



EEAC Consultant Review of Initial Draft Plans for 2013-2015: Update on Plan Costs

EEAC Consulting Team
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PA-Proposed Costs

PA Costs				
	2012 MTM	2013	2014	2015
Electric	\$ 490,005,649	\$ 505,960,614	\$ 506,528,458	\$ 514,839,688
Gas	\$ 131,544,816	\$ 171,338,077	\$ 173,918,453	\$ 175,756,825
Total	\$ 621,550,465	\$ 677,298,691	\$ 680,446,910	\$ 690,596,513

- The PA-proposed costs are too high and are not justified, particularly when considering the level of PA-proposed savings.
- For example, the PAs propose statewide gas goals for 2013 that are 7% lower than 2012 MTM goals, yet propose 2013 statewide budgets that are almost \$40 million (30%) higher than 2012.
- The electric and gas costs are much higher than recent actual costs per unit savings achieved in the field.
- PA-proposed costs per unit of savings vary significantly across the PAs.
- See the additional details on PA costs and cost per unit savings in the EEAC Consultant report.

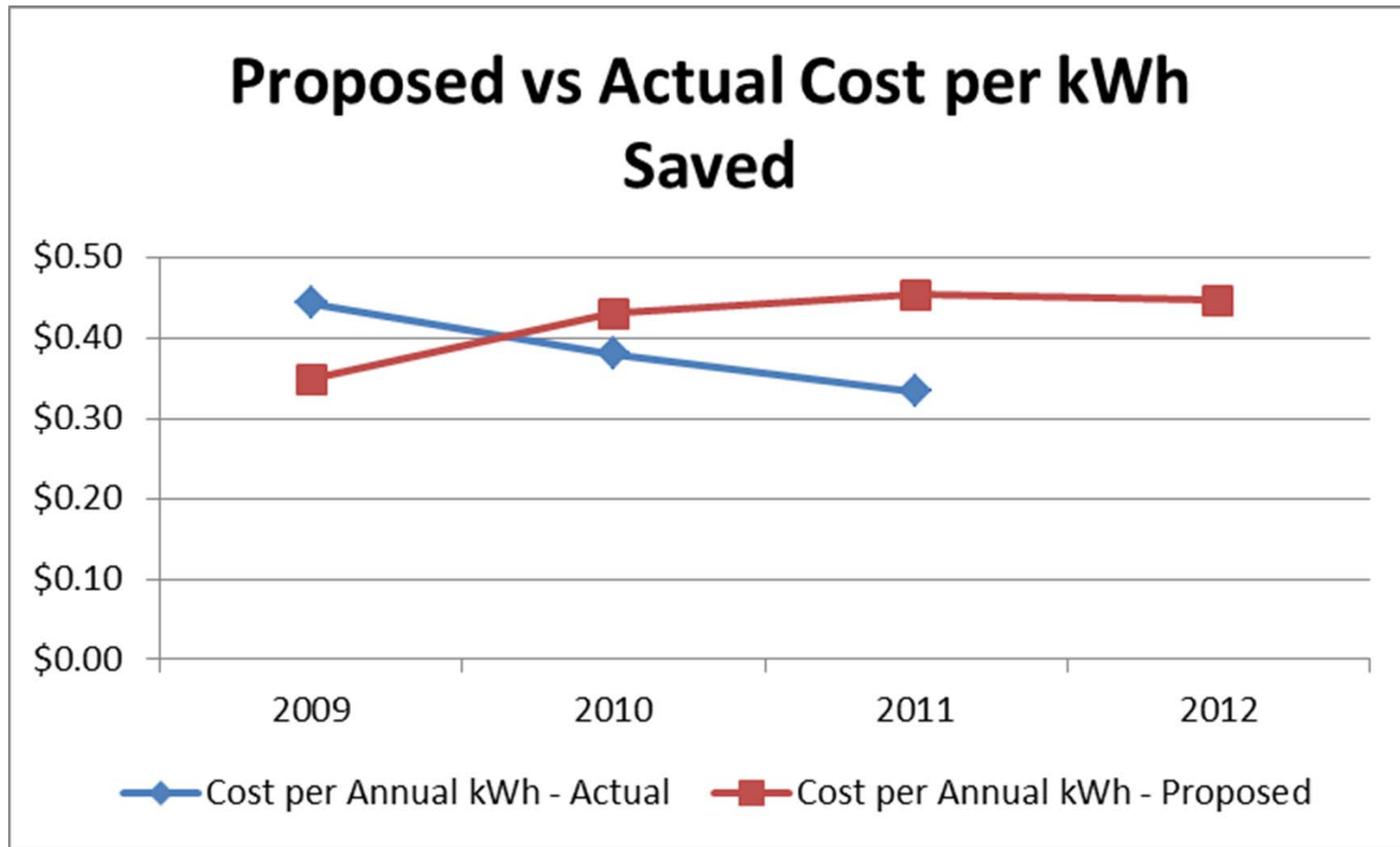


Cost of Saved Energy - Electric

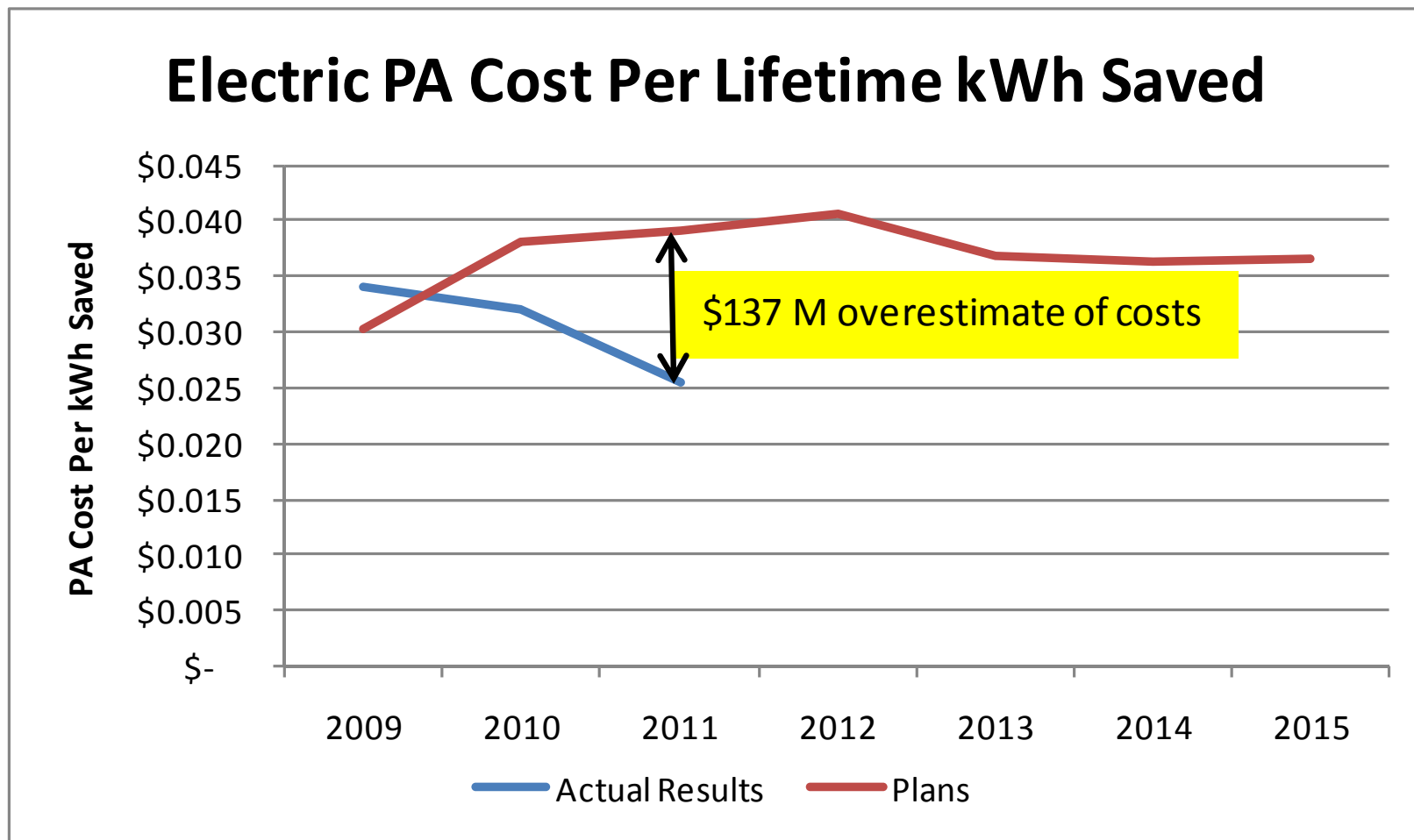
Total Cost for Saved Energy - Electric (million \$)						
	2010	2011	2012	2013	2014	2015
Proposed Savings Targets				2.5%	2.6%	2.7%
Proposed Savings (GWh)				1,185	1,232	1,280
Statewide Portfolio - Past Performance	\$236	\$275		\$423	\$440	\$457
\$/kWh (annual)	\$0.38	\$0.33		\$0.36	\$0.36	\$0.36
\$/kWh (lifetime)	\$0.032	\$0.026				
MTM Plan	\$279	\$453	\$551	\$592	\$616	\$640
\$/kWh (annual)	\$0.447	\$0.454	\$0.447	\$0.50	\$0.50	\$0.50
\$/kWh (lifetime)	\$0.038	\$0.039	\$0.041			
Point380 Report			\$383	\$572	\$595	\$618
\$/kWh (annual)			\$0.48	\$0.48	\$0.48	\$0.48
\$/kWh (lifetime)			\$0.042			

