



2010-2012 Electric and Gas Energy Efficiency Programs: Three-Year Review and Trend Analysis

EEAC Consultants
September 10, 2013 (draft)





Introduction

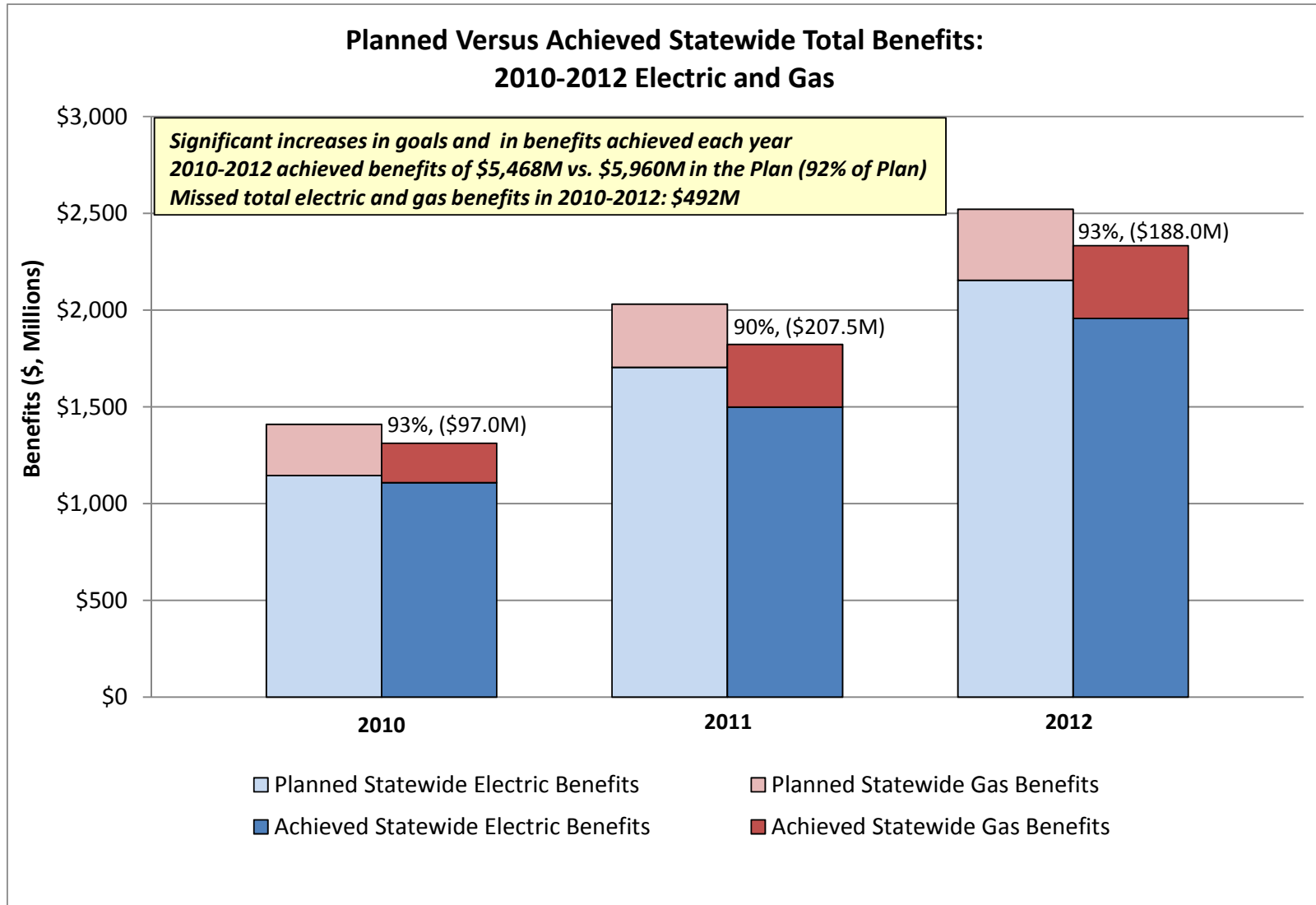
- Review of the performance of the first Three-Year Plan, specifically the EE programs in 2010-2012, with comparisons to the Plans and goals
- Initial review of the 2010-2012 performance and trends; additional follow up with the PAs is planned
- Data are from the PAs (data from the individual PAs plus statewide compilations where available)
- There are some remaining data inconsistencies
- PAs provided a factual reporting of what happened in 2010-2012 (see PA presentation distributed on 9/6); the EEAC consultants are providing observations and additional trend analysis



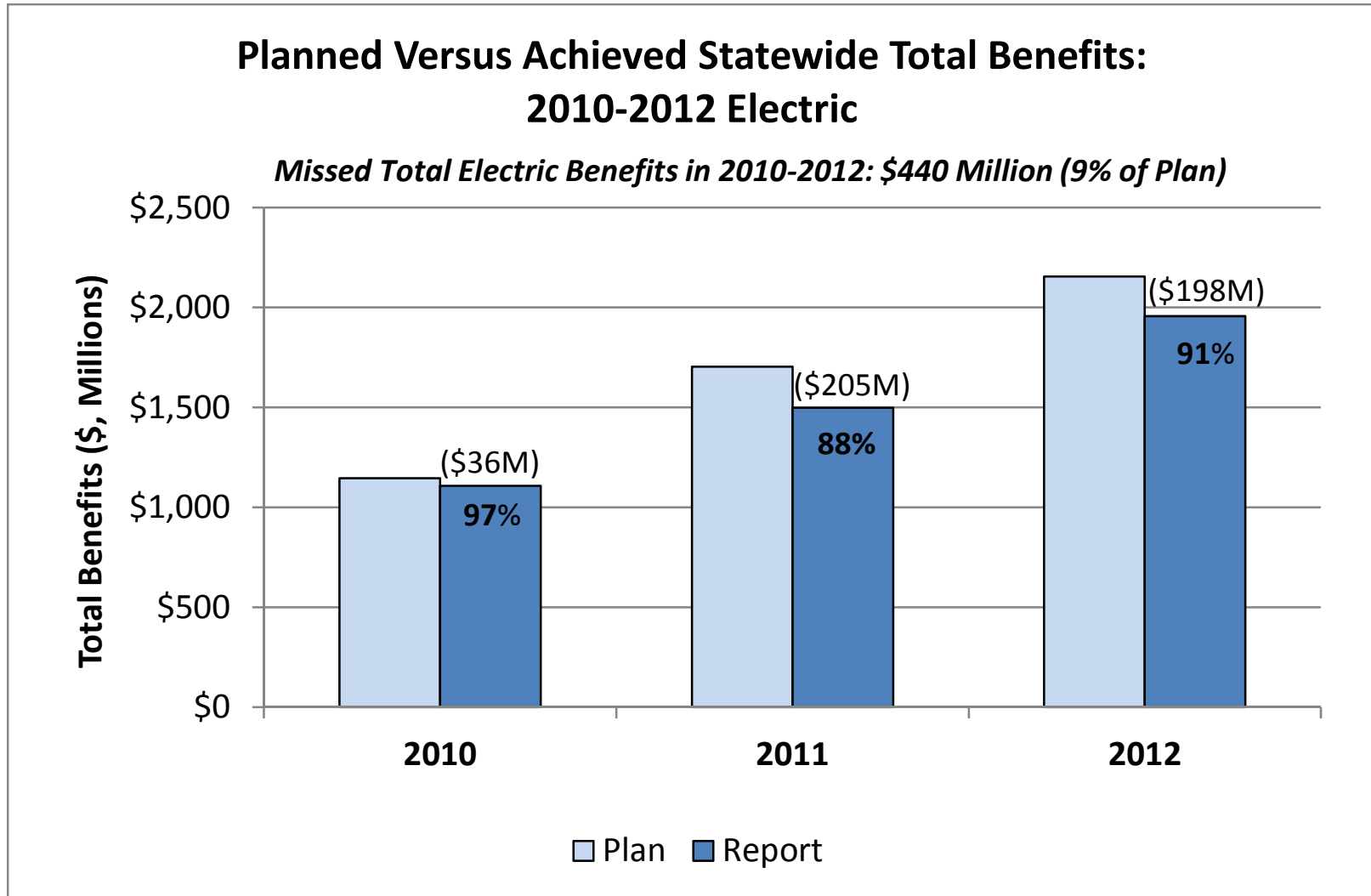
Key Findings/Observations

- Many important program advances in 2010-2012
- Savings and benefits increased significantly each year (higher goals *and* higher actual achievements)
- Savings and benefits were short of 2010-2012 Plan goals (missed savings and benefits relative to the Plan), particularly in the C&I sector in 2011 and 2012
- Missed annual savings add up and have a cumulative effect
- When annual savings goals are missed it is challenging to catch up in future years that already have high goals
- The underinvestment in 2010-2012 relative to Plan budget was significant, and a portion of the underinvestment could have been used to achieve 100% of the goals
- Differences in performance across sectors and PAs

