



# PowerSave Schools Program

## *Social Network Impact Study*

Prepared for the Alliance to Save Energy

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## Executive Summary

The Alliance to Save Energy (the Alliance) is a nonprofit organization that promotes energy efficiency through research, education and advocacy. The organization encourages business, government, environmental, and consumer leaders to use energy efficiency to achieve a healthier economy, a cleaner environment and greater energy security.

The Alliance established the PowerSave Schools Program in Los Angeles County in 1999. The Program's goals are to educate students about energy efficiency and to save energy in schools. While the Alliance has conducted research to estimate the amount of energy saved in participating schools, they are interested in exploring potential short- and long-term impacts in the homes of participating students who adopt energy-saving behaviors, as well as the secondary effects on their peers and family members.

This report documents the findings from a set of surveys that were tested among a small group of students in January 2013 and then implemented with a larger sample in April and May 2013. The preliminary surveys were implemented at a high school in Pennsylvania. The later surveys were administered to elementary, middle and high school students in southern California.

The objectives of this project were to determine whether and how students influence their families' and peers' energy-using behaviors and to test two data collection methods. This project also aimed to determine the impact of the PowerSave Schools Program on students' energy usage behaviors both at school and at home.

### **Pilot Study**

APPRISE conducted a pilot study to test the research methodology at North Penn High School in January 2013. North Penn High School (NPHS), located in Lansdale, Pennsylvania, participates in the PowerSave Schools Program by supporting the Energy Troopers, an energy-efficiency club that meets after-school. The pilot study was intended to assess a methodology for documenting the impact of the program on the students' social networks. During this study, paper surveys were completed by six students and by 12 of the students' friends and family members. The protocols used in this pilot study were adapted for use in the California schools.

While it appears that the Energy Troopers Program had an impact on participating students' communications with their family and friends regarding energy and energy efficiency, definitive conclusions could not be drawn due to the small number of students, family members, and friends interviewed. However, this pilot test successfully identified administration issues and helpful revisions to survey instruments. It also provided anecdotal information about the impact of the Program on participating students' families and friends. Data from this small sample of students indicated that participation in the Energy Troopers Club at NPHS informs students about energy efficiency, and results in some changes in

energy usage behavior among their family and friends who do not directly participate in the Club.

### **Follow-Up Study**

Five schools were selected to participate in the second and more extensive part of the study. The schools selected included an elementary school, a middle school and three high schools, and each of these schools supports an energy efficiency club. This study was intended to determine the impact of the PowerSave Program on students' energy usage behaviors and on the energy usage behaviors of their friends and family as well as to test two different methods of collecting data. For this survey half of the students in the PowerSave Club at each school were selected to complete a paper survey and the other half of the students at each school were asked to complete online surveys. During this study, surveys were completed by 29 students and by 30 of the students' friends and family members.

To help gauge the impact of the energy efficiency clubs on students' energy usage behaviors, students were asked about their awareness, knowledge, and perceived importance of energy efficiency before and after joining their clubs. Nineteen of the 29 students who completed a survey said that their awareness changed a lot since they began participating. Students were also asked to describe any energy saving actions they had taken at school and at home with no initial prompting. These open-ended questions allowed students to list any energy saving actions they remembered taking since they had joined their clubs, and the most common energy saving action reported by students was turning off lights.

This study also aimed to determine the impact of the program on the energy usage behaviors of friends and family members. Students were asked to indicate if they had spoken with any family members, friends or community members about energy efficiency. The students who completed paper surveys were asked to administer a paper survey to one friend and one family member they had spoken to about energy efficiency. The students who completed online surveys were asked to provide the email addresses of up to three friends and three family members they had spoken to about energy efficiency. APPRISE sent these individuals invitations to an online social network survey.

While the survey was implemented with a relatively small sample of students, it did offer some insight on the impact of the PowerSave Schools Clubs on students and their family and friends. This survey suggested a degree of connection between students and friends and family members with whom they discuss energy efficiency. The surveys also indicated that PowerSave Clubs impact students' thoughts and behaviors concerning energy usage. The results of these surveys suggest that the PowerSave Schools Clubs have increased awareness of energy efficiency among students and their social networks and have increased their commitment to saving energy.

## I. Introduction

The Alliance to Save Energy (the Alliance) is a nonprofit organization that promotes energy efficiency through research, education and advocacy. The organization encourages business, government, environmental and consumer leaders to use energy efficiency to achieve a healthier economy, a cleaner environment and greater energy security.

The Alliance established the PowerSave Schools Program in Los Angeles County in 1999. The Program's goals are to educate students about energy efficiency and to save energy in schools. While the Alliance has conducted research to estimate the amount of energy saved in participating schools, they are interested in exploring potential short- and long-term impacts in the homes of participating students who adopt energy-saving behaviors, as well as the secondary effects on their peers and family members.

This report documents the findings from a set of surveys that were tested among a small group of students in January 2013 and implemented with a larger sample in late April and early May 2013. The preliminary surveys were implemented at a high school in Pennsylvania. The later surveys were administered to elementary, middle and high school students in southern California.

### *A. Overview of Participating Schools*

APPRISE conducted a pilot study to test the research methodology at North Penn High School in January 2013. North Penn High School (NPHS), located in Lansdale, Pennsylvania, participates in the PowerSave Schools Program by supporting the Energy Troopers, an energy-efficiency club that meets after-school.

Five schools were selected to participate in the second and more extensive part of the study. Buena Vista High School, Hawthorne High School, Lawndale High School, Ramirez Intermediate School and Madison Elementary School are participants in the PowerSave Schools Program in southern California. Each of these schools supports an energy efficiency club supported by a small group of teachers and custodial staff at the school and by a local project leader.

### *B. Research Overview*

The objective of this project was to determine whether and how students influence their families' and peers' energy-using behaviors and to test two data collection methods. This project also aimed to determine the impact of the PowerSave Schools Program on students' energy using behaviors both at school and at home.

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## II. Methodology

This section provides a description of the data-collection protocol for the surveys implemented in April and May 2013.

### *A. Survey Administration*

Two different methods of data collection were employed. Half of the students in the PowerSave Club at each school were selected to complete a paper survey and to administer a paper survey to one friend and one family member. The other half of the students at each school were asked to complete online surveys and to provide the email addresses of up to three friends and three family members to whom APPRISE sent invitations to an online social network survey.

APPRISE contacted the Alliance Program Manager in Los Angeles to discuss selection of schools. The Alliance Program Manager recommended implementation at three high schools, one middle school and one elementary school in southern California, with a target of 80 students overall. Two local project leaders helped to facilitate these schools' participation in the PowerSave Schools Program through clubs that meet during school.

APPRISE briefed the Alliance Program Manager and local project leaders on the research project and the protocol for implementing the surveys and asked the project leaders to brief students at their schools. Packets containing group leader instructions and survey materials for each student were mailed to the local project leaders to distribute at the time of the briefing. The packages were mailed to local project leaders between April 11, 2013 and April 18, 2013 and contained packets for both group leaders and students. Group leader packets contained the following materials.

- A key with names and ID numbers of each student in the group, allowing students to be referenced without using personally identifying information
- Paper copies of the paper and online versions of the student survey and the social network survey
- A group leader training guide
- A consent form
- A prepaid, pre-addressed FedEx envelope to return additional consent forms if needed

Student packets were distributed between April 22, 2013 and May 6, 2013. The paper survey packages contained the following materials.

- The paper student survey
- Two paper social network surveys
- Two consent forms for the parents of the participating student

- Two consent forms for the parents of other interviewed minors
- A student training guide for the paper survey
- A prepaid, pre-addressed FedEx envelope for the student to return the completed surveys to APPRISE

The online survey packages contained the following materials.<sup>1</sup>

- A student training guide for the online survey including a link to the online student survey.
- Six friends and family training guides including links to the social network survey.

### *B. Sample Composition*

The survey was implemented in an elementary school, a middle school and three high schools, and the grade levels of the students responding to the survey ranged from 5th to 12th grade. Ten of the 29 students who completed the survey indicated that they plan to continue participating in the group during the next school year.

**Table II-1  
Grade Level**

<b>Grade Level</b>	<b>Online</b>	<b>Paper</b>	<b>Both</b>
5th	4	4	8
7th	3	2	5
10th	2	2	4
11th	5	5	10
12th	2	0	2
<b>Total</b>	<b>16</b>	<b>13</b>	<b>29</b>

Fourteen of the sixteen students in 9th grade or higher reported that they are very likely to continue their education after graduating from high school, and 13 indicated that they plan to attend two- or four-year colleges.

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<sup>1</sup> Parents or guardians of the participating student were asked to provide an e-signature on a consent form at the beginning of the online survey.

### III. Pilot Study

This section contains a description of the methodology and findings from the pilot study that was implemented with a small group of high school students in January 2013.

#### *A. Research Overview*

APPRISE conducted a pilot study to test the research methodology at North Penn High School in January 2013. North Penn High School (NPHS), located in Lansdale, Pennsylvania, participates in the PowerSave Schools Program by supporting the Energy Troopers, an energy-efficiency club that meets after-school. The pilot study was intended to assess a methodology for documenting the impact of the program on the students' social networks. During this study, paper surveys were completed by six students and by 12 of the students' friends and family members. The protocols used in this pilot study were adapted for use in the California schools.

#### *B. Methodology*

The methodology employed in this study served as a model for methodologies employed in the later surveys, and the successes and challenges were taken into account when developing the revised procedures for the later surveys. The following section details the protocols used in the pilot study.

##### *Survey Administration*

APPRISE met with the Energy Troopers at North Penn High School (NPHS) in January 2013. Eight students were present at this meeting, along with the faculty advisor, the Alliance representative, and the Manager of Energy and Operational Efficiencies for NPHS.

At this meeting, APPRISE introduced the research project, provided a brief presentation on survey research, distributed survey packets, and briefed students on how to fill out consent forms and administer interviews.

The student surveys were completed by the students about their own experiences. To determine how the Club affects students' interest in and knowledge of energy and energy efficiency, students were asked about the following.

- Post high school plans
- Awareness, knowledge, and perceived importance of energy efficiency
- Lessons learned through participation in the Club
- Behavioral changes made as a result of participation in the Club
- Communication to others about the Club and about energy efficiency



The family and friend surveys were intended to be verbally administered by the students to one family member and one friend. The surveys addressed the following topics.

- Energy efficiency information learned from the participant
- Behavioral changes, if any, made as a result of the interaction
- Communication of energy efficiency knowledge to others
- Method(s) of communicating energy efficiency information

Students returned their completed survey packages to APPRISE using prepaid FedEx envelopes. Students were given a \$20 Visa gift card as an incentive for completing and mailing back the packet by a specified deadline.

### **Sample Composition**

Six of the eight students present at the introductory meeting completed and returned their survey packets. These students' grade level distribution and length of participation in the Club are displayed in Table III-1.

**Table III-1  
Student Respondent Grade and Years of Club Participation**

	How long have you been participating in the NPHS Energy Troopers? What is your current grade level?		
	Years Participating		Total
	1 Year	2 Years	
<b>Grade</b>			
Sophomore	1		1
Junior	1	3	4
Senior		1	1
<b>Total</b>	<b>2</b>	<b>4</b>	<b>6</b>

### ***C. Research Findings***

This section summarizes the student and family/friend survey findings from the pilot survey. While it appears that the Energy Troopers Program had an impact on participating students' communications with their family and friends regarding energy and energy efficiency, definitive conclusions could not be drawn due to the small number of students, family members, and friends interviewed.

