



COASTAL  
ENTERPRISES  
INC.



**Opportunities and Barriers to Increased  
Energy Efficiency and Adoption of  
Renewable Energy Technologies by Small  
Businesses and Community Facilities in  
Franklin County**

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## **Introduction**

In early 2008, with generous support from the King & Jean Cummings Charitable Trust Fund at the Maine Community Foundation, CEI launched a research effort in collaboration with the Western Mountains Alliance (WMA) to assess the opportunities and barriers facing rural businesses and community institutions interested in implementing energy efficiency and/or renewable energy systems in Franklin County.

This effort was designed to accomplish two things. First, CEI and WMA aimed to undertake a research effort to identify rural businesses and community institutions such as schools and hospitals that could benefit from energy efficiency measures but also by switching from primarily petroleum-based heat and power generation to renewable sources for heat and/or power. The research was intended to include a general assessment of local heat and power generation needs and the type of financing that these entities would need, if any, to undertake a shift in their energy generation capabilities. This objective was perhaps too ambitious for this project. While 49 businesses and institutions responded to the survey, it was not possible to inventory all of their energy needs.

Second, the research was designed to support the longer-term development of an emerging market segment within a larger program of economic development. The first phase is this research effort, but our goal is to determine the interest in and need for energy efficiency and renewable heat and power generation among businesses and community institutions in one of Maine's most rural counties. The research was also designed to identify the barriers that currently prevent these entities from implementing energy efficiency measures and/or from converting to alternative, renewable, and local sources of energy. This objective was successfully met.

Since CEI conceived this research project and since the research was launched, the need for both energy efficiency and renewable energy has only become more imperative. The cost for a barrel of oil in May and June 2008 hovered between \$130 and \$140, almost double the price at the same time last year. While the oil heating season is not yet upon us, these unprecedented price increases will undoubtedly affect businesses and community institutions in rural Maine, not to mention residential consumers. For instance 71.9% of respondents to this survey depend on oil as their primary fuel source. Many businesses and community institutions may face dire choices in the coming winter.

## **Methods**

This report was inspired by a similar and more in-depth study and report – *Increasing Energy Efficiency in Minnesota's Small and Mid-Sized Businesses*<sup>1</sup> – completed by the Minnesota Environmental Initiative. However, while the Minnesota study focused solely on energy efficiency, this study aimed to better understand the opportunities and challenges for both increased energy efficiency and adoption of renewable energy technologies by small businesses and community institutions. Community institutions were defined as entities such as schools, hospitals, child and elder care facilities, and various types of non-profit organizations.

The Minnesota Environmental Initiative generously shared their survey instrument with CEI and the survey instrument used for this study relied heavily on it. In addition, the Western Mountains

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<sup>1</sup> The report can be downloaded at: <http://www.mn-ei.org/projects/images/Increasing%20Energy%20Efficiency%20in%20MN%20Small%20Businesses.pdf>

Alliance, with the assistance of University of Maine at Farmington (UMF) student intern Siobhann Patrie and UMF Professor Linda Beck provided invaluable research and survey design assistance. The final report also benefited from the editing and critique of Dylan Voorhees, Clean Energy Director for the Natural Resources Council of Maine as well as Mary Ann Hayes, Executive Director of Maine Rural Partners. Finally, this survey would not have been possible without the investment of time by the small businesses and community institutions who responded to it.

After initially planning to distribute a paper survey, CEI ultimately chose to use an on-line survey. This decision was made for one primary reason. Developing a mailing list proved too cumbersome and would have required a disproportionate amount of time to assemble whereas we were able to develop a quite comprehensive email list with the assistance of several local trade associations and non-profit organizations.

The survey contained a total of 36 questions and was designed to take 10 minutes or less to complete. As an incentive to complete the survey, CEI raffled an iPod Shuffle. The survey was launched on April 21, 2008 and closed on May 31, 2008. It was distributed to local schools, hospitals, individual businesses, the local chamber of commerce, University of Maine Cooperative Extension, the local United Way affiliate, and other business organizations as well as a local online newspaper.

The survey results are not statistically significant. There are approximately 1,400 employers in Franklin County. Based on the email lists of the businesses and associations that distributed the survey, we estimate that the survey reached approximately 500 businesses and community institutions. Of those, a total of 49 respondents started the survey and 24 of those actually completed it, for a 49% completion rate. While this response rate was lower than hoped for, the results are generally consistent with the results obtained in the Minnesota survey and we think they are fairly representative of the opportunities and barriers facing small businesses and community institutions in Franklin County.

The low response rate highlights an important challenge of working with rural small businesses and community institutions. As a group, these entities are quite diverse in both size and function and many are quite limited in resources to focus on things such as surveys or on identifying the best opportunities for energy efficiency or renewable energy options. This indicates a need for more work on how best to engage these entities in efforts that will benefit them but also produce broader public benefits.

### **Summary of Survey Results**

As noted above, the survey was distributed electronically to businesses and community institutions in Franklin County and was available from April 21, 2008 to May 31, 2008. The results are not statistically significant but provide an important insight into the opportunities and barriers facing small businesses and community institutions. A more complete summary of survey results is included in the Appendix.

Survey respondents represent the diversity of the Franklin County economy. The largest group of respondents included Schools (12.8%), Hospitals (12.8%), and Non-profits other than schools or hospitals (27.7%). Interestingly, manufacturing and retail businesses represented only 2.1% and

8.5% of respondents, respectively. Other uncategorized respondents (36.2%) also represent a diversity of businesses and entities such as municipalities, farms, automobile repair, legal services, and others.

As noted above, and consistent with statistics for residential consumers, 71.9% of businesses and community institutions depend on oil as their primary fuel source. A distant 12.5% use wood as their primary fuel source followed by natural gas and electricity at 3.1% each. Some respondents did not know what their primary fuel source and 6.3% noted other sources such as propane, waste oil, and a combination of wood and oil.

### ***Energy Efficiency***

A significant finding that is consistent with the findings of our colleagues in Minnesota is that there are businesses and community institutions in Franklin County who would like to improve their energy efficiency or seek alternative energy options but who have not accessed existing programs and resources. For example, fully 68.8% of respondents have not had an energy audit. At the same time, 54.5% of respondents were not aware of existing programs such as Efficiency Maine, Energy Star, or Leadership in Energy and Environmental Design and 78.3% of respondents have not used any of these programs. The biggest reason for not using these programs was that the respondent did not understand the program (47.4%). These results suggest that there is a gap in knowledge about some of the relatively easy things that businesses and community institutions can do to improve their energy efficiency.

With Maine being one of the states most reliant on oil for heating, the fact that 71.9% of respondents depend on oil is not surprising but it does suggest that businesses and community institutions will continue to be vulnerable to spikes in energy costs.

The flip side of this is that businesses and community institutions are watching their energy usage closely. Fully 76.7% and 82.8% of respondents noted that they monitor energy use and costs, respectively, in operations sometimes, most of the time, or always. As well, 66.7% of respondents have made energy efficiency improvements in the past year. Most of these changes focused on behavior changes such as recycling and turning off lights and computers (44.4%) followed by improving the building envelope and insulating (33.3%), equipment repairs and/or upgrades (25.9%), and thermostat programming (22.2%). Still, 89.3% of respondents expressed an interest in making more energy efficiency improvements. Most were interested in renewable energy (66.7%) and improving their building envelope and insulation (54.2%), followed by equipment repair and/or upgrades and behavior change (37.5%) and thermostat programming (33.3%).

As with the Minnesota study, the biggest need identified by respondents to assist them with energy efficiency improvements was for financial incentives (81.8%), followed by technical assistance (54.5%), and access to better information (50.0%).

**Case Study: MSAD #58 – Planning for a Secure Energy Future**

Maine School Administrative District (MSAD) #58 serves 1,000 students in the towns and townships of Northern Franklin County and operates four elementary schools and one high school. The school district's Superintendent is Quenten Clark, an energy-savvy educator and administrator. Prior to his current role, Superintendent Clark, had 15 years of experience working with Great Northern Paper's hydroelectric facilities and its steam plans, so energy is nothing new to him.

Superintendent Clark's efforts to improve the energy efficiency and reduce the energy costs of his school district were catalyzed by what he refers to as a "wake-up call". The district was accustomed to pre-buying 110,000 gallons of heating oil until the company it bought from went bankrupt and left the district holding the bag and losing 40,000 gallons of oil. This led Superintendent Clark to seek options to help make the district's energy future more secure and to shorten the supply chain between the source and use of fuel. Even before the worst of the current energy crisis really hit, Superintendent Clark had begun improving the energy efficiency of his district's school buildings by replacing inefficient doors and windows. In addition to these efficiency measures, the district also experimented with a corn burning stove in its bus garages. This experience led the district to switch to wood pellets because corn turned out to burn too hot.

Now the district is going beyond energy efficiency and is installing renewable technologies. It is in the process of erecting a small windmill at the high school that will supply 5% of the school's electricity. At the same time it is also constructing a wood pellet fueled boiler to heat the school, which Superintendent Clark hopes will replace at least 30,000 gallons of oil.

One of the most impressive aspects of MSAD #58's quest to reduce its energy use and achieve a more secure energy future is that it has proved to be financially economical. For instance, Superintendent Clark estimates that the new wood pellet boiler will pay for itself in less than 2 ½ years, and even faster if the price of oil continues to rise. One of the major lessons provided by Superintendent Clark and MSAD #58 is the importance of addressing energy efficiency first but also exploring alternative energy options, determining if they make economic sense, and forging ahead.

***Renewable Energy***

As with energy efficiency, there is a great interest among businesses and community institutions surveyed in renewable energy options with 95.8% of respondents indicating an interest. Most respondents (91.7%) are interested in equipment upgrades and/or replacements with renewable technologies and the renewable sector with most interest was solar (41.7%), followed by wind (33.3%) and biomass (29.2%). Interestingly, respondents have experience with an extensive array of renewable technologies including wind, biomass, solar, geothermal and corn pellets. In the past year, 35% of respondents chose biomass for an upgrade or replacement; 30% chose solar; 25% chose wind; and 10% chose other options such as geothermal and corn pellets.

Consistent with the findings on energy efficiency, financial resources seem to be the major limiting factor in adoption of renewable technologies, with 87.5% of respondents indicating that grants would be helpful in making upgrades and/or replacements. This is perhaps not surprising since most entities could use grant funds when they are available. However, access to technical assistance was the second largest category of interest at 62.5% and access to better information was third at 54.2%. Loans were low on the list with only 16.7% indicating an interest.

## **Recommended Next Steps**

This geographically targeted study suggests that there are opportunities for small businesses and community institutions in rural Maine to improve their energy efficiency and, in some cases, to convert their energy sources from petroleum-based to renewable sources. The following recommendations offer a partial road map for helping small businesses and community institutions address their energy needs in this time of skyrocketing costs and intense uncertainty.

- 1. Implement a more aggressive outreach strategy targeted to small businesses and community institutions focused on energy efficiency.** Most of the respondents to this survey indicated both an intense eagerness to reduce their energy use or to use energy more efficiently but also a lack of time and resources to access existing resources as well as a limited understanding of these existing resources. The State of Maine's Efficiency Maine program is an incredibly valuable resource but has limited brand visibility, at least among respondents to this survey. At the same time, Efficiency Maine is focused solely on electricity use, leaving a huge gap for the businesses and community institutions dependent on oil. There is an opportunity to provide businesses and community institutions with timely, easy-to-use information about ways to improve energy efficiency as well as information on existing resources to help them do so. At the same time, these businesses and community institutions could benefit from information on renewable energy options. The Maine Small Business Development Centers may be a good delivery vehicle for both types of information. It is a statewide program with a talented cadre of business counselors who already are a valuable resource for Maine's small businesses, with an effective and efficient service delivery mechanism. However, a better understanding of how to reach rural businesses and community institutions is critical to delivering services to them.
- 2. Identify financial incentives to encourage businesses and community institutions to improve their energy efficiency and/or seek renewable energy opportunities.** Businesses are eager to improve their energy efficiency and even to get off oil completely. Loans were low on the list of potential sources of capital to implement efficiency and other improvements. However, it is time to explore robust innovative financing and other mechanisms that could allow businesses to implement the improvements at no or low net cost based on potential energy savings. Many products and programs are being considered in Maine and other parts of the country, but careful consideration should be given to the needs of small businesses and community institutions, which are a critical component of Maine's economy. Incentives could have two components. First, products and programs should be easy to understand and implement and their benefit should be obvious or easily explainable to potential borrowers based on easily understood calculations and scenario analysis. Second, piloting these products would provide an opportunity to test their effectiveness.
- 3. Conduct a broader survey of small businesses and community institutions statewide.** This study targeted Franklin County and identified what are likely to be consistent themes throughout the State of Maine. To adequately address the critical issue of energy supply and cost and their impact on small businesses and community institutions will require a more thorough knowledge of the needs and obstacles faced by these entities. And, as noted above, a better understanding of how to deliver services to rural small businesses and community institutions is critical.

