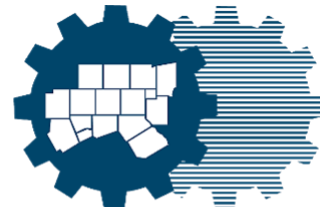


Energy Management for Local Governments: Legislative Requirements, Benchmarking, and Tools to Measure Energy and Water Use

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

MAY 23, 2019

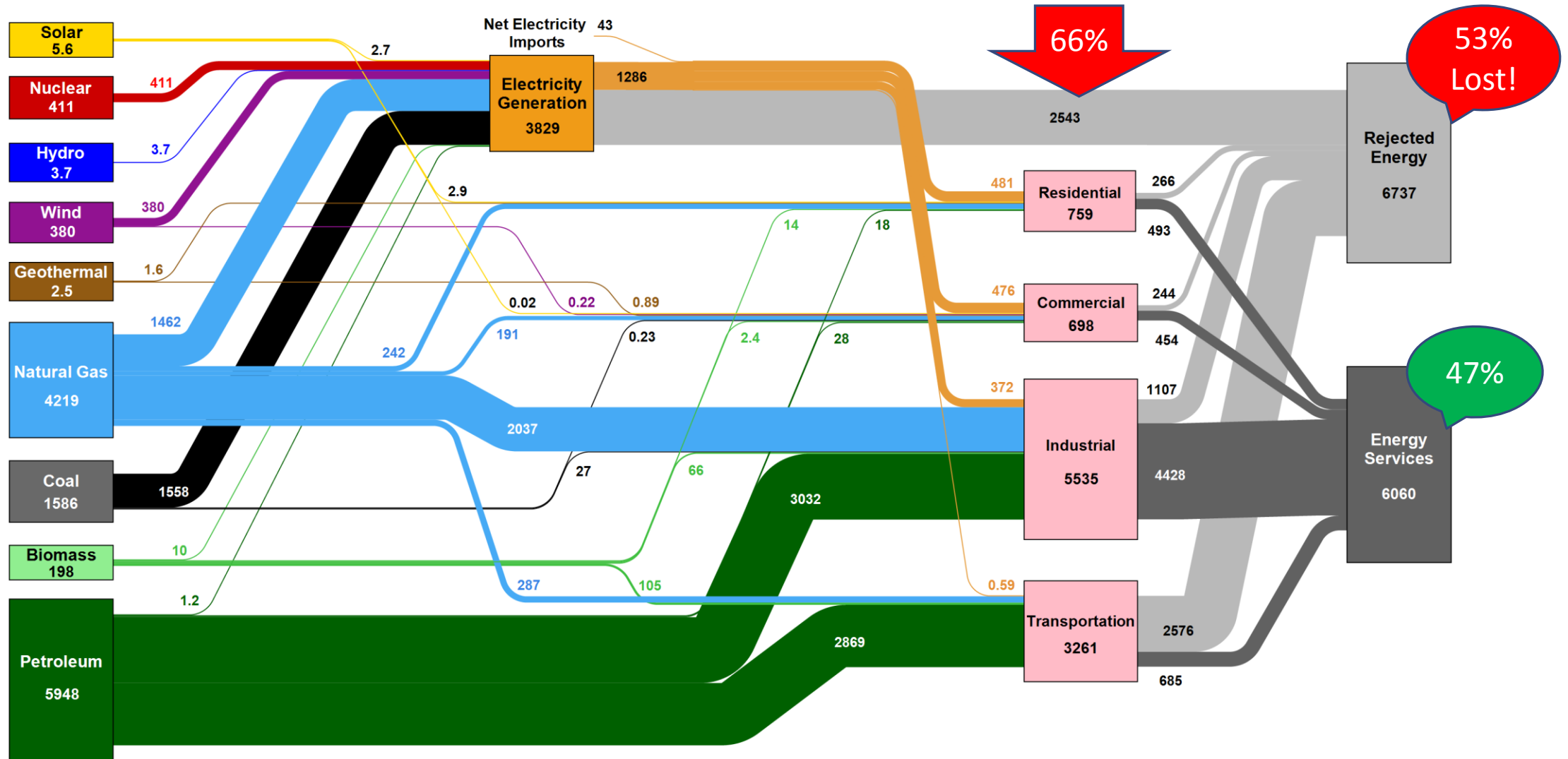


**North Central Texas
Council of Governments**

Importance of Energy Management

BY THE NUMBERS

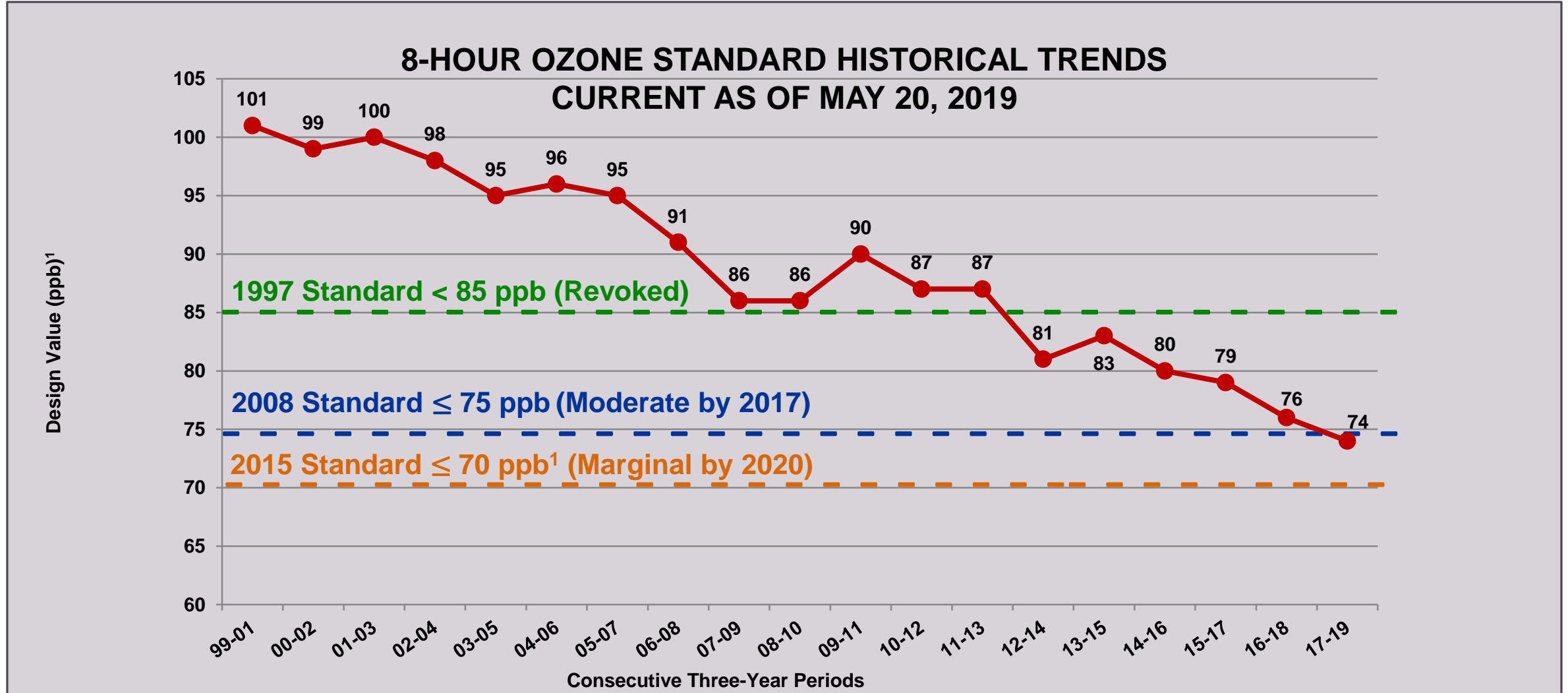
Texas Energy Consumption in 2014: ~ 12797 Trillion BTU



Source: LLNL August, 2016. Data is based on DOE/EIA SEDS (2014). If this information or a reproduction of it is used, credit must be given to the Lawrence Livermore National Laboratory and the Department of Energy, under whose auspices the work was performed. Distributed electricity represents only retail electricity sales and does not include self-generation. EIA reports consumption of renewable resources (i.e., hydro, wind, geothermal and solar) for electricity in BTU-equivalent values by assuming a typical fossil fuel plant heat rate. The efficiency of electricity production is calculated as the total retail electricity delivered divided by the primary energy input into electricity generation. End use efficiency is estimated as 65% for the residential sector, 65% for the commercial sector, 80% for the industrial sector, and 21% for the transportation sector. Totals may not equal sum of components due to independent Rounding. LLNL-MI-410527

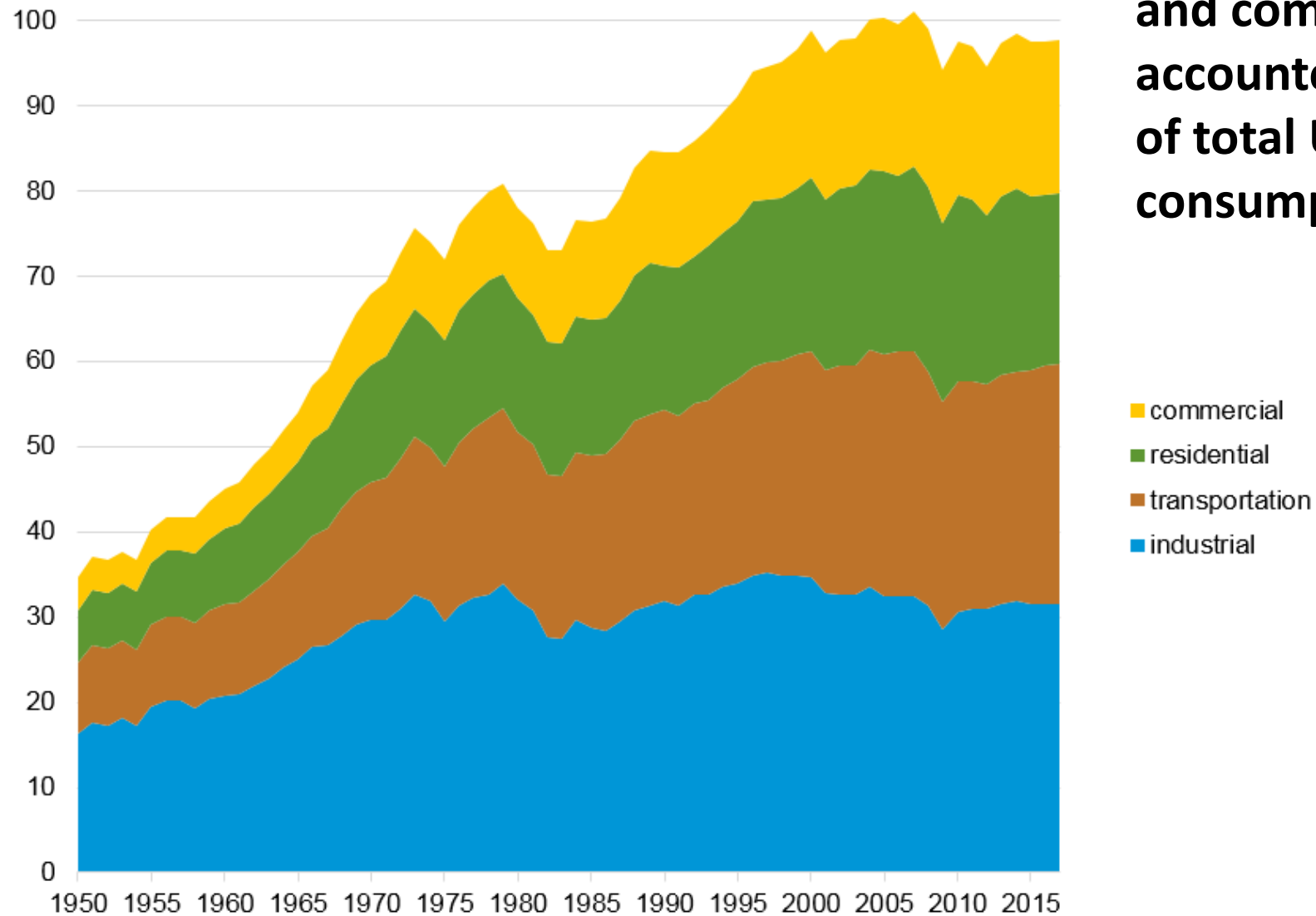
North Texas Air Quality Impact

~5% of Ozone-Forming Nitrogen Oxides (NO_x) Attributable to Electricity Generation



U.S. total energy consumption by end-use sector, 1950–2017

quadrillion British thermal units



In 2018, the residential and commercial sectors accounted for about 40% of total U.S. energy consumption.

Note: Total energy consumption includes primary energy and electrical energy.

Source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 2.1, April 2018

Energy Use by Type of Building

The top five energy-consuming building categories used about half of the energy consumed by all commercial buildings in 2012

% Consumption

Top five energy-consuming building categories:

15%

Mercantile and service - Malls and stores, Car dealerships, Dry cleaners, Gas stations

14%

Office - Professional and **Government Offices**, Banks

10%

Education - **Elementary, Middle, and High School, Colleges**

8%

Health care - Hospitals, Medical offices

6%

Lodging - Hotels, Dormitories, Nursing homes

Consider the Benefits

IMPROVE AIR QUALITY



1 CFL bulb in every American house = emissions reductions equivalent to taking 800,000 cars off the road*

SAVE MONEY



Energy Star certified office buildings cost \$0.50 less per square foot to operate than their peers**

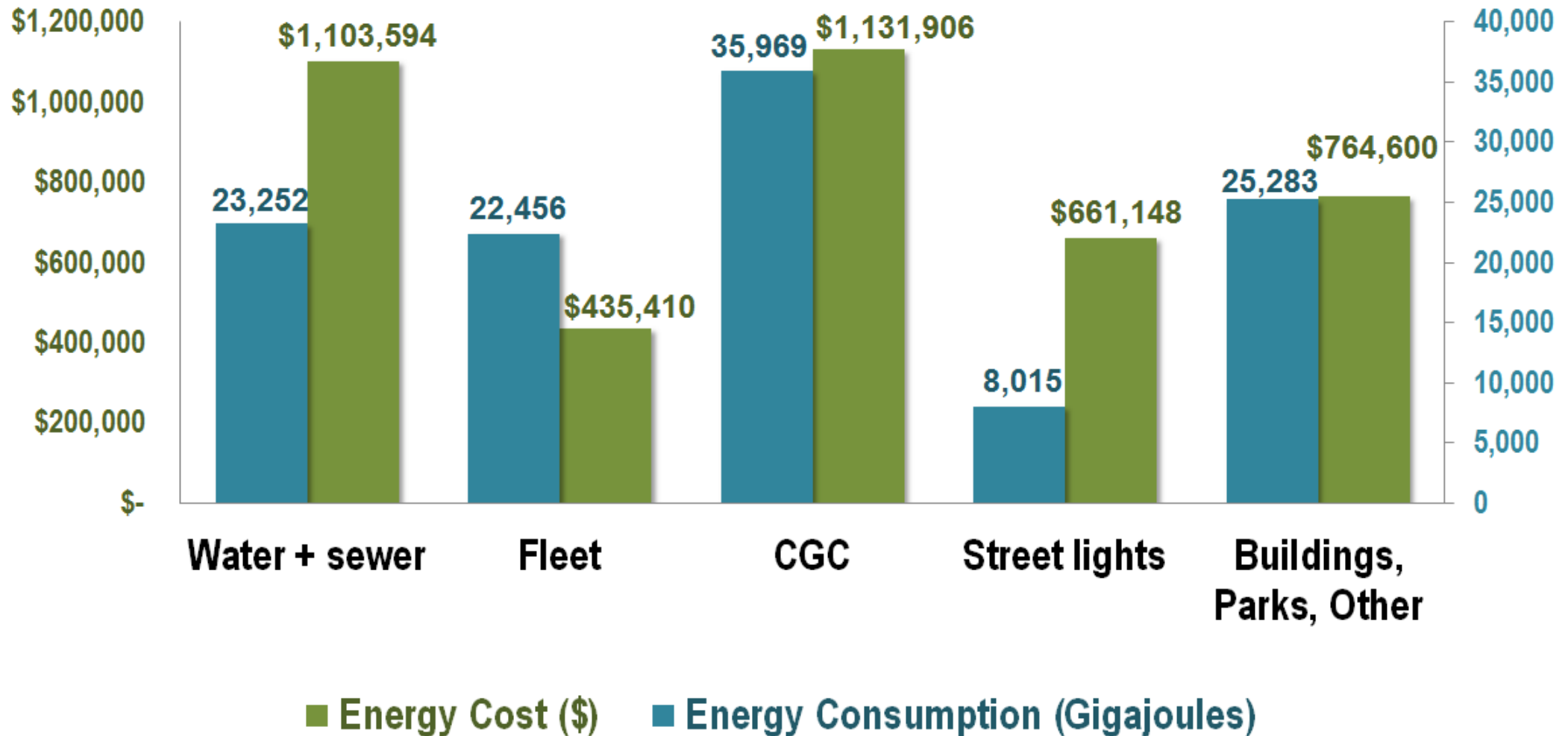
Sources:

*<https://www.energysage.com/energy-efficiency/why-conserve-energy/>

**<https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/earn-recognition/energy-star-certification/ten-reasons-pursue-energy-star>

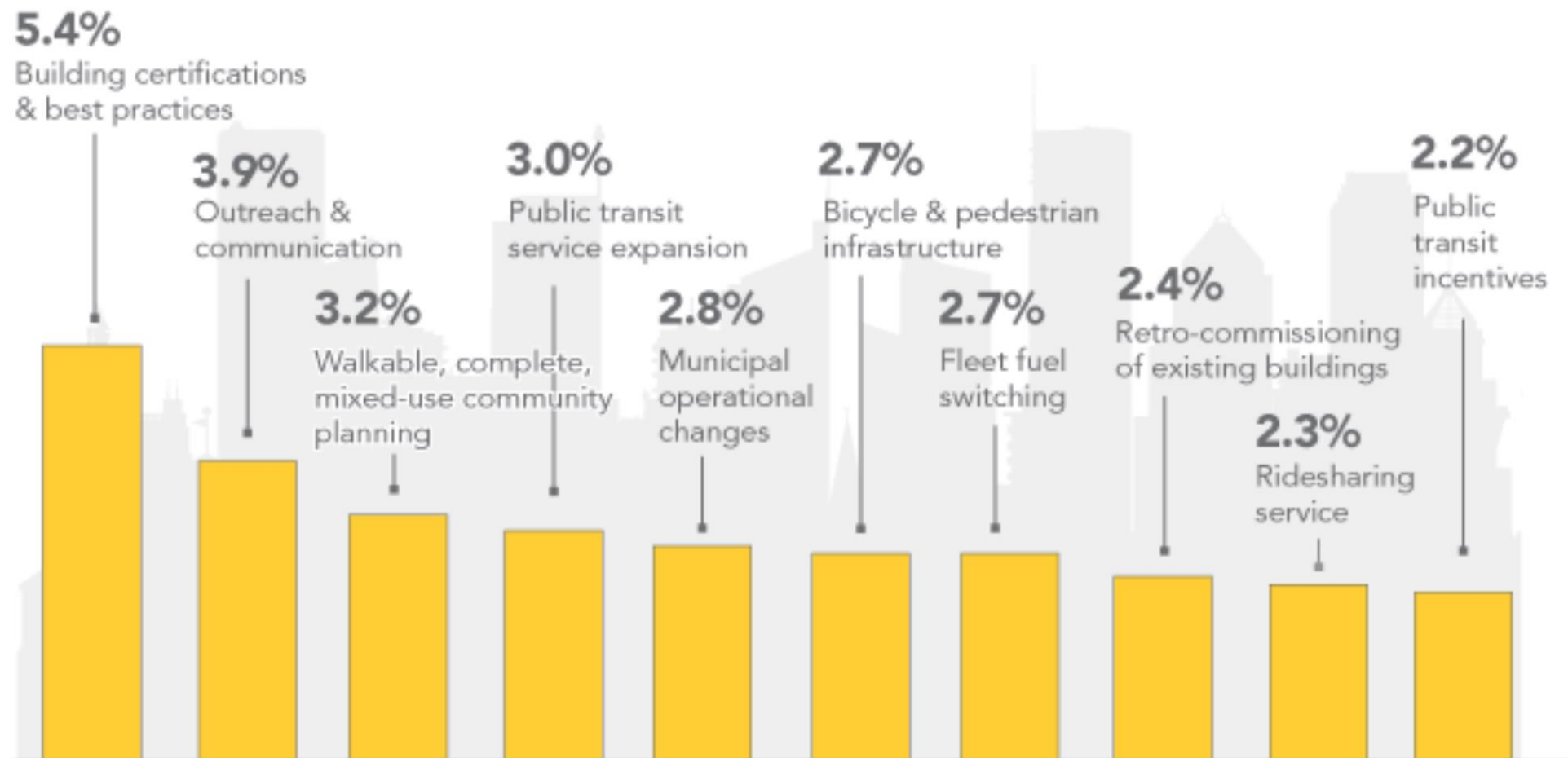
Whitehorse, Canada

City Energy Use 2016



10 Most Common City Actions

This chart shows the most common actions taken by the sampled cities to impact energy use.



Chicago 2013

Building Energy Use Benchmarking Ordinance

REACHING FOR NEW HEIGHTS: ENERGY BENCHMARKING UNCOVERS ANNUAL SAVINGS POTENTIAL OF UP TO \$77M

BY TAKING ACTION TO IMPROVE ENERGY EFFICIENCY, CHICAGO'S LARGEST BUILDINGS ARE MAKING OUR CITY MORE:

Livable
Competitive
Sustainable



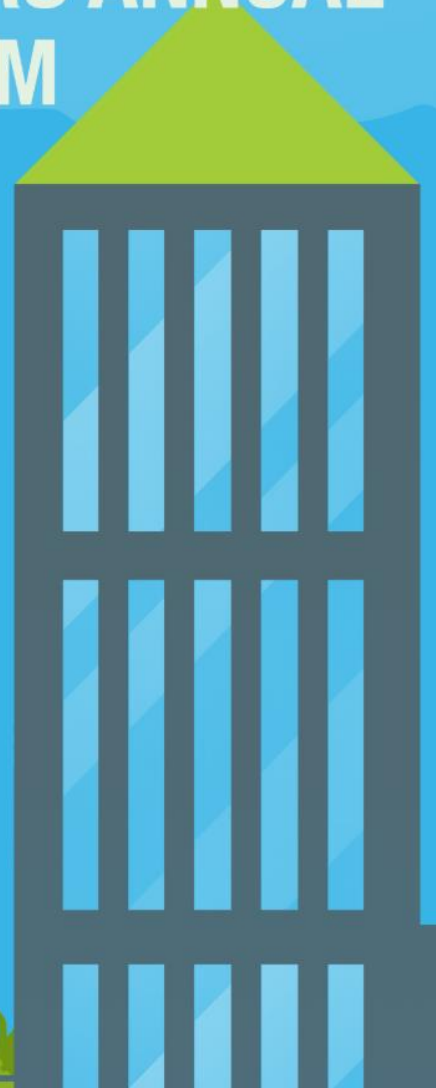
ENERGY BENCHMARKING HELPS BUILDINGS
TAKE CONTROL OF ENERGY USE

Chicago buildings spend
\$3 BILLION
per year on energy



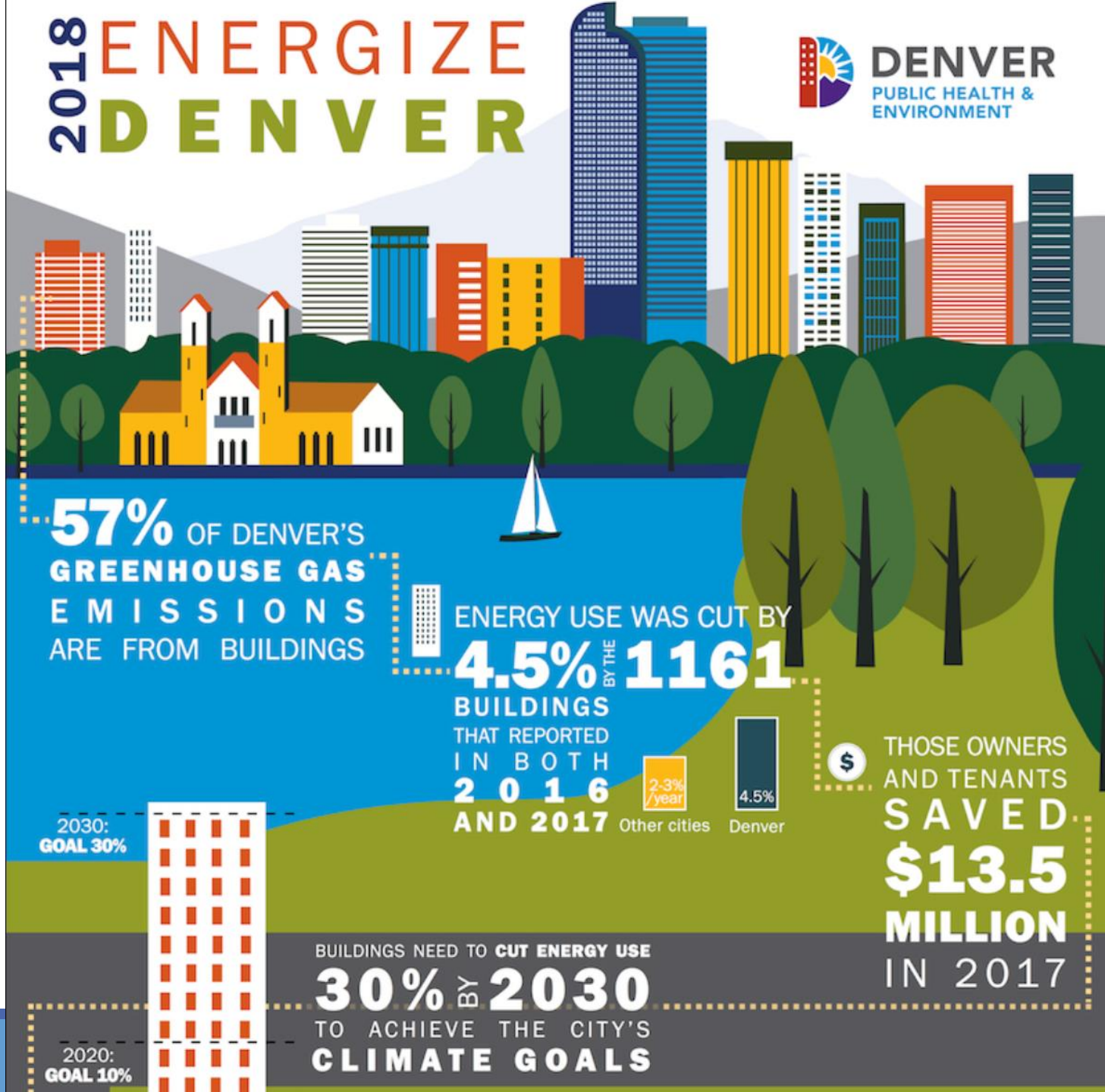
Building energy use drives
71%
of citywide greenhouse gas (GHG) emissions

\$77 
MILLION
IN POTENTIAL SAVINGS
IDENTIFIED FROM 2014
ENERGY BENCHMARKING



Denver 2016

Energize Denver, Benchmarking Requirement



Regional Energy Manager Project

PARTNERSHIP WITHIN NCTCOG, BETWEEN TRANSPORTATION AND ENVIRONMENT & DEVELOPMENT STAFF

Project Overview



Purpose

- Expand Local Government Staff Capabilities in Energy Management Topics and Compliance to SB 898 Reporting
- Increase Use of Energy and Water Benchmarking Tools
- Improve Accuracy of Emissions Reduction Data Associated with Reduced Energy Use



Outcome

- Demonstrate the value and benefits of increasing regional energy education
- Quantify facility energy consumption via benchmarking
- Assess energy reduction impacts on regional Air Quality data in order to serve as a regional template for other regions to utilize.

Project Timeline and Deliverables

May-August 2019

**February
2019**

Deploy a survey to identify the energy management needs and interests of the region

Publish digital resources (energy assessments, project-related analysis etc.) on [Conserve North Texas](#) Website

**August
2019**

Complete Project

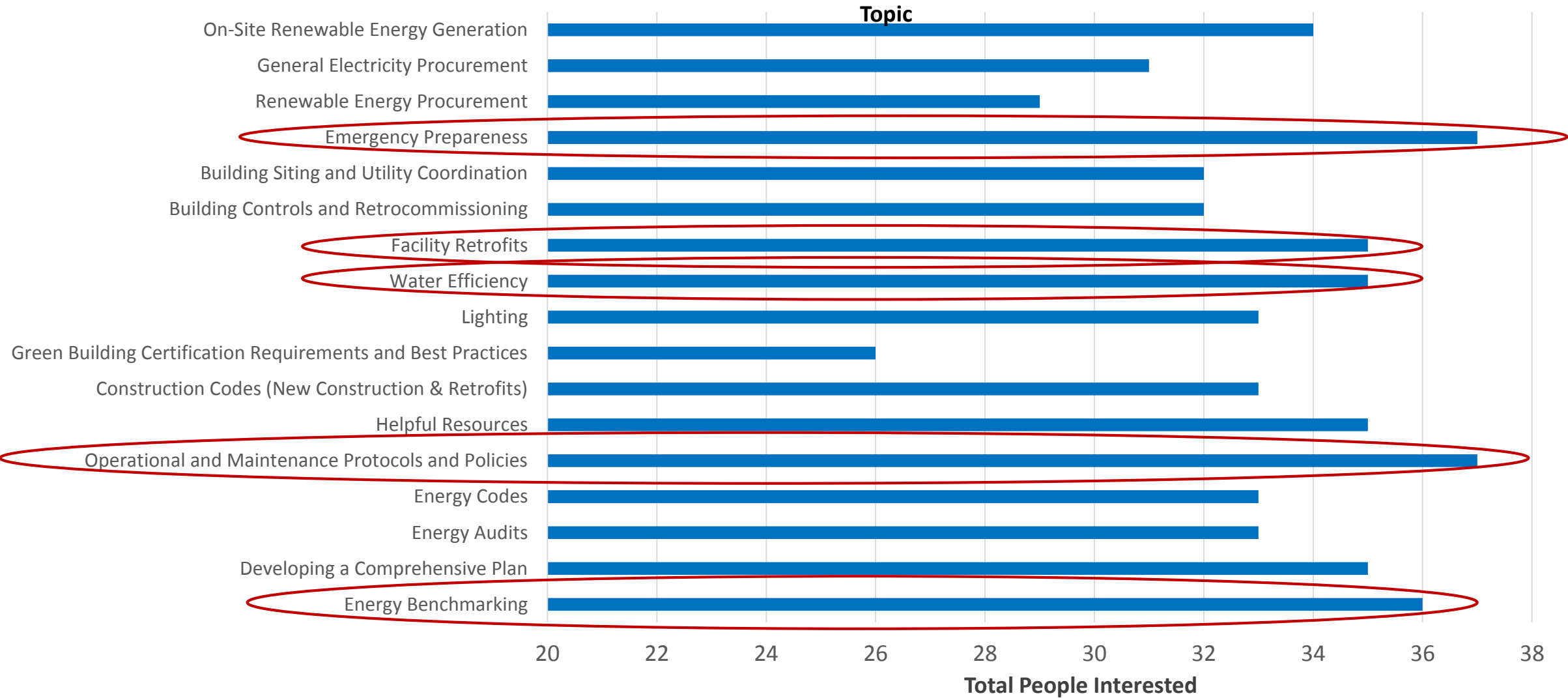
Develop workshops and trainings based on regional interests identified in survey

Create three (3) local government case studies



Regional Survey Results

Overall Interest to Lower Energy Use via:



Upcoming Workshops + Trainings

May

Workshop 1

May 23

- SB 898
- Value of Benchmarking and Building Portfolio Manager

June

Workshop 2

June 28

- SB 898
- Lower energy usage through energy planning and coordination

August

Workshops 3 & 4

August 21

Workshop 3 (9am-12pm)

- Lower energy usage through energy efficiencies in and around buildings

Workshop 4 (1pm -4pm)

- Emergency preparedness and the energy supply

Senate Bill 898 (82R) – Local Government Energy Reporting

Purpose: Lower Local Government Energy Consumption

Requirements: Requires all political subdivisions, institutes of higher education, and state agencies in the 42 Ozone Nonattainment and Near Non Attainment Counties to establish a goal of reducing electric consumption by at least 5% each state fiscal year for 10 years beginning September 1, 2011 and to Submit Annual Reporting

Issues: Lack of Awareness, Non-Compliance with Annual Reporting Requirement

Senate Bill 898 (82R) – Local Government Energy Reporting

Who Reports?

The following entities in 42 Nonattainment or Near Nonattainment counties:

Cities and Counties

State Agencies


Institutes of Higher Education

What's Due:

SB 898 report to SECO regarding the entity's efforts and progress to meet the 5% energy reduction goal

DUE: November 1 (annually)

Senate Bill 898 (82R) Reporting Form
Reports due: November 1.
Form# 50-816

 **SECO**
State Energy Conservation Office

Purpose of this Document: In 2011, the Texas Legislature passed Senate Bill 898 amending the Health and Safety Code §388.005 to require each political subdivision, institution of higher education, or state agency to establish a goal to reduce electrical consumption by at least five percent each fiscal year for ten years beginning September 1, 2011. Each entity must report to the State Energy Conservation Office (SECO) regarding the entity's efforts to meet the goal, and progress the entity has made.

Entity Name _____
Entity Type: Municipality County State Agency Higher Education Other _____
Address _____ City _____ Zip Code _____
County _____
Contact Name _____ Title _____
Email Address _____ Phone Number _____

Reporting Period
State fiscal year (Sep. 1 - Aug. 31) _____

Energy Consumption Data
Enter annual electrical usage in kWh for the state fiscal year (Sep. 1 - Aug. 31) and gross baseline square footage of each building. Reporting total energy consumption is mandatory. A breakdown of energy consumption by building or infrastructure is optional.