### Student Experience

Students were first asked whether or not they planned to continue participating in the Club the following year. All five sophomores and juniors responded positively. Each student was also asked about post-high school plans. Five of the six students said they were very likely to continue their education after high school. All five reported that they plan to study science or engineering in college. The sixth student reported that he was somewhat likely to attend college and study psychology. Three students stated that they wanted to pursue an energy- or environment-related activity after high school, either by becoming involved in a local group “similar to Energy Troopers” or by majoring in a relevant field, such as environmental science, botany or ecology.

In addition, each student was asked to rate his or her awareness, knowledge, and perceived importance of energy and energy efficiency before and since he or she began participating in the Club. Table III-2 shows how students rated their awareness of energy efficiency before and since joining the Club. The table shows that while two of the six students said they were very aware prior to participation, five said their awareness had changed a lot since joining.

**Table III-2**  
**Awareness of Energy Efficiency**

<b>Please think back to <i>before</i> you joined the group. How would you describe your awareness of energy efficiency before you began participating? Would you say that your awareness of energy efficiency has changed a lot, somewhat, not too much or not at all since you began participating in this group?</b>		
	<b>Awareness Before Joining</b>	<b>Change in Awareness Since Joining</b>
Very/A Lot	2	5
Somewhat	3	1
Not Too	0	0
Not at All	1	0
<b>Total</b>	<b>6</b>	<b>6</b>

Students were also asked to rate their energy knowledge before joining the group and report how much that knowledge had changed since joining. Four of the six students reported that their energy knowledge had changed a lot or somewhat since they began participating.

**Table III-3  
Energy Knowledge**

<b>How would you describe your level of energy knowledge, such as knowing where energy comes from, and why it is important to pay attention to energy use, prior to participating in the group? How about your knowledge of energy, such as knowing where it comes from and why it's important to pay attention to energy use? Would you say that knowledge has changed a lot, somewhat, not too much or not at all since you began participating in this group?</b>		
	<b>Knowledge Before Joining</b>	<b>Change in Knowledge Since Joining</b>
Very/A Lot	3	2
Somewhat	2	2
Not Too	1	2
Not at All	0	0
<b>Total</b>	<b>6</b>	<b>6</b>

After joining the Club, all students indicated that they felt it is very or somewhat important to pay attention to energy efficiency.

**Table III-4  
Perceived Importance of Energy Efficiency**

<b>How important did you feel it was to pay attention to energy efficiency before you began participating in this group? Now how important do you feel it is to pay attention to energy efficiency? Would you say energy efficiency is now very important, somewhat important, not very important or not at all important to you?</b>		
	<b>Perceived Importance Before Joining</b>	<b>Perceived Importance Since Joining</b>
Very	3	5
Somewhat	2	1
Not Too	1	0
Not at All	0	0
<b>Total</b>	<b>6</b>	<b>6</b>

The survey then directed students to list the three most important things that they had learned from participating in the Club. Answers included a range of topics, covering knowledge about energy saving behaviors, energy knowledge, and leadership skills.

### **Student Actions**

Students were asked to describe actions they had taken around their school to save energy. In response to this question, students mentioned the following.

- Putting “Last out, Lights out” stickers on every light switch in the building.
- Broadcasting season-specific energy saving tips on NPHS’s Tuesday morning video

show.

- Walking around with the Energy Hog mascot to talk to students about the Club and about energy.
- Asking teachers to open or close their classroom window blinds during different times of the day based on which classrooms received direct sunlight.
- Writing a report on the results of an energy audit conducted on the “entire old section of the building” and presenting results to the Support Services Committee.

Students were also asked to report on activities conducted outside of school. Some of the activities they mentioned included the following.

- Interacting with the public and informing them about how to save energy.
- Handing out free CFL bulbs at the Montgomery Mall during its Earth Day Celebration.
- Handing out free CFL bulbs at the Second Annual Innovation Celebration, held at NPHS after school.

Energy savings actions taken at home included the following.

- Unplugging chargers
- Unplugging appliances and other electronics when not in use
- Turning off the lights when leaving a room
- Adjusting thermostats
- Purchasing energy efficiency light bulbs
- Reminding their family members to practice good energy efficiency habits

These responses indicated the potential for the program to extend beyond the participating student and into the community. Both by communicating their knowledge and by performing simple energy saving actions at home, students introduced concepts to their family members and friends.

### **Club Reach**

This section discusses Club participants’ communication with their family and friends about the Club and energy efficiency.

#### **First Degree of Communication**

Students were asked to estimate the number of friends and family members they had spoken to about the Club or about their new knowledge of energy efficiency. All six of the students reported that they communicated what they learned from Energy Troopers to their families and friends. Collectively, the six students spoke with a total of 23 family members, including parents, siblings, grandparents, aunts, uncles, cousins, and great-grandparents. Students reported speaking with a total of 26 friends.

Students were also asked to indicate whether they used social media to communicate with others about energy efficiency. Three students reported that they used Facebook. One student noted that the Energy Troopers has a Facebook group where he posts information on energy-related topics about two to three times per week. These data indicated that social media could be a powerful communication tool for participating students to reach a wider audience with an energy efficiency message.

### **Impact on Family and Friends**

Student interviews with family and friends were designed to determine whether conversations sparked changes in the family and/or friends' energy-using habits and understanding of energy efficiency practices.

Respondents were first asked to recall the date and content of their most recent conversation with the student about the Energy Troopers. Nine of the twelve respondents remembered the date (or an estimate of the date) of their most recent discussion. All of the respondents remembered what had been discussed. These discussions ranged from recaps of a Club meeting to basic energy saving information. For example, one respondent said, "We talked about upcoming projects, who was leading the program, and the role the Energy Troopers play." Another reported, "That I should save energy and use LED lights."

Next, respondents were asked whether or not they changed any of their energy behaviors following the conversation. Seven of the ten siblings and parents stated that they had made changes. Many respondents made habitual changes, including turning off the lights and televisions, and unplugging appliances. Three family members recalled other changes, including turning down the thermostat, buying "green" cleaning products, and switching to energy efficient lights. One respondent wrote "We are more AWARE!" and said the family was "considering using the electric company that sponsors the Club as our electricity supplier."

All three of the family members who did not change their energy-using behaviors stated that they had already been making energy conscious decisions. The first one said he had "always been energy conscious, turning out lights and unplugging appliances." The second stated that "changes have been made over the years through past discussions, such as going to CFL bulbs." The third respondent indicated the difficulty in developing new habits with the following quote: "Between everything going on, I can't devote a lot of time to watching myself. Besides I already do things to save energy."

Only two students interviewed friends. Based on the responses to the survey, it appears that one was a peer and the other was of an older generation (and listed as a "friend of the family"). The former said that she began unplugging her cell phone every day after conversing with the participating Club member. The latter began adjusting her blinds, turned down her heat, and bought an Energy Star washing machine, at a cost of \$900. Some of the actions reported by both family members and friends included the following.

- Turn off lights
- Purchase efficient lights
- Unplug electronics
- Turn off the television when not in use
- Adjust the thermostat down in winter, up in summer
- Take shorter showers
- Adjust blinds
- Use cold water for laundry

There were other patterns of note in the data. Older respondents made more significant energy behavior changes than younger respondents, perhaps because they had greater resources or more authority within the household. In addition, the four respondents who reported the most change each listed reducing the energy bill as a motivation for making these changes. Each had also invested financial resources in certain changes, such as buying more efficient appliances or lights and purchasing “greener” cleaning products. Other reasons that respondents listed for their behavior changes included moral/ethical reasons (“I don’t like to be wasteful” or “it’s the right thing to do”), environmental factors (“save the earth” or “reduce carbon emissions”), or a simple “to save energy”.

### **Second Degree of Communication**

Finally, the friend and family respondents were asked whether they had communicated energy efficiency ideas to others, either verbally or through social media. Five of the twelve respondents said that they had, and they collectively spoke to 25 others. All five of these respondents were family members; four parents and one sister.

## ***D.Methodological Findings***

A number of changes were made to both the survey instruments and the survey protocol in the second phase of this study based on observations from the implementation of the survey in January.

### **Methodology**

Common student errors in following directions for completing the pilot survey were as follows.

- The students did not execute the parental permission forms correctly. Students had their parents sign both their consent form and the student’s friends’ consent form, instead of having the friend’s parents complete that consent form.
- The student had the family or friend respondent complete the survey, rather than administering the survey to the family or friend as intended.
- Students selected two family members for the interviews, rather than one family

member and one friend (during the training, students were advised that this would be acceptable if a friend was not available.)

## Survey Instrument

Revisions to the survey instrument that were made as a result of the findings from this pilot are summarized below.

- Questions were added about how frequently the students talked to each person interviewed about energy efficiency.
- The social networking section of both survey instruments was updated to include narrower responses for the frequency with which respondents use social media.<sup>2</sup> A response option of “only once” was added to the instrument as a result of several students choosing “less than once a month” in the pilot survey.

Additional revisions that were made to reduce variation in the interpretation of question intent are described below.

- One question in the family/friend survey asked “Have you done anything differently regarding your energy behavior since we discussed the NPHS Energy Troopers?” This question was revised to read, “Have you done anything differently regarding your energy behavior since we first began discussing my experiences in the Club?”
- In the student survey, one student misinterpreted the question that read, “What, if anything, have you done outside of school to save energy?” This student discussed what the Energy Troopers had done outside of school as a Club rather than what he had personally done. This question was revised to read “What, if anything, have you done at home to save energy?”
- Two students provided inconsistent data in response to the questions that asked, “With how many family members have you discussed what you’ve learned from the Energy Troopers?” and “Which family members have you discussed the Energy Troopers with?” An instruction note was added to the survey instrument that specified the number of family members who should be reported when the second question was asked.

## Conclusion

While this pilot test identified administration issues and helpful revisions to survey instruments, it also provided anecdotal information about the impact of the Program on participating students’ families and friends. Data from this small sample of students

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<sup>2</sup> “How often do you post information about energy efficiency on [...] social media?”

indicated that participation in the Energy Troopers Club at NPHS informs students about energy efficiency, and results in some changes in energy usage behavior among their family and friends who do not directly participate in the Club.



## IV. Follow Up Study Findings - Student Survey

Five schools in California with PowerSave Programs were selected to participate in the second and more extensive part of the study. The grade levels of the students who participated in this study ranged from 5th to 12th grade. Each of the schools selected supports an energy efficiency club which is led by a teacher at the school and by a local project leader.

Surveys were implemented with students using two different methods of data collection. Half of the students in the PowerSave Club at each school were selected to participate by filling out a paper survey, and the other half of the students at each school were asked to fill out longer surveys online.

Both the online and the paper versions of the student survey started with questions about how long students had been participating in their energy efficiency clubs. The table below displays responses to this question for each type of survey and for both types combined. Most students had been participating in their clubs for less than one year.