## Appendix 1: Survey Results

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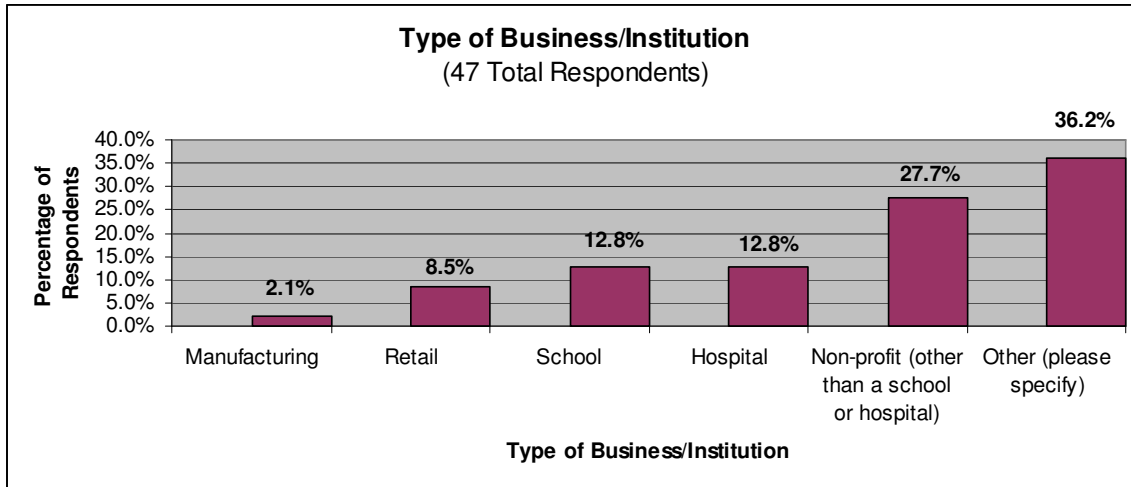
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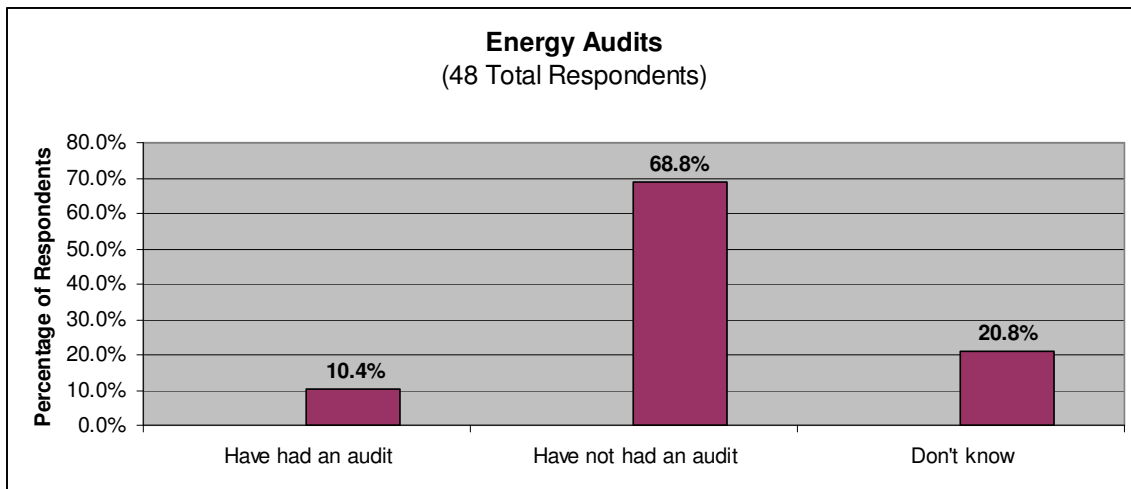
<sup>1</sup> The report can be downloaded at: <http://www.mn-ei.org/projects/images/Increasing%20Energy%20Efficiency%20in%20MN%20Small%20Businesses.pdf>

## General and Energy Audit Questions



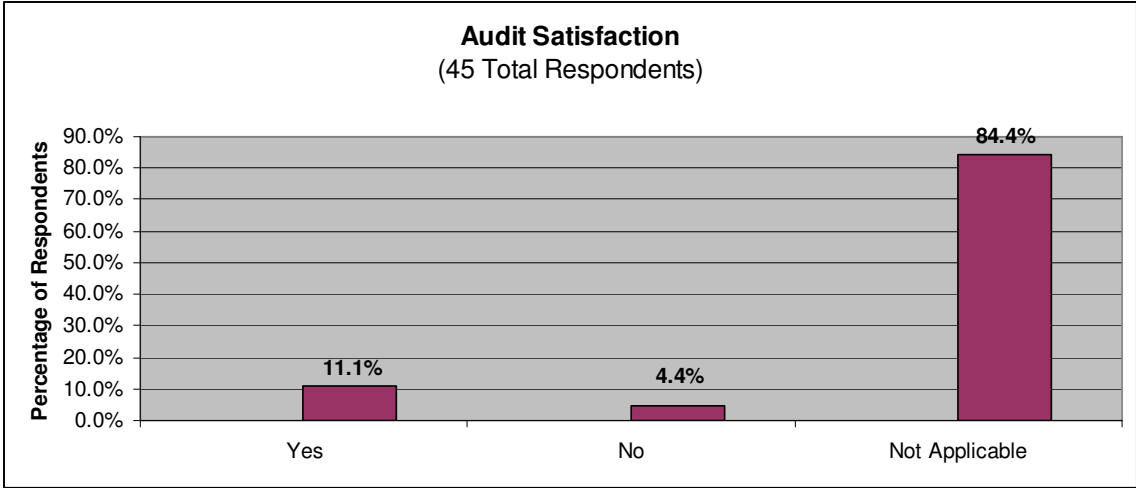
**Chart 1: What type of business/institution are you? (please choose one)**

Survey respondents represent the diversity of the Franklin County economy. The largest group of respondents included Schools (12.8%), Hospitals (12.8%), and Non-profits other than schools or hospitals (27.7%). Interestingly, manufacturing and retail businesses represented only 2.1% and 8.5% of respondents, respectively. Other uncategorized respondents (36.2%) also represent a diversity of businesses and entities such as municipalities, farms, automobile repair, legal services, and others.



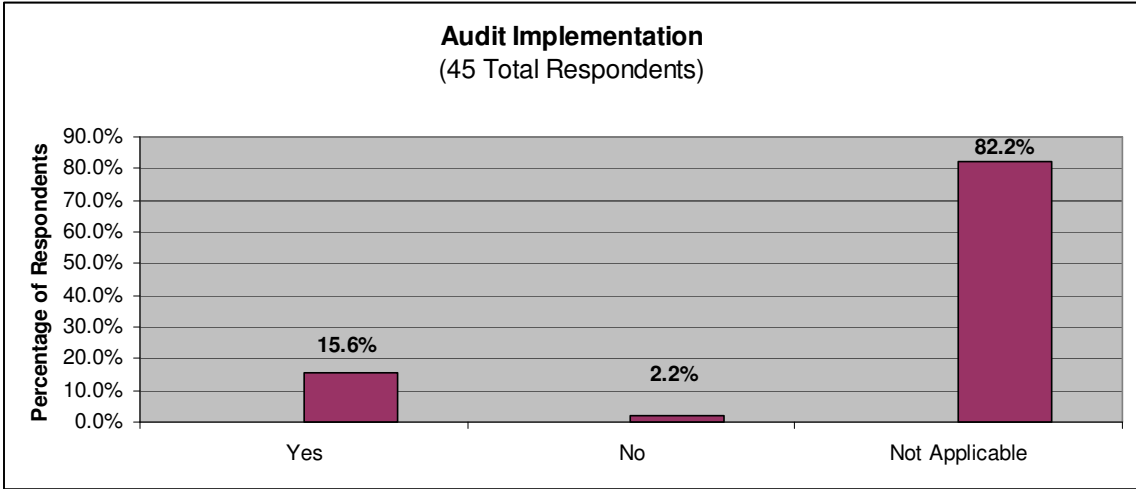
**Chart 2: Have you had an energy audit for your business/institution?**

Of the 48 respondents to this question very few (10.4%) have had an energy audit while 68.8% have not and 20.8% do not know.



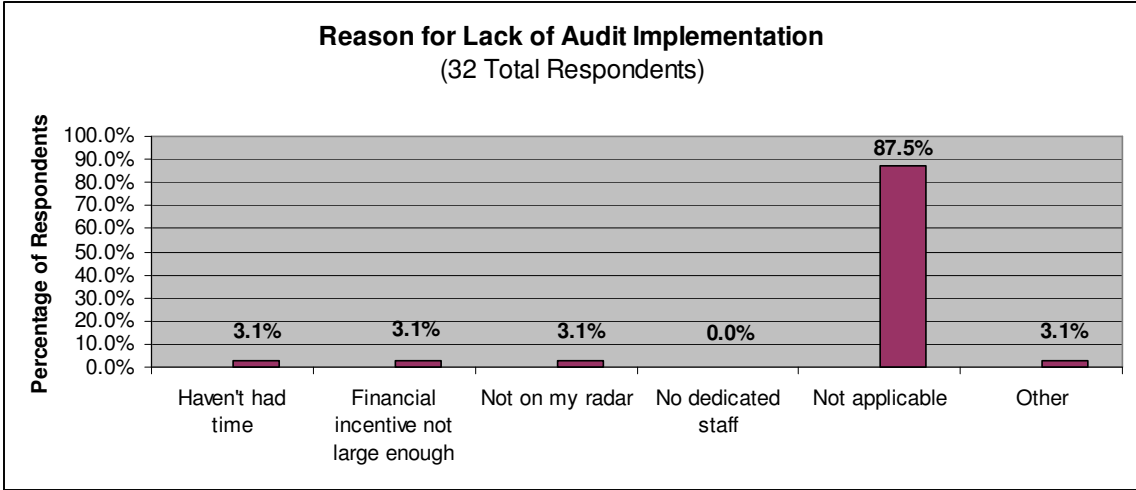
**Chart 3: Were you satisfied with your energy audit?**

Of the 45 respondents to this question, 11.1% were satisfied with their audit, consistent with the small number of respondents in Chart 3 who had an audit. Of the respondents 4.4% were dissatisfied and the question was not applicable to 84.4% of respondents.



**Chart 4: Did you implement or do you plan to implement the suggestions?**

Of the 45 respondents, 15.6% implemented the recommendations of their energy audit – reflecting the small number of respondents who have had an audit – while 2.2% did not. The question was not applicable to 82.2% of respondents.

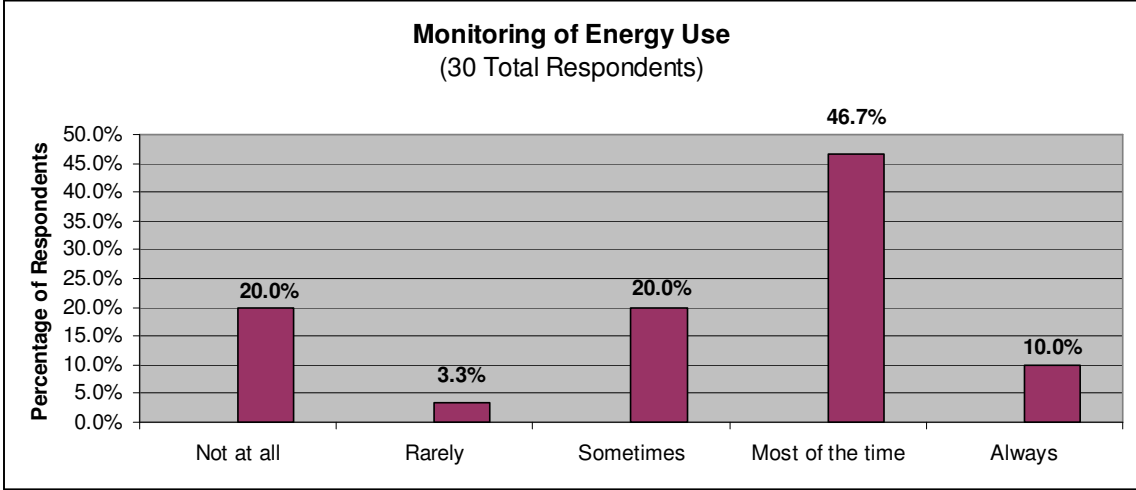


**Chart 5: If you do not (or did not) plan to implement the suggestions, why? (check all that apply)**

This question was not applicable to the majority of respondents (87.5%). Of those who did implement an audit, 3.1% reported that they did not have time, had insufficient financial incentives, it was not on their radar, or other reasons.

