



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

Thursday, July 11th
2:00 – 3:30 PM



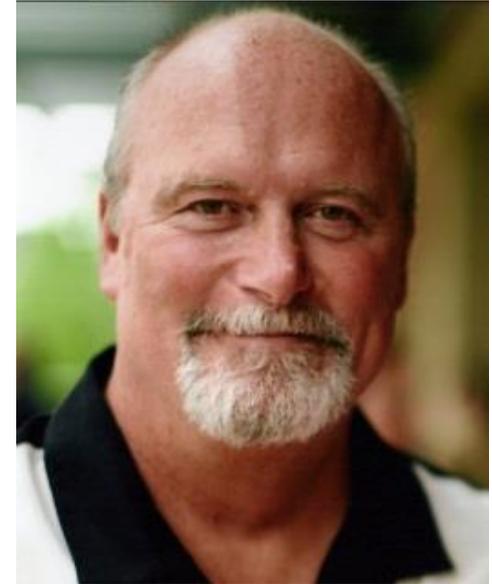
Speakers



Pete Zadoretzky,
Bozzuto
Management
Company



John Sasser,
Sabey Data
Centers



Douglas Rath,
Marriott
International

Douglas Rath

Senior Director, Americas Energy & Environment Group
Marriott International

Engaging all in Sustainability Managed & Franchise

Better Building Summit July 2019

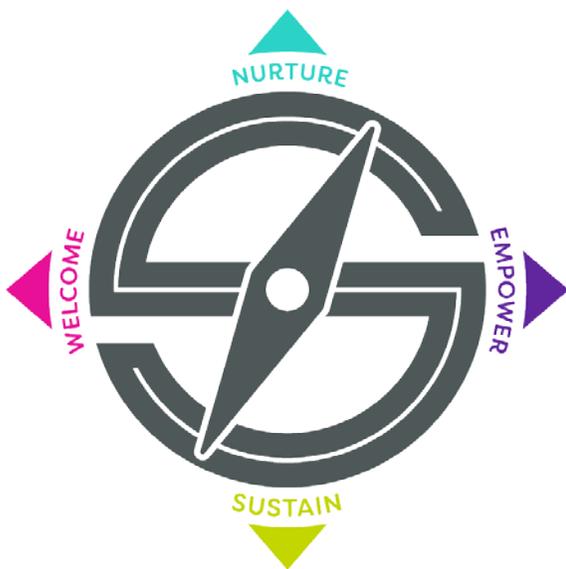


SERVE360
DOING GOOD IN EVERY DIRECTION

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..



Arne Sorenson President and Chief Operating Officer



SERVE 360

DOING GOOD IN EVERY DIRECTION



NURTURE



SUSTAIN



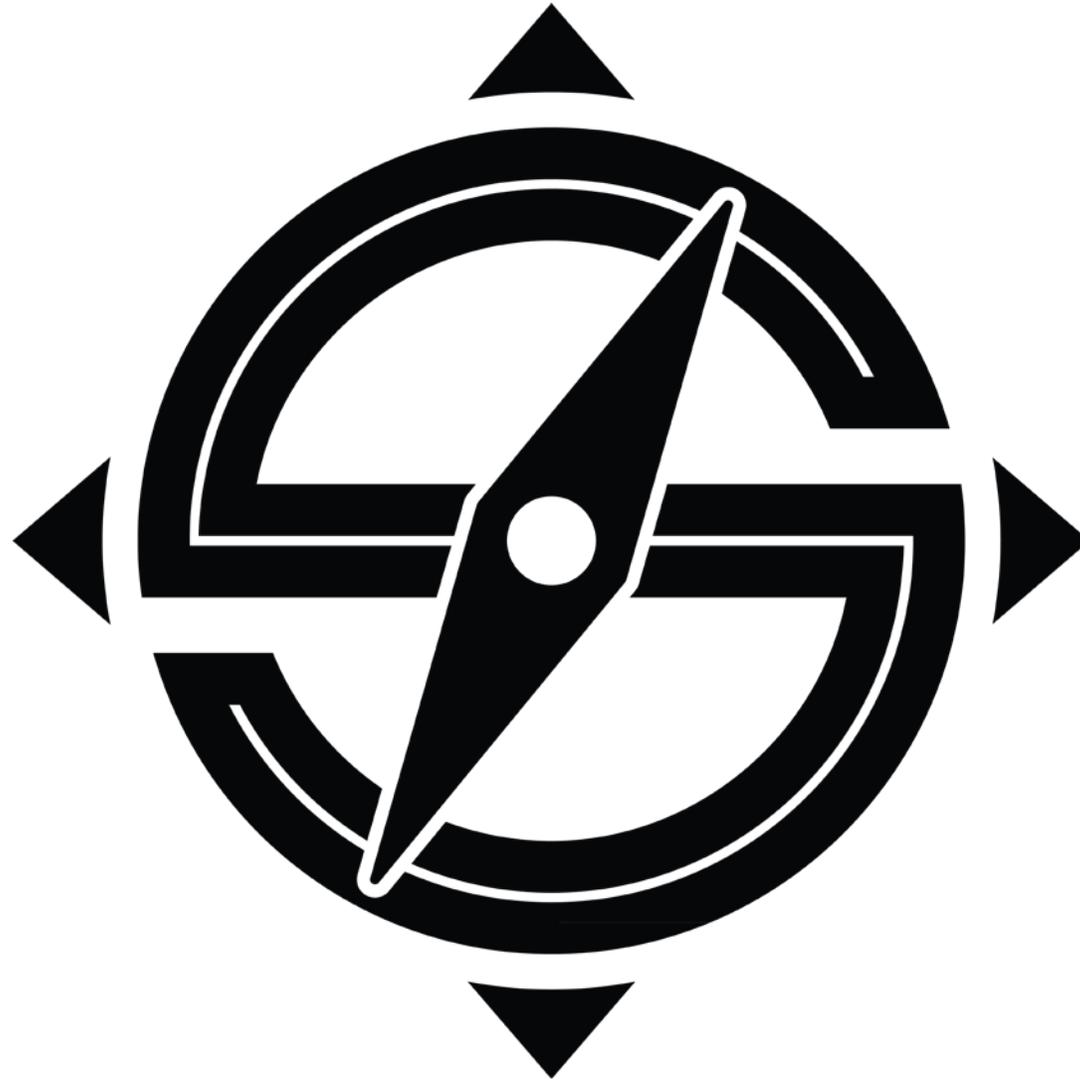
EMPOWER



WELCOME

Managed & Franchise Engagement

Globally Accessible
Platform



Serve 360

Awards & Recognition

Empower Through Opportunity >

Nurture Our World >

On-Property Activation

Resources & Tools >

Sustain Responsible Operations >

Welcome All and Advance Human Rights >

January 2019 Newsletter (PDF)



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DOING GOOD IN EVERY DIRECTION



