

I've Benchmarked, Now What? A Building Energy Performance Workshop

Wednesday, October 23, 2019, 8-11 am

Silver Spring Civic Building



*Working together for a cleaner, greener
economically vibrant community.*



Montgomery County
GreenBank

Your partner for clean energy™

I've Benchmarked, Now What?

Workshop Agenda

8:45 am	Welcome and Introduction <ul style="list-style-type: none">◦ Jonathan Bauer – The Tower Companies◦ Bert Hunter – Connecticut Green Bank
9:15 am	Resources Offered by the Utilities <ul style="list-style-type: none">◦ Edward Musz – Pepco Holdings◦ Monica Downs – Washington Gas◦ Amy Knight – Potomac Edison
9:35 am	Contractor Insights <ul style="list-style-type: none">◦ Keith Derrington – Recurrent Innovative Solutions◦ Mike Cain – ERA Building Solutions◦ Ric Sandoval – Green Generation
10:10 am	Financing Resources – When Your Cash is not Enough <ul style="list-style-type: none">◦ Lindsey Shaw – Dept of Environmental Protection◦ Tom Deyo – Montgomery County Green Bank
10:20 am	Audience Q&A

Benchmarking and Beyond

October 23, 2019

**I've Benchmarked, Now What? A Building Energy
Performance Workshop**

Jonathan Bauer, Sustainability Manager



Tower Overview

THE TOWER COMPANIES AT A GLANCE

6 MILLION

square foot portfolio
(Tower and partner-operated)

13 MILLION

square feet in development

100

employees

90%

of portfolio operating under a
green lease

100%

renewable energy
commitment

Fitwel

Champion

2,000

employee volunteering hours
used since 2012

15%

staff have been with the
company for 20 years or more

42%

of our Senior Leadership
team are women

95%

LEED Certified

80%

of Office Building Portfolio is
ENERGY STAR® Certified

Two

dedicated sustainability team
members, including senior
leadership position

PEOPLE. PROPERTIES. PURPOSE.

At The Tower Companies, we are committed to making a difference through our business and community. We develop, own, and manage commercial, retail, and multifamily residential properties in the Washington D.C.-metro area while being mindful of our global impact. Our dedication to the nation's capital has allowed us to build long-term relationships and foster lasting community impact.

Since our founding in 1947, we have continued to thrive while staying true to the belief that our actions and business can positively benefit the health of our people and planet.

OUR VISION

We envision a world where buildings inspire and enrich the lives of their occupants. In this world, people seek out buildings that create positive social change by helping to sustain the environment, better their health and well-being, and connect them to thriving communities.

All data in this report represents tower owned and managed properties unless otherwise noted.

AQUATERRA - ROOFTOP AT THE PEARL OVERLOOKING ROCK CREEK PARK
PHOTO CREDIT: 2018 JOHN HARRINGTON

THE TOWER COMPANIES 2019 CORPORATE RESPONSIBILITY REPORT

Our Commitment

At every decision point, we consider our ability to advance the real estate industry, impact on the environment, and commitment to the well-being of people and local communities.



Everything starts with benchmarking...



