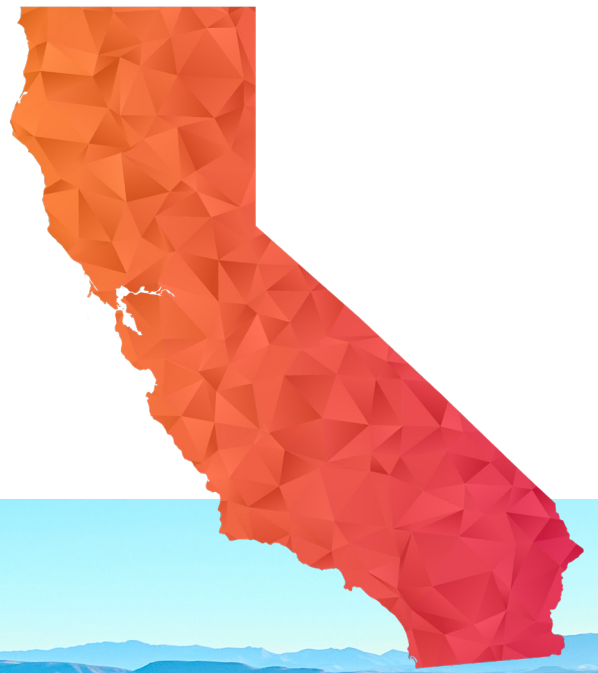


# Energy Efficiency

in California's Public Power Sector



20th Edition - 2026

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# Executive Summary

California’s Publicly Owned Utilities (POUs) continue to collaborate to develop cost-effective Energy Efficiency (EE) programs and report annual results to their customers and the California Energy Commission (Energy Commission) in a consistent and comprehensive manner. This 19<sup>th</sup> edition report presents the latest results from POUs’ wide range of EE programs.

During the Fiscal Year (FY) 2025 reporting cycle, POUs expended over **\$190 million** on EE programs for their communities, including low-income customers, resulting in over **249 Gigawatt hours (GWh)** of net annual energy savings and reducing peak demand by more than **118 Megawatts (MW)**. Since the enactment of Senate Bill (SB) 1037 (Kehoe, 2005), public power has spent over **\$3.304 billion** on EE and demand reduction, achieving over **2,791 GWh** in net lifecycle energy savings.



\*This includes EE and LI. It does not include C&S.

California’s POUs are exploring new methods to reduce energy use and Greenhouse Gas (GHG) emissions in a cost-effective manner. As indicated in the utility narratives, many POUs have expanded their electrification and GHG emission-reduction efforts, focusing on clean energy solutions that may be more cost-effective than remaining EE opportunities.

**Appendix A** contains additional information on each POU’s portfolio, including program descriptions, expenditures, and energy savings. **Appendix B** presents a comprehensive outline of the calculations used within the Cost Effectiveness Tool (CET) Reporting Platform (RP) (CET/RP).

# INTRODUCTION

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Pursuant to the Public Utilities Code, each year POU's are required to report the following information to customers and the Energy Commission :<sup>1</sup>

- Investments in EE and demand reduction programs.
- Descriptions of each EE and demand reduction program, program expenditures, cost-effectiveness of each program, and expected and actual EE savings and demand reduction results.
- Sources for funding of EE and demand reduction programs.
- Methodologies and input assumptions that are used to determine cost-effectiveness of programs.
- A comparison of the POU's' annual EE targets and the POU's' reported electricity efficiency savings and demand reductions.

This collaborative report compiles the required data from the individual POU's into a comprehensive document in compliance with the California Public Utilities Code.

The State's POU's supply approximately one-quarter of California's electricity to a broad range of communities with widely differing climates, customer bases, and economic conditions. This compilation is presented to foster analyses of broader EE trends and offer policymakers data-driven considerations regarding the practical impacts of related policies.

The POU's have long supported California's EE policies and administered programs to provide financial incentives and rebates to POU customers for investments in a variety of energy-saving measures. The purpose of this report is to reflect on the successes and challenges of the past year, while looking ahead to guide discussions on how to achieve further energy savings in the future.

“Energy efficiency is the quiet workhorse of the clean energy transition. Efficiency reduces Californians' bills, improves their health and comfort, and reduces strain on the electricity grid.”

**CEC Commissioner Andrew McAllister**

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<sup>1</sup> California Public Utilities Code (Cal. Pub. Util. Code) § 9505.

# PROGRAM RESULTS

This section provides an overview of the EE program results for public power in California during FY 2025. Most POUs manage and implement EE programs on a fiscal year basis; for POUs that operate on a calendar year basis, their respective report results for FY 2025 are equal to that of Calendar Year 2025.<sup>2</sup>

In summary, during the 2025 reporting cycle, POUs collectively spent over **\$190 million** on EE programs, resulting in more than **249 GWh** of net annual energy savings, with **2,791 GWh** of net lifecycle energy savings and reduced peak demand by **over 118,629 kilowatts (kW)**.

**TABLE 1: Historic Program Results**

Fiscal Year	Net Peak Savings (kW)	Net Annual Savings (MWh)	Net Lifecycle Savings (MWh)	Total Utility Expenditures
2006	52,552	169,303	2,249,214	\$54,412,728
2007	56,772	254,332	3,062,361	\$63,151,647
2008	82,730	401,919	4,473,801	\$103,907,266
2009	117,435	644,260	6,749,912	\$146,093,107
2010	93,712	522,929	5,586,299	\$123,433,250
2011	81,121	459,459	4,604,364	\$132,372,795
2012	82,561	439,710	4,638,521	\$126,936,631
2013	89,305	521,478	5,722,100	\$134,475,230
2014	110,437	568,980	6,414,228	\$169,940,735
2015	124,807	644,703	7,836,316	\$162,896,993
2016	107,925	771,592	10,253,633	\$154,796,668
2017	113,549	861,942	11,991,602	\$226,386,251
2018	129,244	638,656	8,267,536	\$218,730,235
2019	147,405	646,281	7,312,304	\$260,675,319
2020	126,522	475,631	5,221,787	\$261,918,171
2021	81,596	254,310	2,850,853	\$158,527,378
2022	70,858	361,940	4,265,855	\$223,075,217
2023	87,510	355,286	4,114,639	\$180,313,119
2024	61,582	304,555	3,588,787	\$211,236,782
2025	118,629	249,017	2,791,167	\$190,770,257
<b>Total</b>	<b>1,936,252</b>	<b>9,546,283</b>	<b>111,995,279</b>	<b>\$3,304,049,779</b>

<sup>2</sup> POU fiscal years run from July 1 to June 30, except for the following POUs who operate on a calendar year basis: Imperial Irrigation District, Merced Irrigation District, Modesto Irrigation District, Plumas-Sierra Rural Electric Co-op, Sacramento Municipal Utility District, Truckee Donner Public Utility District, and Turlock Irrigation District.

As shown in **Table 1**, public power has collectively spent over **\$3.304 billion** on EE programs, resulting in **111,995 GWh** in net lifecycle energy savings since 2006 and avoided the development of **1,936 MW** of generation resources to serve peak demand during that time. Table 1 also shows that Net Annual Savings remain below those realized prior to 2020, indicating a significant shift in the energy efficiency savings available to utility programs.

Savings for electrification measures are included in the energy efficiency totals in Tables 1-10. To calculate the savings for electrification measures with fuel substitution, positive therm savings are converted to an equivalent kWh and combined with the negative kWh savings to obtain a net equivalent kWh savings.

California’s POU’s continue to support the statewide goal of doubling EE by 2030 under the Energy Commission’s direction. Using the Energy Commission’s methodology to determine cumulative energy savings, POU’s’ cumulative first-year savings from FY 2015 through FY 2025 equals **5,564 GWh**, as presented in **Table 2**. The market for easily implemented energy-saving measures is approaching saturation, which is limiting potential savings from many traditional EE programs. Compounding these challenges are ongoing budget constraints and limitations in workforce capacity, which further constrain the scope of EE initiatives.

**Table 3**, shown on the next page, provides a comprehensive summary of the EE savings for all POU’s’ respective EE Portfolios in FY 2025. The 16 largest utilities subject to Integrated Resource Plan (IRP) requirements account for a vast majority of savings within the public power community. As in past years, the two largest POU’s, Los Angeles Department of Water & Power (LADWP) and Sacramento Municipal Utility District (SMUD), accounted for a majority (56%) of the total POU savings during the 2025 reporting cycle. Taken as a group, the 16 IRP POU’s produced 95% of the total savings. The remainder of the savings were realized by 25 smaller POU’s located throughout California.

**TABLE 2. California POU Cumulative 1<sup>st</sup> Year Energy Savings Comparison**

Net 1st Savings per Installation Year (GWh)	
2015	644.7
2016	771.6
2017	861.9
2018	638.7
2019	646.3
2020	475.6
2021	254.3
2022	361.9
2023	355.3
2024	304.6
2025	249.0
Cumulative Savings	5,564
CEC Cumulative Savings Target	6,409

**TABLE 3. EE Program Results by Utility**

Utility	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reduction (Lbs)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Alameda	31	460,447	6,229,510	31	456,860	6,187,812	4,838,233	\$323,980	2.24	1.33	0.068
Anaheim	1,778	7,429,869	98,054,101	1,778	7,429,869	98,054,101	65,683,031	\$4,305,463	2.30	2.99	0.058
Azusa	686	3,188,603	26,988,825	686	3,188,603	26,988,825	17,759,653	\$779,143	3.39	7.12	0.036
Banning	104	395,966	4,867,318	83	315,055	3,841,262	2,791,881	\$439,679	1.04	0.73	0.148
Biggs	0	0	0	0	0	0	0	\$0			0.000
Burbank	1,146	6,655,480	59,341,522	1,146	6,655,480	59,341,522	36,228,981	\$1,825,791	5.87	1.55	0.040
Colton	99,643	8,588,364	112,293,380	99,551	8,222,222	109,938,664	76,338,250	\$651,968	17.60	0.20	0.009
Corona	0	0	0	0	0	0	0	\$0			0.000
Glendale	772	21,967,577	184,041,012	772	21,967,349	184,037,742	104,809,853	\$6,922,170	3.33	3.20	0.047
Gridley	1	1,206	16,525	0	798	10,870	9,503	\$44,474	0.04	0.04	5.412
Healdsburg	3	197,689	2,733,035	2	176,964	2,541,220	825,027	\$374,574	0.40	0.32	0.196
Imperial	5,138	11,226,300	154,643,323	5,109	10,818,127	146,780,637	101,226,076	\$12,148,054	1.23	2.14	0.124
IPUC	0	0	0	0	0	0	0	\$0			0.000
Lassen	60	271,964	3,310,090	47	212,583	2,580,695	2,185,646	\$278,934	1.15	1.00	0.137
Lodi	105	432,073	4,708,689	88	352,144	3,505,677	2,399,450	\$282,588	1.20	0.63	0.099
Lompoc	10	193,530	2,280,247	8	145,908	1,726,616	1,154,985	\$454,320	0.36	0.37	0.331
Los Angeles	0	72,180,457	973,348,372	0	72,180,457	973,348,372	73,805,106	\$78,054,964	1.23	0.99	0.106
Merced	16	125,255	1,835,830	10	73,089	1,070,175	697,130	\$126,636	0.79	0.87	0.157
Modesto	159	1,570,494	22,185,992	124	1,025,372	14,294,885	9,967,786	\$1,311,639	1.73	1.15	0.122
Moreno Valley	152	329,150	3,144,982	97	242,876	2,420,066	1,814,625	\$531,987	0.78	0.81	0.272
Palo Alto	68	4,064,295	57,308,427	57	3,464,674	48,840,231	19,854,598	\$2,938,081	0.60	0.17	0.080
Pasadena	2,619	9,763,993	25,655,616	2,169	8,623,578	16,436,408	12,549,400	\$2,133,783	1.62	4.00	0.149
Plumas-Sierra	21	83,354	1,166,914	12	51,208	713,831	549,022	\$78,753	1.36	0.39	0.146
Port of Oakland	0	0	0	0	0	0	0	\$14,400			0.000
Rancho Cucamonga	0	0	0	0	0	0	0	\$32,000			0.000
Redding	3	100,564	1,234,889	3	99,114	1,217,870	309,493	\$434,226	0.23	0.56	0.400
Riverside	3,796	13,154,969	187,125,611	3,440	12,136,950	163,195,154	116,707,247	\$8,621,615	2.52	7.57	0.072
Roseville	78	16,023,531	65,126,746	71	11,772,110	59,006,159	11,096,052	\$3,443,472	1.38	1.14	0.073
Sacramento	2,255	97,846,543	1,099,210,850	1,068	67,535,506	698,970,130	214,429,252	\$52,132,112	0.23	0.09	0.104
San Francisco	378	4,034,003	60,510,039	214	2,519,638	37,794,564	22,513,649	\$762,514	4.04	2.67	0.027
Shasta Lake	12	30,927	506,896	7	16,465	266,059	172,233	\$95,188	0.29	0.24	0.495
Silicon Valley Power	1,578	5,704,779	79,358,822	1,330	4,857,727	67,661,324	43,206,030	\$5,095,075	1.34	1.30	0.100
Truckee Donner	22	237,554	3,474,773	12	123,136	1,661,615	1,092,452	\$2,986,483	5.93	20.90	2.444
Turlock	1,148	5,885,250	79,262,353	670	3,348,436	44,896,157	31,982,573	\$2,600,076	2.08	1.88	0.076
Ukiah	26	118,423	1,578,958	20	86,404	1,085,790	753,191	\$162,515	0.71	0.61	0.193
Vernon	35	991,564	13,822,824	35	991,564	13,822,824	9,618,164	\$171,615	7.65	0.20	0.017
Victorville	0	0	0	0	0	0	0	\$0			0.000
<b>Total</b>	<b>121,841</b>	<b>293,254,171</b>	<b>3,335,366,470</b>	<b>118,639</b>	<b>249,090,265</b>	<b>2,792,237,256</b>	<b>987,368,572</b>	<b>\$190,558,272</b>	<b>1.32</b>	<b>0.71</b>	<b>0.092</b>

**Table 4** breaks down the statewide results by end-use. While lighting programs once again account for the largest share (**26%**) of the gross annual EE program savings, total savings from lighting programs continue to trend downwards.

