



# **Best Practices for Realizing the Energy Savings Potential of Multifamily Buildings**

**Kate Johnson, Senior Policy Analyst**

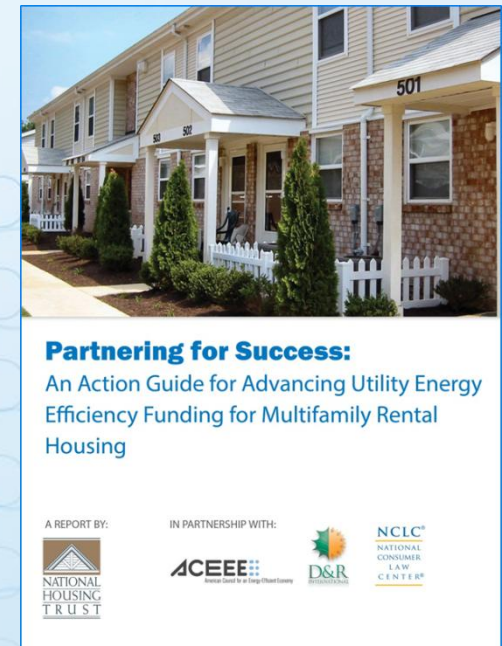
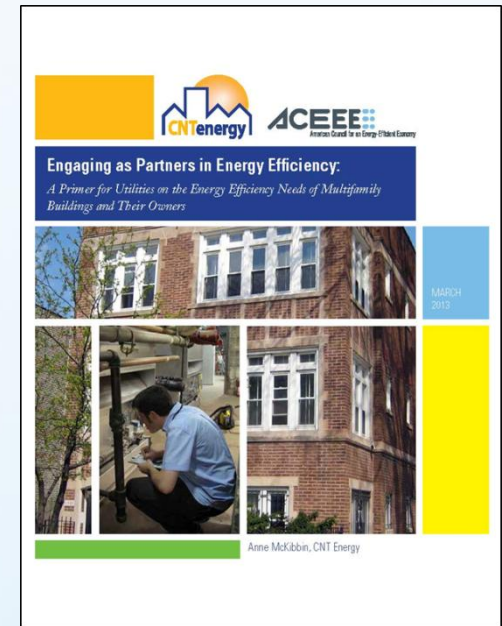
Presented at the 2013 ACEEE National Conference on Energy Efficiency as a Resource

September 24, 2013

# Multifamily Energy Savings Project

- Three-year project to improve the energy efficiency of multifamily housing nationwide
- GOAL: Expand the number of utilities offering multifamily energy efficiency programs and increase spending and savings for these programs by at least **25% by the end of 2015**
- Focus on building partnerships between the housing community, utilities, and state and local governments

[www.aceee.org/multifamily-project](http://www.aceee.org/multifamily-project)



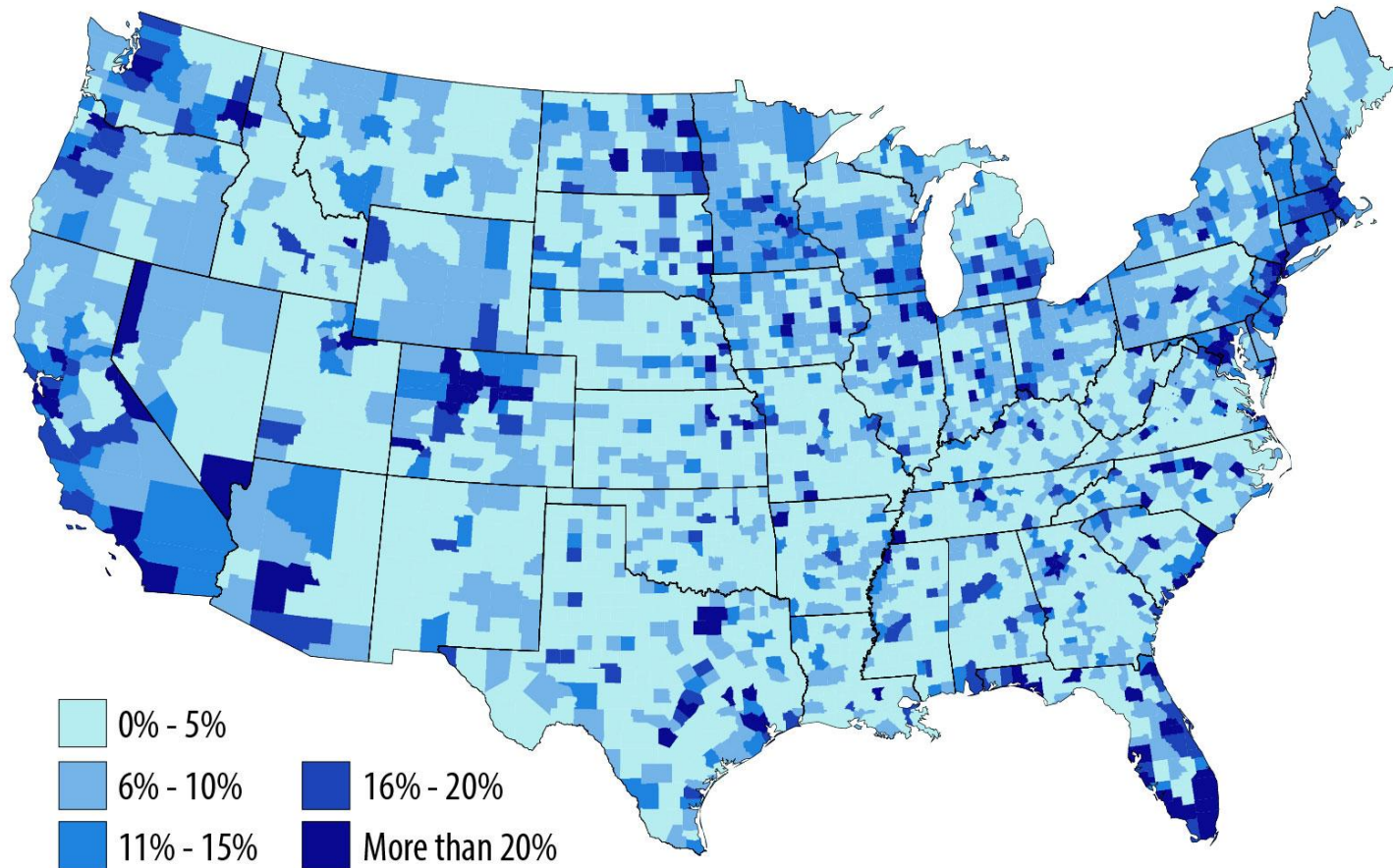
# Presentation Overview

1. Opportunity for energy savings
2. Current landscape of multifamily programs
3. Best practices for overcoming barriers
4. Results from leading programs



