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VA Energy Star Benchmarking Program

John Park, VA Energy Program Team Lead

VA Energy Star Program Overview

- Milestones
- Process for Updates
- Benefits
- Lessons Learned
- Future Plans
- Q&A

Veterans Affairs Footprints

- ❑ Over 150 Medical Center campuses (VA-owned hospitals, long-term care and support facilities)
 - Approximately 6,000 buildings with over 150 million GSF
 - Nearly 34,000 acres of land
 - The average age of VA facilities is est. at 50+ years

- ❑ 130 National Cemeteries

- ❑ FY 2010 energy cost and consumption:
 - Energy: \$505 million
 - 29 trillion Btu

Milestones

Federal Mandates for Benchmarking

- EISA 2007, Section 432, (8) (A)

“In General – The energy manager shall enter energy use data ...into building energy benchmarking system, such as the Energy Star Portfolio Manager”

VA Energy Star Program

- To promote energy intensity reduction for VA facilities
- Started in 2002 for Pilot Sites
- All VA Medical Centers are benchmarked in 2003 (before the EISA requirements)
- Ratings are updated every 3 months
- 30 VA Hospitals received Energy Star labels
- All VAMC Conducted Sustainable Building Survey using Checklist from 2010

Uniqueness for Hospitals

All buildings are inter-connected

- Campus
- Central Plant – providing all utilities

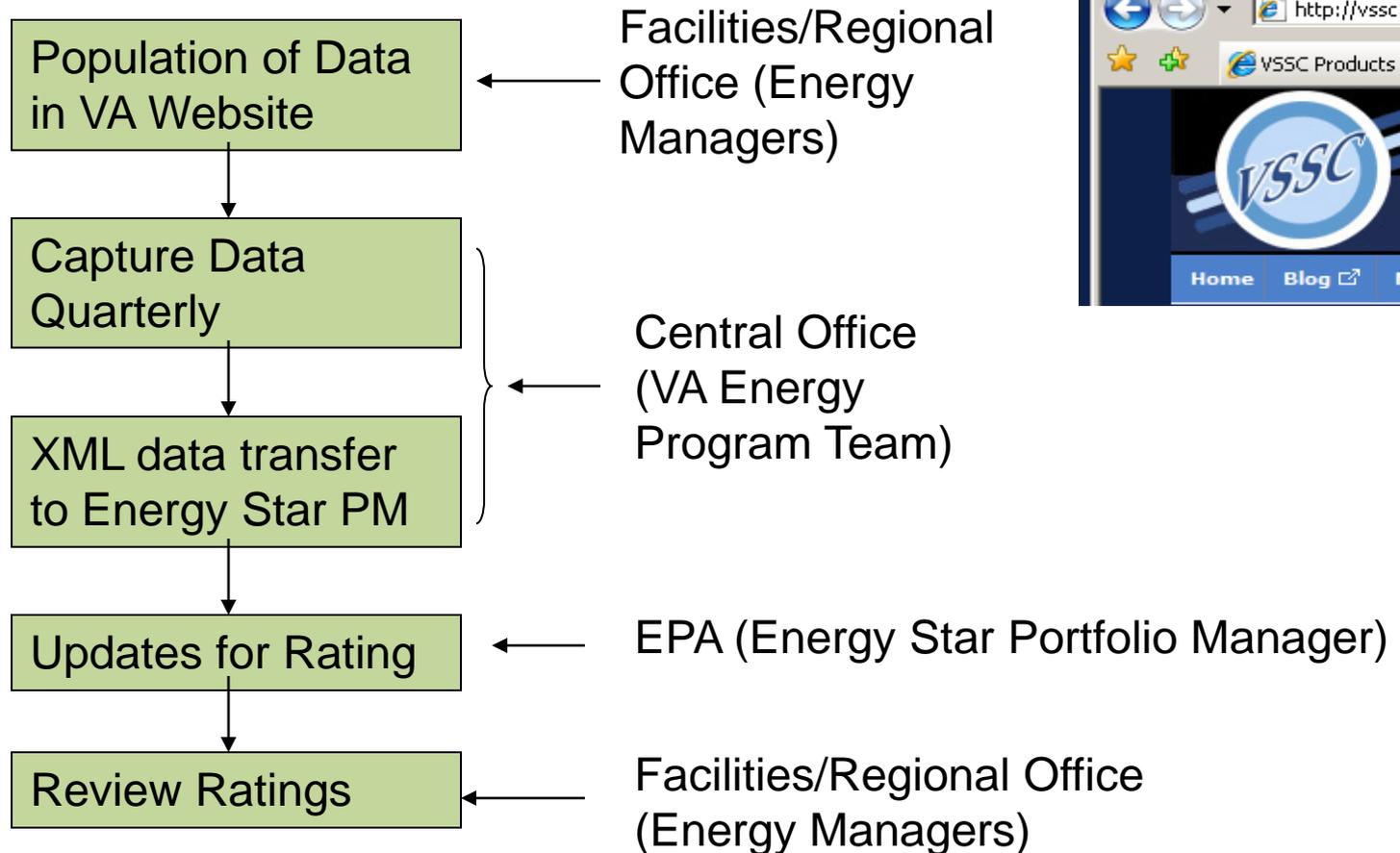
VA Energy Star Program

- One energy star rating per hospital



Palo Alto VA Medical Center – Typical

Process for Updates



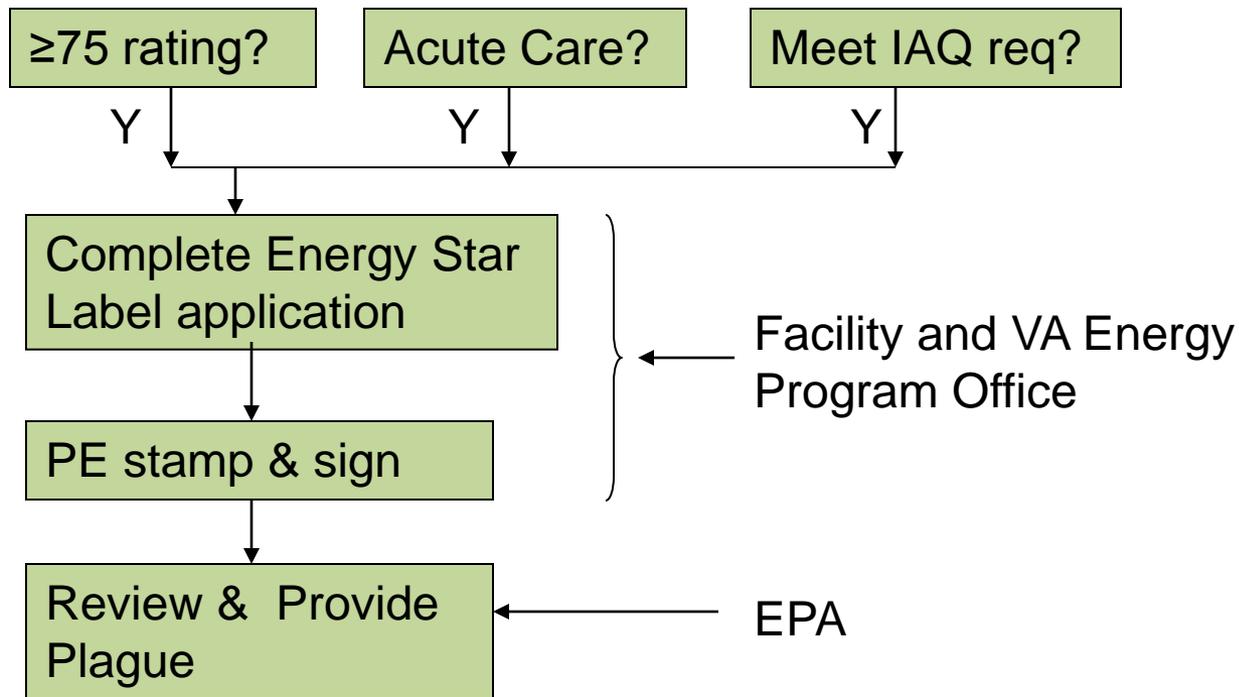
GROUP: [Create Group](#) | [Edit Group](#) | [View All](#)

