School Energy Efficiency Assessment & Assistance Survey

Final Research & Analysis Report

Document Submitted

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To The Center for Energy and Environmental Education

By Strategic Marketing Services, The University of Northern Iowa, Cedar Falls

STRATEGIC MARKETING SERVICES
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Introduction

Background
In the US, school districts are spending large amounts of money, an estimated $6 billion each year, on energy and energy related costs. The increased price of natural gas and gasoline, an after effect of Hurricane Katrina and Wilma, has made it even more difficult for Iowa schools and school districts to pay their energy bills which are traditionally the second or third largest expenditures for schools. However, as stated in this project’s abstract, "Energy bills can be reduced by 25-30% through efficiency and conservation measures. Energy savings of 5-15% can be achieved at low or no cost changes to school operations and maintenance practices and participation by students, teachers and staff in energy education programs." Although energy savings have been proven, there are still many Iowa schools that have not adopted these practices and the reasons behind this decision are not clear. Therefore, The Center for Energy and Environmental Education (CEEE) has hired Strategic Marketing Services to assess the current energy situation in Iowa Schools.

Objectives
SMS has been tasked to gather information on a number of issues related to energy efficiency and Iowa schools from administrators across the state. Specifically, the online research portion of the project has been designed to:

- Forecast trends related to energy costs, school district populations, expenditures, challenges, etc.
- Evaluate current levels of energy efficiency practices and identify barriers to making more buildings and tasks energy efficient.
- Assess renovation plans and factors driving the plans.
- Identify where school administrations gather information and what sources are most widely used.
- Quantify how many schools currently have written policies on energy efficiency and determine likelihood to implement energy efficiency programs.
- Assess familiarity with Iowa Energy programs, their usage and outcomes.
- Create a list of participants who would like more information on energy efficiency programs.

Methodology
SMS worked in conjunction with the CEEE project team to develop a self-administered online survey designed to collect information relative to the stated project objectives. An invitation to participate was sent to 2,282 principals, superintendents, and school board members across the state of Iowa. In some cases, the board member emails were not available on individual school sites, therefore, 78 invitation emails were sent to board secretaries asking that the message be forwarded to their entire board. In addition to the initial round of email invites, SMS gathered and created a list of facility directors/managers in Iowa schools and sent out an additional 100 invitations. Of the total 2,460 email invitations sent out, approximately 10% were returned as undeliverable emails making the revised number of emails sent out 2,330. However, this does not include the number of emails that were forwarded to board members. Assuming a school board has an average of four members not including the secretary, it can be assumed that an additional 320 survey invitations were sent out to board members through their secretaries. In the end, an approximated 2,650 survey invitations were mailed to potential respondents.

During the two week data collection period, 329 surveys were completed which equates to an estimated response rate of 12.42%. Furthermore, using the assumed total of email invitations sent, a sample of this size yields a 95 ± 5.06% confidence level. This means for any ranking or rating expressed by the respondent group, if the number of responses matches, or comes very close to matching the total of 329 responses, we can be 95% certain that the data are within plus or minus 5.06% of being accurate. However, It is important to note that information related to actual usage of programs, number of buildings, etc., should as a cautionary measure, only be used as a rough estimate. This is because these numbers are most likely skewed higher than the true count as multiple responses were allowed for each district.

1 In other words, if we were to conduct the same survey 100 times, 95 out of the 100 administrations should yield results within ± 5.06% of the current data.
Executive Summary

Lack of general knowledge is slowing the advance of energy efficient buildings and processes.

Knowledge of energy efficiency issues is low among the respondent group.

- Overall, little is known about energy efficiency processes even though there was some indication of general understanding. About one-third of the respondent group was not very familiar with school energy efficiency options; furthermore 40% believe they have a general understanding of the topic but no direct experience with it. Only one-third were familiar with a school district that had at least one highly energy efficient classroom building. Less than 30% of the group regularly reads articles about energy efficiency and only 16% have attended a workshop or presentation about energy efficiency.

Many believe energy efficient buildings offer the same level of personal comfort as traditional structures, but cost more initially.

- Among the respondent group, almost 90% thought energy efficient buildings would cost more initially than traditional structures. Roughly 90% also believed that energy efficient buildings offer the same level of personal comfort as traditional structures. With the budget constraints facing many of the school districts across the country, many may not be able or willing to justify the additional upfront expenditures for a structure they believe to offer the same level of comfort as a building that will cost less to renovate or build.

Many schools are taking steps to be more “green”, however the use of energy efficient buildings/processes is still in its infancy stage.

It appears that about one-third of the school buildings across the state are not at all energy efficient, but many are already employing energy saving techniques.

- Rough estimates suggest about half of the district buildings are somewhat energy efficient and a smaller portion, estimated at 15%, are highly energy efficient. One-third were still reported as not at all energy efficient.

- Only 10% have not done anything significant to reduce energy usage/costs in classrooms over the past three years. Almost 40% employed bulk fuel purchasing while about 36% participated in an energy audit survey and implemented staff and/or student energy conservation programs. High efficiency HVAC retrofits were completed by 27% of the group and about 20% had started to implement the recommendations from their energy audit.

Energy audits are becoming more prevalent among school districts, however implementation is low.

- About half of the respondent group indicated that an energy audit had been completed for their district, the majority of which have taken place since 2005. Of those who have had an energy audit, over 60% reported implementation of only a few or none of the recommendations. Furthermore, less than 5% had implemented all of the recommendations made by the audit.

- Almost 40% of the same group rated their most recent energy audit as neither ineffective nor effective. Only an approximate one-third believed it to be effective to any degree.
Written energy efficiency policies for building construction or renovation are not common among school districts.

- Less than 5% of the respondent group actually had a written energy efficiency policy for building construction or renovation. Of the few who did, implementation responsibility was given most often to the facilities or buildings and grounds departments. Although written policies were not common, half of the group rated it to be somewhat effective, with an additional 40% who indicated the policy to be very effective. None of the participants felt the policy was ineffective to any degree, as the remaining respondents had indicated the policy to be neutral. The most common difficulties with implementation of these policies was monitoring usage and maintaining consistent compliance. Changing established behaviors was also listed as an obstacle to implementation.

Wind and solar energy has been investigated by some, but few have yet to install wind or solar energy.

- Almost 30% of school districts had investigated information about installing wind or solar energy. Of that 30%, only 13% installed wind or solar energy. The group who didn’t install wind or solar energy reported the process to be too cost prohibitive or not cost effective. Many others were not in a location that lends itself well to wind and solar energy; therefore they have chosen to pass on wind and solar energy. Those who have wind or solar energy found most of their background information from energy utility companies and other school districts. They report cost savings as the most positive outcome, but also reported mechanical problems as the most negative outcome.

