yes

vote_programB_Yes2_2 You indicated that your household would continue to participate in Program A if it increased your household's monthly electric bill by up to 20% for not moving 20% of its 4pm-9pm electric use to other times. What potential electric bill cost increase, if any, would you have to incur for your household to not participate in Program A for one summer?

- ○ In order to not participate in Program A, my household would have to incur an increase in our monthly electric bill of _____% for not moving 20% of our 4pm-9pm electric use (Fill in below, between 20-100%) (0)

  _____

- ○ My household would always participate in this program no matter the electric bill cost increase for not moving 20% of our 4pm-9pm electric use (1)

Page Break

End of Block: Program B2

Start of Block: Program A2

infob_2 On the next page, we will describe Program B, the second energy management program under consideration. Please carefully read the program description.

As before, all described impacts are relative to the current level of effects in your community.

Page Break

Display This Question:

If Group = Track1

programA_1_2

Program B Consider a program where a free “smart” digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

Once installed, the smart thermostat will operate just like a regular digital thermostat that can be adjusted to a desired temperature setting. However, during the summer months (June-August) the thermostat may: Automatically raise your temperature setting by 2-3°F above your average weekday setting for up to 90 minutes at a time on summer weekdays when there is an increased risk of a blackout or brownout. Automatically raise your temperature setting by up to 5°F (but never higher than 79°F) above your average weekday setting for up to 90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electricity provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program B: Reduced electricity use, which may lower your household’s monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines

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Display This Question:

If Group = Track2

programA_2_2

Program B

Consider a program where a free “smart” digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

Once installed, the smart thermostat will operate just like a regular digital thermostat that can be adjusted to a desired temperature setting. However, during the summer months (June-August) the thermostat may: Automatically raise your temperature setting by 2-3°F above your average weekday setting for up to 90 minutes at a time on summer weekdays when there is an increased risk of a blackout or brownout. Automatically raise your temperature setting by up to 5°F (but never higher than 79°F) above your average weekday setting for up to 90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electricity provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program B: Reduced electricity use, which may lower your household's monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines Small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change.

Display This Question:

If Group = Track3

programA_3_2

Program B

Consider a program where a free "smart" digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

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90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electricity provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program B: Reduced electricity use, which may lower your household's monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines Small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change. Fewer power plant air pollution emissions, which might positively impact the health of residents and families across the US.

JS X→

vote_programA_2 Think about a situation in which your household has the opportunity to participate in Program B for one summer (June-August), such as by signing up on your electricity provider's website or by responding to a form mailed to you by your provider. At the end of the summer, your household would have the option of deciding whether or not to continue its future participation in the program. Keeping in mind the details of Program B, its impacts to your household and the environment, and the fact that it would not cost you anything, would your household participate in Program B for one summer (June-August)?

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Page Break

Display This Question:

If Group = Track1

JS X→ X→

cvbid_continuousA2t1
At this point in time, it is not certain what the monthly electric bill savings would be to any specific household participating in Program B. Therefore, electricity providers are considering offering a monthly financial money reward to encourage household participation in the program.

This money reward would be in addition to any reductions in your electric bill due to reduced electricity use under the program. The money reward would be in the form of a monthly dollar credit applied to your electric bill balance during the summer months of June-August.

Since the final amount of the money reward has not been determined by providers, we are asking different households about different amounts. Even if the amount we ask seems very low or very high, please answer carefully. This will allow us to determine whether people think the program is worthwhile for their household at whatever level the final money reward is determined to be.

For this study, it is important that you tell us which money reward you prefer, based only on your personal evaluation of what incentive would be required for your household to participate in Program B.