**TABLE 4. EE Program Results by End-Use Category**

EndUse	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reduction (Lbs)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
<All Types>	1,095	5,435,878	76,473,769	1,061	5,077,570	71,369,442	46,501,081	\$4,263,344	2.70	1.49	0.079
Appliance & Plug Loads	1,751	8,181,339	95,353,635	1,471	6,771,730	78,710,612	18,275,135	\$6,178,588	0.43	0.17	0.107
BROs	1,906	19,867,818	19,867,818	1,906	15,794,248	15,794,248	12,628,987	\$982,064	2.11	2.11	0.062
Building Envelope	1,462	12,320,771	242,055,280	993	11,648,459	229,020,492	44,058,887	\$14,466,811	2.83	0.58	0.094
Codes & Standards	6	43,200	864,000	5	36,720	734,400	468,909	\$3,892	17.15	17.15	0.008
Commercial Refrigeration	553	4,001,476	48,016,535	361	3,278,085	39,931,068	16,858,316	\$1,967,178	1.74	0.38	0.065
Food Service	-33	382,694	6,112,769	-28	319,146	5,136,672	1,246,354	\$307,647	-0.44	-0.18	0.084
HVAC - Cooling	6,915	27,055,828	443,134,920	5,624	23,144,137	379,981,821	188,061,895	\$15,983,706	2.38	1.83	0.062
HVAC - Heat Pump	-4,505	26,944,362	377,292,669	-4,340	25,779,373	359,085,728	156,138,688	\$35,127,930	0.33	0.13	0.137
HVAC - Heating	13	13,749,991	206,218,064	13	8,591,122	128,836,611	17,356,483	\$625,242	1.25	0.03	0.007
Lighting - Indoor	95,514	72,337,384	830,116,649	94,790	65,356,024	756,826,578	170,103,502	\$51,584,107	1.22	1.10	0.086
Lighting - Outdoor	6,791	6,541,447	96,730,992	6,744	5,524,946	80,445,631	52,617,452	\$3,786,883	2.19	2.40	0.065
Miscellaneous	7,139	36,862,390	305,780,143	7,098	36,113,735	304,546,337	195,069,745	\$24,062,255	2.11	2.38	0.100
Process	198	5,328,331	89,516,315	155	4,970,228	84,144,791	7,093,455	\$2,951,815	1.67	0.90	0.050
Service & Domestic Hot Water	32	7,260,865	86,180,612	-20	6,492,200	76,756,867	30,991,684	\$13,238,410	0.12	0.09	0.230
Water Pumping / Irrigation	533	13,053,545	132,592,438	423	12,850,987	129,557,141	15,548,025	\$2,852,467	3.84	4.23	0.029
Whole Building	2,472	33,886,853	279,059,861	2,386	17,341,556	51,358,818	14,349,974	\$12,175,932	0.12	0.15	0.273
<b>Total</b>	<b>121,841</b>	<b>293,254,171</b>	<b>3,335,366,470</b>	<b>118,639</b>	<b>249,090,265</b>	<b>2,792,237,256</b>	<b>987,368,572</b>	<b>\$190,558,272</b>	<b>1.32</b>	<b>0.71</b>	<b>0.092</b>

**Table 5** presents the statewide EE program results by sector. The share of annual energy savings from the Residential sector continues to increase year by year and now accounts for the largest share of California POU's annual energy savings (**49%**). In comparison, the overall percentage of Commercial and Industrial (C&I) savings has been trending down over the past four years, and now accounts for the next largest source of annual energy savings (**47%**).

**TABLE 5. EE Program Results by Sector**

Sector	Gross Peak Savings (kW)	Gross Annual	Gross Lifecycle	Net Peak Savings (kW)	Net Annual	Net Lifecycle	Net Lifecycle	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
		Energy Savings (kWh)	Energy Savings (kWh)		Energy Savings (kWh)	Energy Savings (kWh)	Energy Savings (kWh)				
<All Types>	34	7,955,371	126,532,454	34	7,955,371	126,532,454	11,744,909	\$1,764,390	5.87	10.99	0.020
Agricultural	82	551,404	8,271,055	34	262,459	3,936,878	3,239,116	\$138,158	3.35	3.35	0.047
Commercial	16,563	133,258,977	1,639,204,046	15,319	115,437,388	1,410,537,311	465,369,208	\$90,489,796	1.29	0.94	0.084
Industrial	159	3,072,569	47,215,780	64	1,753,082	27,254,190	16,779,880	\$863,229	2.93	2.07	0.043
Other	593	2,715,147	16,248,786	453	2,363,399	12,423,201	8,850,676	\$537,053	2.28	3.55	0.050
Residential	104,409	145,700,703	1,497,894,349	102,735	121,318,567	1,211,553,223	481,384,784	\$96,765,646	1.24	0.52	0.111
<b>Total</b>	<b>121,841</b>	<b>293,254,171</b>	<b>3,335,366,470</b>	<b>118,639</b>	<b>249,090,265</b>	<b>2,792,237,256</b>	<b>987,368,572</b>	<b>\$190,558,272</b>	<b>1.32</b>	<b>0.71</b>	<b>0.092</b>

**Table 6**, on the next page, presents the statewide EE program results by building type.

**TABLE 6. EE Program Results by Building Type**

BuildingType	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reduction (Lbs)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
<All Types>	3,799	38,908,337	612,912,599	3,494	36,417,518	587,547,731	186,633,471	\$13,502,194	5.51	4.49	0.032
<Multiple Types>	918	17,462,206	209,483,466	832	16,932,411	203,765,424	111,731,089	\$10,721,373	2.16	2.06	0.066
Assembly	-65	2,028,006	29,278,599	-87	1,420,594	20,480,287	8,664,192	\$2,218,352	0.30	0.25	0.154
Education - Community College	0	299,210	3,562,900	0	299,210	3,562,900	253,417	\$514,238	0.56	0.56	0.182
Education - Primary School	221	5,820,445	64,553,489	23	3,983,907	50,081,233	7,286,912	\$11,971,845	0.26	0.19	0.309
Education - Secondary School	142	3,430,379	41,022,239	145	1,584,134	15,113,955	4,924,448	\$2,001,993	0.41	0.44	0.165
Education - University	-1	2,842,958	34,502,541	-1	2,842,487	34,496,885	2,577,097	\$1,674,002	1.62	1.49	0.061
Grocery	309	1,912,375	26,926,655	179	1,621,585	22,568,300	4,088,537	\$869,003	1.93	1.20	0.051
Health/Medical - Hospital	-40	3,078,561	38,632,322	-34	3,044,499	37,951,084	3,322,347	\$2,166,197	1.05	0.60	0.073
Lodging - Hotel	151	1,472,348	22,123,024	123	1,206,137	18,112,212	4,046,491	\$621,068	0.72	0.42	0.050
Lodging - Motel	-7	1,194,906	14,377,980	-6	1,191,717	14,330,145	1,164,653	\$1,923,384	0.60	0.62	0.169
Manufacturing Light Industrial	240	2,443,488	32,918,102	170	1,830,597	25,466,200	3,718,285	\$597,472	0.98	0.79	0.034
Office - Large	1,319	35,265,774	408,602,098	1,056	33,209,037	386,722,834	39,860,749	\$16,781,269	1.54	0.84	0.056
Office - Small	-211	6,442,315	91,684,133	-138	2,006,360	25,961,989	11,763,019	\$4,523,202	0.18	0.10	0.243
Other Agricultural	583	5,434,329	21,603,476	426	4,805,010	12,163,689	9,473,576	\$223,729	5.78	5.78	0.021
Other Commercial	10,513	25,771,698	325,591,666	10,119	21,743,004	265,627,190	113,530,688	\$20,469,635	1.17	1.18	0.100
Other Industrial	43	1,303,779	19,549,175	24	1,077,420	16,154,534	3,825,460	\$479,274	2.76	2.76	0.040
Residential	8,236	61,203,744	258,698,919	6,883	51,448,006	209,699,478	143,476,223	\$17,728,966	2.46	3.28	0.106
Residential - Mobile Home	96	428,284	8,489,333	96	428,284	8,489,333	6,654,762	\$481,528	3.05	5.01	0.087
Residential - Multi-Family	-353	6,717,704	116,797,747	-33	2,416,344	33,212,853	5,309,814	\$13,840,688	0.20	0.19	0.554
Residential - Single-Family	96,009	62,019,528	857,204,302	95,447	52,279,922	708,627,702	288,875,374	\$57,125,807	0.59	0.18	0.115
Restaurant - Fast-Food	-18	270,210	3,579,048	-17	256,663	3,429,050	1,351,112	\$487,180	0.34	0.32	0.195
Restaurant - Sit-Down	-74	522,315	6,244,369	-60	449,736	5,303,693	2,338,519	\$1,705,078	0.14	0.14	0.431
Retail - Big Box	-6	1,352,726	16,082,661	-23	1,220,272	14,937,497	6,428,383	\$954,681	0.31	0.29	0.090
Retail - Large	26	1,518,154	18,696,373	19	1,458,833	17,845,309	2,203,767	\$2,357,324	0.60	0.58	0.167
Retail - Small	-6	2,324,630	29,495,239	-7	2,247,119	28,424,768	4,252,248	\$3,889,448	0.48	0.49	0.179
Storage - Conditioned	19	737,932	8,161,044	12	622,898	7,581,595	1,103,398	\$239,003	2.32	1.80	0.041
Storage - Unconditioned	0	208,525	2,494,169	0	208,200	2,491,893	168,798	\$318,814	0.56	0.56	0.161
Warehouse - Refrigerated	-2	839,305	12,098,803	-2	838,362	12,087,490	8,341,743	\$171,522	6.69	0.17	0.020
<b>Total</b>	<b>121,841</b>	<b>293,254,171</b>	<b>3,335,366,470</b>	<b>118,639</b>	<b>249,090,265</b>	<b>2,792,237,256</b>	<b>987,368,572</b>	<b>\$190,558,272</b>	<b>1.32</b>	<b>0.71</b>	<b>0.092</b>

**Table 7** compares the actual savings in 2025 to the POU’s adopted annual targets for each utility. In total, the actual energy savings were approximately 44% below the forecasted targets for 2025. Every four years, POU’s are required to identify potentially achievable energy efficiency savings and establish annual targets for energy efficiency for the next 10-year period, consistent with Public Utilities Code section 9505 (b). The targets for 2025 were established in 2021.

**TABLE 7. Forecast vs. Actual for Installation Year 2025** <sup>3</sup>

Utility	Gross/Net	Forecast	Actual	%
Alameda	Net	1,101	457	41.5%
Anaheim	Gross	11,732	7,430	63.3%
Azusa	Net	1,657	3,189	192.4%
Banning	Net	215	315	146.5%
Biggs	Net	8	0	0.0%
Burbank	Gross	7,832	6,655	85.0%
Colton	Net	4,527	8,222	181.6%
Corona	Net	24	0	0.0%
Glendale	Net	18,263	21,967	120.3%
Gridley	Net	92	1	0.9%
Healdsburg	Net	295	177	60.0%
Imperial	Net	13,156	10,818	82.2%
IPUC	Net	238	0	0.0%
Lassen	Net	208	213	102.2%
Lodi	Net	1,055	352	33.4%
Lompoc	Gross	252	194	76.8%
Los Angeles	Gross	248,616	72,180	29.0%
Merced	Net	1,163	73	6.3%
Modesto	Net	24,812	1,025	4.1%
Moreno Valley	Net	321	243	75.7%
Palo Alto	Net	5,300	3,465	65.4%
Pasadena	Net	12,390	8,624	69.6%
Plumas-Sierra	Net	123	51	41.6%
Port of Oakland	Gross	46	0	0.0%
Rancho Cucamonga	Gross	449	0	0.0%
Redding	Net	1,115	99	8.9%
Riverside	Net	15,551	12,137	78.0%
Roseville	Gross	9,632	16,024	166.4%
Sacramento	Gross	100,000	97,847	97.8%
San Francisco	Net	2,616	2,520	96.3%
Shasta Lake	Net	488	16	3.4%
Silicon Valley Power	Net	10,604	4,858	45.8%
Truckee Donner	Net	400	123	30.8%
Turlock	Net	10,359	3,348	32.3%
Ukiah	Net	405	86	21.3%
Vernon	Net	4,489	992	22.1%
Victorville	Net	396	0	0.0%
<b>Total</b>	<b>Gross</b>	<b>509,930</b>	<b>283,700</b>	<b>55.6%</b>

<sup>3</sup> To be consistent with EE savings reported in Table 3, Annual targets exclude codes and standards savings.

# Resources and Tools

This section provides an overview of the technical resources, analytical tools, methodologies, and input assumptions used or developed by public power to evaluate its EE program and develop EE targets, in accordance with the Public Utilities Code.<sup>45</sup>

## *EE Cost-Effectiveness Tool and Reporting Platform*

Energy Platforms, LLC developed a cloud-based EE cost-effectiveness tool and reporting platform (CET/RP) to improve POU's tracking and evaluation of program performance and to support the development of reports in compliance with state and federal reporting requirements. This tool was launched in 2019 to calculate the cost-effectiveness of EE and demand reduction measures and programs, and to summarize and report the related program expenditures and energy savings. The model includes all of the traditional benefit-cost ratio calculation methodologies used industry-wide to evaluate EE resource programs: Total Resource Cost (TRC), Program Administrator Cost (PAC), Ratepayer Impact (RIM), and Participant Cost Test.

