

Grand Vision Energy Network

Survey Results

Submitted by:

NorthSky Nonprofit Network

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Executive Summary: Highlights of Findings Included in Survey Results

The Grand Vision Energy Network is a citizen-led effort to inform and develop a regional energy plan. Energy was one of the focus areas that arose out the Grand Vision, a community engagement process launched in six counties in Northwest Michigan. As part of this work, an energy survey was conducted in December 2012 that collected data on energy utilization, production and choices for generating energy locally. This report provides the results from the survey.

To frame the energy discussion, network members identified four factors to consider when thinking about electricity: 1) Energy Reliability; 2) Consumer Cost; 3) Environment; and, 4) Regional Economy. Among adult respondents, energy reliability is ranked among as the most important factor, while the economy is ranked as least important. High school students that completed the survey rated the factors nearly equal in importance, but they placed regional economy slightly higher than the rest and energy reliability as the least important.

Efficiency and conservation are rated the best options among adult respondents when considering each of the factors and electricity generation, with the exception of energy reliability, where natural gas is considered the best energy option. High school students also favored efficiency and conservation when considering consumer cost and energy reliability, however, believe natural gas is a better choice for the regional economy factor and a solar farm is best for the environment.

If assured proper regulation and oversight to protect the environment, a majority of adult respondents would be likely to support onshore wind farms, offshore wind farms, and exploration and drilling for natural gas sources. There were more undecided respondents on a biomass plant as a regional energy option than the other energy types. About half of high school students would support onshore wind farms, but none of the other energy types had a majority of student support, primarily because a large number of students do not yet have a position on this issue.

Three-fourths of adult respondents indicate they would live within 20 miles of an onshore wind and solar farm. High school students are less likely to be willing to live in proximity to these energy sources. A large number of adult respondents (60%) indicate they are willing to pay more per month for electricity if it is generated with renewable sources. When asked how much more, over fifty percent of those willing to pay more would pay between \$6 and \$20 per month more for renewable sources.

Adult respondents overwhelmingly support providing incentives to encourage residential and commercial users to conserve energy, and 82% of adult respondents indicate they have taken steps in the last five years to make their primary residence more energy efficient. Of those that have not taken steps to conserve energy, one in five said they were not sure what to do or how to prioritize. Business owners are also proactive regarding energy conservation, with 71% indicating they had taken steps in the last five years to make their businesses more energy-efficient. Over half of business owners are also willing to pay more for renewable energy sources, with nearly 60% of those indicating they would pay up to 10% more per month.

About the Grand Vision and Energy Network

During 2008, more than 12,000 people in Northwest Lower Michigan participated in a citizen-led process that created a 50-year vision for the region's future:

- *Local farms and regional food systems as a viable part of our communities;*
- *Unique and vibrant communities that strengthen the local economy;*
- *A diverse mix of regional housing choices with affordable options;*
- *A regional multi-modal transportation system that supports energy conservation;*
- *Protected and preserved water, forests, natural and scenic areas; and*
- *Sustainable-energy uses in construction, transportation and economic development.*

The Grand Vision has inspired a framework of regional networks made up of nonprofit organizations, businesses, units of government, funders and community members that are each coordinating their individual actions to achieve collective impact across these six guiding principles. The framework is supported by CORE, a network of supporting entities that together provide communication, outreach, resources and education infrastructure to support the coordination and work of the networks.

Purpose of the Energy Survey

To inform the regional energy plan citizen input was needed surrounding energy utilization, production and choices for generating energy locally. The first step in gathering this information was to conduct a survey that was available to residents in each of the six counties comprising northwest Michigan (Antrim, Benzie, Grand Traverse, Kalkaska, Leelanau and Wexford). The online survey link was available on the Grand Vision website, and distributed through the Energy Network partners including local energy providers, government agencies and local nonprofits. In addition to the online survey, the Northwest Michigan Council of Governments distributed a paper survey through its social equity committee to reach citizens that might not have access to a computer. To gather information specific to High School students a separate survey was available online in local High Schools. In total, 2,179 citizens took the survey, of which 641 completed the high school survey. A copy of the surveys are included in [Appendix A](#). Results from the survey will be shared through several planned community meetings over the coming months in order to continue gathering input from local residents.

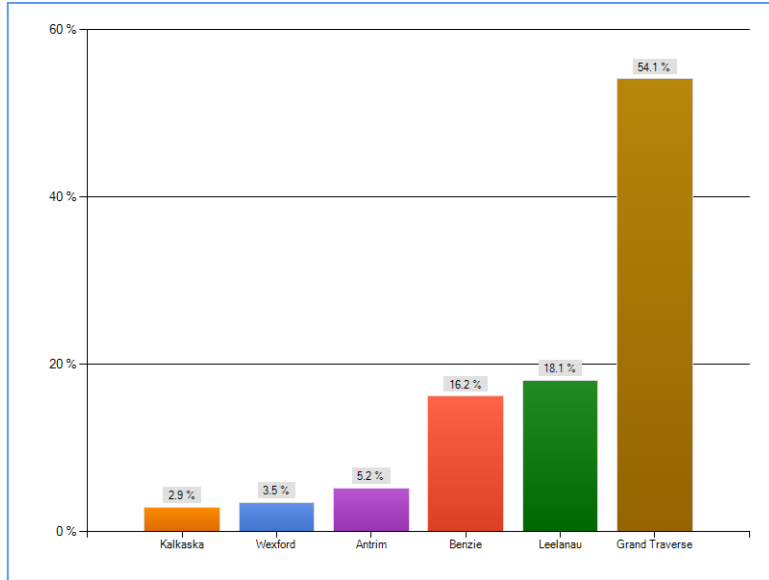
Survey Results

Demographics of Survey Respondents

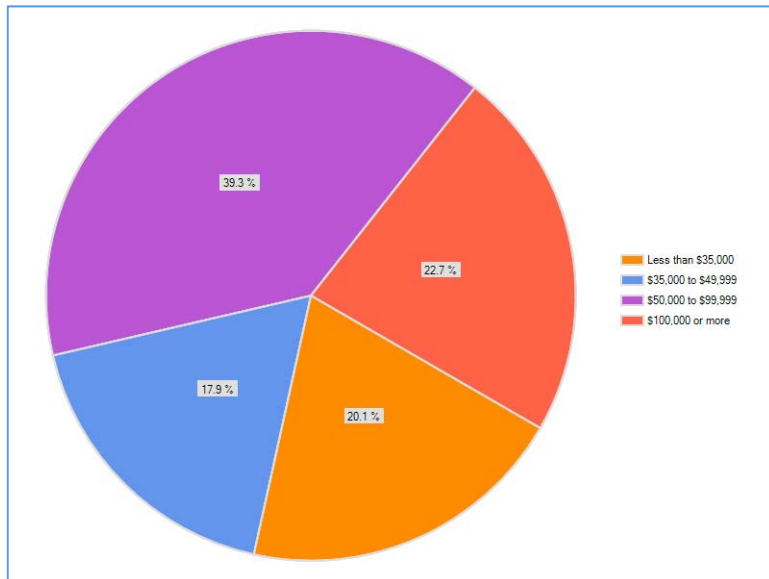
As discussed previously, the Energy Network sought to distribute the survey through a broad community reach in order to have as many citizens as possible weigh-in to planning for the region's energy future. Because a random sample was not used in administering the survey, results cannot be scientifically generalized to the general population. However, based on the demographics shown in the graphs below, the survey reached across the six counties and had fairly good representation, though Antrim, Kalkaska and Wexford had slightly fewer participants in relationship to their population, and Leelanau, Benzie and Grand Traverse had greater participation. The respondents were also slightly older, more educated and wealthier than the total population. Further, almost an equal number of males (49.4%) as females (47%) answered

the survey (3.6% declined to answer this question.) The survey also reached local governing boards, with 6% of respondents identifying themselves as an elected official or on a planning commission.

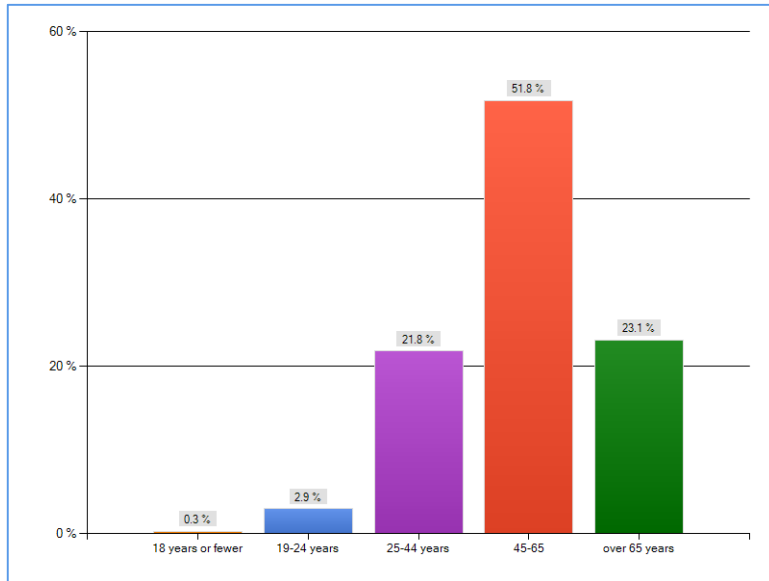
County of Residence in Northwest Michigan-Adult Respondents



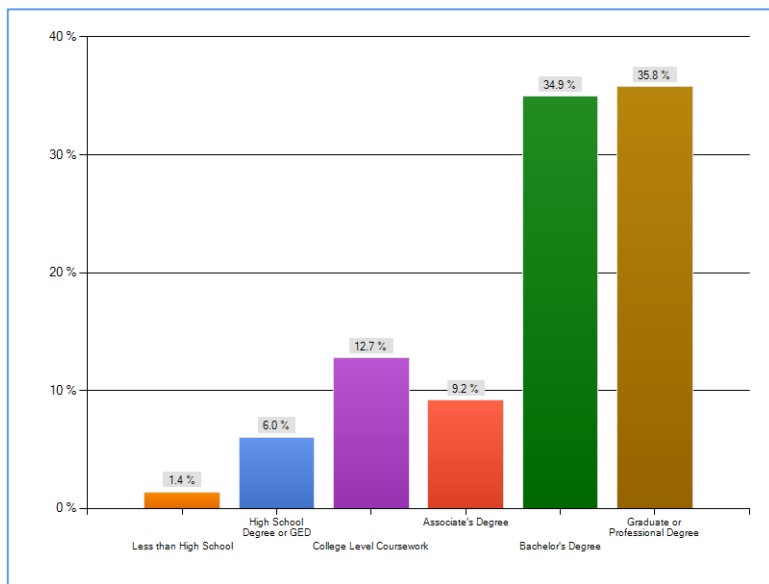
Household Income-Adult Respondents



Age of Respondents-Adult Respondents



Education Level of Respondents-Adult Respondents

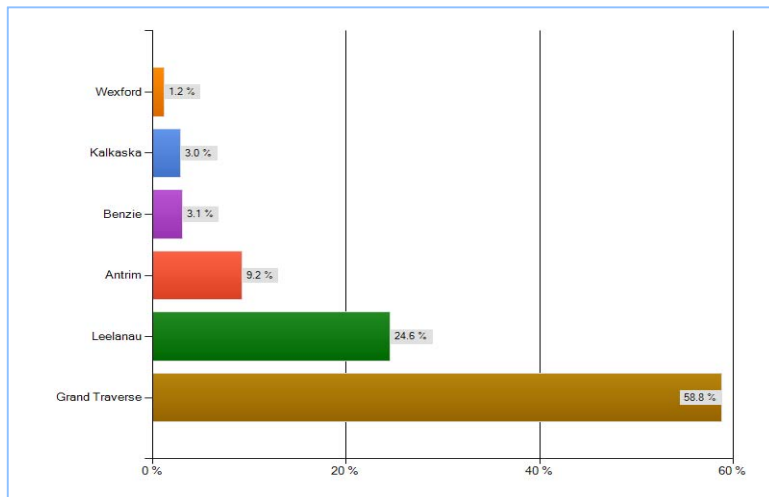


High School Respondents

High School participation levels reflect those of adult participants with the exception of Benzie, which was slightly lower in percent of high school respondents at 9.2 percent, and Leelanau, which had slightly higher rate of participation among high school students (24.6%).

Thirty-nine percent of respondents are male and 47% female, and 14% preferred not to answer the question.

