

Seattle Energy Use Benchmarking

**Your Quick Guide to Compliance
(and how to get something out of it)**

Agenda

- Introduction
- The case for benchmarking energy
- What's in it for you?
- Seattle 22.920 details
- How to get it done

Thank You Seattle!



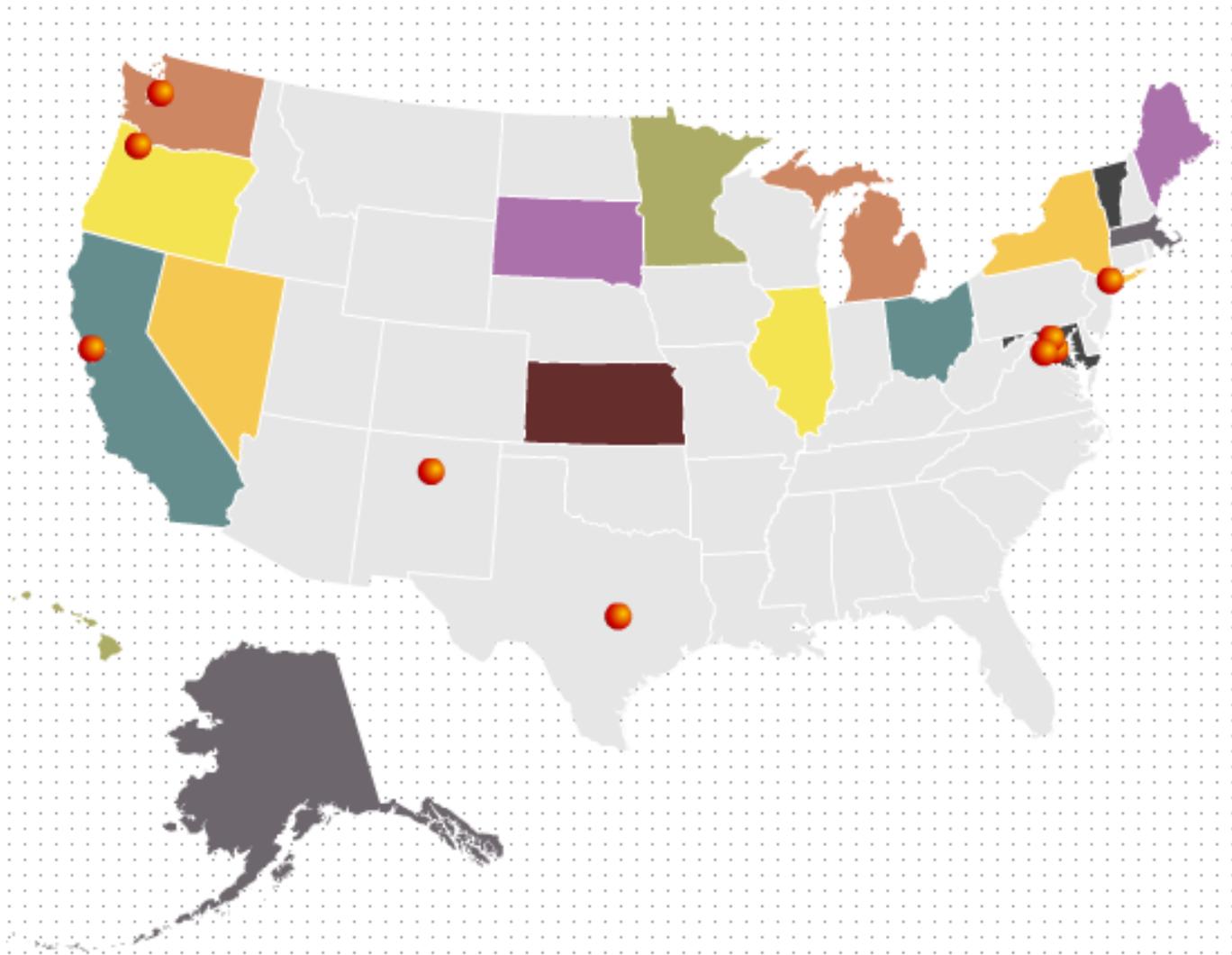
City of Seattle
Office of the Mayor
Office of Sustainability & Environment
Department of Planning & Development



Sustainably Reliable



Leading, Listening and Learning



ENERGYPRINT®

Make the Best of Regulation

- The decision has been made
- You must comply
- Take advantage of the opportunity!