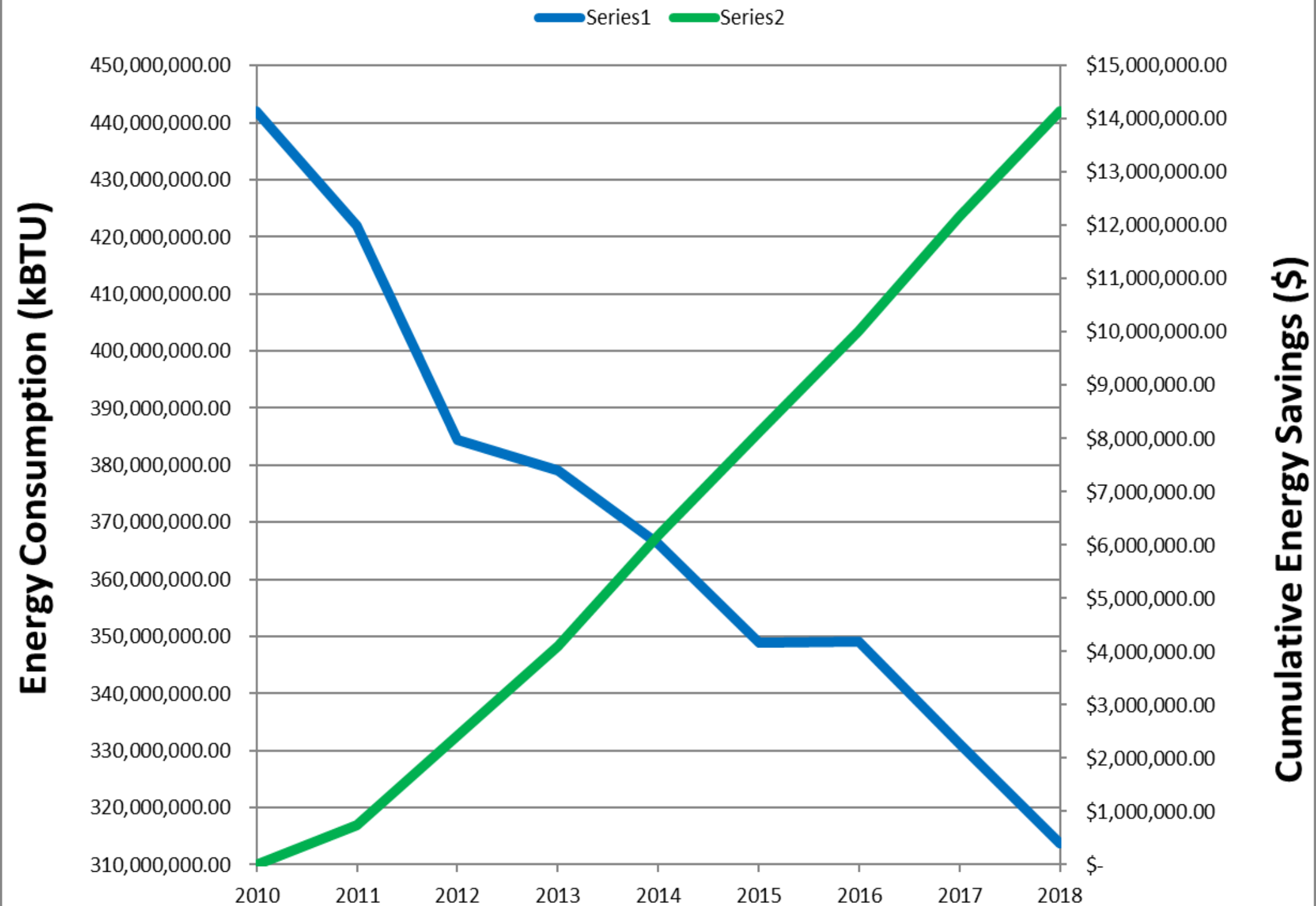
Energy efficiency is like running a race...wear the right shoes and socks, follow a plan, and you'll finish the race!

Taking the next steps

- Benchmarking & Goal Setting
- Green Building Standards
- Energy Conservation Measures
- Green Lease Guidelines
- Real-Time Energy Management
- Tenant Engagement
- Energy Procurement
- Demand Response
- Renewable Energy



Energy Consumption & Cost Savings: 2010 - Present



Blair Office Building



Upgrades

1. Time-of-day controls for perimeter units
2. Variable Frequency Drives (VFD) for loop pumps
3. Time-of-day scheduling for cooling tower and open loop pumps with closed loop temperature override



Financials

- Cost: \$44,900
- Cost after grants: \$22,753
- Energy Savings: \$40,000
- Payback: 6 months



Benchmarking and Beyond

Jonathan Bauer, Sustainability Manager

Jonathan.Bauer@TowerCompanies.com

Read Tower's Inaugural Corporate Responsibility Report to Learn More:

<https://towercompanies.com/corporate-responsibility/>

Remarks by
Bert Hunter
EVP and Chief
Investment Officer at
Connecticut Green
Bank



I've Benchmarked, Now What? A Building Energy Performance Workshop

Resources Offered by the Utilities

- Edward Musz – Pepco Holdings
- Monica Downs – Washington Gas
- Amy Knight – Potomac Edison



Energy Savings for Business Program

Edward Musz, Manager, Energy Efficiency, Pepco
October 23, 2019

Overview

- Empower Maryland



**EmPOWER
MARYLAND**

**Reduce Energy.
Save Money.**

Maryland programs are funded
by a charge on your energy bill.

