



U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
Renewable Energy

# Federal Utility Partnership Working Group Seminar: Washington Update

January 14, 2014

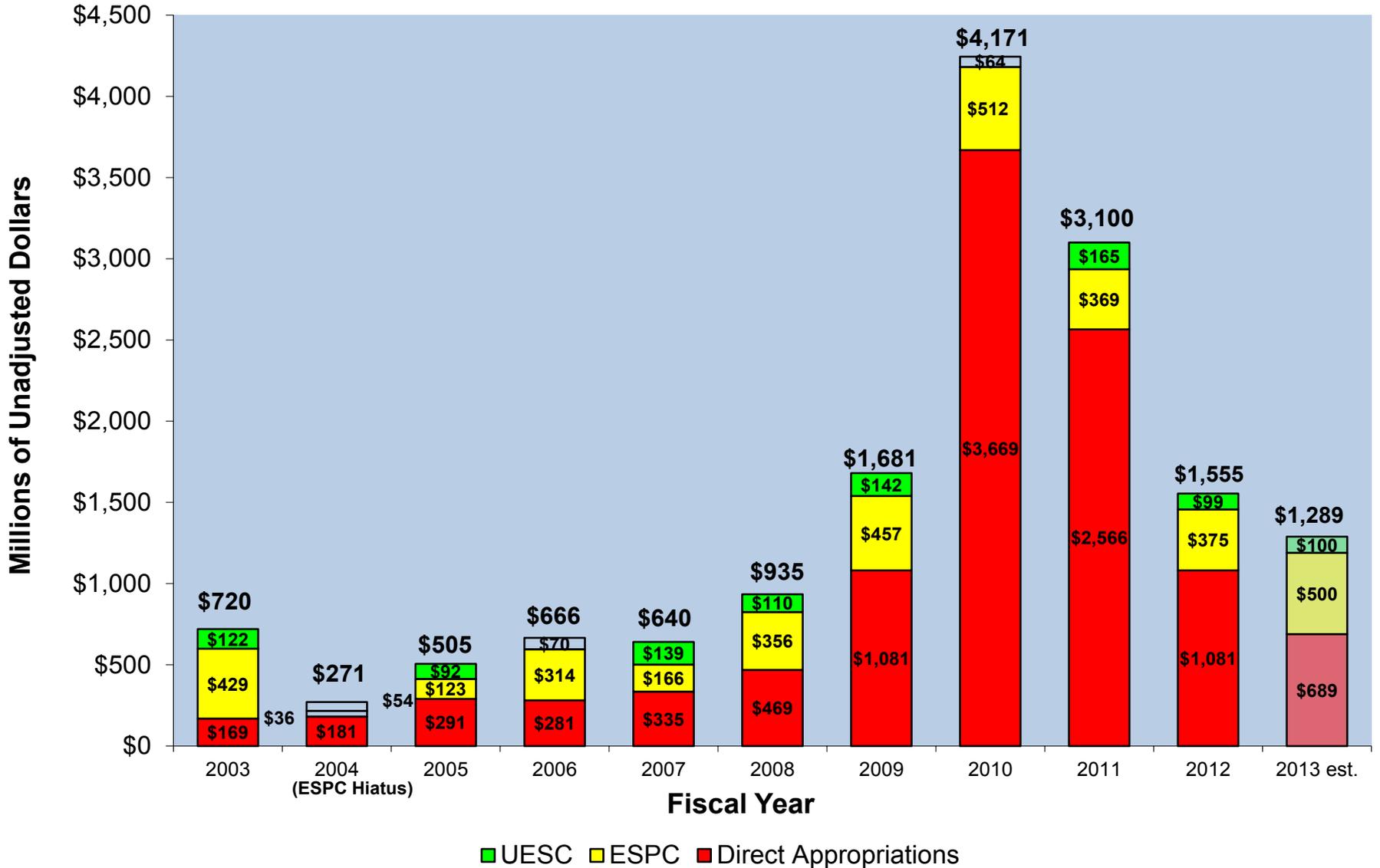
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# Agenda