Using this tool, POU's can analyze individual efficiency measures or full portfolios to determine the potential savings and cost-effectiveness before implementation. POU's are able to create unique programs and measures for their utility – and may choose to share them with other POU's collaboratively. The model also allows each POU to be able to specify many key inputs, including, but not limited to, the following:

- retail rates,
- hourly load shapes,
- hourly GHG emissions curves,
- hourly avoided cost, and
- overhead allocations by measure, programs, portfolio, sector, and/or end-use.

The tool allows POU's to manage reference libraries of measures, avoided costs, load shapes, and GHG emissions, enabling useful tracking and comparative scenario analyses for integrated planning. The CET/RP has undergone recent updates to fully integrate the statewide electronic TRM (eTRM) and enable reporting of gas savings and equivalent kWh for fuel substitution measures. Energy Platforms, LLC continues to update and improve the platform to enhance reporting functionality.

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<sup>4</sup> Cal. Pub. Util. Code § 9505(a)(4).

## ***Technical Reference Manual***

POUs contracted for the development of a POU technical reference manual<sup>6</sup> (TRM) in 2013, and replaced DEER as the basis for which most POUs calculate the energy savings of their programs. The POU TRM has since been updated in 2016, 2017, and 2025. Deviations from the TRM for individual utilities are noted in **Appendix A**.

The TRM provides the methods, formulas, and default assumptions used for estimating energy savings and peak demand impacts from EE measures and projects in a user-friendly format. POUs use energy savings estimates to report program accomplishments and measure progress toward program goals. EE measures are documented and classified as either unit energy savings measures, semi-custom measures, or custom measures. The TRM includes nonresidential and residential measures, presenting each measure type in separate sections, grouped by technology type.

In addition, public power continues its involvement in the California Technical Forum's (CalTF) eTRM, an online repository for statewide deemed measures for California.<sup>7</sup> NCPA, SCPPA, SMUD, and LADWP are members of the CalTF Policy Advisory Committee, which consists of statewide EE stakeholders who advise on the organization's vision, mission, and guiding principles, and affirm the annual Work Plan. The eTRM is now integrated into both the POUs' energy efficiency reporting platform and the POU TRM.

## ***Evaluation, Measurement & Verification***

California Public Utilities Code requires each POU to make available to its customers and the Energy Commission the results of any independent evaluation that measures and verifies the EE savings and the reduction in energy demand achieved by its EE.<sup>8</sup> The Evaluation, Measurement, & Verification (EM&V) process relies on the approaches articulated in the National Action Plan for EE, adopted CPUC protocols, and the innovation and expertise of firms experienced in program evaluation. EM&V reports help to define the effectiveness of individual programs with the intent of improving future offerings. Key findings from the EM&V reports confirm high realization rates for reported energy savings.<sup>9</sup>

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<sup>6</sup> California Municipal Utilities Association Savings Estimation Technical Reference Manual, 3<sup>rd</sup>. Ed. 2017. <https://www.cmua.org/energy-efficiency-technical-reference-manual>.

<sup>7</sup> For more information on the CalTF, visit: <http://www.caltf.org/>.

<sup>8</sup> Cal. Pub. Util. Code § 9505(d).

<sup>9</sup> See: <https://www.cmua.org/emv-reports>.

# SOURCES OF FUNDING

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This section provides an overview of the POU's sources of funding for their investments in EE and demand reduction programs, as required by the Public Utilities Code.<sup>10</sup> The POU's collectively spent \$190 million in FY 2025 from a combination of Public Goods Charge (PGC) funds, Cap-and-Invest (C&I) allowances, and General Fund monies.

## Public Goods Charge

The PGC is a “non-bypassable” usage-based charge on local distribution services collected by POU's in accordance with the Public Utilities Code.<sup>11</sup> The PGC is available to fund investments in the following:

- Cost-effective demand-side management services to promote EE and energy conservation,
- New investment in renewable energy resources and technologies,
- Research, development, and demonstration programs for the public interest to advance science or technology not adequately provided by competitive and regulated markets, and
- Services provided for low-income electricity customers.

## Cap-and-Invest Allowances

The California Cap-and-Invest (C&I) program allows utilities to use proceeds from the sale of freely allocated allowances to invest in EE programs to reduce GHG emissions. Expenditures explicitly noted as acceptable include, but are not limited to, equipment rebates and building retrofits. Funds are generated once a quarter as part of CARB's regular C&I auctions, but the level of available revenues is expected to increase over time as minimum auction prices have escalation factors that are applied once a year.<sup>12</sup>

## General Fund

POU's also support EE improvements and social good in the communities that they serve by using funds from their general operating reserves through programs such as home improvement and retrofit projects, appliance recycling and replacement programs, disconnection assistance programs for disadvantaged communities (DACs), and income-qualified bill assistance discounts.

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<sup>10</sup> Cal. Pub. Util. Code § 9505(a)(3).

<sup>11</sup> *Id.* § 385.

<sup>12</sup> California Code of Regulations (CCR), Title 17, § 95801.

# Appendix A – POU Narratives

Appendix A consists of detailed narratives of each POU’s EE programs and general descriptions of the utilities, presented in alphabetical order.

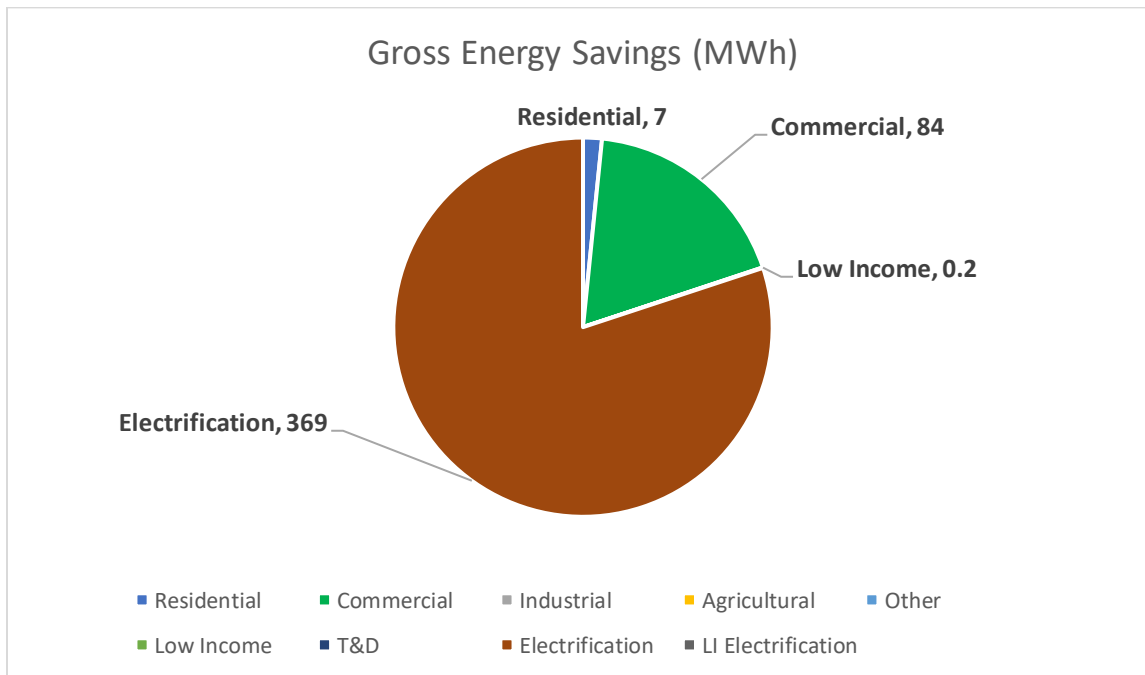
**TABLE 8. Annual EE Program Summary**

Utility	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Total Utility Cost
Alameda	31	460,447	6,229,510	31	456,860	6,187,812	\$323,980
Anaheim	1,778	7,429,869	98,054,101	1,778	7,429,869	98,054,101	\$4,305,463
Azusa	686	3,188,603	26,988,825	686	3,188,603	26,988,825	\$779,143
Banning	104	395,966	4,867,318	83	315,055	3,841,262	\$439,679
Biggs	0	0	0	0	0	0	\$0
Burbank	1,146	6,655,480	59,341,522	1,146	6,655,480	59,341,522	\$1,825,791
Colton	99,643	8,588,364	112,293,380	99,551	8,222,222	109,938,664	\$651,968
Corona	0	0	0	0	0	0	\$0
Glendale	772	21,967,577	184,041,012	772	21,967,349	184,037,742	\$6,922,170
Gridley	1	1,206	16,525	0	798	10,870	\$44,474
Healdsburg	3	197,689	2,733,035	2	176,964	2,541,220	\$374,574
Imperial	5,138	11,226,300	154,643,323	5,109	10,818,127	146,780,637	\$12,148,054
IPUC	0	0	0	0	0	0	\$0
Lassen	60	271,964	3,310,090	47	212,583	2,580,695	\$278,934
Lodi	105	432,073	4,708,689	88	352,144	3,505,677	\$282,588
Lompoc	10	193,530	2,280,247	8	145,908	1,726,616	\$454,320
Los Angeles	0	72,180,457	973,348,372	0	72,180,457	973,348,372	\$78,054,964
Merced	16	125,255	1,835,830	10	73,089	1,070,175	\$126,636
Modesto	159	1,570,494	22,185,992	124	1,025,372	14,294,885	\$1,311,639
Moreno Valley	152	329,150	3,144,982	97	242,876	2,420,066	\$531,987
Palo Alto	68	4,064,295	57,308,427	57	3,464,674	48,840,231	\$2,938,081
Pasadena	2,619	9,763,993	25,655,616	2,169	8,623,578	16,436,408	\$2,133,783
Plumas-Sierra	21	83,354	1,166,914	12	51,208	713,831	\$78,753
Port of Oakland	0	0	0	0	0	0	\$14,400
Rancho Cucamonga	0	0	0	0	0	0	\$32,000
Redding	3	100,564	1,234,889	3	99,114	1,217,870	\$434,226
Riverside	3,796	13,154,969	187,125,611	3,440	12,136,950	163,195,154	\$8,621,615
Roseville	78	16,023,531	65,126,746	71	11,772,110	59,006,159	\$3,443,472
Sacramento	2,255	97,846,543	1,099,210,850	1,068	67,535,506	698,970,130	\$52,132,112
San Francisco	378	4,034,003	60,510,039	214	2,519,638	37,794,564	\$762,514
Shasta Lake	12	30,927	506,896	7	16,465	266,059	\$95,188
Silicon Valley Power	1,578	5,704,779	79,358,822	1,330	4,857,727	67,661,324	\$5,095,075
Truckee Donner	22	237,554	3,474,773	12	123,136	1,661,615	\$2,986,483
Turlock	1,148	5,885,250	79,262,353	670	3,348,436	44,896,157	\$2,600,076
Ukiah	26	118,423	1,578,958	20	86,404	1,085,790	\$162,515
Vernon	35	991,564	13,822,824	35	991,564	13,822,824	\$171,615
Victorville	0	0	0	0	0	0	\$0
<b>Total</b>	<b>121,841</b>	<b>293,254,171</b>	<b>3,335,366,470</b>	<b>118,639</b>	<b>249,090,265</b>	<b>2,792,237,256</b>	<b>\$190,558,272</b>

## ALAMEDA MUNICIPAL POWER

### *Alameda Municipal Power at a Glance*

- Climate Zone: 3
- Customers: 37,071
- Total annual retail sales: 359,048 MWh
- Annual Retail Revenue: \$76,555,454
- Annual energy efficiency expenditures for reporting year: \$323,980
- Gross annual savings from reporting year portfolio: 460 MWh



### *Alameda Municipal Power Overview*

- Due to Alameda’s temperate climate and large residential customer base, the peak demand for electricity is in the winter (December and January) and early evening.
- Alameda Municipal Power (AMP) has committed to spending its renewable energy credit (REC) funds to reduce greenhouse gas emissions in its service area.

### **Major Program and Portfolio Changes**

In FY 2025, AMP began primarily administering electrification programs as energy efficiency opportunities became less available in its service territory. By providing 100% clean power to all of its customers, AMP's promotion of electrification measures allows for complete displacement of greenhouse gas (GHG) emissions. These initiatives are in line with the City of Alameda's Climate Action and Resilience Plan which aims to reduce the City's GHG emissions 50% below 2005 levels and make the City of Alameda carbon neutral by 2045.

### **Program and Portfolio Highlights**

AMP's electrification programs accounted for 80% of the total savings in FY 2025. These programs offer incentives for customers that replace their natural gas appliances with qualifying all-electric alternatives.

### **Commercial, Industrial & Agricultural Programs**

- Commercial Heat Pump HVAC Rebate Program: Commercial customers can receive a rebate to offset the equipment costs, infrastructure costs, and engineering costs when replacing a natural gas heating system with a heat pump HVAC system.
- Commercial Heat Pump Water Heater Rebate Program: Commercial customers can receive a rebate when they install a qualifying heat pump water heater at their establishment.
- Commercial Lighting Retrofit Rebate Program: Commercial customers can receive a rebate when they replace their existing lighting equipment with efficient LED lighting solutions.
- Commercial Customized Rebate Program: Designed to provide rebates to commercial customers who install energy-efficiency equipment that does not qualify for the Commercial Lighting Retrofit Program.
- Commercial New Construction Rebate Program: Commercial new construction projects that exceed Title 24 by 10% or more are eligible to receive a rebate. There are also design assistance grants to help offset costs associated with engineering and building modeling in the beginning stages of the project.

### **Residential Programs**

- Residential Heat Pump HVAC Rebate Program: Offers a rebate for residential customers to replace their natural gas furnace with an all-electric heat pump HVAC system.
- Residential Heat Pump Water Heater Program: Offers a rebate for residential customers to replace their natural gas water heater with an all-electric heat pump water heater.