Infrastructure or Facility Type	Annual Consumption in kWh (Sep. 1 - Aug. 31)	Gross Baseline Square Footage (as of Sep. 1)
Buildings		
Traffic Lighting		
Street Lighting		
Water (pump) Facilities		
Wastewater Facilities		
Other: _____		
Other: _____		
Other: _____		
Totals:		

Bill 898 (82R). Has your entity established a goal to reduce electrical consumption by at least _____ percent over the next ten years beginning September 1, 2011? Yes No

ent

es below indicating the areas in which your entity has made efforts and progress toward meeting energy goals.

ed Heat and Power Appliances/Equipment/Electronics Policy/Plan/Program
 HVAC Renewable Generation
 Insulation/Radiant Barrier Water/Wastewater
 Lighting Water Conservation
 Maintenance/Operation Water Heating
 Benchmarking Other: _____

tion

regarding the progress and efforts indicated above to reduce electrical consumption and a brief description of planned activities. Your description will be included in SECO's annual report. Attach additional pages if needed.

Check here if additional documentation is attached.

Bill 898, a political subdivision, institution of higher education, or state agency that does not attain this goal must increase program and an entity has already implemented all available cost-effective measures. An entity that submits a report indicating that it has reviewed its available options, has determined that no additional measures are cost-effective, and that it has already implemented all available cost-effective measures is exempt from the annual reporting requirements if a subsequent report would indicate no change in status.

If requesting an exemption to the mandates of SB 898 please check the boxes and provide additional documentation to serve as justification for this exemption request.

The Entity listed above has reviewed its available options, has determined that no additional measures are cost-effective, and that it has already implemented all available cost-effective measures.

The Entity has included a report to this effect.

I have read Senate Bill 898 (82R) regarding exemptions, and hereby certify that the said entity has met the exemption.

Signature _____ Date _____

Email completed reports to SECO at SB898.Reporting@cpa.texas.gov
or by mail to: State Energy Conservation Office
Attn: SB898 Report
111 E. 17th Street
Austin, TX 78711-1440

50416 0015

FOR MORE INFORMATION

Tamara Cook

Senior Program Manager

Environment and Development Department

(817) 695-9221

tcook@nctcog.org

Lori Clark

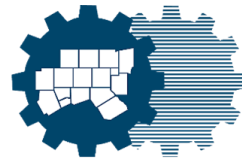
Program Manager

Transportation Department

(817) 695-9232

lclark@nctcog.org

<https://www.nctcog.org/envir/natural-resources/energy-efficiency>



**North Central Texas
Council of Governments**



Energy Accounting & Benchmarking

Presented by: Saleem Khan, P.E., CxA

May 23, 2019

TEESI  Engineering

**(Texas Energy Engineering Services, Inc.)
1301 S. Capital of Texas Hwy., Suite B-325
Austin, Texas 78746**



**www.teesi.com
(512) 328-2533**

Welcome



State Energy Conservation Office

Energy Accounting – Why?

- Compare energy consumption and cost
 - Over time and among other facilities
- Identify energy spikes and billing errors
- Prioritize energy capital investments
- Evaluate progress and communicate results
- Create incentives for energy management
- Improve energy budget forecast
- Keep track of changes



Getting Started

- Setup a team and assign roles
 - Allocate time and resources
- Establish contacts
 - Utility account representative
 - Accounting/Finance department
- Gather all utility accounts and facility information
 - Electric, natural gas, propane, water, etc.
 - Work to optimize procedure
 - Setup data recording frequency
 - Reduce double entry and help streamline the procedure



Poll Question:

**Do you or does your organization
conduct meter mapping?**

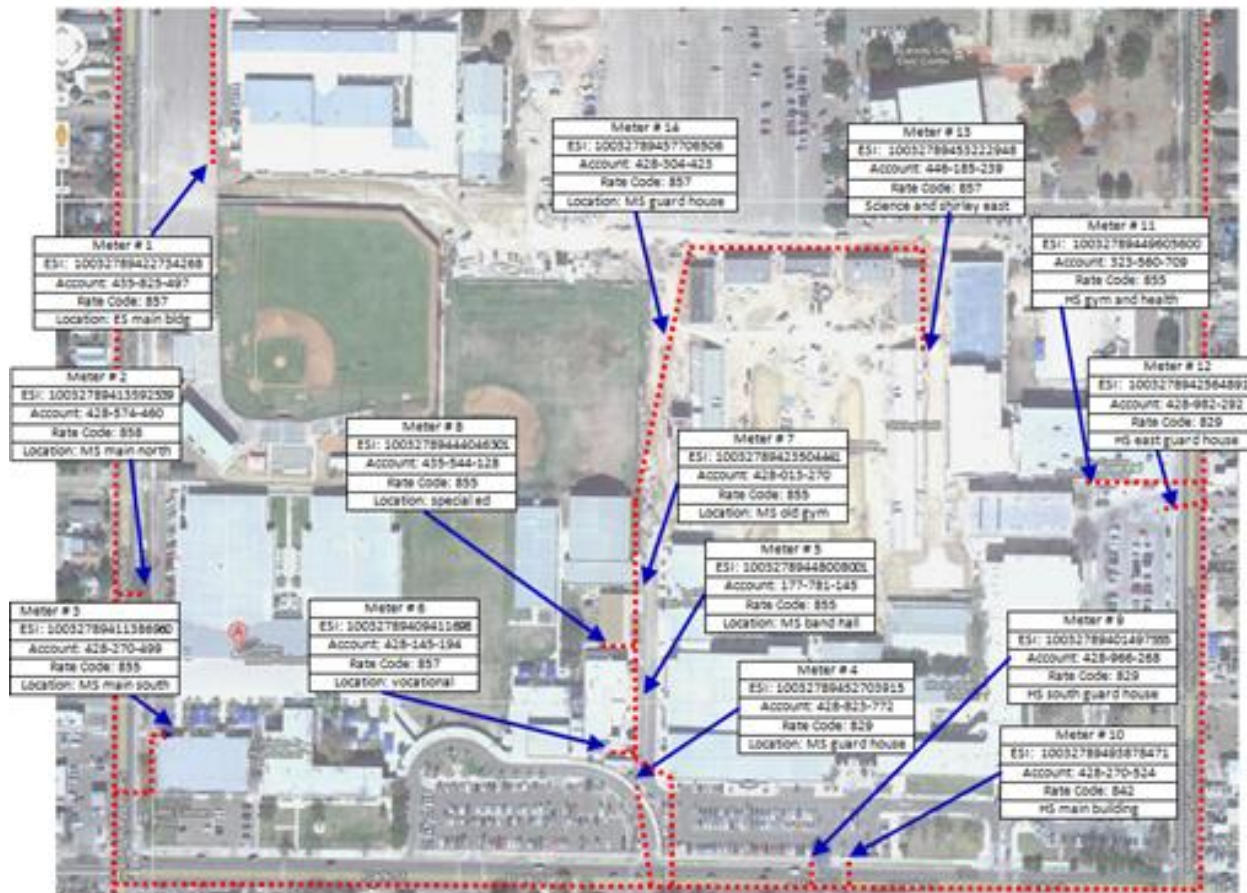


Identify Utility Meters

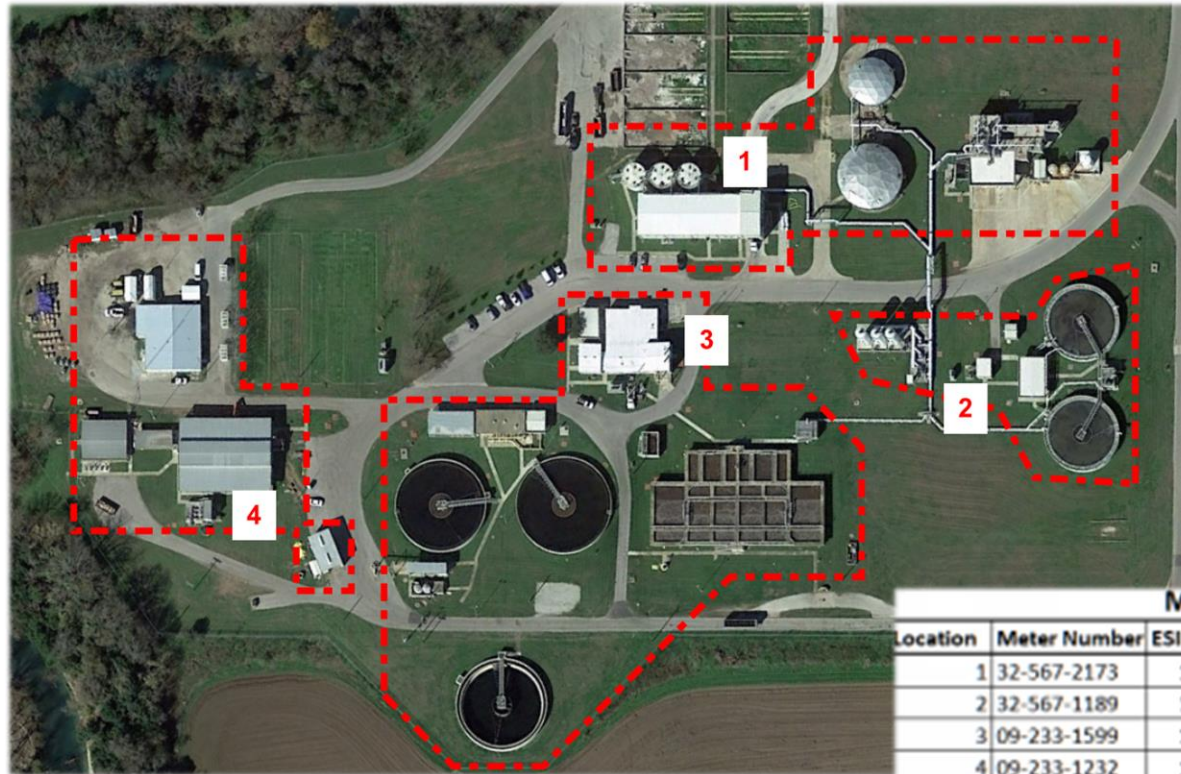
- Identify all meter locations and determine which facilities they serve
- Create a utility meter list and utility meter map
- Determine if meters serve multiple facilities
- Group facilities in a logical manner according to the utility meters served
- Grouping facilities by the utility meters served will help in accurately benchmarking the facilities



Identify Utility Meters Mapping



Identify Utility Meters Mapping (cont.)



Meter Key

Location	Meter Number	ESID #	Serving
1	32-567-2173	1003987124	Pumps, Tanks, Shed
2	32-567-1189	1003986282	Aerators, Tanks, Pumps
3	09-233-1599	1003988580	Aerators, Basins, Pumps
4	09-233-1232	1003989116	Offices, Maintenance Shed



State Energy Conservation Office

Gather Facility Data

- Record building square footage (sf)
 - Where can I get the square footage data?
- Keep track of building additions and renovations
- Identify operations and schedule changes
 - Temperature setpoints
 - Heating & cooling
 - Occupancy type / usage
 - Operating hours



Gather Facility Data (cont.)

- Not required but good to have
 - General description of HVAC and other energy using equipment
 - Number of occupants
 - HVAC (Electric heat or Gas heat)
 - Number of computers
 - Kitchen appliances (Gas or Electric)
 - Record major equipment replacement

Gather Utility Data

- Establish baseline
 - At Least One Calendar Year (12 Consecutive Months)
- Review Monthly Invoices
 - Scanned Invoices, Tracking Spreadsheets, Software, Contact the Utility Provider
- Electric
 - Consumption (kWh), Peak Demand (kW), etc.
- Natural Gas
- Water
- Chilled Water & Heating Hot Water/Steam



Why Btu's?

- Energy consumption is expressed in Btu's to allow for consumption comparisons among fuel types that are measured in different units
- kWh to BTUs
 - 1 KWh = 3,412 Btu
 - Convert 2,000 kWh to Btu's
 - $2,000 \text{ kWh} * 3,412 \text{ Btu/kWh} = 6,824,000 \text{ Btu's}$
- Natural Gas Consumption to BTUs
 - 1 Cubic Foot of N. Gas = 1,030 Btu's
 - 1 CCF = 100 Cubic Ft = 103,700 Btu's
 - 1 MCF = 1,000 Cubic Ft = 1,037,000 Btu's
- Propane to BTUs
 - 1 Gal Propane = 91,600 Btu's
 - 1 Cubic Ft Propane = 2,500 Btu's



Establish Energy Performance Indices (Buildings)

- Energy Use Index (EUI)
 - Total annual electric and natural gas usage
 - Btu/SF/Year
 - kBtu/SF/Year , Why “k”?
 - 68,000 Btu/SF/ Yr is the same as 68 kBtu/SF/Yr

- Energy Cost Index (ECI)
 - Total annual electric and natural gas cost (all fuels)
 - \$/SF/Year



Establish Energy Performance Indices (WWTP)

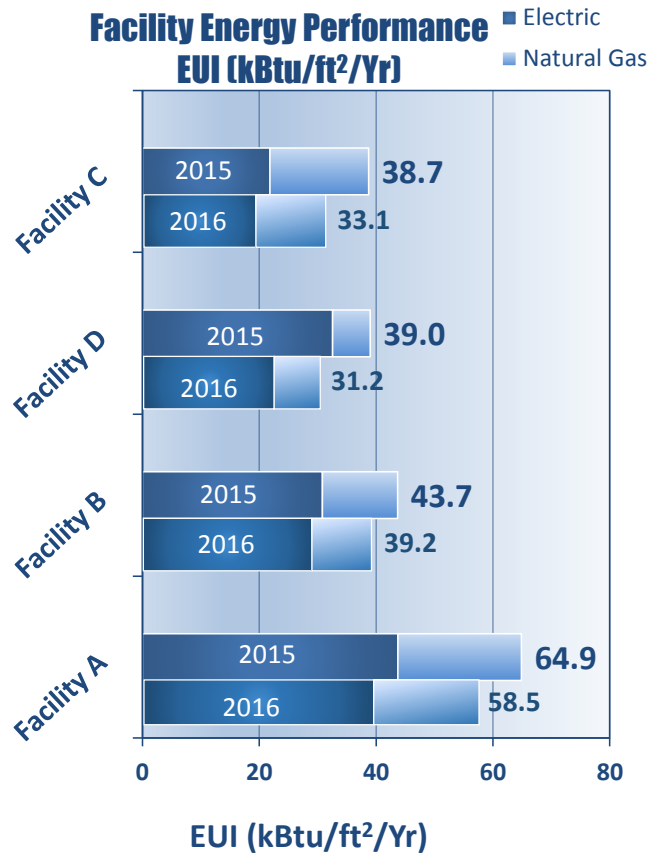
- Energy Use Index (EUI)
 - Annual energy usage divided by average effluent flow
 - kBtu/GPD/Year

- Energy Cost Index (ECI)
 - Annual energy cost divided by average effluent flow
 - \$/MGD/Year

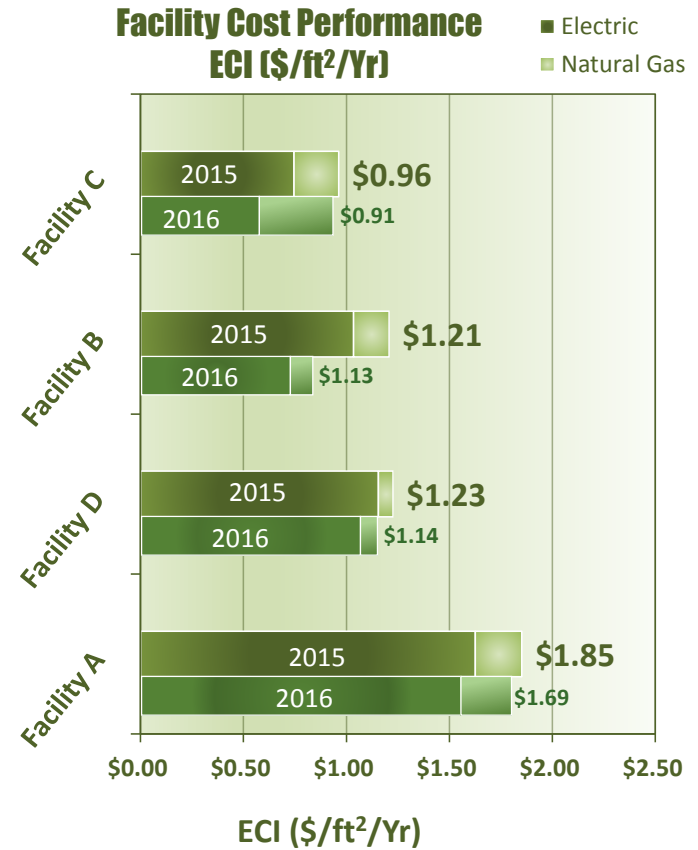
- Normalization
 - Other factors influence EUI & ECI for WWTP
 - such as influent biological oxygen demand (BOD) levels, nutrient removal, etc.