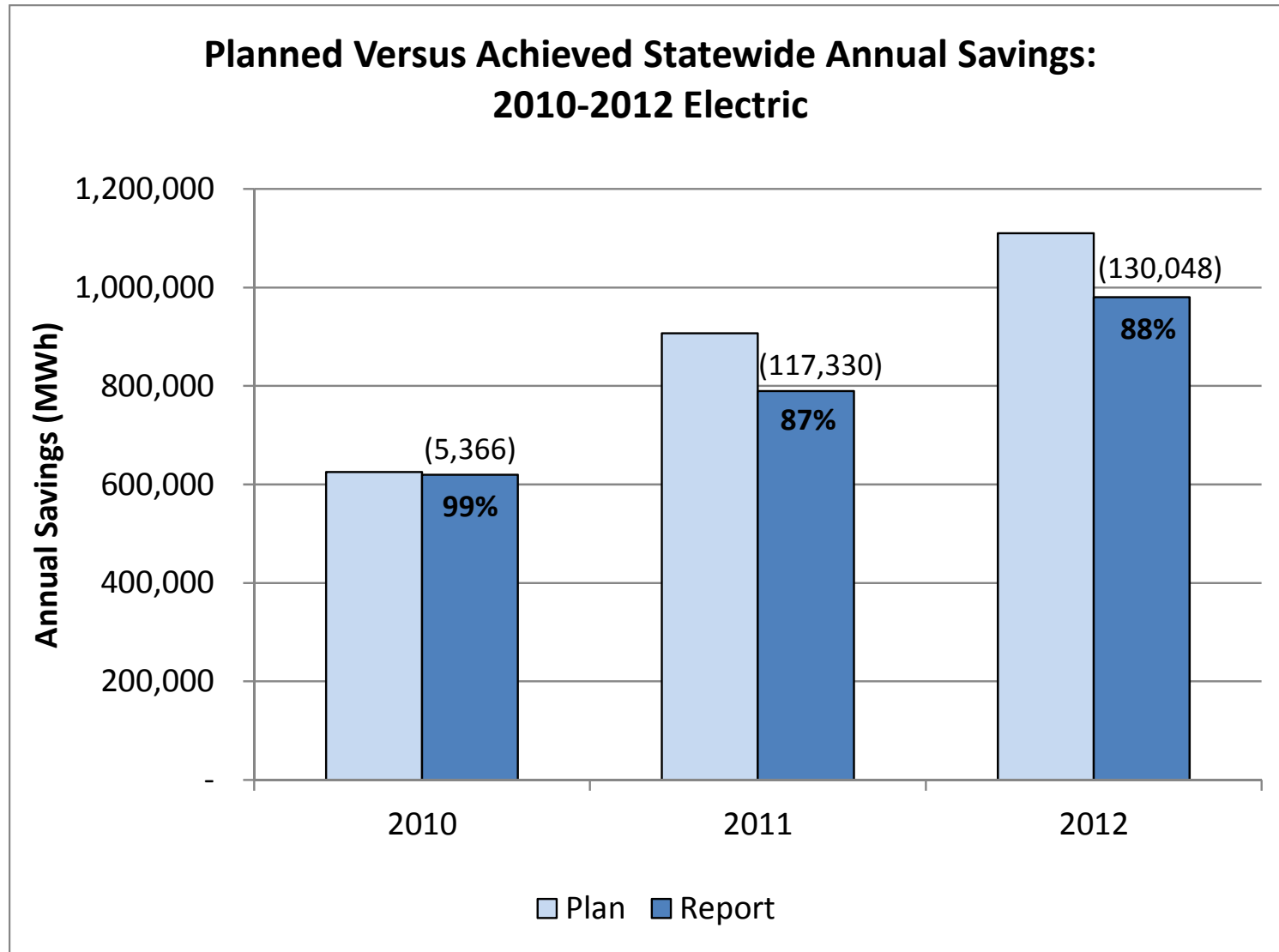
Total Benefits, 2010-2012



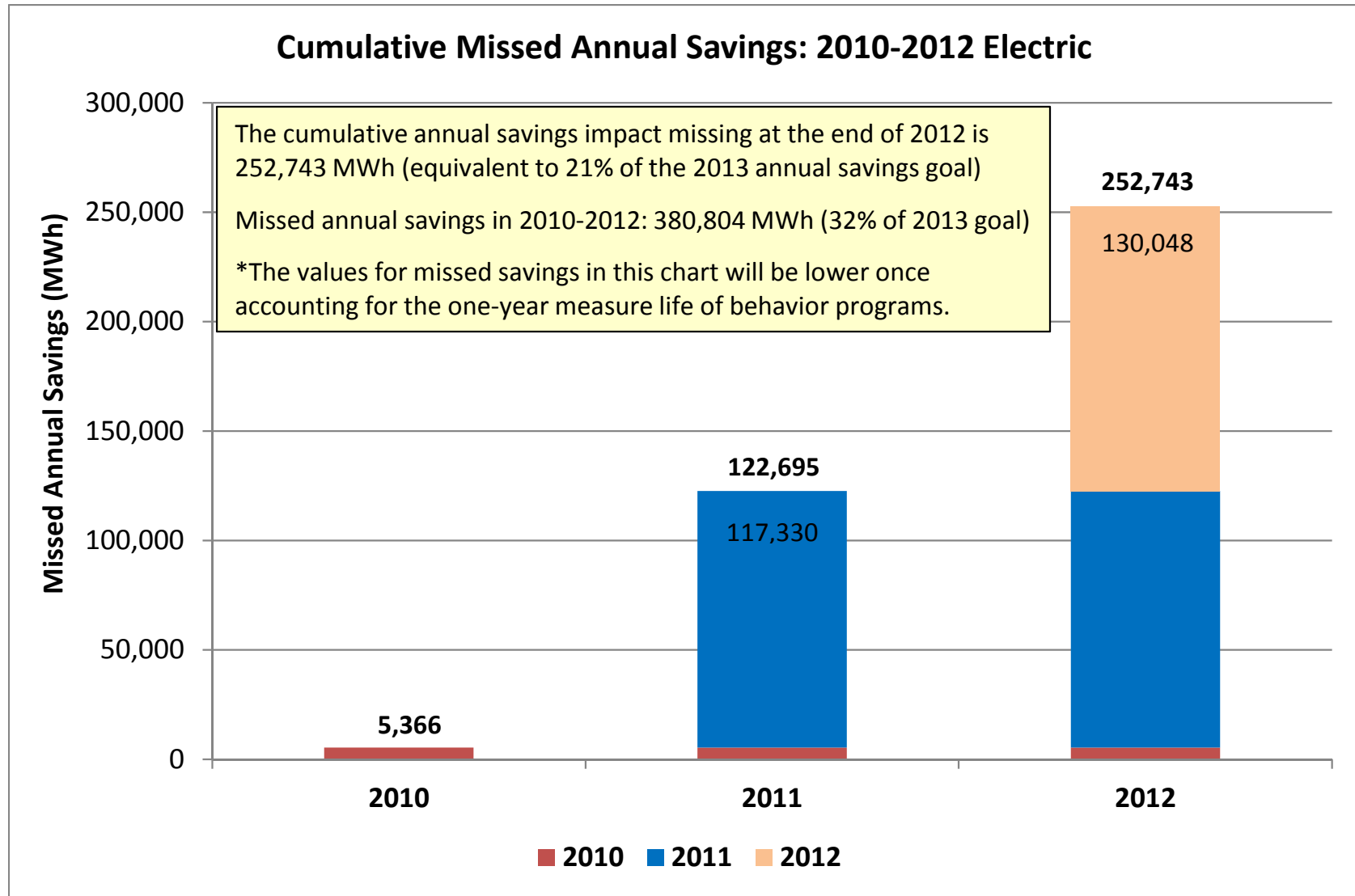
Electric Benefits, 2010-2012



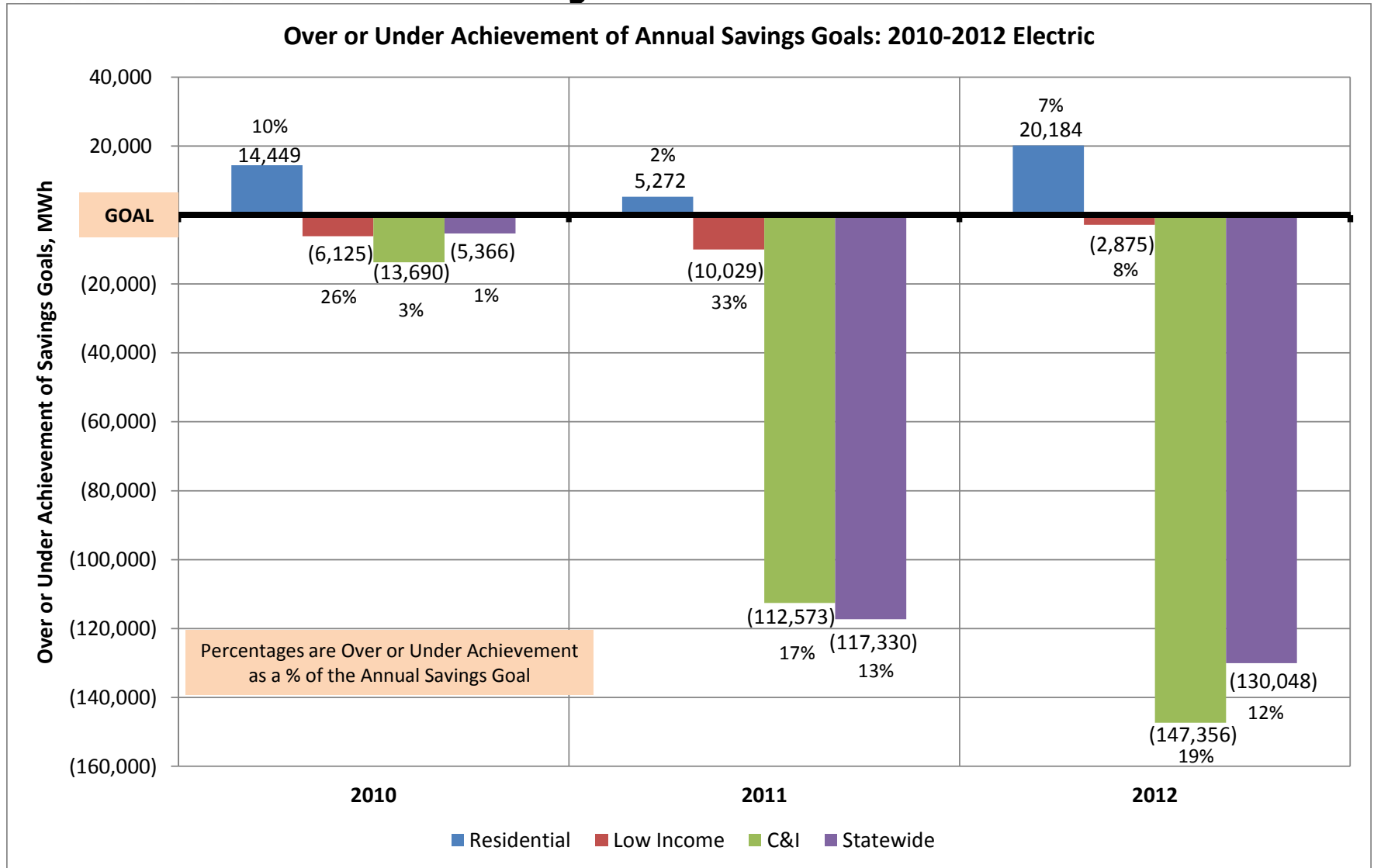
