



# Energy Efficiency Goals: Are They Attainable?

THE  
**CADMUS**  
GROUP, INC.

*Presented at:*  
ACEEE's 5<sup>th</sup> National Conference on  
Energy Efficiency as a Resource

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# Aggressive Savings Targets

## Annual Savings Targets

- Minnesota: 1.5%
- Illinois: 2.0% by 2015
- Iowa: 1.5% scenarios

## Cumulative Savings Targets

- New York: 15% by 2015
- European Union: 20% by 2020
- Hawaii: 40% renewable/efficiency by 2030

## Aggressive Individual Plans

- California, Massachusetts...



# Key Questions

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- *What savings are being achieved to date by mature, aggressive portfolios?*
- *Which programs contribute most?*
- *What are the costs and savings?*
- *Where are the opportunities?*

# Methodology

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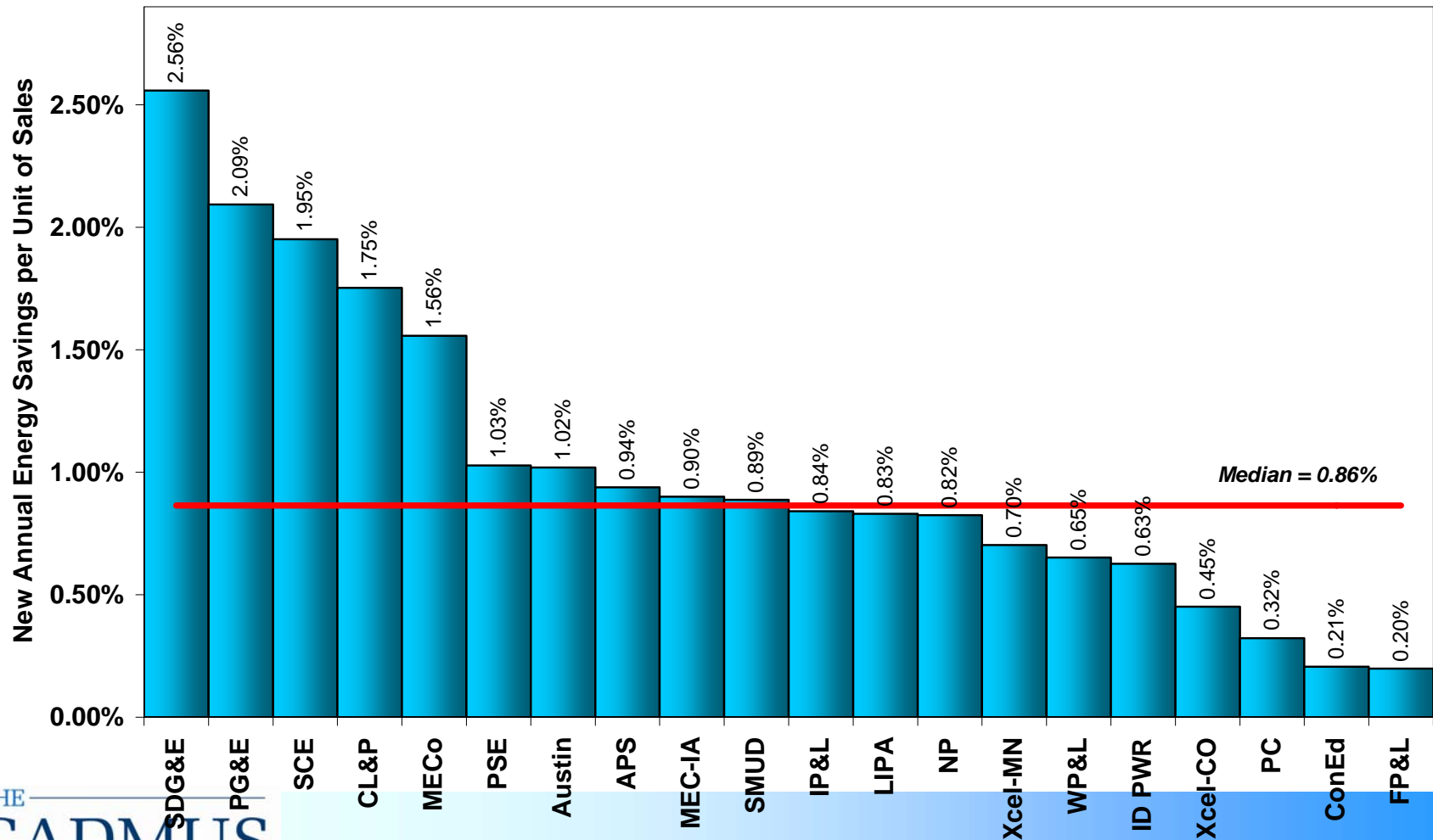
- Identify key portfolios
  - Savings
  - Data availability
- Capture program and portfolio data
  - Annual savings
  - Annual costs
- Create apples and apples
  - Allocate all portfolio costs within programs
  - Normalize savings to total utility sales
  - Assign common program types

