U.S. EPA's State and Local Energy and Environment Webinar Series

EPA United States Environmental Protection Agency

Introducing EPA's Benchmarking & Building Performance Standards Policy Toolkit

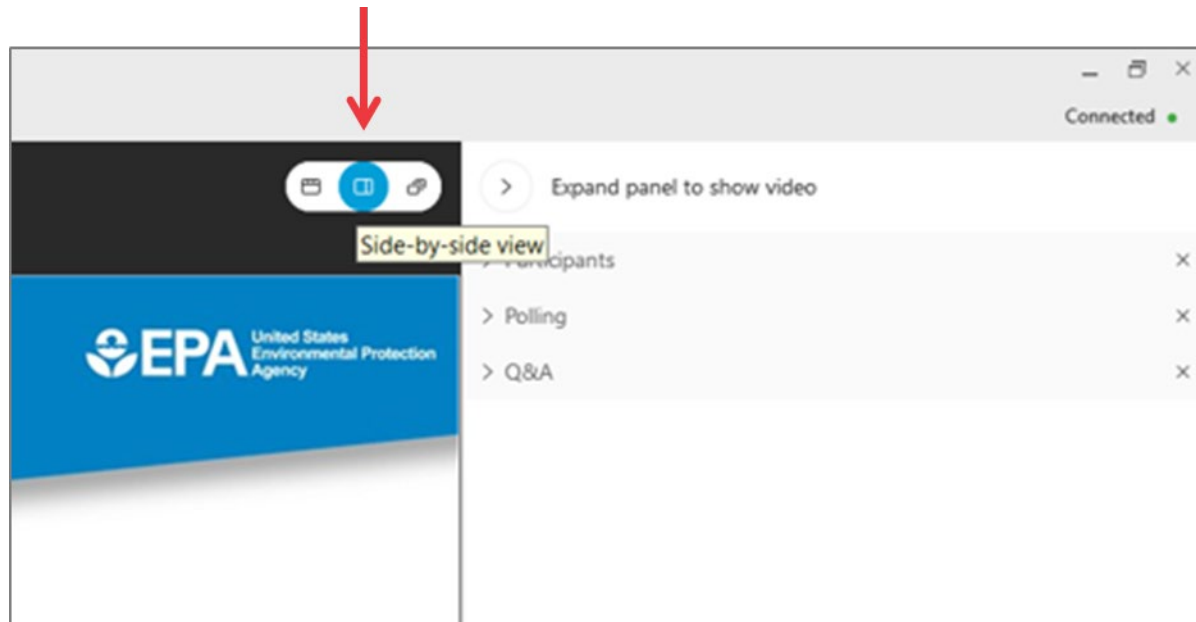March 17, 2021
Noon Eastern

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Screen View

- There are several layout options
- We recommend the side-by-side view
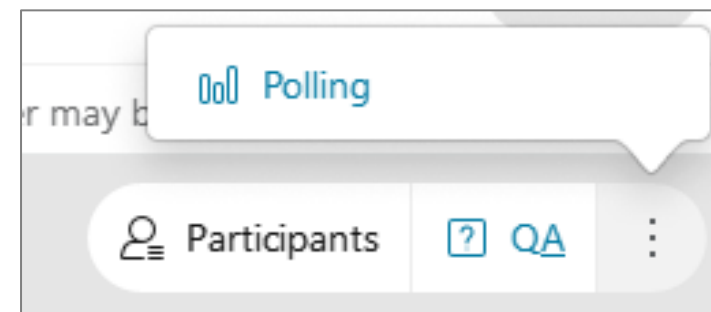
Webinar Panels

We'll use three panels

- Participants, Polling, and Question & Answer (Q&A)
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Adding Panels