- FEMP Update
  - Federal Facilities: Investment in Resource Efficiency Projects
  - FEMP Org Chart and Staffing Updates
  - UESC Data Collection
  - AFFECT Grant Program Update
  - ESPC ENABLE Program Expansion
  - FEMP Training Accreditation
- Washington Update
  - Presidential Memorandum - Federal Leadership on Energy Management
  - Performance-Based Contracting Challenge Expansion
  - Green Button Initiative
  - Proposed Bills to Clarify 25 Year Term for UESCs
- Questions

# Federal Facilities: Investment in Resource Efficiency Projects



# EISA 432 Compliance Tracking System (CTS)

[http://www1.eere.energy.gov/femp/regulations/facility\\_ctsreports.html](http://www1.eere.energy.gov/femp/regulations/facility_ctsreports.html)

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EERE Home | Programs & Offices | Consumer Information

## FEMP EISA 432 Compliance Tracking System v1.1.0.6

REPORTS AND DATA HOME
COMPLIANCE OVERVIEW
DATA WAREHOUSE
CONTACTS

**Report Filters:**

Completed Evaluations:  Export To:

**Comprehensive Evaluation Findings (by Agency)**  
 (Data as of Jan 9 2014 11:23PM)  
 \* Cost savings for energy may also include water cost savings when it could not be disaggregated.

Agency	Estimated Cost and Dollar Savings of Potential ECMs						Resource Savings		Boiler Plant Improvements
	Gross Square Feet Evaluated (Thou.)	Estimated Implementation Cost of Potential ECMs (Dollar)	Estimated Annual Energy Cost Savings * (Dollar)	Estimated Annual Water Cost Savings (Dollar)	Estimated Annual Ancillary Cost Savings (Dollar)	Estimated Total Annual Cost Savings (Dollar)	Estimated Annual Energy Savings (Million Btu)	Estimated Annual Water Savings (Thou. Gallon)	
<b>Federal Government Total</b>	<b>1,835,223.2</b>	<b>10,960,781,351</b>	<b>838,662,911</b>	<b>110,627,865</b>	<b>27,490,717</b>	<b>976,781,492</b>	<b>41,018,335.5</b>	<b>16,939,151.7</b>	<b>2,296</b>
Department of Agriculture (USDA)	17,886.5	96,876,406	8,349,127	178,226	20,711	8,548,064	524,853.2	314,932.5	75
Department of Commerce (DOC)	9,904.2	14,845,817	4,080,045	46,550	12,124	4,138,719	132,827.3	3,995.5	3
Department of Defense (DOD)	1,096,805.4	2,626,623,416	349,525,592	93,005,491	3,002,017	445,533,100	16,917,186.3	5,613,036.8	1,463
Department of Energy (DOE)	76,782.0	3,724,504,366	113,501,008	4,086,625	19,545,451	137,133,083	5,676,168.7	1,380,567.7	36
Department of Health and Human Services (HHS)	22,619.1	81,118,475	13,590,599	946,661	73,561	14,610,821	700,356.6	103,288.2	23
Department of Homeland Security (DHS)	28,260.0	137,410,834	15,370,766	619,302	537,563	16,527,631	355,552.2	1,875,168.5	31
Department of Justice (DOJ)	2,527.0	31,478,800	2,462,260	843,402		3,305,662	148,672.0	174,419.0	2
Department of Labor (DOL)	16,457.6	10,617,041	3,067,023	464,710		3,531,733	99,759.9	58,979.6	3
Department of State (STATE)	4,655.6	947,691	165,782	23,276		189,058	115,126.5	1,365.0	1
Department of the Interior (DOI)	35,179.3	103,813,819	7,275,741	1,414,318	30,795	8,720,854	441,342.6	113,748.6	105
Department of the Treasury (TREASURY)	8,068.7	107,145,997	10,770,296	51,013	549,380	11,370,689	298,524.9	22,051.0	5
Department of Transportation (DOT)	4,170.5	34,109,098	5,513,402	639,408	53,580	6,206,390	128,794.9	58,663.3	4
Department of Veterans Affairs (VA)	155,637.7	837,196,321	91,974,794	5,546,969	631,357	98,153,120	7,736,555.4	874,977.6	266
Environmental Protection Agency (EPA)	2,841.7	107,274,931	3,341,618	65,987	8,028	3,415,632	360,634.9	26,458.4	8