Many schools do not know about programs available to assist with energy efficiency initiatives.

The level of familiarity and usage among the respondent group was low.

- When asked to rate their level of familiarity with the six programs listed below, most respondents indicated they were not very familiar with any of the programs, as all mean scores were below the midpoint of two on a zero to four scale. The most familiarity was reported with local utility’s energy efficiency programs with a mean of 1.58. The least was with The Iowa Energy Center’s Energy Resource Station and Alternate Energy Revolving Loan Program with means of 0.29 and 0.39 respectively.
  --Iowa Department of Education’s Education Program-Consultant Infrastructure
  --Iowa Energy Center’s Energy Resource Station
  --Iowa Energy Center’s Alternate Energy Revolving Loan Program
  --Local utility’s energy efficiency programs
  --Energy Service/Performance Contractors
  --Iowa Energy Bank

- Local utility energy efficiency programs were the most recognized and the most used with approximately 53% of respondents whose districts had used these programs. Roughly 85% had never used or hired Energy Service/Performance Contractors and the Iowa Department of Education’s School Facilities/Infrastructure Unit. Between 95% and 97% had never used Energy Bank financing, the Iowa Energy Center’s Alternative Energy Revolving Loan Program or the Iowa Energy Center’s Resource Station.

Although few have participated, satisfaction levels were high.

- Of the few participants, none reported dissatisfaction with the Iowa Energy Center’s Alternate Energy Revolving Loan Program, the Iowa Energy Center’s Energy Resource Station, the Iowa Department of Education’s Facilities/Infrastructure Unit and the Iowa Energy Bank. Roughly 5% of the 15% who have used Energy Service/Performance Contractors were dissatisfied to any degree. Furthermore, less than 2% of the 53% who have used local utility energy efficiency programs were somewhat dissatisfied.
School boards influence the decision to build or renovate “green” and they rely heavily on experienced architects/engineers.

School board members were reported to be most influential in the decision making process.

- Almost 40% of respondents reported the school board has the greatest influence on their decisions regarding energy efficiency implementations. Architects and superintendents followed but were selected by less than 20% of the group respectively. Least influential were school business officials and energy supplier/utility company with 2.5% and 3.4% respectively.

- Of 124 people who had at least one highly energy efficient school building in their district, roughly one-third reported that a person in the administration or on the school board insisted on “green” options. Another one-third stated an emphasis on long-term budgeting was a driving force.

- The most important consideration when designing or renovating classroom buildings was initial cost with a mean of 1.66. Following closely with means of 1.78 and 1.83 were improved student/teacher performance and lifecycle cost.

- The most important consideration when hiring an architectural/engineering design firm was their previous experience with the district with a mean of 1.45. Decision makers also prefer firms with knowledge of energy efficient design concepts (2.27).

Architectural/Engineering Firms top the list of “who to consult when building green.”

- The majority of respondents would consult architects/engineers about energy options when constructing or renovating existing buildings. Many also considered energy/utility companies to be a good source of information followed by contractors/construction management firms. Many would turn to the same types of people when looking for information on funding or financing efficiency improvements, although a large portion of respondents were not sure of who to consult about funding specifically.

The use of green products and programs looks to increase among schools over the next few years.

Costs of energy are expected to rise and new construction/renovations are planned.

- Almost 98% believed the unit cost of energy will increase over the next five years, with 54% who believed it would significantly increase. Although almost 40% of the group believed their school district’s population would decrease, there were districts planning to construct/renovate in the next five years. Almost 30% planned to renovate 1-2 buildings with an additional 10% planning to renovate 3-4. Almost 10% believed they would renovate 7 or more buildings in the short term. Furthermore, more than one-fourth of the group planned to build 1-2 new buildings in the next five years.

Schools are looking for ways to achieve energy savings through energy efficiency.

- Almost 87% were believed to be somewhat or very likely to implement programs that could cost effectively achieve energy savings of 5-15% through behavioral changes. Roughly 78% were somewhat or very likely to implement projects that have the potential to cost effectively reduce energy consumption by 25-30% through design improvements or installation of energy efficient equipment.

- Almost 70% were somewhat likely to consider using their local utility’s energy efficiency programs in the next three years, with an additional 10% who were very likely. Roughly 60% were somewhat or very likely to consider using services provided by the Iowa Department of Education’s School Facilities/Infrastructure Unit. Just over 50% were somewhat or very likely to consider using services provided by Energy Service/Performance Contractors and services provided by the Energy Bank. Approximately 47% were somewhat or very likely to consider using the Iowa Energy Center’s Resource Station, while 43% were likely to consider using the Iowa Energy Center’s Alternate Energy Revolving Loan Program in the near future.
Results

1. In your opinion, what do you think will happen to the unit cost of energy over the next 5 years? Do you expect it to…

Almost all respondents expected the unit cost of energy to *Increase somewhat or Increase significantly* over the next 5 years, with 53.5% and 44.1% respectively. Less than 2% of respondents expected the unit cost of energy to *Stay about the same*, while under 1% thought energy prices would *Decrease somewhat* in the next 5 years.

2. In your opinion, what do you expect to happen to your school district's student population? Do you expect it to…

Roughly 41% of respondents expected a decrease in their school district's student population compared to 30% who believed the student population would increase. The remaining 29% felt population numbers would remain relatively similar to recent years.
3. **In your opinion, do energy efficient buildings offer the same level of personal comfort as traditional structures?**

An overwhelming majority, almost 90%, felt energy efficient buildings offer the same level of personal comfort as traditional structures.

- Yes 89.1%
- No 10.9%

4. **In your opinion, do you believe the initial price of energy efficient buildings is higher than traditional structures?**

Just over 88% of respondents believed the initial price of energy efficient buildings is higher than traditional structures.

- Yes 88.1%
- No 11.9%

5. **Approximately how many classroom buildings in your school district would you say are:**

The respondent group provided data on an estimated total of 7,487 buildings. Roughly 16% of those buildings were reported to be *Highly Energy Efficient* and half were reported to be *Somewhat Energy Efficient*. About 32% were considered to be *Not at all Energy Efficient*. However, the data collected regarding the total number of highly, somewhat and not at all energy efficient buildings in each school district should be used only as a basic guide because of the ability for each school district to be represented more than once in the sample\(^2\). Also, these figures do not include 19 participants who appeared to have provided percentages instead of actual building counts. Therefore, the obvious errors were removed from the data set.

