Better Buildings®

U.S. DEPARTMENT OF ENERGY

JUNE 8–11

2020 SUMMIT

A Virtual Leadership Symposium

Multifamily Meet-Up

Learn more: betterbuildingssolutioncenter.energy.gov/summit
Agenda

1. Welcome
2. Progress of the BBC Multifamily Sector
3. Update from HUD’s Office of Multifamily Housing Programs
4. Goal Achiever Spotlights and Q & A
5. Breakout #1: Financing Barriers to Energy Efficiency Projects
6. Breakout #2: Energy + Health
Don’t Miss Wednesday’s Multifamily Events

1. 11am – 12:30pm EDT
   Multifamily Financing Roundtable: Financing Affordable Housing Retrofits (Workshop)

2. 1pm – 2:30pm EDT
   Maximizing Performance in Affordable Housing New Construction
#BBSummit2020

Twitter:
- @BetterBldgsDOE
- @BetterPlantsDOE

LinkedIn:
- www.linkedin.com/company/better-buildings/
- www.linkedin.com/showcase/better-plants/
Josh Geyer
High-Performance Buildings Team
Office of Environment and Energy, HUD

Submit Questions
Zoom Chat
Better Buildings Challenge Multifamily Sector Progress 2020
BBC Multifamily Sector Housing Units by Subsector

678,000 housing units

- Assisted Housing Units: 31%
- Market-Rate/Mixed Housing Units: 24%
- Public Housing Units: 45%
BBC Multifamily Partners Utility Benchmarking Status

Number of Multifamily partners

- **Partners not benchmarking**
- **Partners meeting benchmarking commitment**

<table>
<thead>
<tr>
<th>Year</th>
<th>Partners not benchmarking</th>
<th>Partners meeting benchmarking commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>80</td>
<td>10</td>
</tr>
<tr>
<td>2018</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>2020</td>
<td>20</td>
<td>80</td>
</tr>
</tbody>
</table>
Annual Plans

Roadmap to 20% Savings

Workshops

Updated Data Standards
Multifamily Partner Sector Progress to Date

Across 678,000 Housing Units and 650 million Square Feet, we’ve saved:

14 Trillion+ Cumulative BTUs Saved

$136 Million Cumulative Cost Savings
Multifamily Sector BBC Goal Achievers to Date

2020
- Mercy Housing
- Preservation of Affordable Housing
- Corcoran Management
- Trinity Housing of Greeley

2019
- Cambridge Housing Authority
- Tenderloin Neighborhood Development Corporation (energy + water)
- Keene Housing (water)

2018
- Jersey City Housing Authority

2017
- 2LifeCommunities
Multifamily Partners that Published a Case Study This Year

Implementation Models:
- **Manhattan Housing Authority**
  - Navigating Complex Regulatory Environment for Financing
- **National Church Residences**
  - Process Standardization for LED Retrofits
- **Wishrock Investment Group**
  - Onsite Energy Audits Utilizing EZ Retrofit Tool
- **Jonathan Rose Companies**
  - Portfolio-wide Disaster Resilience Strategy

Showcase Projects:
- **Trinity Housing of Greeley**
  - Island Grove Apartments - 20% Energy Savings
- **Capitol Hill Housing**
  - Brewster Apartments – 26% Energy Savings
Multifamily Utility Benchmarking Toolkit

Search: HUD + Utility Benchmarking Toolkit
Thank You!

Contact Information:
Josh Geyer
Joshua.M.Geyer@hud.gov
Theodore Toon
Senior Advisor
Office of Multifamily Housing, HUD
Q & A

Submit Questions
Zoom Chat
Celebrate the 2020 Multifamily Goal Achievers!

Trinity Housing Corporation of Greeley
2020 Goal Achiever:

Trinity Housing Corporation of Greeley

- Achieved 20% energy savings
- 108 housing units
- An affordable housing provider in Greeley, Colorado

Richard Maxfield
2020 Goal Achiever: Trinity Housing Corporation of Greeley

Submit Questions
Zoom Chat
2020 Goal Achiever: Corcoran Management

- Achieved 23% energy savings
- 1,300 housing units
- Affordable and market rate housing throughout New England

Jonathan Owens
2020 Goal Achiever: Corcoran Management

Submit Questions
Zoom Chat

Sustainability Training
Corcoran Management Company
2020 Goal Achiever: Preservation of Affordable Housing

- Achieved 20% energy savings
- 11,000+ housing units
- Affordable housing across 11 states and Washington, D.C.