- Residential Heat Pump Clothes Dryer Rebate Program: Offers a rebate for residential customers to replace their natural gas clothes dryer with an all-electric heat pump clothes dryer. There is a bonus rebate for income-qualified customers that are enrolled in AMP's Energy Assistance Program (EAP).
- Residential Induction Cooktop/Range Rebate Program: Offers a rebate for residential customers to replace their natural gas cooktop/range with an induction cooktop/range. There is a bonus rebate for income-qualified customers that are enrolled in AMP's Energy Assistance Program (EAP).
- Residential Smart Thermostat Rebate Program: Residential customers that replace their existing manual or programmable thermostats with an ENERGY STAR certified smart thermostat are eligible for a rebate through this program. Only offered to customers with electric heating as the primary heat source in the household.
- Residential Electric Clothes Dryer Rebate Program: Offers a rebate for residential customers to replace their inefficient electric or natural gas clothes dryer with an ENERGY STAR certified one. This program was replaced with Residential Heat Pump Clothes Dryer Program on May 1, 2025.

### **Complementary Programs**

- Residential Electric Panel Upgrade Rebate Program: Offers a rebate for residential customers to upgrade their main service to panel to accommodate the additional load of electrifying the water heating or space heating in their household.
- Residential Energy Management Device (Socket Splitter) Rebate Program: Offers a rebate for residential customers to purchase and install a socket splitter in their household. There is a bonus rebate for income-qualified customers that are enrolled in AMP's Energy Assistance Program (EAP).
- Residential EV Charger Rebate Program: Offers a rebate for residential customers to purchase and install an electric vehicle charger in their household.
- Residential Used EV Rebate Program: Offers a rebate for residential customers to purchase a used battery electric vehicle. There is a bonus rebate for income-qualified customers that are enrolled in AMP's Energy Assistance Program (EAP).
- Residential E-Bike Rebate Program: Offers a rebate for residential customers to purchase a e-bike. There is a bonus rebate for income-qualified customers that are enrolled in AMP's Energy Assistance Program (EAP).
- Residential Income-Qualified Solar Rebate Program: Offers income-qualified residential customers a rebate to install solar systems on their home.

- Commercial EV Charger Program: Commercial customers can receive a rebate to install level 2 electric vehicle charging at their establishment.
- Multi-Family EV Charger Program: Multi-family buildings can receive a rebate to install electric vehicle charging solutions at their establishment.
- DIY Home Energy Audit Program: Allows residential customers to understand their energy usage and to implement energy efficiency tips through a self-guided assessment of their home.
- Energy Assistance Program: Offers eligible income-qualified residential customers a 25% discount on their monthly energy costs.
- Project EASE (Energy Assistance Through Supportive Efforts): Provides short-term emergency assistance to income-qualified residential customers who are unable to pay their electric bill and/or are at risk of having their power turned off.
- Medical Discount Program: To reduce the impact of higher electricity costs resulting from operating critical health maintenance equipment, AMP offers a 10% medical discount (not including state or local taxes) to qualifying customers.
- Community Sponsorship Program: Awards community based organizations and 501(c)(3) non-profits with sponsorships in order to promote events and campaigns that align with AMP's strategic goals and initiatives.
- Power Up For Learning: A program in collaboration with the Alameda Education Foundation (AEF) that provides technologies and STEM enrichment access for Alameda students in need. Customers can voluntarily donate a fixed dollar amount on their utility bill every month that is then used to fund this program.
- Transformer Art Wrap Program: Allows decorative wraps designed by local artists to be applied to electric utility equipment in the City of Alameda.

### **Evaluation, Measurement & Verification Studies**

AMP budgets for an Evaluation, Measurement, and Verification (EM&V) study every other year with a focus on the two previous years. AMP plans on conducting an EM&V of its programs in FY 2027.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

AMP utilizes the CMUA POU TRM and eTRM as primary sources for its savings calculations. Measures involving fuel substitution (electrification) have been modified in order to claim positive kWh savings from positive therm savings. Savings for the Commercial Lighting Retrofit Rebate Program and Commercial Customized Rebate Program are custom calculations based on proposed equipment and existing conditions.

**TABLE AMP-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results			
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	0	7,889	126,229	0	7,889	126,229	38	\$21,126	0.52	0.19	0.228	
HVAC - Heat Pump	0	230,315	3,454,723	0	230,315	3,454,723	1,384	\$153,690	2.72	1.31	0.059	
Service & Domestic Hot Water	0	130,436	1,304,358	0	130,436	1,304,358	551	\$77,857	2.20	2.23	0.072	
<b>Electrification</b>	<b>0</b>	<b>368,640</b>	<b>4,885,310</b>	<b>0</b>	<b>368,640</b>	<b>4,885,310</b>	<b>1,973</b>	<b>\$252,673</b>	<b>2.37</b>	<b>1.32</b>	<b>0.067</b>	
Appliance & Plug Loads	1	3,251	39,008	0	1,398	16,773	5	\$2,042	0.71	0.34	0.153	
HVAC - Cooling	30	82,018	1,217,479	30	80,601	1,202,231	409	\$63,485	1.83	1.88	0.071	
Lighting - Indoor	1	2,803	42,045	1	2,663	39,943	13	\$2,351	1.58	0.26	0.079	
Lighting - Outdoor	0	3,523	42,276	0	3,347	40,162	18	\$2,780	1.85	0.45	0.087	
<b>Energy Efficiency</b>	<b>31</b>	<b>91,595</b>	<b>1,340,808</b>	<b>31</b>	<b>88,008</b>	<b>1,299,109</b>	<b>445</b>	<b>\$70,658</b>	<b>1.79</b>	<b>1.38</b>	<b>0.072</b>	
Appliance & Plug Loads	0	212	3,392	0	212	3,392	1	\$649	0.46	0.19	0.261	
<b>Low-Income</b>	<b>0</b>	<b>212</b>	<b>3,392</b>	<b>0</b>	<b>212</b>	<b>3,392</b>	<b>1</b>	<b>\$649</b>	<b>0.46</b>	<b>0.19</b>	<b>0.261</b>	
<b>EE, Low Income and Electrification</b>	<b>31</b>	<b>460,447</b>	<b>6,229,510</b>	<b>31</b>	<b>456,860</b>	<b>6,187,812</b>	<b>2,419</b>	<b>\$323,980</b>	<b>2.24</b>	<b>1.33</b>	<b>0.068</b>	
<b>C&amp;S and T&amp;D</b>												
Utility Total	31	460,447	6,229,510	31	456,860	6,187,812	2,419	\$323,980	2.24	1.33	0.068	

**TABLE AMP-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	0	6,991	104,865	0	6,991	104,865	35	\$8,990	0.87	2.07	0.115
Residential	0	361,649	4,780,445	0	361,649	4,780,445	1,938	\$243,682	2.43	1.32	0.066
Electrification	0	368,640	4,885,310	0	368,640	4,885,310	1,973	\$252,673	2.37	1.32	0.067
Commercial	31	84,191	1,252,296	31	83,875	1,248,080	427	\$59,938	2.01	1.47	0.064
Residential	1	7,404	88,512	0	4,134	51,030	18	\$10,720	0.55	0.61	0.268
Energy Efficiency	31	91,595	1,340,808	31	88,008	1,299,109	445	\$70,658	1.79	1.38	0.072
Residential	0	212	3,392	0	212	3,392	1	\$649	0.46	0.19	0.261
Low-Income	0	212	3,392	0	212	3,392	1	\$649	0.46	0.19	0.261
EE, Low Income and Electrification	31	460,447	6,229,510	31	456,860	6,187,812	2,419	\$323,980	2.24	1.33	0.068
<b>C&amp;S and T&amp;D</b>											
Utility Total	31	460,447	6,229,510	31	456,860	6,187,812	2,419	\$323,980	2.24	1.33	0.068

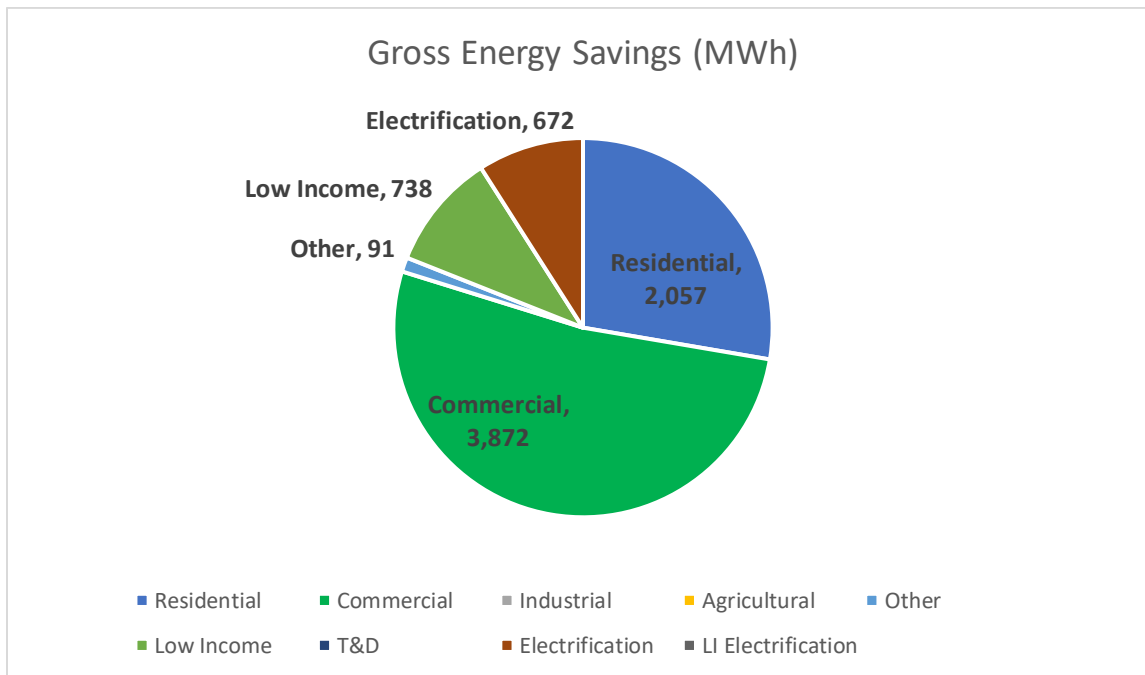
**TABLE AMP-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	0	368,640	4,885,310	0	368,640	4,885,310	1,973	\$252,673	2.37	1.32	0.067
Electrification	0	368,640	4,885,310	0	368,640	4,885,310	1,973	\$252,673	2.37	1.32	0.067
Multiple	30	80,038	1,187,779	30	79,017	1,178,471	398	\$55,228	2.03	1.97	0.063
Other Commercial	1	6,326	84,321	1	6,010	80,105	32	\$5,132	1.73	0.35	0.083
Residential	1	5,231	68,708	0	2,982	40,533	15	\$10,299	0.53	0.60	0.331
Energy Efficiency	31	91,595	1,340,808	31	88,008	1,299,109	445	\$70,658	1.79	1.38	0.072
Multiple	0	212	3,392	0	212	3,392	1	\$649	0.46	0.19	0.261
Low-Income	0	212	3,392	0	212	3,392	1	\$649	0.46	0.19	0.261
EE, Low Income and Electrification	31	460,447	6,229,510	31	456,860	6,187,812	2,419	\$323,980	2.24	1.33	0.068
<b>C&amp;S and T&amp;D</b>											
Utility Total	31	460,447	6,229,510	31	456,860	6,187,812	2,419	\$323,980	2.24	1.33	0.068

## ANAHEIM PUBLIC UTILITIES

### Anaheim at a Glance

- Climate Zone: 8
- Customers: 125,065
- Total annual retail sales: 2,135,794 MWh
- Annual Retail Revenue: \$413,957,000
- Annual energy efficiency expenditures for reporting year: \$4,305,463
- Gross annual savings from reporting year portfolio: 7,430 MWh



### Anaheim Public Utilities Overview

The City of Anaheim, founded in 1857. Anaheim spans over 50 square miles, with more than 340,000 residents, 125,000 electric utility customers, and 20 million annual visitors. Anaheim is home to a vibrant business community encompassing diverse sectors, including large industrial manufacturers and world-renowned tourist attractions such as hotels, entertainment venues, theme parks, sports franchises, and the largest LEED-certified convention center on the west coast. While Anaheim is known for its world-renowned attractions, it is also home to a large population of low-income and disadvantaged communities. To support these residents, Anaheim Public Utilities (APU) designs energy efficiency programs tailored to their needs, providing bill assistance, discount programs, and opportunities to reduce energy costs. Anaheim owns and operates the only not-for-profit, publicly owned electric utility in Orange

County. APU prioritizes a customer-centric approach, offering incentives and resource programs to help customers achieve their sustainability, water conservation, and energy efficiency goals. In alignment with state initiatives for a carbon-free future, APU focuses on simplifying programs, expanding customer choices, and enhancing outreach and community engagement. As Anaheim advances towards a cleaner electric grid, APU aims to design new program areas such as building electrification, enhanced demand response, and new customer incentives that support the transition to a carbon-free future, while keeping bills affordable.

### **Program and Portfolio Highlights**

Community engagement and outreach remain core priorities for APU. In Fiscal Year 2025, APU participated in 74 community outreach events, engaging with more than 24,000 community members. These efforts resulted in the distribution of 2,400 applications for bill assistance programs and over 400 sign-ups for Home Utility Check-Up Program services. In addition to traditional marketing channels including utility webpages, bill inserts, social media, and program flyer distribution, APU hosted neighborhood-focused events to better address the specific needs of local communities.

To further complement community engagement, APU unveiled a new Sustainability Education Center in the fall of 2025. The Sustainability Education Center will serve as APU's flagship educational and workforce development venue, providing sustainability-themed workshops and events, STEM education, hands-on energy and water use efficiency exhibits, new technology displays, and career path exploration opportunities.

APU's Dusk-to-Dawn Program has significantly improved security and safety within multi-family neighborhoods with heightened safety concerns. Through a proactive effort to identify outdoor lighting improvement opportunities, the program focused on areas where lighting could play a critical role in deterring crime and promoting community safety. In Fiscal Year 2025, 14 multi-family properties received no-cost energy-efficient exterior lights, improving visibility and providing residents with safer, well-lit environments during nighttime hours. Collectively, the Dusk-to-Dawn Program provided no-cost lighting solutions to 730 residential applications and 398 commercial applications.

