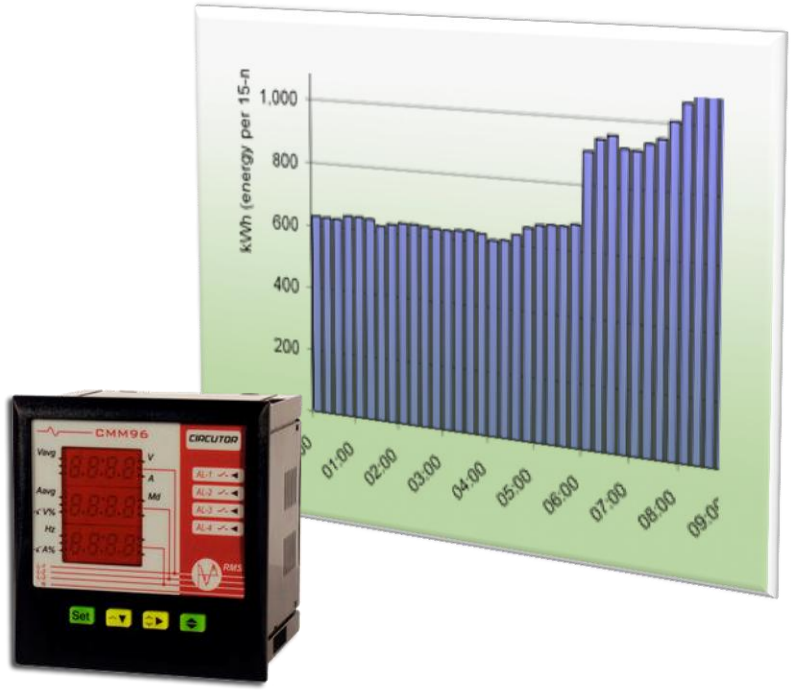
U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy



Submeter Challenge

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Purpose & Objectives

Problem Statement:

To most effectively improve a building's energy efficiency, energy use must be measured.

However, (near) real-time energy use data are not available for many buildings, often due to the high cost of metering and gathering data.

The commercial building market, including the Federal sector where metering of building energy use is required by law, is in need of reliable, cost-effective metering systems – especially at the panel level.

Purpose & Objectives

Impact of Project:

Supports government and private sector commercial building energy efficiency improvement efforts.

Real-time energy use data from submeters can be used to improve building operations and support efficiency strategies.

Submeters support a range of activities and savings mechanisms from occupant awareness to ongoing/metering-based commissioning.

Purpose and Objectives

Project Focus:

Using metering systems to enable energy efficiency actions is estimated to deliver minimum electricity energy savings of at least 2%.

For all commercial buildings this corresponds to annual primary electricity energy and cost savings of 71 trillion BTU/yr and $1.7 billion/year.

Approach

Approach: DOE is initiating a Challenge to manufacturers to spur the development of low cost electric metering systems.

Key Issues: Current offerings are not cost effective. Devices either have more features than are needed and have a high cost or have a low price but are not robust enough for commercial applications.

Distinctive Characteristics: The Challenge affords an opportunity to participate for all manufacturers and for both public and private sector building owners.

