

# BLACK HILLS ENERGY LIVINGWISE®

## PROGRAM SUMMARY REPORT

### SOUTH DAKOTA SERVICE AREA

2017-2018

SUBMITTED BY:



**RESOURCEACTION**  
PROGRAMS

A FRANKLIN ENERGY COMPANY

# **Black Hills Energy LivingWise® Program Summary Report South Dakota Service Area 2017-2018**

**Made possible by:**




**Submitted by:**



A FRANKLIN ENERGY COMPANY

**August 2018**




*“We had some great discussions about how to conserve our non-renewable resources. And the students really enjoyed using and installing the items in their homes.”*

**Lorie Meade, Teacher**

*Vandenberg Elementary School*

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*“If more people had access to this knowledge, I think more people would be more conscientious of electricity and water conservation. Thank you!”*

**Jennifer Stedman, Parent**

*Hill City Elementary School*

# Executive Summary

Resource Action Programs® (RAP) is pleased to present this Program Summary Report to Black Hills Energy, which summarizes the 2017-2018 Black Hills Energy LivingWise® Program. The program was implemented in the Black Hills Energy service area in the state of South Dakota by 1,212 teachers, students, and their families.

The following pages provide an overview of the program and materials, outline of program implementation, introduction to the program team, description of program enhancements, impact of the program, and summary of results from the home activities. In addition to this information, evaluations, letters, and comments are provided for a glimpse into actual participant feedback. Lastly, projected savings from the individual measures found within the LivingWise Kit are also included.

## Participant Satisfaction

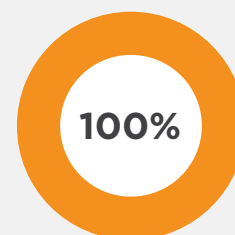
A successful program excites and engages participants. Students, parents, and teachers are asked to evaluate the program and provide personal comments. A sample of the feedback is given in the margin. >



Teachers who indicated parents supported the program.

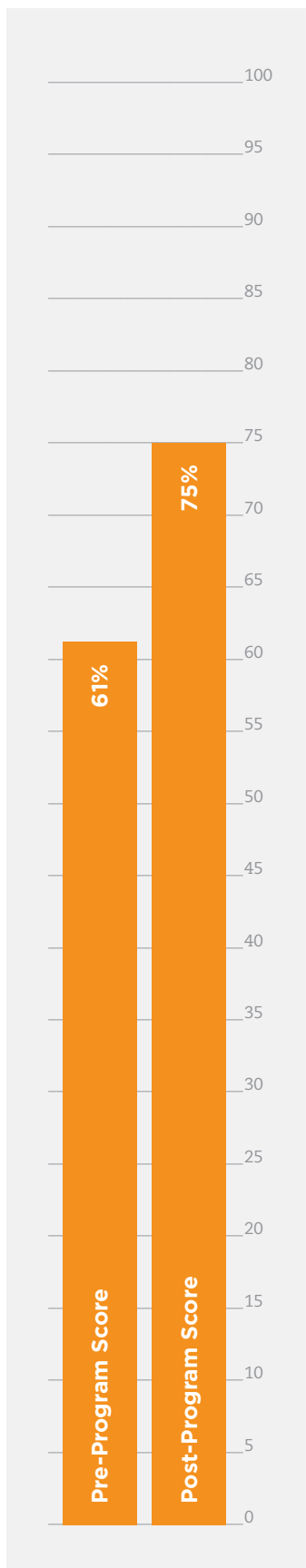


Teachers who indicated they would recommend this program to other colleagues.



Teachers who indicated they would conduct this program again.

A summary of responses can be found in Appendix D.



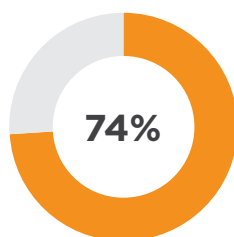
## Knowledge Gained

Identical tests were administered to the students prior to the program and again upon program completion to measure knowledge gained. Scores and subject knowledge improved from **61% to 75%.**

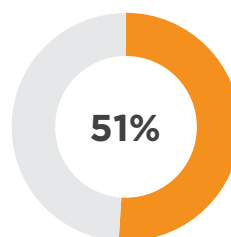
## Data Obtained

Home surveys were taken by students and their families, which collected household demographic and consumption data along with program participation information.

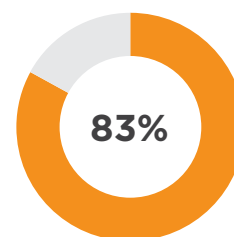
*A summary of responses can be found in Appendix B.*



*Students who reported that their family home is owned.*



*Students who reported that their water is heated by gas.*

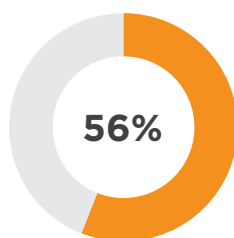


*Students who reported that their home has a dishwasher.*

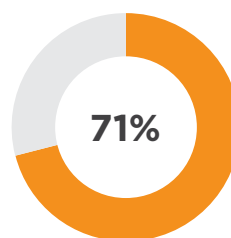
## Measures Installed

Students completed take-home activities as part of the program and reported on the kit measures they installed in their homes.

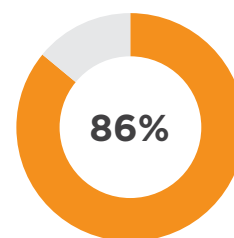
*A summary of responses can be found in Appendix B.*



*Students who reported they installed the High-Efficiency Showerhead.*



*Students who reported they installed the LED Light Bulb.*



*Students who reported they installed the LED Night Light.*

## Energy and Water Savings Results

In addition to educating students and their parents, a primary program goal is to generate cost-effective energy and water savings. Student home surveys not only provided the data used in the savings projections, but also reinforced the learning benefits.

### Projected Resource Savings


*A list of assumptions and formulas used for these calculations can be found in Appendix A.*

PROJECTED ANNUAL SAVINGS		PROJECTED LIFETIME SAVINGS	
<b>4,082,696</b>	gallons of water saved	<b>31,730,441</b>	gallons of water saved
<b>284,839</b>	kWh of electricity saved	<b>2,548,803</b>	kWh of electricity saved
<b>11,409</b>	therms of gas saved	<b>98,411</b>	therms of gas saved
<b>4,082,696</b>	gallons of wastewater saved	<b>31,730,441</b>	gallons of wastewater saved

PROJECTED ANNUAL SAVINGS PER HOME		PROJECTED LIFETIME SAVINGS PER HOME	
<b>3,369</b>	gallons of water saved	<b>26,180</b>	gallons of water saved
<b>235</b>	kWh of electricity saved	<b>2,103</b>	kWh of electricity saved
<b>9</b>	therms of gas saved	<b>81</b>	therms of gas saved
<b>3,369</b>	gallons of wastewater saved	<b>26,180</b>	gallons of wastewater saved





*“Participants and their  
parents/guardians realize  
actual water and energy  
savings within their home,  
benefitting two generations.”*

# Program Overview

The Black Hills Energy LivingWise® Program, a school-based energy efficiency education program, is designed to generate immediate and long-term resource savings by bringing interactive, real-world education home to students and their families. The 2017-2018 program was taught in 5th grade throughout the Black Hills Energy service area in the state of South Dakota.


The Black Hills Energy LivingWise Program team identifies and enrolls students and teachers within the designated service area. The program physically begins with classroom discussions using a Student Guide that provides the foundations of using energy and water efficiently. It is followed by hands-on, creative, problem-solving activities led by the classroom teacher.

All program materials support state and national academic standards to allow the program to fit easily into a teacher's existing curriculum and requirements. The participating classroom teachers follow the Teacher Book and lesson plan. Information is given to guide

lessons throughout the program in order to satisfy each student's individual needs, whether they are visual, auditory, or kinesthetic learners.

The LivingWise Kit and Student Workbook comprise the take-home portion of the program. Students receive a kit containing high-efficiency measures they use to install within their homes. With the help of their parents/guardians, students install the kit measures and complete a home survey. The act of installing and monitoring new energy efficiency devices in their homes allows students to put their learning into practice. Here, participants and their parents/guardians realize actual water and energy savings within their home, benefitting two generations.

A critical element of RAP program design is the use of new knowledge through reporting. At the end of the program, the Black Hills Energy program team tabulates all participant responses—including home survey information, teacher responses, student letters, and parent feedback—and generates this Program Summary Report.



*“For more than 25 years, Resource Action Programs (RAP) has designed and implemented Measure-Based Education® programs that inspire change in household energy and water use while delivering significant, measurable resource savings.”*

# Program Materials

Each participant in the Black Hills Energy LivingWise® Program receives classroom materials and energy efficiency kits containing high-efficiency measures to perform the program's take-home activities. Program materials for students, parents/guardians, and teachers are outlined below.

## Each Student & Teacher Receives

Student Guide

Student Workbook

Parent Letter/Pledge Form\*

Student Survey Form

Certificate of Achievement

LivingWise Kit Containing:

- High-Efficiency Showerhead\*
- Kitchen Faucet Aerator\*
- LED Light Bulb
- LED Night Light
- FilterTone® Alarm\*
- Digital Thermometer\*
- Toilet Leak Detector Tablets
- Flow Rate Test Bag
- Natural Resource Fact Chart
- Mini Tape Measure
- Parent/Guardian Program Evaluation

“GetWise” Wristband

Program Website Access at [Getwise.org](http://Getwise.org)

Toll-Free HELP Line

## Each Teacher/Classroom Receives

Teacher Book

Step-by-Step Program Checklist

Lesson Plans

South Dakota State and National Academic  
Standards Chart

Teacher Survey Form

Pre/Post Student Survey Answer Keys

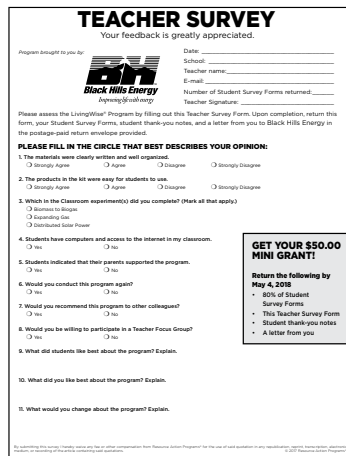
Electricity, Water, and Natural Gas Posters

Self-Addressed Postage-Paid Envelope


\* Materials / Installation Instructions provided in English and Spanish



## Program Materials



**TEACHER SURVEY**  
Your feedback is greatly appreciated.

Program brought to you by:  Date: \_\_\_\_\_  
 School: \_\_\_\_\_  
 Teacher name: \_\_\_\_\_  
 E-mail: \_\_\_\_\_  
 Number of Student Survey Forms returned: \_\_\_\_\_  
 Teacher Signature: \_\_\_\_\_

Please assess the LivingWise® Program by filling out this Teacher Survey Form. Upon completion, return this form, your Student Survey Forms, student thank-you notes, and a letter from you to Black Hills Energy in the postage-paid return envelope provided.