- If some panels don't appear, hover over the bottom of the screen and select the desired panels
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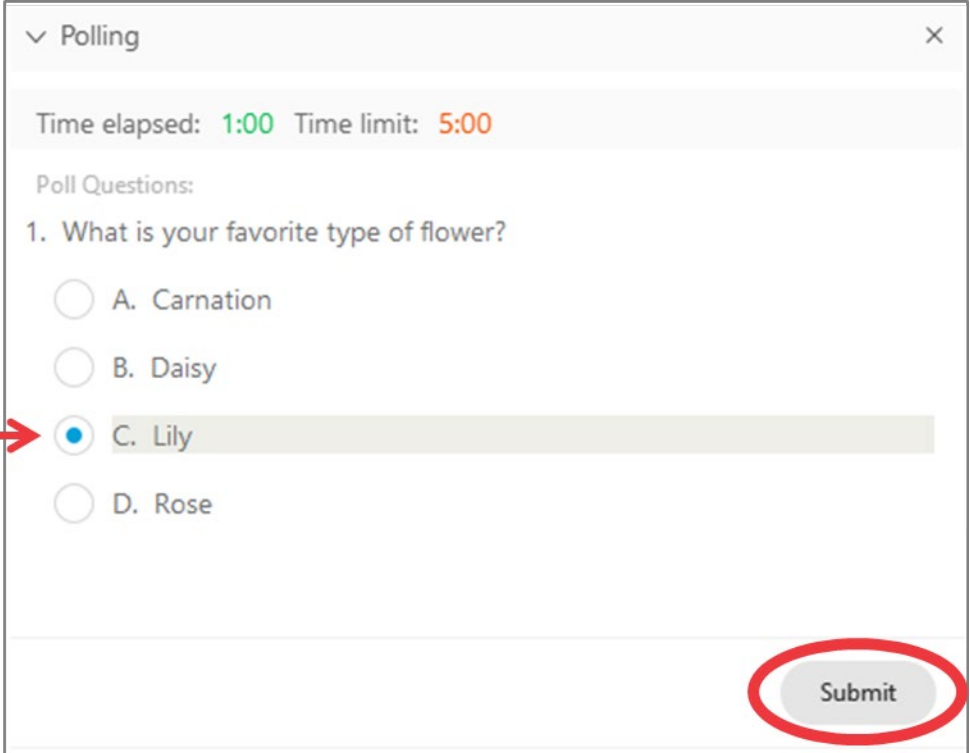- Blue icons indicate active panels

Participants   **Q&A**   **More Options Polling**

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Polling

- We'll ask a poll question during the webinar
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Webinar Feedback

- A feedback form will pop-up when you exit today's webinar

Q&A

- Participants are muted

- Questions will be moderated at the end

- To ask a question:

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- EPA will post final materials on the Webinar Series page:
  www.epa.gov/statelocalenergy/state-local-and-tribal-webinar-series

Today's Agenda

- **Carolyn Snyder,** U.S. EPA Division Director, Climate Protection Partnerships Division

- **Cassandra Kubes,** U.S. EPA State and Local Energy and Environment Program

- **Caterina Hatcher**, U.S. EPA ENERGY STAR State & Local Government and Higher Education Team

- **Brendan Hall**, U.S. EPA ENERGY STAR State & Local Government and Higher Education Team

- Question and Answer Session

The views expressed by speakers on this webinar are solely those of the participants and EPA does not endorse any products or commercial services mentioned in this webinar.

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Benchmarking and Building Performance Standards Policy Toolkit

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Introducing EPA's Benchmarking and Building Performance Standards Policy Toolkit

U.S. EPA State and Local Energy and Environment Program and ENERGY STAR Commercial & Industrial Branch

March 17, 2021

Overview

Purpose of Toolkit

Toolkit aims to inform state and local government decision makers who are exploring policies to reduce **energy use** and **greenhouse gas (GHG) emissions** from existing commercial and multifamily buildings
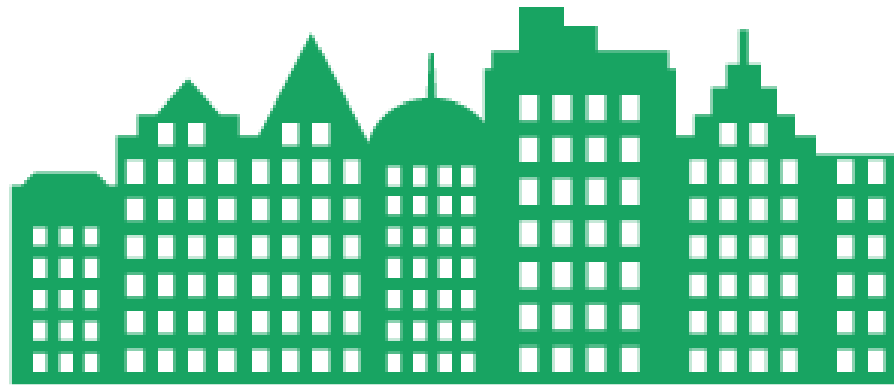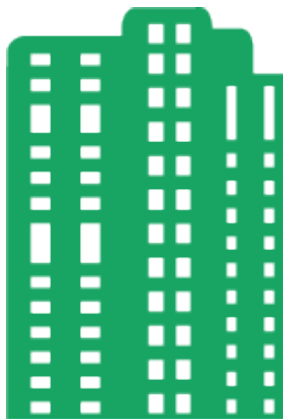
Energy and GHG Impacts from Buildings