Baseline & Performance Tracking

Energy Utilization Index



Energy Cost Index



Other Energy Performance Indices

- Other indices
 - kWh/SF
 - kWh/Occupant
 - \$/Occupant
 - Btu/Occupant

- Used to compare building energy performance

- Weather normalization



Poll Question:

Do you or does your organization actively track electric demand?



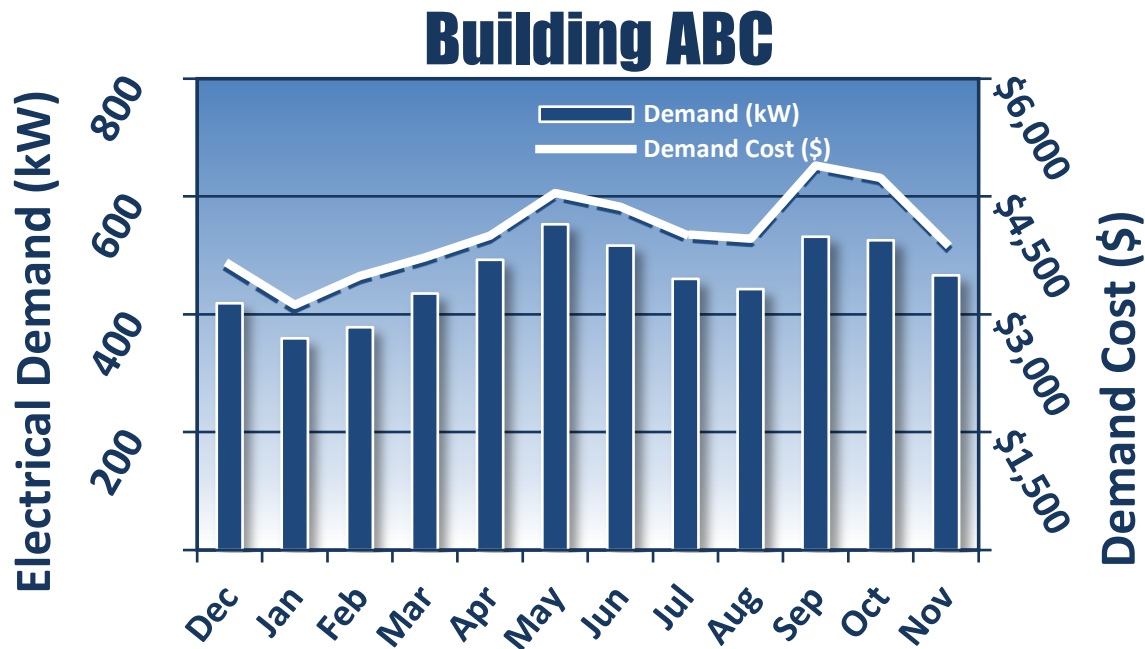
Electric Demand

- Not typically tracked, but can be beneficial
- Larger commercial buildings may represent 30-50% of the electric cost
- Additional advantage to tracking demand is the ability to calculate a building's load factor
- Identify Peak Demand times with interval data



Electric Demand

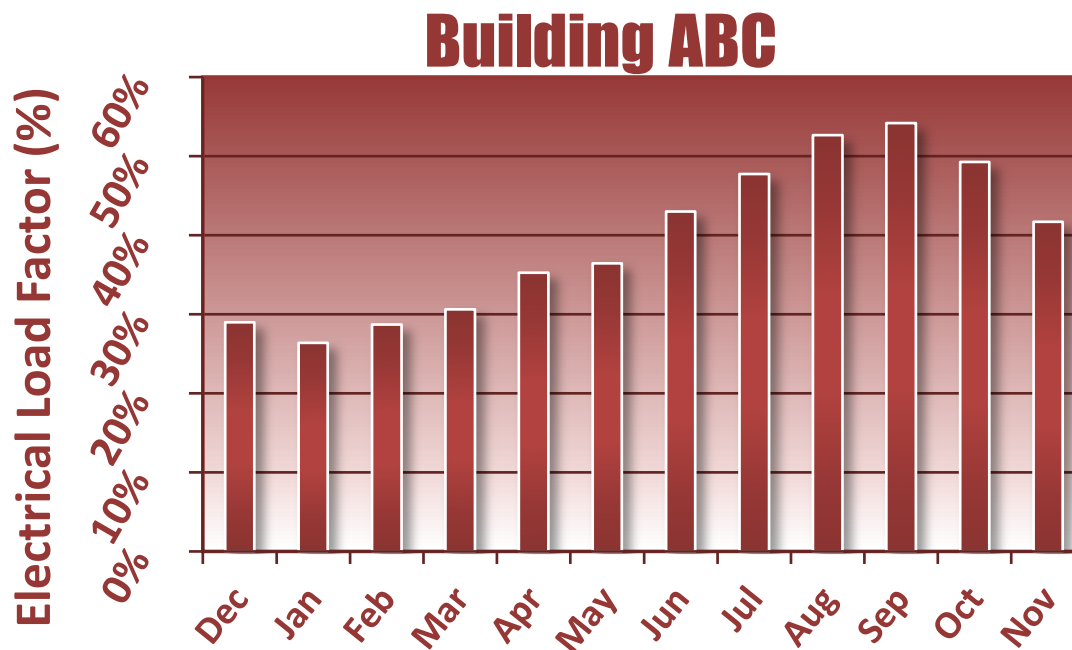
- Peak power draw (kW)
- Demand charges (\$/kW)



State Energy Conservation Office

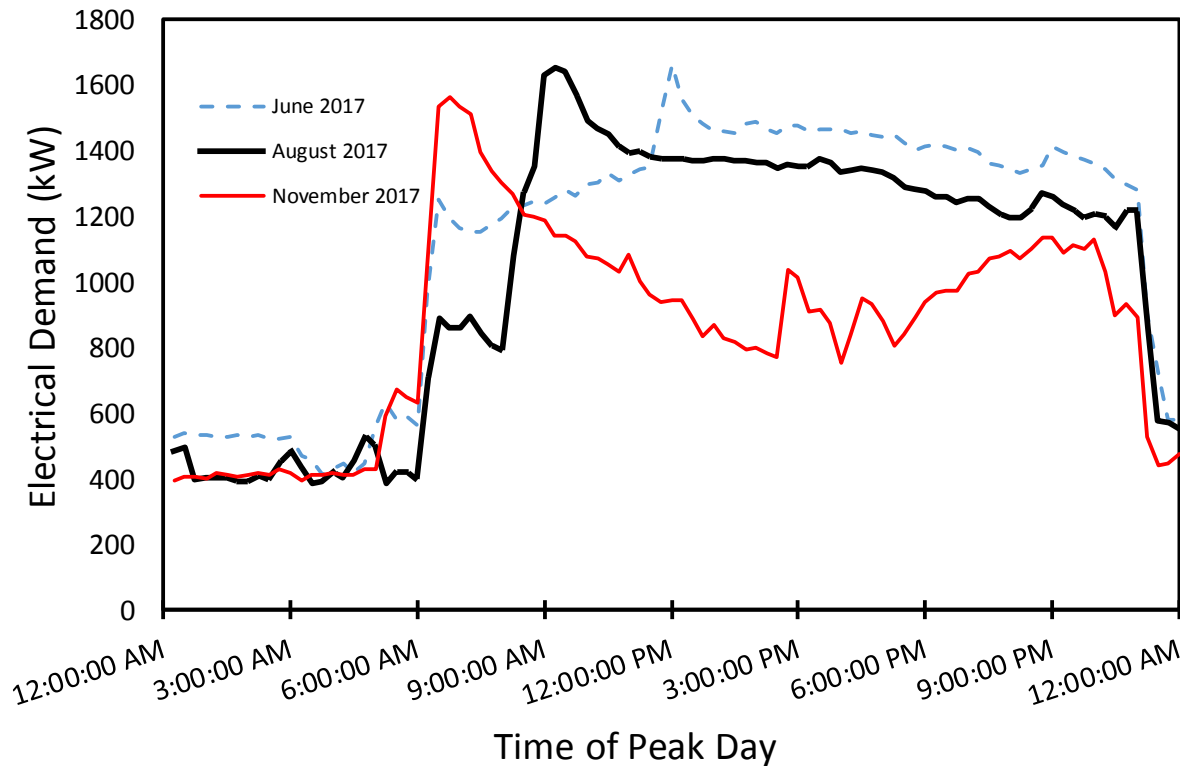
Load Factor Analysis

- The ratio of average kW to peak kW in billing period
- Represents consistency of facility usage



Example Interval Demand Data

Peak Day Profile Examples



State Energy Conservation Office

Poll Question:

Do you or does your organization actively track water usage?



Water Consumption and Performance

- Develop water baseline

- Performance indices
 - Total annual water consumption per square foot
 - Gallons/ft²/Year

 - Total annual water consumption per occupant
 - Gallons/occupant/day



Budgeting

- One of the important functions of an Energy Manager

- Energy accounting tools
 - Historical consumption and costs
 - Forecast consumption and costs

- Energy management activities
 - Staffing and manpower
 - Equipment
 - Energy retrofits



Energy Budgeting Forecasting

➤ Estimating future utility budget:

Assume you have a 100,000 ft² (SF) facility and your total annual energy costs are \$100,000 per year. There will soon be a 20,000 ft² addition to the facility next year.

What will be the estimated electric budget for the building addition (similar occupancy, usage, rates, HVAC/lighting systems, etc.)?



Energy Budgeting Forecasting (cont.)

- Existing square footage (SF): **100,000 ft²**
Annual energy costs last year: **\$100,000**
Facility addition square footage (SF): **20,000 ft²**
- Calculate annual energy cost index (ECI):
 - $ECI = \frac{\text{Annual Energy Cost}}{\text{Square Footage}} = \frac{\$100,000/\text{yr}}{100,000 \text{ ft}^2} = \mathbf{\$1.00/SF}$
- Projected *additional* energy costs for next year:
 - $ECI * \text{Total Square Footage for Addition}$
 $= \$1.00/SF * (20,000 SF) = \mathbf{\$20,000/yr}$



Simple Payback

- Example of measure of worth is to calculate the simple payback (years)
- Simple payback = initial cost / annual savings
- Determines the number of years required to recoup the cost of the initial investment
- The annual savings can other quantifiable savings



Simple Payback (cont.)

➤ Example payback calculation:

It costs \$10,000 to retrofit existing T8 linear fluorescent lighting to LED lighting at your building. The estimated annual energy savings are calculated to be \$1,500/year. What would be the simple payback for the LED retrofit project?



Simple Payback Calculation

➤ Total Project Cost: **\$10,000**

➤ Annual Energy Cost Savings: **\$1,500/yr**

➤ *Simple Payback (years)* =
$$\frac{\text{Project Cost } [\$]}{\text{Annual Savings } \left[\frac{\$}{\text{yr}}\right]}$$

➤ *Payback* =
$$\frac{\$10,000}{\$1,500/\text{yr}} = \mathbf{6.6 \text{ years}}$$

➤ Other factors (maintenance, buydown, rebates etc.)



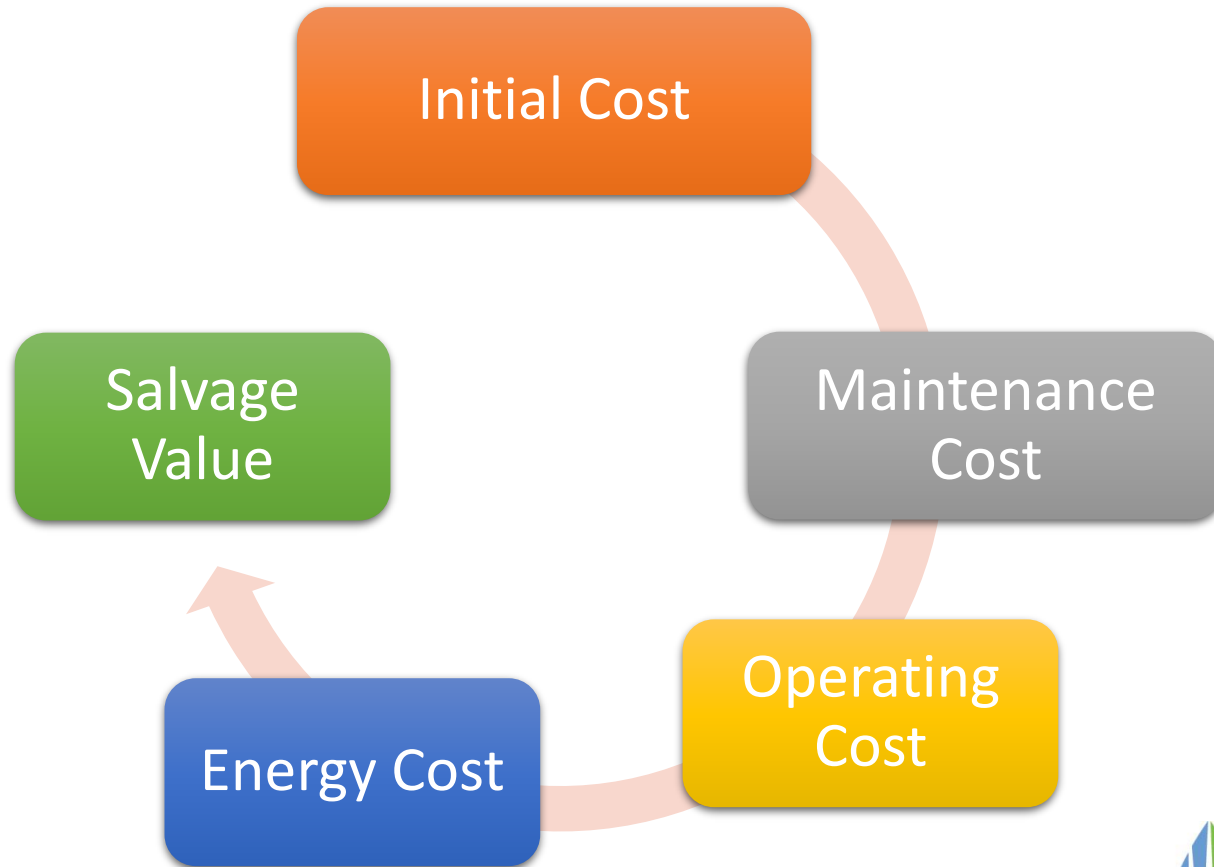
Cumulative Savings Simple Payback

- Utilize the savings of multiple projects to improve the overall “cumulative” payback.

Project	Project Cost (\$)	Project Savings (\$)	Simple Payback (Years)
HVAC Replacement	\$100,000	\$6,500	15.4
Lighting Retrofit	\$75,000	\$18,750	4
Total:	\$175,000	\$25,250	7



Life Cycle Analysis



Poll Question:

How do you track your energy?



Energy Accounting Software

- Energy Accounting is an important practice to monitor energy consumption for facilities
- Various software tools are available in the market & some are **FREE**
 - **ENERGY STAR Portfolio Manager**, spreadsheets, commercially available software etc.



Energy Accounting Software

- Energy accounting system benefits include
 - Maintain historical data and set goals
 - Track changes
 - Budget energy costs more accurately
 - Evaluate energy program
 - Identify and correct anomalies early
 - Weather, floor area, operational changes, etc.

- Communicate RESULTS



What is Portfolio Manager?

- Developed by EPA and DOE as part of ENERGY STAR Program
- Online energy and water tracking tool

▶ Basic Meter Information

▼ Monthly Entries

Display Year(s):

	Start Date	End Date	Usage kWh (thousand Watt-hours)	Cost (\$)
<input type="checkbox"/>	1/1/2014	1/31/2014	273,600	37,094.00
<input type="checkbox"/>	2/1/2014	2/28/2014	273,000	37,011.00
<input type="checkbox"/>	3/1/2014	3/31/2014	311,400	41,390.00
<input type="checkbox"/>	4/1/2014	4/30/2014	324,000	43,452.00
<input type="checkbox"/>	5/1/2014	5/31/2014	425,400	51,521.00



State Energy Conservation Office

- SECO Schools and Local Government program
 - Energy Technical Assistance & Preliminary Energy Assessments
- LoanSTAR (Funding source)
- Other programs



Questions?

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TEESI Engineering
(512) 328-2533
saleem@teesi.com
www.teesi.com

Stephen Ross
State Energy Conservation Office (SECO)
Office: 512-463-1770
stephen.ross@cpa.texas.gov
<https://comptroller.texas.gov/programs/seco/>



State Energy Conservation Office



ENERGY STAR Portfolio Manager Training

What can Portfolio Manager do?

May 23, 2019

Presented By: Saleem Khan, P.E., CxA and Chris Pettit, M.S.

TEESI  Engineering

(Texas Energy Engineering Services, Inc.)

1301 S. Capital of Texas Hwy., Suite B-325

Austin, Texas 78746

www.teesi.com

(512) 328-2533





Agenda

- About Portfolio Manager
- Program Structure & Terminology
- Property Data Entry
- Correcting & Updating Property Details
- Bulk upload of Multiple Utility Accounts & Bills
- Establishing Goals in Portfolio Manager
- Generating Reports in Portfolio Manager
- Creating a Portfolio Manager Account

What is Portfolio Manager?