Below is a breakout of energy efficiency according to size of school district. The size of school district was calculated by adding the number of highly, somewhat and not at all energy efficient buildings together to determine, in very general terms, school district size.

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\(^2\) Since the sample group has multiple respondents from each school district, i.e., one superintendent, multiple principals and school board members, the data is most likely skewed higher than the true count.
6. If you consider some of your school buildings to be highly energy efficient, what was the driving force for making them so?

Of the 124 respondents with at least one highly energy efficient school building in their district, roughly one-third reported that *A person in the administration or on the school board insisted on energy efficient options* was the driving force behind the decision to make them energy efficient. Another one-third reported *A long-term rather than short-term budgeting emphasis or financial plan* was the primary driving force for making them energy efficient. Less than 10% believed the driving force was attributed to *An environmental ethic to reduce use*. The responses provided by participants in response to "Other" are listed below the graph in descending order of the frequency with which they were mentioned.

![Bar chart](chart.png)

**N = 122**

- **A person in administration or school board insisted**
  - 34.4%
- **Long-term rather than short-term budgeting emphasis or financial plan**
  - 33.6%
- **Environmental ethic to reduce energy use**
  - 8.2%
- **Other**
  - 23.8%

**OTHER:**

- New construction/renovations provided opportunity (23)
  - Smaller, well-insulated, temporary buildings.
  - Chosen for remodeling with one-cent sales tax money.
  - When we built the new elementary I encouraged (insisted) we look at Geothermal.
- Budget/Cost savings (4)
  - An awareness for the need of energy efficiency and to implement low-cost options when they become available.
- Architect (3)
  - Newer facility where the architect made suggestions.
- All of the Above (2)
- Geothermal installed (2)
- Although we "closed" windows a number of years ago, we are a long way from being "energy efficient."
- We did an energy audit and have adopted the state recommendations.
- Purchased as such.
7. **Over the next five years, how many classroom buildings are you planning to renovate?**

Just under one-third of the respondents had no plans to renovate in the next five years. Another third is planning on 1-2 classroom building renovations. About 25% reported plans to renovate 3 or more classroom buildings in the short-term. Those who were *Not sure* of renovation plans totaled roughly 16%.

![Bar chart showing renovation plans](chart1.png)

8. **Over the next five years, how many new classroom buildings are you planning to construct?**

Almost 60% of respondents reported no plans to construct any new classroom buildings in the next five years. Just over one-fourth of the group had plans to construct 1 to 2 new classroom buildings, while only 10% had plans for 3 or more. Less than 3% were *Not Sure*.

![Bar chart showing construction plans](chart2.png)
9. If you were to construct a new building or renovate an existing building, who would you consult about energy options? Please list sources or simply reply 'not sure' if you don't know what sources to contact.

The majority of respondents would consult with Architects and Engineers about energy options. Other popular sources included Energy/Utility Companies, Contractors and Organizations/Associations. A complete list of responses provided by participants is below in order of the frequency with which they were mentioned.

- Architects/Architectural Firm/Engineers/Engineering Firm (159)
  - Architects who have experience/specialize in energy efficient school buildings. (4)
  - Architect LEED Certified.
  - FRK Architect does all of the planning for Johnston Schools. They have and continue to look for ways to make our new buildings energy efficient and our remodeled buildings more efficient.
  - Design professionals
  - Civil Engineer.
  - Our provider has a program that we use. An energy engineering company studies the plans and lays our bundles to select depending on the cost, payback, etc.

- Energy/Utility Companies (70)
  - Alliant Energy. (17)
  - Mid-American Energy. (11)
  - CIPCO- Rural Electric. (3)
  - CFU. (2)
  - Energy Audit Firms. (2)
  - Southern Iowa Electric COOP.
  - Local Electric Cooperatives.
  - Natural Gas Company.
  - Linn County REC.
  - Waverly Light and Power.
  - Energy committee.
  - An energy firm out of Texas.

- Contractors/Construction Management Firm (26)
  - Local Heating/Cooling Contractors/ Ground Source Heat/Cooling Contractors. (7)
  - Local geothermal installers/experts. (2)
  - Contractors who are building energy efficient buildings now.
  - Window contractors.

- Organizations/Associations (19)
  - DNR. (5)
  - Iowa Energy Bank. (4)
  - Vendors at the State School Board Convention. (2)
  - Iowa Department of Education (2)
  - School Board Association (2)
  - State Energy (DNR) has been consulted about geothermal applications to our existing buildings.
  - ASRAE for info on existing energy efficient buildings, operating cost per/sq. foot information.
  - Iowa Energy Council.
  - Energy Star.
  - Iowa Energy people at DMACC – Ankeny Campus.

- Consultants/Consulting Firms (12)
  - Energy consultant/Local energy consultant. (7)
  - Lighting consultant.
  - Wind consultant.

- District Facilities Manager/Director of Maintenance/Director of Buildings and Grounds (11)
  - Our own in-house HVAC specialists.
  - We have a position in our district whose job it is to check energy use and monitor what is being done in every building on a weekly basis. We have saved over a million dollars in the past.
  - Our school energy management person.
• Administrators/School Board/Other Schools (9)
  o Other school districts with energy efficient experience. (4)
  o We have developed a district wide committee with community members and staff to look into ways to be more energy efficient.

• Local Colleges/UNI (4)
  o Bill Stigliani.

• Other (4)
  o Online search.
  o Someone local.
  o City.
  o Archdiocesan.

• Not Sure (117)
  o Not sure, we are considering converting to geothermal throughout our building - it was built in the 60s and has the original ventilation system.
  o Not sure, but it will be a major factor in our plan.
  o Not sure, we are not in a position where we will need to worry about this.
  o Not sure, that will depend on budget options and long-term financial savings.

10. If you were to construct an energy efficient new building or renovate an existing building to use less energy, who would you consult about information on funding or financing efficiency improvements? Please list sources or simply reply 'not sure' if you don't know what sources to contact.

• Architects/Architectural Firm/Engineers/Engineering Firm (65)
  o Design professionals. (2)
  o Architects we meet at IASB State Convention.
  o Architects who have experience in building/renovating energy efficient school buildings.
  o There are also rebates that may be accessed to these agencies through Ken Wictor, our architect.
  o We are expecting this service to be provided as part of our RFP to our architects.
  o An energy engineering company studies the plans and lays our bundles to select depending on the cost, payback, etc.

• Energy/Utility Companies (31)
  o Alliant Energy. (18)
  o Mid American Energy. (10)
  o Local utility companies because they generally have rebates in place for certain products or quality levels of products.
  o Midwest Energy.
  o Native Energy.
  o Energy audit firm.
  o Energy firm out of Texas.