# The Multifamily Efficiency Opportunity

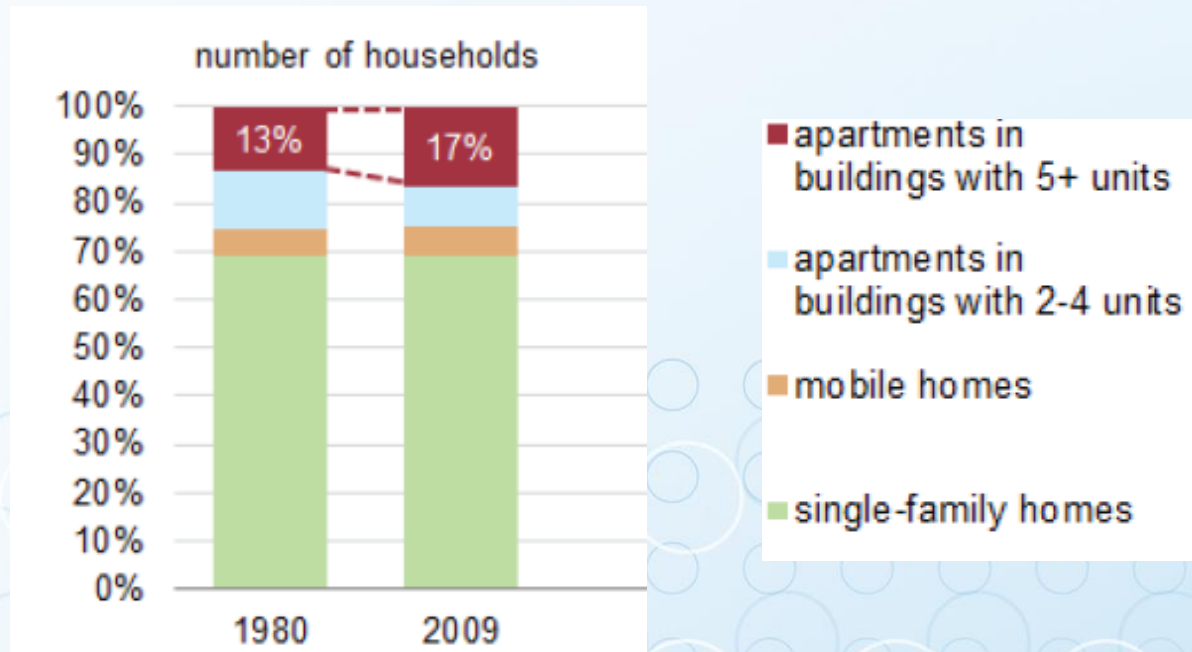
PERCENTAGE OF TOTAL HOUSING UNITS IN MULTIFAMILY (5+ UNIT) BUILDINGS BY COUNTY



Source: 2011 ACS 5-year estimates, <http://factfinder2.census.gov>

# The Multifamily Efficiency Opportunity

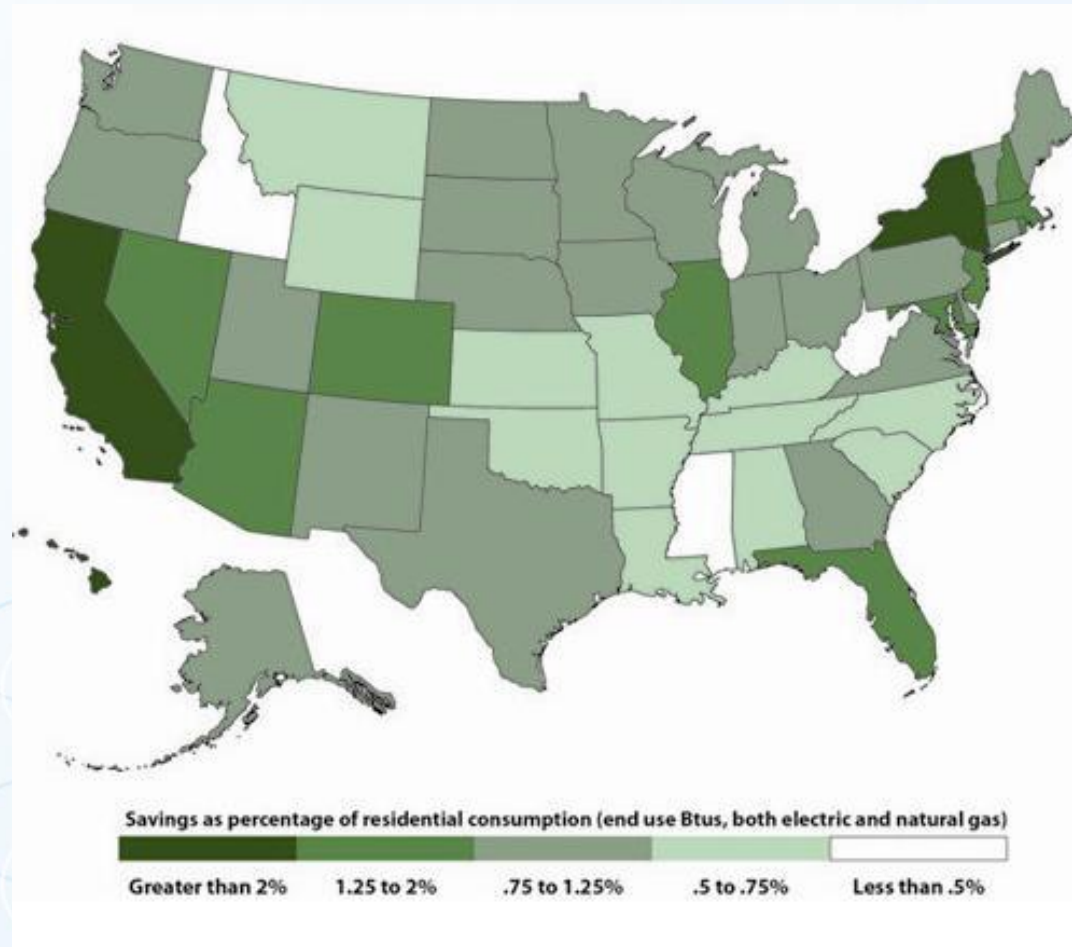
The share of households living in multifamily buildings is rising.



