

Joint PA/Consultant Presentation to EEAC on Costs/Savings/Benefits

September 27, 2012



Update – Ongoing efforts in response to Council comments on July draft of Three-Year Plan

- PAs and consultants have engaged in additional analysis, including discussions on cost drivers
 - Multiple, data-driven conferences
 - Differences have been narrowed since July
- Savings are up for electric
- Costs are down for electric
- Gas savings and costs have increased since July filing
- Overarching goal of PAs and consultants is to satisfy all requirements of the GCA and seek all available cost-effective energy efficiency

Overview of September Savings, Budgets and Cost to Achieve (Elec)

2013-2015	STATEWIDE	National Grid	NU	UNITIL	CLC
Sales (MWh)	145,184,933	68,117,374	69,691,839	1,388,005	5,987,715
Annual Savings (MWh)	3,658,204	1,738,245	1,778,303	23,572	118,085
Goals as % Of Sales	2.52%	2.55%	2.55%	1.70%	1.97%
Budgets	\$ 1,508,526,758	\$ 650,478,101	\$ 758,929,966	\$ 15,548,607	\$ 83,570,083
Cost per Annual kWh	\$ 0.412	\$ 0.374	\$ 0.427	\$ 0.660	\$ 0.708
Lifetime Savings	40,023,848	17,488,047	21,061,122	301,211	1,173,469
Cost per Lifetime kWh	\$ 0.0377	\$ 0.0372	\$ 0.036	\$ 0.0516	\$ 0.0712

Overview of September Savings, Budgets and Cost to Achieve (Gas)

2013-2015	STATEWIDE	National Grid	NSTAR	CMA	BERKSHIRE	UNITIL	NEG
Sales (Millions of Therms)	6,458.8	3,454.1	1,479.3	1,110.8	190.5	74.0	150.1
Annual Savings (Therms)	69,694,770	38,680,463	16,303,137	11,659,775	1,315,840	542,164	1,193,391
Goals as % Of Sales	1.08%	1.12%	1.10%	1.05%	0.69%	0.73%	0.79%
Lifetime Savings	907,495,813	456,088,889	225,559,720	176,584,375	23,801,485	9,296,424	16,164,920
Budgets (millions of \$)	\$533.6	\$307.9	\$113.3	\$86.6	\$11.6	\$4.7	\$9.4
\$/annual therm	\$7.66	\$7.96	\$6.95	\$7.43	\$8.86	\$8.66	\$7.88
\$/lifetime therm	\$0.59	\$0.68	\$0.50	\$0.49	\$0.49	\$0.50	\$0.58



Savings

- Discussions have focused on annual savings as a percent of projected sales
 - Targets have been discussed based on this tool of measurement
- PAs and consultants have come to consensus on recommended annual savings targets for gas and electric
- Difference between targets and PA proposed savings reflects fact that not all PAs are proposing to achieve savings target based upon service area characteristics
- Lifetime savings also an important factor for PAs and consultants, but specific lifetime targets have not been agreed to

Savings (Electric)

ELECTRIC	July	September	Change	% Change
PAs	3,603,529	3,658,204	54,945	1.5%
Consultants	3,776,006	3,702,815	(73,191)	(2.0%)
Difference	172,747	44,611		
% Difference	4.6%	1.2%		

Electric Savings as a % of Retail Sales by PA

	July 2nd Plan			Sept 18th Plan		
	2013	2014	2015	2013	2014	2015
Statewide	2.47%	2.49%	2.49%	2.48%	2.51%	2.56%
National Grid	2.50%	2.52%	2.53%	2.51%	2.55%	2.60%
NSTAR	2.51%	2.55%	2.55%	2.50%	2.55%	2.60%
WMECo	2.53%	2.54%	2.52%	2.51%	2.56%	2.61%
CLC	1.70%	1.61%	1.62%	2.09%	1.92%	1.90%
Unitil	1.66%	1.68%	1.68%	1.66%	1.70%	1.73%

Savings in MWh by PA

	JULY			SEPTEMBER			CHANGE		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Annual Savings (MWh)									
National Grid	552,451	574,618	587,764	553,575	579,466	605,204	1,125	4,847	17,440
Northeast Utilities	583,729	591,731	591,270	581,052	592,878	604,373	(2,677)	1,147	13,104
Unitil	7,677	7,757	7,753	7,677	7,868	8,027	(0)	111	274
Cape Light Compact	33,939	32,195	32,376	41,835	38,308	37,941	7,897	6,113	5,565