• Energy Organizations/Associations (31)
  o Department of Education. (9)
  o Iowa Association of School Boards. (7)
  o Iowa Energy Bank. (5)
  o DNR. (4)
  o School Administrators of Iowa. (2)
  o Heartland AEA 11.
  o Southeast Iowa Regional Planning Commission.
  o Iowa School Cash Anticipation Program (ISCAP).
  o US and Iowa Departments of Energy.
  o DECCO/DEKKO
    -- We were able to secure a $310,000 grant from the DEKKO Foundation that will cover the cost of the geothermal system.
    -- Our finance committee worked with our physical plant committee to direct them to resources.
    We started with DECCO and started shopping around for grants of any kind. The committees reported their findings and found some great opportunities for us.
Government (8)
- We are looking to use our local option sales tax money and a probably bonding to complete the work.
- This district would rely heavily on the local option sales tax and of course the taxpayer would be involved.
- We would utilize physical plant equipment levy funds and/or bond issue funding.
- The district is currently using a private firm who specializes in bond referendums. We would have to have a private funding drive along with a bond issue to be able to do renovations or additions.

Administrators/School Board/Other Schools (13)
- Superintendent. (5)
- Other school districts with energy efficiency experience (4)
- District leaders. (2)
- District finance manager.

Contractors/Construction Management Firm (8)
- Local geothermal installers.

Consultants/Consulting Firms (7)
- Energy consultant. (3)
- Financial Consultants.
- Consultant- Michael Adams.

Local Bank/Lending Agency (8)
- Piper Jaffray. (3)

District Facilities Manager/Director of Maintenance/Director of Buildings and Grounds (2)

Local College/UNI (2)

Other (9)
- Local support. (3)
- We are a private school so all funding is coming from the private sector although we hope to take advantage of some rebates. (2)
- System business manager.
- Rebate Sources.
- Parish subsidies.
- Online.

Not Sure (176)
11. Please rank the top three considerations in order of importance when choosing an architectural/engineering design firm to design/construct or renovate a classroom building, with one being most important, two being second most important, etc.

With a mean of 1.45, respondents indicated *Previous work experience with district* was the most important consideration when choosing an architectural/engineering firm to design/construct or renovate a classroom building. *Energy efficient design concept knowledge* was ranked second by participants with a mean of 2.27. The responses provided by participants in response to “Other” are listed below the graph in descending order of the frequency with which they were mentioned.

<table>
<thead>
<tr>
<th>N=</th>
<th># of Times Ranked 1st</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Company</td>
<td>287</td>
<td>31</td>
</tr>
<tr>
<td>Previous work experience with district</td>
<td>322</td>
<td>201</td>
</tr>
<tr>
<td>Knowledgeable about energy efficient design concept</td>
<td>320</td>
<td>90</td>
</tr>
<tr>
<td>Other</td>
<td>35</td>
<td>8</td>
</tr>
</tbody>
</table>

**OTHER:**

- **Budget/Low Costs (15)**
  - Success/history in hitting cost targets. (2)
  - Life cycle cost information.
- **Knowledge (11)**
  - Recommendations. (5)
  - Knowledge of laws.
  - Nationally ranked in peer-reviewed journals; leader in the field.
  - Response to RFP.
  - Knowledgeable/specialize in school construction. (3)
- **Administration/District (5)**
  - Compatibility with district. (2)
  - Board approved.
  - Superintendent had past experience with company.
  - Other school districts.
- **Architect (3)**
  - Local architect who knows our expectations.
  - Confidence in the firm.
  - Their public relations representatives.
- **Building Design (2)**
- **Location**
- **Geothermal**
  - Environmental impact.
12. **Who or what organization would have the greatest influence on your decision whether or not to implement energy efficient design/equipment in new or renovated buildings?**

Almost 40% of respondents reported the *School Board* had the greatest influence on their decisions regarding energy efficiency implementations. The second and third most influential positions were *Architects* and *Superintendent/Assistant Superintendents* with 17.5% and 17.2% respectively. The least influential positions seemed to be *School Business Officials* and *Energy Supplier/Utility Company* with less than 3.5% each. Responses provided by those who selected “Other” are listed below the graph in descending order of the frequency with which they were mentioned.

**OTHER:**
- Cost of project/payback time frame (6)
- Committee/Joint Decision (5)
  - Building and grounds committee.
  - Energy committee.
  - Consensus between energy consultant and building manager.
  - Several of the above listed avenues working together as a “team” to determine what is best when making decisions to best utilize tax payer dollars.
  - Community committee.
- Church (4)
  - Parish/Dioecese. (3)
  - Church planning council.
- Public
- Other
  - Have not really discussed it at this point, more specifics after election.
13. Please rank the three most important considerations when designing or renovating classroom buildings in your school district, with one being the most important and three being the least important. For items not ranked in the top three please enter zero.

Respondents reported the *Initial cost* was the most important consideration of designing or renovating, with a mean of 1.66. *Improved student/teacher performance* was the second most important consideration with a mean score of 1.78, while *Lifecycle cost* was a close third at 1.83. Responses provided by those who selected “Other” are listed below the table in descending order of the frequency with which they were mentioned.

<table>
<thead>
<tr>
<th>Consideration</th>
<th>N</th>
<th># of Times Ranked 1st</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial cost</td>
<td>215</td>
<td>113</td>
<td>1.66</td>
</tr>
<tr>
<td>Lifecycle cost</td>
<td>209</td>
<td>84</td>
<td>1.83</td>
</tr>
<tr>
<td>Impact on the environment</td>
<td>28</td>
<td>2</td>
<td>2.54</td>
</tr>
<tr>
<td>Occupant comfort</td>
<td>82</td>
<td>4</td>
<td>2.49</td>
</tr>
<tr>
<td>Energy efficiency</td>
<td>207</td>
<td>31</td>
<td>2.34</td>
</tr>
<tr>
<td>Aesthetically appealing design/look</td>
<td>32</td>
<td>1</td>
<td>2.72</td>
</tr>
<tr>
<td>Improved student/teacher performance</td>
<td>202</td>
<td>93</td>
<td>1.78</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>2</td>
<td>1.80</td>
</tr>
</tbody>
</table>

**OTHER:**
- Does it meet our needs?
- Prior experience with current attempts to make other buildings energy efficient.
- 10-year facility plan.
- Safety.
- Full utilization of space.

14. Has your school district ever investigated or reviewed information about installing wind or solar energy?

Roughly 47% of respondents’ school districts had never investigated or reviewed information about installing wind or solar energy. While 29.1% cited their school district has investigated or reviewed information about wind or solar energy, the remaining 24.2% were *Not Sure*. 

