Get On Board: Engaging Tenants, Franchisees, and Clients in Energy Efficiency

Thursday, July 11th
2:00 – 3:30 PM
Speakers

Pete Zadoretzky, Bozzuto Management Company

John Sasser, Sabey Data Centers

Douglas Rath, Marriott International
Engaging all in Sustainability Managed & Franchise

Better Building Summit July 2019
Today, business plays an increasingly critical role in taking on our world’s most pressing social, environmental and economic issues. With our size and scale, we have a global responsibility and a unique opportunity to be a force for good. Guided by our 2025 Sustainability and Social Impact Goals, as well as the United Nations Sustainable Development Goals, we commit to creating positive and sustainable impact wherever we do business.
Globally Accessible Platform

Managed & Franchise Engagement
Globally Accessible Platform

Provides complete story and details supporting all coordinates of SERVE 360 Strategy.

Outlines and delivers
- Rationale
- Goals
- Strategies
- Resources
- Training
Managed & Franchise Engagement

Globally Accessible Platform

Globally Accessible Dashboard
Globally Accessible Dashboard

Data Capture
- Manual entry
- Invoice upload
- Feeds for other platforms

Reporting
- Intensity Metrics
- Progress against annual goals
- Year over Year Metrics by source
- Portfolio scatter graphs

Sustainability Survey

Links to Platform training
Managed & Franchise Engagement

Globally Accessible Platform

Globally Accessible Dashboard

Portfolio Push Reporting
Portfolio Push Reporting

Targeted portfolio roll up reports transmitted
• C-Suite one page
• Technical consultant granularity
• Emailed on monthly frequency
• Comp set analysis
• Portfolio outlier analysis
• YOY cost & use trends
Managed & Franchise Engagement

Globally Accessible Platform

Globally Accessible Dashboard

Portfolio Push Reporting

Performance Based Design Standards
Performance Based Design Standards

Replace typical approved brands of equipment with post install performance criteria

Examples
- Chiller plant must produce one ton of cooling for 0.65kW
- All new buildings must have heat recovery makeup
Managed & Franchise Engagement

Globally Accessible Platform

Globally Accessible Dashboard

Portfolio Push Reporting

Performance Based Design Standards

Thank you and best of luck with your efforts
Pete Zadoretzky

Vice President, Sustainability
Bozzuto Management Company
Get On Board: Engaging Multifamily Residents on Energy Efficiency

07.11.2019
BOZZUTO AT A GLANCE

264 COMMUNITIES | 77,000 UNITS | 2.3M SF RETAIL

**MIDWEST**
Chicago, Milwaukee
19 communities | 7,200 units | 111,153 SF retail

**NEW ENGLAND**
Boston Metro
25 communities | 7,000 units | 85,800 SF retail
**Pipeline:** 9 communities | 3,345 units

**TRI-STATE**
NJ, NY, CT
53 communities | 15,600 units | 517,600 SF retail
**Pipeline:** 10 communities | 2,976 units

**NEW ENGLAND**
Boston Metro
25 communities | 7,000 units | 85,800 SF retail
**Pipeline:** 9 communities | 3,345 units

**TRI-STATE**
NJ, NY, CT
53 communities | 15,600 units | 517,600 SF retail
**Pipeline:** 10 communities | 2,976 units

**PENNSYLVANIA**
13 communities | 3,900 units | 1,290,800 SF retail
**Pipeline:** 6 communities | 1,869 units

**MID-ATLANTIC**
VA, DC, MD
157 communities | 44,500 units | 1,290,800 SF retail
**Pipeline:** 34 communities | 9,571 units

**SOUTHEAST**
South Florida
8 communities | 2,600 units | 29,100 SF retail
**Pipeline:** 4 communities | 1,280 units

**THIRD-PARTY OWNED**
85%

**MIXED-USE**
77%

**Pipeline:**

**2,300+ ON-SITE EMPLOYEES**

**CEO ACTION FOR DIVERSITY & INCLUSION**

**5X**
#1 Property Management Company for Online Reputation
ORA Power Rankings, J Turner Research

**3X**
Property Management Company of the Year

**4X**
Property Management Company of the Year

**264 COMMUNITIES | 77,000 UNITS | 2.3M SF RETAIL**
WE CREATE SANCTUARY
Sustainability & the Multifamily Market:

- **Residents:**
  - Individually metered
  - Paying $$$

- **Issues/Concerns:**
  - What does it cost?
  - I’m going to live my life how I want
  - Split-incentive

- **For many, sustainability no more:**
  - LEED-Certified communities
  - ENERGY STAR appliances
  - Electric Vehicle Charging Stations
  - Car & Bike share stations
  - Partnerships with Goodwill, CSAs, etc.