Programs can help you
reduce your energy consumption
and save you money.

Overview

- Maryland Small Business Program



Quick Energy Check-Up (QEC)

Free installation of energy-efficient measures worth up to \$250



Incentives

Many incentives cover up to 70% of estimated project cost



Service Providers

Pre-approved Service Providers perform the work



Energy Advance Financing

0% interest for up to 24 months

Eligibility

- Maryland Small Business Program

Small business customers participating in the program include restaurants, retail establishments, hotels, stores, groceries, churches, non-profits and everything in between.



Monthly demand
must be
60 kW or less



Commercial
account in
Maryland



Occupied building
in the previous
12 months



Account may
not be
temporary

Incentives

■ Maryland Small Business Program

Lighting Fixtures & Controls

Upgrade lighting to energy efficient LEDs along with lighting sensors.

Packaged HVAC Units

Replace aging units with newer technologies.

Additional Incentives

Including hot water heaters, clothes washers, and dehumidifiers.



Variable Frequency Drives

Increase energy efficiency on fans and pumps based on your energy needs.

Chillers

Replace one or more old chillers with more energy efficient central chiller-based cooling systems.

Commercial Kitchen & Refrigeration

Energy efficient refrigeration and cooking equipment.

Small Business Energy Advance

- Maryland Small Business Program



0% interest on bill
repayment available



\$2,500 minimum
project cost including
materials and labor



No credit check required,
but account must be in
good standing



Repay in 6, 12, or 24
month **installments**
on your electric bill.

Summary

- Program is funded by a charge on your energy bill.
- New energy-efficient equipment lowers your energy consumption and saves you money.
- A variety of incentives are offered including lighting upgrades, HVAC, Variable Frequency Drives, refrigeration and cooking equipment.
- Many incentives cover up to 70 percent of estimated project cost.
- The Small Business Energy Advance allows you to repay the cost of the project over a 2 year period at no interest.

WASHINGTON GAS MARYLAND C&I ENERGY SAVINGS PROGRAM

MONICA DOWNS / OCTOBER 23, 2019

PROGRAM PORTFOLIO

COMMERCIAL PORTFOLIO

Existing
Business

Custom
Business
Solutions

New
Business
Construction

PROGRAM STRUCTURE

- Existing Business and New Business Construction:
 - Rebates are based on a fixed, prescriptive rate
 - All applications must be submitted via online application center
 - All projects require **pre-approval** before purchasing or installing new equipment
 - Service Providers and contractors must register with the program

- Custom Business Solutions:
 - Incentives are based directly on proven energy savings, for equipment not eligible for prescriptive rebates
 - Before application, service providers and customers should schedule scoping call with program engineering team

EXISTING BUSINESS EXAMPLE: HEALTHCARE



- (4)1250 MBH boilers at 96.2% thermal efficiency
- Large Boiler Tier 2 Rebate: \$2.50 per MBH
- Total Rebate: **\$12,500**

NEW BUSINESS CONSTRUCTION EXAMPLE: ELEMENTARY SCHOOL



- Equipment Installed: 4 storage water heaters and 1 boiler
 - (2) 300 MBH water heaters: Rebate: \$500
 - (2) 125 MBH water heaters: Cost: Rebate: \$500
 - (1) 1500 MBH boiler: Cost: Rebate: \$1125
 - Total rebate: **\$3,125**

CUSTOM BUSINESS SOLUTIONS EXAMPLE: CONDOMINIUMS

- Boiler replacement
- Custom project because boiler size exceeds Existing Business cap
- Project due to closeout in 2020
- Pre-approved rebate amount:
\$47,050.65
- Rebate can be reduced if actual savings do not match calculated savings
- Estimated savings: **16,500 therms**



Potomac Edison's Energy Efficiency Programs

PROGRAM OVERVIEW



EmPOWER Maryland programs are funded by a charge on your energy bill. EmPOWER programs can help you reduce your energy consumption and save you money. To learn more about EmPOWER and how you can participate, go to www.energysaveMD.com.



