



# New York State Energy Efficiency Cost & Performance Metrics

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Draft – for discussion only.

# Overview

- ◆ **2008-2011 EEPS goals may not be attainable without more money & will likely need more time to achieve.**
- ◆ **2011 Goal of 1500 GWh recently released by DPS, together with Program Administrators' own 2011 forecasts, totaling 1350 GWh.**
- ◆ **Actual costs per MWh achieved are higher than targets.**
- ◆ **Annual spending levels are below targets. \$146.7 M spent through 2010 was 36% of budget.**
- ◆ **At present, percentage of money spent is close to percentage of impacts achieved, sometimes above and sometimes below, when compared to goals.**
- ◆ **Cost & performance metrics are based on currently available results.**

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# Cost & Performance Summary

- ◆ **Cost per MWh of energy efficiency programs are typically higher than planned.**
  - *NYSERDA's Energy Smart program is a cost benchmark at \$300 per MWh, as referenced in EEPS order.*
  - *Average cost for Program Administrators is \$365/MWh, excluding NYSERDA's CFL program.*
  - *A few programs have costs in excess of \$1000 per MWh, and admin costs can be as high as 20% to 25% of total.*
  - *NYSERDA's Compact Fluorescent Lamp (CFL) program is very low cost - \$20 to \$30 per MWh.*
- ◆ **2010 annual spending was about \$125 million for non-CFL programs, achieving about 350 GWh.**
- ◆ **Costs for 2011 Annual goal, if achieved, could exceed \$350 million, depending on actual program costs.**

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# Data Sources

## ◆ Published Data Sources

- ***DPS monthly scorecard reports in pdf format***
  - Provided by each Program Administrator to DPS
  - Data are for current month & cumulative: costs, energy & peak demand impacts for each program
  - Results are unaudited & may change from month to month & in annual utility reports.
  - Month-by-month tracking indicates performance trends.
  - Data also used to derive additional cost & achievement metrics.
- ***DPS 2010 Q4 EEPS Report released last week.***
- ***Monthly tracking spreadsheets provided to NYISO by DPS in electronic format***
  - Same information as in pdf format

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# 2009 EEPS Budgets & Goals – 2008 to 2011

EEPS PROGRAMS APPROVED BY ADMINISTRATOR  
Through December 2009

Provided to NYISO in 2010 Q1

**ELECTRIC:**

<u>Budget:</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012-2015</u>	<u>Total</u>
NYSERDA	\$18,801,762	\$87,729,815	\$107,603,930	\$104,549,622	\$20,713,441	\$339,398,571
Central Hudson	-	4,009,237	7,515,866	7,873,794		19,398,897
Con Edison	-	25,797,238	84,933,848	91,778,848		202,509,934
NYSEG	-	-	11,719,630	15,687,030	\$940,455	28,347,115
Niagara Mohawk	-	19,288,303	55,930,011	58,615,594		133,833,908
O&R	-	2,838,064	5,483,975	5,483,975		13,806,014
RG&E	-	-	6,869,667	9,133,657	\$938,818	16,942,142
<b>Total</b>	<b>\$18,801,762</b>	<b>\$139,662,657</b>	<b>\$280,056,927</b>	<b>\$293,122,520</b>	<b>\$22,592,714</b>	<b>\$754,236,581</b>

<u>Savings (MWh)</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012-2015</u>	<u>Total</u>
NYSERDA	62,385	420,125	662,847	867,800	585,967	2,599,124
Central Hudson	-	12,917	22,162	23,248	-	58,327
Con Edison	-	81,761	196,340	218,294	-	496,395
NYSEG	-	-	36,088	49,342	2,594	88,024
Niagara Mohawk	-	69,367	239,539	249,751	-	558,657
O&R	-	9,596	19,718	19,718	-	49,032
RG&E	-	-	19,414	27,384	2,594	49,392
<b>Total</b>	<b>62,385</b>	<b>593,766</b>	<b>1,196,108</b>	<b>1,455,537</b>	<b>591,155</b>	<b>3,898,951</b>

← 1852 GWh through 2010 →

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# 2008-2010 Summary & 2011 EEPS Annual Goals

