

# Renewable Energy and Electric Vehicles

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**1st Draft** You have been **randomly selected** to participate in our survey. Your response is **completely confidential** and your response is in no way linked to your name. Your response data is **IRREPLACEABLE** and helps to represent your peers. When finished with this survey please place your survey in the bag and grab a reward.

1. What is your household electricity bill monthly?

\_\_\_\_\_ Dollars/Month

2. How many cars does your family own?

\_\_\_\_\_ cars

3. Do you have an electric car?

YES                  NO

4. What is your opinion on electric cars?

1	2	3	4	5	6
Low					High

5. What is your opinion on fossil fuels?

1	2	3	4	5	6
Low					High

6. How familiar are you with our government's current policies on renewable energy?

1	2	3	4	5	6
Low					High

7. How much should the government invest in renewable energy?

\_\_\_\_\_ dollars

8. What is the most important benefit to you of using renewable energy sources?

Environmental Protection      Energy Independence      Economic Growth

Other: \_\_\_\_\_

9. How willing are you to invest in renewable energy (solar panels, etc.)?

1	2	3	4	5	6
Low					High

10. What is your opinion on the economic impact of developing renewable energy

1	2	3	4	5	6
Low					High

11. What is your opinion that individuals should be responsible in reducing their carbon footprint?

1	2	3	4	5	6
Low					High

12. Approximately what percentage of your household energy source comes from renewable energy?

\_\_\_\_\_ %

13. How much do you spend on gas or electricity for electric cars each month?

\_\_\_\_\_ dollars

14. How many charging stations are around your house?

\_\_\_\_\_

15. What is your opinion on the carbon neutrality plan?

YES                  NO

# Renewable Energy and Electric Vehicles

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1. What is your household electricity bill monthly?

       Dollars/Month

2. How many cars does your family own?

       cars

3. Do you or your family own an electric car?

YES                  NO

4. Rate the value of electric cars and its impacts on the environment?

1	2	3	4	5	6
Low					High

5. What is your opinion on fossil fuels and its impacts on the environment?

1	2	3	4	5	6
Low					High

6. How familiar are you with our government's current policies on renewable energy?

1	2	3	4	5	6
Low					High

7. How much should the government invest in renewable energy out of their e?

       dollars

8. What is the most relevant benefit to you of using renewable energy sources?

Environmental Protection      Energy Independence      Economic Growth

Other:       

9. How willing are you to invest in renewable energy (solar panels, etc.)?

1	2	3	4	5	6
Very little					A Lot

10. What is your opinion on the economic impact of developing renewable energy for factories and industries?

A horizontal scale with six numerical positions labeled 1, 2, 3, 4, 5, and 6. Below the first position is the word "Low" and below the last position is the word "High".

11. What is your opinion that individuals should be responsible in reducing their carbon footprint?

A horizontal scale with six numerical positions labeled 1, 2, 3, 4, 5, and 6. Below the scale, the word "Low" is aligned with position 1, and the word "High" is aligned with position 6.

12. Approximately what percentage of your household energy source comes from renewable energy?

%

13. How much do you spend on gas or electricity for electric cars each month?

dollars

14. How many charging stations are around your house (within 10 miles)?

---

15. What is your opinion on the carbon neutrality plan?

1                  2                  3                  4                  5                  6

# Renewable Energy and Electric Vehicles

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3rd Draft Hello! You have been **randomly selected** to participate in our survey. All responses are **completely confidential** and your response will be in no way linked to your name. Your response data is **IRREPLACEABLE** and helps to represent your peers. When finished with this survey please place it in the bag and grab a **candy** as a token of our appreciation.

1. How many people live in your household?

\_\_\_\_ people

2. How many cars does your family own?

\_\_\_\_ car(s)

3. How frequently do you use high-energy appliances like refrigerators, washing machines, dishwashers, or dryers?

\_\_\_\_

4. How many electric cars does your family own, if any?

\_\_\_\_ electric car(s)

5. How would you rate the importance of using electric cars in relation to environmental impact?

1	2	3	4	5	6	7	8
Low							High

6. What is your opinion of the impact of fossil fuels on the environment?

1	2	3	4	5	6
Very Unimportant					Very Important

7. How familiar are you with our government's current policies on renewable energy?

1	2	3	4	5	6
Low					High

8. How much should the government invest in renewable energy out of their e?

\_\_\_\_ dollars

9. What is the most relevant benefit to you of using renewable energy sources?

Environmental Protection      Energy Independence      Economic Growth

Other: \_\_\_\_

10. How willing are you to invest in renewable energy (solar panels, etc.)?

1	2	3	4	5	6
Very little					A Lot

11. What is your opinion on the economic impact of developing renewable energy for factories and industries?

1	2	3	4	5	6
Low					High

12. What is your opinion that individuals should be responsible in reducing their carbon footprint?

1	2	3	4	5	6
Low					High

13. Approximately what percentage of your household energy source comes from renewable energy?

\_\_\_\_\_ %

14. How much do you spend on gas or electricity for electric cars each month?

\_\_\_\_\_ dollars

15. How many charging stations are around your house (within 10 miles)?

\_\_\_\_\_

16. What is your opinion on the carbon neutrality plan?

1	2	3	4	5	6
Very bad					Very good

# Renewable Energy and Electric Vehicles

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**4th Draft:** Hello! You have been **randomly selected** to participate in our survey. All responses are **completely confidential** and your response will be in no way linked to your identity. Your response is **IRREPLACEABLE** and is vital for improving our community. We sincerely thank you for your time and contribution to this study, so when you finish the survey, please place it in the bag and grab a piece of **candy** as a token of our appreciation.