**Table IV-1**  
**Length of Participation in the Group**

<b>Length of Participation</b>	<b>Online</b>	<b>Paper</b>	<b>Both</b>
Less than 1 year	8	9	17
1 year	5	1	6
More than 1 year	3	3	6
<b>Total</b>	<b>16</b>	<b>13</b>	<b>29</b>

### *A. Attitude Towards Energy Efficiency*

Students were asked about their awareness, knowledge, and perceived importance of energy efficiency before and after joining their clubs. The tables below report student responses to each of these questions. Eighteen of the 29 students said they were at least somewhat aware of energy efficiency prior to participating. However, 19 of the 29 said that their awareness changed a lot and seven said it changed somewhat since they began participating.

**Table IV-2**  
**Awareness of Energy Efficiency**

<b>Please think back to <i>before</i> you joined the group. How would you describe your awareness of energy efficiency before you began participating? Would you say that your awareness of energy efficiency has changed a lot, somewhat, not too much or not at all since you began participating in this group?</b>						
	<b>Awareness Before Joining</b>			<b>Change in Awareness Since Joining</b>		
	<b>Online</b>	<b>Paper</b>	<b>Both</b>	<b>Online</b>	<b>Paper</b>	<b>Both</b>
Very/A Lot	3	2	5	10	9	19
Somewhat	8	5	13	5	2	7
Not Too	2	5	7	1	2	3
Not at All	3	1	4	0	0	0
<b>Total</b>	<b>16</b>	<b>13</b>	<b>29</b>	<b>16</b>	<b>13</b>	<b>29</b>

Students were asked about their level of energy knowledge prior to joining their clubs and how much that knowledge had changed since joining. All of the students who completed an interview reported that their knowledge of energy had changed at least a small amount since joining the group.

**Table IV-3**  
**Energy Knowledge**

<b>How would you describe your level of energy knowledge, such as knowing where energy comes from, and why it is important to pay attention to energy use, prior to participating in the group? How about your knowledge of energy, such as knowing where it comes from and why it's important to pay attention to energy use? Would you say that knowledge has changed a lot, somewhat, not too much or not at all since you began participating in this group?</b>						
	<b>Knowledge Before Joining</b>			<b>Change in Knowledge Since Joining</b>		
	<b>Online</b>	<b>Paper</b>	<b>Both</b>	<b>Online</b>	<b>Paper</b>	<b>Both</b>
Very/A Lot	3	4	7	9	9	18
Somewhat	10	8	18	6	3	9
Not Too	2	1	3	1	1	2
Not at All	1	0	1	0	0	0
<b>Total</b>	<b>16</b>	<b>13</b>	<b>29</b>	<b>16</b>	<b>13</b>	<b>29</b>

After joining their clubs, all students indicated that they felt it is very or somewhat important to pay attention to energy efficiency. Responses to the paper survey were not significantly different from responses to the online survey, and for both surveys, the majority of students reported they feel energy efficiency is very important. A total of 23 of the 29 students reported that they feel energy efficiency is very important now, whereas 18 reported they felt it was very important before joining their clubs. Four students said energy efficiency was “Not too” important before joining their clubs, whereas none of the students reported this level of importance since joining.

**Table IV-4**  
**Perceived Importance of Energy Efficiency**

<b>How important did you feel it was to pay attention to energy efficiency before you began participating in this group? Now how important do you feel it is to pay attention to energy efficiency? Would you say energy efficiency is now very important, somewhat important, not very important or not at all important to you?</b>						
	<b>Perceived Importance Before Joining</b>			<b>Perceived Importance Since</b>		
	<b>Online</b>	<b>Paper</b>	<b>Both</b>	<b>Online</b>	<b>Paper</b>	<b>Both</b>
Very	10	8	18	11	12	23
Somewhat	4	3	7	5	1	6
Not Too	2	2	4	0	0	0
Not at All	0	0	0	0	0	0
<b>Total</b>	<b>16</b>	<b>13</b>	<b>29</b>	<b>16</b>	<b>13</b>	<b>29</b>

Students were also asked to name the three most important things they had learned since joining the group. Common responses ranged from tips to save energy such as, “Always turn off the lights when you leave a room,” to general concepts such as, “The importance of helping the environment.” Several students also noted that saving energy can save money and that small changes can make big differences.

### *B. Student Actions*

In both surveys, students were asked to describe energy saving actions they had taken at school and at home with no initial prompting. These open-ended questions allowed students to list any energy saving actions they remembered taking since they had joined their clubs. Table IV-5 shows common responses to these open-ended questions.

**Table IV-5**  
**Energy Saving Actions**

<b>Energy Saving Actions Taken</b>	<b>Online</b>	<b>Paper</b>	<b>Both</b>
	<b>(Out of 29 Students)</b>		
<b>At School</b>			
Turn off lights	8	7	15
Change energy efficient light bulbs	2	0	2
Recycle	1	3	4
Make sure appliances are unplugged when not in use	3	1	4
<b>At Home</b>			
Turn off lights	7	5	12
Change energy efficient light bulbs	3	1	4

Energy Saving Actions Taken	Online	Paper	Both
	(Out of 29 Students)		
Recycle	3	0	3
Make sure appliances are unplugged when not in use	5	3	8

In the online survey students were asked additional closed-ended questions about energy saving actions taken at school, and responses to these questions are shown in Table IV-6. The table shows that all students replied that they had encouraged teachers to turn off the lights and most reported that they took the other actions that were asked about.

**Table IV-6**  
**Energy Saving Actions at School – Online Survey Only**

Actions Taken at School	Affirmative Responses (Out of 16 Students)
Encouraged teachers to turn off lights when leaving classrooms	16
Encouraged your school to turn down the heat during breaks, evenings or weekends	11
Encouraged teachers to engage the power save mode on their computers	12
Encouraged teachers to unplug appliances when not in use	11
Encouraged peers/teachers to recycle	11
Encouraged teachers to adjust window blinds to keep out or let in sunlight	10

Online survey respondents were asked both open and closed-ended questions about energy saving actions they took. Table IV-7 shows the number of online survey respondents who reported that they took specific energy saving actions when asked closed-ended questions about saving energy at home. Students were most likely to agree that they had reduced lighting usage, reduce the length of their showers, and reduced appliance usage.

**Table IV-7**  
**Energy Saving Actions at Home – Online Survey Only**

Actions Taken at Home	Affirmative Responses (Out of 16 Students)
<b>Lighting</b>	
Done anything to reduce the amount of energy used for lighting	11
Increased the number of energy efficient bulbs used in your home	8
<b>Hot Water Use</b>	
Reduced the length of your showers	10
Begun using cold water for laundry	5
<b>Dryer Use</b>	
Begun line-drying clothes	5

<b>Actions Taken at Home</b>	<b>Affirmative Responses (Out of 16 Students)</b>
Made sure only full loads of clothing are dried	4
<b>AC Use</b>	
Done anything to reduce the amount of energy used by your AC	3
Reduced the amount of time during which your AC is used	2
Set your AC to a warmer temperature when you are at home	1
Set your AC to a warmer temperature when you are not at home	1
Set your AC to a warmer temperature when you are sleeping	0
<b>Dishwasher Use</b>	
Done anything to reduce the amount of energy used by your dishwasher	1
Turned off the heated drying on the dishwasher setting	0
<b>Other</b>	
Done anything to reduce the amount of energy used by appliances	12
Turn off appliances not in use more frequently	12
Done anything to reduce energy used by your space heater	3

In the online survey, students were asked general questions about energy saving categories and then asked follow-up questions about specific actions that they took. In general, students reported that they took fewer actions to save energy when asked open-ended questions than when asked closed-ended “yes” or “no” questions about specific actions.

Table IV-8 shows student responses to follow-up questions about air conditioner use in comparison to their responses to the question, “What have you done to reduce the amount of energy your air conditioner uses as a result of your participation in the group?” The column headed “Unprompted” shows the number of students who specified an action they took without being asked explicitly about that action. The column headed “Prompted” shows the number of students who reported that they took an action when they were asked specifically whether or not they had taken the action, for example, when asked, “Have you set your air conditioner to a warmer temperature when you are at home?”

**Table IV-8**  
**Energy Savings – Air Conditioning (Online Survey Only)**

	<b>Unprompted</b>	<b>Prompted</b>
	<b>(Out of 16 Students)</b>	
Lowered the temperature of AC unit	1	1
Reduced the amount of time during which your AC is used	1	2

Table IV-9 shows student responses to the question, “What have you done to reduce the amount of hot water used in your home as a result of your participation in the group?” in

comparison to the responses for follow-up questions about saving hot water. While only one student reported that she reduced the length of her showers without being prompted, ten students reported that they did so when asked specifically about this action. These follow-up questions showed that some students reported taking more energy saving actions when questions were phrased in closed-ended terms.

**Table IV-9**  
**Energy Savings – Hot Water (Online Survey Only)**

	Unprompted	Prompted
	(Out of 16 Students)	
Reduced length of showers	1	10
Used cold water for laundry	1	5

Table IV-10 shows student responses to the question, “What have you done to reduce the amount of energy used for lighting in your home as a result of your participation in the group?” in comparison to a specific question about whether or not students increased the number of energy efficient bulbs they used. Only two students noted that they used energy efficient bulbs without prompting, while eight reported that they increased the number of energy efficient bulbs they used when asked about this action specifically.

**Table IV-10**  
**Energy Savings – Lighting (Online Survey Only)**

	Unprompted	Prompted
	(Out of 16 Students)	
Used energy efficient bulbs	2	8
Turned lights off when not in use	7	Not Asked

Table IV-11 shows student responses to the question, “What have you done to reduce the amount of energy used by your dryer as a result of your participation in the club?” in comparison to follow-up questions about changes in dryer use. More students reported energy saving actions when asked explicitly about these actions. Only one student reported that she line-dried clothes when asked an open-ended question about reducing dryer usage, but five students reported that they line-dried clothes more often when asked this question explicitly.

**Table IV-11**  
**Energy Savings – Dryer Use (Online Survey Only)**

	Unprompted	Prompted
	(Out of 16 Students)	
Line-dried clothes	1	5
Dried only full loads of clothing	0	4

Table IV-12 shows the number of students who reported that they took at least one energy saving action at school, at home and in general. All students who completed the online survey reported that they took at least one action to save energy at school, and fourteen of sixteen students reported that they took at least one action to save energy at home.

**Table IV-12**  
**Energy Saving Actions – Online Survey Only**

Action Taken at School/Home	Took at Least One Action
School	16
Home	14
<b>Total Student Respondents</b>	<b>16</b>

Student respondents to the online survey had a greater opportunity to report energy saving actions than respondents to the paper survey. However there was not a large difference between the number of online and paper respondents who reported energy saving actions in the broadest open-ended questions.

### *C.Social Networking*

Students were asked to indicate if they had spoken with any family members, friends or community members about energy efficiency. If the students had spoken to family or friends, the family or friends that the students named were asked to complete the social network survey. Students who answered the paper version of the student survey were asked to administer the paper social network survey to one friend and one family member. Students who answered the online version of the student survey were asked to provide email addresses for friends or family members to whom they had spoken. These friends and family members were sent email invitations to participate in the online social network survey.

Table IV-13 displays the number of students who reported that they spoke to family, friends or community members about energy efficiency or about what they had learned in their clubs. The table shows that students were most likely to discuss energy efficiency with family members, followed by friends, and then members of the community.