GET YOUR
GREEN ON

Seattle Building Energy Rating & Reporting Ordinance

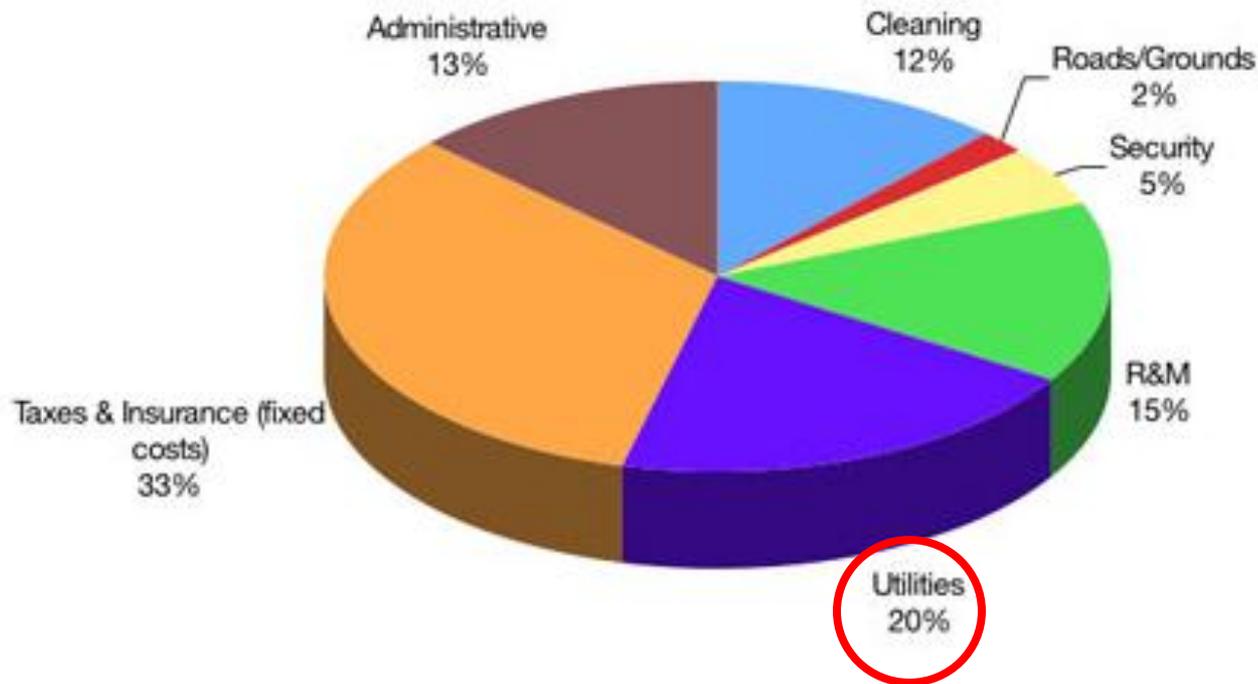
Legislation aimed to inform, educate and improve the energy performance of existing buildings



Why benchmark energy?

Typical Office Operational Costs

- Utilities are typically in the top 3



Non-Residential Operating Cost Index

- Energy is fastest growing Op Ex

Non-Residential Operation Cost Index				Year Over Year Change:	
December 2003 = 100	May. 2011	Apr. 2010	Percent Change	May. 2010	Percent Change
Non-Residential Facility Operations	126.3	125.8	0.4%	120.9	4.5%
Index Components*					
Custodial	111.6	111.5	0.1%	110.6	0.9%
Energy	143.0	140.0	0.0%	132.8	7.7%
Real Estate Management	107.7	106.7	0.9%	106.9	0.7%
Security	108.7	108.7	0.0%	108.4	0.3%
Telecommunications	101.5	101.0	0.5%	100.8	0.7%
Other Indexes					
CPI-Urban Consumers, All Items	122.6	122.0	0.5%	118.4	3.6%

*Five heavily weighted index components are shown.

Sources: U.S. Department of Commerce, U.S. Department of Labor, and Whitestone Research.



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Cost Savings Potential

- According to ENERGY STAR, businesses typically spend 30% more than needed on energy

	Building Total Square Feet			
Cost/Sq Ft	25,000	50,000	100,000	250,000
\$ 2.33	\$ 58,250.00	\$ 116,500.00	\$ 233,000.00	\$ 582,500.00
\$ 1.63	\$ 40,750.00	\$ 81,500.00	\$ 163,000.00	\$ 407,500.00
SAVINGS POTENTIAL	\$ 17,500.00	\$ 35,000.00	\$ 70,000.00	\$ 175,000.00



What's in it for you?



Why Benchmark Energy?

