US EPA ARCHIVE DOCUMENT

Benchmarking Wastewater Facilities in Portfolio Manager

Introduction

U.S. Environmental Protection Agency

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EPA

Learn more at energystar.gov

Today's Agenda

- **Introduction**
- **ENERGY STAR Portfolio Manager**
  - **Getting Your Score**
  - **Creating Views**
- **Goal Setting**
- **Reporting**
- **Sharing**

What is ENERGY STAR?

- Mission: reduce greenhouse gas emissions through energy efficiency
- ENERGY STAR establishes specifications and labeling for Products; Home Improvements; Buildings and Plants; and New Homes; 12 Sectors
- Energy saving guidelines, technology information, recommendations, and contractors

ENERGY STAR Impact

- Americans, with the help of ENERGY STAR, saved enough energy in 2007 alone to avoid greenhouse gas emissions equivalent to those from 29 million cars — all while saving $17 billion on their utility bills.

- Over 80,000 buildings have been rated using Portfolio Manager

- Over 6,000 buildings have earned the ENERGY STAR

What is Portfolio Manager?

LEARN MORE AT energystar.gov

<u>An assessment tool</u> that measures your facility's energy efficiency now and over time – benchmark and track improvements

Potential award, educate functions for WWTP

Mirror that shows your facility in a new light

What is Portfolio Manager?

- ENERGY STAR Portfolio Manager - interactive energy management tool to get an energy efficiency rating, track and assess energy and water consumption
- Originally designed for buildings and industrial applications – bronze awards for 75 + score
- October 1, 2007, wastewater treatment plants added to Portfolio Manager – not drinking wtr at this point – awards may be added

Benchmarking - Assessment

- Regression analysis – energy use per unit of flow
- Normalized for external factors
- Wastewater – results against model shows statistical significance at 90% confidence level
- Energy generated onsite may or may not be part of calculation but needs to be added to reflect true energy efficiency

Benefits of Portfolio Manager

- Compare your facility against similar facilities in a national database
- Get a rating from 1-100 (100 most efficient, 50 being average) using uniform, tested criteria, easy message
- Get GHG emissions varied by geographic region based on the type of power used, in international metric
- Track online baseline, current energy use and costs over time automated through Energy Service Provider while completing efficiency and clean energy projects

Why Bother?

- U.S. drinking water and wastewater systems spend about $4 billion/ yr on energy to pump, treat, deliver, collect and clean water – with much of this cost borne by ratepayers and municipalities.

- Nationwide, **drinking water and wastewater systems use 75 billion kilowatt hours/ yr – as much as the pulp and paper, and petroleum industries combined (enough electricity to power 6.75 million homes/yr).**

- Reducing energy and water at wastewater facilities can make a significant difference for the environment and for the pocket book

How Can Wastewater Facilities Get Involved?

- Use EPA's January 2008 Guidebook "Ensuring a Sustainable Future: An Energy Management Guidebook for Wastewater and Water Utilities
  - http://www.epa.gov/infrastructure/bettermanagement_energy.html
- Get energy audit from the local power company or California Energy Commission – SRF & DOE funds are available for energy efficiency
- Create Energy Teams, Regional Partnerships
- GO FOR IT – AND CELEBRATE !

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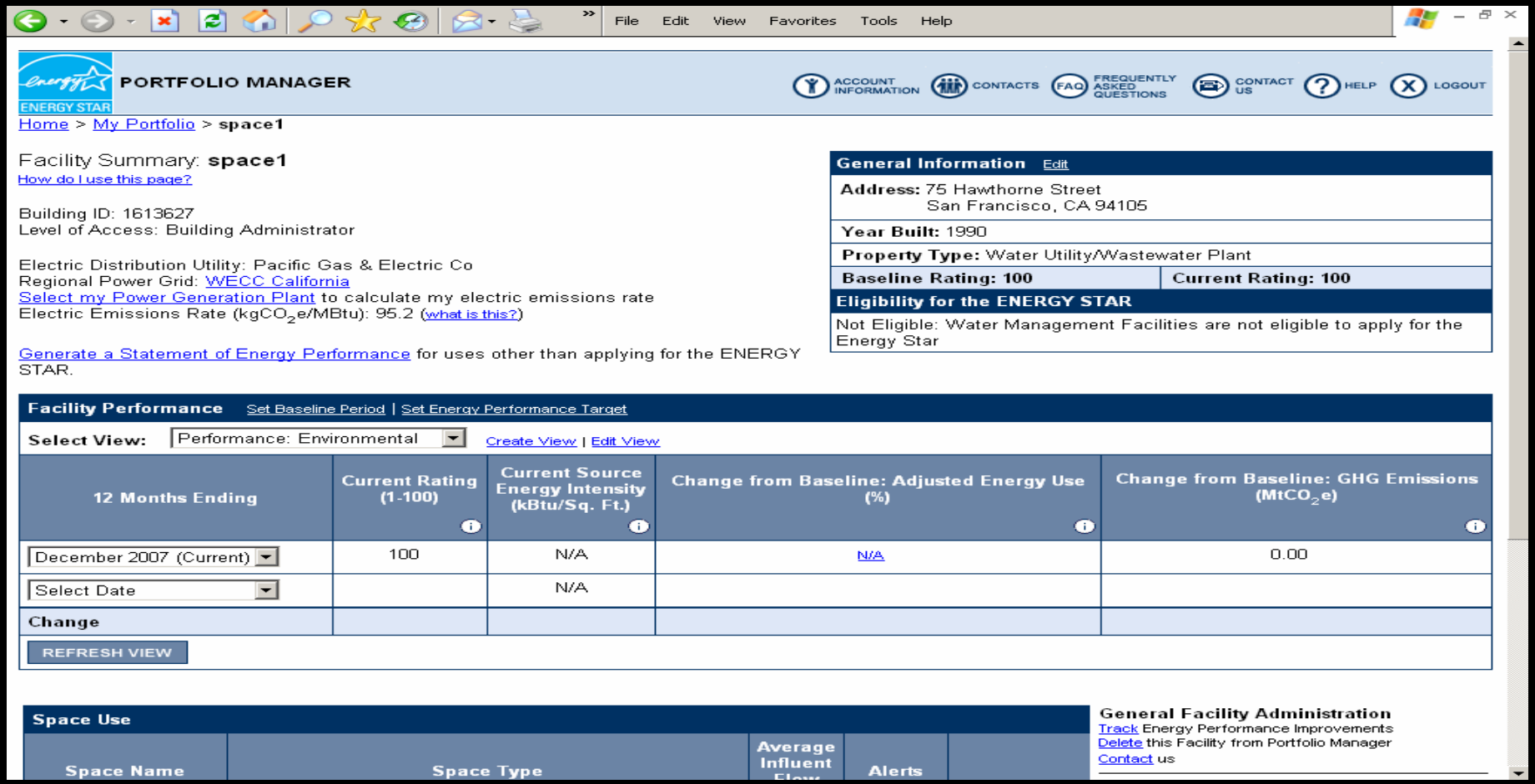
HANDS ON SESSION

