



Reaching the Hard to Reach: Delivering Energy Efficiency to the Multifamily Market

2016 Iowa Energy Summit

October 26, 2016



About MEEA

The Trusted Source on Energy Efficiency



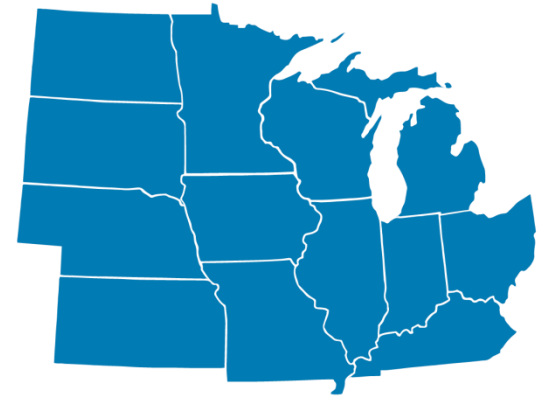
About MEEA

The Trusted Source on Energy Efficiency

We are a nonprofit membership organization with **160+ members**, including:

- Utilities
- Research institutions
- State and local governments
- Energy efficiency-related businesses

As the key resource and champion for energy efficiency in the Midwest, MEEA helps a diverse range of stakeholders understand and implement cost-effective energy efficiency strategies that provide economic and environmental benefits.



Agenda

Outline of Presentation

Background

- why is Multifamily an important sector for energy efficiency?

Scope of Analysis

- what were we trying to find out, and how did we do it?

Terminology

- how do we define the categories we used in the analysis?

Findings

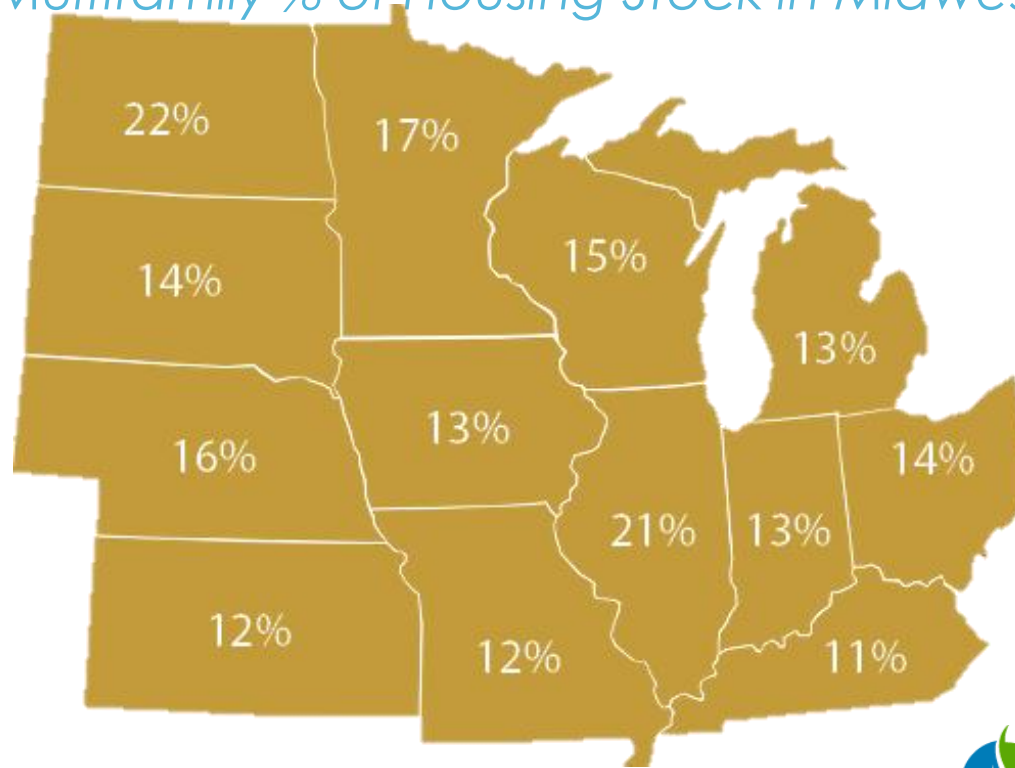
- what did we learn about multifamily efficiency in the Midwest?

Discussion

- what does it mean for the future of multifamily EE in the Midwest?

The Need for EE in Multifamily Housing

Multifamily % of Housing Stock in Midwest States



Source: US Census Bureau

The Need for EE in Multifamily Housing

EE needs of multifamily renters, by the numbers

87% of multifamily housing is renter-occupied

25-50% of all multifamily renters are low income

Energy expenditures in rentals are **37%** higher per sq. ft. than in owner-occupied multifamily

5% of low-income multifamily annual income goes to utility bills (1.5% for higher income multifamily)

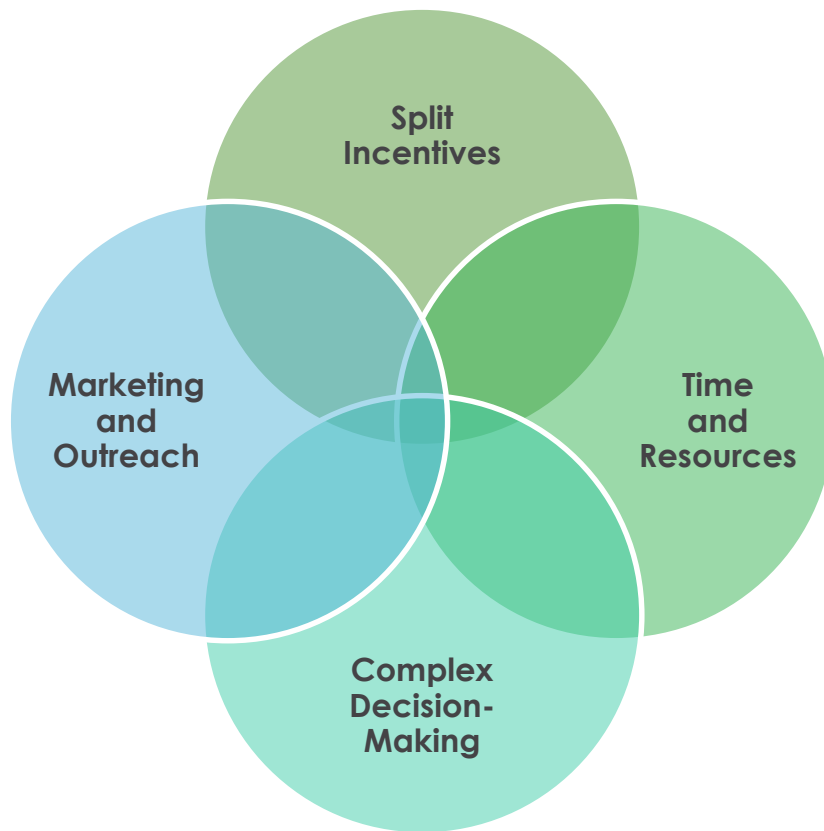
22-31% estimated savings per unit in multifamily affordable housing

Sources: US Census Bureau, Fannie Mae, ACEEE, JCHSHU



Barriers to Multifamily Energy Efficiency

Why is it so hard to reach multifamily customers?



Scope of Current Analysis

Research questions we wanted to answer

- What types of programs are available for MF customers to participate in?
- Are the programs available specifically designed for the needs of MF buildings?
- How does MF relate to the rest of the utility EE portfolio?

