



New Hampshire Local Energy Action Profiles

Communities around New Hampshire are taking action to improve energy efficiency and adopt renewable energy to reduce environmental and financial impacts.

Manchester Schools Transformers Manchester, NH

The Action: give a brief description of the project.

The City of Manchester embarked on an innovative project to replace inefficient and over-sized transformers with high efficiency "right sized" Powersmith Transformers. The innovative project included two schools and had an ROI of less than 2 years.

When was the project completed & how long did it take from start to finish?

The transformer project was completed in one week during evening and weekend hours to minimize impact on school operation.

What elements made this project a success?

The project was only made possible through Manchester School District's commitment to energy efficiency and their commitment to continually looking for ways to reduce building operation cost. The project was also made possible by PSNH efficiency analysis and rebate programs.

What were the main challenges?

Removing a 1960's 7,000 pound 500 KVA from Memorial High School that supplied power to much of the building. Detailed metering was required to ensure that the new transformers would offer sufficient savings and were properly re-sized.

List the key players and their roles.

Kevin O'Maley Chief Facilities Manager City of Manchester
Michael Davey Project Manager EEI Inc.
Steve Marshall, Project Supervisor EEI Inc.
Gary Lacasse, PSNH

Roughly, what was the final cost and how was it funded?

The project was approximately \$133,000 and PSNH provided a rebate of about 45% of project cost. The project was funded through a bond and had a total return on investment of less than 2 years after the rebate.

What were the results of this action after it was completed?

(Financial savings, energy savings or environmental benefits?)

The city was able to remove 1960's transformers in an organized manner. The updated electrical systems allowed for the elimination of four transformers at Memorial High School and Beech St. Schools which were contributing to unnecessary losses to the system. Annual energy savings will be more than \$16,500.

Any advice for other communities interested in undertaking a similar energy action?

Other communities should understand that savings from reducing wasted energy consumption can be leveraged to pay for many improvements over times.

TYPE OF PROJECT



- Renewable Energy
- Energy Efficiency
- Transportation
- Other

Share a brief story about how this project came to be and why.

The Manchester School District includes 22 schools and more than 2.2 million square feet of space. In 2013, the school board authorized a \$3 million dollar bond targeting projects that would yield high energy savings and update or replace aging building components. EEI, from Merrimack, NH was selected to perform building energy audits and found the old over-sized transformers were an excellent opportunity for energy reduction.

Learn more about this Energy Action by contacting:

Michael Davey
EEI Inc.
mdavey@eeiservices.com

Profile submitted by/date:

Eric Krueger
Manchester, NH