1. How many people live in your household?

\_\_\_\_\_ people

2. How often do you use these appliances per week?

Clothes washers/dryers: \_\_\_\_\_ time(s)

Dishwasher: \_\_\_\_\_ time(s)

Air conditioning: \_\_\_\_\_ hour(s)

Stove: \_\_\_\_\_ time(s)

3. How many minutes do you generally spend showering?

\_\_\_\_\_ minute (s)

4. On a scale of 1-6, rate your energy usage habits.

1

2

3

4

5

6

Poor

Healthy

5. What percent of your household energy do you estimate comes from renewable energy sources?

\_\_\_\_\_ %

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1

2

3

4

5

6

Unfamiliar

Very Familiar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$ \_\_\_\_\_ billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection      Energy Independence      Economic Growth      Other: \_\_\_\_\_

9. What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?

1

2

3

4

5

6

Very Harmful

Very Beneficial

10. On a scale from 1 to 6, rate the impact of fossil fuels on the environment:

1

2

3

4

5

6

Impactless

Very Impactful

11. How many times do you spend discussing(over 3 minutes per discussion) renewable energy topics at school?

\_\_\_\_\_ times

12. If you usually drive to school, around how long does your one-way commute take?

\_\_\_\_\_ minute(s)

13. If your family owns car(s), please indicate how many of each type below.

\_\_\_\_ car(s)

\_\_\_\_ hybrid car(s)

\_\_\_\_ electric car(s)

14. On a scale of 1-6, rate the impact of electric cars for mitigating climate change

1

2

3

4

5

6

Minimal

Significant

15. If you drive, how much do you spend on gas or electricity for vehicles each month?

\_\_\_\_\_ dollars

16. How often do you commute through public transportation per month?

\_\_\_\_\_ times

17. Please rate your opinion on public transportation.

1

2

3

4

5

6

Very Negative

Very Positive

18. What is your opinion on funding for public transportation?

1

2

3

4

5

6

Not Enough

Too Much

# Renewable Energy and Electric Vehicles

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## **Script:**

Excuse me(Remember to tap on them lightly or talk louder if they are not paying attention). Are you [name]? (If yes) We are AP Statistics students collecting data for our big project, and you have been randomly selected to participate in our survey. Your responses will be 100% confidential and are important for our data collection, so please answer truthfully. This will only take about 5 minutes of your time, so we would greatly appreciate it if you could fill out the survey. Once you complete both sides of the survey, please place it back in the bag. We would like to give you a candy of your choice as gratitude. Thank you so much!

## **Getting Rejected:**

We promise this survey will not take much of your time. Your opinions are really important to our data collection.

*Another rejection*

Will another time work for you? How about tomorrow at lunch?

*Another rejection*

Will you be able to complete the survey if we send you a google form instead? That way, you can complete it during your own free time.

*Acceptance*

Thank you for your cooperation!

## Peer reviews:

Note: is **IRREPLACEABLE** and helps to represent your peers. When finished with this survey please place your survey in the bag and grab a **candy**.

1. What is your household electricity bill monthly?  
\_\_\_\_ Dollars/Month
2. How many cars does your family own?  
\_\_\_\_ cars
3. Do you or your family own an electric car?  
YES      NO
4. Rate the value of electric cars and its impacts on the environment?  

1	2	3	4	5	6
Low					High
5. What is your opinion on fossil fuels and its impacts on the environment?  

1	2	3	4	5	6
Low					High
6. How familiar are you with our government's current policies on renewable energy?  

1	2	3	4	5	6
Low					High
7. How much should the government invest in renewable energy out of their e?  
\_\_\_\_ dollars
8. What is the most relevant benefit to you of using renewable energy sources?  
Environmental Protection    Energy Independence    Economic Growth  
Other: \_\_\_\_\_
9. How willing are you to invest in renewable energy (solar panels, etc.)?  

1	2	3	4	5	6
Very little					A Lot

2nd Draft You have been **randomly selected** to participate in our survey. Your response is **completely confidential** and your response is in no way linked to your name. Your response data is **IRREPLACEABLE** and helps to represent your peers. When finished with this survey please place your survey in the bag and grab a **candy**.

1. What is your household electricity bill monthly?  
\_\_\_\_ Dollars/Month
2. How many cars does your family own?  
\_\_\_\_ cars
3. Do you or your family own an electric car?  
YES      NO
4. Rate the value of electric cars and its impacts on the environment?  

1	2	3	4	5	6
Low					High
5. What is your opinion on fossil fuels and its impacts on the environment?  

1	2	3	4	5	6
Low					High
6. How familiar are you with our government's current policies on renewable energy?  

1	2	3	4	5	6
Low					High
7. How much should the government invest in renewable energy out of their e?  
\_\_\_\_ dollars
8. What is the most relevant benefit to you of using renewable energy sources?  
Environmental Protection    Energy Independence    Economic Growth  
Other: \_\_\_\_\_
9. How willing are you to invest in renewable energy (solar panels, etc.)?  

1	2	3	4	5	6
Very little					A Lot

 Avery Yu  
10:09 PM Sep 27

How would they know? It is hard to find out this info. Also, this question should be put in the middle of the survey to protect people's privacy.

 Liam Hanrahan  
11:30 PM Sep 29

I think you should ask a ratio question like how many electric cars do you own?

 Avery Yu  
10:10 PM Sep 27

A better question might be "how many electric cars does your family own, if any?" so we get ratio data.

 Jenson Marcos  
10:01 PM Sep 27

maybe change the wording to be more opinionated, like "How much do you value the impact of electric cars on the environment?"

 Kirthi Paramasivan  
8:00 PM Sep 28

A little broad and confusing question. Make it more specific.