Aggregate results from this study will be made available to US electricity providers and state and Federal electric regulatory agencies. However, no individual-specific results will ever be shared.
Assuming that you do not know by how much your electric bill would decrease under Program B, would your household participate in Program B for one summer (June-August) if your electric provider gave you a **$${e://Field/cv_bid_A}** monthly money reward for each of the months of June, July, and August? Click Here to Review Program B Info

× **Program B** Consider a program where a free “smart” digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

Once installed, the smart thermostat will operate just like a regular digital thermostat that can be adjusted to a desired temperature setting. However, during the summer months (June-August) the thermostat may: Automatically raise your temperature setting by 2-3°F above your average weekday setting for up to 90 minutes at a time on summer weekdays when there is an increased risk of a blackout or brownout. Automatically raise your temperature setting by up to 5°F (but never higher than 79°F) above your average weekday setting for up to 90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is

over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electricity provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program B: Reduced electricity use, which may lower your household's monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Display This Question:

If Group = Track2

JS X→ X→

cvbid_continuousA2t2
At this point in time, it is not certain what the monthly electric bill savings would be to any specific household participating in Program B. Therefore, electricity providers are considering offering a monthly financial money reward to encourage household participation in the program.

This money reward would be in addition to any reductions in your electric bill due to reduced electricity use under the program. The money reward would be in the form of a monthly dollar credit applied to your electric bill balance during the summer months of June-August.

Since the final amount of the money reward has not been determined by providers, we are asking different households about different amounts. Even if the amount we ask seems very low or very high, please answer carefully. This will allow us to determine whether people think the program is worthwhile for their household at whatever level the final money reward is determined to be.

For this study, it is important that you tell us which money reward you prefer, based only on your personal evaluation of what incentive would be required for your household to participate in

Program B.

Aggregate results from this study will be made available to US electricity providers and state and Federal electric regulatory agencies. However, no individual-specific results will ever be shared.
Assuming that you do not know by how much your electric bill would decrease under Program B, would your household participate in Program B for one summer (June-August) if your electric provider gave you a **$${e://Field/cv_bid_A}** monthly money reward for each of the months of June, July, and August? Click Here to Review Program B Info

× **Program B**
Consider a program where a free "smart" digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

Once installed, the smart thermostat will operate just like a regular digital thermostat that can be adjusted to a desired temperature setting. However, during the summer months (June-August) the thermostat may: Automatically raise your temperature setting by 2-3°F above your average weekday setting for up to 90 minutes at a time on summer weekdays when there is an increased risk of a blackout or brownout. Automatically raise your temperature setting by up to 5°F (but never higher than 79°F) above your average weekday setting for up to 90 minutes at a time on very hot summer weekdays when the outdoor highest temperature is over 95°F. In total, no more than 10 separate automatic temperature increases will occur in your household over an entire summer.

Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electricity provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

No temperature setting changes will occur on summer weekends or during the non-summer months.

Impacts of Program B: Reduced electricity use, which may lower your household's monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines Small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change.

- ○ No (0)
- ○ Yes (1)

○ Not sure (2)

Display This Question:

If Group = Track3

JS X→ X→

cvbid_continousA2t3
At this point in time, it is not certain what the monthly electric bill savings would be to any specific household participating in Program B. Therefore, electricity providers are considering offering a monthly financial money reward to encourage household participation in the program.

This money reward would be in addition to any reductions in your electric bill due to reduced electricity use under the program. The money reward would be in the form of a monthly dollar credit applied to your electric bill balance during the summer months of June-August.

Since the final amount of the money reward has not been determined by providers, we are asking different households about different amounts. Even if the amount we ask seems very low or very high, please answer carefully. This will allow us to determine whether people think the program is worthwhile for their household at whatever level the final money reward is determined to be.

For this study, it is important that you tell us which money reward you prefer, based only on your personal evaluation of what incentive would be required for your household to participate in Program B.

Aggregate results from this study will be made available to US electricity providers and state and Federal electric regulatory agencies. However, no individual-specific results will ever be shared.
Assuming that you do not know by how much your electric bill would decrease under Program B, would your household participate in Program B for one summer (June-August) if your electric provider gave you a **$${e://Field/cv_bid_A}** monthly money reward for each of the months of June, July, and August? Click Here to Review Program B Info

× **Program B**
Consider a program where a free “smart” digital thermostat will be professionally installed in your home by your current electricity provider. This thermostat will be provided to you at no initial cost and with no re-occurring cost. After installation, the technician will explain the main features of the smart thermostat to you and answer any questions you may have regarding its use.