Electric Annual Savings



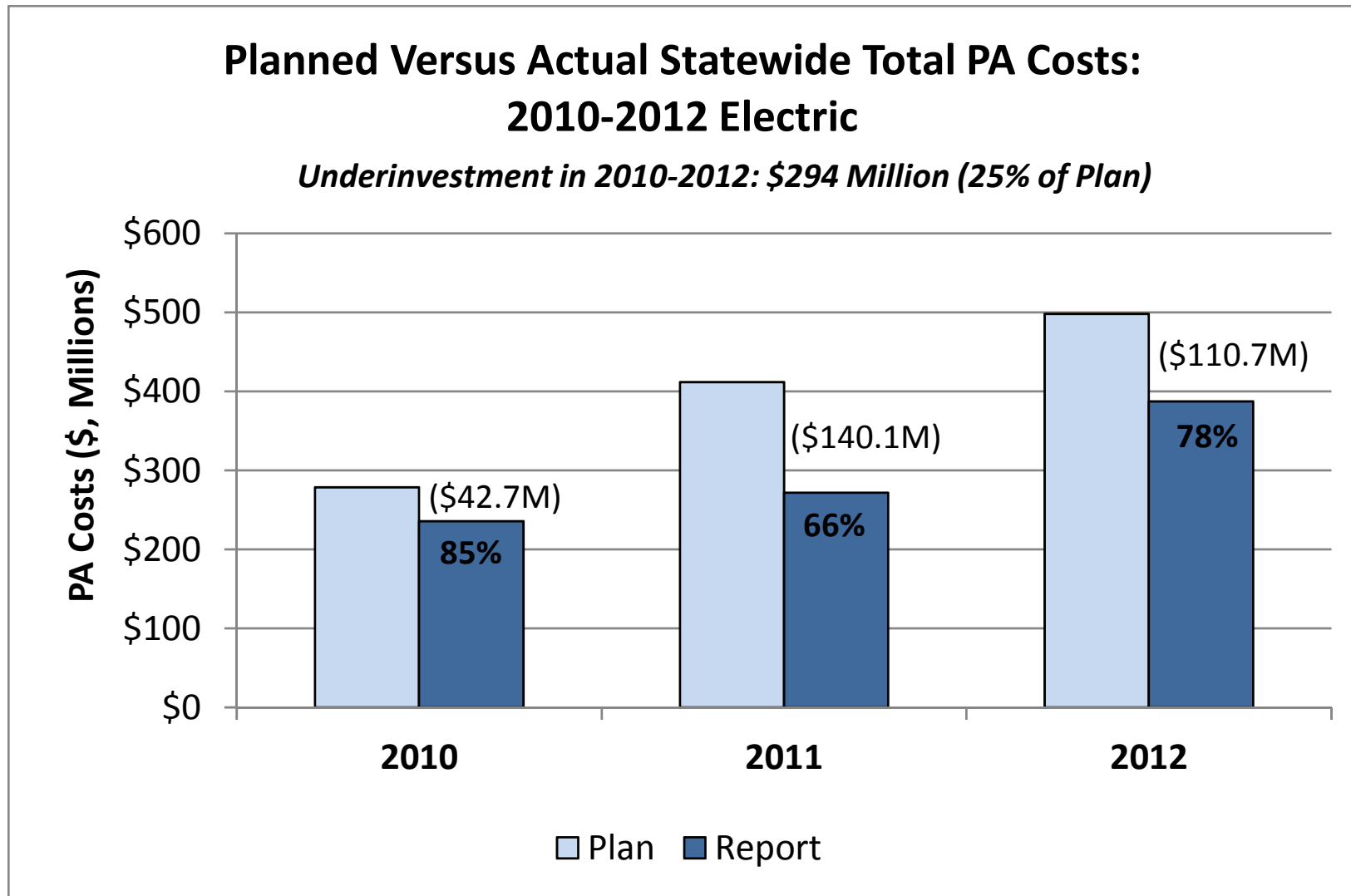
Cumulative Effect of Missed Annual Savings



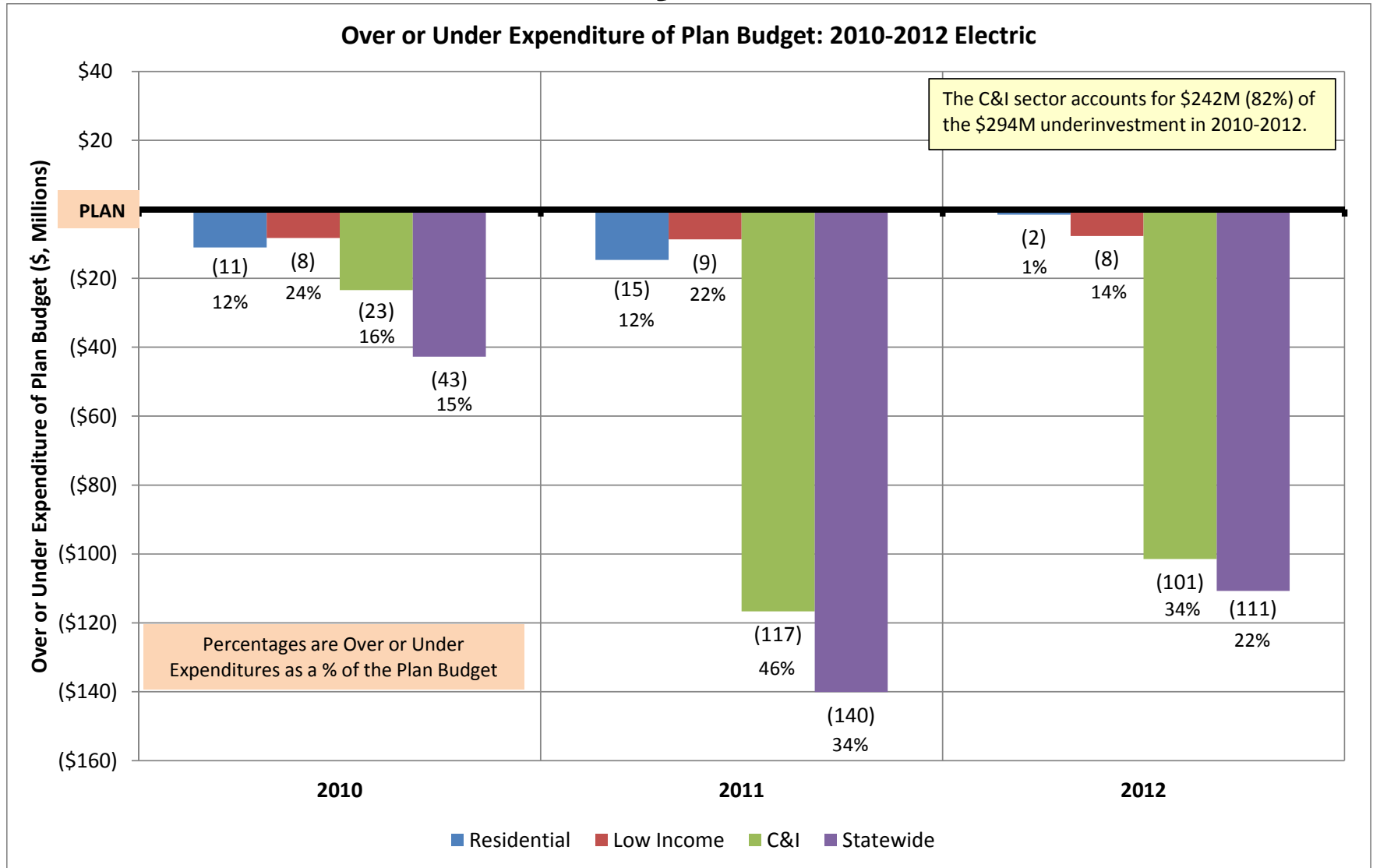
Missed Annual Savings were Mainly in the C&I Sector