 Avery Yu  
10:10 PM Sep 27

I like going to 10 instead

 Avery Yu  
10:11 PM Sep 27

Also, when you say impact do you mean a good impact or a bad impact? Clarify plz

 Kirthi Paramasivan  
8:01PM Sep 28

maybe unethical to ethical? or osmething else other than high or low

 Jenson Marcos  
10:05 PM Sep 27

what is a "high" or "low" opinion? maybe put "how strong of an opinion do you have on..."

 Kirthi Paramasivan  
8:01PM Sep 28

Do Unfamiliar and Very Familiar

 Liam Hanrahan  
11:32 PM Sep 29

Should be leading

 Avery Yu  
10:12 PM Sep 27

most people probably do not know what an appropriate amount is. Put some background info so people can make a more informed decision. Maybe you can also use percentages instead of dollars so that people have a better grasp of their answer

 Avery Yu  
10:15 PM Sep 27

make the line longer, because there's not enough space



► September 30, 8:07 PM

*Current version*

● Stefano Luissi

1. What is your household electricity bill monthly?

\_\_\_ Dollars/Month (some people might not know the exact amount from the top of their heads unless this is a survey you can take home and bring back.)

7. How much should the government invest in renewable energy?

\_\_\_ dollars (this is good, but you might want to include a range or estimate of what the government actually invests in renewable energy as some people have no idea what a proper amount would be)

12. Approximately what percentage of your household energy source comes from

renewable energy? ( this piece of information might be something people would not be able to calculate properly. Provide some information on how one could make an educated estimate on this)

\_\_\_ %

13. How much do you spend on gas or electricity for electric cars each month?

\_\_\_ dollars (recalling the exact amount isn't ideal but an estimate would be more proper.)

# **Renewable Energy and Electric Vehicles**

## **Guru Reviews:**

1. How many people live in your household?  
\_\_\_\_ people
  2. How many cars does your family own?  
\_\_\_\_ car(s)
  3. How frequently do you use high-energy appliances like refrigerators, washing machines, dishwashers, or dryers?  
\_\_\_\_
  4. How many electric cars does your family own, if any?  
\_\_\_\_ electric car(s)
  5. How would you rate the importance of using electric cars in relation to environmental impact?  

1	2	3	4	5	6	7	8
Low							High
  6. What is your opinion of the impact of fossil fuels on the environment?  

1	2	3	4	5	6	
Very Unimportant						Very Important
  7. How familiar are you with our government's current policies on renewable energy?  

1	2	3	4	5	6	
Low						High
  8. How much should the government invest in renewable energy ~~out of their~~?  
\_\_\_\_ dollars
  9. What is the most relevant benefit to you of using renewable energy sources?  

Environmental Protection	Energy Independence	Economic Growth
Other:		
  4. How many electric cars does your family own, if any?  
\_\_\_\_ electric car(s)
  5. How would you rate the importance of using electric cars in relation to environmental impact?  

1	2	3	4	5	6	7	8
Low							High
  6. What is your opinion of the impact of fossil fuels on the environment?  

1	2	3	4	5	6	
Very Unimportant						Very Important
  7. How familiar are you with our government's current policies on renewable energy?  

1	2	3	4	5	6	
Low						High
  8. How much should the government invest in renewable energy ~~out of their~~?  
\_\_\_\_ dollars
  9. What is the most relevant benefit to you of using renewable energy sources?  

Environmental Protection	Energy Independence	Economic Growth
Other:		

 David Wan  
10:01AM Sep 30

people may consider pets as family members

D David Wan  
10:03AM Sep 30

unstated assumption - you are discriminating against poor people who might not have these high energy appliances

Siddhant Patil  
9:27 AM Sep 30

Using the word high-energy will make people underreport their frequency, as to appear better (social desirability)

 David Wan  
10:03AM Sep 30

my family has no electric cars and we are greatly ashamed by the lack of it. this will cause social desirability bias

 David Wan  
10:03AM Sep 30

this will overreport the number of electric cars people have

Siddhant Patil  
9:24 AM Sep 30

### Unnecessary info

 Siddhant Patil

D David Wan  
10:05 AM Sep 30

why is one end of the scale's descriptor less centered than the other? This might influence the viewer to like one or the other based on their subconscious preferences

Siddhant Patil  
9:25 AM Sep 30

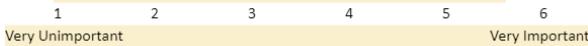
Can rephrase to "How much impact do fossil fuels have on the environment".

electric car(s)

5. How would you rate the importance of using electric cars in relation to environmental impact?



6. What is your opinion of the impact of fossil fuels on the environment?



7. How familiar are you with our government's current policies on renewable energy?



8. How much should the government invest in renewable energy ~~out of their~~?

dollars

9. What is the most relevant benefit to you of using renewable energy sources?

## Environment

11. What is your opinion on the economic impact of developing renewable energy for factories and industries?



12. What is your opinion that individuals should be responsible in reducing their carbon footprint?

D David Wan  
10:05 AM Sep 30

why is one end of the scale's descriptor less centered than the other? This might influence the viewer to choosing one or the other based on their subconscious preferences

D David Wan  
10:05 AM Sep 30

define government. what if people are against the government? does this not discriminate against anarchists?

 Siddhant Patil  
9:26 AM Sep 30

Delete: "out of their e"

 David Wan  
10:07AM Sep 30

you might want to define the terms. you're also implying that renewable energy resources WILL CAUSE these

 David Wan  
10:09 AM Sep 30

specify which industries. a blanket statement like this encourages overgeneralization.