Scope of Current Analysis

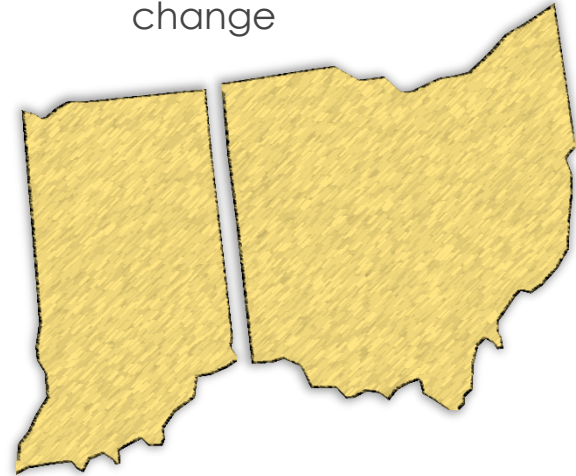
Electric EE Programs from IOUs in 4 Midwestern States

- MN, IA
- Long-term EE
 - Stable policy



IN, OH

- Shorter-term EE
- Recent policy change



State Energy Efficiency Policy

Brief overview of policy status in the studied states

Indiana

- EERS adopted 2009 by regulatory order, and overturned 2014 by legislation
- No mandatory standard; EE tied to IRP process
- Voluntary natural gas EE

Ohio

- EERS adopted by legislation in 2008; “frozen” for two years in 2014.
- Currently pending legislation attempting to continue freeze
- EERS is electric only; very limited voluntary gas EE

Minnesota

- Conservation Improvement Program (CIP) since 1991
- Current EERS set by legislation in 2007
- EE required for electric & gas

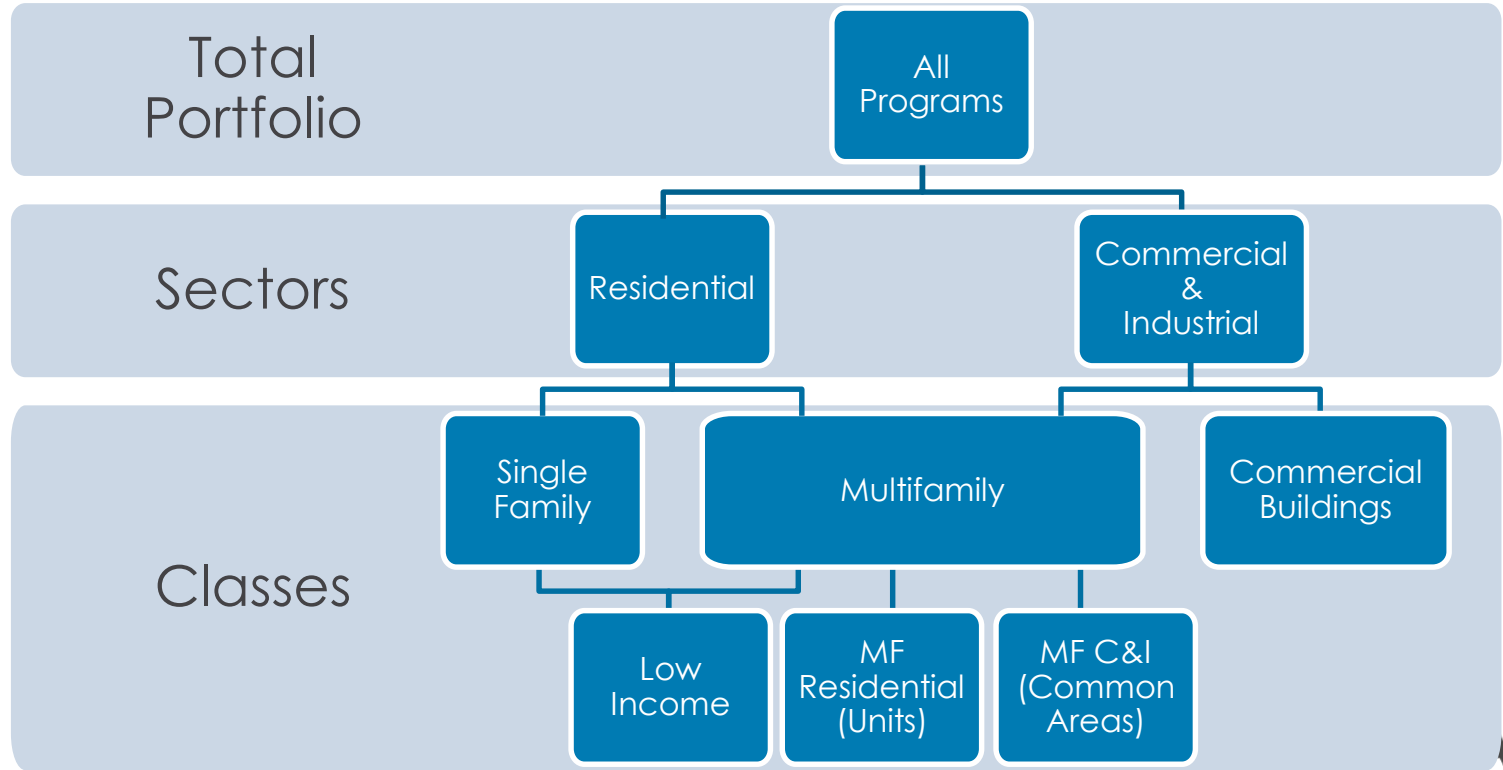
Iowa

- Decades-long experience with energy efficiency; current policies from 2008
- EE standards set on a utility basis; binding once approved
- EE required for electric & gas