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NURTURE



SUSTAIN



EMPOWER



WELCOME

Globally Accessible Platform

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

Outlines and delivers

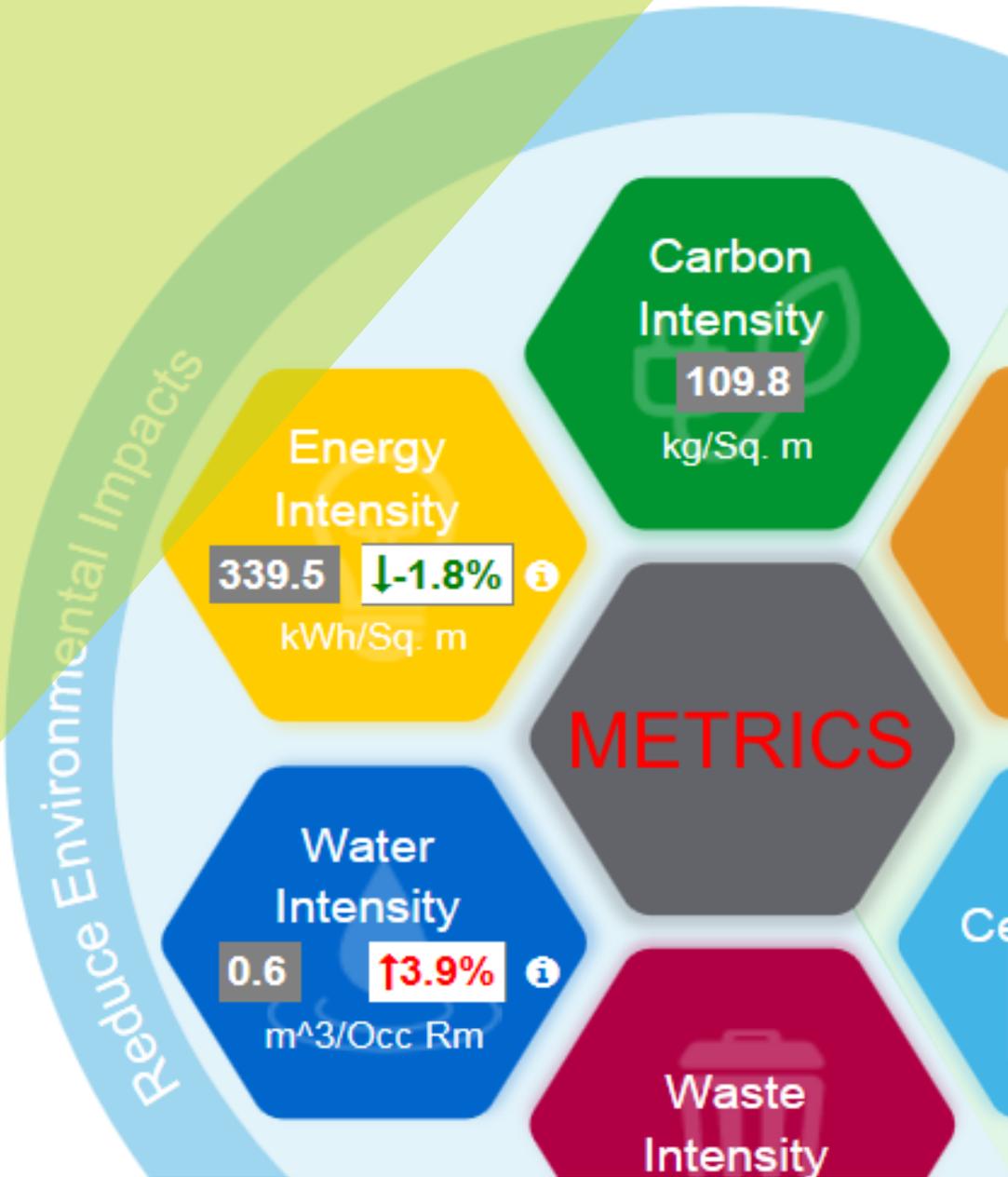
- Rationale
- Goals
- Strategies
- Resources
- Training

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



Example Hotel Group: Performance Summary

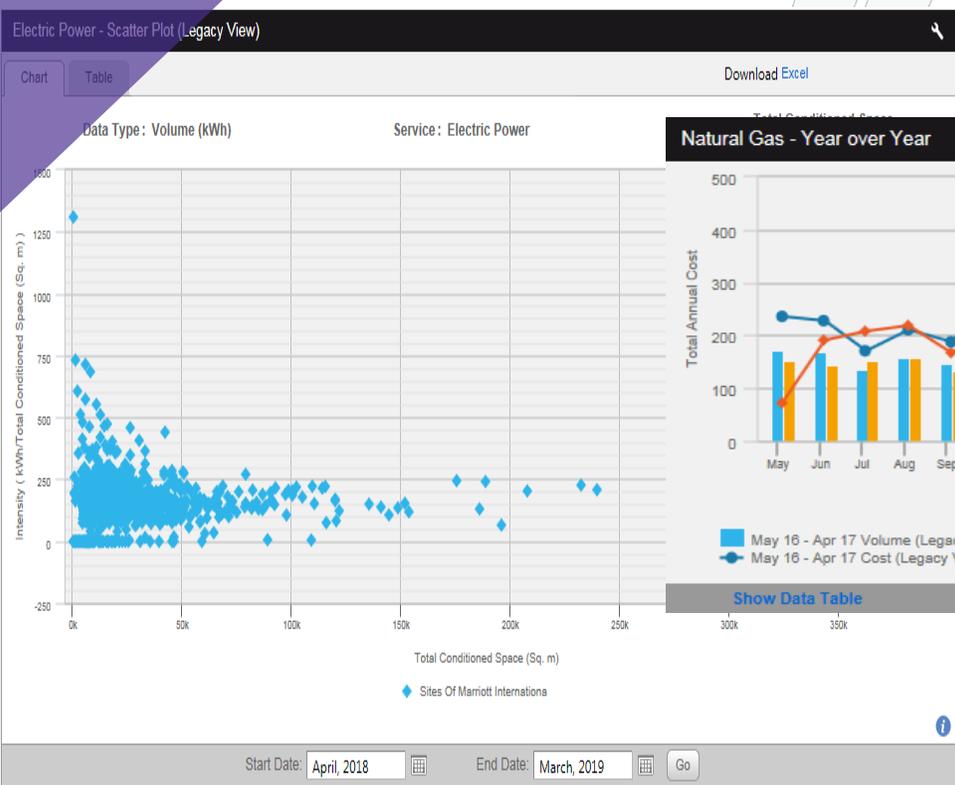
Portfolio View



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**



DOE BETTER BUILDINGS | 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

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

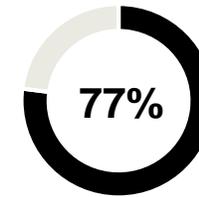
Pipeline: 34 communities | 9,571 units

SOUTHEAST

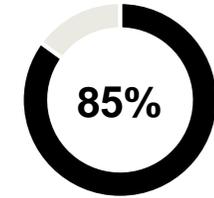
South Florida

8 communities | 2,600 units | 29,100 SF retail

Pipeline: 4 communities | 1,280 units



MIXED-USE



THIRD-PARTY OWNED

2,300+

ON-SITE EMPLOYEES



The Washington Post

CEO **ACTION!** FOR DIVERSITY & INCLUSION

3X



5X

#1 Property Management Company for **ONLINE REPUTATION**

ORA Power Rankings, J Turner Research

4X

Property Management **COMPANY OF THE YEAR**

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
- 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 doing*
- Bozzuto – “Engaged Explorer”



