

Smart Grid Data Access



Recipient

Gulf of Maine Research Institute

Project Title

Smart Grid Data Access Pilot Program Utilizing STEM Education as a Catalyst for Residential Customer Decision Making and Change

Project Description

Gulf of Maine Research Institute (GMRI), in collaboration with Central Maine Power Company (CMP), intends to demonstrate the effectiveness of the *PowerHouse* Student Online Learning Environment (SOLE), a student-focused energy education program, to affect household attitudes and behaviors toward energy consumption patterns. *PowerHouse* is an interactive learning environment that will connect 7th and 8th grade students to household electricity use data and provides valuable information about energy usage and energy management. The project will leverage Maine's investment in providing computer and high-speed Internet access to the classroom, science, technology, engineering and mathematics (STEM) education initiatives, and the installation of smart meters at 95% of residential utility customers in the state. Initially, the demonstration's activities will affect 1,000 students and their households.

Goals/Objectives

This project will achieve the following objectives:

- To provide electricity use data to Maine's 7th and 8th-graders involved in STEM education via GMRI's *PowerHouse* program and CMP's AMI network and online Energy Manager
- To demonstrate, document and evaluate the effectiveness of student engagement with home electricity use data and their ability to impact household behaviors around energy use patterns
- To increase the marketplace for third party solutions; GMRI and Tilson will undertake a business planning process to prepare for scaling and replicating the *PowerHouse* model in the domestic retail electricity market

Benefits

- Energy savings stimulated by direct feedback of 5-15%
- Reduced carbon emissions from decreased electricity generation
- Educating students and their households in energy-saving techniques



CONTACTS

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PARTNERS

Central Maine Power Company;
Tilson Government Services, LLC;
Maine Mathematics and Science Alliance (MMSA);
Image Works

PROJECT DURATION

8/15/2012 – 8/14/2013

COST

Total Project Value
\$662,789

DOE/Non-DOE Share
\$331,395/\$331,395

DEMONSTRATION STATES

Maine