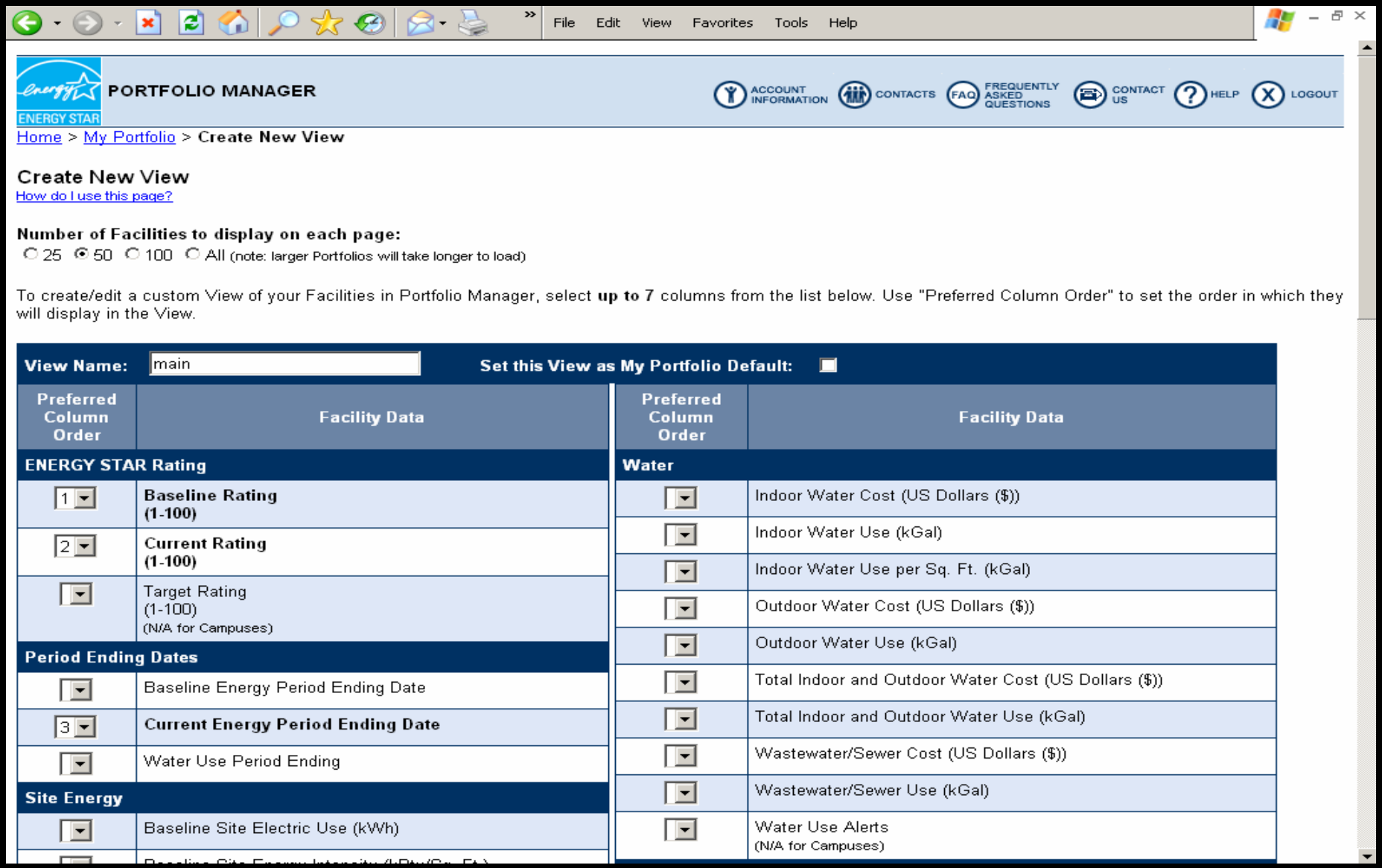
- Complete the Benchmarking Process
  - Login To Your Account
  - Review Your Facility Information
  - Do You See Your Score?
  - If Not, Is ABS Energy Data in Your Energy Meter?
  - If Not, Add Energy Data
  - How Can You View Your Score, GHG Emissions?

HANDS ON SESSION

- Viewing Your Data – CREATE A VIEW



Pick Your Top Seven



File Edit View Favorites Tools Help

ENERGY STAR PORTFOLIO MANAGER

ACCOUNT INFORMATION | CONTACTS | FREQUENTLY ASKED QUESTIONS | CONTACT US | HELP | LOGOUT

Home > My Portfolio > Create New View

Create New View

How do I use this page?