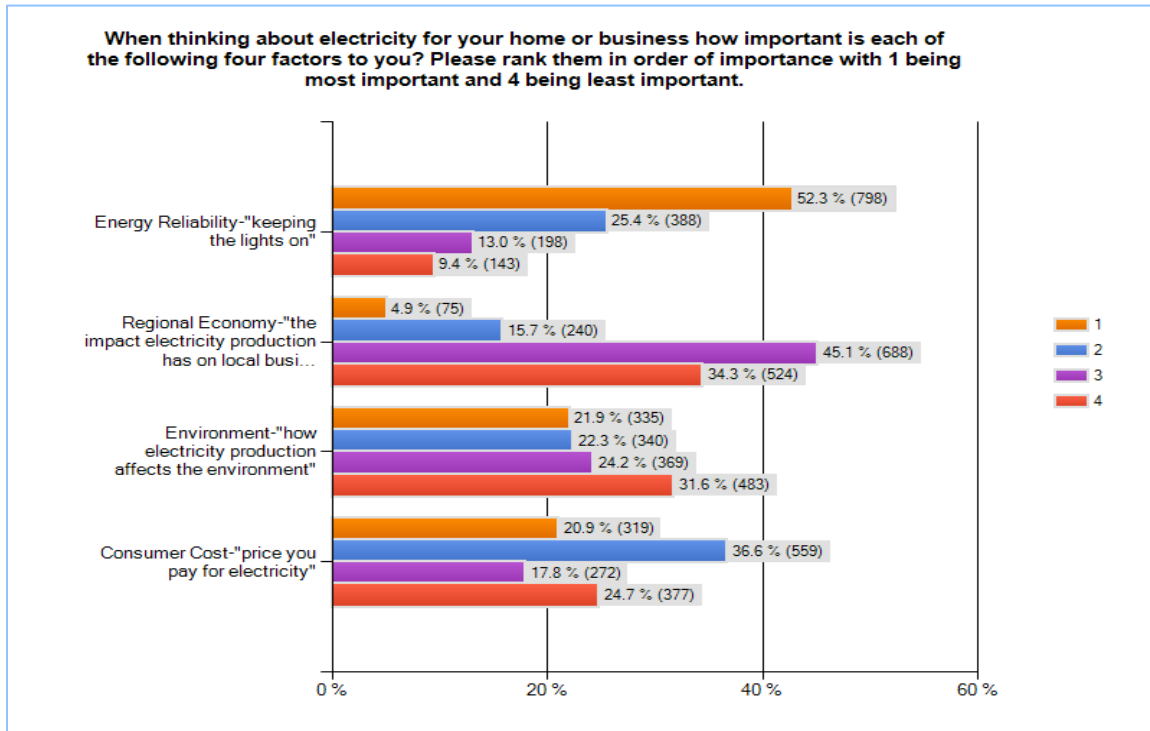
High School Respondents



What is important to electricity consumers?

Respondents were asked to consider four factors when thinking about electricity for their home or business: Energy Reliability; Consumer Cost; Environment; and, Regional Economy, and then rank them in order of importance to them with 1 being the most important and 4 being the least important. As shown in the following graph, 52.3% of respondents rank energy reliability-“keeping the lights on” the most important factor. The environment-“how electricity production effects the environment” and consumer cost-“price for electricity” are ranked as the most important factor by 21.9% and 20.9% respectively. Only 4.9% of respondents rank regional economy-“the impact of electricity production has on local businesses and jobs” as the most important factor. Less variation is seen on factors ranked as second and third in importance. Consumer cost has the largest percentage of respondents choosing it as a second ranking (36.6%) and regional economy is selected as the third most important factor by 45.1% of respondents. Regional economy has the largest fourth ranking percentile (34.3%).

Adult Respondents



The table following the graph shows the average ranking for each factor in order of importance, with the low number being the most important.

Average Factor Ranking

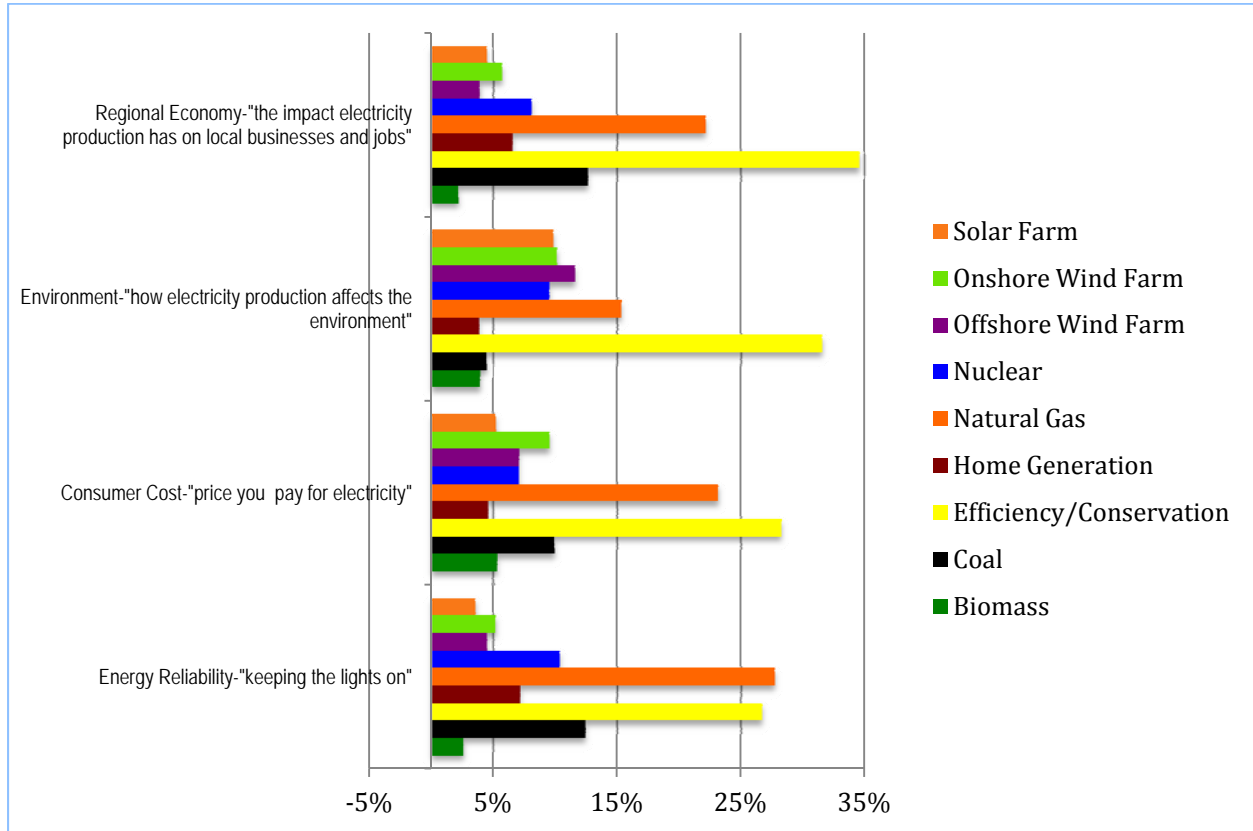
Adult Respondents	Rating Average
Energy Reliability-"keeping the lights on"	1.79
Consumer Cost-"price you pay for electricity"	2.46
Environment-"how electricity production affects the environment"	2.65
Regional Economy-"the impact electricity production has on local businesses and jobs"	3.09

1=Most Important to 4=Least Important

Respondents were then asked to consider among eight options for generation of electricity as seen listed on the right side of the graph below, and rank their *top three* for each of the four factors labeled on the vertical axis. Only the distribution of the *first choice* for generation of electricity for each factor is shown. Clearly efficiency/conservation and natural gas are chosen most often as the first choice across all the factors, and biomass is selected the least. The

remaining choices for generation of electricity are selected as first for each factor by between 4 and 12 percent of all respondents.

First Choice for Energy Options when Each Factor is Considered-Adult Respondents



The *top three options* for generation of electricity by each factor are shown in the following table. As noted above energy efficiency/conservation and natural gas are chosen by the largest percentage of respondents as a first choice across all factors. Natural gas is selected as a second and third choice by the largest percentage of respondents for energy reliability. However, among the regional economy, environment and consumer cost factors, onshore wind and solar farm are chosen by the largest percentage of respondents as second and third choices for generation of electricity.

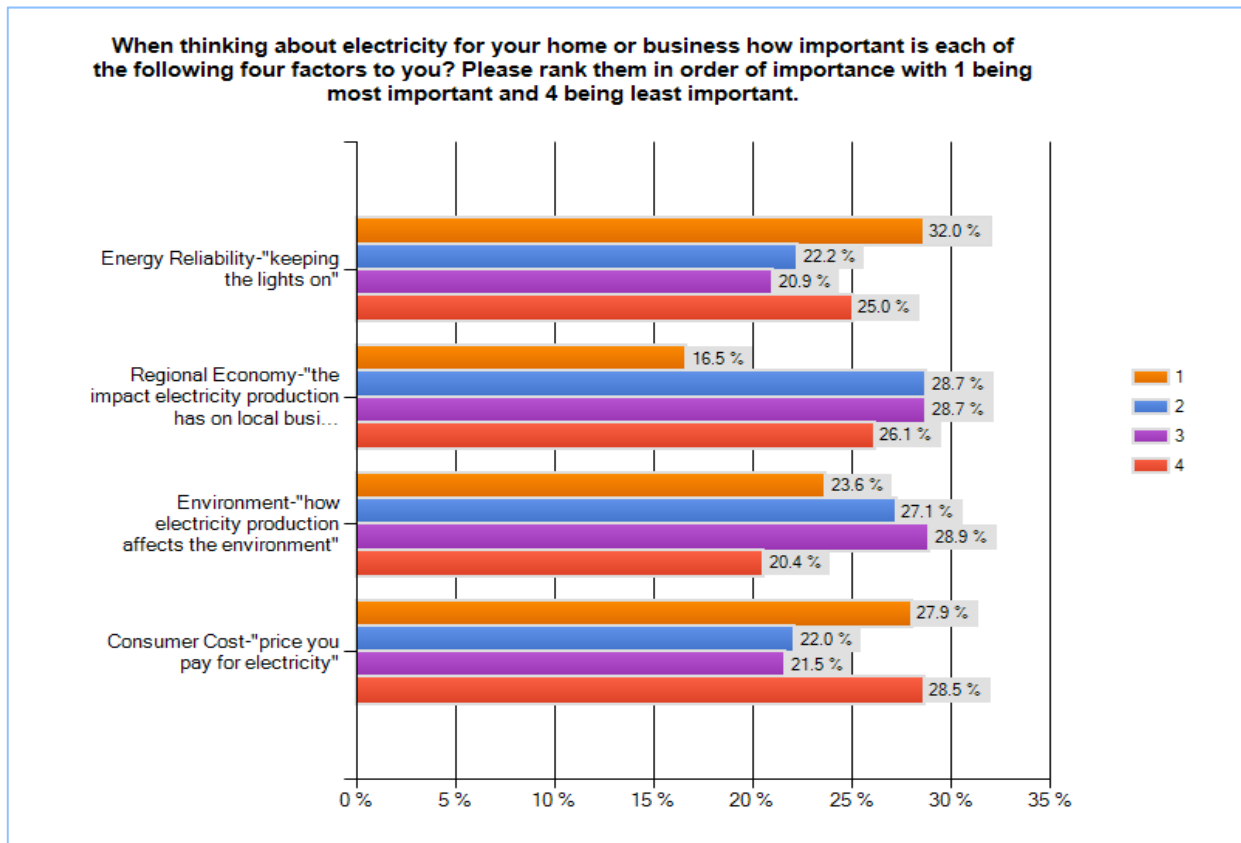
Top Three Options for Electricity Generation

Adult Respondents	First Choice	Second Choice	Third Choice
Regional Economy-"the impact electricity production has on local businesses and jobs"	Efficiency/Conservation 34.6%	Natural Gas 24.2%	Onshore Wind 15.7%
Environment-"how electricity production affects the environment"	Efficiency/Conservation 31.5%	Onshore Wind-22.4%	Solar Farm 21.1%
Consumer Cost-"price you pay for electricity"	Efficiency/Conservation 28.3%	Natural Gas 20.8%	Onshore Wind 15.3%
Energy Reliability-"keeping the lights on"	Natural Gas 27.7%	Natural Gas 24%	Natural Gas 15%

High School Respondents

High School students are evenly divided among the four factors in ranking the order of importance among the four factors surrounding generation of electricity. Energy reliability-keeping the lights on-is ranked as most important by nearly a third of respondents. Regional economy on the other hand is ranked as most important by only 16%.

High School Respondents

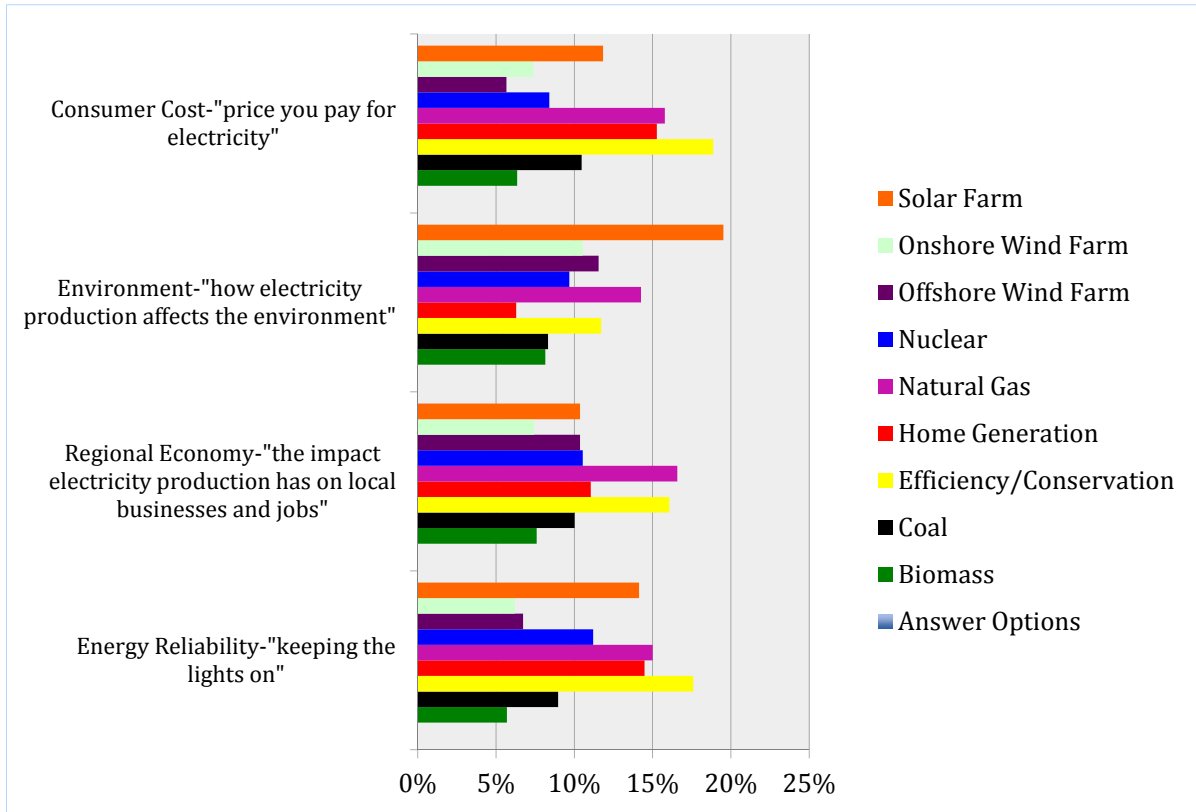


The table below shows the average ranking for each factor in order of importance, with the low number being the most important. Again, the spread is very close across all four factors.

