Better Buildings®
U.S. DEPARTMENT OF ENERGY

JUNE 8–11
2020 SUMMIT
A Virtual Leadership Symposium

Learn more: betterbuildingssolutioncenter.energy.gov/summit
Local Government Sector Meet-up

Date: June 8th, 2020
Time: 1:00 – 2:30pm ET
Adam Guzzo

Senior Advisor
U.S. Department of Energy
Weatherization & Intergovernmental Programs
Office (WIP)
Better Information

Making Energy Efficient Investments Easier
- Better Buildings Solution Center
- Financing Navigator
- Improved Data and Consistency Access
- Tools to Assess the Efficiency of Buildings/Homes
- Tools for Energy Management

Market Leadership

Developing Innovative, Replicable Solutions with Market Leaders
- Better Buildings Challenge
- Better Buildings Alliance
- Better Buildings, Better Plants
- Better Buildings Accelerators
- Better Buildings Residential
- Superior Energy Performance

Better Information

Innovation and Emerging Technologies

New technologies and new ideas are key to building a stronger economy
- Better Buildings Technology Campaigns - lighting, HVAC, Energy Analytics

Workforce Development

Expanding the Workforce
- Better Building Workforce Guidelines
- Industrial Energy Management Workforce
Housekeeping Items

• Please note, today’s session will be recorded and archived on the Better Buildings Solution Center. We will follow up when today’s recording and slides are made available.

• If you experience any audio or visual issues anytime throughout today’s session, please send a message in your “chat” window located on the bottom of your Zoom panel.

• As an attendee please turn your webcam feature off. This will help minimize distractions and draw attention towards the panelists.
Follow along with Better Buildings, Better Plants

#BBSummit2020

Twitter:
• @BetterBldgsDOE
• @BetterPlantsDOE

LinkedIn:
• www.linkedin.com/company/better-buildings/
• www.linkedin.com/showcase/better-plants/
Slido will be used as our platform for Q&A throughout the webinar.

Please go to www.slido.com

1. Using your mobile device or web browser enter the event code - #BBSummit
2. From the list of sessions provided, select the Local Gov. Meet-up
Poll #1

Where are you joining us from today?
Poll #2

What sector best describes your organization?
Agenda

1. Welcome and Recognition
2. Things to Know
3. Panel Discussion and Q&A
4. Wrap-up
Welcome and Recognition

AnnaMaria Garcia
Director
U.S. Department of Energy
Weatherization & Intergovernmental Programs Office (WIP)
Better Buildings Challenge and Better Communities Alliance Partners

Better Buildings Challenge:
https://betterbuildingssolutioncenter.energy.gov/challenge/sector/local-government

Better Communities Alliance:
https://betterbuildingssolutioncenter.energy.gov/bca

70 cities and counties
80 million Americans¹

¹Total Metropolitan Statistical Area (MSA) population for BBC and BCA local govts. from U.S Census Bureau, 2017 MSA estimates
Better Buildings Challenge Goal Achievers: 20%+ Reduction in Energy Use Intensity

NEW 2020 Goal Achievers

Previous Goal Achievers

To learn more – click on the city seal

Since 2011, local government Better Buildings Challenge partners have cumulatively saved:

- **Dollars Saved**: $461 million
- **Energy Saved**: 48 trillion BTUs
- **Water Saved**: 240 million gallons

To Learn More: Visit the 2020 Better Buildings Progress Report
Things to Know
Available Toolkits

- **Outdoor Lighting Toolkit**
  - Decision tools, lessons learned, and other resources on upgrading street lights to modern, high-performance systems
  - [https://betterbuildingssolutioncenter.energy.gov/outdoor-lighting-toolkit](https://betterbuildingssolutioncenter.energy.gov/outdoor-lighting-toolkit)

- **Wastewater Energy Management Toolkit**
  - Best practices and innovative approaches successfully used by wastewater facilities to establish and implement energy management and planning

- **Energy Savings Performance Contracting (ESPC) Toolkit**
  - Best practices that partners used to establish and implement ESPC, including a host of M&V resources
Resource Highlights

Commercial Property Assessed Clean Energy (C-PACE) Working Group

- C-PACE Working Group: Year in Review
- C-PACE Financing and the Special Assessment Process
- Lessons in C-PACE Leadership: The Path from Legislation to Launch
- Toolkit: C-PACE Financing for Resiliency