![Pie chart showing the answers to the question]

<table>
<thead>
<tr>
<th>Answer</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>46.6%</td>
</tr>
<tr>
<td>Yes</td>
<td>29.1%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>24.2%</td>
</tr>
</tbody>
</table>

N =326
[YES] Where did you find background information on installing wind or solar energy?

The majority of the 95 participants whose districts have investigated wind/solar energy had gotten information from Energy/Utility Companies and Other School Districts. Many relied on the administration and school board as well as Architect/Engineering Firms. A complete list of response provided is below in descending order of the frequency with which they were mentioned.

- **Energy/Utility Company (23)**
  - Energy Company. (5)
  - Local utility. (5)
  - Local company. (4)
  - Local wind energy company. (2)
  - Alliant Energy. (2)
  - Enron Energy.
  - Midwest Energy.
  - Waverly Light and Power Co., Waverly. We are in the process of working with WLP in a joint venture for a wind generator.
  - From local wind turbine operations.
  - The local companies erecting the wind farms in Buena Vista and Sac Counties.

- **Other school districts (16)**
  - Other districts. (9)
  - Spirit Lake School District. (2)
  - Neighboring district with an existing turbine. (2)
  - Community college.
  - Forest City CSD.

- **Administrators/School Board (14)**
  - Superintendent (6)
    -- Superintendent attended a state initiated conference.
  - School board members. (3)
    -- A board member had gone to a meeting about wind energy.
    -- We attended a regional wind conference last fall; our board president got the info.
  - Committee (3)
    -- Our district has formed an Energy Committee. We are all doing research and bringing information back to the committee.
    -- We currently have a group of administrators, teachers, and community members serving on an Energy Committee. One of our members recently completed a long-term wind study. We are putting up two test towers to collect data.
    -- We have a committee in the district that has contacted area colleges.

- **Architects/Engineer/Consultant/Consulting Firm (11)**
  - Energy consultant. (3)
  - Architect told us that wind energy was not yet cost effective.
  - Engineering Design Consultant.

- **Organizations/Associations (9)**
  - IASB (Iowa Association of School Boards). (4)
  - I believe it was on the web site of the Iowa Energy Group. (2)
  - Iowa Energy Bank.
  - We attended a meeting conducted by Iowa Energy alliance.
  - Farm Bureau.

- **Board Conventions/Symposium (2)**
  - It was done prior to my arrival.
  - Unknown - I was not here at that time, but they did not find it to be cost effective.

- **Internet. (6)**
After your investigation or review of background information about wind or solar energy, did the school/school district install wind or solar energy?

Of the 95 respondents whose school districts had investigated or reviewed background information about wind or solar energy, almost 90% did not install wind or solar energy.

- Yes 12.6%
- No 87.4%

[NO] What were the top two reasons for not installing wind or solar energy?

The top two reasons that wind or solar energy were not installed centered on cost and budget issues as well as location. A complete list of responses provided by participants is below in descending order of the frequency with which they were mentioned.

- Cost Prohibitive/Not Cost Effective (67)
  - Payback over time was not good. (10)
  - Data in our area could not support wind energy as a cost effective measure.
  - Energy provider did not make it worthwhile.
  - Maintenance costs on equipment eats up gain.
  - Practicality.
  - Risk.
  - It was not financially feasible to make the investment.
  - Our current cost per kw/building operating cost is VERY low.
  - We are a very small district and board decided not efficient for us.
  - Geothermal was more cost-efficient.
  - The information regarding wind speed and duration indicated that it was not financially beneficial to do so at that time.

- Location (29)
  - Not enough wind. (13)
  - We are in a poor wind and solar energy location. (7)
  - Securing land to place the turban(s). (2)
  - Space. (2)
  - Not enough long-term data available/wind study not completed (2)
  - Impact on neighborhood aesthetics and availability of appropriate site.
  - We did not have enough room to place a turbine in close enough proximity to the school and we were not sure about the energy grid allowing us to run lines etc.
  - We are in an area where wind is not as much a factor as other parts of the country.
• Decision Pending (6)
  o Planning to run tests/Test towers (2)
  o We are not thru with our research.
  o We have yet to complete our viability study.
• Building Codes/Legislation (5)
  o Energy is billed on a demand meter so wind energy is not feasible and not allowed to consolidate
data district meters to offset wind energy production. (2)
  o The law changed, not requiring utilities to buy back excess production. (2)
• Availability of proper sized turbine was very limited. (4)
  o The district plans to install a wind turbine, but has been unsuccessful in finding one. (2)
  o Wind energy was considered and I think it might still be possible to add it to our project. We went
  with geothermal. Availability might have been the reason.
• Lack of information (2)
  o Not enough information on the size turbine needed.
  o Not knowing where to start or how to get it going.
• Other
  o Future developments.
  o Life expectancy of the buildings.
  o Future of the school district.
  o Other priorities needed to be completed first.
  o Recommendation.
  o Uncertain on results.
• Not Sure/Not Interested (6)
  o Not interested at that time.
  o Did not meet our needs at the time.
  o Indifference.

[YES] What have been the top two positive outcomes of wind/solar energy installation?

Of the 12 respondents whose districts had installed wind/solar energy, nine listed cost savings as the top
positive outcome. Other benefits include positive public relations and student education. A complete list of
responses is provided below in descending order of the frequency with which they were mentioned.
• Cost Savings (9)
  o Helps pay our electricity costs.
  o Electrical use savings recouped the cost of constructing the turbine.
• Public Relations (3)
  o The public relations benefit from using renewable energy.
• Student Education (2)
• Other
  o Environmentally friendly resource.

[YES] What have been the top two negative outcomes of the wind/solar energy installation?

Of the 12 respondents whose districts had installed wind/solar energy, 10 listed mechanical/maintenance
problems as the top negative outcome. Other negatives included high cost of repairs and maintenance. A
complete list of responses is provided below in descending order of the frequency with which they were
mentioned.
• Mechanical Problems/Maintenance problems (10)
  o Finding parts/repair person was difficult. (2)
  o Many days lost for repairs.
  o The wind turbine fell over.
  o Maintenance of Turbine Noise of unit in a residential area.
• Costs for Repairs/Maintenance (2)
• Other (2)
  o Had to go to the state supreme court where the school district lost
  o The regulations surrounding acquisition.
15. **Does your school district have a written energy efficiency policy for new construction or building renovation?**

Roughly two-thirds of respondents did not have a written energy efficiency policy for new construction or building renovation at the time of this study and 29.2% were *Not Sure*. Less than 5% had a written policy.