In the summer of 2024, APU held the second annual Sustainable Footprint Contest, an initiative designed to highlight community efficiency efforts and recognize local sustainability champions. A total of 57 customers shared their sustainability stewardship stories, with nine participants receiving recognition for their commitment to resource preservation and active involvement in various energy and water efficiency programs. The grand prize winner received \$5,000 in home efficiency measure upgrades, with remaining awardees receiving \$3,000 in home efficiency improvements. Participants of the Sustainable Footprint Contest serve as community ambassadors for sustainability, sharing their experiences and inspiring others to participate in APU's home efficiency programs. The initiative highlights the positive impact individuals can make by embracing sustainable living.

APU's Bright Girls Program provides an annual mentorship opportunity to middle-school girls, encouraging them to explore utilities-related careers. Participants engage in hands-on STEM activities, facility tours, and interactions with accomplished female professionals in the industry. The Bright Girls Program aims to encourage and inspire young girls to envision a future career in the utilities industry. By fostering curiosity and interest in STEM disciplines, the program contributes to developing the next generation of utility leaders and supporting a diverse and inclusive workforce. In January 2025, APU partnered with Anaheim Elementary School District's Winter Camp, providing 40 elementary students with the Bright Girls Program experience.

### **Commercial, Industrial & Agricultural Programs**

As part of APU's ongoing commitment to energy efficiency, electrification, and public safety, APU implemented programs for commercial and industrial (C&I) customers including electrification, direct-install services, and incentive programs designed to help customers reduce energy use, lower operating costs, and improve facility performance. In parallel, APU advanced public-safety improvements through the Dusk-to-Dawn Program by upgrading exterior lighting to enhance nighttime visibility and help deter unwanted activity at commercial and multifamily properties. APU's C&I programs deliver measurable energy savings, support electrification, and address community needs through practical, customer-centered solutions. These efforts help advance Anaheim's sustainability goals while providing direct benefits to businesses and the community.

- Comprehensive Energy Assessments: An ASHRAE level on-site building analysis with recommendations for achieving energy efficiency goals.
- Customized Energy Incentives Program: Tailored incentives supporting high-efficiency technologies such as advanced air conditioning units and energy management systems.
- Heat Pump Incentives Program: Incentives for high-efficiency heat pump installations to optimize electricity consumption.
- Lighting Incentives: Incentives for LED lighting upgrades to improve energy efficiency.
- Small Business Energy & Water Direct Install/Assessment Program: Provides small businesses with an on-site analysis of their energy and water usage along with the direct installation of a menu of energy and water efficiency upgrades, including LED lighting, smart thermostats, HVAC/refrigeration tune-ups, etc.
- Air Purifier Rebate: Rebates for ENERGY STAR® certified air purifiers.
- Dusk-to-Dawn Lighting: No-cost high-efficiency LED fixtures with photo sensors, such as wall packs and pole-mounted parking lot lights.
- Energy & Water Incentives for Multi-family Housing Projects: Financial incentives for existing multi-family dwellings to promote sustainability.
- Tree Power Program: Complimentary distribution of shade trees.

## **Residential Programs**

APU is committed to providing customers with a comprehensive portfolio of program offerings designed to support energy reduction and water conservation. With more than 60 incentive measures and direct-installation services delivered through residential rebate and turnkey programs, as well as emerging electrification and demand response initiatives, APU continues to expand and enhance innovative resources that advance sustainability while supporting bill affordability.

**Home Utility Check-Up Program:** A complimentary home assessment of electric and water use, along with a customized report that includes efficiency recommendations, outdoor water assessment with irrigation scheduling and controller programming, direct-installation of LEDs, low-flow shower heads, aerators, toilet leak/dye tab test, and toilet flapper replacement as needed.

**Dusk-to-Dawn Lighting Program:** Residential customers can receive up to two free high-efficiency LED fixtures with photo sensors. Participants have the option to pick up lights from the Program contractor's office in Anaheim or receive lighting fixtures during Home Utility Check-Up and Weatherization Program services.

**Dusk-to-Dawn Lighting Program Income-Qualified Assistance:** In addition to receiving up to two free outdoor security lights, income-qualified residents may also receive direct installation by Anaheim's approved and licensed electrical contractor free of charge.

**Weatherization Program:** Inter-utility partnership with Southern California Gas Company that assists income-qualified renters and homeowners in making their homes more water and energy efficient. Program offers no-cost home repairs and replacement of inefficient appliances, consisting of ENERGY STAR® certified ceiling fans and room air conditioners, plug load occupancy sensors in smart power strips, LED lamps, duct sealing and testing, A/C tune-ups with refrigerant recharge, high-efficient toilets, and additional electric, water, and gas saving measures.

- **Home Incentives Program:** Provides rebates for the purchase and installation of replacement ENERGY STAR® rated appliances and high-efficiency conservation measures.
- **A/C Tune-Up Program:** Provides up to a \$100 incentive to residential customers who have a licensed HVAC contractor perform an A/C tune up, with an enhanced incentive of up to \$150 for income-qualified customers.
- **Refrigerator & Freezer Recycling Program:** Provides a \$50 incentive to customers who recycle an old, operational refrigerator or freezer. Appliance collection is available at no cost to the customer.

- Uninterruptible Power Supply Rebate Program: Provides a \$50 incentive for standard equipment and \$200 incentive for medical device uninterruptible power supply systems that meet ENERGY STAR® certification requirements.
- Electric Portable Power Station Rebate Program: Provides a \$50 incentive for standard equipment and \$200 incentive for medical device associated electric portable power stations. Incentive eligible for battery powered electric portable power station devices, with a minimum 100W AC output.
- Tree Power Program: Provides up to 6 complimentary shade trees, along with an option for a \$20 incentive per shade tree for residential customers.
- MyPower Savings Program: As a demand response program, participating residential customers earn event participation rewards of \$1.00 for every kWh of energy reduced during event hours (up to \$100 in bill credits per fiscal year). Additionally, instant enrollment bill credits are provided for participants with central A/C units, pool pumps, wall A/C units, and/or EV chargers.
- LED Distribution Program (new customer efficiency kits): New residential electric utility customers are direct-mailed efficiency kits, inclusive of 4 LED lamps and a brochure with city information and resources.
- Utility Discount Program: Provides a 12% reduction on the electric and/or water portions of utility bills to seniors, military veterans, or long-term disabled customers at or below 80% of the Orange County median income.
- Community Solar Discount Program: Income-qualified customers are eligible to receive a \$20 monthly discount on the electric portion of their utility bill for a 12-month period.
- Emergency Assistance Program: Provides up to \$350 in utility payment assistance for income-qualified customers experiencing financial hardship.

### **Complementary Programs**

School Education Programs: Public and private school students engage in the classroom and through hands-on outdoor labs to explore environmental issues. Programs were recently enhanced to incorporate Next Generation Science Standards into curricula that includes education on renewable resources, water conservation, solar power, EV adoption and the benefits thereof, in-home student-led energy and water use assessments, and hands-on fieldtrips to various nature centers and outdoor venues, with educational activities centered around sustainability and environmental stewardship. In Fiscal Year 2025, School Education Programs reached over 7,500 students.

Water Conservation Student Poster Contest: APU continues to hold an annual “Being Water Wise Is...” Poster Contest, whereby 1st through 8th grade students are invited to submit artwork associated with water conservation, giving students the opportunity to help raise water awareness through the art they create. At the culmination of the contest, winning artwork is printed on APU branded water bottle labels and an artist recognition is held at a City Council meeting. This year hosted the 34th annual Student Poster Contest, with 545 artwork entries received.

Scholarship Program: Supports high school students in their pursuit of post-secondary education by offering a monetary award to assist with continued studies in a STEM-related field. Participants are required to submit an essay detailing their involvement in their community and schools, as well as the potential positive impact of STEM-related careers on their communities. In Fiscal Year 2025, a total of 53 Scholarship Program entries were received. Three students were awarded the scholarship and also participated in a paid summer internship with APU, in collaboration with Workforce Development and Hope Builders.

Anaheim Innovative Mentoring Experience (AIME) Program: Through the 4-session Program, students learn to collaborate with others from different schools, while exploring a variety of skill sets, inclusive of resume building, interview skills, teamwork, and public speaking. Participants learn of utility power/water resources and sustainability initiatives and are exposed to various utility jobs and career paths. In the fall of 2024, 36 Anaheim High School students participated in the AIME Program.

Bright Girls Program: Mentorship initiative designed to inspire middle-school girls to learn about various utilities-related career path opportunities, engage in hands-on STEM activities, tour utility facilities, and interact with female professionals in the industry.

Sustainable Footprint Program: Community outreach initiative and customer sustainability recognition program. This year, nine customers were acknowledged for their commitment to resource conservation and active participation in various energy and water efficiency programs.

Battery Storage Rebate Program: Incentive of up to \$3,000 available for residential customers who install an energy storage system with a minimum 5 kWh capacity. In Fiscal Year 2025, a total of 24 battery storage systems were incentivized.

Private Use EV Charger Rebate Program: Incentive of up to \$600 for residential and business customers who install Level 2 plug-in electric vehicle chargers for personal or business use. A total of 235 Private Use EV Charger Rebates were issued in Fiscal Year 2025.

Public Access EV Charger Station Rebate Program: Initiative provides up to \$3,500 per level 2 EV charging station and \$7,500 per direct current (DC) fast charging station at multi-unit dwelling locations or other publicly accessible areas. In Fiscal Year 2025, APU incentivized 60 public chargers.

EV Fleet Charger Rebate Program: Incentive is open to commercial customers and schools and provides rebates for networked Level 2 or greater EV chargers and associated EV charger infrastructure upgrades, up to a maximum of \$75,000 per site. In Fiscal Year 2025, APU incentivized 26 fleet chargers.

Municipal EV Charger Installation Assistance Program: Provides rebates to City of Anaheim departments who install EV charging stations at their facilities. The rebate helps offset the costs of chargers and associated infrastructure, playing a crucial role in expanding EV charging infrastructure citywide. In Fiscal Year 2025, the program supported the installation of 10 chargers across various city departments.

EV Feasibility and Master Planning Studies: APU partners with a consultant to offer no-cost, no-commitment feasibility and master planning studies to commercial sites, multi-family dwellings, schools, and municipal facilities. Customers who participate in the EV technical consulting services receive a high-level report with EV charging installation recommendations. In Fiscal Year 2025, a total of 18 feasibility and master planning studies were successfully completed.

EV Ride-and-Drive Events: APU promotes and advocates the use of plug-in vehicles through events and education. In partnership with Plug In America, two EV test drive events were hosted in Fiscal Year 2025, resulting in over 225 test drive experiences. Attendees were given the opportunity to learn more about EVs through test driving and interactions with knowledgeable volunteers and dealer staff.

Residential and Commercial Water Savings Resulting from Equipment Rebates: Businesses and residents are eligible for rebates by installing or retrofitting with qualifying water-saving devices through the "SoCal Water\$mart" Program in partnership with the Metropolitan Water District of Southern California. Water savings result from the application of measures such as:

- Rotating Sprinkler Nozzles
- Weather-Based Irrigation Controllers
- Soil Moisture Sensor Systems
- Turf Replacement
- High-Efficiency Clothes Washers
- Premium High-Efficiency Toilets
- Rain Barrels & Cisterns

Leak Repair Rebate Program: Offers incentives to customers who demonstrate repair of water leaks in and around their residences, providing up to \$500 for income-qualified single-family customers and \$250 for non-income-qualified residents.

**Evaluation, Measurement & Verification Studies**

Under SCPPA and CMUA Energy Efficiency Services Resolution No. 2021-105, Anaheim contributed to the development of tools and services that calculate and report the cost-effectiveness of energy efficiency and demand response programs.

**TABLE APU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC
Appliance & Plug Loads	60	5,352	64,224	60	5,352	64,224	18	\$3,336	1.72	6.12	0.065
HVAC - Heat Pump	158	655,806	7,227,894	158	655,806	7,227,894	2,230	\$181,826	4.46	612.16	0.031
Service & Domestic Hot Water	0	10,712	107,120	0	10,712	107,120	38	\$5,135	2.30	6.12	0.058
<b>Electrification</b>	<b>218</b>	<b>671,870</b>	<b>7,399,238</b>	<b>218</b>	<b>671,870</b>	<b>7,399,238</b>	<b>2,286</b>	<b>\$190,297</b>	<b>4.36</b>	<b>197.60</b>	<b>0.032</b>
Appliance & Plug Loads	0	24,570	311,220	0	24,570	311,220	86	\$18,180	1.52	6.12	0.075
Building Envelope	41	35,352	726,158	41	35,352	726,158	219	\$26,130	2.79	6.12	0.054
HVAC - Cooling	97	133,711	1,660,386	97	133,711	1,660,386	668	\$137,489	2.05	6.60	0.107
Lighting - Indoor	426	2,789,696	35,427,690	426	2,789,696	35,427,690	12,247	\$436,313	8.11	15.41	0.016
Lighting - Outdoor	0	485,762	7,231,674	0	485,762	7,231,674	2,809	\$108,709	7.41	7.44	0.020
Miscellaneous	396	2,449,936	37,914,422	396	2,449,936	37,914,422	11,868	\$1,323,140	2.61	3.10	0.049
Water Pumping / Irrigation	0	91,039	819,353	0	91,039	819,353	300	\$634,598	0.14	0.24	0.918
Whole Building	0	9,660	28,980	0	9,660	28,980	10	\$117,913	0.02	0.02	4.249
<b>Energy Efficiency</b>	<b>960</b>	<b>6,019,726</b>	<b>84,119,884</b>	<b>960</b>	<b>6,019,726</b>	<b>84,119,884</b>	<b>28,208</b>	<b>\$2,802,473</b>	<b>2.95</b>	<b>4.11</b>	<b>0.044</b>
Appliance & Plug Loads	0	11,860	151,000	0	11,860	151,000	42	\$20,337	0.66	2.96	0.172
HVAC - Cooling	373	324,407	1,767,110	373	324,407	1,767,110	722	\$540,617	0.60	0.60	0.345
Lighting - Indoor	14	121,865	1,827,974	14	121,865	1,827,974	683	\$328,078	0.60	0.60	0.240
Miscellaneous	214	280,141	2,788,895	214	280,141	2,788,895	901	\$423,662	0.60	0.60	0.184
<b>Low-Income</b>	<b>601</b>	<b>738,273</b>	<b>6,534,979</b>	<b>601</b>	<b>738,273</b>	<b>6,534,979</b>	<b>2,348</b>	<b>\$1,312,693</b>	<b>0.60</b>	<b>0.61</b>	<b>0.245</b>
<b>EE, Low Income and Electrification</b>	<b>1,778</b>	<b>7,429,869</b>	<b>98,054,101</b>	<b>1,778</b>	<b>7,429,869</b>	<b>98,054,101</b>	<b>32,842</b>	<b>\$4,305,463</b>	<b>2.30</b>	<b>2.99</b>	<b>0.058</b>
<b>C&amp;S and T&amp;D</b>											
Utility Total	1,778	7,429,869	98,054,101	1,778	7,429,869	98,054,101	32,842	\$4,305,463	2.30	2.99	0.058

