



Initial EEAC Consultant Background and Analysis: Options for Goals for 2013-2015 Three-Year Plans

EEAC Consultants
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Outline of Presentation

- Background – Goals in the 2010-2012 Plans
- Results for 2010 and 2011
 - Achieved savings and benefits as a % of Plan goals
 - Annual energy savings as % of retail energy sales
- EE impacts in the Clean Energy and Climate Plan
- Initial thoughts on 2013-2015 savings goals
- Goals used for Plan development and negotiation (annual % savings) vs. the goals *really* used in the Plans
- How much emphasis should be placed on annual energy savings (shorter-term, for a single fuel) vs. lifetime benefits (longer-term, covering multiple fuels)?
- Single year vs. multi-year goals for Three-Year Plans?



EEAC-Adopted 2010-2012 Annual Savings Goals

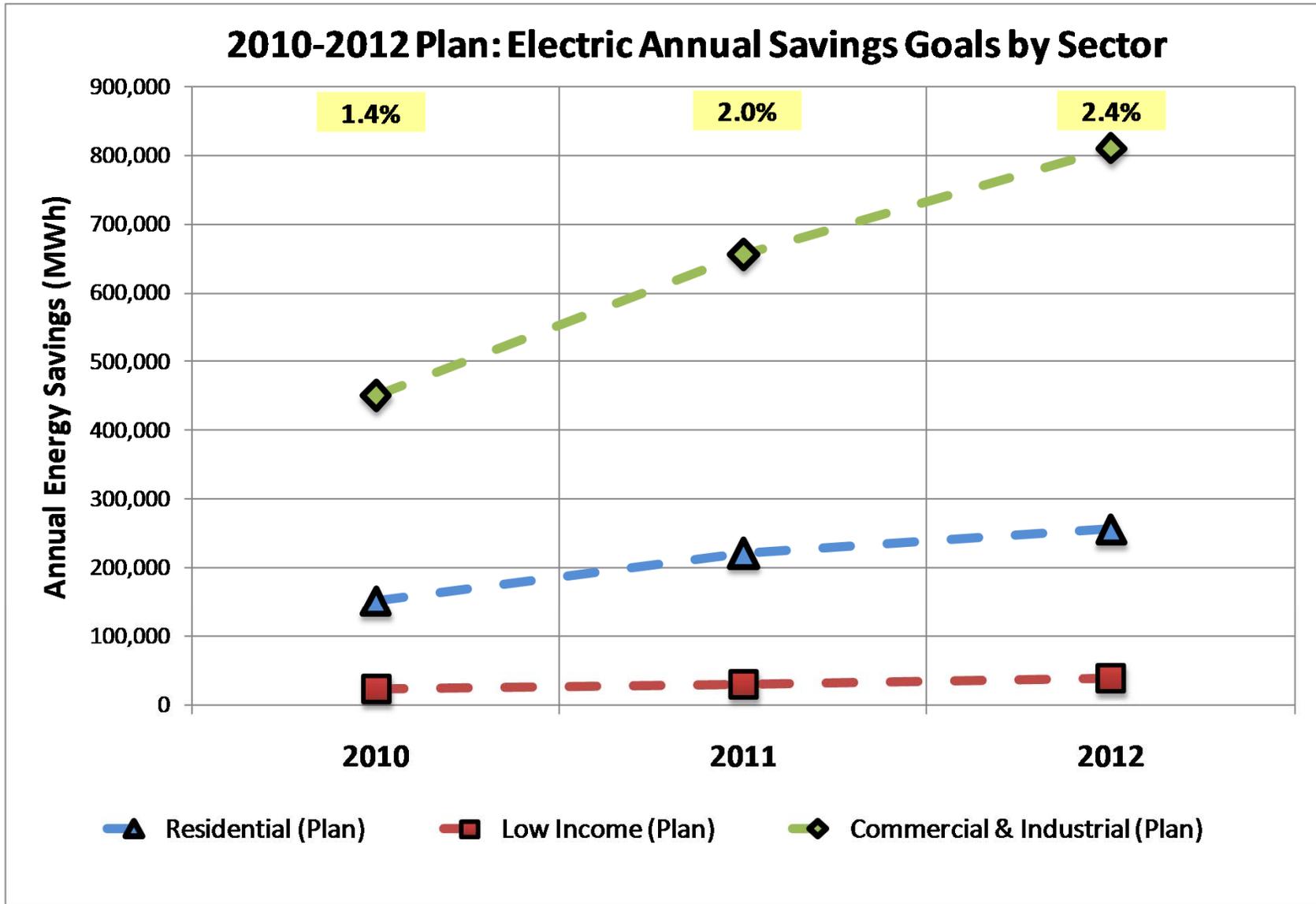
Electric	2010 Target	2011 Target	2012 Target
Savings Target as % of Retail Energy Sales	1.4%	2.0%	2.4%
Annual Energy Savings in GWh	630	910	1,109