- **More recently:**
  - Growth of portfolio sustainability metrics & utility reporting
  - Jurisdictional requirements
  - Financing
  - **Competitive Advantage**

- **Resident energy usage accounts for between 70-90% (depending on building type) of building's energy output!**
Sustainability & the Multifamily Market:

• 9 out of 10 consumers expect companies to **do more than make a profit**

• 4 in 5 consumers are willing to **consume or purchase fewer products** to preserve natural resources

• 80% would **tell friends and family** about a company’s corporate social responsibility efforts

• 64% only pay attention to company CSR efforts if an organization is going **above and beyond** what others are doing*

• Bozzuto – “Engaged Explorer”

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*2015 Cone Communications/Ebiquity Global Corporate Social Responsibility Study
NAA / Shelton Group Study:

38%

...of apartment residents feel strongly to very strongly that they are personally responsible to change their daily habits and purchase decisions to positively impact the environment.

Only 6% felt no responsibility.

68%

... were somewhat to extremely interested in receiving info about how to make their apartment more efficient.
Sustainability & the Multifamily Market:

• 70-90+% of square footage found in residential footprint
  • Garden style – majority residential SF
  • Mid/Hi-rise – significantly more common area + back of house (typ.)

• ENORMOUS OPPORTUNITY!
Strategies – Tours & Move In:

Model Apartments (if applicable) 1BR and 1BR Direct Access Home:

a. Thanks to modern water and energy saving appliances installed in our apartments, we've been able to reduce our water consumption by 29% and our energy consumption by 20% compared to similar buildings. Consider demonstrating that lights/water fixtures have the same quality of light/stream of water despite their higher efficiency and refer to these as “high-performance” features.

b. Each floor has a garbage and recycling room to make it convenient to dispose of garbage. To simplify the recycling process, we have single-stream recycling so that tenants can keep all your recyclables in one container and take it down to the recycling chute without having to pre-sort it. We collect paper, cardboard, glass, plastic, and metal.

c. For comfort and convenience, each apartment will have its own thermostat to allow you complete control over.

d. You’ll notice that our nice view of the city that this makes our rooms more comfortable and importantly helps reduce the need for overhead lighting use during the day.

Tour Route

08 Roof Space
   If you continue on to the outdoor area you will see 2 additional oversized grill stations, a rooftop pool overlooking the National's stadium and the Anacostia river. If you walk towards the North side of the rooftop you will find our Rooftop dog park for our Insignia on M furry friends.

09 One Bedroom Model
   (As exiting the elevators, note the trash rooms located adjacent to elevator vestibule) Each floor has two garbage and recycling rooms to make it convenient to dispose of garbage. To simplify the recycling process at Insignia on M, we have single-stream recycling, so you can keep all your recyclables in one container without having to sort it out. We collect paper, cardboard, glass, plastic, and metal. Just down the hall here we will view apartment home 308, our 748 square foot one-bedroom model home. In this home you will find sleek stainless steel appliances, including our ENERGY STAR Certified refrigerators & ovens. Did you know that energy efficient appliances and LED lighting help to reduce your monthly utility expenses? White cabinetry and grey granite countertops are standard in all apartment homes we will view throughout the rest of the tour. You will also notice a plethora of kitchen cabinet storage along with 2 additional storage closets. Off the bedroom you will find your European style washer dryer tucked away from the walk in customizable closet to large soaking tubs, the low flow water fixtures can also help to reduce monthly water bills. You’ll love that our apartment homes have a lot of windows, and many floor to ceiling windows too! We designed this way to give tenants not only a beautiful view but also to allow plenty of sunlight into our living spaces. We find that this makes our rooms more comfortable and importantly helps reduce the need for overhead lighting use during the day.

10 Bike Room
   We have two climate controlled & secure bike rooms at Insignia on M. Having on site bike storage is not only safe and convenient but also is here to encourage the use of alternative modes of transportation. Did you know that Washington, DC has been ranked one of the most bikeable cities in the US? If you do not own your own bicycle, there are a number of bike sharing companies, like Capital Bikeshare, that offer convenient locations to pick up and drop off affordable bike rentals. Capital Bikeshare, is an affordable bike sharing company requires you to pick up and drop off bikes at designated stations throughout the city. There are several Capital Bikeshare stations located throughout the Capital Riverfront Neighborhood, and one just steps from our lobby doors!
Strategies – On-bill Messaging:

WHAT CAN YOU DO?

