



Q1 2013 LEADERSHIP STEERING COMMITTEE MEETING

FEBRUARY 8, 2013

www.mass.gov/dcam/aep



ACCELERATED ENERGY PROGRAM



COMMONWEALTH COMMITMENT TO A CLEAN ENERGY FUTURE

Secretary Shor
Commissioner Cornelison



Governor Patrick
Lt. Governor Murray



Secretary Sullivan
Commissioner Sylvia



Welcome & Recognitions

AEP Quarterly Report Review

Jenna Ide

Example DCR Projects

Dave Ward (EE&D)

DOER Update

Eric Friedman

AEP Labor & Workforce Development

Hope Davis

Questions & Answers

Leadership Committee Feedback

Welcome

This quarter DCAMM and DOER recognize **Paul Antoniewicz** from the Court Capital and Facilities Management Office of the Trial Courts.

Paul has provided outstanding efforts in energy efficiency leadership, and we are grateful for his contributions and optimism.

Thank you Paul for your dedicated efforts!

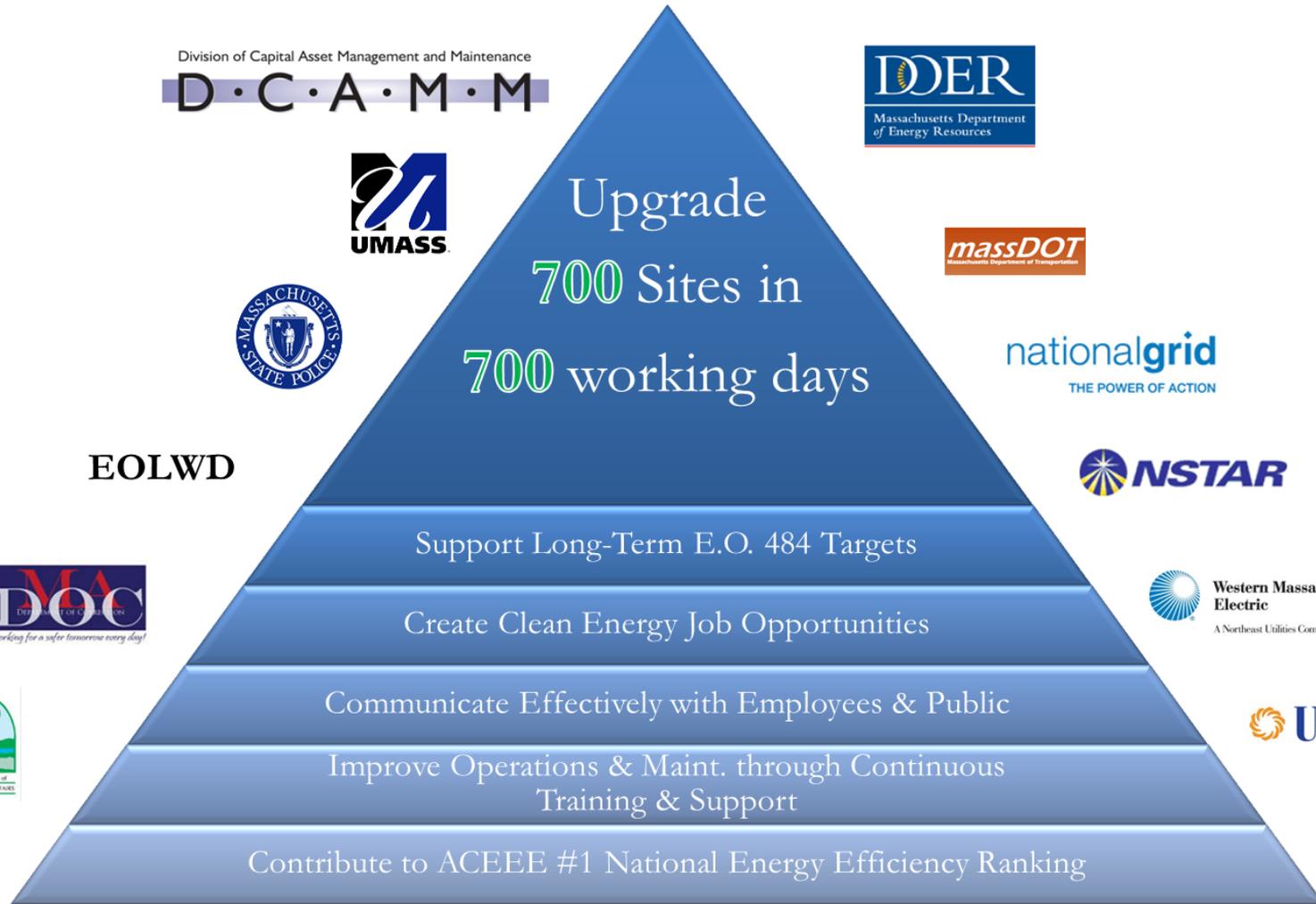


Plymouth Trial Courthouse, Plymouth, MA

*(First building in MA to receive EnergyStar label,
with a rating of 90)*

AEP Progress Review

Program Goals & Objectives



Major Accomplishments

AEP Press Release and Kick-Off Event

AEP Certification Designation

Innovative Utility Vendor Contracting

Ramping Up Energy Efficiency Audits

Agency Survey Results



*Commissioner Cornelison & Commissioner Sylvia
announcing the AEP to the public on Jan 15th, 2013.*

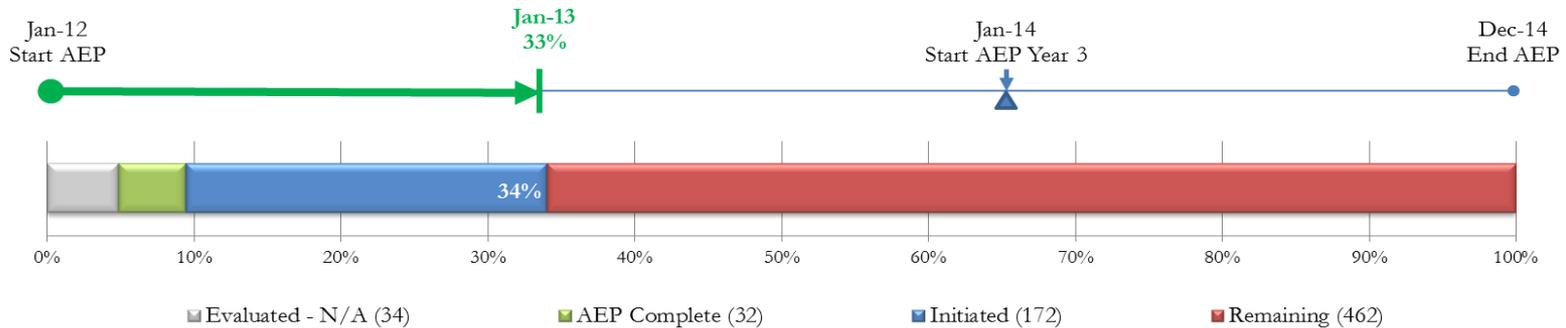
Program Status (as of Q4 2012)

We plan to retrofit **700** AEP Sites
In a total of **700** Working days
We have **204** Sites In Progress
With **32** Sites **Complete***
And **172** Sites **Initiated.**

*In order to achieve AEP Completion, small projects must complete construction, large comprehensive projects must enter construction, and new review projects must complete an energy audit.