![Pie chart showing the distribution of responses to the question.](chart.png)

**[YES] Who is responsible for ensuring that this policy is followed?**

Of the 16 respondents with a written energy efficiency policy the majority reported that the facilities/building and grounds department was responsible for compliance. In a few instances school boards and superintendents were responsible for compliance. All responses provided by participants are listed below in descending order of the frequency with which they were mentioned.

- Facilities Director/Facilities Manager/Building and Grounds Department (9)
- School Board. (3)
- Superintendent. (2)
- Architect/Engineer (2)
  - Architect, as well as the civil engineer hired by the district.
  - We have a consulting firm who reviews sites.
- Committee/Team (2)
  - Building & Grounds Committee.
  - We have an administrator, maintenance person and a school board member.
- Other
  - Everyone.
[YES] How effective would you say this policy is in reducing energy costs?

Among the 16 respondents who had a written energy efficiency policy for new construction or building renovation, 50% cited this policy was Somewhat Effective in reducing energy costs, with an additional 37.5% who thought the policy was Very Effective. The remaining 13% reported this policy was Neither Effective nor Ineffective.

![Chart showing effectiveness of energy efficiency policy]

[YES] What is the most difficult part of implementing this policy?

Of the 16 respondents, the most frequent difficulty in implementation cited was monitoring usage and achieving consistent compliance. Some mentioned that changing established behaviors was also a challenge. The responses provided by participants are listed below in descending order of the frequency with which they were mentioned.

- Monitoring usage/consistent compliance. (3)
- We are not at that point in our construction plans. (2)
- Changing established behaviors. (2)
- Finding time to make rounds on the different buildings and deciding what should be done first.
- Time for construction to take place.
- Some school district constituents desire renewable energy sources over cost efficiency.
- Fitting existing buildings with the needed upgrades and remodeling schools.
- Most of our buildings have been built in phases and previous designs are a hindrance to improvements.
- Cost.
16. Has your school district completed an energy audit of your buildings?

Just over half of the respondents indicated their school district has completed an energy audit of their buildings, compared to roughly 16% who had not completed an audit. Approximately one-third of the group was Not Sure.

[YES] What year was your most recent energy audit completed?

Of the 170 respondents whose district had completed an energy audit, the majority, approximately 40% were completed in the past couple of years. Audits completed between 2000 and 2004 followed with about one-third of the responses.

- Currently Performing (2)
  - It will take place in the next week; we currently have no specific recommendations.
- 2005 – Present (69)
  - 2006. (37)
  - 2005. (30)
  - 2007. (4)
  - We do it yearly.
  - We do monthly audits of our buildings by our energy technician. We also do retro commissioning to discover problem areas.
- 2000 – 2004 (46)
  - 2004. (14)
  - 2001. (8)
  - 2000. (7)
  - Several years ago. It is probably outdated now.
- 2002. (6)
- 2003. (4)
- Within the last five years. (3)
- 1990's (14)
  - 10-15 years ago. (9)
  - 1990. (2)
  - 1995.
  - 1996.
  - 1998.
- 1980's (2)
  - 1980.
- Other (37)
  - Not sure. (31)
  - Over five years ago. (4)
  - Long time ago.
[YES] How many of the recommendations from your most recent energy audit have been implemented at this time?

Of the 170 respondents whose school district completed an energy audit of their buildings, only 6.5% have not yet implemented any of the recommendations. The majority, 55.3%, has implemented *A few of the recommendations* and an additional 34.1% have implemented *Most of the recommendations*. Roughly 4% have implemented *All of the recommendations* from their recent energy audit.

On a scale of zero to four, where zero is not at all effective and four is very effective, how effective was your most recent energy audit in reducing energy use?

Of the 170 respondents representing school districts that have completed an energy audit of their buildings, about 41% cited their most recent energy audit was *Neither Effective nor Ineffective* in reducing energy costs. Approximately one-third believed their most recent audit was *Somewhat* or *Very Effective* with 24.1% and 8.8% respectively. Just under 26% thought it was *Somewhat* or *Not at all effective*. 
17. Of the following, which has your school district done to reduce energy usage/costs in one or more classroom buildings over the past 3 years?

Bulk fuel purchasing, indicated by 40% of the respondent group, was the most frequently adopted practice in an effort to reduce energy usage/costs over the past three years. Approximately 36% implemented Staff and/or student energy conservation programs and completed Energy audit surveys to reduce energy usage/costs. High efficiency HVAC retrofits followed closely with 27.4%. The least frequently adopted practice was Employing an energy service contractor which was only reported by 4% of the respondent group. The responses provided by those who selected “Other” are listed below the table in descending order of the frequency with which they were mentioned.

**OTHER:**
- New energy efficient windows. (15)
- Geothermal installation. (12)
- Thermostat work. (4)
  - High tech thermostat control for our all-electric heated HS.
- Created policy for light/heat settings. (3)
  - Turning off every other light in the hallways.
  - Maintained an aggressive energy management practice.
- New boilers and repairs. (4)
- More insulation. (3)
- Lowered ceilings. (2)
- Adjusted heat pump setting/heat pumps. (2)
- New construction. (2)
- Employee awareness.
- In-house energy management person.
- Committee.
- Recycle.
- Install individual furnaces.
- Installed ceiling fans.
- Installed wind turbine.
- New siding.
- Replaced filters.
- Sealed air conditioner.
- Not sure. (2)
18. Please check all true statements:

Almost 36% of the respondent group believed they were not very familiar with school energy efficiency options. Approximately 42% of the respondents felt they had a general understanding about school energy efficiency but not direct experience with it. Just over one-third of the group were familiar with a school district that has at least one highly energy efficient classroom building, just under 29% reported they regularly read articles about energy efficiency and only 16.1% have attended a workshop/presentation about school energy efficiency.
19. On a scale of zero to four, where zero is not at all familiar and four is very familiar, how familiar are you with the following programs/services?

Overall, the respondent group did not have a high level of familiarity with any of the programs/services evaluated as all mean scores were below the midpoint of two on a zero to four scale. With a mean of 1.58, respondents were most familiar with *Local utility’s energy efficiency programs*. *Iowa Department of Education’s Education Program-Consultant Infrastructure and Energy Service/Performance Contractors* followed with means of 0.84 and 0.64, respectively. The program with the least amount of familiarity among the respondent group was the *Iowa Energy Center’s Energy Resource Station* with a mean of 0.29.
20. **To your knowledge, has your school district ever used Energy Bank financing?**

An overwhelming majority, roughly 95%, of respondents indicated their school district has never used Energy Bank financing.