## As Provided to DPS by Utilities

Program Administrator	2008 to 2010 Summary			2011 Annual Goal		
	2008-2010 Cum Achieved (MWh)	2008-2010 Cum Goal (MWh)	MWh - Percent Achieved	2011 PSC Annual Goal (MWh)	Utility Forecast (MWh)	2011 PSC Goal per month (MWh)
Central Hudson	11,044	35,080	31%	29,248	38,022	2,437
Con-Ed	62,213	278,101	22%	218,294	135,342	18,191
Niagara Mohawk	150,583	299,186	50%	244,694	249,588	20,391
NYSEG	4,710	36,088	13%	64,829	49,270	5,402
O&R	7,013	29,314	24%	21,345	18,570	1,779
RG&E	5,417	19,414	28%	42,871	36,440	3,573
NYSERDA	623,282	1,149,842	54%	876,855	824,244	73,071
<b>Total EEPS</b>	<b>864,262</b>	<b>1,847,025</b>	<b>47%</b>	<b>1,498,136</b>	<b>1,351,477</b>	<b>124,845</b>

**2011 impacts expected to increase by 56%**

Information from EEPS 2010 Q4 Program Status Report, Table 2.

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# Program Delivery Cost Summary

## EEPS Program Summary by Program Administrator

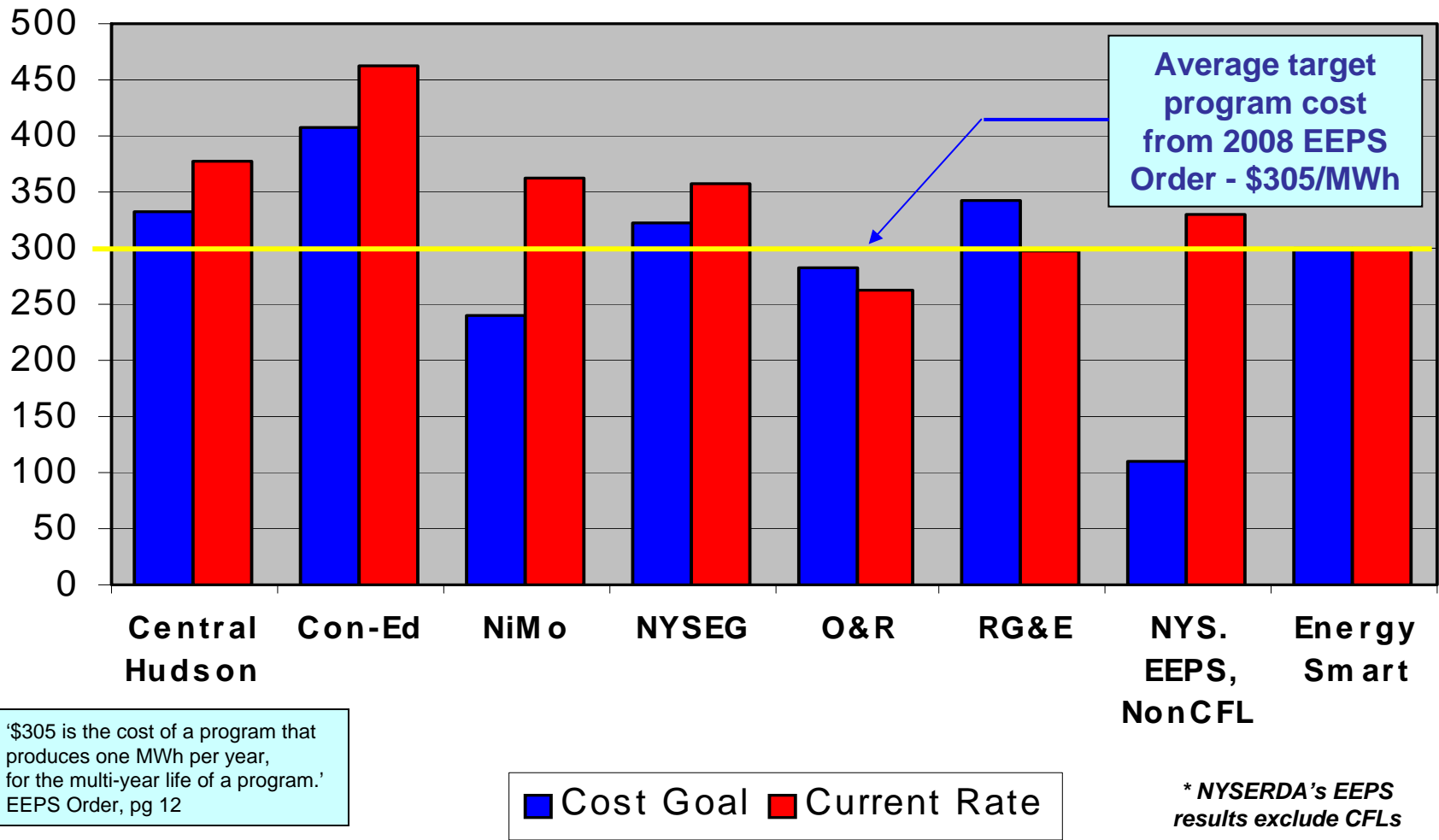
Overall Results from 2008 to December 2010

