

2010-2012
Energy Efficiency Plans:
Summary of Key Components

Council Consultants

MA EE Advisory Council Meeting
October 27, 2009

Overview

- Updated analysis of the key components of the Statewide Plans by the EEAC consultants
- Consultant report for each of the key components, in this presentation or parallel
- “Checklist” of key components of the Plans, for Council review and confirmation
- Based on the requirements of the GCA statute and the Council’s objectives and resolutions

Very Impressive Plans

- Overall, the three year electric portfolio:
 - * Achieves \$5.35 billion in benefits
 - * Provides \$3.71 billion in net benefits
- Overall, the three year gas portfolio:
 - * Achieves \$1.18 billion in benefits
 - * Provides \$702 million in net benefits
- **Together, the electric and gas plans:**
 - * **Achieve \$6.53 billion in benefits**
 - * **Provide \$4.41 billion in net benefits**

Key Components of Statewide Plans

- PA Savings Goals and Council-Approved Savings Targets
- PA Proposals for Flexibility for Individual PAs: Savings Goals and Performance Incentives
- Program Costs and Consultant Analysis of Costs
- Cost-Effectiveness Analysis: Benefits, Costs, and Net Benefits
- Bill Impact Analysis and Scenario Analysis
- Performance Incentive Mechanism
- Statewide and Individual PA 08-50 Data Tables
- Evaluation (EM&V) Plan; Application of Evaluation Results
- Waivers for Pilots and Hard-to-Measure Program Elements
- Jobs and Economic Impacts
- Program Descriptions

Analysis Based on GCA Requirements and Council's Primary Objectives

- Acquire all available cost-effective EE (GCA)
- Savings goals should approach the levels in the assessment of all available cost-effective EE
- Focus on deeper savings first, then broader
- Improved program designs, statewide consistency of programs, streamlining the customer experience, integration of energy efficiency delivery across fuels and silos, and effective public education and marketing, etc.

Savings Goals and Savings Targets

- Very impressive savings goals proposed by the electric and gas PAs
- Savings goals that are either very close to or exceed the EEAC savings targets (resolutions)
- Electric: 98% to 99.5% of EEAC savings targets
- Gas: exceed the EEAC savings targets in all three years, significantly so in 2010 (0.65% vs. the 0.60% EEAC savings target)

2010 Electric	Allocated by Retail Energy Sales		Savings Goals Based on PA Plans			Performance Incentives		Forecast of Retail Energy Sales (GWh)			
	Percent of MA PA Retail Energy	Percent of EEAC Savings Targets	Percent of PA Savings Goals	Annual Energy Savings (GWh)	Savings as % of Retail Energy Sales	Percent of Total Performance Incentive	Performance Incentive Amount (\$, millions)				
<i>If the PA-proposed savings goals sum exactly to the performance targets</i>											
NGrid	45.71%	45.7%	45.7%	288.0	1.40%	47.63%	8.335	20,575.3			
NSTAR	41.06%	41.1%	41.1%	258.7	1.40%	42.78%	7.487	18,480.3			
WMECo	8.19%	8.2%	8.2%	51.6	1.40%	8.53%	1.493	3,685.7			
CLC	4.03%	4.0%	4.0%	25.4	1.40%			1,814.4			
Unitil	1.01%	1.0%	1.0%	6.4	1.40%	1.06%	0.185	456.3			
Total	100.00%	100.0%	100.0%	630.0	1.40%	100.00%	17.500	45,012.0			
Without CLC	95.97%	96.0%	96.0%	604.6							
Checks				630.0			17.500	45,012.0			
<i>If the PA-proposed savings goals sum to a level different than the performance targets</i>											
NGrid			46.5%	289.2	1.41%	48.48%	8.371	10/12/09	2009 Plan		
NSTAR			41.5%	258.4	1.40%	43.31%	7.479	1.41%	Savings		
WMECo			7.2%	45.0	1.22%	7.54%	1.302	1.40%	Goals		
CLC			4.1%	25.7	1.42%			0.92%	39.8	WMECo	
Unitil			0.6%	4.0	0.88%	0.67%	0.116	1.46%	3.1	Unitil	
Total			100.0%	622.3	1.38%	100.00%	17.268				
			Statewide		98.8%	of target					
Without CLC	Eligible for incentives		95.9%	596.6							
					98.7%	of target		98.7%	of target		
Checks				622.3			98.7%	17.268			
Updated with Electric Summary/PI Tables from PAs, 10/26/09											
				WMECo		Unitil					
				GWh	% of target	GWh	% of target				
	Threshold at EEAC savings target			38.7	75.0%	4.8	75.0%				
	Threshold at PA proposed savings			33.7	65.4%	3.0	47.2%				