**TABLE APU-2. Energy Efficiency Program Results by Sector**

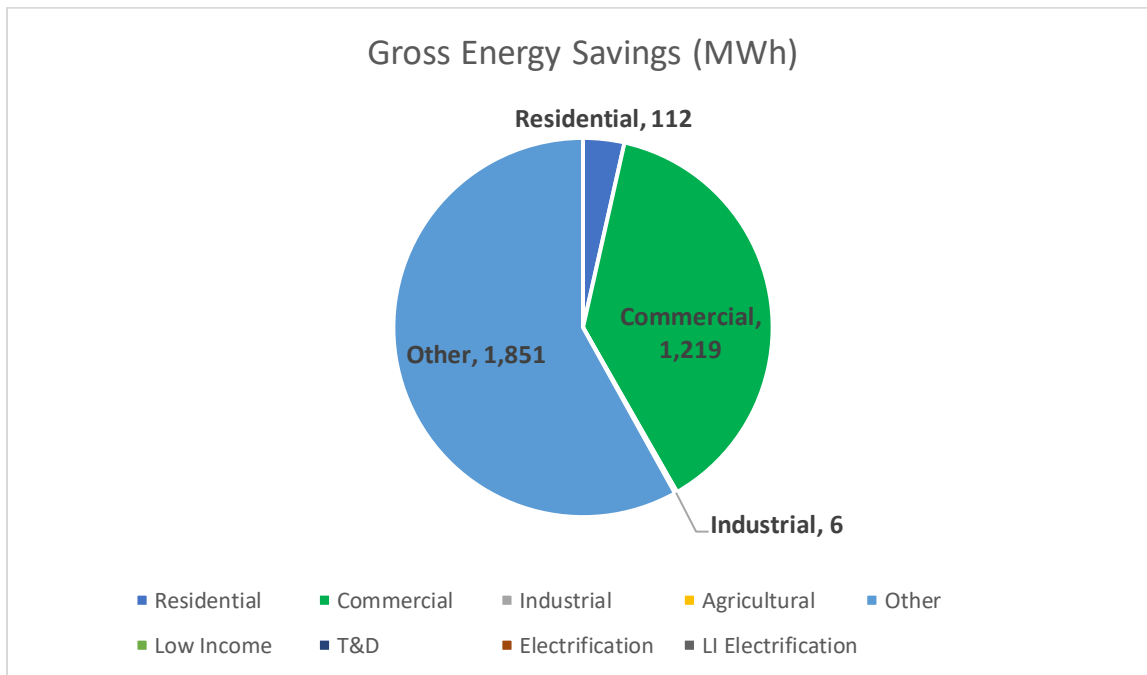
Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	156	652,299	7,175,289	156	652,299	7,175,289	2,210	\$159,000	5.05		0.027
Residential	62	19,571	223,949	62	19,571	223,949	76	\$31,297	0.82	6.12	0.175
Electrification	218	671,870	7,399,238	218	671,870	7,399,238	2,286	\$190,297	4.36	197.60	0.032
Any	0	91,039	819,353	0	91,039	819,353	300	\$634,598	0.14	0.24	0.918
Commercial	605	3,871,827	54,407,272	605	3,871,827	54,407,272	17,303	\$1,215,902	4.13	6.08	0.030
Residential	355	2,056,860	28,893,259	355	2,056,860	28,893,259	10,605	\$951,972	3.32	3.92	0.044
Energy Efficiency	960	6,019,726	84,119,884	960	6,019,726	84,119,884	28,208	\$2,802,473	2.95	4.11	0.044
Residential	601	738,273	6,534,979	601	738,273	6,534,979	2,348	\$1,312,693	0.60	0.61	0.245
Low-Income	601	738,273	6,534,979	601	738,273	6,534,979	2,348	\$1,312,693	0.60	0.61	0.245
EE, Low Income and Electrification	1,778	7,429,869	98,054,101	1,778	7,429,869	98,054,101	32,842	\$4,305,463	2.30	2.99	0.058
<b>C&amp;S and T&amp;D</b>											
Utility Total	1,778	7,429,869	98,054,101	1,778	7,429,869	98,054,101	32,842	\$4,305,463	2.30	2.99	0.058

**TABLE APU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Other Commercial	156	652,299	7,175,289	156	652,299	7,175,289	2,210	\$159,000	5.05		0.027
Residential	62	19,571	223,949	62	19,571	223,949	76	\$31,297	0.82	6.12	0.175
Electrification	218	671,870	7,399,238	218	671,870	7,399,238	2,286	\$190,297	4.36	197.60	0.032
Any	66	1,290,446	25,644,699	66	1,290,446	25,644,699	7,896	\$300,591	7.77	19.80	0.017
Multiple	0	91,039	819,353	0	91,039	819,353	300	\$634,598	0.14	0.24	0.918
Other Commercial	539	2,581,381	28,762,573	539	2,581,381	28,762,573	9,407	\$915,311	2.94	3.80	0.039
Residential	314	2,032,601	28,388,967	314	2,032,601	28,388,967	10,454	\$936,790	3.32	3.90	0.044
Residential - Single-Family	41	24,259	504,292	41	24,259	504,292	151	\$15,183	3.33	6.12	0.045
Energy Efficiency	960	6,019,726	84,119,884	960	6,019,726	84,119,884	28,208	\$2,802,473	2.95	4.11	0.044
Residential	487	647,994	6,046,400	487	647,994	6,046,400	2,157	\$1,168,367	0.60	0.61	0.238
Residential - Mobile Home	96	77,043	410,787	96	77,043	410,787	160	\$123,322	0.60	0.60	0.331
Residential - Single-Family	18	13,236	77,791	18	13,236	77,791	30	\$21,004	0.60	0.60	0.303
Low-Income	601	738,273	6,534,979	601	738,273	6,534,979	2,348	\$1,312,693	0.60	0.61	0.245
EE, Low Income and Electrification	1,778	7,429,869	98,054,101	1,778	7,429,869	98,054,101	32,842	\$4,305,463	2.30	2.99	0.058
<b>C&amp;S and T&amp;D</b>											
Utility Total	1,778	7,429,869	98,054,101	1,778	7,429,869	98,054,101	32,842	\$4,305,463	2.30	2.99	0.058

***Azusa Light & Water at a Glance***

- Climate Zone: 9
- Customers: 17,691
- Total annual retail sales: 237,548 MWh
- Annual Retail Revenue: \$46,906,797
- Annual energy efficiency expenditures for reporting year: \$779,143
- Gross annual savings from reporting year portfolio: 3,189 MWh



***Azusa Light & Water Overview***

Since the inception of its energy efficiency programs, Azusa Light & Water (ALW) has invested more than \$18 million in educating the Azusa community about energy conservation and providing financial incentives to businesses and residents to replace outdated, energy-intensive equipment with modern, energy-efficient alternatives. These programs are designed to reduce overall electricity consumption and relieve strain on the electric system, particularly during periods of peak demand. As a result of these sustained efforts, Azusa Light & Water has achieved consistent annual peak demand and about 1% reduction in total energy use.

### **Major Program and Portfolio Changes**

During this reporting year, Azusa Light & Water did not implement any major program changes and continued to build upon its existing energy efficiency offerings. The focus remained on expanding programs, with particular emphasis on the commercial sector this year - supporting existing businesses in reducing energy use while also attracting new businesses to the community. In addition, Azusa Light & Water recently launched a Home Energy Upgrade Program, a direct install program aimed at serving low-income communities, helping improve energy efficiency and reduce utility costs for those customers.

### **Program and Portfolio Highlights**

The Direct Install Small Business Audit and Retrofit Program continues to have a significant impact by effectively serving hard-to-reach businesses and small retailers within its service territory. These customers often operate with very limited cash flow and are frequently unable to participate in traditional rebate programs that require upfront costs. By offering on-site energy audits and direct installation of qualifying energy efficiency measures at little to no initial cost, the program removes financial barriers to participation. This approach allows customers to realize immediate energy and cost savings while avoiding the upfront capital investment typically associated with rebate-based programs.

### **Commercial, Industrial & Agricultural Programs**

- Business Energy Partnership Program: Retrofits existing commercial buildings and industrial facilities with high-efficiency lighting, air conditioning, and process equipment to reduce energy use and operating costs.
- Free Energy Audits: Provides on-site assessments and recommendations for the most energy-efficient equipment and cost-effective operational practices.
- New Business Retrofit Program: Encourages the incorporation of high-efficiency equipment and systems in the design and construction of new commercial and industrial buildings.
- Small Business Audit/Retrofit Program: Offers a free energy assessment, LED lighting retrofits, packaged A/C tune-ups, up to \$1,500 in free lighting improvements, and recommendations for additional energy-saving measures. Qualifying measures are eligible for a 50% rebate, up to a maximum of \$10,000 per customer account.

### **Residential Programs**

- Home Weatherization and Residential ENERGY STAR® Appliance Rebate Program: Provides rebates for a wide range of home weatherization measures and high-efficiency ENERGY STAR®-rated appliances. Eligible appliances include, but are not limited to,

refrigerators, air conditioners, LED televisions and computer monitors, dishwashers, clothes washers, pool pumps, ceiling fans, and various energy-efficient lighting measures.

- The Synergy Energy Efficiency (EE) Audit and Direct Installation (DI) Program was launched to serve both residential and non-residential customers, with an initial focus on hard-to-reach manufactured and mobile home communities that often face barriers to accessing traditional energy efficiency programs. Through on-site energy audits and direct installation of qualifying energy-saving measures, the program helps reduce energy use and utility costs. The program was recently expanded to serve low-income customers. Measures include lighting efficiency upgrades, HVAC tune-ups, smart thermostats, whole-house fans, window air-conditioners, and additional energy-saving measures as applicable.

### **Complementary Programs**

- The Public Facilities Program: This program mirrors the existing commercial and industrial programs and is therefore grouped within the same funding and energy savings category. Because these municipal facilities are used by the public, investments made through this program provide a greater public benefit by improving efficiency in facilities that serve the broader community.
- City Schools "Tinker" Program: Provides an interactive energy conservation education program for all fifth-grade classes within the City of Azusa, including both public and private schools.
- Low-Income Programs: Azusa Light & Water's Low-Income Assistance Program is established under Rule No. 18 of the Utility's Rules and Regulations. Customers must complete an application and submit income documentation to determine eligibility. In general, eligibility guidelines align with the State's low-income income thresholds.
- Research, Development, and Demonstration: Azusa Light & Water, jointly with the Southern California Public Power Authority (SCPPA), is an active member of the APPA DEED Program.

### **Evaluation, Measurement & Verification Studies**

Azusa Light & Water contracted with Lincus Energy to conduct a study of the various energy-efficiency programs and their associated savings. The Lincus study is available on the CMUA and Azusa Light & Water websites (<http://www.ci.azusa.ca.us/DocumentCenter/View/26058>). Azusa Light & Water will continue to make EM&V reports available to the CEC and other parties as they are completed and will continue with its EM&V programs and practices in the future.

**Major Differences or Diversions from CA POU TRM for Energy Savings**

For savings, Azusa Light & Water uses a combination of figures from TRM, E3, utility work papers and custom savings analysis along with vendor calculations when applicable.