Program Administrator	Cumulative GWh	Total Expenditures	Cost Per MWh
Central Hudson	11,044	\$4,285,566	\$390
Con-Ed	62,213	\$27,208,619	\$440
Niagara Mohawk	150,583	\$53,944,339	\$360
NYSEG	4,710	\$2,347,868	\$500
O&R	7,013	\$1,865,635	\$270
RG&E	5,417	\$1,849,525	\$340
NYSERDA-NonCFL	136,299	\$45,205,068	\$330
Subtotal, non-CFL's	377,279	\$136,706,620	\$360
NYSERDA - CFL	486,983	\$9,999,325	\$20
EEPS Program Total	864,262	\$146,705,945	\$170

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As of Feb 2011

### Cost of EEPS Programs Planned vs Actual - \$/MWh

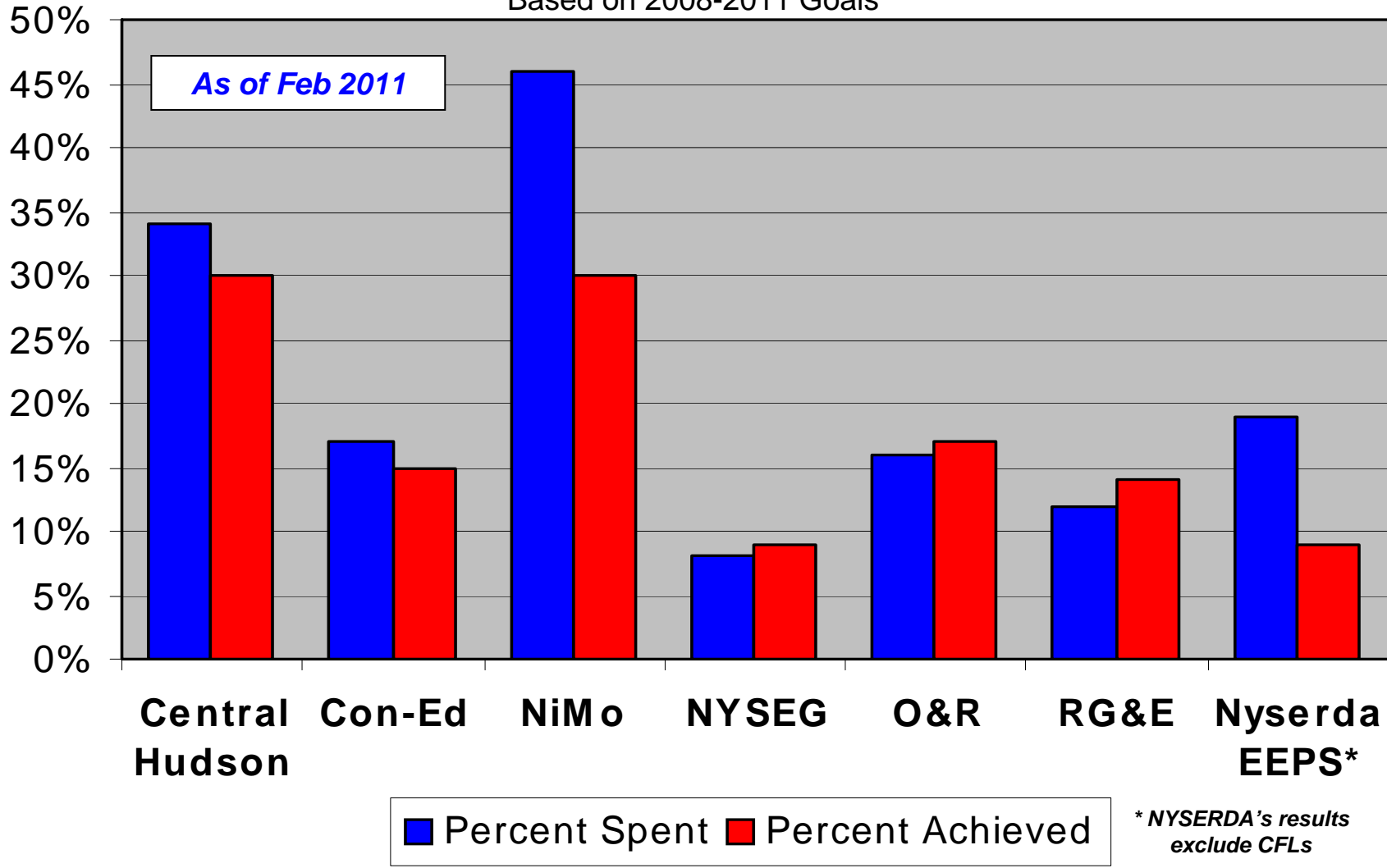


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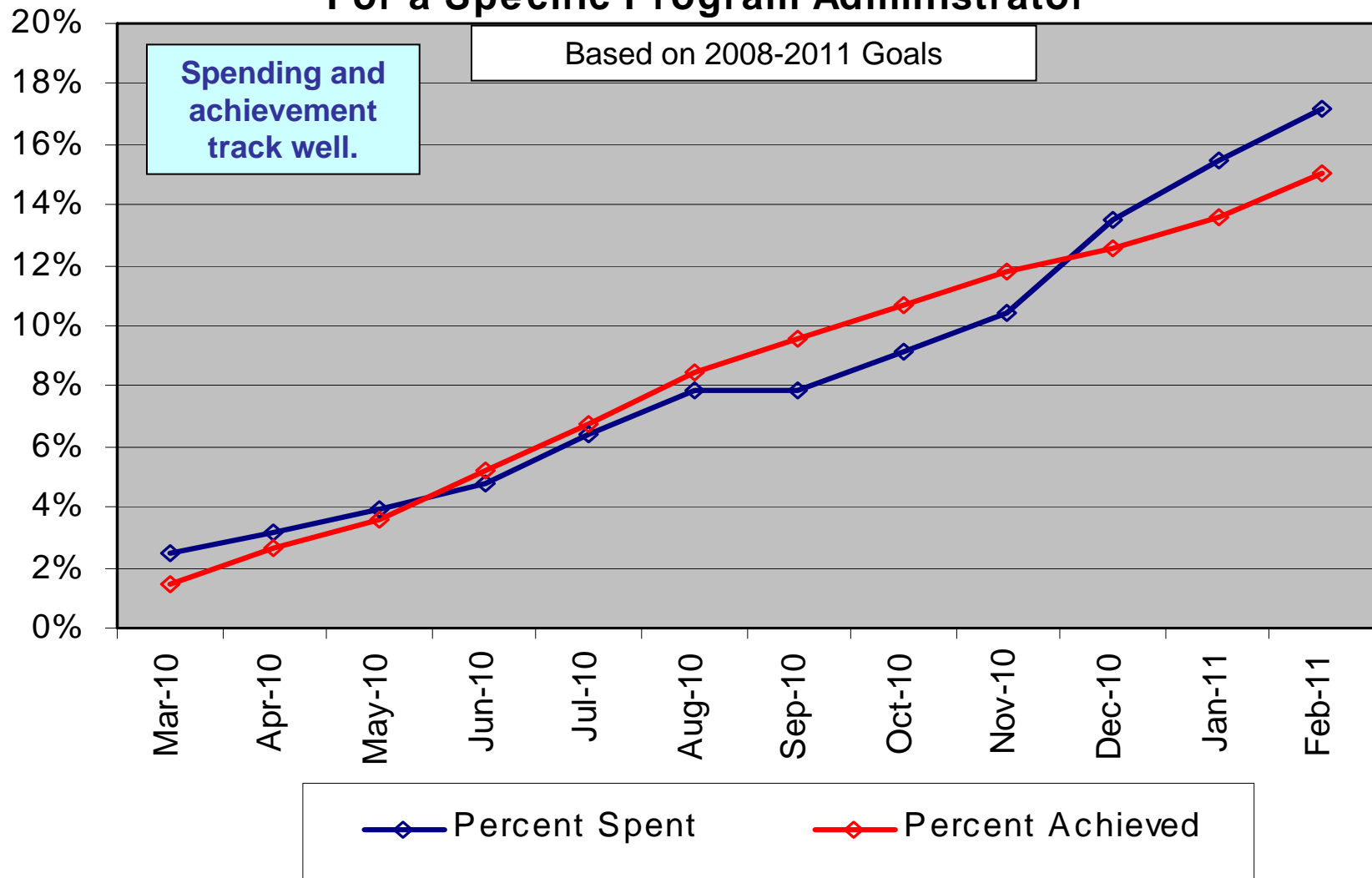
## Cumulative Spending vs Cumulative Achievement