- Triple Bottom Line – You choose why



Benefits - Profit

- OP/EX
 - Increase NOI
 - Increase NAV
- CAP/EX
 - Increase ROI

Increase NOI (Net Operating Income)



Cost per square foot
Previous 12 Months: \$3.19
Current 12 Months: \$2.02

Total cost
Previous 12 Months: \$301,569.65
Current 12 Months: \$191,128.28

Properties Videos Reports Resources

Number of Properties 1 Square Footage 94,459
Eligible Properties 1 Eligible Sq Ft 94,459

Alerts Pending

Energy Usage ?

Cost ? Consumption ? Carbon ?

\$2.01 PREVIOUS 12 MO. \$3.08
72.22 kBtu PREVIOUS 12 MO. 102.79 kBtu
30.62 lbs. PREVIOUS 12 MO. 45.73 lbs.

Property Snapshot

Energy Type: All

UNITS	PREVIOUS 12 MO	CURRENT 12 MO	% CHANGE
Cost/sq. ft	\$3.19	\$2.02	-36.6% ↓
kBtu/sq. ft	106	72	-31.7% ↓
lbs CO ₂ /sq. ft	47.18	30.70	-34.9% ↓



Increase NAV – (Net Asset Value)

	Current	10% Energy Reduction
Energy Exp / sq ft	\$ 2.00	\$ 1.90
Total Energy Expense	\$ 100,000	\$ 90,000
NOI Increase		\$ 10,000
NAV Boost		\$ 125,000

Building Size – 50,000 sq ft.
Energy Reduction -10%
Cap Rate 8%

Increase ROI - Actionable Insights

- Automatic notification of energy anomalies

The screenshot shows the ENERGYPRINT dashboard with a 'Property Alerts' modal window open. The modal contains a table with the following data:

Date	Property	Reason(s)
04/07/2011	Building D 3200 American Blvd. West, Bloomington, MN 55431	Consumption Decrease Weather-Normalized Consumption Increase

The 'Reason(s)' column for the alert is highlighted with a red box. The dashboard background shows the ENERGYPRINT logo, a 'Dashboard' button, and a 'Your Rank' indicator.

Increase ROI - Prioritize



Dashboard

Portfolios

Properties

Videos

Properties

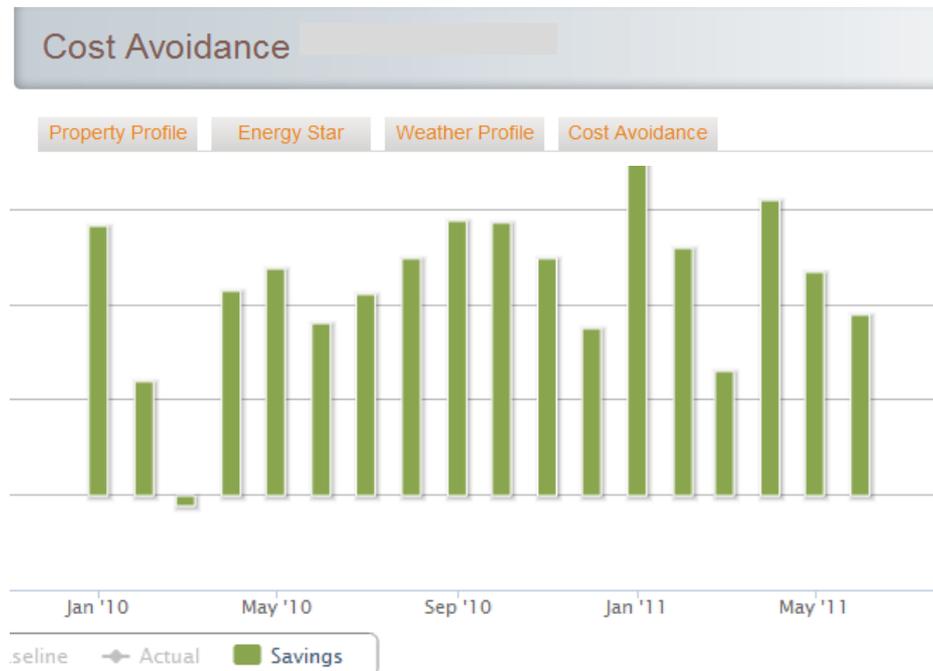
Viewing by:

Property Name	⚠	COST/SQ.FT.	COST % CHANGE	KBTU/SQ.FT.	KBTU % CHANGE
Building B	⚠	\$2.65	11.3% ↑	238	23.4% ↑
Building J	⚠	\$2.26	9.3% ↑	123	22.1% ↑
Building C		\$2.83	10.9% ↑	180	12.3% ↑
Building I		\$2.67	-0.2% ↓	178	-1.2% ↓
Building E		\$1.42	1.9% ↑	84	-3.0% ↓
Building X		\$1.33	-0.2% ↓	77	-3.2% ↓
Building G		\$1.53	-5.0% ↓	79	-7.0% ↓