High School Respondents	Rating Average
Regional Economy-"the impact electricity production has on local businesses and jobs"	2.36
Consumer Cost-"price you pay for electricity"	2.49
Environment-"how electricity production affects the environment"	2.54
Energy Reliability-"keeping the lights on"	2.61

The graph below shows the first choice for generation of electricity for each of the four factors. Although efficiency/conservation and natural gas were chosen by a high percentage of high school respondents, similar to the general population results, the younger population tended to include other types of energy as the first choice for some of the factors, including solar farm as the most common first choice for the environment factor, and home generation being selected as a first choice by about 15% for consumer cost and energy reliability.

High School Respondents



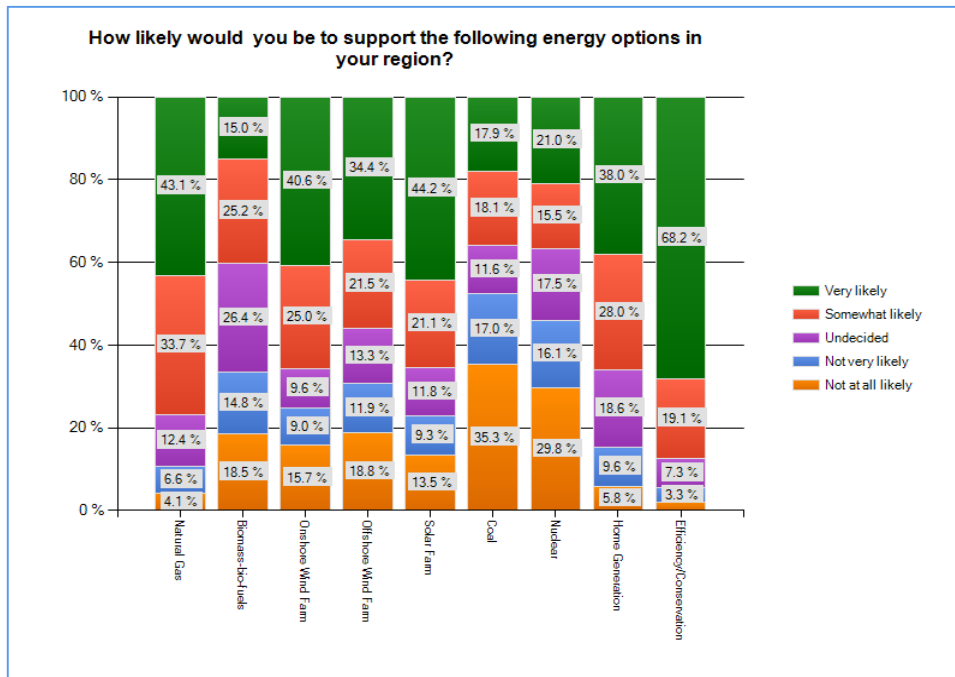
The top three choices for generation of electricity by each factor are shown in the following table. Natural gas is the most frequently chosen choice for the regional economy factor, while the environment choices are solar farm, followed by onshore wind and offshore wind & solar farm (which tied for third place). Natural gas is the third choice for energy reliability.

High School Respondents	First Choice	Second Choice	Third Choice
Regional Economy-"the impact electricity production has on local businesses and jobs"	Natural Gas 16.6%	Natural Gas 13.6%	Natural Gas 13.8%
Environment-"how electricity production affects the environment"	Solar Farm 19.5%	Onshore Wind 17.9%	Offshore Wind & Solar Farm 15.1%
Consumer Cost-"price you pay for electricity"	Efficiency/Conservation 18.9%	Natural Gas 17.5%	Solar Farm 14.1%
Energy Reliability-"keeping the lights on"	Energy Conservation 17.6%	Home Generation 16.2%	Natural Gas 13.1%

Regional energy options

Nine different regional energy options are shown in the graph below (Onshore Wind Farm, Offshore Wind Farm, Solar Farm, Biomass-bio-fuels, Home Generation, Coal, Nuclear, Efficiency/Conservation, and Natural Gas.) Respondents were asked how likely they would be to support each of the energy options from not at all likely to very likely. Consistent with earlier findings, most support is shown for efficiency/conservation and natural gas as regional energy options. Alternative energy options such as home generation, onshore wind farm, and solar farm are somewhat likely or very likely to be supported by more than 60% of respondents. Biomass has the highest percentage of undecided respondents, which may be indicative of not having a clear understanding of what it entails. Coal and nuclear options are the least likely to be supported.

Adult Respondents

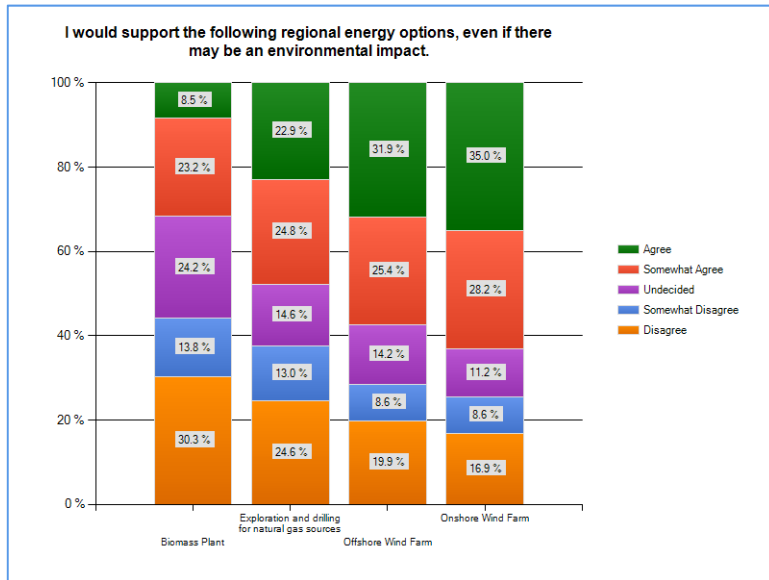


To better understand certain energy options (biomass plant, exploration and drilling for natural gas sources, offshore wind farm and onshore wind farm) and feelings surrounding their potential environmental impact, respondents were asked whether they disagree, somewhat disagree, are undecided, somewhat agree or agree with the following two statements:

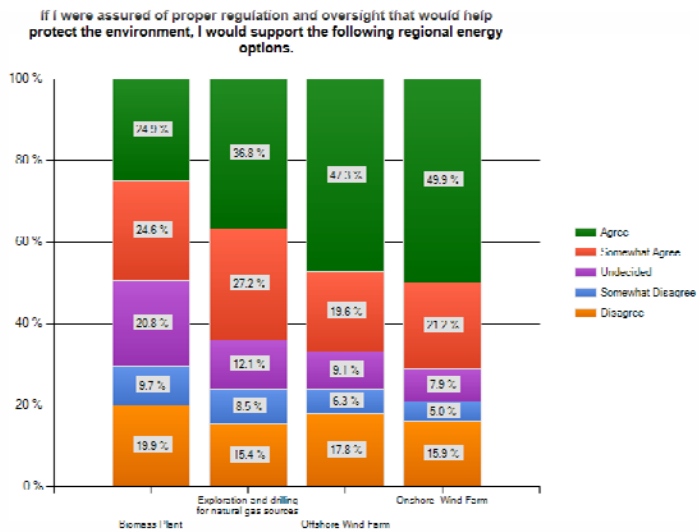
- 1) I would support the following regional energy options, even if there may be an environment impact.
- 2) If I were assured of proper regulation and oversight that would help protect the environment, I would support the following regional energy options.

As can be seen by comparing the two graphs, the level of agreement increases significantly when proper regulation and oversight to help protect the environment is assured. However, nearly one in four respondents disagree or somewhat disagree with the statement even when regulatory assurances are included.

Adult Respondents



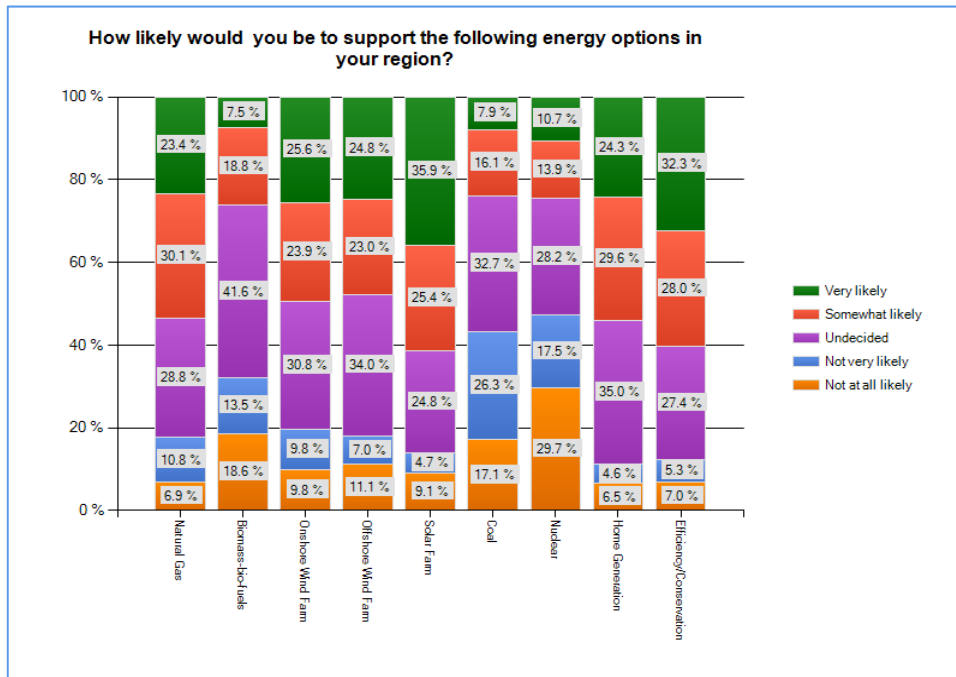
Adult Respondents



High School Respondents

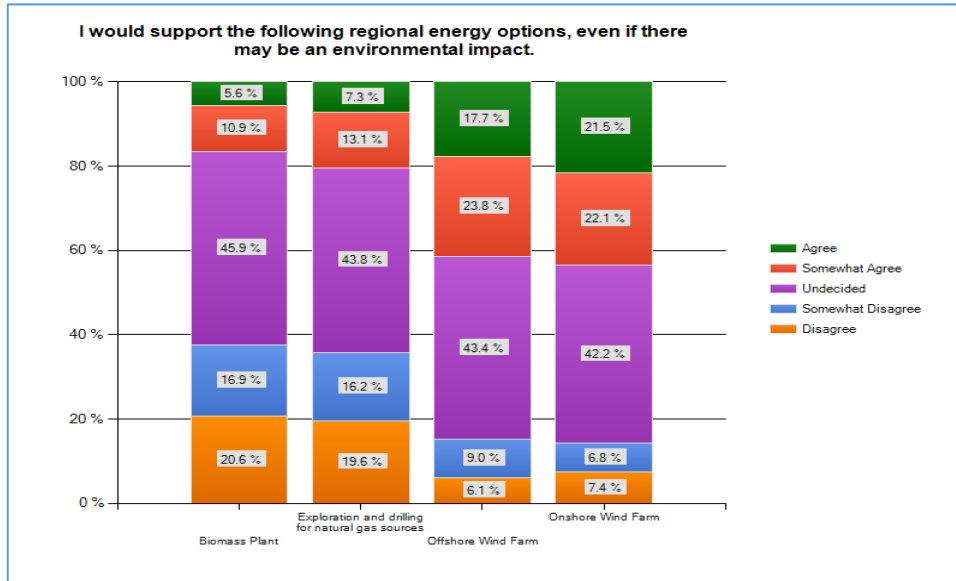
High school respondents are almost twice as likely to be undecided on possible energy options for the region as the general population respondents. However, their patterns of being likely to support or not support the various energy options are fairly consistent by energy type.

