

New Hampshire EnergySmart Schools Program Regional Greenhouse Gas Initiative



Prepared for
NH Public Utilities Commission



NH ENERGYSMART SCHOOLS PROGRAM

FINAL REPORT

Introduction

This report summarizes the work completed for the New Hampshire EnergySmart Schools Program which was funded by the New Hampshire Public Utilities Commission under the Greenhouse Gas Emissions Reduction Fund.

The EnergySmart Schools Program has supported New Hampshire K-12 public and private schools seeking to control energy costs. This program, which is offered to participating schools at no cost, uses a unique benchmarking system designed to help schools understand and reduce energy consumption, improve operations and save money.

In total, 209 school buildings in New Hampshire have been benchmarked through a process that includes data collection and analysis, custom reporting with recommendations for making energy and cost saving improvements, and a score to determine if they are eligible for the EPA's ENERGY STAR Label for Buildings – the national symbol for protection of the environment through energy efficiency. Of the schools benchmarked, 31 participating schools in New Hampshire have earned the ENERGY STAR label.

Program Background

TRC's New Hampshire Schools Benchmarking Project falls under the following types of programs pursuant to Puc 2604.01(c):

8. Programs to improve the electric and thermal energy efficiency of new and existing residences and commercial buildings
10. Education, outreach and information programs that promote energy efficiency, conservation, and demand response

Program Summary

Program website and database:

Throughout the duration of the NH EnergySmart Schools Program, TRC has utilized their own specialized database system to store, monitor, and report building energy use data for schools across the State of New Hampshire. This system was developed by TRC to track important energy metrics that specifically affect K-12 schools' energy performance throughout the year. While storing basic information such as general building characteristics, meter information, energy types used, and weather data for that area, our system automatically integrates with EPA Energy Star's Portfolio Manager Software to receive a score from 1-100 based on their building performance over a 12 month time frame. Additionally, our database connects to a public facing marketing website (www.nhschoolbenchmarking.com) and receives any data submitted through that website, allowing TRC to review the data quickly. (Public website is discussed in detail below). This database system allows TRC to very efficiently track and maintain each school's energy and building performance from year to year while providing very important statistics and various reporting to further educate our client where they can continue to save more energy.

Image 1: Reporting page for K12 Database with filtering

K12 Schools Benchmarking
Powered by TRC

Data Entry | Standard Reports | District Transmittal Report | Weather | ABS

Reporting

Prefab Data Sets | Custom Data Sets | Meter Queries | Aggregated Energy Costs | Averages and Medians | Ad-Hoc Reporting

Select a State:

Select a Dataset: Bills Ending Complete Snapshot Master Snapshot

Between dates:

By weather zone: Order By:

By school type: Then By:

EPA rating between: Then By:

Found 428 rows in 50 districts.

SchoolName	DistrictName	ZoneName	BBPVType	BillsEndDate	EPAScore	EPAEnergy	Electric Usage	MaxDemand	Fuel Oil Usage	Natural Gas Usage
Bishop Brady High School	Bishop Brady High School	CONCORD	PB	5/31/2011 12:00:00 AM	82	70.2	416080	146.4		39402
Bishop Brady High School	Bishop Brady High School	CONCORD	PB	7/31/2011 12:00:00 AM	81	70.7	417200	146.4		39759
Colonel Shepard Montessori School	Colonel Shepard Montessori School	CONCORD	PV	7/31/2011 12:00:00 AM		69.7	8160	0	1395.89999389648	

Image 2: Benchmarking Database: Building Characteristic Data page

K12 Schools Benchmarking
Powered by TRC

Data Entry | Standard Reports | District Transmittal Report | Weather | ABS

Add or Update Building Characteristics

Districts | Schools | Buildings | Meters | Meter Data | Energy Units | Utilities | Supra-Districts

	SchoolID	Effective Date	SqFt	Num Students	Weekly Op	Months Used	Num PCs	Cooking	AC	PoolSize	Pool Indoor/Out	Months Pool In Use	EPA Energy	EPA Score	Date Benchmarked	Elect Distributor	Elect Supplier	Gas Distributor	Gas Supplier	Walkin Freeze	Weekend Use	Tea
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	1616	10/1/2007 12:00:00 AM	29432	198	60	12	94	<input checked="" type="checkbox"/>	0		N	0			12/3/2009 3:19:47 PM	82	82	83	84	2	<input checked="" type="checkbox"/>	
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	1616	10/1/2008 12:00:00 AM	29432	198	60	12	94	<input checked="" type="checkbox"/>	0		N	0	94.3	59	2/2/2010 11:11:18 AM	82	82	83	84	2	<input checked="" type="checkbox"/>	

Image 3: Benchmarking Database: Meter Data Entry Page

K12 Schools Benchmarking
 Powered by TRC

Data Entry | Standard Reports | District Transmittal Report | Weather | ABS

Add or Update Specific Meter Data

Districts: **Districts** | Schools | Buildings | Meters | Meter Data | Energy Units | Utilities | Supra-Districts

NH
 SAU 19 - Goffstown
 Dunbarton Elementary School

Import from file (get [template file](#))
 Browse...

or View/Edit readings: 10/1/2008 12:00:00 AM Editable

Submit

	MeterID	SchoolID	StartDate	TimePeriod	Usage	Cost	kWDemand	MeterNameID
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109088	1616	10/1/2008 12:00:00 AM	Month	29400	4024.1700	80	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109089	1616	11/1/2008 12:00:00 AM	Month	30800	4198.7100	82	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109090	1616	12/1/2008 12:00:00 AM	Month	33200	4551.2100	86	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109091	1616	1/1/2009 12:00:00 AM	Month	27421	4010.8900	82	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109092	1616	2/1/2009 12:00:00 AM	Month	29379	4241.8400	82	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109093	1616	3/1/2009 12:00:00 AM	Month	29200	4183.2600	78	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109094	1616	4/1/2009 12:00:00 AM	Month	23600	3466.7500	72	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109095	1616	5/1/2009 12:00:00 AM	Month	21600	3249.6300	74	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109096	1616	6/1/2009 12:00:00 AM	Month	22600	3386.2700	76	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109097	1616	7/1/2009 12:00:00 AM	Month	15800	2275.5200	44	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109098	1616	8/1/2009 12:00:00 AM	Month	18000	2747.4300	68	3658
<input type="button" value="Edit"/> <input type="button" value="Delete"/>	109099	1616	9/1/2009 12:00:00 AM	Month	22800	3368.1800	76	3658

TRC has also developed a public-facing website (www.nhschoolbenchmarking.com) that informs the citizenry about the NH Energy Smart Schools Program and its impact on local schools within the State. This user-friendly website markets the Program to schools within the State and provides easy to understand information about the program and how to get started saving energy with benchmarking. It even includes a page to submit your building information, which is sent directly to our internal benchmarking database and reviewed, allowing for a very quick turnaround from data submission to a delivered benchmarking report.

Image 4: Public Marketing Website: Welcome page

New Hampshire EnergySmart Schools Program

Home How it Works Start Saving Today Contact Us

Did You Know?
The average New Hampshire school spends an annual \$259 per student on energy.

Helping New Hampshire schools save energy and money

The New Hampshire EnergySmart Schools program is supporting K-12 public and private schools across the state pursue energy efficiency initiatives to control energy use and save money. [\[See list of participating school districts\]](#) The program utilizes an energy benchmarking system designed to help you:

- Understand the energy consumption and cost trends at each of your school buildings;
- Learn how your buildings are performing compared to other schools locally and nationally;
- Identify opportunities for improving operations and reducing costs; and
- Take advantage of resources to implement efficiency improvements and save money.

As a new school year gets underway amidst continued times of economic uncertainty, I encourage all schools across the State to participate in the New Hampshire EnergySmart Schools program and learn how they can save energy and money.
—Ed Murdough, New Hampshire Department of Education

How do you compare?

Benchmarking is your first step to understanding and reducing energy consumption. Schools that have participated in energy benchmarking programs have demonstrated an approximate 20 percent decrease in overall energy use.

To date, 200 New Hampshire schools have been benchmarked through the EnergySmart Schools program.

New Hampshire Department of Education

Start Saving Today

Image 5: Public Marketing Website: Data Entry Form

New Hampshire EnergySmart Schools Program

Home How it Works Start Saving Today Contact Us

NH School Data Entry Form

General Info

School District:

Name of Building:

Address:

City:

Zip Code: -

Contact First Name:

Contact Last Name:

Title:

Address:

City:

Zip Code: -

Phone:

E-mail:

Fax:

Mobile:

Building Info

Year Built:

No. of Students:

Size of Building (sq. ft.):

No. of Floors:

No. hours of occupancy per Week:

No. months operated per year:

Is the building operated on the weekends? Yes No

School Type: High School Middle/Junior High Elementary Other

How is building heated?