Note the different points of comparison: PAs tend to compare to 2012 MTM (plan data) while the Consultants compare more to past actual data (2010 Report and 2011 Preliminary Year-End).

Cost of Saved Energy – Electric Annual



Cost of Saved Energy – Electric Lifetime





2011 Program Costs

	2011 MTM BUDGET	2011 Expenditures	Over(+) Under(-) Expenditure	
	Total PA Costs (Budget)	Total PA Costs (Actual)	Difference: Year End (YTD) Minus Budget	% Difference
Residential (total)	\$119,674,769	\$103,848,629	-\$15,826,140	-13.2%
Low Income (total)	\$39,312,299	\$30,594,235	-\$8,718,064	-22.2%
C&I (total)	\$252,665,053	\$140,576,195	-\$112,088,857	-44.4%
GRAND TOTAL	\$411,652,121	\$275,019,060	-\$136,633,061 Over-estimate	-33.2%
				66.8%





2011 Program Costs: By Budget Category

	% Under 2011 Budget					
	Total PA Costs	Program Planning and Administration	Marketing and Advertising	Participant Incentive	Sales, Technical Assistance & Training	Evaluation and Market Research
Residential (total)	-13.2%	-27.9%	-18.8%	-7.7%	-19.9%	-36.4%
Low Income (total)	-22.2%	-54.2%	-74.3%	-20.9%	-9.9%	-49.3%
C&I (total)	-44.4%	-17.3%	-60.8%	-45.5%	-42.8%	-64.3%
GRAND TOTAL	-33.2%	-22.0%	-38.1%	-33.3%	-30.0%	-55.7%
	Numbers below show the % of 2011 budget actually expended by budget category					
	66.8%	78.0%	61.9%	66.7%	70.0%	44.3%

- **Systematic over-estimation of Plan (forecasted) PA costs, with significant over-estimation in all five budget categories and in all sectors, i.e., in every one of the 15 cells above.**

- **2011 actual electric costs were \$137 million lower than budget**



Electric Cost Per kWh Saved: Comparisons Across PAs

Electric PA Cost/Lifetime kWh Saved						
	2010 Report	2011 Year End	2012 MTM	2013	2014	2015
Statewide	\$ 0.032	\$ 0.026	\$ 0.041	\$ 0.037	\$ 0.036	\$ 0.037
NGRID	\$ 0.032	\$ 0.028	\$ 0.043	\$ 0.036	\$ 0.036	\$ 0.036
NSTAR	\$ 0.028	\$ 0.023	\$ 0.038	\$ 0.035	\$ 0.035	\$ 0.035
WMECo	\$ 0.039	\$ 0.032	\$ 0.036	\$ 0.038	\$ 0.038	\$ 0.038
CLC	\$ 0.082	\$ 0.049	\$ 0.073	\$ 0.074	\$ 0.064	\$ 0.065
Unitil	\$ 0.060	\$ 0.009	\$ 0.049	\$ 0.051	\$ 0.051	\$ 0.052



Example: PA Costs For C&I Electric Sector

C&I Electric Yield (PA Costs (\$)/lifetime kWh saved)					
	2011 Achieved Savings (PYE)	2012 MTM Savings	2013	2014	2015
PA 4/30 Plan Statewide	\$ 0.016	\$ 0.029	\$ 0.027	\$ 0.027	\$ 0.027
Grid	\$ 0.017	\$ 0.030	\$ 0.028	\$ 0.028	\$ 0.028
NSTAR	\$ 0.015	\$ 0.029	\$ 0.025	\$ 0.025	\$ 0.025
WMECo	\$ 0.022	\$ 0.026	\$ 0.028	\$ 0.028	\$ 0.028
CLC	\$ 0.021	\$ 0.038	\$ 0.056	\$ 0.039	\$ 0.040
Unitil	\$ 0.005	\$ 0.037	\$ 0.034	\$ 0.035	\$ 0.036

- Why are PA-proposed costs higher than recent actual costs?
- Key question about “high performers” -- if one PA can reach a high level of performance, why can’t all or most PAs?