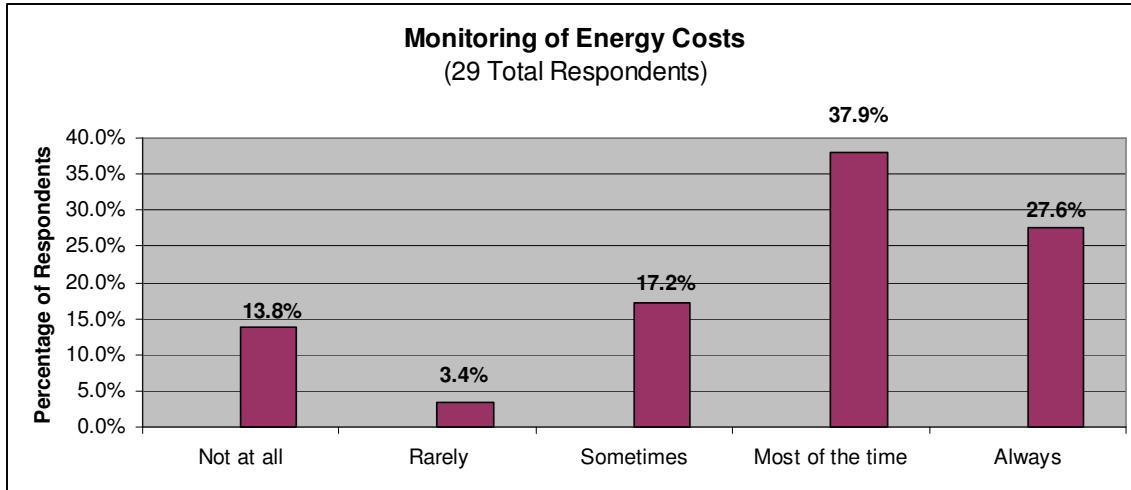
**Operations and Energy Use**

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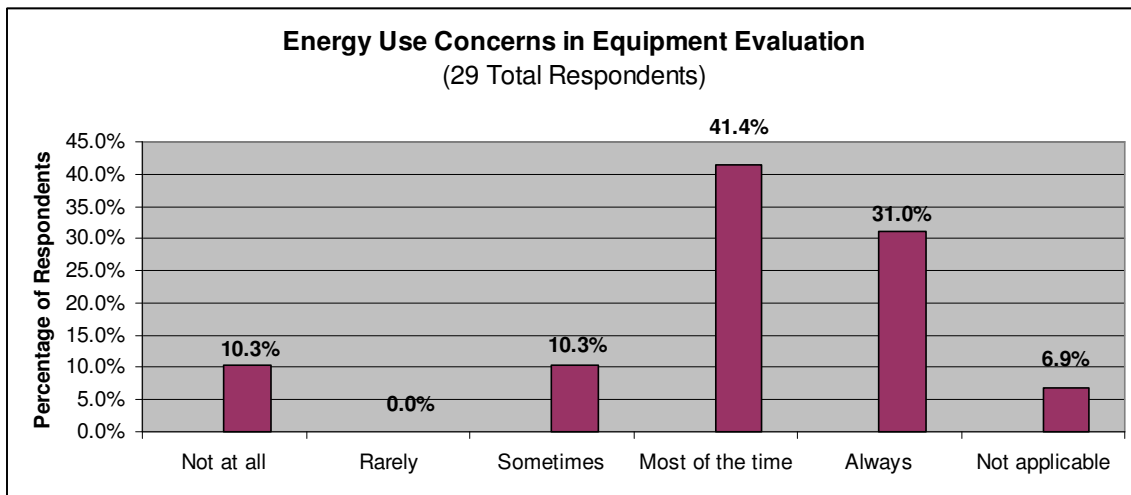
**Chart 6: Do you monitor energy use in the operations of your business/institution? (please choose one)**

Of the 30 respondents, fully 76.7% noted that they monitor energy use in operations sometimes, most of the time, or always. Only 23.3% reported that they do not monitor it at all or do so only rarely.



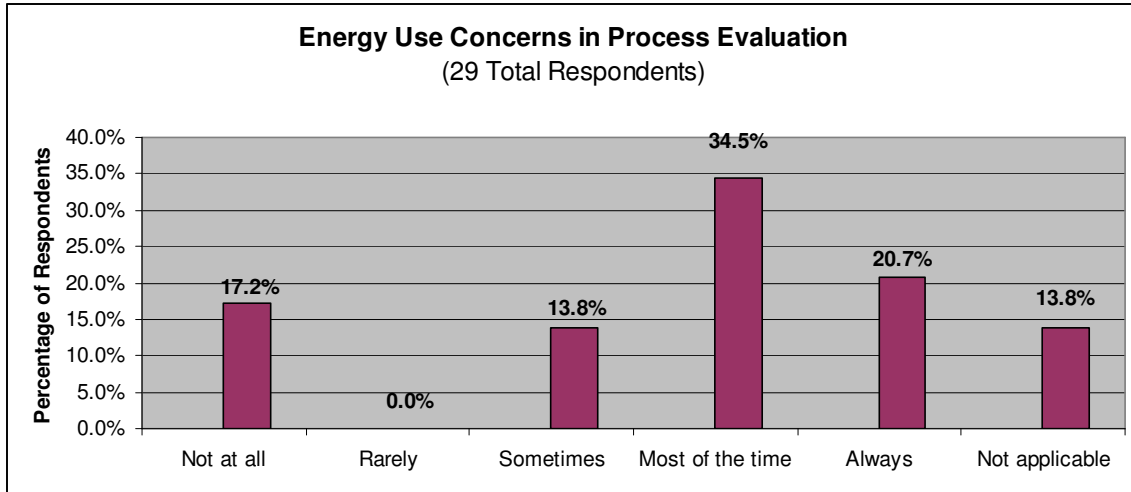
**Chart 7: Do you monitor energy costs in the operations of your business/institution? (please choose one)**

Fully 82.8% of the 29 respondents noted that they monitor energy cost in operations sometimes, most of the time, or always. Only 17.2% reported that they do not monitor them at all or rarely.



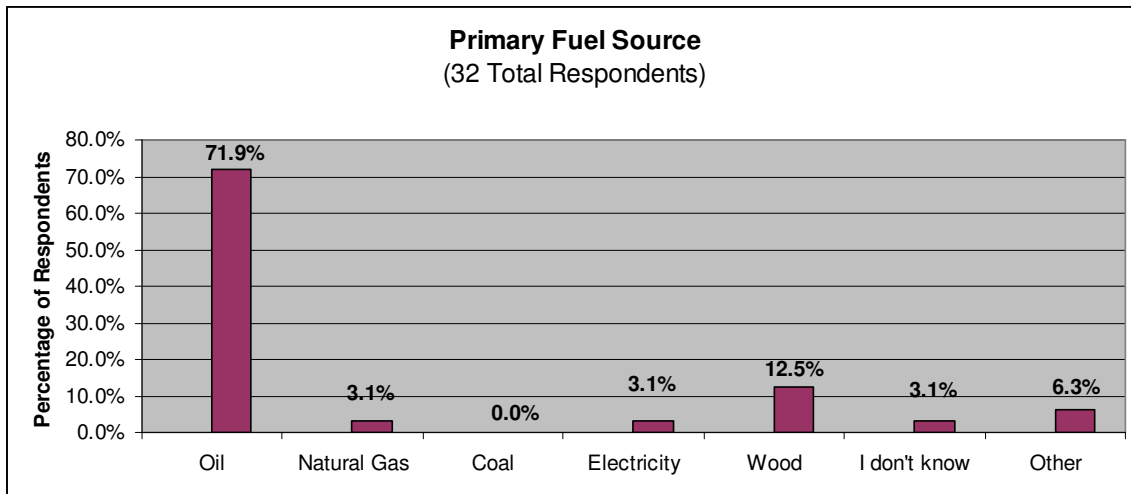
**Chart 8: When you evaluate your equipment, are you concerned about energy use? (please choose one)**

Of the 29 respondents, 82.8% reported that they evaluate equipment with an eye to energy use sometimes, most of the time or always. Only 10.3% reported that they do not consider energy use at all. The question was not applicable to 6.9% of respondents.



**Chart 9: When you evaluate your processes, are you concerned about energy use? (please choose one)**

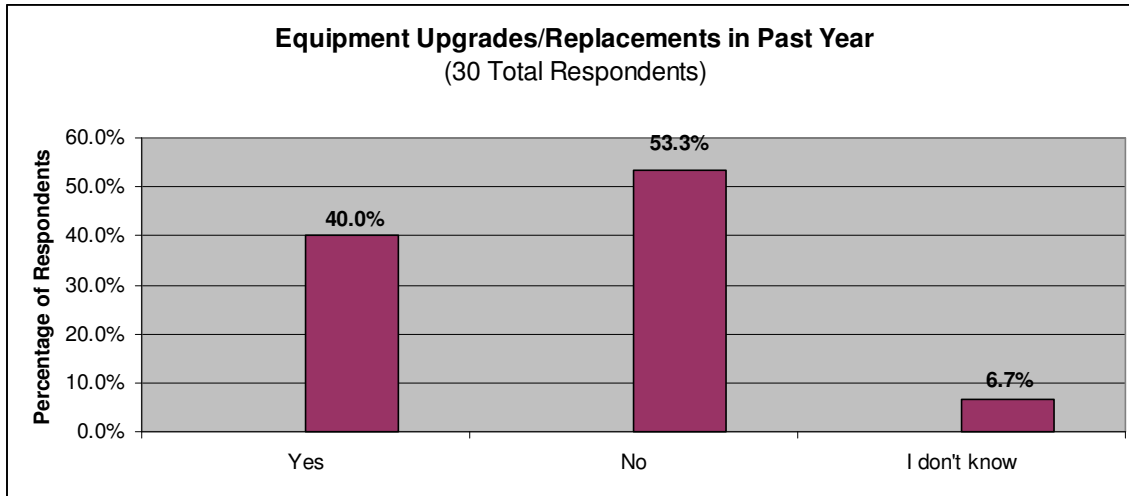
Of the 29 respondents, 69.0% reported that they evaluate processes with an eye to energy use sometimes, most of the time or always. Only 17.2% reported that they do not consider energy use at all. The question was not applicable to 13.8% of respondents.



**Chart 10: What is your primary fuel source? (please choose one)**

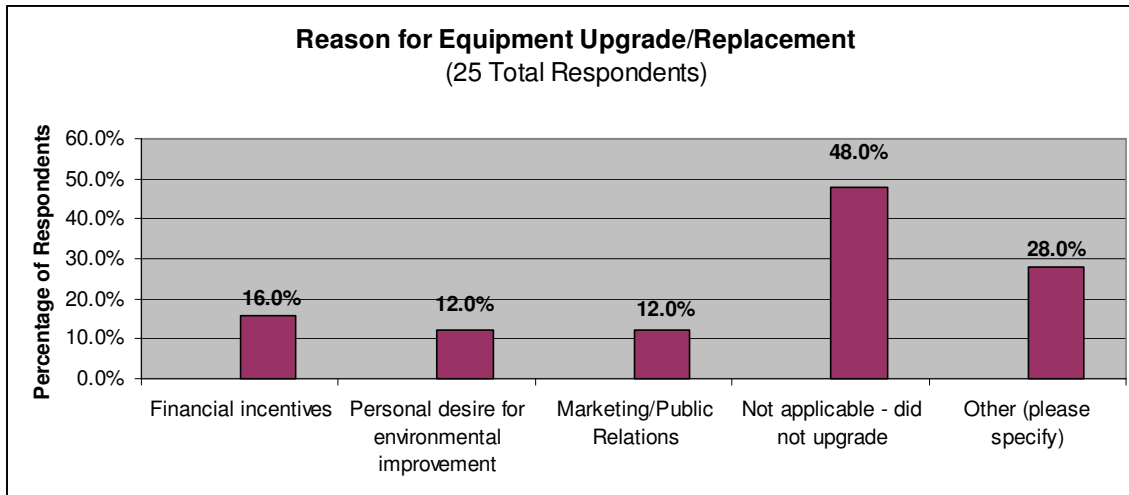
Of the 32 respondents, 71.9% reported that oil was their primary fuel source compared to 3.1% for natural gas and electricity, 12.5% for wood, and 6.3% for other sources, identified by respondents as fuels such as waste oil and propane.