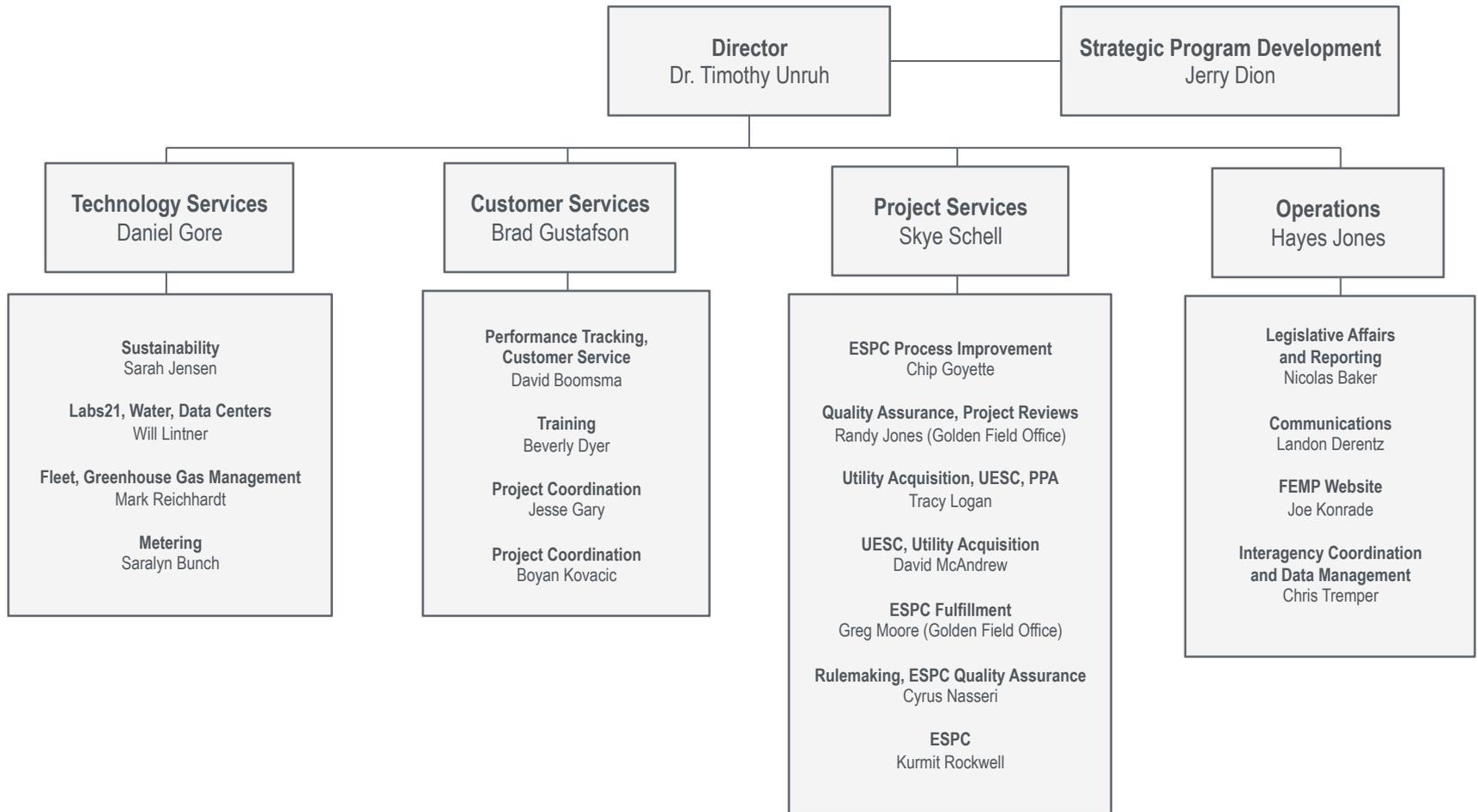
# Investment Opportunity per CTS

- CTS Database indicates an investment opportunity of nearly \$11B

□

Agency	Estimated Implementation Cost of Potential ECMs (Dollar)
<b>Federal Government Total</b>	<b>10,960,781,351</b>
Department of Energy (DOE)	3,724,504,366
Department of Defense (DOD)	2,626,623,416
General Services Administration (GSA)	1,586,533,764
Postal Service (USPS)	1,045,175,156
Department of Veterans Affairs (VA)	837,196,321
National Aeronautics and Space Administration (NASA)	174,511,799
Department of Homeland Security (DHS)	137,410,834
Environmental Protection Agency (EPA)	107,274,931
Department of the Treasury (TREASURY)	107,145,997
Department of the Interior (DOI)	103,813,819
Department of Agriculture (USDA)	96,876,406
Department of Health and Human Services (HHS)	81,118,475
Social Security Administration (SSA)	47,126,261

# FEMP Organization



# UESC Data Collection

- Agency participation in data collection is vital to FEMP understanding current trends in investment and gauging UESC success.
- While FEMP's data collection is done on a voluntary basis, Federal agencies are required to submit 75% of total facility energy use to the EISA 432 Compliance Tracking System (CTS).
- Data on UESC projects has been collected since 1991, and information on almost **2,000** UESC projects has been tracked.
- Over **\$2.7 billion** has been invested in federal facilities upgrades and retrofits through the UESC funding mechanism.
- Total awarded projects for the past 5 years is 154 at just under \$445 million and the current pipeline is close to 457 million.