- Developed by EPA and DOE as part of ENERGY STAR Program
- Online energy and water tracking tool

Basic Meter Information

Monthly Entries

Display Year(s): 2019 x 2018 x

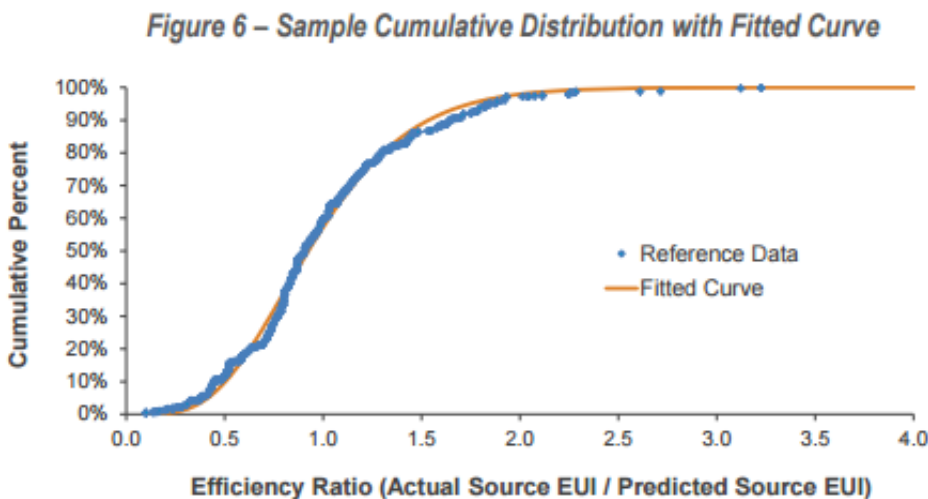
Show All Years

	Start Date	End Date	Usage kWh (thousand Watt-hours)	Total Cost (\$)	Estimation	2018	2019
<input type="checkbox"/>	1/1/2018	2/1/2018	134,959	13,863.03	<input type="checkbox"/>	<input type="checkbox"/>	666
<input type="checkbox"/>	2/1/2018	3/1/2018	211,697	17,255.72	<input type="checkbox"/>	<input type="checkbox"/>	695
<input type="checkbox"/>	3/1/2018	4/1/2018	196,982	16,693.17	<input type="checkbox"/>	<input type="checkbox"/>	702
<input type="checkbox"/>	4/1/2018	5/1/2018	233,502	18,303.16	<input type="checkbox"/>	<input type="checkbox"/>	684
<input type="checkbox"/>	5/1/2018	6/1/2018	258,846	19,853.99	<input type="checkbox"/>	<input type="checkbox"/>	791
<input type="checkbox"/>	6/1/2018	7/1/2018	287,400	21,454.97	<input type="checkbox"/>	<input type="checkbox"/>	837



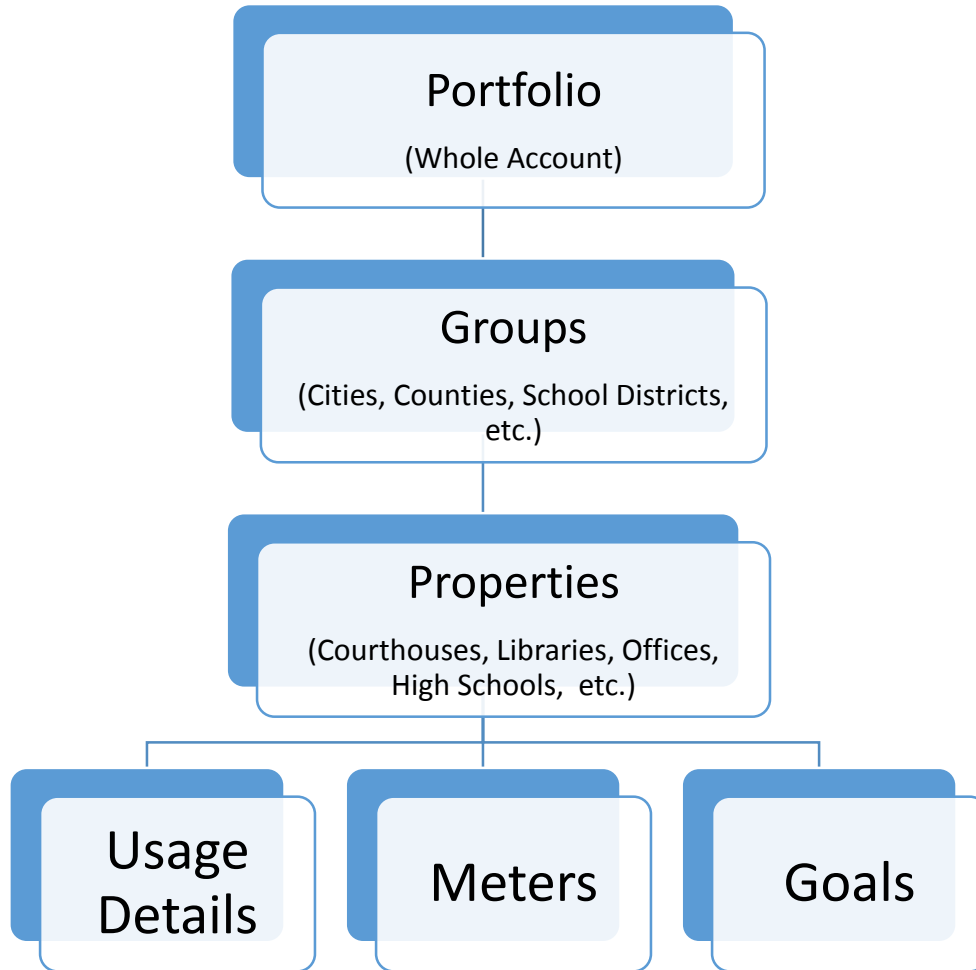
What does Portfolio Manager do?

- Compares to national database (CBECS) of buildings of similar type, climate, usage, etc.
- Benchmark score of 1 (lowest performing) to 100 (highest performing)
- Scores above 75 may be eligible for ENERGY STAR building label

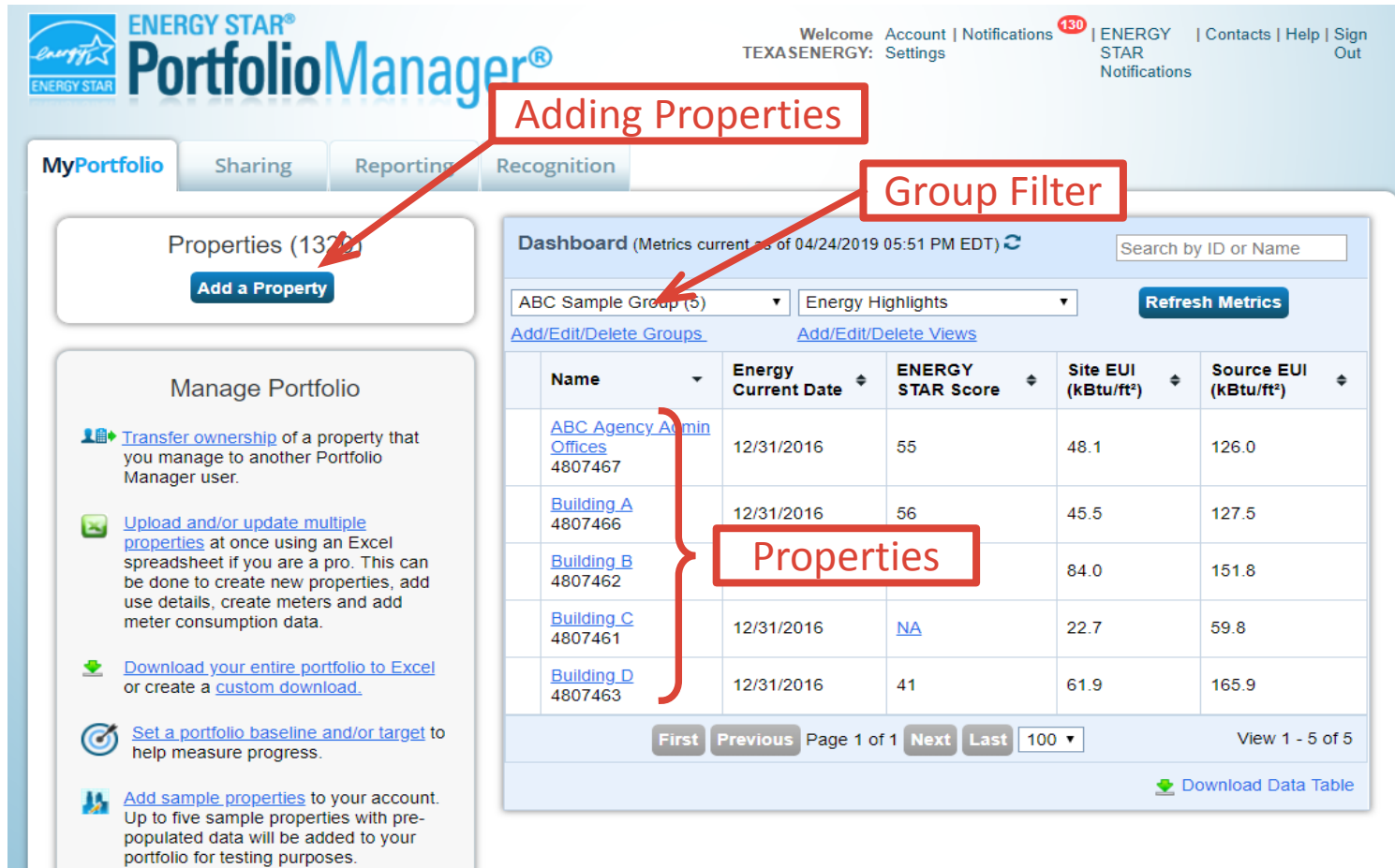


Source: Energy Star Portfolio Manager
Technical Reference – Energy Star Score.

Portfolio Manager Structure



MyPortfolio Main Page



The screenshot shows the MyPortfolio Main Page. At the top, there is a navigation bar with the Energy Star logo, the text 'PortfolioManager', and user information: 'Welcome Account | Notifications 130 | ENERGY STAR Notifications | Contacts | Help | Sign Out'. Below this is a secondary bar with 'MyPortfolio', 'Sharing', 'Reporting', and 'Recognition' tabs. The main content area is divided into two columns. The left column has a 'Properties (137)' section with an 'Add a Property' button and a 'Manage Portfolio' section with several links and instructions. The right column has a 'Dashboard' section with a search bar, a group filter dropdown set to 'ABC Sample Group (5)', and a 'Refresh Metrics' button. Below the dashboard is a table of properties. A red box labeled 'Adding Properties' points to the 'Add a Property' button. Another red box labeled 'Group Filter' points to the dropdown menu. A third red box labeled 'Properties' points to the table of properties.

Adding Properties

Group Filter

Properties

Name	Energy Current Date	ENERGY STAR Score	Site EUI (kBtu/ft ²)	Source EUI (kBtu/ft ²)
ABC Agency Admin Offices 4807467	12/31/2016	55	48.1	126.0
Building A 4807466	12/31/2016	56	45.5	127.5
Building B 4807462			84.0	151.8
Building C 4807461	12/31/2016	NA	22.7	59.8
Building D 4807463	12/31/2016	41	61.9	165.9



Property Main Page

Welcome Account | Notifications ¹³⁰ | ENERGY STAR Notifications | Contacts | Help | Sign Out

TEXASENERGY: Settings

ENERGY STAR PortfolioManager®

MyPortfolio | Sharing | Reporting | Recognition

ABC Agency Admin Offices

2016 Presidential Way, Spurious, TX 77777 | [Map It](#)

Portfolio Manager Property ID: 4807467

Year Built: 1985

[Edit](#)

Not eligible to apply for ENERGY STAR Certification

[Change Metric](#)

ENERGY STAR Score (1-100)

Current Score: 55

Baseline Score: 38

[Change Metrics](#)

[Change Time Periods](#)

Summary | Details | Energy | Water | Waste & Materials | Goals | Design

[Refresh](#) to see **Source EUI Trend**

[Change Metric](#)

2008 2010 2012 2014 2016 2018

Metrics Summary

Metric	Dec 2015 (Energy Baseline)	Dec 2016 (Energy Current)	Change
ENERGY STAR Score (1-100)	38	55	17.00 (44.70%)
Source EUI (kBtu/ft ²)	157.5	126.0	-31.50 (-20.00%)
Site EUI (kBtu/ft ²)	60.1	48.1	-12.00 (-20.00%)
Energy Cost (\$)	40,992.11	32,793.69	-8,198.42 (-20.00%)
Total GHG Emissions Intensity (kgCO ₂ e/ft ²)	7.5	6.0	-1.50 (-20.00%)
Water Use (All Water Sources) (kgal)	Not Available	7,205.7	N/A
Total Waste (Disposed and Diverted) (Tons)	Not Available	Not Available	N/A

Current Score Dashboard

Property Info

Benchmarks Summary

Property Details

Update Property Use Details




It is important to keep the information about how your property is used up to date since this information is used to calculate your performance metrics. Updates that you make here are tracked as part of the [History Log](#). To correct an error that you find, use the [History Log](#). Note: you do not need to provide any new information for details you aren't updating.

Property Use Name: *

Type of Use:

Hover Over for Description

Can use placeholder default value based on national average. NOTE: real values give more accurate scores; real values required for awards

Detail	Current Value	Updated Value	Current As of
★ Gross Floor Area	20123 Sq. Ft. (as of 01/01/1985)	<input type="text"/> Sq. Ft. ▾	<input type="text"/>
★ Weekly Operating Hours	65 (as of 01/01/1985)	<input type="text"/> <input type="checkbox"/> Use a default	<input type="text"/>
★ Number of Workers on Main Shift	46.2829 (as of 01/01/1985)	<input type="text"/> <input type="checkbox"/> Use a default	<input type="text"/>
★ Number of Computers	40.246 (as of 01/01/1985)	<input type="text"/> <input type="checkbox"/> Use a default	<input type="text"/>  <input type="checkbox"/>
Percent That Can Be Heated	50 % or more (as of 01/01/1985)	<input type="text"/> ▾ <input type="checkbox"/> Use a default	<input type="text"/>  <input type="checkbox"/>
★ Percent That Can Be Cooled	50 % or more (as of 01/01/1985)	<input type="text"/> ▾ <input type="checkbox"/> Use a default	<input type="text"/>  <input type="checkbox"/>

★ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

Property Meters

Summary Details **Energy** Water Waste & Materials Goals Design

Meter Summary

3 Energy Meters Total

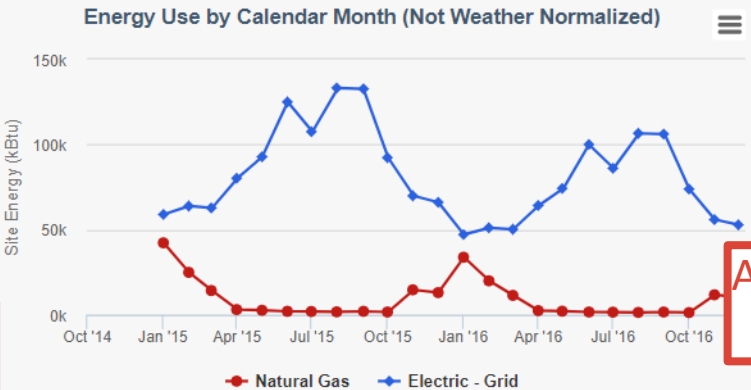
3 - Used to Compute Metrics

[Add A Meter](#)

Current Energy Date
Dec 31, 2016

[Enter Your Bills](#)

Energy Use by Calendar Month (Not Weather Normalized)



Site Energy (kBtu)

Oct '14 Jan '15 Apr '15 Jul '15 Oct '15 Jan '16 Apr '16 Jul '16 Oct '16

● Natural Gas ● Electric - Grid

[Export Data by Calendar Month](#)

- Use our [simple spreadsheet](#) (one meter) to upload or Copy/Paste
- Use our [complex spreadsheet](#) (multiple meters + multiple properties)
- Find an organization to electronically enter your data into Portfolio Manager

Your Property is: [Edit](#)

- A Single Building
- Part of a Building
- A Campus of Multiple Buildings

Edit Existing

Meters - Used to Compute Metrics (3)

[Change Meter Selections](#)

[View as a Diagram](#)

Name Meter ID	Energy Type	Most Recent Bill Date	In Use? (Inactive Date)
10210094 18694608	Electric - Grid	12/31/2016	Yes
10310093 18694607	Electric - Grid	12/31/2016	Yes
NG - 5 18694609	Natural Gas	12/31/2016	Yes

[Add A Meter](#)

Associate Meters/Accounts; establish which meters to use in ENERGY STAR Rating

Add Meters/Utility Accounts

Edit Existing

Property Meter Entries

Display Year(s): 2016

	Start Date	End Date	Usage kWh (thousand Watt hours)	Total Cost (\$)	Estimation	Green Power	Demand (kW)	Demand Cost (\$)	Last Update
<input type="checkbox"/>	1/1/2016	1/31/2016	6,912			<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	2/1/2016	2/29/2016	7,488			<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	3/1/2016	3/31/2016	7,360	969.64	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	4/1/2016	4/30/2016	9,408	1,245.37	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	5/1/2016	5/31/2016	10,880	1,404.12	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	6/1/2016	6/30/2016	14,656	1,809.91	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	7/1/2016	7/31/2016	12,608	1,758.18	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	8/1/2016	8/31/2016	15,616	1,872.59	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>		9/30/2016	15,552	1,780.88	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>		10/31/2016	10,816	1,318.15	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>		11/30/2016	8,192	1,023.12	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>		12/31/2016	7,744	996.53	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo

Delete Selected Entries
 Add Another Entry
 Learn how to copy/paste
 Delete All Entries

[Download to Green Button XML](#) [Download to Excel](#)

Upload data in bulk for this meter:

You can use the single-meter spreadsheet to either: "Upload" the file below, or copy and paste the data from the spreadsheet into the table above ([instructions in this FAQ](#)). Use this single-meter [spreadsheet template](#).

