



Local Government Sector Meet-up

Better Buildings Summit 2019
July 10th 10:30 AM - 12:30 PM



John Morrill

Welcome to Arlington County, VA

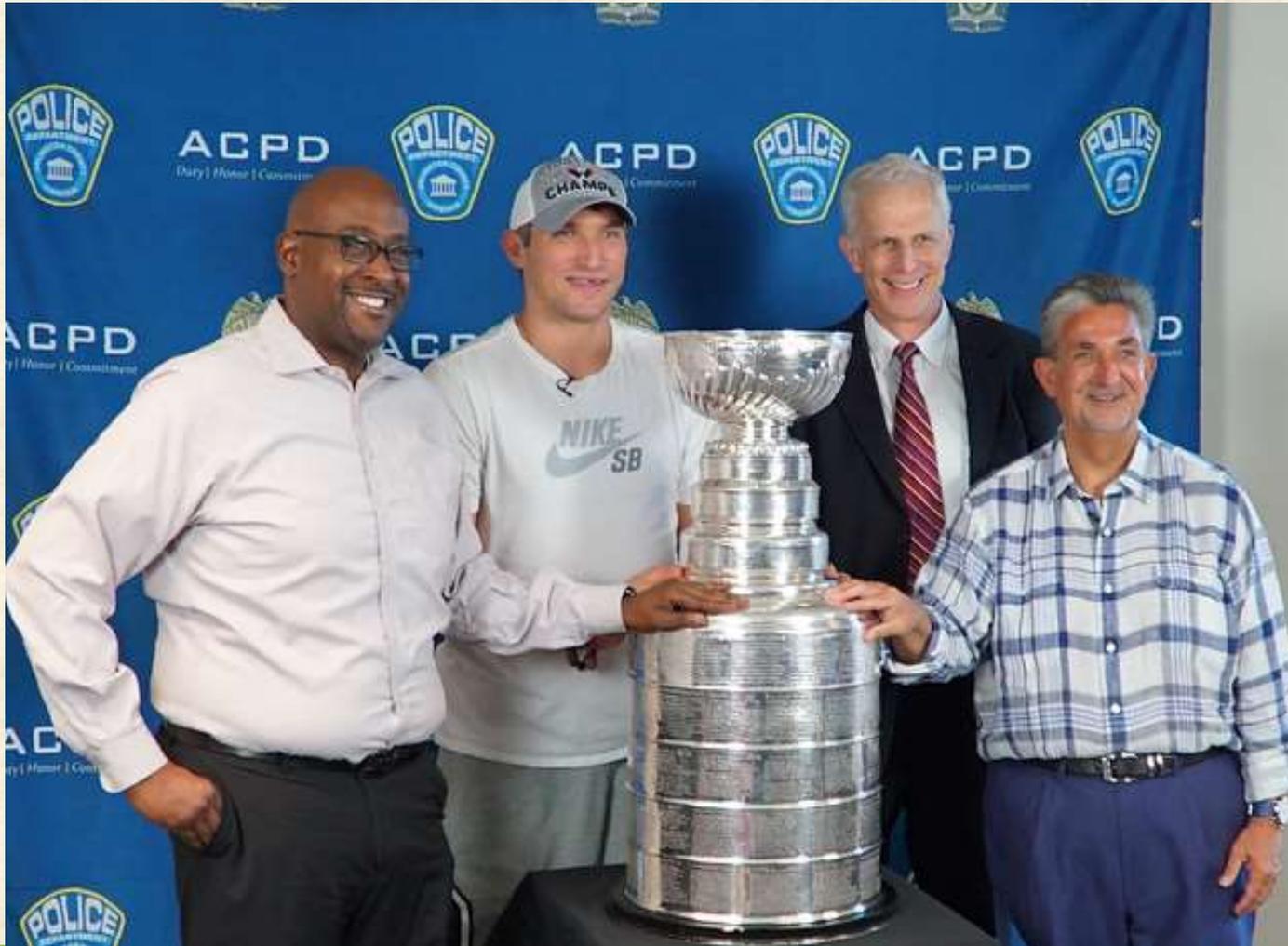
U.S. DEPARTMENT OF
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Welcome to Arlington!