\$ of PA Cost/Lifetime kWh Saved						
	2010	2011	2012	2013	2014	2015
Statewide	\$ 0.032	\$ 0.026	\$ 0.041	\$ 0.037	\$ 0.036	\$ 0.037
Res	\$ 0.062	\$ 0.059	\$ 0.081	\$ 0.079	\$ 0.079	\$ 0.079
LI	\$ 0.109	\$ 0.109	\$ 0.174	\$ 0.067	\$ 0.063	\$ 0.065
C&I	\$ 0.022	\$ 0.016	\$ 0.029	\$ 0.027	\$ 0.027	\$ 0.027
NGRID	\$ 0.032	\$ 0.028	\$ 0.043	\$ 0.036	\$ 0.036	\$ 0.036
Res	\$ 0.054	\$ 0.058	\$ 0.079	\$ 0.075	\$ 0.075	\$ 0.075
LI	\$ 0.111	\$ 0.112	\$ 0.159	\$ 0.037	\$ 0.035	\$ 0.035
C&I	\$ 0.022	\$ 0.017	\$ 0.030	\$ 0.028	\$ 0.028	\$ 0.028
NSTAR	\$ 0.028	\$ 0.023	\$ 0.038	\$ 0.035	\$ 0.035	\$ 0.035
Res	\$ 0.070	\$ 0.059	\$ 0.090	\$ 0.086	\$ 0.086	\$ 0.086
LI	\$ 0.093	\$ 0.097	\$ 0.207	\$ 0.212	\$ 0.212	\$ 0.221
C&I	\$ 0.020	\$ 0.015	\$ 0.029	\$ 0.025	\$ 0.025	\$ 0.025
WMECo	\$ 0.039	\$ 0.032	\$ 0.036	\$ 0.038	\$ 0.038	\$ 0.038
Res	\$ 0.061	\$ 0.051	\$ 0.058	\$ 0.062	\$ 0.062	\$ 0.062
LI	\$ 0.156	\$ 0.099	\$ 0.117	\$ 0.118	\$ 0.118	\$ 0.118
C&I	\$ 0.027	\$ 0.022	\$ 0.026	\$ 0.028	\$ 0.028	\$ 0.028
CLC	\$ 0.082	\$ 0.049	\$ 0.073	\$ 0.074	\$ 0.064	\$ 0.065
Res	\$ 0.085	\$ 0.064	\$ 0.084	\$ 0.091	\$ 0.086	\$ 0.084
LI	\$ 0.224	\$ 0.241	\$ 0.243	\$ 0.315	\$ 0.232	\$ 0.233
C&I	\$ 0.064	\$ 0.021	\$ 0.038	\$ 0.056	\$ 0.039	\$ 0.040
Unitil	\$ 0.060	\$ 0.009	\$ 0.049	\$ 0.051	\$ 0.051	\$ 0.052
Res	\$ 0.185	\$ 0.084	\$ 0.093	\$ 0.146	\$ 0.149	\$ 0.151
LI	\$ 0.152	\$ 0.165	\$ 0.324	\$ 0.292	\$ 0.297	\$ 0.303
C&I	\$ 0.036	\$ 0.005	\$ 0.037	\$ 0.034	\$ 0.035	\$ 0.036



Cost of Saved Energy - Gas

Total Cost for Saved Energy - Gas (million \$)						
	2010	2011	2012	2013	2014	2015
Proposed Savings Targets				1.3%	1.5%	1.7%
Proposed Savings (million therms)				29	34	38
Statewide Portfolio - Past Performance	\$62	\$98		\$173	\$200	\$227
\$/therm (annual)	\$5.56	\$6.33		\$5.94	\$5.94	\$5.94
\$/therm (lifetime)	\$0.35	\$0.44				
MTM Plan	\$78	\$116	\$144	\$182	\$210	\$238
\$/therm (annual)	\$5.46	\$6.36	\$6.11	\$6.24	\$6.24	\$6.24
\$/therm (lifetime)	N/A	N/A	N/A			
Point380 Report			\$230	\$135	\$156	\$177
\$/therm (annual)			\$4.63	\$4.63	\$4.63	\$4.63
\$/therm (lifetime)			\$0.25			