Number of Facilities to display on each page:

○ 25 ◉ 50 ○ 100 ○ All (note: larger Portfolios will take longer to load)

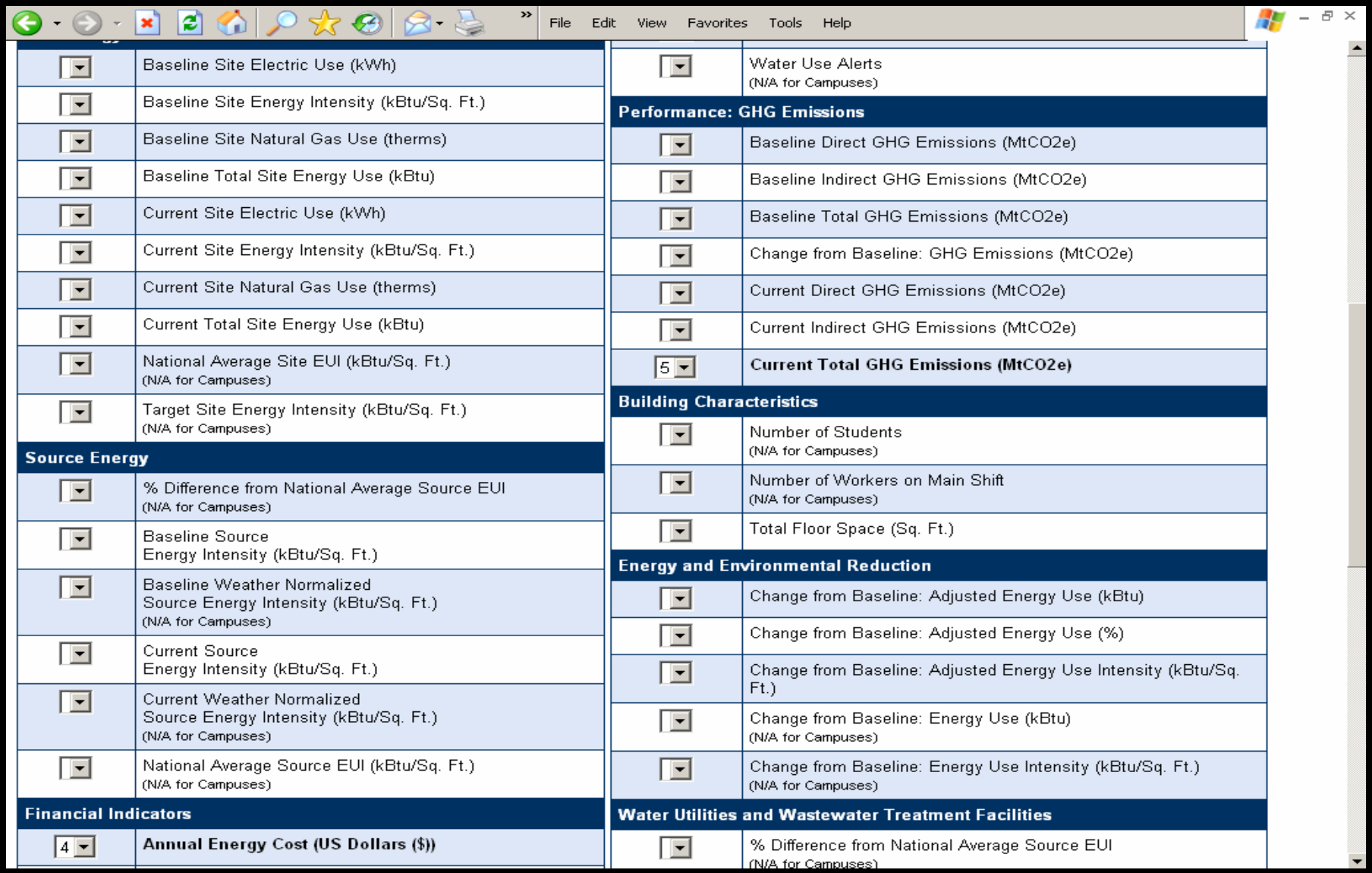
To create/edit a custom View of your Facilities in Portfolio Manager, select **up to 7** columns from the list below. Use "Preferred Column Order" to set the order in which they will display in the View.

View Name: main **Set this View as My Portfolio Default:** ☐

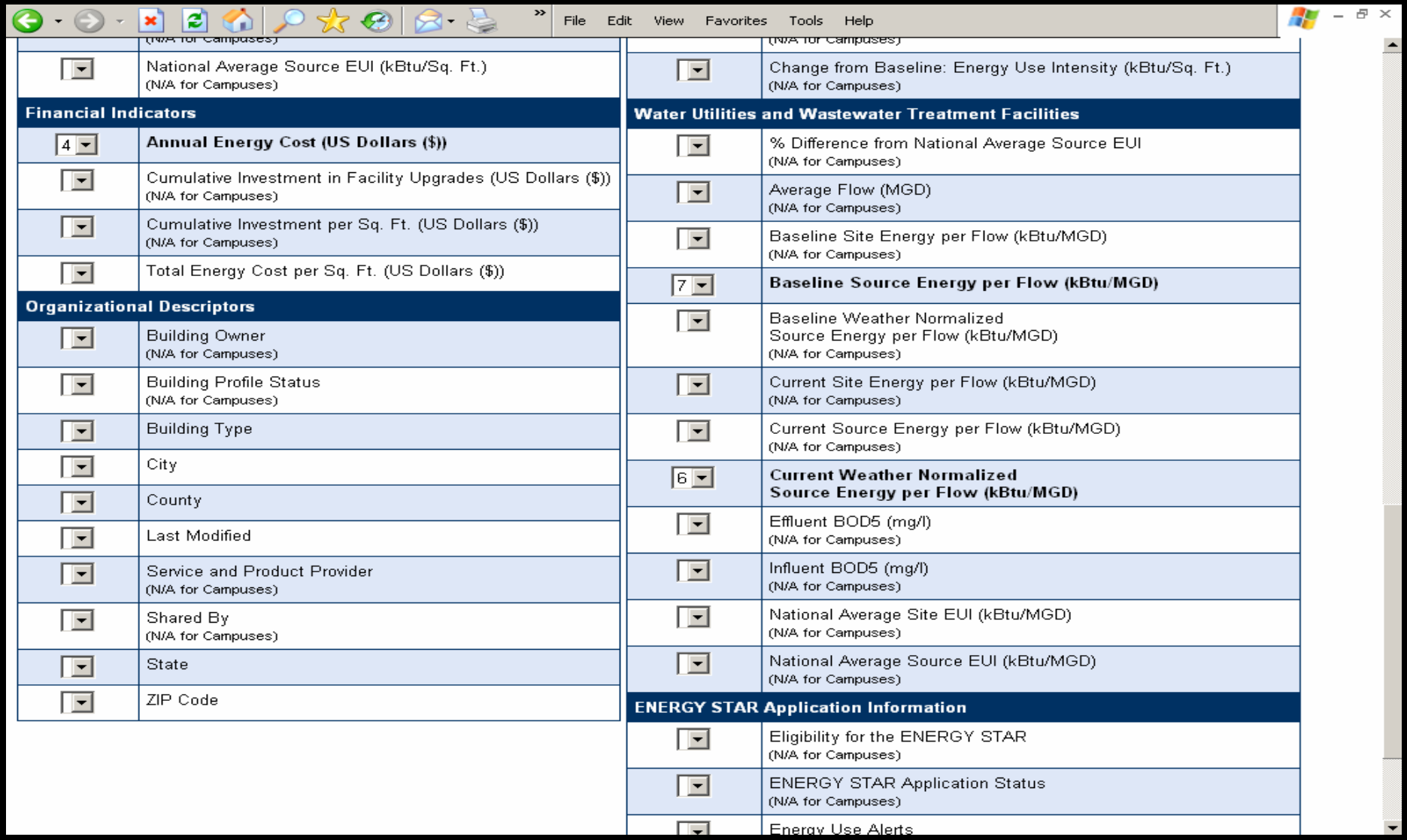
Preferred Column Order	Facility Data
ENERGY STAR Rating	
1	**Baseline Rating (1-100)**
2	**Current Rating (1-100)**
	Target Rating (1-100) (N/A for Campuses)
Period Ending Dates	
	Baseline Energy Period Ending Date
3	**Current Energy Period Ending Date**
	Water Use Period Ending
Site Energy	
	Baseline Site Electric Use (kWh)