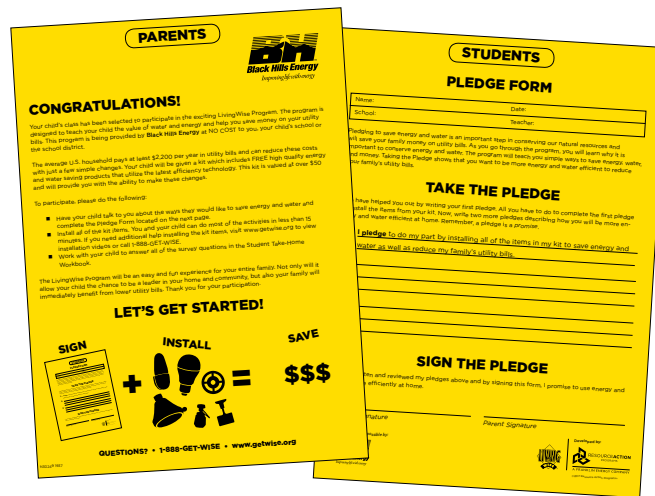
**PLEASE FILL IN THE CIRCLE THAT BEST DESCRIBES YOUR OPINION:**


- The materials were clearly written and well organized.  
☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree
- The products in the kit were easy for students to use.  
☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree
- Which in the Classroom experiment(s) did you complete? (Mark all that apply)  
☐ Science to Science  
☐ Engineering  
☐ Connected our Power
- Students have completed and access to the internet in my classroom.  
☐ No
- Students indicated that their parents supported the program.  
☐ No
- Would you conduct the program again?  
☐ Yes ☐ No
- Would you recommend this program to other colleagues?  
☐ Yes ☐ No
- Would you be willing to participate in a Teacher Focus Group?  
☐ Yes ☐ No
- What did students like best about the program? Explain.
- What would you change about the program? Explain.

**GET YOUR \$50.00 MINI GRANT!**  
 Return the following by May 4, 2018:  
 • 80% of Student Survey Forms  
 • This Teacher Survey Form  
 • Student Thank-you notes  
 • A letter from you

By completing this survey, you agree to the use of your information from Resource Action Programs for the use of said publication in any specific form. Resource Action Programs reserves the right to use your information in any form without compensation.

Teacher Survey Form



**PARENTS** 


**CONGRATULATIONS!**  
 Your child's class has been selected to participate in the exciting LivingWise Program. The program is designed to teach your child the value of water and energy and how you can conserve on your utility bills. This program is being provided to **Black Hills Energy** at NO COST to you, your child's school or your student's district.

The average U.S. household pays at least \$2,200 per year in utility bills and can reduce these costs with just a few simple changes. Your child will be given a kit which includes FREE high quality energy and water saving products that utilize the latest efficient technology. This kit is valued at over \$50 and will provide you with the ability to make these changes.

To participate, please do the following:  
 • Have your child talk to you about the ways they would like to save energy and water and complete the Pledge Form located on the next page.  
 • Mail all of the kit items. You and your child can do most of the activities in this kit at home. If you need additional help, call 1-888-GET-WISE or visit [www.getwise.org](http://www.getwise.org).  
 • Work with your child to answer all of the survey questions in the Student Take-home Booklet.

The LivingWise Program will be an easy and fun experience for your entire family that only will allow you child the chance to be a leader in your home and community. But also your family will immediately benefit from lower utility bills. Thank you for your participation.

**LET'S GET STARTED!**

**SIGN** **INSTALL** **SAVE**  


**QUESTIONS? • 1-888-GET-WISE • [www.getwise.org](http://www.getwise.org)**

**STUDENTS**  
**PLEDGE FORM**

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 School: \_\_\_\_\_ Teacher: \_\_\_\_\_

Pledging to save energy and water is an important step in conserving our natural resources and reducing our consumption of energy and water. The program will teach you simple ways to save energy, water, and money. Taking the Pledge shows that you want to be more energy and water efficient to reduce your family's utility bills.

**TAKE THE PLEDGE**  
 Have I helped you only by turning your first pledge? All you have to do to complete the first pledge is to mail the items from your kit home with your most precious pledge. (Remember, a pledge is a promise.)

**I pledge to do my part by installing all of the items in my kit to save energy and water as well as reduce the family's utility bills.**

\_\_\_\_\_  
 Parent Signature

**SIGN THE PLEDGE**  
 You and I, together, by signing above and by mailing this form, I promise to use energy and water efficiently at home.

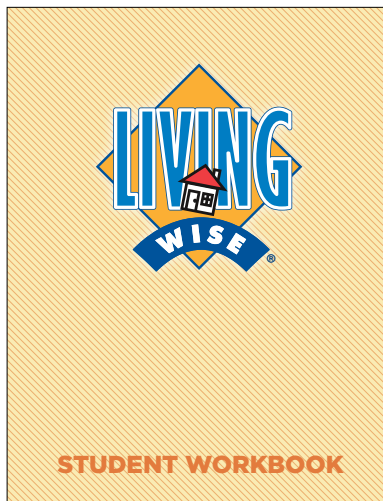
\_\_\_\_\_  
 Parent Signature

By completing this survey, you agree to the use of your information from Resource Action Programs for the use of said publication in any specific form. Resource Action Programs reserves the right to use your information in any form without compensation.

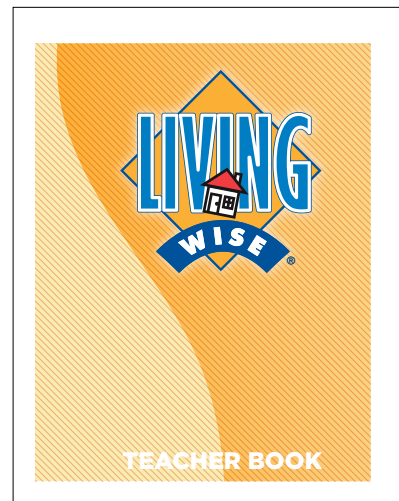
Parent Letter/Pledge Form



Student Guide



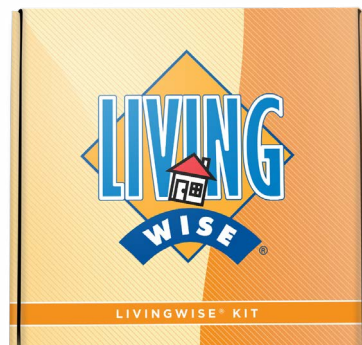
Student Workbook



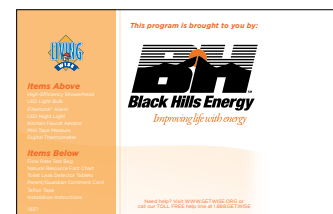
Teacher Book




Certificate of Achievement



Kit Box



Kit Label



*“I appreciated the in-depth lessons about types of energy, where they come from and how they are used. I liked that the lessons are interactive with students”*

**Lorie Meade, Teacher**

*Vandenberg Elementary School*

# Program Implementation

The 2017-2018 Black Hills Energy LivingWise® Program followed this comprehensive implementation schedule:

1. Identification of South Dakota state and national academic standards & benchmarks
2. Curriculum development and refinement (completed annually)
3. Curriculum correlation to South Dakota state and national academic standards & benchmarks
4. Materials modification to incorporate Black Hills Energy branding
5. Incentive program development
6. Teacher/school identification—with Black Hills Energy approval
7. Teacher outreach and program introduction
8. Teachers enrolled in the program individually
9. Implementation dates scheduled with teachers
10. Program material delivered to coincide with desired implementation date
11. Delivery confirmation
12. Periodic contact to ensure implementation and teacher satisfaction
13. Program completion incentive offered
14. Results collection
15. Program completion incentive delivered to qualifying teachers
16. Thank you cards sent to participating teachers
17. Data analysis
18. Program Summary Report generated and distributed

Participating teachers are free to implement the program to coincide with their lesson plans and class schedules. Appendix C provides a comprehensive list of classrooms in grade 5 that participated during the 2017-2018 school year.



For more than 25 years, Resource Action Programs (RAP) has designed and implemented Measure-Based Education® programs that inspire change in household energy and water use while delivering significant, measurable resource savings. All RAP programs feature a proven blend of innovative education, comprehensive implementation services, and hands-on activities to put efficiency knowledge to work in students' homes.

RAP has a strong reputation for providing a high level of client service as part of a wide range of energy efficiency education solutions for utilities, municipalities, states, community agencies, corporations, and more. In 2013, RAP was the only conservation services provider honored by the American Council for an Energy-Efficient Economy (ACEEE) and the Alliance for Water Efficiency (AWE) as one of 12 top programs that provides sustained achievement. RAP was honored for market penetration, innovative design, and its ability to achieve substantial/sustained energy and water savings.



# Program Team

RAP implements nearly 300 individual programs that serve more than 650,000 households each year. All-inclusive program delivery occurs in its 80,000 square-foot Nevada Program Center where implementation teams and support departments work together to provide:

- 1:1 teacher support
- Curriculum development
- Customized materials
- Data tracking and reporting
- Energy and water efficiency measures
- Graphic and web design
- Kit assembly
- Marketing communications
- Shipping
- Printing
- Program management
- Participant enrollment
- Warehousing

## The Implementation Team


For the Black Hills Energy LivingWise® Program, RAP assigned a specific implementation team to Black Hills Energy made up of a PMP®-designated Program Manager, CEM®-designated energy analyst, graphic designer, outreach personnel, educator, and administrative staff. This team immersed themselves into the Black Hills Energy brand, and handled all program implementation for Black Hills Energy. Black Hills Energy also received the benefit of fully

staffed support departments, which worked with the implementation team to define success for Black Hills Energy. These departments include education, marketing, information technology, and warehouse/logistics.

## Continuous Improvement

In addition to successful implementation of the Black Hills Energy LivingWise Program, RAP engages in continuous program improvement, as well as enhancements to educational materials, with modifications based on emerging technology, industry trends, and EM&V findings.

As part of this plan, RAP utilizes an extensive network of educators for program feedback. This feedback ensures that educational components meet the changing needs of educators, keep information relevant to students, and, in turn, provide increased water and energy literacy amongst program participants.



*“Upon completion of the program, participating families are asked to complete a home survey to assess their resource use, verify product installation, provide demographic information, and measure participation rates.”*

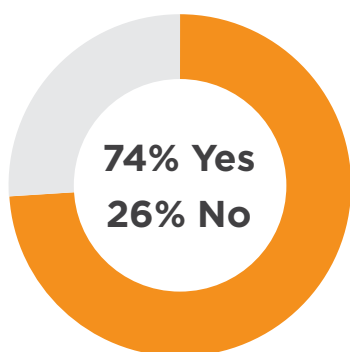
# Program Impact

The Black Hills Energy LivingWise® Program has had a significant impact within the community. As illustrated below, the program successfully educated participants about energy and water efficiency while generating resource savings through the installation of efficiency measures in homes. Home survey information was collected to track projected savings and provide household consumption and demographic data. Program evaluations and comments were collected from teachers, students, and parents.

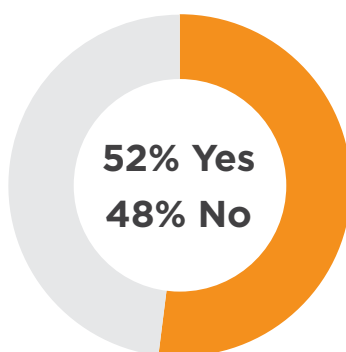
## A. Home Survey

Upon completion of the program, participating families are asked to complete a home survey to assess their resource use, verify product installation, provide demographic information, and measure participation rates. A few samples of questions asked are below while a complete summary of all responses is included in the appendices.