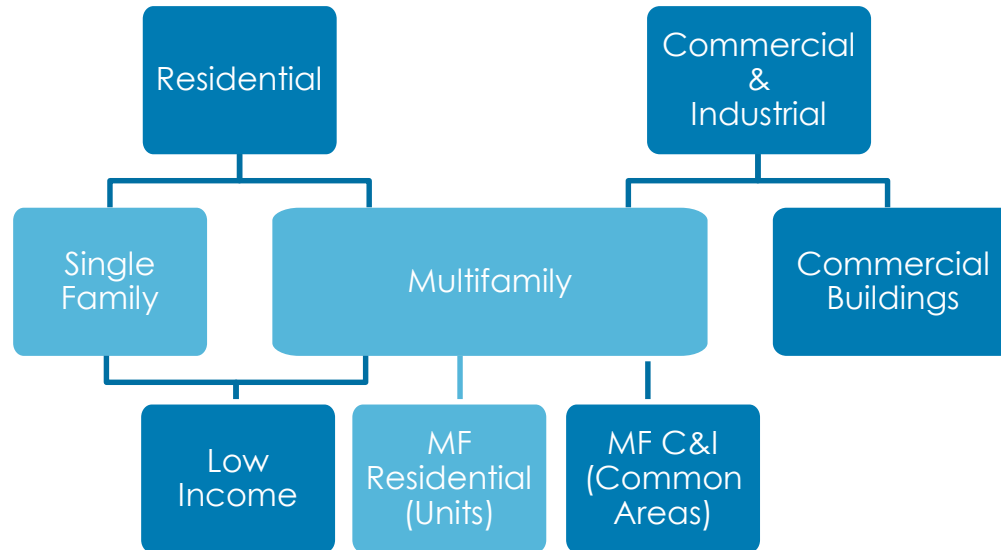
Terminology

Basic Terminology



Terminology

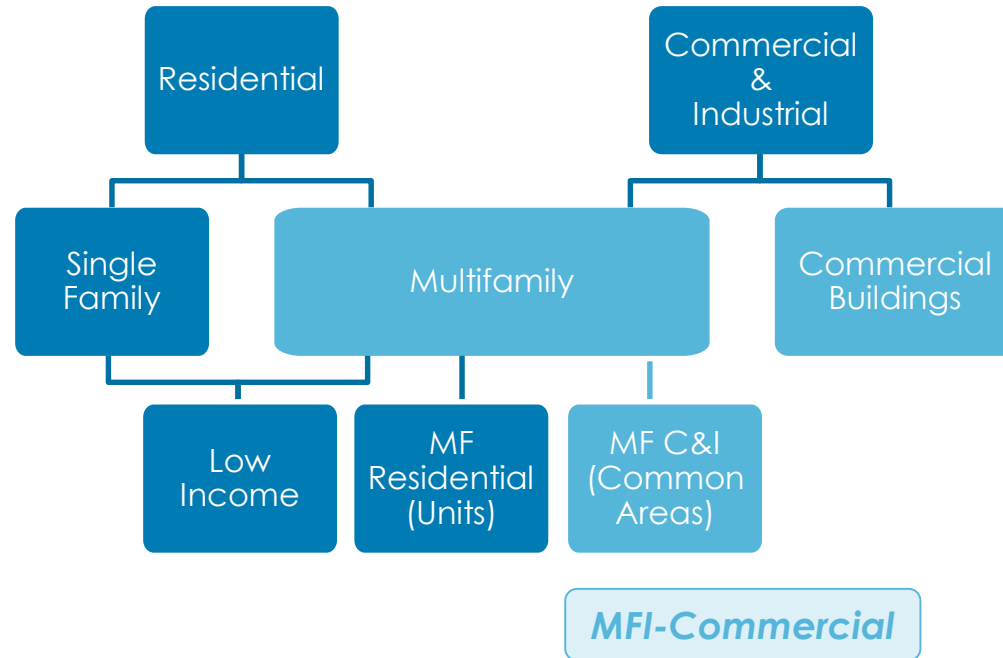
Multifamily Inclusive (MF-Inclusive)



MFI-Residential

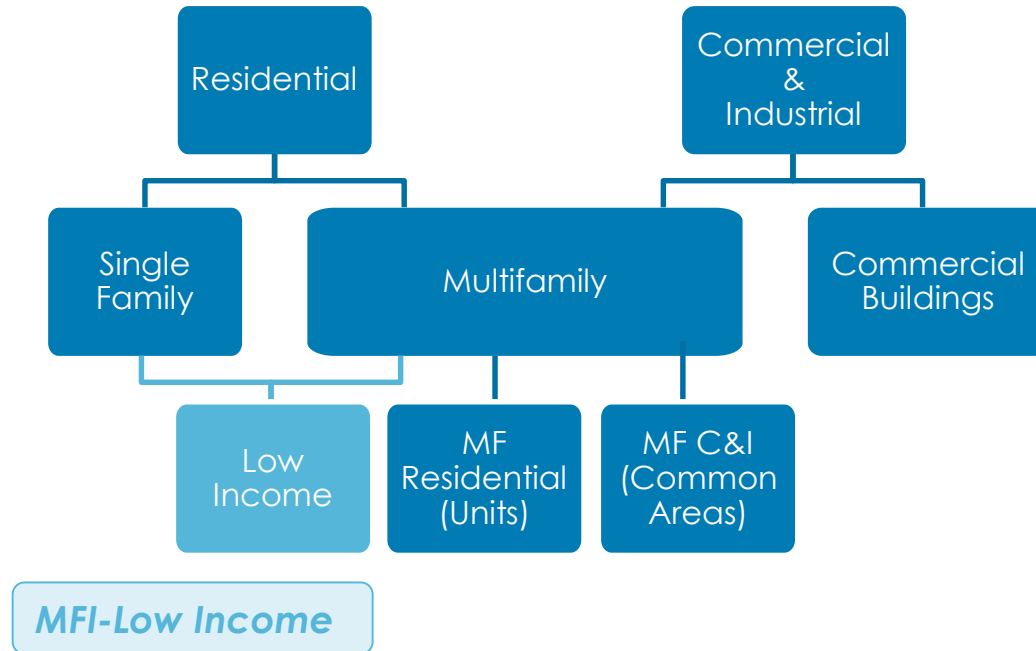
Terminology

Multifamily Inclusive (MF-Inclusive)



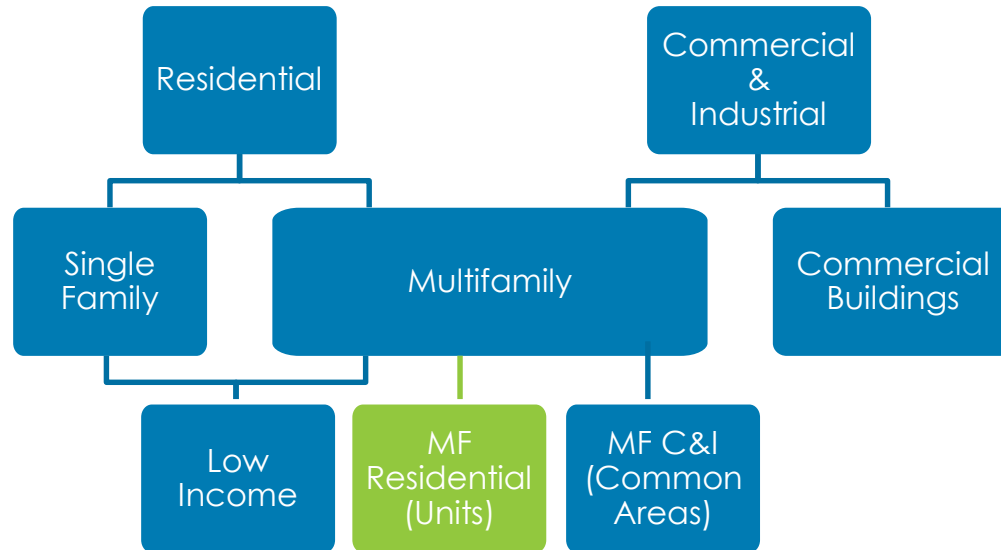
Terminology

Multifamily Inclusive (MF-Inclusive)



Terminology

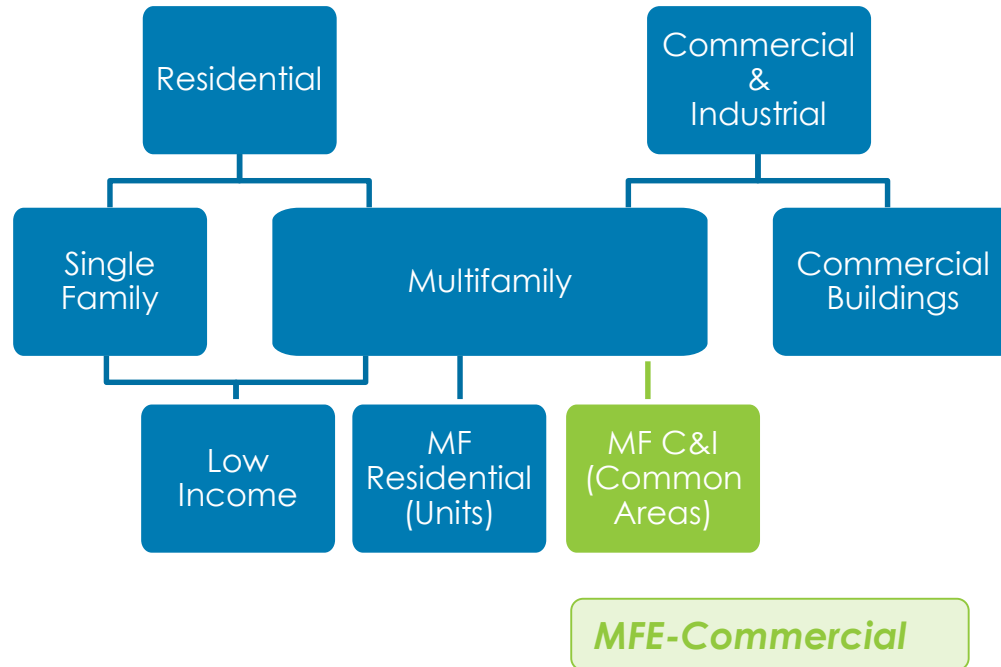
Multifamily Exclusive (MF-Exclusive)