## Energy Efficiency



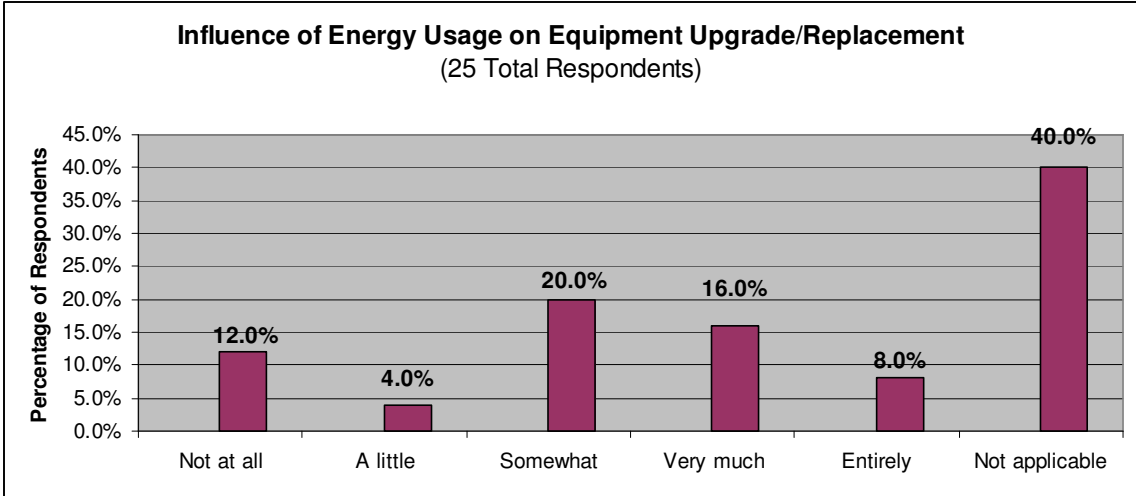
**Chart 11: Have you made any equipment upgrades or replacements to your business in the past year?**

Of the 30 respondents, 40.0% made equipment upgrades or replacements while 53.5% did not.



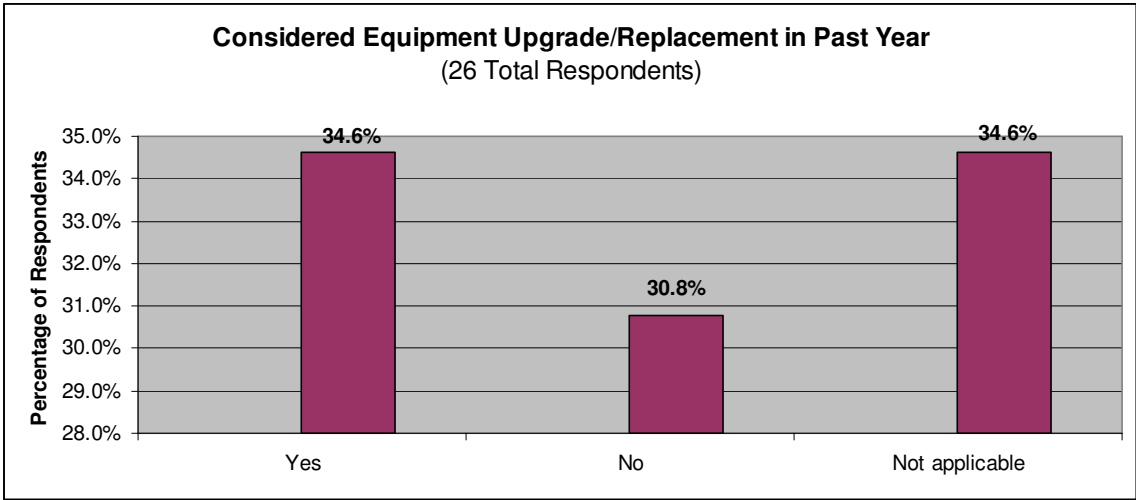
**Chart 12: Why did you upgrade/replace equipment? (check all that apply)**

Of the 25 respondents, most (48.0%) did not make any upgrades or replacements. Of those that did, 16.0% did it because of financial incentives, 12.0% to improve the environment, and 28.0% for other reasons, identified by respondents as things such as obsolete equipment and available grant funds.



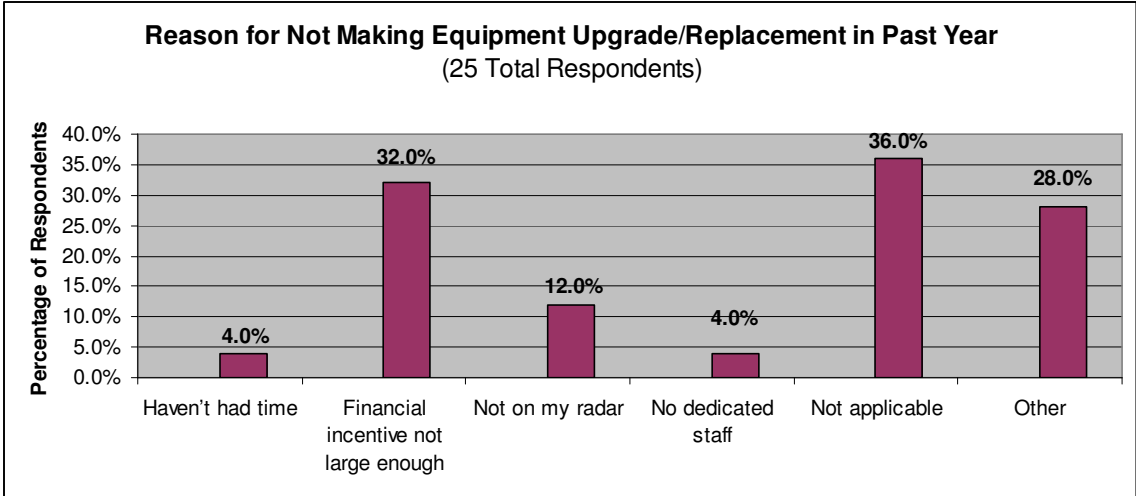
**Chart 13: Did energy usage affect your decision? (please choose one)**

Of the 25 total respondents 48.0% reported that energy usage was a consideration at least a little, somewhat, very much, or entirely when an equipment upgrade/replacement was made. Only 12.0% reported that it was not a factor at all and the question was not applicable to 40.0% of respondents.



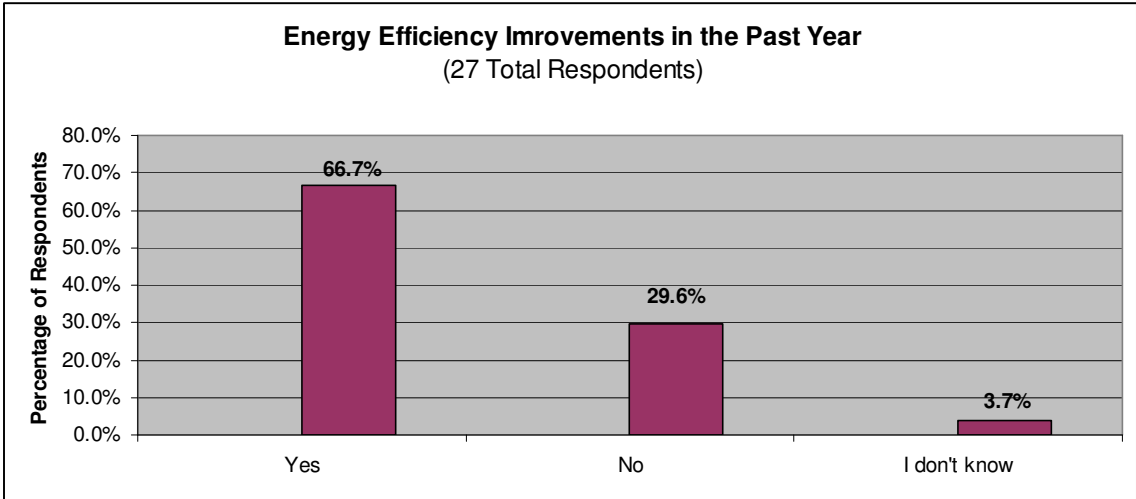
**Chart 14: If you have not made upgrades, have you considered any equipment upgrades or replacements to your business/institution in the past year?**

Of the 26 respondents, 34.6% have considered equipment upgrades/replacements in the past year while 30.8% have not and the question was not applicable to 34.6% of respondents.



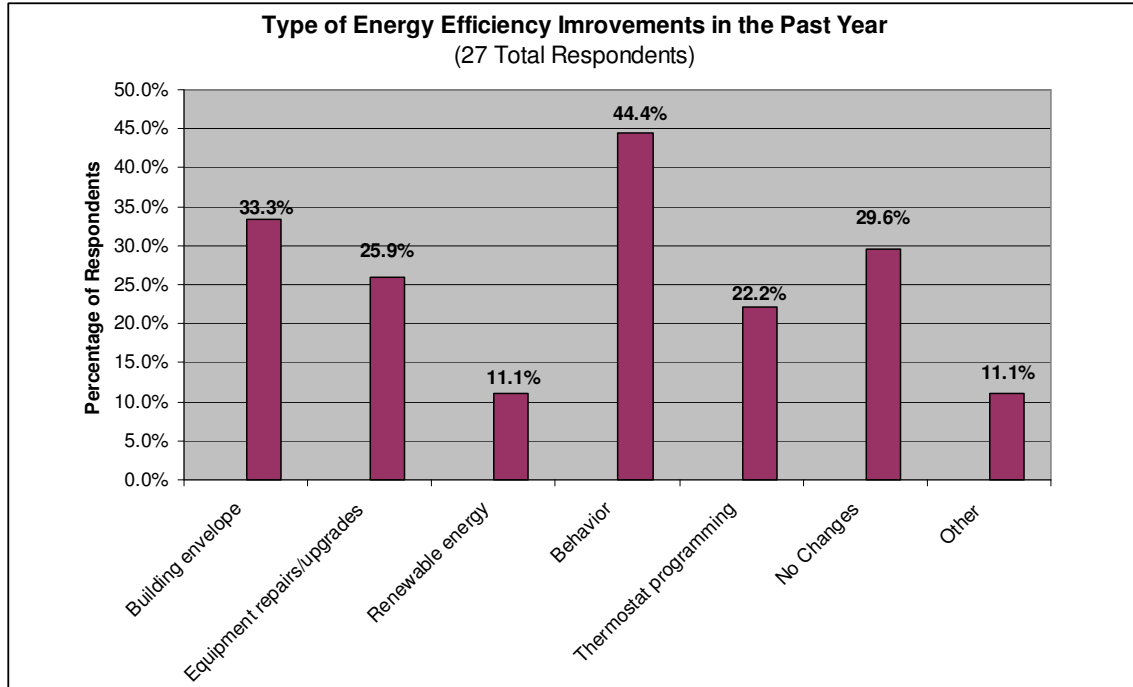
**Chart 15: Why haven't you made upgrades? (check all that apply)**

Of the 25 respondents, 32.0% reported that they had insufficient financial incentives to make a change, while 12.0% did not have it on their radar at all, and 4% either did not have time or had no dedicated staff to consider it. Of the 25 respondents 28.0% reported other reasons focusing primarily on lack of capital. The question was not applicable to 36.0% of respondents.



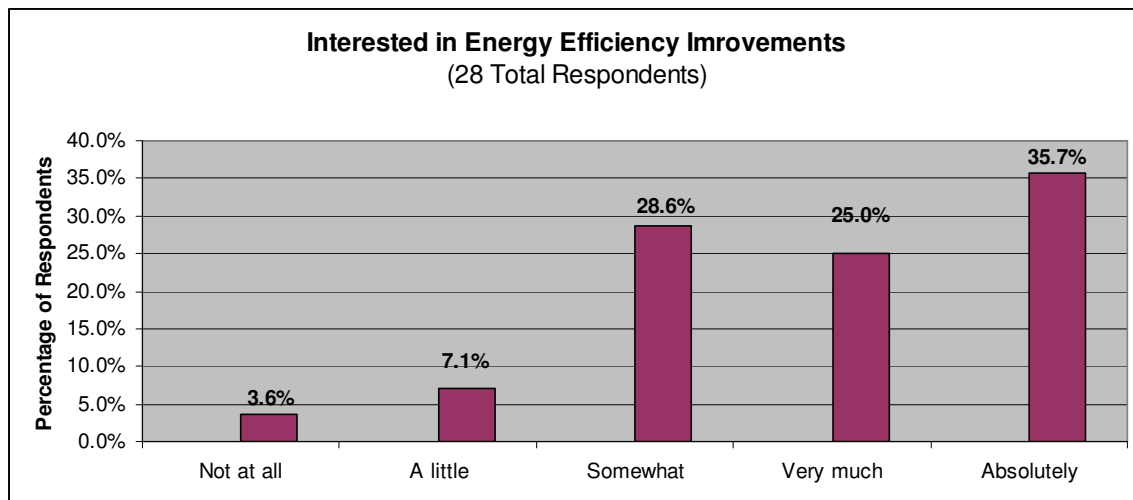
**Chart 16: Have you made any energy efficient improvements in the past year?**

Of the 27 respondents, 66.7% made energy efficiency improvements in the past year while 29.6% did not and 3.7% did not know.