Preferred Column Order	Facility Data
Water	
	Indoor Water Cost (US Dollars ($))
	Indoor Water Use (kGal)
	Indoor Water Use per Sq. Ft. (kGal)
	Outdoor Water Cost (US Dollars ($))
	Outdoor Water Use (kGal)
	Total Indoor and Outdoor Water Cost (US Dollars ($))
	Total Indoor and Outdoor Water Use (kGal)
	Wastewater/Sewer Cost (US Dollars ($))
	Wastewater/Sewer Use (kGal)
	Water Use Alerts (N/A for Campuses)

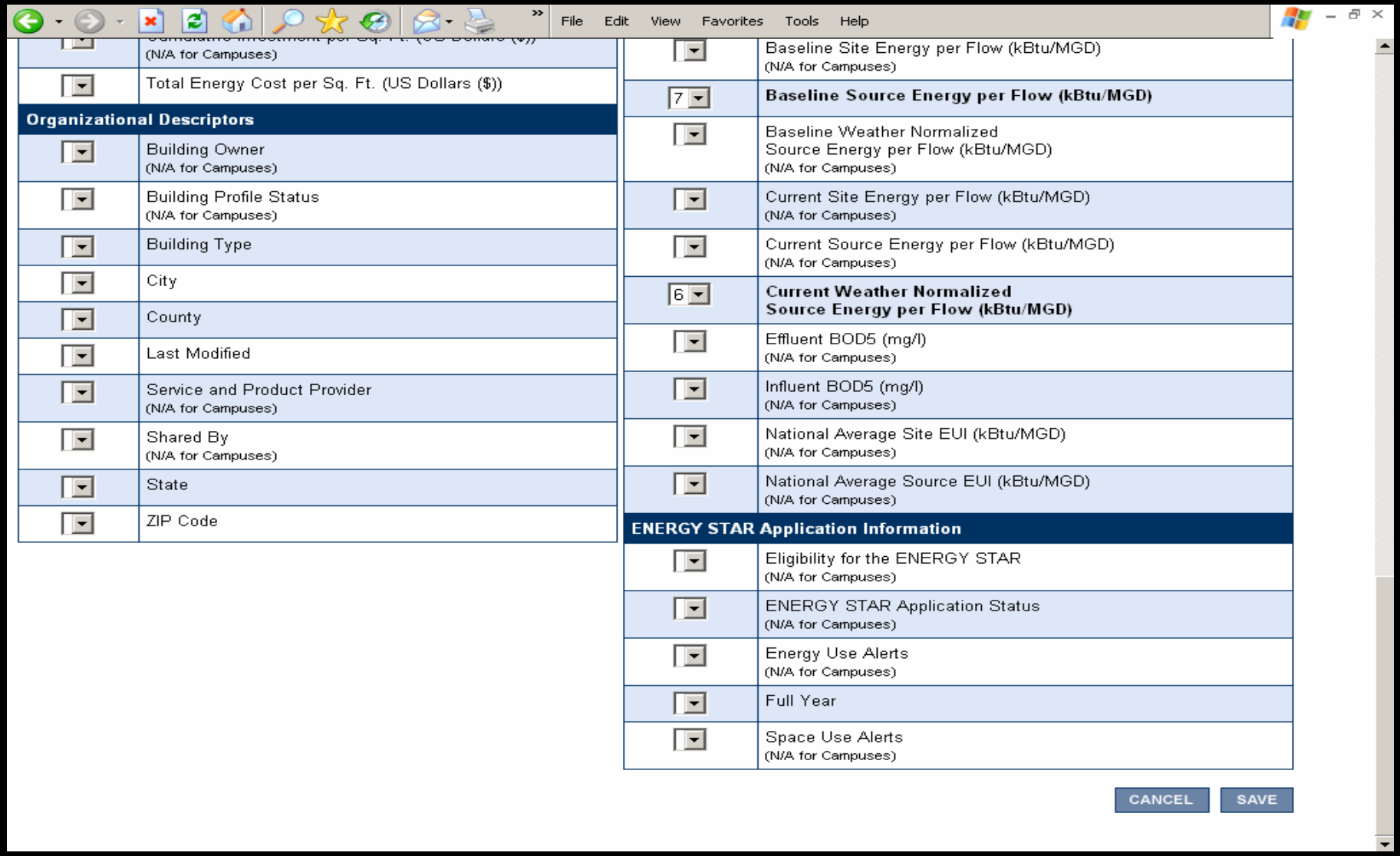
You Can Create Different Views



Name Each Created View

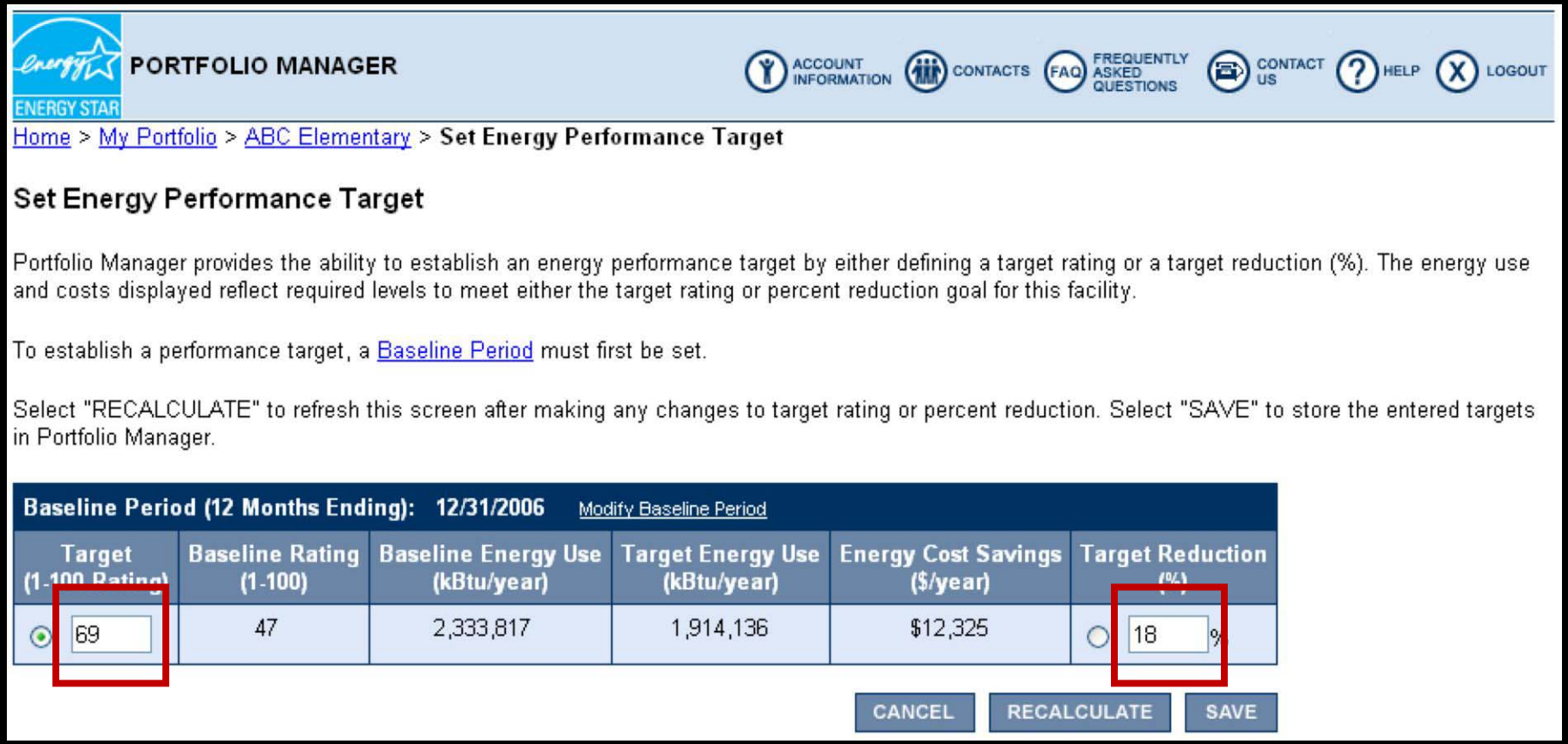


That's It!


File Edit View Favorites Tools Help
(N/A for Campuses)
Total Energy Cost per Sq. Ft. (US Dollars ($))
Organizational Descriptors
Building Owner
(N/A for Campuses)
Building Profile Status
(N/A for Campuses)
Building Type
City
County
Last Modified
Service and Product Provider
(N/A for Campuses)
Shared By
(N/A for Campuses)
State
ZIP Code
Baseline Site Energy per Flow (kBtu/MGD)
(N/A for Campuses)
7
Baseline Source Energy per Flow (kBtu/MGD)
Baseline Weather Normalized
Source Energy per Flow (kBtu/MGD)
(N/A for Campuses)
Current Site Energy per Flow (kBtu/MGD)
(N/A for Campuses)
Current Source Energy per Flow (kBtu/MGD)
(N/A for Campuses)
6
Current Weather Normalized
Source Energy per Flow (kBtu/MGD)
Effluent BOD5 (mg/l)
(N/A for Campuses)
Influent BOD5 (mg/l)
(N/A for Campuses)
National Average Site EUI (kBtu/MGD)
(N/A for Campuses)
National Average Source EUI (kBtu/MGD)
(N/A for Campuses)
ENERGY STAR Application Information
Eligibility for the ENERGY STAR
(N/A for Campuses)
ENERGY STAR Application Status
(N/A for Campuses)
Energy Use Alerts
(N/A for Campuses)
Full Year
Space Use Alerts
(N/A for Campuses)
CANCEL
SAVE