Gas	2010 Target	2011 Target	2012 Target
Savings Target as % of Retail Energy Sales	0.60%	0.90%	1.15%
Annual Energy Savings (therms)	12,510,000	19,000,000	24,500,000

- EEAC goal resolutions adopted in October 2009
- PAs proposed goals at or close to these targets (some small PAs proposed goals that were somewhat lower)
- DPU approved the PA-proposed goals through its approval of the Three-Year Plans in January 2010



2010-2012 Annual Savings Goals Vary Across the Sectors





Results: 2010 Annual Report and 2011 Preliminary Year End

	2010	2011
	Annual Reports August 2011	Preliminary Year-End
Electric Results	% of Plan	% of Plan
Annual Savings (MWh)	99%	91%
Lifetime Savings	99%	101%
Benefits (\$)	95%	90%
Program Costs (\$)	85%	67%
Gas Results	% of Plan	% of Plan
Annual Savings	83%	84%
Lifetime Savings	78%	81%
Benefits (\$)	77%	77%
Program Costs (\$)	80%	92%





Electric Annual % Savings Goals

Electric % of Retail Sales	2010 Report	2011 Year End	2012 MTMs
Residential & LI	1.04%	1.59%	1.84%
Non-Residential	1.46%	1.84%	2.60%
Total	1.30%	1.74%	2.32%
Highest Levels for Larger PAs (NGrid or NSTAR)			
Residential & LI	1.17%	1.73%	2.13%
Non-Residential	1.50%	1.93%	2.71%
Total	1.36%	1.82%	2.41%

Two key issues: (1) 2010-2012 sales were higher than the sales forecasted in the 2009 planning process, resulting in a lower percent savings; (2) Larger PAs achieve higher % savings; smaller PAs impact the statewide average numbers.



