Benchmarking & the Accidental Energy Manager

1

City of El Cerrito
Small Cities Climate Action Partnership
Statewide Local Government Energy Efficiency Forum
July 27, 2011

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

The Accidental Energy Manager?

- Staff in small cities where many hats
- New climate action initiatives require small cities tackle energy issues

Recycling, Clean Water Compliance, Planning Staff are often asked to take on energy management issues

2

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

- **Statewide Context – AB 1103**
  - Non-residential building owners to disclose the EPA Portfolio Manager benchmark at the time of lease of sale.
  - Compliance begins Jan. 2012
  - Utilities to enable benchmarking by providing automatic monthly uploads for all commercial accounts.
  - Portfolio Manager is a free energy management software

3

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

- **CA Energy Efficiency Strategic Plan**
  - Local governments lead by example with their own facilities and energy usage practices.
  - Examples of leadership
    - Establish benchmarks for all local govt buildings
    - Make energy efficiency gains of 20-40% by 2015
  - Helps make benchmarking the norm
  - Demonstrates worth of benchmarking

El Cerrito Climate Action Plan

4

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

- **Small Cities Climate Action Partnership**
  - 4 small cities combining resources
  - Municipal Energy Management
  - Climate Action Planning & Policy Development
  - Residential and Commercial Rebates
  - Peer Exchange & Continuity

El Cerrito Climate Action Plan

5

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

- **Municipal Energy Management Plans**
  - Create and Implement Energy Management Plans
    1. Benchmark the buildings in Portfolio Manager
    2. Get a snap shot of energy use throughout operations
    3. Diagnose the poor performing facilities through audits and retrofit proposals
    4. Assess other clean energy & energy efficiency opportunities
    5. Develop a multi-year implementation and financing plan

El Cerrito Climate Action Plan

6

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

Portfolio Manager Data Input

- Utility Account #s
- SAID #s,
- Meter #s
- Square feet of facility
- % breakdown of different building types
- % of building conditioned
- Portfolio Manager definition of building types
- Number of employees
- Number of servers or UPS per server room
- Number of computers

7

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

Yeah, but would I ever use Portfolio Manager?

Favorites | Portfolio Manager - Building View | Page | Safety | Tools

Facility Summary: **City Hall**
how do I use this page?

Building ID: 1776322
Level of Access: Building Data Administrator

Electric Distribution Utility: Pacific Gas & Electric Co [PG&E Corp]
Regional Power Grid: WECC California
Select my Power Generation Plant to calculate my electric emissions rate
Electric Emissions Rate (kgCO2e/MBtu): 90.9 (what is this?)

Generate a Statement of Energy Performance for uses other than applying for the ENERGY STAR.

General Information Edit	
Address: 10890 San Pablo Avenue , El Cerrito, CA 94530	
Year Built: 2008	
Property Type: Single Facility	
Baseline Rating: 50	Current Rating: 42
View Period Ending Dates	
Water Period Ending Dates Current: N/A Baseline: N/A	Energy Period Ending Dates Current: May 2011 Baseline: February 2010
Eligibility for the ENERGY STAR	
Not Eligible: Rating must be 75 or above	

Facility Performance Set Baseline Periods | Set Energy Performance Target

Select View: Summary: Energy Use — Create View | Edit View

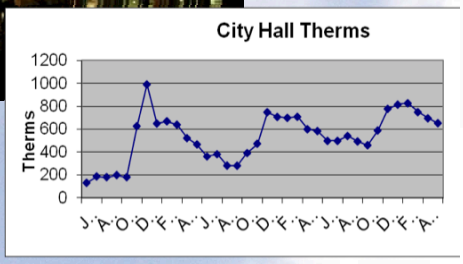
12 Months Ending	Current Rating (1-100)	Current Site Energy Intensity (kBtu/Sq. Ft.)	Current Source Energy Intensity (kBtu/Sq. Ft.)	Change from Baseline: Energy Use Intensity (kBtu/Sq. Ft.)	Change from Baseline: Adjusted Energy Use Intensity (kBtu/Sq. Ft.)	Energy Use Alerts
May 2011	42	96.5	217.2	11.2	16.5	
February 2010	50	85.3	202.9	0.0	0.0	
Change	8	-11.2	-14.3	N/A	N/A	

REFRESH VIEW

8

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

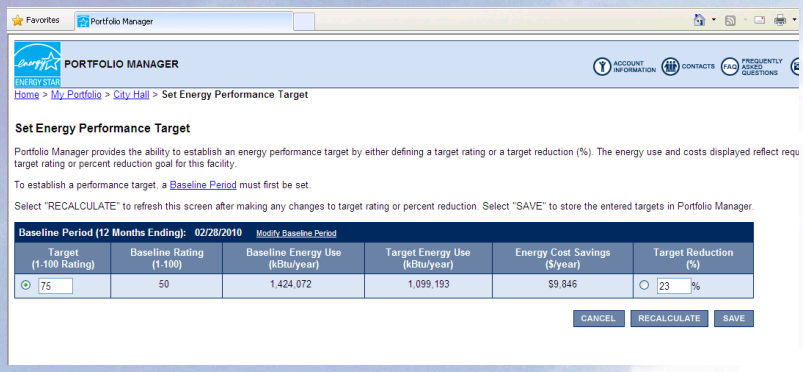


9

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

Setting Energy Reduction Targets

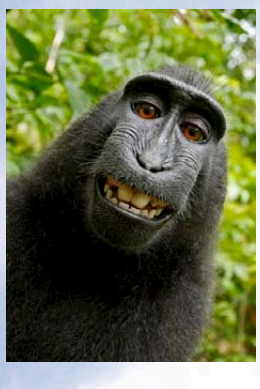


10

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

- **Pros of Portfolio Manager**
  - Free, unlimited utility data uploads
  - Benchmarking based on constantly evolving database of buildings nationally
  - Feeds into Energy Star Building Awards
  - Monitors energy performance over time

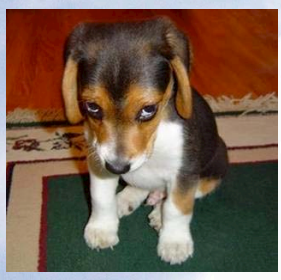


11

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

- **Cons of Portfolio Manager**
  - Not every building is rateable
  - Fussy input, maybe not worth it for all energy accounts (street lights, etc)
  - Not really good for managing/ budgeting energy costs



12

Statewide Local Government Energy Efficiency Forum

Case Studies in Energy Benchmarking

Thank you.

msanders@ci.el-cerrito.ca.us

El Cerrito Climate Action Plan

13