# UESC Data Collection

- Your reporting efforts and success stories help us validate the impact of FEMP's UESC program.
- It is never too late to report data. Adding data from past years' projects is just as important.
- FEMP recognizes agencies and utilities that report data at FUPWG Seminars and features their projects in case studies.
- FEMP Data Collection efforts are led by Kaila Raybuck at Energetics (202) 406-4167 or [kraybuck@energetics.com](mailto:kraybuck@energetics.com). Kaila has UESC data reporting information at the registration desk.

# Special Thanks for Submitting UESC Data!

- NASA
- DOD- U.S. Army
- DOE- Bonneville Power Administration
- Veteran Affairs
- HHS – FDA
- NIH
- USDA
- DOD – Airforce
- Florida Power & Light
- PEPCO
- National Grid
- Pacific Gas & Electric
- Atmos Energy
- Nolin RECC
- Alabama Power Company

# AFFECT Grant Program Update

- **Assisting Federal Facilities with Energy Conservation Technologies**
- **Key Details**
  - Up to \$5M in direct funding for CHP and renewable energy capital projects
  - The funding level per award will range from ≈ \$50,000 to \$1M.
  - Only U.S. Federal agencies, sub-agencies, and national laboratory contractors are eligible to apply, and only Federal government-owned facilities are eligible.
  - Agencies are expected to leverage FEMP funds with agency-appropriated funds or alternative project financing mechanisms, such as UESCs and ESPCs.

# AFFECT Grant Program Update

- Key Dates

- Released November 5, 2013 on EERE Exchange.
- Letter of Intent required to submit Full Application (due date past).
- Full Applications due February 18, 2014. (LOI is required to submit a full application)
- Target date to announce selections is April 29, 2014.

