



**Better
Buildings®**
U.S. DEPARTMENT OF ENERGY

**Department of Housing and Urban Development (HUD)
Public Housing- Utility Tracking and Benchmarking
Roundtable**

Better Buildings Summit

Monday, May 9th

DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
PUBLIC HOUSING
UTILITY TRACKING AND
BENCHMARKING
ROUNDTABLE

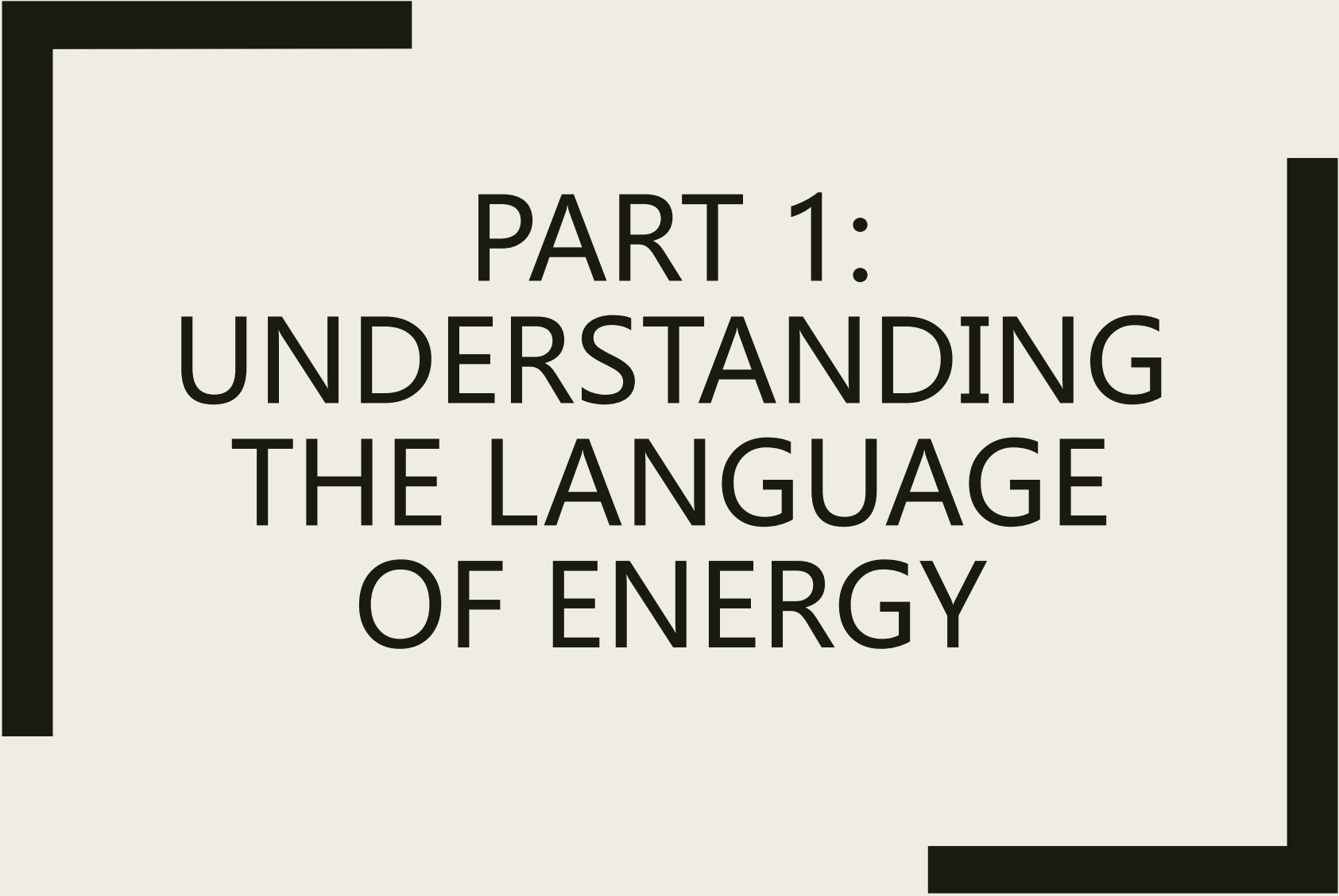
Monday, May 9, 2016

3:45 - 5:00

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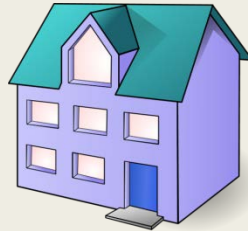
Part 1: Understanding The
Language of Energy

Part 2: Benchmarking



**PART 1:
UNDERSTANDING
THE LANGUAGE
OF ENERGY**

Which House Uses More Energy?