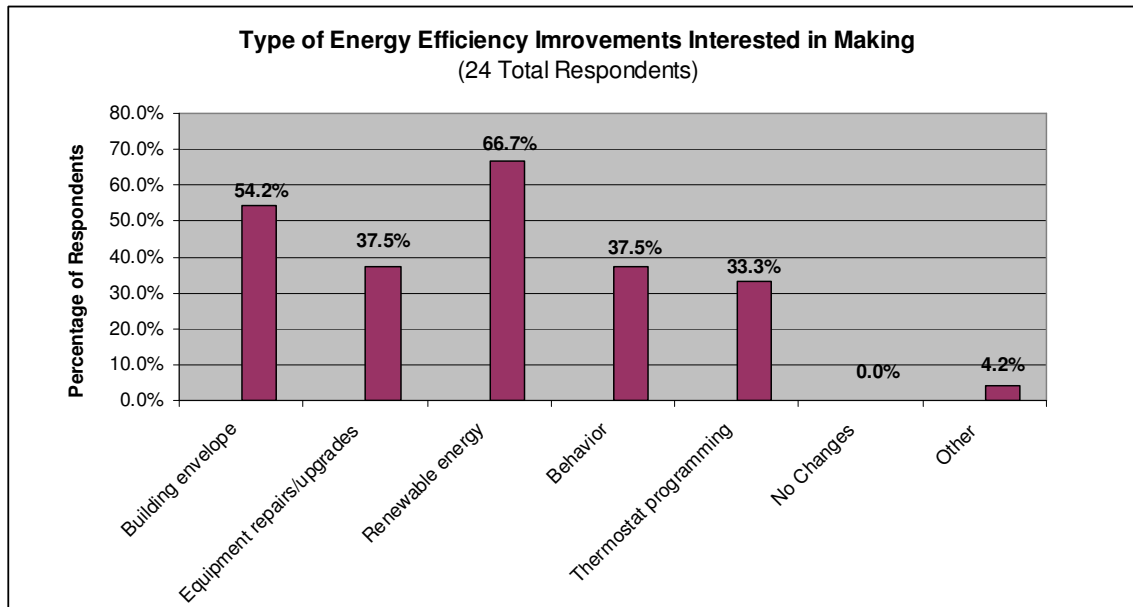
**Chart 17: What particular types of changes have you made? (check all that apply)**

The 27 respondents reported a diverse array of energy efficiency improvements including changes to their building envelope (33.3%), equipment repairs/upgrades (25.9%), renewable energy (11.1%), behavior changes such as recycling and powering down lights and computers at night (44.4%), thermostat programming (22.2%), and other strategies (11.1%) such as reducing phantom loads and replacing electrical equipment. Of the respondents, 29.6% made no changes.



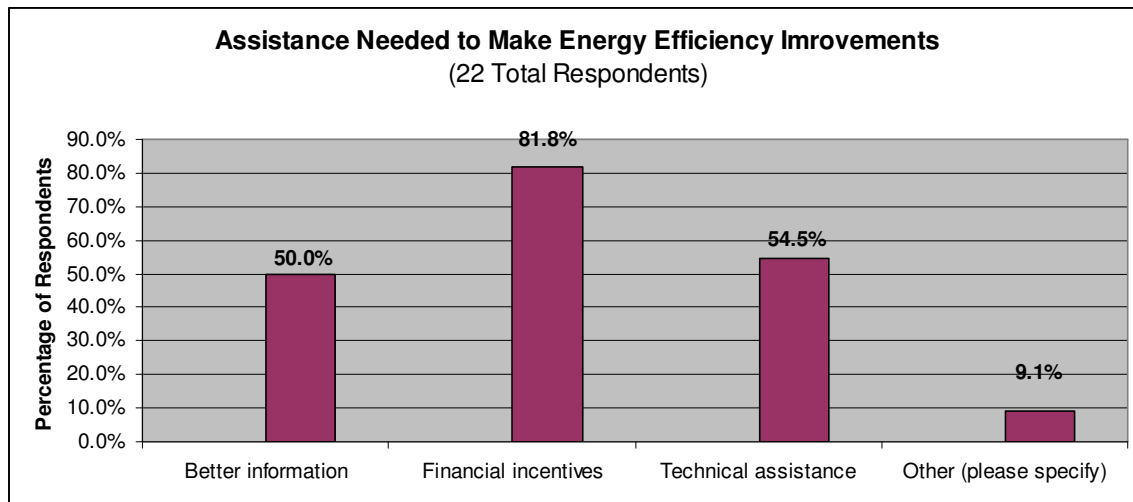
**Chart 18: Would you like to make energy efficiency changes in your business/institution? (please choose one)**

Of the 28 respondents, 96.4% expressed some interest in energy efficiency improvements. These indicated that they would like to do so at least a little, somewhat, very much or absolutely. Only 3.6% reported no interest.



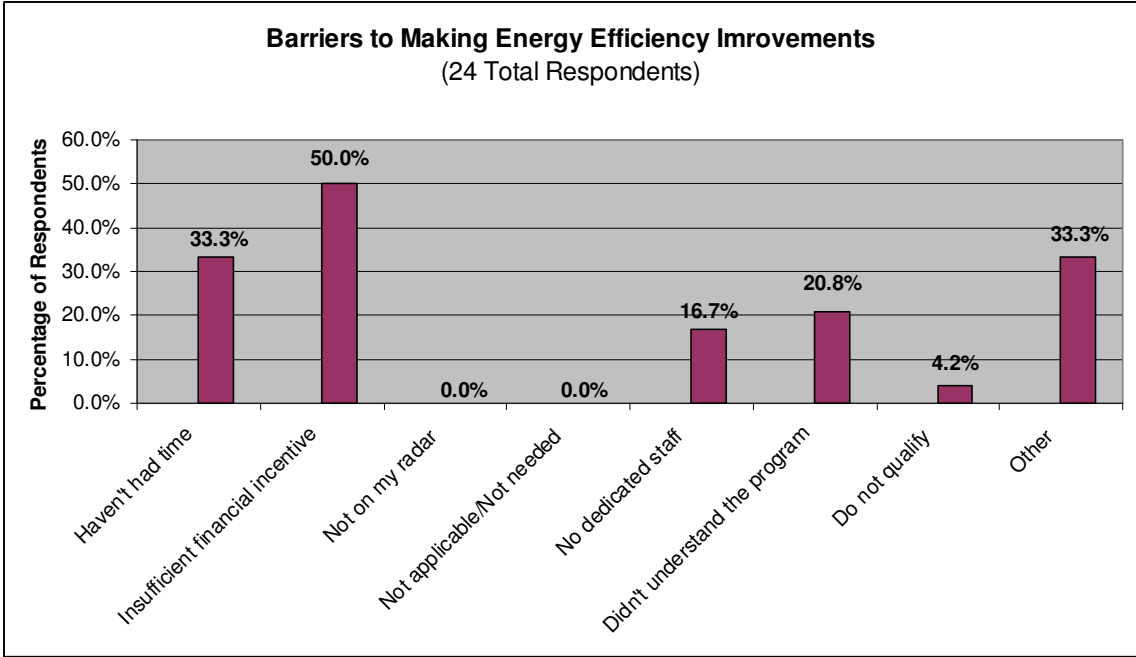
**Chart 19: What types of changes would you like to make? (check all that apply)**

Of the 24 respondents, and consistent with the responses in Chart 17, there is interest in a diverse array of strategies for energy efficiency improvements. There was interest in improvements to the building envelope (54.2%), equipment repairs/upgrades (37.5%), renewable energy (66.7%), behavior changes such as recycling and powering down lights and computers at night (37.5%), thermostat programming (33.3%). No one reported no interest at all.



**Chart 20: What would help you make the changes? (check all that apply)**

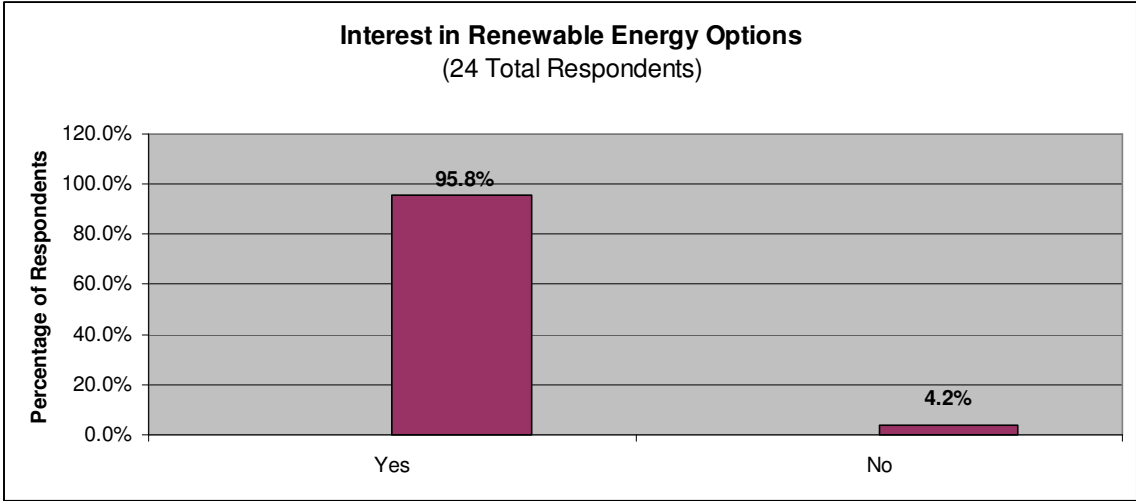
Of the 22 respondents, the biggest need was for financial incentives (81.8%) followed by technical assistance (54.5%), better information (50.0%), and other factors (9.1%) such as more time.



**Chart 21: What prevents you from increasing your company's energy efficiency? (check all that apply)**

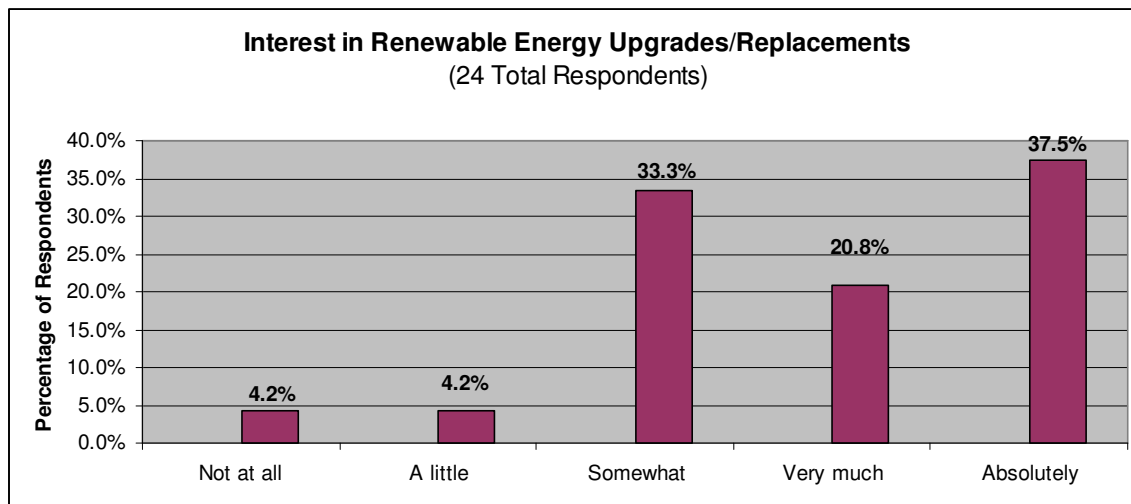
Of the 24 respondents, the biggest barrier was insufficient financial incentives (50.0%) and a lack of time (33.3%). Other factors included a lack of understanding of available programs (20.9%), lack of staff dedicated to it (16.7%), and ineligibility for existing programs (4.2%).