MFE-Residential

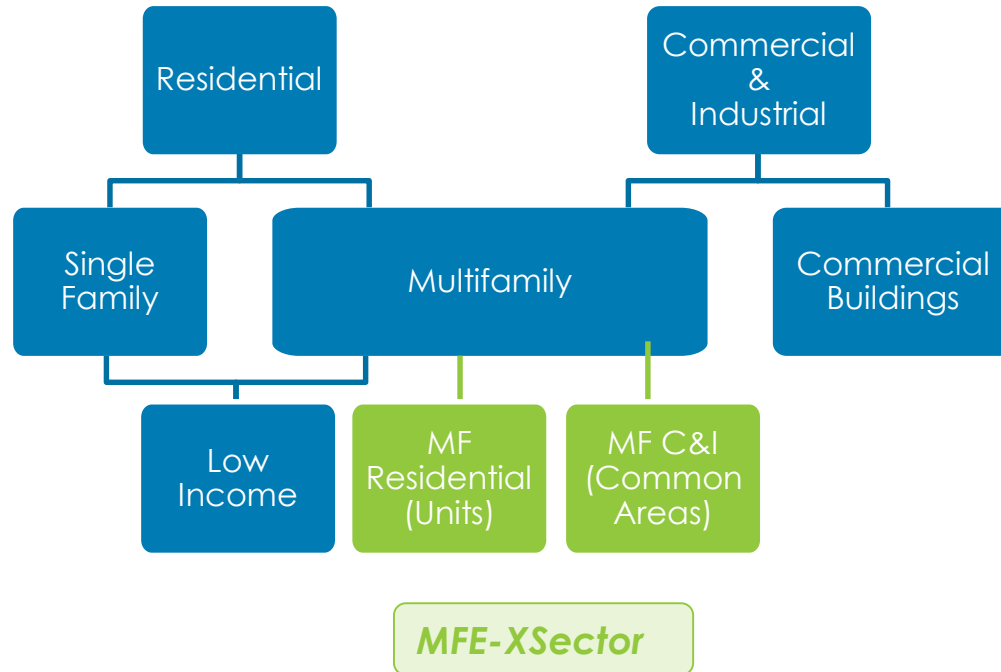
Terminology

Multifamily Exclusive (MF-Exclusive)



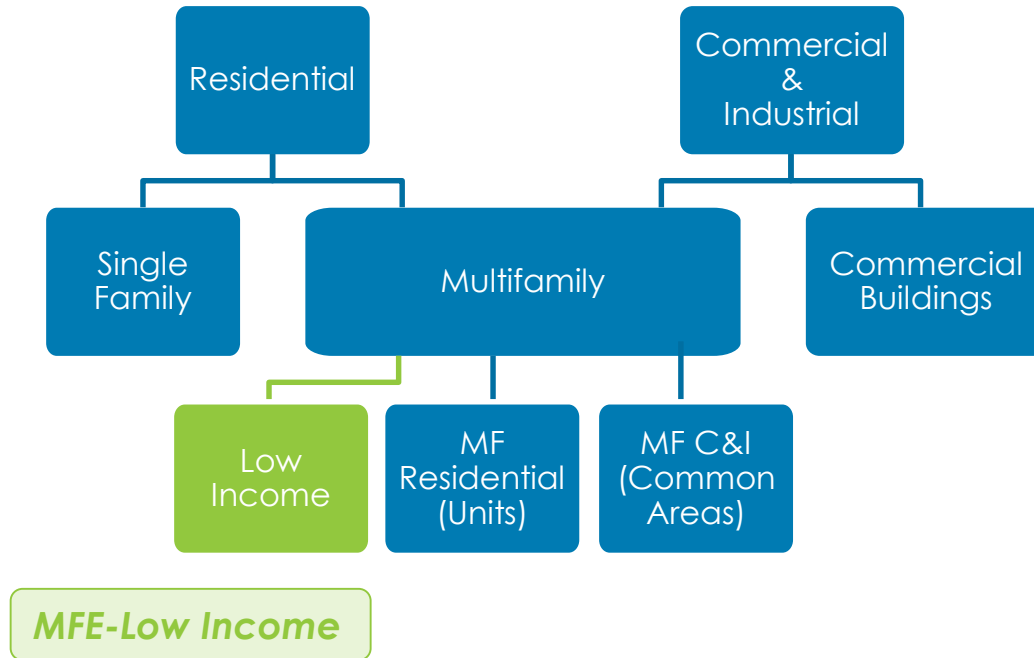
Terminology

Multifamily Exclusive (MF-Exclusive)



Terminology

Multifamily Exclusive (MF-Exclusive)



Terminology

Total Multifamily

Combined total of all previously discussed categories

Multifamily-Inclusive

??%
multifamily
customer
participation

MFI-Commercial

MFI-Residential

MFI-Low Income

MFE-Commercial

MFE-Residential

MFE-Low Income

MFE-XSector

Multifamily-Exclusive

100%
multifamily
customer
participation

Typical Multifamily Energy Efficiency Measures

By program classification

Classification	Program/measure types
MFI-Residential	<ul style="list-style-type: none">• Efficient Products• Demand Reduction• Lighting• New Home Construction• Appliance Recycling
MFI-Low Income	<ul style="list-style-type: none">• Efficient Products• Lighting• Weatherization
MFE-Residential	<ul style="list-style-type: none">• Demand Reduction• Lighting• Efficient Products• Direct Install
MFE-Commercial	<ul style="list-style-type: none">• Retrofit• Direct Install
MFE-XSector	<ul style="list-style-type: none">• Efficient Products• Lighting• Direct Install• New Construction• Retrofit

Deepest Savings Potential for Multifamily

Overview of Findings

Areas of Interest

Spending

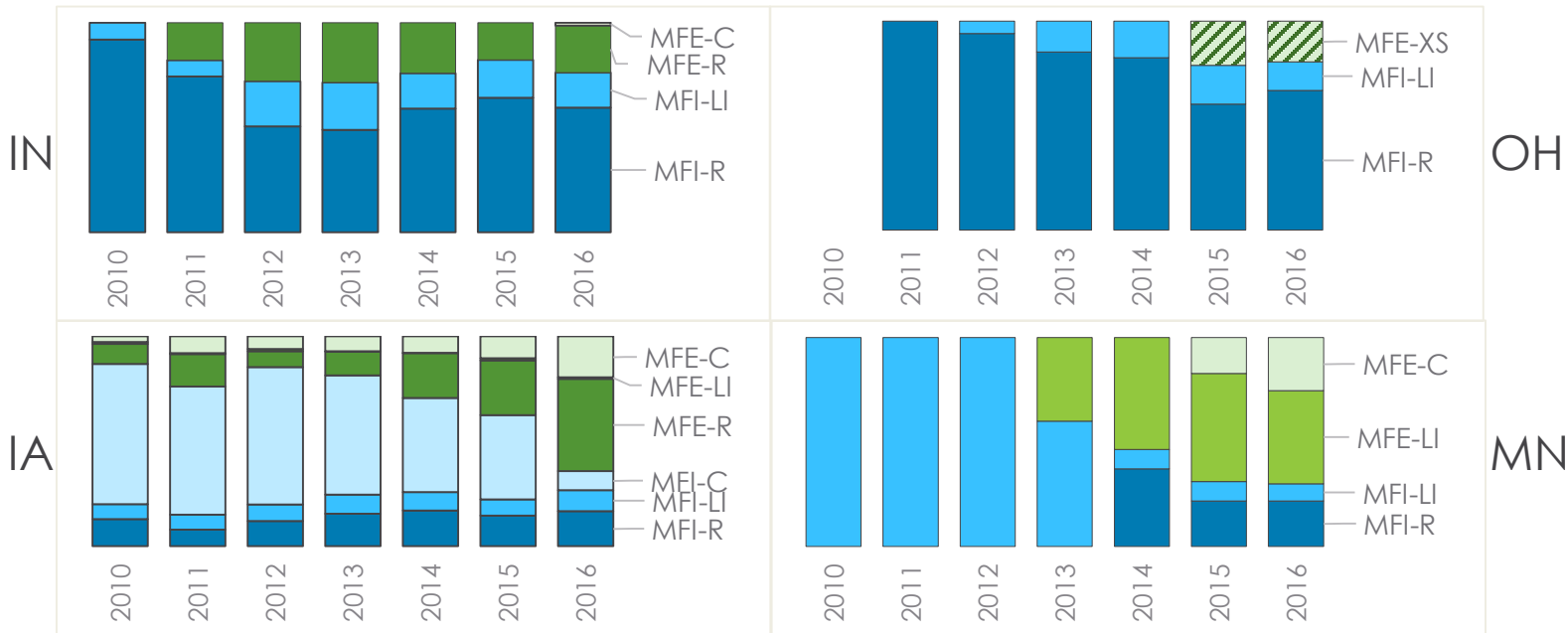
- Mix of multifamily program investment
- Relationship to total EE spending