Underinvestment in 2010-2012



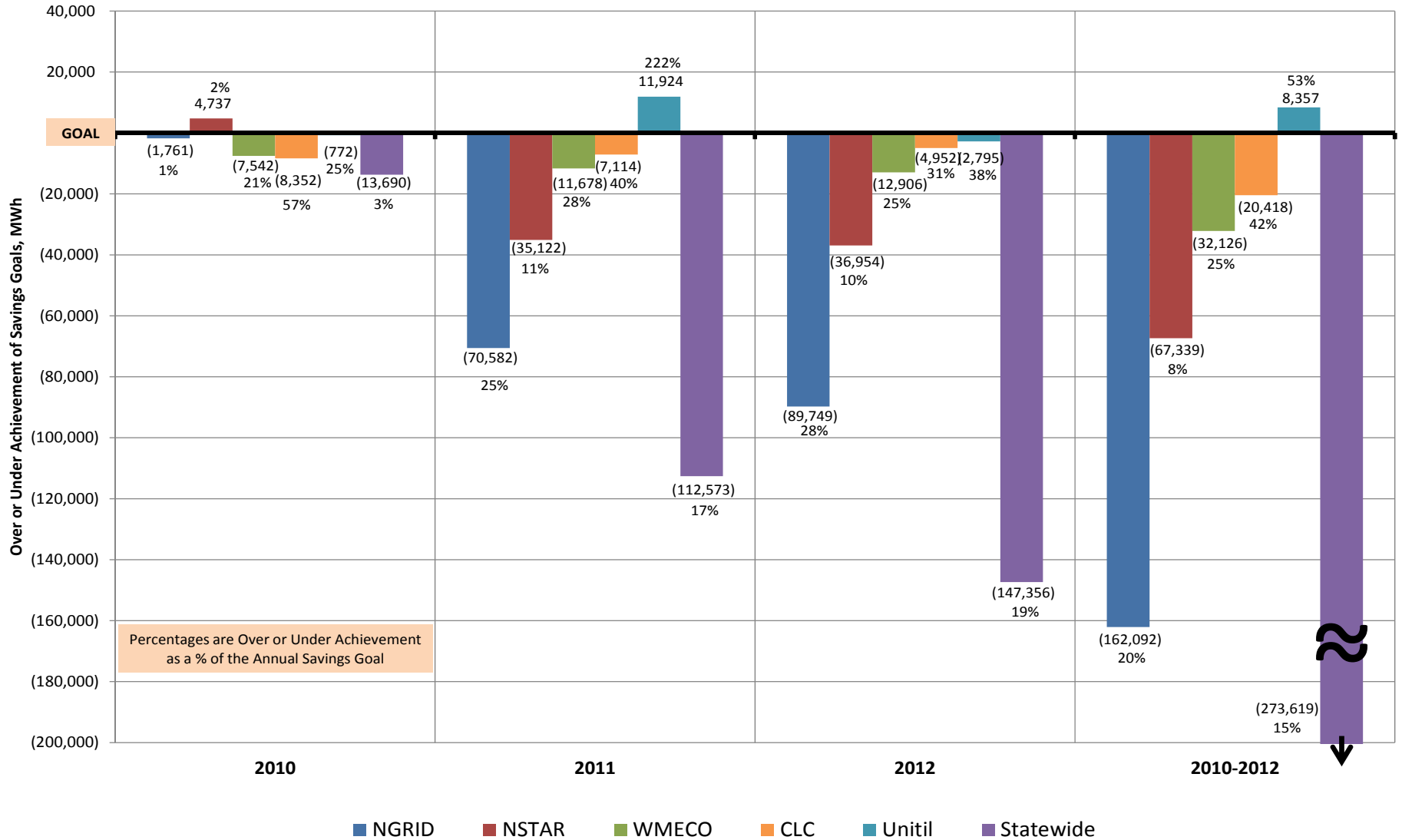
Underinvestment in 2010-2012 was Mainly in the C&I Sector





Achievement of Electric C&I Annual Savings Goals by PA

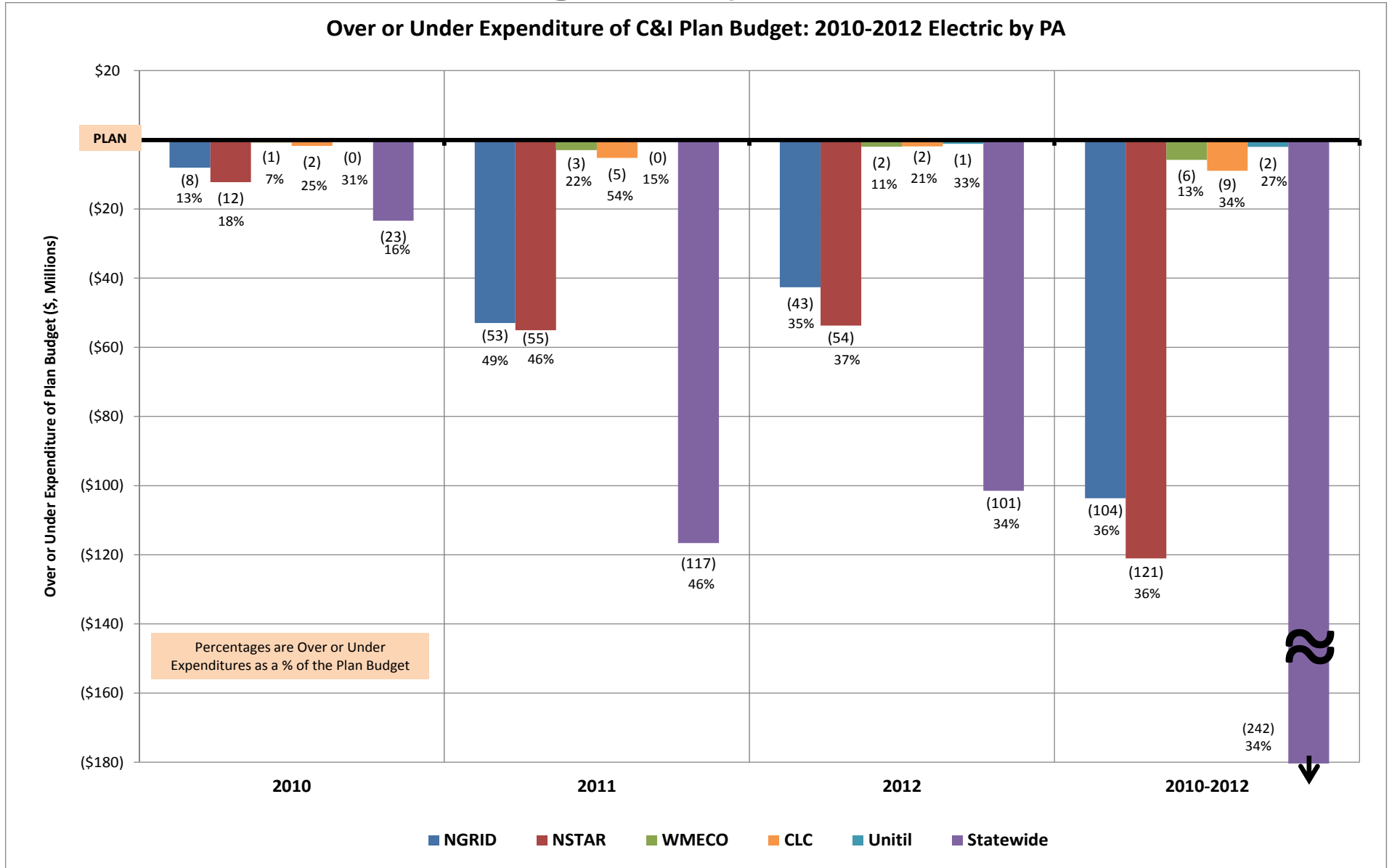
Over or Under Achievement of C&I Annual Savings Goals: 2010-2012 Electric by PA