No file chosen

Filter date range

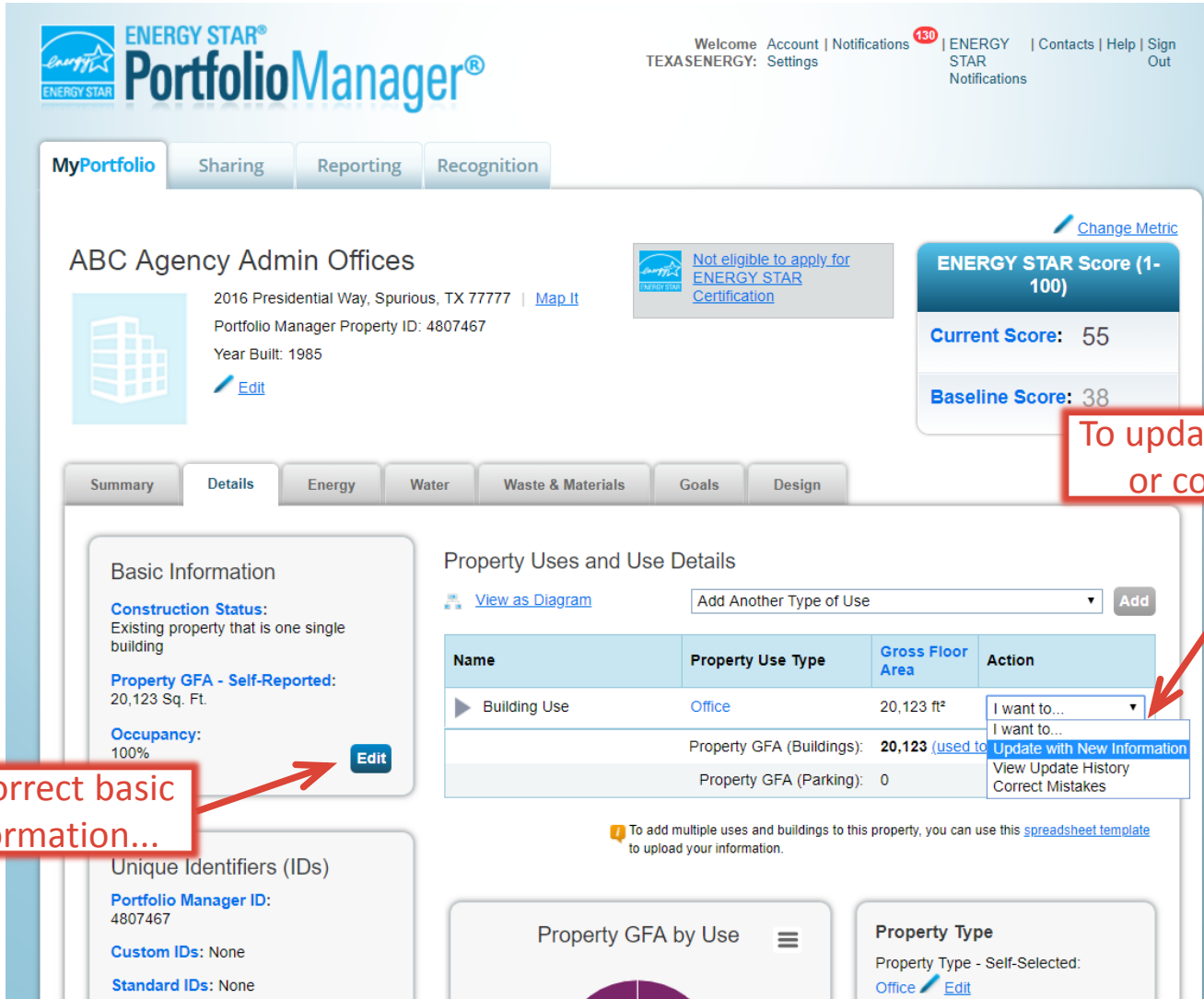
Click to edit old data

Existing Entries

Bulk upload for one account (multi-account bulk entry covered in later slides)

Add New (Single) Entry/Bill

Corrections/Updates of Property Information



The screenshot shows the Energy Star Portfolio Manager interface for a property named "ABC Agency Admin Offices". The interface includes a navigation menu with "MyPortfolio", "Sharing", "Reporting", and "Recognition". The main content area displays property details such as address (2016 Presidential Way, Spurious, TX 77777), Portfolio Manager Property ID (4807467), and Year Built (1985). There is an "Edit" button next to the address. A callout box points to this "Edit" button with the text "To correct basic information...".

On the right side, there is a "Change Metric" link and a box showing the "ENERGY STAR Score (1-100)". The "Current Score" is 55 and the "Baseline Score" is 38. Another callout box points to the "Update with New Information" option in the "Action" column of the "Property Uses and Use Details" table with the text "To update new information or correct mistakes...".

The "Property Uses and Use Details" table is as follows:

Name	Property Use Type	Gross Floor Area	Action
▶ Building Use	Office	20,123 ft²	I want to... I want to... Update with New Information View Update History Correct Mistakes
	Property GFA (Buildings):	20,123 (used to	
	Property GFA (Parking):	0	

Below the table, there is a note: "To add multiple uses and buildings to this property, you can use this spreadsheet template to upload your information." At the bottom, there are sections for "Property GFA by Use" and "Property Type" (Office).

To correct basic information...

To update new information or correct mistakes...

Corrections of Property Details

Property Use Detail

* What is the primary function of your property?

Property type defined by Portfolio Manager: K-12 School
Portfolio Manager considers your property to be this type based on the information you have entered. If this type doesn't look correct to you, please see [this information](#).

How many physical buildings do you consider part of your property? *

None: My property is part of a building
 One: My property is a single building
 More than One: My property includes multiple buildings ([Campus Guidance](#))

How many?

Construction Status: *

Existing
 Design
 Test

Year Built:

Gross Floor Area: *

Gross Floor Area (GFA) is the total property floor area, measured from the principal exterior surfaces of the building(s). Do not including parking. [Details on what to include.](#)

Occupancy: %











Leave this as 'one building' for all K-12 Schools

Default or outdated information may need to be updated

Scroll down and click here to save changes

Updating Property Details

Type of Use: K-12 School

Detail	Current Value	Updated Value	Current As Of	Temporary Value
★ Gross Floor Area	309611 Sq. Ft. (as of 01/01/2000)	<input type="text"/> Sq. Ft. <input type="button" value="v"/>	<input type="text"/> 	<input type="checkbox"/>
Gymnasium Floor Area	0 Sq. Ft. (as of 01/01/2000)	<input type="text"/> Sq. Ft. <input type="button" value="v"/> <input type="checkbox"/> Use a default	<input type="text"/> 	<input type="checkbox"/>
★ High School	No (as of 01/01/2000)	<input type="text"/> <input type="button" value="v"/> <input type="checkbox"/> Use a default	<input type="text"/>	<input type="checkbox"/>
Number of Workers on Main Shift	238.40047 (as of 01/01/2000)	<input type="text"/> <input type="checkbox"/> Use a default	<input type="text"/>	<input type="checkbox"/>
	3096.11 (as of 01/01/2000)	<input type="text"/> <input type="checkbox"/> Use a default	<input type="text"/>	<input type="checkbox"/>
	Not Entered	<input type="text"/> <input type="button" value="v"/>	<input type="text"/> 	<input type="checkbox"/>
★ Weekend Operation	100 (as of 01/01/2000)	<input type="text"/> <input type="button" value="v"/> <input type="checkbox"/> Use a default	<input type="text"/> 	<input type="checkbox"/>
★ Number of Computers	541.81925 (as of 01/01/2000)	<input type="text"/> <input type="checkbox"/> Use a default	<input type="text"/> 	<input type="checkbox"/>
★ Cooking Facilities	Yes (as of 01/01/2000)	<input type="text"/> <input type="button" value="v"/> <input type="checkbox"/> Use a default	<input type="text"/> 	<input type="checkbox"/>
★ Number of Walk-in Refrigeration/Freezer Units	3,09611 (as of 01/01/2000)	<input type="text"/> <input type="checkbox"/> Use a default	<input type="text"/> 	<input type="checkbox"/>
★ Percent That Can Be Heated	All of it - 100% (as of 01/01/2000)	<input type="text"/> <input type="button" value="v"/> <input type="checkbox"/> Use a default	<input type="text"/> 	<input type="checkbox"/>
★ Percent That Can Be Cooled	All of it - 100% (as of 01/01/2000)	<input type="text"/> <input type="button" value="v"/> <input type="checkbox"/> Use a default	<input type="text"/> 	<input type="checkbox"/>
School District	Not Entered	<input type="text"/>	<input type="text"/> 	<input type="checkbox"/>

Default or outdated information may need to be updated

Assign new values and dates to any changes at facility

Scroll down and click here to save changes

Save Update

★ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.
 ⓘ If your property has more than one building, it is important that you keep your Property Use Details (# Workers, Weekly Operating Hours of operation) updated at both the property and building levels so that your ENERGY STAR score and metrics are accurate. [Learn more about keeping Use Details up to date](#)

Bulk upload for multiple accounts

MyPortfolio | Sharing | Reporting | Recognition

Properties (1320)

[Add a Property](#)

Manage Portfolio

- [Transfer ownership](#) of a property that you manage to another Portfolio Manager user.
- [Upload and/or update multiple properties](#) at once using an Excel spreadsheet if you are a pro. This can be done to create new properties, add use details, create meters and add meter consumption data.
- [Download your entire portfolio to Excel](#) or create a [custom download](#).
- [Set a portfolio baseline and/or target](#) to help measure progress.
- [Add sample properties](#) to your account. Up to five sample properties with pre-populated data will be added to your portfolio for testing purposes.

Dashboard (Metrics current as of 04/24/2019 05:51 PM EDT)

Search by ID or Name

ABC Sample Group (5) | Energy Highlights | [Refresh Metrics](#)

[Add/Edit/Delete Groups](#) | [Add/Edit/Delete Views](#)


Name	Energy Current Date	ENERGY STAR Score	Site EUI (kBtu/ft ²)	Source EUI (kBtu/ft ²)
ABC Agency Admin Offices 4807467	12/31/2016	55	48.1	126.0
Building A 4807466	12/31/2016	56	45.5	127.5
Building B 4807462	12/31/2016	25	84.0	151.8
Building C 4807461	12/31/2016	NA	22.7	59.8
Building D 4807463	12/31/2016	41	61.9	165.9

First Previous Page 1 of 1 Next Last 100 View 1 - 5 of 5

[Download Data Table](#)

Click here to upload in bulk (meters, bills, facilities..)

Bulk upload



Welcome Account | Notifications 130 | ENERGY STAR Notifications | Contacts | Help | Sign Out

MyPortfolio
Sharing
Reporting
Recognition

Upload and/or Update Multiple Properties

If you have a lot of properties to create or a lot of bills to add, you may find it easier to upload them using a spreadsheet rather than [entering each property manually](#) or adding bills manually. Learn more below.

My Spreadsheet Uploads

The following spreadsheets have been uploaded to Portfolio Manager. Depending on the size of your spreadsheet, completing the upload to your portfolio may take a while.

<input type="checkbox"/> File Name	Type of Upload	Date	Status
<input type="checkbox"/> Add_Meters.xlsx	Add Meters to Existing Properties	2/21/2019 5:59 PM	✔ Success
<input type="checkbox"/> Add_Meters.xlsx	Add Meters to Existing Properties	2/21/2019 5:58 PM	✘ Failed View Errors

✘ [Delete Selected Entries](#)

Add Properties

You can create new properties in Portfolio Manager, by filling in [this spreadsheet](#), which requires basic property information, including name, address, gross floor area, Property IDs, and Federal Information (if applicable).

✔ [Add Properties Template](#)

Upload Spreadsheets

When you are ready to upload your completed template (either standard or custom), enter it here. Processing time could be affected by file size.

Type of Upload:

Upload Template: No file chosen

Select "Browse" to locate the file on your computer and then select "Upload."

⚠ **This is a powerful feature. Be careful!**

- Multiple submissions could result in duplicate data being added to your portfolio, property or meter.
- Depending on internet speeds, files larger than 2 MB may not be able to be successfully uploaded to the server before the session times out. Files near this size may take several hours to process. While your spreadsheet upload is processing, you will not be able to upload any other

Edit and Manage Information

Once your properties are in Portfolio Manager, you can edit and update them using a template customized based on what you want to do. For example, you may want to upload energy bill data for multiple properties or update use information.

Warning! This is a powerful feature.



Click here to create an Upload Template (meters, bills, etc...)



Bulk upload

MyPortfolio | Sharing | Reporting | Recognition

Create a Custom Upload Template

If you want to add property use or meter information to your spreadsheet, first tell us some information about what you are trying to upload to Portfolio Manager. Then simply fill it in with your information and upload it!

**Select Task
(Add meters, Add bills...)**

1 Select the Task You are Performing

- Add Meters to Existing Properties
- Add Bills to Existing Meters (i.e., meter consumption information)
- Update [Use Details](#) for Existing Properties (e.g. Weekly Hours of Operation, Number of Workers, etc.)
- Edit Basic Property Information for Existing Properties (such as name and address)

Warning - Don't Change Columns!

In order for your upload to work you cannot Add, Delete

**Select Properties
(Individual, all, or custom group)**

2 Select Properties to Include

Properties:

Select which meter types and how many new entries to be processed

3 Select Detailed Information to Include

Energy Meter Types: Electric Natural Gas

Water Meter Types: Municipally Supplied Potable Water

Create & Download Template [Cancel](#)

Click here to download template

Populating the Bulk Upload Template

Test Add_Bills_to_Meters (10).xlsx - Excel

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW DEVELOPER ADD-INS BLUEBEAM POWERPVT

	G	H	I	J	K	L	M		
1	Meter Name (Pre-filled)	Meter Type (Pre-filled)	Start Date (Required)	End Date (Required)	Usage (Required)	Meter Unit (Pre-filled)	Cost (Optional)	Estimation (Required)	Green Power? (Required)
2	SMEU 10794-1	Electricity - Grid Purchase	Last Bill 11/1/2014	11/30/2014	81504	kWh (thousand Watt-hours)	9129.47	No	No
3	SMEU 10794-1	Electricity - Grid Purchase				kWh (thousand Watt-hours)		No	No
4	SMEU 10794-1	Electricity - Grid Purchase				kWh (thousand Watt-hours)		No	No
5	SMEU 10794-1	Electricity - Grid Purchase				kWh (thousand Watt-hours)		No	No
6	SMEU 10794-1					kWh (thousand Watt-hours)			
7	SMEU 10794-1								
8	SMEU 10794-1								
9	1203-1563-00 Pedernales		Last Bill 1/1/2012	1/31/2012	138240	kWh (thousand Watt-hours)	10927.17	No	No
10	1203-1563-00 Pedernales								
11	1203-1563-00 Pedernales								
12	1203-1563-00 Pedernales	Electricity - Grid Purchase				Watt-hours)			