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Whether the smart thermostat actually raises your home temperature will be decided on a daily basis by your electricity provider. Typically, this will only occur on summer weekdays when total electricity demand in your community is high.

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Impacts of Program B: Reduced electricity use, which may lower your household's monthly electric bill. Improvements to the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area. Delay the need for additional infrastructure investments in power plants and transmission lines Small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change. Fewer power plant air pollution emissions, which might positively impact the health of residents and families across the US.

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Display This Question:

If At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

cvconf_continuousA2N On a scale from zero to ten, where zero means *not at all certain* and ten means *completely certain*, how certain are you that your household would not participate in Program B for one summer (June-August) if it received a **$${e://Field/cv_bid_A}** monthly money reward for each of the months of June, July, and August?

- 0 - Not at all certain (1)
- 1 (2)
- 2 (3)
- 3 (4)
- 4 (5)
- 5 (6)
- 6 (7)
- 7 (8)
- 8 (9)
- 9 (10)
- 10 - Completely certain (11)

Display This Question:

If At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Yes

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Yes

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Yes

cvconf_continuousA2Y On a scale from zero to ten, where zero means *not at all certain* and ten means *completely certain*, how certain are you that your household would participate in Program B for one summer (June-August) if it received a **$${e://Field/cv_bid_A}** monthly money reward for each of the months of June, July, and August?

- 0 - Not at all certain (1)
- 1 (2)
- 2 (3)
- 3 (4)
- 4 (5)
- 5 (6)
- 6 (7)
- 7 (8)
- 8 (9)
- 9 (10)
- 10 - Completely certain (11)

Display This Question:

If At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = No

protest_noA_2 We would like to know why your household would not participate in Program B. Please select the most important reason.

- ○ I'm opposed to giving my electricity provider automatic control of my thermostat (1)
- ○ The proposed temperature setting changes would make it too hot in my home (2)
- ○ I don't like smart digital thermostats (3)
- ○ I don't feel safe having somebody come into my home to install the thermostat (4)
- ○ I need more information about how my electricity provider would decide on which days to raise my home temperature (5)
- ○ I don’t trust my electricity provider (6)
- ○ This program is not worth it to me (7)
- ○ The program lasts too long (i.e., one summer is too long) (8)
- ○ The duration of the temperature change (90 minutes) is too long (9)
- ○ The temperature changes of 2-3°F on normal weekdays and up to 5°F on extremely hot weekdays are too large (10)
- ○ The offered money reward is too small (11)
- ○ I’m concerned that my smart thermostat could be hacked (12)
- ○ Other reason (please specify below) (13)

_____

Page Break

Display This Question:

If At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Not sure

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Not sure

Or At this point in time, it is not certain what the monthly electric bill savings would be to any s... = Not sure

protest_notsureA_2 We would like to know why your household is <u>not sure</u> if it would participate in Program B. Please select the <u>most important</u> reason.

- ○ I'm opposed to giving my electricity provider automatic control of my thermostat (1)
- ○ The proposed temperature setting changes would make it too hot in my home (2)
- ○ I don't like smart digital thermostats (3)
- ○ I don't feel safe having somebody come into my home to install the thermostat (4)
- ○ I need more information about how my electricity provider would decide on which days to raise my home temperature (5)
- ○ I don't trust my electricity provider (6)
- ○ This program is not worth it to me (7)
- ○ The program lasts too long (i.e., one summer is too long) (8)
- ○ The duration of the temperature change (90 minutes) is too long (9)
- ○ The temperature changes of 2-3°F on normal weekdays and up to 5°F on extremely hot weekdays are too large (10)
- ○ The offered money reward is too small (11)
- ○ I'm concerned that my smart thermostat could be hacked (12)
- ○ Other reason (please specify below) (13)

_____

Page Break

believe_energyA_2 We are going to ask you a few more questions about Program B.

