



DSM for Multifamily

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Unlocking Potential Savings

“\$46 billion invested in MF residential buildings
will provide NPV of **\$80 billion in energy savings.”**

– McKinsey and Company



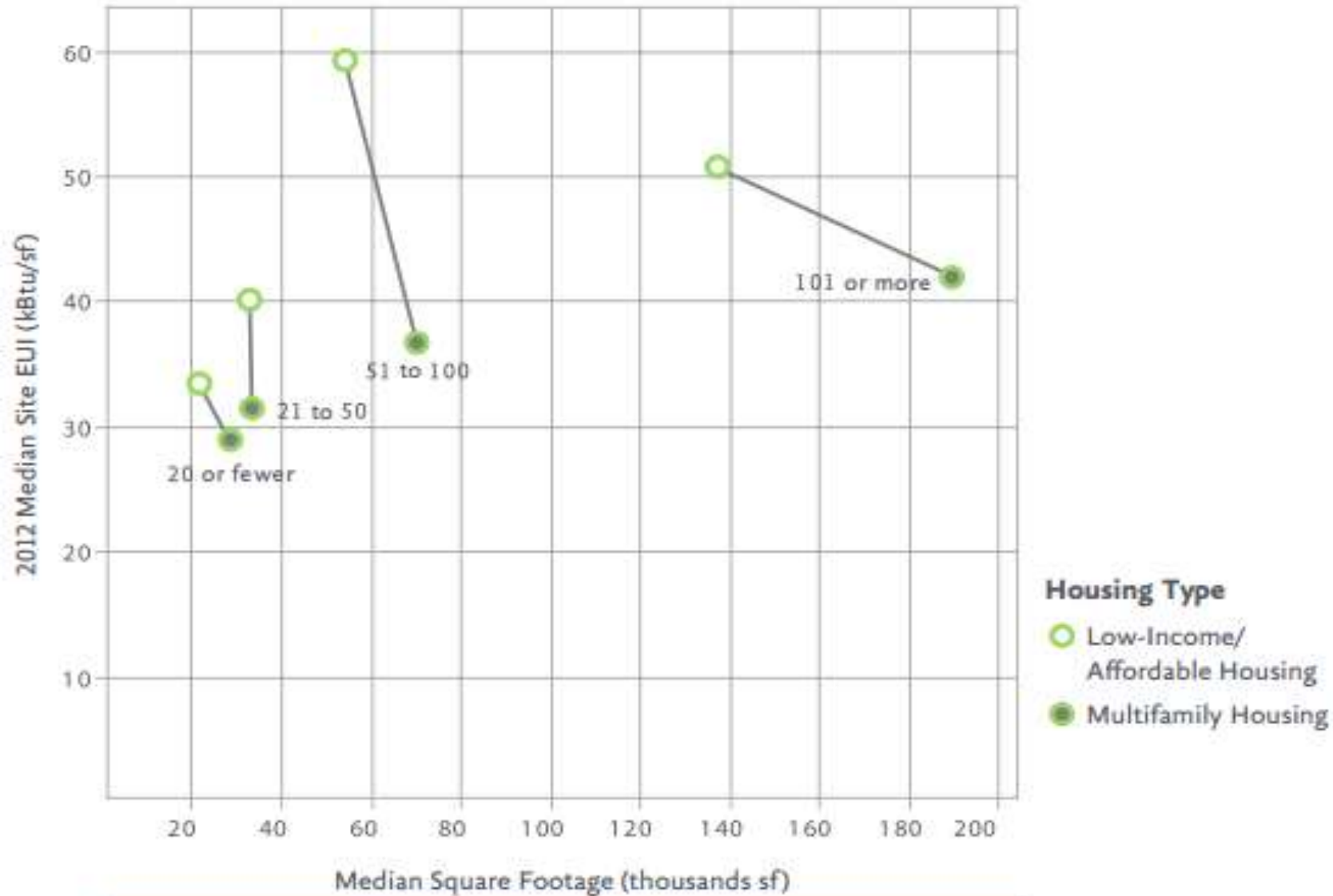


Figure 17: 2012 Median EUIs of Low-Income/Affordable Housing and Multifamily Buildings by Number of Units

Multifamily Properties

Multifamily (MF) Housing

- ❖ **~25% of residential market**
 - Subsidized Affordable – HUD, LIHTC, USDA-RD
 - Naturally Affordable / Market Rate
- ❖ **MF is an underserved and untapped market**
 - Commercial Property but Residential Use
 - Utility Rebate programs driven by Meter/Utility Account Holders
 - Complex Ownership / Management Structure
 - Split-Incentive hurdle – LPs, Agencies, Tenants



Why aren't MF owners signing up?