**Renewable Energy**



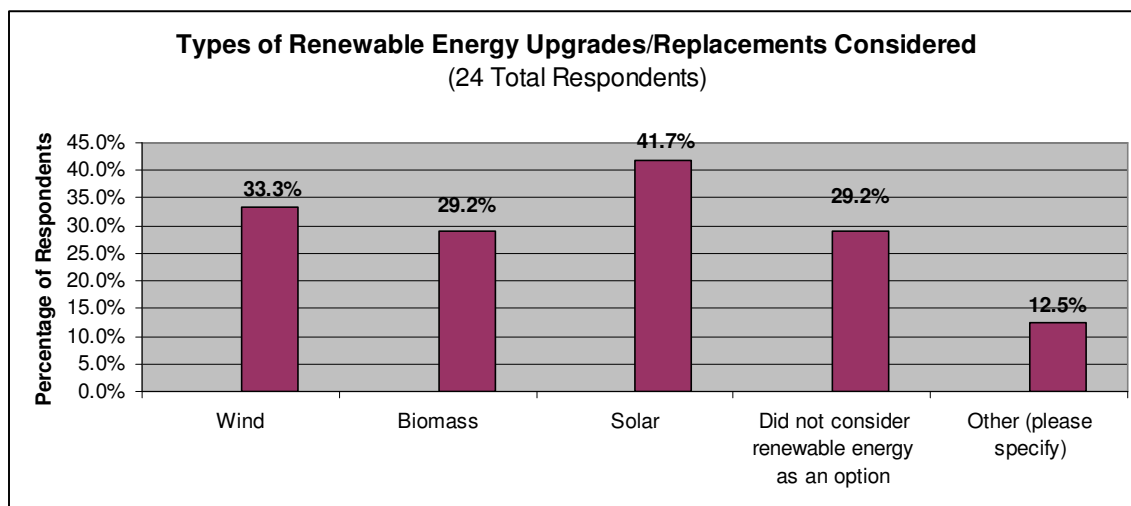
**Chart 22: Are you interested in renewable energy options for your business/institution? (please choose one)**

Of the 24 respondents, 95.8% are interested in renewable energy options while only 4.2% are not interested at all.



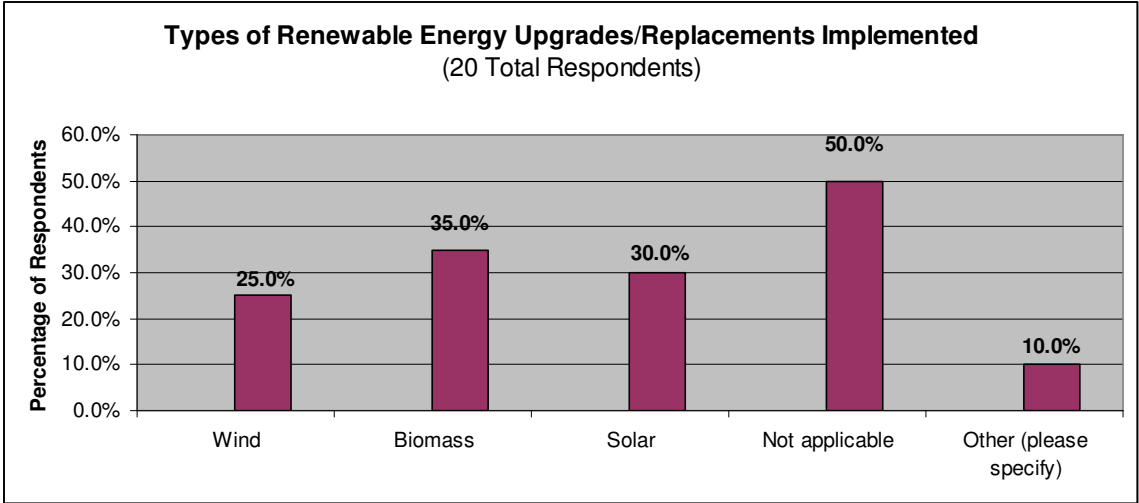
**Chart 23: Would you like to make renewable energy equipment upgrades/replacements to your business? (please choose one)**

Of the 24 respondents, 95.8% expressed some interest in making renewable energy equipment upgrades/replacements. These indicated that they would like to do so at least a little, somewhat, very much or absolutely. Only 4.2% reported no interest.



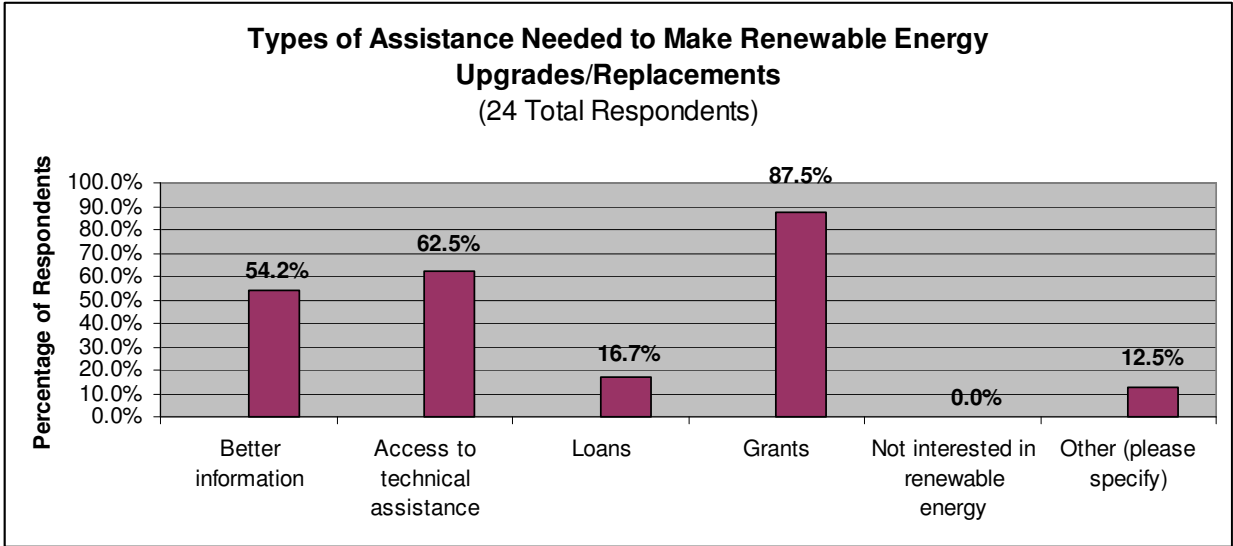
**Chart 24: If you have considered renewable energy upgrades/replacements, which of the following options have you considered? (check all that apply)**

Of the 24 respondents, there was a diversity of renewable energy upgrades/replacements considered, including solar (41.7%), wind (33.3%), biomass (29.2%) and other types such as geothermal. 29.2% of respondents did not consider renewable energy options at all.



**Chart 25: If you implemented a renewable energy option for upgrades/replacements, which source did you choose? (check all that apply)**

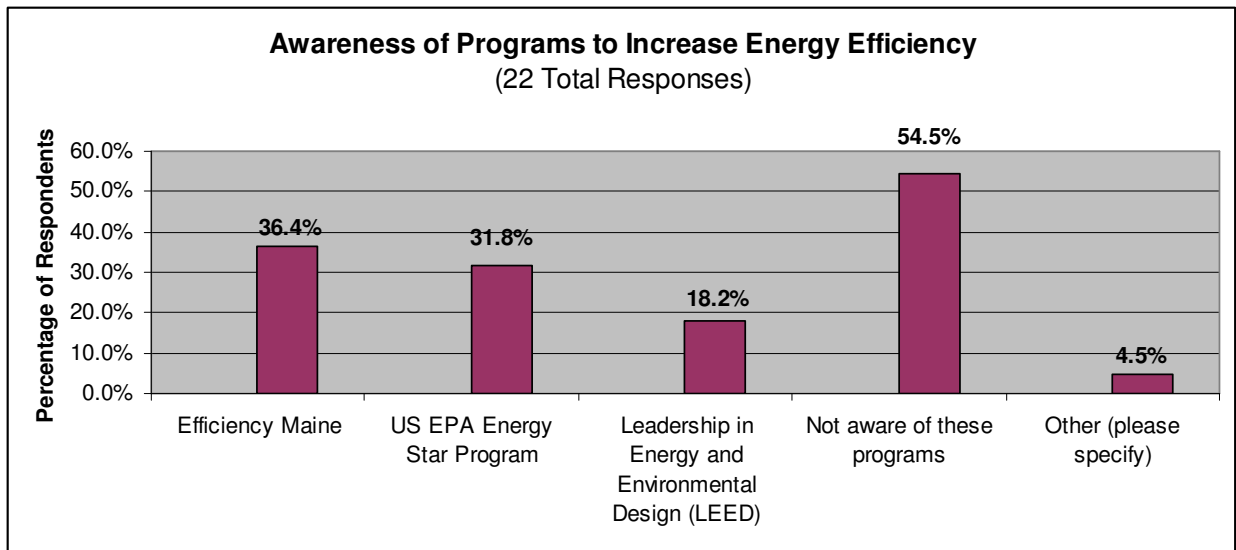
As with Chart 24, the 20 respondents who implemented renewable energy options chose diverse types including wind (25.0%), biomass (35.0%), solar (30.0%), and other such as geothermal and wood pellets. The question was not applicable to 50.0% of respondents.



**Chart 26: What would help you make renewable energy upgrades/replacements? (check all that apply)**

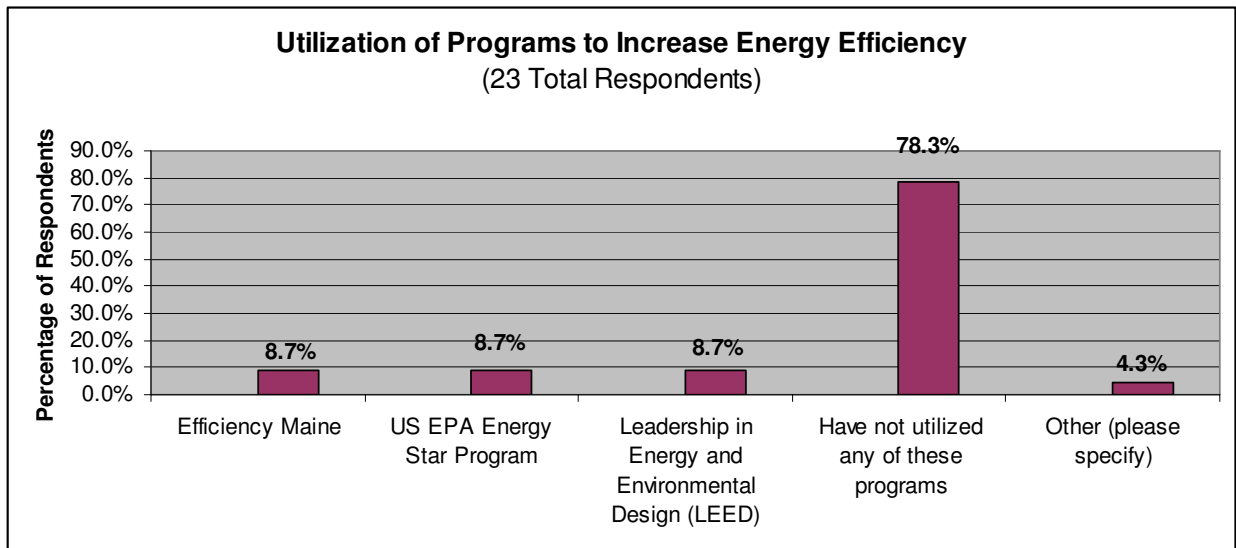
Of the 24 respondents, most (87.5%) indicated an interest in grants while 62.5% indicated an interest in technical assistance, 54.2% in better information, 16.7% in loans, and 12.5% in other factors such as more time.