VAMPIRE ELECTRONICS

Save Money. Energy. And Other

Message Center
Strategies – On-bill Messaging:

### Analyze Consumption
- **Water**
- **Electric**
- **Thermal Energy**

### Control Usage
- **Control Your Thermostat**

### Energy Snapshot
**Your Consumption**

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<tr>
<th>Date</th>
<th>Day</th>
<th>Water</th>
<th>Therms</th>
<th>Cost</th>
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<td>11/02/2015</td>
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*Costs presented are estimated based on your water and hot water rates and daily readout usage each day of the month to date.*

**Energy Snapshot**

- **WATER:** 229 gallons - 87% below average
- **HOT WATER:** 0.20 therms - 94% below average
- **HEATING ENERGY:** 0 therms - 100% below average
- **ELECTRIC:** COMING SOON

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**Green Tips**

If your dishwasher has an air-dry setting, choose it instead of heat drying. You'll cut your dishwasher's energy use 15% to 50%. If there's no air-dry setting, turn the dishwasher off after its final rinse and open the door. The dishes will dry slowly, but without using any extra electricity.

Avoid flushing the toilet unnecessarily. Dispose of tissues, insects and other such waste in the trash rather than in the toilet.

There is a common misconception that screen savers reduce energy use by monitors; they do not. Automatic switching to sleep mode or manually turning monitors off is always the better energy-saving strategy.
Strategies – Earth Month:

• Crowd-sourced sustainability event
• Challenge our property teams AND our residents – what do YOU do?
Strategies – Earth Month:

The Batch Yard
@TheBatchYard
#bethegreen buff.ly/1zp4HbS

50 Cost-Efficient Ways To Make Your Home More Eco-Friendly
Let’s face it: Reducing your home’s negative impact on the planet will likely require a huge amount of work. But solar panels and temperature-regulating walls aren’t t... buffingtonpost.com

Gaslight Commons Apt
@GaslightCommons

We are excited to be taking part of River Day 2015 in @SOVillageCenter. Join Team Bozzuto on Sunday! #BeTheGreen

RIVER DAY
MAY 3rd, 2015  11am-4pm

Come to the River!
South Orange River Day is an annual community gathering to clean up the South Orange section of the Rahway River. Celebrate South Orange as a great place to live, and promote environmental awareness.

This year’s event will include:
- Waterway River Clean Up
- LocalMusic
- Food
- Refillable Water Bottle and Drink Exchange
- Prizes! And much more

It will take place from 11am – 4pm on Sunday May 3rd, 2015 at the State House on the south side of Main St. 35, Hollywood Rd and Netherfield Ave. For more information and schedule go to www.southorange.org or on our Facebook page at www.facebook.com/SouthOrange
Strategies – Building Competitions:

BOZZUTO “Remix”
**Strategies – Building Competitions:**

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<th>Resident Name</th>
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<th>kWh Oct.-Nov. (Final Month)</th>
<th>% Reduction (Do not edit)</th>
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**Know How to Read Your New Energy Bill**

1. Summary of charges: A summary of all charges is listed at the top of the bill. This includes the current period’s charges, any taxes, and the total amount due.
2. Previous period charges: The charges from the previous period are listed, along with the new rate and any changes.
3. Charges: A breakdown of all charges is provided, including electricity, gas, and any additional fees.
4. Taxes: The taxes charged are listed, along with their respective amounts.
5. Total: The total amount due is calculated by adding up all charges, taxes, and any other applicable fees.
6. Payment options: Information on how to pay the bill is provided, including online payment options.
7. Due date: The payment due date is listed, along with any late payment fees.
8. Contact information: A contact number and email address are provided in case of any issues or questions.
9. Delivery charges: If applicable, delivery charges are listed, along with any information on how to track your package.
10. Electric summary: A summary of your electricity usage is provided, including peak and off-peak usage.
11. Gas summary: A summary of your gas usage is provided, including peak and off-peak usage.
12. Additional information: Any additional information or notes are listed, such as changes to your account or service.

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**Pepco**

*Image of a Smart Bulb and Instructions Manual*
Strategies – Building Competitions:

We’re competing!

Follow these tips to save energy & water (and money) in your apartment and help us to become one of the country’s most efficient apartment communities.

What We’re Doing
To Save Water & Energy

Did you know?