How Distributed Energy Resources Can Improve Resilience in Public Buildings: Three Case Studies and a Step-by-Step Guide

Energy Data Management Guide

Webinar – Save Money and Build Resilience With Distributed Energy Technologies
“Connected Communities” Funding Opportunity

Building Technologies Office

• DOE intends to invest up to $42 million into “Connected Communities”
• Funding Opportunity Announcement is expected to be released in August 2020
• This funding opportunity is focused on enabling regional grid-interactive efficient buildings communities to share research results and lessons learned on projects that increase grid reliability, resilience, security, and energy integration well into the future
• Visit eere-exchange.energy.gov for more information on the notice of intent (DE-FOA-0002249)
• Start forming a team of strategic stakeholders for submission
• Teaming List email: CCPilotsTeamingList@hq.doe.gov

Connected Community:
A group of grid-interactive efficient buildings (GEBs) with diverse, flexible end use equipment that collectively work to maximize building and grid efficiency without compromising occupant needs and comfort
Poll #3

What best describes your role within your organization?
What best describes your area of expertise or focus?
Panel Discussion
Today’s Panelists

Chris Castro
Orlando, FL

Lauren Faber O’Connor
Los Angeles, CA

Grace Rink
Denver, CO
Poll Question #5:

What has been or do you think will be the most significant impact of COVID-19 on your ability to meet your energy goals?
Poll Question #6:

Have any of your energy or sustainability staff been laid off or furloughed due to COVID-19?
Panel Question

As leaders of your respective sustainability offices, how is your jurisdiction working to advance clean energy and what are the most significant challenges you see (or foresee) as a result of COVID-19 to achieve your mission? And how are you working to overcome those challenges?
Lauren Faber O’Connor, Chief Sustainability Officer, City of Los Angeles

Better Buildings 2020 Summit
June 8, 2020
The Five Zeros

Emissions must decline everywhere, as soon as possible. L.A.'s GND puts our city on the road to a zero carbon future across the board.

Zero Carbon Grid
80% renewable energy by 2036 & 100% by 2045

Zero Carbon Buildings
100% net-zero carbon new buildings by 2030 & all buildings by 2050

Zero Carbon Transportation
80% zero emission vehicles in the city by 2035 & 100% by 2050

Zero Waste
95% landfill diversion rate by 2035 & 100% by 2050

Zero Wasted Water
100% of our wastewater recycled by 2035
ORLANDO: SUSTAINABLE & RESILIENT Urban Solutions

Chris Castro, LEED GA, CPB
Director, Office of Sustainability & Resilience
Future-Ready steering committee
City of Orlando
Advancing Clean Energy during COVID-19: Challenges and Opportunities

- 1.5 MW of City rooftop solar projects
- 100 new City EV Infrastructure Expansion
- 250 MW Community Solar expansion
- 1+ MW Orlando Solar Coops
- 5 Resilience Hub Improvements to Critical Facilities
Testing floating solar arrays on Lakes and Retention Ponds

- Over 200 KW grid-tied systems

- Performing research with UCF Biology to understand habitat and water body impacts

- Large airport array coming soon!
City & County of Denver

Grace Rink, Executive Director
Office of Climate Action, Sustainability, and Resiliency
Advancing Clean Energy during COVID-19

Challenges

• Internal: Constrained budgets, furloughs, hiring freeze
• External: Upfront costs vs immediate job creation, long term savings, public health
Advancing Clean Energy during COVID-19

Opportunities

• Momentum: New office, Climate Action Task Force
• Green Building Ordinance
• 100% Renewable Electricity Plan
• Building Electrification Plan
Resources

- **Better Buildings Resource Center: Dealing with COVID-19**
  - National League of Cities – *Response Resources for Local Leaders*
  - National Association of Counties – *County Response Efforts and Priorities*
  - U.S. Conference of Mayors - *COVID-19: What Mayors Need to Know*

- **Better Buildings E-Learning Center** – Collection of webinars, courses, and other e-learning resources covering a range of areas across energy efficiency.
  - Managing HVAC Systems to Reduce Infectious Disease Transmission
  - Managing Buildings During a Shutdown and Bringing Them Back Online
Poll Question #7: What topic are you most interested in learning about in regard to energy equity?
Panel Question

What are your jurisdictions doing to ensure energy is affordable and the benefits of clean energy are available to low and moderate-income populations in your community?
Energy Equity

• Intentional engagement of diverse voices in policy making
• $1M state grant for low-income community solar
• Rental property examination with energy focus
Energy Equity

• $12M in benefits through OUC Project Cares

• Orlando Equity Mapping

• Efficiency Delivered & SELF financing programs

• Green affordable housing standards
Efficiency Delivered & SELF

• Free Home Energy Assessments

• Efficiency Delivered® provides up to $2,000 of energy and water efficiency upgrades in your home.