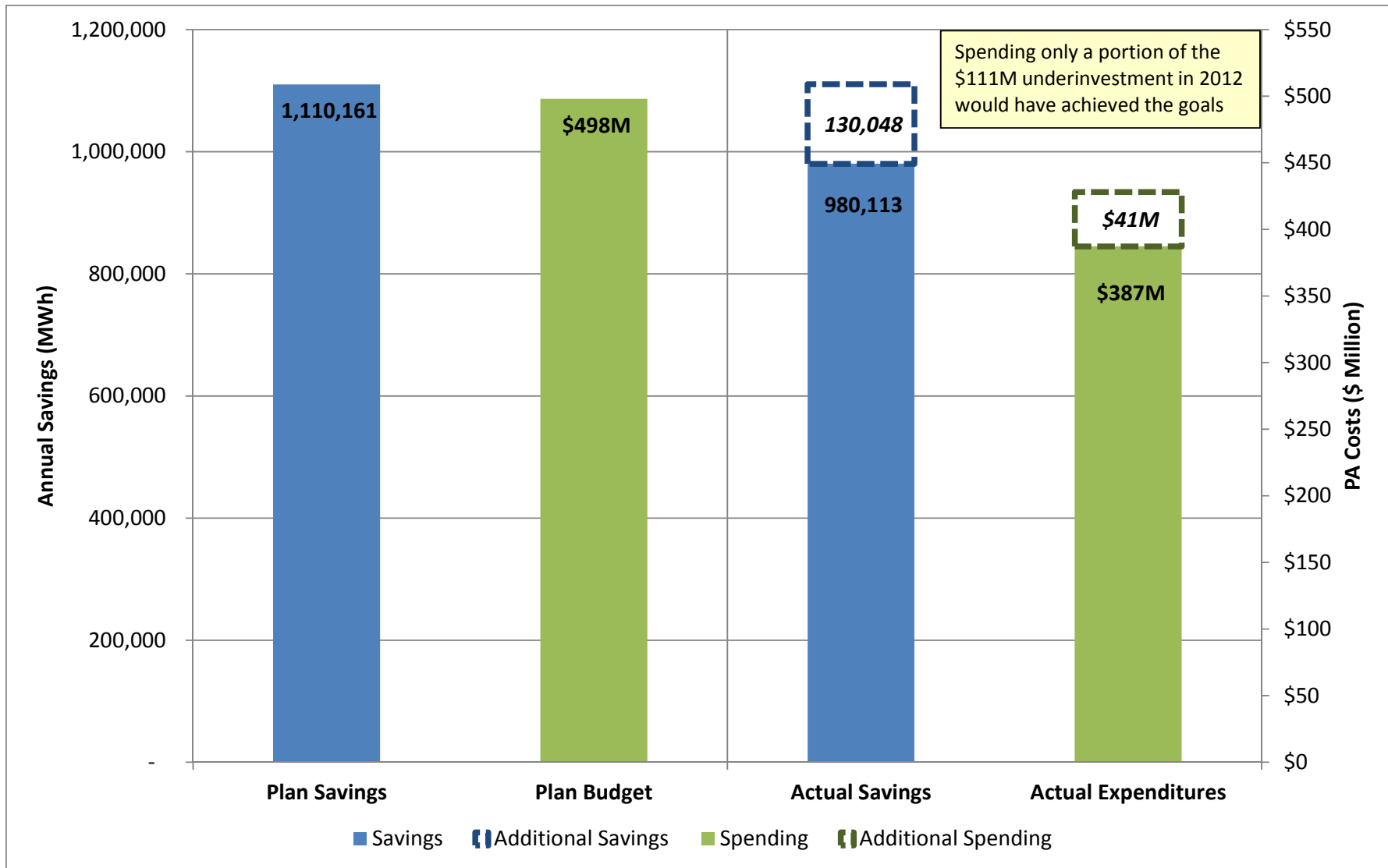


Underinvestment of Electric C&I Budgets by Individual PA

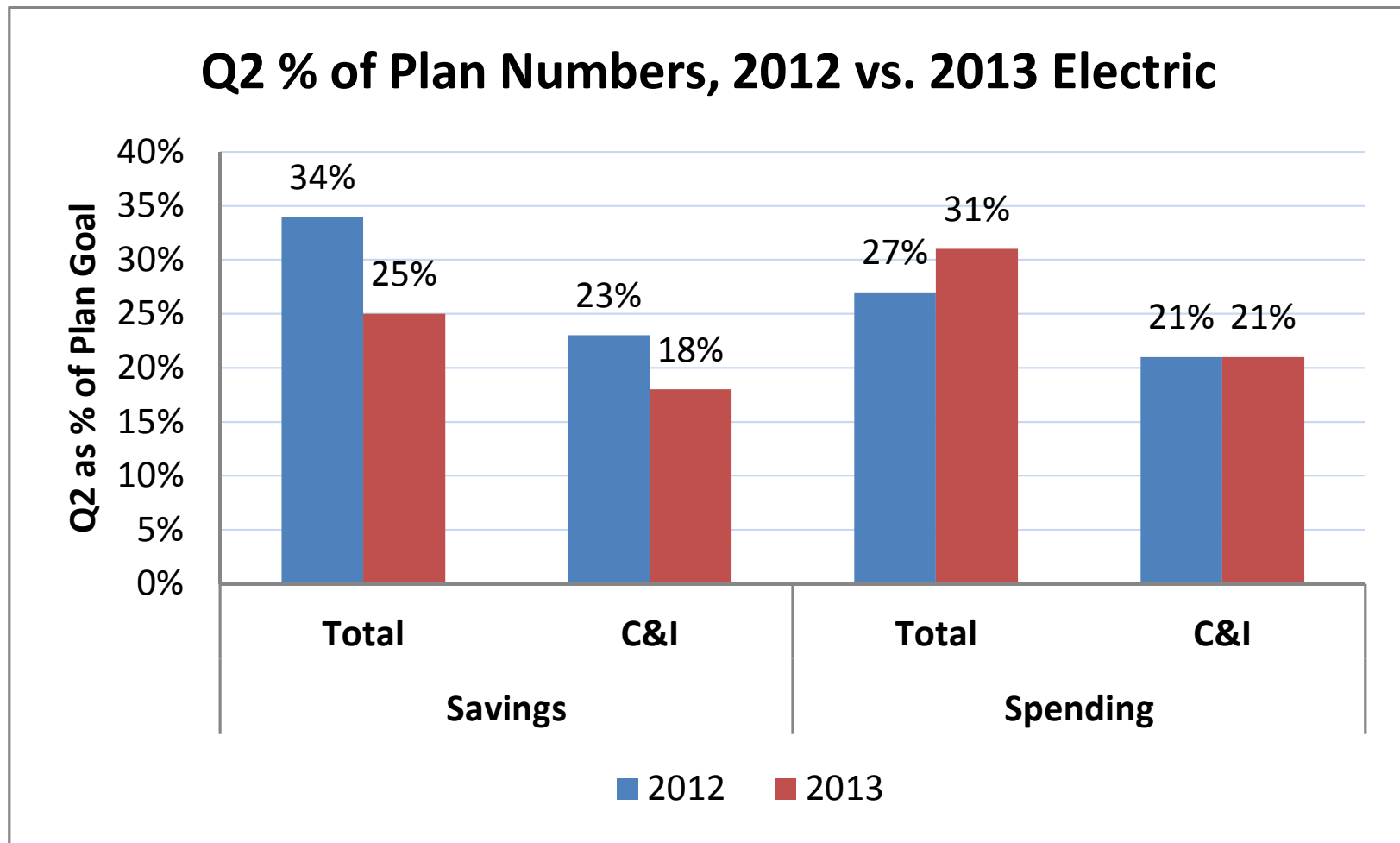
Over or Under Expenditure of C&I Plan Budget: 2010-2012 Electric by PA