- *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%

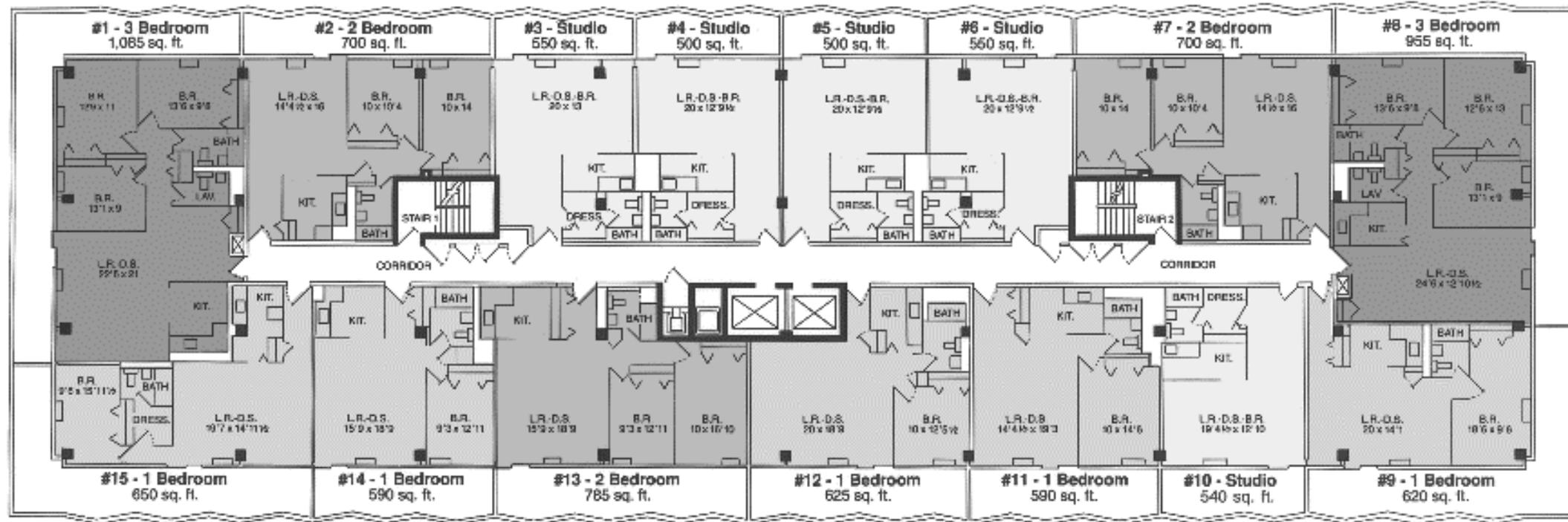
... were *somewhat to extremely* interested in receiving info about how to make their apartment more efficient.





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

- 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.*
- 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.
- For comfort and convenience, each apartment unit has its own thermostat to give you complete control over
- You'll notice that our nice view of the city that this makes our 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.

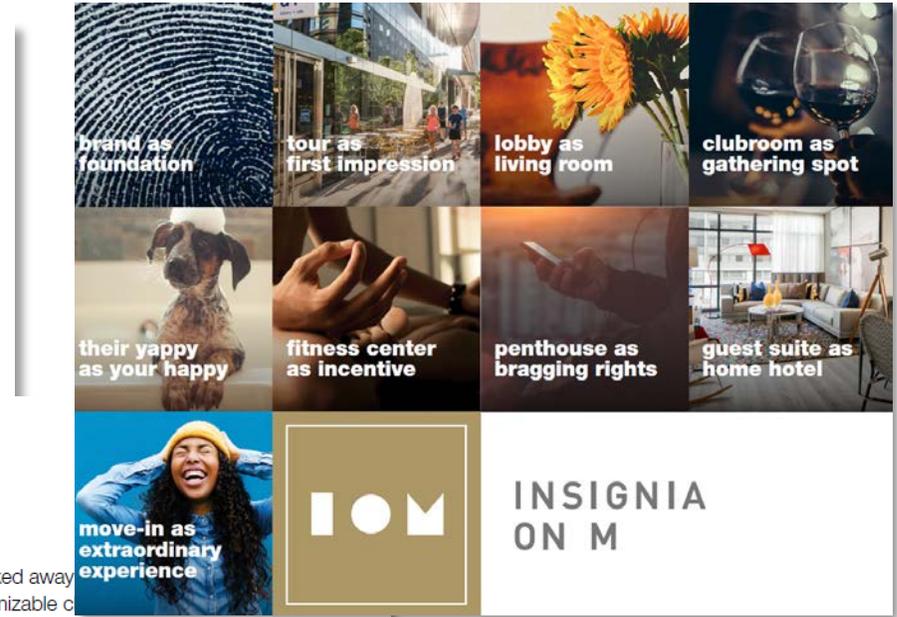
09 One Bedroom Model

(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. **Is 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 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 it 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 Capitol Riverfront Neighborhood, and one just steps from our lobby doors!



Strategies – On-bill Messaging:

Tower Two at One Rincon Hill
401 Harrison Street
San Francisco, CA. 94105

Return Service Requested
2822468 4 00000022 00000022

ELDEMIR, CHRISTOPHER
1411 7TH ST APT 404
SANTA MONICA CA 90401-2687

1335100143128929000037800000

ACCOUNT NUMBER 13351001224-38 DUE DATE 09/01/2014 AMOUNT DUE \$3,780.00
AMOUNT PAID \$

VISA DISCOVER echeck

- Write address on payments
- Do not write on the form
- Return this remittance with payments

Please send your payment to this address:
Tower Two at One Rincon Hill
401 Harrison Street
San Francisco CA 94105

Please detach and return the above portion with your payment.

Tower Two at One Rincon Hill
401 Harrison Street
San Francisco, CA. 94105
415-528-2878
415-528-2875
www.oneinrconhill.com

SUMMARY OF CHARGES FOR UNIT# 401

Description	Amount
Beginning Balance	(\$185.00)
September Rent	\$3950.00
Trash 08/05/14-08/31/14	\$15.00

AMOUNT DUE: \$3,780.00

IMPORTANT MESSAGES

Download the My Resident Network App Today!

Make a payment right from your smartphone or tablet.

The App is simple, quick, and FREE!

- Make a Payment
- View your monthly charges
- Sign up for eBilling

Don't forget to enroll in our eBilling program!

Help Conserve Water

Here are a couple of ways that you can help conserve water:

- Shorten your shower by a minute a day and you'll save up to 150 gallons per month!
- Run your clothes washer and dish washer only when they're full. You can save up to 1,000 gallons per month.

Resident Reminder
Thank you for your cooperation with our new billing program! Now you will receive all charges on one convenient billing statement!

Service Requests:
All service requests should be communicated to the management office via the above phone number or on a separate form of notification. Do not write service requests on the payment remittance, this may cause a delay in your request.