Source: U.S. Energy Information Administration, Residential Energy Consumption Survey; [www.eia.gov/consumption/residential](http://www.eia.gov/consumption/residential)

# The Multifamily Efficiency Opportunity

Annual Potential Savings from Multifamily Buildings by State

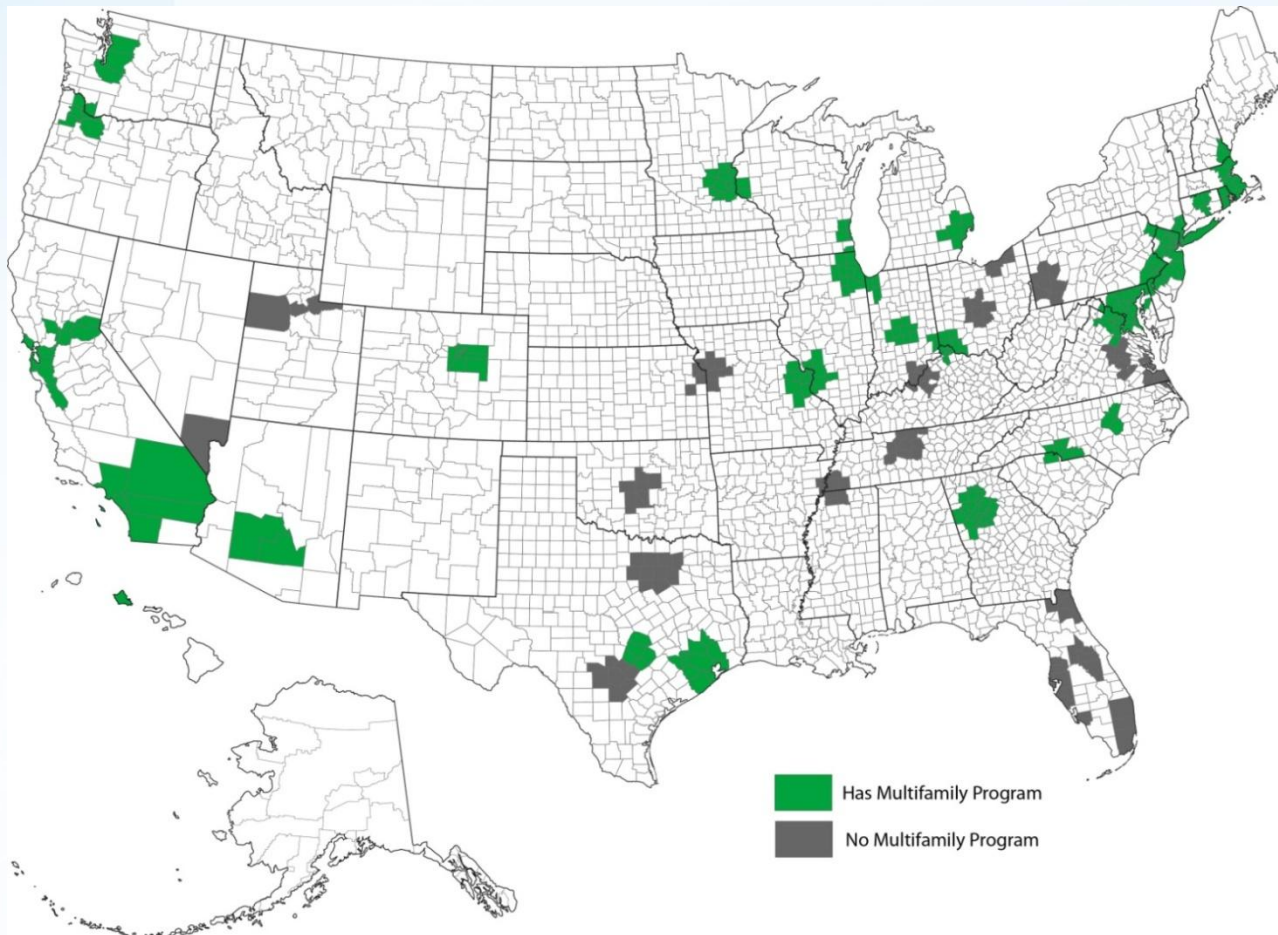


*At 15% electricity and 30% natural gas efficiency improvement*

Source: [www.aceee.org/multifamily-project](http://www.aceee.org/multifamily-project)

# Current Landscape of Multifamily Programs

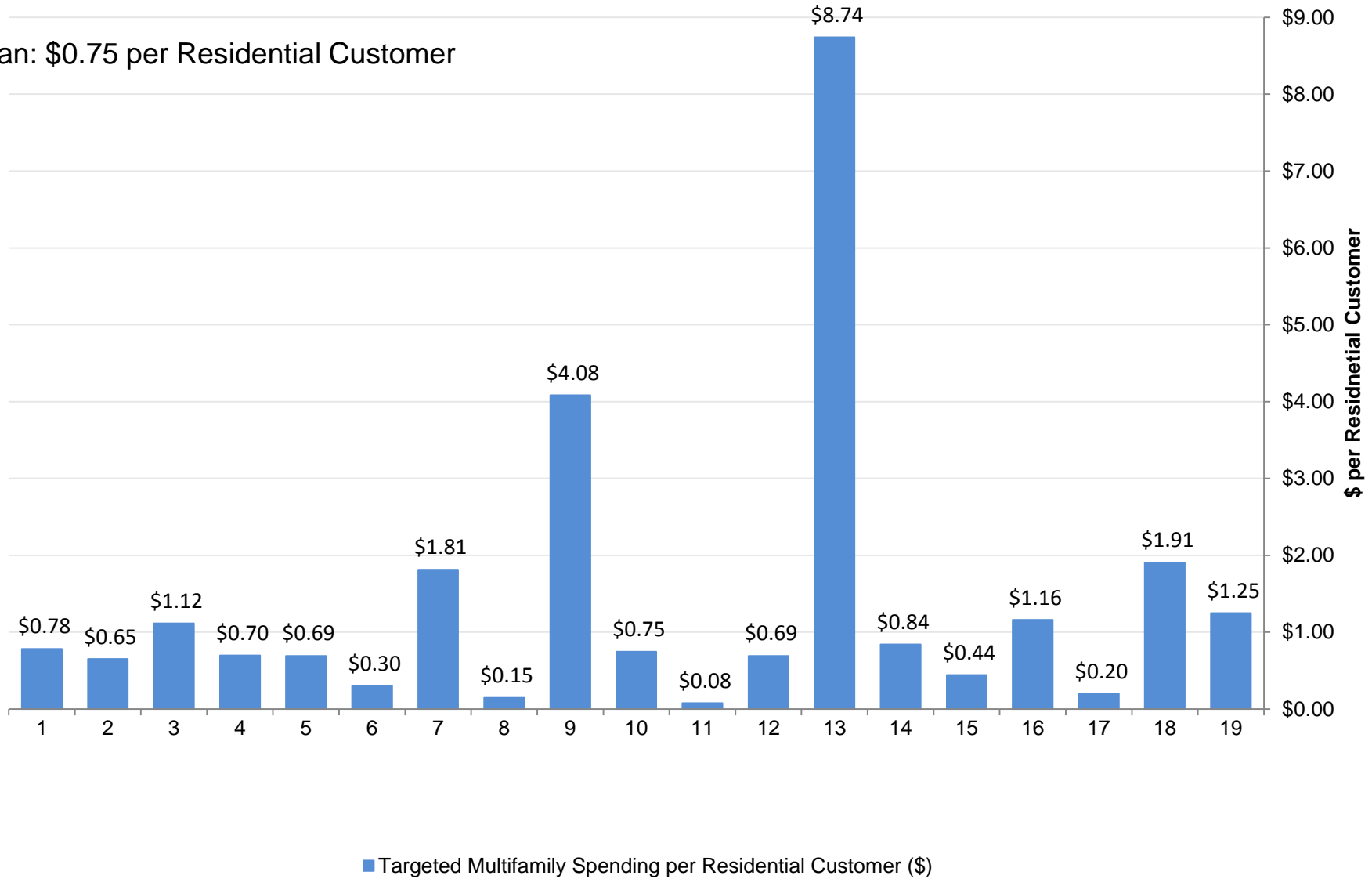
## Major Metropolitan Areas With One or More Multifamily Energy Efficiency Programs (2012)