- Buildings account for nearly **40%** of the **energy consumed** in the United States and over **30%** of **GHG emissions**

- As state and local governments establish climate commitments, achieving emission reductions from buildings is critical for reaching decarbonization goals

Energy Consumed in US (%)
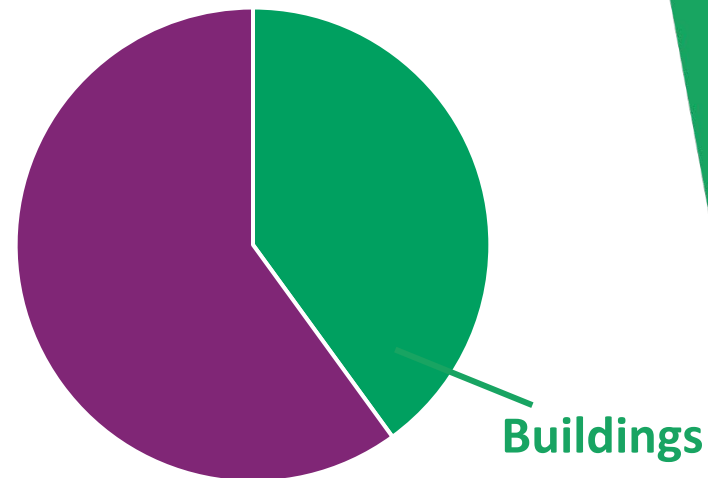
Buildings

What is Benchmarking?

Building energy benchmarking refers to measuring a building's energy use (and in some cases water use) and comparing it to the energy use of similar buildings, its own historical energy use, or a reference performance level.

- Benchmarking **energy use** of buildings is a key first step to understanding and improving energy performance and reducing carbon footprints

The Benefits of Benchmarking

BUILDING OWNERS

Potential for reduced energy use, cost savings, and emission reductions

PUBLIC

Reduce GHG emissions, improve indoor and outdoor air quality, create local energy efficiency jobs, and improve public health.
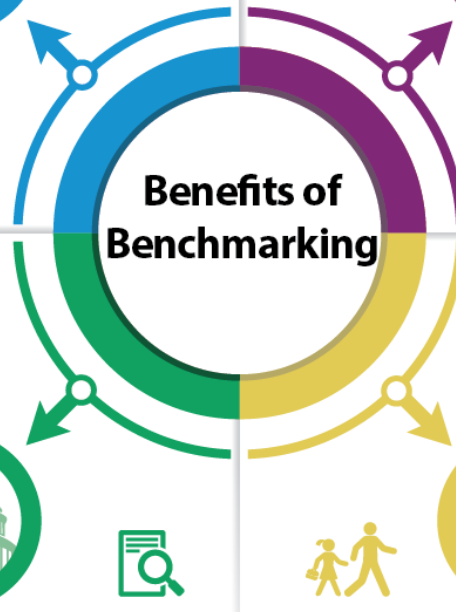
STATE AND LOCAL GOVERNMENTS

Gather data to inform government priorities and goals, such as energy savings and GHG emissions targets

TENANTS/ RESIDENTS

Access to information on building energy use, improved comfort, productivity, and tenant satisfaction

Benefits of Benchmarking

Current Policies for Existing Buildings

U.S. City, County, and State Policies for Existing Buildings:
Benchmarking, Transparency, and Beyond

- Requirements of achieving performance targets or completing additional actions
- Benchmarking policy for public, commercial, and multifamily buildings adopted
- Benchmarking policy for public and commercial buildings adopted