Electric Savings as a % of Retail Sales by PA & Sector

	Sept 18th Plan		
	2013	2014	2015
Statewide	2.48%	2.51%	2.56%
Residential (total)	2.11%	2.33%	2.41%
Low-Income (total)	1.38%	1.26%	1.17%
Commercial & Industrial (total)	2.75%	2.70%	2.75%
National Grid	2.51%	2.55%	2.60%
Residential (total)	2.18%	2.46%	2.58%
Low-Income (total)	1.20%	1.06%	0.93%
Commercial & Industrial (total)	2.83%	2.73%	2.78%
NSTAR	2.50%	2.55%	2.60%
Residential (total)	1.96%	2.19%	2.26%
Low-Income (total)	2.93%	2.71%	2.65%
Commercial & Industrial (total)	2.69%	2.68%	2.72%
CLC	2.09%	1.92%	1.90%
Residential (total)	1.66%	1.62%	1.60%
Low-Income (total)	2.28%	2.66%	3.15%
Commercial & Industrial (total)	2.59%	2.22%	2.17%
Unitil	1.66%	1.70%	1.73%
Residential (total)	0.81%	0.83%	0.85%
Low-Income (total)	0.37%	0.37%	0.38%
Commercial & Industrial (total)	2.34%	2.40%	2.45%
WMECo	2.51%	2.56%	2.61%
Residential (total)	2.96%	2.94%	2.86%
Low-Income (total)	0.72%	0.70%	0.66%
Commercial & Industrial (total)	2.75%	2.86%	3.00%

Savings (Gas)

GAS	July	September	Change	% Change
PAs	66,707,515	69,694,770	2,987,255	4.5%
Consultants	96,900,076	72,556,283	(24,343,793)	(25.1%)
Difference	30,192,561	2,861,514		
% Difference	31.2%	3.9%		

Gas Savings as a % of Retail Sales by PA

	July 2nd Plan			Sept 18th Plan		
	2013	2014	2015	2013	2014	2015
Statewide	0.98%	1.05%	1.06%	1.01%	1.10%	1.12%
National Grid	1.00%	1.10%	1.11%	1.03%	1.16%	1.17%
NSTAR	1.04%	1.05%	1.06%	1.05%	1.10%	1.18%
CMA	1.00%	1.03%	1.05%	1.02%	1.05%	1.09%
NEG	0.65%	0.65%	0.66%	0.79%	0.80%	0.80%
Berkshire	0.56%	0.57%	0.68%	0.65%	0.69%	0.74%
Unitil	0.63%	0.67%	0.72%	0.66%	0.71%	0.76%

Savings in Therms by PA

Annual Savings (Therms)	JULY			SEPTEMBER			CHANGE		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
National Grid	11,557,389	12,680,608	12,782,010	11,872,113	13,333,405	13,474,945	314,725	652,797	692,935
Columbia	3,694,842	3,818,715	3,919,078	3,774,545	3,881,981	4,003,249	79,703	63,266	84,171
NSTAR	5,078,139	5,195,620	5,290,252	5,129,577	5,431,870	5,741,690	51,438	236,250	451,438
Berkshire	397,029	429,178	459,290	408,444	440,067	467,328	11,416	10,890	8,037
New England Gas	280,875	287,754	338,124	393,284	397,991	402,115	112,409	110,238	63,991
Unitil	165,802	164,766	168,044	167,157	181,506	193,501	1,355	16,740	25,457