We used to be a one-company town, but we're diversifying



We are home to winners of many kinds





Arlington layers energy efficiency & clean energy on top of our smart growth (transportation-efficient land use) for continued sustainability

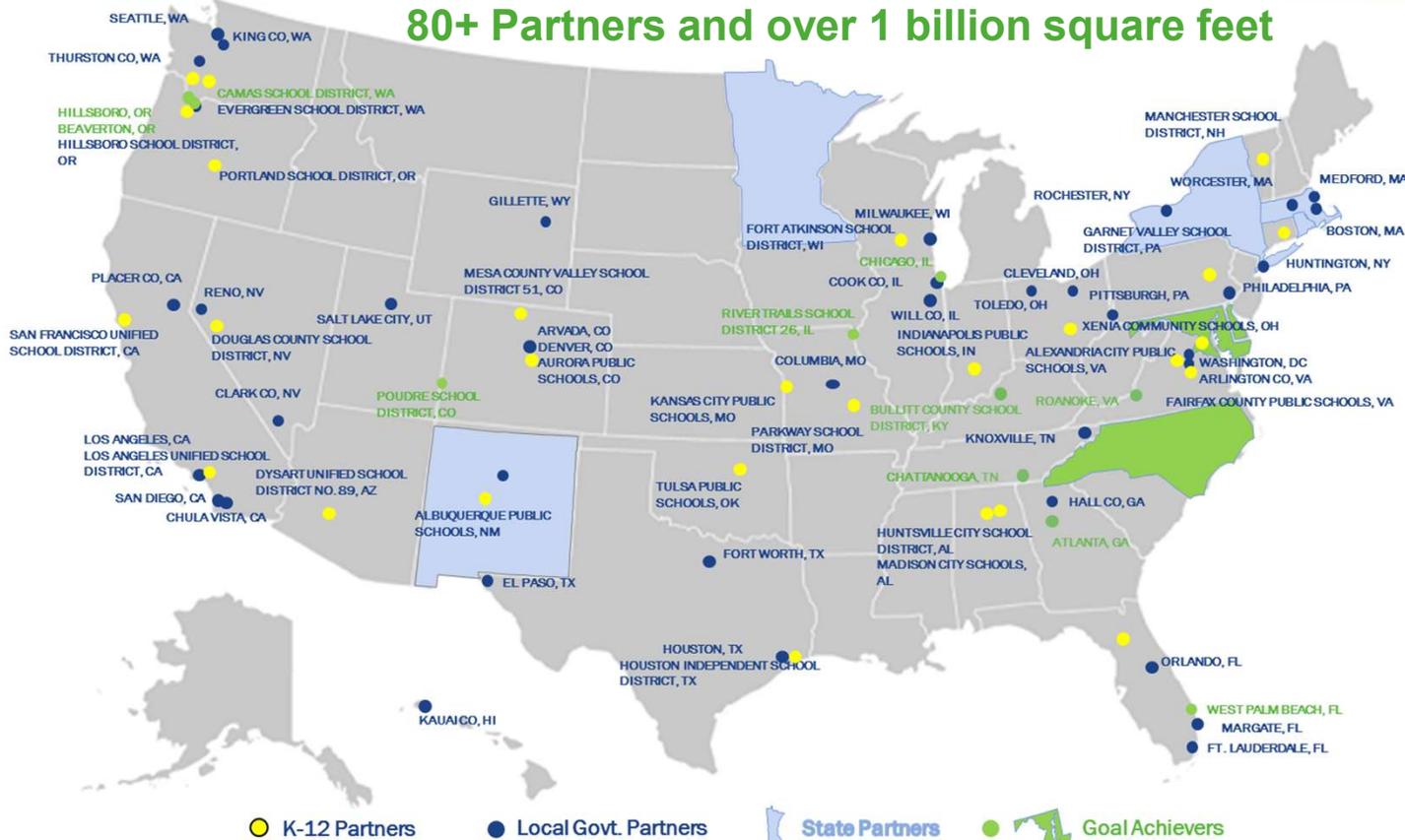
AnnaMaria Garcia

Recognizing Public-Sector Energy Efficiency Accomplishments and Leadership

U.S. DEPARTMENT OF
ENERGY

Public-Sector Leadership in the Better Buildings Challenge

80+ Partners and over 1 billion square feet



Success!
14 Public-Sector Goal Achievers

● K-12 Partners
 ● Local Govt. Partners
 ■ State Partners
 ● Goal Achievers



DOLLARS SAVED
\$686 MILLION



ENERGY SAVED
72 TRILLION BTUS



WATER SAVED
1.49 BILLION GALLONS



Better Buildings Challenge: Local Government Accomplishments

Better Buildings Challenge Local-Government Goal Achievers: 20%+ Reduction in Energy Use Intensity