Based on 2008-2011 Goals



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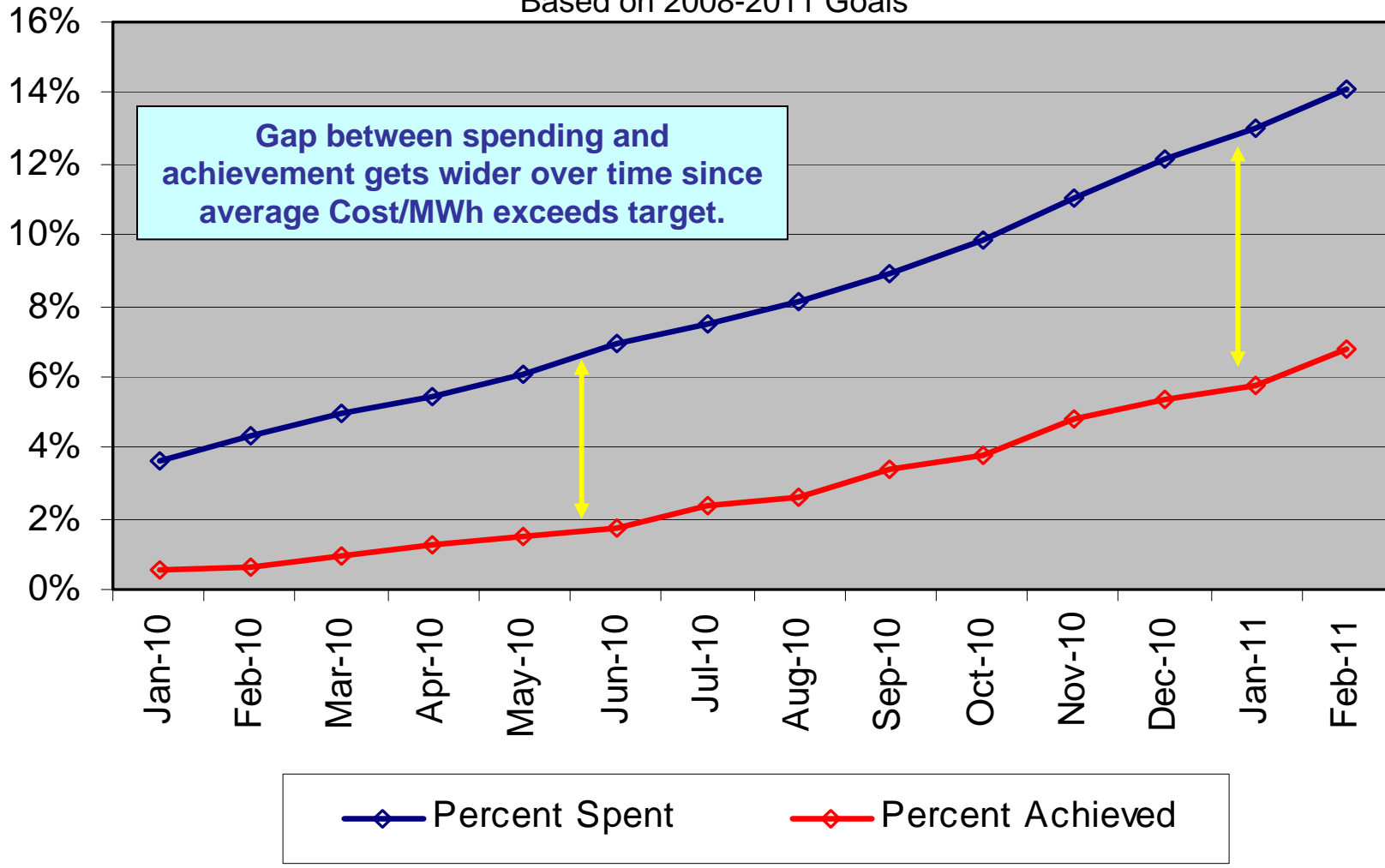
## EEPS Cumulative Spending & Achievement Summary For a Specific Program Administrator