# ESPC ENABLE Program Updates

- Updates in the Program
  - 13 qualified ESCOs under GSA Schedule 84
    - Four Small Business vendors
  - Expanded ECMs to solar (PV) and related HVAC equipment
  - Procurement templates updated to include ECM expansion
  - Enhancements made to IGA automation tool to expand ECMs and improve project review
- Pipeline Status
  - Currently engaged with 11 agencies/sub-agencies
  - 4 agencies pursuing projects at ≈ 20 sites
    - 1 enterprise NOO (2 lost last year)
  - Project scopes range from one specific ECM to multiple ECMs
  - Efforts with agencies is leading to other performance contracting opportunities



# FEMP Training Accreditation

## FEMP Accredited in October 2013

-International Association for Continuing Education and Training (IACET)



## Why IACET/ANSI Accreditation?

- Developed the Continuing Education Unit (CEU), a standard industry metric for measuring CET
- One of the only CET organizations to partner with a national standards-making body (ANSI)

## Why is accreditation important?

- Establishes FEMP as a leader in Federal continuing education & training (CET)
- FEMP training program is certified by an independent accrediting body ensuring that learner needs are met.

# FEMP Training Accreditation

IACET accreditation allows FEMP to offer *certified* Continuing Education Units (CEUs)

Certified Trainings receive IACET CEUs & Certificate

- **E-Learning**

- On-Demand interactive training that leverage learning management systems to facilitate learning experiences

- **First Thursday Seminars**

- Live online training session that allows for live interaction between subject-matter experts and audience
- Archived to reach larger audience

- **On-Site Workshops**

- Classroom Training

Non-certified Trainings receive standard FEMP Certificate of Completion

- **Webinars**



# PM – Federal Leadership on Energy Management

- President Obama signed a Memorandum on Dec. 5 directing the Federal Government to consume 20 percent of its electricity from renewable resources by 2020 – more than double its current level.

## Section 1. Renewable Energy Target:

By fiscal year 2020, to the extent economically feasible and technically practicable, 20% of total electric energy shall be RE.

*Agencies shall seek to achieve the RE consumption target by, where possible, taking the following actions, listed in order of priority:*

- 1) agency-funded, on-site RE project, retain RECs
- 2) contracted energy including RE project at Federal facility, or off-site at Federal facility, retain RECs
- 3) purchase electricity and corresponding RECs
- 4) purchase RECs

# PM – Federal Leadership on Energy Management

## Section 2. Accounting for RE:

- Ensure that RE percentage of total electricity consumed by agency is:
  - Not less than 10% in fiscal year 2015
  - Not less than 15% in fiscal years 2016 and 2017
  - Not less than 17.5% in fiscal years 2018 and 2018
  - Not less than 20% in fiscal year 2020 and thereafter
- Within 180 days DOE to issue update to current RE Guidance
- Ensure 100% of renewable energy certificates (RECs) *and* RECs bundled with electricity purchases, are produced from new renewable resources

# PM – Federal Leadership on Energy Management

## Section 3. Building Performance and Energy Management:

- Encourage continuous improvement and better manage building performance, enhance EE, and reduce energy waste:
  - Install building energy meters and sub-meters for energy and water
  - Install water meters where cost-effective and appropriate
  - For buildings metered for energy and water performance, enter monthly performance data into EPA Energy Star Portfolio Manager
  - Disclose annual benchmark energy performance data through DOE web-based tracking system (section 543, 42 USC 8253)
  - Incorporate Green Button into reporting, data analytics, and automation and processes, in consultation with local utilities
  - Participate in demand response programs where available

# Performance-Based Contracting Challenge

- Dec. 2011 – President Obama signed a memorandum challenging Federal agencies to enter into \$2 billion worth of performance-based energy contracts.
- UESC accounts for approximately 17% of all PPCC projects.