## Conservation Programs and Resources



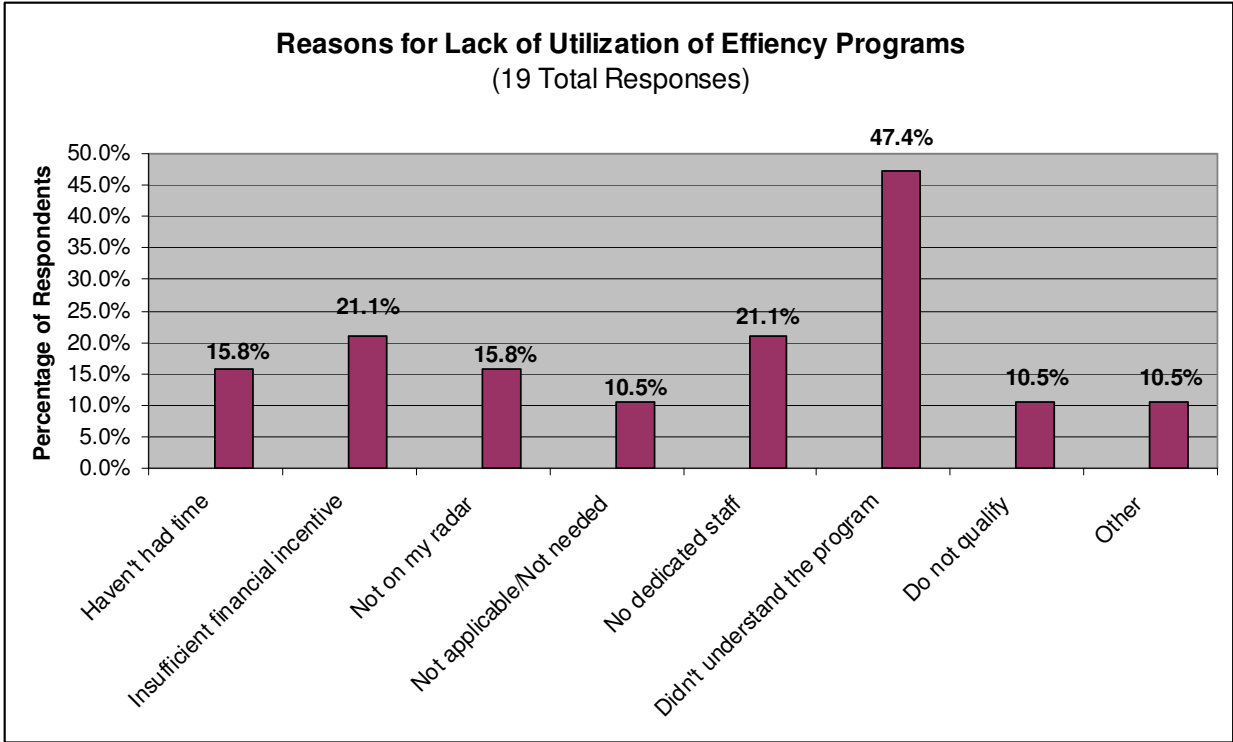
**Chart 27: Are you aware of the following programs to help increase your energy efficiency? (check all that apply)**

Of the 22 respondents, 36.4% were aware of Efficiency Maine, 31.8% were aware of the EPA's Energy Star Program, 18.2% were aware of LEED, and 54.5% were not aware of any of these programs.

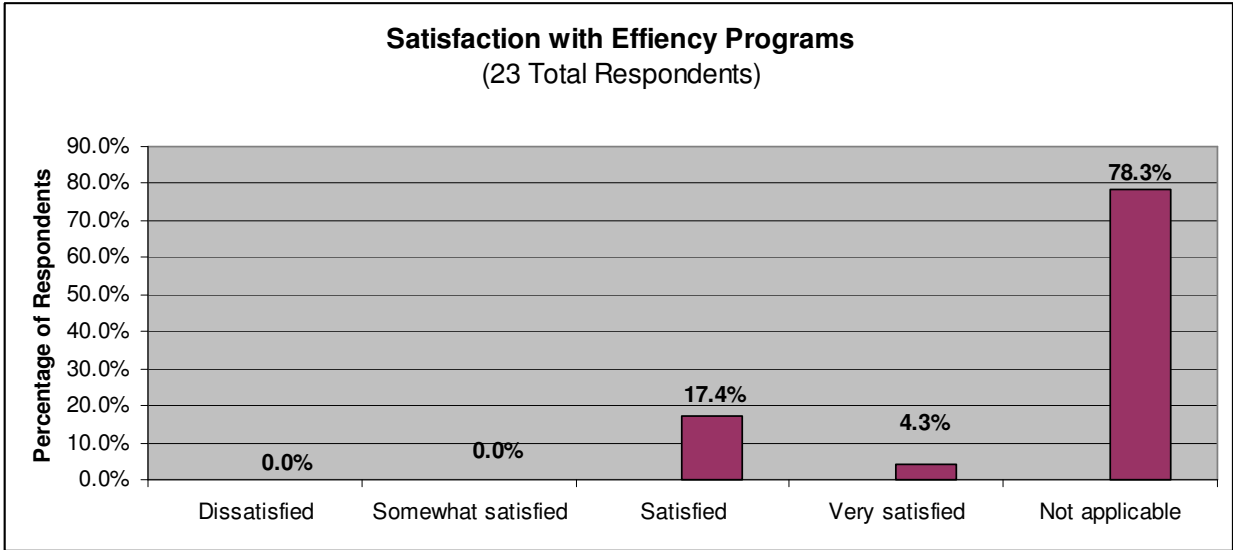


**Chart 28: Have you utilized any of these programs? (check all that apply)**

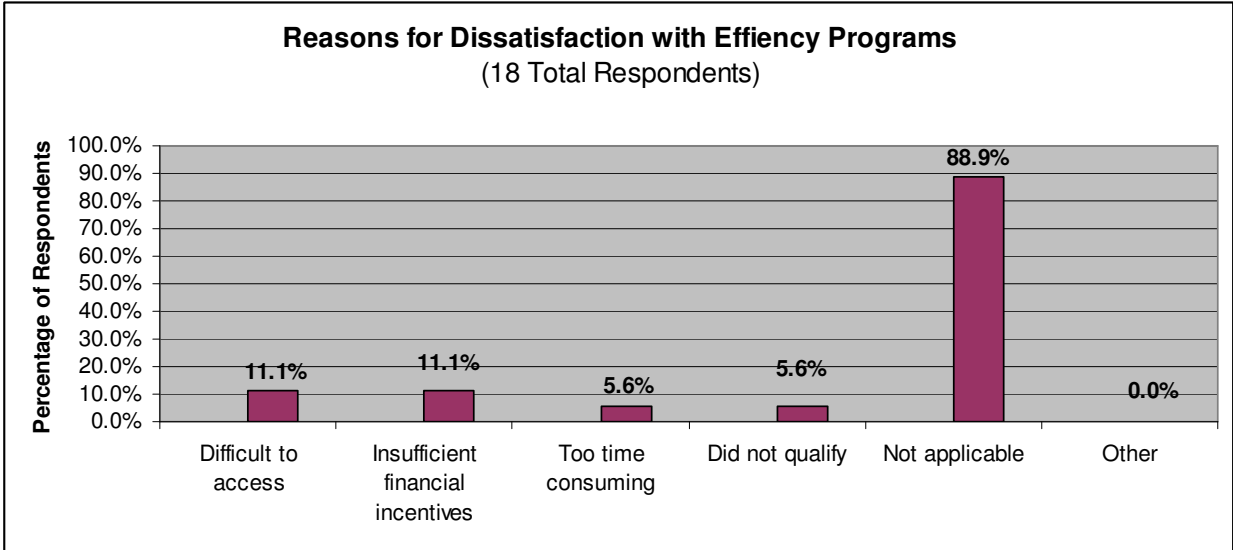
The majority of the 23 respondents (78.3%) have not utilized any of these programs, but 8.7% have used Efficiency Maine, Energy Star and LEED.



**Chart 29: If you haven't utilized any of these programs, why? (check all that apply)**  
 Of the 19 respondents, the biggest reason for not using any of these programs was a lack of understanding of the program (47.4%), followed by insufficient financial incentives and no dedicated staff (21.1%), lack of time and not having it on their radar (15.8%), and ineligibility or inapplicability to their business/institution (10.5%).



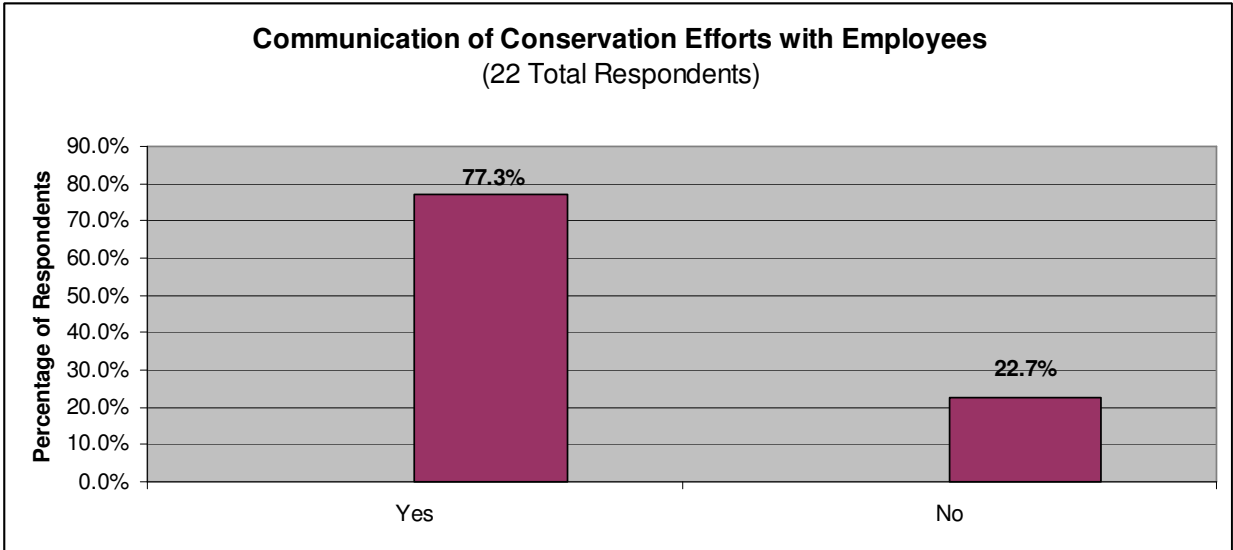
**Chart 30: If you have utilized any of the programs, were you satisfied with the program(s)? (please choose one)**  
 Most (78.3%) of the 23 respondents have not used any efficiency programs but 21.7% reported being satisfied or very satisfied and none reported being dissatisfied.



**Chart 31: If you were dissatisfied, what were the reasons? (check all that apply)**

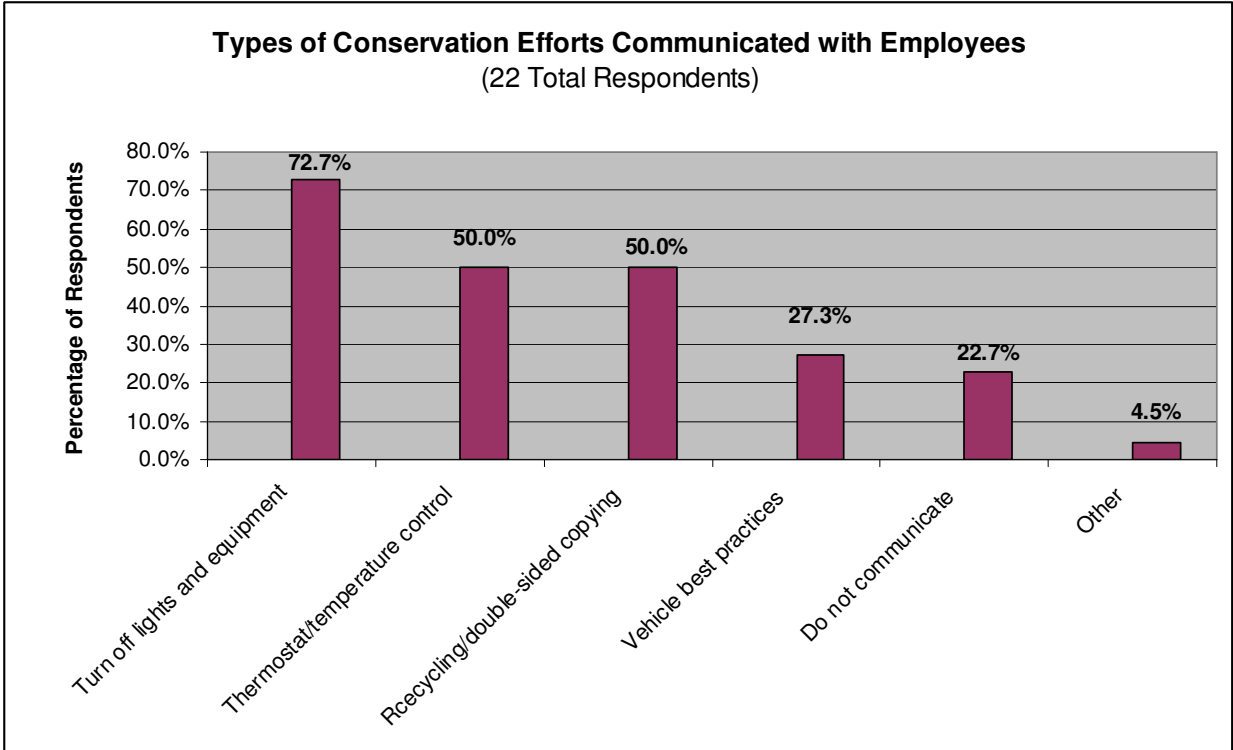
Of the 18 respondents, those who have used an efficiency program and were dissatisfied reported the following reasons: the program was difficult to access (11.1%), provided insufficient financial incentives (11.1%), was too time consuming (5.6%), or they were ineligible for any of the programs (5.6%). The question was not applicable to 88.9% of respondents.