2012 Electric	Allocated by Retail Energy Sales		Savings Goals Based on PA Plans			Performance Incentives		Forecast of Retail Energy Sales (GWh)
	Percent of MA PA Retail Energy	Percent of EEAC Savings Targets	Percent of PA Savings Goals	Annual Energy Savings (GWh)	Savings as % of Retail Energy Sales	Percent of Total Performance Incentive	Performance Incentive Amount (\$, millions)	
<i>If the PA-proposed savings goals sum exactly to the performance targets</i>								
NGrid	45.71%	45.7%	45.7%	506.9	2.40%	47.63%	12.146	21,112.6
NSTAR	41.06%	41.1%	41.1%	455.3	2.40%	42.78%	10.909	18,962.9
WMECo	8.19%	8.2%	8.2%	90.8	2.40%	8.53%	2.176	3,782.0
CLC	4.03%	4.0%	4.0%	44.7	2.40%			1,861.8
Unitil	1.01%	1.0%	1.0%	11.2	2.40%	1.06%	0.269	468.2
Total	100.00%	100.0%	100.0%	1,109.0	2.40%	100.00%	25.500	46,187.5
Without CLC	95.97%	96.0%	96.0%	1,064.3				
Checks				1,109.0			25.500	46,187.5
<i>If the PA-proposed savings goals sum to a level different than the performance targets</i>								
								10/12/09
NGrid			45.9%	506.8	2.40%	48.04%	12.143	2.40%
NSTAR			41.2%	455.1	2.40%	43.14%	10.905	2.40%
WMECo			7.6%	83.4	2.20%	7.90%	1.998	2.04%
CLC			4.4%	48.6	2.61%			2.60%
Unitil			0.9%	9.6	2.05%	0.91%	0.230	2.14%
Total			100.0%	1,103.5	2.39%	100.00%	25.276	
			Statewide	99.5%	of target			
Without CLC	Eligible for incentives		95.6%	1,054.9				
				99.1%	of target	99.1%	of target	
Checks				1,103.5		99.1%	25.276	
Updated with Electric Summary Tables from PAs, 10/12/09								
				WMECo		Unitil		
				GWh	% of target	GWh	% of target	
	Threshold at EEAC savings target			68.1	75.0%	8.4	75.0%	
	Threshold at PA proposed savings			62.5	68.9%	7.2	64.1%	

Statewide Gas Savings Goals Exceed the EEAC Savings Targets in All Years

Savings (Therms)	2010	2011	2012
NSTAR	2,604,003	3,185,089	5,083,470
BayState	2,827,056	3,267,837	3,725,879
Berkshire	457,168	522,514	593,425
NEG-NA	41,343	46,766	49,937
NEG-FR	281,086	339,107	408,809
NGRID	7,243,923	11,541,729	14,576,320
UNITIL	129,998	174,906	240,533
Total	13,584,577	19,077,948	24,678,373
Statewide Savings (10/27)	13,590,247	19,084,749	24,686,387
Statewide %	0.65%	0.90%	1.16%
EEAC Gas Savings Targets	12,510,000	19,000,000	24,500,000
	0.60%	0.90%	1.15%

Some gas PAs have proposed savings goals lower than the EEAC savings targets; see the PA proposals for flexibility from NEG and Berkshire.

PA Proposals for Flexibility

- PA proposals for flexibility from individual PAs: WMECo, Unitil, NEG, and Berkshire
- Savings goals slightly/reasonably lower than the EEAC savings targets
- Threshold (75%) performance incentives apply to the PA savings goal, not the EEAC target
- PAs that propose savings goals slightly lower than the Council's savings targets will earn slightly lower performance incentives
- Include PA documentation in individual PA plans

Program Costs

- See detailed Consultant memos, 10/24 & 10/25
- Electric: we recommend Council approval of the 2010 electric costs; acceptance of the 2011 and 2012 electric costs for the purpose of the three year plan at this point, given the deadline of October 30 filing
- Gas: high costs in some gas programs, and the variation in costs across the PAs in programs
- We recommend that the Council accept, but not support, the 2010, 2011, and 2012 gas costs for the purpose of including these costs as *preliminary values* in the three year plan at this point, given the deadline of October 30th filing.