**Table IV-13**  
**Social Networking Efforts<sup>3</sup>**

Discussed With	Online (16 Respondents)		Paper (13 Respondents)		Both (29 Respondents)	
	Yes	No	Yes	No	Yes	No
Family Members	7	9	12	1	19	10
Friends	3	13	8	5	11	18
Community Members	2	14	5	8	7	22
One or More of the Above	8	8	12	1	20	9

Table IV-14 shows how many individuals students said they spoke with about energy efficiency. The table shows that many students spoke with more than three family members.

**Table IV-14**  
**Number of People Spoken to about Energy Efficiency**

With how many ___ have you discussed what you've learned from the group?									
	Online			Paper			Both		
	Family	Friends	Community	Family	Friends	Community	Family	Friends	Community
0	9	13	14	2	7	8	11	20	22
1-2	2	1	1	5	1	1	7	2	2
3-4	5	2	0	2	1	0	7	3	0
>4	0	0	1	4	4	4	4	4	5
<b>Total</b>	<b>16</b>			<b>13</b>			<b>29</b>		

Table IV-15 shows which social media students used to tell others about energy efficiency. Most students did not use social media to tell others about energy efficiency, but if they did use social media, they were most likely to use Facebook.

**Table IV-15**  
**Social Media Used to Tell Others about Energy Efficiency**

Social Media	Online Survey	Paper Survey	Both
Facebook	4	3	7
Twitter	0	2	2
A Blog	1	0	1
Do not use Social Media	11	8	19

<sup>3</sup> Responses of “Don’t Know” were classified as “No” for this table.



<b>Social Media</b>	<b>Online Survey</b>	<b>Paper Survey</b>	<b>Both</b>
One or More Forms of Social Media	4	4	8
<b>Total</b>	<b>16</b>	<b>13</b>	<b>29</b>

Table IV-16 shows how often students reported using social media to tell others about energy efficiency. While some reported that they only used the social media once, others reported that they did so monthly or weekly.

**Table IV-16**  
**Frequency of Social Media Use to Tell Others about Energy Efficiency**

<b>Frequency of Use</b>	<b>Online Survey</b>	<b>Paper Survey</b>	<b>Both</b>
Every Day	0	1	1
Once a Week	1	1	2
Once a Month	0	2	2
Only Once	2	0	2
Do not use Social Media	11	8	19
<b>Total</b>	<b>16</b>	<b>13</b>	<b>29</b>

The study goal was to complete two social network surveys per student. The majority of students who completed paper surveys interviewed two others, however only one student who completed the online survey had two corresponding social network completions. Table IV-17 shows the number of students whose friends and family completed each number of surveys.

**Table IV-17**  
**Survey Completions by Method**

<b>Number of Social Network Surveys Completed per Student</b>	<b>Online</b>	<b>Paper</b>	<b>Both</b>
0	11	0	11
1	4	2	6
2	1	11	12
<b>Total</b>	<b>16</b>	<b>13</b>	<b>29</b>

Table IV-18 displays student and social network completions by method and by the school at which the surveys were implemented. This table also shows the number of students who were asked to complete surveys at each school. A total of 88 students were recruited to complete surveys, and a total of 29 students completed surveys. While the first high school with the greatest number of club participants had the lowest response, the other high schools had almost all participants respond and the elementary school also had a good response.

**Table IV-18  
Survey Completions by School**

	Online Survey			Paper Survey			Both		
	Total Recruited	Student	Social Network	Total Recruited	Student	Social Network	Total Recruited	Student	Social Network
High School 1	14	1	0	15	0	0	29	1	0
High School 2	4	4	2	5	4	6	9	8	8
High School 3	4	4	1	4	3	6	8	7	7
Intermediate School	15	3	1	15	2	2	30	5	3
Elementary School	6	4	2	6	4	8	12	8	10
<b>Total</b>	<b>43</b>	<b>16</b>	<b>6</b>	<b>45</b>	<b>13</b>	<b>24</b>	<b>88</b>	<b>29</b>	<b>30</b>

Student respondents to both surveys were more likely to speak with family members than with friends about energy efficiency. These responses may indicate that students tend to feel more comfortable discussing energy efficiency with family than with friends, or that students are more likely to have these discussions with people whose energy using habits they regularly witness. A small percentage of students from both survey methods reported that they used social media, and all were most likely to report that they used Facebook to tell others about energy efficiency.

## V. Follow Up Study Findings – Social Network Survey

All 13 students who completed a paper survey submitted at least one social network survey from an interview with a friend or family member. Of the 16 students who completed an online survey, eight provided at least one email address for a friend or family member. A total of 14 email invitations were sent to friends and family members asking them to participate in the online survey. Table V-1 shows the number of completed student surveys and social network surveys by method.

**Table V-1  
Survey Completions by Method**

Method	Student Survey		Social Network Survey
	Recruited	Completed	Completed
Paper	45	13	24
Online	43	16	6
<b>Total</b>	<b>88</b>	<b>29</b>	<b>30</b>

Student interviews with family and friends were designed to determine whether conversations motivated the family and/or friends to change their energy-using habits and whether these discussions had altered their understandings of energy efficiency practices.

Respondents were first asked to recall the date and content of their most recent conversation with the student about the student's club. Twelve of the 30 respondents remembered the date (or an estimate of the date) of their most recent discussion. All of the respondents remembered the discussion, and 22 provided descriptions of the content of the discussion. Most friends and family members stated that they discussed the goal of saving energy, addressed how to save energy, and noted the importance of saving energy.

### *A. Energy Saving Actions*

Friends and family were asked whether they had made any changes to their energy using behaviors since they began discussing the group with the student, whether they faced any obstacles while trying to make these changes, and whether they had spent any money on these changes. While 25 respondents reported that they made changes to their energy using behaviors, only four said that they had faced obstacles, and only six reported that they spent money on these changes.

**Table V-2**  
**Changes to Behavior and Challenges Faced**

	<b>Online (6 Respondents)</b>	<b>Paper (24 Respondents)</b>	<b>Both (30 Respondents)</b>
Made Changes	5	20	25
Faced Obstacles	1	3	4
Spent Money	2	4	6

In both surveys, friends and family members were asked to describe energy saving actions they had taken after discussing energy efficiency with students in the club. Table V-3 shows common responses to this open-ended question. The distribution of responses to this question was similar for students and their friends and family members. Twelve of 29 students reported that they turn off lights at home, while 16 of 30 friends and family members reported that they took this action. Eight of 29 students reported that they switched to energy efficient light bulbs at home, while nine of 30 friends and family members reported that they did so. Four of 29 students and four of 30 friends and family members reported that they unplug appliances that are not in use.

**Table V-3**  
**Energy Saving Actions**

<b>Energy Saving Actions Taken</b>	<b>Social Network Survey</b>		<b>Both Surveys</b>	
	<b>Online (6 Respondents)</b>	<b>Paper (24 Respondents)</b>	<b>Social Network (30 Respondents)</b>	<b>Student (29 Students)</b>
Turn down the heat	1	0	1	0
Turn off lights	2	14	16	12
Unplug appliances	2	7	9	8
Switch to energy efficient light bulbs	1	3	4	4

In the online survey friends and family members were asked additional closed and open-ended questions about steps they had taken to save energy. Responses to closed-ended questions about energy saving actions taken are shown in Table V-4. Respondents were most likely to agree that they had reduced their hot water use, dryer use, and lighting use.

**Table V-4**  
**Energy Saving Actions at Home – Online Survey Only**

<b>Actions Taken</b>	<b>Affirmative Response (out of 6 Respondents)</b>
<b>Hot Water Use</b>	
Reduced the length of your showers	4
Begun using cold water for laundry	4

<b>Actions Taken</b>	<b>Affirmative Response (out of 6 Respondents)</b>
<b>Dryer Use</b>	
Made sure only full loads of clothing are dried	4
Begun line-drying clothes	3
<b>Lighting</b>	
Increased the number of energy efficient bulbs used in your home	4
Done anything to reduce the amount of energy used for lighting	2
<b>AC Use</b>	
Done anything to reduce the amount of energy used by your AC	2
Set your AC to a warmer temperature when you are at home	1
Set your AC to a warmer temperature when you are not at home	1
Set your AC to a warmer temperature when you are sleeping	1
Reduced the amount of time during which your AC is used	1
<b>Dishwasher Use</b>	
Done anything to reduce the amount of energy used by your dishwasher	1
Turned off the heated drying on the dishwasher setting	1
<b>Other</b>	
Turn off appliances not in use more frequently	5
Done anything to reduce the amount of energy used by appliances	4
Done anything to reduce energy used by your space heater	0

In the online survey, respondents were also asked open-ended questions about energy saving habits with respect to appliances and were then asked follow-up questions about specific actions taken to reduce that appliance’s energy use. The following tables show responses provided by friends and family when they were not prompted with a specific action in comparison to responses when they were asked explicitly whether or not they had taken a specific action to save energy.

Table V-5 shows responses to follow-up questions about air conditioner use in comparison to responses to the question, “What have you done to reduce the amount of energy your air conditioner uses as a result of your discussions?”

**Table V-5  
Energy Savings – Air Conditioning (Online Survey Only)**

	<b>Unprompted</b>	<b>Prompted</b>
	<b>(Out of 6 Respondents)</b>	
Lowered the temperature of AC unit	1	1
Reduced the amount of time during which your AC is used	0	2

Table V-6 shows friend and family member responses to the question, “What have you done to reduce the amount of hot water used in your home as a result of your discussions?” in comparison to the responses for follow-up questions about saving hot water. Only one respondent reported that he decreased the length of his showers without being prompted about this action, while four respondents reported that they took shorter showers when asked about this explicitly.

**Table V-6**  
**Energy Savings – Hot Water (Online Survey Only)**

	Unprompted	Prompted
	(Out of 6 Respondents)	
Reduced length of showers	1	4
Used cold water for laundry	1	4

Table V-7 shows responses to the specific and open-ended questions about what a respondent has done to reduce the amount of energy used for lighting. One respondent volunteered that he used energy efficient bulbs when asked to specify what he had done to reduce energy used for lighting, while four respondents reported that they used energy efficient bulbs when prompted about this specific action.

**Table V-7**  
**Energy Savings – Lighting (Online Survey Only)**

	Unprompted	Prompted
	(Out of 6 Respondents)	
Used energy efficient bulbs	1	4
Turned lights off when not in use	1	--

Table V-8 shows responses to the question, “What have you done to reduce the amount of energy used by your dryer as a result of your discussions?” in comparison to follow-up questions about changes in dryer use. Two respondents reported that they line dried clothes without being prompted and three respondents reported that they took this action when asked the question specifically.

**Table V-8**  
**Energy Savings – Dryer Use (Online Survey Only)**

	Unprompted	Prompted
	(Out of 6 Respondents)	
Line-dried clothes	2	3
Dried only full loads of clothing	0	4

Five out of the six friends and family members who participated in the online survey reported that they took at least one energy saving action.

### ***B.Social Networking***

Friends and family members were asked to indicate if they had spoken with anyone aside from the student about energy efficiency. If they reported speaking with others, they were also asked how many others they had spoken to and how frequently they had these discussions. Twelve respondents reported that they spoke with others about things one can do to save energy.

Table V-9 shows the number of people that friends and family members reported they spoke with about energy efficiency. Four friends and family members reported that they spoke with others about saving energy but did not remember the number of people they had spoken to.