Savings

- Mix of multifamily achieved savings
- Relationship to total EE savings

Multifamily EE Spending Mix (Electric)

Distribution of Spending Among Multifamily Program Categories

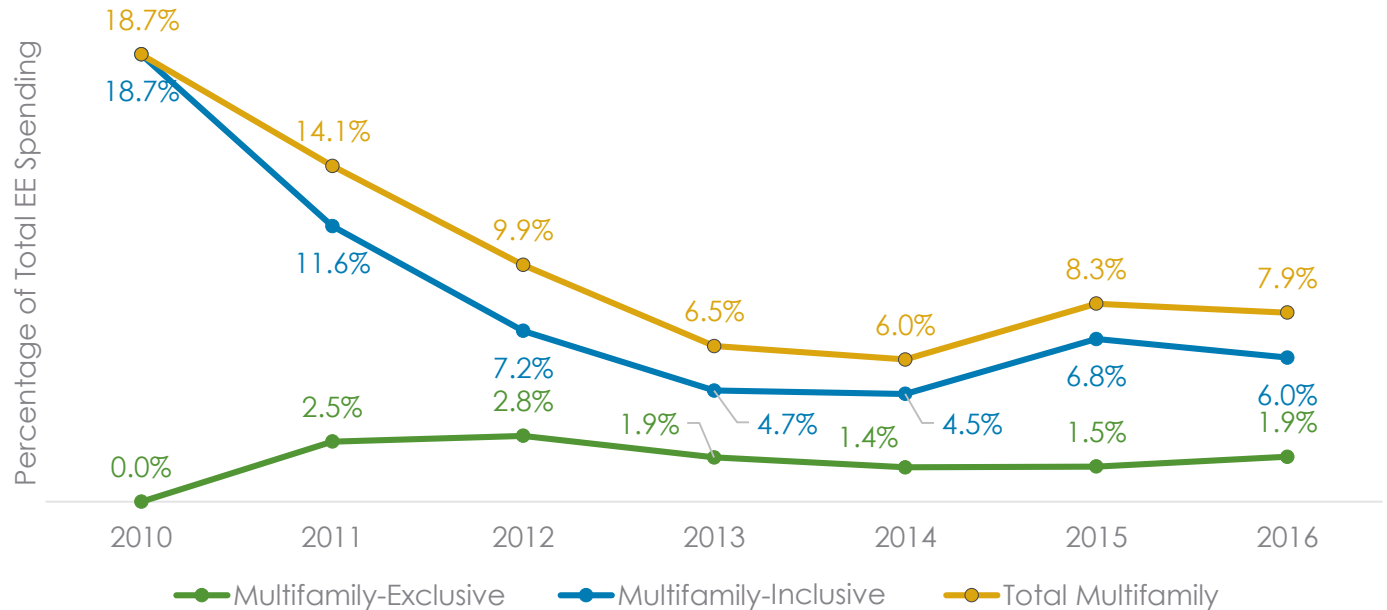


Blues: MF-Inclusive

Greens: MF-Exclusive

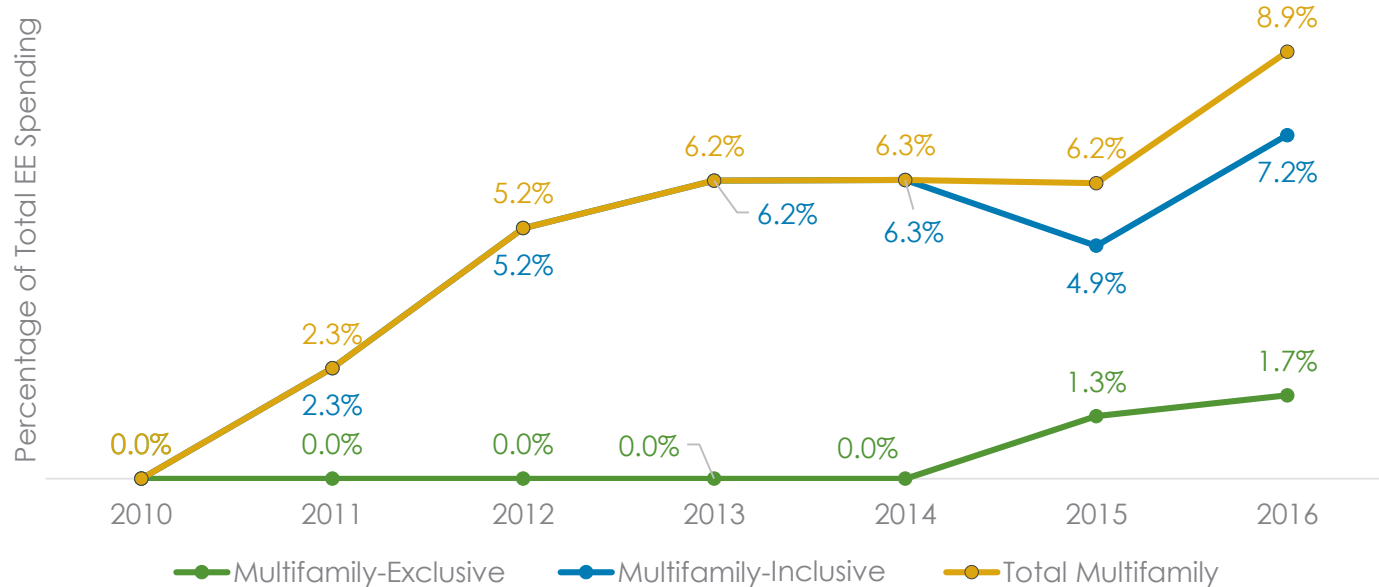
Indiana

Multifamily as a percent of statewide total EE spending (electric)