Schedule Status

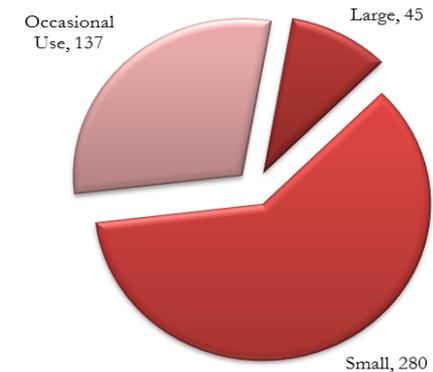
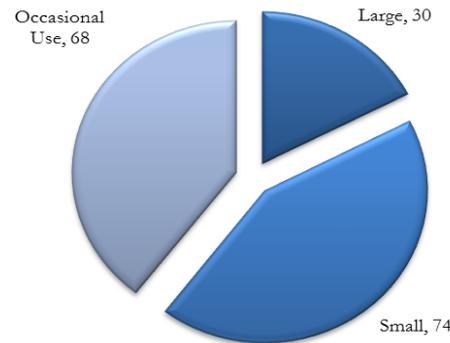
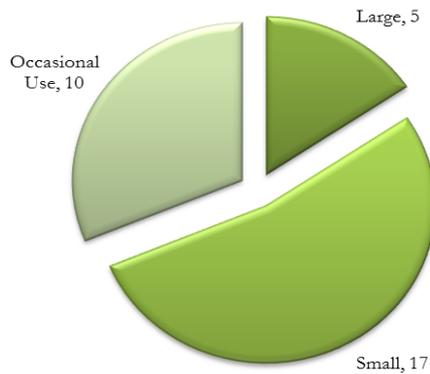
We will have initiated or completed **204 Sites** by the end of Q4 2012.



AEP Complete (32)

Initiated (172)

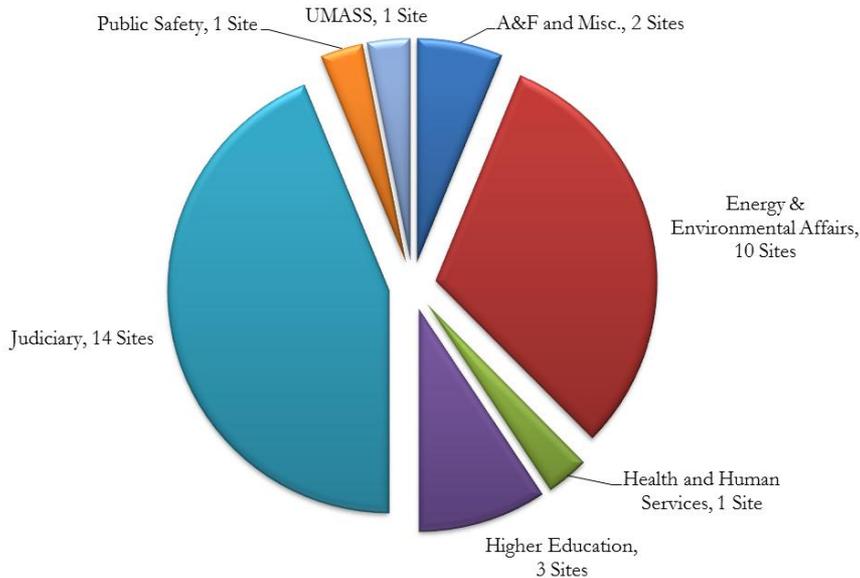
Remaining (462)



AEP Completed Sites

AEP Complete: 32 Sites

(Includes 12 sites that have completed construction and 20 sites in construction)

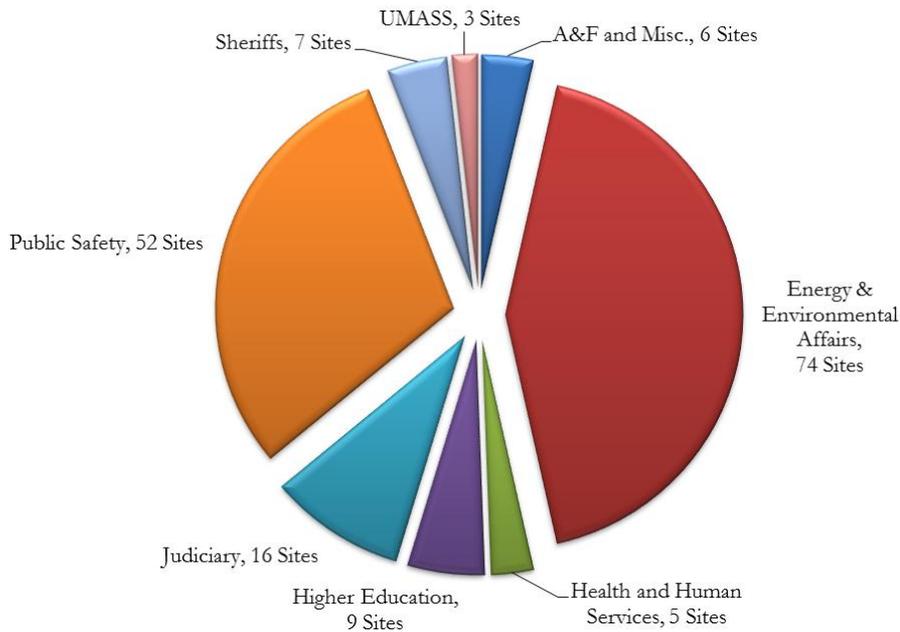


In Q4 2012, DCAMM completed retro-commissioning of the HVAC system in the Taunton Career Center.