Payment Instructions:
All payments must be submitted with the attached remittance. Cash will not be accepted. Billing amount listed reflects account at time of printing. Any error or omission on this bill does not absolve resident of the obligation to pay the correct rent amount and charges in a timely manner. DO NOT INCLUDE ADDITIONAL CORRECTIONS WITH YOUR PAYMENT. ANY QUESTIONS OR COMMENTS NEED TO BE SUBMITTED TO THE MANAGEMENT OFFICE.

Late Payment Policy:
Rent is due on the 1st. Outstanding balances will be charged a late fee according to your lease agreement. Late payments must be paid with Cashiers Check or Money Order. Additional fees may be assessed according to your lease agreement. The purpose of this communication is to collect a debt.

Message Center

Washing dark clothes in cold water saves both on water and energy while it helps your clothes keep their color.

Save Water, Energy and Color



VAMPIRE ELECTRONICS

Even when household appliances are turned off, most are still using electricity. These devices, known as 'vampire electronics,' use standby power when turned off. The average home has about 20 vampire electronics. A Cornell University study found the average household will spend \$200 a year for standby power... that's about a month's worth of electricity for most homes.

In some circumstances standby power provides useful functions such as remote control, dock displays, and timers but in other cases it's simply wasted power. In addition to common home office and home electronics equipment, chargers for mobile phones, iPods, laptops, and power tools suck energy from your home when they are plugged into an outlet, even if they are not charging.

WHAT CAN YOU DO?

It's easy to become a vampire slayer. Simply kill the power to devices when they are not in use. An easy way to do so is to plug potential vampires into a power strip which can be turned off at the flip of a switch. Or simply unplug the device when

PLASMA TV	GAME CONSOLE	LAPTOP	LASER PRINTER
450.0 kWh/yr \$49.50/year	233.9 kWh/yr \$25.73/year	144.5 kWh/yr \$15.90/year	113.0 kWh/yr \$12.43/year
DESKTOP COMPUTER	DVD PLAYER	RECHARGEABLE TOOTHBRUSH	STUBBLE SHAVE
311.0 kWh/yr \$34.21/year	78.8 kWh/yr \$8.67/year	22.8 kWh/yr \$2.51/year	12.3 kWh/yr \$1.35/year

yearly expense based on an average electric rate of 11¢ per kWh

STUBBLE SHAVE: Standby power. Cartridge ready. National capability. International Energy Agency (IEA) eCHECK 2014.



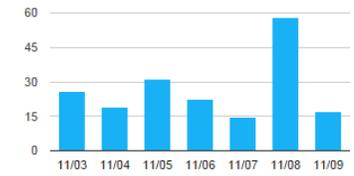
Strategies – On-bill Messaging

Your Consumption

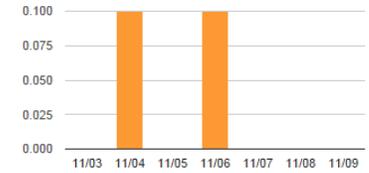
Date	Weekday	Gallons	Therms	*Cost
11/01/2015	Sun	8	0.00	\$0.08
11/02/2015	Mon	15	0.00	\$0.15
11/03/2015	Tue	26	0.00	\$0.26
11/04/2015	Wed	19	0.10	\$0.30
11/05/2015	Thu	31	0.00	\$0.31
11/06/2015	Fri	22	0.10	\$0.33
11/07/2015	Sat	15	0.00	\$0.15
11/08/2015	Sun	58	0.00	\$0.58
11/09/2015	Mon	17	0.00	\$0.17
11/10/2015	Tue	17	0.00	\$0.17
TOTAL		229	0.20	\$2.51

* Costs presented are estimated based on your sewer, cold and hot water rates and daily recorded usage each day of the month to date.

gallons consumed in the past week



therms consumed in the past week



[See all usage for November](#)

[Annual Water Consumption](#)

Analyze Consumption

- Water
- Electric
- Thermal Energy

Control Usage

- Control Your Thermostat

Energy Snapshot

your month-to-date usage

WATER: **229** gallons **87%**
below average

HOT WATER: **0.20** therms **94%**
below average

HEATING ENERGY: **0** therms **100%**
below average

ELECTRIC: COMING SOON

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 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 Follow

#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...
huffingtonpost.com

 **Gaslight Commons Apt**
@GaslightCommons Follow

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



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:

- Volunteer River Clean Up
- Live Music
- Exhibits
- Food
- Wild Edibles Walk and Cook-off
- Ecology Walk
- Jersey Buzz Honey
- NJ Watershed Ambassadors
- Home Composting Demo
- Bicycle Donation – Boys & Girls Clubs of Newark Bike Exchange
- Treasure Hunt
- And much more

It all takes place from 11am – 4pm on Sunday May 3rd, 2015 at the Skate House on the duck pond off of Mead St. (N. Ridgewood Rd and Meadowbrook Lane). For more information and schedules go to www.soriverday.org or to our Facebook page at www.facebook.com/SORiverDay.

 **Jessica Weinberg**
@whatsfordinesq Follow

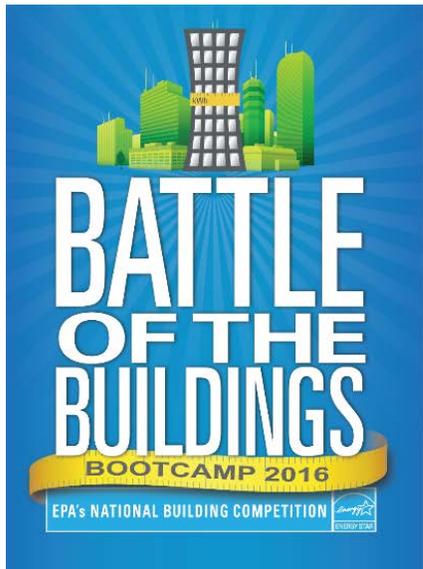
flowers // taking the stairs // refillable water bottle for the @GaslightCommons gym // doing my part #bethegreen



RETWEETS 2 LIKES 4



Strategies – Building Competitions:



BATTLE OF THE BUILDINGS
BOOTCAMP 2016
EPA's NATIONAL BUILDING COMPETITION

We're Competing!

ENERGY EXERCISE OF THE WEEK

WE'RE TAKING STEPS TO CUT ENERGY WASTE AND WITH HELP FROM YOU, WE CAN PICK UP THE PACE!

LOOK FOR THE "ENERGY EXERCISE OF THE WEEK" FOR TIPS TO HELP OUR BUILDING PERFORM AT ITS PEAK!



We're competing!

Follow us as we compete in the EPA's ENERGY STAR® National Building Competition to transform our community into a lean, green, energy-saving machine.



BOZZUTO

BOZZUTO "Remix"



BOZZUTO

We're competing!

Follow us as we compete in the EPA's ENERGY STAR National Building Competition to transform our community into a lean, green, energy-saving machine.



Strategies – Building Competitions:

FENESTRA - Studios					
CONTESTANT ENTRY FORM					
	Resident Name	Apt #	kWh Aug. - Sept. (Starting Month)	kWh Oct. - Nov. (Final Month)	% Reduction (Do not edit)
ex.	Jane Doe		785	584	25.61%
1					#DIV/0!
2					#DIV/0!
3					#DIV/0!
4					#DIV/0!
5					#DIV/0!
6					#DIV/0!
7					#DIV/0!
8					#DIV/0!
9					#DIV/0!
10					#DIV/0!
11					#DIV/0!
12					#DIV/0!
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14					#DIV/0!
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22					
23					
24					
25					
26					
27					
28					
29					
30					

Know How to Read Your New Energy Bill

Your new Pepto energy bill is easy to understand and easy to read.