Do you think that Program B would actually reduce your home electricity use?

- No (0)
- Yes (1)

---

believe_billA_2 Without the monthly money reward, do you think that Program B would actually reduce your monthly electric bill?

- No (0)
- Yes (1)

---

believe_gridA_2 Do you think that Program B would actually improve the reliability of the power supply, thereby decreasing the likelihood of blackouts or brownouts in your service area?

- No (0)
- Yes (1)

---

believe_infrasA_2 Do you think that Program B would actually delay the need for additional infrastructure investments in power plants and transmission lines?

- No (0)
- Yes (1)

Page Break

Display This Question:

If Group = Track2

Or Group = Track3

believe_GHGA_2 Do you think that Program B would actually lead to a small decrease in the amount of greenhouse gases, including CO2, emitted into the atmosphere by power plants, which could decrease the negative effects of climate change?

- ○ No (0)
- ○ Yes (1)

Display This Question:

If Group = Track3

believe_healthA_2 Do you think that Program B would actually reduce air pollution emissions by power plants, which might positively impact the health of residents and families across the US?

- ○ No (0)
- ○ Yes (1)

---

autocontrolA_2 In general, how likely are you to give your electric provider the option of automatically controlling your thermostat at your home, for any part of the day, during the following conditions?

	Very Unlikely (1)	Unlikely (2)	Likely (3)	Very Likely (4)
On a typical summer weekday (1)	○	○	○	○
On days when the electricity demand is very high (e.g., on an extremely hot day) (2)	○	○	○	○
During disaster events (e.g., a severe storm, wildfire, earthquake) (3)	○	○	○	○

Page Break

End of Block: Program A2

Start of Block: Disaster Events

vote_disaster

Electricity Use During Disaster Events

We would now like you to think about your home electricity use during natural disasters, for example, severe storms, wildfires, extreme temperatures, or earthquakes.

Suppose a regional disaster occurs that does not physically damage your community or your person, but does affect the ability of your electricity provider to deliver enough electricity to meet normal demand for the next several days. This may result in some households randomly experiencing blackouts or brownouts for up to several hours each day. Your household may have little or even no warning prior to a blackout or brownout event.

However, if enough residents in your community voluntarily reduce their electricity use during the affected time period, it is likely that every household will have enough electricity for essential devices. With sufficient voluntary electricity reductions, the likelihood of blackouts or brownouts would be significantly reduced.

Would you voluntarily reduce your electricity use if asked to do so by your electricity provider in order to reduce the likelihood of blackouts or brownouts after this disaster?

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

neigh_disaster How likely do you think it is that your immediate neighbors would voluntarily reduce their electricity use if asked to do so by their electricity provider after this disaster?

- ○ Highly unlikely (0)
- ○ Unlikely (1)
- ○ Likely (2)
- ○ Highly likely (3)

Page Break

cvbid_continuous_dis

Suppose that during the several day period when your community's electricity supply was limited due to the disaster, your provider offered your household a one-time lump sum money reward to reduce your average daily electricity use by half.

It would be up to your individual household to decide how best to reduce its electricity use. The money reward would only be paid for electricity use reductions done during the affected time period.

Since the final amount of the money reward has not been determined by providers, we are asking different households about different amounts. Even if the amount we ask seems very low or very high, please answer carefully. This will allow us to determine whether people think the program is worthwhile for their household at whatever level the final money reward is determined to be.

The money reward would be applied to your monthly electric bill balance in the form of a credit. Thus, your electric bill would be reduced by the amount of the money reward.

Would your household reduce its daily electricity use by half during the several day disaster event period if your electric provider gave you a one-time lump sum **$${e://Field/cv_bid_dis}** money reward, which would be in addition to your savings from your reduced electricity use?