The effort cost \$27,000 and yielded \$13,500 in annual energy savings.

AEP Initiated Sites

AEP Initiated: 172 Sites



RFP (estimated \$24 million) to retrofit the Erich Lindemann and John W. McCormack buildings in Boston.



Audit completed on the Gardner District Court by a Utility Vendor.

Draft MOU between DCAMM and each utility company for AEP.

DCAMM agrees to the following:

- Contract for work between DCAMM and Vendor
- One Statement of Authority (e.g., Point of Contact)
- Pre and Post inspection of measures
- Sequencing of work

Utility Company agrees to the following:

- Consistent incentive in the amount of \$0.25/kWh and \$1.25/therm as result of ECMs implemented
- Increase in incentives for comprehensive sites
- Pool of money and shared payment for Total Building Assessments if DCAMM uses Utility TA Vendors

Innovative Utility Vendor Contracting



DCAMM is signing direct contracts with utility vendors with the authority of the MA Green Communities Acts. These contracts will use pricing already negotiated by utility companies.

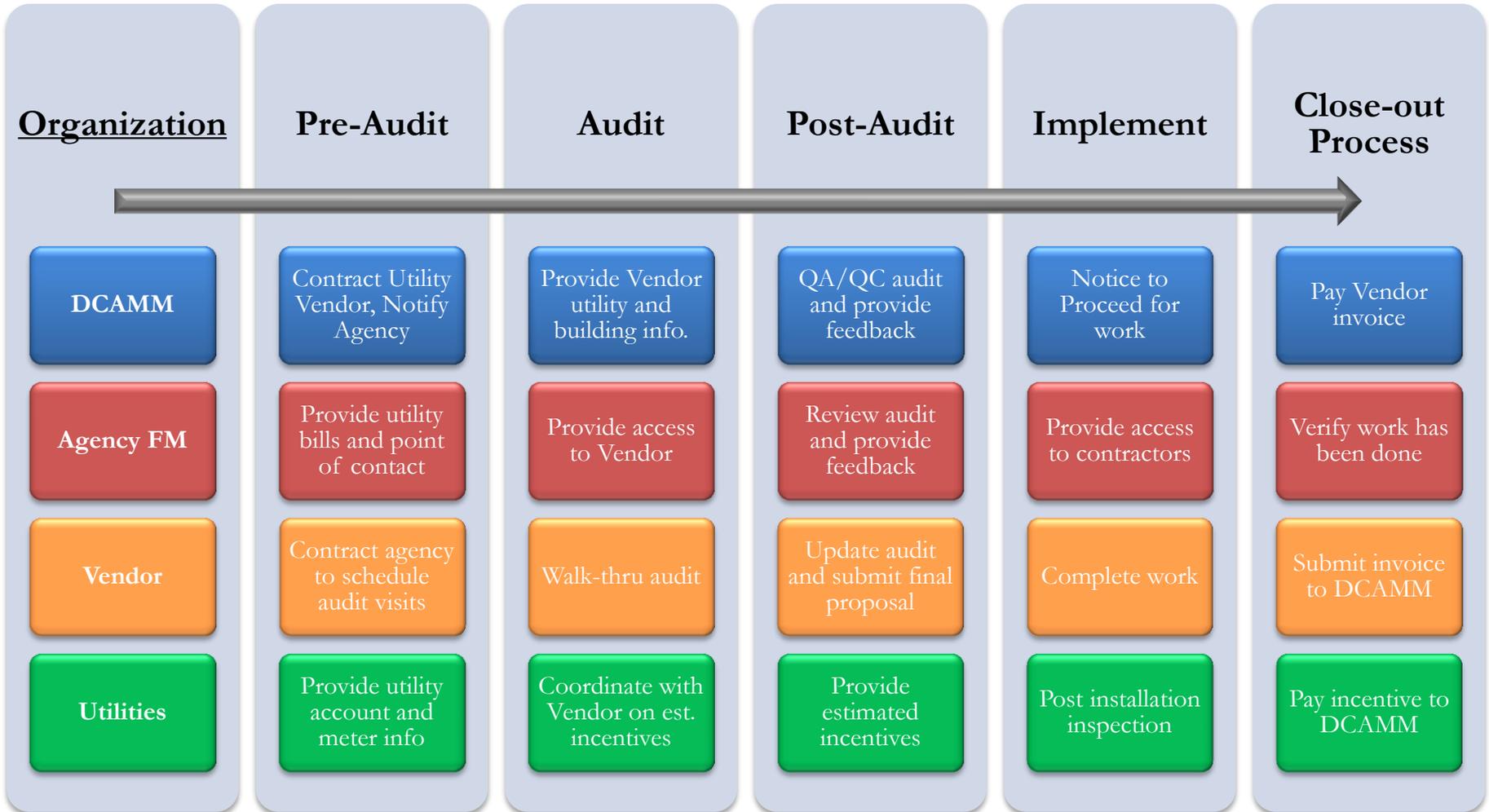
In December 2012, RISE Engineering (a division of Thielsch Engineering, Inc.) became the first vendor to execute the new DCAMM Utility Vendor contract.

In Q1 2013, DCAMM will be reaching out to ALL utility vendors to offer participation in program.



Deputy Commissioner Sandra Duran congratulates Thielsch's Vice-President Vin Graziano on becoming a DCAMM approved Utility vendor

Roles & Responsibilities (Utility Vendor Program)



Electronic Survey to Agencies

In September 2012, an electronic survey was issued to:

- Determine and prioritize the types of projects that will be included in the AEP, and
- Verify and update information in CAMIS.

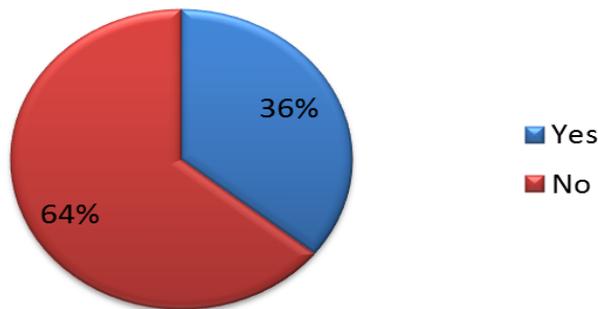
Feedback from 114 respondents.

In 2013, a second survey will be coming, with a personal follow up with each facility manager.

