



Getting to 100%: Overcoming Barriers to Tenant Data Collection

Thursday, July 11
2:00 – 3:30pm



Speakers and Moderator

- Speaker: Caitlin Rood, Mercy Housing
- Speaker: Claire McLeish, WegoWise
- Speaker: Ilene Mason, Rethinking Power Management, LLC
- Speaker: Monica Watkins, Housing Authority of Baltimore City
- Moderator: Josh Geyer, U.S. Department of Housing & Urban Development

Caitlin Rood

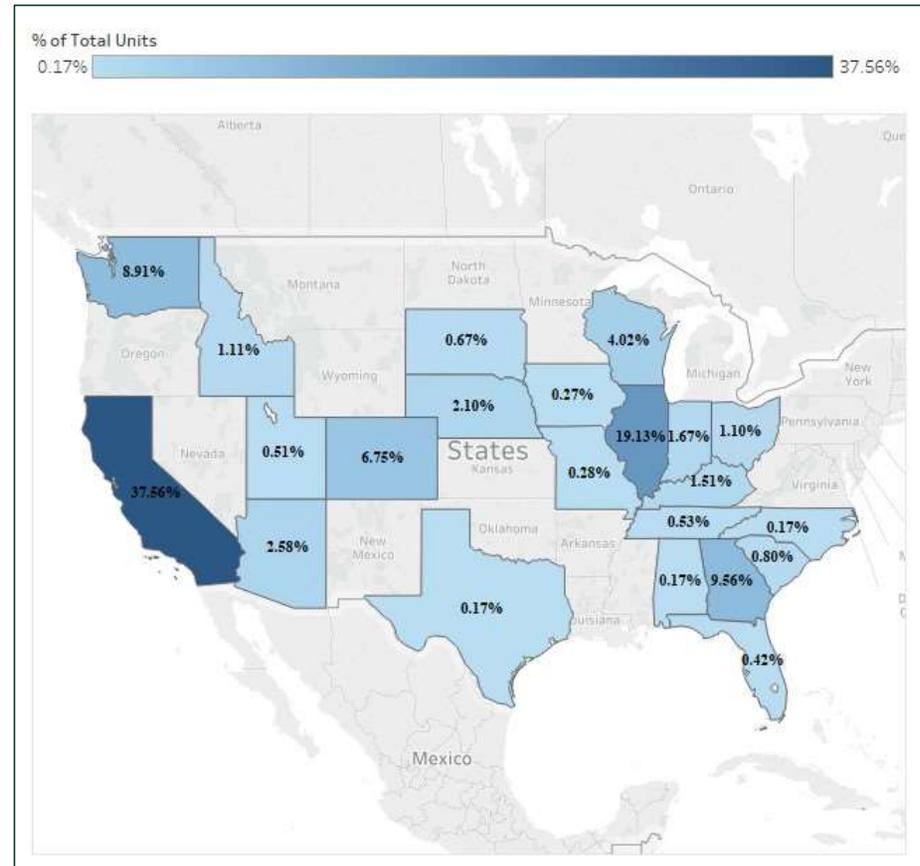
Mercy Housing



U.S. DEPARTMENT OF
ENERGY

Mercy Housing At-a-Glance

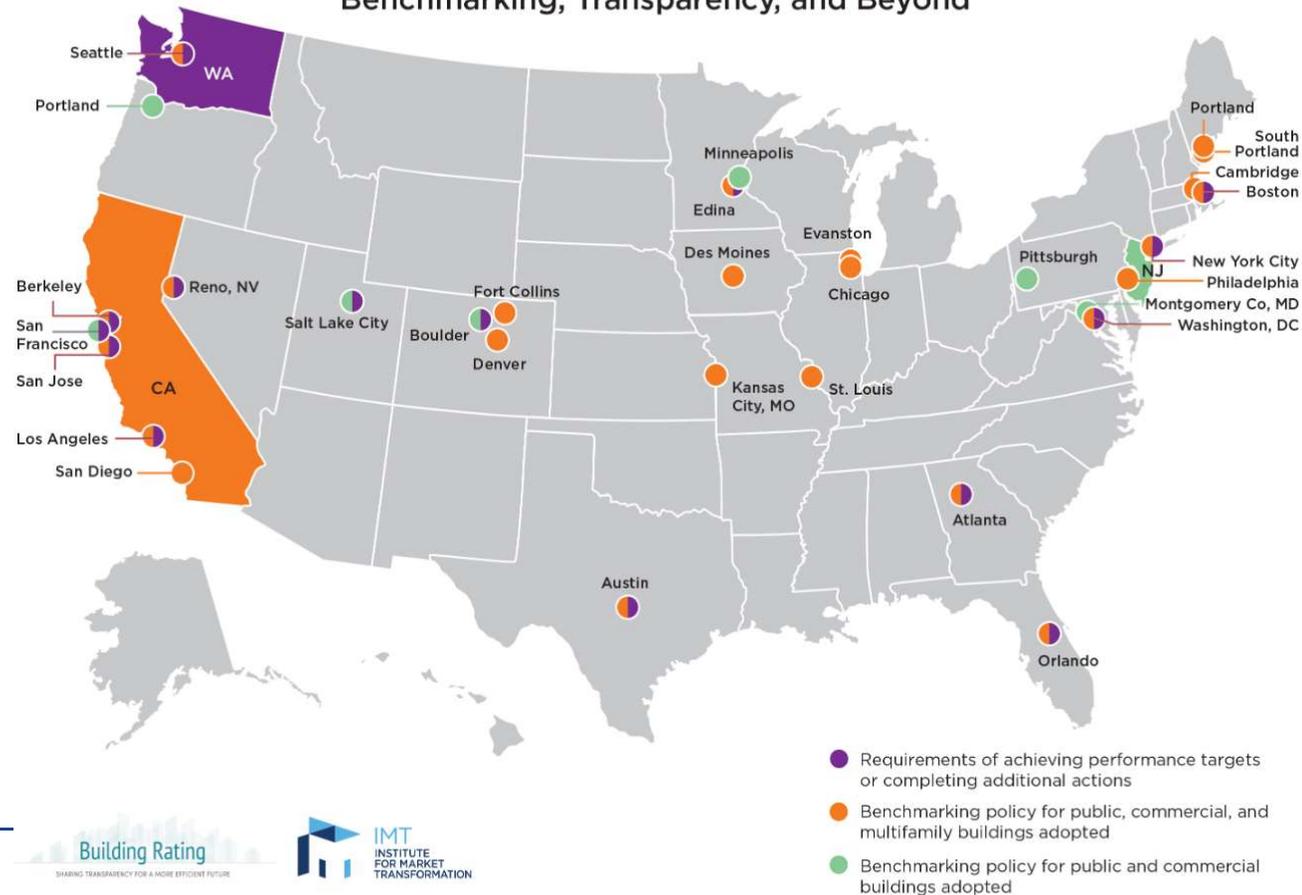
- One of largest Affordable Housing Nonprofit in US
- Developer, owner, manager
- 329 owned properties
- ~23,700 units
- ~22.4M sf (owned)
- 21 States
- Mostly LIHTC, HUD (Section 202, Section 8), USDA RD



Getting to 100% Data

- Utilities Will Come Along
- Utility Accelerator
- Letter from Julian Castro
- Benchmarking Ordinances