Increase ROI – Measure impact

	Billed		Weather Normalized	
	Total bldg	Per sq ft	Total bldg	Per sq ft
Cost Avoidance	\$181,533	\$1.92	\$154,361	\$1.63
Kwh Avoidance	1,799,585	19	1,506,571	16



People; Planet

City of Seattle Objectives

- Increase access to comparative energy consumption in buildings
- Encourage the market to drive energy efficiency investments
- Reduce energy use from existing buildings by 20% by 2020
- Reduce greenhouse gas emissions by 80% by 2050



Seattle 22.920/CB116731 Energy Benchmarking Ordinance

Director's Rule

- 52+ pages – all you need to know??

DPD

Director's Rule 6-2011

Applicant: City of Seattle Department of Planning and Development	Page	Supersedes:
	Publication:	Effective: 5/3/2011
Subject: Implementation of Energy Performance Benchmarking	Code and Section Reference: Seattle Municipal Code 22.920 Energy Use Benchmarking	
	Type of Rule: Code Interpretation	

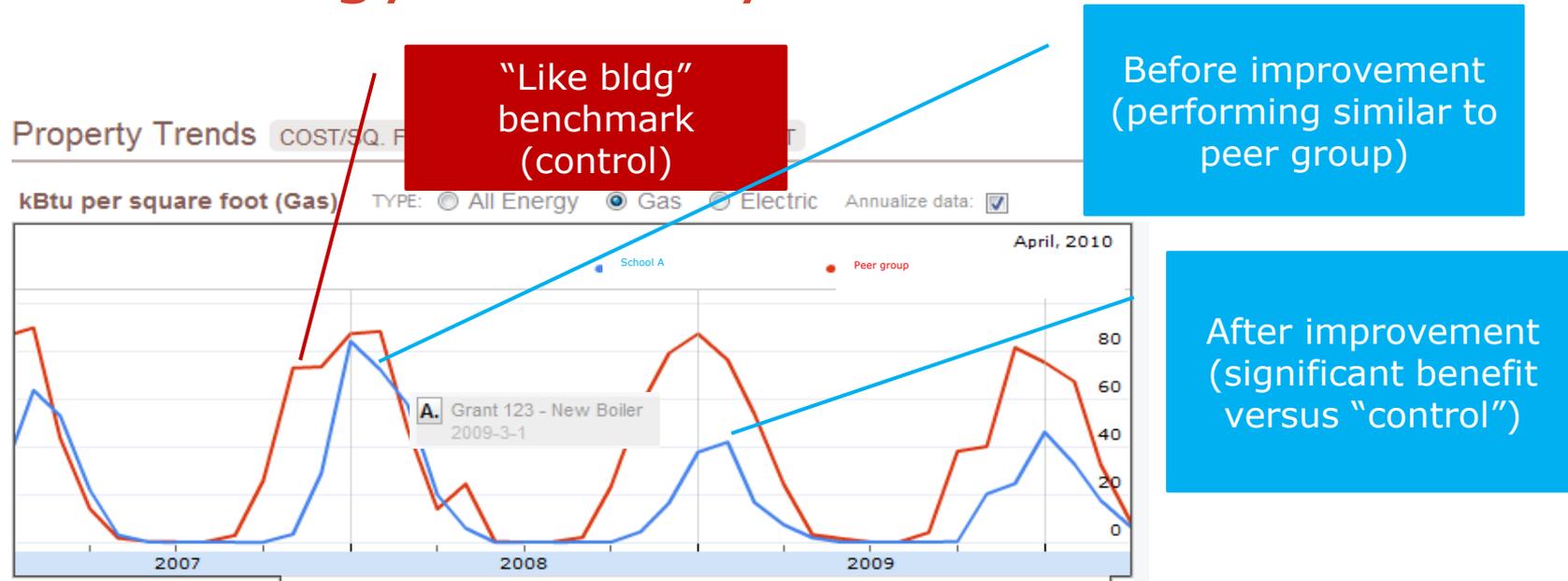


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Seattle 22.920 Components

Benchmarking

- Establish a baseline of energy performance
- Guide energy efficiency investments



Seattle 22.920 (cont.)