Less Energy <-----
> *More Energy*

Electricity (kWh) -----> BTU

Natural Gas (therm, CF, etc) --> BTU

Fuel Oil (gallon) -----> BTU

Diesel (gallon) -----> BTU

+ Other Energy Consumption -----> BTU

Total Energy -----> BTU

Which House is the Most Energy Efficient?

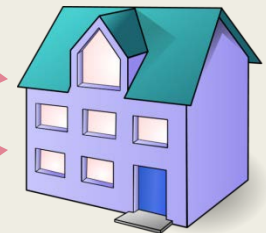


Energy Consumption / Square Foot

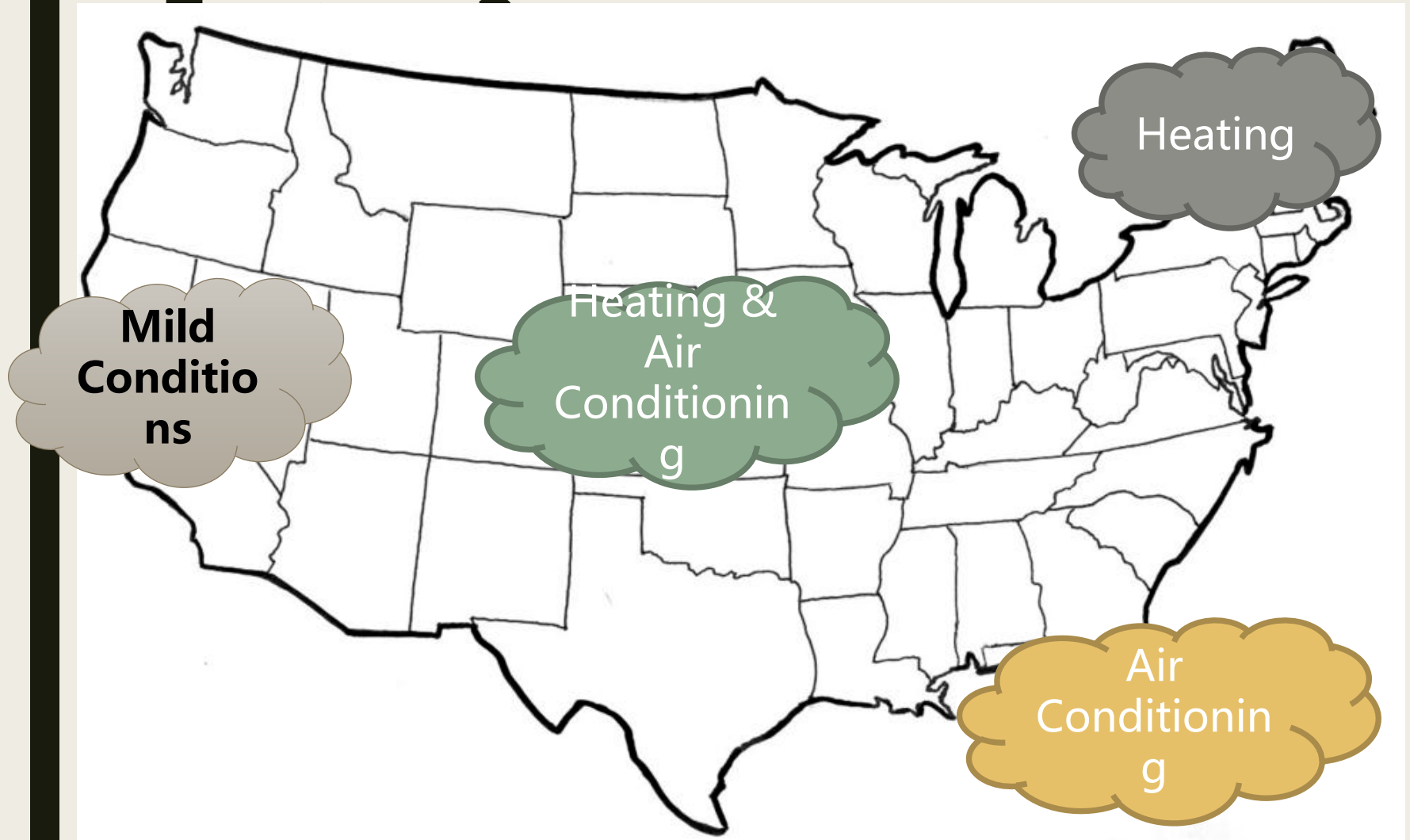