Accomplishments and Progress

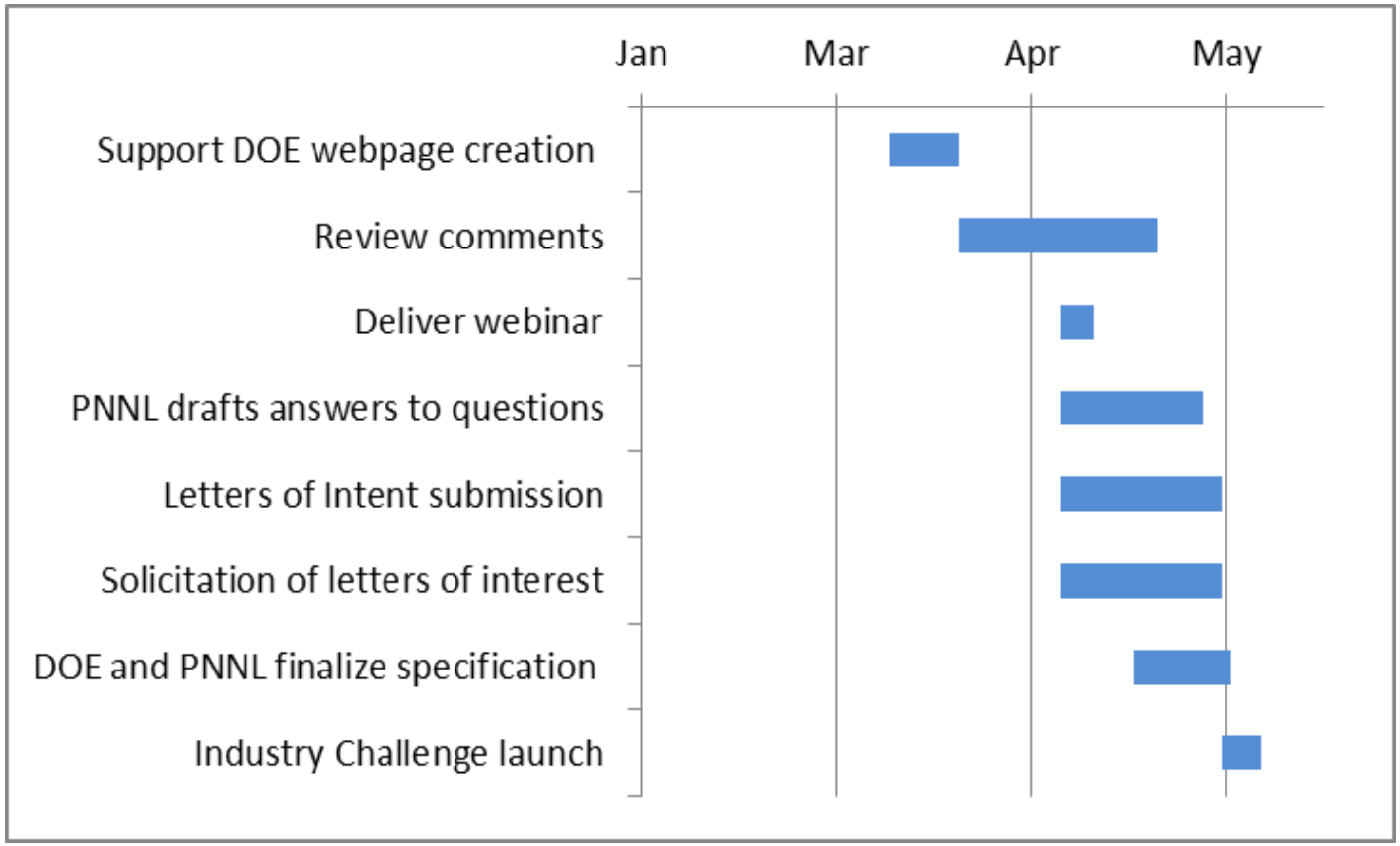
Accomplishments: Federal agencies and private sector representatives have helped form the specification.

Progress on Goals: Good stakeholder participation in specification development and strong interest in upcoming launch.

Awards/Recognition: None as of yet. Recognition will be provided for those manufacturers who are able to generate new metering technologies for the challenge.

Project Plan & Schedule

Short term timeline



Project Budget

Project Budget: FY 2012 $179k budget, $171k was spent, FY 2013 340K (8k of which was carry over from FY2012)

Variances: FY13 Task 1 was revised to provide further specification development.

Cost to Date: 22%

Additional Funding: None

Budget History					
FY2010		FY2011		FY2012	
DOE	Cost-share	DOE	Cost-share	DOE	Cost-share
0	0	0	0	$171K	0

Project Integration, Collaboration & Market Impact

Partners, Subcontractors, and Collaborators: BTO will be working with manufacturers who wish to respond to the specification, building owners who may be interested in using the technologies and third party groups like utilities and non-profits that would like to see greater deployment of metering devices.

Technology Transfer, Deployment, Market Impact: BTO will be soliciting "letters of interest" from many market actors including Federal and Commercial building owners to signal market interest in the technology. The technology will then be deployed through those same partners.

Communications: BTO will create a web platform where the specification will be available to those who are interested. Additionally BTO will be sending out press releases around the soft and hard launches of the Challenge as well as holding webinars where feedback will be addressed.

Next Steps and Future Plans

Next Steps and Future Plans:

- Soft launch end of March
- Comment period – April/early May
- Hard launch – end of May
- Finalize list of suppliers planning to submit prototypes
- Receive prototypes and verify compliance
- Field test
- Name Challenge compliant entries
- Work with building owners, Private and Federal, to deploy technology

Future Impacts: a truly low cost meter could transform the building metering industry – first cost consistently noted as key barrier to greater deployment.

Future Projects: future projects may include working with data management firms to compile best practices or otherwise streamline the process of collecting, analyzing and disseminating information gleaned from the data collected.