The City of Seattle's Mandatory Benchmarking and Disclosure Program

ACEEE/CEE Market Transformation Symposium
April 11, 2011

City of Seattle
Department of Planning and Development

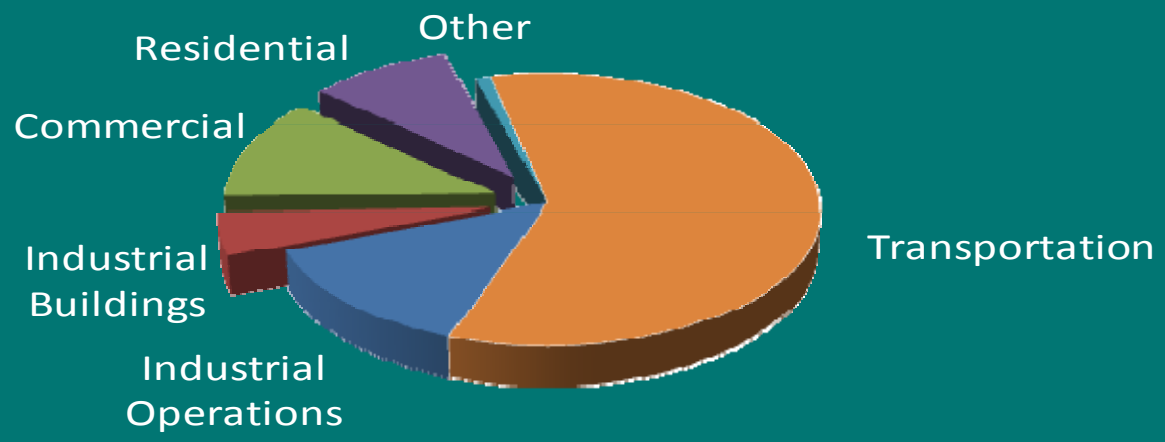
Agenda

- Background
- Overview of Seattle's Program
- Timeline/Scope
- Program Design
- Role of Utilities
- Lessons Learned

Climate Protection Initiative

Reduce greenhouse gas emissions:

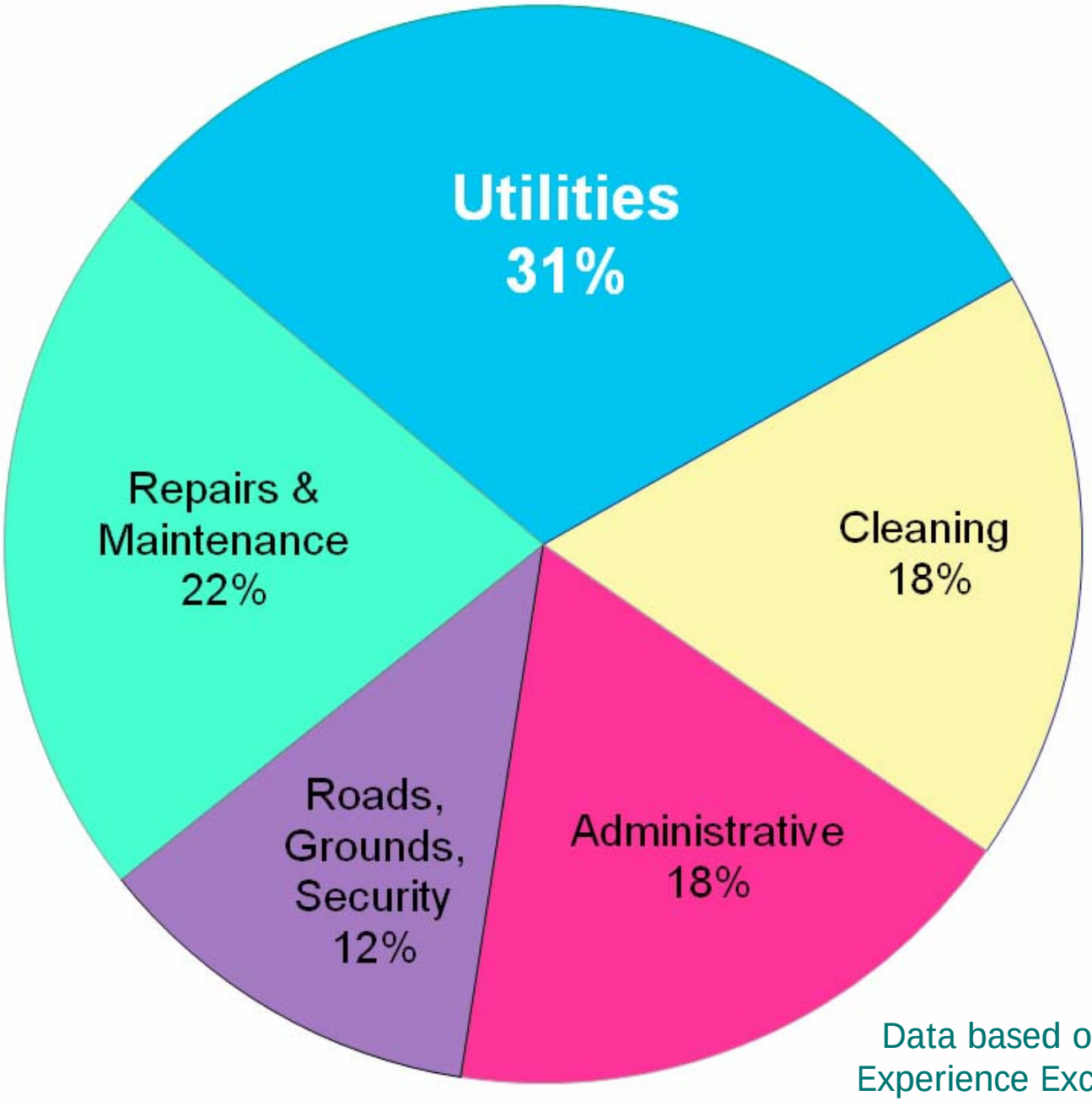
- 7% below 1990 levels by 2012
- 30% below 1990 levels by 2024
- 80% below 1990 levels by 2050



