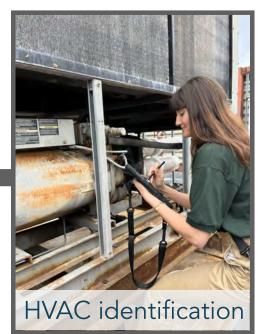
FOUND IN TRANSLATION How Partner-Led Facility Inventories Became Energy-Saving Opportunities

Our Story

The Facility Equipment Inventory (FEI) initiative empowers public agencies with valuable facility equipment knowledge. Participating agencies receive a no-cost detailed inventory of their facility's energy-consuming equipment, without costly technical audits. Over 40 public facilities have been assessed through FEI in the South Bay area of Los Angeles County.



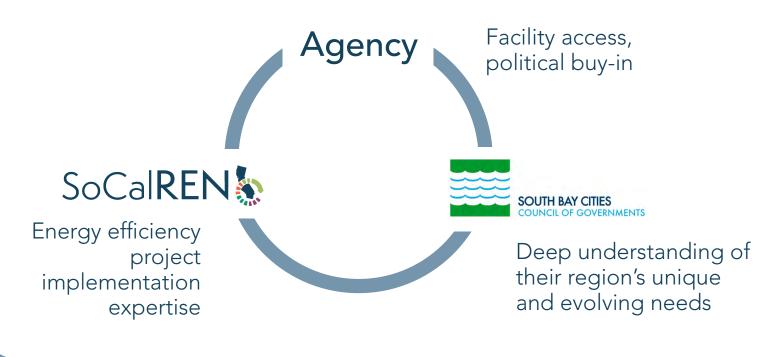












The Facility Equipment Inventory (FEI) initiative is a joint endeavor between SoCalREN, South Bay Cities Council of Governments (SBCCOG), and the diverse communities of the South Bay subregion of Los Angeles County. The FEI experience is customized to highlight facility data and project opportunities that align with each agency's specific needs and interests.

How FEI addresses the common challenges faced by public agencies when managing equipment inventories, identifying potential energy-efficiency projects, and gaining buy-in for retrofits:

Limited staff capacity

Inventory led

by SBCCOG staff!

Limited funding

SoCalREN support with project funding and financing

Limited facility knowledge

A detailed inventory in the

FEI workbook!

Limited energy efficiency knowledge

SoCalREN support with project implementation

The FEI Initiative

Eliminates guesswork on equipment replacement timelines

Removes roadblocks to identifying energy efficiency projects

Supports public agency and community GHG emissions reduction goals

Creates an everlasting equipment inventory resource for participating agencies

A Success Story

In July 2023, SoCalREN unveiled a heat pump water heater (HPWH) incentive program, offering payment for up to 100% of eligible project costs for HPWH installations at facilities in underserved areas. Using the existing four FEI workbooks for the City of El Segundo, SBCCOG easily alerted city staff of their potential program eligibility. This fast-tracked further analyses by SoCalREN, and allowed them to install seven units for total annual energy savings of 9,343 therms!

The Future of FEI

FEI has been such a resounding success that two additional SoCalREN regional partners will be replicating and implementing the program starting in 2024. The SBCCOG created a formal Program Implementation Plan, featuring best practices for site visits, how to populate workbooks, and a training video. These materials will create a foundation for FEI to expand and empower agencies across California!

Outcomes

As of March 2024

Lighting Replacements Identified



0.88 payback period





Equivalent to GHG 1.6M 149 emissions from: miles driven gas powered cars

HVAC Replacements Identified

- 94 units overdue or ready for a replacement now
- 36 units ready for replacement in 5 years
- 119 units ready for replacement in 10+ years
- 86 units with banned R-22 refrigerant
- 115 units with phased R-410a refrigerant