	Awarded Value (\$M)	Awarded (%)	Total Awarded + Pipeline (\$M)	Total Awarded + Pipeline (%)
DOE	\$645.7	49%	\$1,635.4	61%
ACOE	\$347.4	26%	\$511.5	19%
UESC	\$222.9	17%	\$424.1	16%
OTHER	\$100.4	8%	\$124.4	5%
Total	\$ 1,316	100%	\$ 2,695	100%

# Progress to Date

## Highlights of Key Statistics (Preliminary Data)

Key Stat	Description
Investment \$	Agencies identified projects (in the pipeline or awarded) with an estimated \$2.4B investment value
Projects #	Agencies identified 206 projects Majority of projects proposed are DOE ESPC, 92
Awarded Investment \$	104 projects have been awarded with an investment value of \$1.06B
Next Phase	100 projects are in the development pipeline, with expectations of a project being awarded
Needs to be Started	2 of the projects are conceptual, not started, or have not completed acquisitions plans

# Performance-Based-Contracting Challenge Expansion

- Dec. 2, 2013 – White House Council on Environmental Quality’s announced commitment to expand and extend the Federal energy performance contracting challenge.
- The administration is expanding the challenge beyond the \$2 billion goal.
- FEMP will work with agencies in early 2014 to identify a pipeline of additional projects to further reduce energy use through 2016.

# Green Button Initiative

- The Green Button Initiative is an industry-led effort in response to a White House call-to-action to empower consumers with their own energy usage information.
- Green Button empowers electricity consumers to securely download their own energy usage information from their utility. Armed with this information, consumers can use a growing array of web and smartphone tools to make more informed energy decisions.
- At the end of 2012, 16 million families and businesses had access to Green Button functionality. Utilities serving an additional 20 million households and businesses plan to make the feature available in 2013 – with more signing up every day.
- Green Button will help consumers reduce waste and shrink bills by providing secure, easy to understand information about how they are using energy in their households.

# How Does Green Button Work?

## GREEN BUTTON INITIATIVE

### HOW IT WORKS



### BENEFITS

Energy consumption data can be used to:

Track and analyze your energy use to conserve energy and save money

Assist with retrofit planning to increase the energy efficiency of your home



Optimize the size and cost-effectiveness of rooftop solar panels

# GSA to Serve as a Test Bed or Pilot of Green Button

- Ask utilities to provide GSA electricity data in Green Button format
- Ask vendors to support Green Button standard when providing energy-related services to GSA
- Publish a data set of GSA facilities' utility data (ideally in the Green Button format)
- FEMP's role to prepare guidance per the PM
- More information:  
<http://www.greenbuttondata.org/>

# Utilities Implementing Green Button

- Ameren Illinois
- Ameren Missouri
- American Electric Power
- Austin Energy
- Baltimore Gas & Electric
- Commonwealth Edison
- Consolidated Edison
- Connecticut Light & Power
- JEA
- National Grid
- NSTAR
- PG&E
- Portland General Electric
- TNMP
- Public Service Company
- Reliant
- SDG&E
- Southern California Edison
- TXU Energy
- Western Mass Electric
- Yankee Gas
- Wake Electric
- Xcel Energy

# Utilities Committed to Implementing Green Button

- Bangor Hydro Electric Co.
- CenterPoint Energy
- Central Maine Power
- Chattanooga EPB
- Efficiency Vermont
- Glendale Water and Power
- Kootenai Electric Cooperative, Inc. (Idaho)
- Oncor
- PacifiCorp
- Pacific Power
- PPL Electric Utilities
- PECO
- Pepco Holdings
- Rocky Mountain Power
- Sawnee Electric Membership Corporation (Georgia)
- United Illuminating Company
- Virginia Dominion Power

# Pending Legislation

- House and Senate finished work on the Defense Authorization Act before the end of the year, and UESC language was not included.
- Currently two stand-alone bills from Reps. Gardner, Welch, and Buschon (H.R. 3587) and Sens. Schatz, Alexander, and Coats (S. 1652) to clarify that UESCs may have a term of up to 25 years.
- These bills could possibly get a ride on Shaheen-Portman, but still an uphill fight because of the scoring issue.

# Questions

Contact Information  
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