Julie Klump
How did we get here?
## Solutions

1. Utility and Other Incentive Programs
2. Pay From Savings
3. Site Resources

### Data Tracking

1. Anomalies
2. Priorities

<table>
<thead>
<tr>
<th>Rank as of 10/17/20</th>
<th>Rank as of 2/20/20</th>
<th>Property Name</th>
<th>Fossil Fuel $/Yr</th>
<th>Fossil Fuel $/Unit</th>
<th>Fossil Fuel kBTU/Yr</th>
<th>Fossil Fuel Heatit/Yr</th>
<th>Fossil Fuel Heating Combined Fossil Fuel Rate ($/mmBTU)</th>
<th>Measure Notes</th>
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</thead>
<tbody>
<tr>
<td>31</td>
<td>31</td>
<td>Renaissance Apartments</td>
<td>$15,506</td>
<td>$646</td>
<td>1,153,534</td>
<td>48,064</td>
<td>$13,981</td>
<td>Elevate Energy visited on 2/20/20 for Income Eligible MF program opportunities. Seeking supply contract from Alibreo as well. Elevate Energy revisit to be scheduled in 2020 to review opportunities. Seeking supply contract from Alibreo as well. No outdoor reset controls, atmospherically vented 12 year old Well McClain boilers. Analog t-stats should be upgraded to digital with limit setpoints. RISE visited on 2/11/20, pending offers. Seeking supply contract from Alibreo as well.</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>The Washington at Woodlawn</td>
<td>$75,753</td>
<td>$743</td>
<td>5,087,368</td>
<td>49,876</td>
<td>$14,981</td>
<td>Heatwatch boiler controls Spring 2019 along with Heat Timer controls and new variable speed pumps. Wx offer pending from LEAN for in-unit air sealing Pending Embue thermostat proposal.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Franklin Square Apartments</td>
<td>$77,936</td>
<td>$527</td>
<td>7,639,358</td>
<td>51,617</td>
<td>$10,981</td>
<td>RISE energy assessment scheduled for 2/27/20. Getting AC cover survey completed. Seeking supply contract from Alibreo as well.</td>
</tr>
<tr>
<td>32</td>
<td>31</td>
<td>Old Middletown High School Apts</td>
<td>CT</td>
<td>S8 EGE (TOT)</td>
<td>$45,897</td>
<td>$466</td>
<td>5,195,110</td>
<td>$3,011</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>Billings Forge Apartments</td>
<td>CT</td>
<td>S8 EGE (TOT)</td>
<td>$45,897</td>
<td>$466</td>
<td>5,195,110</td>
<td>$3,011</td>
</tr>
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Performance Highlights

1. How is the project performing after the rehab work has been completed?
2. Compare year-to-year utility data
3. What specific measures have lead to the savings
4. These are completed 6 to 9 months post rehab or major capital project.
WELCOME TO THE BASIS OF DESIGN

A BUILDING DESIGN RESOURCE
PRODUCTS + PERFORMANCE REQUIREMENTS
Thanks to everyone who helped us get here.
2020 Goal Achiever: Mercy Housing

- Achieved 24% energy savings
- 23,000 housing units
- A nationwide affordable housing organization

Caitlin Rood
Mercy Housing

- One of largest Affordable Housing Nonprofits in US
- Developer, owner, manager
- ~320 owned properties
- ~23,000 units
- ~21 M sf (owned)
- 22 States
- Mostly LIHTC, HUD (Section 202, Section 8), USDA RD
- 2020 BBC Goal Achiever
Key Elements

Benchmarking
- Measure progress
- Benchmarking ordinances
- When there is a scoreboard, people play differently

Staff
This only works if it is someone’s responsibility

Implementation
- Free money
- Build on success
- Large scale implementation
- Procurement
- O&M
- Construction/rehab

Partners
- Implementation
- Financing
Since 2013

>$6.3M REBATES

>$3M SAVINGS

>240 PROJECTS

30% WATER DECREASE

24% ENERGY DECREASE

>$3M SAVINGS
Caitlin Rood

National Sustainability Director
Mercy Housing
crood@mercyhousing.org
Q & A

Submit Questions

Zoom Chat
Breakout #1: Financing Energy Efficiency Projects

- Planning
- Risk
- Information
- Financing
- Split Incentives
- Workforce
Breakout Sessions

• Unmute yourself in the breakout room
• Quick round of introductions (name/organization)
• Assign a note taker
1) What are your biggest barriers to funding energy efficiency retrofit projects? (such as access to capital, cost of capital, HUD-funded program requirements, third party funding complexities)

2) What financial mechanisms have you tried? What succeeded? What failed?

3) What solutions do you suggest to overcome barriers?
Michael Freedberg
Office of Environment and Energy, HUD
Breakout #2: Energy + Health
Questions:
1) How do you supplement your energy efficient retrofit projects with healthy home upgrades?

2) What are the top three healthy home measures you have focused on in your energy retrofit projects?
   - Ventilation upgrades (e.g. indoor air quality)
   - Mold/moisture mitigation
   - Pest management
   - Reducing injuries, trips and falls
   - Well-being measures: ample outdoor spaces, physical fitness opportunities
   - Well-being measures: natural lighting
   - Healthy building materials (e.g. reducing VOCs in paints, finishes)
   - Lead mitigation
   - Radon mitigation

3) What barriers do you face in incorporating healthy housing measures into your projects?
Breakout Sessions

• Refer to the questions in the chat box
• Unmute yourself in the breakout room
• Assign a note taker
Better Buildings: Summer Webinar Series

BEHIND THE METER DISTRIBUTED ENERGY RESOURCES: BEST PRACTICES FOR INTEGRATING DERS INTO COMMERCIAL BUILDINGS
July 8

NEXT-GENERATION BUILDING PERFORMANCE POLICIES: MAXIMIZING ENERGY SAVINGS AND ENVIRONMENTAL IMPACTS
July 16

EVERYONE HAS A DATA CENTER: HOW TO BE AN ENERGY CHAMPION FOR YOURS
July 28

PROGRAM DESIGN WITH EVERYONE IN MIND: LOW-INCOME SOLAR PROGRAM STRATEGIES
July 9

STRATEGIES TO COMBINE ENERGY + HEALTH UPGRADES IN MULTIFAMILY HOUSING
July 21

SUCCEED WITH SUBMETERING: HOW TO MAKE THE BUSINESS CASE
August 4

THE DYNAMIC DUO: UNLEASH PUBLIC SECTOR ENERGY SAVINGS WITH FINANCING AND TECHNICAL ASSISTANCE
July 14

CASE IN POINT: OREGON’S RECENT EFFORTS TO REDUCE PLUG LOAD ENERGY CONSUMPTION
July 22

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