Partners that Submitted 2018 Portfolio Wide-Data and/or New Solutions

- Arlington County, VA
- Arvada, CO
- Atlanta, GA
- Beaverton, OR
- Boston, MA
- Chattanooga, TN
- Chula Vista, CA
- Clark County, NV
- Cleveland, OH
- Columbia, MO
- Cook County, IL
- Denver, CO
- Ft. Lauderdale, FL
- Hall County, GA
- Hillsboro, OR
- Houston, TX
- Huntington, NY
- Kauai County, HI
- King County, WA
- Knoxville, TN
- Margate, FL
- Medford, MA
- Milwaukee, WI
- Orlando, FL
- Pittsburgh, PA
- Placer County, CA
- Reno, NV
- Roanoke, VA
- Rochester, NY
- Salt Lake City, UT
- San Diego, CA
- Seattle, WA
- West Palm Beach, FL
- Will County, IL
- Worcester, MA

Jenah Zweig

Overview: Energy Efficiency
Leadership Framework

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Barriers

High staff turnover?

State Energy Office (SEO) Directors

- **75%** in their position \leq 5 yrs.
- **33%** in their position \leq 1 yr.

Struggling to get people to use your program?

States

- **~39%** of SEOs state that “program uptake” is a **top barrier**

Trouble initiating efficiency projects?

K-12 School Districts

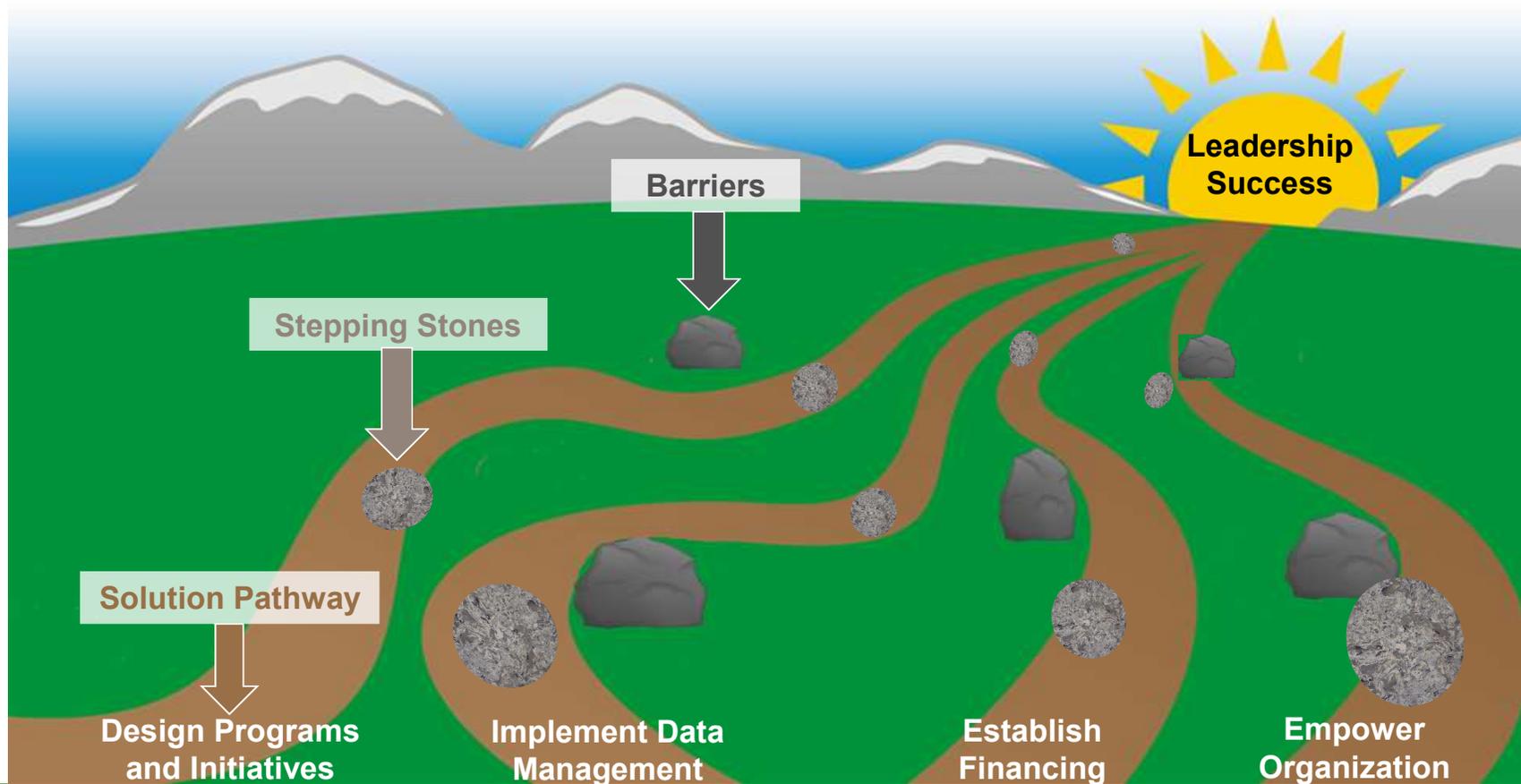
- **~70%** of facilities have no energy efficiency upgrades
- Cost savings opportunity: approximately **\$15.8 to \$29.4 billion**