Disclosure

- Release energy performance information to tenants, buyer, or lender

			STATEMENT OF ENERGY PERFORMANCE		
			Building ID: 2670811		
			For 12-month Period Ending: December 31, 2010 ¹		
			Date SEP becomes ineligible: N/A		Date SEP Generated: Sep
Facility			Facility Owner		Primary Contact for this
			N/A		N/A
Year Built: 1931					
Gross Floor Area (ft²): 151,000					
Energy Performance Rating² (1-100) N/A					
Site Energy Use Summary³					
District Steam (kBtu)			11,463,187		
Electricity - Grid Purchase(kBtu)			5,150,557		
Natural Gas (kBtu)			244,582		



Seattle 22.920 (cont.)

Reporting – City of Seattle

- Monitor progress toward achieving citywide energy efficiency targets
- Identify market sectors with greatest need and opportunities
- Guide development of future policies and incentive programs

22.920 – Who is Eligible and When

	October 3, 2011 (6 month grace period from April 1, 2011)	April 1, 2012
Non-Residential Buildings		
>50,000 sq ft	★	★
>10,000 sq ft		★
Mixed Use Buildings >50,000 sq ft (Four or less dwelling units)	★	★
Mixed Use Buildings >10,000 sq ft (Five or more dwelling units)		★
Multifamily Buildings (Five or more dwelling units)		★



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*Ordinance allows utilities up to 60 days to load energy data to ENERGY STAR

Again – compliance is required



City of Seattle
Department of Planning
& Development

city green building

Penalties for Non-Compliance

- Failure to submit an accurate report
 - First violation: \$150 citation
 - 15 days after citation: \$150 per day for the first 10 days of noncompliance, then \$500 per day for each subsequent day in violation
- Failure to disclose performance upon request
 - First violation: \$150 citation
 - Subsequent violations: \$500 citation



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How to get it done

Sample checklist – one of many



U.S. ENVIRONMENTAL PROTECTION AGENCY
About ENERGY STAR

PRODUCTS ▾

Explore Products >
Find ENERGY STAR Products
How a Product Earns the ENERGY STAR Label

COMPLIANCE CHECKLIST

Seattle Building Energy Rating & Reporting Ordinance

Two pathways

- Setting up a new building record
- Working with an existing record

Building Data

- Review and confirm building info
- Set up Portfolio Manager (PM) account
- Create PM record for building
- Enter building profile info