- Advocate to your utility
- What about the rest of the country
- Individual Tenant Waivers
 - Collecting waivers
 - Accuracy
 - Availability
 - Responsiveness
 - Waivers
 - Effort

U.S. City, County, and State Policies for Existing Buildings: Benchmarking, Transparency, and Beyond



Mercy Housing Data Collection History

Phase 1
ESPM –
ESC (2013)

Phase 2
ESPM +
Utility to
ESC (2014)

Phase 3
100%
Owner Paid
Data (2015-
2016)

Phase 4
Aggregated
Tenant
Data (2017
– 2018)

Phase 5
Direct Meter
Level Data
Collection
(2019 – 2020)

Additional Aggregated Data Search

- Reach out to utilities to request aggregated tenant energy use data
- Best Practices for Providing Whole-Building Energy Data: A Guide for Utilities



Energy Data Accelerator

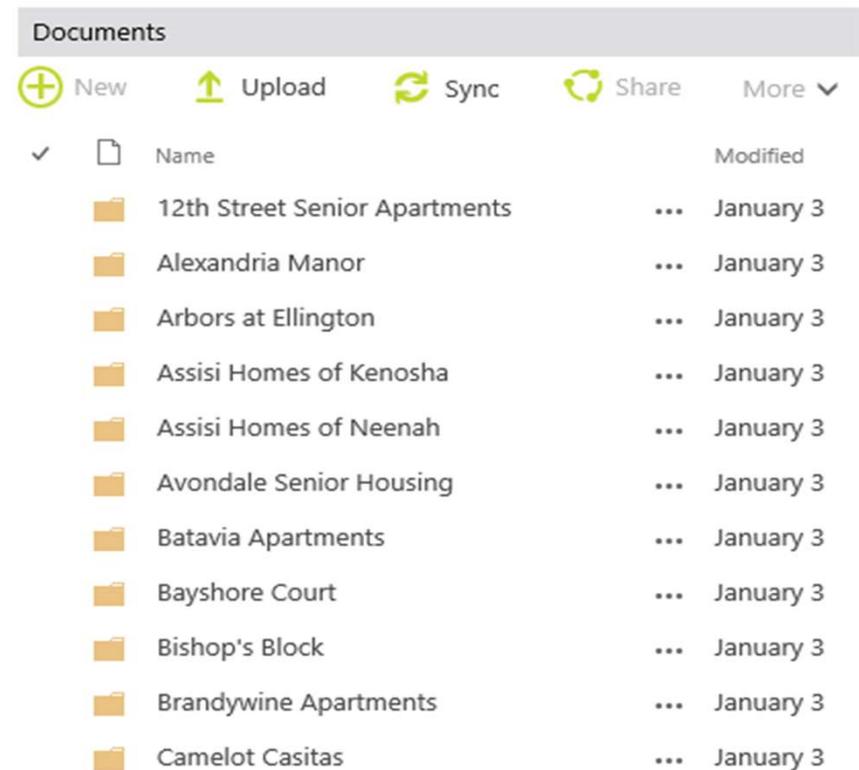
Best Practices for Providing Whole-Building Energy Data: A Guide for Utilities