Gas Costs

Gas PA Cost/Lifetime Therm Saved						
	2010 Report	2011 Year End	2012 MTM	2013	2014	2015
Statewide	\$ 0.303	\$ 0.431	\$ 0.397	\$ 0.521	\$ 0.516	\$ 0.509
NGRID	\$ 0.299	\$ 0.549	\$ 0.475	\$ 0.642	\$ 0.625	\$ 0.603
NSTAR	\$ 0.318	\$ 0.295	\$ 0.329	\$ 0.480	\$ 0.484	\$ 0.487
CMA	\$ 0.288	\$ 0.334	\$ 0.292	\$ 0.335	\$ 0.350	\$ 0.363
NGEC	\$ 0.607	\$ 0.398	\$ 0.435	\$ 0.443	\$ 0.460	\$ 0.477
Berkshire	\$ 0.308	\$ 0.344	\$ 0.351	\$ 0.394	\$ 0.376	\$ 0.374
Unitil	\$ 0.247	\$ 0.363	\$ 0.380	\$ 0.357	\$ 0.364	\$ 0.371

The PAs propose statewide gas goals for 2013 that are 7% lower than 2012 MTM goals, yet propose 2013 statewide budgets that are almost \$40 million (30%) higher than 2012.

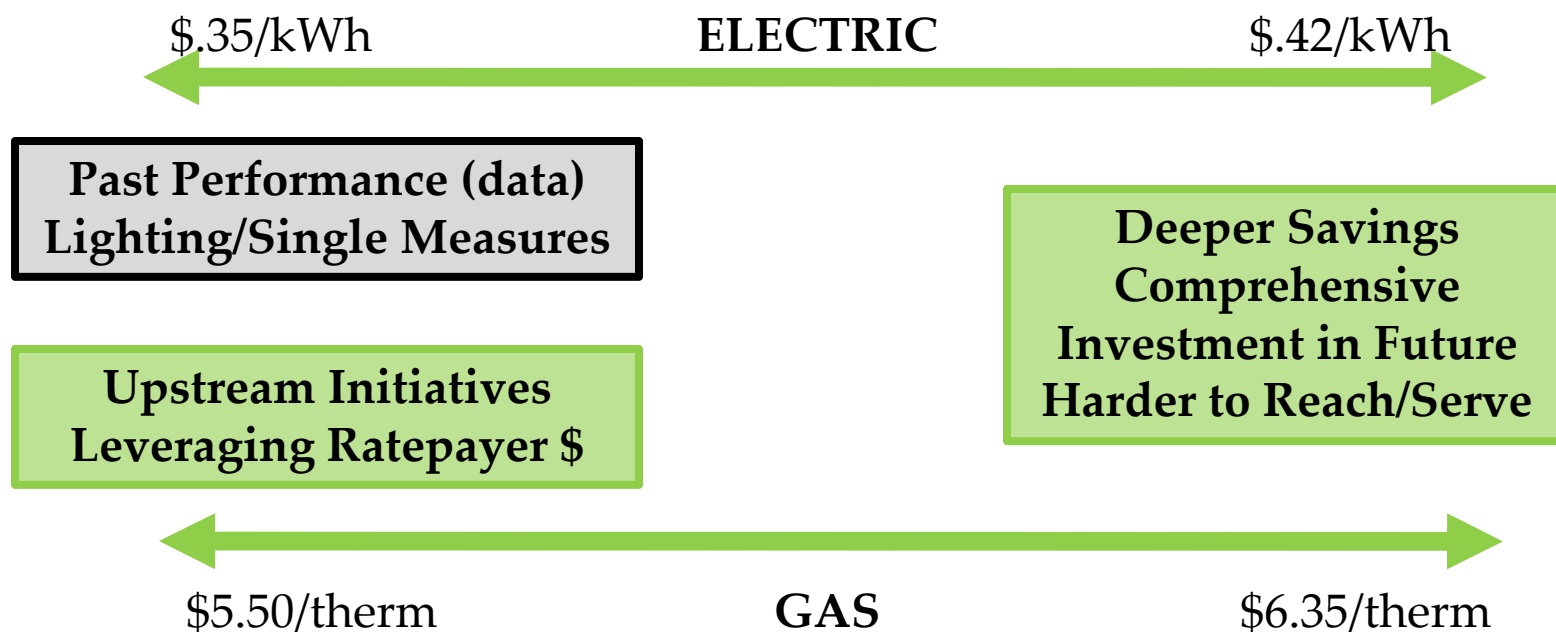


<div style="background-color: #92d050; padding: 2px;">\$ of PA Cost/Lifetime Therm Saved</div>						
	2010	2011	2012	2013	2014	2015
Statewide	\$ 0.303	\$ 0.431	\$ 0.397	\$ 0.521	\$ 0.516	\$ 0.509
Res	\$ 0.391	\$ 0.576	\$ 0.471	\$ 0.524	\$ 0.532	\$ 0.534
LI	\$ 1.310	\$ 0.936	\$ 1.151	\$ 1.348	\$ 1.348	\$ 1.332
C&I	\$ 0.137	\$ 0.214	\$ 0.212	\$ 0.388	\$ 0.370	\$ 0.355
NGRID	\$ 0.299	\$ 0.549	\$ 0.475	\$ 0.642	\$ 0.625	\$ 0.603
Res	\$ 0.354	\$ 0.612	\$ 0.463	\$ 0.532	\$ 0.542	\$ 0.542
LI	\$ 4.757	\$ 1.180	\$ 1.445	\$ 1.588	\$ 1.573	\$ 1.542