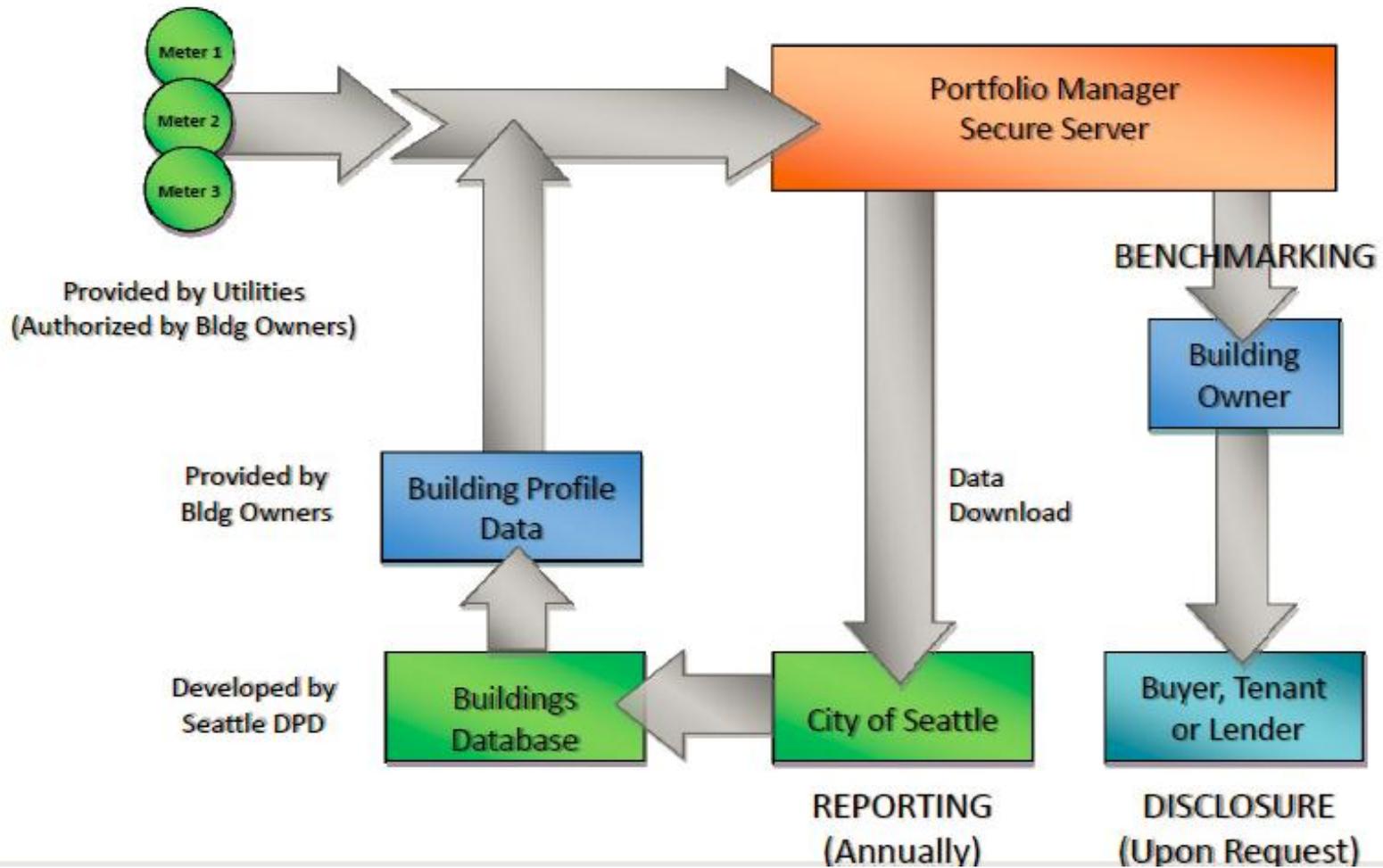
DPD	Director's
Applicant:	Pag

If you have already been benchmarking your buildings, are consistent with the Director's Rule requirements for whole building energy reporting, and will continue to manually enter energy meter data, you are done!

— or —

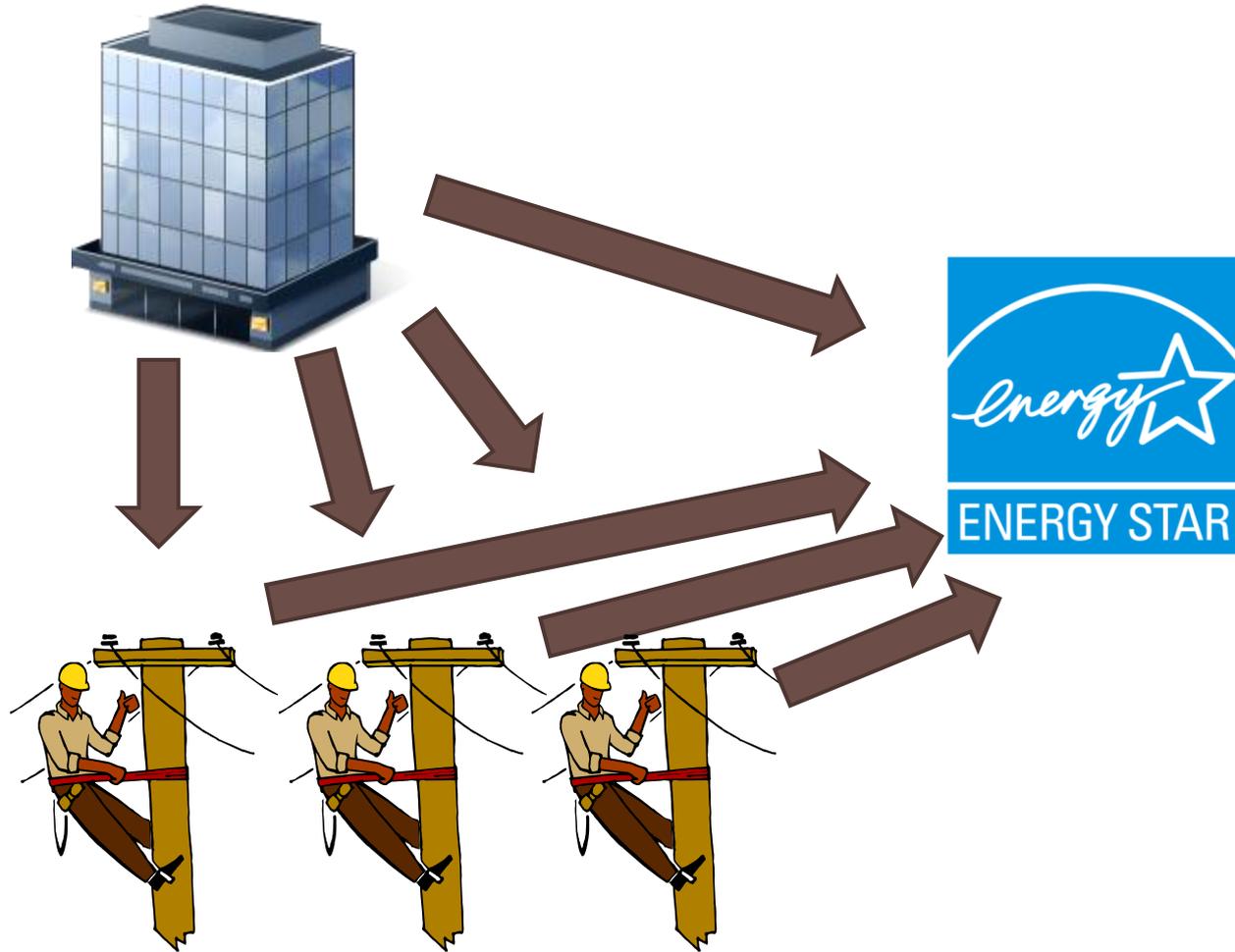
- Select utilities as service providers
- Follow utility specific instructions to request automated utility data upload
- Confirm that all meters have been identified
- Confirm consumption data has been uploaded
- Create an energy performance report