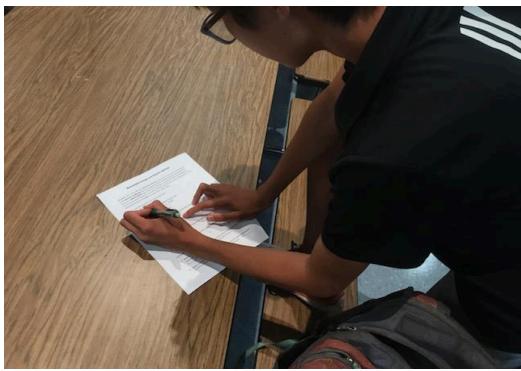
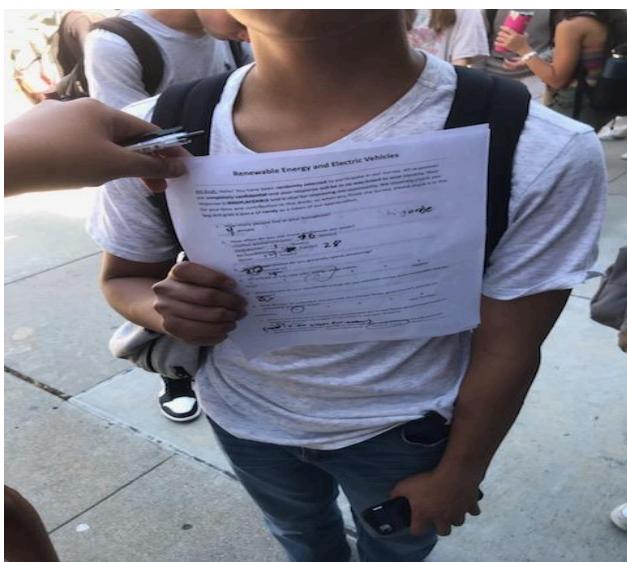
# Renewable Energy and Electric Vehicles

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## **4th Draft Comments:**

- Didn't know to include self for household people count
- Didn't know exact numbers for question two
- Had no clue for renewable energy question
- Didn't know if additional or total energy for budget
- Specify one way is just the drive to school and not back
- Say N/A for not driving
- Use AC how many times per what?
- Other car(s) instead of car(s)
- Variability in the answers, especially with the ratio level questions
-

## **Test Drive Pictures:**



# Renewable Energy and Electric Vehicles

## Renewable Energy and Electric Vehicles

Storch

Date: 12/14

10/2/24

Date:

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1. How many people live in your household?

2 people

2. How often do you use these appliances per week?

Clothes washers/dryers: 1 hr time(s)

Dishwasher: 0 time(s)

Air conditioning: 1 hour(s)

Stove: 4 time(s)

3. How many minutes do you generally spend showering?

10 minute (s)

4. On a scale of 1-6, rate your energy usage habits.

1

2

3

(4)

5

6

Poor

Healthy

5. What percent of your household energy do you estimate comes from renewable energy sources?

30 %

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1

2

3

4

(5)

6

Unfamiliar

Very Familiar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$64 billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection

Energy Independence

Economic Growth

Other: \_\_\_\_\_

9. What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?

1

2

3

4

5

6

Very Harmful

Very Beneficial

10. On a scale from 1 to 6, rate the impact of fossil fuels on the environment:

1

2

3

4

5

6

Impactless

Very Impactful

11. How many times do you spend discussing(over 3 minutes per discussion) renewable energy topics at school?

1 times

12. If you usually drive to school, around how long does your one-way commute take?

5 minute(s)

13. If your family owns car(s), please indicate how many of each type below.

1 car(s)

1 hybrid car(s)

\_\_\_\_\_ electric car(s)

14. On a scale of 1-6, rate the impact of electric cars for mitigating climate change

1

2

3

4

5

6

Minimal

Significant

15. If you drive, how much do you spend on gas or electricity for vehicles each month?

116 dollars

16. How often do you commute through public transportation per month?

0 times

17. Please rate your opinion on public transportation.

1

2

3

4

5

6

Very Negative

Very Positive

18. What is your opinion on funding for public transportation?

1

2

3

4

5

6

Not Enough

Too Much

# Renewable Energy and Electric Vehicles

## Renewable Energy and Electric Vehicles

Date : 10/2/24  
Page : 10/12

4th Draft: Hello! You have been **randomly selected** to participate in our survey. All responses are **completely confidential** and your response will be in no way linked to your identity. Your response is **IRREPLACEABLE** and is vital for improving our community. We sincerely thank you for your time and contribution to this study, so when you finish the survey, please place it in the bag and grab a piece of **candy** as a token of our appreciation.

1. How many people live in your household?

3 people

2. How often do you use these appliances per week?

Clothes washers/dryers: 1 time(s)

Dishwasher: 1 time(s)

Air conditioning: 12 hour(s)

Stove: 2 time(s)

3. How many minutes do you generally spend showering?

10 minute(s)

4. On a scale of 1-6, rate your energy usage habits.

1

2

3

4

5

6

Healthy

Poor

5. What percent of your household energy do you estimate comes from renewable energy sources?

0 %

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1

2

3

4

5

6

Very Familiar

Unfamiliar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$ 60 billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

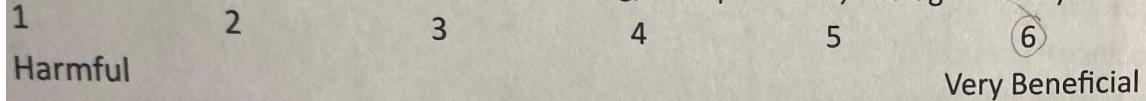
Environmental Protection

Energy Independence

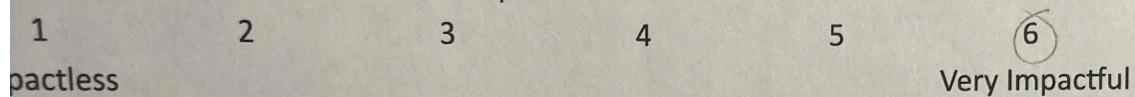
Economic Growth

Other: \_\_\_\_\_

What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?