JANUARY 2016



Document Management System

- System to transfer, manage, and store photos and related files
- Pictures 2-3 MB each
- Dropbox – No for data privacy reasons
- Internal SharePoint
- One folder per property
- 70 properties
- >5,000 photos total

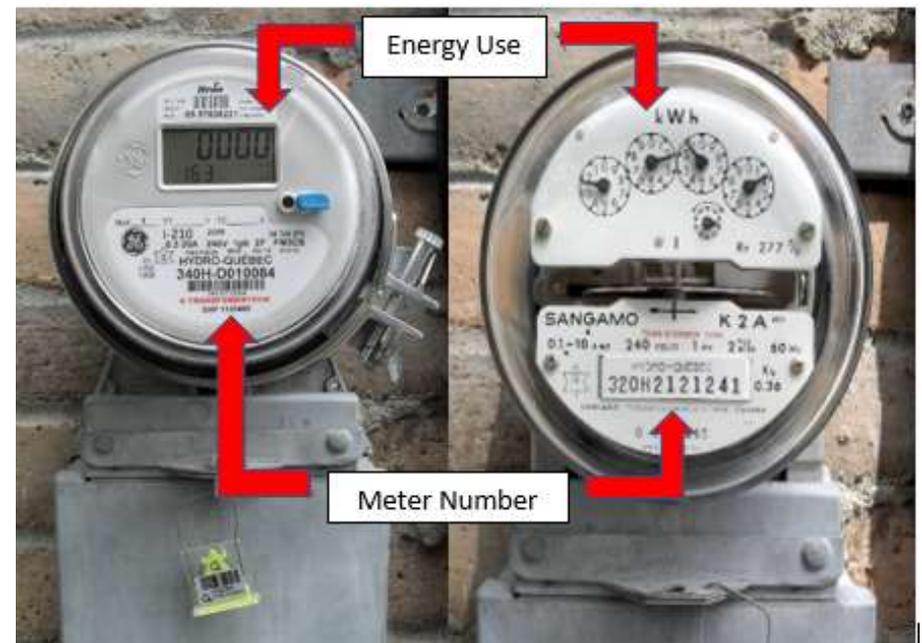


The screenshot shows a SharePoint 'Documents' library interface. At the top, there are action buttons: '+ New', 'Upload', 'Sync', 'Share', and 'More'. Below this is a table with columns for 'Name' and 'Modified'. The table lists ten folders, each with a three-dot menu icon to its right, indicating further actions are available. All folders were last modified on January 3.

Name	Modified
12th Street Senior Apartments	January 3
Alexandria Manor	January 3
Arbors at Ellington	January 3
Assisi Homes of Kenosha	January 3
Assisi Homes of Neenah	January 3
Avondale Senior Housing	January 3
Batavia Apartments	January 3
Bayshore Court	January 3
Bishop's Block	January 3
Brandywine Apartments	January 3
Camelot Casitas	January 3

Property Data Request

- Request and instructions to each property manager
- Brief, specific, clear images
- Estimated 1-2 hours per property
- Include energy use and meter number in each picture
- Upload and notify
- Point of contact for questions



Review

- Energy use / Meter number
- Photo quality
 - Cut off use or number
 - Blurry
 - Unreadable
- # of pics do not match # of units
- Good pics but wrong display screen
 - Date, time, kW, peak kWh, off-peak kWh, total kWh
 - Research utilities meters
- Back and forth with property manager

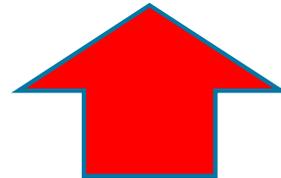


Example kilowatt-hour reading

Display identification number in this example is 3 –
kilowatt-hours. Meter reading is 00000.

Data Entry

	A	B	C	D	E	F
1	Property	Meter ID	January 2019 kWh	January 2020 kWh	2019 use	Fuel
2	Hawthorne Village	48 047 695	28694			E



Looking Ahead

- Future Challenges
 - Zeroed out meter reads
 - New tenants
 - Meter upgrades
 - Rollover
 - Meters not tied to units
- Opportunities



Looking Ahead

- Future Challenges
 - Zeroed out meter reads
 - New tenants
 - Meter upgrades
 - Rollover
 - Meters not tied to units
- Opportunities

100





Caitlin Rood

National Sustainability Director
Mercy Housing
crood@mercyhousing.org



U.S. DEPARTMENT OF
ENERGY

Claire McLeish

WegoWise



U.S. DEPARTMENT OF
ENERGY



Claire McLeish

Customer Success Manager at WegoWise by Appfolio

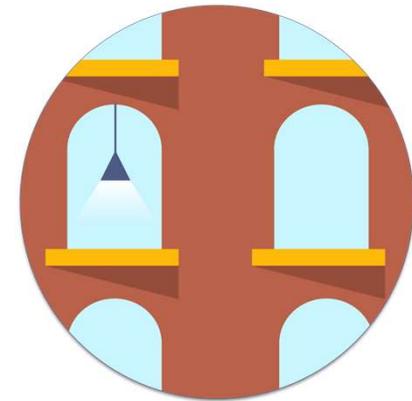


Agenda

Part 1: Beacon Communities Tenant Tracking Project

Part 2: The How-To's of Tracking Tenants

- Keep Calm and Get Organized
- Signed, Sealed, Delivered
- What to Expect When You're Expecting