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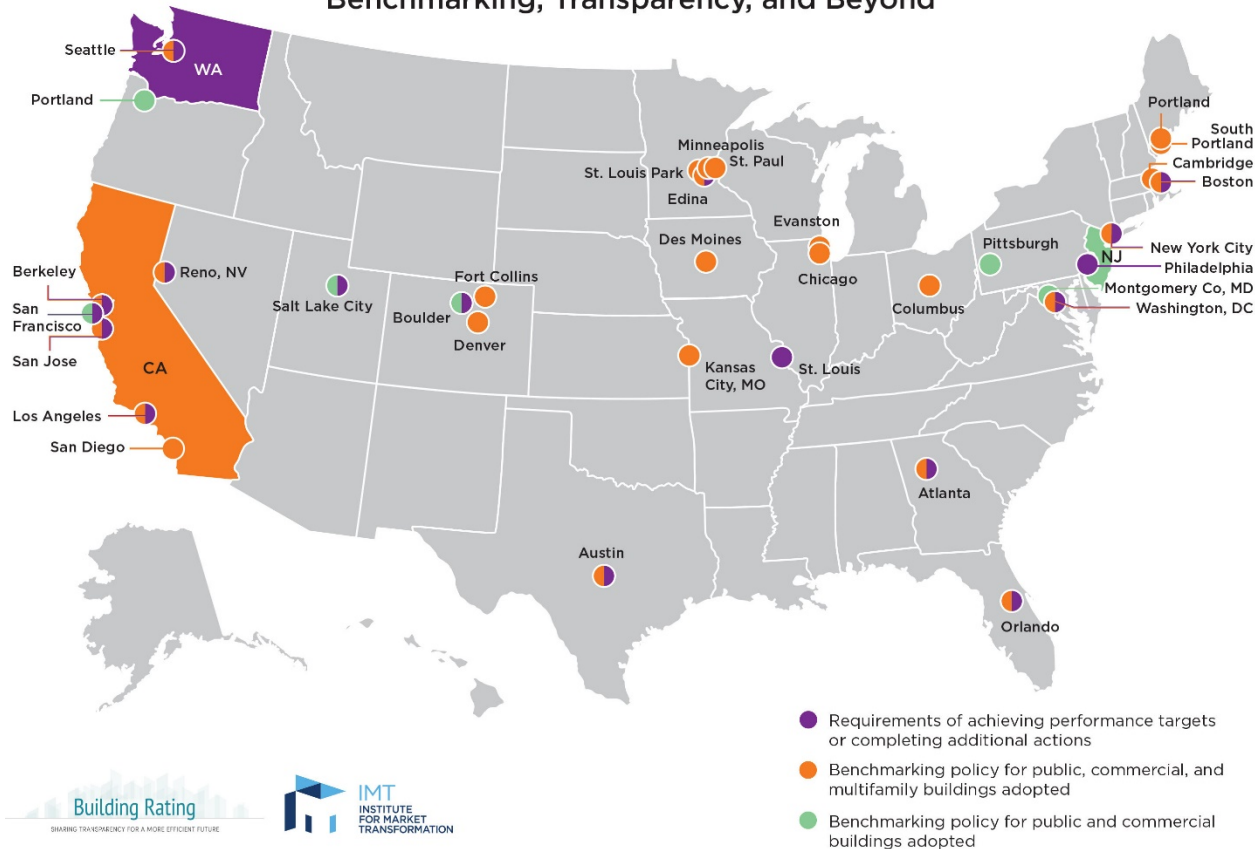
Dozens of state and local governments have initiated voluntary programs and enacted mandatory **benchmarking policies** for public, commercial, and multifamily buildings. Many have coupled these policies with other programs aimed at encouraging or requiring reductions in energy use, including voluntary campaigns, audits and/or retrocommissioning, or **building performance standards**

What is a Building Performance Standard (BPS)?

A **building performance standard** is a policy that requires building owners to meet performance targets by actively improving their buildings over time.