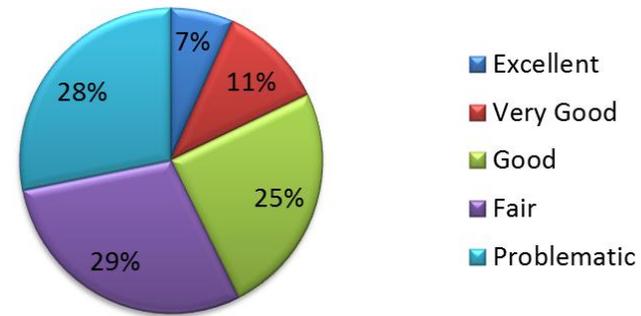
AEP Survey Sections:

1. General Questions
2. Facility Questions
3. Energy and Water Consumption Information
4. Energy Project Information
5. Skills and Training

Do you consider your facility to be energy and water efficient?



What is the general condition of your HVAC and mechanical equipment?



What ECMs would you consider implementing at your facility?

Lighting - 70%

HVAC - 62%

Windows and Doors - 58%

Lighting Control - 55%

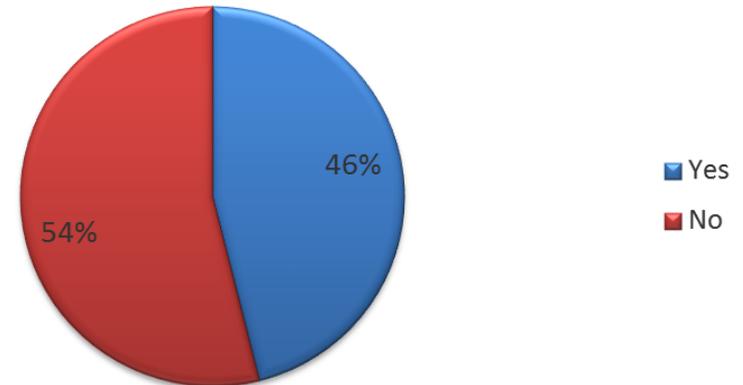
Domestic Water Conservation - 55%

Roof Repair / Energy Efficiency Roof - 51%

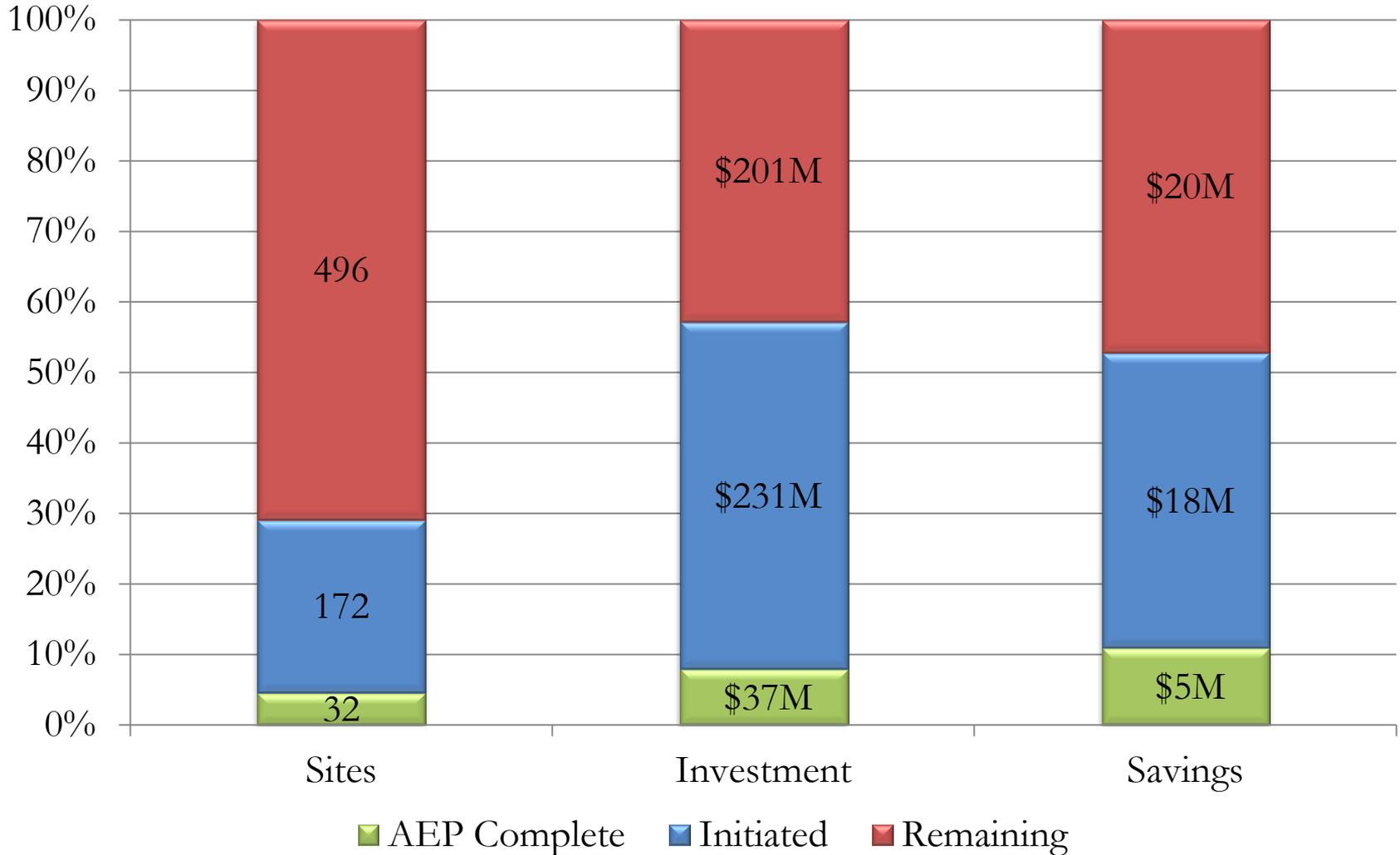
Insulation - 49%

Renewable Energy - 50%

Do you have any formal plans for the the following: energy and water conservation, climate action, or sustainability?



AEP Financial Plan – Investment & Savings



Program Exposures

Throughout Q4, the AEP team continued to find ways to mitigate program exposures, including the development of AEP Certification designation and the signing of a Utility Vendor Contract.

Others risks remain pending, such as the potential of a capacity shortfall to implement the program and the development of the AEP Database and Dashboard.