**Table V-9  
Number of People Spoken to about Energy Efficiency**

<b>How many people have you spoken to about the things we can do to save energy in our daily lives?</b>	
0	18
2	3
3	1
6	1
7	1
10	1
20	1
Do not remember #	4
<b>Total</b>	<b>30</b>

Friends and family were also asked if they use social media to tell others about energy efficiency and how often they do so. Table V-10 shows which social media friends and family reported that they used to tell others about energy efficiency along with how often they reported using it. Most did not use social media to tell others about energy efficiency, but most of those that reported doing so used Facebook.

**Table V-10  
Social Media Used to Tell Others about Energy Efficiency**

<b>Frequency of Use</b>	<b>Facebook</b>	<b>Twitter</b>	<b>Blog</b>	<b>Any Social Media</b>
Every Day	1	1	0	2

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<b>Frequency of Use</b>	<b>Facebook</b>	<b>Twitter</b>	<b>Blog</b>	<b>Any Social Media</b>
Once a Week	3	1	1	3
Once a Month	1	0	0	1
Only Once	1	0	0	1
Not Used	24	28	29	23
<b>Total</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>



## VI. Conclusion

This section provides a summary of findings based on the analyses discussed in this report.

### *A. Successes of Methods Used*

Both methods of data collection provided insight into the behavior of students in energy efficiency clubs. However each had areas of success and areas of difficulty in providing results.

The paper and online student surveys had similar rates of response from students, however more friends and family members completed the paper social network survey than the online social network survey. It may be that students were more attentive to their friends and family members completing a survey when the students were asked to administer that survey. Friends and family members may also have been more hesitant to follow a link to an online survey when the link was sent by APPRISE.

One area where the online survey performed slightly better than the paper version was in the regularity of the data. The online survey was programmed to follow all skip patterns automatically and to limit some response options where necessary. For example, when students were asked to report their grade levels, the online survey only allowed students to enter a number one through 12. No such controls could be implemented for the paper survey.

In the future, this survey might be improved by using an online survey instrument, but also by increasing student involvement in the social network survey.

### *B. Conclusion*

While the survey was implemented with a relatively small sample of students, it did offer some insight into the impact of the PowerSave Schools Clubs on both students and their family and friends. This survey suggested a degree of connection between students and friends and family members with whom they discuss energy efficiency. The majority of friends and family members who completed the social network survey reported that they took energy saving actions since they started discussing energy efficiency with the student. The surveys also indicated that PowerSave Clubs impact students' thoughts and behaviors concerning energy usage. Most students reported a change in awareness and knowledge of energy efficiency since joining their clubs, and all students noted that they perceive energy efficiency as either very or somewhat important since joining. All of the students who participated in this survey also indicated that they have taken at least one action to save energy. The results of these surveys suggest that the PowerSave Schools Clubs have increased awareness of energy efficiency among students and their social networks and have increased their commitment to saving energy.

## VII. Appendix

This appendix contains the survey consent forms and survey instruments that were used in this study.

### *A. Paper Survey Consent Forms*

**PowerSave Schools Evaluation**  
***Parent/Legal Guardian Consent Form***  
***April 2013***

Your child is being asked to participate in a research study about the impact of a PowerSave Schools sponsored group at his or her school. The purpose of this research is to determine what, if any, behavior changes your child, his or her family and friends have made as a result of his or her participation in the group. Your child was selected because he or she currently participates in this group. Please read this form before agreeing to allow your son or daughter to participate in this research.

For the most part, the study can be administered in your home. It should take your son or daughter approximately 10-15 minutes to complete each of three interviews. The first interview will ask your son or daughter to report on their experiences in the energy awareness group. The second two interviews will be administered by your child to one family member and one friend to whom they have spoken to about the group.

To summarize, if you agree to allow your child to participate in this research, we would ask him or her to do the following things:

- 1. Fill out a brief survey about their experience in the energy awareness group*
- 2. Ask a family member about what they've learned about energy efficiency by speaking to your child about their experience and document their responses on a separate survey instrument*
- 3. Ask a friend about what they've learned about energy efficiency by speaking to your child about their experience and document their responses on a separate survey instrument*

The benefits of participation are an enhanced understanding of how the group impacts energy using behavior among the students who participate in it and among the family and friends to whom they have spoken about it. Your son or daughter will also gain basic knowledge of survey research protocols by administering the survey to family and friends.

Your child will receive a \$20 gift card upon receipt of the three completed surveys and this signed consent form.

The information in this research will be kept confidential. Research data will be stored in a secure location on a password protected network and only APPRISE research staff will have access to the student-level data. The data will be made available only to the persons conducting the research, and results will be shared with those outside APPRISE only at the aggregate level. No reference will be made in oral or written reports that could link participants' names to their individual responses to survey questions.

*Participation in this study is completely voluntary.* Your son or daughter does not have to perform any activity related to this research effort. If you decide to participate, you do not have to answer any question that you do not want to answer and you may withdraw from the study at anytime.

**Contact Information:**

If there are any questions at any time about the study or the procedures, please contact:

Kathleen Barringer  
Research Director  
APPRISE  
32Nassau Street, Suite 200  
Princeton, NJ 08542  
1-888-434-8008  
[kathi-barringer@appraiseinc.org](mailto:kathi-barringer@appraiseinc.org)  
[www.appriseinc.org](http://www.appriseinc.org)

**Consent:**

I have read the above information, and I have received a copy of this form. I agree to allow my child to participate in this study.

Parent/Legal Guardian's Printed Name	Signature	Date
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Child's Printed Name	Signature	Date
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**We've provided two Consent Forms. Please sign both copies. Retain one copy for your records and return the other signed form with the completed surveys to APPRISE using the pre-paid Federal Express package we've provided. In order to qualify for the \$20 gift card, the completed surveys must be returned to APPRISE within three weeks of receiving the surveys.**

**PowerSave Schools Evaluation**  
**Parent/Legal Guardian Consent Form [v2]**  
**April 2013**

Your child is being asked to participate in a research study about the impact of a PowerSave Schools sponsored group at a friend’s school. The purpose of this research is to determine what, if any, behavior changes participating students’ friends have made as a result of this group. Your child was selected because he or she may have recently discussed the group with a participating student. Please read this form before agreeing to allow your son or daughter to participate in this research.

It should take your son or daughter approximately 10 minutes to complete the interview. The interviewer is a student who is currently participating in a PowerSave Schools sponsored group. The interviewer will ask your son or daughter to report on their energy using behavior and if they have discussed energy efficiency with others.

The information in this research will be kept confidential. Research data will be stored in a secure location on a password protected network and only APPRISE research staff will have access to the student-level data. The data will be made available only to the persons conducting the research, and results will be shared with those outside APPRISE only at the aggregate level. No reference will be made in oral or written reports that could link participants’ names to their individual responses to survey questions.

Participation in this study is completely voluntary. Your son or daughter does not have to perform any activity related to this research effort. If you decide to participate, you do not have to answer any question that you do not want to answer and you may withdraw from the study at anytime.

**Contact Information:**

If there are any questions at any time about the study or the procedures, please contact:

Kathleen Barringer  
Research Director  
APPRISE  
32Nassau Street, Suite 200  
Princeton, NJ 08542  
1-888-434-8008  
[kathi-barringer@appraiseinc.org](mailto:kathi-barringer@appraiseinc.org)  
[www.appriseinc.org](http://www.appriseinc.org)

**Consent:**

I have read the above information, and I have received a copy of this form. I agree to allow my child to participate in this study.

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Parent/Legal Guardian’s Printed Name	Signature	Date
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Child’s Printed Name	Signature	Date
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**We’ve provided two Consent Forms. Please sign both copies. Retain one copy for your records and return the other signed form to the student who is administering this interview.**

*B.Paper Student Survey***Alliance to Save Energy: PowerSave Schools Evaluation****Student Survey***April 2013*

INTRODUCTION: **APPRISE** is working with the Alliance to Save Energy on an evaluation of your group. We're asking students who are part of your group to answer a few questions about your experiences. All of the information you provide today will remain confidential. Your individual answers will not be associated with your name. We will report our findings in total only. ***If the survey has been completed in full we will send you a \$20 GIFT CARD in appreciation of your time.***

Q1. How long have you been participating in the group? Your best guess is fine.

\_\_\_\_\_ YEARS

\_\_\_\_\_ MONTHS

97DON'T KNOW/NOT SURE

Q2. And what is your current grade level? [PLEASE WRITE YOUR ANSWER IN THE SPACE PROVIDED BELOW]

Q3. Do you plan to continue participating in this group next year?

01YES

02NO

03I WILL NOT BE A STUDENT AT THIS SCHOOL NEXT YEAR

97DON'T KNOW/NOT SURE

**[ANSWER Q4 IF YOU ARE IN 9<sup>TH</sup> GRADE OR HIGHER, ELSE SKIP TO Q6]**

Q4. Would you say that you are very likely, somewhat likely, not too likely or not at all likely to continue your education after you graduate from high school? [CIRCLE ONE RESPONSE]

- 01VERY LIKELY
- 02SOMEWHAT LIKELY
- 03NOT TOO LIKELY
- 04NOT AT ALL LIKELY
- 97DON'T KNOW/NOT SURE

**[ANSWER Q5 IF YOU ARE IN 9<sup>TH</sup> GRADE OR HIGHER, ELSE SKIP TO Q6]**

Q5. What are your plans for after high school? [CIRCLE ALL THAT APPLY]

- 01I PLAN TO ATTEND A TWO-YEAR COLLEGE
- 02I PLAN TO ATTEND A FOUR-YEAR COLLEGE
- 03I PLAN TO ATTEND A VOCATIONAL OR TECHNICAL SCHOOL
- 04I PLAN TO ENTER THE WORK FORCE
- 95OTHER (SPECIFY \_\_\_\_\_)
- 97DON'T KNOW/NOT SURE

Now we want to get a sense of your awareness of energy and energy efficiency *before you began participating* in the group.

Q6. Please think back to *before* you joined the group. How would you describe your awareness of *energy efficiency* before you began participating? Would you say that you were very aware, somewhat aware, not too aware, or not at all aware of the term “energy efficiency”? [CIRCLE ONE RESPONSE]

- 01 VERY AWARE
- 02SOMEWHAT AWARE
- 03NOT TOO AWARE
- 04NOT AT ALL AWARE
- 97DON'T KNOW/NOT SURE

Q7. And how would you describe your level of *energy knowledge*, such as knowing where energy comes from, and why it is important to pay attention to energy use, prior to participating in the group? Would you say that you were very knowledgeable, somewhat knowledgeable, not very knowledgeable or not at all knowledgeable about energy before you began participating in the group? [CIRCLE ONE RESPONSE]

- 01VERY KNOWLEDGEABLE
- 02SOMEWHAT KNOWLEDGEABLE
- 03NOT VERY KNOWLEDGEABLE
- 04NOT AT ALL KNOWLEDGEABLE
- 97DON'T KNOW/NOT SURE

---

Q8. And how important did you feel it was to pay attention to energy efficiency before you began participating in this group? Would you say you felt it was very important, somewhat important, not too important or not at all important to pay attention to energy efficiency? [CIRCLE ONE RESPONSE]

- 01VERY IMPORTANT
- 02SOMEWHAT IMPORTANT
- 03NOT VERY IMPORTANT
- 04NOT AT ALL IMPORTANT
- 97DON'T KNOW/NOT SURE

Now we'd like to know about your awareness of energy and energy efficiency *since you began participating* in group.

