

Idaho K-12 Schools Energy Efficiency Project

Energy Expert™ is providing a clear picture of the impact of our scoping energy audits and HVAC and Control system tune-ups. We are very encouraged by the savings we are beginning to see around the state. Our current estimates of program savings on the tune-ups is over three million dollars. That's right on track with our project goals.

*- Sue Seifert, Idaho Office of Energy Resources,
Commercial/Institutions Program Manager*

About NorthWrite

Established in 2000, NorthWrite – The WorkSite Company is an industry leader in web-based energy monitoring and analysis. NorthWrite award-winning products are installed nationwide for demand side management, energy conservation and load profiling, tenant billing, submetering and energy modeling across the spectrum of commercial, industrial, institutional, and governmental facilities. The Worksite solution includes integrated communications and program management tools that seamlessly connect all stakeholders to ensure your energy program meets its savings and sustainability objectives.

Executive Summary

Background

The Office of the Governor and state lawmakers committed over \$17 million of American Recovery and Reinvestment Act State Energy Program funds toward energy efficiency upgrades for K-12 existing school buildings located throughout Idaho.

Objective

The number one goal identified at the project onset was to save participating districts 10 to 15 percent on utility bills over three years, with associated performance objectives to include the installation of smart energy management software to track building energy use and accumulate operating parameters for ongoing analysis.

Outcome

Energy audits and tune-ups were performed in over 894 K-12 classroom buildings. Energy Expert™, NorthWrite's advanced Energy Information System (EIS), began tracking energy use providing critical feedback to building operators to verify savings and ensure they persist over time.

To date, all schools where energy performance can be compared to the pre-audit and upgrade period (2009 baseline) are reporting savings—with some schools exceeding 15% savings in the first year!



NorthWrite – The WorkSite Company

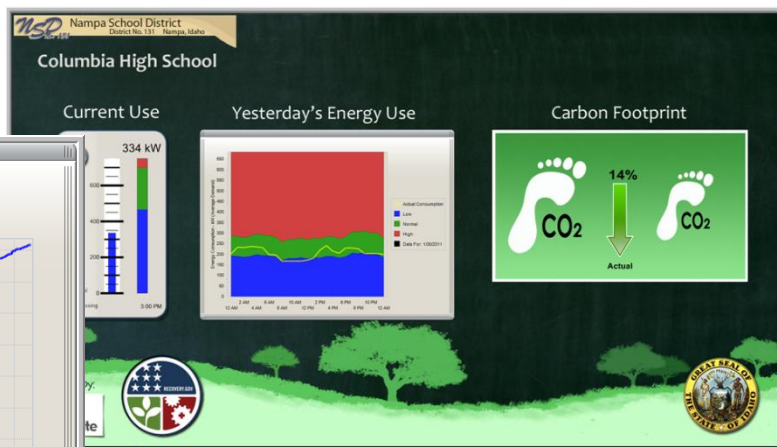
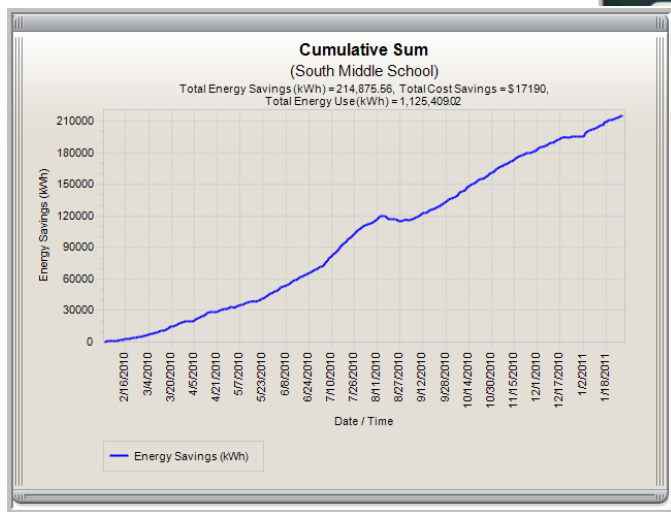
1300 NE Godward St, Suite 6800

Minneapolis, MN 55413

Website: www.northwrite.com

Email: info@northwrite.com

Phone: 877-743-4232



NorthWrite's Energy Kiosk™ in the lobby of Columbia High School in Nampa, Idaho displays real-time energy information as well as the CO₂ emissions reductions resulting from the energy savings.

Energy Expert Cumulative Savings chart for South Middle School in Nampa, Idaho shows energy savings of 214,875 kWh (over 19%) of total energy consumed over the period of February 2010 to January 30, 2011 (using the 2009 pre-audit/tune-up time period as baseline).

Background

During state fiscal years 2010 and 2011 approximately 894 existing Idaho K-12 classroom buildings will have heating, ventilation and cooling system tune-ups completed with a primary objective of saving between 10 and 15 percent over the baseline year energy usage. Additional performance goals for the project include the establishment of an accurate energy use baseline through the installation of NorthWrite's Energy Information System (EIS) and monitoring hardware to capture building energy use data. The primary purpose of the energy software is to quantify energy savings and assist building operators and/or district personnel to maintain the energy efficiency achieved from the audits and tune-ups. A single, consistent EIS implementation enables the Idaho Office of Energy Resources to track results across Idaho's geographically distributed school districts.

Results

Once NorthWrite's wireless monitoring hardware was installed at the electric meter, Energy Expert software (for tracking energy savings performance and detection of usage anomalies), began calculating expected energy use based on schedules, local weather conditions and the building's prior energy use. The Energy Expert calculates expected consumption and compares it to the building's actual usage to determine savings (or cost) on an hourly basis. Results are calculated and delivered daily via the Energy Expert Scorecard. In addition, select schools have NorthWrite's Energy Kiosk displaying real-time information for public viewing of the savings. The success of the project is already apparent in the first year in which audit and tune-ups were completed for the initial group of schools. Every school where 2009 baseline data was collected are reporting savings—with many of them showing double digit reduction in energy use!