Risk Identifier	Risk	Impact Description	Risk Score (1=Low 6=High)	Timeline	Risk Response	Risk Owner (Working Group)
Implementation Planning						
IP-R2	Lack of consensus in definition of "Green" and set benchmark for completion	Cannot accurately track progress of AEP	0	Near term	Collaboratively developed a definition for AEP Certified.	Data & Performance Management / Communications
Project Management						
PM-R1	Negotiation of utility vendor contracts fails to result in agreement	Delay of program	1	Near term	Signed first Utility Vendor Contract.	Simple Fix
PM-R3	Capacity shortfall to audit, review and implement work at all small sites.	Delay of program	4	Mid-term	Develop alternative implementation methods and personnel.	Simple Fix
Data & Performance Management						
DM-R1	AEP Database & Dashboard not operational	Program reporting increased level of effort	6	Near Term	Develop alternative tools for project tracking and reporting.	Data & Performance Management

AEP Working Groups

	Q4 2012	Q1 2013
Communications	Developed AEP logo and media kit	AEP Public launch
Small Sites	Finalized and signed utility vendor contract, initiated work at 38 small sites	Initiate work at MassDOT sites, sign additional utility vendors
Audits & RCx	Developed standardized scope of work and initiated new Retro-Commissioning project	Initiate three Retro-Commissioning projects
Outreach & Tech Support	Collected and analyzed site survey results	Follow-up with facility managers, update website, and design resource center
Building Codes	Developed roadmap for building codes	Distribute building codes checklist for small energy projects for feedback
Data & Performance	Developed spending and encumbrance plan based on AEP financial plan	Finalize AEP Database & Dashboard
Procurement	Explored innovative procurement options with utilities, comptroller, and DCAMM contractors	Develop procurement tracking processes for small sites
Leasing	Identified all spaces leased to Agencies by public and private landlords.	Develop prioritized list of leased spaces
Labor & Workforce	Developed process for ensuring M/WBE participation on small projects	Create and implement an AEP Workforce Development Strategy

Example DCR Projects

Types of DCR Sites & Facilities

Beach Parks

Dams

Fire Districts (evaluated – N/A)

HQ & Division Offices

Maintenance Facilities

Museums

Pools

Skating Rinks

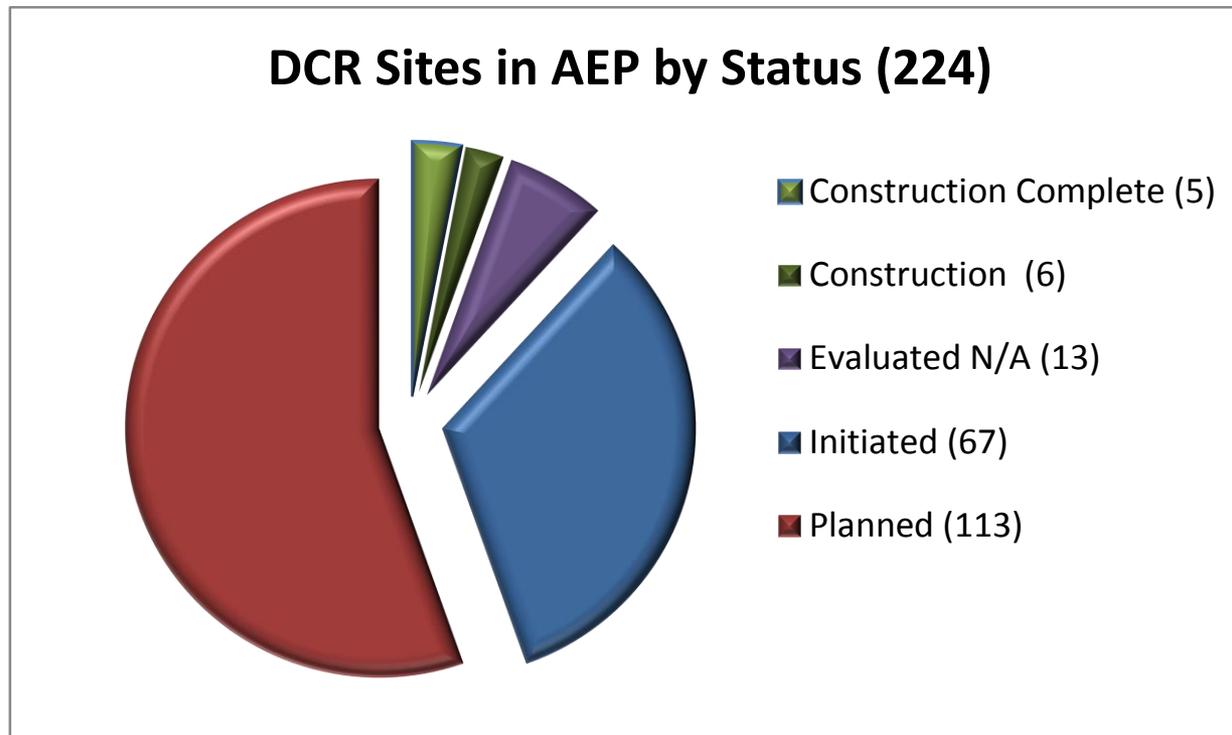
State Forests and Reservations

Watersheds



*DCR coordination meeting at Nantasket Beach
Reservation in Hull, MA.*

There are a total of 224 DCR Sites in the AEP. In collaboration with DCR, we have made significant progress. The table below highlights the status:



Q2 2012 Bundle (5)

Nantasket Beach Reservation
Mount Tom Reservation
Otter River State Forest
Walden Pond State Reservation
Wompatuck State Park

Q3 2012 Bundle - Central (9)

Worcester Bennett Field Pool
Clinton Pool and Regional HQ
Fitchburg Pool
Gardner Skating Rink
Leominster Pool
Milford Pool
Southbridge Pool
Worcester Vernon Hills Pool
Worcester Buffone Skating Arena

Q3 2012 Bundle - North Shore (7)

Topsfield Bradley Palmer State Park
Rockport Halibut Point State Res.
Lynn / Nahant Beach
Nahant Maintenance Division
Revere Beach Reservation
Revere Elliot House
Saugus Breakheart Reservation



Worcester Buffone Skating Arena



Saugus Breakheart Reservation

Simple Fix measures have been identified across all sites, with an average of \$25,000 investment and \$4,000 annual savings in energy costs at each site.