# Identify Key Portfolios

- Start with FERC Form 861 Data
- Focus on “large” utilities (Annual Sales > 5 TWh)
- Add statewide consortia
- Focus on organizations providing annual reports with program detail

- San Diego G&E
- Pacific G&E
- Southern California Edison
- Connecticut L&P
- Massachusetts Electric
- MidAmerican Energy (IA)
- Interstate/Alliant (IA)
- Long Island Power Authority
- Nevada Power
- Xcel Energy (MN)
- Efficiency Vermont
- Energy Trust of Oregon

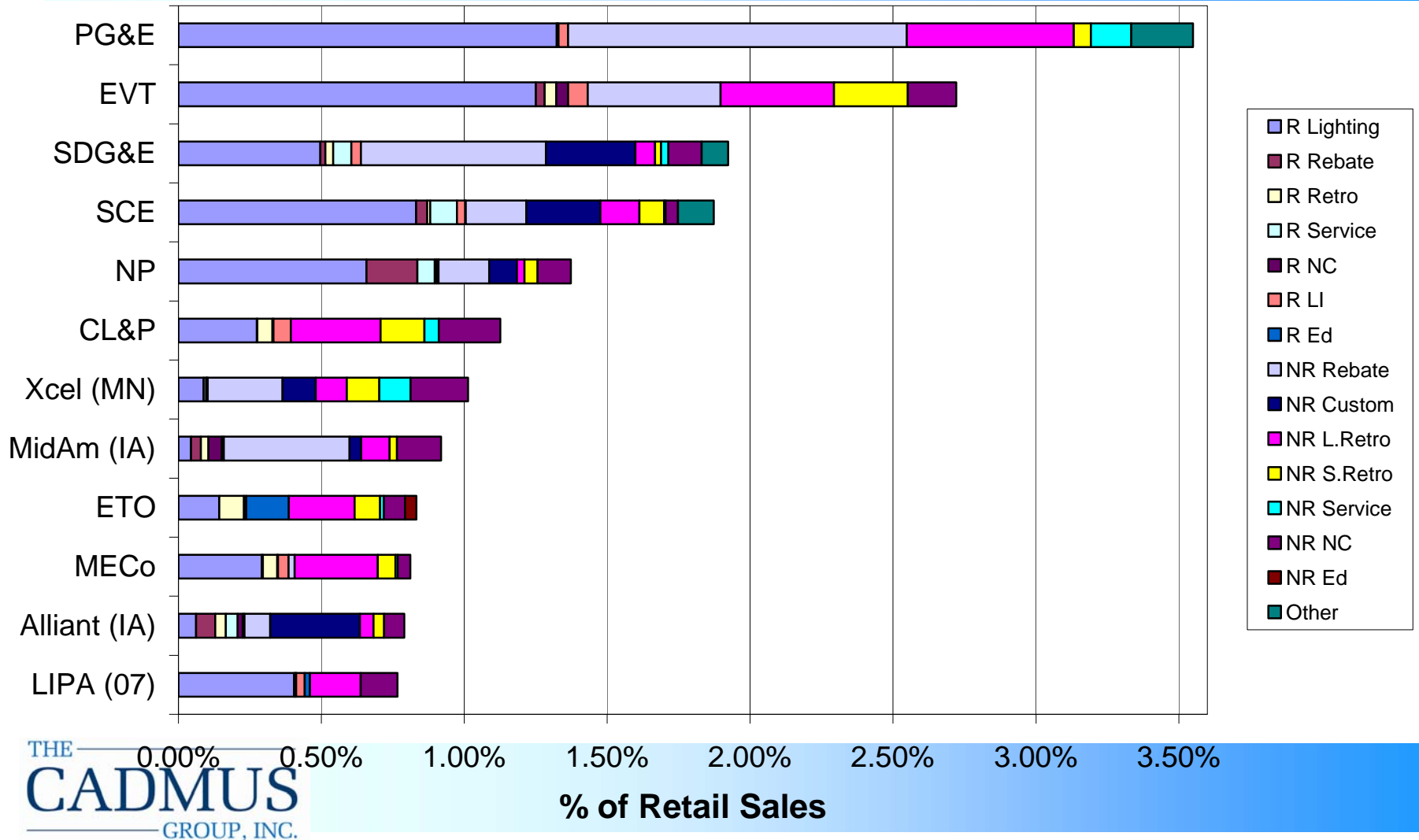
# FERC 861 Data for 2007



# Generic Program Types

Residential	Nonresidential	Other
Lighting Prescriptive Retrofit Service New Construction Low Income Education	Prescriptive Custom Large Retrofit Small Retrofit Service New Construction Education	Other

# Annual Savings, By Program





# Lessons

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- Is there life after CFLs?
- Where are the opportunities?