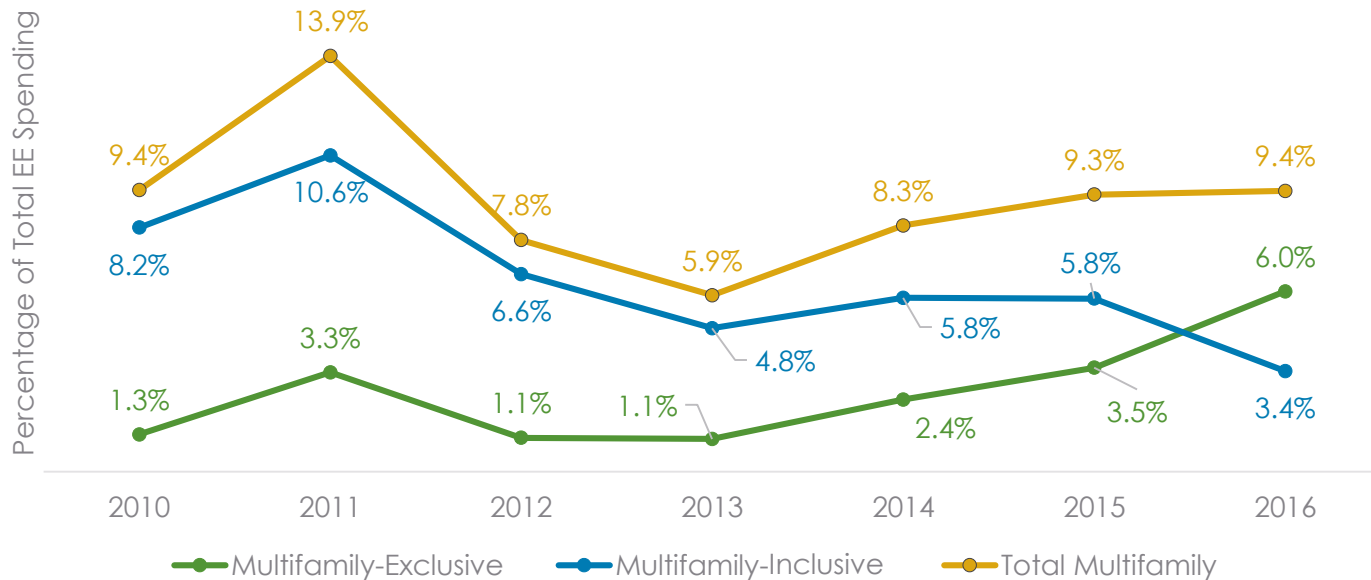
Ohio

Multifamily as a percent of statewide total EE spending (electric)



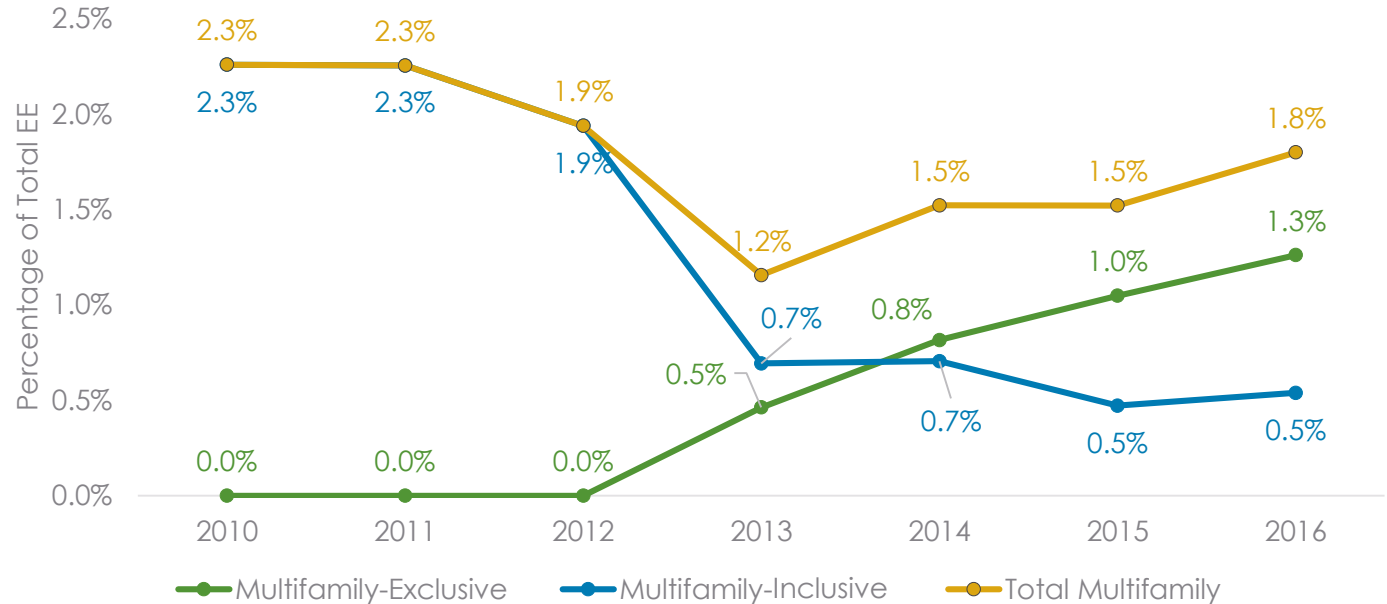
Iowa

Multifamily as a percent of statewide total EE spending (electric)



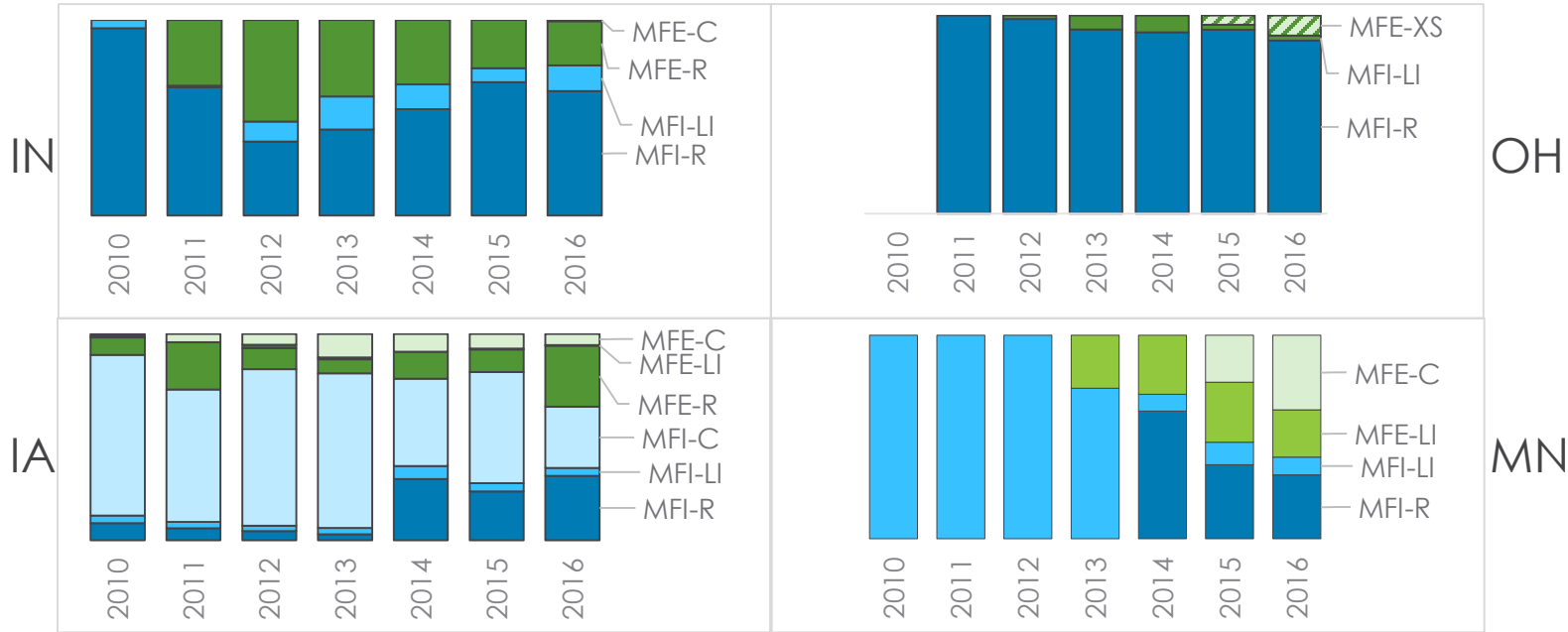
Minnesota

Multifamily as a percent of statewide total EE spending (electric)



