Federal Roundtable: Labs21 and Federal Energy Reduction Requirements


Energy Policy Act of 2005

Signed into law on August 8, 2005, the Energy Policy Act of 2005 (EPAct) represents the first comprehensive energy legislation since 1992. Among other mandates, EPAct includes numerous requirements of the federal government with a goal of increasing energy efficiency across the federal sector. Following is a brief summary of several key federal requirements included in EPAct as well as a glimpse into what the future might bring.

Advanced Metering

EPAct, Section 103 directs federal agencies to meter electricity consumption in all federal facilities using advanced metering devices by the start of FY 2013 (October 1, 2012), where found to be cost effective. Effective use of advanced metering data can provide energy managers valuable information that can lead to substantial energy and utility cost savings. Advanced metering can also help agencies identify potential energy savings opportunities, comply with energy reduction mandates, verify energy savings, and allow for participation in utility demand reduction programs.

Annual Energy Reductions

Fiscal year (FY) 2006 marks the first year in which federal agencies are required to report progress against the annual energy reduction goals outlined in EPAct, Section 102. These new targets, which supplement those already covered by Executive Order (E.O.) 13123, require all federal agencies to reduce annual energy intensity—measured in British thermal units divided by gross square footage (Btu/GSF)—according to the following schedule:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Cumulative Percent Reduction Required (Below FY 2003 Baseline)</th>
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</thead>
<tbody>
<tr>
<td>2006</td>
<td>2 %</td>
</tr>
<tr>
<td>2007</td>
<td>4 %</td>
</tr>
<tr>
<td>2008</td>
<td>6 %</td>
</tr>
<tr>
<td>2009</td>
<td>8 %</td>
</tr>
<tr>
<td>2010</td>
<td>10 %</td>
</tr>
<tr>
<td>2011</td>
<td>12 %</td>
</tr>
<tr>
<td>2012</td>
<td>14 %</td>
</tr>
<tr>
<td>2013</td>
<td>16 %</td>
</tr>
<tr>
<td>2014</td>
<td>18 %</td>
</tr>
<tr>
<td>2015</td>
<td>20 %</td>
</tr>
</tbody>
</table>

Year in Review - FY 2006 Milestones

- **February 3, 2006** – As required by EPAct, the Department of Energy (DOE) released its official Guidance for Electric Metering in Federal Facilities. [www.eere.energy.gov/emp/pdfs/adv_metering.pdf](http://www.eere.energy.gov/emp/pdfs/adv_metering.pdf)


- **May 24, 2006** – DOE hosted second “Advanced Metering for the Federal Sector Workshop” in Washington, DC.

- **August 3, 2006** – All federal agencies were required to submit agency-wide advanced metering plan to DOE.
Procurement of Energy-Efficient Products

EPAct, Section 104 requires that all federal agencies amend their construction and procurement specifications and evaluation of competitive offers to require that energy-consuming products be either ENERGY STAR® or FEMP-designated. Exceptions to this mandate are if an agency head can document in writing that:

1. Use of the ENERGY STAR® or FEMP-designated product will not be cost-effective over the life of the product.

2. No ENERGY STAR® or FEMP-designated product is available to meet the necessary functional requirements.

3. The product is being used for combat-related activities.

Additionally, Section 104 includes regulations for the procurement of premium efficiency electric motors (between 1-500 horsepower) and also encourages agencies to maximize the efficiency or air conditioning and refrigeration equipment.

Energy-Savings Performance Contracts (ESPCs)

EPAct, Section 105 extends energy savings performance contracts (ESPCs) under Section 801 of the National Energy Conservation Policy Act (NECPA) from October 1, 2003, through September 30, 2016.

Energy-Efficient Building Design

EPAct, Section 109 mandates that DOE develop and issue a new federal building energy efficiency standard that requires all new federal buildings be designed, where life-cycle cost effective, to use at least 30 percent less energy than specified in the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) standard 90.1 or the International Energy Conservation Code (depending on building type). Section 109 also requires federal agencies to identify construction of new buildings in their budget requests and identify those that meet or exceed the standard.