Buildings account for 26% of our carbon footprint

Green Building Capital Initiative

- Improve the energy efficiency of residential and commercial buildings
  - Improve energy efficiency in existing buildings by 20% by 2020
  - Improve energy efficiency in new buildings and major retrofits consistent with intent of the 2030 Challenge
- 50 stakeholders in 14 meetings July 2008 to Jan 2009 to provide feedback on policies the City can adopt to meet these goals

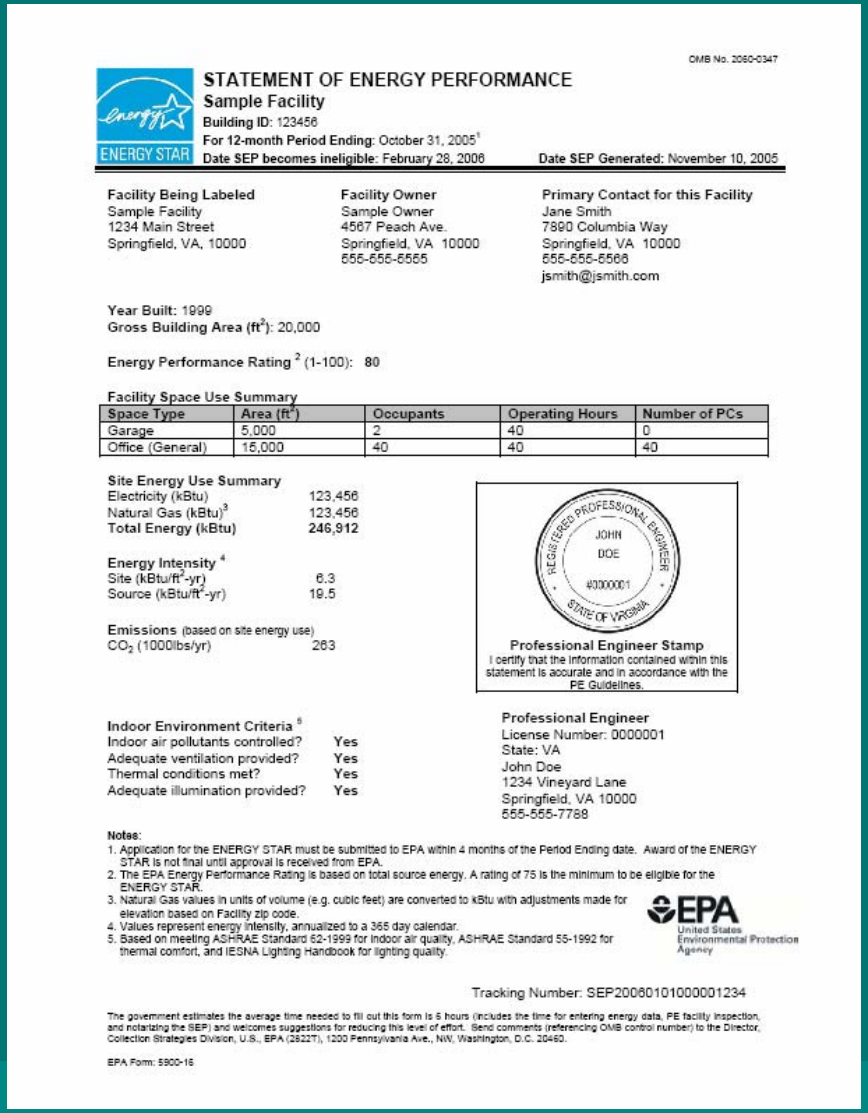


Data based on 2008 BOMA Experience Exchange Report

Seattle's Disclosure Ordinance

Allow an informed market to drive energy efficiency improvements

- Benchmarking
- Disclosure
- Annual reporting



OMB No. 2060-0347

ENERGY STAR

STATEMENT OF ENERGY PERFORMANCE
Sample Facility
Building ID: 123456
For 12-month Period Ending: October 31, 2005[1]
Date SEP becomes ineligible: February 28, 2006 **Date SEP Generated:** November 10, 2005

Facility Being Labeled
Sample Facility
1234 Main Street
Springfield, VA, 10000

Facility Owner
Sample Owner
4567 Peach Ave.
Springfield, VA 10000
555-555-5555

Primary Contact for this Facility
Jane Smith
7890 Columbia Way
Springfield, VA 10000
555-555-5566
jsmith@jsmith.com

Year Built: 1999
Gross Building Area (ft²): 20,000

Energy Performance Rating[2] (1-100): 80

Facility Space Use Summary

Space Type	Area (ft²)	Occupants	Operating Hours	Number of PCs
Garage	5,000	2	40	0
Office (General)	15,000	40	40	40

Site Energy Use Summary

Electricity (kBtu)	123,456
Natural Gas (kBtu)[3]	123,456
Total Energy (kBtu)	**246,912**

Energy Intensity[4]

Site (kBtu/ft²-yr)	6.3
Source (kBtu/ft²-yr)	19.5

Emissions (based on site energy use)

CO_2 (1000lbs/yr)	263