Q9. Would you say that your awareness of energy efficiency has changed a lot, somewhat, not too much or not at all since you began participating in this group? [CIRCLE ONE RESPONSE]

- 01A LOT
- 02SOMEWHAT
- 03NOT TOO MUCH
- 04NOT AT ALL
- 97DON'T KNOW/NOT SURE

Q10. And how about your knowledge of energy, such as knowing where it comes from and why it's important to pay attention to energy use? Would you say that knowledge has changed a lot, somewhat, not too much or not at all since you began participating in this group? [CIRCLE ONE RESPONSE]

- 01A LOT
- 02SOMEWHAT
- 03NOT TOO MUCH
- 04NOT AT ALL
- 97DON'T KNOW/NOT SURE

Q11. And *now* how important do you feel it is to pay attention to energy efficiency? Would you say energy efficiency is now very important, somewhat important, not very important or not at all important to you? [CIRCLE ONE RESPONSE]

- 01 VERY IMPORTANT
- 02SOMEWHAT IMPORTANT
- 03NOT VERY IMPORTANT
- 04NOT AT ALL IMPORTANT
- 97DON'T KNOW/NOT SURE

Q12. What would you say are the three most important things that you've learned by participating in this group? [PLEASE WRITE IN YOUR ANSWER IN THE SPACE PROVIDED BELOW]

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Q13. Have you discussed what you've learned from the group with any *family members*?

01YES

02NO

96REFUSED

97DON'T KNOW/NOT SURE

**[IF Q13=YES ANSWER Q14, Q15 AND Q16, ELSE SKIP TO Q17]**

Q14. With how many family members have you discussed what you've learned the group? Your best guess is fine. [PLEASE WRITE IN YOUR ANSWER IN THE SPACE PROVIDED BELOW]

\_\_\_\_\_ NUMBER OF FAMILY MEMBERS

Q15. Which family members have you discussed the group with? [CIRCLE ALL THAT APPLY]

01MOTHER

02FATHER

03SIBLINGS [BROTHERS OR SISTERS]

04GRANDPARENTS

05AUNTS/UNCLES

06COUSINS

95OTHERS [SPECIFY]: \_\_\_\_\_

Q16. How often do you discuss the group with your family member(s)?

01EVERY DAY

02ONCE A WEEK

03ONCE A MONTH

04LESS THAN ONCE A MONTH

05HAVE ONLY DISCUSSED THE GROUP WITH MY FAMILY MEMBER(S) ONCE

97DON'T KNOW/NOT SURE



Q17. Have you discussed what you've learned from the group with any *friends*?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q17=YES ANSWER Q18 AND Q19, ELSE SKIP TO Q20]**

Q18. With how many friends have you discussed what you've learned from the group? Your best guess is fine. [PLEASE WRITE IN YOUR ANSWER IN THE SPACE PROVIDED BELOW]

\_\_\_\_\_ NUMBER OF FRIENDS

Q19. How often do you discuss the group with your friend(s)?

- 01EVERY DAY
- 02ONCE A WEEK
- 03ONCE A MONTH
- 04LESS THAN ONCE A MONTH
- 05I HAVE ONLY DISCUSSED THE GROUP WITH MY FRIEND(S) ONCE
- 97DON'T KNOW

Q20. Have you spoken with members of your community about energy efficiency as a result of your involvement in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q20=YES ANSWER Q21, ELSE SKIP TO Q22]**

Q21. With how many members of your community have you discussed what you've learned from the group? Your best guess is fine. [PLEASE WRITE IN YOUR ANSWER IN THE SPACE PROVIDED BELOW]

\_\_\_\_\_ NUMBER OF COMMUNITY MEMBERS

Q22. Which of the following, if any, social media have you used to tell people about energy efficiency? [CIRCLE ALL THAT APPLY]

01FACEBOOK

02TWITTER

03A BLOG

95SOMETHING ELSE [SPECIFY]: \_\_\_\_\_

99I DO NOT USE SOCIAL MEDIA TO TELL PEOPLE ABOUT ENERGY EFFICIENCY

**[ANSWER Q23 IF YOU USE FACEBOOK, TWITTER, A BLOG OR SOME OTHER TYPE OF SOCIAL MEDIA TO COMMUNICATE ABOUT ENERGY EFFICIENCY]**

Q23. How often do you post information about energy efficiency on Facebook, Twitter, a blog or some other type of social media?

01 EVERY DAY

02 A FEW TIMES A WEEK

03 A FEW TIMES A MONTH

04 LESS THAN ONCE A MONTH

05 I HAVE ONLY POSTED ABOUT ENERGY EFFICIENCY ONCE

97 DON'T KNOW/NOT SURE

Q24. What energy-saving actions have you taken *at school* as a result of your participation in the group?  
[PLEASE WRITE IN YOUR ANSWERS IN THE SPACE PROVIDED BELOW]

Q25. What energy-saving actions have you been able to take at home as a result of your participation in the group? [PLEASE WRITE IN YOUR ANSWER IN THE SPACE PROVIDED BELOW]

Thank you very much for taking the time to answer these questions today. We really appreciate your input!

**[IF Q13=YES OR IF Q17=YES, ELSE SKIP TO END]**

We've prepared a short survey for the friends and family members to whom you've spoken about the group. These interviews will take about 10 minutes to complete. We're interested in what they

remember you telling them and anything that they have done to save energy as a result of your conversation(s).

Please provide the names of up to six people to whom you have spoken about the group. Please interview at least two of these individuals and send back the completed interviews along with your survey using the pre-paid FedEx envelope included in your packet.

Friend Name: \_\_\_\_\_

Friend Name: \_\_\_\_\_

Friend Name: \_\_\_\_\_

Family Member Name: \_\_\_\_\_

Family Member Relationship (to you): \_\_\_\_\_

Family Member Name: \_\_\_\_\_

Family Member Relationship (to you): \_\_\_\_\_

Family Member Name: \_\_\_\_\_

Family Member Relationship (to you): \_\_\_\_\_

***In appreciation for your time, we'll send you a \$20 GIFT CARD, if the survey has been completed in full and is sent back in the pre-paid FedEx envelope included in your packet.***

Finally, please write your name, the name of your school and your ID number in the space provided below. Please check this information carefully. Your ID number can be found on your instructions sheet in the packet you received.

STUDENT NAME:

SCHOOL NAME:

STUDENT ID NUMBER:

### *C. Online Student Survey*

## **Alliance to Save Energy: PowerSave Schools Evaluation**

### **Student Online Survey**

*April 2013*

INTRODUCTION: **APPRISE** is working with the Alliance to Save Energy on an evaluation of the group. We're asking students who are part of the group to answer a few questions about your experiences. All of the information you provide today will remain confidential. Your individual answers will not be associated with your name. We will report our findings in total only. ***If the survey has been completed in full we will send you a \$20 GIFT CARD in appreciation of your time.***

Q1. How long have you been participating in the group? Your best guess is fine.

\_\_\_\_\_ YEARS

\_\_\_\_\_ MONTHS

Q2. And what is your current grade level? [PLEASE TYPE IN YOUR ANSWER IN THE SPACE PROVIDED BELOW]

Q3. Do you plan to continue participating in the group next year?

01YES

02NO

03I WILL NOT BE A STUDENT AT THIS SCHOOL NEXT YEAR

97DON'T KNOW/NOT SURE

**[ANSWER Q5 IF YOU ARE IN 9<sup>TH</sup> GRADE OR HIGHER, ELSE SKIP TO Q6]**

Q4. Would you say that you are very likely, somewhat likely, not too likely or not at all likely to continue your education after you graduate from high school? [CHOOSE ONE RESPONSE]

01VERY LIKELY

02SOMEWHAT LIKELY

03NOT TOO LIKELY

04NOT AT ALL LIKELY

97DON'T KNOW/NOT SURE

---

**[ANSWER Q5 IF YOU ARE IN 9<sup>TH</sup> GRADE OR HIGHER, ELSE SKIP TO Q6]**

Q5. What are your plans for after high school? [SELECT ALL THAT APPLY]

- 01I PLAN TO ATTEND A TWO-YEAR COLLEGE
- 02I PLAN TO ATTEND A FOUR-YEAR COLLEGE
- 03I PLAN TO ATTEND A VOCATIONAL OR TECHNICAL SCHOOL
- 04I PLAN TO ENTER THE WORK FORCE
- 95 OTHER (SPECIFY \_\_\_\_\_)
- 97 DON'T KNOW/NOT SURE

Now we want to get a sense of your awareness of energy and energy efficiency *before you began participating* in the group.

Q6. Please think back to *before* you joined the group. How aware were you of the term “energy efficiency”? [CHOOSE ONE RESPONSE]

- 01 VERY AWARE
- 02 SOMEWHAT AWARE
- 03 NOT TOO AWARE
- 04 NOT AT ALL AWARE
- 98 DON'T KNOW/NOT SURE

Q7. And how would you describe your level of *energy knowledge*, such as knowing where energy comes from, and why it is important to pay attention to energy use, prior to participating in the group? [CHOOSE ONE RESPONSE]

- 01 VERY KNOWLEDGEABLE
- 02 SOMEWHAT KNOWLEDGEABLE
- 03 NOT VERY KNOWLEDGEABLE
- 04 NOT AT ALL KNOWLEDGEABLE
- 97 DON'T KNOW/NOT SURE

Q8. And how important did you feel it was to pay attention to energy efficiency before you began participating in this group? [CHOOSE ONE RESPONSE]

- 01 VERY IMPORTANT
- 02 SOMEWHAT IMPORTANT
- 03 NOT VERY IMPORTANT
- 04 NOT AT ALL IMPORTANT
- 97 DON'T KNOW/NOT SURE

Now we'd like to know about your awareness of energy and energy efficiency *since you began participating* in the group.

Q9. How much would you say that your awareness of energy efficiency has changed since you began participating in this group? [CHOOSE ONE RESPONSE]

- 01A LOT
- 02SOMEWHAT
- 03NOT TOO MUCH
- 04NOT AT ALL
- 97DON'T KNOW/NOT SURE

Q10. And how about your knowledge of energy, such as knowing where it comes from and why it's important to pay attention to energy use? How much would you say that knowledge has changed since you began participating in this group? [CHOOSE ONE RESPONSE]

- 01A LOT
- 02SOMEWHAT
- 03NOT TOO MUCH
- 04NOT AT ALL
- 97DON'T KNOW/NOT SURE

Q11. And *now* how important do you feel it is to pay attention to energy efficiency?

[CHOOSE ONE RESPONSE]

- 01VERY IMPORTANT
- 02SOMEWHAT IMPORTANT
- 03NOT VERY IMPORTANT
- 04NOT AT ALL IMPORTANT
- 97DON'T KNOW/NOT SURE

Q12. What would you say are the three most important things that you've learned by participating in this group? [PLEASE TYPE IN YOUR ANSWERS IN THE SPACE PROVIDED BELOW. IF YOU CANNOT THINK OF THREE THINGS TYPE "none" IN THE REMAINING BOXES]

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

Q13. Have you discussed what you've learned from the group with any *family members*?