- ○ No (0)
- ○ Yes (1)
- ○ Not sure (2)

Page Break

Display This Question:

If Suppose that during the several day period when your community's electricity supply was limited d... = No

cvconf_continous_dn On a scale from zero to ten, where zero means *not at all certain* and ten means *completely certain*, how certain are you that your household would not reduce its daily electricity use by half during the disaster event period if it received a one-time lump sum **$${e://Field/cv_bid_dis}** money reward?

- 0 - Not at all certain (1)
- 1 (2)
- 2 (3)
- 3 (4)
- 4 (5)
- 5 (6)
- 6 (7)
- 7 (8)
- 8 (9)
- 9 (10)
- 10 - Completely certain (11)

Display This Question:

If Suppose that during the several day period when your community's electricity supply was limited d... = Yes

cvconf_continous_dy On a scale from zero to ten, where zero means *not at all certain* and ten means *completely certain*, how certain are you that your household would reduce its daily electricity use by half during the disaster event period if it received a one-time lump sum **$${e://Field/cv_bid_dis}** money reward?

- 0 - Not at all certain (1)
- 1 (2)
- 2 (3)
- 3 (4)
- 4 (5)
- 5 (6)
- 6 (7)
- 7 (8)
- 8 (9)
- 9 (10)
- 10 - Completely certain (11)

Display This Question:

If Suppose that during the several day period when your community's electricity supply was limited d... = No

protest_no_dis We would like to know why your household would not reduce its average electricity use by half after the disaster event. Please select the most important reason.

- ○ There will be a blackout or brownout anyways, even if I save electricity (1)
- ○ I don't think there will actually be any blackouts or brownouts due to the disaster event (2)
- ○ I don't think my electricity-saving behaviors will make a difference (3)
- ○ I'm just not willing to reduce my electricity use during a disaster event (4)
- ○ I or another member of my household has a medical or health condition that would require electricity use, and I'm not willing to risk my/their health to save electricity (5)
- ○ I need more information (6)
- ○ I don't trust my current electricity provider (7)
- ○ The offered money reward is too small (8)
- ○ The event period is too long for me (9)
- ○ I don't think all my neighbors would participate (10)
- ○ Other reason (please specify below) (11)

_____

Display This Question:

If Suppose that during the several day period when your community's electricity supply was limited d... = Not sure

protest_notsure_dis We would like to know why your household is not sure if it would reduce its average electricity use by half after the disaster event. Please select the most important reason.

- ○ There will be a blackout or brownout anyways, even if I save electricity (1)
- ○ I don't think there will actually be any blackouts or brownouts due to the disaster event (2)
- ○ I don't think my electricity-saving behaviors will make a difference (3)
- ○ I'm just not willing to reduce my electricity use during a disaster event (4)
- ○ I or another member of my household has a medical or health condition that would require electricity use, and I'm not willing to risk my/their health to save electricity (5)
- ○ I need more information (6)
- ○ I don't trust my current electricity provider (7)
- ○ The offered money reward is too small (8)
- ○ The event period is too long for me (9)
- ○ I don't think all my neighbors would participate (10)
- ○ Other reason (please specify below) (11)

_____

Page Break

End of Block: Disaster Events

Start of Block: Control Questions

Q157
Next, we are going to ask you some additional questions regarding your thoughts on energy management programs.

Page Break

control Suppose your household had smart appliances (i.e., they are internet controllable) that your electricity provider could control with your permission. In general, would you be willing to let your electricity provider control your household's smart appliances in order to improve power grid reliability?

- No (0)
- Yes (1)

---

neighbors How likely do you think it is that your immediate neighbors would participate in energy management programs similar to those described in this survey, if given the opportunity to do so?

- Highly unlikely (0)
- Unlikely (1)
- Likely (2)
- Highly likely (3)

---

consider Do you think that electricity providers will consider the results of this study, along with other evidence, when designing future energy management programs similar to those described in this survey?