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## EEPS Spending & Achievement Summary For a Specific Program Administrator

Based on 2008-2011 Goals



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## Progress Toward 2011 Annual Goal - Most Recent Three Months Performance

Program Administrator	2011 Annual Goal			Current Performance		
	2011 PSC Annual Goal (MWh)	Utility Forecast (MWh)	2011 PSC Goal per month (MWh)	Dec 2010 MWh	Jan 2011 MWh	Feb 2011 MWh
Central Hudson	29,248	38,022	2,437	2,290	3,689	2,641
Con-Ed	218,294	135,342	18,191	3,480	5,443	7,380
Niagara Mohawk	244,694	249,588	20,391	26,300	14,080	10,690
NYSEG	64,829	49,270	5,402	858	1,248	564
O&R	21,345	18,570	1,779	767	562	832
RG&E	42,871	36,440	3,573	607	1,321	3,101
NYSERDA	876,855	824,244	73,071	58,385	63,839	56,668
<b>Total EEPS</b>	<b>1,498,136</b>	<b>1,351,477</b>	<b>124,845</b>	<b>92,687</b>	<b>90,182</b>	<b>81,876</b>

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# Energy Efficiency Spending Trends

- ◆ **Total utility spending through 2010 was \$136.7 million for non-CFL programs.**
  - *Cumulative energy impact for non-CFL programs was 377 GWh.*
  - *CFL program cumulative spending was \$10M and achieved a reported 487 GWh impact.*
- ◆ **Cost was \$365 per MWh for non-CFL programs. Wide variation in costs by program type.**
- ◆ **Future budget levels expected in the range of \$300 million per year in order to meet EEPS goals.**
- ◆ **Spending will continue to ramp up, but its rate of growth and thus GWh achievements are uncertain.**
- ◆ **At \$300 per MWh, this translates to about 1,000 GWh per year at full budget. But actual costs are above targets and spending rates are below.**

# Outlook for 2012 to 2021

- ◆ **Develop three cases for future impacts based on projections of budget levels, spending levels, and program costs.**
  - ***Case 1: Increase Annual Budget***
  - ***Case 2: Maintain Annual Budget***
  - ***Case 3: Decrease Annual Budget***

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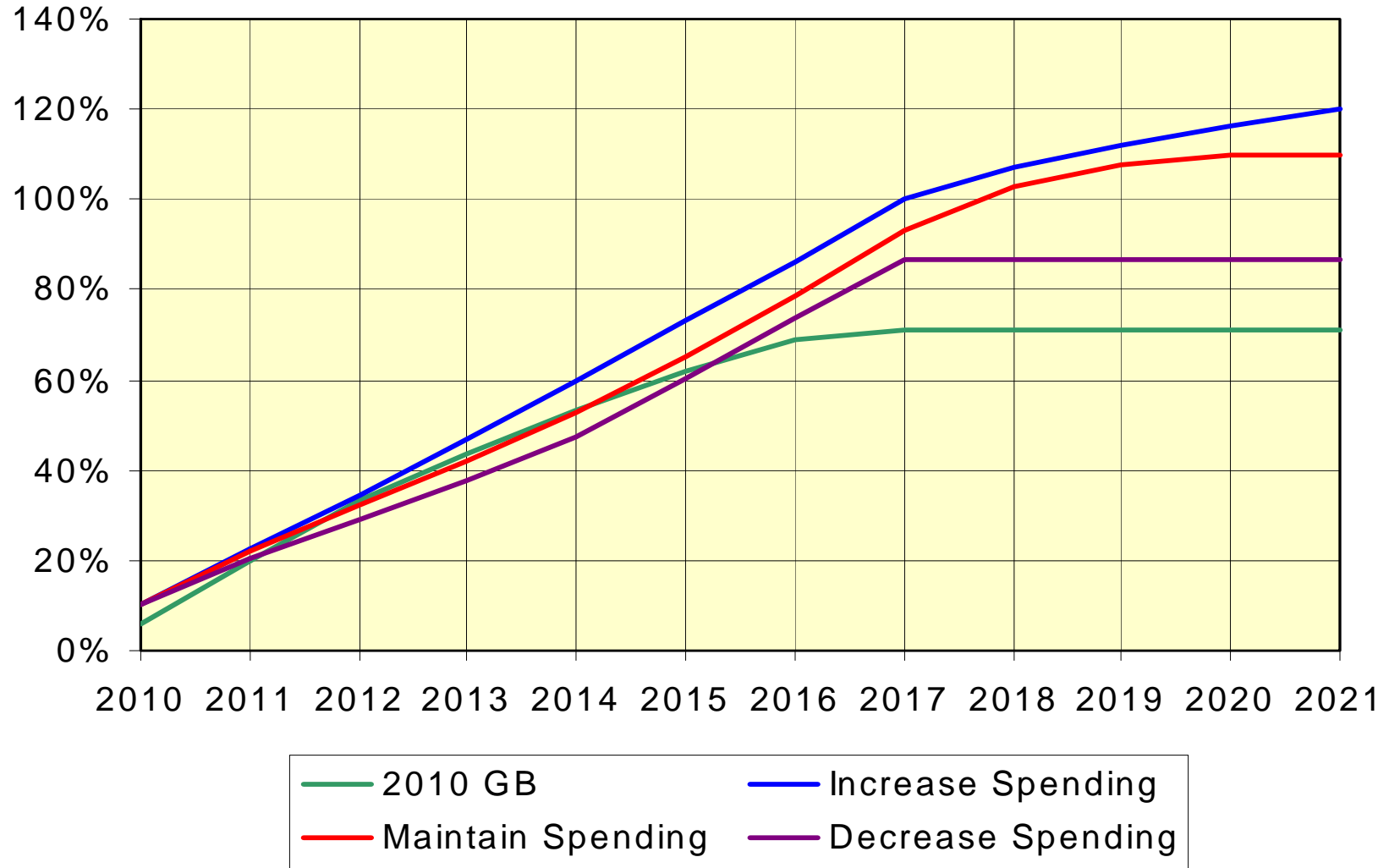
## Three Scenarios for EEPS Programs: 2012 to 2021