The big picture



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Your piece of the process



Utility release forms

****Separately metered tenants may be required to complete authorizations or provide acct information**



Sustainably Reliable

- ▶ ABOUT
- CUSTOMER LOGIN
- ▶ CUSTOMERS
- PARTNERS
- ENVIRONMENTAL STEWARDSHIP
- ▶ BEST PRACTICES
- AUTOMATED BENCHMARK SERVICES

AUTOMATE WHAT IS AUTI ENERGY STA from the EPA 1 your buildings you set invest efficiency impi performance. Seattle Steam automatically Portfolio Mana ensure data a energy across



Building Owner Release

Owner releases, ho damages, or expen from the ENERGY information provide

CUSTOMER AC
CUSTOMER NAME (BS
LAST 4 DIGITS OF PSE
MAILING ADDRESS
ELECTRIC METER ID N
ELECTRIC METER ID N

City of Seattle: Seattle City Light
Portfolio Manager Automated Benchmarking Consumption Request



INSTRUCTIONS:

1. Login to **Portfolio Manager** here <http://www.energystar.gov/istar/pmpam>. Be sure to use the userid that is the **Authorized Portfolio Manager Userid** listed above
2. Select **Access My Portfolio**
3. Select **Add Property** to set up your building's profile
4. Verify Utility data is Seattle City
5. Select **Add Meter** for the building. Name the meter after the **Building Meter Name** above
Make the following selections:
Entire Facility, Electricity, Grid Purchase, kWh, Yes (include meter), Yes (active), No (temp values), Save, Do Not Add Meter Entries
6. Go back to **My Portfolio**
7. Choose **Automated Benchmarking Services Console**
8. Scroll down and select **Seattle City Light**



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Portfolio Manager Account

- It all ends up here – at EPA’s ENERGY STAR Portfolio Manager

PORTFOLIO MANAGER
02/26/2010
Home > My Portfolio > EnergyPrint

Facility Summary: EnergyPrint
[View as I See the Page](#)

Building ID: 2221385
Level of Access: Building Data Administrator

Electric Distribution Utility: Northern States Power Co (Minnesota) (Xcel Energy Inc)
Regional Power Grid: [MRO West](#)
[Select my Power Generation Plant](#) to calculate my electric emissions rate
Electric Emissions Rate (kgCO₂e/MWh): 236.8 ([View a Map](#))
[Generate a Statement of Energy Performance](#) for uses other than applying for the ENERGY STAR.

Address:

Baseline Rating: 72

Water Period Ending Dates
Current: December 2008
Baseline: N/A

Facility Performance | [Set Baseline Period](#) | [Set Energy Performance Target](#)

Select View: **CBW Environmental Challenge** | [Clear View](#) | [Get View](#)

12 Months Ending	Baseline Energy Period Ending Date	Baseline Water Period Ending Date	Current Rating (1-100)	Change from Baseline: Adjusted Energy Use (%)	Change from Baseline: Total Water Use (%)
December 2009	02/26/2009	N/A	74	-3.3	N/A
December 2010	02/26/2009	N/A	80	-11.4	N/A
Change			6	N/A	

[REFRESH VIEW](#)

Space Use | [Add Space](#)

Space Name	Space Type	Floor Area (Sq. Ft.)	% Floor Area	Alerts	
Main Office	Office	7,251	52		Delete Space
Second Floor	Office	2,167	16		Delete Space
Store Room	Office	4,491	32		Delete Space
Total		13,909	100		

Because more than 50% of your building is Office, your building is designated as Office within Portfolio Manager. This building may be eligible for a rating ([Click to learn more](#)). If you can see a rating for this building, please note that the rating takes into account all of the space types you have listed. If you cannot see a rating for this building, you can be compared to the national average for Office ([Click to learn more](#)).