. On a scale from 1 to 6, rate the impact of fossil fuels on the environment:



1. How many times do you spend discussing(over 3 minutes per discussion) renewable energy topics at school?

1 times

12. If you usually drive to school, around how long does your one-way commute take?

30 minute(s)

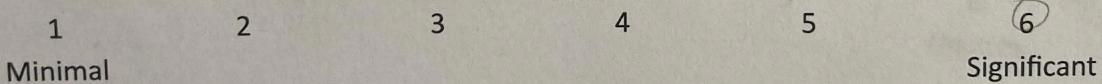
13. If your family owns car(s), please indicate how many of each type below.

2 car(s)

0 hybrid car(s)

0 electric car(s)

14. On a scale of 1-6, rate the impact of electric cars for mitigating climate change



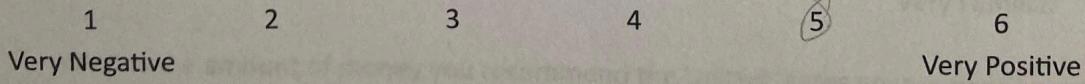
15. If you drive, how much do you spend on gas or electricity for vehicles each month?

\$100 dollars

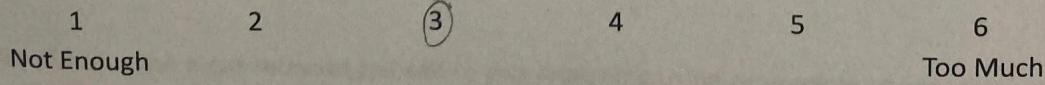
16. How often do you commute through public transportation per month?

30 times

17. Please rate your opinion on public transportation.



18. What is your opinion on funding for public transportation?



# Renewable Energy and Electric Vehicles

## Renewable Energy and Electric Vehicles

Laura  
Vukovanic  
Oct. 2, 2024

12:14 PM

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1. How many people live in your household?

2 people

2. How often do you use these appliances per week?

Clothes washers/dryers: 3 time(s)

Dishwasher: 3 time(s)

Air conditioning: 21 hour(s)

Stove: 7 time(s)

3. How many minutes do you generally spend showering?

20 minute (s)

4. On a scale of 1-6, rate your energy usage habits.

1

2

3

4

5

6

Poor

Healthy

5. What percent of your household energy do you estimate comes from renewable energy sources?

0 %

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1

2

3

4

5

6

Unfamiliar

Very Familiar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$ 60 billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection

Energy Independence

Economic Growth

Other: \_\_\_\_\_

9. What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?

10. On a scale from 1 to 6, rate the impact of fossil fuels on the environment:

11. How many times do you spend discussing(over 3 minutes per discussion) renewable energy topics at school?

1 times

12. If you usually drive to school, around how long does your one-way commute take?

20 minute(s)

13. If your family owns car(s), please indicate how many of each type below.

car(s)  hybrid car(s)  electric car(s)

14. On a scale of 1-6, rate the impact of electric cars for mitigating climate change

15. If you drive, how much do you spend on gas or electricity for vehicles each month?

150 dollar

16. How often do you commute through public transportation per month?

0 times

17. Please rate your opinion on public transportation.

18. What is your opinion on funding for public transportation?

# Renewable Energy and Electric Vehicles

4th Draft: Hello! You have been **randomly selected** to participate in our survey. All responses are **completely confidential** and your response will be in no way linked to your identity. Your response is **IRREPLACEABLE** and is vital for improving our community. We sincerely thank you for your time and contribution to this study, so when you finish the survey, please place it in the bag and grab a piece of **candy** as a token of our appreciation.

Time: 8:45

1. How many people live in your household?

3 people

2. How often do you use these appliances per week?

Clothes washers/dryers: 2 time(s)

Dishwasher: 0 time(s)

Air conditioning: 8 hour(s)

Stove: 4 time(s)

3. How many minutes do you generally spend showering?

10 minute (s)

4. On a scale of 1-6, rate your energy usage habits.

1

2

3

4

5

6

Healthy

Poor

5. What percent of your household energy do you estimate comes from renewable energy sources?

20 %

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1

2

3

4

5

6

Very Familiar

Unfamiliar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$ 80 billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection

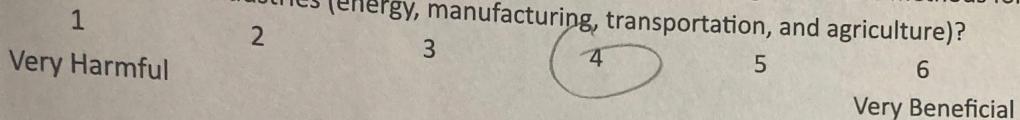
Energy Independence

Economic Growth

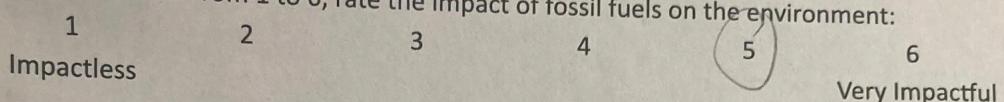
Other: \_\_\_\_\_

9. What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?

1            2            3



10. On a scale from 1 to 6, rate the impact of fossil fuels on the environment.



11. How many times do you spend discussing(over 3 minutes per discussion) renewable energy topics at school?

15 times

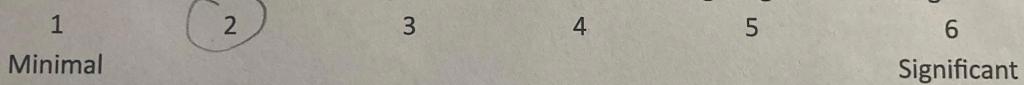
12. If you usually drive to school, around how long does your one-way commute take?