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Results 1 - 172 of 172

Facility Name <input type="checkbox"/>	Current Rating (1-100) <input type="checkbox"/>	Change from Baseline: Adjusted Energy Use (%) <input type="checkbox"/>	Total Floor Space (Sq. Ft.) <input type="checkbox"/>
Albany	87	-3.2	991,765
Albuquerque	61	11.2	924,000
Alexandria	67	1.7	777,329
Altoona	55	12.3	308,780
Amarillo	32	14.6	394,657
American Lake	92	0	612,705
Ann Arbor	76	-9.3	1,172,529
Asheville	64	11.0	760,750

Process for Certification



Benefits

- ❑ EPA maintains
- ❑ Tracks Energy Use
 - Provide weather normalized source Energy Use Index (EUI)
 - Provide comparisons to other similar buildings
 - Provide competition between facilities
 - Provide Energy Star Labels
- ❑ Tracks Water Use
 - National Cemeteries – not much energy use, but intensive water users
- ❑ Tracks Carbon Emission Data
 - E-Grid data is built-in

Benefits

☐ Checks Sustainable Building Status

- Guiding Principles and required documents are listed
- Easy to obtain status data for all VA facilities

Date Certification Anticipated							
A	B	C	E	F	G	H	
Federal Sustainability Portfolio Report							
Facility	Sustainability Path	Date Certification Achieved	Employ Integrated Design				
			Integrated Assessment, Operation, and Management				
			Integrated 1	Integrated 2	Integrated 3	Integrated 4	
Albany	Guiding Principles for Sustainable Existing Building		Yes	No	No	No	
Albuquerque	Guiding Principles for Sustainable Existing Building		No	No	No	Yes	
Alexandria	Guiding Principles for Sustainable Existing Building		Yes	No	In Progress	No	