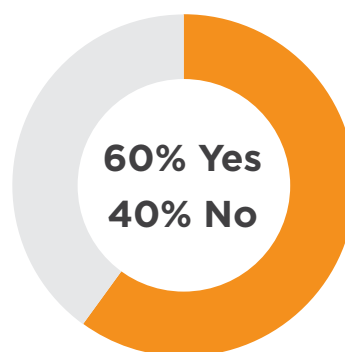
<b>Did you work with your family on this program</b>	<b>Yes - 74%</b>
<b>Did your family change the way they use water?</b>	<b>Yes - 52%</b>
<b>Did your family change the way they use energy?</b>	<b>Yes - 60%</b>



*Students who indicated that they worked with their family on this program.*



*Students who indicated their family changed the way they use water.*

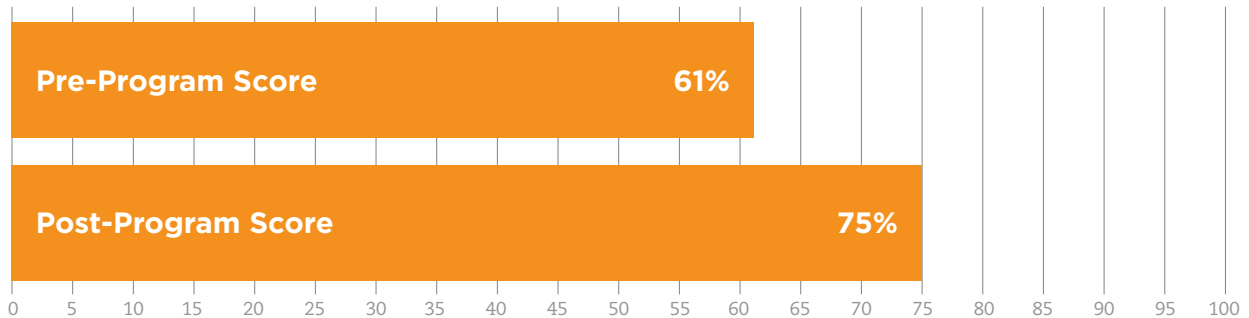


*Students who indicated their family changed the way they use energy.*

## B. Pre-Program and Post-Program Tests

Students were asked to complete a 10-question test before the program was introduced and then again after it was completed to determine the knowledge gained through the program. The average student answered **6.1** questions correctly prior to being involved in the program and then improved to answer **7.5** questions correctly following participation.

**Scores improved from 61% to 75%.**



## C. Home Activities

As part of the program, parents and students installed resource efficiency measures in their homes. They also measured the pre-existing devices to calculate savings that they generated. Using the family habits collected from the home survey as the basis for this calculation, 1,212 households are expected to save the following resource totals. Savings from these actions and new behaviors will continue for many years to come.

### Projected Resource Savings

*A list of assumptions and formulas used for these calculations can be found in Appendix A.*

<b>Number of Participants:</b>	<b>1,212</b>	
	<b>Annual</b>	<b>Lifetime</b>
Projected reduction from Showerhead retrofit:	<b>2,263,392</b>	<b>22,633,919</b> gallons
Product Life: <b>10 years</b>	<b>144,456</b>	<b>1,444,561</b> kWh
	<b>7,648</b>	<b>76,477</b> therms
Projected reduction from Kitchen Faucet Aerator retrofit:	<b>1,254,492</b>	<b>6,272,459</b> gallons
Product Life: <b>5 years</b>	<b>57,834</b>	<b>289,170</b> kWh
	<b>3,135</b>	<b>15,675</b> therms
Toilet Leak Repair projects an annual reduction of:	<b>564,812</b>	<b>2,824,062</b> gallons/year
Product Life: <b>5 years</b>		
Projected reduction from LED Lightbulb retrofit:	<b>41,662</b>	<b>406,203</b> kWh
Product Life: <b>20 years</b>		
Projected reduction from LED Night Light retrofit:	<b>29,620</b>	<b>296,199</b> kWh
Product Life: <b>10,000 hours</b>		
Projected reduction from FilterTone® installation:	<b>11,267</b>	<b>112,670</b> kWh
Product Life: <b>10 years</b>	<b>626</b>	<b>6,260</b> therms
<b>TOTAL PROGRAM SAVINGS:</b>	<b>4,082,696</b>	<b>31,730,441</b> gallons
	<b>284,839</b>	<b>2,548,803</b> kWh
	<b>11,409</b>	<b>98,411</b> therms
<b>TOTAL PROGRAM SAVINGS PER HOUSEHOLD:</b>	<b>3,369</b>	<b>26,180</b> gallons
	<b>235</b>	<b>2,103</b> kWh
	<b>9</b>	<b>81</b> therms

## D. Teacher Program Evaluation

Program improvements are based on participant feedback received. One of the types of feedback obtained is from participating teachers via a Teacher Program Evaluation Form. They are asked to evaluate relevant aspects of the program and each response is reviewed for pertinent information. The following is feedback from the Teacher Program Evaluation for the Black Hills Energy LivingWise Program.

### Teacher Response

*(A summary of responses can be found in Appendix D)*

**100%** of participating teachers indicated they would conduct the program again given the opportunity.

**100%** of participating teachers indicated they would recommend the program to their colleagues.

### What did students like best about the program? Explain.

*"The shower heads and conserving water."*

**Nancy Mulcahy, Hot Springs Elementary**

*"They liked the kits."*

**Philip Miller, St Paul's Lutheran School**

*"They liked the water conservation, specifically the shower head."*

**Koreen Hammel, Hot Springs Elementary**

*"Students talked a lot about water conservation and the shower head."*

**Todd Phelps, Hot Springs Elementary**

*"My students enjoyed the classroom experiments and the diagrams."*

**Matthew Henderson, Hill City Elementary School**

*"The kit was their favorite part of the program."*

**Colleen Clapper, Hill City Elementary School**

*"The products that went home."*

**Elizabeth Timmerman, Grandview Elementary**

*"The information and activities to do at home with family."*

**Alex Whitney, Grandview Elementary**

*"They liked the kits."*

**Lauree Buus, Grandview Elementary**

*"The students really liked the kit."*

**Brandi Marler, Vandenberg Elementary School**

## Teacher Response

*(A summary of responses can be found in Appendix D)*

### What did you like best about the program? Explain.

*"The variety of materials supplied and what they learn about energy conservation."*

**Nancy Mulcahy, Hot Springs Elementary**

*"It's easy to use."*

**Philip Miller, St Paul's Lutheran School**

*"The ease of use of the materials and the teacher's guide and student book for more classroom depth."*

**Koreen Hammel, Hot Springs Elementary**

*"It's easy to use and has variety."*

**Todd Phelps, Hot Springs Elementary**

*"The program was informative. My students enjoyed learning how to save energy and help the planet."*

**Matthew Henderson, Hill City Elementary School**

*"Everything was there and ready to go. Teacher friendly."*

**Colleen Clapper, Hill City Elementary School**

*"I like that it is easy to follow and meets our standards."*

**Paige Guy, Piedmont Valley Elementary School**

*"That it taught standards and also taught the kids everyday life lessons and skills."*

**Brandi Marler, Vandenberg Elementary School**

### What would you change about the program? Explain.

*"Nothing. It is great!"*

**Paige Guy, Piedmont Valley Elementary School**

*"Package the informational cards with the slide down date separately from the take home kits."*

**Elizabeth Timmerman, Grandview Elementary**

*"Nothing, great program with great materials."*

**Alex Whitney, Grandview Elementary**

*"Longer deadlines. We were running out of time."*

**Kelsey Trimble, Vandenberg Elementary School**

*"More internet activities so students can explore energy saving at home."*

**Matthew Henderson, Hill City Elementary School**



## E. Parent/Guardian Program Evaluation

Parent involvement with program activities and their children is of paramount interest to both utilities and teachers in the program. When parents take an active role in their child's education it helps the schools and strengthens the educational process considerably. When students successfully engage their families in retrofit, installation, and home energy efficiency projects, efficiency messages are powerfully delivered to two generations in the same household. The program is a catalyst for this family interaction, which is demonstrated by feedback from Parent/Guardian Program Evaluations in each program. The following is feedback from the Parent/Guardian Program Evaluations for the Black Hills Energy LivingWise Program.

### Parent Response

*(A summary of responses can be found in Appendix E)*

**100%** of participating parents indicated that the program was easy to use.

**100%** of participating parents indicated they would continue to use the kit items after the completion of the program.

**100%** of participating parents indicated they would like to see this program continued in local schools.

### As a parent, which aspect of the program did you like best?

*"Having my child understand how much water is used during everyday activities."*

**Jennifer Larson, Grandview Elementary**

*"The LED's and the water saving faucet and shower head."*

**Jennifer Stedman, Hill City Elementary School**

*"Doing the experiments with my child."*

**Jillian Jankard, Meadowbrook Elementary**

*"I liked talking to the kids about energy and resources."*

**Kim Oberloh, Rapid City Adventist Elementary School**

*"The variety and equations; it was eye opening"*

**Jamie, St. Elizabeth Ann Seton Elementary School**

### Are there any comments you would like to express to your child's program sponsor?

*"I really feel like the program is a great learning tool."*

**Jillian Jankard, Meadowbrook Elementary**

*"Thank you!"*

**Jamie, St. Elizabeth Ann Seton Elementary School**

## F. Teacher Letters

(A summary of responses can be found in Appendix F)

Lorie Meade  
Vandenberg Elementary  
561 Briggs St.  
Box Elder, SD 57719

Dear Black Hills Energy,

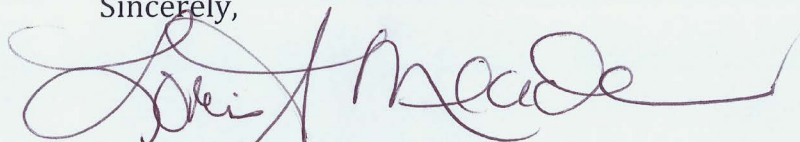
I would like to thank you for another opportunity to use the curriculum and resources to teach our students about our worlds resources; renewable and nonrenewable. It is vital that young people today learn the vitality of Earth's resources; what they are, where they come from, and how we use them. Not to just learn about them, but to also incorporate how they and their families can learn to use our energy sources efficiently. Specifically, how kids themselves can help reuse and reduce energy consumption.

The curriculum and resources that BH Energy provides does an excellent job of reviewing and diving in a little deeper in to these content areas. It is a way to also incorporate real life concepts learned at school that directly affects their real lives and can be shared and incorporated into their families lives.

Many of my students come back and tell me that they helped their dad, grandpas, and other family members install the energy conserving devices. I even have a few former students siblings tell me that they are still using the items that they installed last year. That is awesome!

Thank you again so much for providing the opportunity with continued support of conserving our Earth's resources

Sincerely,



Lorie Meade  
5<sup>th</sup> Grade/Team Leader

## Teacher Letters

(A summary of responses can be found in Appendix F)

Dear Cam ed & Nicor Gas,

April 24, 2016

Thank you so much for allowing us to participate in the Super Savers Program. The students & their families learned a lot about the importance of conserving our natural resources & ways to reduce their energy usage.