Energy Consumption / Apartment

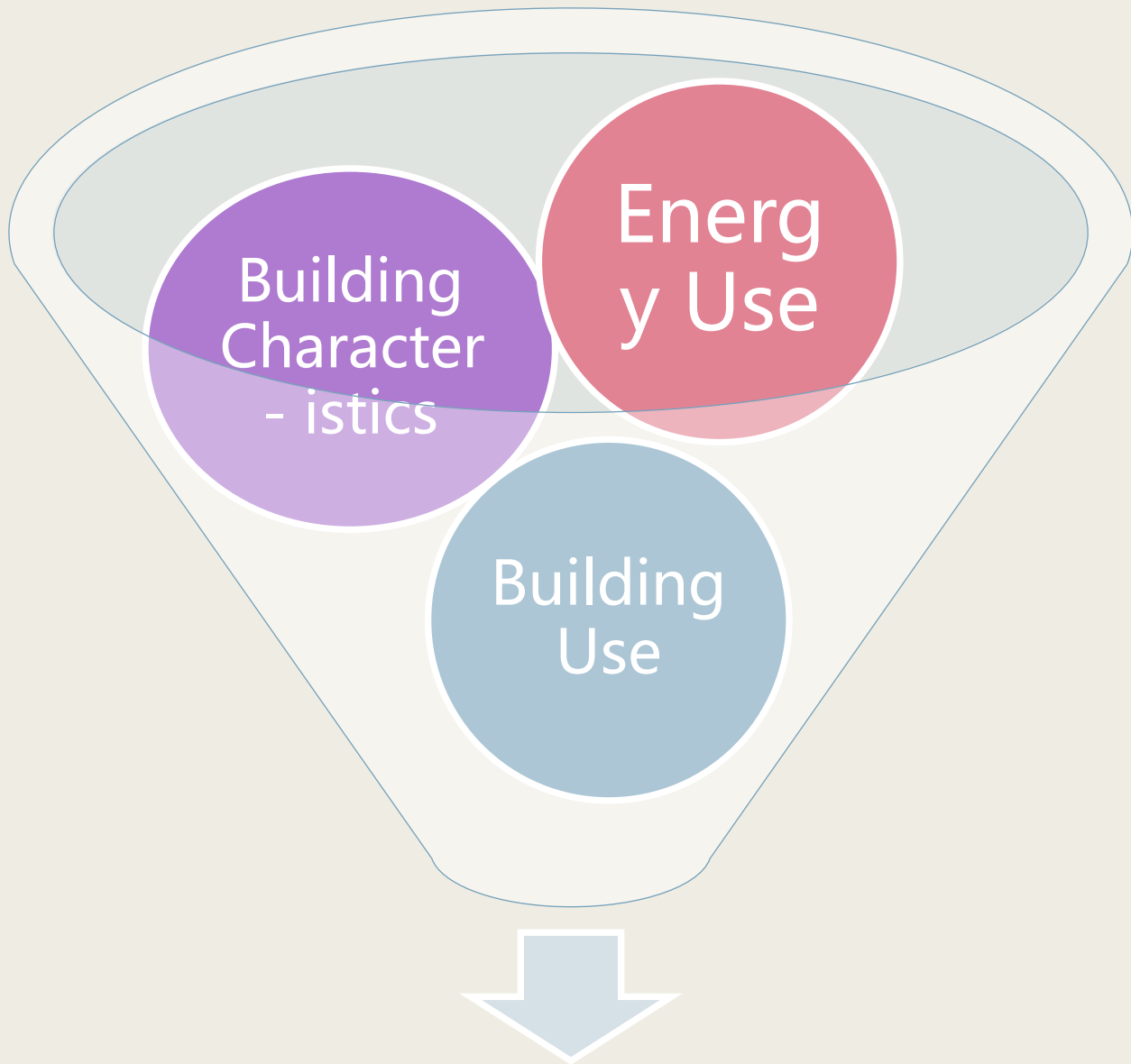
Energy Consumption / Occupant

Energy Consumption / Hours of Occupancy



What About Location?





Benchmarking Score



**PART 2:
BENCHMARKIN
G**

Benchmarking

Benchmarking is a simplified way to compare the energy efficiency of different buildings while taking into account...