All accounts listed with names given in PM

Last entry on each account shown for reference

Different meter types on separate tabs

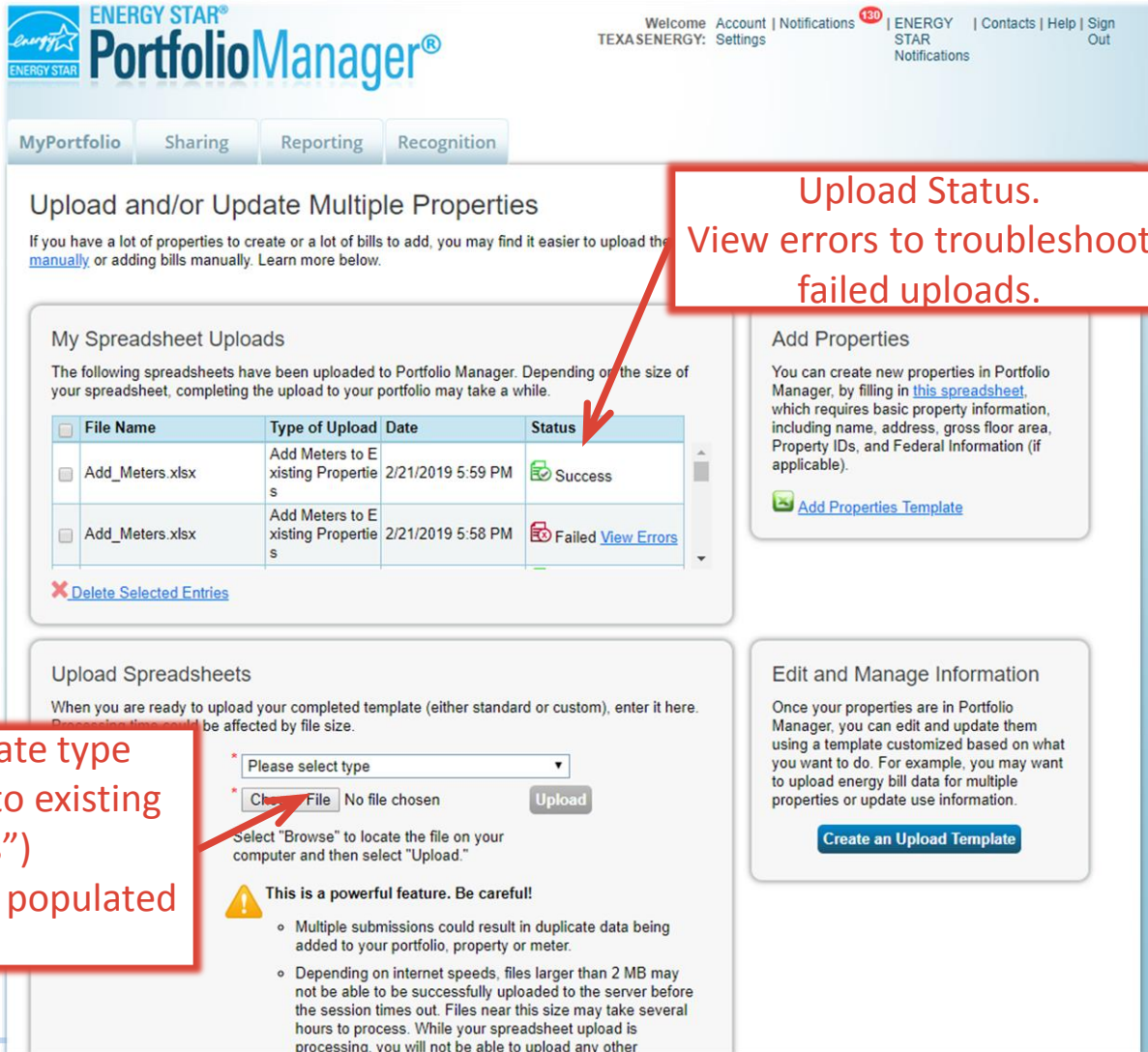
Green columns/white cells require entry. Do not edit grey rows/columns.

Start Date
The Start Date is the date (XX/XX/XXXX) of the first day of the billing cycle.

Use either DD-MM-YYYY or MM-DD-YYYY, to match your Operating System's date setting.

Template sheet contains instruction tab and pop-up tips for most inputs

Bulk upload



Welcome | Account | Notifications ¹³⁰ | ENERGY STAR | Contacts | Help | Sign Out
TEXASENERGY: Settings | STAR Notifications

MyPortfolio | Sharing | Reporting | Recognition

Upload and/or Update Multiple Properties

If you have a lot of properties to create or a lot of bills to add, you may find it easier to upload the [manually](#) or adding bills manually. Learn more below.

My Spreadsheet Uploads

The following spreadsheets have been uploaded to Portfolio Manager. Depending on the size of your spreadsheet, completing the upload to your portfolio may take a while.

File Name	Type of Upload	Date	Status
Add_Meters.xlsx	Add Meters to Existing Properties	2/21/2019 5:59 PM	Success
Add_Meters.xlsx	Add Meters to Existing Properties	2/21/2019 5:58 PM	Failed View Errors

[Delete Selected Entries](#)

Upload Spreadsheets

When you are ready to upload your completed template (either standard or custom), enter it here. Processing time could be affected by file size.

* Please select type

* No file chosen

Select "Browse" to locate the file on your computer and then select "Upload."

⚠ This is a powerful feature. Be careful!

- Multiple submissions could result in duplicate data being added to your portfolio, property or meter.
- Depending on internet speeds, files larger than 2 MB may not be able to be successfully uploaded to the server before the session times out. Files near this size may take several hours to process. While your spreadsheet upload is processing, you will not be able to upload any other

Add Properties

You can create new properties in Portfolio Manager, by filling in [this spreadsheet](#), which requires basic property information, including name, address, gross floor area, Property IDs, and Federal Information (if applicable).

[Add Properties Template](#)

Edit and Manage Information

Once your properties are in Portfolio Manager, you can edit and update them using a template customized based on what you want to do. For example, you may want to upload energy bill data for multiple properties or update use information.

[Create an Upload Template](#)

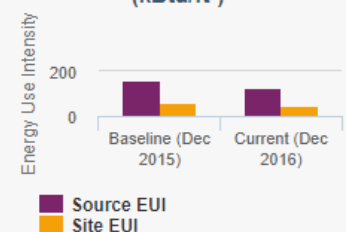
Upload Status.
View errors to troubleshoot failed uploads.

Select template type (ex: "add bills to existing meters")
And browse for populated file

Establishing Goals

Summary
Details
Energy
Water
Waste & Materials
Goals
Design

Energy Performance (kBtu/ft²)



■ Source EUI
■ Site EUI

Metrics Comparison for Your Property & Your Target [Change Time Period](#)

Metric	Dec 31 2015 (Energy Baseline)	Dec 31 2016 (Energy Current)	Target*	Median Property*
ENERGY STAR score(1-100)	38	55	75	50
Source EUI(kBtu/ft ²)	157.5	126.0	94.4	135.9
Site EUI(kBtu/ft ²)	60.1	48.1	36.0	51.9
Source Energy Use(kBtu)	3169377.9	2535502.2	1899708.2	2734938.3
Site Energy Use(kBtu)	1209640.2	967712.1	725051.9	1043830.0
Energy Cost(\$)	40992.11	32793.69	24570.46	35373.18
Total GHG Emissions(Metric Tons CO ₂ e)	151.5	121.2	90.8	130.7

* To compute the metrics at the target and median levels of performance, we will use the fuel mix associated with your property's current energy use.

Baselines & Targets

	Baselines	Target
Energy	12/31/2015	75
Water	08/31/2016	Not Available
Waste/Materials	Not Available	Not Available

[Set Baselines or Target](#)

Generate & Download Performance Documents for this Property

- [Statement of Energy Performance \(SEP\)](#)
- [ENERGY STAR Scorecard](#)
- [Progress & Goals Report](#)
- [Data Verification Checklist](#)
- [Water Scorecard](#)

Total Project Investment

\$0.00

Set Baselines or Target



Establishing Goals

MyPortfolio | Sharing | Reporting | Recognition

Set Performance Baseline & Target

To establish a performance target, you must first define a performance baseline. To establish a performance target, you must first define a performance baseline. To establish a performance target, you must first define a performance baseline.

Targets are not available at this time for water and waste metrics. Targets are not available at this time for water and waste metrics.

Set Baseline energy consumption, or let ESPM set it automatically

Baselines

Energy Baseline: Select a baseline: 12/31/2015 Let Portfolio Manager automatically set my baselines

Water Baseline: Select a baseline: 08/31/2016 Let Portfolio Manager automatically set my baselines

Waste Baseline: You must have at least one waste/material meter to select a baseline. After you [add a meter](#), don't forget to [include your metrics](#) as well.

Must have 12 full calendar months of Property use information and Energy Consumption history to establish baseline

Energy Target

Energy Target Metric: * Target ENERGY STAR Score

Energy Target Value: * 75 1-100 value

[Save & Calculate Other Metrics](#)

Select "Calculate Other Metrics" to refresh the table after making changes to "Target Metric" and "Target Value"

Metric	Dec 2015 (Energy Baseline)	Dec 2016 (Energy Current)	Target*	Median Property*
ENERGY STAR score (1-100)	38	55	75	50
Source EUI (kBtu/ft ²)	157.5	126.0	94.4	135.9

Set Target Metric (ex: Energy Star Score)

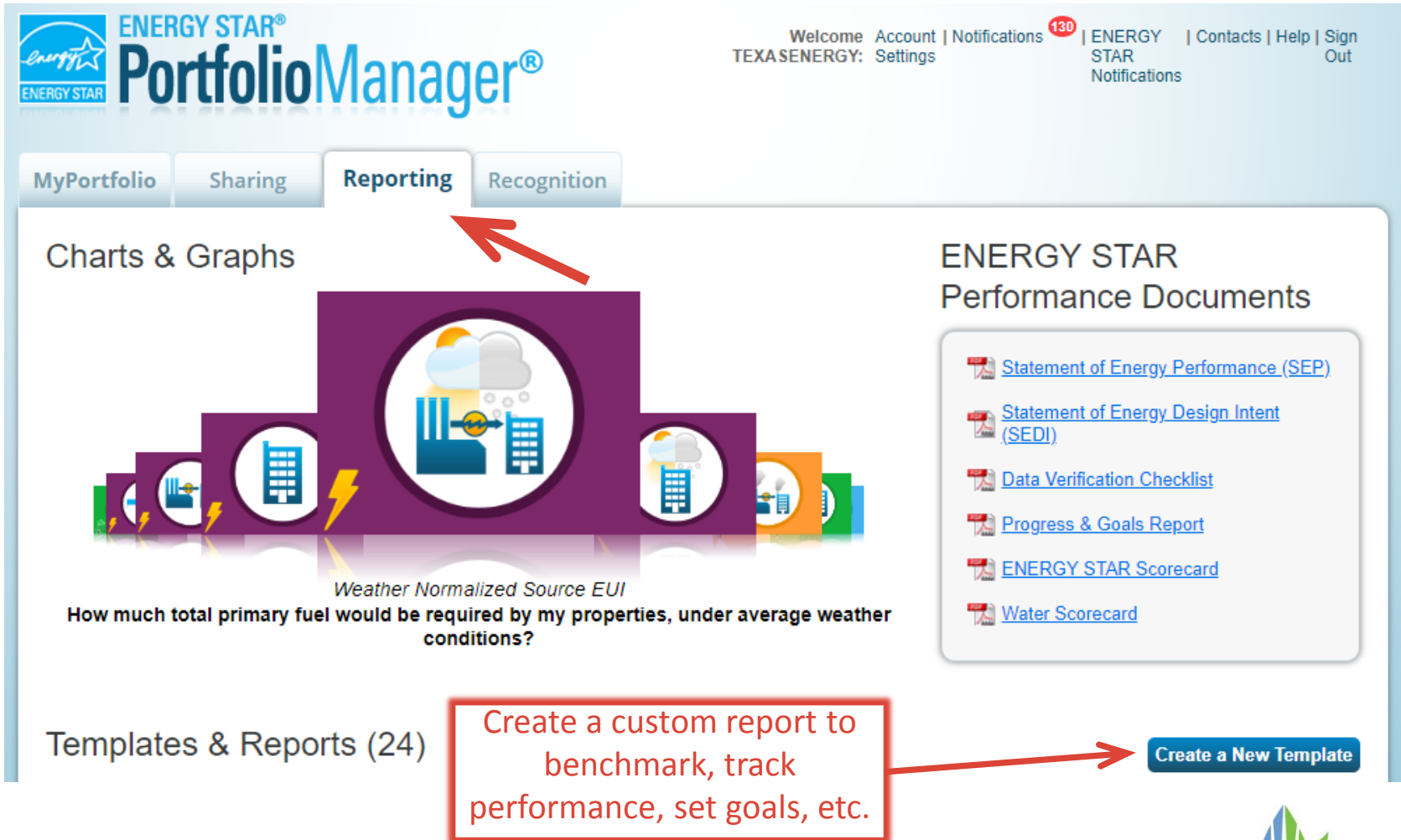
About Design Targets

On this page you can set a target for your property to track its progress after it has become operational. If your property is still in the design stage, you can use the design features to [set design targets](#).

If you are seeing "Not Available"...

The Current and Baseline metrics (in the chart to the left) require 12 full months of energy consumption and property use information. The Target metrics may also require 12 months of data. Therefore, if you are seeing "Not Available", then there is not enough information available to calculate these metrics. Update your [meters](#) and/or [property use information](#).

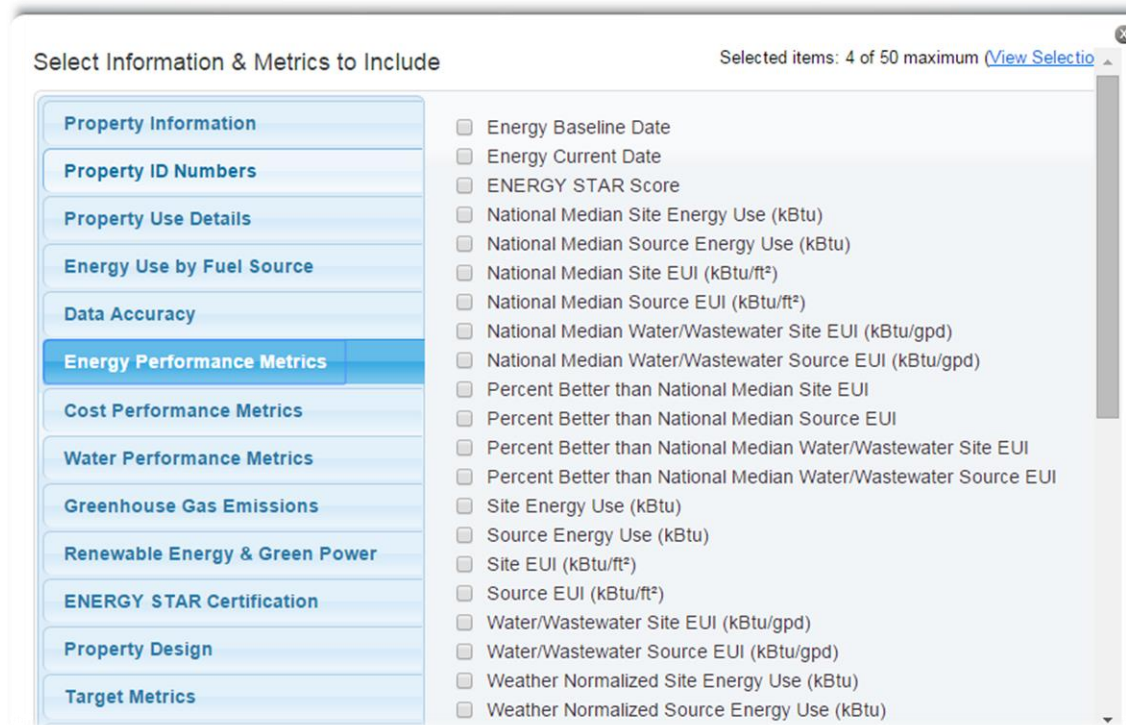
Portfolio Manager Reporting Feature



The screenshot shows the Energy Star Portfolio Manager interface. At the top left is the Energy Star logo and 'PortfolioManager' text. On the right, there is a navigation menu with 'Welcome', 'Account', 'Notifications' (with a red badge showing '130'), 'ENERGY STAR Notifications', 'Settings', 'Contacts', 'Help', and 'Sign Out'. Below the navigation are four tabs: 'MyPortfolio', 'Sharing', 'Reporting' (highlighted with a red arrow), and 'Recognition'. The 'Reporting' section contains a 'Charts & Graphs' area with a bar chart titled 'Weather Normalized Source EUI' and a question: 'How much total primary fuel would be required by my properties, under average weather conditions?'. To the right is the 'ENERGY STAR Performance Documents' section with a list of document links: 'Statement of Energy Performance (SEP)', 'Statement of Energy Design Intent (SEDI)', 'Data Verification Checklist', 'Progress & Goals Report', 'ENERGY STAR Scorecard', and 'Water Scorecard'. At the bottom left is 'Templates & Reports (24)' with a red-bordered box containing the text 'Create a custom report to benchmark, track performance, set goals, etc.' and a red arrow pointing to a 'Create a New Template' button.

Reporting (cont.)

- Up to 50 metrics can be selected to include in report.
- One, some, or all facilities can be included.
- Report template/preferences can be saved and regenerated periodically.