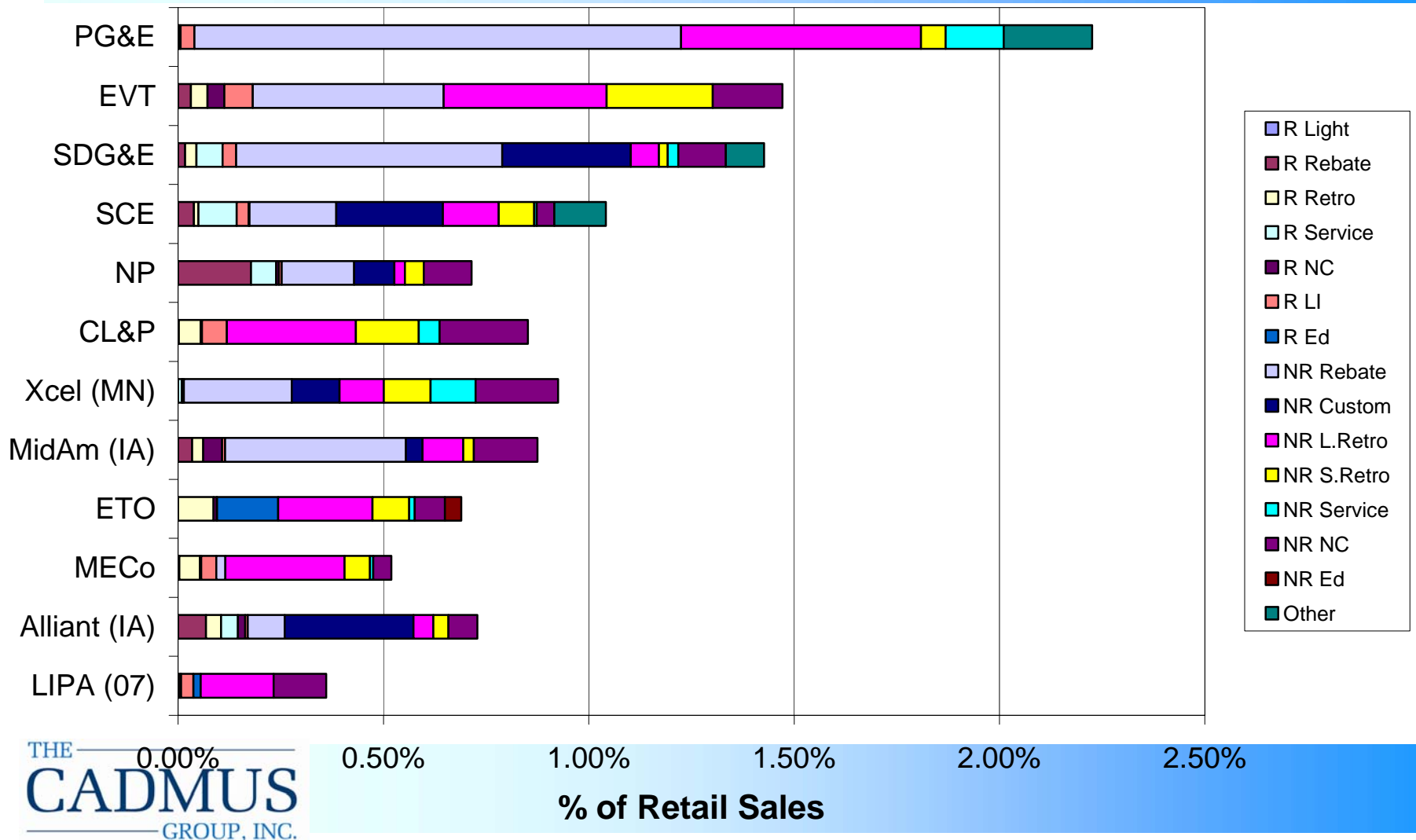
# CFL Issues

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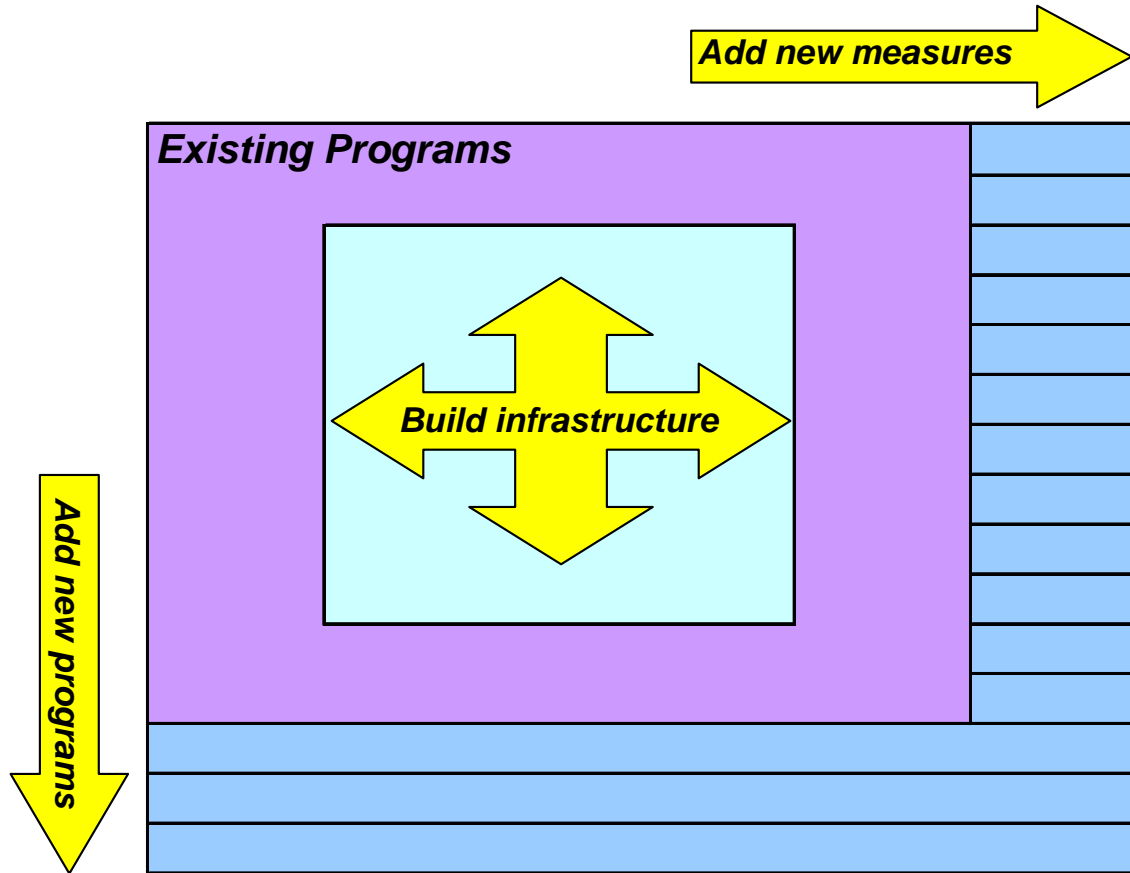
- Federal standards may drive incandescent lighting market to CFLs
- Market may be there anyway, based on latest market effect studies
- Savings leaving EE portfolio stay (and grow) within utility resource plan