- 1. The billing period** – The time period during which you were billed and how long you were billed.
- 2. Amount details** – The name registered at the account, the meter location and the meter number.
- 3. Contact information** – Customer members for customer service, and general and charges, as well as our web address.
- 4. Summary of your charges** – A summary of product costs that appear on energy charges for your account. The total amount is \$10.00.
- 5. The new bar graph** – Shows 24 months of energy usage data. It may print out a following page. Level of energy usage.
- 6. Payment example** – The portion to be paid with your payment. To expedite processing, you should include your mailing address, as well as the payment mailing address if it's different.
- 7. Details of your Electric Charges** – This section shows the specific meter reading and charges for the current billing period. It also shows the number of billing days and whether you are on a time-of-use plan.
- 8. Delivery Charges** – A schedule of charges that are added to the cost of electric service to provide the electricity to you. The payment amount for the current billing period. Go to our bill to see a breakdown of these charges for more information on our specific charges.
- 9. The Electric Summary** – A summary of any charges in an address that are on a account for the current billing period. This bill may not apply to all methods of rate apply.
- 10. Pepto offers a Smart Debt** – If you would like to know the amount of your incoming bill, we have a dedicated line for you. Please contact us at 1-800-452-4529.



Strategies – Building Competitions:



We're competing!

We're excited to announce that we are competing in the Win of the Woods, an ENERGY STAR Building Competition. Over the next 100 days, we will be joining nine other Bozzuto buildings across the state to compete by reducing energy and water usage.

Help us transform our community into an energy-saving machine, one small change at a time. Here are just a few ways you can start picking in today:

1. Turn off lights during daylight hours or when you're not in the room.
2. Update appliances such as old stoves and light bulbs.
3. Keep all vents clear of furniture, area rugs, and drapes.
4. Fix any water leaks in restrooms or anywhere else in the building.

There are also several other ways you can help us compete. We're looking for ideas from all of our residents. If you have any suggestions, please contact us at energy@bozzuto.com.

We're excited to get your input and we'll be sure to keep you updated. As if that's not enough, we'll be giving away prizes to the winners of the competition. So make sure you're in the running!

Each time you pick in, you'll be helping us compete in a statewide energy and water challenge. Thank you for helping to make a difference!



What We're Doing To Save Water & Energy

At Bozzuto we are committed to participating in this challenge just as much as each of you! Please check out just a sample of things we're doing at One City Place to improve energy and water efficiency.

Apartment Preventive Maintenance Program
We are making sure all of our units are in top condition. This means we are checking for any leaks or issues with our pipes, faucets, and other plumbing systems. We are also making sure all of our units are properly insulated to help reduce energy usage.

Regulate Set Temperature in Pool and Spa
We have regulated the air and water temperatures in the community pool and spas. This means we will be monitoring the temperatures to make sure they are set at the proper levels.

Water Sensors and LED Lighting
We have installed water sensors in our buildings to help us detect any leaks or issues with our pipes. We have also installed LED lighting in our buildings to help reduce energy usage.

Learn more at www.energystar.gov/buildings



Spotting Water Waste

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.



Did you know?
Commercial buildings use an estimated 10% of all water in the United States. Domestic needs (restrooms) use the largest water and gas in office buildings.
A leaking toilet can waste more than 2,000 gallons per month, or a total of 27,000 per year!



Limit the faucet
Turn off the faucet while you lather your hands & when you're finished using water.
Don't use a hot shower to steam your clothes.
Notify property management if you see, hear, or suspect any leaks in your apartment.

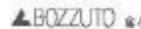


Sweep instead of rinsing
Washing your floors? Sweep instead and avoid the extra water that goes down the drain.



Use water-efficient settings
Many dishwashers, washing machines, and other appliances have settings that can help save energy & water.
Run the dishwasher only when it's full.
Use the lights and avoid leaving them on in your office and common areas.
Save energy by turning off the air conditioning when you're not home.

Find more resources at www.epa.gov/watersense



Strategies – Building Competitions:

War of the Watts - Resident Competition Instructions

Purpose: Resident engagement and education is critical to lowering our entire community's energy consumption. As property managers we have our greatest impact on those areas that we control primarily common areas such as corridors, stairwells, management office, etc. However - these areas often account for just a fraction of the overall energy consumption of the entire property. We have the greatest impact when management and residents work together to reduce energy consumption, which has a direct correlation to financial performance, asset resiliency, and even energy over the course of the campaign. This will be accomplished by tracking the amount of energy each participating resident uses each month divided by the square footage of their apartment. This will determine the monthly EUI, or "energy use intensity," of each contestant. The lowest AVERAGE EUI at the end of the contest is the winner. To further level the playing field, we encourage participants to be grouped by unit type so sizes of units and number of occupants could unfavorably skew the results (i.e. a studio with one person will use significantly less energy than a 2 BR with two residents.)

Goal: Energy Use Intensity is the standard of energy use measurements as established by ENERGY STAR, the EPA's division focused on energy efficiency in the built environment. Essentially, the EUI expresses a building's energy use as a function of its size or other characteristics. Generally speaking, a low EUI signifies good energy performance. For the purposes of the SDC/DCR contest we're focusing on the EUI of individual apartment's EUI. The PACE Sustainability team will be tracking the same data for your entire community to determine the overall winner of the War of the Watts.

How: Beginning in February, each participating resident should log in their most recent utility bill to the management office or at that month's resident event. Utility bills should be ok, too. Enter that resident's/leaseholder's name on the corresponding tab/page of this document by unit type (Studio, 1 BR, etc.). Note the kWh usage for Month 5 and enter their unit square footage ("SF"). The spreadsheet is automatically set-up to calculate the EUI for each month (kWh/SF). Each month have the residents participating in the contest to drop by the management office or e-mail your War of the Watts Champion their utility data for each month. At the end of the contest the spreadsheet will automatically tabulate the average EUI for each participant. Winners can be announced at your next resident event (providing availability of their electricity bills). Winners can be found by clicking on the toggle button. Lastly, we'll be focusing exclusively on electricity for the purpose of the resident contest. We are happy to assist if needed!

War of the Watts - Park Lane Seaport - Utility Bill Example for Monthly kWh Reading

PARK LANE SEAPORT - Studios

CONTESTANT ENTRY FORM														
Resident (Leaseholder)	Name	Apt #	Apt SF	Feb Invoice		March		April		May		June		AVERAGE
				Month 1 kWh	Month 1 EUI	Month 2 kWh	Month 2 EUI	Month 3 kWh	Month 3 EUI	Month 4 kWh	Month 4 EUI	Month 5 kWh	Month 5 EUI	
101	564	795	2.39	895	2.58	733	2.28	890	2.22	890	2.22			1.34

Dipka Bhambhani @Dipkabh Follow

@Bozzuto says Drop Your Kilowatts and win dinner...maybe #warofthewatts #turndownforwatt #districtresident @DCDistrict

Bagels and Bulbs

Bring your utility bills and energy use data to the monthly energy use competition. The lowest energy use competitor will receive a complete dinner for two for one of our first residents.