Select Information & Metrics to Include

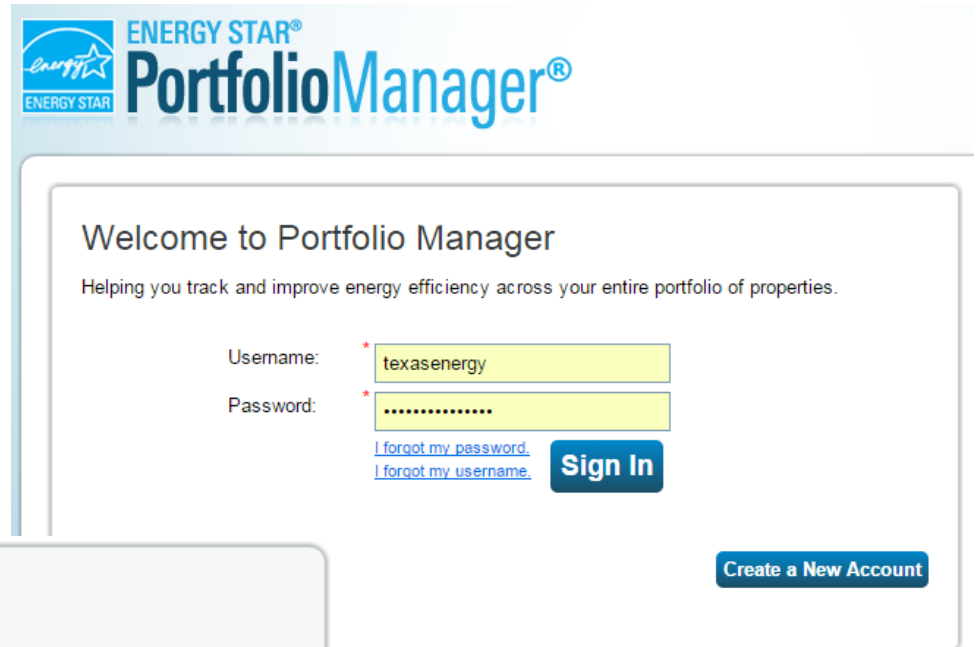
Selected items: 4 of 50 maximum [View Selection](#)

Category	Metric
Property Information	<input type="checkbox"/> Energy Baseline Date
Property ID Numbers	<input type="checkbox"/> Energy Current Date
Property Use Details	<input type="checkbox"/> ENERGY STAR Score
Energy Use by Fuel Source	<input type="checkbox"/> National Median Site Energy Use (kBtu)
Data Accuracy	<input type="checkbox"/> National Median Source Energy Use (kBtu)
Energy Performance Metrics	<input type="checkbox"/> National Median Site EUI (kBtu/ft ²)
Cost Performance Metrics	<input type="checkbox"/> National Median Source EUI (kBtu/ft ²)
Water Performance Metrics	<input type="checkbox"/> National Median Water/Wastewater Site EUI (kBtu/gpd)
Greenhouse Gas Emissions	<input type="checkbox"/> National Median Water/Wastewater Source EUI (kBtu/gpd)
Renewable Energy & Green Power	<input type="checkbox"/> Percent Better than National Median Site EUI
ENERGY STAR Certification	<input type="checkbox"/> Percent Better than National Median Source EUI
Property Design	<input type="checkbox"/> Percent Better than National Median Water/Wastewater Site EUI
Target Metrics	<input type="checkbox"/> Percent Better than National Median Water/Wastewater Source EUI
	<input type="checkbox"/> Site Energy Use (kBtu)
	<input type="checkbox"/> Source Energy Use (kBtu)
	<input type="checkbox"/> Site EUI (kBtu/ft ²)
	<input type="checkbox"/> Source EUI (kBtu/ft ²)
	<input type="checkbox"/> Water/Wastewater Site EUI (kBtu/gpd)
	<input type="checkbox"/> Water/Wastewater Source EUI (kBtu/gpd)
	<input type="checkbox"/> Weather Normalized Site Energy Use (kBtu)
	<input type="checkbox"/> Weather Normalized Source Energy Use (kBtu)



Creating a Portfolio Manager Account

- <https://portfoliomanager.energystar.gov/pm/login.html>
- Follow setup prompts



Searchability in Portfolio Manager

Can other people search for you and send you a connection request? Yes No



Certifications

- EPA Recognition for high performance building
- Properties with an ENERGY STAR score of 75 or higher are eligible
- An application must be filled out and reviewed by a Licensed Professional (LP)
- An LP Engineer or Architect must visit the facility and verify details in the application and stamp with PE or RA seal

Building Certification Applications

- 2018 Building Certification applications were temporarily suspended September 2018 – May 2019
- Certification Applications re-opened:

Property Type	Certification Reinstated
Warehouses	May 1
Hotels	May 1
Houses of Worship	Late May
K-12 Schools	Late May
Offices	Summer 2019*
Retail Stores	Summer 2019*

** Additional analysis underway, release date TBD*



2018 and 2019 Certifications

Certification Policies and Deadlines

- Deadline for both 2018 and 2019 certification will be December 31, 2019.
- If you intend to apply for 2018 and 2019 certification for the same property, you **MUST** first apply for 2018 certification
 - Following approval, you can then apply for 2019 certification as long as the Period Ending Date (PED) for 2019 is at least 11 months after the PED for 2018
- 2018 application may have a PED between 5/31/2018 and 12/31/2018.
- 2019 application may have a PED anytime from 5/31/2018 onward (as long as it is at least 11 months after 2018 PED, where applicable).



Questions?

- Extensive training materials available on ENERGY STAR website
 - SECO TA Program
- “Help” and glossary dialogues available from most screens in Portfolio Manager

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NCTCOG and SECO Resources for Energy Management

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

MAY 23, 2019



**North Central Texas
Council of Governments**

SECO Resources

About SECO

Mission Statement: To Increase the Efficient Use of Energy and Water While Protecting the Environment

Focus on Public Sector Facilities – Indirectly Benefitting Taxpayers

Support for Energy and Water Efficiency Project Implementation

- Education and Training
- Technical Assistance
- Project Financing

U.S. Department of Energy State-Level Program Conduit

- State Energy Program (SEP)
- Pantex/Waste Isolation Pilot Plant (WIPP)

SECO Support

Training/Education

- Energy Codes (Workshops & Adoption Toolkit)
- WattWatchers

Technical Assistance

- Preliminary Energy Audits (K-12 & Local Governments)
- Virtual Energy Audits

Financing

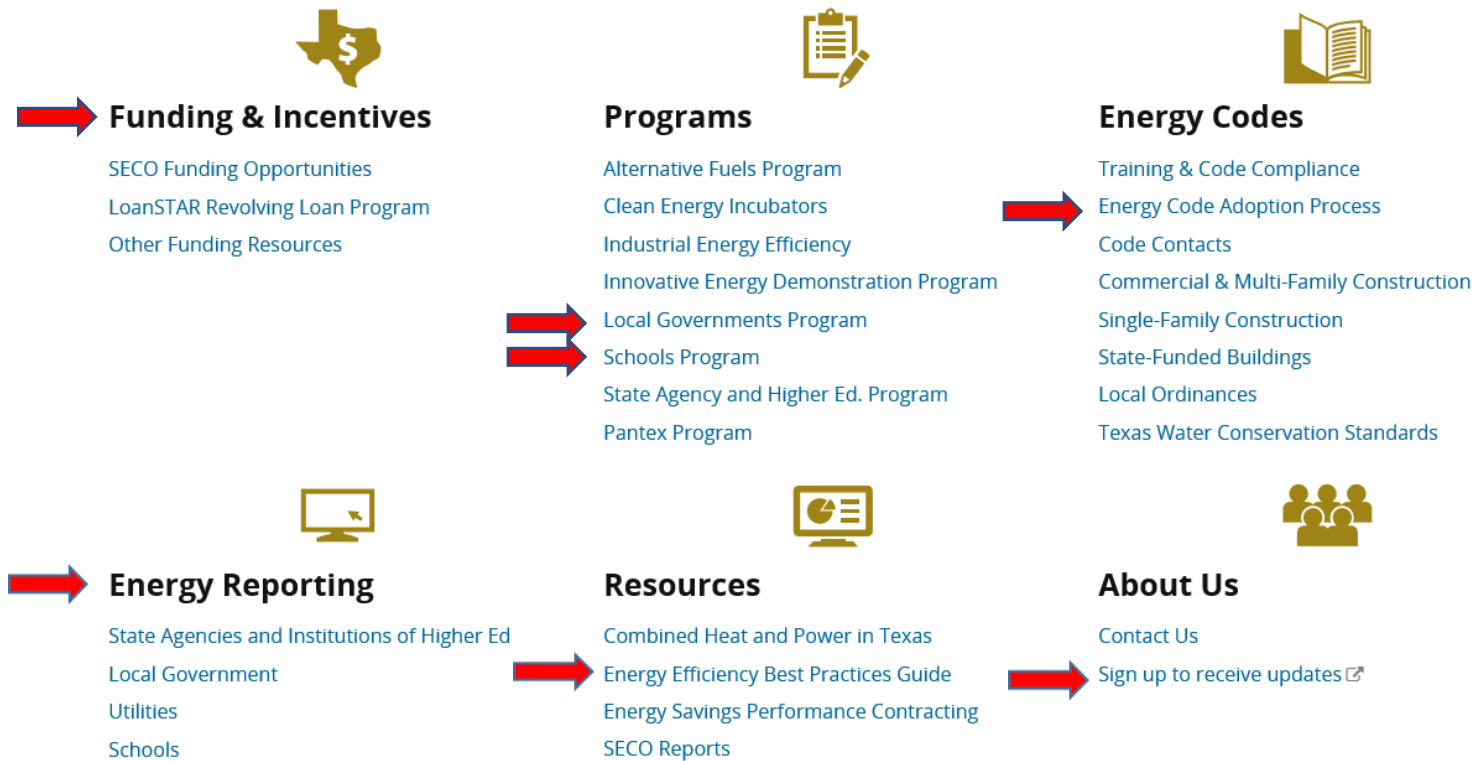
- LoanSTAR Revolving Loan Program
- Energy Savings Performance Contract Guidelines & Education

Programs



STATE ENERGY CONSERVATION OFFICE

SECO partners with Texas local governments, county governments, public K-12 schools, public institutions of higher education and state agencies, to reduce utility costs and maximize efficiency. SECO also adopts energy codes for single-family residential, commercial, and state-funded buildings.



LoanSTAR Revolving Loan

Finances Projects that Reduce Energy/Water/Utility Costs

- Simple Payback Period of 15 Years or Less
- 2% Loan Interest Rate; 1% if Choose ARRA Funds with More Reporting

Open Enrollment Through August 30, 2019

- Maximum \$8 Million Loan Per Application
- Maximum 3 Loans per Entity

Other Funding & Incentives

Database of State Incentives for Renewable Energy:

Local, Utility, State, Federal

www.dsireusa.org

DSIRE®



TEXAS DEPARTMENT OF AGRICULTURE
COMMISSIONER SID MILLER

Texas Department of Agriculture:

City Population < 50,000; County Population <200,000

Water / Wastewater infrastructure; Street / Drainage; Housing

Awards Range from \$75,000 - \$800,000

www.texasagriculture.gov/GrantsServices

Texas Water Development Board:

Financial Assistance Programs

Loans, Grants, Deferred Interest, Combination Grant/Loan

Political Subdivisions, non-Profit and Community Water Supply

Corporations, Private

www.twdb.texas.gov/financial/programs



NCTCOG Resources

Conserve North Texas

Clearinghouse of Energy Efficiency, Water Conservation, and Transportation Resources



Resource Types


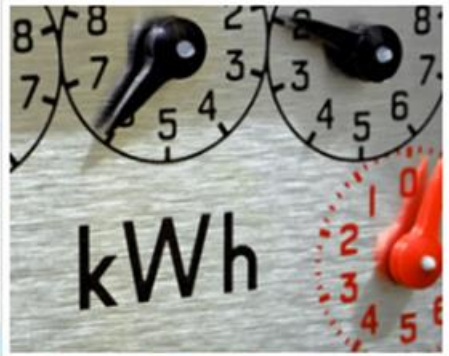

Programs

Tools

Calculators

Case Studies

www.conservenorthtexas.org

Topic		
		
Water	Energy	Fuel
Find resources to reduce water use and increase water conservation within the public and private sector.	Search resources that help reduce energy consumption and increase energy efficiency across all sectors.	Explore resources to reduce energy and fuel intensity within the transportation sector.

Go Solar Texas

Texas-Specific Information about Solar

Key Resource Types

Best Management Practices

Cost Benefit Analysis

Trainings

Case Studies

Meeting-in-a-Box

www.gosolartexas.org



Go Solar Texas



Solar power is an emerging clean energy option that can positively impact North Texas' environment and save consumers money on their electric bills. Dallas-Fort Worth is a prime location for solar technology and its growth due to the region's climate and geography. Solar power can provide much of the needed electricity when electricity demand is highest - when it's hot and the sun is shining.

With proper implementation, solar energy will help to improve air quality.



Solar 101

Learn the basics about solar energy, terminology, and equipment.

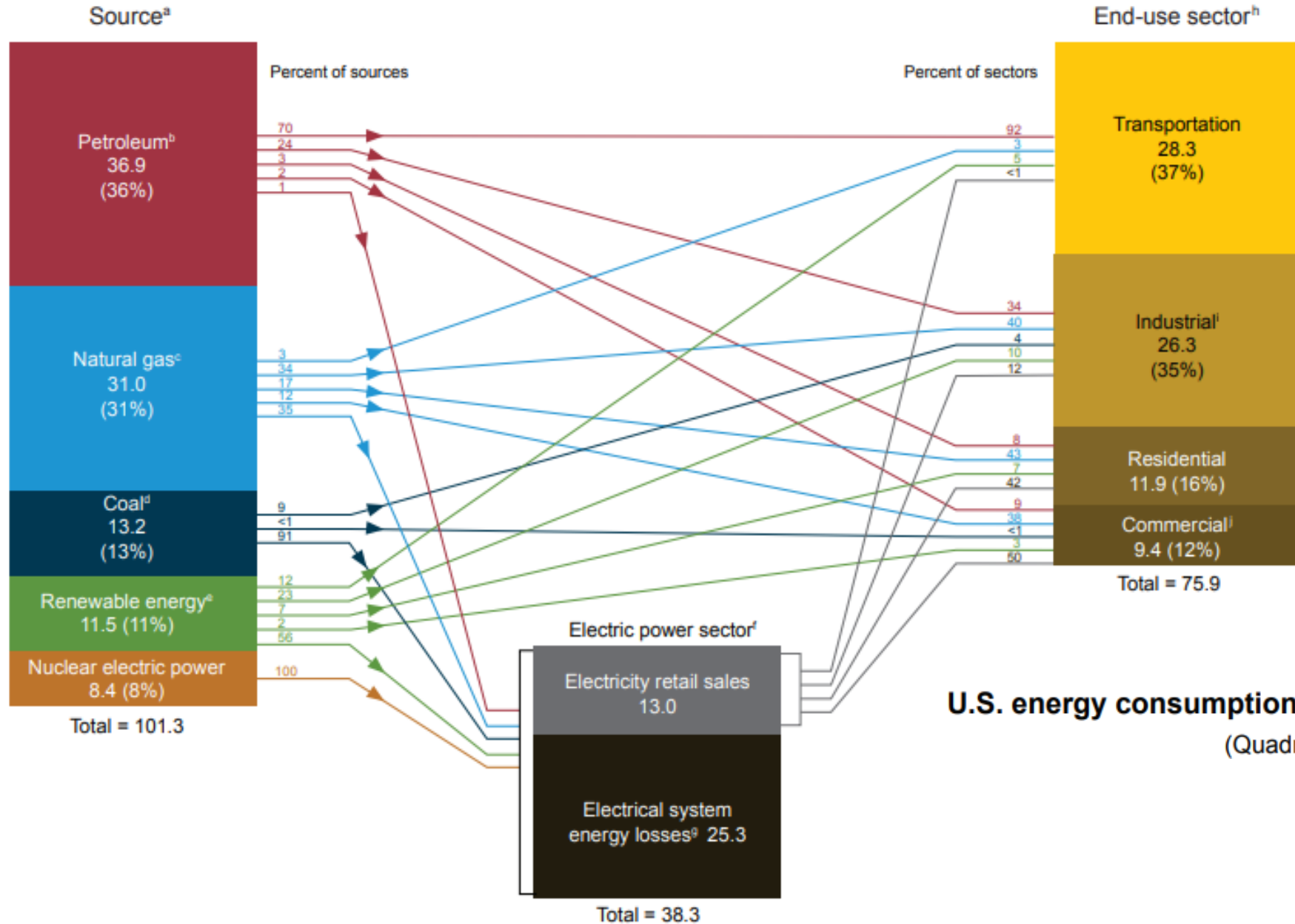


Steps for Going Solar

Considering installing a solar energy system? Now what? Steps for Going Solar provides details on solar energy systems, costs, tools for determining if solar is right for your property, and more.



Transportation as Part of the Energy Economy



Transportation Energy is 37% of Total Energy Consumption

U.S. energy consumption by source and sector, 2018
(Quadrillion Btu)

DFW Clean Cities – Transportation Efficiency

Fuel Switching
(Alternative Fuels)

Fuel Conservation
(e.g. Idle Reduction)



Dallas-Fort Worth
CLEAN CITIES

Energy Efficient
Mobility Systems

Fuel Economy

FOR MORE INFORMATION

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Lori Clark

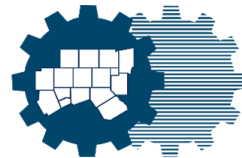
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<https://www.nctcog.org/envir/natural-resources/energy-efficiency>



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