I loved the teacher & student materials. Everything was very clear & easy to teach. The kids loved taking the kits home & trying the new materials.

Many students said they already use LED bulbs, so they didn't use the ones in the kit. They really liked the shower timer & thermometer for testing their hot water at home.

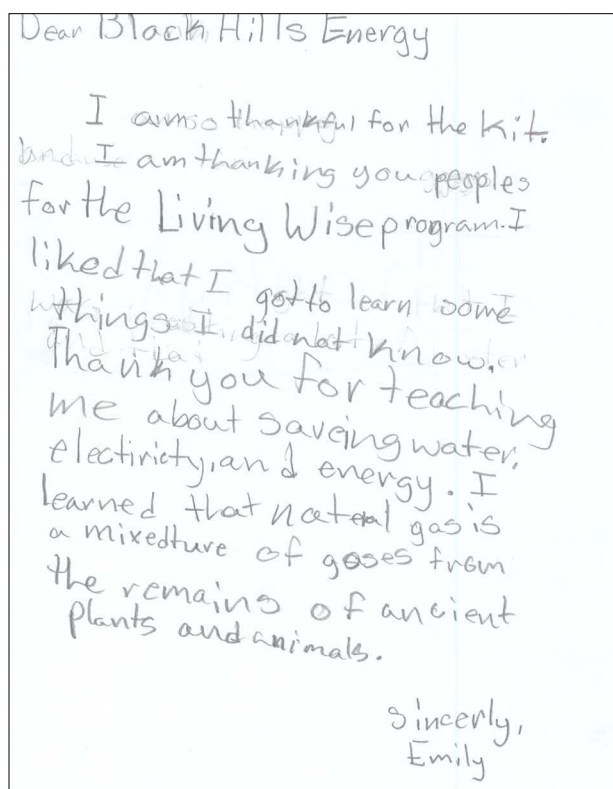
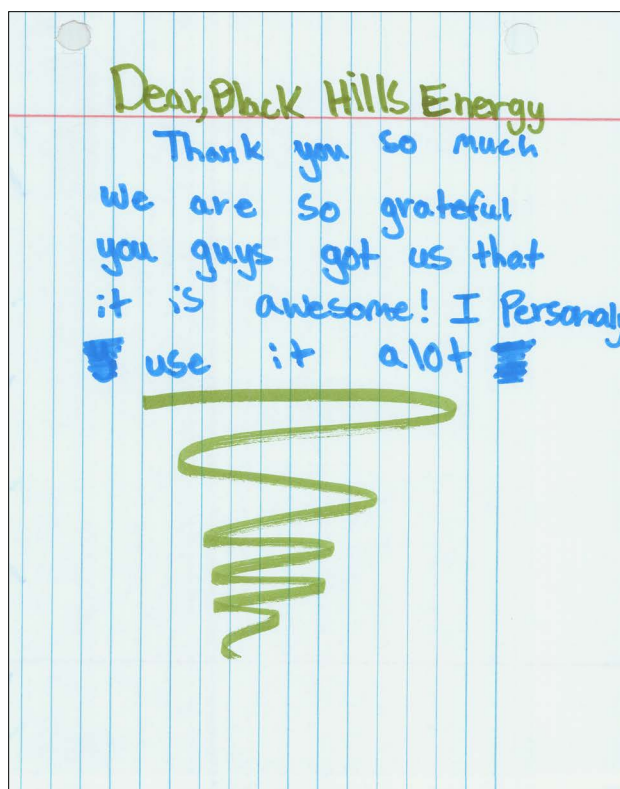
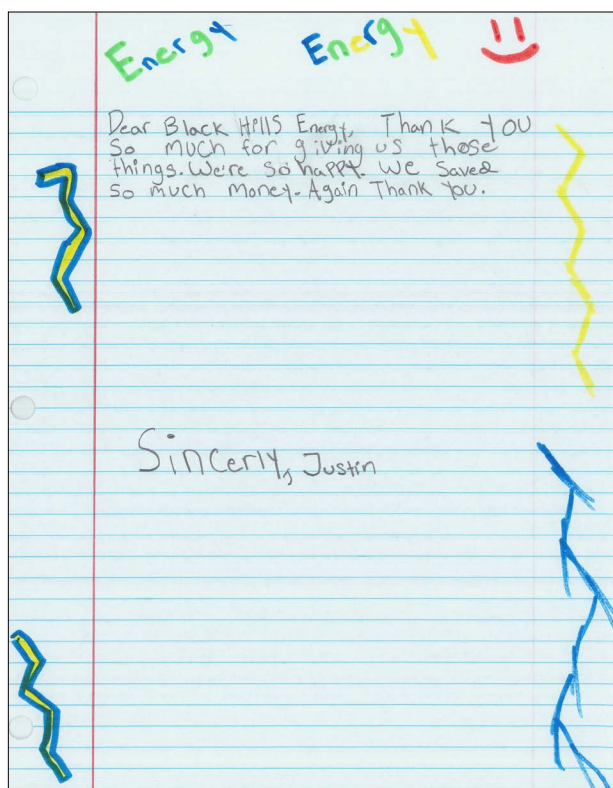
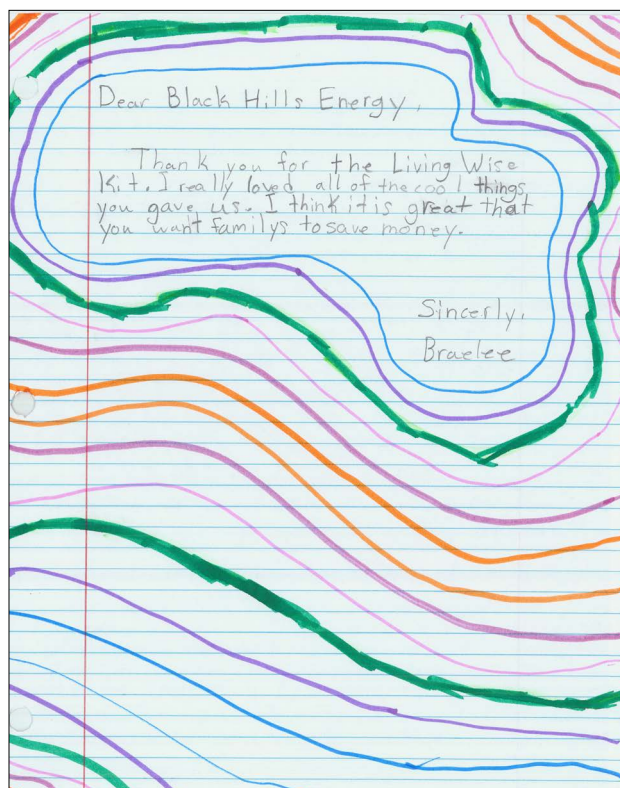
Thank you again for a wonderful, educational program!

Sincerely,  
Mary Jo Quaken



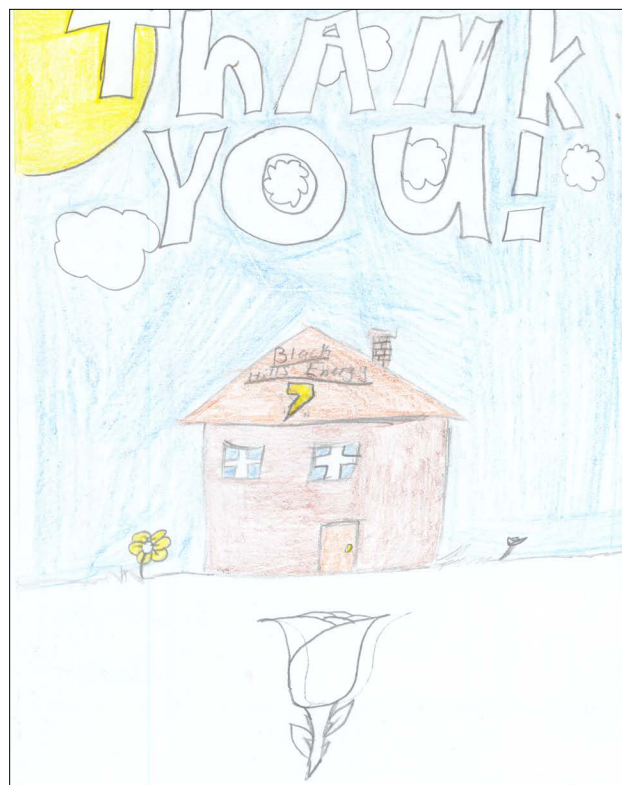
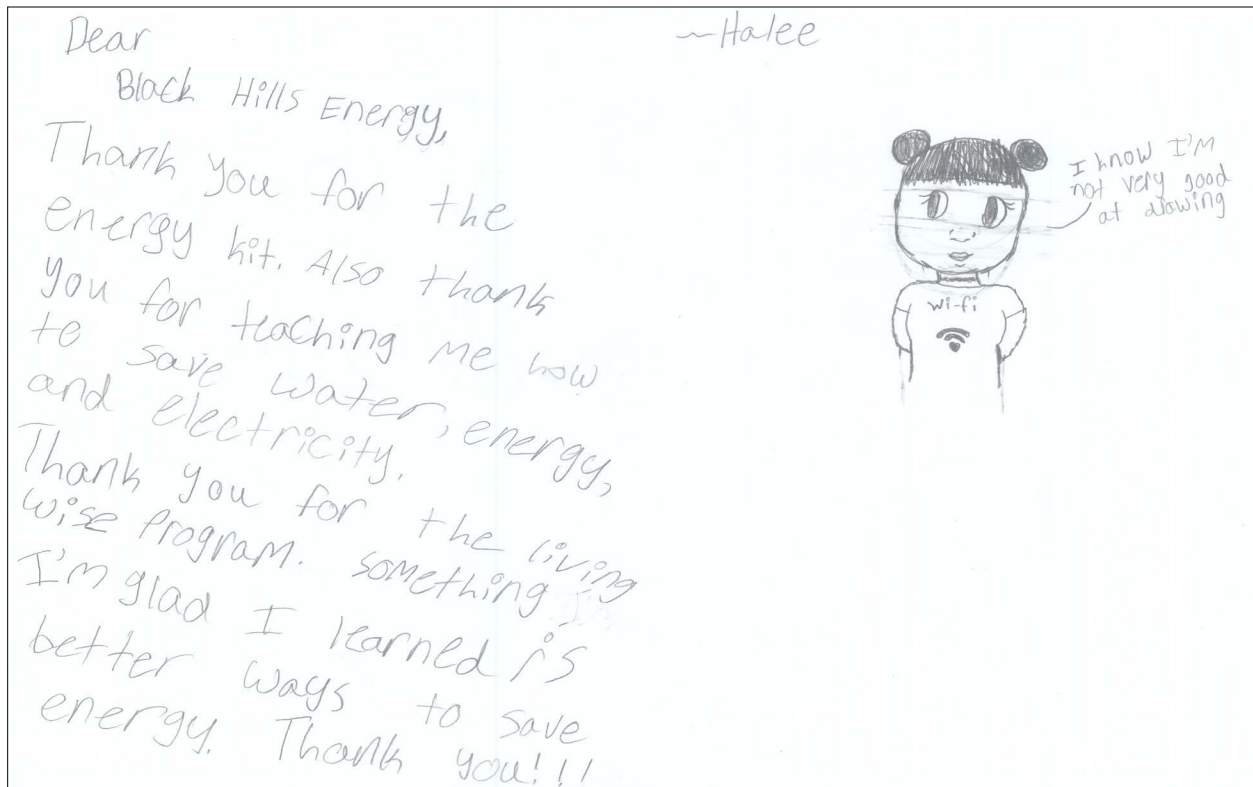
## G. Student Letters