SPRING YOUR BEST! PEACEFUL PEACEFULLY TO SIGN UP FOR BROADWAY COURSE "TURNDOWNFORWATT" AND GET A FREE BULB AND BAGEL.

What:
Our Energy Champion Competition
Where:
Broadway & Light Bulbs
Why:
Residents are encouraged to participate and use their bills to win a dinner for two.

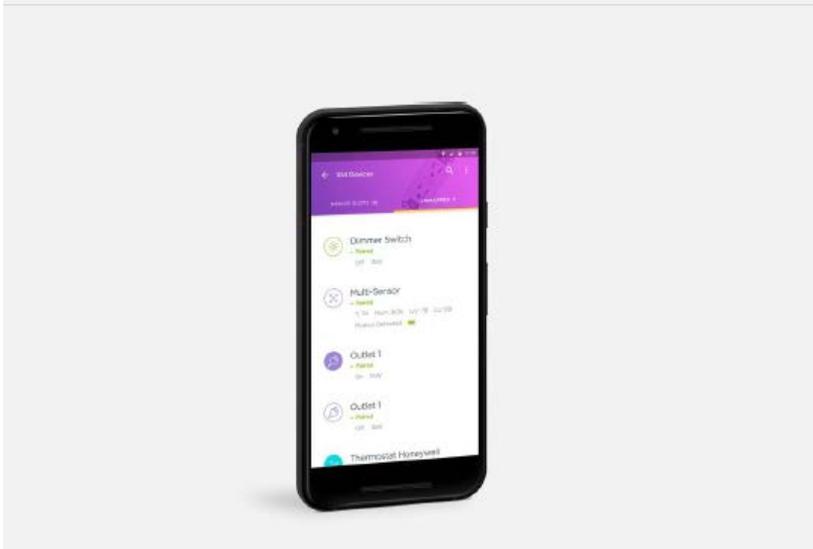
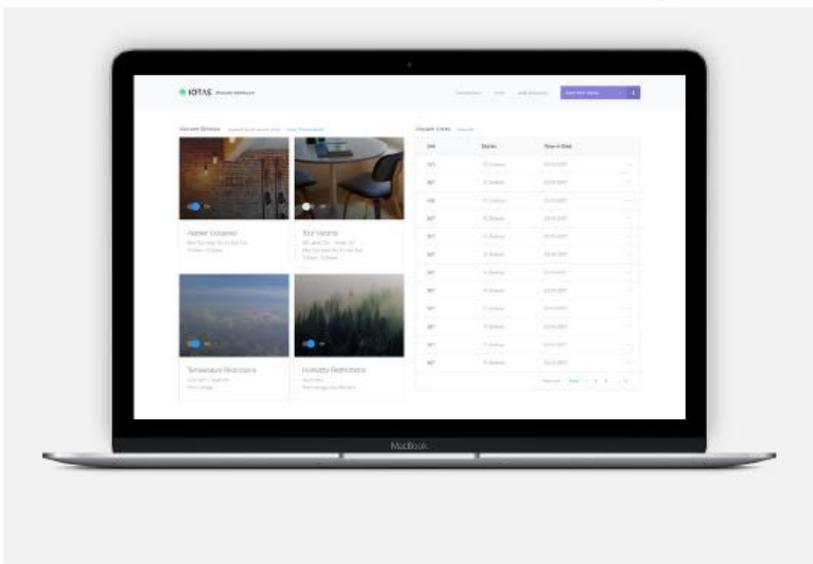
Capitol Yards added 5 new photos. March 2

"War of the Watts" Wine Down Wednesday w your Pepco Bills to enter into the competition

Like Comment Share



Strategies – IoT & Smart Apartments/Buildings:



Yale Touchscreen Lock



Nortek Linear Thermostat



Honeywell T6 Thermostat



Nest - 3rd Gen Thermostat



Jasco Smart Switch



Jasco Smart Outlet



Opportunity – Changing the Dialogue: “Total Cost of Occupancy”

Apartment Hunting? Rent Isn't Your Only Cost

YOUR TOTAL COST OF OCCUPANCY

When searching for an apartment, the monthly rental rate 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 one apartment versus another, it's important to consider not just the monthly cost of rent, but also the monthly cost of utilities.

RENT+...?



INTERPRETING YOUR UTILITY BILLS

The efficiency of appliances and products in your apartment such as lighting, heating, air conditioners, refrigerators, and water heaters determines your monthly energy bill. Likewise, the flow 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?

Remember to inspect appliances for the ENERGY STAR® label and to request documentation during your apartment tour to see if the building has ENERGY STAR® certifications or other sustainability initiatives. View a list of ENERGY STAR® certified apartment buildings, at energystar.gov/buildinglist and select "Multi family Housing" from the facility types dropdown.

More tips and information at
ENERGYSTAR.GOV

Sources: U.S. Environmental Protection Agency (EPA); American Housing Survey



EPA's ENERGY STAR® is the simple choice for energy efficiency. Join the millions across America already making a difference at energystar.gov.

APARTMENT A ANNUAL UTILITIES \$1,650



- \$300 PLUMBING FIXTURES
- \$250 DISHWASHERS, REFRIGERATORS & WASHING MACHINES
- \$700 HVAC & THERMOSTATS
- \$200 WATER HEATERS
- \$200 LIGHTING

- \$195 PLUMBING FIXTURES
- \$100 DISHWASHERS, REFRIGERATORS & WASHING MACHINES
- \$450 HVAC & THERMOSTATS
- \$185 WATER HEATERS
- \$45 LIGHTING

APARTMENT B ANNUAL UTILITIES \$975



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.