18 minute(s)

13. If your family owns car(s), please indicate how many of each type below.

1 car(s)         hybrid car(s)      1 electric car(s)

14. On a scale of 1-6, rate the impact of electric cars for mitigating climate change



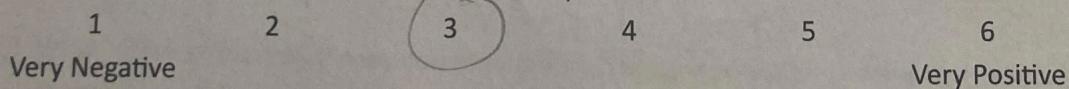
15. If you drive, how much do you spend on gas or electricity for vehicles each month?

ACN dollars

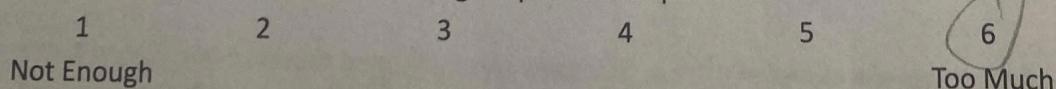
16. How often do you commute through public transportation per month?

times

17. Please rate your opinion on public transportation.



18. What is your opinion on funding for public transportation?



# Renewable Energy and Electric Vehicles

## Renewable Energy and Electric Vehicles

Lue Porter  
Date: 10/22/24  
Time: 12:01

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1. How many people live in your household?

3 people

2. How often do you use these appliances per week?

Clothes washers/dryers: 5 time(s)

Dishwasher: 0 time(s)

Air conditioning: 60 hour(s)

Stove: 30 time(s)

3. How many minutes do you generally spend showering?

40 minute (s)

4. On a scale of 1-6, rate your energy usage habits.

1  
Poor

2

3

4

5

6

Healthy

5. What percent of your household energy do you estimate comes from renewable energy sources?

0 %

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1  
Unfamiliar

2

3

4

5

6

Very Familiar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$ 100 billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection

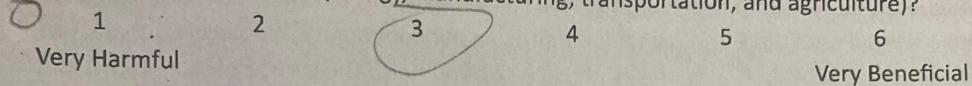
Energy Independence

Economic Growth

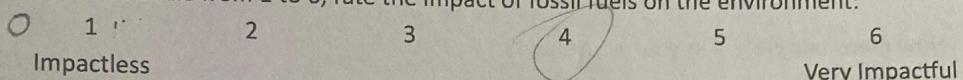
Other: \_\_\_\_\_

Due 10/24

9. What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?



10. On a scale from 1 to 6, rate the impact of fossil fuels on the environment:



11. How many times do you spend discussing(over 3 minutes per discussion) renewable energy topics at school?

times

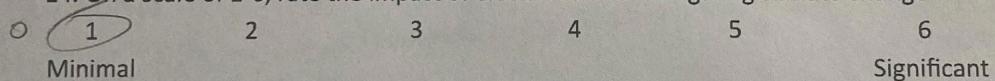
12. If you usually drive to school, around how long does your one-way commute take?

20 minute(s)

13. If your family owns car(s), please indicate how many of each type below.

car(s)       hybrid car(s)       electric car(s)

14. On a scale of 1-6, rate the impact of electric cars for mitigating climate change



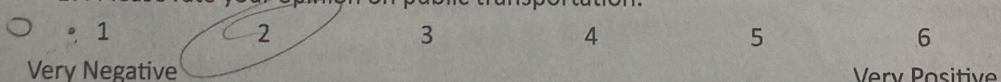
15. If you drive, how much do you spend on gas or electricity for vehicles each month?

205 dollars

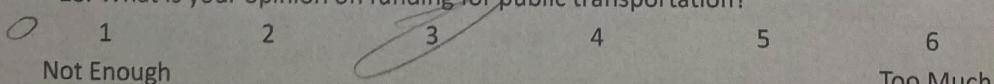
16. How often do you commute through public transportation per month?

times

17. Please rate your opinion on public transportation.



18. What is your opinion on funding for public transportation?



# Renewable Energy and Electric Vehicles

## Renewable Energy and Electric Vehicles

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1. How many people live in your household?

4 people

Evelyn Tran

2. How often do you use these appliances per week?

Clothes washers/dryers: 1 time(s)

12:10 pm

Dishwasher: 0 time(s)

10/2/24

Air conditioning: 7 hour(s)

Stove: 4 time(s)

3. How many minutes do you generally spend showering?

8 minute (s)

4. On a scale of 1-6, rate your energy usage habits.

1

2

3

(4)

5

6

Healthy

5. What percent of your household energy do you estimate comes from renewable energy sources?

5 %

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1

2

(3)

4

5

6

Unfamiliar

Very Familiar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$ 60 billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection

Energy Independence

Economic Growth

Other: \_\_\_\_\_



# Renewable Energy and Electric Vehicles

## Renewable Energy and Electric Vehicles

18  
18

A+

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1. How many people live in your household?