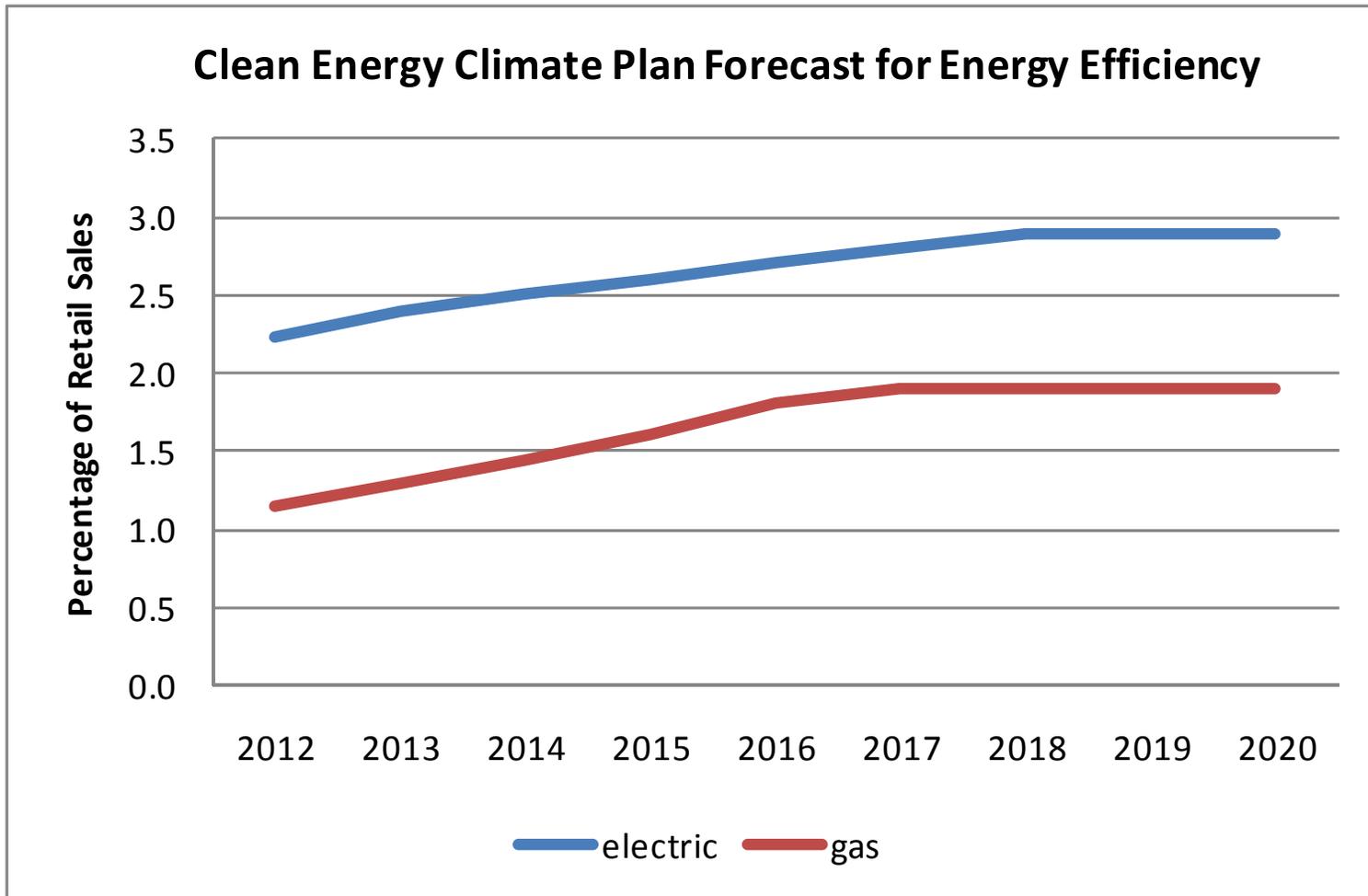
Gas Annual % Savings Goals

Gas % of Retail Sales	2010 Report	2011 Year End	2012 MTMs
Residential & LI	.48%	.67%	1.07%
Non-Residential	.55%	.72%	1.03%
Total	.52%	.69%	1.05%
Highest Levels for Larger PAs (NGrid or NSTAR)			
Residential & LI	.60%	.78%	1.42%
Non-Residential	.59%	.78%	1.38%
Total	.54%	.78%	1.21%

Data issues: 2010-2012 sales were higher than the sales forecasted in 2009, resulting in a lower % savings. **Gas calculations above include usage from customers not eligible for the programs**, which also results in lower %.



Looking Ahead: EE in the Clean Energy and Climate Plan



*Amount determined to meet greenhouse gas reduction targets





Savings Goals for 2013-2015: Initial Thoughts on Ranges

	Annual Savings (% of Retail Sales)	Assessment of Potential (% of Retail Sales)
Electric	2013: 2.5% 2014: 2.6% 2015: 2.7%	2.4% (without CHP, codes & standards attribution, or full retrofit) to 3.5%
Gas	2013: 1.3% 2014: 1.5% 2015: 1.7%	1.4% to 6.5%

As noted below, it is important to focus on benefits and net benefits goals as well (early in the process, and not just as an output of the cost-effectiveness model at the very end).



Other Support for High Savings Goals

- Program performance in 2010 and 2011 – overall, consistent growth in savings and % savings, and on track for the ramp up to achieve higher savings goals
- 2012 MTM filings – PAs proposed MTM filings that are on track to achieve 2.3-2.4% electric savings in 2012
- Several PAs proposing to achieve higher than 2.6-2.7% savings in some sectors in 2012
- Gas program performance is not yet quite as close to being on track (but in 2009 we assumed a four-year rather than three-year ramp-up for gas program planning)
- Proposed (not approved) settlement in NSTAR-NU merger (at least 2.5% annual electric savings in 2013-2015)

What Goals are *Really* Used?

- Initially, goals are developed and negotiated using % savings – i.e., annual energy savings as a % of retail sales (in order to put all PAs on a level basis)
- BUT, in the Three-Year Plans and Annual Reports, the % savings goals used for goal development and negotiation are translated into the *real* goals:
 - Annual savings (physical units of kWh and therms, not %)
 - Lifetime savings (savings over the measure lives)
 - Benefits (\$, economic value of the savings, from all fuels)
 - Net benefits (\$, benefits minus costs)
- AND the performance incentives are based mainly on:
 - “Savings” component – incents achievement of benefits (\$)
 - “Value” component – incents achievement of net benefits



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Achievement of *benefits (\$)* is lagging the achievement of energy savings.





How Much Emphasis on Annual Savings vs. Lifetime Benefits?

- Often, the focus tends to be more on short-term, annual goals, including annual energy savings (2.4% in 2012)...
- ...yet what matters more to customers and the Commonwealth are the \$ benefits (\$6 billion in benefits)
- Some areas of concern:
 - Achieved benefits are consistently lower than achieved annual energy savings (see previous slide)
 - PAs are focusing significant attention on measures with shorter lifetimes (e.g., behavior programs, res. lighting)
 - Are we focusing adequately on saving multiple fuels and achieving other benefits?
- Recommendation: increase emphasis on achieving benefits and net benefits, *in all communications*



For Further Consideration... Single Year vs. Multi-Year Goals

- Is the Plan a three-year Plan, or is it a series of one-year plans? What are the pros/cons of these two views?
- PAs are very focused on single-year performance, within the framework of annual MTMs and Annual Reports, and with annual proceedings before the DPU
- PAs focus much less on multi-year performance, and less on *strategic opportunities across multiple years* – because the single-year goals and annual processes focus their attention on single-year performance/activities
- Recommendation: explore and consider options for hybrid of single-year and multi-year goals (for future EEAC discussion)