ENERGY
EFFICIENCY

PROGRAM OVERVIEW

■ SMALL BUSINESS DIRECT INSTALL

- Customers with average annual demand under 60 kW
- LED lighting, HVAC upgrades, refrigeration, and controls
- Typically up to 70% of the cost covered by Potomac Edison
- Implemented by Willdan

■ ENERGY SOLUTIONS FOR BUSINESS PROGRAM

- Large commercial and industrial facilities
- All measures above including custom measures like chiller upgrades, ventilation systems, combined heat and power
- Up to 50% of the cost covered by Potomac Edison
- Implemented by CLEAResult

SMALL BUSINESS DIRECT INSTALL PROGRAM



Turnkey Process

Free professional property assessment and energy-saving equipment.



Minimal Cost

Save up to 70% on qualified upgrades.



Fast Turn-Around

Projects typically complete within 90 days.



Ongoing Savings

Save energy and money for years to come!

TYPES OF BUSINESSES



Offices



Schools



Police/Fire Stations



Small Retail



Food and Beverage



Multifamily (common areas)



Churches



Grocery/Convenience



Liquor Stores



Healthcare



Auto Repair



Warehouse/Industrial

SMALL BUSINESS DO IT YOURSELF PROGRAM

- For a limited time, we will provide customers with LED screw-in lamps and tubes at no additional cost, if the customer agrees to do the install on their own
- The customer must install the products within 2 weeks
- Products include:
 - A-19, PAR, BR, MR16, candelabra
 - 4' and 8' linear tubes (for T8 relamp only)

PotomacEdison
A FirstEnergy Company

SPECIAL OFFER
for eligible small business customers*
in Potomac Edison's Maryland territory



Do It Yourself Lighting, at No Additional Cost

For a limited time, the Potomac Edison Small Business Direct Install (SBDI) Program will provide you with LED screw-in lamps and tubes at no additional cost if you agree to install the products yourself.

Keep an eye out for our team! We'll be visiting your area soon.

Energy-Saving LEDs

Linear LED Overhead Lighting

- Bulbs fit into existing T8 fixtures and use up to 70% less energy than linear fluorescent tubes
- Less maintenance (50,000-hour lifetime)

Screw-in LEDs

- Bulbs screw into existing fixtures or downlights and use up to 80% less energy than incandescent lighting
- Less maintenance: 15-25X longer bulb lifetimes



Call 1-800-880-3908 or email us at EnergySaveMD@willdan.com to find out more and start saving today!

*Potomac Edison commercial accounts with average annual demand under 60 kW.
www.energysavemd-smallbusiness.com

ENERGY SOLUTIONS FOR BUSINESS PROGRAM



Lighting



HVAC



Food Service &
Commercial
Kitchens



Appliances



Consumer
Electronics



Agriculture



Custom Projects



Combined Heating
& Power

LIGHTING

LIGHTING

41 incentives available for energy efficient LED's, linear fluorescents, exit signs, and lighting controls

LED lamps and fixtures must be ENERGY STAR® or Design Lights Consortium (DLC) certified

Type B fixtures do not qualify under this Program

Incentives are capped at 50% of overall total project cost, defined as labor and material associated with the project's relevant scope of work

A full listing of eligible lighting measures, with the incentive amounts, can be found here: <https://energysavemd-business.com/lighting>

MUNICIPAL LIGHTING

Incentives are available for:

- / Traffic lights and pedestrian signals
- / Customer-owned street and area lighting

CUSTOM

INCENTIVES ARE OFFERED UP TO 50 PERCENT OF THE TOTAL PROJECT COST FOR RETROFIT PROJECTS, AND UP TO 75 PERCENT OF THE INCREMENTAL COST FOR NEW CONSTRUCTION OR MAJOR RENOVATION PROJECTS. INCENTIVES ARE CAPPED AT \$1 MILLION PER PROJECT, PER CUSTOMER, PER YEAR.

Custom projects include building shell, electrical and mechanical improvements that reduce energy consumption and demand by improving building energy performance.

Custom measures such as compressed air, process improvements and building controls qualify for incentives

Retro commissioning

Combined Heat and Power

Thank You



Please visit our table for additional program information!

Energy Solutions for Business Program

<https://energysavemd-business.com>

Small Business Direct Install Program

<https://energysavemd-smallbusiness.com>