Gas Savings as a % of Retail Sales by PA & Sector

	Sept 18th Plan		
	2013	2014	2015
Statewide	1.01%	1.10%	1.12%
Residential	0.92%	1.03%	1.02%
Low Income	1.28%	1.48%	1.51%
Commercial & Industrial (total)	1.08%	1.15%	1.21%
National Grid	1.03%	1.16%	1.17%
Residential	1.06%	1.26%	1.24%
Low Income	2.01%	2.05%	2.01%
C&I	0.92%	0.99%	1.02%
NSTAR	1.05%	1.10%	1.18%
Residential	0.84%	0.90%	0.92%
Low Income	1.29%	1.35%	1.41%
C&I	1.18%	1.22%	1.34%
NE Gas	0.79%	0.80%	0.80%
Residential	0.63%	0.64%	0.63%
Low Income	0.33%	0.33%	0.33%
C&I	1.52%	1.53%	1.59%
CMA	1.02%	1.05%	1.09%
Residential	0.70%	0.71%	0.72%
Low Income	0.76%	0.84%	0.92%
C&I	1.92%	1.96%	2.06%
Berkshire	0.65%	0.69%	0.74%
Residential	0.89%	0.89%	0.89%
Low Income	0.96%	1.02%	1.11%
C&I	0.49%	0.54%	0.62%
Unitil	0.66%	0.71%	0.76%
Residential	0.35%	0.38%	0.41%
Low Income	1.02%	1.06%	1.17%
C&I	0.76%	0.82%	0.88%



Budgets

- Focus on key cost drivers based on PA/consultant discussions
- Note that, compared to July, costs are: (1) down for electric; (2) up for gas, with the application of most recent EM&V results , increased savings and inclusion of RCS costs being among drivers of gas costs
- Discussions have been largely focused on certain cost drivers (EM&V, codes and standards, new measures since 2011, varying measure mixes in different service areas)
 - Not pragmatic to study every single cost driver- PAs and consultants chose these drivers and studied sample PAs (National Grid and NSTAR)

Budgets (Electric)

ELECTRIC**	July	September	Change	% Change
PAs	\$1,569,406,742	\$1,508,526,758	(\$60,879,984)	(3.9%)
Consultants	\$1,462,403,829	\$1,474,825,937	\$12,422,108	0.8%
Difference	\$107,002,913	\$33,700,821		
% Difference	7.3%	2.3%		

Budgets (Gas)

GAS	July	September	Change	% Change
PAAs	\$473,242,425	\$537,576,286	\$64,333,860	13.6%
Consultants	\$577,491,906	\$471,922,295	(\$105,569,610)	(18.3%)
Difference	(\$104,249,480)	\$65,653,990		
% Difference	(18.1%)	13.9%		

* Budgets are not directly comparable between July & September or between PA & consultants due to wide range of savings targets and varying budget assumptions. Also, RCS costs of \$22 million not included in July, but included in September as a result of energy bill provisions changing cost recovery approach- not budget increases, but reallocations.



Costs to Achieve

- Costs to achieve electric goals (\$/lifetime kwh) have been reduced since July
- Costs to achieve gas goals (\$/lifetime therm) have been increased since July
- PAs and consultants differ on appropriate level of costs

Cost to Achieve (\$/lifetime kwh)

ELECTRIC	July	September	Change	% Change
PAs	\$0.039	\$0.037	(\$0.002)	(4.2%)
Consultants	\$0.033	\$0.034	\$0.001	2.8%
Difference	\$0.006	\$0.003		
% Difference	18.7%	10.7%		

Electric \$/lifetime KWh by PA

	July 2nd Plan			Sept 18th Plan		
	2013	2014	2015	2013	2014	2015
Statewide	\$0.039	\$0.040	\$0.039	\$0.0372	\$0.0380	\$0.0379
National Grid	\$0.041	\$0.041	\$0.041	\$0.0368	\$0.0374	\$0.0374
NSTAR	\$0.034	\$0.036	\$0.035	\$0.0328	\$0.0343	\$0.0340
WMECo	\$0.038	\$0.040	\$0.041	\$0.0508	\$0.0506	\$0.0519
CLC	\$0.088	\$0.079	\$0.082	\$0.0726	\$0.0685	\$0.0724
Unitil	\$0.062	\$0.061	\$0.062	\$0.0520	\$0.0516	\$0.0513

Cost to Achieve (\$/lifetime therm)

GAS	July	September	Change	% Change
PAs	\$0.546	\$0.592	\$0.046	7.8%
Consultants	\$0.458	\$0.500	\$0.042	8.4%
Difference	\$0.088	\$0.092		
% Difference	19.2%	18.4%		