- 01YES
- 02NO

97DON'T KNOW/NOT SURE

**[IF Q13=YES ANSWER Q14, ELSE SKIP TO Q17]**

Q14. With how many family members have you discussed what you've learned from the group? Your best guess is fine. [PLEASE TYPE IN YOUR ANSWER IN THE SPACE PROVIDED BELOW]

\_\_\_\_\_ NUMBER OF FAMILY MEMBERS

Q15. With which family members have you discussed the group? [CHOOSE ALL THAT APPLY-THIS NUMBER SHOULD MATCH YOUR RESPONSE TO QUESTION Q7]

01MOTHER

02FATHER

03SIBLINGS [BROTHERS OR SISTERS]

04GRANDPARENTS

05AUNTS OR UNCLES

06COUSINS

95OTHERS [SPECIFY]: \_\_\_\_\_

Q16. How often do you discuss the group with your family member(s)?

01EVERY DAY

02ONCE A WEEK

03ONCE A MONTH

04LESS THAN ONCE A MONTH

05 HAVE ONLY DISCUSSED THE GROUP WITH MY FAMILY MEMBER(S) ONCE

97DON'T KNOW/NOT SURE

Q17. Have you discussed what you've learned from the group with any *friends who are not in the club*?

01YES

02NO

97DON'T KNOW/NOT SURE

**[IF Q17=YES ANSWER Q18 and Q19, ELSE SKIP TO Q20]**

Q18. With how many friends (who are not in the club) have you discussed what you've learned from the group? Your best guess is fine. [PLEASE TYPE IN YOUR ANSWER IN THE SPACE PROVIDED BELOW]

\_\_\_\_\_ NUMBER OF FRIENDS

Q19. How often do you discuss the group with your friend(s)?

- 01EVERY DAY
- 02ONCE A WEEK
- 03ONCE A MONTH
- 04LESS THAN ONCE A MONTH
- 05I HAVE ONLY DISCUSSED THE GROUP WITH MY FRIEND(S) ONCE
- 97DON'T KNOW

Q20. Have you spoken with members of your community about energy efficiency as a result of your involvement in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q20=YES ANSWER Q9a, ELSE SKIP TO Q22]**

Q21. With how many members of your community have you discussed what you've learned from the group? Your best guess is fine. [PLEASE TYPE IN YOUR ANSWER IN THE SPACE PROVIDED BELOW]

\_\_\_\_\_ NUMBER OF COMMUNITY MEMBERS

Q22. Which of the following, if any, social media have you used to tell people about energy efficiency? [CHOOSE ALL THAT APPLY]

- 01FACEBOOK
- 02TWITTER
- 03A BLOG
- 95SOMETHING ELSE [SPECIFY]: \_\_\_\_\_
- 99I DO NOT USE SOCIAL MEDIA TO TELL PEOPLE ABOUT ENERGY EFFICIENCY

**[ANSWER Q10a IF YOU USE FACEBOOK, TWITTER, A BLOG OR SOME OTHER TYPE OF SOCIAL MEDIA TO COMMUNICATE ABOUT ENERGY EFFICIENCY, ELSE SKIP TO Q24]**

Q23. How often do you post information *about energy efficiency* on Facebook, Twitter, a blog or some other type of social media?

- 01EVERY DAY
- 02A FEW TIMES A WEEK
- 03A FEW TIMES A MONTH
- 04LESS THAN ONCE A MONTH
- 06I HAVE ONLY POSTED ABOUT ENERGY EFFICIENCY ONCE
- 97DON'T KNOW/NOT SURE



Q24. What energy-saving actions have you taken *at school* as a result of your participation in the group?  
[PLEASE TYPE IN YOUR ANSWERS IN THE SPACE PROVIDED BELOW]

Q25. Have you encouraged teachers to turn lights off when leaving classrooms as a result of your participation in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q26. Have you encouraged your school to turn down the heat during breaks, evenings or weekends as a result of your participation in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q27. Have you encouraged teachers to engage the power save mode on their computers as a result of your participation in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q28. Have you encouraged teachers to unplug other energy using appliances when not in use as a result of your participation in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q29. Have you encouraged peers/teachers to recycle as a result of your participation in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q30. Have you encouraged teachers to adjust window blinds to keep out or let in sunlight as a result of your participation in the group?

01YES

02NO

97DON'T KNOW/NOT SURE

Q31. What energy-saving actions have you been able to take at home as a result of your participation in the group? [PLEASE TYPE IN YOUR ANSWER IN THE SPACE PROVIDED BELOW]

Q32. Do you use central, window or wall air conditioners in your home?

01YES

02NO

97DON'T KNOW/NOT SURE

**[IF Q32=YES ANSWER Q33, ELSE SKIP TO Q39]**

Q33. Have you done anything to reduce the amount of energy your air conditioner uses as a result of your involvement in the group?

01YES

02NO

97DON'T KNOW/NOT SURE

**[IF Q33=YES ANSWER Qs 34, ELSE SKIP TO Q35]**

Q34. What have you done to reduce the amount of energy your air conditioner uses as a result of your participation in the group?

Q35. Have you (or someone in your home) set your air conditioner to a warmer temperature when you are at home as a result of your participation in the group?

01YES

02NO  
97DON'T KNOW/NOT SURE

Q36. Have you (or someone in your home) set your air conditioner to a warmer temperature when you are not at home as a result of your participation in the group?

01YES  
02NO  
97DON'T KNOW/NOT SURE

Q37. Have you (or someone in your home) set your air conditioner to a warmer temperature when you are sleeping as a result of your participation in the group?

01YES  
02NO  
97DON'T KNOW/NOT SURE

Q38. Have you (or someone in your home) reduced the amount of time during which your air conditioner is used as a result of your participation in the group?

01YES  
02NO  
97DON'T KNOW/NOT SURE

Q39. Do you have a space heater in your home?

01YES  
02NO  
97DON'T KNOW/NOT SURE

**[IF Q39=YES ANSWER Q40, ELSE SKIP TO Q42]**

Q40. Have you done anything as a result of your involvement in the group to reduce the amount of energy used by your space heater?

01YES  
02NO  
97DON'T KNOW/NOT SURE

**[IF Q40=YES ANSWER Q41, ELSE SKIP TO Q42]**

Q41. What have you done to reduce the amount of energy used by your space heater as a result of your participation in the group?

Q42. Have you done anything to reduce the amount of hot water used in your home as a result of your involvement in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q42=YES ANSWER Qs43, ELSE SKIP TO Q44]**

Q43. What have you done to reduce the amount of hot water used in your home as a result of your participation in the group?

Q44. Have you (or someone in your home) reduced the length of showers you (he/she) take as a result of your participation in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q45. Have you (or someone in your home) begun using cold water for laundry as a result of your participation in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q46. Have you done anything to reduce the amount of energy used for lighting in your home as a result of your involvement in the group?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q46=YES ANSWER Qs 47, ELSE SKIP TO Q48]**

Q47. What have you done to reduce the amount of energy used for lighting in your home as a result of your participation in the group?

01YES

02NO

97DON'T KNOW/NOT SURE

Q48. Did you leave any lights on all night prior to your involvement in the group?

01YES

02NO

97DON'T KNOW/NOT SURE

Q49. Do you currently leave lights on all night?

Q50. Have you increased the number of energy efficient light bulbs used in your home as a result of your involvement in the group?

01YES

02NO

97DON'T KNOW/NOT SURE

Q51. Do you have a clothes dryer in your home?

01YES

02NO

97DON'T KNOW/NOT SURE

**[IF Q51=YES ANSWERQ52, ELSE SKIP TO Q56]**

Q52. Have you done anything as a result of your involvement in the group to reduce the amount of energy used by your dryer?

01YES

02NO

97DON'T KNOW/NOT SURE

**[IF Q52=YES ANSWER Qs 53, ELSE SKIP TO Q54]**

Q53. What have you done to reduce the amount of energy used by your dryer as a result of your participation in the club?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q54. Have you (or someone in your home) begun line drying clothes as a result of your participation in the club?

Q55. Have you (or someone in your home) tried to make sure that only full loads of clothing are dried as a result of your participation in the club?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q56. Do you have a dishwasher in your home?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q56=YES ANSWER Q57, ELSE SKIP TO Q60]**

Q57. Have you done anything as a result of your involvement in the group to reduce the amount of energy used by your dishwasher?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q57=YES ANSWER Qs 58, ELSE SKIP TO Q59]**

Q58. What have you done to reduce the amount of energy used by your dishwasher as a result of your participation in the group?

01YES

02NO

97DON'T KNOW/NOT SURE

Q59. Did you (or someone in your home) turn off heated drying on the dishwasher settings as a result of your participation in the group?

01YES

02NO

97DON'T KNOW/NOT SURE

Q60. Have you done anything as a result of your involvement in the group to reduce the amount of energy used by your appliances?

01YES

02NO

97DON'T KNOW/NOT SURE

Q61. Do you turn off appliances that are not in use more frequently now than before you began participating in the group?

Thank you very much for taking the time to answer these questions today. We really appreciate your input! [ASK IF Q13=YES OR IF Q17=YES, ELSE SKIP TO END]We've prepared a short survey for the friends and family members to whom you've spoken about the group. These surveys will take about 10 minutes to complete. We're interested in what they remember you telling them and anything that they have done to save energy as a result of your conversation(s).

Please provide the instructions sheet containing a link to another survey to up to three friends and three family members who you have spoken to about the group.

Please provide the names and email addresses of at least two people to whom you have spoken about the group. If you have spoken to friends or family members you must provide these names to qualify for

your incentive. [If you have not spoken to a friend or a family member just type "none" in the appropriate boxes.]

Friend Name: \_\_\_\_\_

Friend Email Address: \_\_\_\_\_

Friend Name: \_\_\_\_\_

Friend Email Address: \_\_\_\_\_

Friend Name: \_\_\_\_\_

Friend Email Address: \_\_\_\_\_

Family Member Name: \_\_\_\_\_

Family Member Email Address: \_\_\_\_\_

Family Member Relationship (to you): \_\_\_\_\_

Family Member Name: \_\_\_\_\_

Family Member Email Address: \_\_\_\_\_

Family Member Relationship (to you): \_\_\_\_\_

Family Member Name: \_\_\_\_\_

Family Member Email Address: \_\_\_\_\_

Family Member Relationship (to you): \_\_\_\_\_



***In appreciation for your time, we will send you a \$20 GIFT CARD, if your survey has been completed in full.***

END:

Finally, please enter your name, the name of your school and your ID number in the space provided below. Please check this information carefully before clicking end to save your survey. Your ID number can be found on your student instructions sheet.

RESPONDENT NAME:

SCHOOL NAME:

STUDENT ID NUMBER:

*D.Paper Social Network Survey*

**INTERVIEW WITH YOUR FRIENDS OR FAMILY**  
*April 2013*

**GROUP MEMBER NAME:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**FRIEND OR FAMILY MEMBER’S NAME:** \_\_\_\_\_

**RELATIONSHIP TO YOU:** \_\_\_\_\_

**INTRODUCTION:** Hi, I’m speaking to you today about Your Group Name, a group that I’m participating in at school. We’re doing some research on the group and how it may be impacting people other than the students who are participating in it.

Q1.Do you remember when we last spoke about the Group Name? [PROBE: What was the date we had that conversation?]