- Americans waste 11 billion gallons of water each day.
- Water is the lifeblood of our environment.

Limit the Water Use
- Fix leaks and drips.
- Take shorter showers.
- Consider using a low-flow showerhead.

Learn more at www.water.org/ourwork

Spotting Water Waste

Did you know?

- Americans waste 11 billion gallons of water each day.
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Limit the Water Use
- Fix leaks and drips.
- Take shorter showers.
- Consider using a low-flow showerhead.

Learn more at www.water.org/ourwork
Strategies – Building Competitions:
Strategies – IoT & Smart Apartments/Buildings:
Opportunity – Changing the Dialogue: “Total Cost of Occupancy”

Your Total Cost of Occupancy

When searching for an apartment, the monthly rental cost is likely your number one priority. However, utilities can represent a significant monthly expense (often 10-15% of your rent). To really understand the cost of living in an apartment versus another, it is important to consider not just the monthly cost of rent, but also the monthly cost of utilities.

Interpreting Your Utility Bills

The efficiency of appliances and products in your apartment such as lighting, heating, air conditioners, refrigerators, and water heaters determine your monthly utility bill. Likewise, the flux and flush rates of plumbing equipment like your toilet and shower can impact your monthly water bill.

How the Numbers Add Up

Let’s compare two apartments. Apartment A contains conventional appliances and products while Apartment B contains ENERGY STAR® certified appliances and products. Assuming rental costs and your daily patterns are identical, renting Apartment B can save you up to $675 a year or over $55 a month.

Ask About ENERGY STAR® During Your Apartment Search

1. What are my estimated monthly utility bills?
2. Does my apartment have ENERGY STAR® Certified Appliances & Products?
3. Is this apartment building ENERGY STAR® Certified?

Source: U.S. Environmental Protection Agency (EPA), American Council for an Energy-Efficient Economy
Additional Benefits:

• Vacant Unit Management
• Reduce Property Damage & Maintenance/CapEx
• Rent Premiums
• Increased asset value
• Connection to health + wellness
John Sasser

Senior Vice President, Operations
Sabey Data Centers
Engaging Tenants in Energy Efficiency

Better Buildings Summit
Thursday, July 11th, 2019
Sabey Data Centers – Who We Are

**Intergate.Seattle**
1.2 Million SF

**Intergate.Columbia**
408,000 SF

**Intergate.Quincy**
438,000 SF

**Intergate.Ashburn**
900,000 SF

**Intergate.Manhattan**
1.1 Million SF
Colocation Business Model

- Service provider leases data center facility capacity (space, power, cooling)
- Customer owns IT equipment
- Wholesale – service provider passes through electricity costs
Efficiency Comparisons

- Latest Uptime Institute Survey – Average industry PUE = 1.67

- Sabey:
  - Most efficient data center average annual = 1.13
  - Portfolio weighted average annual = 1.22

- Sabey practices
  - Hot aisle containment required
  - Some form of economizer
  - Variable speed fans; fan speed controlled based on differential pressure
  - On slab (no raised floor)
  - High efficiency UPS
Green Lease Leaders Program

- Great practices – especially for aligning efficiency incentives and procuring renewable energy
- Guidelines and other resources available for both Landlords and Tenants
Service Provider and Customer Responsibilities

- Service Provider operates and maintains:
  - HVAC system
  - Core electrical system
  - Controls
- Customer responsible for
  - IT equipment
  - Hot aisle containment
  - Blanking plates
  - Network switches – supplemental ducting
  - Cable management
- Customer may hire service provider for some of these elements
Indirect Economizer Cooling
Controls

- **Differential pressure control**
- Better airflow management enables more efficient control strategies
  - Lowering fan energy use
  - Increasing use of economizer
  - Increasing efficiency of chiller plant (if applicable)
Hot Aisle Containment
Blanking Panels

• Prevent bypass air between servers
• Blanking also needed on sides and bottoms of cabinets
• Contract requires customers to use them
• In practice, requires work to ensure that people do use them
Switch Airflow Management

- Vertiv Geist Switchair – example of a commercially available solution for managing airflow

- Even better – order switches with correct front to back airflow
Poorly dressed cables may partially block airflow from server fans, reducing their effectiveness.
Questions?

Better Buildings Summit
Thursday, July 11th, 2019

SABEY
Data Centers
Thank You

Pete Zadoretzky, Bozzuto Management Company
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Cindy Zhu, DOE (Moderator)
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Thank You

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