- No (0)
- Yes (1)

Page Break

End of Block: Control Questions

Start of Block: Characteristics

Q158
Next, we are going to ask you some questions regarding your thoughts on energy conservation and the environment.

Page Break

saveenergy On a scale from zero to four, where zero means *not at all important* and four means *very important*, in general, how important is energy conservation to you personally?

- 0 - Not at all important (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 - Very important (4)

---

energycost On a scale from zero to four, where zero means *not carefully at all* and four means *very carefully*, how carefully do you track your household electricity use from month-to-month?

- 0 - Not carefully at all (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 - Very carefully (4)

---

energysupply On a scale from zero to four, where zero means *strongly disagree* and four means *strongly agree*, how much do you agree with the following statement?: “It is important to have as much electricity as I need when I need it.”

- ○ 0 - Strongly disagree (0)
- ○ 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ 4 - Strongly agree (4)

Page Break

reliable On a scale from zero to four, where zero means *not at all reliable* and four means *very reliable*, how reliable do you think your current electricity provider is at supplying your household with electricity?

- 0 - Not at all reliable (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 - Very reliable (4)

---

bestinterest Do you think that your current electricity provider always keeps customers' best interests in mind when making decisions?

- No (0)
- Yes (1)

---

budgetconstraint On a scale from zero to four, where zero means *not at all difficult* and four means *very difficult*, given your household's monthly income, how difficult do you find it to pay your electricity bill each month?

- ○ 0 - Not at all difficult (0)
- ○ 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ 4 - Very difficult (4)

X→

reasonable Do you think the prices offered by your electricity provider are reasonable, in your opinion?

- ○ No (0)
- ○ Yes (1)

Page Break

habits How often do you perform the following actions during a typical week at your home?

	Never or rarely (1)	Sometimes (2)	Most of the time (3)	Always (4)	NOT APPLICABLE (N/A) (5)
Turn off the lights when they are not in use or when you leave a room (habits_1)	○	○	○	○	○
Raise the thermostat setting on your cooling system when you leave the house in the summer (habits_2)	○	○	○	○	○
Lower the thermostat setting on your heating system when you leave the house in the winter (habits_3)	○	○	○	○	○
Only use the washing machine and clothes dryer when you have a full load of clothes (habits_4)	○	○	○	○	○
Only run the dishwasher when you have a full load of dishes (habits_5)	○	○	○	○	○

Page Break

nature On a scale from zero to four, where zero means that nature is *robust and not easily damaged* and four means nature is *fragile and easily damaged*, how do you view nature?

- 0 - Robust and not easily damaged (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 - Fragile and easily damaged (4)

---

pollution On a scale from zero to four, where zero means *not at all concerned* and four means *very concerned*, how concerned are you about air and water pollution created by electricity production at power plants?

- 0 - Not at all concerned (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 - Very concerned (4)

---

climate On a scale from zero to four, where zero means *not at all concerned* about four means *very concerned*, how concerned are you about greenhouse gas and CO2 emissions created by electricity production at power plants?

- 0 - Not at all concerned (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 - Very concerned (4)

---

tech On a scale from zero to four, where zero means *not at all confident* about four means *very confident*, how confident are you that technology can minimize the impacts of climate change?

- 0 - Not at all confident (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 - Very confident (4)

Page Break

nearcomp We have just a few more questions to ask before the survey ends.

Page Break

End of Block: Characteristics

Start of Block: Sociodemographics

dem_info

Demographic Questions

Not all US electric ratepayers will have the opportunity to complete this survey. Thus, we need to know how similar you and other survey respondents are to US electric ratepayers. Your answers to the following questions will help us to do this.

Your confidentiality is of the utmost importance to us. All information collected in this survey will be kept secure and will be digitally encrypted. Additionally, no individual results will be reported or shared with anybody outside of the immediate research team.

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rural Which of the following best describes the location of your primary residence?

- ○ Urban location in a densely populated area (1)
- ○ Suburban location in a neighborhood that is near a densely populated area (2)
- ○ Rural location in a sparsely populated area (3)

---

type Which of the following best describes your primary residence?