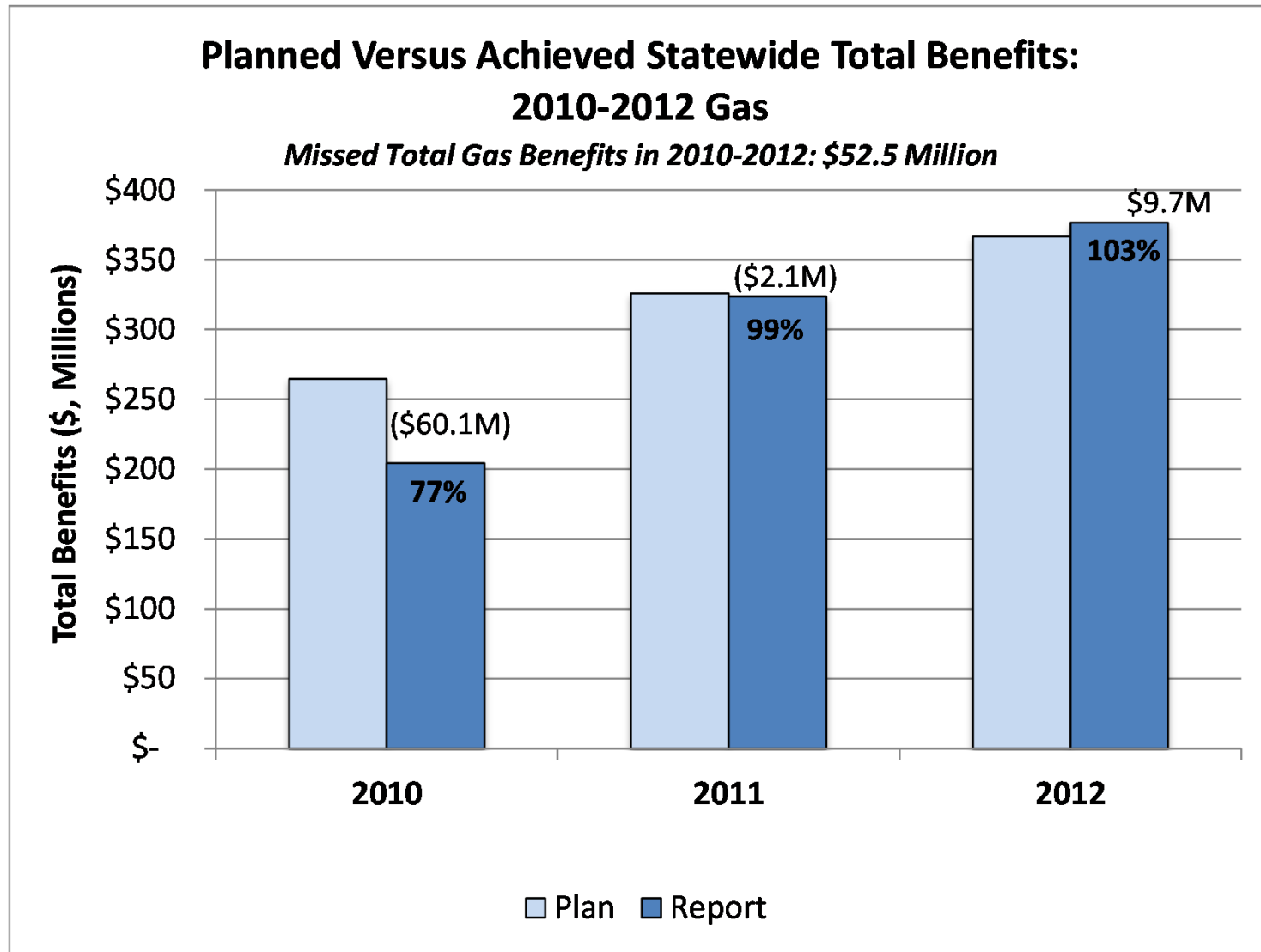
Spending Only a Portion of the Underinvestment Would Achieve Goals



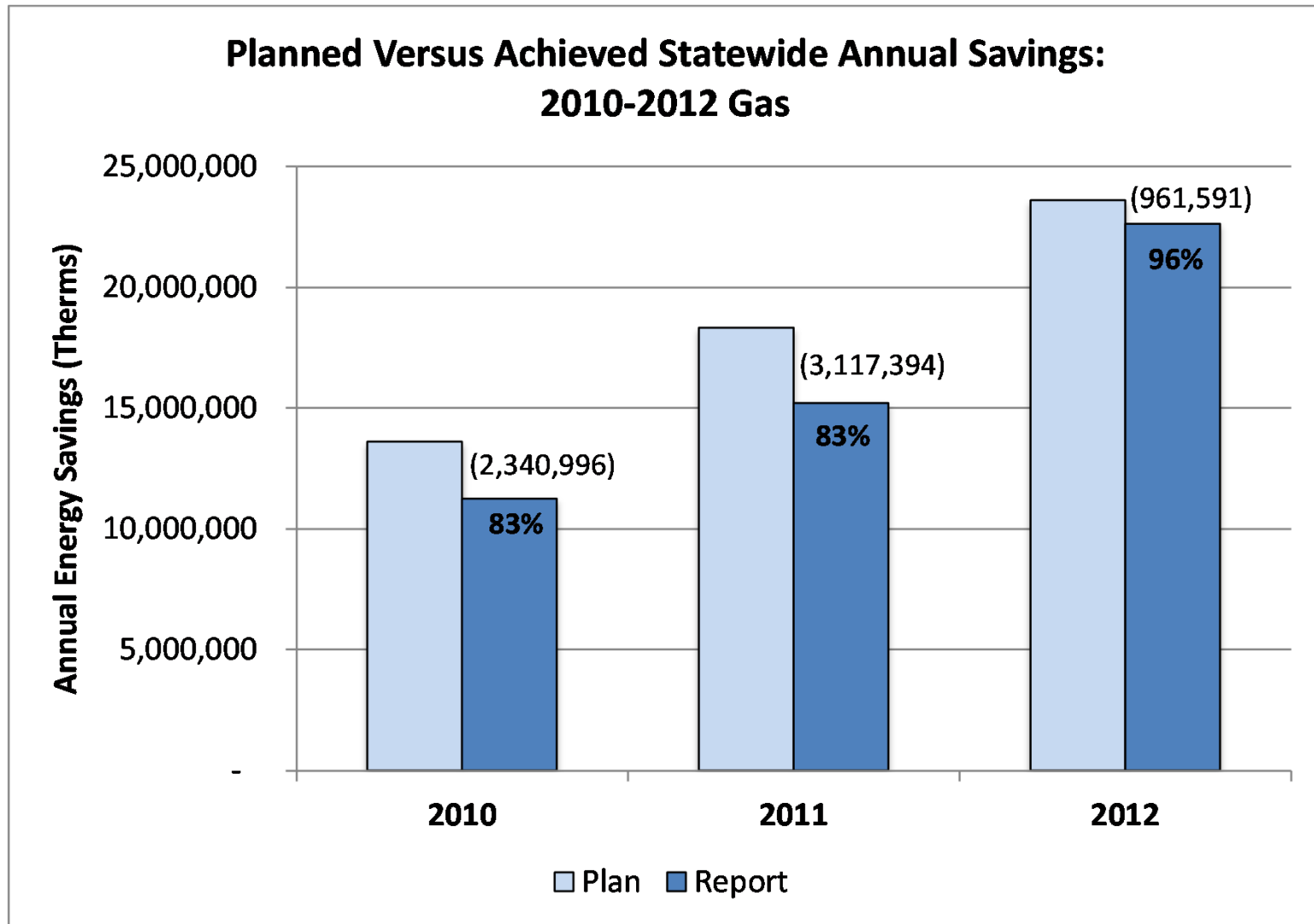
2013 Trends (Q2 Electric)