Number of PC's:

How is building cooled?

Percent of Building Cooled:

No. of walk-in cooler/freezer units:

Does the building have cooking facilities? Yes No

Does the Building have a Pool? Yes No

Utility Info

Electric Utility:

Electric Utility Account #:

Natural Gas Utility:

Natural Gas Utility Account #:

Image 6: Public Marketing Website: Program Impact

New Hampshire
EnergySmart
Schools Program
Home How it Works Start Saving Today Contact Us

Program Impact

To date, 200 New Hampshire schools have been benchmarked through the EnergySmart Schools program.

This represents:

- 58 school districts
- 79,500 students
- 12,730,000 square feet
- 73,311,000 kWh of annual electric consumption
- 531,500 MMBTU of annual heating consumption
- \$18,502,000 of total annual utility costs

TRC's work has greatly increased our ability to understand and manage our energy needs and costs. Prior to receiving the benchmarking report and our focus on it, I would say that we saw our energy bills as a given expense and now we feel empowered to make a difference in that area of our budget.

—Brian T. Bell, Portsmouth Christian Academy

I have found the benchmarking to be an important tool in assessing the work we have already done in our school district as well as being very useful in planning what our next steps should be. The reports, suggestions, and other website links have all been very helpful. I will continue to input data to Portfolio Manager and plan to continue utilizing the resulting data.

—Rick Vashaw, White Mountains Regional School District (SAU 36)

NH EnergySmart Schools Program Participant List

SAU#	SAU Name
1	Contoocook Valley School District
3	Berlin School District
5	Oyster River Cooperative School District
7	Colebrook School District
8	Concord School District
11	Dover School District
12	Londonderry School District

Marketing and Outreach:

For the marketing and outreach of the NH EnergySmart Schools Program, TRC worked with various New Hampshire entities throughout the duration of the Program.

In the first quarter of Year 1, TRC met with NH Department of Education (NH DOE), NH Regional Greenhouse Gas Initiative (RGGI) grantees and the Jordan Institute to discuss program outreach. NH DOE and the Jordan Institute emailed a program announcement to all public school administrators and their client schools respectively. TRC responded to inquiries via the Program’s toll-free number.

In the first two quarters, TRC presented the Program at various State forums including:

- Best Practices Conference on School Operations, Finance and Business Leadership sponsored by the NH School Administrators Association and the NH Association of School Business Officials on September 24 – 25, 2009.
- Nonpublic School Advisory Council on November 13, 2009.
- NH Local Government Center’s annual conference “Rising to the Challenge” on November 18 – 20, 2009
- NH Office of Energy and Planning’s energy efficiency program workshops held in four locations throughout the State in January 2010

By the end of the second quarter, 35 schools representing 10 districts were enrolled in the Program as a result of following up with the contacts made at the above conferences.

In the third quarter of Year 1, TRC continued the Program marketing by publishing the Program information in various monthly and weekly newsletters that were distributed to schools, NH towns, and local energy committees. The newsletters included:

- NH Department of Education's monthly newsletter (April 2010)
<http://www.education.nh.gov/key/2010/documents/apr2010.pdf>
- Local Energy Committee News, a weekly newsletter (April 2010)
- NH Community Energy Project website

In the fourth quarter of Year 1, TRC presented the Program at the 2nd Annual Local Energy Solutions Conference held in Concord. TRC also contacted the schools that applied to the New Hampshire Energy Efficiency and Block Grants Program, administered by TRC to increase Program participation.

TRC developed a website dedicated to the Program where the Program details, the benchmarking statistics and impact, testimonials and an online data collection form could be found <http://www.nhschoolbenchmarking.com>. The Program was further marketed through the NH Local Government Center (LGC) website and the June issue of Town and City (<http://www.greenenergytimes.org/2010/06/06/nh-energysmart-schools-%E2%80%93-benchmarkingenergy-efficiency-assistance-for-schools>).

TRC started offering energy assessment tools as program incentives to participants that included an infrared thermometer and/or kill-a-watt meter. These tools were offered to both existing and potential participants as such tools were found useful for engaging school staff in energy efficiency practices.

By the end of the Program's 1st Year, 62 schools representing 20 districts were enrolled in the Program. In order to benchmark the schools effectively and to generate most benchmarking statistics a minimum of 50 participant schools was required. This requirement was now met and TRC was able to start benchmarking and submitting energy benchmarking reports to the participating districts.

While in Year 1, TRC was marketing the Program by introducing it and its potential benefits, in Year 2 the Program results were used to promote Program participation.

In Year 2, TRC continued contacting NH school districts via email and telephone to promote the Program and increase participation. This plan was put into effect by emailing 320 school officials, administrators and facility staff that worked at various NH schools. This email was followed by phone calls to every district to directly market the Program. These calls generated a lot of interest and TRC also presented the Program at some of the larger school districts in the State such as SAU 1 (Contoocook Valley), SAU 37 (Manchester School District) and SAU 38 (Monadnock Regional School District) upon request. To encourage SAU 49 (Governor Wentworth Regional SAU) join the Program, TRC sent an intern to the SAU to explain the Program and help gather data required for benchmarking. These four districts enrolled in the Program which increased participation by 48 schools.

On October 28 & 29, 2010 TRC exhibited and presented the Program at the NH School Administrators Association Best Practices Conference. Two panel presentations entitled EnergySmart Schools: The First Step to Saving Energy was conducted with Ed Murdough, NH Department of Education, Rick Vashaw, White Mountain School District and Ken Linchey, Portsmouth School District.

Another marketing email was sent to 428 public and private school officials on December 6th, 2010. This email was followed up by phone calls to 37 public schools and 120 private schools. As part of the marketing

campaign, TRC developed case studies for participating schools including Portsmouth High School and White Mountains SAU (36). These case studies highlighted the schools energy efficiency initiatives and how the school's benefited from the Program.

In the third quarter of Year 2, the Program was exhibited and presented at Local Energy Solutions Conference held at Merrimack Valley High School on April 2, 2011. Case studies for White Mountains SAU (36) and Portsmouth High School were distributed and discussed. TRC continued marketing through phone calls and emails. By the end of the third quarter of Year 2, 146 schools representing 33 districts were enrolled in the Program.

Right from the start of the Program, TRC worked with Cool Air – Cool Planet (CA-CP) for marketing and promotion by posting information on various State forums and presenting at conferences organized by CA-CP. In May 2011, TRC entered into a marketing contract with CA – CP and under this contract, the Program was marketed via:

- Direct mail (350) sent to three contacts (Superintendent, Business Manager and Facility Manager) at all SAUs not in the program prior to May/June 2011. The mail contained a Program data form and a self-addressed envelope.
- Article in Local Energy Committee newsletter for June 2011.
- Press Releases sent to 99 Clean Air-Cool Planet media contacts that represent NH radio and print outlets.
- NH public access channels – Program information was sent to 38 stations that represent 45 channels.
- Office of Energy Planning – Program information on the OEP website, to ARRA funded programs contacts, NH Planning news and Planlink contacts.
- E-mail blasts with the Program information sent to Cool Air – Cool Planet contact list (6/14), Municipal Energy Assistance Program contacts (6/29), Local Energy Committee contacts (7/25), private and public schools not in the Program (7/25).
- Article in EPA's monthly publication – Community Energy Challenge Monthly Update (July 2011) <http://www.epa.gov/region1/eco/energy/cec-monthly-update-jul2011.html#ANNOUNCEMENTS3>.
- Approximately 130 direct phone calls and/or emails to various public school districts, private schools and regional contacts.

Throughout the duration of the Program, every SAU in the State has been contacted at least once by either TRC or CA-CP (both in some cases). By the end of the Program, owing to all the marketing efforts described above 237 NH schools participated in the Program. Of the 237 schools, 28 schools could not be benchmarked due to missing data despite TRC's multiple attempts to get the information. The remaining 209 schools were benchmarked and received the energy benchmarking reports. See Appendix for Program Marketing material and presentation.

Benchmarking Schools:

Data Collection -

The first step in the energy benchmarking process is gathering the building characteristics, attributes and energy usage data for every school that participates in the Program. A Building Data Form was developed in the first quarter to collect data such as the school's address, contact information, building area, monthly occupancy, operation hours, number of students, walk-in freezers/refrigerators and personal computers, cooking facilities, heating and cooling conditions etc. Apart from this, TRC also requested energy consumption data recorded by all the electricity and heating utility meters at the school. In some cases, this information was provided by the school but largely TRC contacted the State utility companies to obtain every school's energy consumption data. For this, an authorized person at the school had to sign off on a Fuel Release Authorization Form granting TRC permission to obtain the energy data from NH utilities under this

Program. After collecting this information, TRC reviewed the data forms and energy usage and contacted the schools or utilities for clarifications. See Appendix for Data Collection forms.