- ○ A single-family detached house (1)
- ○ A single-family attached house (e.g., a townhome, garden home, or duplex that is attached to one or more other houses) (2)
- ○ An apartment, condominium, or loft (3)
- ○ A mobile home or trailer home (4)
- ○ An individual room in a house or apartment (5)
- ○ Other (please describe below) (6)

_____

Page Break

workathome Do you or anyone in your household telecommute and/or work from home more than three days per week?

- ○ No (0)
- ○ Yes (1)

---

averagebill What is your household's average monthly electric bill during the summer (June-August)?

- ○ Less than $50/month (1)
- ○ $50 to $99/month (2)
- ○ $100 to $149/month (3)
- ○ $150 to $249/month (4)
- ○ More than $250/month (5)
- ○ Not sure (6)

Page Break

large Approximately, how large is your primary residence (in square feet)?

- Less than 500 square feet (1)
- 500-999 square feet (2)
- 1,000-1,999 square feet (3)
- 2,000-2,999 square feet (4)
- 3,000-3,999 square feet (5)
- 4,000 square feet or more (6)

conservation Have you improved the energy efficiency of your home? For example, installing energy efficient windows, high R-value insulation, Energy Star appliances, or solar panels?

- No (0)
- Yes (1)

Page Break

people How many people are currently living in your primary residence (including yourself)?

- ○ 1 person (just me) (1)
- ○ 2 people (2)
- ○ 3 people (3)
- ○ 4 people (4)
- ○ 5 or more people (5)

sensitive_groups Does your household include any of the following people? Check all that apply.

- ☐ Seniors (65 years old and above) (1)
- ☐ Children (3-18 years old) (2)
- ☐ Babies and toddlers (younger than 3 years) (3)
- ☐ Individuals with physical disabilities (4)
- ☐ Individuals with special needs (5)
- ☐ ⊗ My household does not include any of these people (6)

Page Break

party With which political party do you most identify?

- ○ Democratic Party (1)
- ○ Republican Party (or GOP) (2)
- ○ Independent (3)
- ○ Other party (please specify below) (4) _____

---

ideol On a scale of political ideology, individuals can be arranged from strongly liberal to strongly conservative. Which of the following categories best describes your views?

- ○ Strongly liberal (1)
- ○ Liberal (2)
- ○ Slightly liberal (3)
- ○ Middle of the road (4)
- ○ Slightly conservative (5)
- ○ Conservative (6)
- ○ Strongly conservative (7)

Page Break

education Which of the following best indicates your highest education level?

- ○ Less than high school (no diploma or GED) (1)
- ○ High school diploma or GED (2)
- ○ Some college, but no degree (3)
- ○ Associate degree (4)
- ○ Bachelor's degree (5)
- ○ Master's degree (6)
- ○ Professional or doctorate degree (e.g. Ph.D., MD, DDS, JD) (7)

Page Break

employment What is your current employment status? Check all that apply.

- [ ] Employed (full-time) (1)
- [ ] Employed (part-time) (2)
- [ ] Self-employed (3)
- [ ] Not currently employed (4)
- [ ] Retired (5)
- [ ] Student (6)
- [ ] Other (please specify below) (7)

_____

Page Break

income What is the range that best describes your total household income in 2018?

- ○ Less than $20,000 (1)
- ○ $20,000 to $29,999 (2)
- ○ $30,000 to $49,999 (3)
- ○ $50,000 to $74,999 (4)
- ○ $75,000 to $99,999 (5)
- ○ $100,000 to $149,999 (6)
- ○ $150,000 to $199,999 (7)
- ○ More than $200,000 (8)

Zip code What is the 5-digit zip code of your primary residence?

_____

End of Block: Sociodemographics

Start of Block: End

end

Thank you very much for your help!

If you have any additional comments that you would like to share, please write them below and click the arrow to submit.

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_____

_____

End of Block: End