Multifamily EE Savings Mix (Electric)

Distribution of Savings Among Multifamily Program Categories

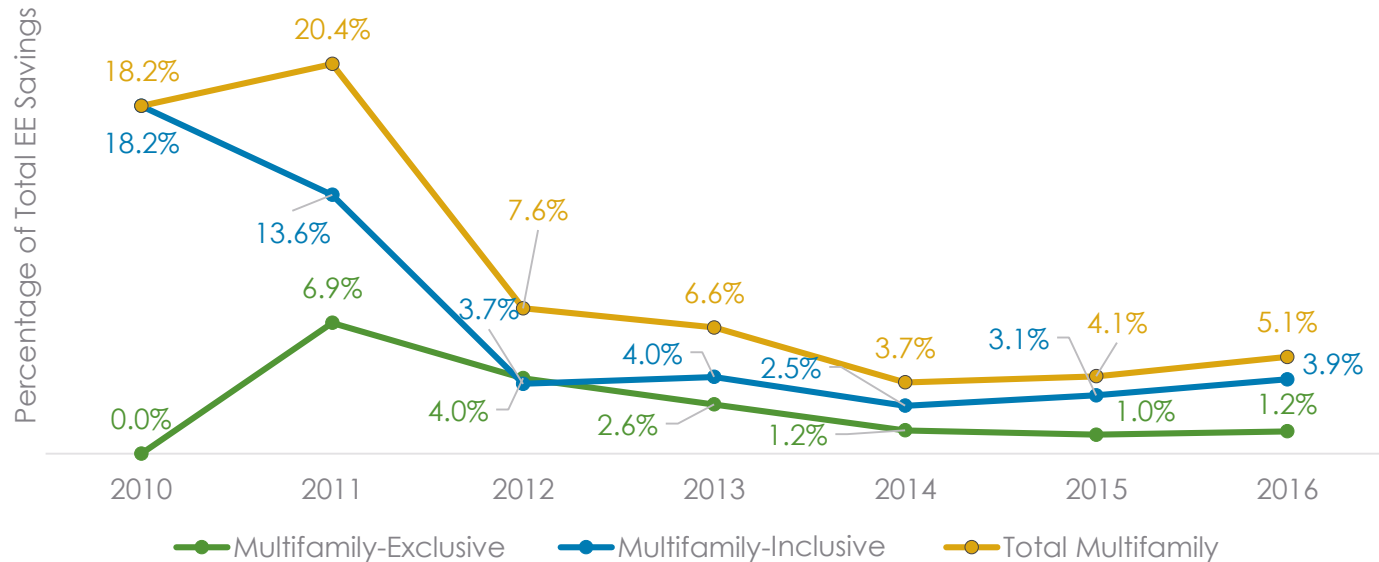


Blues: MF-Inclusive

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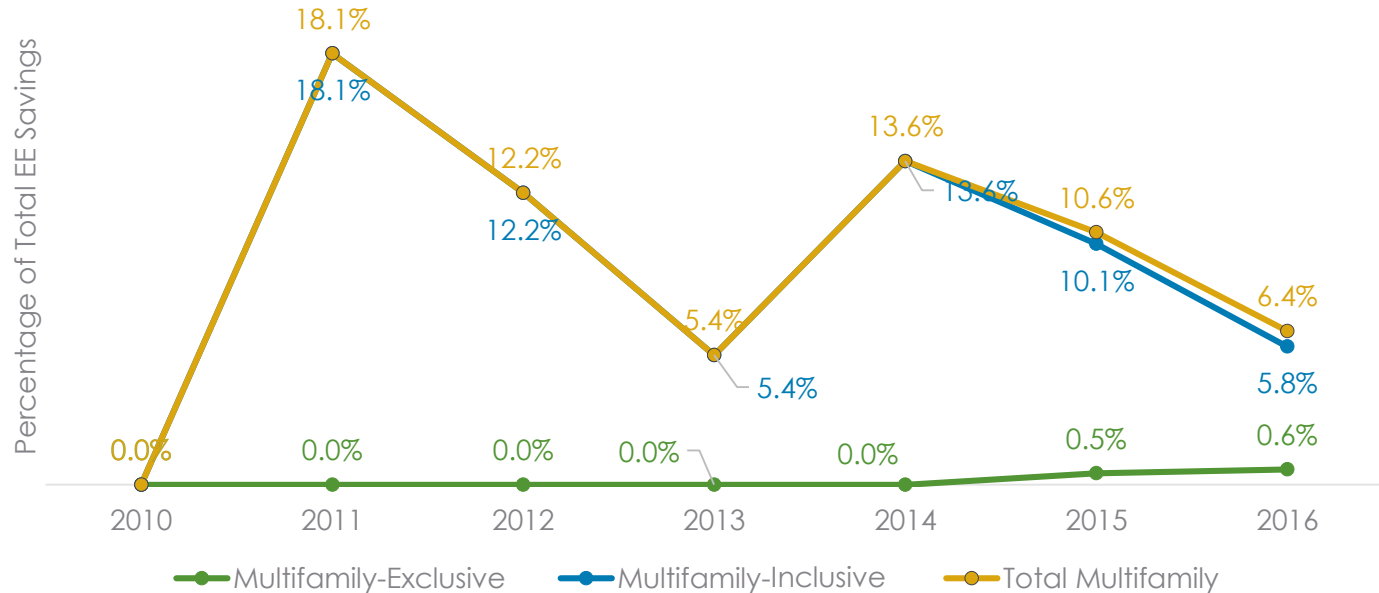
Indiana

Multifamily EE savings as a percent of total electric savings (electric)



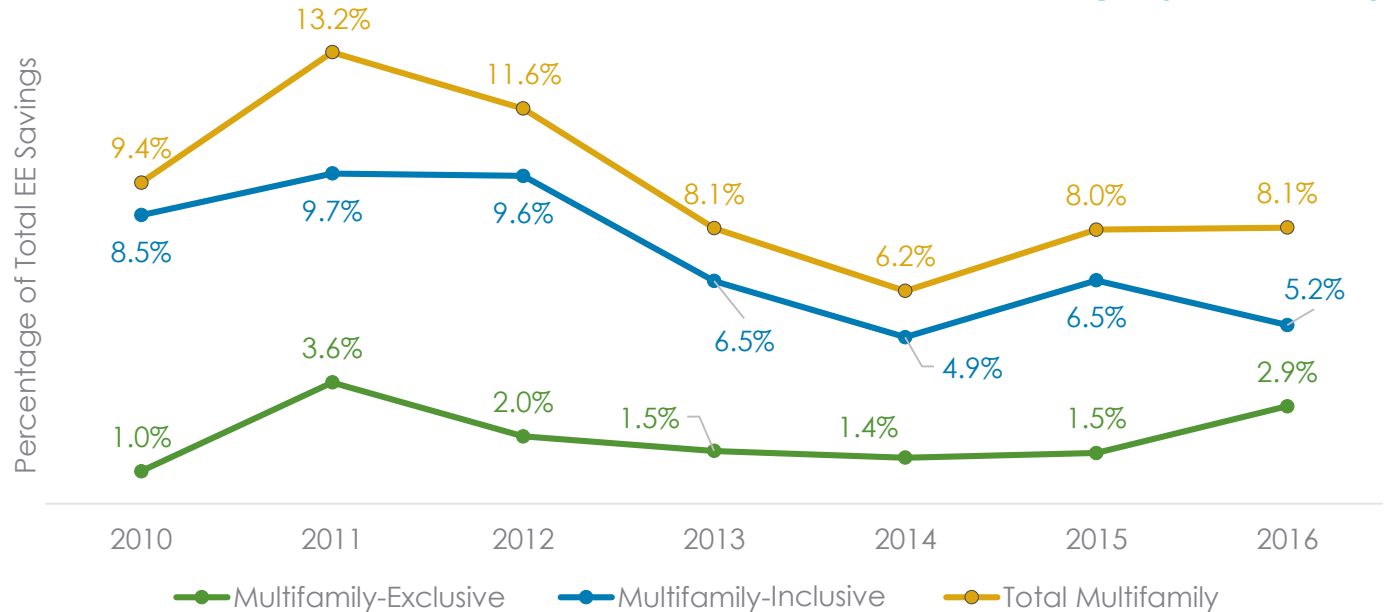
Ohio

Multifamily EE savings as a percent of total electric savings (electric)