Benefits

❑ Checks Sustainable Building Status

- Based on Sustainable Building Data – VA selected 11 VA Medical Centers (180 buildings) for GP certification
- Hired GBI to provide 3rd party GP certification

❑ Good Indicator for Sustainable Building

- Selection Criteria for 3rd Party Green Building Certification in 2008 – Energy Star rating (over 75)
- 21 VA Medical Centers received certification before Oct. 1, 2008

Lessons Learned

❑ Square footage updates are required (manually)

- Automatic Data Transfer updates energy & water data
- Detailed changes are not updated – need manual updates

❑ Data Management

- Inaccurate Facility Energy Data input by non-energy persons
- Delayed inputs for Water Consumption data – delays data upload process

❑ Providing Access & Training

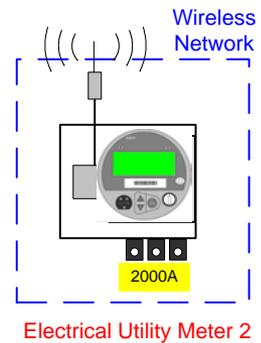
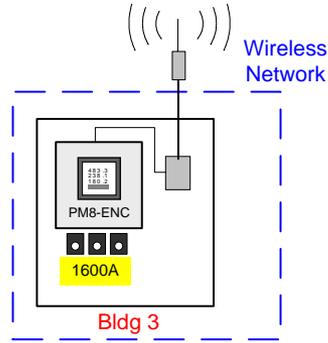
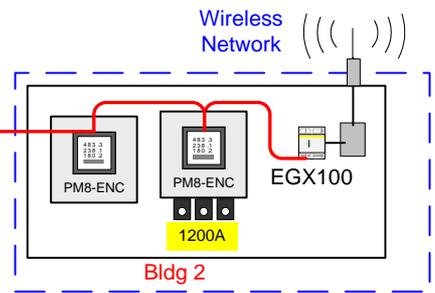
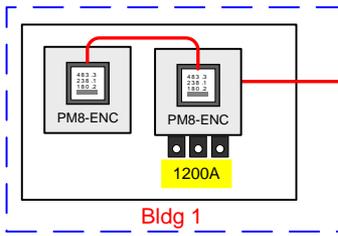
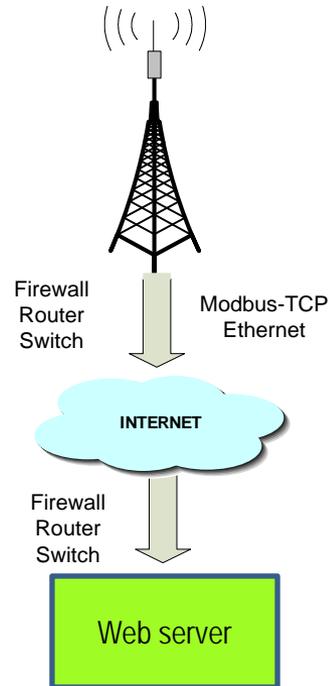
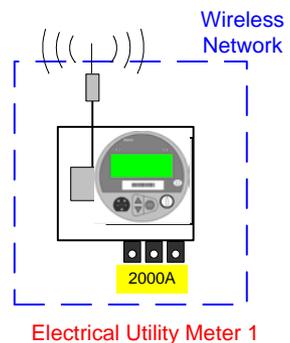
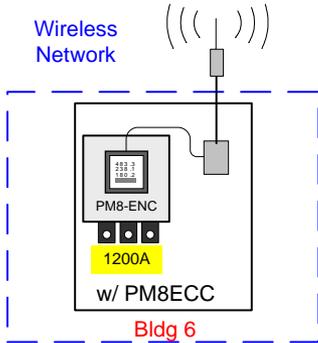
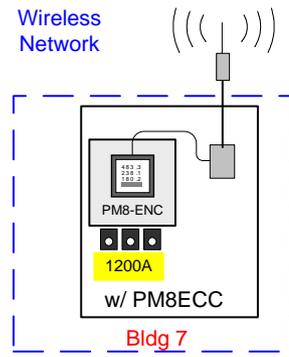
- Facility Energy person changes often

Future Plans

□ Data upload from Advanced Meters

- VA completed electricity meter installation
 - buildings & campuses (2,000 meters)
- VA will complete other energy meter installation by end of 2011
 - building & campus (4,000 meters)
- VA national meter website populate all energy consumption data

POP
Point of Presence
Connection of Wireless
Network to Hardwired
connection – at each campus



Future Plans

- ❑ **Participation of E2C program**
 - Incentivizing energy intensity improvements for VA facilities

- ❑ **Sustainable Building GP Certification**
 - More GP certifications using GP checklist

Questions?

□ Contact Information

- John Park (Energy Program Team Lead) – john.park2@va.gov
- Christina Stamper Christina.Stamper@va.gov