REGISTERED PROFESSIONAL ENGINEER · JOHN DOE · #0000001 · STATE OF VIRGINIA

Professional Engineer Stamp
I certify that the information contained within this statement is accurate and in accordance with the PE Guidelines.

Indoor Environment Criteria[5]

Indoor air pollutants controlled?	Yes
Adequate ventilation provided?	Yes
Thermal conditions met?	Yes
Adequate illumination provided?	Yes

Professional Engineer
License Number: 0000001
State: VA
John Doe
1234 Vineyard Lane
Springfield, VA 10000
555-555-7788

Notes:
1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Natural Gas values in units of volume (e.g. cubic feet) are converted to kBtu with adjustments made for elevation based on Facility zip code.
4. Values represent energy intensity, annualized to a 365 day calendar.
5. Based on meeting ASHRAE Standard 62-1999 for indoor air quality, ASHRAE Standard 55-1992 for thermal comfort, and IESNA Lighting Handbook for lighting quality.

EPA United States Environmental Protection Agency

Tracking Number: SEP20060101000001234

The government estimates the average time needed to fill out this form is 6 hours (includes the time for entering energy data, PE facility inspection, and notarizing the ISEP) and welcomes suggestions for reducing this level of effort. Send comments (referencing OMB control number) to the Director, Collection Strategies Division, U.S., EPA (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460.

EPA Form: 5900-16

Benchmarking

- Benchmarking -> Building Owners
  - Establish a baseline of energy performance for each property
  - Guide energy efficiency investment decisions
- Disclosure -> Affected Parties
- Annual reporting -> City of Seattle