High School Respondents

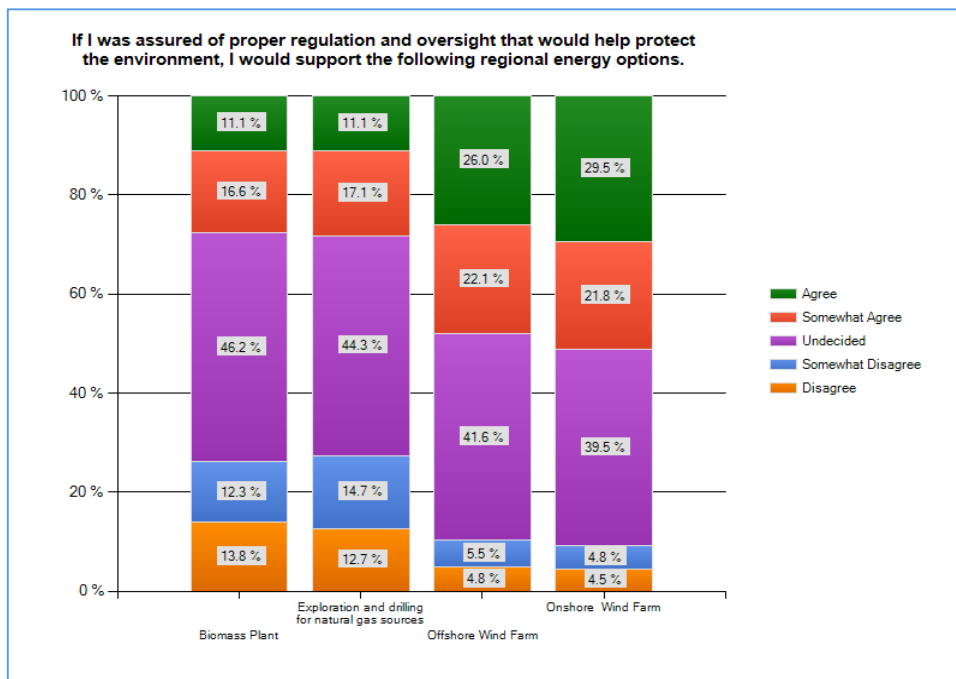


As with the adult population the level of agreement increases somewhat when proper regulation and oversight is assured to help protect the environment. However, high school students are more likely than the general population to be undecided on these questions.

High School Respondents



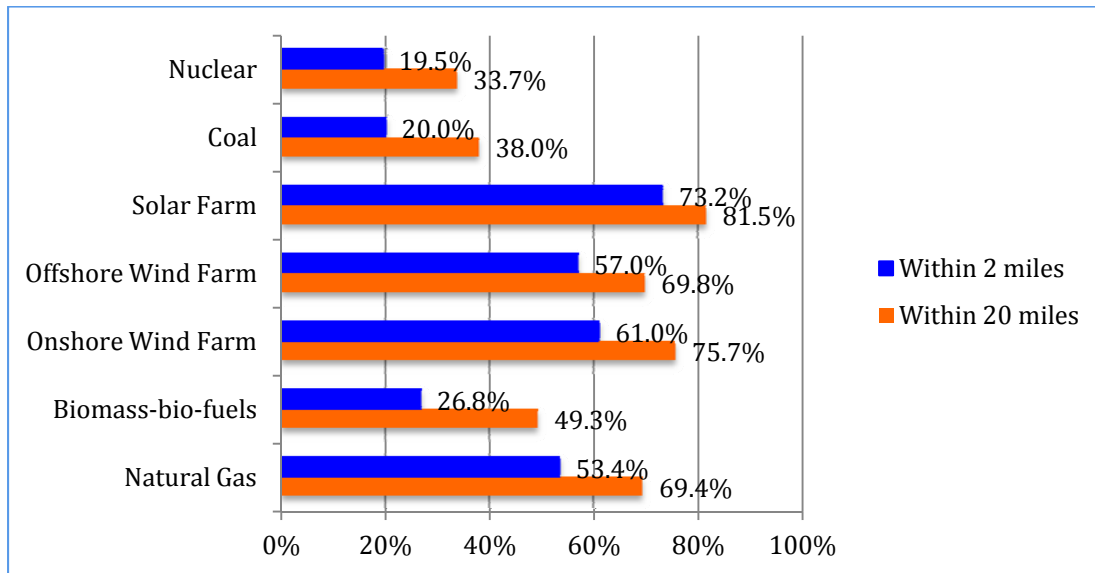
High School Respondents



Willingness to live in proximity to energy installations

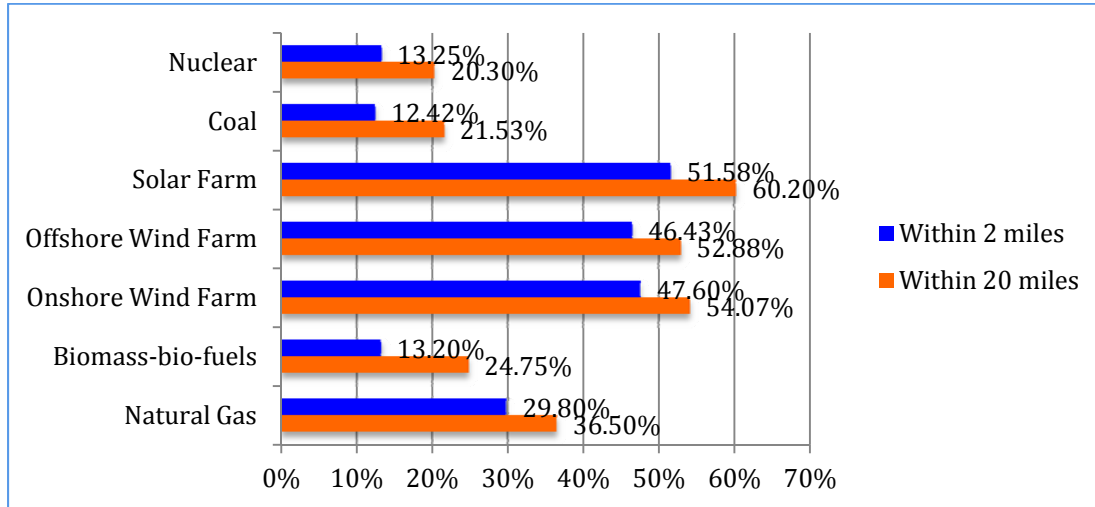
Respondents were asked how likely it would be for them to be willing to live within 2 miles and 20 miles of the following energy installations: Nuclear, Coal, Solar Farm, Offshore Wind Farm, Onshore Wind Farm, Biomass-bio-fuels, Natural Gas. The graph below shows the total percentage of respondents that chose somewhat likely or very likely for each energy installation option. For all types of energy installations, the willingness to live in proximity increases substantially when the distance is expanded from 2 to 20 miles. The greatest comfort level is to live near a solar farm, followed by onshore wind, offshore wind and natural gas. As might be expected there is not as much likelihood to live near a coal or nuclear installation.

Adult Respondents



Living near a solar farm had the greatest comfort level among high school students, followed by onshore wind farm and offshore wind farm.

High School Respondents



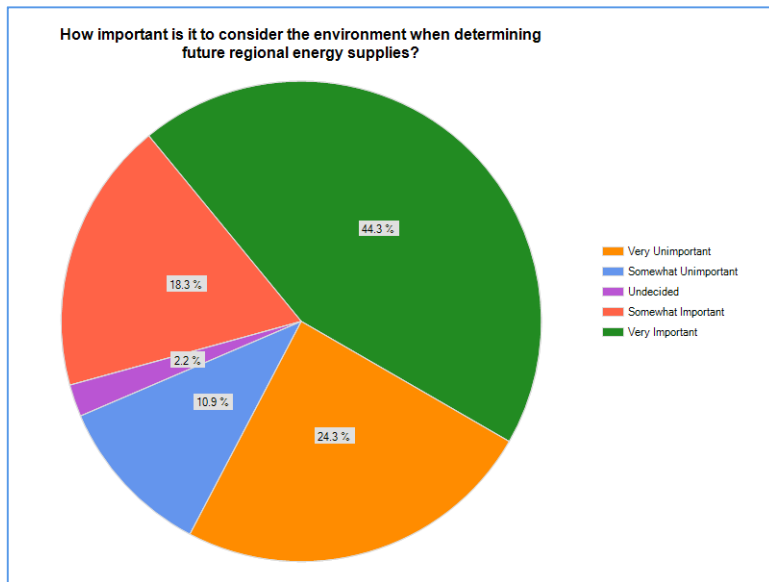
Values on regional energy policy

Respondents were asked a series of questions to help gauge choices they might need to make in developing the region’s energy future. While value statements may not reflect what really might occur, understanding how consumers balance environmental issues with potential cost and energy supply is important in determining the future direction of regional energy policy.

Environment and regional energy supplies

The following graph shows the level of importance placed on the environment when determining future regional energy supplies. Forty-four percent of respondents believe the environment is very important and an additional 18% believe it is somewhat important. Nearly 1 in 4 respondents believe it is very unimportant, and an additional 11% believe it is somewhat unimportant. Only 2% of the population is undecided on this question.

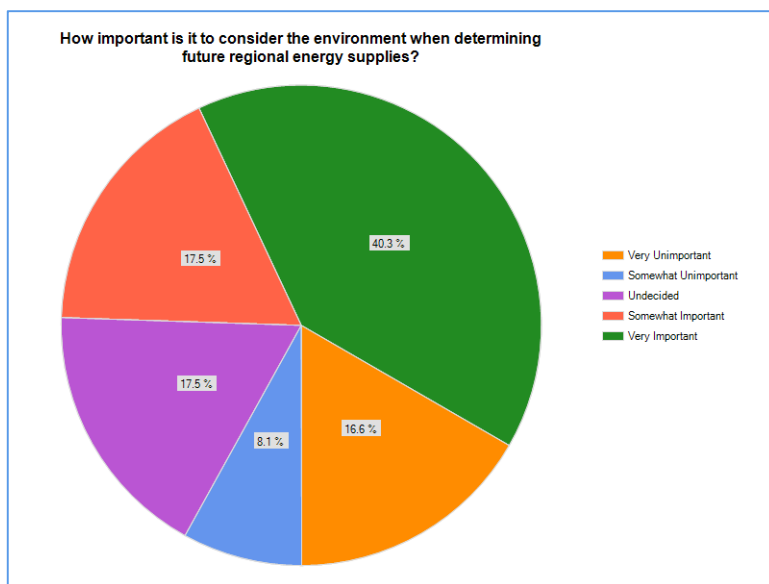
Adult Respondents



High School Respondents

High schools students are much more likely to be undecided on this question (17.5%) than were the general respondent population (2.2%). Otherwise, the proportion of those indicating it is very or somewhat important to those indicating it is very or somewhat unimportant is similar.

High School Respondents

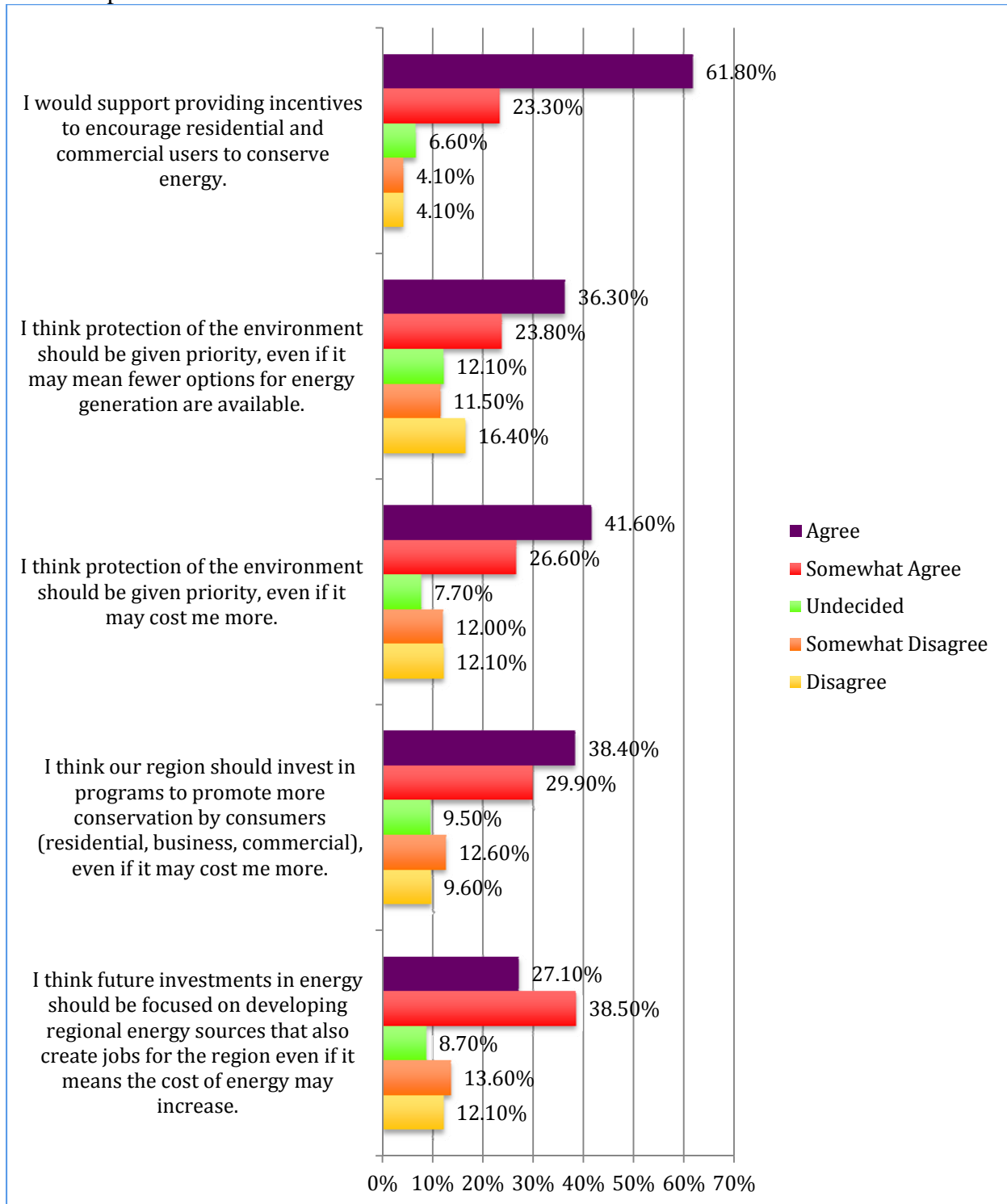


Energy cost, environmental impact and conservation considerations

The following graph shows responses to the value statements on energy policy listed below. Respondents were asked whether they disagree, somewhat disagree, are undecided, somewhat agree or agree with each statement.