❖ Time Constraint

- Complex Process
- Not High Priority

❖ Knowledge

- Optimal Solutions
- Regulatory
- Pace of Technology Change

❖ Financing

- Over ROI threshold
- Lack of Reserves
- Split Incentive
- Myth – Green is Expensive



Successful EE Programs

1. Little to No Cost

- ✓ Grant Funded – e.g. WAP, HUD, USDA-RD, etc.
- ✓ Utility – DI Programs

2. Major Rehab of MF (Acq-Rehab or Sub Rehab)

- ✓ Driver - Green certification or Local Codes
- ✓ Refi of property

3. New construction

- ✓ Driver - Green certification or Local Codes



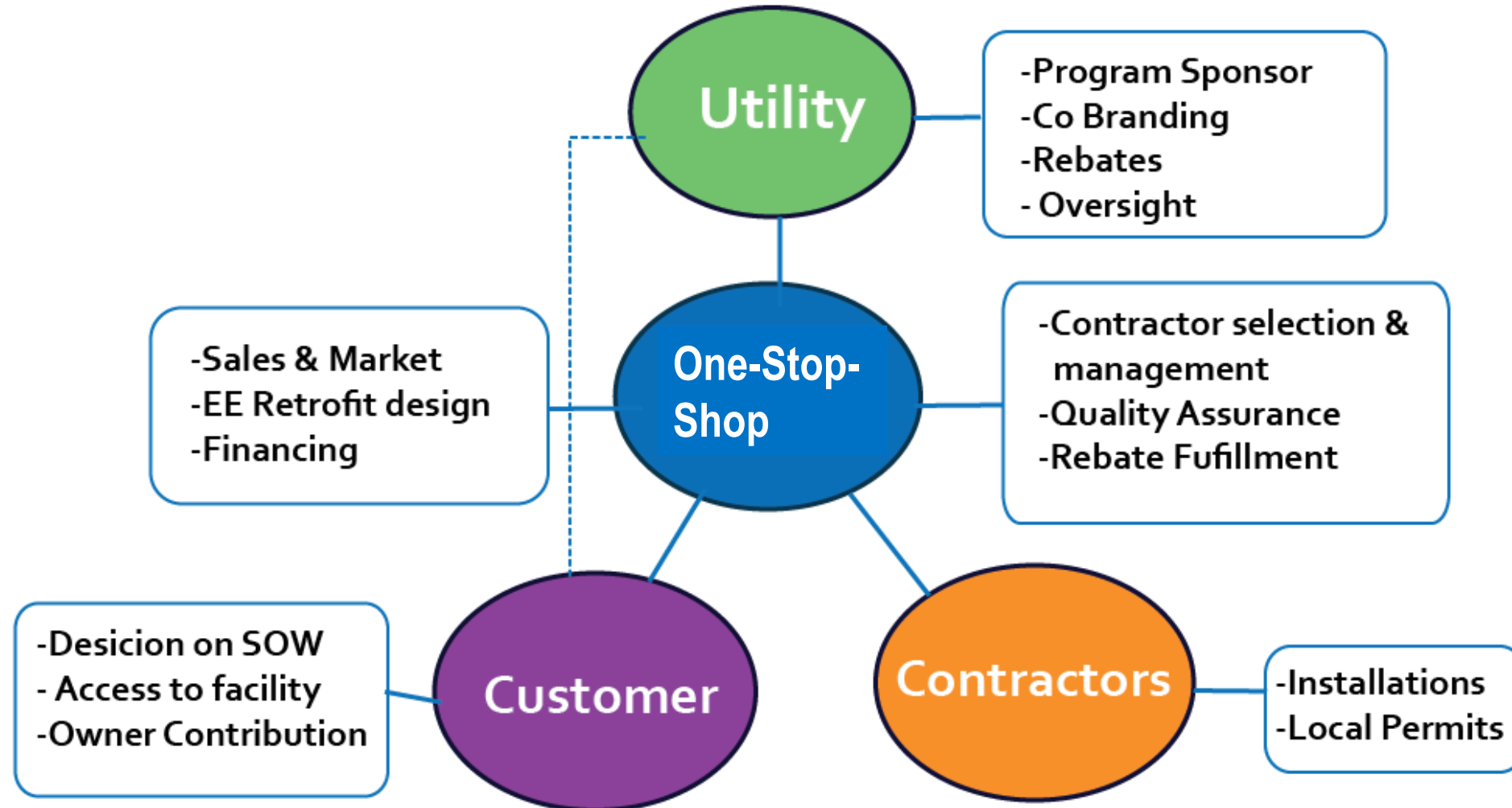
Successful EE Programs

4. One-Stop-Shop

- ✓ **Make it hassle-free**
 - Oversees entire green rehab
- ✓ **Provide relevant information**
 - Cost effective ECMs
- ✓ **Access to financing options**
 - Rebates, Incentives, Grants
 - Debt or Off-Balance Sheet (EPC, PACE, PFS)



Program Structure



ICAST Services



✓ Portfolio & Property Assessments

1. Energy Audits
2. Energy Star Scoring

✓ Access to Financing

1. Traditional Debt
2. Off-Balance Sheet
3. Incentives and Rebates

✓ Green Retrofit:

1. Energy Efficiency and DSM
2. Renewable Energy
3. Water Conservation



✓ Design / Specifications

✓ Identify & Manage Contractors

✓ Staff O&M Training

✓ Tenant Engagement

1. On-Site
2. Online

✓ Utility DSM Program Management

ICAST Background

- ✓ 501C3 nonprofit
- ✓ Market Served – Multifamily Properties
- ✓ History of serving non-urban areas
- ✓ 5% -50% energy savings per project
- ✓ 5,000 Apartments served in last 4 years
- ✓ 1,600 Apartments committed for 2017 for NM Gas
- ✓ \$2 Million in grant funds in 2016 to support growth



ICAST Approach

- ✓ Mission Based – Low Admin Costs
- ✓ Pay-for-Success approach
- ✓ Relationship based Sales & Marketing
- ✓ Early Retirement v/s End of Life Replacement
- ✓ Combine all possible incentives – other utility rebates, WAP, financing incentives, tax credits, etc.
 1. Rebates based on PUC metrics