14 people

we are ~~mainly~~ mexicans

2. How often do you use these appliances per week?

Clothes washers/dryers: 0 time(s)

Dishwasher: 0 time(s)

Air conditioning: 0 hour(s)

Stove: 0 time(s)

Riley Fong  
12:23 pm

3rd jobrc h/2/2024

3. How many minutes do you generally spend showering?

0 minute (s)

4. On a scale of 1-6, rate your energy usage habits.

1  
Poor

2

3

4

5

6  
Healthy

Oh no!  
↓

f'(x) =  $\frac{d}{dx}$   
You have to  
DO  
SOMETHING

5. What percent of your household energy do you estimate comes from renewable energy sources?

$\pi$ %

Vanadium

$$f'(x) = \frac{d}{dx}$$

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1  
Unfamiliar

2

3

4

5

6

Very Familiar  
 $\frac{7}{10}$

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$ 0 billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection

Energy Independence

Economic Growth

Other: Sigma

+2 extra credit  
good answer

9. What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?

1                    2                    3 3.141592            4                    5                    6

Very Harmful

Very Beneficial

10. On a scale from 1 to 6, rate the impact of fossil fuels on the environment:

1                    2                    3                    4                    5                    6

Impactless

Very Impactful

11. How many times do you spend discussing (over 3 minutes per discussion) renewable energy topics at school?

lim x->∞ X times

12. If you usually drive to school, around how long does your one-way commute take?

10 minute(s)

13. If your family owns car(s), please indicate how many of each type below.

∞ car(s)

say riz hybrid car(s)

I HATE PLATE ENVIRONMENT electric car(s)

14. On a scale of 1-6, rate the impact of electric cars for mitigating climate change

1                    2                    3                    4                    5                    6

Minimal

Significant

No habits ching chong

15. If you drive, how much do you spend on gas or electricity for vehicles each month?

990000 dollars

2 in bawurbawan

16. How often do you commute through public transportation per month?

X times

2 No work

17. Please rate your opinion on public transportation.

1                    2                    3                    4                    5                    6

Very Negative

Very Positive

18. What is your opinion on funding for public transportation?

1                    2                    3                    4                    5                    6

Not Enough

Too Much

Manual Labor ✓

# Renewable Energy and Electric Vehicles

## Renewable Energy and Electric Vehicles

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1. How many people live in your household?

4 people

hi jordje

2. How often do you use these appliances per week?

Clothes washers/dryers: 76 time(s)

Dishwasher: 1 time(s)

Air conditioning: 28 hour(s)

Stove: 1 time(s)

Joseph Gouchiico

12:18 pm

10/2/2024

3. How many minutes do you generally spend showering?

20 minute(s)

15

4. On a scale of 1-6, rate your energy usage habits.

1

2

(O)

3

4

5

6

Poor

Healthy

5. What percent of your household energy do you estimate comes from renewable energy sources?

20 %

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1

(O)

3

4

5

6

Unfamiliar

Very Familiar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$ 70 billion

(add 12.05 billion for nuclear)

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection

Energy Independence

Economic Growth

Other: \_\_\_\_\_



# Renewable Energy and Electric Vehicles

Royce Williams

2:05 PM, Wednesday

## Renewable Energy and Electric Vehicles

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1. How many people live in your household?

4 people

2. How often do you use these appliances per week?

Clothes washers/dryers: 5 time(s)

Dishwasher: 10 time(s)

Air conditioning: 35 hour(s)

Stove: 4 time(s)

3. How many minutes do you generally spend showering?

20 minute (s)

4. On a scale of 1-6, rate your energy usage habits.

1

2

(3)

4

5

6

Poor

Healthy

5. What percent of your household energy do you estimate comes from renewable energy sources?

45 %

20

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1

2

3

4

(5)

6

Unfamiliar

Very Familiar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$ 75 billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection

Energy Independence

Economic Growth

Other: \_\_\_\_\_

9. What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?

1            2            3            4            5

1	2	3	4	<u>5</u>	6
Very Harmful					Very Beneficial

10. On a scale from 1 to 6, rate the impact of fossil fuels on the environment:

Impactless 1 2 3 4 5 6 Very Impactful

11. How many times do you spend discussing(over 3 minutes per discussion) renewable energy topics at school? per week  
1 times

12. If you usually drive to school, around how long does your one-way commute take?  
40 minute(s)

13. If your family owns car(s), please indicate how many of each type below.  
 car(s)       hybrid car(s)       electric car(s)

14. On a scale of 1-6, rate the impact of electric cars for mitigating climate change.

15. If you drive, how much do you spend on gas or electricity for vehicles each month?  
\$70 dollars

16. How often do you commute through public transportation per month?

2 times

17. Please rate your opinion on public transportation.

18. What is your opinion on funding for public transportation? 2

① Not Enough      2      3      4      5      6      Too Much

# Renewable Energy and Electric Vehicles

## Renewable Energy and Electric Vehicles

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1. How many people live in your household?  
3 people

Vishwa

2. How often do you use these appliances per week?  
Clothes washers/dryers: 2 time(s)  
Dishwasher: 0 time(s)  
Air conditioning: 5 hour(s)  
Stove: 14 time(s)

12:27 pm

10/2/2024

3. How many minutes do you generally spend showering?  
15 minute (s)

4. On a scale of 1-6, rate your energy usage habits.

Poor

2

3

4

5

6

Healthy

5. What percent of your household energy do you estimate comes from renewable energy sources?

25 %

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

Unfamiliar  
1

2

3

4

5

6

Very Familiar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)  
\$ 50 billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection

Energy Independence

Economic Growth

Other: \_\_\_\_\_

9. What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?

Very Harmful      1      2      3      4      5      Very Beneficial

10. On a scale from 1 to 6, rate the impact of fossil fuels on the environment:

Impactless      1      2      3      4      5      6      Very Impactful

11. How many times do you spend discussing(over 3 minutes per discussion) renewable energy topics at school?

2 times

12. If you usually drive to school, around how long does your one-way commute take?

30 minute(s)

13. If your family owns car(s), please indicate how many of each type below.

1 car(s)

0 hybrid car(s)

0 electric car(s)

14. On a scale of 1-6, rate the impact of electric cars for mitigating climate change

1      2      3      4      5      6      Significant

Minimal/

15. If you drive, how much do you spend on gas or electricity for vehicles each month?  
120 dollars

16. How often do you commute through public transportation per month?

0 times

17. Please rate your opinion on public transportation.

1      2      3      4      5      6      Very Positive

Very Negative

18. What is your opinion on funding for public transportation?

1      2      3      4      5      6      Too Much

Not Enough

# **Renewable Energy and Electric Vehicles**

Renewable Energy and Electric Vehicles

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4. On a scale of 1-6, rate your energy usage habits.