- I think protection of the environment should be given priority even it may cost more.
- I think protection of the environment should be given priority, even if it may mean fewer options for energy generation are available.
- I would support providing incentives to encourage residential and commercial users to conserve energy.
- I think future investments in energy should be focused on developing regional energy sources that also create jobs for the region even if it means the cost of energy may increase.
- I think our region should invest in programs to promote more conservation by consumers (residential, business, commercial), even if it may cost me more.

Adult Respondents

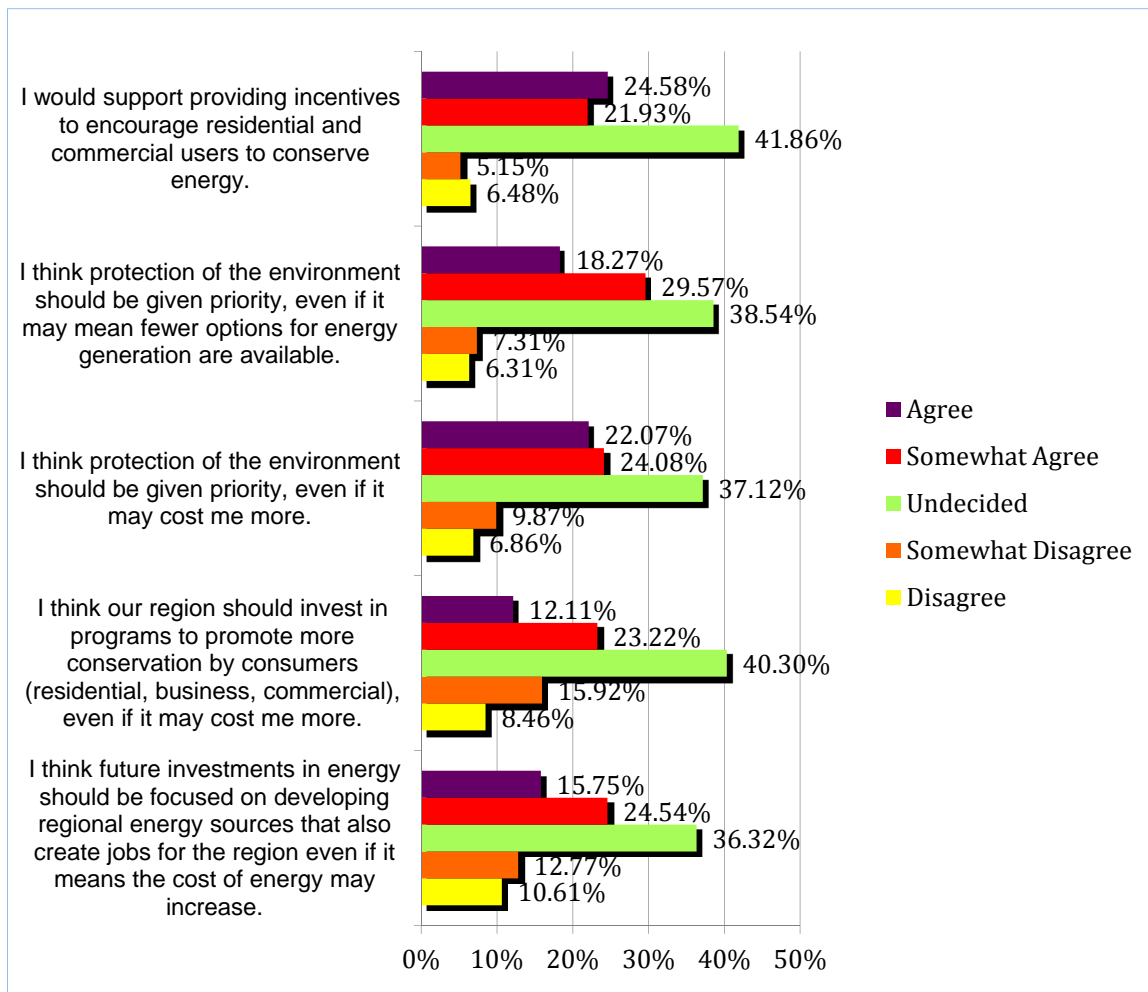


Providing incentives for residential and commercial users to conserve energy is supported by the greatest number of respondents, with 84% indicating they somewhat agree or agree with providing incentives to consumers. Protecting the environment at the expense of fewer energy generation options is supported by 59% of respondents, who indicate they somewhat agree or agree with that statement, although 16% of respondents disagree with this statement. As noted earlier, this is consistent with the importance respondents place on the environment in determining future energy supplies. Slightly more than two-thirds (68%) of respondents affirm their willingness for increasing energy cost in order to protect the environment. The same number (68%) favor programs that promote conservation, even if the programs cost consumers more. Although nearly the same number of respondents (65%) answered they agree or somewhat agree with the last statement regarding developing energy sources that also create jobs, even if it were to cost more, there was a higher percentage indicating they only somewhat agree with this statement (38%) with the remainder (30%) agreeing. Providing incentives to encourage consumers to conserve energy was supported by most of respondents with only 8% indicating they somewhat disagree or disagree. On all the other value statements nearly 1 in 4 respondents somewhat disagree or disagree.

High School Respondents

Greater than one-third of all high school students are undecided on these statements. However, with the exception of the last statement on conservation and consumer cost, greater than 40% of respondents somewhat agree or degree with each statement. On conservation, only 34% somewhat agree or agree.

High School Respondents

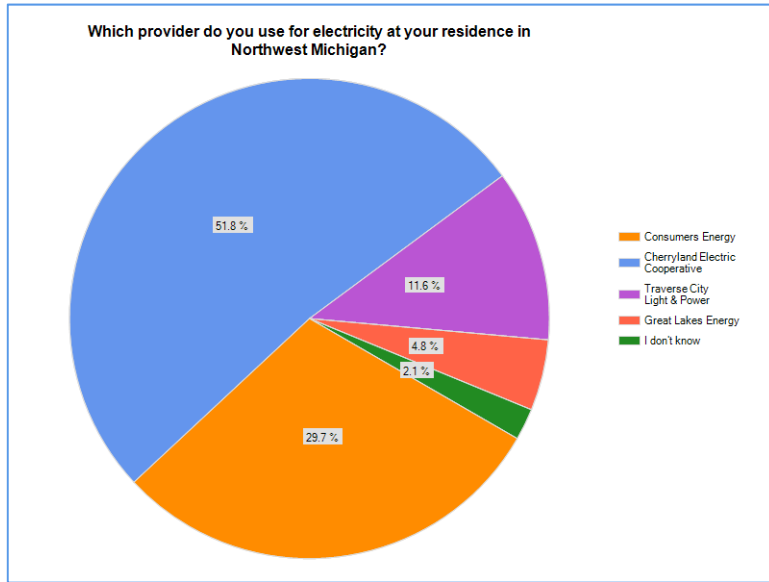


Balancing consumer cost with energy policy

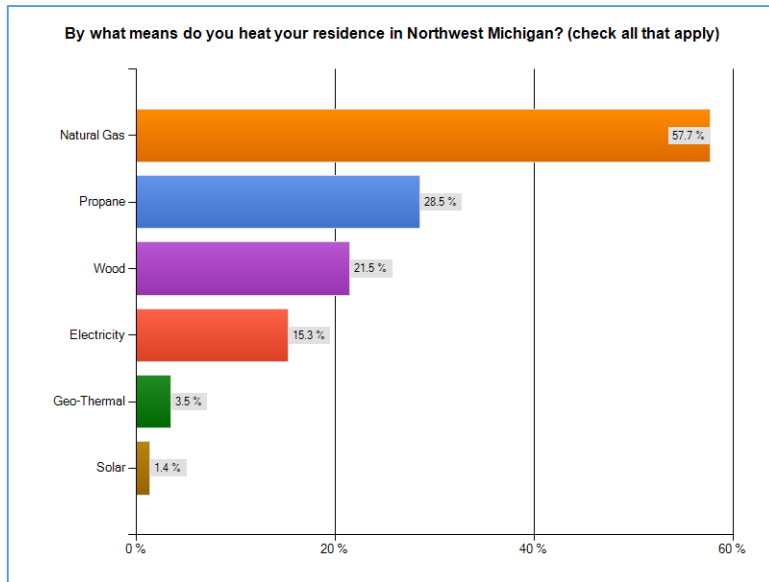
Eighty-one percent of respondents indicate they own their primary residence in Northwest Michigan, 11% rent a primary residence and 7.8% own a secondary residence there. Ninety percent of respondents identify themselves as year-round residents (10-12 months per year) and

10% are seasonal (9 or fewer months). The following graphs show the provider used by respondents for electricity, and the means for heating their residence in Northwest Michigan.

Adult Respondents



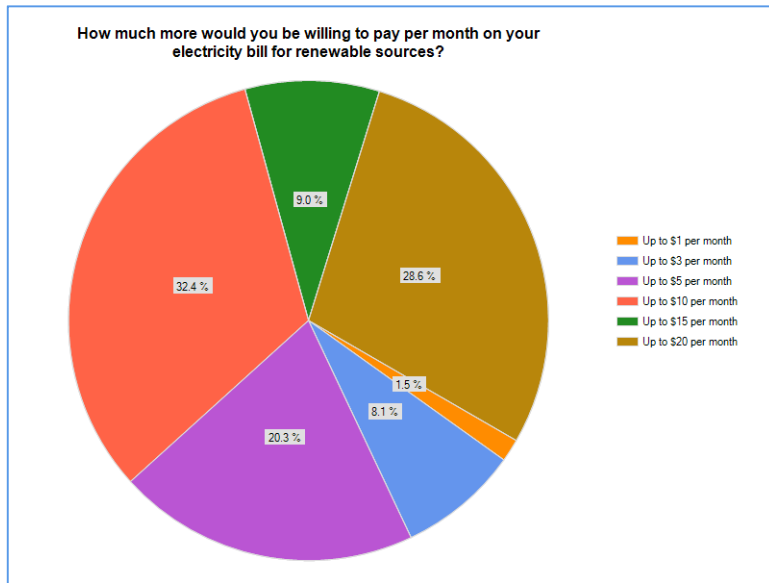
Adult Respondents



Respondents were asked several questions to gain information on how they balance the cost to them for energy with various energy options. First, respondents were asked to rate their level of agreement or disagreement with this statement, "I would be willing to pay more on my monthly electricity bill if it meant more energy would come from *renewable sources and less from fossil*

fuels.” Sixty percent indicated they somewhat agree or agree with the statement, while nearly one-third somewhat disagree or disagree, and 8.5% were undecided. Those who at least somewhat agree were asked how much more they would be willing to pay per month on their electricity bill for renewable sources? The following graph shows the distribution in the amount consumers are willing to pay. For example, nearly a third would pay up to \$10 or more and another 29% indicate they would be willing to pay twice that amount.

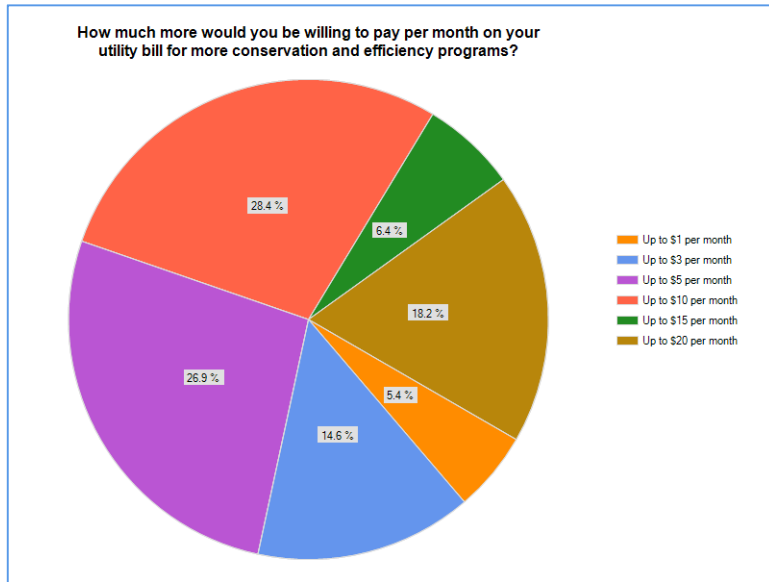
Adult Respondents*



*Depicts those willing to pay more

Approximately the same percentage of respondents (62%) indicate they would be willing to pay more on their utility bill if it meant *more conservation and efficiency programs* are provided, however slightly more than one in four somewhat disagree or disagree with this statement, and 10.6% are undecided. Again, the question was asked of those that at least somewhat agree, how much more they would be willing to pay. The following graph shows approximately the same willingness to pay more, though in slightly lower increments. Twenty-seven percent are willing to pay up to \$5, 28% are willing to pay up to \$10 and another 18% will pay up to \$20 per month.