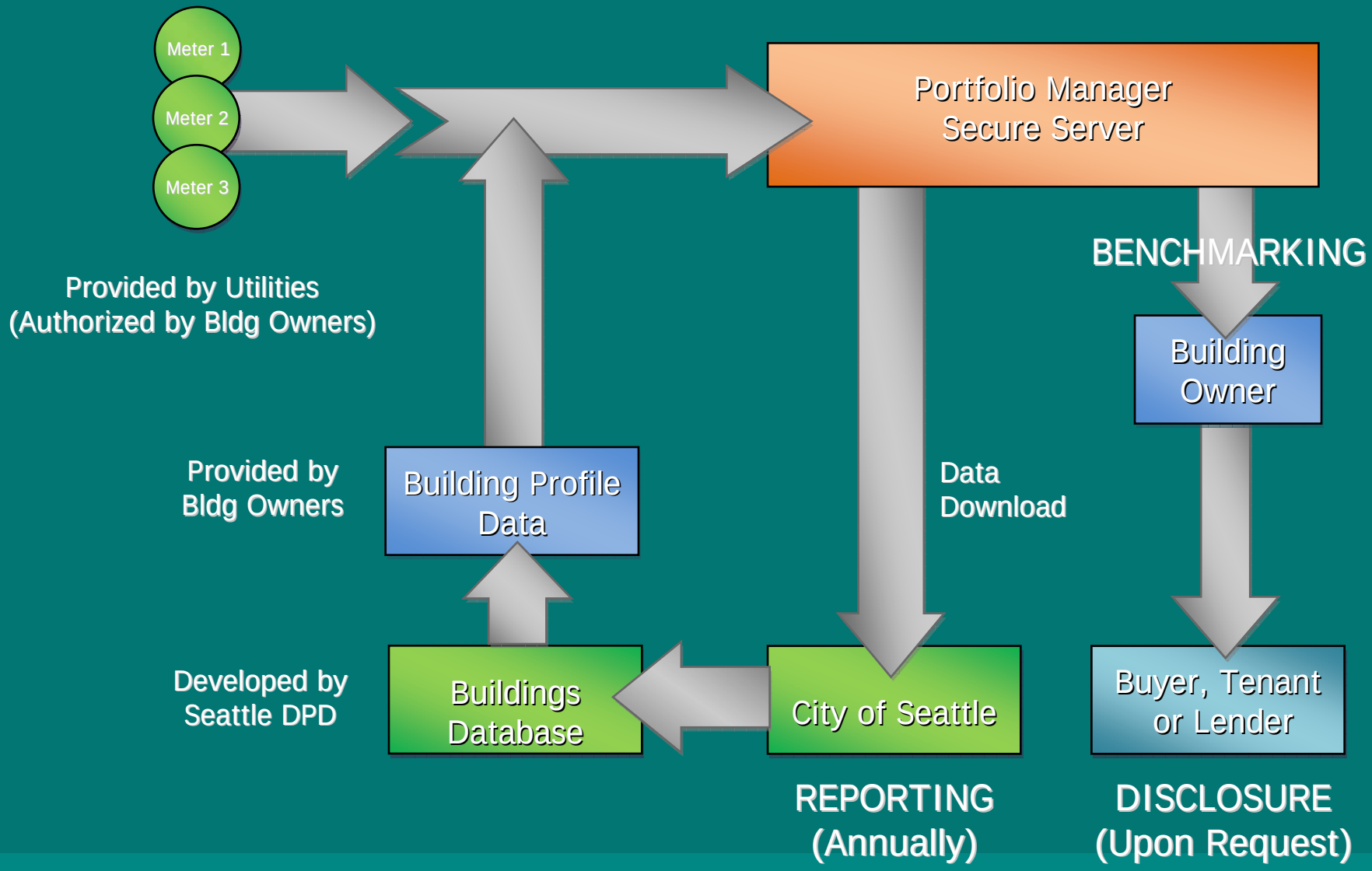
Disclosure

- Benchmarking -> Building Owners
- Disclosure -> Affected Parties
  - Compare performance (and future operating costs) between similar properties
  - Guide purchasing, leasing and financing decisions
- Annual reporting -> City of Seattle

Reporting

- Benchmarking -> Building Owners
- Disclosure -> Affected Parties
- Annual reporting -> City of Seattle
  - Monitor changes in energy use across the entire portfolio of buildings in the city
  - Identify market sectors with the greatest needs and opportunities (guide future policies and incentive programs)
  - Guide development of future policies and incentive programs

Process Flow Diagram



Seattle's Implementation Schedule

Sector	Requirements
Non-Residential	▪ Mandatory disclosure of Energy Star Portfolio Manager benchmarking data and rating ▪ Reported through EPA secure server
Properties > 50,000 SF 868 Buildings, 155 million SF	▪ B yOct 3, 2011 and annually thereafter (6-month grace period from Apr 1, 2011)
10,000Properties to 50,000SF 2,330 Buildings, 49 million SF	▪ B yApr 1, 2012 and annually thereafter
Family-Multi	▪ Mandatory disclosure of Energy Star Portfolio Manager benchmarking data ▪ Reported through EPA secure server
Properties With ≥ 5 Units 5,760 Buildings 93,800 Units	▪ B yApr 1, 2012 and annually thereafter

Program Elements

- Policy Development
- Outreach Campaign
- IT Development
- Training/Support Materials
- Analysis of Annual Reports
- Compliance/Enforcement
- Referrals to Conservation Programs
- Program Evaluation