Analyzing Data -

Upon data verification and rectification (if any), this information was uploaded into EPA Portfolio Manager and TRC's K12 Schools Benchmarking database that stored and analyzed every school's building characteristics and energy usage. Apart from generating statistics such as EPA Portfolio Manager score, overall energy usage per sq.ft., cost per sq.ft., electricity and heating load per sq.ft. for each individual school, the results of the benchmarking process included a comparative analysis of the energy performance of all NH schools benchmarked through the Program at that time. This comparative analysis allowed a school to compare its energy performance to the other State schools in the Program.

In order to calculate this comparative statewide statistics, TRC's benchmarking system required data to be uploaded for a minimum of 50 school buildings. With every quarter the number of participants and benchmarks increased. Approximately 100 schools were benchmarked by January 2011, 150 by April 2011 and over 200 by September 2011.

Benchmarking report and delivery -

Upon completion of energy benchmarking and analysis, energy benchmarking reports were generated and delivered via email and mail to all schools and/or districts. Apart from the statistics included in the above section, the benchmarking reports contained a graphical representation of the building's energy performance such as the electricity usage vs. cost, heating fuel usage vs. cost, its carbon footprint for one or multiple years etc. A detailed explanation of each of the indicators used to rank the building was also included.

During the first three quarters, the benchmarking report draft was edited to include most common and least expensive energy efficiency recommendations that can benefit most schools and a list of incentive programs offered throughout the State and by NH utility providers to help ease the school's cost burden of any upcoming capital improvement projects. TRC customized this information for every school that received a benchmarking report to provide them with information most relevant to their schools.

If the participating school district included two or more schools, TRC also performed a district level analysis comparing the cost, electricity and heating fuel use per sq.ft. of each school within the district. This analysis was included in the district transmittal letter sent along with the benchmarking report and helped school districts identify their strengths and weaknesses in terms of energy consumption and cost.

Tools and support -

At the time of the delivery of the benchmarking report, TRC offered energy assessment tools such as an infrared thermometer and/or kill-a-watt meter to the schools/districts under the Program. TRC always checked with the school districts to see if they wanted the tools and sent either one or both tools along with the report(s) as requested. TRC also offered EPA Portfolio Manager access and training to individual schools and districts that participated in the Program.

Benchmarking Statistics and Results -

Under the NH EnergySmart Schools Program, 209 New Hampshire schools were completed and energy benchmarking reports delivered. Of these 209, 11 schools that were benchmarked in 2010 were re-benchmarked in 2011. The TRC database summarizes the statistics for the latest reporting period available for each school. The results of the latest 198 benchmarks are included below:

- 48 school districts
- 78,750 students
- 13.2 million square feet of conditioned space
- 76.6 million kWh of annual electricity consumption
- 549,800 MMBTU of annual fuel consumption
- \$11.2 million of electricity costs
- \$7.2 million of heating fuel costs
- \$19 million of annual energy costs
- 31 ENERGY STAR schools
- Potential savings for 15 million kWh
- Potential savings for 109,960 MMBTU
- Potential savings for \$4 million of total energy costs
- Potential savings for 16,200 metric tons of GHG emissions (based on 20% average savings from similar benchmarking program in NY State)

EPA Portfolio Manager and ENERGY STAR Awards:

As mentioned in the above section, EPA's online tool, Portfolio Manager was used in the energy benchmarking process to generate energy statistics and reports. The school building characteristics and energy consumption data was entered into EPA Portfolio Manager which generated the school's EPA Portfolio Manager score on a scale of 1-100 and total site energy usage for a 12-month period. If energy data was entered for 24 months then EPA Portfolio Manager would generate scores and energy usage for both the 12-month periods.

Buildings that obtain an EPA Portfolio Manager score of 75 or more potentially qualify for the ENERGY STAR Label. At the time of the report delivery, TRC informed the schools that may qualify for the ENERGY STAR label and verified if they were interested in pursuing the label. If a school was interested then TRC offered to work with the school and a Professional Engineer (P.E.) to complete the application process for obtaining the ENERGY STAR Label.

One of the first steps involved in the process of helping schools obtain the ENERGY STAR Label, was hiring a Licensed Professional (meaning a Professional Engineer or Registered Architect) to verify that all energy use is accounted for accurately, that the building characteristics have been properly reported, that the building is fully functional in accordance with industry standards, and that each of the indoor environment criteria has been met. TRC signed a contract with Tim Nichols P.E., of Acadia Engineering & Construction for visiting schools that may qualify for the Label and verifying their data and building conditions.

If a school indicated that they are interested in pursuing the Label, TRC would generate an EPA Statement of Energy Performance (SEP) from the EPA Portfolio Manager website and send it to the P.E. The EPA SEP is a document that contains the building characteristics and energy usage data for a school for a 12-month period. For the purpose of this Program, TRC always generated the SEP for the most recent 12-month period available to help school obtain a Label for the most recent year.

The P.E. then visited the school and verified all the information on the SEP and informed TRC if he would recommend the school for the ENERGY STAR Label. If the P.E. recommended the school, TRC would apply for the Label through EPA Portfolio Manager on the school's behalf. In order to complete the

application, a Statement of Energy Performance and a Letter of Agreement had to be emailed to EPA. The Statement of Energy Performed was to be signed and stamped by the P.E. and the Letter of Agreement by a school official confirming their intent to apply for the Label. TRC would send both the documents to the respective entities and mail them to EPA upon receiving them back.

From September 2010 through the end of the program, the program P.E. conducted 46 site visits to verify the school's eligibility for the Label. Of these 46 schools, 32 were recommended for the Label, 11 did not qualify and the remaining three were missing information that was critical for the P.E. to make a recommendation. Of the 32 eligible schools, 30 received the ENERGY STAR label and the remaining two applications are in-progress.

Obstacles

While marketing the Program, TRC observed that certain school districts were hesitant to participate for various reasons. Some schools/districts were having a very busy summer or school year and did not have enough time to supply the necessary information. Districts like Nashua where an energy audit had already been performed did not need TRC's benchmarking services. A lot of schools showed preliminary interest in the Program but did not respond to the follow-up emails and/or phone calls by TRC. Others were simply skeptical because the Program was being offered to them at no cost.

As mentioned in the marketing section of the report, though 237 NH schools participated in the Program only 209 benchmarking reports were delivered to schools. The remaining 28 schools were not completed because they were missing information. TRC followed up with these 28 schools at least thrice via email and/or phone calls but did not hear back.

Also, in most cases the data supplied by the school was incomplete. TRC sent the SAU follow-up questions based on the initial review and typically had to wait for 2-3 weeks to hear back from the district. Sometimes, TRC experienced significant delay while trying to obtain energy consumption data for schools from NH utility companies.

Jobs Created

The management and implementation of the Program required the employment of three (3) full time employees over the two-year Program period. In addition, as stated previously in the Benchmarking Statistics and Results section, approximately \$4 million in potential energy savings is anticipated as a result of the schools being involved in the Program through raising awareness of the benefits of energy efficiency. This savings value would result in additional funding available within the school districts which could be used to hire or retain more teachers. Approximately 25 – 30 additional teachers could be hired statewide with the \$4 million in budget savings.

Future follow-on activities

From the outset of the NH EnergySmart Schools Program, one of benefits was seen as the development of a statewide database of energy consumption patterns in K-12 schools. The Project database of energy consumption patterns can now be used to inform the NHPUC, the Department of Education or other state agencies on the baseline energy use in New Hampshire schools. This can be done on an aggregate basis, maintaining the confidentiality of each participating school's identity and individual energy consumption. For example, in January 2011, the Program database assisted the University of New Hampshire's Climate Change Research Center in developing estimates of energy use in New Hampshire's municipal buildings.