Adult Respondents*

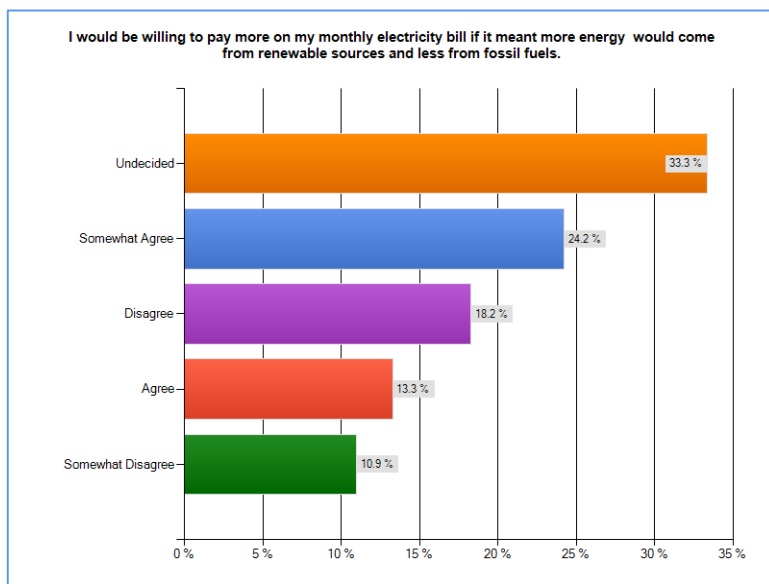


*Depicts those willing to pay more

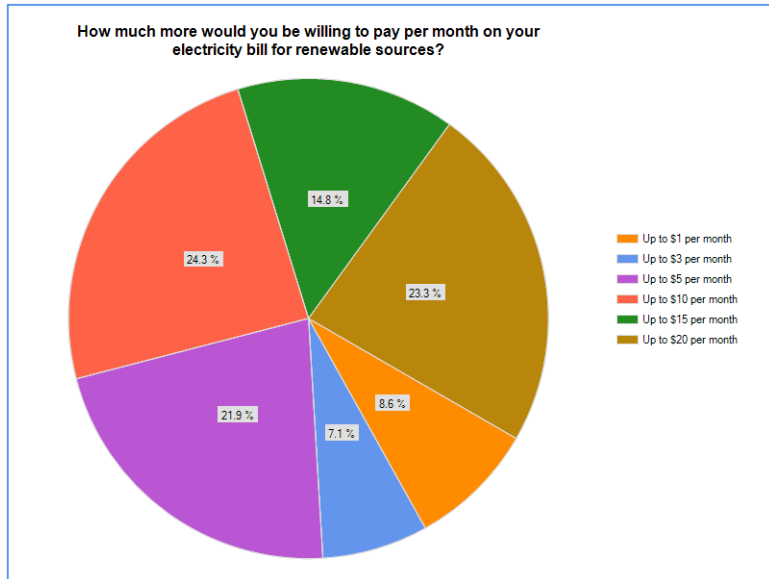
High School Respondents

High school students are less likely to want to pay more for renewable energy than the adult respondents, with only 13% agreeing and 24% somewhat agreeing with the statement. Of those, they are willing to pay less than adults for electricity if more came from renewable sources and less from fossil fuels.

High School Respondents



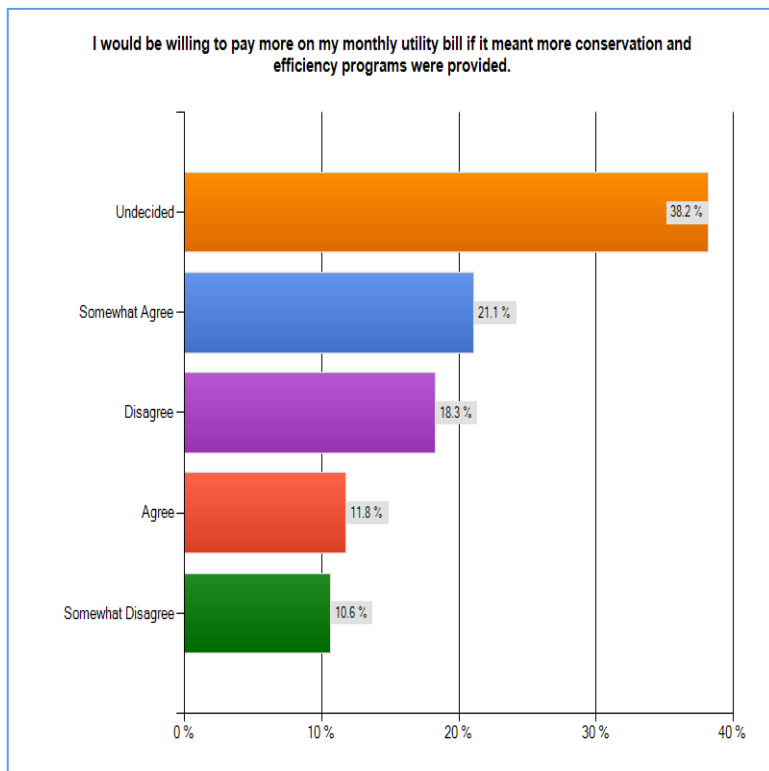
High School Respondents*



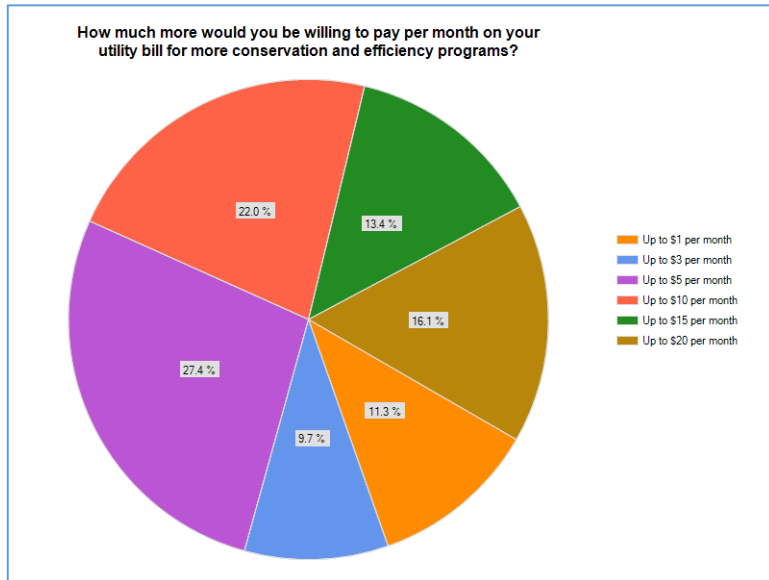
*Depicts those willing to pay more

Only one-third of high school respondents somewhat agree or agree with paying more for conservation and efficiency programs. However, of those, they are willing to pay much more than the adult population.

High School Respondents



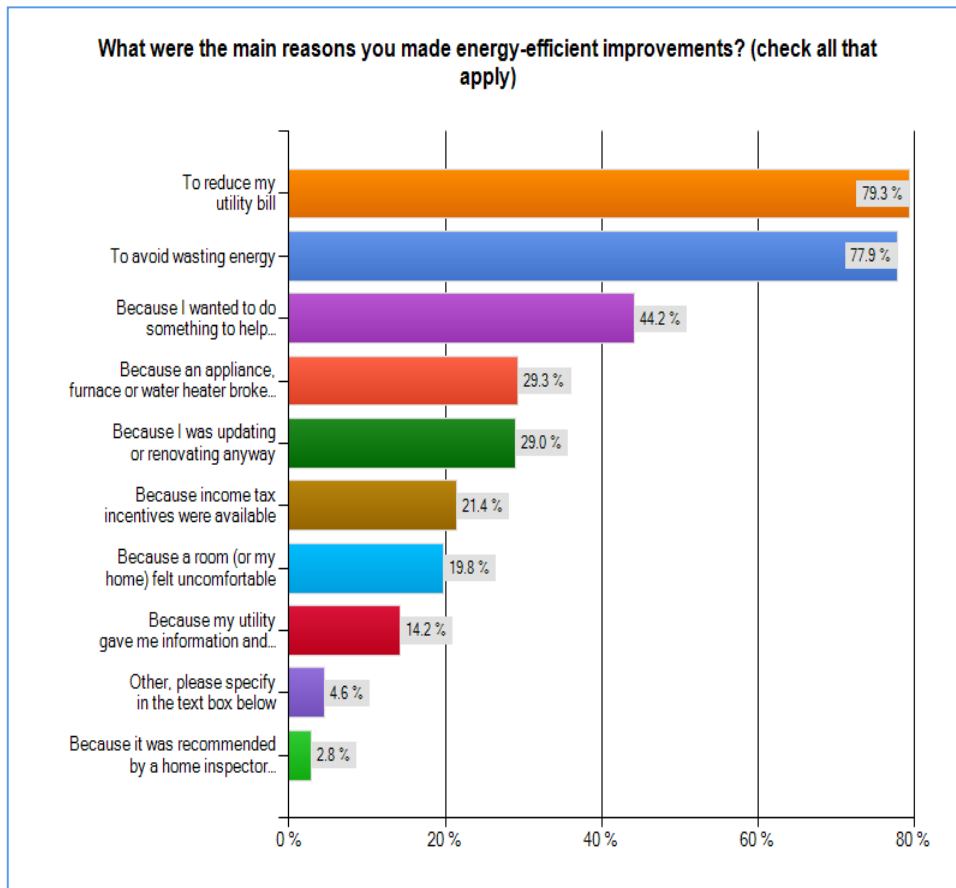
High School Respondents



Personal energy-efficiency efforts

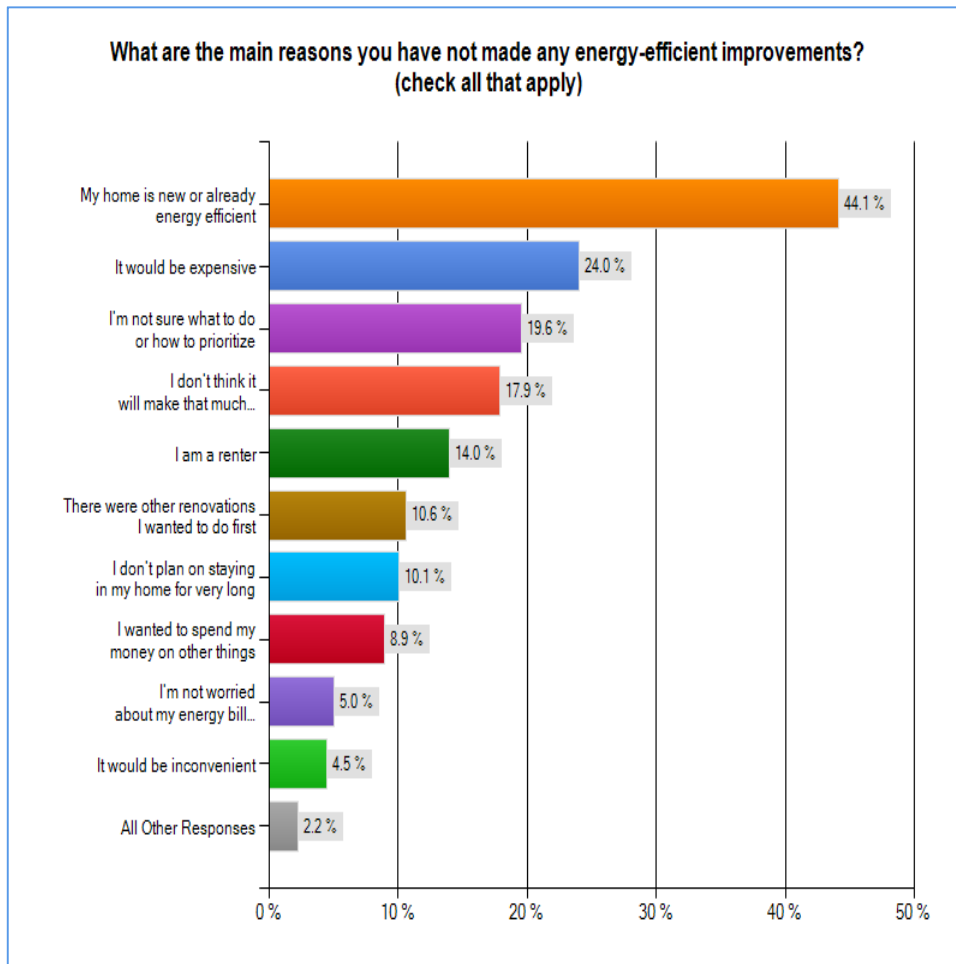
In thinking about energy use and cost there are many personal strategies residents might take to make their home more energy efficient. Eighty-two percent of respondents indicate they have taken steps over the last five years to make their primary residence in northwest Michigan more energy efficient. The following graph shows the main reasons energy-efficient improvements are made, including the top three: 1) to reduce utility bills (79.3%), 2) to avoid wasting energy (77.9%), and 3) to help improve the environment (44.2%).