Stakeholder Concerns

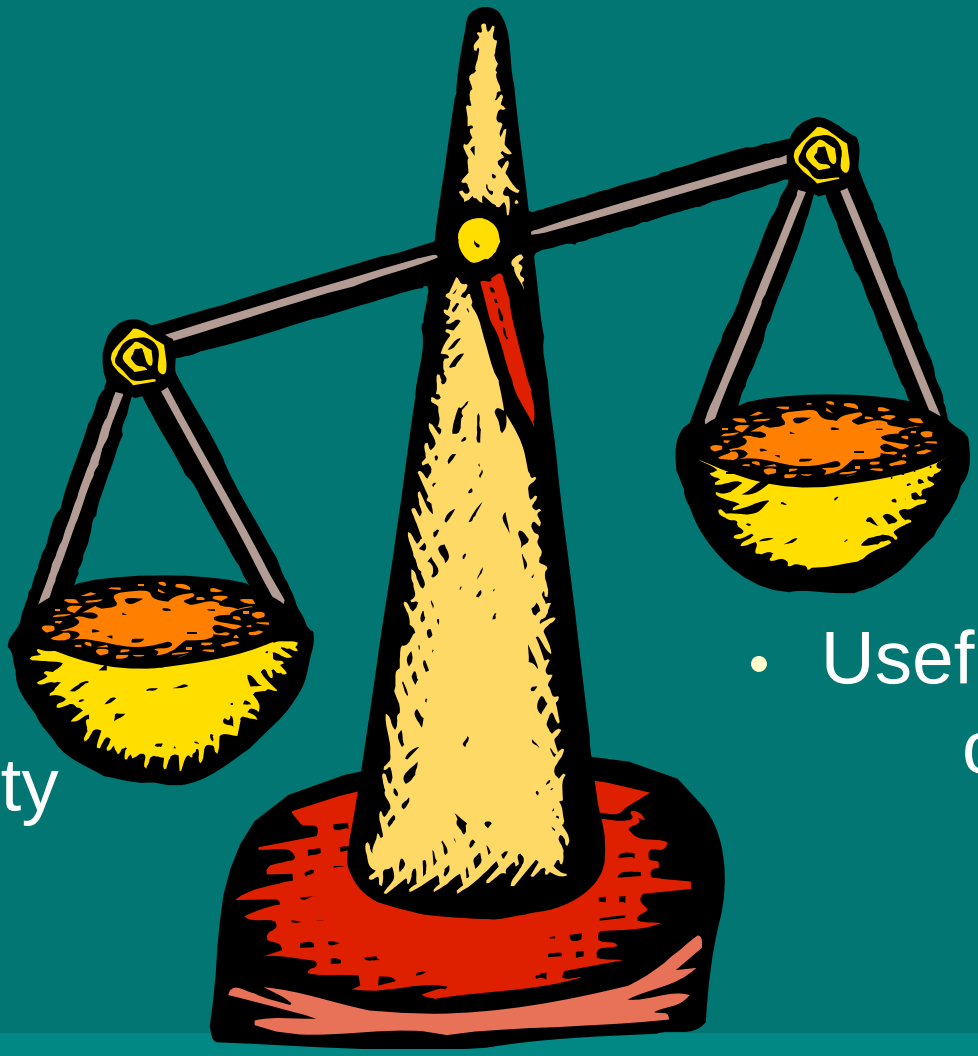
- What do I have to do?
- What if I'm already benchmarking?
- How much work will this create?
- What meters/spaces are included?
- How is the information going to help me?
- Is confidentiality of the data protected?

Partnership of City and Utilities

- Serving Utilities – Data Uploading
  - Reduces workload for building owners
  - Facilitates access to all meters
  - Increases accuracy of data
- Local Jurisdiction
  - Has authority beyond that of utilities
  - Creates consistency in reporting standards
  - Drives traffic to utility conservation programs
  - Provides analysis to inform incentive programs

Data Aggregation Trade-offs

- Ease of compliance
- Preserves confidentiality



- Usefulness of data

Future Needs

- Consistent regional or national data and reporting standards
- Clear guidelines on confidentiality standards as applied to energy consumption data

Lessons Learned

- Outreach is critical
- Must be able to clearly communicate benefits
- No common definition of a “building”
- Every utility is unique

Questions?

Jayson Antonoff
Energy / Climate Change Policy Advisor
City of Seattle Dept of Planning and Development

jayson.antonoff@seattle.gov
206.386.9791

www.seattle.gov/dpd/EnergyBenchmarking