40% of the 50 metropolitan areas analyzed are *not* served by multifamily energy efficiency programs

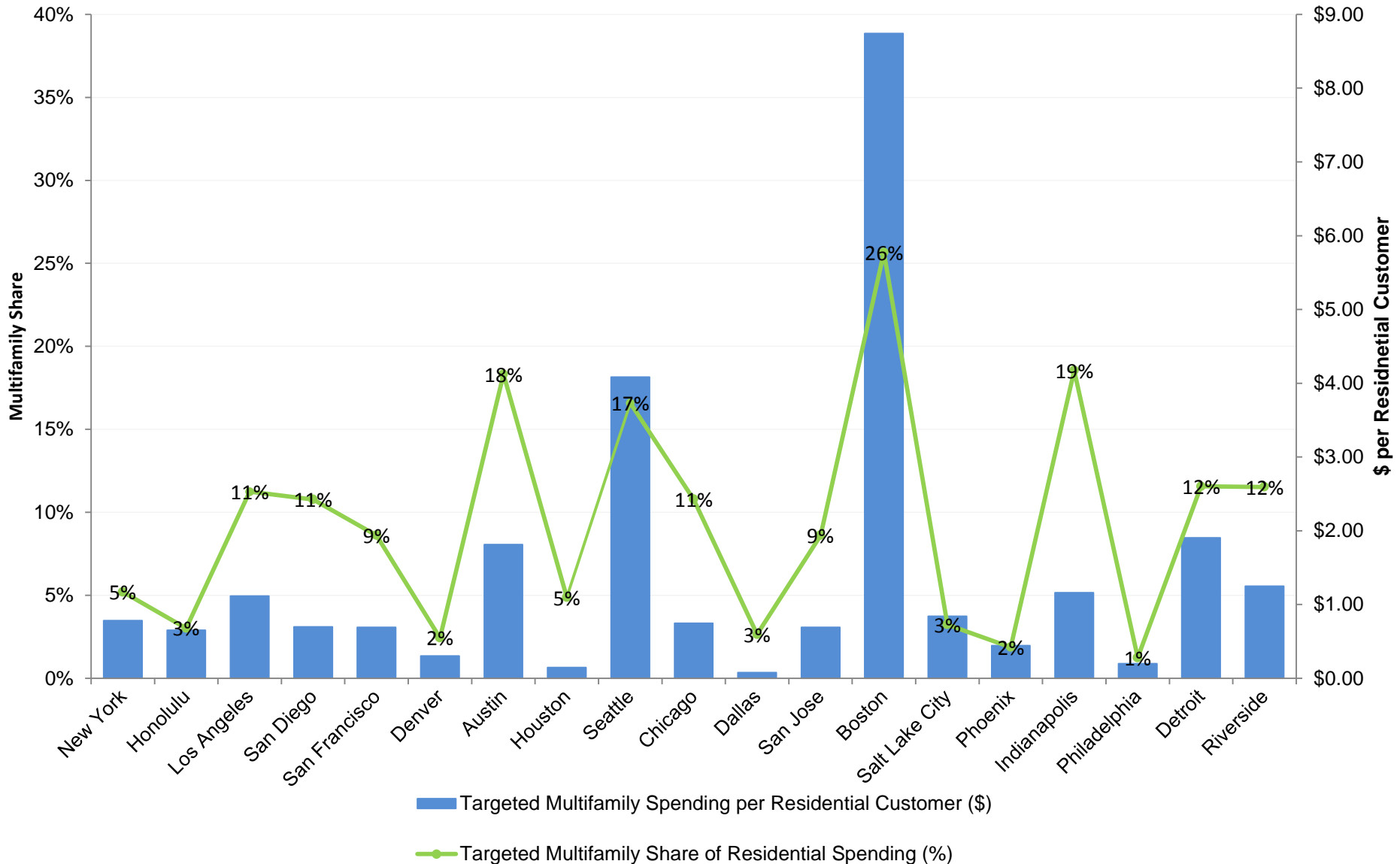
# 2011 Multifamily Program Spending

Median: \$0.75 per Residential Customer



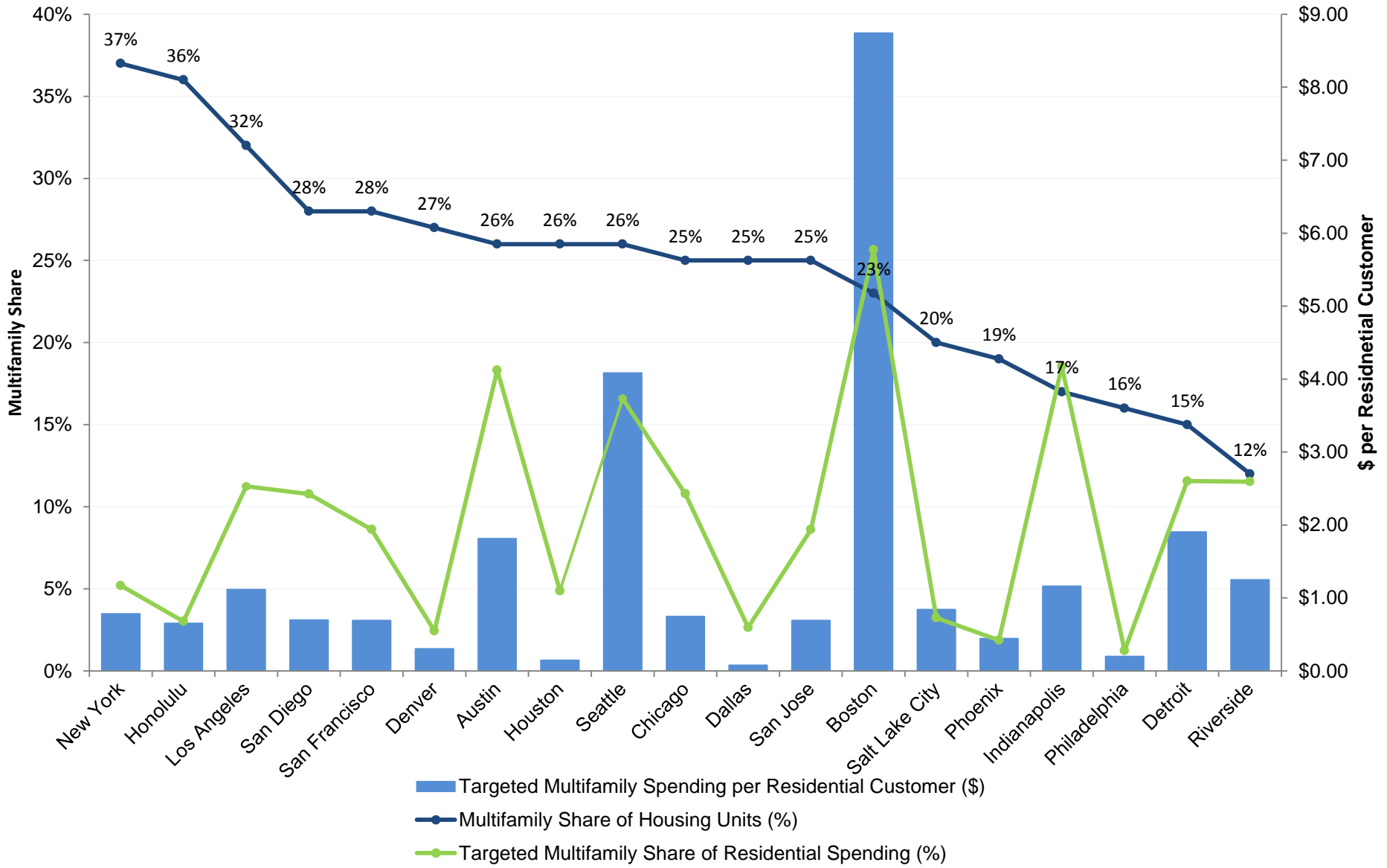


# 2011 Multifamily Program Share of Residential Spending



Source: ACEEE, *Scaling Up Multifamily Energy Efficiency Programs: A Metropolitan Area Assessment* (2013).