Set Your Target

If rating is below 69, you can use PM to set a percent energy reduction target



Reports

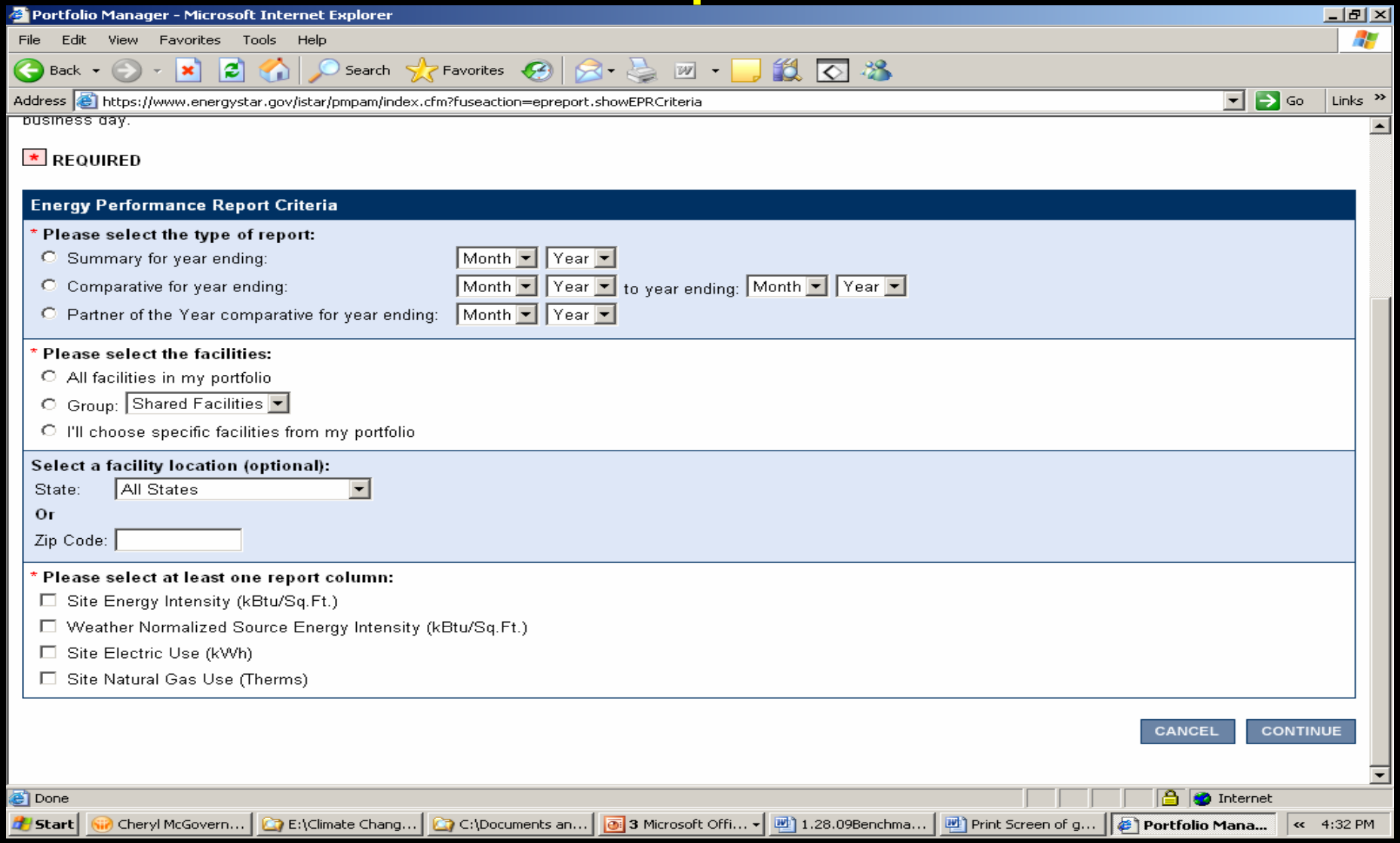
- Three Ways To Get Reports
  1. From My Portfolio – Request Energy Performance Report
  2. From the Facility Summary Screen

     Generate a Statement of Energy Performance
  3. From My Portfolio – Download View Data into Excel

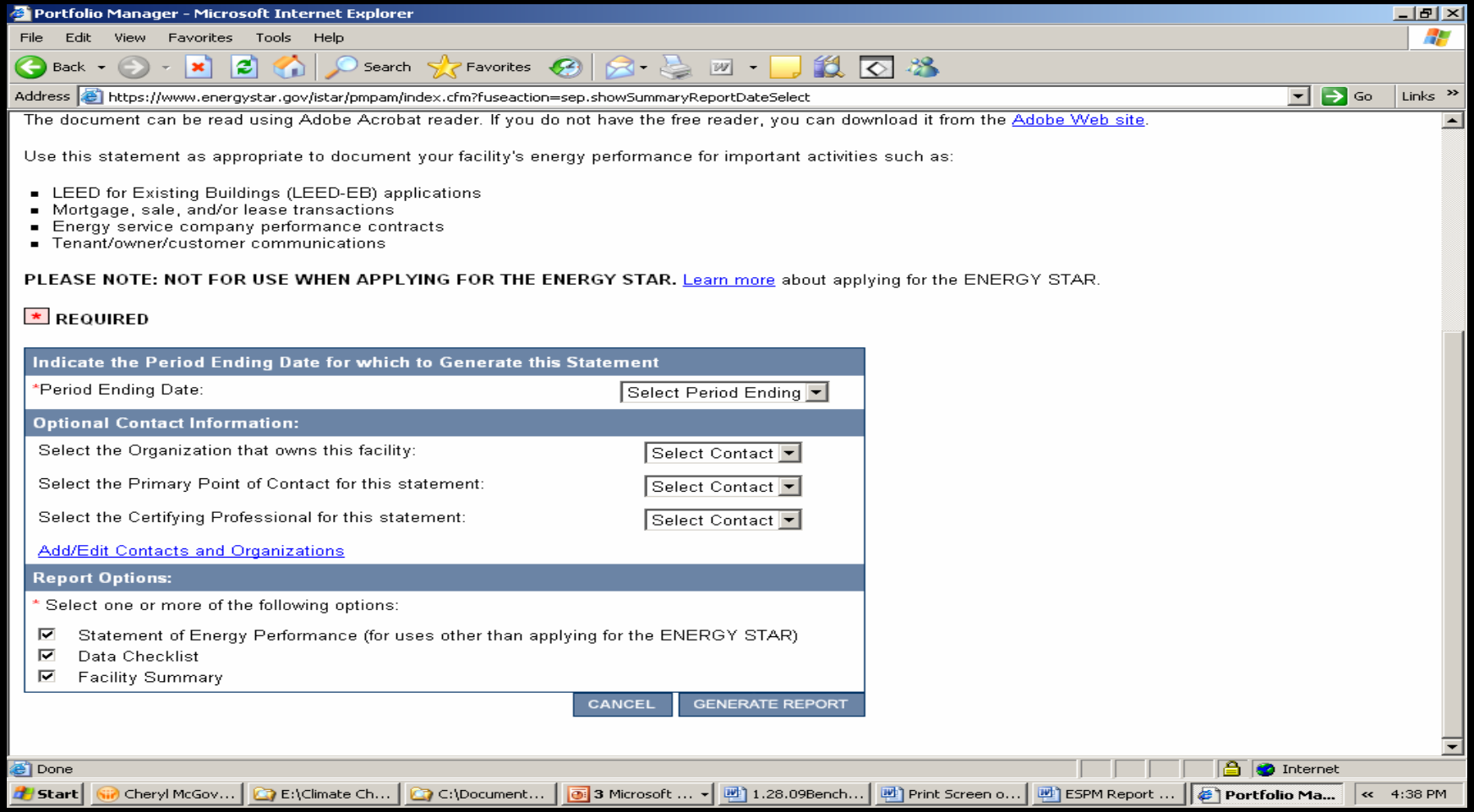
     - Create different views of different data