- *Building Characteristics*
- *Building Occupancy*
 - People, hours of operation (housing is 24 hours)
- *Local Temperature*
 - Heating Degree Days, Cooling Degree Days
- *Building Use Patterns*
 - Restaurant, Community Center

Main Components of Benchmarking

Energy Consumption

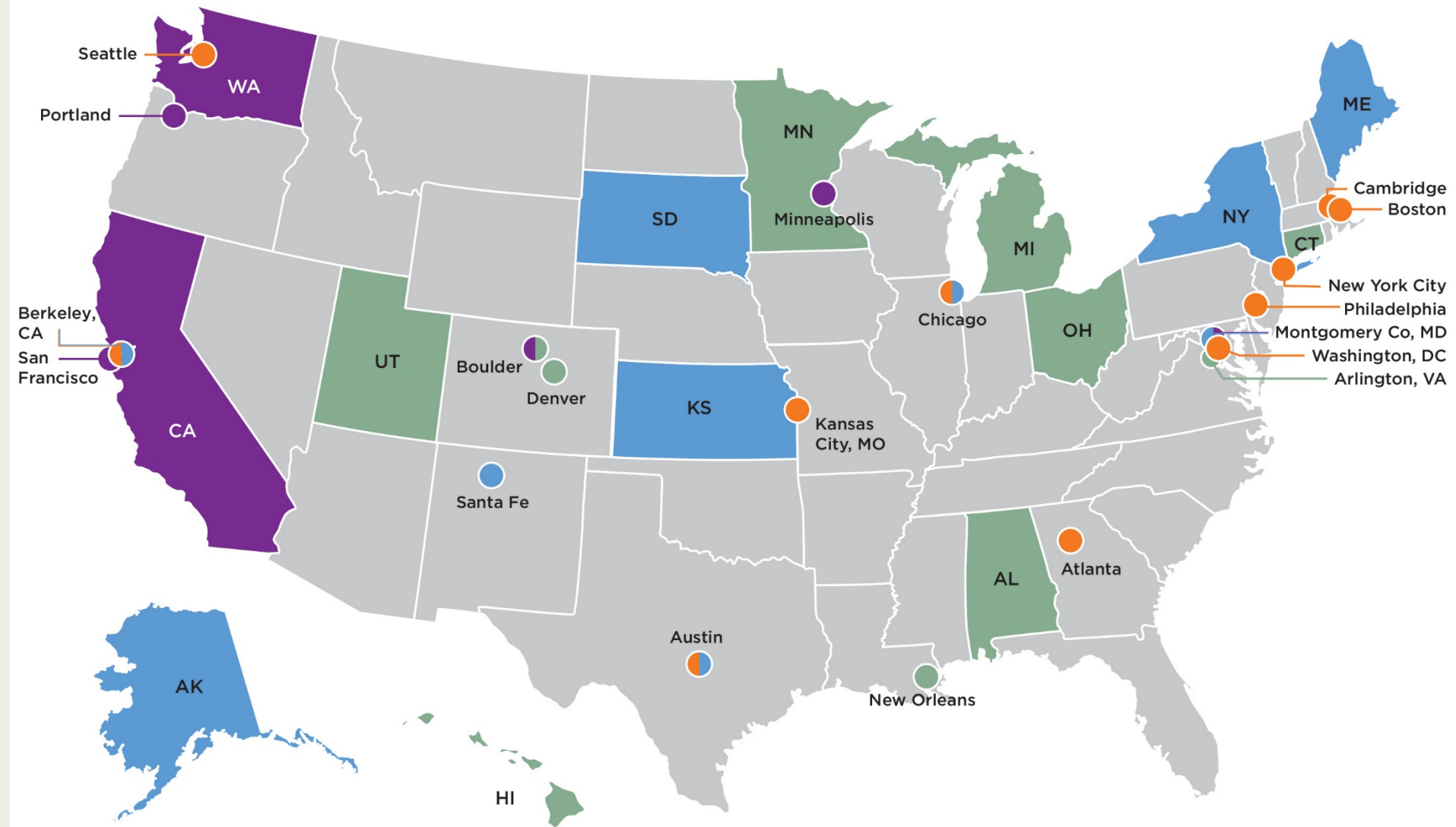
- Electricity
- Natural Gas
- Fuel Oil
- Water