 2. Utility rebates are under 25% of project costs



Incentive Programs

- ✓ FHA – MIP Reduction + 85% LTV
- ✓ Freddie /Fannie Green Loan Program
- ✓ Solar – 30% ITC + MACRS
- ✓ Grants e.g .WAP , LiHEAP, HOME, CDBG, HTF
- ✓ Utility rebates
- ✓ 179-D federal tax credit, 45-L tax deduction
- ✓ LIHTC



Off-Balance Sheet

Energy Performance Contracts (EPC)

- ✓ PHAs / USDA-RD / Market Rate Properties

Pay-For-Success (PFS)

- ✓ HUD PRAC and Property Based Section 8

Property Assessed Clean Energy (PACE)

- ✓ ALL MF Properties



Case Study #1

Financial Details

- Total Project Cost: \$326,000
- Electric, Gas and Water Rebates
- WAP Funds
- PACE Financing

Scope of Work

- Replace HVAC – 96% efficient
- Pipe insulation
- Attic/crawl space insulation
- Lighting upgrades
- Low-Flow Devices
- Cool Roof



Case Study #2

Financial Details

- Project Cost: \$600,000
- Electric, Gas and Water Utility Rebates
- HUD Funds
- EPC Financing

Scope of Work

- HVAC – replace furnaces
- Programmable thermostats
- Low-E windows
- Lighting upgrades
- Water management
- Solar PV



Lessons Learned

Implementers Perspective:

1. Financial viability of EE Retrofit is important
 - But take a holistic approach
2. Leverage utility rebates, grants and incentives
 - But owner “buy-in” is essential for L/T sustainability
3. Offer a comprehensive, hassle-free, and cost-effective program
 - Keep it simple & make it easy for the owner/manager



Cost of Doing Nothing

Current annual utility cost	\$100,000
25% utility savings due to Smart Rehab	\$25,000
Reductions in O&M costs from green rehab	\$9,000
Increase in profits due to higher occupancy & lower turnover due to smart rehab	\$6,000
Total Savings/Year i.e. Increase in NOI	\$40,000

Cost of Capital	5%
Increase in value of property	\$800,000

Lifetime of Smart Rehab (in years)	15
Total Savings from Smart Rehab	\$600,000





Thank you

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