Due to rounding, the % Floor Area Total may not always equal 100%.

Energy Meters | [Add Meter](#) | [Update Meters History](#) | [View All Meter Data in Error](#)



Benchmarking alternatives

Options – go in with your eyes open

Do-it-Yourself



Mechanical / Energy Contractor



Benchmarking Solution

ENERGYPRINT

INTRODUCING ENERGYPRINT®

A simple way to make energy use **visible.**

Dashboard

Your Rank [?]

4.1	8.6
CURRENT 12MO	IMPROVEMENT RANK

Property Map View: BY PR

View by: Property name Assoc

Property

EXPLORE THE FEATURES:

- ENERGY DASHBOARD
- ENERGY BENCHMARKING

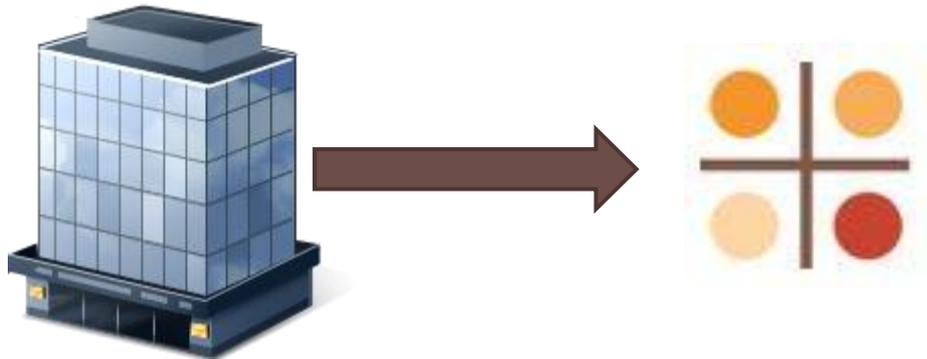
The screenshot shows a user interface for ENERGYPRINT. It features a main heading 'A simple way to make energy use visible.' and a 'Your Rank' section with two circular gauges: a yellow one for 'CURRENT 12MO' at 4.1 and a green one for 'IMPROVEMENT RANK' at 8.6. Below this is a 'Property Map' section with a 'View by' dropdown set to 'Property name' and an 'Assoc' button. At the bottom, there are two feature highlights: 'ENERGY DASHBOARD' with a colorful icon and 'ENERGY BENCHMARKING' with a green arrow and percentage icon.

DIY - Benchmarking in ENERGY STAR

- Base required for compliance
- Static benchmarking comparisons
- Data frequency may be quarterly and up to 60 days in arrears
- Based on “complete” building data – without separation of tenant /owner paid
- Not all building use types are eligible to receive ENERGY STAR score
- Extensive learning curve required

EnergyPrint process

- EnergyPrint facilitates data collection, submission and compliance
- Within weeks, you will have actionable history and on going monitoring to impact your bottom line



EnergyPrint Solution

Beyond compliance –

Ask and answer key energy questions – *in business language*

- How are we doing?
- Are we getting better or worse?
- Where are the opportunities for improvement?
- Are improvement projects working?



Getting started

Getting started – DIY

1. Go to www.seattle.gov
2. Review guidelines
3. Learn ENERGY STAR Portfolio Manager
4. Begin data collection (all payees and space types)
5. Set-up Energy Star
6. Authorize utilities
7. Authorize Seattle DPD
8. Review and approve information

Get started with EnergyPrint

1. Fill out subscription order form
2. We'll get started and work with you to get it done...it's fast, simple and useful



EnergyPrint Subscription Order Form

Property Information

Legal Name	
Property Address	
City, ST, ZIP	
Tax ID#	
# of meters company paid	
# of meters tenant paid	
Total # of meters subscribed	

Contact Information

Company Name	
Primary Contact Name	
Address	
City, ST, ZIP	
Office #	
Cell #	
Fax #	
eMail	

Subscription Pricing*

Annual subscription	\$	1,000
Additional meter(s) fee		
Total Subscription Fee	\$	1,000

Billing Contact Name	
Office #	
Fax #	
eMail	

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Legislation aimed to inform, educate and improve the energy performance of existing buildings

Contact

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