Sample workbook HVAC tab

3	Area Served	HVAC Type	Manufacturer	Model #	Serial #	Size	Refrigerant	Power Type	Manufacture Date	Timeline	Operation per Yea =	Centrols	Manual
	Whole Building	Cooling Tower	Frigid Coil	YFC 5 60	41327A1	420 tons, 66 EER	N/A	N/A	Jun-02	Now	3,224	Local	Link
5	Whole Building	Central Blower	Master Fan Corp.	FCD	4183330	N/A	N/A	N/A	May-18	N/A	3.224	Local	
3	Whole Building	Cooling Tower Motor	Baldor	EM3710T	F1804235818	91.7% eff.	N/A	N/A	N/A	N/A	3,224	Local	
,	Whole Building	Condensate Pump	Little Giant Pump Company	VCL-24ULS	06G1661352	N/A	N/A	N/A	N/A	N/A	3,224	Local	
,	Whole Building	Air Compressor	Air Compressor Products Inc.	00S-05-HP1	0181-52504	N/A	N/A	N/A	N/A	N/A	3,224	Local	
,	Whole Building	Compressed Air Dryer	Air Compressor Products Inc.	ACP10RD	0302A-L-9101-23N	N/A	N/A	Electric	May-10	N/A	3,224	Local	
0	Whole Building	Condenser Pump Motor	AC Motor	5K184KD217B	SEK0A028B08	N/A	N/A	N/A	N/A	N/A	3,224	Local	
1	Whole Building	Smart Pump 1	PACO	10-20953130001-1682	KD9000552701B	N/A	N/A	N/A	N/A	N/A	3,224	Local	
2	Whole Building	Smart Pump 2	PAGO	10-20953130001-1682	WD 90D0552701A	N/A	N/A	N/A	N/A	N/A	3.224	Local	
3	Whole Building	Condenser Pump 2 Motor	AC Motor	5K184KD217B	K0AC28B08	N/A	N/A	N/A	N/A	N/A	3,224	Local	
4	Whole Building	Boiler Heat Pump Motor	Baldor	JM3112	34F38-883	75.5% eff.	N/A	N/A	Sep-19	N/A	3,224	Local	
5	Whole Building	Boiler	Cleaver Brooks	CFC	MB 1258	N/A	N/A	Gas	N/A	N/A	3,224	Local	
6	Whole Building	Water-cooled Chiller	Trane	CGWD0504CE0NAD101FF0UHG	U90M03584	50 tons, 18.3 IPLV	R-410a	N/A	Dec-90	Now	3,224	Local	Manual
7	Whole Building	3-D Scroll Compressor A	American Standard Inc.	CSHS100K00000	A0L10A2555	10 ton	R-22	Electric	N/A	Ned 5 Years	3,224	Local	
8	Whole Building	3-D Scroll Compressor B	American Standard Inc.	CSHS150K00000	A0L15A0825	15 ton	R-22	Electric	N/A	Amir 5 Years	3,224	Local	
9	Whole Building	3-D Scroll Compressor C	Trane	CSHA150K0E00	07362L0K1A	15 ton	R-22	Electric	Sep-07	Next & Years	3,224	Local	
0	Whole Building	3-D Scroll Compressor D	American Standard Inc.	CSHS100K0000	A0L10A2554	10 ton	R-22	Electric	N/A	Ned 5 Years	3,224	Local	
1	Whole Building	Water Source Heat Pump	Climate Master	TLV096AFD3ACFTS	V121144772	94,000 BTU/hr, 15 EER	R-410a	Electric?	7/7/2017	Next 10 Years	3,224	Local	Manual
2	Whole Building	Air Handler	Trane	220E00010000000000	K90M35215	N/A	N/A	Electric?	Oct-90	Now	3,224	Local	
3	Whole Building	Chiller Pump Motor	U.S. Electrical Motors	F115	E22922	82.5% thermal eff.	N/A	Electric	N/A	N/A	3,224	Local	
4	3rd floor	Split System AC	Fujitsu - Halcyon	ASU24RLB	FRA018177	24,000 BTU/hr. 10 EER, 18 SEER	R-410a	Electric?	N/A	N/A	3,224	Local	Link
5	3rd Floor	Automatic Condensate Pump	Diversitech	CP-22	20526	N/A	N/A	N/A	May-18	N/A	3,224	Local	

Facility Equipment Inventory

Sample workbook cover tab The Facility Equipment Inventory (FEI) is a collaborative project between the South Bay Cities Council of Governments (SBCCOG)
and the Southern California Regional Energy Network (SoCalREN) which aims to promote energy efficiency by providing South Bay Cities
time and resources to inventory city facilities.
This workbook serves as a living catalogue of all energy-using equipment which has been documented by SBCCOG staff and may be updated by facility
staff and be used by managers to initiate and fund energy efficient upgrades.

The workbook is split in to 18 tabs:

Sheet 1 Building Envelope
Sheet 2 Lighting
All interior and exterior bulbs. Note make and model, kW usage, and kWh calculations based on building operating hours and controls.

Sheet 3 HVAC
Sheet 3 HVAC
Central heating, ventilation, and air conditioning units and their tournage, BTU/hr, energy efficiency rating (EER), and manufacture date.

Sheet 4 BAS
Building automation systems — networked electronic devices that can be controlled by a single interface.

Sheet 5 DHW
Domestic hot water systems — potable water heating units, thier capacity in gallons, BTU, efficiency, and manufacture date.

Sheet 6 Water Systems
Heating, chilled, condenser and domestic water systems and associated pumps/motors and their horsepower.

Sheet 10 Data centers and IT
Sheet 11 Data centers and IT
Sheet 12 Pools
Sheet 13 Food Prep
Ovens, cooktops, steamers, and fivers and their two tork W.

Sheet 14 Pools
Sheet 15 DHIL Dads
All energy-using devices including office equipment, including renewable energy systems, including generators.

Conveyance Systems like elevators, escalators, and their motor kW.

Sheet 14 Pools
Sheet 15 DO Prep
Ovens, cooktops, steamers, and fivers and their kW capacity.

Bleet 16 H2D Filling Station

EV charging and kW capacity.

EV charging and kW capacity.

EV charging and kW capacity.