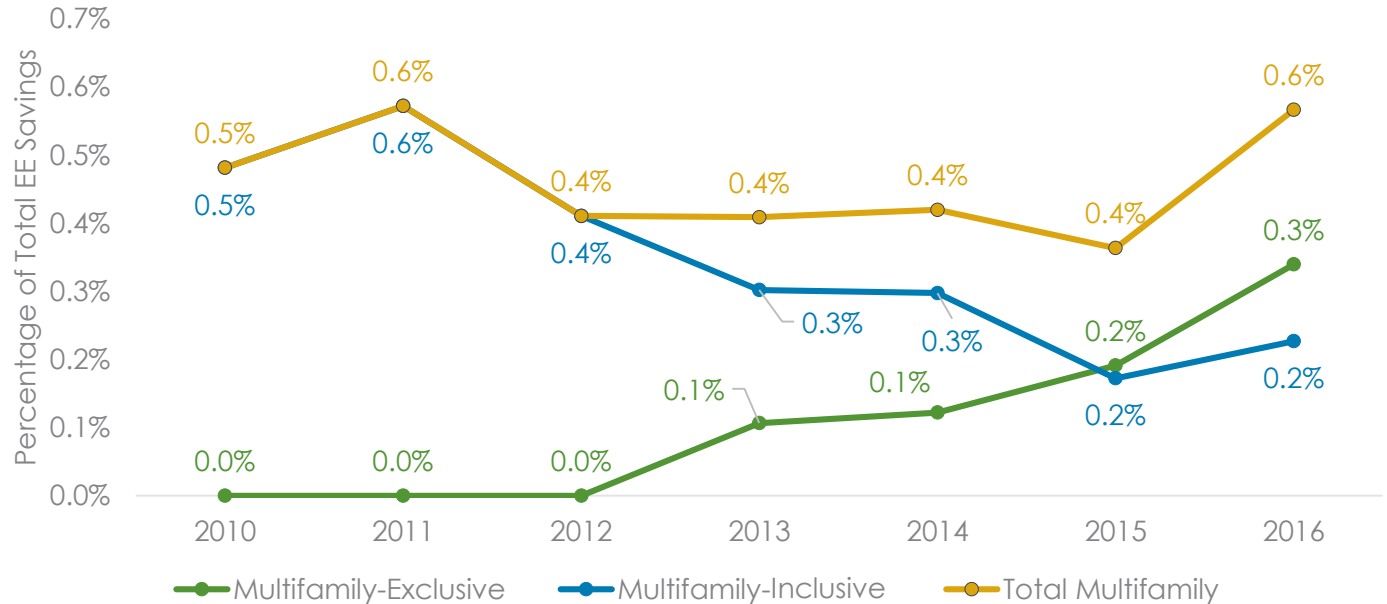
Iowa

Multifamily EE savings as a percent of total electric savings (electric)



Minnesota

Multifamily EE savings as a percent of total electric savings (electric)



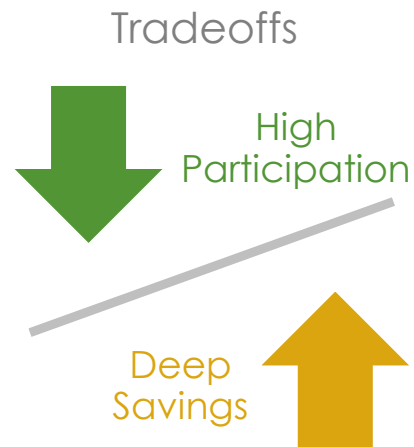
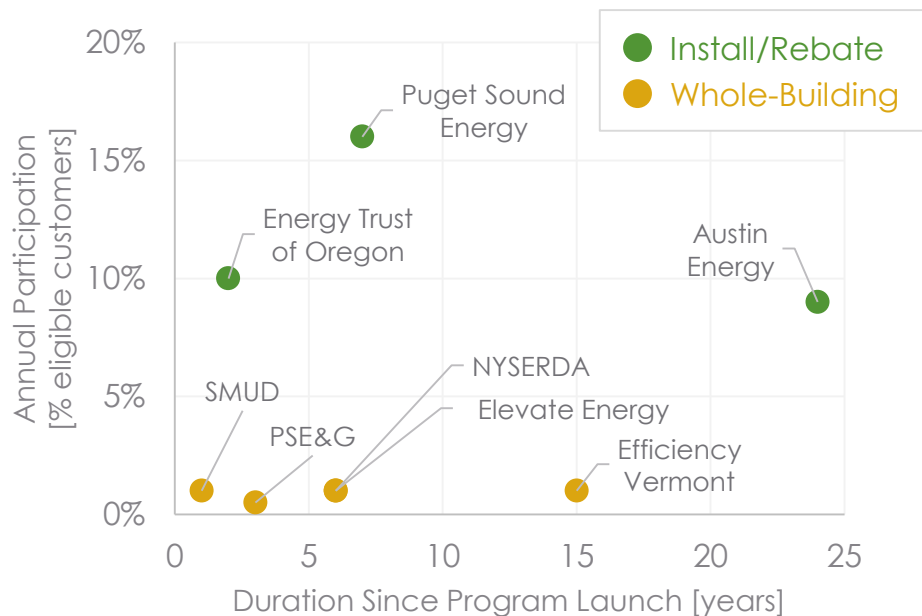
Discussion

Key Takeaways from Analysis

- Diverse landscape of multifamily programs
- Diversity of program types increases over time
- Initial offerings to multifamily customers tend to focus on in-unit residential and low-income customers
- Common-area and whole-building programs tend to be adopted in subsequent program years
- Multifamily-Exclusive programs gaining ground in spending and savings

The Need for EE in Multifamily Housing

Annual participation rates in MF programs



Data Source: Johnson 2013 (ACEEE)

Next Steps

Expanding the Analysis

- Discussion with utility program managers – can we find any granular data on levels of multifamily vs. single-family participation in MF-Inclusive programs?
- Expand analysis to include additional states with MF programs – Michigan, Illinois, Wisconsin
- Include natural gas spending and savings where possible, especially for joint electric-gas programs

MEEA's Multifamily Opportunities

What are we doing in the multifamily space?

- Piloting Building Operator Certification (BOC) program for operators of large multifamily buildings (www.boccentral.org)
- Commercial building benchmarking & building code adoption efforts
- Participating in joint multifamily research with other Regional Energy Efficiency Organizations (REEOs)
- MEEA is a regional partner of the Energy Efficiency for All initiative
- Supporting our members who are working in the multifamily space



SAVE THE DATE

2017 CONFERENCE

WEDNESDAY, FEBRUARY 22 - FRIDAY, FEBRUARY 24

CHICAGO HILTON AND TOWERS
CHICAGO, IL



Thank you!
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