(A summary of responses can be found in Appendix G)



## Student Letters

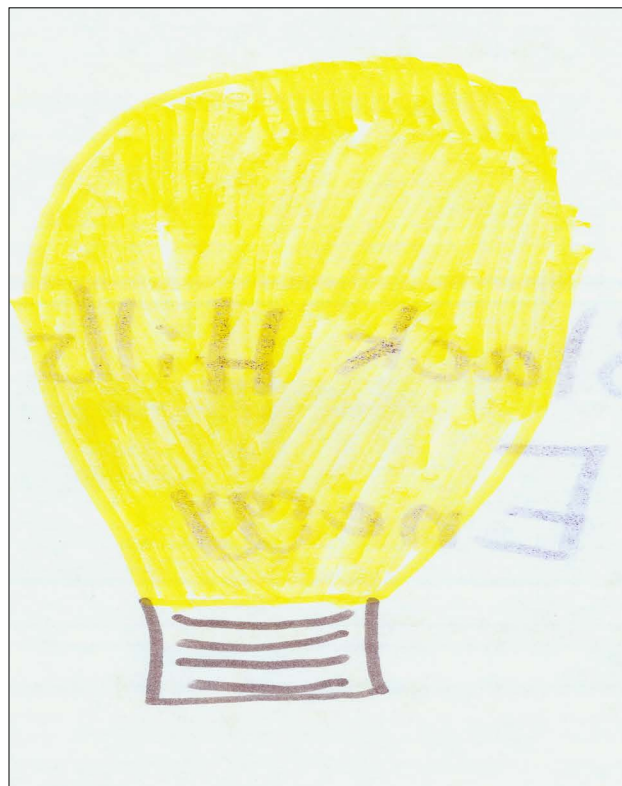
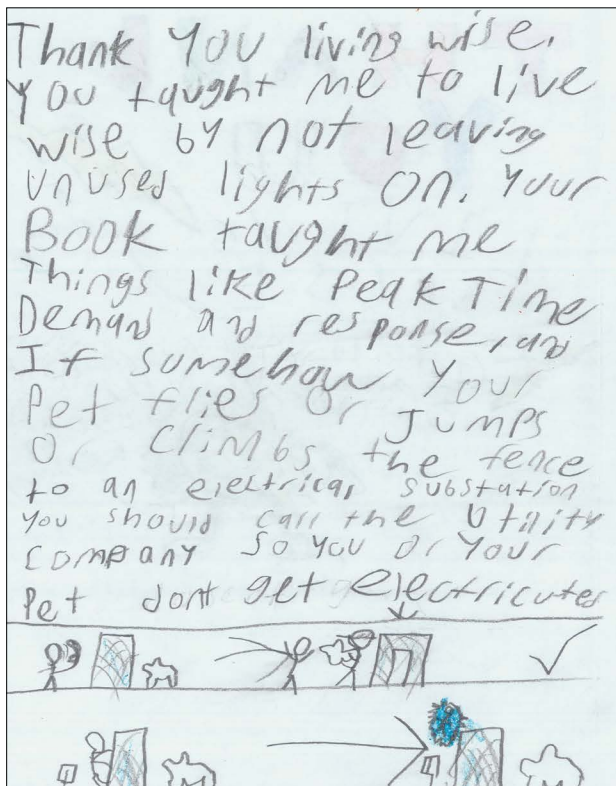
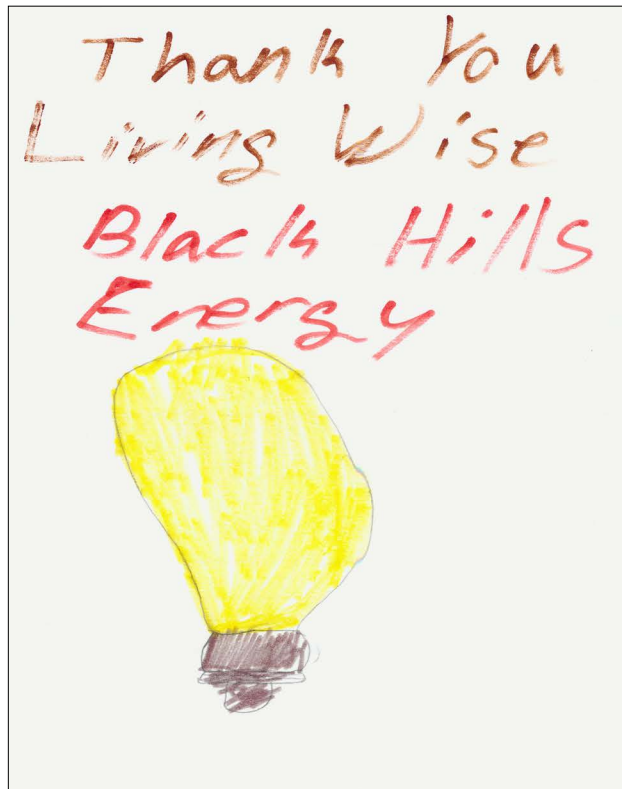
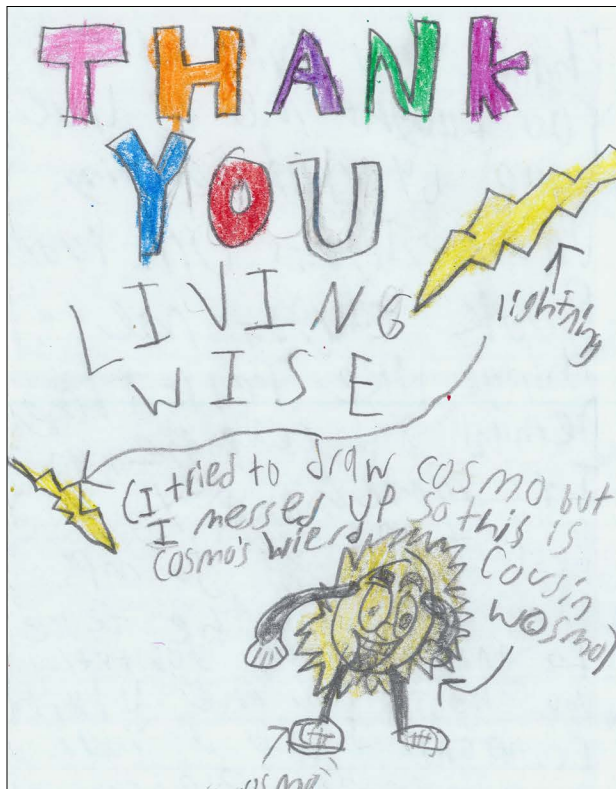
(A summary of responses can be found in Appendix G)






## Student Letters

(A summary of responses can be found in Appendix G)





*“As a teacher, what I liked about the program was that it got the students excited about energy and conservation.”*

**Kelsey Trimble, Teacher**

*Vandenberg Elementary School*

# Appendices

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## Projected Savings from Showerhead Retrofit

### Showerhead retrofit inputs and assumptions:

Average household size:	4.79	people <sup>1</sup>
Average number of full bathrooms per home:	2.15	full bathrooms per home <sup>1</sup>
% of water heated by gas:	51.43%	<sup>1</sup>
% of water heated by electricity:	48.57%	<sup>1</sup>
Installation / participation rate of:	55.60%	<sup>1</sup>
Average Showerhead has a flow rate of:	2.50	gallons per minute <sup>2</sup>
Retrofit Showerhead has flow rate of:	1.75	gallons per minute <sup>3</sup>
Number of participants:	1,212	<sup>1</sup>
Shower duration:	8.20	minutes per day <sup>2</sup>
Showers per day per person:	0.67	showers per day <sup>2</sup>
Product life:	10.00	years <sup>3</sup>

### Projected Water Savings:

Showerhead retrofit projects an <b>annual</b> reduction of:	2,263,392	gallons <sup>4</sup>
Showerhead retrofit projects a <b>lifetime</b> reduction of:	22,633,919	gallons <sup>5</sup>

### Projected Electricity Savings:

Showerhead retrofit projects an <b>annual</b> reduction of:	144,456	kWh <sup>2,6</sup>
Showerhead retrofit projects a <b>lifetime</b> reduction of:	1,444,561	kWh <sup>2,7</sup>

### Projected Natural Gas Savings:

Showerhead retrofit projects an <b>annual</b> reduction of:	7,648	therms <sup>2,8</sup>
Showerhead retrofit projects a <b>lifetime</b> reduction of:	76,477	therms <sup>2,9</sup>

<sup>1</sup> Data Reported by Program Participants.

<sup>2</sup> (March 4, 2010). EPA WaterSense® Specification for Showerheads Supporting Statement. Retrieved from [http://www.epa.gov/WaterSense/docs/showerheads\\_finalsupstat508.pdf](http://www.epa.gov/WaterSense/docs/showerheads_finalsupstat508.pdf)

<sup>3</sup> Provided by manufacturer.

<sup>4</sup> [(Average Household Size x Shower Duration x Showers per Day per Person) ÷ Average Number of Full Bathrooms per Home] x (Average Showerhead Flow Rate - Retrofit Showerhead Flow Rate) x Number of Participants x Installation Rate x 365 days

<sup>5</sup> [(Average Household Size x Shower Duration x Showers per Day per Person) ÷ Average Number of Full Bathrooms per Home] x (Average Showerhead Flow Rate - Retrofit Showerhead Flow Rate) x Number of Participants x Installation Rate x 365 days x Product Life

<sup>6</sup> Projected Annual Water Savings x Percent of Water that is Hot Water x 0.18 kWh/gal x % of Water Heated by Electricity

<sup>7</sup> Projected Annual Water Savings x Percent of Water that is Hot Water x 0.18 kWh/gal x % of Water Heated by Electricity x Product Life

<sup>8</sup> Projected Annual Water Savings x Percent of Water that is Hot Water x 0.009 Therms/gal x % of Water Heated by Natural Gas

<sup>9</sup> Projected Annual Water Savings x Percent of Water that is Hot Water x 0.009 Therms/gal x % of Water Heated by Natural Gas x Product Life

## Projected Savings from Kitchen Faucet Aerator Retrofit

### Kitchen Faucet Aerator retrofit inputs and assumptions:

Average household size:	4.79	people <sup>1</sup>
% of homes with a dishwasher:	83.44%	<sup>1</sup>
% of homes without a dishwasher:	16.56%	<sup>1</sup>
% of water heated by gas:	51.43%	<sup>1</sup>
% of water heated by electricity:	48.57%	<sup>1</sup>
Installation / participation rate of:	36.44%	<sup>1</sup>
Number of participants:	1,212	<sup>1</sup>
Average Kitchen Faucet Aerator has a flow rate of:	2.50	gallons per minute <sup>2</sup>
Retrofit Kitchen Faucet Aerator has flow rate of:	1.50	gallons per minute <sup>3</sup>
Product life:	5.00	years <sup>3</sup>
Length of use without dishwasher:	15.00	minutes per day <sup>4</sup>
Length of use without dishwasher (each family member):	1.00	minute per day <sup>4</sup>
Length of use with dishwasher:	3.00	minutes per day <sup>4</sup>
Length of use with dishwasher (each family member):	0.50	minutes per day <sup>4</sup>

### Projected Water Savings:

Kitchen Faucet Aerator retrofit projects an <b>annual</b> reduction of:	1,254,492	gallons <sup>5</sup>
Kitchen Faucet Aerator retrofit projects a <b>lifetime</b> reduction of:	6,272,459	gallons <sup>6</sup>

### Projected Electricity Savings:

Kitchen Faucet Aerator retrofit projects an <b>annual</b> reduction of:	57,834	kWh <sup>4,7</sup>
Kitchen Faucet Aerator retrofit projects a <b>lifetime</b> reduction of:	289,170	kWh <sup>4,8</sup>

### Projected Natural Gas Savings:

Kitchen Faucet Aerator retrofit projects an <b>annual</b> reduction of:	3,135	therms <sup>4,9</sup>
Kitchen Faucet Aerator retrofit projects a <b>lifetime</b> reduction of:	15,675	therms <sup>4,10</sup>

<sup>1</sup> Data Reported by Program Participants.