The Program database also represents a snapshot of the energy usage in New Hampshire K-12 schools for the period of 2008 through 2011. This information can be extremely useful to the NH Department of Education and other entities when considering statewide initiatives targeted at reducing the financial burden of energy

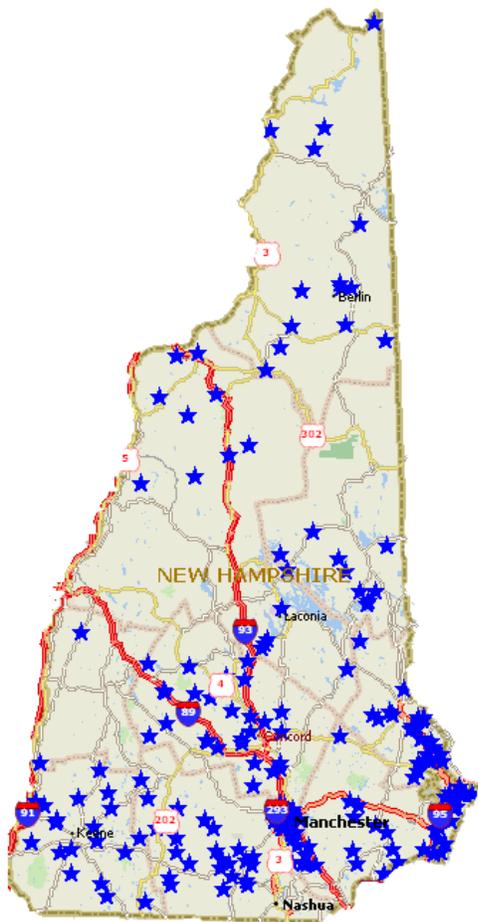
costs in schools and allowing for an established baseline that can be revisited for years to come. This type of data will also provide NHPUC and/or the Department of Education with the capability to verify the impact of efficiency efforts in school buildings throughout the state.

For some school districts, the Program can have a dramatic effect on transforming the view of school administrators and teachers on the impact of their building's energy use and carbon emissions by publically highlighting best performers and poor performers. Similarly, the Program encourages the setting of individual building energy Performance Targets based on benchmarking within the district and across the State.

The Program can also be effective in directing districts to utility energy efficiency programs so that they take full advantage of the efficiency funds available through the programs as well as other RGGI funded efforts and federal and state funding to improve energy efficiency. While we only have anecdotal data of school districts following through on recommended actions, this is fertile ground for a follow-on program where participating districts could be targeted for retrocommissioning services, energy audits, or other related services.

Appendix

NH EnergySmart Schools Program Impact Summary



Schools Benchmarked	209
School Districts	48
Students	78,750
SqFt Total	13,210,000
Annual kWh	76,606,000
Annual MMBTU (heating fuel)	549,800
Annual Utility Costs	\$19,039,000 (\$19 million)
ENERGY STAR Schools	32
Avg Cost / Student	\$260

Case Studies

White Mountains SAU

New Hampshire EnergySmart Schools Program



The New Hampshire EnergySmart Schools Program supports K-12 public and private schools pursue energy efficiency initiatives. This free assessment helps schools understand and reduce energy consumption, improve operations and save money.

The White Mountains Regional School District has saved \$60,000 in annual energy costs by acting on recommendations from the Program.

After submitting school building data via the Program's online application system, the district received a custom report that:

- Analyzed energy consumption and utility costs
- Compared the data against similar schools in the State
- Assessed performance relative to comparable buildings
- Recommended money and energy saving improvements

To date the district has implemented several recommended measures:

- Energy audits
- Lighting upgrades
- High efficiency HVAC motors

Planned improvements include an enhanced energy management system, higher efficiency hot water system, and additional lighting upgrades.

Funding is available to help program participants implement Program recommendations. White Mountains SAU used School Building Aid, utility sponsored grants and rebates, and ARRA funds.

Energy savings across the White Mountains Regional School District have earned three of its four buildings the ENERGY STAR label for superior performance.

"The EnergySmart Schools Program is a win/win for participants -- educationally, environmentally and fiscally. It helps me do my job, helps the district and helps the community. The savings can be passed on to taxpayers or put into more direct educational costs or for improvements to facilities in other areas." –Rick Vashaw, Facilities Manager, White Mountains SAU

Start Saving Today at <http://www.nhschoolbenchmarking.com>

The New Hampshire EnergySmart Schools Program is brought to you by the New Hampshire Public Utilities Commission in collaboration with the New Hampshire Department of Education.

Portsmouth School District *New Hampshire EnergySmart Schools Program*



The New Hampshire EnergySmart Schools Program supports K-12 public and private schools pursue energy efficiency initiatives. This free assessment helps schools understand and reduce energy consumption, improve operations and save money.

After submitting district wide building data via the Program's online application system, the district received a custom report that:

- Analyzed energy consumption and utility costs
- Compared the data against similar schools in the State
- Assessed performance relative to comparable buildings
- Recommended money and energy saving improvements
- Received professional services required for ENERGY STAR label

Based on the Program's recommendations, Portsmouth School District plans to implement the following energy improvements:

- Lighting renovations including occupancy sensors
- Solar water heating
- High efficiency whole building design for new Middle School

Energy savings at Portsmouth High School have earned it the distinction of attaining the ENERGY STAR label.

"The New Hampshire EnergySmart Schools Program was very easy to take part in and I am pleased with the results. I recommend this to any school looking to save money in these tough economic times."

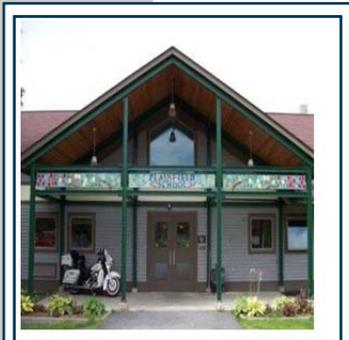
–Kenneth Linchey, Facilities Manager, Portsmouth School District

Start Saving Today at <http://www.nhschoolbenchmarking.com>

The New Hampshire EnergySmart Schools Program is brought to you by the New Hampshire Public Utilities Commission in collaboration with the New Hampshire Department of Education.

Plainfield Elementary School

New Hampshire EnergySmart Schools Program



The New Hampshire EnergySmart Schools Program supports K-12 public and private schools pursue energy efficiency initiatives. This free assessment helps schools understand and reduce energy consumption, improve operations and save money.

After submitting building data via the Program's online application system, the school received a custom report that:

- Analyzed energy consumption and utility costs
- Compared the data against similar schools in the State
- Assessed performance relative to comparable buildings
- Recommended money and energy saving improvements

Based on the Program's recommendations, Plainfield Elementary has implemented the following energy improvements:

- Replaced all exit signs with high efficiency LED signs
- Installed new high efficiency lights in gym
- Implemented controls for HVAC system
- Implemented school-wide energy management system
- Installed occupancy sensors in classrooms, gym, offices and restrooms to turn lights off when rooms are vacant
- Installed timers on juice vending machines to moderate energy use
- Modified 15 classrooms using air sealing, heat recovery ventilation and super insulation

Since 2005, energy use at Plainfield Elementary School has dropped by 45%, and their EPA Portfolio Manager Score has increased by over 36 points since 2008. Additionally, they saved \$35,241 in energy costs last year.

"We found the Benchmark report useful as it gave us an independent assessment of how we were doing compared to our peers. We had already implemented some of the projects proposed in the report and it reinforced that we were on the right track."

–Allan Ferguson, Facility Committee Member, Plainfield Elementary School

The New Hampshire EnergySmart Schools Program is brought to you by the New Hampshire Public Utilities Commission in collaboration with the New Hampshire Department of Education.

For more information please contact:

Tom Rooney
T: 603-766-1913
trooney@trcsolutions.com

<http://www.nhschoolbenchmarking.com>



St. Thomas Aquinas School, Derry New Hampshire EnergySmart Schools Program



The New Hampshire EnergySmart Schools Program supports K-12 public and private schools pursue energy efficiency initiatives. This free assessment helps schools understand and reduce energy consumption, improve operations and save money.

After submitting building data via the Program's online application system, the school received a custom report that:

- Analyzed energy consumption and utility costs
- Compared the data against similar schools in the State
- Assessed performance relative to comparable buildings
- Recommended money and energy saving improvements

Based on the Program's recommendations, St. Thomas Aquinas has upgraded its lighting systems by converting all old lights to high efficiency bulbs. Light covers were also installed to increase lighting density.

As a result, the school saves \$100 a month on energy costs.

Next, the school plans to achieve further energy savings by replacing the air ventilation system in the upper level of the school.

"We appreciated all the feedback from the Benchmark report. It was good to know what our school energy use compared to similar schools and it made us aware of a lighting density problem we didn't know we had. It also reinforced our decision to get a new ventilation system. The savings we achieved from our lighting conversion have already paid back the cost of the project."

—Lynn Kish, Director of Development, St. Thomas Aquinas School

The New Hampshire EnergySmart Schools Program is brought to you by the New Hampshire Public Utilities Commission in collaboration with the New Hampshire Department of Education.

Data Collection Forms

NH EnergySmart Schools Program



How energy efficient are your schools? Would you like to find out?
Well, now you can...for FREE!

The Sustainable Energy Division of the New Hampshire Public Utilities Commission (PUC) has contracted with TRC Energy Services to analyze and rank the energy performance of K-12 schools in New Hampshire. As you know, rising energy prices are making it increasingly challenging to maintain a reasonable budget. But there is hope! Some schools that have participated in similar energy benchmarking programs run by TRC in other states have shown a decrease in overall energy use of over 20%.