**TABLE ALW-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	3	6,227	112,086	3	6,227	112,086	40	\$44,451	0.28	7.12	0.562
Building Envelope	415	1,233,629	18,497,349	415	1,233,629	18,497,349	5,803	\$585,373	3.18	7.12	0.042
Miscellaneous	78	285,229	3,388,836	78	285,229	3,388,836	1,144	\$87,770	3.74	7.12	0.033
Water Pumping / Irrigation	190	1,663,518	4,990,554	190	1,663,518	4,990,554	1,892	\$61,548	7.12	7.12	0.013
Energy Efficiency	686	3,188,603	26,988,825	686	3,188,603	26,988,825	8,880	\$779,143	3.39	7.12	0.036
EE, Low Income and Electrification	686	3,188,603	26,988,825	686	3,188,603	26,988,825	8,880	\$779,143	3.39	7.12	0.036
C&S and T&D											
Utility Total	686	3,188,603	26,988,825	686	3,188,603	26,988,825	8,880	\$779,143	3.39	7.12	0.036

**TABLE ALW-2. Energy Efficiency Program Results by Sector**

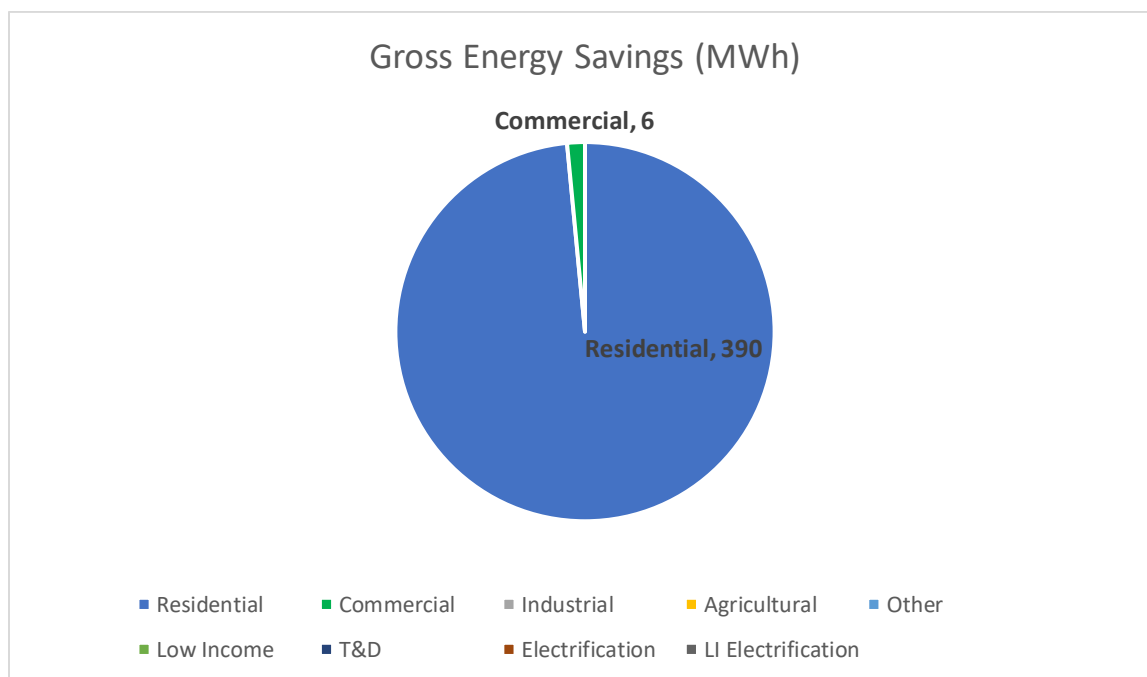
Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	402	1,218,622	18,146,261	402	1,218,622	18,146,261	5,685	\$531,176	3.41	7.12	0.039
Industrial	2	6,354	91,498	2	6,354	91,498	31	\$20,853	0.42	7.12	0.301
Other	257	1,851,463	6,920,130	257	1,851,463	6,920,130	2,512	\$113,698	5.40	7.12	0.018
Residential	26	112,164	1,830,936	26	112,164	1,830,936	653	\$113,417	1.81	7.12	0.086
Energy Efficiency	686	3,188,603	26,988,825	686	3,188,603	26,988,825	8,880	\$779,143	3.39	7.12	0.036
EE, Low Income and Electrification	686	3,188,603	26,988,825	686	3,188,603	26,988,825	8,880	\$779,143	3.39	7.12	0.036
C&S and T&D											
Utility Total	686	3,188,603	26,988,825	686	3,188,603	26,988,825	8,880	\$779,143	3.39	7.12	0.036

**TABLE ALW-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	429	1,273,498	18,212,871	429	1,273,498	18,212,871	5,721	\$438,557	4.10	7.12	0.032
Other Agricultural	190	1,663,518	4,990,554	190	1,663,518	4,990,554	1,892	\$61,548	7.12	7.12	0.013
Other Commercial	40	133,069	1,862,966	40	133,069	1,862,966	584	\$144,768	1.28	7.12	0.102
Other Industrial	2	6,354	91,498	2	6,354	91,498	31	\$20,853	0.42	7.12	0.301
Residential	26	112,164	1,830,936	26	112,164	1,830,936	653	\$113,417	1.81	7.12	0.086
Energy Efficiency	686	3,188,603	26,988,825	686	3,188,603	26,988,825	8,880	\$779,143	3.39	7.12	0.036
EE, Low Income and Electrification	686	3,188,603	26,988,825	686	3,188,603	26,988,825	8,880	\$779,143	3.39	7.12	0.036
C&S and T&D											
Utility Total	686	3,188,603	26,988,825	686	3,188,603	26,988,825	8,880	\$779,143	3.39	7.12	0.036

***Banning at a Glance***

- Climate Zone: 15
- Customers: 13,506
- Total annual retail sales: 161,502 MWh
- Annual Retail Revenue: \$32,340,899
- Annual energy efficiency expenditures for reporting year: \$439,679
- Gross annual savings from reporting year portfolio: 396 MWh



***Banning Overview***

During FY 24/25, Banning spent \$410,393 on Energy Efficiency programs, which have provided 390,250 kWh of energy savings. It should be noted that the City of Banning is deemed an economically disadvantaged area. Due to the economic demographics of Banning’s population, a significant portion of Public Benefits dollars are utilized to provide low-income assistance through a monthly utility bill credit and complementary programs.

***Program and Portfolio Highlights***

One of Banning’s goals has been to expand energy audits and direct installation of efficiency measures beyond just our commercial customers. There is such a large population of low-

income as well as seniors who cannot afford our rebate programs. A new program to reach commercial customers, low-income customers, single-family residences, and manufactured homes has been gaining traction. In addition to many residential customers being served, energy efficiency improvements and lighting measures for added safety have taken place within our downtown corridor. These energy efficiency measures qualified under our Synergy Energy Audit Measures or “S.E.A.M.” program.

In 2025, the S.E.A.M. program started offering whole-house-fan direct installs to our portfolio of energy efficiency measures. This new measure has been very well received, and we saw an increase in kWh savings of 47% from the previous fiscal year within the few months that we started offering this new measure. The dry Banning climate with cool mornings and evenings offers the perfect weather for our residents to take advantage of this specialized energy efficiency direct install. Our whole-house-fan rebate program rarely has participation, so to see how successful this new measure has been through the S.E.A.M. direct-install program is very encouraging. There were 76 whole house fans installed within 2025, and we look forward to many more installations in 2026 and beyond.

We have many community outreach events planned and executed by our volunteer C.O.R.E. (Community, Outreach, Relations, and Education) Team. Our C.O.R.E. Team actively partners with other City of Banning departments and local nonprofit organizations to focus on community engagement and social equity. These partnerships have helped to increase community participation in many city-wide events. We partner with other City of Banning Departments, and community-based organizations to hold several successful community events. We continuously evaluate our programs, events and activities and now have a roster of 9 regularly-scheduled programs and community-centric events held on an annual basis.

Banning Electric Utility was proud to partner with the Arbor Day Foundation for our 5th annual Energy-Saving Tree Event in the Spring of 2025. Customers accessed the Arbor Day Foundation website and reserved up to two trees per household in a Banning Electric portal. A day was scheduled for customers to pick up their reserved trees with planting and care instructions given to ensure the successful growth of their trees. Some year-to-date environmental impacts after our 2025 tree event are 653.3 metric tons of carbon sequestered, 1.2 tons of air pollution removed, 2,030,210 gallons of avoided stormwater runoff, and \$280,304 in combined energy and community benefits, and lastly, 1,446,714 in kWh saved over a 20-years period. We hope this will continue to be an annual event for years to come. We already have a waitlist forming for the 2026 Energy-Saving Tree event.

In addition to the Energy-Saving Tree Program, we have partnered with our Parks and Recreation Department as well the Pass Area Rotary Club, The San Gorgonio Boys and Girls Club, the Banning Senior Center, as well as many other local nonprofit organizations to for the past several years to hold an Arbor Day Community Tree Planting event. Our Parks and Recreation Department will choose a local park or location that needs shade trees due to park vandalism or community blight. We then determine the species, size and placement of trees needed and come together on a scheduled date to plant the trees. The community

participation has grown over the years and reached over 100 volunteers who came together at our local Lions Park to plant trees which is home to the at home to Banning Pass Little League. We planted trees to offer shade to park attendees, offer shade to vehicles parked along the west-side of the park, which also helped to develop our community canopy and beautify the park. These benefits are in addition to the reduction of GHG emissions, air pollution reduction, and storm-drain runoff.

### **Commercial, Industrial & Agricultural Programs**

The Synergy Energy Audit Measure (S.E.A.M.) Program offers free energy audits and free energy efficiency direct install measures for Banning Commercial customers.

Commercial and Industrial lighting, weatherization, and HVAC downstream rebate programs are available. Unfortunately, these prescriptive rebates have very low participation.

Many industrial buildings within the City of Banning were built under Title 24 requirements and do not need or qualify for energy efficiency measures.

At this time, the City of Banning does not have any agricultural customers, therefore, no agricultural programs are being offered.

### **Residential Programs**

- Air Conditioner: Monetary: Monetary incentives to replace an existing central air conditioning unit with a new high-efficiency unit.
- Air Conditioner Tune-Ups: Monetary: Monetary incentives for getting air conditioning units tuned up.
- EnergyStar® Appliances: Monetary incentives for purchasing products that meet the Energy Star® criteria.
- EnergyStar® Refrigerator: A: A monetary incentive for replacing an old inefficient refrigerator with a new energy-efficient unit.
- Recycling: Rebates offered to remove and recycle operating old and inefficient refrigerators and freezers.
- Energy Weatherization: Monetary: Monetary incentives to replace inefficient materials with products that will improve the energy efficiency of their facility and reduce energy use.

- Shade Tree: Rebates: Rebates offered to plant shade trees around homes to help reduce the amount of energy used for air conditioning.
- Smart Thermostat: Rebates are offered for the installation of a programmable, WIFI-enabled thermostat.
- Summer Savings Program: Rebates created to assist our low-income customers who cannot afford a new air conditioner to cool off in the summer. These rebates are for box fans, ceiling fans, and room a/c units to circulate the air and help stay cool during the hot months.

### **Complementary Programs**

- Low-Income Assistance: An electric utility discount for qualified customers. As mentioned above, the majority of Public Benefits funds are spent providing low-income assistance. Currently, we have 983 customers on our Low-Income Assistance Program with assistance totaling \$376,058 during this fiscal year.
- Medical Discount Program: An electric utility discount for qualified customers. This program has approximately 549 customers with assistance totaling \$156,956 during this fiscal year.
- Wellderly Week: A five-day event spent with our Banning Seniors. We use this opportunity to spend quality time with an overlooked segment of our community. The original premise of Wellderly Week is to focus on the physical and mental well-being of the senior community. We work with the Banning Senior Center staff to plan a fun week that combines the promotion of physical and mental well-being of our Banning Senior Center attendees with outreach and education about the Banning Electric Utility; discussion and one-on-one assistance applying for our rebates and programs; and energy-saving giveaways.
- Energy Saving Trees Event: Annual event giving away 200 complementary trees to residential City of Banning Electric Utility customers. This partnership with the Arbor Day Foundation is a one-stop-shop program. Our staff chooses the date and time for the tree disbursement and the tree species to be given away. Our goal is to select drought-tolerant trees that create a wonderful shade canopy, and do not have invasive roots. Once the trees are chosen and the portal is active, customers go into the Arbor Day Foundation portal and choose the best location for planting their energy-saving trees and then register for up to two free trees. The trees are then available for drive-thru pickup on a specified date and time here at the Electric Utility parking lot.

**TABLE Banning-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	62	269,872	2,698,720	49	215,898	2,158,976	782	\$219,213	1.02	0.54	0.123
Appliance & Plug Loads	2	13,536	105,122	2	12,488	95,059	33	\$10,656	0.94	1.05	0.133
Building Envelope	30	24,786	494,208	23	15,935	318,284	115	\$42,350	1.47	1.59	0.196
HVAC - Cooling	8	19,699	264,398	7	16,424	225,792	87	\$84,659	0.58	0.90	0.496
Lighting - Outdoor	3	6,574	74,870	1	5,110	59,150	27	\$8,697	0.81	0.86	0.184
Miscellaneous	0	61,500	1,230,000	0	49,200	984,000	353	\$74,104	1.39	1.03	0.111
Energy Efficiency	104	395,966	4,867,318	83	315,055	3,841,262	1,396	\$439,679	1.04	0.73	0.148
EE, Low Income and Electrification	104	395,966	4,867,318	83	315,055	3,841,262	1,396	\$439,679	1.04	0.73	0.148
<b>C&amp;S and T&amp;D</b>											
Utility Total	104	395,966	4,867,318	83	315,055	3,841,262	1,396	\$439,679	1.04	0.73	0.148