<sup>2</sup> Vickers, Amy (2002). Water Use and Conservation. Amherst, MA: WaterFlow Press.

<sup>3</sup> Provided by manufacturer.

<sup>4</sup> Quantec, LLC. (2008). Impact of Flipping the Switch: Evaluating the Effectiveness of Low Income Residential Energy Education Programs. Portland: Drakos, Jamie et al.

<sup>5</sup>  $\{ \text{Length of use without dishwasher} + [\text{Average household size} \times \text{Length of use without dishwasher (each family member)}] \} \times \% \text{ of homes without dishwasher} + \{ \text{Length of use with dishwasher} + [\text{Average household size} \times \text{Length of use with dishwasher (each family member)}] \} \times \% \text{ of homes with dishwasher} \times [\text{Average Kitchen Aerator flow rate} - \text{Retrofit Kitchen Aerator flow rate}] \times \text{Number of participants} \times \text{Installation rate} \times 365 \text{ days}$

<sup>6</sup>  $\{ \text{Length of use without dishwasher} + [\text{Average household size} \times \text{Length of use without dishwasher (each family member)}] \} \times \% \text{ of homes without dishwasher} + \{ \text{Length of use with dishwasher} + [\text{Average household size} \times \text{Length of use with dishwasher (each family member)}] \} \times \% \text{ of homes with dishwasher} \times [\text{Average Kitchen Aerator flow rate} - \text{Retrofit Kitchen Aerator flow rate}] \times \text{Number of participants} \times \text{Installation rate} \times 365 \text{ days} \times \text{Product Life}$

<sup>7</sup> Projected Annual Water Savings  $\times [(8.33 \text{ lbs. / gallon} \times 35^\circ\text{F}\Delta\text{T}) \div (3413 \times \text{water heater efficiency (0.90)})] \times \% \text{ of Water Heated by Electricity}$

<sup>8</sup> Projected Lifetime Water Savings  $\times [(8.33 \text{ lbs. / gallon} \times 35^\circ\text{F}\Delta\text{T}) \div (3413 \times \text{water heater efficiency (0.90)})] \times \% \text{ of Water Heated by Electricity}$

<sup>9</sup> Projected Annual Water Savings  $\times [(8.33 \text{ lbs. / gallon} \times 35^\circ\text{F}\Delta\text{T}) \div (100,000 \times \text{water heater efficiency (0.60)})] \times \% \text{ of Water Heated by Natural Gas}$

<sup>10</sup> Projected Lifetime Water Savings  $\times [(8.33 \text{ lbs. / gallon} \times 35^\circ\text{F}\Delta\text{T}) \div (100,000 \times \text{water heater efficiency (0.60)})] \times \% \text{ of Water Heated by Natural Gas}$

## Projected Savings from Toilet Leak Repair

### Toilet Leak repair inputs and assumptions:

Number of participants:	1212	<sup>1</sup>
% of toilets leaking:	15.00%	<sup>1</sup>
% of toilets where the leak was repaired:	24.62%	<sup>1</sup>
Number of homes with fixed toilet leaks:	44.751	<sup>1</sup>
USGS gallons lost per year per leak:	12,621.29	GPY per leak <sup>2</sup>
Product Life (years of water savings):	5.00	years <sup>3</sup>

### Projected Water Savings:

Toilet Leak Repair projects an <b>annual</b> reduction of:	564,812	gallons/year <sup>4</sup>
Toilet Leak Repair projects a <b>lifetime</b> reduction of:	2,824,062	gallons <sup>5</sup>

<sup>1</sup> Data Reported by Program Participants.

<sup>2</sup> <http://www.epa.gov/WaterSense/pubs/fixleak.html>

<sup>3</sup> Estimation of years before toilet begins leaking again. Frontier and Associates

<sup>4</sup> USGS gallons lost per year per leak x 1 leak per home x Number of homes with fixed toilet leaks

<sup>5</sup> USGS gallons lost per year per leak x 1 leak per home x Number of homes with fixed toilet leaks x Product Life

## Projected Savings from FilterTone® Alarm Installation

### FilterTone® installation inputs and assumptions:

Annual energy (electricity) use by a central system air conditioner:	1,637 kWh <sup>1</sup>
Annual energy (natural gas) use by central space heating or furnace:	173 therms <sup>1</sup>
Projected increase in efficiency (electricity):	1.75% <sup>2</sup>
Projected increase in efficiency (natural gas):	0.92% <sup>2</sup>
Product life:	10.00 years <sup>3</sup>
Installation / participation rate of:	32.45% <sup>4</sup>
Number of participants:	1,212 <sup>4</sup>

### Projected Electricity Savings:

The FilterTone installation projects an <b>annual</b> reduction of:	11,267 kWh <sup>5</sup>
The FilterTone installation projects a <b>lifetime</b> reduction of:	112,670 kWh <sup>6</sup>

### Projected Natural Gas Savings:

The FilterTone installation projects an <b>annual</b> reduction of:	626 therms <sup>7</sup>
The FilterTone installation projects a <b>lifetime</b> reduction of:	6,260 therms <sup>8</sup>

<sup>1</sup> U.S. Department of Energy, Energy Information Administration 2005 Residential Energy Consumption Web site for California: <http://www.eia.gov/consumption/residential/data/2005/>

<sup>2</sup> Reichmuth P.E., Howard. (1999). Engineering Review and Savings Estimates for the 'Filtertone' Filter Restriction Alarm.

<sup>3</sup> Provided by manufacturer.

<sup>4</sup> Data reported by program participants.

<sup>5</sup> Annual energy (electricity) use by a central air conditioner, heat pump or furnace x Projected increase in efficiency (electricity) x Installation rate x Number of participants

<sup>6</sup> Annual energy (electricity) use by a central air conditioner, heat pump or furnace x Projected increase in efficiency (electricity) x Installation rate x Number of participants x Product life

<sup>7</sup> Annual energy (natural gas) use by a central air conditioner, heat pump or furnace x Projected increase in efficiency (natural gas) x Installation rate x Number of participants

<sup>8</sup> Annual energy (natural gas) use by a central air conditioner, heat pump or furnace x Projected increase in efficiency (natural gas) x Installation rate x Number of participants x Product life

## Projected Savings from LED Light Bulb Retrofit

### LED Light Bulb retrofit inputs and assumptions:

Product life:	20.00	years <sup>1</sup>
Watts used by the LED light bulb:	9	watts <sup>1</sup>
Hours of operation per day:	2.81	hours per day <sup>2</sup>
Average watts used by the replaced light bulb:	56.09	watts <sup>3</sup>
Installation / participation rate of:	71.18%	<sup>3</sup>
Number of participants:	1,212	<sup>3</sup>

### Projected Electricity Savings:

The LED Light Bulb retrofit projects an <b>annual</b> reduction of:	41,662	kWh <sup>2,4</sup>
The LED Light Bulb retrofit projects a <b>lifetime</b> reduction of:	406,203	kWh <sup>2,5</sup>

<sup>1</sup> Provided by manufacturer.

<sup>2</sup> Frontier Associates. (2011). Oncor's LivingWise Program: Measurement & Verification Update.

<sup>3</sup> Data reported by program participants.

<sup>4</sup>  $\{[(\text{Average wattage of light bulb replaced} - \text{Wattage of LED light bulb}) \times \text{Hours of operation per day} \times 365 \text{ Days}] \div 1,000\} \times \text{Number of participants} \times \text{Installation rate}$

<sup>5</sup>  $\{[(\text{Average wattage of light bulb replaced} - \text{Wattage of LED light bulb}) \times \text{Product Life}] \div 1,000\} \times \text{Number of participants} \times \text{Installation rate}$

## Projected Savings from LED Night Light Retrofit

### LED Night Light retrofit inputs and assumptions:

Average length of use:	4,380	hours per year <sup>1</sup>
Average night light uses:	7	watts
Retrofit night light uses:	0.50	watts
Product life:	10.00	years <sup>2</sup>
Energy saved per year:	28	kWh per year
Energy saved over life expectancy:	285	kWh
Retrofit / participation rate of:	85.84%	<sup>3</sup>
Number of participants:	1,212	<sup>3</sup>

### Projected Electricity Savings:

The LED Night Light retrofit projects an <b>annual</b> reduction of:	29,620	kWh <sup>4</sup>
The LED Night Light retrofit projects a <b>lifetime</b> reduction of:	296,199	kWh <sup>5</sup>

<sup>1</sup> Assumption (12 hours per day)

<sup>2</sup> Product life provided by manufacturer

<sup>3</sup> Data reported by program participants

<sup>4</sup> (kWh per year x Number of participants) x Installation rate

<sup>5</sup> ((kWh per year x Number of participants) x Installation rate) x Product life

## Home Check-Up

---

### 1 How many kids live in your home (age 0-17)?

1	13%
2	33%
3	32%
4	14%
5	9%

### 2 How many adults live in your home (age 18+)?

1	14%
2	71%
3	10%
4	3%
5+	2%

### 3 How is your water heated?

Natural Gas	35%
Electricity	49%
Propane	17%

### 4 Does your home have a dishwasher?

Yes	83%
No	17%

### 5 How many half-bathrooms are in your home?

0	75%
1	20%
2	4%
3	2%
4+	0%

### 6 How many full bathrooms are in your home?

1	22%
2	48%
3	25%
4	3%
5+	2%

*Due to rounding of numbers, percentages may not add up to 100%*

## Home Check-Up

(continued)

**7** What fuel is used as the main source of energy to heat your home?

Natural Gas	28%
Electricity	52%
Heating Oil	1%
Wood	5%
Propane	13%
Other	2%

**8** What type of air conditioning unit do you have?

Central Air Conditioner	69%
Evaporative Cooler	5%
Room Unit	17%
Don't Have One	9%