If you are already energy efficient, you might even belong to the top 25% of schools *nationwide* that can qualify for and receive the ENERGY STAR® Label to display in your school. Additionally, school districts with outstanding district-wide improvement in energy efficiency can qualify for the ENERGY STAR® Leader award.

Participation is completely voluntary, confidential, and FREE!

INSTRUCTIONS

If your school buildings have been previously benchmarked, we will update your data and provide you with an up-to-date analysis. Otherwise:

1. Fill out the attached Building Data Request Form for each building; and,
2. Provide at least 12 consecutive months of electric and heating fuel bills (natural gas, fuel oil, or propane) for each building, preferably 36 months. Be sure to include both monthly usage and delivery/supply costs.
3. You can e-mail the data to us in a spreadsheet or as a PDF file, or you can mail us paper copies. If you send us a spreadsheet, please include electricity kW Demand.
4. Send the information to us by fax, e-mail, or mail using the information at the bottom of this page.

PROCESS

We will analyze your school's information and use the results to evaluate your buildings' performance, compare your buildings to each other, and compare them to other New Hampshire K-12 schools. Each school building will receive a report that includes a graphical representation of the building's performance as well as a detailed explanation of each of the indicators used to rank the building. The building's "carbon footprint" is included. The report will also contain energy efficiency recommendations, including utility and state programs that are most appropriate to help you financially and technically.

In pursuing energy efficiency, we always recommend the most general and least expensive forms of analysis first so that you can systematically focus your improvement efforts, step by step. That way, you can invest your limited time and resources in the weakest aspects of your district's energy performance first. We will continue to work with you for as long as you wish in order to find out exactly what your energy goals are and how state and utility programs can help you achieve them.

CONTACT US

PHONE	1-877-282-9378 or 1- 603-766-1913	U.S. MAIL	
FAX	1-603-766-0401	TRC Energy Services	
E-MAIL	NHSchoolsBenchmarking@trcsolutions.com	155 Fleet Street, Suite 305	
WEBSITE	http://www.nhschoolbenchmarking.com/	Portsmouth, NH 03801	

NH EnergySmart Schools Program – Data Form



Please submit one complete form for each building.
Fax, email, or mail copies of your most recent 12 months or more of utility bills.

General Info Name of Building _____

Address _____

City _____ Zip Code _____

Point of contact: Name/Title _____

Address _____

Phone _____ E-mail _____

Fax _____ Mobile _____

Building Info Year Built _____ No. of students _____

Size of building (sq. ft.) _____ No. of floors _____

(Do not include unheated attics or basements)

No. hours of occupancy per week _____ No. months operated per year _____

(Times when the majority of the building is being used)

Is building operated on the weekends? Yes No

School type: High School Middle/Junior High Elementary Other: _____

How is building heated? _____ No. of personal computers _____

How is building cooled? _____ Percent of building cooled _____

No. of walk-in cooler/freezer units _____ No. of reach-in cooler/freezer units _____

Does the building have cooking facilities (excluding lounges, galleys with equipment and/or vending machines)? Yes No

Does the building have a pool? No Yes, the size of the pool is:

Olympic 50m x 25m Recreational 20y x 15y Short Course 25y x 20y

No. of months per year pool is in use _____ Location of pool: Indoor Outdoor

Utility Info

Electric Utility _____ Electric Utility Account # _____

Natural Gas Utility _____ Natural Gas Account # _____

Renewable On-Site: On-Site Solar On-Site Wind

Fuel Oil / Propane Co. Information _____

Are there any critical dates that this report needs to be completed by? Yes No

If Yes, Date _____ Describe the reason _____



FUEL RELEASE AUTHORIZATION FORM

By signing this form you will authorize TRC to access and utilize your past, current, and 60-month future energy billing and consumption data so that TRC can effectively track the performance of your building's energy utilization systems in an effort to maximize their potential and determine the success of the NH EnergySmart Schools Program

Property Information	Property Name	
	Property Address	
	Contact Name	
	Contact E-mail & Phone	
Electric	Electric Utility Company	
	Account Name	
	Account Number	
	Account Mailing Address	
	Authorize utility to release cost? (Y/N)	
	Online Account Information	Username:
	Password:	
Heating Fuel	Heating Fuel Utility Company	
	Account Name	
	Account Number	
	Account Mailing Address	
	Online Account Information	Username:
		Password:
Water	Water Service Provider	
	Account Number	
	Account Mailing Address	
Other Utility	Energy/ Resource Provider	
	Account Number	
	Account Mailing Address	

As an authorized representative of the property owner/customer listed above, TRC and/or its representatives are hereby authorized to access and utilize any and all information and data related to energy and/or natural resource consumption at the above listed property address. I understand that this information is being made available to help evaluate energy and resource use patterns in order to identify potential and actual energy savings resulting from work performed through the NH EnergySmart Schools program. The information/data obtained pursuant to the agreement shall be treated as confidential to the maximum extent permitted by law.

Signature of Authorized Representative Title Date

Program Marketing
Presentation for NH SAA Conference

TRC

NH EnergySmart Schools Program

NH SAA Conference – Concord, NH
October 28-29, 2010

Ed Murdough, NH Dept. of Education
Ken Linchey, City of Portsmouth Schools
Rick Vashaw, White Mountain School District
Tom Rooney, TRC Energy Services

TRC

Energy....Why Do We Care?

- Increasing Cost of Energy
- Improved Learning Environment
- Health & Safety
- Environmental Impact
- Leading by Example

TRC

Why Care About Energy Costs?

New Hampshire State K-12 Schools Energy Cost Trends

Year	Electricity (%)	Natural Gas (%)	Fuel Oil (%)
2003	0	0	0
2004	10	30	10
2005	15	50	50
2006	18	120	85
2007	20	90	150
2008	22	85	155
2009	23	88	81

TRC

Energy in Schools – National Perspective

- Annual energy bill to run America's K-12 schools is \$6 billion — more than is spent on textbooks and computers combined
- The least efficient schools use three times more energy than high efficiency schools
- Top performing ENERGY STAR labeled schools cost 40c/sf less to operate than the average performers
- Energy efficient schools can lower a school district's operating costs by up to 30%

TRC

Where Do I Start?

- My Oldest Schools
- My Biggest Schools
- My Schools With the Longest Operating Hours
- My Buildings With the Most A/C
- ???

TRC

Where Do I Start?

Year Built vs. EPA Site Energy (kBtu/sf)

NH EnergySmart Schools Program

With Energy Benchmarking!

- Allows you to gauge your school's efficiency by:
 - Comparing buildings across the school district
 - Comparing buildings to NH State Average
 - Comparing individual buildings from year-to-year
- Provides the first step to developing an energy efficiency plan and a mechanism for tracking



What Good Does It Do?

New York State K-12 Schools Evaluation Report

Schools that participated in Benchmarking with EPA's *Portfolio Manager* were found to have a:

- 21% decrease in overall energy consumption
- 200% improvement of EPA *Portfolio Manager* Score — from 21 to 62



NH EnergySmart Schools Program

- Free Energy Benchmarking Service funded by the NH PUC through RGGI
- School District provides school building data, including historical utility consumption
- Program provides individual school building reports and district-level summary
- www.nhschoolbenchmarking.com

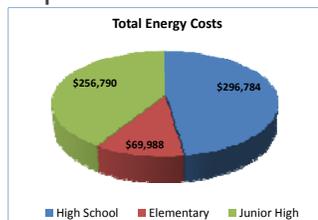


NH EnergySmart Schools Program

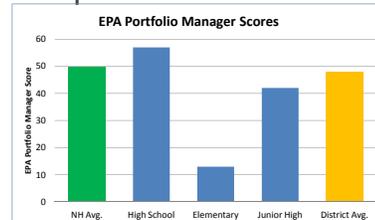
- Parameters reported:
 - EPA Portfolio Manager Score
 - Energy Use & Cost – total, electricity, heating fuel
 - Energy Cost – \$/sq ft, \$/student
 - Carbon Emissions – total, electricity, heating fuel
 - State-wide and District-wide comparative summary