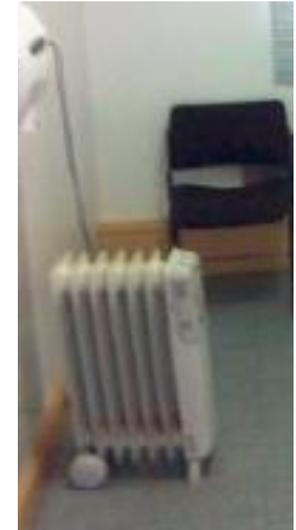
*Replace with
Energy Star rated
refrigerator*



Install energy misers



*Upgrade building
automation systems*



*Install
baseboard
heaters with
programmable
thermostats*

*Install
programmable
thermostats*





Insulate exposed piping and attics

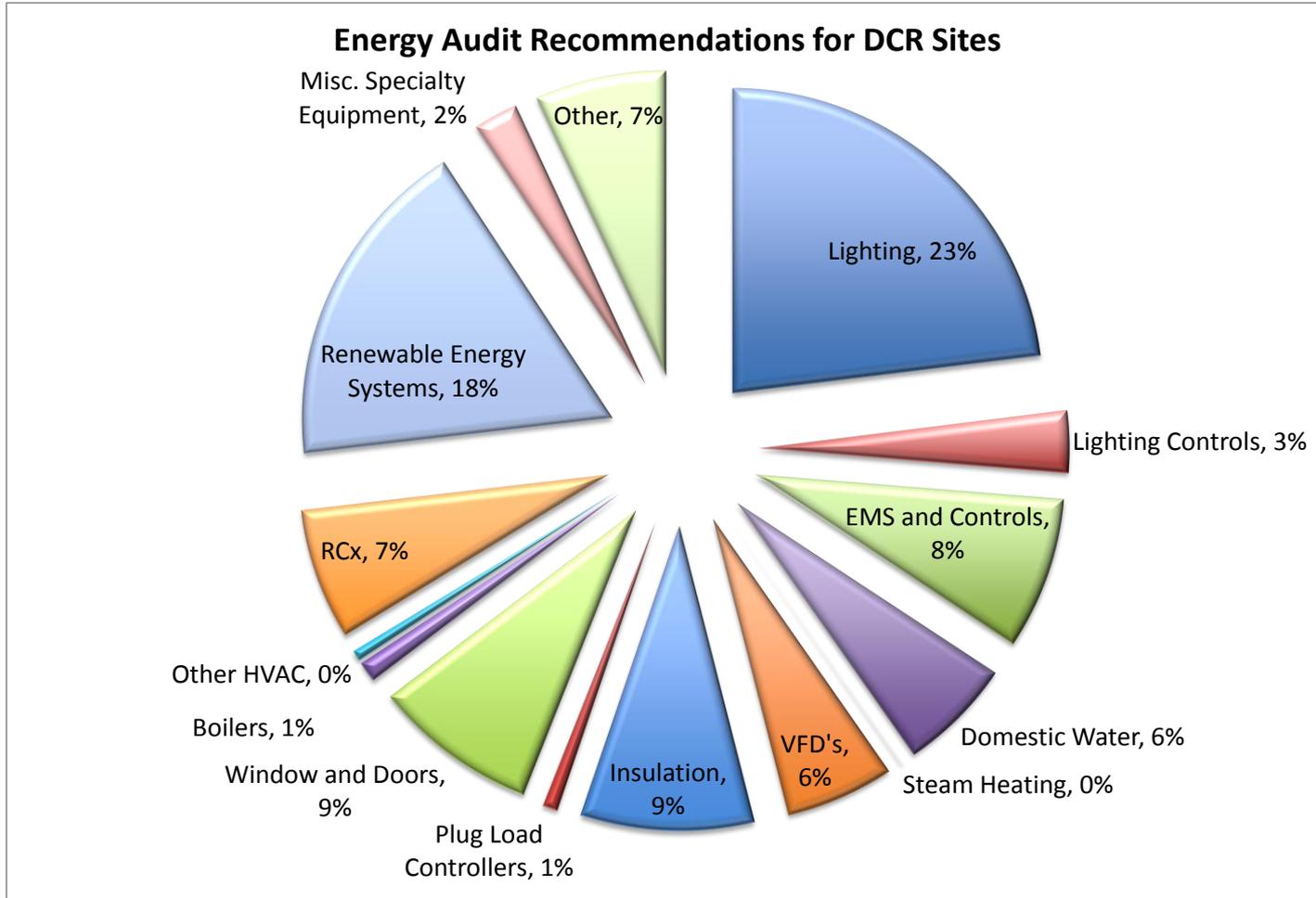


Install weather stripping



Replace windows

A range energy conservation measures (ECMs) are recommended for the 62 DCR sites audited in 2012.



Auditors have recommended \$1.75 million of investment to save \$355,536 annually in energy costs at the 62 DCR Sites.

DCR Sites Summary	Estimated Install Cost [\$]	Utility Incentive [\$]	Energy [MMBtu]	Water [Gallon]	Cost [\$]	Simple PB [yrs]
Energy Conservation Measure						
Lighting	\$ 403,233	\$ 64,690	1,544	-	\$ 67,763	6.0
Lighting Controls	\$ 56,944	\$ 10,082	246	-	\$ 10,417	5.5
EMS and Controls	\$ 141,438	\$ 5,355	1,607	-	\$ 33,114	4.3
Domestic Water	\$ 105,273	\$ 273	1,212	6,178,763	\$ 66,217	1.6
Steam Heating	\$ 1,500	\$ -	13	-	\$ 139	10.8
VFD's	\$ 98,869	\$ 27,325	408	-	\$ 17,927	5.5
Insulation	\$ 158,290	\$ 7,436	1,407	-	\$ 37,987	4.2
Plug Load Controllers	\$ 13,572	\$ 2,040	183	-	\$ 7,919	1.7
Window and Doors	\$ 151,466	\$ 421	922	109,956	\$ 19,423	7.8
Boilers	\$ 19,000	\$ -	152	-	\$ 2,806	6.8
Other HVAC	\$ 9,600	\$ -	40	-	\$ 3,038	3.2
RCx	\$ 121,310	\$ -	248	-	\$ 7,969	15.2
Renewable Energy Systems	\$ 310,000	\$ -	1,172	-	\$ 21,679	14.3
Misc. Specialty Equipment	\$ 40,800	\$ -	752	-	\$ 17,010	2.4
Other	\$ 119,525	\$ 50	2,112	1,083,469	\$ 40,128	3.0
Totals	\$ 1,750,819	\$ 117,671	12,019	7,372,188	\$ 353,536	5.0