Beacon Communities Tenant Tracking Project

Goal: Track 100% of tenant-paid utility data across the portfolio

Motivations:

- Utility allowance calculation
- Barriers to aggregate property data
- Commitment to portfolio-wide energy efficiency

Scope:

- Tenant consent rollout in January 2019
- 49 properties with 6,500 tenants
- 9 electric and gas utility companies
- Mixed low-income & market-rate



Beacon Communities Tenant Tracking Project

Success Rate: Signed consent from 2,958 of 6,523 units

Property-level signatory rate:

- Range: 7-91%
- Median: 45%
- Mean: 49%

45%

**Portfolio-wide
signatory rate**

Ten properties achieved a >70% signatory rate

**Ongoing monthly data collection with WegoWise and
yearly data requests**

Building A Successful Tenant Tracking Program In-House



U.S. DEPARTMENT OF
ENERGY

Keep Calm & Get Organized: Create a Great Utility Release

Screen the utility company

- Leverage the HUD Multifamily Utility Data Collection resource
- Property manager: 20 minute phone call
- Generic release form? What is process? Turnaround time? What data is available?

Make it easy

- Expect partially completed forms– list important fields first
- Ask for a release and bill copy

Explain the purpose

- Section 8: Mandatory (24 CFR 5.659 and the HUD Model Lease for Subsidized Projects)
- Bilingual cover letter



Home > Programs > Utility Benchmarking > Multifamily Utility Data Collection Database

Multifamily Utility Data Collection Database

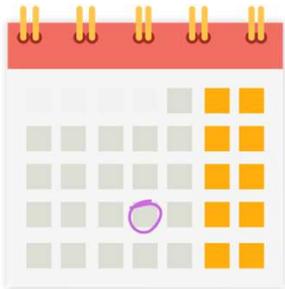
Utility benchmarking can be challenging in multifamily properties with tenant-paid utility accounts, because each utility provider requires property owners to follow a different procedure for requesting tenant-paid utility data.

To make things easier, HUD is incrementally cataloging utility providers' procedures for requesting tenant-paid utility data, whole-property data, and automatic data transfer. It contains the following information:

- **Database:** Documents the process for requesting utility data from many of the major utility providers in the United States, and the format(s) in which these utility providers share data
- **Rubric:** Shows a scoring rubric used to develop a user-friendliness score for each utility provider
- **Regional Benchmarking Mandates:** Outlines many of the local utility benchmarking laws that apply to multifamily properties

[Download the Multifamily Utility Data Collection Database \(XLSX\)](#)

Signed, Sealed, Delivered: Getting Tenants to Sign



Start Day 1

- Build the utility release into a move-in packet
- Utility service transfer in-office
- Avoid utility theft



Canvass strategically

- In-person: elderly and multilingual communities
- Build allies and educate the “rabble rouser”
- Designate 1-2 week timeframe
- Target tenants with tenancy >10 months



Expect pushback and mixed success

- 20-60% signatory rate

What to Expect When You're Expecting: Obtain Data

Obtain data online where possible

- ComEd, Eversource, Dominion Virginia, Columbia Gas, etc.

Push back on hurdles

- Send data to centralized location
- Push back on mail/physical pickup
- Send in Excel
- Be persistent

Be specific with the request

- Monthly, account-level data
- 13 months



**Request data in late January for
BBC!**



Thank You

Questions?

Claire McLeish
Customer Success Manager WegoWise by Appfolio
claire.mcleish@appfolio.com



wegowise
by **eppfolio**



U.S. DEPARTMENT OF
ENERGY

Ilene Mason

Rethinking Power Management, LLC



U.S. DEPARTMENT OF
ENERGY



Getting to 100% Data: Using the BBC Tenant Data Sampling Plan



Who We Are



Rethinking Power Management (RPM) helps clients run their facilities in a more sustainable manner, focusing on reductions in energy and water use and improved occupant comfort.



We have used the BBC Tenant Sampling Plan to report whole building use for the Schochet Companies affordable housing portfolio since 2016 (approx. 24 sites, 4100 units).

BBC Tenant Sampling Guidelines

Tenant Sampling Guidelines

An alternate pathway to meet BBC reporting requirements when whole building data is not available.

- Low sampling requirement is not a burden on property resources.
- Provides a small measure of insight into tenant usage.
- Information and assistance are readily available (*Energy Data Tracking Manual for Better Buildings Challenge Partners Appendix C*).