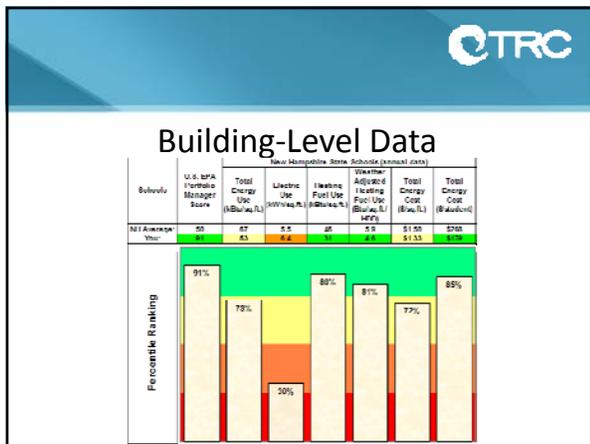
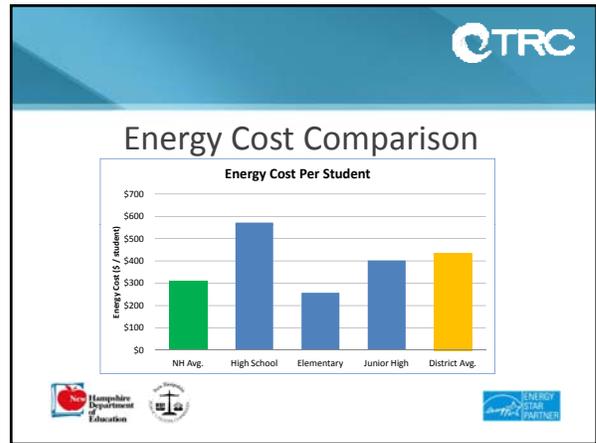
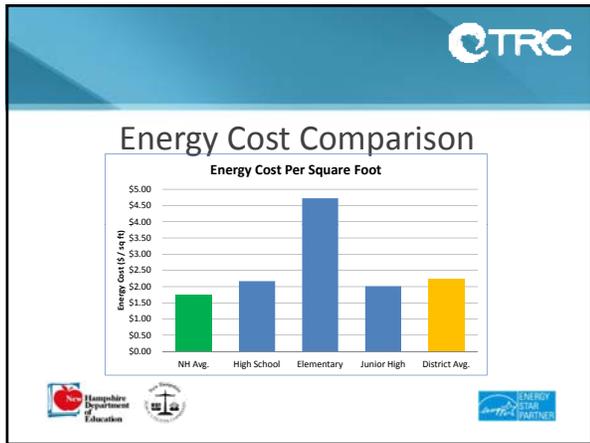
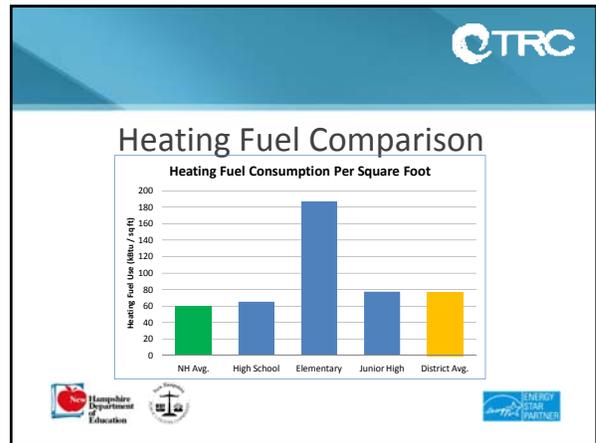
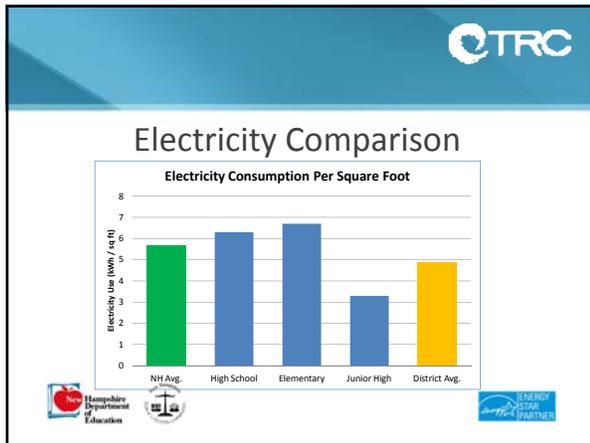


Sample NH School District



Sample NH School District





NH EnergySmart Schools Program

Did You Know? The average New Hampshire school spends an annual \$377 per student on energy.

Helping New Hampshire schools save energy and money

- The New Hampshire EnergySmart Schools program is helping 612 state and public schools across the state reduce energy efficiency expenses to create energy use and cost savings. The program offers an energy benchmarking system designed to help you:
 - Understand the energy consumption and costs trends at each of your school buildings.
 - Learn the most building and purchasing options to allow schools to save energy and money.
 - Receive recommendations for improving conditions and reducing costs, and

NH EnergySmart Schools Program

- **120 NH Schools in the Program**
- **77 NH Schools with Completed Benchmark Reports**
 - 21 school districts
 - 29,434 students
 - 5,158,032 square feet
 - Consumption of 30,679,929 kWh & 230,341 MMBTU
 - \$8,235,184 of total annual utility costs
 - 37 Schools Identified as ENERGY STAR Eligible

ENERGY STAR® Recognition

- ENERGY STAR Leader
 - Portfolio-wide energy efficiency improvements of 10%, 20%, 30% (or more) reductions in normalized energy use
- Top Performers
 - An average rating of 75 or better portfolio-wide
- EPA's Energy Star Building Label
 - Schools that achieve a score of 75 or higher

ENERGY STAR® Schools

- **SAU 52**
 - Portsmouth High School
- **SAU 50**
 - Greenland Central School
 - Maude H. Trefethen School
 - Rye Elementary School
- **SAU 36 (in process)**
 - White Mountains Regional High School
 - Lancaster Elementary School
 - Whitefield Elementary School

NH EnergySmart Schools Program

Schools Benchmarked To-Date



NH EnergySmart Schools Program

NH Energy Smart Schools Program Participants

SAU#	SAU Name
1	Contoocook Valley
3	Berlin
11	Dover
12	Londonderry
13	Timworth
17	Sanhora Regional
19	Goffstown
20	Gorham
23	Haverhill Cooperative
32	Plainfield
33	Raymond
36	White Mountains Regional
37	Manchester
38	Monadnock Regional
46	Merrimack Valley
50	Greenland
52	Portsmouth
53	Pine Haven Boys Center
55	Timberlane Regional
59	Winnisquam Regional
60	Fall Mountain Regional
65	Kearsarge Regional
67	Bow

Reference to an SAU does not indicate participation of all schools in the SAU

NH EnergySmart Schools Program

Visit : <http://www.nhschoolbenchmarking.com/>

: NHSchoolsBenchmarking@trcsolutions.com

: 603-766-1913 or 877-282-9378

Program Marketing via
Email Blasts
Weekly Newsletter Communications



Are YOUR schools' costs higher, or lower?

**Time is running out to take advantage
of the NH EnergySmart Schools Program,
a FREE energy assessment for NH's public and private schools,
that helps answer this question, while helping school boards and officials make informed
decisions.**

The NH EnergySmart Schools Program, administered by **TRC Energy Services**, is funded by **NH Public Utilities Commission** with support from **NH Department of Education** to help schools understand and reduce energy consumption, improve operations and save energy.

Over 180 NH schools have participated in this energy benchmarking program to date, including the White Mountains Regional School District. This District alone has saved \$60,000 in annual energy costs and has earned the ENERGY STAR label for three of its four buildings.

[View White Mountains Regional School District's case study.](#)

In order to take advantage of this **Regional Greenhouse Gas Initiative (RGGI) grant-funded program, schools need to enroll in the program by the end of July to qualify for free services.**

Please share this opportunity and deadline with your Superintendent of Schools or Principal(s) today.

Help your schools take advantage of this opportunity to save money in these challenging economic times.

Learn more about the NH EnergySmart Schools Program and how YOUR schools can start saving today by visiting: nhschoolbenchmarking.com or contact Julia Dundorf at 603-957-4350.

Local Energy Committee News

Granite State leadership, one town at a time.

Summer 2011

In This Issue

NH EnergySmart Schools Program...

SPOTLIGHT

Granite State Clean Cities

LEC News

Upcoming Events

[Join Our Mailing List!](#)

Energy Committee Resources

[NH Community Energy Project Wiki Page](#)

[Energy Committee Guide](#)

[Community Toolkit](#)

[Cool Planet Blog](#)

MYENERGYPLAN.NET



FREE web tools and community resources to help YOU reduce YOUR Energy Costs.

- Save money
- Make your home more comfortable
- Map out a customized energy plan
- Find financial tools and energy contractors
- Take on-line tours of green homes in your area

MYENERGYPLAN.NET

LEC Working Group

The mission of the Local Energy Committee Working Group is to provide collaborative guidance and technical support to NH Local Energy Committees & local governments seeking to reduce energy use and greenhouse gas emissions within their communities.