Gas \$/lifetime therm by PA

	July 2nd Plan			Sept 18th Plan		
	2013	2014	2015	2013	2014	2015
Statewide	\$ 0.54	\$ 0.55	\$ 0.55	\$ 0.59	\$ 0.59	\$ 0.59
National Grid	\$ 0.60	\$ 0.61	\$ 0.61	\$ 0.68	\$ 0.68	\$ 0.67
NSTAR	\$ 0.52	\$ 0.52	\$ 0.53	\$ 0.50	\$ 0.50	\$ 0.50
CMA	\$ 0.44	\$ 0.44	\$ 0.45	\$ 0.48	\$ 0.49	\$ 0.50
NEG	\$ 0.55	\$ 0.56	\$ 0.53	\$ 0.54	\$ 0.60	\$ 0.60
Berkshire	\$ 0.47	\$ 0.45	\$ 0.44	\$ 0.51	\$ 0.49	\$ 0.48
Unitil	\$ 0.47	\$ 0.49	\$ 0.50	\$ 0.50	\$ 0.51	\$ 0.51



Benefits

- The following table shows the \$ value of benefits for both the electric and gas Plan elements as a way to take into account all expected energy savings, including oil

\$ Value of Benefits (Elec)

ELECTRIC	July	September	Change	% Change
PAs	\$6,963	\$7,565	\$601.5	8.0%
Consultants	\$7,550	\$8,029	\$478.4	6.0%
Difference	\$586.7	\$463.6		
% Difference	7.8%	5.8%		

*Increased NEIs from EM&V results applied in September (but not July) have contributed, along with increased savings, to the significant % change shown above.

\$ Value of Benefits (Gas)

GAS	July	September	Change	% Change
PAs	\$1,093	\$1,225	\$131.7	10.8%
Consultants	\$1,590	\$1,273	(\$317.2)	(24.9%)
Difference	\$497.2	\$48.2		
% Difference	31.3%	3.8%		



Performance Incentives

- PI is an element of a total costs/savings/benefits package
- PI to be addressed in separate presentations, but is integrally related to savings and cost proposals

Special Council Priorities- Deep Savings

- Program design updates
- Market segmentation and targeting
- Contractor Training
- Addressing hard to reach communities



Special Council Priorities- Variances

- PAs have worked to address differences, including developing common assumptions
- Some variations appropriate given unique nature of each service territory
- Consultants continue to seek reduced variances



Next Steps

- Ongoing efforts to bridge gaps and enhance understanding will continue
- Next draft of Plan scheduled for filing on October 5, 2012, subject to ongoing discussions of optimal timing

Electric Statewide Summary Tables

	July 2nd Plan			Sept 18th Plan		
	2013	2014	2015	2013	2014	2015
Sales (MWh)	47,763,309	48,460,704	48,960,921	47,763,309	48,460,704	48,960,921
Annual Savings (MWh)	1,177,795	1,206,302	1,219,163	1,184,139	1,218,520	1,255,545
Goals as % Of Sales	2.47%	2.49%	2.49%	2.48%	2.51%	2.56%
Budgets	\$ 513,825,825	\$ 521,946,840	\$ 533,634,078	\$ 487,706,107	\$ 498,690,801	\$ 522,129,849
Cost per Annual kWh	\$ 0.436	\$ 0.433	\$ 0.438	\$ 0.412	\$ 0.409	\$ 0.416
Lifetime Savings	13,298,811	13,101,549	13,557,964	13,117,227	13,137,492	13,769,129
Cost per Lifetime kWh	\$ 0.0386	\$ 0.0398	\$ 0.0394	\$ 0.0372	\$ 0.0380	\$ 0.0379

Gas Statewide Summary Tables

	July 2nd Plan			Sept 18th Plan		
	2013	2014	2015	2013	2014	2015
Sales	2,149,896,059	2,149,990,973	2,158,915,450	2,149,896,059	2,149,990,973	2,158,915,450
Total Annual Therms	21,174,076	22,576,640	22,956,799	21,745,121	23,666,821	24,282,828
% of Sales	0.98%	1.05%	1.06%	1.01%	1.10%	1.12%
Total Lifetime Therms	281,761,112	288,458,354	295,959,957	290,897,430	303,674,766	312,923,617
Budgets	\$ 153,231,486	\$ 157,664,049	\$ 162,346,891	\$ 171,035,761	\$ 178,728,275	\$ 183,859,012
\$/Annual Therm	\$ 7.24	\$ 6.98	\$ 7.07	\$ 7.87	\$ 7.55	\$ 7.57
\$/Lifetime Therm	\$ 0.54	\$ 0.55	\$ 0.55	\$ 0.59	\$ 0.59	\$ 0.59