RECORD DATE OF MOST RECENT DISCUSSION: \_\_\_\_\_

01DON’T REMEMBER DATE, BUT IT WAS A FEW DAYS AGO

02DON’T REMEMBER DATE, BUT IT WAS A FEW WEEKS AGO

03DON’T REMEMBER DATE, BUT IT WAS A FEW MONTHS AGO

97DON’T REMEMBER DATE, BUT REMEMBER DISCUSSION

99DON’T REMEMBER DISCUSSION AT ALL SAY: Students who are involved in Group Name at my school look at energy-using equipment and think of ways we can reduce the amount of energy we use at school every day. We also think about our energy using habits outside of school and try to reduce energy consumption at home too. Now do you remember talking to me about this group?

**[ASK Q2 ONLY IF RESPONDENT REMEMBERS CONVERSATION - INITIALLY OR AFTER PROBING]**

Q2.What do you remember about our conversation? [PROBE: What did we talk about? Anything else?]

Q3.Have you done anything differently regarding your energy using behavior since we first began discussing Group Name?

01YES – **ASK Q4**

02NO – **SKIP TO Q10**

---

**97DON'T KNOW – SKIP TO Q10****IF Q3=YES, SAY:**

Q4.What have you done differently? How have you changed your energy-using habits? [PROBE: At home, at work, anywhere else? Anything else?]

Q5.Have you faced any obstacles while trying to make these changes?

- 01 YES – **ASK Q6**
- 02 NO – **SKIP TO Q7**
- 97 DON'T KNOW – **SKIP TO Q7**

**IF Q5=YES, SAY:**

Q6.What obstacles have you faced?

Q7.What were the reasons that you made these changes? [YOU MAY WANT TO MENTION CHANGES THEY CITED SPECIFICALLY IN Q2a, FOR EXAMPLE, Why did you start turning lights off when you left the room?]

Q8.Did you spend any money on these changes?

- 01 YES – **ASK Q9**
- 02 NO – **ASK Q11**
- 97 DON'T KNOW – **ASK Q11**

**IF Q8=YES, SAY:**

Q9.What did you spend money on? How much did you spend? [PROBE IF THE \$\$ SPENT SEEMS HIGH, Did you borrow any money to do this?]

**IF Q3=NO OR DK, SAY:**

Q10.Why haven't you made any changes to your energy-using behavior?

**ASK EVERYONE:**

Q11.Thanks for talking to me about this today. I just have a few more questions for you . . . Did you talk to anyone else [besides me] about the changes we can make to save energy?

01YES – **ASK Q12**

02NO – **ASK Q13**

97DON'T KNOW/NOT SURE – **ASK Q13**

Q12.How many people have you spoken to about the things we can do to save energy in our daily lives?  
[IF NEEDED SAY: Your best guess is fine]

RECORD NUMBER OF PEOPLE: \_\_\_\_\_

97DON'T KNOW

Q13. Which of the following, if any, social media have you used to tell people about energy efficiency?  
[CIRCLE ALL THAT APPLY]

01FACEBOOK

02TWITTER

03A BLOG

95SOMETHING ELSE [SPECIFY]: \_\_\_\_\_

99DON'T USE SOCIAL MEDIA TO COMMUNICATE ABOUT ENERGY EFFICIENCY – **THANK AND END**

**INTERVIEW**

**[ASK Q14 IF Q13=01, 02, 03 or 95 (FACEBOOK, TWITTER, A BLOG OR SOME OTHER TYPE OF SOCIAL MEDIA IS USED TO COMMUNICATE ABOUT ENERGY EFFICIENCY)]**

Q14. How often do you post information about energy efficiency on Facebook, Twitter, a blog or some other type of social media?

01 EVERY DAY

02A FEW TIMES A WEEK

03A FEW TIMES A MONTH

04LESS THAN ONCE A MONTH

05 I HAVE ONLY POSTED ABOUT ENERGY EFFICIENCY ONCE

97DON'T KNOW/NOT SURE

Thanks very much for taking the time to speak with me today. Have a great day/evening!

## *E. Online Social Network Survey*

### **Online Social Networking Survey**

*April 2013*

**INTRODUCTION:** We received your name from a student in a PowerSave sponsored energy awareness group who informed us that he/she had spoken to you about that group. We are doing some research on the group and how it may be impacting people other than the students who are participating in it.

What is the name of the person who gave you the link to this survey?

\_\_\_\_\_

Q1. Do you remember when you last spoke to this student about the group? What was the date you had that conversation?

DATE OF MOST RECENT DISCUSSION: \_\_\_\_\_

- 01 DON'T REMEMBER DATE, BUT IT WAS A FEW DAYS AGO
- 02 DON'T REMEMBER DATE, BUT IT WAS A FEW WEEKS AGO
- 03 DON'T REMEMBER DATE, BUT IT WAS A FEW MONTHS AGO
- 97 DON'T REMEMBER DATE, BUT REMEMBER DISCUSSION
- 99 DON'T REMEMBER DISCUSSION AT ALL

**[IF Q1=DON'T REMEMBER DISCUSSION, ANSWER Q2, ELSE SKIP TO Q3]**

Q2. Students who are involved in the group look at energy-using equipment and think of ways they can reduce the amount of energy they use at school every day. They also think about their energy using habits outside of school and try to reduce energy consumption at home. Now do you remember talking to the student about this group?

- 01 YES
- 02 NO

**[IF Q2=YES, ANSWER Q3, ELSE END SURVEY]**

Q3. What do you remember about that conversation? What did you talk about? [PLEASE TYPE YOUR ANSWER IN THE SPACE BELOW AND BE AS SPECIFIC AS POSSIBLE]

Q4. Have you done anything differently regarding your energy using behavior since you first began discussing the group with the student?

- 01YES
- 02NO
- 97DON'T KNOW

**[IF Q4=YES ANSWER Q5, ELSE SKP TO Q6]**

Q5. What have you done differently? How have you changed your energy-using habits at home, at work or anywhere else as a result of your discussions with the student?

**[IF Q4=NO, ANSWER Q6, ELSE SKIP TO Q7]**

Q6. Why haven't you made any changes to your energy-using behavior?

Q7. Do you use central, window or wall air conditioners in your home?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q7=YES ANSWER Q8, ELSE SKIP TO Q14]**

Q8. Have you done anything to reduce the amount of energy your air conditioner uses as a result of your discussions with the student?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q8=YES ANSWER Q9, ELSE SKIP TO Q10]**

Q9. What have you done to reduce the amount of energy your air conditioner uses as a result of your discussions?

Q10. Have you (or someone in your home) set your air conditioner to a warmer temperature when you are at home as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q11. Have you (or someone in your home) set your air conditioner to a warmer temperature when you are not at home as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q12. Have you (or someone in your home) set your air conditioner to a warmer temperature when you are sleeping as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q13. Have you (or someone in your home) reduced the amount of time during which your air conditioner is used as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q14. Do you have a space heater in your home?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q14=YES ANSWER Q15, ELSE SKIP TO Q17]**

Q15. Have you done anything as a result of your discussions with the student to reduce the amount of energy used by your space heater?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q15=YES ANSWER Q16, ELSE SKIP TO Q17]**

Q16. What have you done to reduce the amount of energy used by your space heater as a result of your discussions?

Q17. Have you done anything to reduce the amount of hot water used in your home as a result of your discussions with the student?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q17=YES ANSWER Q18, ELSE SKIP TO Q19]**

Q18. What have you done to reduce the amount of hot water used in your home as a result of your discussions?

Q19. Have you (or someone in your home) reduced the length of showers you (he/she) take as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q20. Have you (or someone in your home) begun using cold water for laundry as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q21. Have you done anything to reduce the amount of energy used for lighting in your home as a result of your discussions with the student?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q21=YES ANSWER Q22, ELSE SKIP TO Q23]**



Q22. What have you done to reduce the amount of energy used for lighting in your home as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q23. Did you leave any lights on all night prior to your discussions with the student?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q24. Do you currently leave lights on all night?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q25. Have you increased the number of energy efficient light bulbs used in your home as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q26. Do you have a clothes dryer in your home?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q26=YES ANSWER Q27, ELSE SKIP TO Q31]**

Q27. Have you done anything as a result of your discussions with the student to reduce the amount of energy used by your dryer?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q27=YES ANSWER Q28, ELSE SKIP TO Q29]**

Q28. What have you done to reduce the amount of energy used by your dryer as a result of your discussions?

Q29. Have you (or someone in your home) begun line drying clothes as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q30. Have you (or someone in your home) tried to make sure that only full loads of clothing are dried as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q31. Do you have a dishwasher in your home?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q31=YES ANSWER Q32, ELSE SKIP TO Q35]**

Q32. Have you done anything as a result of your discussions with the student to reduce the amount of energy used by your dishwasher?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

**[IF Q32=YES ANSWER Q 33, ELSE SKIP TO Q34]**

Q33. What have you done to reduce the amount of energy used by your dishwasher as a result of your discussions?

Q34. Did you (or someone in your home) turn off heated drying on the dishwasher settings as a result of your discussions?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q35. Have you done anything as a result of your discussions with the student to reduce the amount of energy used by your appliances?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q36. Do you turn off appliances that are not in use more frequently now than before you began discussing the group with the student?

- 01YES
- 02NO
- 97DON'T KNOW/NOT SURE

Q37. Have you faced any obstacles while trying to make these changes?

- 01YES
- 02NO
- 97DON'T KNOW

**[IF Q37=YES ANSWER Q38, ELSE SKIP TO Q39]**

Q38. What obstacles have you faced?

Q39. What were the reasons that you made these changes?

Q40. Did you spend any money on these changes?

- 01YES

02NO  
97DON'T KNOW

**[IF Q40=YES ANSWER Q41-43, ELSE SKIP TO Q44]**

Q41.What did you spend money on?

Q42.How much did you spend on these changes?

Q43.Did you borrow any money to make these changes?

01YES  
02NO  
97DON'T KNOW

Q44.Did you talk to anyone else [besides the student] about the changes we can make to save energy?

01YES  
02NO  
97DON'T KNOW/NOT SURE

**[IF Q44=YES ANSWER Q45 ELSE SKIP TO Q46]**

Q45.How many people have you spoken to about the things we can do to save energy in our daily lives?  
[YOUR BEST GUESS IS FINE]

RECORD NUMBER OF PEOPLE: \_\_\_\_\_  
97DON'T KNOW

Q46. Which of the following, if any, social media have you used to tell people about energy efficiency?  
[CHOOSE ALL THAT APPLY]

01FACEBOOK  
02TWITTER  
03A BLOG  
95SOMETHING ELSE [SPECIFY]: \_\_\_\_\_  
99DON'T USE SOCIAL MEDIA TO COMMUNICATE ABOUT ENERGY EFFICIENCY

**[IF Q46=01, 02, 03 or 95 (FACEBOOK, TWITTER, A BLOG OR SOME OTHER TYPE OF SOCIAL MEDIA IS USED TO COMMUNICATE ABOUT ENERGY EFFICIENCY) ANSWER Q47, ELSE SKIP TO END]**

Q47. How often do you post information about energy efficiency on Facebook, Twitter, a blog or some other type of social media?

- 01 EVERY DAY
- 02A FEW TIMES A WEEK
- 03A FEW TIMES A MONTH
- 04LESS THAN ONCE A MONTH
- 05I HAVE ONLY POSTED ABOUT ENERGY EFFICIENCY ONCE
- 97DON'T KNOW/NOT SURE

Thanks very much for taking the time to take this survey. Have a great day/evening!