# 2011 Multifamily Program Spending and Multifamily Share of Housing Units by Metropolitan Area



Source: ACEEE, *Scaling Up Multifamily Energy Efficiency Programs: A Metropolitan Area Assessment* (2013).

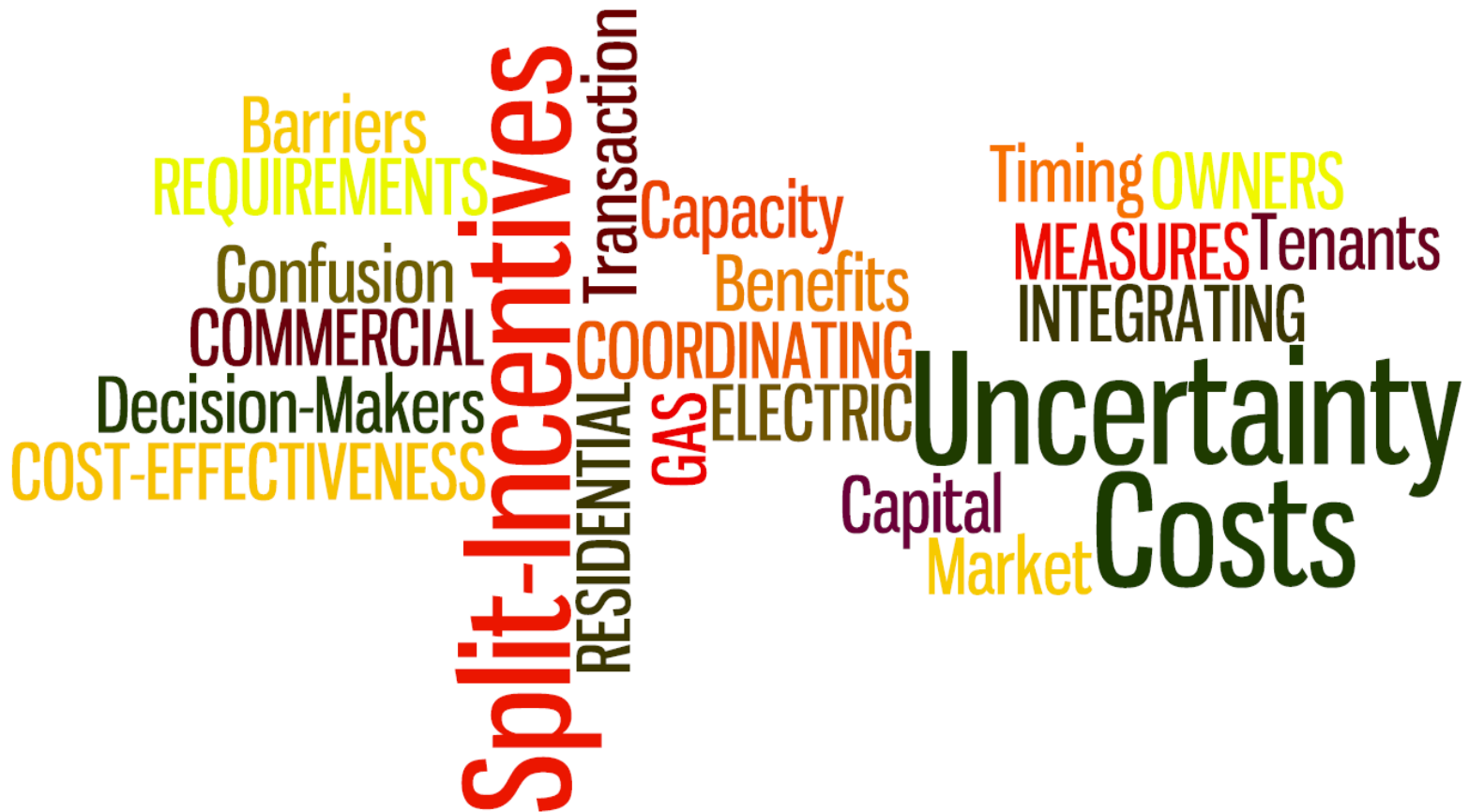
# Current Landscape of Multifamily Programs

In the 50 metropolitan areas with the greatest number multifamily units, ACEEE identified 50 targeted multifamily programs.