- A BPS may be adopted by state or local governments and applied to existing commercial and multifamily buildings

- Can be designed to improve performance for a variety of building aspects —including **energy use, water use, and emissions**—and send market signals to encourage investments in energy efficiency and other clean energy technologies and strategies

States and Cities with GHG Emissions Reduction Goals

Aligning a BPS with **decarbonization** objectives can help ensure that the standards outlined for buildings produce the necessary reductions to help meet a jurisdiction's climate goals

Legend

- Under 20% reduction by 2025
- 20-60% reduction by 2020-2035
- 70-95% reduction by 2035-2050
- Net-zero or zero emissions goal by 2045-2050
- State does not have an emission target

Toolkit Sections

- **Section 1 – Building Energy Benchmarking and Transparency: Overview for State and Local Decision Makers**. Provides information about benchmarking and transparency policies, describes key considerations for success, and demonstrates how government leaders have used benchmarking to help enact a BPS

- **Section 2 – Building Performance Standards: Overview for State and Local Decision Makers**. Provides an overview of building performance standards and offers information on key decision points to consider when designing a BPS

- **Section 3 – State and Local Government Coordination: Benchmarking and Building Performance Standards**. Describes the varied roles that state and local decisions makers have in establishing existing building policies and opportunities to coordinate across jurisdictions

- **Section 4 – Data Access: A Fundamental Element for Benchmarking and Building Energy Performance Policies**. Describes the critical role that utilities play in providing whole-building energy consumption data to enable compliance with benchmarking and transparency and BPS polices

- Toolkit Homepage www.epa.gov/statelocalenergy/benchmarking-and-building-performance-standards-policy-toolkit

Using the Toolkit

State and local government can use this toolkit to:

- Plan and implement effective benchmarking and transparency policies

- Learn about the emerging policy area of building performance standards

- Understand opportunities for cross-jurisdictional coordination

- Access utility data critical to complying with benchmarking and building performance standards reporting requirements

- Connect with EPA experts who can deliver direct technical support

EPA Technical Support for State and Local Governments

EPA is available to provide technical support to state and local governments across all phases of policy development and implementation, including:

- Direct support for using EPA's ENERGY STAR® Portfolio Manager® tool

- Share best practices across governments

- Provide access to helpful resources

- Offer technical assistance related to quantifying the multiple benefits of energy efficiency

- Deliver other policy support as needed

Is your state or local government considering adopting any of the following requirements?

- Benchmarking
- Building performance standard
- Benchmarking and building performance standard
- No, we are not considering such polices at this time
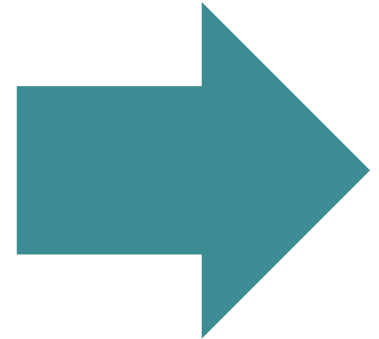
Poll 1

Section 1

Building Energy Benchmarking and Transparency: Overview for State and Local Decision Makers

Decision Points for Designing a Benchmarking Policy

Determine the department responsible for administration and funding support

Identify the sectors and building types that are covered or exempted

Determine a reporting schedule and process

Identify an approach to ensure data quality

Decide on an approach and timeframe for transparency

Determine how to use benchmarking data

ENERGY STAR Portfolio Manager

- The go-to tool for collecting energy and water use data from commercial and/or multifamily housing buildings

- Fast facts:
  - The tool is completely cost-free to use
  - Buildings can use the tool to track GHG emissions and energy, water, and waste costs
  - 1-100 ENERGY STAR scores indicate a building's energy performance compared to similar buildings nationwide

- Can be used to:
  - Check for possible errors using the data quality checker,
  - Set goals and track progress toward them,
  - Share or transfer properties,
  - Run custom and pre-populated reports, and
  - Apply for ENERGY STAR certification-EPA recognition for top performance

ENERGY STAR®
PortfolioManager®

Key Considerations for Success

Contact the experts for assistance

Determine requirements in the law versus rulemaking process

Learn about current activity and aligned organizations

Consider going beyond energy

Ensure building owners have access to data

Set up a reporting mechanism

Align reporting deadlines with Portfolio Manager updates

Focus on data quality

Consider the timeframe and format(s) for disclosure

Create a list of covered buildings

Set up for success in Portfolio Manager

Get EPA support on Portfolio Manager trainings for staff and community

Develop materials and mechanisms for compliance support

Section 2
Building Performance Standards: Overview for State and Local Decision Makers

Stakeholder Engagement

Stakeholder engagement is a critical element of designing and implementing a BPS

Identify interested stakeholders

- Assemble a comprehensive list of stakeholders to involve
- Prioritize inclusion over selectivity
- Create an open process to facilitate information sharing and dialogue