- Yes 4.6%
- No 95.4%

**[YES] How satisfied are/were you with the services provided by the Energy Bank?**

Of the 15 respondents whose district has used Energy Bank financing, 80% were Very Satisfied or Somewhat Satisfied with the services provided by the Energy Bank. The remaining 20% were Neither Satisfied nor Dissatisfied.
[NO] How likely are you to consider using services provided by the Energy Bank in the next three years?

Of the 314 respondents from districts that have never used Energy Bank financing, 51.3% were Somewhat Likely to consider using services provided by the Energy Bank in the next three years and an additional 4.8% were Very Likely.
21. To your knowledge, has your school district ever hired/used Energy Service/Performance Contractors to reduce energy used by school districts?

Of the respondent group, 83% indicated their district has never hired/used Energy Service/Performance Contractors to reduce energy used by the district.

- Yes 17.0%
- No 83.0%

[YES] How satisfied are/were you with the services provided by the Energy Service/Performance Contractors?

Of the 56 respondents who have hired/used Energy Service/Performance Contractors, nearly 45% of respondents were Somewhat Satisfied with the services provided by the contractors and almost 27% were Very Satisfied. While approximately 23% of the respondents were Neither Satisfied nor Dissatisfied with the services, less than 6% were Dissatisfied to any degree.

![Bar chart showing satisfaction levels among respondents]

[SOMEWHAT OR VERY DISSATISFIED] Please explain why?

OTHER:
- No common sense in administering it.
- Retrofitted light system prior to my tenure and those who lived through it believed it to be a failure. Loss of light quality was the main complaint.
- The program is probably not legal since they do projects that are required to be competitively bid.
[NO] How likely are you to consider hiring/using services provided by Energy Service/Performance Contractors in the next three years?

Of the 273 respondents whose districts have never hired/used Energy Service/Performance Contractors, 50.2% were Somewhat Likely to consider using services provided by Energy Service/Performance Contractors in the next three years and an additional 4% were Very Likely.
22. To your knowledge, has your school district ever used your local utility’s energy efficiency programs?

Almost 53% of respondents believed their school district had used their local utility’s energy efficiency programs.

- Yes 52.6%
- No 47.4%

[YES] How satisfied are/were you with the energy efficiency programs provided by your local utility?

Of the 173 respondents whose district had used their local utility’s energy efficiency programs, nearly three-fourths of respondents were Somewhat Satisfied or Very Satisfied with the services provided. Approximately 24% of the respondents were Neither Satisfied nor Dissatisfied with the programs, while less than 2% were Dissatisfied.

[SOMEWHAOT OR VERY DISSATISFIED] Please explain why?

OTHER:

- Lack of follow up by the local utility as to what they said they would do.
- Local interrupt service caused cancellation of too many activities.
- Projects are not competitively bid.
[NO] How likely are you to consider using your local utility's energy efficiency programs in the next three years?

Almost 70%, of the 156 respondents whose district has never used their local utility’s energy efficiency programs, were Somewhat Likely to consider these programs in the next three years. An additional 9.6% were Very Likely.
23. To your knowledge, has your school district ever used the Iowa Energy Center's Alternate Energy Revolving Loan Program?

As reported by the majority, the Iowa Energy Center’s Alternative Energy Revolving Loan Program had not been used by 97% of the respondent school districts.

- Yes 3.0%
- No 97.0%

[YES] How satisfied are/were you with the services provided by the Iowa Energy Center’s Alternate Energy Revolving Loan Program?

Of the 10 respondents who had used the Iowa Energy Center’s Alternative Energy Revolving Loan Program, half were Somewhat or Very Satisfied with 20% and 30% respectively. The other half of the respondents was Neither Satisfied nor Dissatisfied with the services provided.
How likely are you to consider using services provided by the Iowa Energy Center’s Alternate Energy Revolving Loan Program in the next three years?

Of the 319 respondents whose school districts hadn’t used the Iowa Energy Center’s Alternative Energy Revolving Loan Program, almost 60% were Unlikely to consider using the program in the next three years. Approximately 40% were Somewhat Likely to consider using the loan program and less than 3% were Very Likely.
24. Has your school district ever used the Iowa Energy Center's Energy Resource Station?

Approximately 97% of the respondent group indicated their school district has never used the Iowa Energy Center’s Energy Resource Station.

- Yes 2.7%
- No 97.3%

[YES] How satisfied are/were you the services provided by the Iowa Energy Center's Energy Resource Station?

Of the nine respondents whose district had used the Iowa Energy Center’s Energy Resource Station, almost 80% were either Very Satisfied or Somewhat Satisfied with the services provided. The remaining 20% were Neither Satisfied nor Dissatisfied.
[NO] How likely are you to consider using services provided by the Iowa Energy Center’s Energy Resource Station in the next three years?

Of the 319 respondents whose school district has never used the Iowa Energy Center’s Energy Resource Station, roughly half were *Unlikely* to consider using the program in the next three years. Approximately 44% were *Somewhat Likely*, while only 3.1% were *Very Likely* to consider using the Energy Resource Station.
25. To your knowledge, has your school district ever used the Iowa Department of Education’s School Facilities/Infrastructure Unit?

Almost 84% of the respondents reported their school has never used the Iowa Department of Education’s School Facilities/Infrastructure Unit.

- Yes 16.1%
- No 83.9%

[YES] How satisfied are/were you with the services provided by the Iowa Department of Education’s School Facilities/Infrastructure Unit?

Of the 53 respondents from districts who had used the Iowa Department of Education’s School Facilities/Infrastructure Unit, approximately 60% were either Somewhat or Very Satisfied with 35.8% and 24.5% respectively. Nearly 40% were Neither Satisfied nor Dissatisfied with the services provided.
[NO] How likely are you to consider using services provided by the Iowa Department of Education’s School Facilities/Infrastructure Unit in the next three years?

Of the 276 respondents whose school districts have never used the Iowa Department of Education’s School Facilities/Infrastructure Unit, almost 57% were Somewhat Likely to consider using the School Facilities/Infrastructure Unit in the next three years. An additional 6% were Very Likely.

26. How likely is it that your school district would implement programs that could cost effectively achieve energy savings of 5-15% through behavioral changes?

Almost 52% of respondents indicated their school district was Somewhat Likely to implement programs that could cost effectively achieve energy savings of 5-15% through behavioral changes and 35% believed their school district would be Very Likely. Just over 9% were Neither Unlikely Nor Likely to implement the programs. Less than 4% were Somewhat or Very Unlikely.
27. **How likely is your school district to implement projects that have the potential to cost effectively reduce energy consumption by 25-30% through design improvements or installation of energy efficient equipment?**

Over three-fourths of the respondents indicated their school district was *Somewhat Likely* (51.4%) or *Very Likely* (26.4%) to implement projects that have the potential to cost effectively reduce energy consumption by 25-30% through design improvements or installation of energy efficient equipment. Fourteen percent reported their school district was *Neither Likely Nor Unlikely*, while roughly 8% cited their school district was *Somewhat or Very Unlikely* to implement projects of this nature.

