Advanced energy information systems

DESCRIPTION

Advanced energy information systems (EIS) are one of the tools in a building energy management and information system for managing commercial building energy use. An EIS typically has web-based software, data acquisition hardware and a communication system for storing, analyzing and displaying building energy use data. An EIS enables energy and cost savings by providing real-time energy performance so facility managers can eliminate operational energy waste, identifying equipment upgrades or replacements that improve efficiency, and tracking performance to ensure that efficiency gains are maintained over time. Advanced EIS may be able to integrate trend log data from building automation systems for insight on system operations and may include more sophisticated analytics that use baseline models normalized for key energy drivers.

DEMONSTRATING THE TECHNOLOGY

This technology is suitable for a range of commercial buildings, from offices to grocery stores and refrigerated warehouses to enclosed malls. An EIS can be applied to one building or to a portfolio of buildings. Sites for testing/demonstrating this technology could be recruited from participants in commercial new construction and/or retrocommissioning programs.



CRITERIA	VALUE
Electricity savings	0.47 kWh/ft²
Gas savings	0.03 therm/ft²
Cost savings	\$0.07/ft²
Measure life	7 years
2017 simple payback	4 years
Carbon emissions avoided	5.5E-04 MT equivalent CO ₂
How it saves energy	Provides real-time information on building energy use so facility managers can adjust operations to prevent energy waste.
Non-energy benefits	Lower building maintenance effort/cost
Barriers to adoption	Training for users, other tools (controls) needed to actually create savings, IT barriers