C&I	\$ 0.131	\$ 0.340	\$ 0.301	\$ 0.597	\$ 0.546	\$ 0.495
NSTAR	\$ 0.318	\$ 0.295	\$ 0.329	\$ 0.480	\$ 0.484	\$ 0.487
Res	\$ 0.509	\$ 0.531	\$ 0.496	\$ 0.553	\$ 0.560	\$ 0.555
LI	\$ 0.870	\$ 0.839	\$ 1.087	\$ 1.516	\$ 1.524	\$ 1.544
C&I	\$ 0.115	\$ 0.082	\$ 0.155	\$ 0.329	\$ 0.329	\$ 0.331
CMA	\$ 0.288	\$ 0.334	\$ 0.292	\$ 0.335	\$ 0.350	\$ 0.363
Res	\$ 0.392	\$ 0.517	\$ 0.450	\$ 0.457	\$ 0.469	\$ 0.481
LI	\$ 0.648	\$ 0.604	\$ 0.851	\$ 0.924	\$ 0.963	\$ 0.964
C&I	\$ 0.163	\$ 0.178	\$ 0.142	\$ 0.200	\$ 0.213	\$ 0.225
NGEC	\$ 0.607	\$ 0.398	\$ 0.435	\$ 0.443	\$ 0.460	\$ 0.477
Res	\$ 0.712	\$ 0.476	\$ 0.522	\$ 0.459	\$ 0.479	\$ 0.497
LI	\$ 0.685	\$ 0.890	\$ 0.510	\$ 0.525	\$ 0.557	\$ 0.590
C&I	\$ 0.338	\$ 0.208	\$ 0.293	\$ 0.350	\$ 0.350	\$ 0.350
Berkshire	\$ 0.308	\$ 0.344	\$ 0.351	\$ 0.394	\$ 0.376	\$ 0.374
Res	\$ 0.370	\$ 0.530	\$ 0.544	\$ 0.568	\$ 0.541	\$ 0.541
LI	\$ 0.686	\$ 0.601	\$ 0.483	\$ 0.624	\$ 0.594	\$ 0.578
C&I	\$ 0.171	\$ 0.134	\$ 0.170	\$ 0.154	\$ 0.147	\$ 0.147
Unitil	\$ 0.247	\$ 0.363	\$ 0.380	\$ 0.357	\$ 0.364	\$ 0.371
Res	\$ 0.763	\$ 0.681	\$ 0.590	\$ 0.618	\$ 0.630	\$ 0.641
LI	\$ 0.208	\$ 0.498	\$ 0.596	\$ 0.546	\$ 0.556	\$ 0.566
C&I	\$ 0.175	\$ 0.204	\$ 0.235	\$ 0.217	\$ 0.221	\$ 0.225



Budget Suggestion for 2013-2015

Initial Thoughts on Cost Ranges



EEAC Consultant initial analysis from April 2012.