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



Sabey Data Centers – Who We Are



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



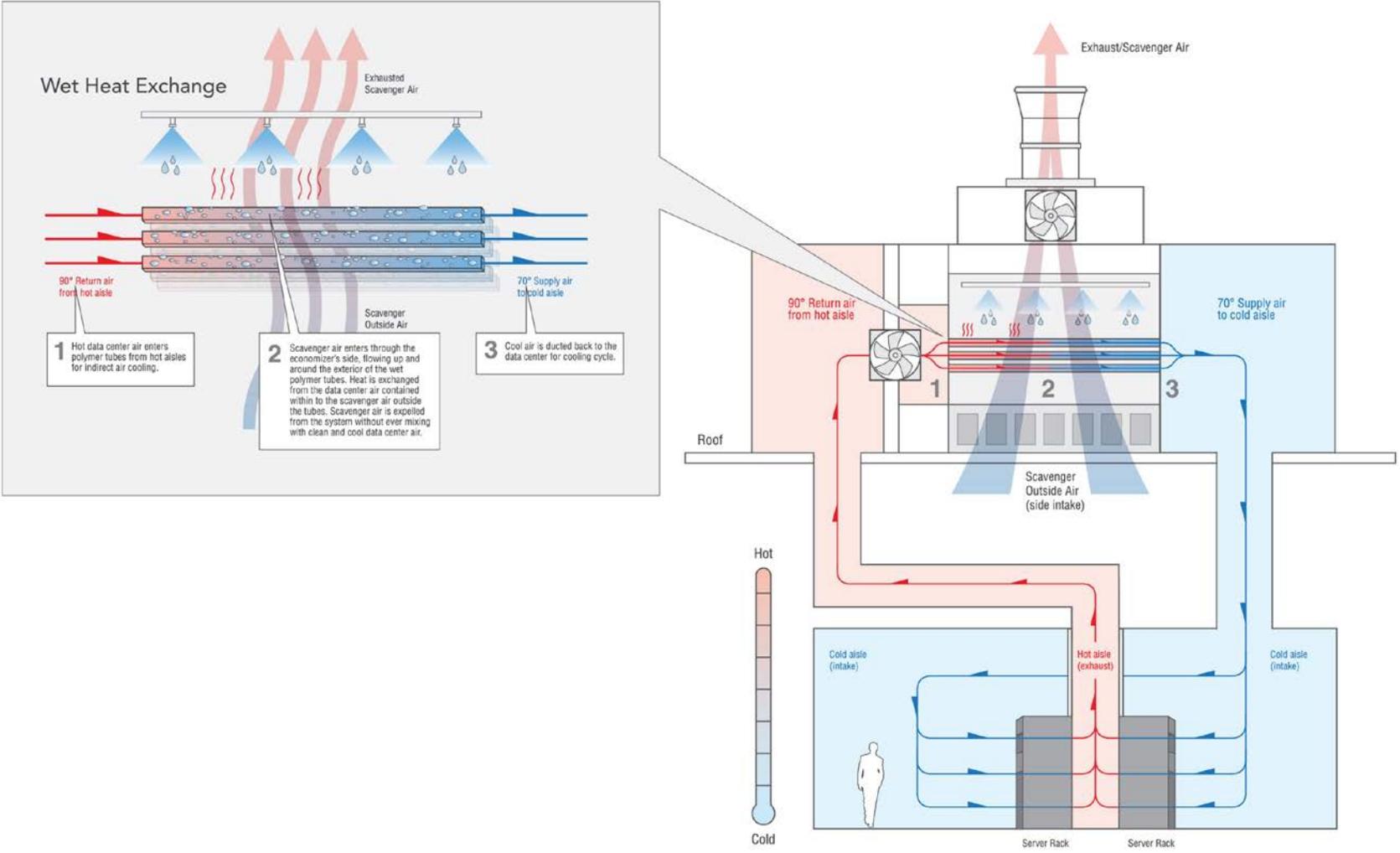
- Great practices – especially for aligning efficiency incentives and procuring renewable energy
- Guidelines and other resources available for both Landlords and Tenants

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

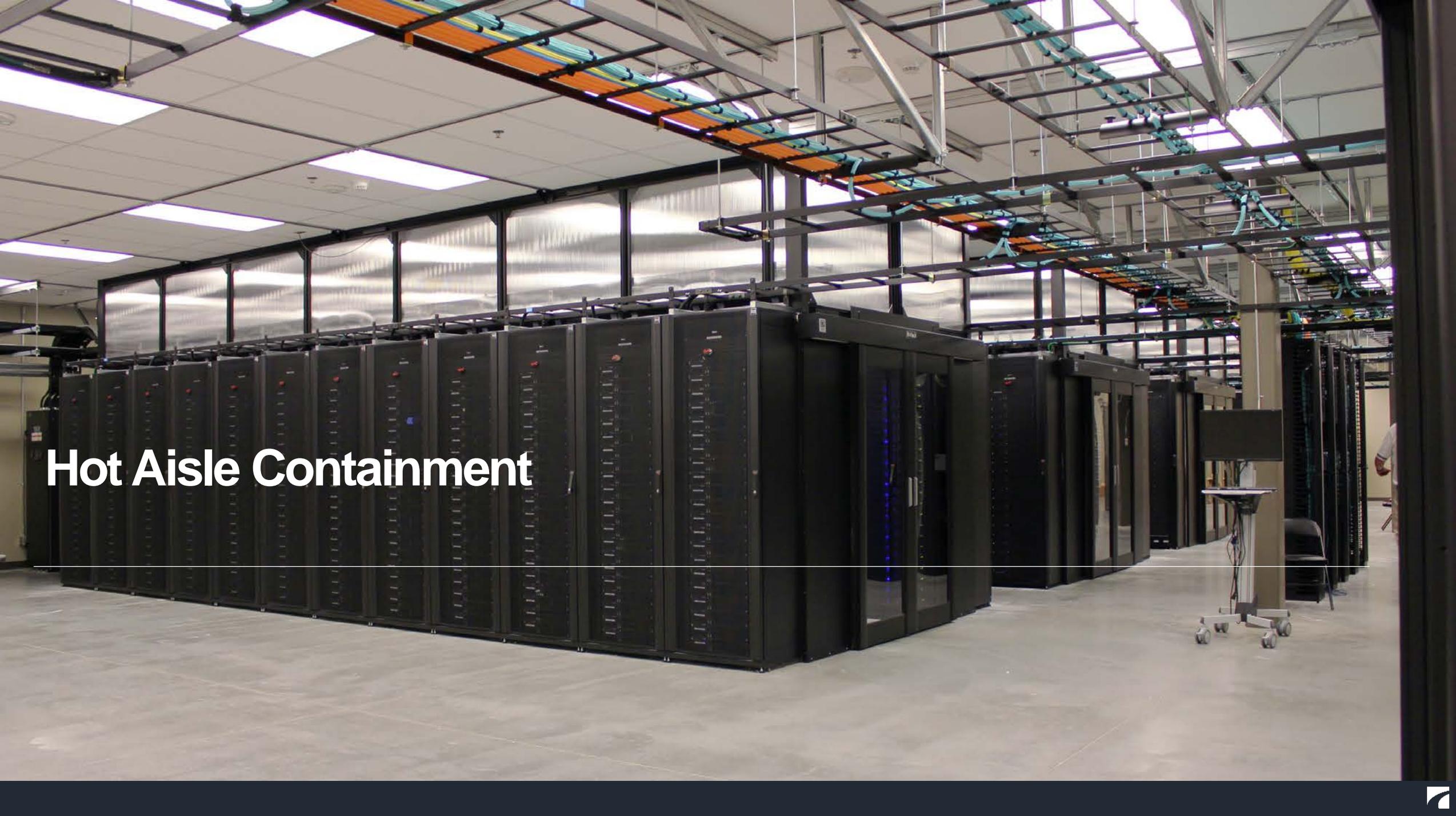


Controls

- **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

A photograph of a server room illustrating hot aisle containment. The server racks are arranged in a long row, and the aisle is enclosed by a glass and metal barrier. The ceiling has a complex network of cables and lighting fixtures. The text "Hot Aisle Containment" is overlaid on the left side of the image.