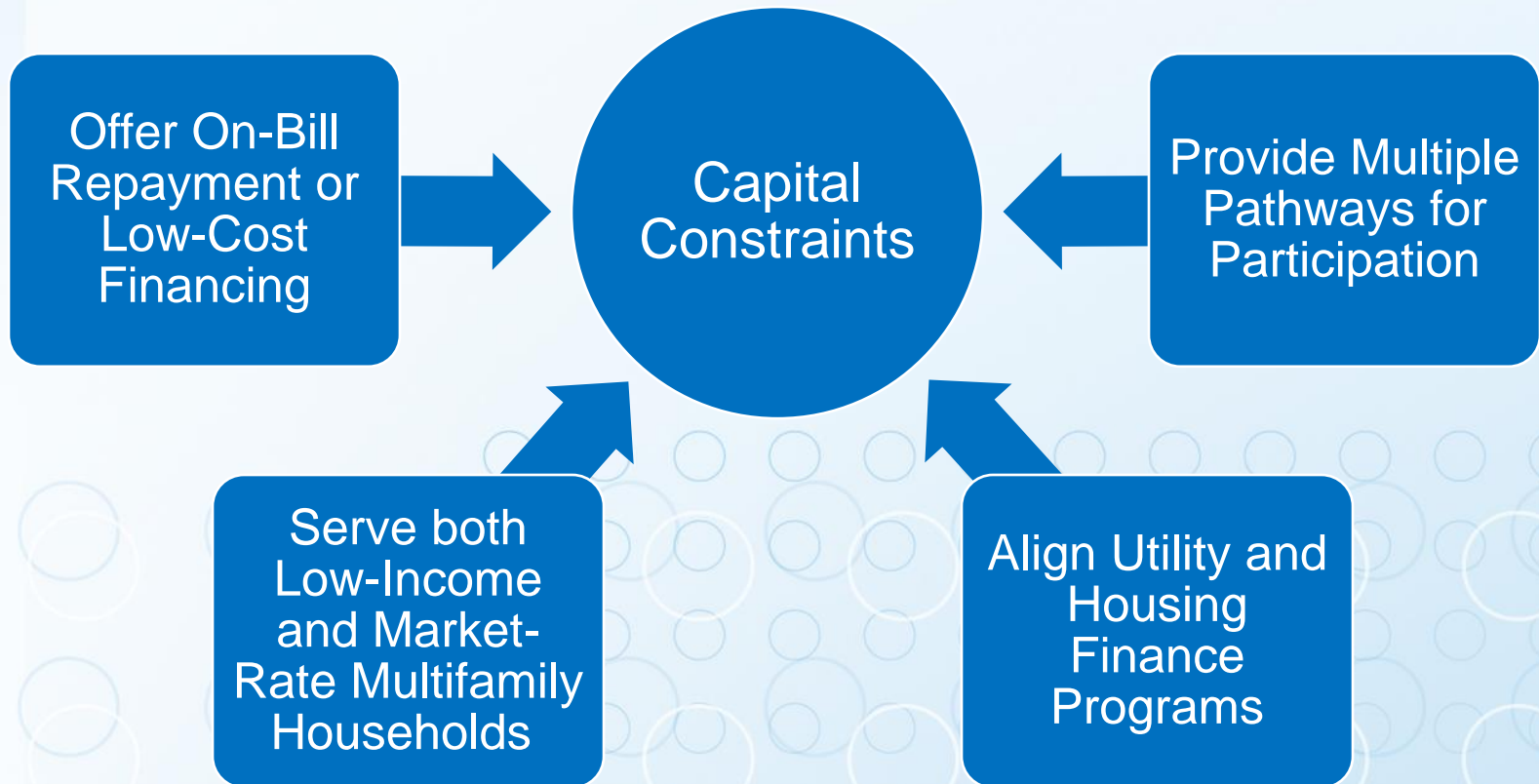
- ❑ 16 direct installation of no-cost measures
- ❑ 38 prescriptive and custom rebates for individual measures
- ❑ 20 comprehensive whole-building new construction & retrofit programs
- ❑ 28 integrate both electric & gas saving measures