![Bar chart](chart1.png)

28. **Which of the following best describes your position?**

Almost half of the respondent group was *Principals*. Roughly 20% were *Board Members* and *Superintendents*. Less than 4% were *Facilities Managers*. Positions provided by those who selected “Other” are listed below the table in descending order of the frequency with which they were mentioned.

![Bar chart](chart2.png)
OTHER:

- Director of Operations. (3)
- Chief administration officer.
- District Administrator.
- Business Manager.
- Assistant to the Superintendent.
- Energy Manager.
- Director of Education.
- Director of Support Services.
- Teacher.

29. If you have any specific questions or concerns about how to make your school district more energy efficient please list them below, or simply reply 'none' if you have no questions/concerns.

Most respondents used this as an opportunity to request more information, whether that be general energy efficiency information or targeted information regarding funding and implementation. The questions/concerns have been categorized below. In addition, they may be found in Appendix C along with their corresponding addresses in order to facilitate follow-up by the CEEE.

- Requests for general information (10)
  - I would be very interested in attending some energy conservation seminars.
  - How can I, as a Board Member, find out more about this topic?
  - Can you send brochures, etc. to building administrators outlining quick, easy ways of being more energy efficient?
  - We are right now looking at a $5,000,000 addition. We are working with LEED Architects, but I would like to know more also.
  - Any options that could reduce operational costs and improve the environmental conditions within the building.
  - I would appreciate learning more about services that are available for school districts to review energy efficiency in existing buildings.
  - How do principals gain knowledge in this when the superintendent is really the decision maker? Living in a district with decreasing enrollment our focus has been on students not energy--how do you inform schools and public of the energy savings?
  - How does a small district obtain any services concerning energy conversation?
  - Is there a way to train staff in-house on the significant impact on being more energy efficient, turning of lights, computers...etc.?

- Requests for program information (6)
  - Need more information on programs described in survey.
  - How would we find out about these resources? I have been directly involved in building in two different districts and have not heard of these resources.
  - Are school districts contacted by these state agencies as to what is available to us?
  - I do not recognize many of the groups mentioned above. This might be helpful information.
  - It might be good if some representatives of the various organizations concerned visited with our current superintendent about ways to make our new addition more energy efficient if this is not already being considered.
  - The programs or services listed in this survey sound fantastic. How can this be made or is this made available to school superintendents and architects?

- Lights (6)
  - Life cycle costs to replace t-12 bulbs w/electronic ballasts with t-5 bulbs w/electronic ballasts.
  - Concerned with the lighting, would like to see more energy efficient lights
  - I would like to receive information on lights.
  - Turning off lights when no one is in the classroom. I was told that it is more cost effective to leave the lights on!
  - Whenever we talk about shutting off lights, teachers say they have been told that it is less expensive to leave the fluorescent lights on than to turn them off and then back on 20 minutes later. Is there any truth to this?
- **Funding Sources (5)**
  - Concerns would be the financing.
  - Due to declining enrollment and reduction in school funding, any attempt to renovate or update our facilities is greatly hampered by lack of funding. Even if we save money, it takes money to be able to pay for goods and services that allow us to save energy.
  - I would like to receive information on funding sources.
  - I would like to see authoritative, independent; life cycle cost based decisions on energy savings implementations. I have heard what amounts to urban legends about the number of years it takes to pay back investments in energy saving implementations.
  - The cost would be the prohibitive factor.

- **Planning/Implementation (3)**
  - After the results of the energy audit by our local energy provider, what is the next logical step? We are planning improvements to our schools once it is taxpayer approved.
  - We would like to renovate our High School building. We are in the stages of upgrading our Elementary and have placed a geothermal system in that building. We would like to incorporate ways to improve the efficiency of the High School at a reasonable initial cost.
  - We will be interested in having other energy audits performed at our elementary schools whether it is with the local utility companies or other organizations.

- **Windows (2)**
  - New windows.
  - What to do with old windows and doors?
  - Exterior door and window (outside envelope) improvements on buildings 80 years old. (1)

- **General Comments:**
  - None. (5)
    - My building and grounds committee does the investigations/secures energy audits, etc. for our Catholic school system.
    - Our Facilities Manager is incredible and keeps current of all of this!
    - We are very comfortable with our leading edge energy management strategies.
    - We have been working diligently on possibilities for the future.
    - We just finished building an energy efficient building.
  - I would have too many to list. We are one connected building with a 1917 three story in the middle of the additions.
  - We will work towards our energy goal when we renovate the rest of our building, it will be a high priority. My role in the process is rather limited.
  - College Community is a growing school district; as a result we have been in a constant build mode over the past 8-10 years. We have made additions to numerous buildings in the district and thus in at least those additions we have utilized energy efficiency.
  - I feel confident that our current architect is providing this district with accurate energy savings ideas.
  - This survey has exposed me to some thoughts regarding energy efficiency that I had not considered previously.
  - We are very careful to turn off lights when rooms are unoccupied.
  - We do many energy saving projects in Spirit Lake.
  - We have chosen to renovate certain schools, while maintenance in other schools is limited, at most.
  - As a business manager and tax payer I am really disappointed with our administration not jumping on the bandwagon to make our teachers shut off lights in rooms, make sure that the janitors are programming thermostats, etc. - the simple stuff.
30. **Would you like to be contacted by the University of Northern Iowa’s Center for Energy and Environmental Education to learn more about how to make your school district more energy efficient?**

Approximately 42% of respondents were interested in being contacted by the University of Northern Iowa’s Center for Energy and Environmental Education to learn more about how to make their school district more energy efficient. A complete list of respondents asking for more information can be found in Appendix D along with their corresponding addresses in order to facilitate follow-up by the CEEE.

- Yes 42.2%
- No 57.8%

31. **Would you like a confidential energy efficiency comparison of how your school district’s classroom buildings compare to other Iowa classroom buildings?**

Almost 54% of the group was interested in receiving a confidential energy efficiency comparison of how their school district’s classroom buildings compare to other Iowa classroom buildings. A complete list of respondents asking for a confidential energy efficiency comparison can be found in Appendix E along with their corresponding addresses in order to facilitate follow-up by the CEEE.

- Yes 53.8%
- No 46.2%