**FIGURE C-1:
MINIMUM SAMPLE SIZE**

TOTAL UNITS	SAMPLE (minimum)
5-9	2
10-19	3
20-29	4
30-49	5
50-74	6
75-99	7
100-149	8
150-200	9
>200	10

Tenant Sampling Guidelines

Samples must represent:

FIGURE C-2: EXAMPLE SAMPLE SIZE CALCULATION

	WHOLE PROPERTY	
Number of Units	200	
Recommended Sample Size	10	
	1-BEDROOM	2-BEDROOM
Number of Units	150	50
Proportion of Total	$\frac{150 \text{ (1 BR units)}}{200 \text{ (Total units)}} = .75$	$\frac{50 \text{ (2 BR units)}}{200 \text{ (Total units)}} = .25$
Recommended Sample Size (Rounding Up)	$10 * 0.75 \cong 8$	$10 * 0.25 \cong 3$

- All tenant paid utilities.
- All unit styles (townhouse, garden style).
- The number of bedrooms within each style.

Tenant Sampling Guidelines

FIGURE C-3: EXAMPLE OF CALCULATING UNIT AVERAGES

	1-BEDROOM	2-BEDROOM
Number of Units	150	50
# Units Sampled	18	6
Average Per Unit	Total energy use for sampled 1BR units / 18 = 102,000 kBtu/unit	Total energy use for sampled 2BR units / 6 = 156,000 kBtu/unit
Unit Type Total	102,000 $\left(\frac{\text{kBtu}}{\text{unit}}\right)$ * 150 total units = 15,300,000 kBtu	156,000 $\left(\frac{\text{kBtu}}{\text{unit}}\right)$ * 50 total units = 7,800,000 kBtu
Total Unit Energy	15,300,000 + 7,800,000 = 23,100,000 kBtu	

Note: Energy usage is tracked for the Better Buildings Challenge in Source kBtus. In the calculations above, energy usage has already been converted to source kBtus. Sampling may also be done by fuel type and converted later.

FIGURE C-4: CALCULATING WHOLE-PROPERTY ENERGY USE

	METRICS FOR EUI CALCULATION
Total Unit Energy	23,100,000 kBtu
Total Owner-Paid Utilities	13,400,000 kBtu
Total Property Energy	36,500,000 kBtu
Property Floor Area	250,000 square feet
Property Energy Use Intensity	$\frac{36,500,000 \text{ kBtu}}{250,000 \text{ square feet}} = 146 \frac{\text{kBtu}}{\text{square foot}}$

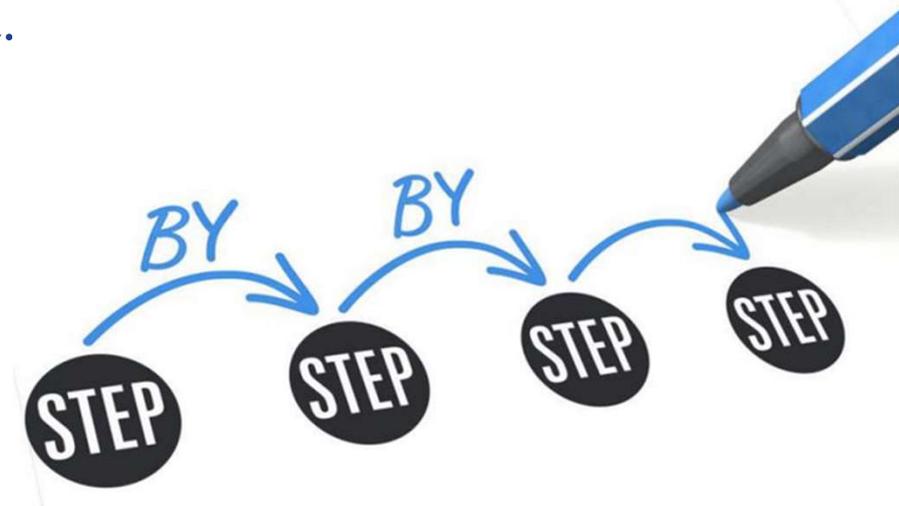
Sample tenant data is:

- Averaged for each unit type is extrapolated for the site.
- Type averages summed and combined with owner-paid usage to get “whole” building data.

Process and Helpful Tips

Process

1. Select tenants based on the BBC Guidelines.
2. Solicit tenant authorization forms.
3. Request and confirm utility data.
4. Compile and upload data.



Process Tips

Step 1

Select tenants (if existing)

- Tenant occupancy profiles vary
- Select at least double the required sample size
- Seek property manager input

Step 2

Solicit tenant authorization forms

- Require valid account number
- If possible, arrange signing 2-3 days before move-in
- Provide language translations and/or interpreter

Process Tips

Step 3

Request and confirm utility data

- Process can vary from a couple of days to a couple of months
- Establish a relationship with the appropriate utility contact
- Persistence is key
- Quality check the data received

Step 4

Compile and upload data

- Excel spreadsheets work well for compiling data
- Create Portfolio Manager meters to facilitate future error checking and other data uses

Potential Uses of Sample Data



- High-level check against industry benchmarks
- Value of expanding sample size or pursuing 100% tenant data
- Use caution when making assumptions
 - Small sample size
 - We found significant variation between extrapolated sample and whole building data