Process to Address Gas Costs

To address the 2010 gas costs, we recommend the following two-part process:

1. Prior to the DPU technical session, the gas PAs, working with the Council's consultants, should better identify the nature and underlying cause of each of the major variations in unit costs among the gas PAs, and, where possible in the available time, propose revised costs and unit costs. The gas PAs should submit an exhibit on gas costs and unit costs prior to the DPU technical session. The exhibit should also confirm that concerns about high costs and higher-than-average unit costs for NGrid do not endanger the cost-effectiveness of any of the gas programs.
2. By April 30, 2010, the gas PAs, working with the Council's consultants, should identify, clarify, and resolve each of the significant variations in unit costs among the gas PAs, and propose revised costs and unit costs for the 2010 gas programs. The gas PAs should file with the DPU a revised set of 08-50 gas tables for 2010, incorporating the proposed revisions in 2010 costs and unit costs, by May 15, 2010. The Council should review and approve those revised 2010 gas costs and unit costs prior to filing with the DPU. Any revisions to gas unit savings and impact factors as part of this process should be incorporated in the gas Technical Reference Manual (TRM).

Other Funding in the Plans

	EEAC Resolution		
	2010	2011	2012
3. Other Funding in Plans (\$, millions)			
Electric Plan (revise as necessary for 2011 and 2012 in Plan Revision filing in Oct. 2010)	Known \$ Amount	100	200

Electric plans slightly short: \$99 M in 2011, \$180 M in 2012

Gas: \$20 M in 2011, \$40 M in 2012 (confirmed in text, checking tables)

For the other funding estimates for 2011 and 2012 – these estimates can be updated in the Plan Revision (mid-course adjustment) filing expected to be developed and filed in October 2010, based on experience to date and better knowledge about 2011 and 2012 details at that time.

Cost-Effectiveness Analysis

- Overall, the three year electric portfolio:
 - * Achieves \$5.35 billion in benefits
 - * Provides \$3.71 billion in net benefits
 - * For a total PA budget of \$1.26 billion
- Overall, the three year gas portfolio:
 - * Achieves \$1.18 billion in benefits
 - * Provides \$702 million in net benefits
 - * For a total PA budget of \$329 million
- All programs are cost-effective

Bill Impact Analysis

- Analysis completed for residential and C&I, based on the program designs and costs
- Bill impacts are affected by the level of other funding in the plans
- Scenario analysis:
 - Other funding
 - What are the resulting bill impacts for various packages of measures customers can install
- See separate presentation

Performance Incentive Mechanism

Incentive pool and allocation of incentives to
PAs filed on Oct 30

Performance incentive mechanism and details,
and performance metrics, supplemental filing

EEAC will review and act prior to filing

08-50 Data Tables

- Consultants have reviewed the statewide and individual PA 08-50 data tables
- Except as noted elsewhere (e.g., costs, other funding) the data tables are consistent with the plans and the Council's resolutions, and support the plans

Evaluation (EM&V) Plan

- Evaluation plan is included as a section in the plans
- Two primary topics presented
 - Administrative approach, highlighting the development of the statewide research areas, staffed by research area managers
 - Preliminary lists of evaluation projects, by research area

Evaluation (EM&V) Results in Determining Performance Incentives

- Council resolution: use actual measured results to determine performance incentives earned (and LBR/lost base revenues), except:
- For gas, use deemed savings for calculation of incentives and LBR for 2010.
- For electric, and for 2011 and 2012 gas, use actual results but limit the impact of the evaluation results to a bandwidth of +/-25% at the *sector* level. (Change electric resolution to *sector*, not *portfolio* level – consistent with gas)

Waivers for Pilots

- See separate discussion: Waivers for Pilots and Hard-to-Measure Program Elements
- PA report based on data
- Definitive action at Nov 10 meeting

Jobs and Economic Impacts

- See revised section in the latest version of electric and gas plan text, plus highlighting in the executive summary
- Consultants and DOER have reviewed and recommend this section

Program Descriptions

- See latest version of electric and gas plan text