Gas Benefits, 2010-2012

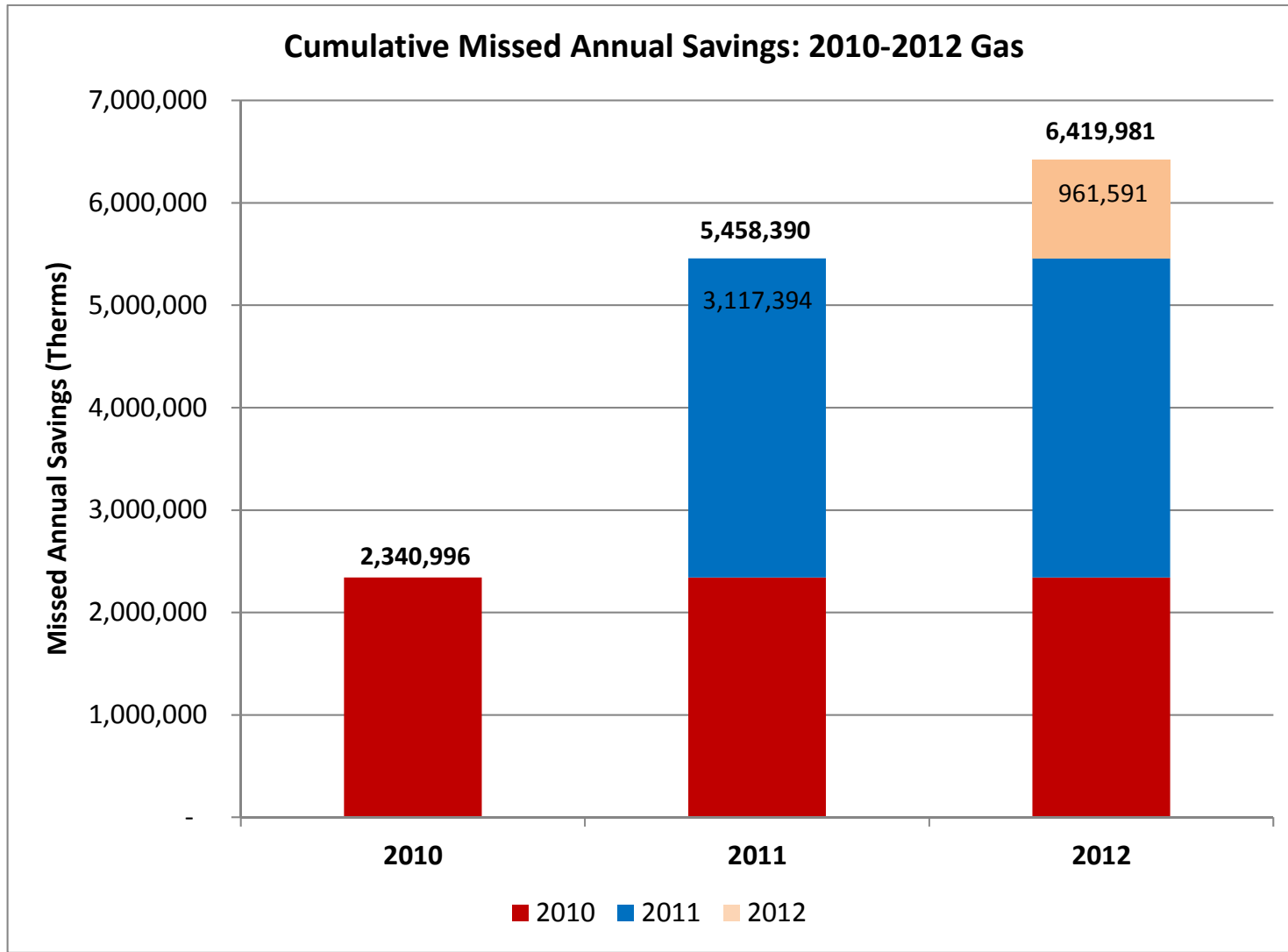


Gas Annual Savings

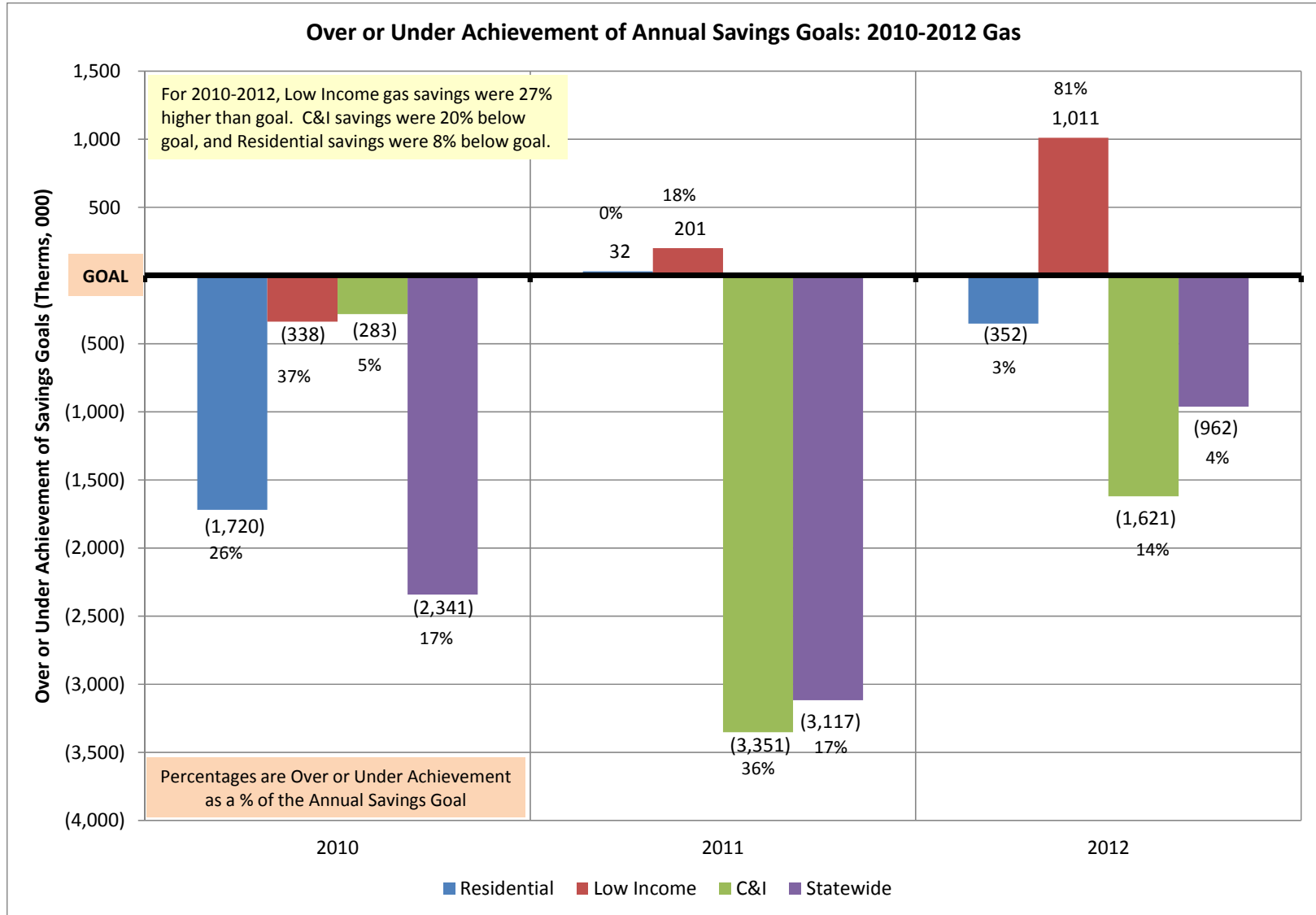




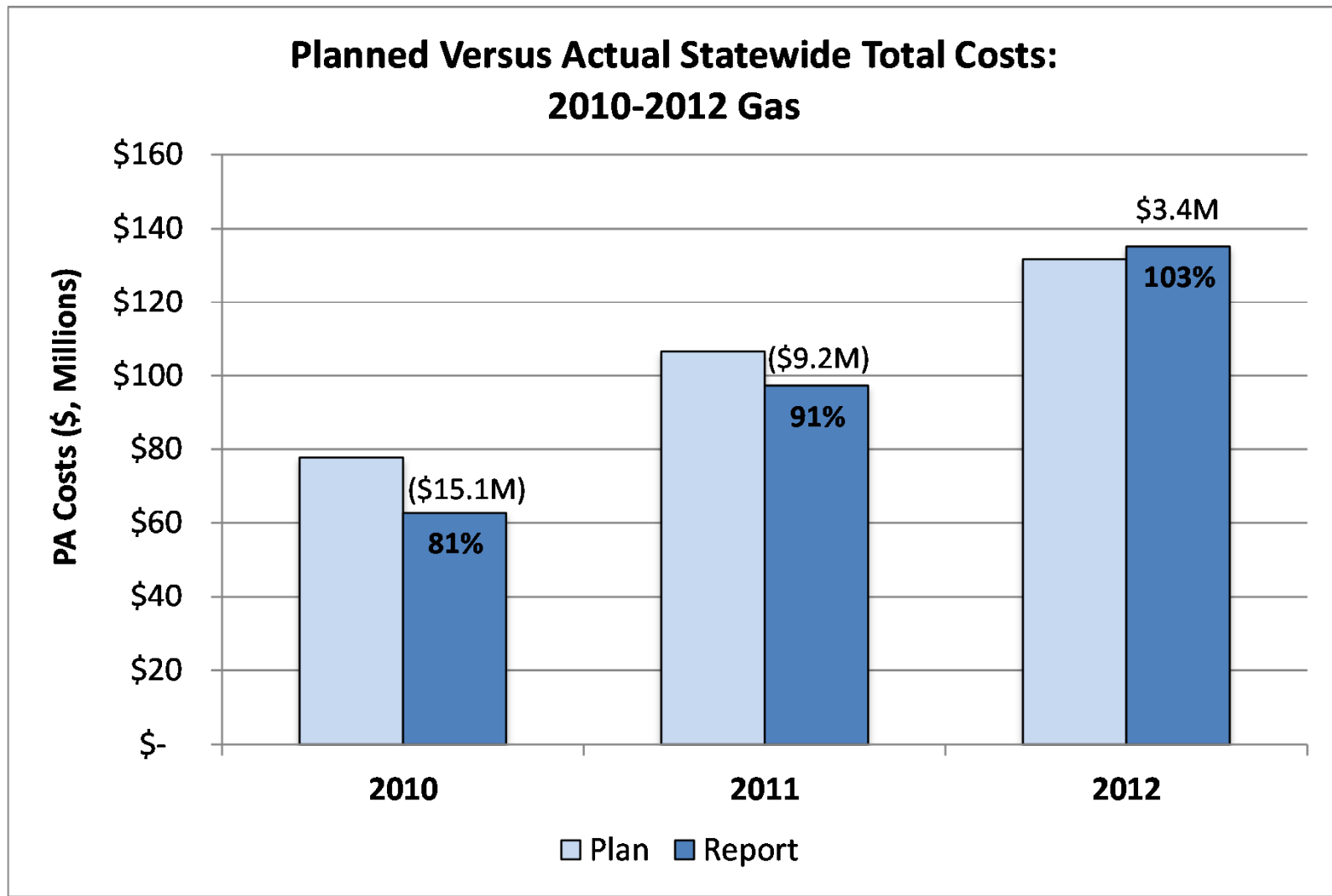
Cumulative Effect of Missed Annual Gas Savings



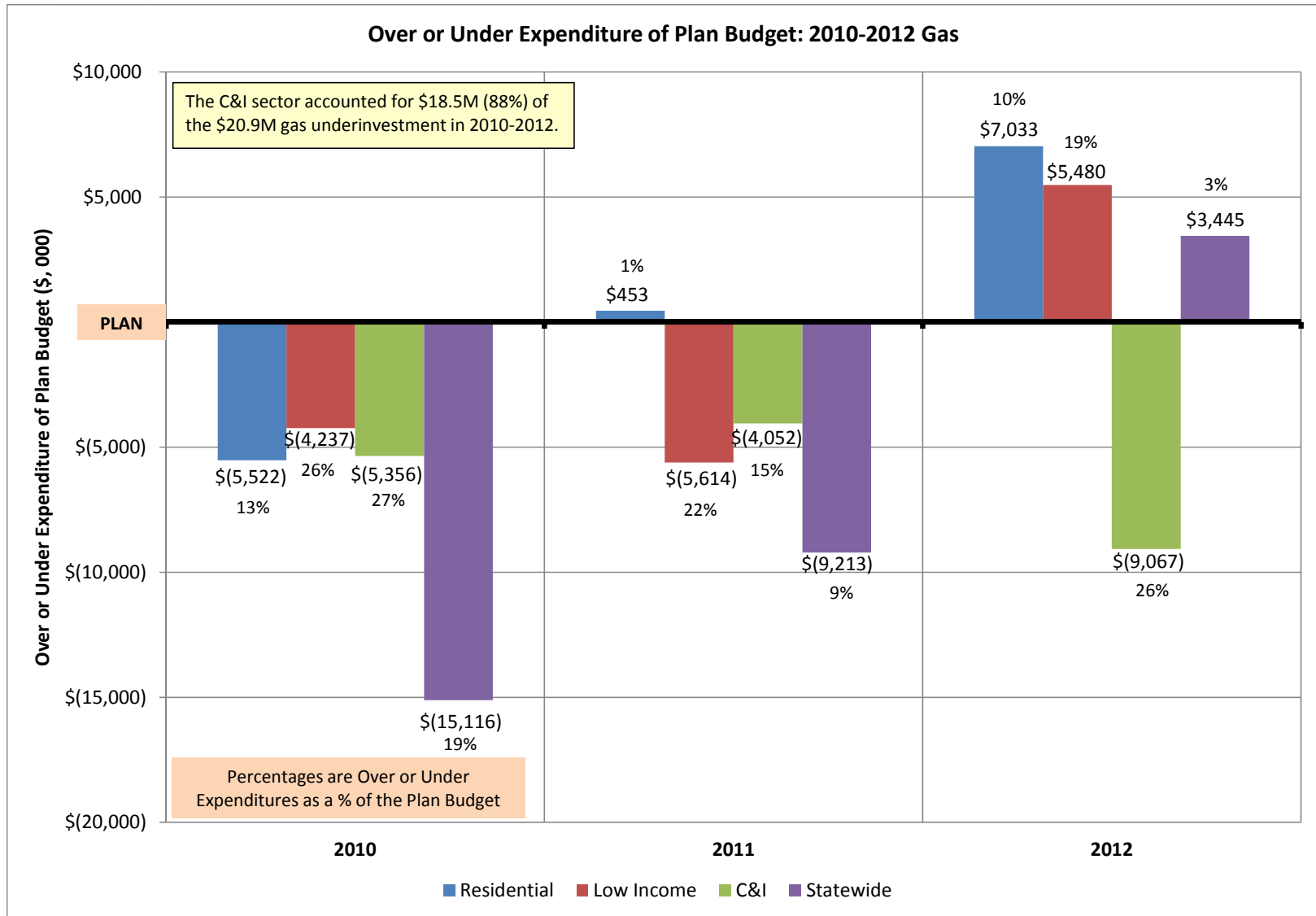
Missed Annual Gas Savings were in C&I and Residential