THANK YOU

Ilene Mason
Rethinking Power Management, LLC
imason@rpmpowerllc.com
508-259-5030



U.S. DEPARTMENT OF
ENERGY

Monica Watkins

Housing Authority of Baltimore City



U.S. DEPARTMENT OF
ENERGY



Getting to 100%: Overcoming Barriers to Tenant Data Collection

Presentation by: Monica Watkins



Housing Authority of Baltimore City-Who We Are

- Established in 1937 to provide federally-funded public housing programs and related services for Baltimore's low-income residents
- HABC is in the top 10 largest housing authorities in the country
- Over **700** employees
- Annual operating budget~**\$340** MM



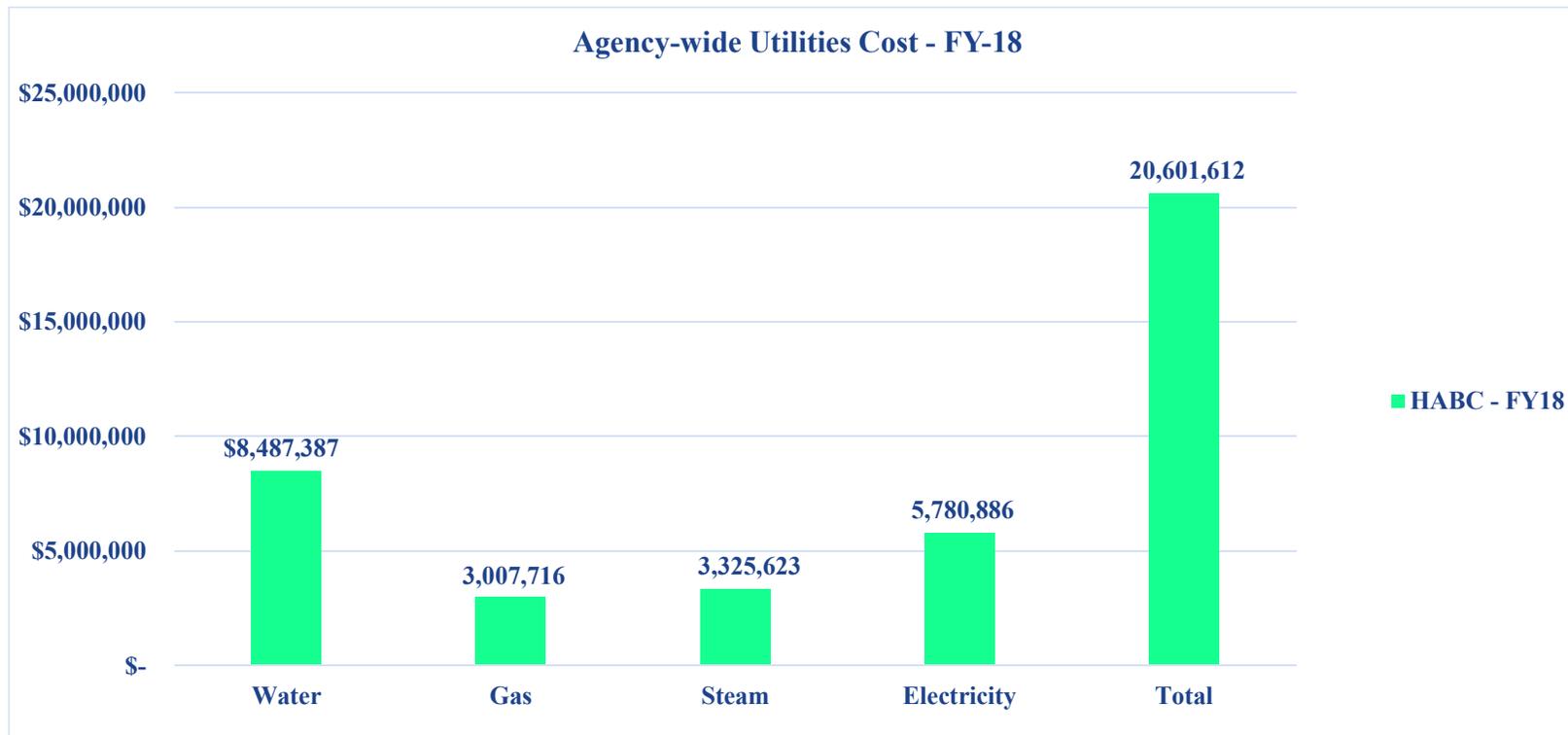
Housing Authority of Baltimore City-Who We Serve

HABC-Who We Are

- 7,631 Public Housing Units
- 1 Mixed Population Buildings
- 12 Family Developments
- Over 1201 Scattered Sites
- 13,213 Section 8 Units
- Wait list for housing: 40,000



Housing Authority of Baltimore City-What We Spend



HABC-Eye on Energy Program



HABC has implemented energy conservation measures and practices to accomplish the following:

- Reduce energy consumption
- Reduce energy & utility costs (approximately **\$3 million per year** from baseline in 2010)
- Help residents live in comfortable and energy efficient units