Adult Respondents



The main reasons for not making energy-efficient improvements are because the house is new or already energy efficient (44.1%), followed by cost (it would be expensive 24%), not knowing what to do or how to prioritize (19.6%), and the belief that it will not make much of a difference (17.9%).

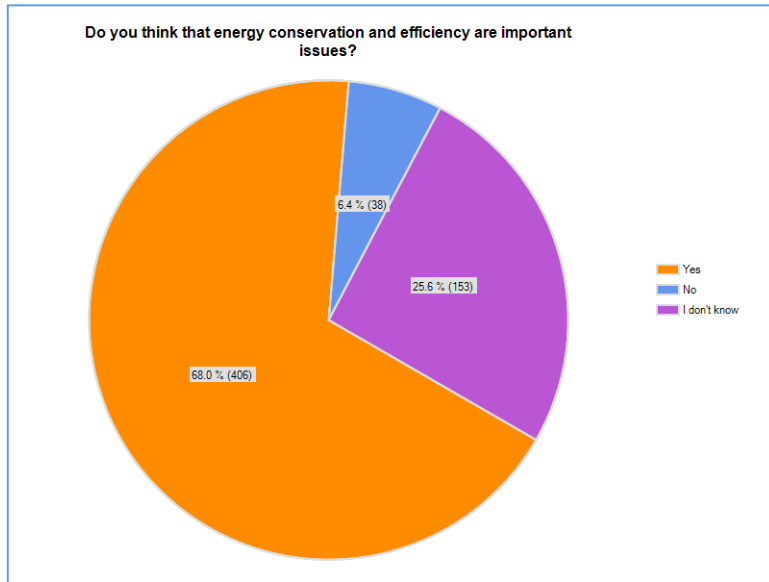
Adult Respondents



Opinions on Energy Conservation and Efficiency-High School Respondents

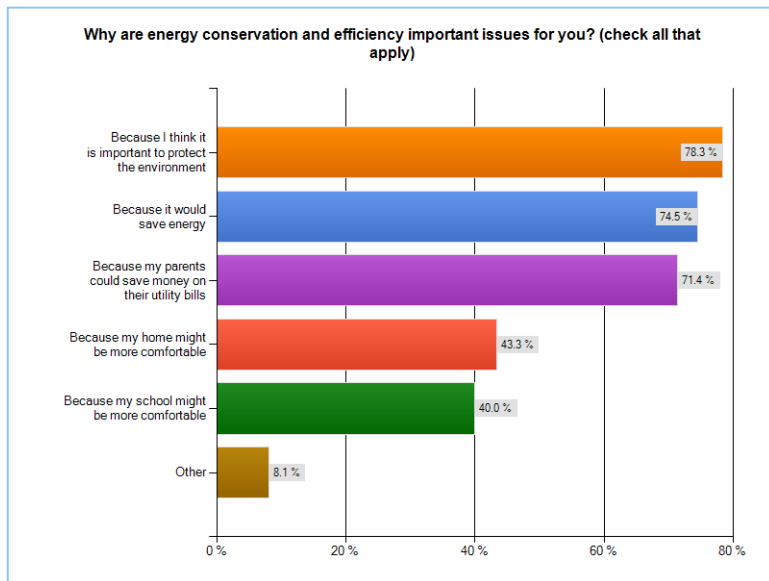
The next set of questions for the high school respondents sought to gauge beliefs on energy conservation and efficiency and their level of importance to them. Over two-thirds of respondents indicated they thought energy conservation and efficiency are important issues, and only 6.4 % thought it is not important. Opportunities for more education may exist among the high school population as 25.6% answered they don't know whether energy conservation and efficiency efforts are important.

High School Respondents



Respondents that indicated these issues are important were asked to check all the reasons they believe this. The following chart shows the results, with nearly three-fourths believing: 1) It is important to protect the environment, 2) To save energy, and 3) To help their parents save money on the their utility bills.

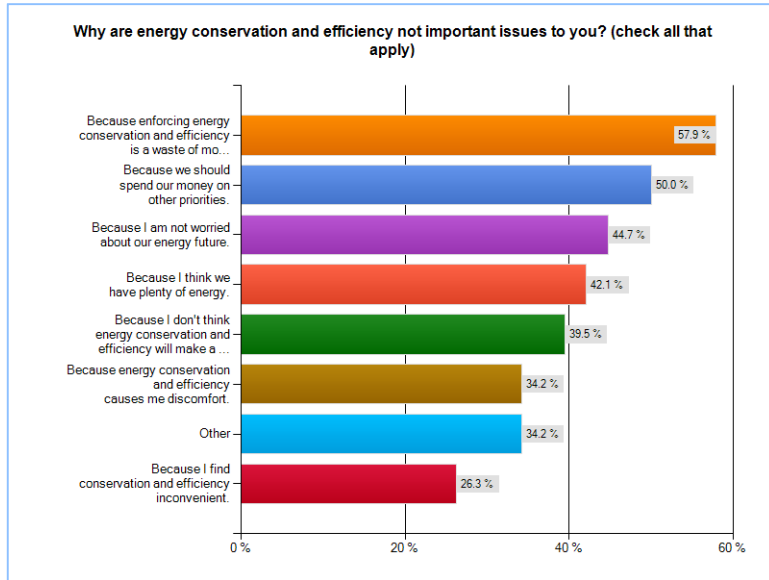
High School Respondents



Although only a small number of respondents felt energy conservation and efficiency issues are not important (N=38), the reasons that group gave for this belief are listed in the following graph. The most common reasons given are enforcing energy conservation and efficiency is a waste of

money and money should be spent on other products. Forty-four percent indicated they are not worried about our energy future.

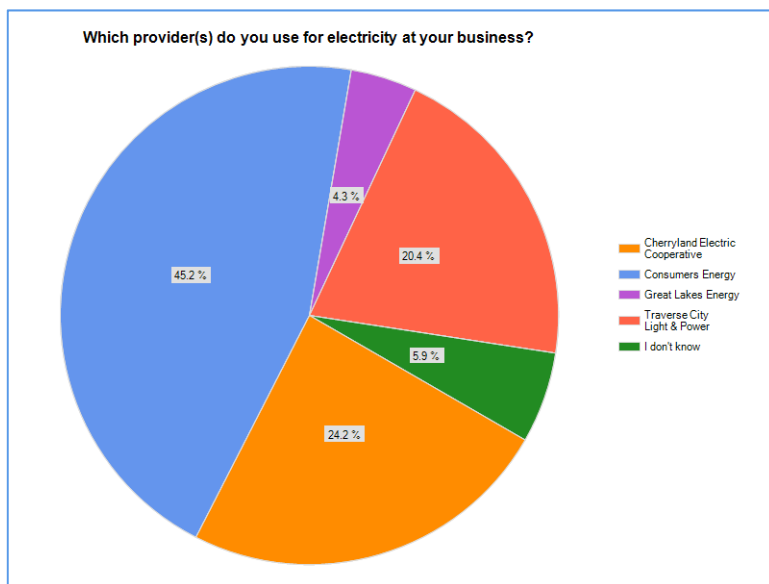
High School Respondents



Business Owner Respondents

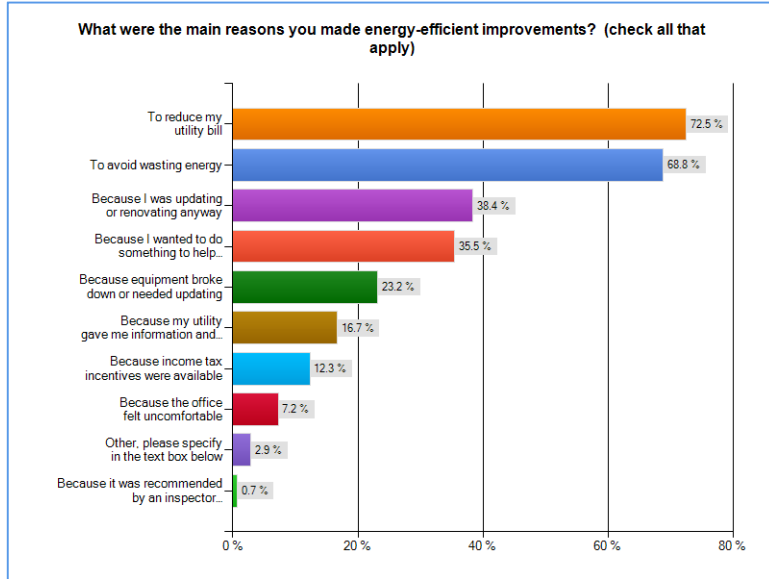
Fourteen percent of adult respondents indicate they own a business in northwest Michigan that utilizes space other than their primary residence, including property management businesses, e.g. landlords. The following graph shows the providers used for electricity in their place of business.

Business Owner Respondents



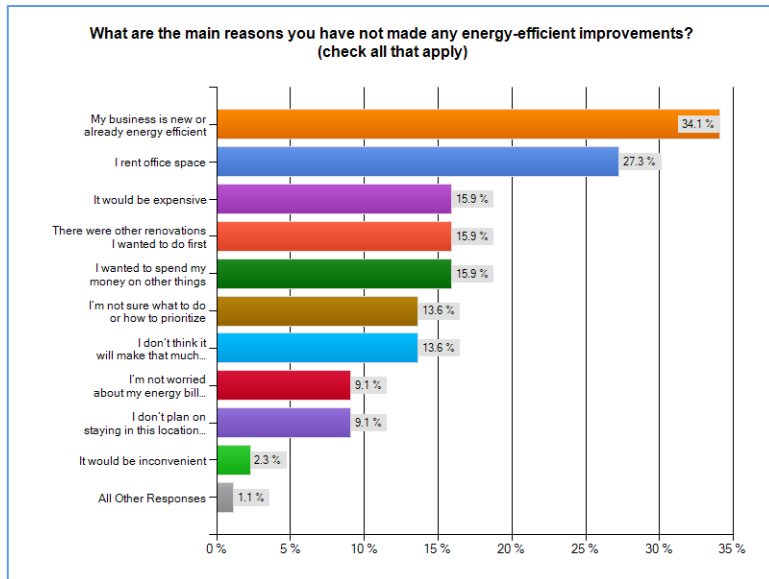
Business owners were asked whether they had taken steps in the last five years to make their business more energy-efficient, and 71% indicate they had. Reasons given for making energy-efficient improvements are shown in the graph below, including the top three: 1) to reduce my utility bill (72.5%), 2) to avoid wasting energy (68.8%), and 3) because they are updating or renovating anyway (38.4%).

Business Owner Respondents



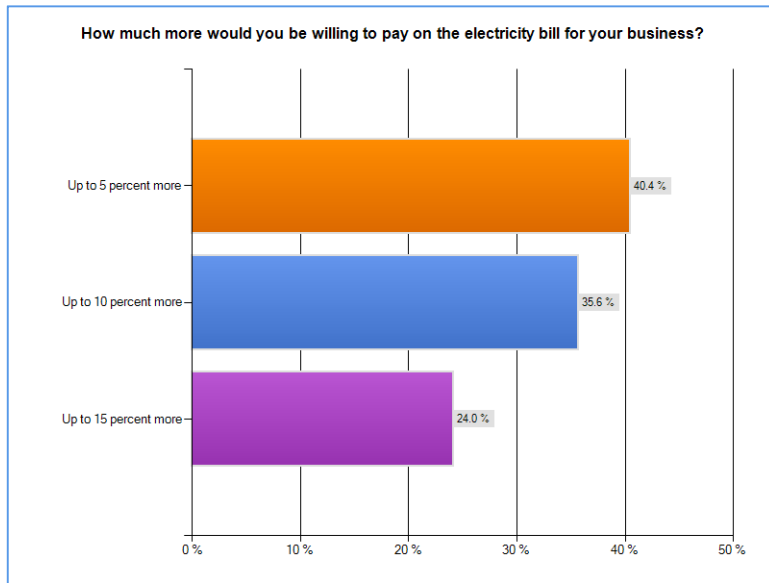
The most common reasons given for not making energy-efficient improvements are 1) the business was new or already energy efficient (34.1%), 2) they rent office space (27.3%) and 3) it would be expensive (15.9%).

Business Owner Respondents



Business owners were asked the same questions as residents regarding balancing energy cost and various energy options. When given the following statement, “I would be willing to pay more on my monthly electricity bill if it meant more energy would come from *renewable sources and less from fossil fuels.*” 34% agree and 23% somewhat agree. However, 30% disagree and 5.3% somewhat disagree, while 8.4% are undecided. For those who at least somewhat agree, the graph below shows how much more they would be willing to pay on their electricity bill.