<table>
<thead>
<tr>
<th>Household Income</th>
<th>OUC Contribution</th>
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<tbody>
<tr>
<td>Less than $40,000</td>
<td>85% (not to exceed $2,000)</td>
</tr>
<tr>
<td>$40,001–$60,000</td>
<td>50% (not to exceed $2,000)</td>
</tr>
<tr>
<td>Greater than $60,000</td>
<td>Rebates only</td>
</tr>
</tbody>
</table>

LOW-INTEREST FINANCING AVAILABLE FOR:

- SOLAR ENERGY
  - Solar Panels
  - Solar Water Heaters
  - Solar Artic Fans

- ROOFS
  - Replacement
  - Roof: Metal/Flat/Tile

- ENERGY EFFICIENCY
  - High-efficiency Air-Conditioners
  - Weatherization/Insulation
  - LED Lights / Reflective Paint

- WINDOWS/DOORS
  - Impact Windows/Doors
  - Hurricane Shutters
  - Skylights

- WATER AND SEWER
  - Potable Water Hookups
  - Septic-to-Sewer Conversions
  - Plumbing

- DISABILITY PRODUCTS
  - Wheelchair Ramps
  - Walk-In Showers
  - Interior Remodeling

Pre-Qualify
Start by answering a few questions about yourself and your project. Once you're prequalified, we'll be in touch for final approval. Go to SolarEnergyLoanFund.org

Select a Contractor
Our pre-approved contractors are vetted to ensure they have proper licenses and insurance, and that your project is competitively priced and handled by the best available skilled craftsmen.

Project Begins
Now for the fun part: your project is underway! We'll help monitor the progress and make sure everything is going as planned.

Verification
No contractor is paid until we verify the project is completed and customer satisfaction. If it's not right, we'll get it fixed.
ADVANCING CLEAN ENERGY & EQUITY

Laying the foundation for L.A.'s zero carbon future

Key Actions

- #1 solar city in America
- Announced no repowering of in-basin coastal natural gas plants
- Continue energy efficiency work on 7 LAUSD school sites while closed
- Develop the program to invest $100 million in energy efficiency programs to renters and affordable housing customers
- Continue service to all customers regardless of ability to pay
- Make key upgrades to transmission and distribution systems and other equipment
- Engage 100% Renewable Energy Advisory Group on study inputs
- Extend FiT program and expand to include storage
- DER RFP
- ED 25- low income clean energy programs
- Equity metrics

Top Five Areas of Impact

Access & Equity  Quality Jobs  Workforce Development  Health & Wellbeing  Resiliency
Resources

Low-Income Energy Affordability Data (LEAD) Tool

- The LEAD Tool helps stakeholders make data-driven decisions on energy goals and program planning by improving their understanding of low income and moderate-income household energy characteristics

https://www.energy.gov/eere/slsc/maps/lead-tool

Clean Energy for Low Income Communities Accelerator (CELICA) Toolkit

- Case studies, issue briefs, data tools, and templates on advancing energy affordability and equitability for low-income households

https://betterbuildingsinitiative.energy.gov/CELICA-Toolkit

National Community Solar Partnership

- Coalition of community solar stakeholders working to expand access to affordable community solar to every American household by 2025
- Seeking participants for multi-stakeholder teams of state, local, and tribal governments; utilities; businesses; nonprofit organizations; and more.
- If you’re interested in joining the Partnership or learning more, send an email to community.solar@ee.doe.gov

Poll Question #8:

Is your city or county currently considering passing a policy targeting energy use in new or existing commercial buildings?
Panel Question

Can you tell us briefly how you utilized policy levers to target energy-saving opportunities in buildings? Any lessons learned?
Building Performance Policies

- Municipal Green Building Policies
- Building Benchmarking, Energy Audits/Rx & Transparency
- Green Building Incentive Program (NEW – Coming Soon)
Workforce Development & Training

• ENERGY STAR Specialist benchmarking training
  In partnership with USGBC-Florida

• AS Degree - ‘Energy Management and Controls Technology’ (EMCT)
  Administered by Valencia College

• USGBC certifications
  (LEED GA/AP, TRUE, etc.)