Year in Review - FY 2006 Milestones

- August 2006 – DOE submitted its draft guidance to the Office of Management and Budget (OMB).

Renewable Energy Purchases

Beginning in FY 2007, Section 203 of EPAct requires all federal agencies to procure renewable energy according to the following schedule:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Percent of Annual Electricity Consumption Derived from Renewable Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006*</td>
<td>2.5 %</td>
</tr>
<tr>
<td>2007 – 2009</td>
<td>At least 3 %</td>
</tr>
<tr>
<td>2010 – 2012</td>
<td>At least 5 %</td>
</tr>
<tr>
<td>2013 +</td>
<td>At least 7 %</td>
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</tbody>
</table>

*Note: E.O. 13123 mandated that federal agencies procure renewable energy equivalent to 2.5 percent of annual facility electricity consumption by FY 2005. Since the renewable energy goals included in EPAct do not take effect until FY 2007, DOE determined in May 2006 that this same goal for FY 2005 would be extended to FY 2006.
FY 2006 Reporting Guidance

- E.O. 13123 energy reduction goals are still in effect, although federal agencies are not required to report progress against these goals again until FY 2010.

- While E.O. 13123 allows federal agencies to classify reporting facilities into two groups (standard and energy intensive), EPAct makes no distinction between these two categories of facilities in measuring performance against annual goals.

- Federal agencies will continue to receive credit for renewable energy purchases towards the FY 2006 energy reduction requirement. It is uncertain, however, whether DOE will extend this provision into future years.

A Glimpse Into the Future

Annual Energy Reduction
- FY 2007 – 4 percent reduction in Btu/GSF compared to FY 2003 baseline.

Advanced Metering
- FY 2007 – Additional DOE workshops.

Renewable Energy Procurement
- FY 2007 - 2009 – At least 3 percent of annual electricity consumption.

Procurement of Energy-Efficient Products
- Fall 2006 – Proposed regulation from DOE expected (a public comment period will follow).

Energy-Efficient Building Design
- Fall 2006 – Interim final rule from DOE expected regarding guidance for meeting new energy efficiency standard (a 60-day public comment period will follow).

- Fall/Winter 2006 – Separate rule making for guidance on building design for sustainability and water conservation.

- 2007 – DOE-sponsored workshops to help federal agencies meet new energy efficiency standard.

Annual Reporting in FY 2007
- Unclear if federal agencies will continue receiving credit for renewable energy purchases towards annual energy reduction goal; additional DOE guidance forthcoming.

- For the first time, agencies required to report percent of annual electricity metered using standard and advanced meters.
**OMB Energy Management Scorecards**

To further quantify federal agencies’ energy reductions and evaluate other indicators of environmental performance, in FY 2006 OMB developed scorecards for three different categories: energy, transportation, and environmental management. The energy management scorecard contains six evaluation measures (five existing and one TBD). Following is a brief summary of the performance criteria, reporting schedule, and performance rating system.

### Performance Criteria

- Reduction in energy intensity in standard buildings compared to FY 1985 baseline.

- Reduction in energy intensity at all facilities compared to FY 2003 baseline.

- Use of renewable energy as percent of annual facility electricity use.

- Agency-wide advanced metering plan submitted to and approved by DOE.

- Percent of new building designs that are 30 percent more efficient than relevant code.

### Reporting Schedule

OMB requires all federal agencies to report both year-end status (in January) and mid-year progress (in July) related to each measure. With each report, each agency is also required to list actions taken in the last six months and planned actions for the next six months.

### Performance Rating System

Using a color-coded scoring system of green (success), yellow (mixed results), and red (unsatisfactory), OMB scores federal agencies on each evaluation criteria at the end of the year based on each agency’s reported performance.

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**Year in Review - FY 2006 Milestones**

- Moved performance measure regarding procurement of energy-efficient products to Environmental Management Scorecard.

- Added performance measure on metering electricity consumption.

- Deleted performance measure regarding the reduction of petroleum consumption in buildings.

- Senior officials meeting in July 2006 to review all agencies’ mid-year scorecard updates.