**9** What type of home do you live in?

Single Family home	77%
Multi-Family (2-4 units)	15%
Multi-Family (5-20 units)	7%
Multi-Family (21+ units)	2%

**10** Was your home built before 1992?

Yes	48%
No	52%

**11** Is your home owned or rented?

Owned	74%
Rented	26%

Due to rounding of numbers, percentages may not add up to 100%



## Home Activities

---

<b>1</b>	Did you install the new High-Efficiency Showerhead?	
	Yes	56%
	No	44%
<b>2</b>	Did your family install the new Kitchen Faucet Aerator?	
	Yes	36%
	No	64%
<b>3</b>	Was your toilet leaking?	
	Yes	15%
	No	85%
<b>4</b>	If you answered "yes" to question 3, were the leaks repaired?	
	Yes	25%
	No	75%
<b>5</b>	Did your family install the LED Light Bulb?	
	Yes	71%
	No	29%
<b>6</b>	If you answered "yes" to question 5, what was the wattage of the incandescent bulb you replaced?	
	40-watt	9%
	60-watt	33%
	75-watt	14%
	100-watt	7%
	Other	36%
<b>7</b>	Did your family install the FilterTone Alarm?	
	Yes	32%
	No	68%
<b>8</b>	How much did your family turn down the thermostat in winter for heating?	
	1 - 2 Degrees	15%
	3 - 4 Degrees	12%
	5+ Degrees	8%
	Didn't Adjust Thermostat	65%
<b>9</b>	How much did your family turn up the thermostat in summer for cooling?	
	1 - 2 Degrees	13%
	3 - 4 Degrees	12%
	5+ Degrees	10%
	Didn't Adjust Thermostat	64%

*Due to rounding of numbers, percentages may not add up to 100%*

## Home Activities

(continued)

<b>10</b>	Did your family install the LED Night Light?	
	Yes	86%
	No	14%
<b>11</b>	Did your family lower your water heater settings?	
	Yes	16%
	No	84%
<b>12</b>	Did your family raise the temperature on your refrigerator?	
	Yes	14%
	No	86%
<b>13</b>	Did you work with your family on this program?	
	Yes	74%
	No	26%
<b>14</b>	Did your family change the way they use water?	
	Yes	52%
	No	48%
<b>15</b>	Did your family change the way they use energy?	
	Yes	60%
	No	40%
<b>16</b>	How would you rate the LivingWise Program?	
	Excellent	48%
	Good	37%
	Fair	12%
	Poor	3%

Due to rounding of numbers, percentages may not add up to 100%

## Participant List

SCHOOL	TEACHER	T	S
Black Hills Christian Academy	Linda Johnson	1	14
Canyon Lake Elementary School	Jason Bierle	1	31
Canyon Lake Elementary School	Kelsey Hammond	1	31
General Beadle Elementary	Martin Red Bear	1	30
General Beadle Elementary	Nicole Schartz	1	30
General Beadle Elementary	Sheridan Hansen	1	30
Grandview Elementary	Lauree Buus	1	22
Grandview Elementary	Elizabeth Timmerman	1	23
Grandview Elementary	Tammy Seefeldt	1	22
Grandview Elementary	Alex Whitney	1	24
Hill City Elementary School	Colleen Clapper	1	18
Hill City Elementary School	Matthew Henderson	1	17
Horace Mann Elementary School	Kallie Gebhard	1	25
Horace Mann Elementary School	Tamara Kerns	1	26
Hot Springs Elementary	Nancy Mulcahy	1	19
Hot Springs Elementary	Todd Phelps	1	18
Hot Springs Elementary	Koreen Hammel	1	17
Knollwood Heights Elementary School	Connie Ahrens	1	20
Knollwood Heights Elementary School	Christina Zephier	1	22
Knollwood Heights Elementary School	Matthew Long	1	22
Knollwood Heights Elementary School	Christine Waller	1	23
Lead-Deadwood Elementary School	Amy Vande Velde	1	67
Meadowbrook Elementary	Beth Chalberg	1	28
Meadowbrook Elementary	Patti Mitzel	1	28
Meadowbrook Elementary	Andrew Thimgan	1	28

Note: "T" represents number of teachers and "S" represents number of students

## Participant List

(continued)

SCHOOL	TEACHER	T	S
Meadowbrook Elementary	Crystal Audiss	1	28
Piedmont Valley Elementary School	Josh Wilson	1	25
Piedmont Valley Elementary School	Cooper Stanforth	1	25
Piedmont Valley Elementary School	Paige Guy	1	30
Piedmont Valley Elementary School	Mike Skidmore	1	25
Rapid City Adventist Elementary School	Kelli Vigil	1	4
South Canyon Elementary	Karen Thorson	1	27
South Canyon Elementary	Mike Staedtler	1	27
St Paul's Lutheran School	Philip Miller	1	11
St. Elizabeth Ann Seton Elementary School	Heather Eldridge	1	60
Vandenberg Elementary School	John Oleson	1	25
Vandenberg Elementary School	Brandi Marler	1	25
Vandenberg Elementary School	Ronald Mays	1	25
Vandenberg Elementary School	Shawna Delaney	1	25
Vandenberg Elementary School	Sherry Nelson	1	25
Vandenberg Elementary School	Lorie Meade	1	25
Vandenberg Elementary School	Cathleen Denekamp	1	25
Vandenberg Elementary School	Wendee Casto	1	25
Vandenberg Elementary School	Kelsey Trimble	1	25
Vandenberg Elementary School	Mark Kenefick	1	25
Whitewood Elementary School	Alex Meehan	1	19
TOTALS		46	1,166
TOTAL PARTICIPANTS		1,212	

Note: "T" represents number of teachers and "S" represents number of students

## Teacher Program Evaluation Data

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<b>1</b> The materials were clearly written and well organized.		
Strongly Agree		63%
Agree		37%
Disagree		0%
Strongly Disagree		0%
<b>2</b> The products in the Kit were easy for students to use.		
Strongly Agree		58%
Agree		42%
Disagree		0%
Strongly Disagree		0%
<b>3</b> Students indicated that their parents supported the program.		
Yes		100%
No		0%
<b>4</b> Would you conduct this Program again?		
Yes		100%
No		0%
<b>5</b> Would you recommend this program to other colleagues?		
Yes		100%
No		0%

*Due to rounding of numbers, percentages may not add up to 100%*

## Teacher Comment Data

(continued from page 22)

### What did students like best about the program? Explain.

*"They liked installing the items."*

**Heather Eldridge, St. Elizabeth Ann Seton Elementary School**

*"The hands-on activities and kit to work with at home."*

**Sherry Nelson, Vandenberg Elementary School**

*"Receiving their kits."*

**Beth Chalberg, Meadowbrook Elementary**

*"The experiments and take home package."*

**Wendee Casto, Vandenberg Elementary School**

*"Taking the kits home and using them."*

**Andrew Thimgan, Meadowbrook Elementary**

*"Installing the kits at their homes."*

**Kelsey Trimble, Vandenberg Elementary School**

### What did you like best about the program? Explain.

*"The lesson guide and questions."*

**Elizabeth Timmerman, Grandview Elementary**

*"Giving students the opportunity to explore during science time."*

**Alex Whitney, Grandview Elementary**

*"I like how everything is laid out so clearly."*

**Heather Eldridge, St. Elizabeth Ann Seton Elementary School**

*"Easy and educational learning."*

**Wendee Casto, Vandenberg Elementary School**

*"The student guide is filled with relevant material."*

**Andrew Thimgan, Meadowbrook Elementary**

*"Easy to use."*

**Tammy Seefeldt, Grandview Elementary**

*"All the materials."*

**Beth Chalberg, Meadowbrook Elementary**

## Parent/Guardian Program Evaluation Data

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**1** Was the Program easy for you and your child to use?

Yes	100%
No	0%

**2** Will you continue to use the Kit items after the completion of the Program?

Yes	100%
No	0%

**3** Would you like to see this Program continued in local schools?

Yes	100%
No	0%

*Due to rounding of numbers, percentages may not add up to 100%*

## Teacher Letters

(continued from page 25)

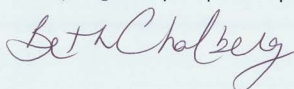
May 1, 2018

Dear Black Hill Energy,

I want to thank you on the behalf of myself and my class for sponsoring the Living Wise Program. We enjoyed the lessons, especially the group activities provided, and of course going through the kits and talking about ways to conserve in our homes was the class favorite.

The students were very excited to share their kits with their families. I noticed on the returned surveys, not as many products were installed and families involved, as I had hoped. But I did want the surveys returned as soon as possible (to qualify for the \$50 grant) so I am hoping that more family involvement will be done at a later date.

Thank you again for your sponsorship of this program.



Beth Chalberg

Meadowbrook Elementary

March 2, 2018

Dear Black Hills Energy,

I would like to thank you for choosing our class to participate in the Living Wise program. The program is very teacher friendly, easy to use in the classroom. The information and experiments you provide are very helpful. Most of my students did not know what a utility bill was until they had to work on one in class.

The kits are awesome. They provide some beneficial products to help the whole family save money, and teach the parents how to conserve as well.

Thank you,

Colleen Clapper

Fifth Grade Teacher

Hill City Elementary School

May 2, 2018

Dear Living Wise Program Coordinator,

I am writing to thank you for the opportunity to implement Living Wise into my 5th grade classroom. My students enjoy the book activities and posters. Mostly, they love the box of goodies that they take home! I love how it encourages families to work together. It also empowers the students to realize that there are things they can do to contribute to their household energy efficiency!

I appreciate all the work you go through to sponsor this program and to distribute the materials! I seemed to have misplaced my teacher survey. I apologize, but I have nothing but good things to say about the program you offer! PS I love the upgraded night light!

Thanks again!

Sincerely,



Cathleen Denekamp  
5th grade  
Vandenberg Elementary

Shireen Nelson  
Vandenberg Elementary  
516 Briggs  
Box Elder, SD 57719

April 29, 2018

Living Wise Program  
750 4th Street  
Sparks, NV 89431-9998

To Whom It May Concern:

Thank you so much for giving my students the opportunity to participate in your program. I felt the materials were well organized and the students were excited to use their kits. Some were not able to install some of the items but were still able to participate in the classroom activities.

I loved that you included the science standards to support our curriculum. I was able to supplement with your program and feel that it took my kids to a higher level of learning. The students were engaged and were excited to learn more about conservation. Some are even convincing their parents to change things around the house.

Again thank you for this opportunity. It was well received by the staff and students.