Housing Authority of Baltimore City Eye on Energy Program



Focus on Utility & Energy Conservation

The screenshot displays the EnergyCAP Enterprise software interface. On the left, a 'Facility Manager' tree shows a hierarchy of facilities, including 'POE HOMES (004503)' and its sub-facilities like '1027 AISQUITH ST (UNK)' and '202 N Fremont Ave Apt 01 - Wat'. The main window shows 'Device Properties' for a meter with code 'FM100040007_RE' and location '202 N Fremont Ave Apt 07- Electr'. Below this, a 'Fiscal Year Summary' section contains three charts: 'Total Cost & Use Summary', 'Unit Cost Summary', and 'Equivalent YTD (Per Day)'. The 'Total Cost & Use Summary' chart shows two bars for 2009: a green bar for Cost (approx. 180) and a red bar for Use (approx. 1800). The 'Unit Cost Summary' chart shows a single red bar for 2009 with a value of 0.095. The 'Equivalent YTD (Per Day)' chart shows two bars for 2009: a green bar for Cost (approx. 0.7) and a red bar for Use (approx. 7). The bottom of the screen shows a Windows taskbar with the start button and several open applications, including EnergyCAP, Windows Explorer, and Microsoft Word. The system clock shows 12:57 PM.

Housing Authority of Baltimore City Eye on Energy Program



kWh Per Unit Westport Homes

One Bed Room

182 kWh per month

Two Bed Rooms

236 kWh per month

Three Bed Rooms

295 kWh per month

What's **Included**: Utility Allowance Major Electric Appliances

List of Major Appliances **Included** in Utility Allowances

Interior Lighting	Incidental Exterior Lighting
Combination Refrigerator with Freezer	Electric Range/Oven
Domestic Water heater	Furnace Fan
Television	Computer
Space Heating Systems (permanently installed systems such as heat Pumps, baseboard heat and electric furnaces)	Miscellaneous small appliances (stereo, radio, clock, cell phone charger, kitchen appliances, bathroom appliances, toys, games electric tools, portable fans, coffee makers, etc.)

24 CFR 965.505 (a) HUD Mandated Requirement for Developing Utility Allowances:
Allowances must be consistent with an "energy-conservative household of modest means"

What's **Not** Included: Utility Allowance Major Electric Appliances

List of Major Appliances **NOT** Included in Utility Allowances

Extra Freezer	Dishwater
Clothes Dryer	Clothes Washer
Swimming Pool/Hot Tub/Jacuzzi Heater	Waterbed Heaters
Aquarium Heaters	Fax Machine
Space cooling (i.e. Air conditioning) - Central Systems	Space Cooling (i.e. Air conditioning) - window units
Portable Space Heaters	Well Pump
Dehumidifier	

24 CFR 965.505 (b) HUD Mandated Requirement for Developing Utility Allowances:
 (b) Allowances for both PHA-furnished and resident-purchased utilities shall be designed to include such reasonable consumption for major equipment or for utility functions furnished by the PHA for all residents (e.g., heating furnace, hot water heater), for essential equipment whether or not furnished by the PHA (e.g., range and refrigerator), and for minor items of equipment (such as toasters and radios) furnished by residents.

Housing Authority of Baltimore City Eye on Energy Program



Comparing Use By Room Size & Behavior

Ref. #	Tenant ID	Address	BR #	Allotment	Use Nov- 2018
3	FM100	XXX4 ANNOR CT	1	182	130
4	FM100	XXX2 WILGREY CT	1	182	131
23	FM100	XXX3 ANNOR CT	1	182	374
24	FM100	XXX0 WILGREY CT	1	182	508
6	FM100	XXX9 MAISEL CT	2	236	97
7	FM100	XXX9 WILGREY CT	2	236	108
124	FM100	XXX7 MAISEL CT	2	236	711
125	FM100	XXX2 MAISEL CT	2	236	954
4	FM100	XXX6 WILGREY CT	3	295	123
5	FM100	XXX1 DUMFRIES C	3	295	175
50	FM100	XXX8 MAISEL CT	3	295	837
51	FM100	XXX7 KERMIT CT	3	295	847
Total					62,311

Housing Authority of Baltimore City Eye on Energy Program



Residents can access their own data online and via kiosk

Resident Energy Management & Education: Tools

Office of Resident Services



The mission of Baltimore Housing's Office of Resident Services is to enhance the quality of life for public housing and Housing Choice Voucher Program residents of Baltimore City. To accomplish its goals, the Office of Resident Services coordinates and implements a vast array of programs and services to include: job search assistance and placement, social and health services, literacy education, job training, youth activities and assistance to resident organizations.

Relevant Links

[Review Your Utility Consumption](#)

Interested in the Special Mobility Housing Choice Voucher Program?

The [SMBVP](#) is a program assists current residents and others to find affordable rental housing in non-impacted areas of Baltimore City and surrounding counties.

[skip navigation links](#) | [Accessibility](#)

Looking for something? We can help:

Search by keyword

• [Home](#)

• [Resident Services](#)

[Email our office.](#)

Housing Authority of Baltimore City Eye on Energy Program



Residents can access their own data online and via kiosk

BALTIMORE HOUSING RESIDENT WEB INTERFACE

Welcome to the Housing Authority of Baltimore City Resident Web Interface.
This site is for use by the residents of HABC properties. Please enter your Area / Project / Unit / Tenant ID and your Date Of Birth and click the 'Log In' button to view your utility usage details.