     you want to capture in Excel and download

Request Energy Performance Report



Generate a Statement of Energy Performance



Download Data To Excel

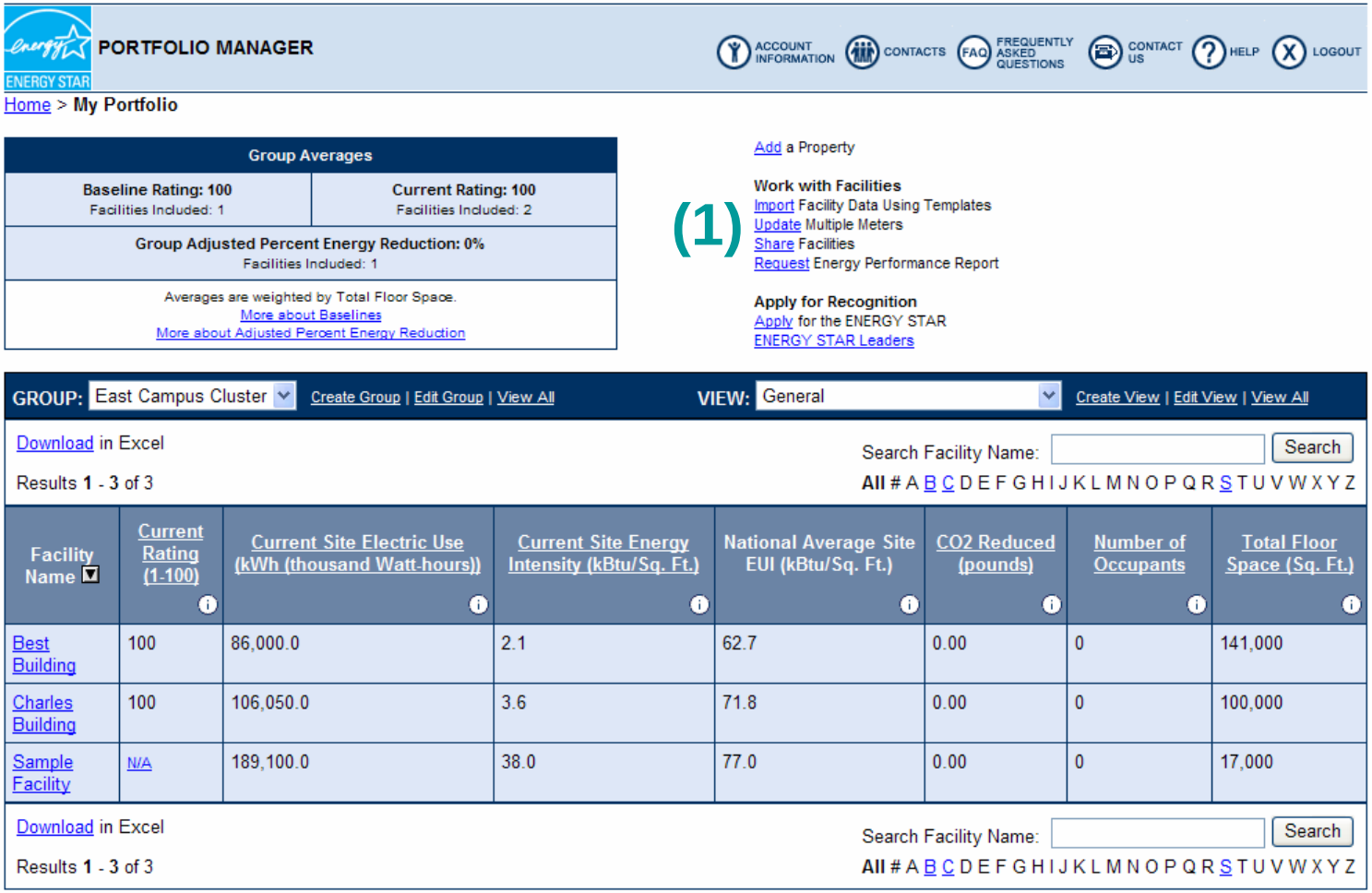
- Select Option to Download From P M

Current Energy Period Ending Date	Current Total Site Energy Use (kBtu)
	N/A
3/31/2009	3,758,294.71
4/30/2009	20,547,828.29
4/30/2009	19,827,873.49
4/30/2009	7,611,142.20
11/30/2008	6,355,266.26
12/31/2008	79,743,751.88
12/31/2008	N/A
	N/A
4/30/2009	N/A
12/31/2008	N/A
	N/A
4/30/2009	404,858,507.04
4/30/2009	N/A
10/31/2008	51,689,705.03
	N/A
2/28/2009	114,547,268.16
3/31/2009	70,255,476.59
	N/A
2/28/2009	21,489,194.83
3/31/2009	25,376,604.67

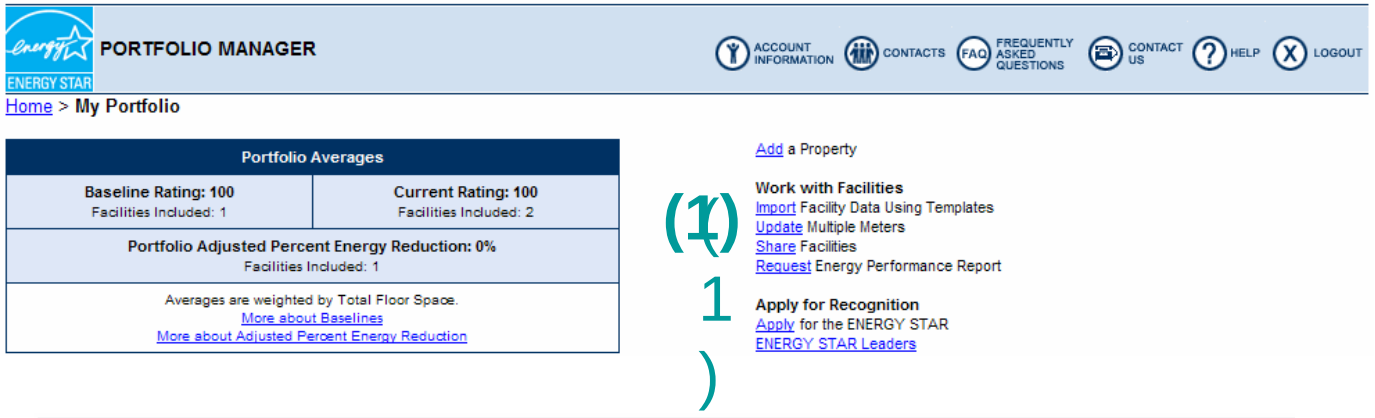
The Master Accounts feature allows master users to track progress of their constituents, such as local governments, state agencies, and school districts