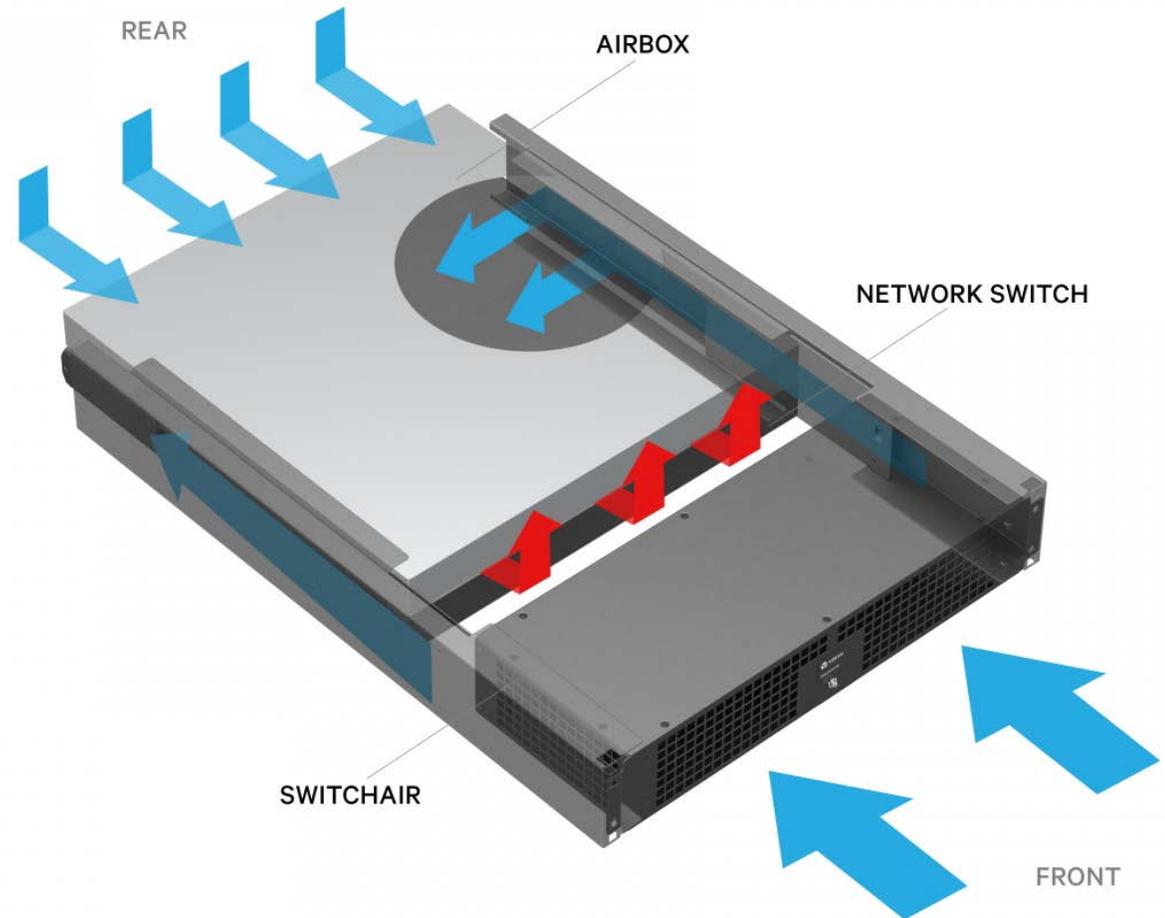
Blanking Panels

- 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

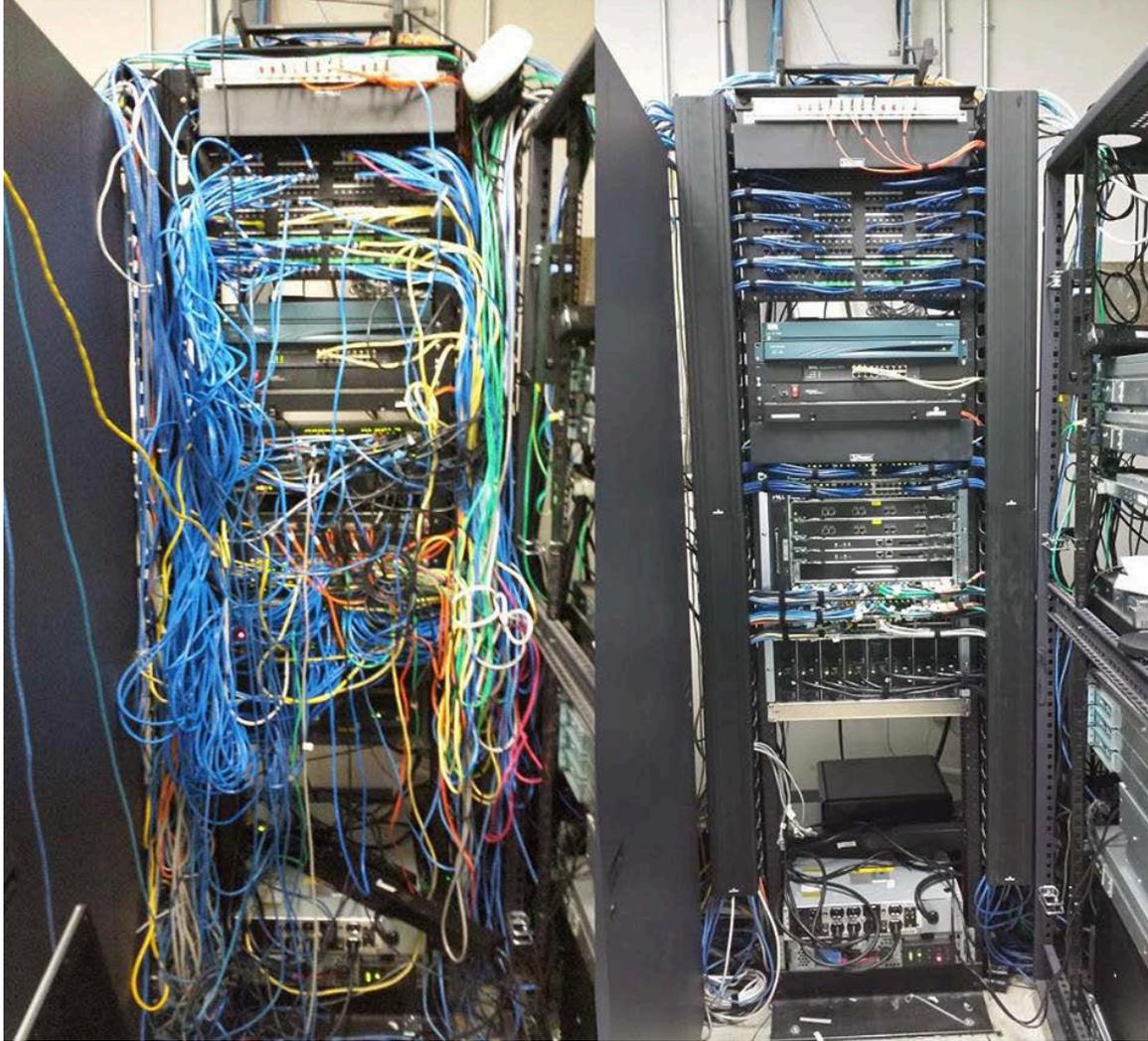


Switch Airflow Management

- Vertiv Geist Switchair – example of a commercially available solution for managing airflow
- Even better – order switches with correct front to back airflow



Cable Management



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

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