Create a structure of engagement

- Allow for flexibility (e.g., holding in-person meetings with virtual components)
- Provide more than one opportunity for stakeholder to engage
- Streamline communications with a contact list

Allow for ongoing engagement

- Develop a working group or board to guide decisions
- Create a benchmarking help desk to offer support and build a relationship with stakeholders

Key Considerations

Align and Establish Goals
- Alignment with decarbonization goals
- Performance metrics

Determine Covered Properties
- Property Types
- Exemptions and Accommodations

Consider Compliance Approaches
- Compliance Approaches
- Enforcement for Non-compliance

Provide Support to Building Owners
- Technical Support
- Funding Support

Establish Reporting Requirements
- Reporting Mechanism
- Access to Historical Data
- Changes to metrics in Portfolio Manager

Performance Metrics Considerations

- Choosing specific metrics for a BPS involves balancing several considerations, such as:

  - Normalizing for key operational parameters
  - Recognizing differences in property type when setting standards
  - Setting a timeframe for compliance and interim milestones
  - Ensuring that performance is measured and standards are set based on high-quality data
  - Changing standards based on local considerations

- As BPS policies are evolving, EPA will seek to add new toolkit resources, including a resource to help state and local governments identify performance metrics

Section 3
State and Local Government Coordination: Benchmarking and Building Performance Standards

State and Local Government Coordination

- While much of the activity around benchmarking and BPS policies has occurred at the local level, some states have begun adopting policies

- With activity occurring across various jurisdictions at the city, county, and state levels, decision makers can coordinate on a variety of policy design and implementation elements

- Coordination can lead to:
    - Improved policies and reduced compliance burdens for building owners, helping state and local governments achieve policy goals
    - Shared information
    - Efficient use of resources
    - Increased transparency

How State and Local Governments Can Benefit from Coordination

Benefits to:

States, from working with locals:

- Energy savings and emission reductions from improved compliance
- Expanded access to building owners through government relationships
- Improved covered buildings list
- Better benchmarking from building owners

Locals, from working with states:

- Improved data access from states' ability to regulate utilities
- Improved stringency from local governments
- More uniform data collection
- Potential access to financial or technical support
- Ensures local initiatives are not overwritten by state mandates

States and locals, from cross-local or cross-state coordination:

- Better policies and implementation from information sharing
- More efficient troubleshooting
- Reduced data access issues
- More-cost effective from data sharing
- More consistent requirements
- More coordinated strategies and support

Opportunities for Local and State Coordination

Understanding Roles

Establishing Relationships

Setting Policy Goals

Creating a Covered Buildings List

Administering Programs
- Reporting and compliance
- Flexibility for local governments
- Establishing fines
- Funding and staffing

Ensuring Access to Data

Section 4
Data Access: A Fundamental Element for Benchmarking and Building Energy Performance Policies

What is Data Access and Why Does it Matter?

Building energy benchmarking and transparency laws require buildings to measure energy use, report usage on an annual basis, and make performance information available to the public

Can serve as the basis for a BPS, often with interim targets that drive energy savings and emission reductions
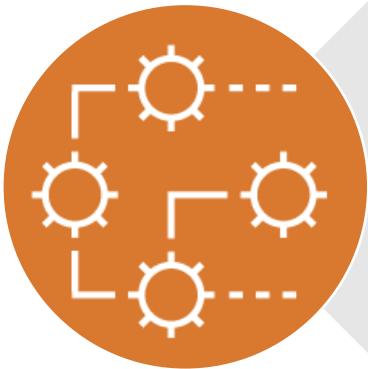
Especially important in the context of multitenant office and/or multifamily properties, where tenants often pay some or all of their own utility bills

Key Considerations

Policy Considerations

- Customer data privacy
- Cost recovery

Technical Considerations

- Mechanisms for delivering data

Data Access: More Information

- **[Data Access: Sample Policy Language](#)**. Fact sheet that offers sample policy language to support utility data access

- **[Data Access: How to Compile and Deliver Aggregate Whole-Building Data](#)**. Fact sheet that describes technical considerations that utilities must work through to successfully compile and deliver aggregate whole-building data

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Question and Answer Session

Join our March 24 Webinar!
An Introduction to Electric Vehicle-Ready Buildings
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