(1) or, Click Share Facilities to create a Master Account

Sharing Facilities



Sharing Facilities (Continued)



(1) In My Portfolio, click on "Share Facilities"

(2) Type in Portfolio Manager User Name

or

(2) Select a Portfolio Manager Master Account from the drop down menu

(3) Click "Add and Modify"

Select User or Master Account

Users with whom you share facilities will now be able to see your name and e-mail address on their Facility Summary page for that shared facility. In addition, users will also have the option to select your name and email address to appear in their custom views. Select Cancel if you do not wish to share any facilities.

Portfolio Manager provides the ability to share multiple facilities from your account with other users of the system in a single transaction. Users with whom access is being shared or removed MUST have a Portfolio Manager user account. To share facilities, select a Portfolio Manger user in Step 1.

If you are only removing access to facilities in your account, select "Remove this User's Access" in Step 1 after selecting a user from the Current Access List or enter a username in the textbox. You will then be able to select all of the facilities from which you want to remove this user's access.

STEP 1: Select the account to which you want to grant access, modify existing access or remove access rights.

Portfolio Manager User:

Enter Portfolio Manager Username: (2)

- OR -

Select a Portfolio Manager Master Account: Portfolio Manager Master Account Learn more about Master Accounts

- OR -

Energy Service Provider: Select an Energy Service Provider Learn more about Energy Service Provider

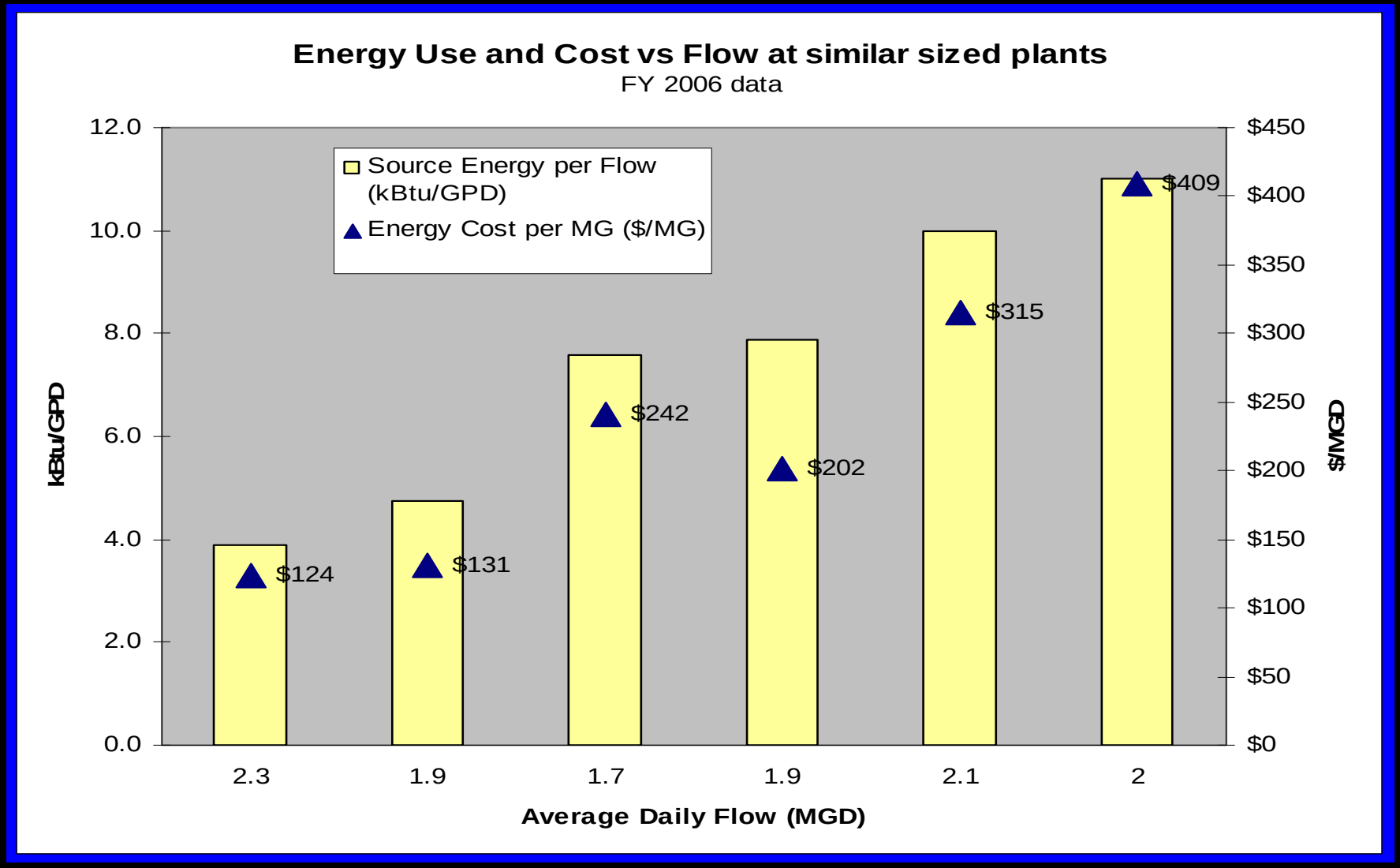
(3) ADD AND MODIFY DELETE CANCEL

Identify and Move Toward Best Practices

The metric isn't the destination,
Just the mile marker...

A hint that potential Improvements exists.

Still need to figure out where to go

- **Apply expertise**
- **Investigate systems**
- **Devise and implement changes**
- **Assess performance**

Energy Use at 6 Similar Plants