Difficulty collaborating with your utilities?

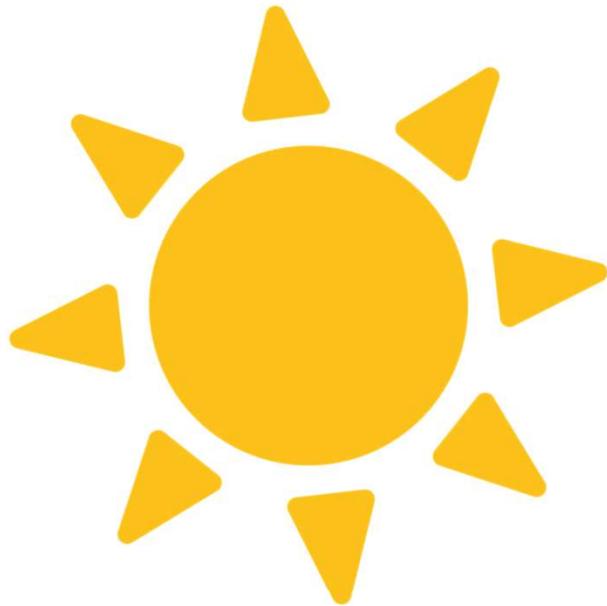
Local Governments

- **38%** interviewed identified **#1 data barrier** as “method and format of utility data”

Energy Efficiency Leadership Framework



Goals



(1) Make **SOLUTIONS** and replicable models **MORE ACCESSIBLE**

(2) Enable **STRATEGIC PLANNING** of **TECHNICAL ASSISTANCE** that is responsive to your most impactful needs

(3) **IDENTIFY GAPS** where **ADDITIONAL RESOURCES** or technical assistance are needed

RESULTS: maximize energy and cost savings

Adam Guzzo

Topical Breakout Discussions

Meet-up Agenda

10:30 – 12:30 pm

- 10:30 Welcome to Arlington County, VA
- 10:35 Recognizing Public-Sector Energy Efficiency Accomplishments and Leadership
- 10:40 Overview: Energy Efficiency Leadership Framework
- **10:45 Topical Breakout Discussion One**
- 11:35 Break
- 11:40 Topical Breakout Discussion Two
- 12:25 Wrap-up

Breakout Discussion Topics

1. Alternative Fuel Vehicles & Advanced Mobility
2. Building Resilience
3. Energy Equity
4. Engaging Private Real-Estate Owners
5. Next Generation Building Performance Policies
6. Strategies for Implementing Energy Efficiency and Renewable Energy Goals
7. Utility Engagement