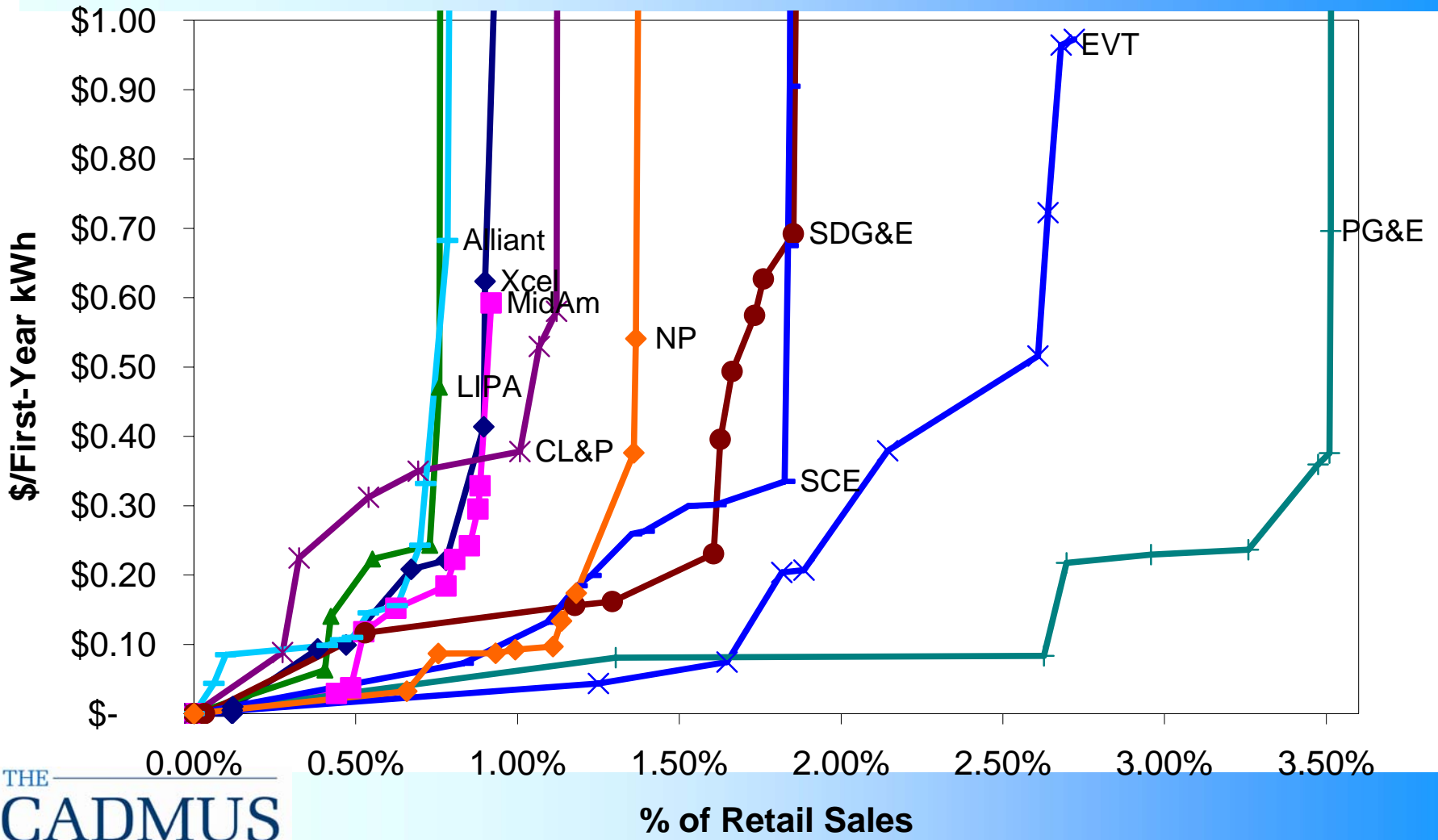
# Annual Savings Excluding Residential Lighting



# Expansion Strategies



# Supply Curves



# Expansion Opportunities

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- Bigger Programs
  - Nonresidential rebates
  - Nonresidential retrofits
  - Nonresidential new construction
- New(er) Programs
  - Nonresidential Services
    - Retro-commissioning
    - Compressed air
  - Cross-Cutting Delivery
    - California City/County Partnerships

# Next steps...



- Increase database depth
  - Add end use & measure detail
  - Add cost detail (M&V, marketing, etc.)
  - Levelize costs over useful lives to create cost of conserved energy
- Need for quality, uniform data sources...