**Communications Information**



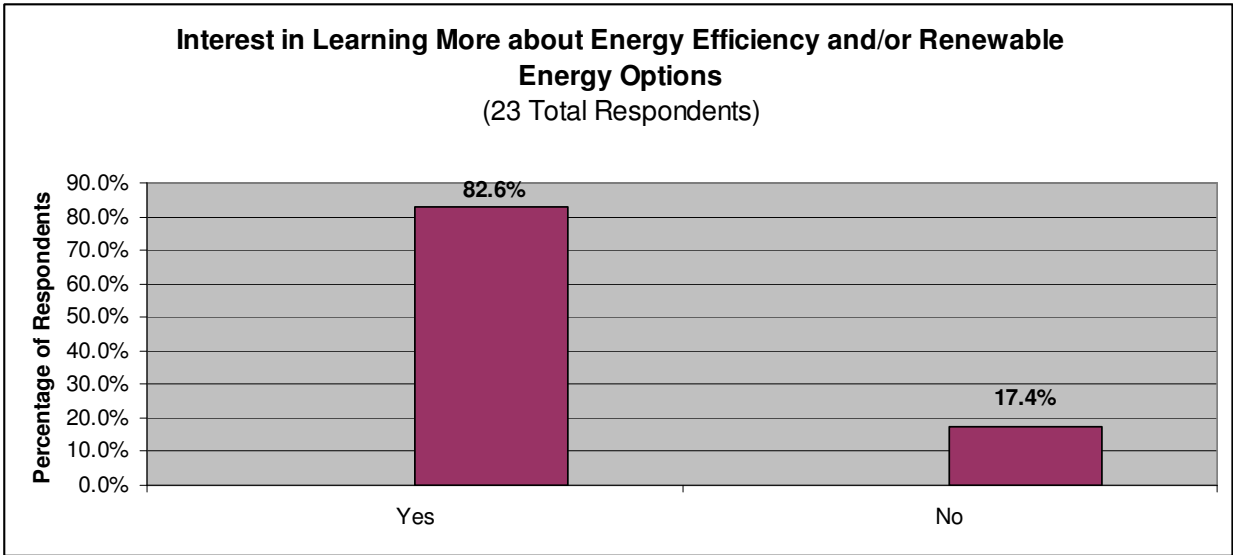
**Chart 32: Do you communicate conservation efforts with employees? (e.g., the importance of shutting off lights, turning off computers at night, etc.)**

Of the 22 respondents, 77.3% communicate conservation efforts with their employees while only 22.7% do not.



**Chart 33: If yes, what types do you communicate? (check all that apply)**

The 22 respondents report a diverse array of conservation efforts communicated with employees that include: turning off lights and equipment when not in use (72.7%), thermostat and temperature control (50.0%), recycling strategies such as double-sided paper (50.0%), vehicle best practices such as carpooling (27.3%), and 22.7% do not communicate at all.



**Chart 34: Would you be interested in learning more about potential energy efficiency and/or renewable energy options for your business/institution?**

Most of the 23 respondents (82.6%) are interested in learning more about energy efficiency and/or renewable energy options for their business/institution while 17.4% are not interested.

## **Appendix 2: Survey Instrument**

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The following survey was designed and conducted using SurveyMonkey.com, an on-line survey tool.

# Energy Conservation and Renewable Energy in Franklin County

## 1. Survey on Energy Efficiency and Renewable Energy in Businesses and Institutions...

Coastal Enterprises, Inc. (CEI), in partnership with the Western Mountains Alliance (WMA) is conducting a web-based survey to gather information toward addressing energy efficiency and alternative/renewable energy in the small to mid-sized business sector as well as in community institutions such as schools and hospitals.

The data gathered will be analyzed to identify barriers and craft solutions to increasing energy efficiency and the application of alternative/renewable energy technologies in small to mid-sized businesses and community institutions in Franklin County. The results of the survey will inform both CEI's and WMA's efforts to support businesses and community institutions in Western Maine by outlining strategies that public and private partners can use to increase energy efficiency and the implementation of alternative/renewable energy in these sectors.

Your input from this survey will help design better programs to help you and other small businesses and community institutions save money and save energy.

The survey should take approximately 5-10 minutes to complete and all responses will remain anonymous. Please note that the term "energy" is used throughout the survey and is meant to encompass heating, cooling and electrical uses.

All respondents will be entered in a raffle to receive an iPod Shuffle.

Thank you for your participation.

For more information about this survey, please contact Keith Bisson at [kbisson@ceimaine.org](mailto:kbisson@ceimaine.org) or at 207-882-7552 ext. 127.

## 2. General Information

### 1. What type of business/institution are you? (please choose one)

Manufacturing

Retail

School

Hospital

Non-profit (other than a school or hospital)

Other (please specify)

Other (please specify)

### 2. Have you had an energy audit for your business/institution?

Yes

No

I don't know

## 3. Energy Audit

# Energy Conservation and Renewable Energy in Franklin County

1. Were you satisfied with your energy audit?

Yes

No

Not Applicable

2. Did you implement or do you plan to implement the suggestions?

Yes

No

Not Applicable

## 4. Energy Audit

1. If you do not (or did not) plan to implement the suggestions, why? (check all that apply)

Haven't had time

Financial incentive not large enough

Not on my radar

No dedicated staff

Not applicable

Other

Other (please specify)

## 5. Operations and Energy Use

1. Do you monitor energy use in the operations of your business/institution? (please choose one)

Not at all

Rarely

Sometimes

Most of the time

Always

# Energy Conservation and Renewable Energy in Franklin County

2. Do monitor energy costs in the operations of your business/institution? (please choose one)

Not at all

Rarely

Sometimes

Most of the time

Always

3. When you evaluate your equipment, are you concerned about energy use? (please choose one)

Not at all

Rarely

Sometimes

Most of the time

Always

Not applicable

4. When you evaluate your processes, are you concerned about energy use? (please choose one)

Not at all

Rarely

Sometimes

Most of the time

Always

Not applicable

# Energy Conservation and Renewable Energy in Franklin County

5. What is your primary fuel source? (please choose one)

Oil

Natural Gas

Coal

Electricity

Wood

I don't know

Other

Other (please specify)

6. Have you made any equipment upgrades or replacements to your business in the past year?

Yes

No

I don't know

## 6. Equipment Upgrades and Replacements

1. Why did you upgrade/replace equipment? (check all that apply)

Financial incentives

Personal desire for environmental improvement

Marketing/Public Relations

Not applicable - did not upgrade

Other (please specify)

Other (please specify)

2. Did energy usage affect your decision? (please choose one)

Not at all

A little

Somewhat

Very much

Entirely

Not applicable

## Energy Conservation and Renewable Energy in Franklin County

3. If you have not made upgrades, have you considered any equipment upgrades or replacements to your business/institution in the past year?

Yes

No

Not applicable

4. Why haven't you made upgrades? (check all that apply)

Haven't had time

Financial incentive not large enough

Not on my radar

No dedicated staff

Not applicable

Other

Other (please specify)

## 7. Energy Efficiency

1. Have you made any energy efficient improvements in the past year?

Yes

No

I don't know

## 8. Energy Efficiency

1. What particular types of changes have you made? (check all that apply)

Building envelope improvements/insulation

Equipment repairs/upgrades

Renewable energy

Behavior - recycling, turning off computers and lights, etc.

Thermostat programming

Did not make any changes

Other (please specify)

Other (please specify)

## 9. Energy Efficiency

# Energy Conservation and Renewable Energy in Franklin County

1. Would you like to make energy efficiency changes in your business/institution?  
(please choose one)

Not at all

A little

Somewhat

Very much

Absolutely

## 10. Energy Efficiency

1. What types of changes would you like to make? (check all that apply)

- Building envelope improvements/insulation
- Equipment repairs/upgrades
- Renewable energy
- Behavior - recycling, turning off computers and lights, etc.
- Thermostat programming
- Not applicable
- Other (please describe)

Other (please specify)

2. What would help you make the changes? (check all that apply)

- Better information
- Financial incentives
- Technical assistance
- Other (please specify)

Other (please specify)

# Energy Conservation and Renewable Energy in Franklin County

3. What prevents you from increasing your company's energy efficiency? (check all that apply)

- Haven't had time
- Financial incentive not large enough
- Not on my radar
- Not applicable/Not needed
- No dedicated staff
- Didn't understand the program
- Do not qualify
- Other

## 11. Renewable Energy

1. Are you interested in renewable energy options for your business/institution? (please choose one)

- Yes
- No

2. Would you like to make renewable energy equipment upgrades/replacements to your business? (please choose one)

- Not at all
- A little
- Somewhat
- Very much
- Absolutely

3. If you have considered renewable energy upgrades/replacements, which of the following options have you considered? (check all that apply)

- Wind
- Biomass
- Solar
- Did not consider renewable energy as an option
- Other (please specify)

Other (please specify)

## 12. Renewable Energy

# Energy Conservation and Renewable Energy in Franklin County

1. If you implemented a renewable energy option for upgrades/replacements, which source did you choose? (check all that apply)

- Wind
- Biomass
- Solar
- Not applicable
- Other (please specify)

Other (please specify)

## 13. Renewable Energy

1. What would help you make renewable energy upgrades/replacements? (check all that apply)

- Better information
- Access to technical assistance
- Loans
- Grants
- Not interested in renewable energy
- Other (please specify)

Other (please specify)

## 14. Conservation Programs & Resources

1. Are you aware of the following programs to help increase your energy efficiency? (check all that apply)

- Efficiency Maine
- US EPA Energy Star Program
- Leadership in Energy and Environmental Design (LEED)
- Not aware of these programs
- Other (please specify)

Other (please specify)

# Energy Conservation and Renewable Energy in Franklin County

2. Have you utilized any of these programs? (check all that apply)

- Efficiency Maine
- US EPA Energy Star Program
- Leadership in Energy and Environmental Design (LEED)
- Have not utilized any of these programs
- Other (please specify)

## 15. Conservation Programs & Resources

1. If you haven't utilized any of these programs, why? (check all that apply)

- Haven't had time
- Financial incentive not large enough
- Not on my radar
- Not applicable/Not needed
- No dedicated staff
- Didn't understand the program
- Do not qualify
- Other

Other (please specify)

2. If you have utilized any of the programs, were you satisfied with the program(s)? (please choose one)

- Dissatisfied
- Somewhat satisfied
- Satisfied
- Very satisfied
- Not applicable

# Energy Conservation and Renewable Energy in Franklin County

3. If you were dissatisfied, what were the reasons? (check all that apply)

- Difficult to access
- Insufficient financial incentives
- Too time consuming
- Did not qualify
- Not applicable
- Other

Other (please specify)

## 16. Communications Information

1. Do you communicate conservation efforts with employees? (e.g., the importance of shutting off lights, turning off computers at night, etc.)

Yes

No

2. If yes, what types do you communicate? (check all that apply)

- Turn off lights, other equipment overnight or when not in use
- Thermostat settings/temperature control
- Recycling/double-sided copying
- Vehicle best practices (e.g., carpooling, walking, etc.)
- Do not communicate conservation efforts
- Other

Other (please specify)

## 17. Follow Up

1. Would you be interested in learning more about potential energy efficiency and/or renewable energy options for your business/institution?

Yes

No

# Energy Conservation and Renewable Energy in Franklin County

2. Would you be interested in sharing more detail about your experience with energy efficiency and/or renewable energy, either positive or negative?

Yes

No

## 18. Follow Up

1. Contact Information (Please note: this information needed for iPod raffle)

Name of business/institution	<input type="text"/>
Contact Person	<input type="text"/>
Title	<input type="text"/>
Address	<input type="text"/>
Phone Number	<input type="text"/>
E-mail Address	<input type="text"/>

## 19. End of Survey

Thank you for completing this survey. If you included your contact information, your name will be entered into a raffle for an iPod Shuffle and you will receive the results of the survey.