*Full report:* <http://www.aceee.org/research-report/e135>

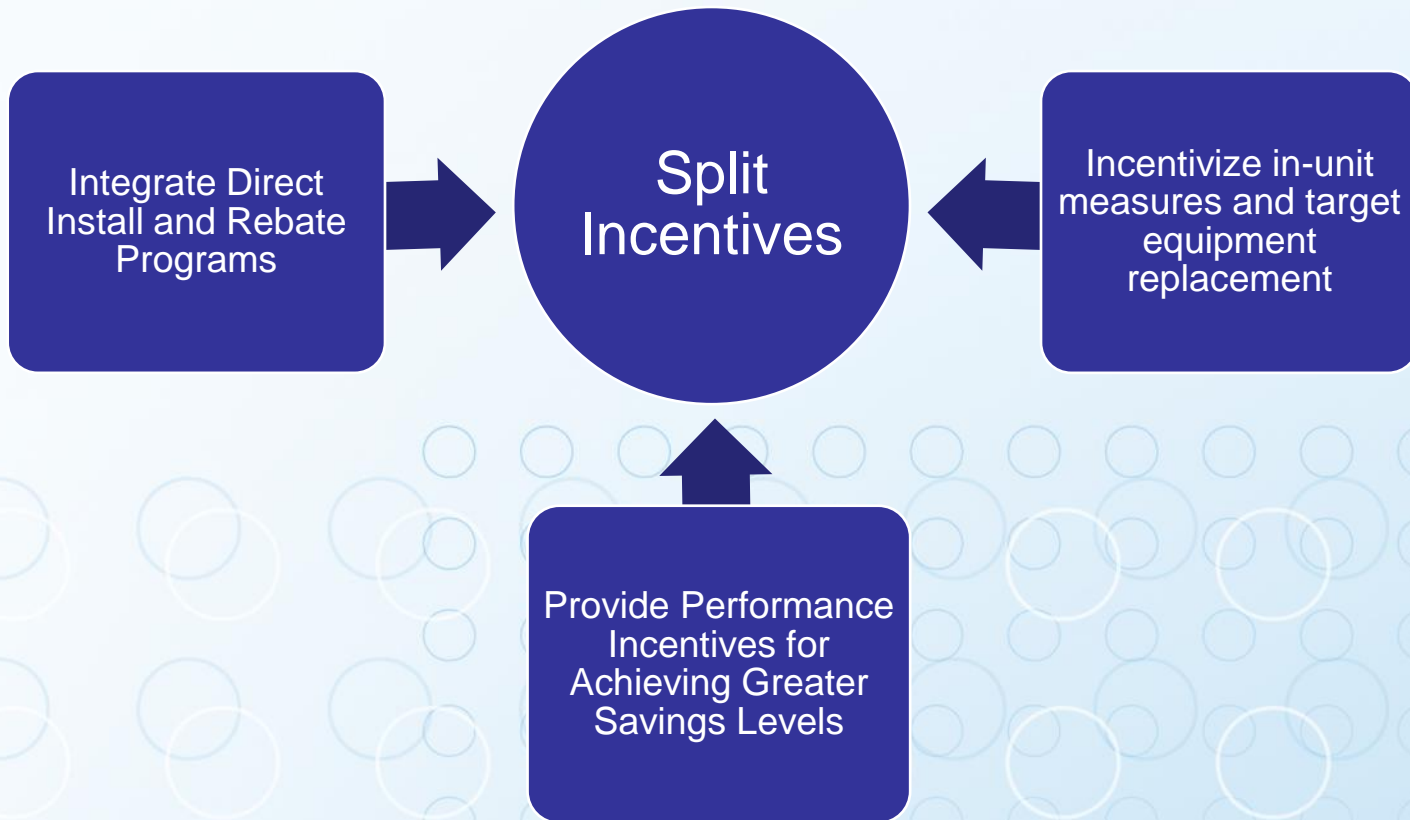
# Multifamily Program Challenges



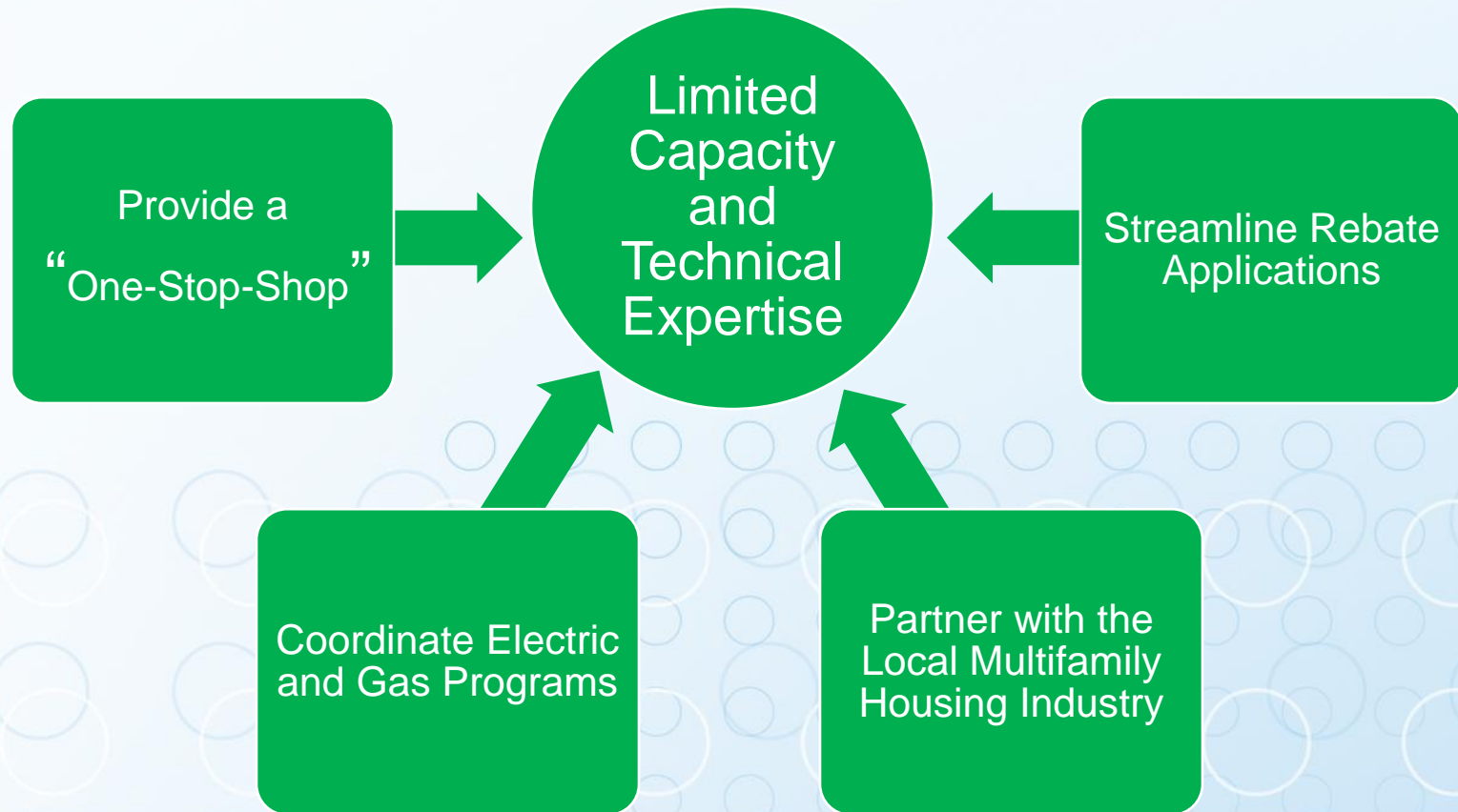
# Best Practices for Overcoming Multifamily Program Challenges