Break

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Wrap-up

- **Tonight – Networking Reception (5:00 – 7:00 PM) Regency Ballroom Foyer**

- Wednesday
 - How Low Can You Go: Using Challenge Programs to Engage the Private Sector and Drive Energy Efficiency and Renewable Energy in Your Community (1:30-3:00pm, Potomac V)
 - Resilience Roundtable Part 2: Public Sector Meets Commercial Real Estate (3:30-5:00pm, Conference Theatre)

- Thursday
 - How to Achieve High Renewable Energy Goals (9:00-10:30am, Potomac V)
 - Catalyzing a Diverse Energy Efficiency Workforce (11:00-12:30pm, Potomac I)
 - Data of the Future: Digital Cities (2:00-3:30pm, Potomac IV)
 - Building From the Ground Up: Lessons in Commercial PACE Leadership (4:00-5:30pm, Potomac IV)

Engage with the Technology Research Teams

Plug and Process Loads Team

- Covers best practices and innovative technologies for controlling these loads in commercial buildings. PPLs are expected to increase with respect to the other building end use energy loads, and now is a great time to get involved.
- Lead: Kim Trenbath: kim.trenbath@nrel.gov



Smart Energy Analytics Campaign

- Look for Eliot Crowe to talk about the Energy Information System (EIS) or Fault Detection and Diagnostics (FDD) tools you have implemented in your buildings, and how you can get started with a monitoring-based commissioning process.
- Lead: Eliot Crowe**: ecrowe@lbl.gov

Envelope Tech Research Team

- Air infiltration accounts for 20% of primary energy consumption in buildings. Learn more about advanced window, wall, and roof technologies to improve your building enclosure.
- Lead: Melissa Lapsa: lapsamv@ornl.gov



**These staff are at the Summit. Find them at ask-an-expert tables during networking breaks.

Engage with the Technology Research Teams

Interior Lighting Campaign

- Facility owners and managers can receive guidance and recognition for lighting upgrade or new installation of high efficiency interior lighting solutions.
- Lead: [Michael Myer**](mailto:Michael.Myer@pnnl.gov): Michael.Myer@pnnl.gov



IoT Lighting Challenge

- Facility owners and managers can help define the performance characteristics of a competitively priced new-to-market light fixture that will be easily upgradable to provide for internet connectivity. Connect to learn more or participate in the IoT Lighting Challenge.
- Lead: [Michael Myer**](mailto:Michael.Myer@pnnl.gov): Michael.Myer@pnnl.gov

Space Conditioning Team

- Commercial HVAC accounts for about 40% of total commercial energy use in the US. Through the Space Conditioning Technology Research Team, partners work to deploy energy-saving space-conditioning strategies by partnering with industry, coordinating real world building demonstrations, and generating tools.
- Lead: [Miles Hayes**](mailto:Miles.Hayes@nrel.gov): Miles.Hayes@nrel.gov



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Join us!

Better Buildings Alliance *Renewables Integration* Team

Buildings-to-Grid Working Group

FOCUS AREAS:

- Strategic integration of renewables
- Energy storage
- Building load flexibility
- Grid coordination



EFFICIENT



CONNECTED



SMART



FLEXIBLE

- Bimonthly, 1-hour conference calls
- Kick-off meeting in early August
- Also looking for participants for two studies:
 - **Portfolio analysis:** understand potential for load flexibility (optimized demand management)
 - **Field study:** implementing building load flexibility solutions

Interested? Email us!

Rois Langner: Rois.Langner@NREL.gov

Selam Haile: Selam.Haile@NREL.gov

Solar Decathlon Design Partners Pilot

Who: YOU! Organizations ready to explore zero energy design for their next new building or major retrofit!

What: Partner with a Solar Decathlon Design Challenge student team to receive a conceptual design and basic cost estimate for a zero energy version of your building.

When: Apply by August, 2019

For more info: Attend the *Solar Decathlon Networking Lunch* Wednesday @ 12:30 in Regency Ballroom OR contact Holly Carr at holly.carr@ee.doe.gov



Ball State University's design for the zero energy retrofit of an historic mixed use multifamily building in Muncie, Indiana.

Thank You

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event.crowdcompass.com/bbsummit19