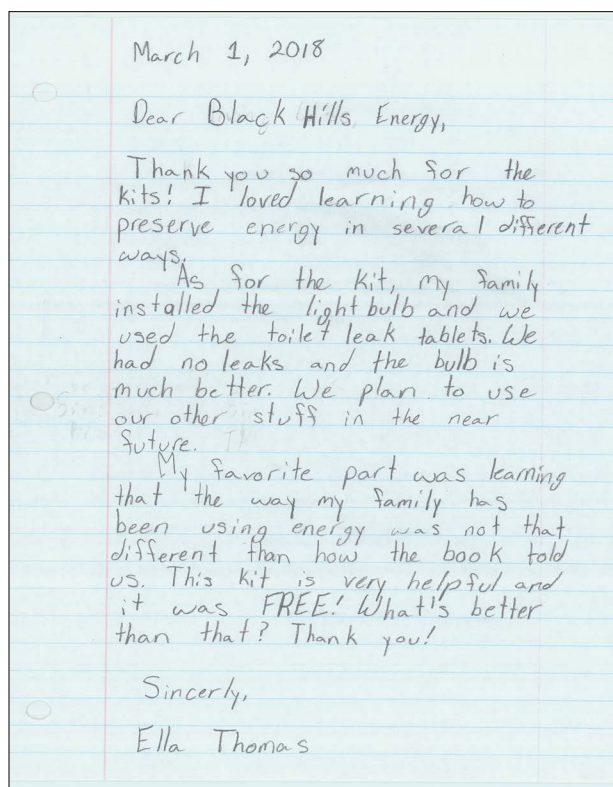
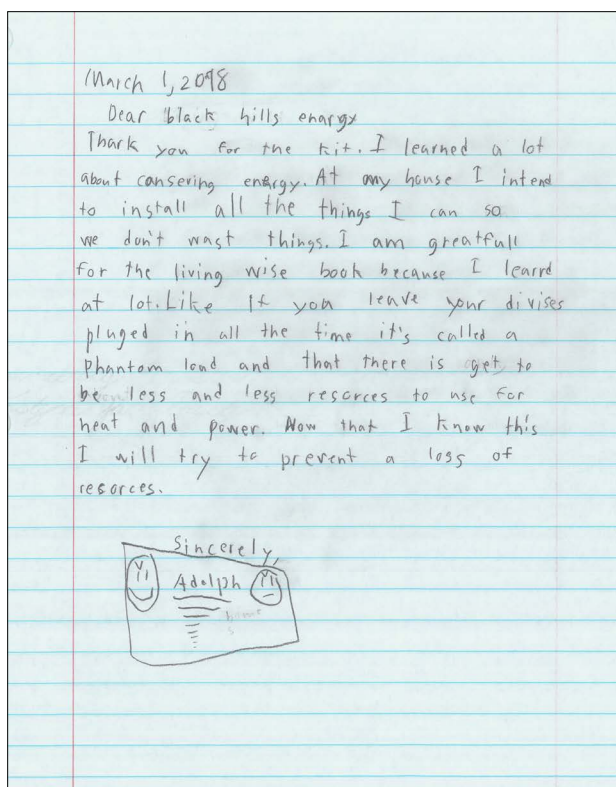
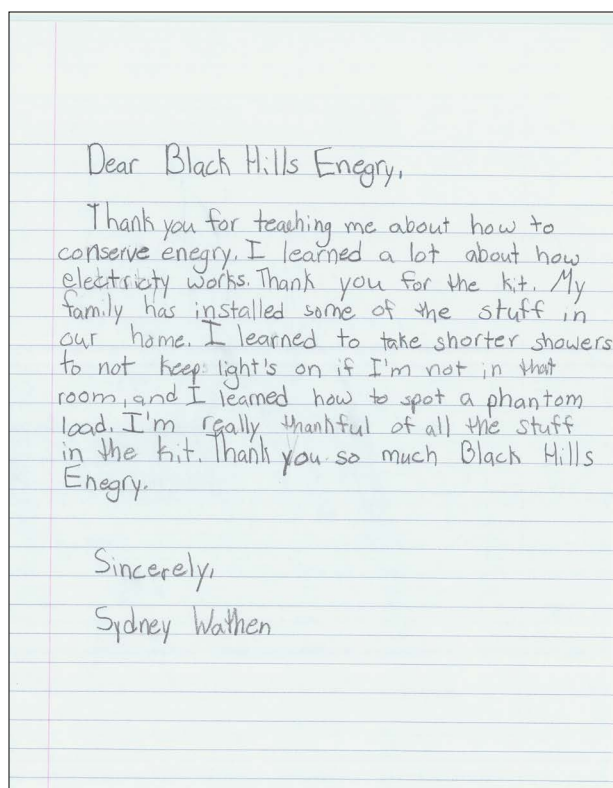
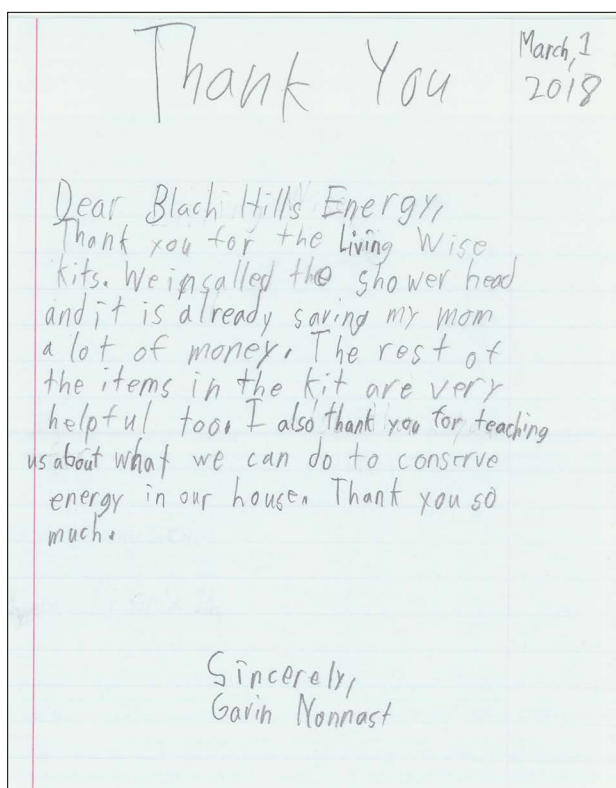
Sincerely,

Shireen Nelson  
Vandenberg Elementary, 5th Grade teacher



## Student Letters

(continued from page 27)



## Student Letters

(continued)

Dear Living Wise, May 2, 2019

I want to thank you for the Kit. I enjoyed learning about almost everything in the student guide! Even though I knew about some of the information, I used the nightlight for my room and tried to use the showerhead. The first time we tried, the water sprayed everywhere! Well I had fun using the kit!

Sincerely,  
Chloe

Dear LivingWise May 2, 2019

I want to thank you for the kit. I enjoyed doing the quests in the booklets and finding out new words I did not know about science. I used the LED night light and it was pretty awesome how it is a sensor light. I had also used the thermometer in my fridge and I did not even know what my temperature was so thank you. Also I am gonna try the other things but the main one I want to try is the shower head. Another thing I would like to say is thank you for putting the time and effort into this box you have gave us.

Sincerely - Sara.H

Dear Living Wise, May 2, 2019

I want to thank you for the Kit. I enjoyed the nightlight. The night light works perfectly and was easy to use. I used the showerhead and it really is enjoyable. I really appreciate that you took the time and energy to make the Kits. I enjoyed everything because it was all helpful. Thank you for the Kits. The Kits were really helpful.

Sincerely,  
Jayden Heitne

Dear Living Wise, May 2, 2019

Thank you for the kits I loved installing the nightlight because it is for my dogs, they are scared of the dark so I gave them the nightlight, it really saved money for my family because I usually have to leave the lights on for them. Thank you so much. I have not installed anything else yet but I will soon. the shower head will be so cool to try out, my friend says that it has really good water pressure I am am really looking forward to trying that! Thank you for all the time you spent making these boxes.

- Sincerely  
Noel



## Student Letters

(continued)

Dear Living Wise, May 2, 2018

I want to thank you so much for the kit you have provided for us. I enjoyed learning that you guys have helped us and our families save energy and money, it helped a lot. I put in the thermometer and the night light. I put the night light in my hallway and I put the thermometer in my fridge. It all works great! Thank you.

-Sincerely, Ruthie Soto  
Ruthie Soto

Dear Living Wise May 2, 2018

I want to thank you for the kit. I enjoyed the night light and the thermometer. I also enjoyed how you are trying to save energy. I want to help save energy. I'm going to try to get my mom or dad to install the showerhead. I like what you're doing, keep up the good work!

Sincerely,  
Ricky

May 12 - 2018

Dear Living Wise, May 2  
I want to thank you for the kit I used a lot of the things in them I used the shower head for my shower and the night light for my baby sister, the light because the other one we used went away and finally the thermometer just for the refrigerator and I just want to thank you for the kit.

Sincerely Tyler

Dear living wise May 2, 2018

I would like to thank you for spending your time to put all of this together to help us learn. I tried out the LED night light and am hoping to put in the LED light bulb. I did an activity in the book with two people in our class and it was pretty cool. I also tried the thermometer thing. I didn't put it in my fridge or freezer, I checked room temperatures. The kit was cool, so thank you.

Sincerely,  
Taylor

## Student Letters

(continued)

April 30, 2018  
Vandenberg Elem  
71 bunch

Dear Black Hills Energy,

Thank you for the chance to learn how to reduce, reuse, and recycle energy. This will be very useful to me now that I have learned how to save energy.

Also thank you for sending us the Living Wise Kit. There is a lot of cool stuff in there. I really like the night light and the thermometer. Thanks again.

Sincerely  
Reva

April 30th, 2018  
Vandenberg Elem  
71 Bunch-Meade

Dear Black Hills energy,

Thank you for setting your program. What I liked about it is the free stuff. I hate orange lights so now I have a white light. Yay, but my family will not put anything in our bathroom and other stuff because we live on base. And base housing is strict we can not have our RV on base at all! but I wish we could put the stuff in. And I love the kit because free stuff. Thank you once again.

Sincerely,  
Lynzee Hernandez

April 30, 2018  
Vandenberg  
71 bunch  
Carmen

Dear Black Hills Energy

Thank you, you are helping our energy savings. And trying to help the future and I really love all of it. Our family does save a lot of water and this is more than helpful to giving us chances to help the world.

Love  
Carmen

Dear Black hills Energy

Thank you for our Energy

Thank you for our stuff

Thank you for the Power in our houses.

71 bunch sincerely  
Caden  
April 30, 2018




## Student Letters

(continued)

4-30-18  
VES  
171-Meade

Dear BHE,  
Thank you so much for the lessons about saving energy. I really learned a lot. I also installed most of the stuff.



Love,  
Morgan

p.s. I really liked the night light.

April 30, 18  
Vandenberg  
Elem.  
71-Bunch  
Meade

Dear, Black Hills Energy,

Thank you for all of us to save money on water and electricity. All the stuff you gave us was very helpful to save us water and electricity. The books were very good. I liked the unscramble the words but at the end I learned a lot of stuff. Thank you for everything. This was just like

Sincerely,  
Lucas

April 30, 2018  
Vandenberg Elm.  
71-Bunch Meade

Dear Black Hill Energy

I like the stuff in the box. My favorite thing in the box is the thermometer. It helps to find out how cold or how warm it is. The tape measurer is helpful because I can use it to measure stuff.

The Shower head is good to save water. The night light helps to light my room. The light bulb works good. I also like the box because you can do good stuff to save energy, water, money, and more.

Sincerely,  
Rose

April 30, 2018  
Vandenberg  
Elem. 71  
Bunch=meade

Dear Black Hills Energy

Thank you for teaching us how to use our Energy wisely and teaching us about our resources and our good stuff. I will love your good thing that you provide for us. Thank you so much. I will use it all the stuff. I learned so much from the book that you provide for us.

From Dawson





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PROGRAMS

A FRANKLIN ENERGY COMPANY

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