+ Building Characteristics

- Building Square Footage
- Use Patterns

Benchmarking Score

U.S. Building Benchmarking and Transparency Policies



- Commercial policy adopted
- Commercial & multifamily policy adopted
- Public buildings benchmarked
- Single-family transparency adopted

Building Rating

SHARING TRANSPARENCY FOR A MORE EFFICIENT FUTURE



IMT
INSTITUTE
FOR MARKET
TRANSFORMATION



UTILITY
COMPANY
BENCHMARKIN
G



How does my home use energy?



Electricity Costs 3/25/2016 to 4/26/2016

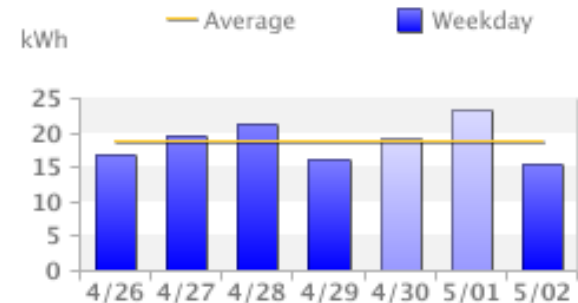


- Water Htg & Laundry \$37
- Other \$16
- Lighting \$16
- Food Storage \$10
- Cooking \$2
- Heating \$2

When does my home use energy?



Daily Energy Use and Average



Meter:

We're sorry, but we are unable to provide your meter data at this time.

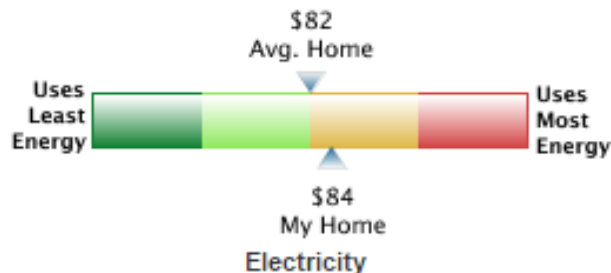
Energy Use Analysis

View graphs of my daily or hourly energy use. Loading your energy charts may take several seconds.

How does my home compare?