Mike Behrmann,
Revolution Energy LLC/
SDES Group, LLC

David Borden, Newcastle Energy Committee

Ginny Callan, New England

NH EnergySmart Schools Program

Deadline Extended for The NH EnergySmart Schools Program

Time is running out for your school district to take advantage of these FREE energy assessment services! [Registration is required by August 31st.](#)

The NH EnergySmart Schools Program provides energy benchmarking services to New Hampshire's public and private K-12 schools at no charge. The NH EnergySmart Schools Program has benchmarked more than 150 school buildings statewide. In addition, the Program has assisted in certifying 23 schools as ENERGY STAR, gaining them recognition as leaders in energy efficiency. Contact TRC today to take advantage of this valuable and free service - call Tom Rooney 603-766-1913 or email to NHSchoolsBenchmarking@trcsolutions.com.

More details can be found at www.nhschoolbenchmarking.com.

SPOTLIGHT

Utilities Offering Help With Home Energy Audits

NH electric utilities are now offering home energy audits to qualifying customers. For a fraction of the normal cost, a certified energy auditor will conduct a comprehensive assessment of your home. Depending on the results of the energy audit, you may be eligible for up to \$4,000 in rebates to help you pay for recommended energy efficiency improvements. To learn more, go to NHSAVES.com and click on NH Home Performance with ENERGY STAR link.

New England Grassroots Environment Fund Small Grants Program Upcoming Grant Deadline

**New England Grassroots Environment Fund
Small Grants Program Upcoming Grant Deadline: September 15, 2011
Funding to Fuel Local Energy Groups, Committees and Commissions**

Grassroots Environment Fund

Linda Darveau,
US EPA, Region 1

Julia Dundorf (Chair),
Clean Air-Cool Planet

Tim Fortier,
NH Municipal Association

Jim Grady,
LighTec, Inc.

Allison Grappone, Northern Forest
Center

Eric Halter,
NH Energy Technical Assistance
Program (ETAP)/CLF Ventures

Dick Henry,
Jordan Institute

Christa Koehler,
Clean Air-Cool Planet

Julie LaBranche,
Rockingham Regional Planning
Commission

Jill Longval,
Nashua Regional Planning
Commission

Mike McCory,
Upper Valley Lake Sunapee
Regional Planning Commission

Madeline McElaney,
Better Buildings NH - Plymouth

Bob Reals, Jr.,
NH Division of Economic
Development

Chris Skoglund,
NH Department of Environmental
Services

Eric Steltzer,
NH Office of Energy and Planning

Wood Turner,
Climate Counts

Dr. Cameron Wake,
Carbon Solutions New England

Bob Walker,
Sustainable Energy Resource
Group

The New England Grassroots Environment Fund (NEGEF) small grants program is designed to foster local grassroots environmental initiatives in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont, in the places where we live, work and play. NEGEF provides small grants of up to \$2,500 to fuel local efforts that results in broader community involvement in projects that address a wide range of environmental issues and opportunities. The mission of NEGEF is to energize and nurture long-term civic engagement in local initiatives that create and maintain healthy, just, safe and environmentally sustainable communities. Applications are accepted anytime, with the following deadlines for each grant round: February 15 and September 15.

Local groups may be working on climate change and energy efficiency initiatives, starting a local community garden, farmers market or other local food project, tackling an environmental health problem related to poor air quality or water pollution etc. For more information visit the NEGEF website at www.grassrootsfund.org or email info@grassrootsfund.org

Granite State Clean Cities

The Granite State Clean Cities Coalition is a coalition of organizations that share in the belief of reducing petroleum through transportation initiatives. Mission: Clean Cities strives to advance the nation's economic, environmental, and energy security by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption. Clean Cities has a network of nearly 100 volunteer coalitions, which develop partnerships in the public and private sectors to promote alternative and renewable fuels, fuel economy measures, idle reduction technologies, and new technologies as they emerge. The Clean Cities program is a US Department of Energy supported effort.

Don't forget to visit our website for resource links, events, presentations, and meeting minutes.

www.granitestatecleancities.nh.gov/index.htm

If you are interested in joining a workgroup or attending a meeting, please contact Dolores Rebolledo at 603.271.6751 or Dolores.Rebolledo@des.nh.gov.

Feedback

If you have questions suggestions, comments, or energy news you would like to see in the newsletter, please send an email to: [Christa Daniels](mailto:Christa.Daniels)

New on nhenery.org

More information is being added daily. Anyone can do it! Guides for submitting to

the Wiki are on site. As always, please keep posting and sharing the great work your committees are doing.

www.nhenergy.org

NEWS FROM YOUR COMMITTEES

Plymouth NH: Next month, Frase Electric will install a 6.58 kw solar photovoltaic system at the Plymouth Elementary School. The PV system is paid for by an EECBG grant and will include an educational display.

The **Dover Energy Advisory Committee** is establishing a partnership with the Dover Chamber of Commerce to help them assess their energy use and look for efficiency improvement opportunities. DEAC met with the Chamber's director and conducted a walk through of the Chamber building to begin to understand how energy is used in the facility. A review of utility bills and recommendations for possible long and short term actions will follow. Both DEAC and the Chamber hope this partnership will serve as a leadership example for other members of the community.

Walpole's TriVillage Energy Committee (TVEC): The engineering firm GDS recently completed EECBG-funded audits of the three schools in town: the primary school, the elementary school, and the middle school. In addition to providing bound copies of the audit, GDS will give a presentation about the audits to members of the school board, town select board, and local energy committee. With the audits as a blueprint, the energy committee will work with the schools to begin implementing the recommendations in the audits.

On June 11, the **Temple Energy Committee** held an "Open House-Celebration" to honor the tremendous success of the completed energy efficiency retrofits for three of their municipal buildings. The RGGI-funded retrofits have vastly reduced the energy usage for their library and are projected to have carbon and energy savings for heating their Fire Department/Municipal Building complex of between 75%-85%! A good crowd of enthusiastic residents and folks from nearby towns came to celebrate, learn more about the process of the retrofits and tour the buildings. Town Hall was used as a central location and was filled with table displays full of photos highlighting various aspects of the work along with hand-outs of a brochure the committee created to share what was accomplished through the project as well as flyers for how to take the Carbon Challenge and material on NH climate change. The committee also created a PowerPoint presentation which surprisingly held the crowd's interest for a full half hour, followed by lots of questions and answers. It illustrated the key steps in the process of the work and was accompanied by stories from the many months of the project. Pizza and other refreshments topped off the event.

On September 24, **Temple** residents will enjoy cashing in on their prize for winning the 4-town Carbon Challenge competition with Jaffrey, Rindge and Bennington that ended on June 30. Stonyfield Farm and the local Connelly Brothers Dairy will supply the ice cream and frozen yogurt for the event. Almost 15 % of Temple's households participated in the Challenge. Rindge came in second. And both towns are now among the top ten towns in NE for registered participants. Honoring 350.org's world-wide campaign to get people in MOTION around climate change on that day (9/24), the Energy Committee will also be encouraging residents to take another new STEP to reduce their household energy consumption. For those who have not yet taken the Carbon Challenge, they will be invited to take THAT STEP! So far, the steps Temple residents have pledged to take will save 255,092 lbs. of CO2 and \$35,484.

In conjunction with the "ArtForward" group, the **Fitzwilliam Energy Committee** will again participate in this year's CommonWalk EcoArts Festival on September 17, 2011, in Fitzwilliam. The locus of displays will be in or around the Fitzwilliam Inn. This festival is in its third year and focuses on creating environmental awareness

through artistic expression about issues related to energy, pollution, personal choice, etc. We are looking for a dynamic speaker to feature as part of our festival. If anyone has any ideas, please contact Carole Beckwith at 603-585-7198



The **New London Energy Committee** presented its first "Sustainable Business of the Year" award to the Flying Goose Brew Pub and Grille and owner Tom Mills. The pub recently installed a 500 square foot solar hot water system and plans on adding solar photovoltaic panels later this year. The local watering hole proclaims itself as "New Hampshire's only solar-powered brewery."

Sullivan posted its EECBG project on the State website on Friday, July 8. Any contractor interested in making a proposal for purchase and installation of an outdoor energy efficient wood stove for the Sullivan Highway Garage should go to the town web site:

<http://www.ci.sullivan.nh.us/content/energy-committee/energy-committee>

A site visit will be at the end of August and the deadline for proposals in Sept. 8.

Upcoming Events

[Green Drinks](#) is a world wide organization that helps bring together people interested in anything green to network and learn what is going on in their communities.

[Concord:](#)

Facebook users are invited to join Green New Hampshire Group, a virtual meeting place for those interested in all things green including local food, alternative energy, building, stores, and events

[Keene:](#)

Green Drinks is held on the first Monday of each month. Hosted by the Monadnock Sustainability Network, committed to encouraging sustainable living practices and resource conservation in the region through direct advocacy, education and outreach.