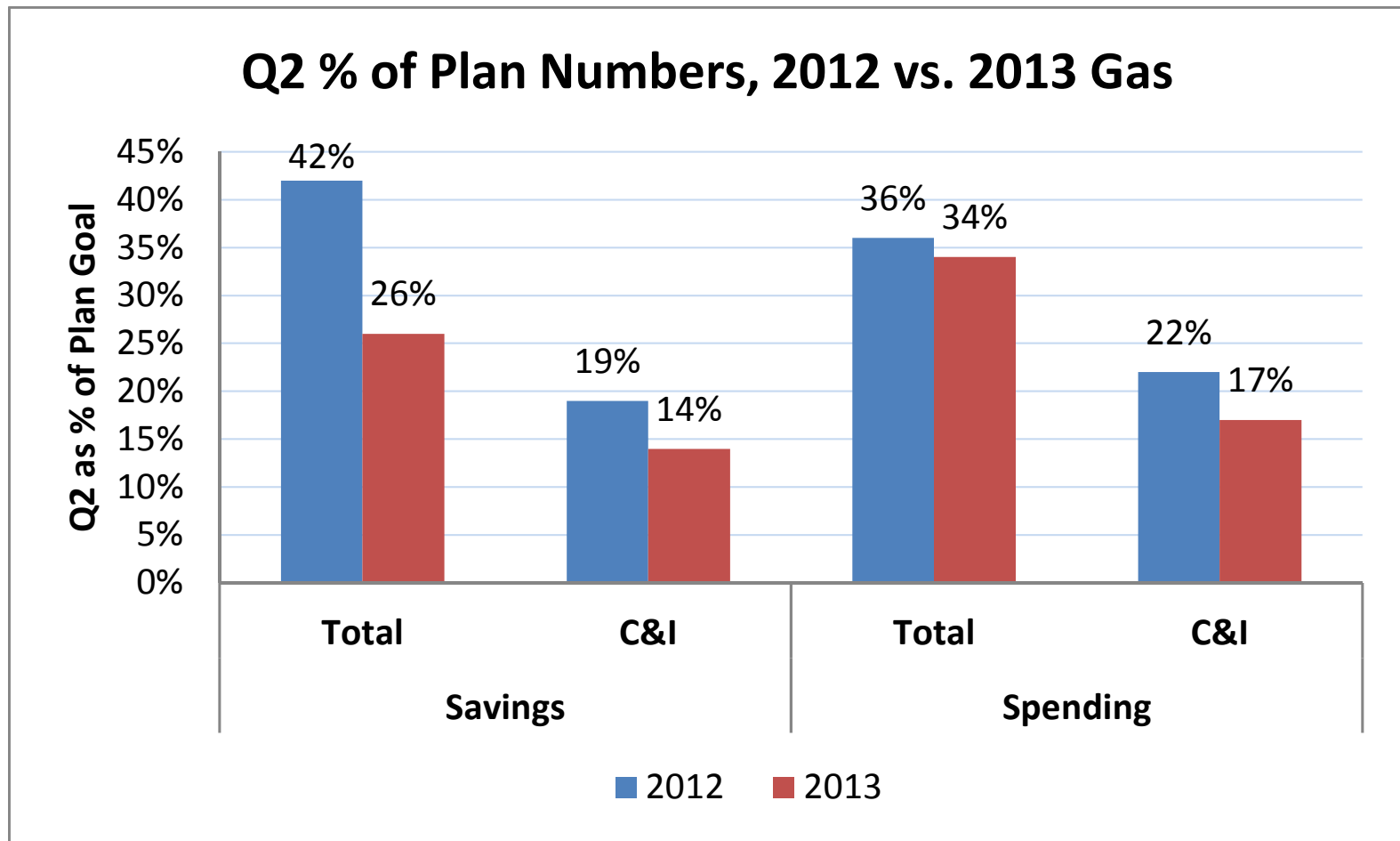
Gas Expenditures in 2010-2012



Expenditure Patterns Varied; Underinvestment in Gas C&I



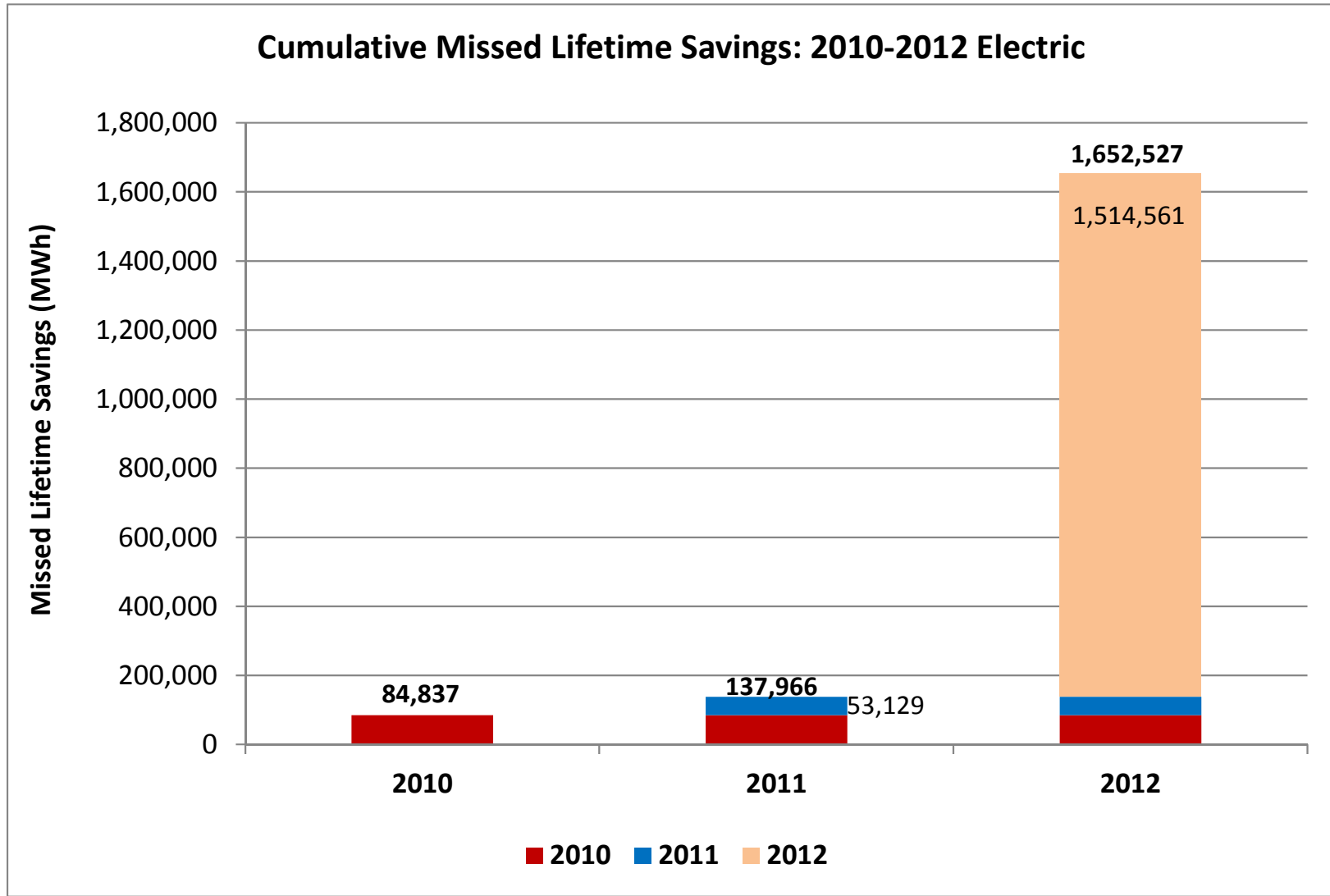
2013 Trends (Q2 Gas)



OTHER SLIDES FOR REFERENCE

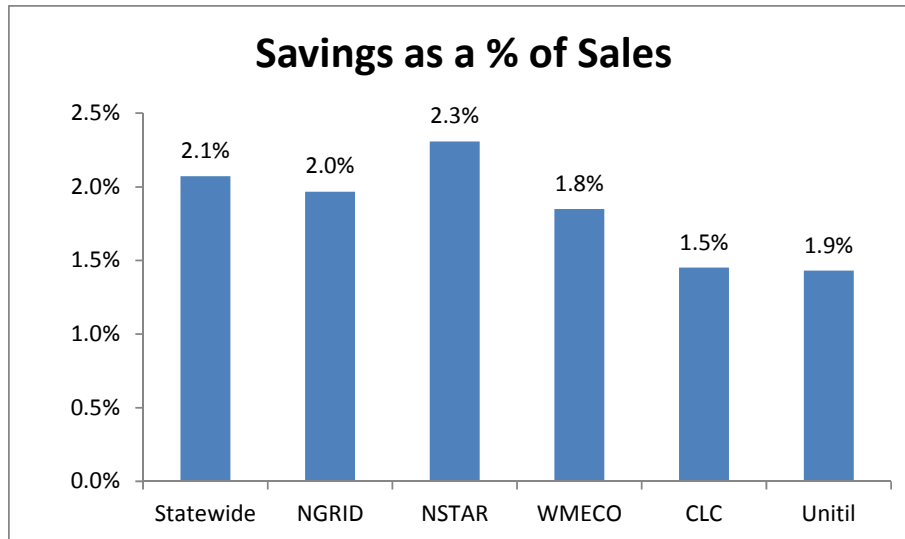


Missed Electric Lifetime Savings

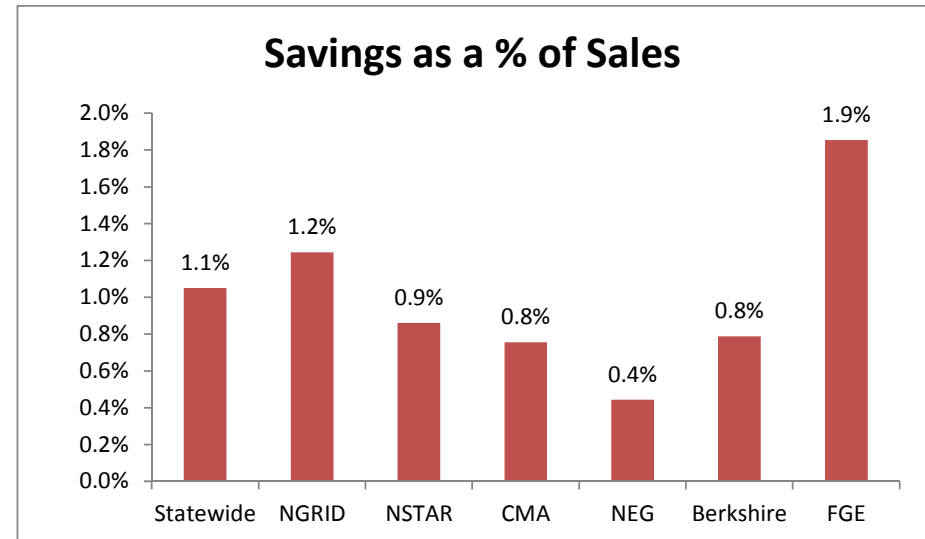


Variations Across PAs in 2012

Electric



Gas



- 2012 performance varied widely across the PAs, based on energy savings as a % of retail energy sales
- Yet energy savings as a % of sales is a relative indicator, and is based on the retail energy sales in each PA territory

Variations Across PAs in 2012

Table 3: 2012 Statewide Electric Program Performance by PA

	Statewide					
	Total	NGRID	NSTAR	WMECO	CLC	UNITIL
Annual kWh % of Plan	88%	82%	98%	85%	78%	66%
Spending % of Plan	78%	75%	75%	97%	98%	72%
PA cost/annual kWh	\$0.40	\$0.38	\$0.36	\$0.47	\$0.88	\$0.67
TRC benefit/annual kWh	\$2.00	\$1.82	\$2.04	\$2.12	\$3.28	\$3.23
TRC BCR	3.5	3.4	3.7	3.6	3.2	3.1

Table 4: 2012 Statewide Gas Program Performance by PA

	Statewide						
	Total	NGRID	NSTAR	CMA	NEG	BERKSHIRE	FGE
Annual MMBtu % of Plan	96%	103%	82%	82%	63%	96%	296%
Spending % of Plan	102%	109%	91%	90%	89%	110%	115%
PA cost/annual MMBtu	\$60	\$59	\$57	\$66	\$92	\$81	\$30
TRC benefit/annual MMBtu	\$166	\$155	\$171	\$186	\$188	\$235	\$286
TRC BCR	1.9	1.8	2.0	1.9	1.4	1.6	5.8

Electric Savings as % of Sales



% values at the bottom of the columns show savings as % of individual PA goal