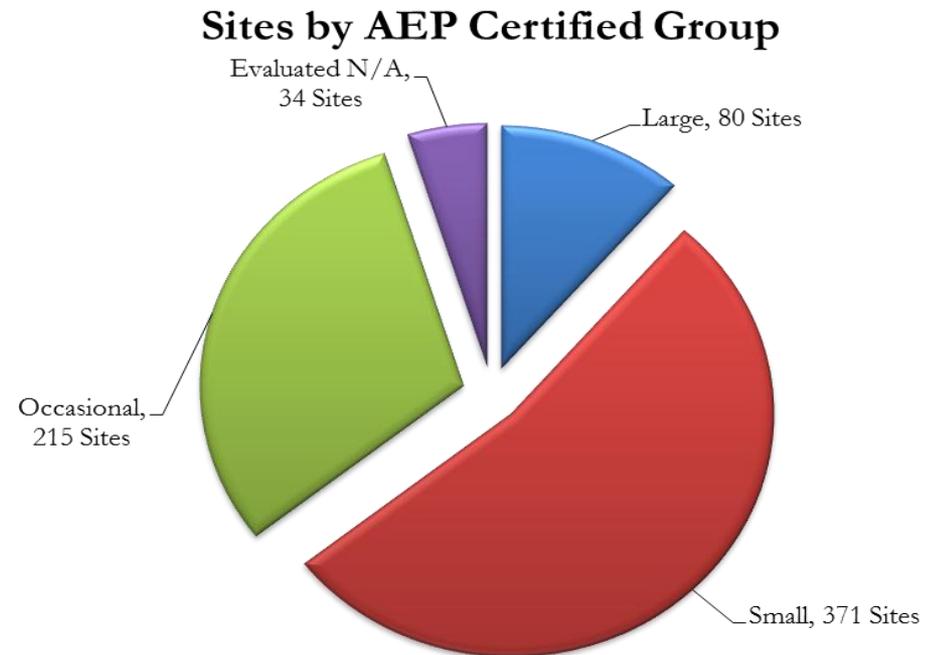
DOER Update

AEP Sites by Certification Group

Across the entire AEP portfolio, DCAMM and DOER will target a 25% reduction in energy consumption, greenhouse gas emissions, and energy costs.

Consistent with statewide goals, DCAMM and DOER will prioritize energy efficiency.

AEP Scope
700 Sites



AEP Certification

	Large Sites (i.e. hospitals, colleges, prisons)	Small Sites (i.e. police barracks, career centers)	Occasional Use Sites (i.e. ice rinks, state parks)
AEP Certified	<ol style="list-style-type: none"> 1. Achieve a 25% reduction in at least 2 of the following categories: site energy use, greenhouse gas emissions, energy costs. 2. Energy consumption must be reduced by at least 10% 	<ol style="list-style-type: none"> 1. Achieve a 20% reduction in at least 2 of the following categories: site energy use, greenhouse gas emissions, energy costs. 2. Energy consumption must be reduced by at least 10% 	Meet the reduction threshold for small sites or implement at least three energy/water conservation measures.
	Large and Small Sites		Occasional Use Sites
AEP Certified Plus	<ol style="list-style-type: none"> 1. Achieve a 50% reduction in at least 2 of the following categories: site energy use, greenhouse gas emissions, energy costs; 2. Energy consumption must be reduced by at least 20% 3. Establish energy and facility maintenance training program for staff; and 4. Develop plan for preventative maintenance to keep systems operating at optimum efficiency. 		Not eligible

Large Site

Springfield Technical Community College

Current Status: *RFP Issued*

On schedule to achieve AEP Certification from a reduction of over 25% in energy use, energy cost, and GHG emissions.

	Energy Use (MMBtu)	Energy Cost	GHG Emissions (metric tons)	No. of ECMs
Baseline	856,298	\$1,645,121	6,859	N/A
Savings	401,495	\$447,862	1,782	N/A
Reduction	47%	27%	26%	N/A
AEP Certified	✓	✓	✓	N/A

Small Site

Taunton Career Center

Current Status: *In Construction*

Will achieve AEP Certification upon construction completion for reaching reduction of over 20% in all three categories.

	Energy Use (MMBtu)	Energy Cost	GHG Emissions (metric tons)	No. of ECMs
Baseline	1,939	\$32,917	136	N/A
Savings	1,174	\$16,480	75	N/A
Reduction	61%	50%	55%	N/A
AEP Certified	✓	✓	✓	N/A

Occasional Use Site

Salisbury Beach State Park

Current Status: *Audit Complete*

The energy audits of the site identified eight (8) ECMs that, upon implementation, will enable the site to achieve AEP Certification.

	Energy Use (MMBtu)	Energy Cost	GHG Emissions (metric tons)	No. of ECMs
Baseline	2,027	\$50,250	202	N/A
Savings	235	\$6,528	19	8
Reduction	12%	13%	10%	N/A
AEP Certified	X	X	X	✓

Three Year Utility Efficiency Plans Approved by DPU

- Over three years, \$2 billion investment with almost \$9 billion in savings
- Electricity savings of 3.7 million MWh, equivalent to powering 500,000 homes
- Natural gas savings of 72 million therms, equivalent to heating 70,000 homes

Municipalities designated as a Green Community reaches 110

Largest On-Shore Wind Project in MA Completed

- 28.5 MW in Florida, MA

Significant Increase in Installed Renewable Energy Across the Commonwealth

Renewable Energy Snapshot



The Patrick-Murray Administration set ambitious renewable energy goals to ensure a cleaner energy future for the Commonwealth. [Click this image to see more details on how Massachusetts is progressing toward these goals.](#)

LED & Efficiency Light Bulb Program Successful

- Over 150,000 LEDs and efficient T8s ordered by agencies and municipalities
- Annual electricity reductions of almost 7 million kWh and \$1 million
- Looking to continue collaboration with utilities in 2013



EEMS On-Going Training to start in January 2013

Upcoming LBE 2013 Clean Energy Grants

- \$2 million for on-site thermal applications (solar thermal, heat pumps, biomass)
- \$1.5 million to support large-scale 3rd party owned solar PV arrays on Parking Lots



Labor & Workforce Development

Identify, create and develop job opportunities

- Enable people to engage in energy conservation work across the Commonwealth.

Be inclusive

- Develop opportunities for the full spectrum of the labor force - from those entering the labor market for the first time to those that are trying to re-enter the labor market.

Promote opportunities for minorities and women

- Work with stakeholders to create a certification program for AEP-specific job categories.