• NABCEP Solar Installer Certification
  Administered by the Florida Solar Energy Center (FSEC)
Building Performance Policies

- Energy benchmarking since 2017
- Drafting building performance policy
- Green Building Ordinance, Green Stretch Code
- Goal to require Net Zero new buildings by 2035
CLEAN & HEALTHY BUILDINGS

Drawing an emissions-free blueprint for L.A.’s buildings

Top Five Areas of Impact

Access & Equity  Quality Jobs  Workforce Development  Health & Wellbeing  Climate Mitigation

Key Actions

- Design and implement building performance policies to decarbonize new and existing buildings
- Complete LA’s inventory of buildings and set carbon targets accordingly
- Engage community members on strategies to increase affordability
- Create incentives for electrification in existing energy efficiency and solar incentive programs
- Engage investors on financing and funding mechanisms for retrofits
Benchmarking and Transparency: Resources for State and Local Leaders

This resource guide provides state and local leaders with streamlined access to key existing resources for developing and implementing high-impact building energy benchmarking and transparency programs in their jurisdictions.

State and Local Planning for Energy (SLOPE) Platform

A DOE-led collaboration across 8 EERE technology offices and NREL to create a dynamic, comprehensive energy planning platform of integrated, localized data for state and local decision makers.

Energy Data Access: Blueprint for Action Toolkit

This toolkit summarizes opportunities for states and local governments to streamline their process for getting access to data and building performance information.
Nate Allen
Advisor
U.S. Department of Energy
Weatherization & Intergovernmental Programs Office (WIP)

Wrap-up
Upcoming Summit Sessions

Monday
• DOE Fireside Chat with the National Labs: Trends and Emerging Technologies (3:00 PM – 4:30 PM ET)

Tuesday
• Building a Clean Energy Workforce (11:00 – 12:30 PM ET)
• The Road to Resilience: Setting Energy Savings as a Strategic Priority for Wastewater Treatment Plants (1:00 – 2:30 PM ET)
• What's New in Energy Efficiency Finance? (3:00 PM – 4:30 PM ET)

Wednesday
• The Solar Project Development Process: Insights and Best Practices from Local Governments and Higher Education Institutions (11:00 – 12:30 PM ET)
• Stump the Chumps: How to Optimize Critical Facilities (3:00 PM – 4:30 PM ET)

Thursday
• Approaches for Achieving Zero Energy Ready: Maximizing Efficiency and Controlling Costs (11:00 AM – 12:30 PM ET)
• Measuring Up to the Equity Challenge: Energy Affordability and Equity Planning (1:00 – 2:30 pm ET)
• Closing Plenary: The Path Forward: Perspectives on Prioritizing Energy Efficiency (3:00 PM – 4:30 PM ET)

See full list of sessions here - https://betterbuildingssolutioncenter.energy.gov/summit/2020-sessions
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
Engage with the Technology Research Teams

Integrated Lighting Campaign
• As the ILC is being re-imagined to lead us into the next generation of energy savings, even greater benefits can be realized through whole building integration.
• Lead: Michael Myer
  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
  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: Marcus Bianchi
  Marcus.Bianchi@nrel.gov
More than 2,500 solutions are available publicly in the Better Buildings Solution Center

Showcase Projects:
- Large and small buildings
- All sectors
- Specific building types such as schools, hospitals, hotels, grocery stores, universities, civic centers, libraries, offices and labs

Implementation Models (Playbooks):
- Overcome barriers: finance, data, energy management, staff training, community and customer outreach, partnering with utilities, and more
- Multi-faceted and applicable across sectors

Additional Resources, Toolkits, Case Studies

betterbuildings.gov
Stay Connected

State and Local Solution Center
More than 400 tools, resources, and best practices

State and Local Spotlight
Monthly newsletter with ~45,000 subscribers

Subscribe:
http://energy.gov/eere/slsc

Contact WIP:
stateandlocal@ee.doe.gov

Poll #9

On a scale of 1 to 5, how would you rate this session?
(1= missed the mark, 3 = average, 5= fantastic)

(SLIDO Question)