Date Of Birth (MM-DD-YYYY)

Note: Your Area / Project / Unit / Tenant ID is located on your bill. A sample image of the bill with this information is shown below.

 **HOUSING AUTHORITY OF BALTIMORE CITY**
417 E. Fayette Street P.O. BOX 1917
Baltimore, MD 21202-3431

OTHER	RENT	TOTAL DUE
	104.00	104.00

AREA / PROJECT / UNIT / TENANT IDENTIFICATION
F01 0001 0002 01

Housing Authority Of Baltimore City © 2009

Housing Authority of Baltimore City Eye on Energy Program



RESIDENT WEB INTERFACE

RESIDENT ALLOTMENT AND USAGE DETAILS

Resident : HANA Larsah A
Address : 208 N FREMONT AV APT 07
Unit : 0033
Project No / Name : 0004 / POE HOMES
Area : FM1
Moved In Date : 02 Nov 2009

This page shows your monthly allotments for Electricity, Water and Gas. Usage details for the last completed month are shown below.

The current consumption is computed based on prorated calculation. The allotment value will most likely not match identically with your property agreement due to the multiple month span.

Use the (Previous - Next) buttons to navigate to details for other months.

◀ Previous

March 2010

ALLOTMENT AND USAGE FOR THE MONTH OF MARCH 2010

There is no bill in the system under your account for the selected month.

The Last Bill available in the system for your account is for the month of January 2010

UTILITY	ALLOTMENT	USAGE	CURRENT USAGE (SMART METERS ONLY)		
ELECTRICITY	N/A	N/A	Feb 10 - Mar 10	<div style="background-color: red; width: 100px; height: 15px;"></div>	88 of 0 KWH allotment used.
WATER	N/A	N/A	N/A	<input type="text"/>	N/A
GAS	N/A	N/A	N/A	<input type="text"/>	N/A

Log Out

Housing Authority of Baltimore City Eye on Energy Program



Action	Description
Utility Bill and consumption history review with residents	Monthly review of excessive consumption
Monthly phone calls to residents	Energy Office Team member attempts to contact the residents whose energy usage exceeds the utility allowance by \$40 and over per month
Energy and Utility Usage Surveys	Residents are contacted by Energy team for survey of utility usage
Community meetings	Ongoing Residents Community Meetings, presentations and demonstrations are periodically provided
Energy Mailings	Energy conservation tips and billing letters and notices are mailed to the residents' homes
Energy Email	Energy_hotline@habc.org
Energy Hotline	410-396-1128



Electricity Pre-Billing Notification

Sample Pre-Billing Notice

 **American Collection & Billing Solutions**
PO Box 51280
Colorado Springs, CO 80919

Ph: 877-410-0167 Ext. 2

 **HOUSING
AUTHORITY OF
BALTIMORE CITY**
417 E. Jovette Street, Suite 433
Baltimore, MD 21205
Ph: 410-396-1128

Cherry Hill Homes (HABC)
Monthly Utility Usage Statement - Electricity Pre-Billing Notification

Name: *Address*
Baltimore MD 21225-1326

NOTE: Any balances owed to HABC as of May 31, 2017 are not included in your current charges and are still due to the HABC.

Dear Resident:

Your electricity usage for the period identified below is provided as follows for: *Address*

Account Number:	10401X 003
Unit ID:	7M10011-000X
Billing Period:	09/30/2018 - 10/31/2018
Next Reading:	11/30/2018
Beginning Read:	77675
End Read:	78404
Usage:	749 kWh
Electric Utility Rate:	\$0.105 per kWh
Allowance:	\$37 kWh
Excess Usage:	422 kWh
Amount to be Billed:	\$44.31

*** IMPORTANT NOTICE ABOUT EXCESS USAGE CHARGES***

This is a statement of your electricity usage for the billing period shown above. You will receive a statement even if you may not have used more than your monthly allowance for electricity. Review this statement to see if you used more than your monthly allowance, which will be shown above as "Excess Usage". If you have any Excess Usage, the Housing Authority of Baltimore City ("HABC") will add the cost, which is the "Amount to be Billed" shown above to your amount. The Excess Use charge will not be billed to you until the following month and payment will not be due until 30 days after it is billed to you.

This statement also provides notice that you have the right to file a grievance of any proposed charge for Excess Usage, shown above as "Amount to be Billed" within ten (10) working days from the date you receive this notice in accordance with the HABC Resident Grievance Policy and Appeals Procedure (the "Grievance Policy"). A copy of the Grievance Policy is available at the management office of your development. To file a grievance please contact your Asset Manager.

You have the right to request a reasonable accommodation for an increase in your utility allowance based on a disability or medical condition that requires you or a member of your household to use medical or other equipment to address the disability. To make a request for a reasonable accommodation, please contact your manager.

For more information concerning this utility statement, please contact HABC Energy and Environmental Programs Division (EEP) at 410-396-1128 or energy_hotline@habc.org

Thank You



Thank You

Provide feedback on this session
in the Summit App!

Download the app to your mobile device or go to
event.crowdcompass.com/bbsummit19