Electricity Costs 3/25/2016 to 4/26/2016

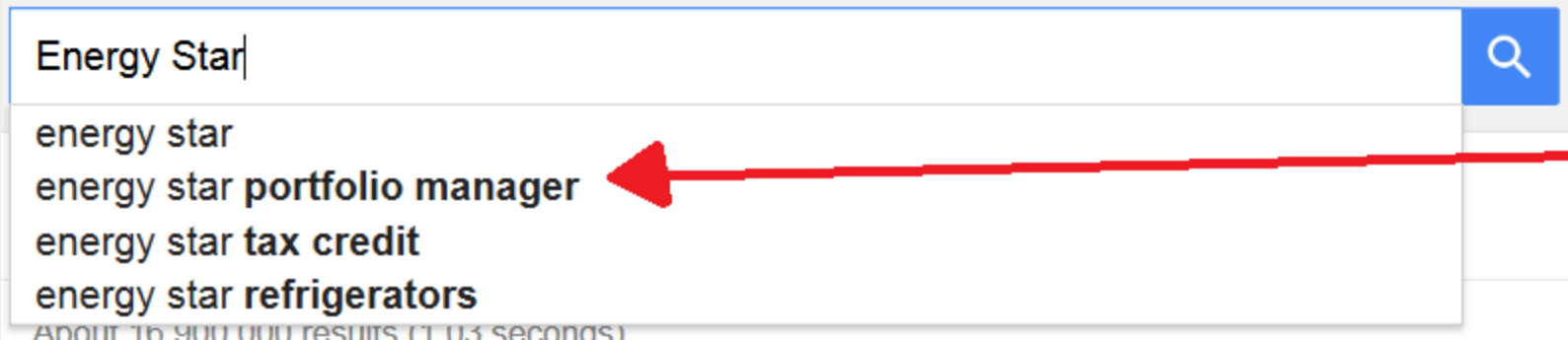


Your home used more energy than the average similar home.

The image features two large, thick black L-shaped brackets. One is positioned in the top-left corner, and the other is in the bottom-right corner, framing the central text.

**ENERGY STAR
PORTFOLIO
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Energy Star Portfolio Manager



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IN THIS SECTION

Learn the benefits ▶

Get started ▶

Use Portfolio Manager ▼

How Portfolio Manager helps you save

The benchmarking starter kit

Identify your property type ▶

Enter data into Portfolio Manager

The data quality checker

How Portfolio Manager calculates metrics ▶

Interpret your results ▶

Verify and document your savings ▶

Share and request data

Updates to ENERGY STAR scores with CBECS data



ENERGY STAR®
PortfolioManager®

The most-used energy measurement and tracking tool for commercial buildings.

Use Portfolio Manager

You've heard it before: you can't manage what you don't measure. That's why EPA created ENERGY STAR Portfolio Manager®, an online tool you can use to measure and track energy and water consumption, as well as greenhouse gas emissions. Use it to benchmark the performance of one building or a whole portfolio of buildings, all in a secure online environment.

Not sure if Portfolio Manager is for you? It is!

You can use Portfolio Manager to manage the energy and water use of any building. Seriously. Any building. K-12 school? Check. Office building? Check. Stadium? Check. We could keep going. All you need are your energy bills and some basic information about your building to get started.

Portfolio Manager® to GRESB Converter



Convert
Portfolio Manager
data into GRESB
Performance Indicators

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PortfolioManager®



Discover the new
and improved
Portfolio Manager
today.

SIGN UP

Not sure if Portfolio Manager is for you? It is!

You can use Portfolio Manager to manage the energy and water use of any building. Seriously. Any building. K-12 school? Check. Office building? Check. Stadium? Check. We could keep going. All you need are your energy bills and some basic information about your building to get started.

Are you designing a new commercial building? You can also use Portfolio Manager to set your energy use target and see how your estimated design energy stacks up against similar existing buildings nationwide.



Join the rest of the industry.

When you add your buildings, you'll be joining 40 percent of U.S. commercial building space that's already benchmarked in Portfolio Manager — making it the industry-leading benchmarking tool. You'll also be joining more than half of the Fortune 100®, half of the largest U.S. healthcare organizations, major league sports teams, colleges and universities, and entire cities.

It's only growing.

And it's on the move. Portfolio Manager is the tool of choice among cities such as New York, Seattle, and Boston that have passed mandatory benchmarking laws. Not only that but Portfolio Manager is used by the Canadian Government as the platform for

today.

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Looking for Portfolio Manager technical support? Visit our [help center](#).

Sources of Utility Data

- Utility Provider
 - *Paper Utility Bills*
 - *Online Access with Utility Provider*
- *Utility Meters & Sub Meters*



ALLISON ACKERMAN

ALLISON.L.ACKERMAN@HUD.GOV

(202) 402 - 5445