Scenarios	Time Span	Annual Budget Range	Percent of Annual Spending Achieved	Program Content	Cost per MWh	Potential Annual Impacts (GWh)	Mid-Range Annual Impacts (GWh)
Increase Annual Budget	2012-2021	\$350M to \$450M	70% to 100%	Maintain or Expand Programs. Close to Technical Potential	\$350 to \$400	700 to 1300	1125
Maintain Annual Budget	2012-2021	\$250M to \$350M	75% to 100%	Greater Focus on Lower Cost Programs & Market Potential	\$300 to \$350	525 to 1150	800
Decrease Annual Budget	2012-2021	\$200M to \$250M	85% to 100%	Narrower Focus on Lower Cost Programs	\$250 to \$350	500 to 1000	675

Forecast will be developed using cost & performance metrics specific to each program administrator. Cost per MWh will gradually decrease, while annual expenditures will gradually increase.

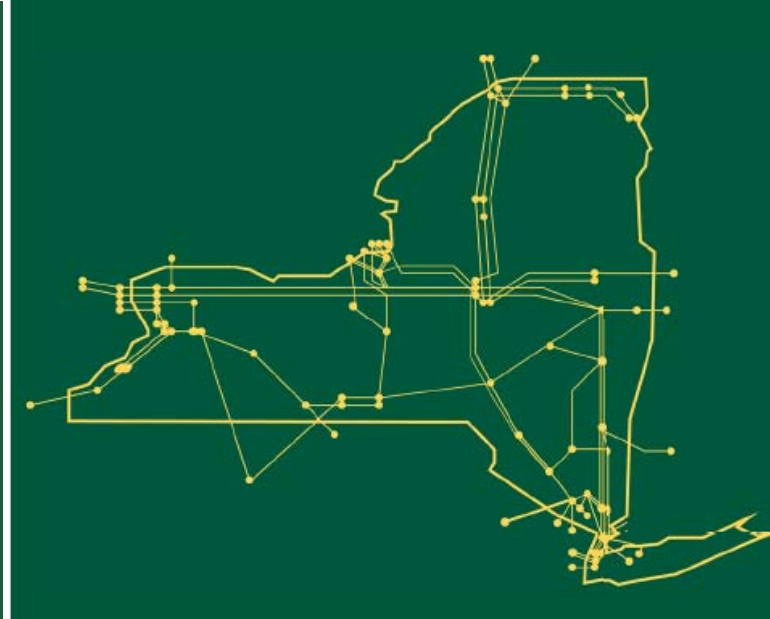
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## 2011 Energy Efficiency Scenarios Percent of Goal Achieved





The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



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