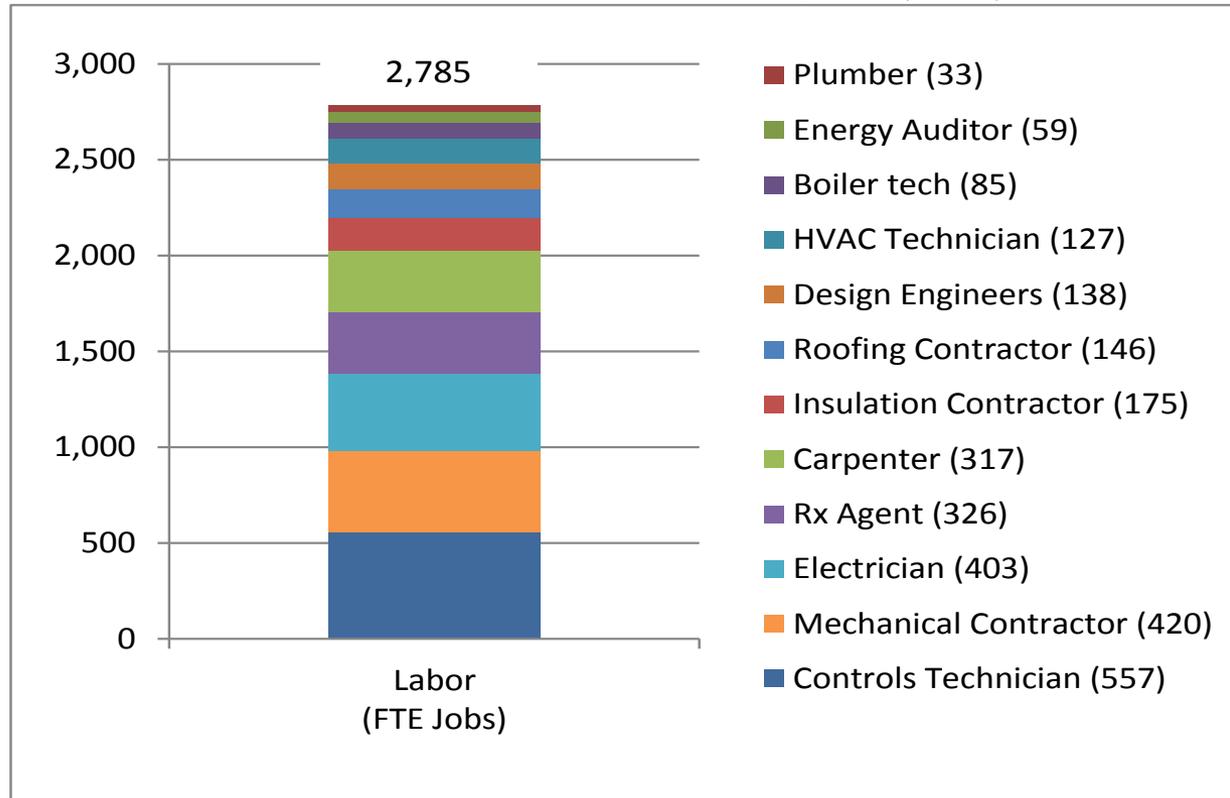
- Establish an interagency group of advisors representing state agencies, job training organizations, labor unions, contractors and others.
- Learn about existing training programs, especially at community colleges.
- Coordinate with DCAMM's IFM initiative for training facilities personnel.
- Plan for potential seasonal workers for this year.
- Expand vendors for the large comprehensive sites.



Preliminary AEP Workforce Needs Assessment

A preliminary assessment of labor trade jobs (Full-Time Equivalent) has been performed based on spending of \$464 million and an assumption of 6 FTE per \$1 million of investment*.

AEP Estimated Labor Trade Jobs (FTE)



*Based on research by New England Clean Energy Foundation

Next Steps

In Q1 2013, DCAMM will seek assistance from Advisors to create and implement an AEP Workforce Development Strategy which includes the following key next steps:

1. Finalize a workforce needs assessment of the AEP project portfolio
2. Identify potential employers
3. Develop a scope of work for AEP worker training and/or certification
4. Examine options for AEP pre-apprenticeship with appropriate unions
5. Schedule a vendor fair to introduce the AEP and elicit involvement
6. Coordinate with DCAMM's Professional Development Subcommittee
7. Finalize the AEP Workforce Development Strategy



Questions and Answers

Leadership Committee Feedback

1. Please rate your overall satisfaction with the content and structure of the AEP Leadership Committee meetings. (excellent, good, satisfactory, unsatisfactory)
2. How satisfied are you with the frequency of the AEP Leadership Committee meetings? (very satisfied, satisfied, neutral, unsatisfied)
3. The AEP Leadership Committee meeting length is sufficient for the amount of content covered. (too long, slightly long, just right, slightly short, too short)
4. The AEP Leadership Committee meetings help to increase my knowledge of the AEP beyond what I hear on my daily job. (strongly agree, agree, neutral, disagree, strongly disagree)
5. I have an appropriate opportunity to provide input on the direction of AEP. (strongly agree, agree, neutral, disagree, strongly disagree)
6. The AEP Leadership Steering Committee meetings provide a good forum to address IFM concerns. (strongly agree, agree, neutral, disagree, strongly disagree)
7. The structure of the AEP Implementation Committees enables you to provide substantive guidance and direction on the AEP. (strongly agree, agree, neutral, disagree, strongly disagree) And, if not, how could we change it?
8. What would you like to receive from DCAMM when one of your sites has been AEP Certified or Completed (e.g., report, certificate, plaque, etc.)

Thank you!

We greatly appreciate your time, guidance & feedback.

Patrick-Murray Administration Announces Accelerated Energy Program

Innovative Program Sets Ambitious New Energy Goals to Reduce Energy Consumption at 700 State Sites; Will Save Massachusetts \$43 Million Annually; Create Up to 4,000 Jobs

On January 15th the AEP Launch was held at Springfield Technical Community College in conjunction with the quarterly Implementation Committee Meeting. The event featured leadership from the Executive Office of Administration & Finance as well as the Executive Office of Environmental Affairs.

For more information on the AEP press conference, please read the articles found at the following web addresses:

boston.com

<http://www.boston.com/news/local/massachusetts/2013/01/15/new-mass-program-aims-reduce-energy-costs/VQ2niLdiajiGLCy6X5u1sL/story.html>

mass
live.com

http://www.masslive.com/news/index.ssf/2013/01/new_energy_program_to_save_the.html



ANF Secretary Shor



E&EA Secretary Sullivan