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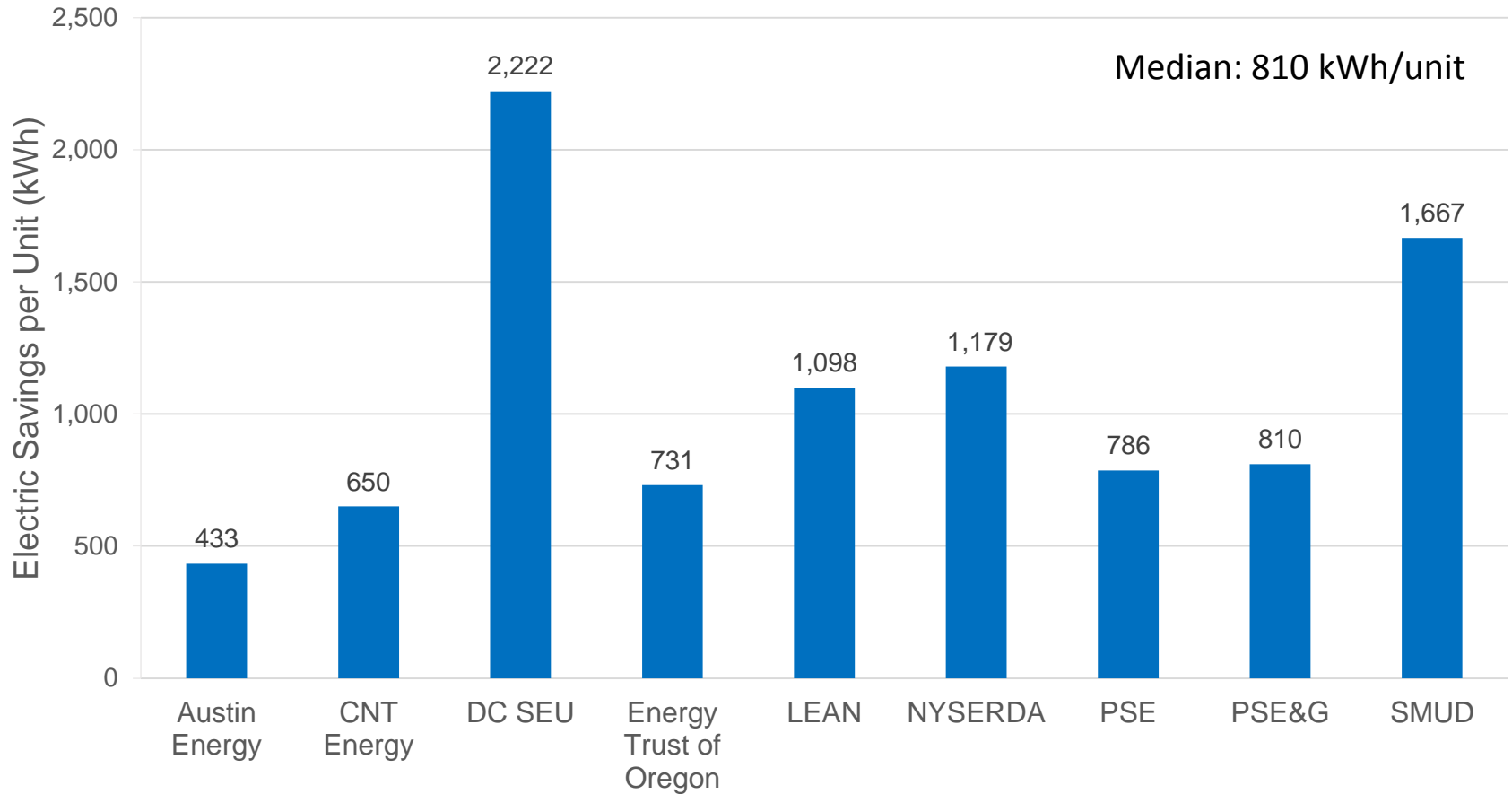


# Best Practices for Overcoming Multifamily Program Challenges



# Results From Leading Programs

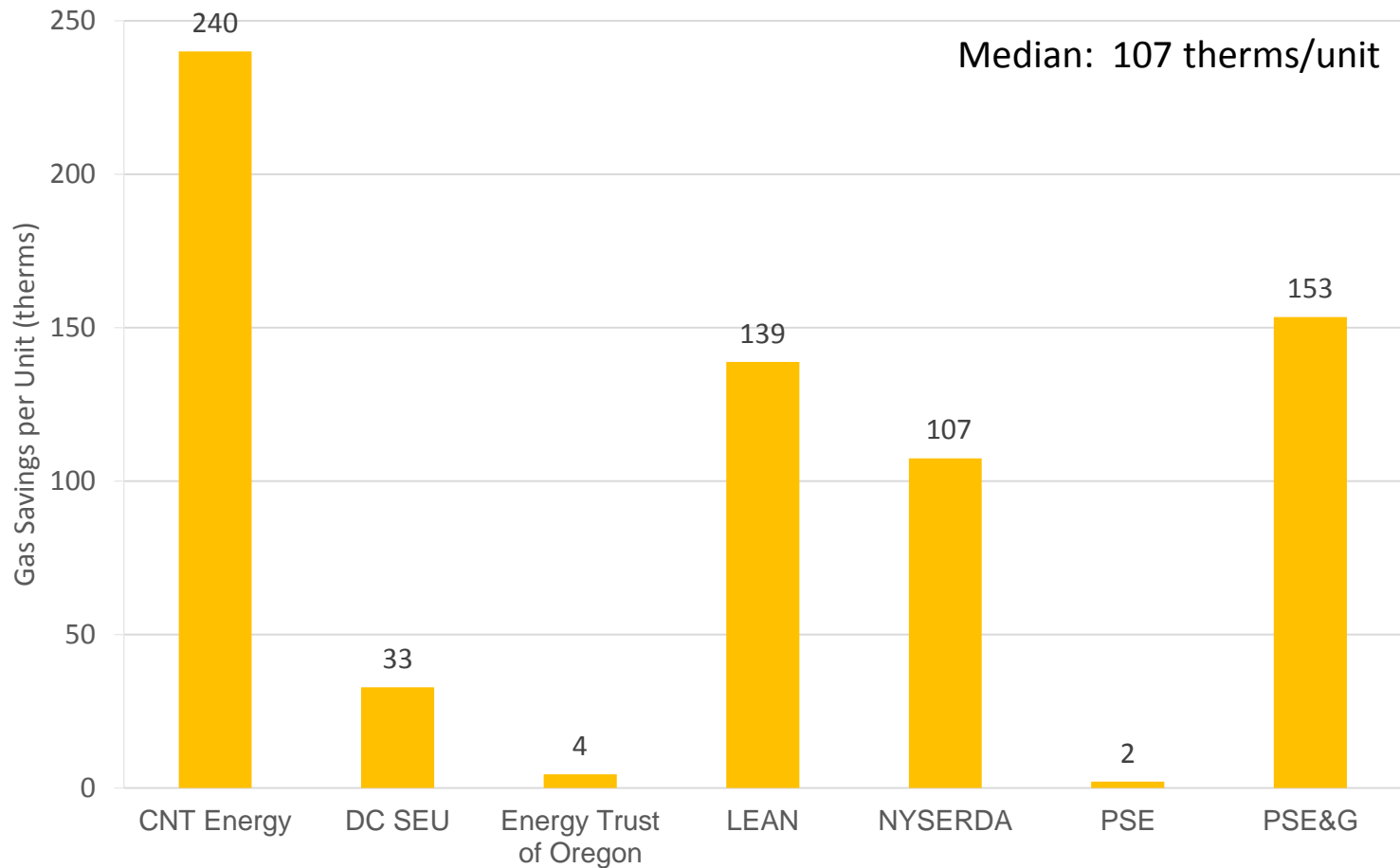
## First-Year Annual Electric Savings per Unit





# Results From Leading Programs

## First-Year Annual Gas Savings per Unit



# Results From Leading Programs

Average participant savings in whole-building programs:

□ 19-29%

Average Measure Life:

□ 6-22 years



# Results From Leading Programs

## Cost-Effectiveness

### Benefit-Cost Ratios (Range)

- ❑ Total Resource Cost: 1.3 - 2.9
- ❑ Utility Cost Test: 1.3 - 2.96
- ❑ Societal Cost Test: 1.88 - 4.7



## Questions?

### Contact:

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