1	2	3	4	5	6
Poor					Healthy

5. What percent of your household energy do you estimate comes from renewable energy sources?

40%

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1	2	3	4	5	6
Unfamiliar					Very Familiar

7. What is the amount of money you recommend the United States government invest in renewable energy? (Averaged 57.95 billion in the past 10 years)

\$ 50 billion

Environmental Protection      Energy Independence      Economic Growth      Other Renewable Energy

1. How many people live in your household?  
3 people

Brandon Park  
12:21 pm  
10/2/29

9. What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?

1  
2  
3  
 4  
5  
6  
Very Harmful  
Impactless  
Very Beneficial

10. On a scale from 1 to 6, rate the impact of fossil fuels on the environment:

1  
2  
3  
4  
5  
 6  
Very Impactful

11. How many times do you spend discussing(over 3 minutes per discussion) renewable energy topics at school?

times

12. If you usually drive to school, around how long does your one-way commute take?

minute(s)

13. If your family owns car(s) please indicate how many of each type below.

car(s)  
 hybrid car(s)  
 electric car(s)

14. On a scale of 1-6, rate the impact of electric cars for mitigating climate change

1  
2  
 3  
4  
5  
6  
Minimal  
Significant

15. If you drive, how much do you spend on gas or electricity for vehicles each month?

dollars

16. How often do you commute through public transportation per month?

times

17. Please rate your opinion on public transportation.

1  
2  
3  
4  
 5  
6  
Very Negative  
Very Positive

18. What is your opinion on funding for public transportation?

1  
2  
3  
4  
5  
6  
Too Much  
Not Enough

# Renewable Energy and Electric Vehicles

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Final Draft: You have been **randomly selected** to participate in our survey. All responses are **completely confidential** and your response will be in no way linked to your identity. Your response is **IRREPLACEABLE** and is vital for improving our community. We sincerely thank you for your time and contribution to this study, so when you finish the survey, please place it in the **bag** and grab a piece of **candy** as a token of our appreciation.

1. Including you, how many people live in your household?

\_\_\_\_\_ people

2. Roughly how often are these appliances used in your household per week?

Clothes washers/dryers: \_\_\_\_\_ time(s)

Dishwasher: \_\_\_\_\_ time(s)

Air conditioning: \_\_\_\_\_ hour(s)

Stove: \_\_\_\_\_ time(s)

3. How many minutes do you generally spend showering?

\_\_\_\_\_ minute (s)

4. Rate your energy usage habits.

1

2

3

4

5

6

Poor

Healthy

5. What percent of your household energy do you estimate comes from renewable energy sources?

\_\_\_\_\_ %

6. How familiar or unfamiliar are you with the United States government's policies on renewable energy in 2024?

1

2

3

4

5

6

Unfamiliar

Very Familiar

7. What is the amount of money you recommend the United States government invest this year in renewable energy? (Averaged 57.95 billion/yr in the past 10 years)

\$ \_\_\_\_\_ billion

8. What is the most relevant benefit to you regarding using renewable energy sources?

Environmental Protection

Energy Independence

Economic Growth

Other: \_\_\_\_\_

9. What is your opinion on the economic impact of developing renewable methods for traditional industries (energy, manufacturing, transportation, and agriculture)?

1

2

3

4

5

6

Very Harmful

Very Beneficial

10. On a scale from 1 to 6, rate the impact of fossil fuels on the environment:

1

2

3

4

5

6

Impactless

Very Impactful

11. How many times a month do you discuss(over 3 minutes per discussion) renewable energy topics at school?

\_\_\_\_\_ times

12. If you usually drive to school, around how long does your one-way commute take?  
(N/A if otherwise)

\_\_\_\_\_ minute(s)

13. If your family owns car(s), please indicate how many of each type below.

\_\_\_\_\_ electric car(s)

\_\_\_\_\_ hybrid car(s)

\_\_\_\_\_ other car(s)

14. Rate the impact of electric cars for mitigating climate change

1

2

3

4

5

6

Minimal

Significant

15. If you drive, how much do you spend on gas or electricity for vehicles each month?

\_\_\_\_\_ dollars

16. How often do you commute through public transportation per month?

\_\_\_\_\_ times

17. Please rate your opinion on public transportation.

1

2

3

4

5

6

Very Negative

Very Positive

18. What is your opinion on funding for public transportation?

1

2

3

4

5

6

Not Enough

Too Much

# **Renewable Energy and Electric Vehicles**

---

## **Predictions:**

<https://www.sciencedirect.com/science/article/pii/S266612332300118>

[6](#)

<https://www.eia.gov/energyexplained/us-energy-facts/>

For our hypotheses in relation to electric cars, we believe that 30% of the students at Oak Park High School either own electric cars or their family owns them. Electric cars are a way to reduce the negative impacts on the environment because instead of fuel, the cars are charged by electricity.

We also predict that there is a high correlation between awareness of renewable energy and environmental protection with the daily energy use habits and decisions. We predict that 80% of the students struggle with their energy habits and are willing to find alternative methods for efficiency, especially in renewable energy that will preserve the environment.