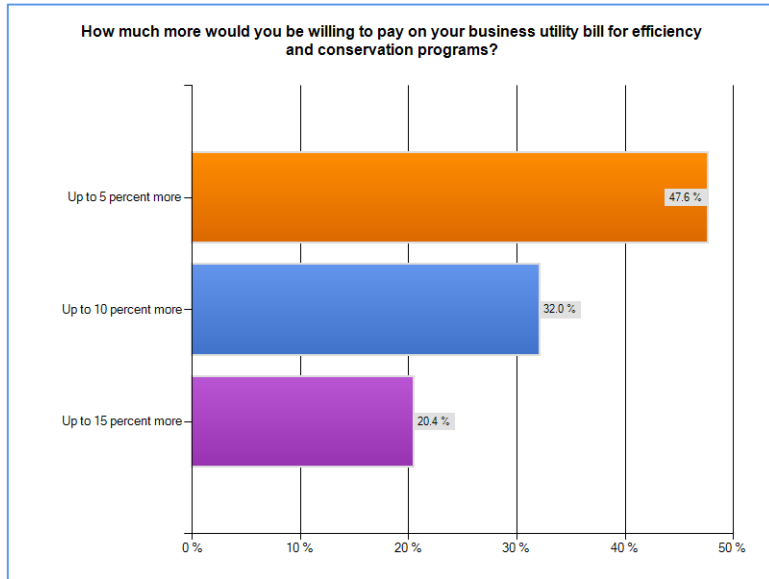
Business Owner Respondents*



*Depicts those willing to pay more

Approximately the same percentage of business owners (55%) indicate they at least somewhat agree with paying more on their utility bill if it meant *more conservation and efficiency programs* are provided. Five percent somewhat disagree, 24% disagree, and 15% are undecided. Again, of those who at least somewhat agree, the question was asked how much more they would be willing to pay. Their responses are shown in the graph below.

Business Owner Respondents



*Depicts those willing to pay more

Appendix A Survey Instrument

Energy uses and sources are important topics that affect our everyday lives in Northwest Michigan where we live, work and play. In 2008, more than 12,000 citizens from Antrim, Benzie, Grand Traverse, Kalkaska, Leelanau and Wexford Counties voiced their ideas through surveys and community meetings that led to the creation of the Grand Vision, the principles that will guide the development of our desired vision of the region 50 years into the future. Citizens said that having regional energy principles was important to that vision. The Grand Vision (www.thegrandvision.org). This led to the creation of the Grand Vision Energy Network, a group of individuals, businesses, nonprofits and government that meets regularly and is open to anyone that would like to participate. The Energy Network is currently working on the development of a regional energy plan.

Please help guide these efforts by completing this survey. . . . in just 12 minutes.

Your responses are completely confidential and you will not be individually named or identified in any way. If you have any questions or concerns, you may contact NorthSky Nonprofit Network at 231-929-3934 x209.

Thanks so much for your participation!

Section I

In this section we are asking you to give us some information on what you value relating to energy utilization and production, and the choices you would make for locally generated energy.

1. When thinking about electricity for your home or business how important is each of the following four factors to you? (Please rank them in order of importance with 1 being most important and 4 being least important.)

	Energy Reliability-"keeping the lights on"
	Environment-"how electricity production affects the environment"
	Consumer Cost-"price you pay for electricity"
	Regional Economy-"the impact electricity production has on local businesses and jobs"

2. Based on each of these four factors, please rank order your top three choices from the list below for generation of electricity. (Please put the letter next to each choice into the appropriate box in each row. For example, if Coal was your first choice for Energy Reliability, you would put the letter b in the first choice box in that row.)

- a. Biomass
- b. Coal
- c. Efficiency/Conservation
- d. Home Generation
- e. Natural Gas
- f. Nuclear
- g. Offshore Wind Farm
- h. Onshore Wind Farm
- i. Solar Farm

	First Choice	Second Choice	Third Choice
Energy Reliability-"keeping the lights on"			
Consumer Cost-"price you pay for electricity"			
Environment-"how electricity production affects the environment"			
Regional Economy-"the impact electricity production has on local businesses and jobs"			

3. How likely would you be to support the following energy options in your region? (Please check the appropriate column for each energy option.)

	Not at all likely	Not very likely	Undecided	Somewhat likely	Very likely
Biomass-bio-fuels					
Coal					
Efficiency/Conservation					
Home Generation					

Natural Gas					
Nuclear					
Offshore Wind Farm					
Onshore Wind Farm					
Solar Farm					

4a. How likely is it that you would be willing to live within 2 miles of any of the following energy installations? (Please check the appropriate column for each energy option.)

	Not at all likely	Not very likely	Undecided	Somewhat likely	Very likely
Biomass-bio-fuels					
Coal					
Efficiency/Conservation					
Home Generation					
Natural Gas					
Nuclear					
Offshore Wind Farm					
Onshore Wind Farm					
Solar Farm					

4b. How likely is it that you would be willing to live within 20 miles of any of the following energy installations? (Please check the appropriate column for each energy option.)

	Not at all likely	Not very likely	Undecided	Somewhat likely	Very likely
Biomass-bio-fuels					
Coal					
Efficiency/Conservation					
Home Generation					
Natural Gas					
Nuclear					
Offshore Wind Farm					
Onshore Wind Farm					
Solar Farm					

Section II

The following questions reflect some of the choices we may need to make in developing the region’s energy future.

5. How important is it to consider the environment when determining future regional energy supplies?

- Very Unimportant
- Somewhat Unimportant
- Undecided
- Somewhat Important
- Very Important

6. Please tell us your opinion on each of the following statements by selecting the appropriate response. (Please check the appropriate column for each statement.)

	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree
I think future investments in energy should be focused on developing regional energy sources that also create jobs for the region even if it means the cost of energy may increase.					
I think our region should invest in programs to promote more conservation by consumers (residential, business, commercial),					

even if it may cost me more.					
I think protection of the environment should be given priority, even if it may cost me more.					
I think protection of the environment should be given priority, even if it may mean fewer options for energy generation are available.					
I would support providing incentives to encourage residential and commercial users to conserve energy.					

7. I would be willing to pay more on my monthly electricity bill if it meant more energy would come from renewable sources and less from fossil fuels. (Go to question 8 if you somewhat agree or agree, otherwise skip to question 9)

- Disagree
- Somewhat Disagree
- Undecided
- Somewhat Agree
- Agree

8. How much more would you be willing to pay per month on your electricity bill for renewable sources? (please check only one response)

- Up to \$1 per month
- Up to \$3 per month
- Up to \$5 per month
- Up to \$10 per month
- Up to \$15 per month
- Up to \$20 per month
- Other (please specify) _____

9. I would be willing to pay more on my monthly utility bill if it meant more conservation and efficiency programs were provided. (Go to question 10 if you somewhat agree or agree, otherwise skip to question 11)

- Disagree
- Somewhat Disagree
- Undecided
- Somewhat Agree
- Agree

10. How much more would you be willing to pay per month on your utility bill for more conservation and efficiency programs?

- Up to \$1 per month
- Up to \$3 per month
- Up to \$5 per month
- Up to \$10 per month
- Up to \$15 per month
- Up to \$20 per month
- Other (please specify) _____

11. I would support the following regional energy options, even if there may be an environmental impact. (Please check the appropriate column for each energy option.)

	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree
Biomass Plant					
Exploration and drilling for natural gas sources					
Offshore Wind Farm					
Onshore Wind Farm					

12. If I was assured of proper regulation and oversight that would help protect the environment, I would support the following regional energy options. (Please check the appropriate column for each energy option.)

	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree
Biomass Plant					
Exploration and drilling for natural gas sources					
Offshore Wind Farm					
Onshore Wind Farm					

Section III

The next section asks you to tell us about your energy efficiency opinions and practices.

13. Are you a high school student?

- Yes (*go to question 14*)
- No (*skip to question 19*)

14. In which county do you live?

- Antrim
- Benzie
- Grand Traverse
- Kalkaska
- Leelanau
- Wexford
- Other (please specify) _____

15. What is your gender?

- Male
- Female
- Prefer not to answer

16. Do you think that energy conservation and efficiency are important issues?

- Yes (*go to question 17*)
- No (*skip to question 18*)
- I don't know (*skip to question 41*)

17. Why are energy conservation and efficiency important issues for you? (check all that apply)

- Because my school might be more comfortable
- Because it would save energy
- Because my parents could save money on their utility bills
- Because my home might be more comfortable
- Because I think it is important to protect the environment
- Other (please specify) _____

18. Why are energy conservation and efficiency not important issues to you? (check all that apply)

- Because we should spend our money on other priorities.
- Because I don't think energy conservation and efficiency will make a difference.
- Because I find conservation and efficiency inconvenient.
- Because energy conservation and efficiency causes me discomfort.
- Because enforcing energy conservation and efficiency is a waste of money.
- Because I think we have plenty of energy.
- Because I am not worried about our energy future.
- Other (please specify) _____

19. Do you rent or own your residence in northwest Michigan?

- Own primary residence in Northwest Michigan
- Own secondary residence in Northwest Michigan
- Rent primary residence in Northwest Michigan

20. Which provider do you use for electricity at your residence in Northwest Michigan?

- Consumers Energy
- Cherryland Electric Cooperative
- Traverse City Light & Power
- Great Lakes Energy
- I don't know
- Other (please specify) _____

21. By what means do you heat your residence in Northwest Michigan? (check all that apply)

- Natural Gas
- Electricity
- Propane
- Wood
- Geo-Thermal
- Solar
- Other (please specify) _____

22. Have you taken any steps in the last five years to make your primary residence in Northwest Michigan more energy efficient?

- Yes (**Go to 23**)
- No (**Skip to 24**)
- I don't know (**Skip to 25**)

23. What were the main reasons you made energy-efficient improvements? (check all that apply)

- To reduce my utility bill
- Because income tax incentives were available
- Because my utility gave me information and offered incentives
- To avoid wasting energy
- Because an appliance, furnace or water heater broke down or needed updating
- Because it was recommended by a home inspector or real estate agent
- Because I wanted to do something to help improve the environment
- Because a room (or my home) felt uncomfortable
- Because I was updating or renovating anyway
- Other (please specify)

24. What are the main reasons you have not made any energy-efficient improvements? (check all that apply)

- I'm not sure what to do or how to prioritize
- It would be inconvenient
- There were other renovations I wanted to do first
- I don't plan on staying in my home for very long
- I wanted to spend my money on other things
- I am a renter
- My home is new or already energy efficient
- It would be expensive
- I'm not worried about my energy bill or consumption
- I don't think it will make that much of a difference
- Because we have plenty of energy
- It might cause discomfort
- Other (please specify)

25. Do you own a business in Northwest Michigan that utilizes a space other than your primary residence, including property management businesses (landlords)?

- Yes (**Go to 26**)
- No (**Skip to 34**)

26. Which provider(s) do you use for electricity at your business?

- Cherryland Electric Cooperative

- Consumers Energy
- Great Lakes Energy
- Traverse City Light & Power
- I don't know

27. Have you taken any steps in the last five years to make your business more energy efficient?

- Yes (**Go to 28**)
- No (**Skip to 29**)
- I don't know (**Skip to 30**)

28. What were the main reasons you made energy-efficient improvements? (check all that apply)

- Because equipment broke down or needed updating
- Because it was recommended by an inspector or real estate agent
- Because the office felt uncomfortable
- Because I was updating or renovating anyway
- Because I wanted to do something to help improve the environment
- To avoid wasting energy
- Because my utility gave me information and offered incentives
- Because income tax incentives were available
- To reduce my utility bill
- Other (please specify) _____

29. What are the main reasons you have not made any energy-efficient improvements? (check all that apply)

- It might cause discomfort
- It would be expensive
- I'm not sure what to do or how to prioritize
- I rent office space
- I wanted to spend my money on other things
- It would be inconvenient
- Because we have plenty of energy
- My business is new or already energy efficient
- I don't think it will make that much of a difference
- There were other renovations I wanted to do first
- I'm not worried about my energy bill or consumption
- I don't plan on staying in this location for very long
- Other (please specify) _____

30. I would be willing to pay more on the electricity bill for my business if it meant energy would come from renewable sources rather than fossil fuels. (Go to question 31 if you somewhat agree or agree, otherwise skip to question 32)

- Disagree
- Somewhat Disagree
- Undecided
- Somewhat Agree
- Agree

31. How much more would you be willing to pay on the electricity bill for your business?(please check only one response)

- Up to 5 percent more
- Up to 10 percent more
- Up to 15 percent more
- Other (please specify) _____

32. I would be willing to pay more in utilities for my business if it meant more conservation and efficiency programs were provided. (Go to question 33 if you somewhat agree or agree, otherwise skip to question 34)

- Disagree
- Somewhat Disagree
- Undecided
- Somewhat Agree
- Agree

33. How much more would you be willing to pay on your business utility bill for efficiency and conservation programs?

- Up to 5 percent more
- Up to 10 percent more
- Up to 15 percent more
- Other (please specify) _____

Section IV

The final questions ask for some information about you so that we can verify that we have represented a diverse group of people in the region.

34. In which county is your primary or secondary residence in northwest MI?

- Antrim
- Benzie
- Grand Traverse
- Kalkaska
- Leelanau
- Wexford
- Other (please specify) _____

35. Are you a year round or seasonal resident?

- Year round resident (10-12 months)
- Seasonal resident (9 or fewer months)

36. Do you serve as an elected official or on a planning commission?

- Yes
- No

37. Please select your household income bracket.

- Less than \$35,000
- \$35,000 to \$49,999
- \$50,000 to \$99,999
- \$100,000 or more

38. What is your age?

- 18 years or fewer
- 19-24 years
- 25-44 years
- 45-65
- over 65 years

39. What is the highest education level you have attained?

- Less than High School
- High School Degree or GED
- College Level Coursework
- Associate's Degree
- Bachelor's Degree
- Graduate or Professional Degree

40. What is your gender?

- Male
- Female
- Prefer not to answer

41. If you would like to be contacted by the Energy Network to learn more about energy issues or are interested in

joining the network, please leave your email below. No data will be released that connects your email address to your responses.