For more info: contact [Bonnie Hudspeth](#)



[Portsmouth:](#)

Mark Green Drinks down in your calendars for the third Thursday of the month at 2 Ceres Street Martini Bar. To receive our monthly reminder email joharrison415@gmail.com



Upcoming Events

Please send us your events.

NH Local Energy Committee Working Group

PLEASE NOTE: If you decide to forward this to a friend or colleague, please use the "Forward email" link below. If you forward using your email program and the person you hits the unsubscribe button, they will actually unsubscribe you rather than themselves.



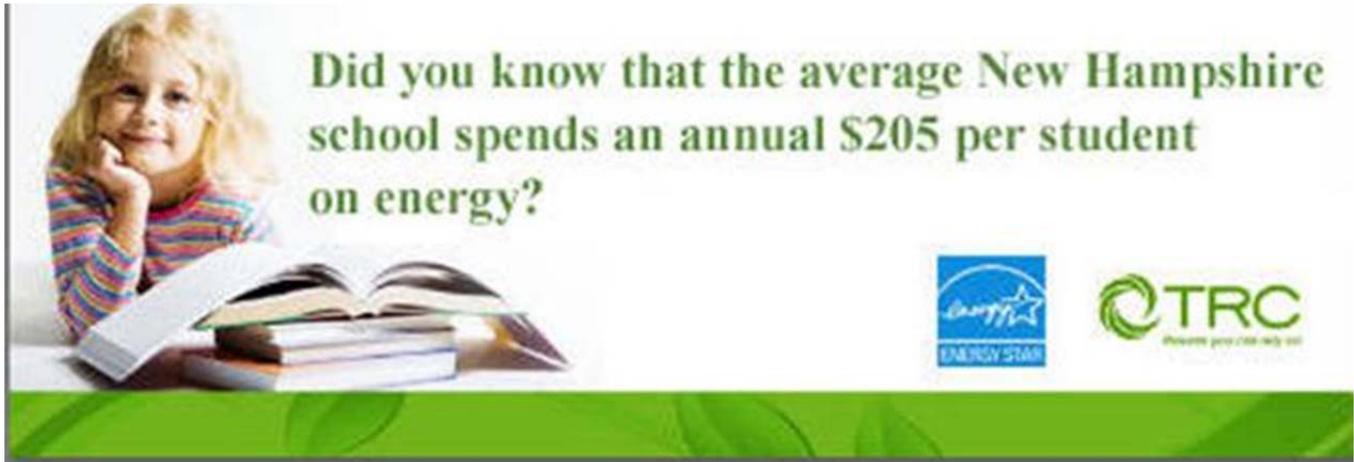
www.cleanair-coolplanet.org

ENROLL BY AUGUST 26th IN THE *NH ENERGYSMART SCHOOLS PROGRAM*

TO SAVE ON ENERGY COSTS

AND

TO ENTER TO WIN BACKPACKS FOR YOUR SCHOOL'S STUDENTS*



Are YOUR schools' costs higher, or lower?

**Time is running out to take advantage
of the NH EnergySmart Schools Program,**

**a FREE energy assessment for NH's public and private schools,
that helps answer this question, while helping school boards and officials make informed
decisions.**

DEADLINE EXTENDED: In order to take advantage of this **Regional Greenhouse Gas Initiative (RGGI) grant-funded program, schools need to enroll in the program by the end of August to qualify for these free services.**

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Help your schools take advantage of this opportunity to save money in these challenging economic times.

Learn more about the NH EnergySmart Schools Program and how YOUR schools can start saving today by visiting: nhschoolbenchmarking.com or contact Vibhuti Agarwal at 603-766-1913.

**10 schools which have enrolled in the program by August 26th will be randomly drawn to win 20 Timberland backpacks each, donated by Clean Air-Cool Planet.*

Program Marketing
Advertisement for
NH Public TV Access Channels



Did you know that the average New Hampshire school spends an annual \$205 per student on energy?



That's YOUR money...

nhschoolbenchmarking.com

HELP CONTROL
RISING ENERGY COSTS

Share this valuable program with school
officials in your town today.

NH EnergySmart Schools Program

FREE energy assessment services for public &
private schools in New Hampshire. Program
ends in September so don't wait.

Call TRC at 603-766-1913 x2

nhschoolbenchmarking.com



**Program Marketing
Press Release to Media Contacts**

June 17, 2011

The Average New Hampshire Schools Spends More Than \$200 per Student on Energy.

Free program evaluates facilities, recommends improvements and identifies resources

Portsmouth, NH. – As energy costs continue to rise and threaten to overwhelm already strapped school budgets, forward thinking school districts are taking advantage of a NH program to assess and manage those rising energy costs.

For almost two years, the New Hampshire EnergySmart Schools Program has supported New Hampshire K-12 public and private schools seeking to control energy costs. This program, which is offered to participating schools at no cost, uses a unique benchmarking system designed to help schools understand and reduce energy consumption, improve operations and save money. The program is provided by TRC Energy Services and funded by the state's Greenhouse Gas Emissions Reduction Fund (administered by the New Hampshire Public Utilities Commission), in collaboration with the New Hampshire Department of Education.

It's critical that schools enroll in this program by July 31, in order to take advantage of these free resources, as the grant funding for this program expires at the end of September.

Rick Vashaw, Facilities Manager of White Mountains SAU in the North Country has first hand knowledge of how understanding energy consumption can lead to significant energy savings. His school district alone has saved \$60,000 in annual energy costs by action on program recommendations. "The New Hampshire EnergySmart Schools Program is a win/win for participants -educationally, environmentally and fiscally. It helps me do my job, helps the district and helps the community. The savings can be passed on to taxpayers or put into more direct educational costs or for improvements to facilities in other areas," commented Vashaw.

To date, over 150 school buildings in New Hampshire have been benchmarked through a process that includes data collection and analysis, custom reporting with recommendations for making energy and cost saving improvements, and a score to determine if they are eligible for

the EPA's ENERGY STAR Label for Buildings- the national symbol for protection of the environment through energy efficiency. Of the 150 schools benchmarked, 18 participating schools in New Hampshire have been identified as potentially eligible to receive the ENERGY STAR label.

“TRC's work has greatly increased our ability to understand and manage our energy needs and costs,” remarked Brian T. Bell, Head of School, Portsmouth Christian Academy, Dover, NH. “I would say that we saw [our energy bills] as a given expense and now we feel empowered to make a difference in that area of our budget.”

The New Hampshire EnergySmart Schools Program uses EPA's web-based benchmarking system, Portfolio Manager, as a basis and then enhances it with TRC's internal benchmarking database which provides statistics on how each school compares to others across New Hampshire.

“Schools that have participated in energy benchmarking programs in other states have demonstrated an approximate 20 percent decrease in overall energy use,” said Ed Murdough, Administrator of the New Hampshire Department of Education's Bureau of School Approval and Facility Management.

For more information and to start participating today, visit the NH Schools Benchmarking website at www.nhschoolbenchmarking.com or contact Tom Rooney of TRC at: 603-766-1913.

Program Marketing via Direct Mail Campaign

NH EnergySmart Schools Program



June 16, 2011

Dear School Official:

Did you know that the average New Hampshire school spends more than \$200 per student on energy?

Are YOUR schools' costs higher, or lower? The NH EnergySmart Schools Program, a FREE energy assessment for NH's public and private schools, can answer that question to help school boards and officials make informed decisions.

The NH EnergySmart Schools Program, administered by **TRC Energy Services**, is funded by **NH Public Utilities Commission** with support from **NH Department of Education** to help schools understand and reduce energy consumption, improve operations and save energy.

Over 150 NH schools have participated in this energy benchmarking program to date, including the White Mountains Regional School District (WMRSD). This District alone has saved \$60,000 in annual energy costs by acting on Program recommendations. In addition, NH EnergySmart Schools has facilitated the ENERGY STAR label for three of its four buildings.

The Coos County Democrat reports that WMRSD estimates a year-end surplus of \$483,000. **“The savings included \$43,000 due to the installation of “green” lighting fixtures and other electrical efficiencies...”** (2011, June 8). *The Coos County Democrat*, p. A1.

Time is running out for schools in your town to utilize this program.

Please complete and return the enclosed form using the envelope provided. In order to take advantage of this program, **schools need to respond by July 31 to qualify for free services.**

We highly recommend enrolling all the school buildings in your district in this program for a more thorough energy analysis; for this purpose, contact me and request a copy of the multiple school form.

Schools that have participated in energy benchmarking programs have shown a 20% reduction in annual energy consumption. Learn more visiting: **nhschoolbenchmarking.com** or contact me at 603-957-4350.

Best regards,

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