**TABLE Banning-2. Energy Efficiency Program Results by Sector**

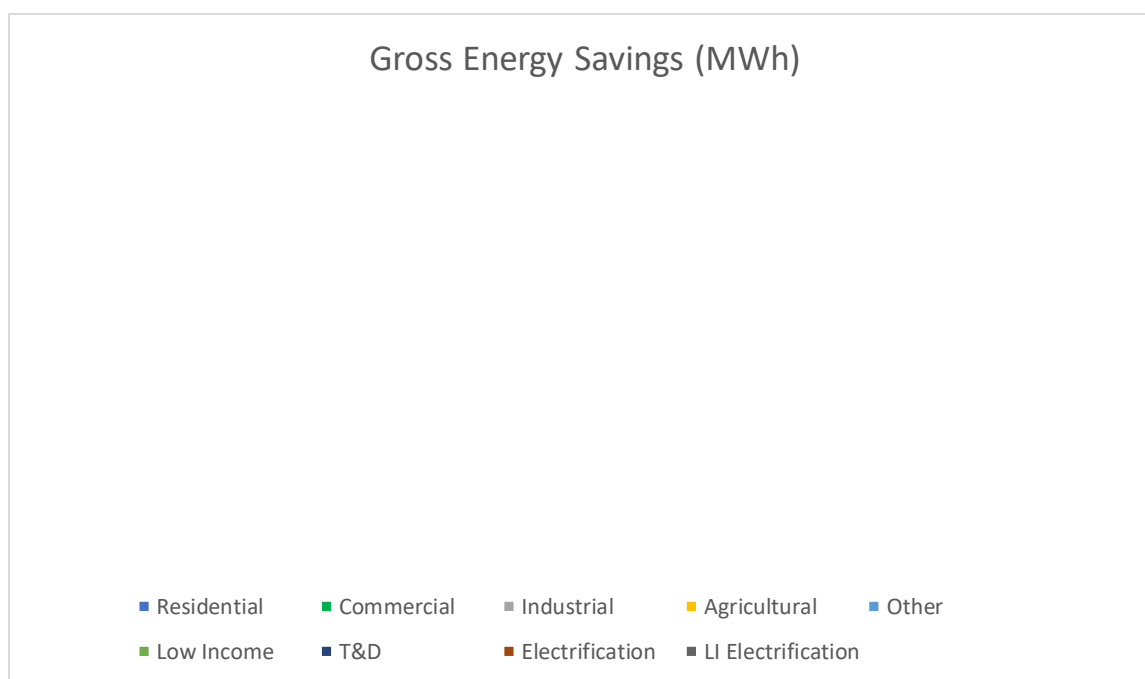
Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	0	6,000	72,000	0	4,800	57,600	27	\$6,655	1.04	1.04	0.146
Residential	104	389,966	4,795,318	83	310,255	3,783,662	1,369	\$433,024	1.04	0.72	0.148
Energy Efficiency	104	395,966	4,867,318	83	315,055	3,841,262	1,396	\$439,679	1.04	0.73	0.148
EE, Low Income and Electrification	104	395,966	4,867,318	83	315,055	3,841,262	1,396	\$439,679	1.04	0.73	0.148
C&S and T&D											
Utility Total	104	395,966	4,867,318	83	315,055	3,841,262	1,396	\$439,679	1.04	0.73	0.148

**TABLE Banning-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	5	73,364	1,290,021	4	59,857	1,037,948	372	\$81,317	1.33	1.02	0.113
Multiple	62	270,808	2,707,396	49	215,898	2,158,976	782	\$219,513	1.02	0.54	0.123
Other Commercial	0	6,000	72,000	0	4,800	57,600	27	\$6,655	1.04	1.04	0.146
Residential	37	42,498	753,834	29	31,853	550,793	203	\$126,599	0.89	1.19	0.323
Residential - Single-Family	0	3,296	44,067	0	2,648	35,944	13	\$5,595	0.71	0.96	0.203
Energy Efficiency	104	395,966	4,867,318	83	315,055	3,841,262	1,396	\$439,679	1.04	0.73	0.148
EE, Low Income and Electrification	104	395,966	4,867,318	83	315,055	3,841,262	1,396	\$439,679	1.04	0.73	0.148
C&S and T&D											
Utility Total	104	395,966	4,867,318	83	315,055	3,841,262	1,396	\$439,679	1.04	0.73	0.148

***Biggs at a Glance***

- Climate Zone(s): 11
- Customers: 694
- Total annual retail sales: 5,043 MWh
- Annual Retail Revenue: \$1,187,745
- Annual energy efficiency expenditures for reporting year: \$0
- Gross annual savings from reporting year portfolio: 0 MWh

***Biggs Overview***

The City of Biggs is primarily a small residential city with one large industrial customer. A significant portion of the City's population is either low-income or senior citizens living on fixed incomes.

**Major Program and Portfolio Changes**

There have been no major changes in programs offered.

### **Complementary Programs**

Low-Income Programs: Biggs works with the Community Action Agency of Butte County to provide Home Energy Assistance Program (HEAP) grants to income-qualified households within our service territory. Complimentary on-site energy audits are performed by our partner, Efficiency Services Group, to resolve high usage complaints.

**TABLE Biggs-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
HVAC - Cooling	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D								\$0			
Utility Total	0	0	0	0	0	0	0	\$0			0.000

**TABLE Biggs-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D									\$0		
Utility Total	0	0	0	0	0	0	0	\$0			0.000

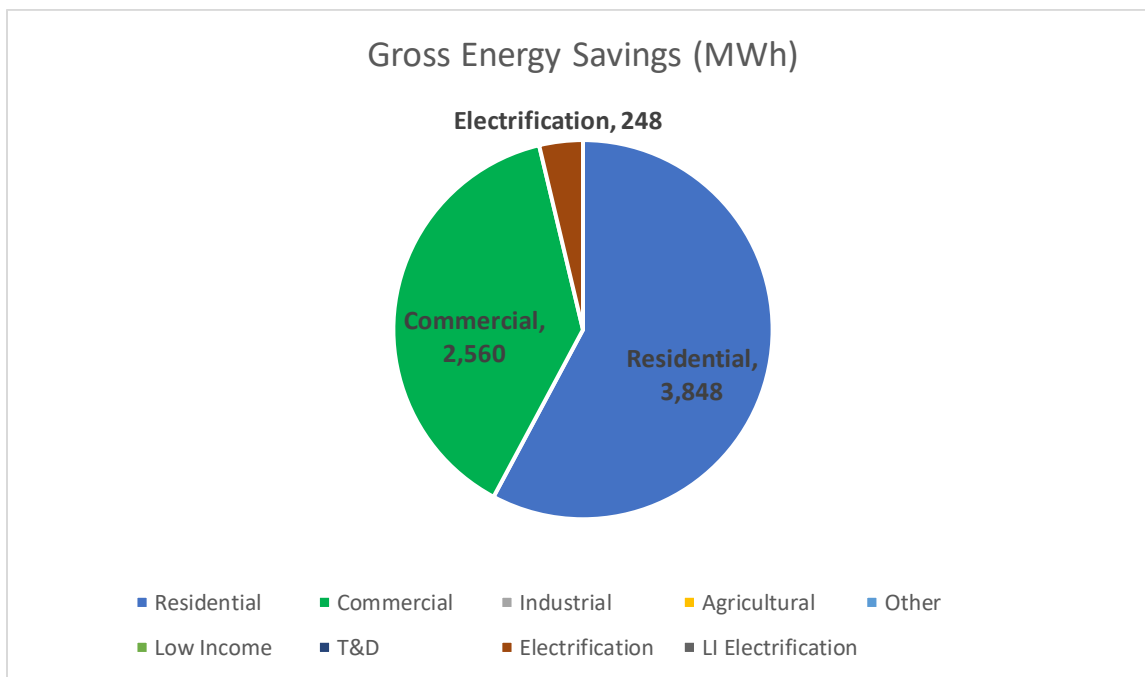
**TABLE Biggs-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Warehouse - Refrigerated	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D								\$0			
Utility Total	0	0	0	0	0	0	0	\$0			0.000

## BURBANK WATER & POWER

### *Burbank Water & Power at a Glance*

- Climate Zone: 9
- Customers: 53,628
- Total annual retail sales: 961,401 MWh
- Annual Retail Revenue: \$191,991,000
- Annual energy efficiency expenditures for reporting year: \$1,825,791
- Gross annual savings from reporting year portfolio: 6,655 MWh



### *Burbank Water & Power Overview*

Burbank Water & Power (BWP) provides electric, water, and fiber optic network services to its customers. Burbank is located in the eastern part of the San Fernando Valley, in Los Angeles County and is in California's Climate Zone 9.

Billed as the "Media Capital of the World," Burbank boasts more than 1,000 media and entertainment companies such as Walt Disney Studios, Warner Bros., Cartoon Network, Netflix and Nickelodeon. There are also numerous small media businesses in the City of Burbank. Burbank also features unique shopping and dining neighborhoods like Downtown Burbank and Magnolia Park. The Empire Center, the Burbank Town Center, and one of North America's largest IKEAs are also in Burbank.

The residential community of Burbank consists of about 22,000 single-family homes that range from post-war bungalows to two-story homes. There are also about 24,000 multi-family dwellings, and the number of multi-family homes continues increasing with infill and high-density development.

The Integrated Resource Plan (IRP), adopted by the Burbank City Council in November 2023, directs BWP to reduce GHG emissions by implementing energy efficiency, demand response programs, beneficial electrification programs, and integrating carbon-free energy.

BWP actively promotes Transportation Electrification by offering educational initiatives and programs, including the Used Electric Vehicle (EV) Rebate Program, Residential EV Charger Rebate Program, and Commercial EV Charger Rebate Program. BWP is also committed to making public charging easy. BWP owns and operates 107 public charging ports in Burbank.

### **Major Program and Portfolio Changes**

In fiscal year 24/25, BWP started offering electrification rebates for residential customers. This new program, called "Electrify Your Home," has rebates for customers who replace their gas equipment with efficient electric alternatives such as heat pumps, induction stovetops, heat pump water heaters, and other common electrification measures.

### **Program and Portfolio Highlights**

BWP manages a comprehensive program portfolio that delivers value to Burbank residents and businesses. Programs focus on energy efficiency, behavioral-based savings, peak load reduction, low-income assistance, and clean technologies that mitigate greenhouse gas emissions. BWP continues to strive for increased participation in existing energy efficiency programs and launch new programs to increase savings. Programs must have the customer in mind, as their success is ultimately dependent on the customer's actions.

The Home Improvement Program (HIP) continues to be one of the most popular residential programs. This program includes energy and water surveys, installation of both energy and water-saving measures, and home weatherization services, available to all single-family and multi-family customers in Burbank. The HIP services are provided at no cost to BWP customers, with all energy-water efficiency measures prioritized based on their cost-effectiveness.

### **Commercial, Industrial & Agricultural Programs**

- **Business Rebates:** Businesses in Burbank can receive a rebate from the Business Rebates program by retiring inefficient equipment and installing new energy-efficient equipment. BWP offers a menu of deemed incentives and an option for a custom rebate based on annual energy savings achieved.

- **Business Bucks Program:** The program offers small and mid-sized businesses an energy efficiency survey and retrofits.
- **LED Street Lighting Project:** The program provides incentives for replacing inefficient high-pressure sodium (HPS) streetlights with energy-efficient LEDs. The last remaining non-LED lamps are decorative and are being replaced upon burnout.

### **Residential Programs**

- **Home Rewards Rebate Program:** BWP provides rebates for purchasing and installing ENERGY STAR® rated appliances and high-efficiency measures.
- **Home Improvement Program:** The program offers energy-water surveys, energy-water measures installation, and home weatherization services to all Burbank single-family and multi-family customers.
- **Electrify Your Home:** BWP provides rebates for efficient electrification measures such as heat pump water heaters. The program requires the replacement of gas equipment, and the capping of the gas line for the replaced equipment.
- **Energy Saving Trees Program:** The program from the Arbor Day Foundation provides a one-stop shop for residential and commercial customers to learn about the benefits of shade trees and get complimentary shade trees delivered to their property for planting. When properly sited, mature shade trees provide shade that helps reduce air conditioning costs and loads on the grid.
- **Student Energy and Water Education Program:** The program provides energy and water education services, materials, and conservation kits to sixth-grade students attending public schools in Burbank.
- **OPower Web Portal:** Residential customers can access their electric usage information through the Opower Web Portal to better understand their energy usage and reduce their electricity consumption.
- **Home Energy Reports:** The program provides energy reports to residential customers on their energy usage and educates them about more energy-efficient usage within a home through feedback and tips.
- **Weekly Energy Updates:** The program provides a weekly email report to residential customers to inform them about their energy usage patterns and trends.
- **High Bill Alerts:** The program uses AMI data to help customers save energy and money when they are likely to use more energy than usual.

### **Complementary Programs**

- Lifeline Program: Offers a reduced electric rate for low-income qualified senior or disabled customers.
- Burbank Utility Service Subsidy Program: Offers a 12% discount on electric service to income-qualified residents.
- Life Support Program: Offers low-income qualified customers with life support equipment an exemption from the utility user tax.
- Project Share Program: Offers income-qualified customers a one-time yearly stipend towards their utility bills. The program is funded by community donations.
- Charging Station Rebates: Customers who install a Level 1 smart outlet, Level 2 (240V) EV charger or DC Fast Charger are eligible for a rebate from BWP. Residential customers can get a reimbursement for up to \$1,500 per charging port for their home, and commercial customers can get a rebate for up to \$20,000 per charging port for their business.
- Used EV Rebates: To support the adoption of EVs, the program offers residential customers a \$1,000 rebate towards a pre-owned EV purchase. It is designed for customers who prefer pre-owned EVs or have income constraints to acquire a new EV.

### **Evaluation, Measurement & Verification Studies**

BWP is committed to providing cost-effective, ongoing EM&V efforts for its energy efficiency programs. EM&V costs are covered in the individual program budgets. Conservation staff and the Key Account Manager review all program applications for completeness and accuracy. To support EM&V activities, in-person inspections are completed for Business Rebates. BWP utilized an EM&V consultant to analyze its business rebate portfolio, recommend adjustments to efficiency standards, recommend cost-effective rebate amounts, and draft a business rebate catalog.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

The majority of energy savings values used to evaluate BWP's programs are sourced from the Technical Reference Manual (TRM), developed for California's Publicly Owned Utilities (POUs). In cases where a particular measure is not listed in the TRM, BWP typically relies on a verified utility work paper or custom savings analysis, supplemented by vendor calculations to estimate energy savings.

**TABLE BWP-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	842	2,444,923	36,673,845	842	2,444,923	36,673,845	11,537	\$648,151	12.03	1.64	0.024
Appliance & Plug Loads	1	43,150	488,169	1	43,150	488,169	168	\$25,108	2.71	0.47	0.064
Building Envelope	29	217,806	4,348,562	29	217,806	4,348,562	960	\$34,139	14.84	5.31	0.012
HVAC - Cooling	11	61,639	1,284,011	11	61,639	1,284,011	490	\$51,906	5.09	4.82	0.062
Lighting - Outdoor	64	291	5,820	64	291	5,820	3	\$43,684	7.26	7.26	11.043
Miscellaneous	198	3,640,012	12,877,363	198	3,640,012	12,877,363	4,194	\$722,341	2.06	1.11	0.062
Energy Efficiency	1,146	6,407,820	55,677,770	1,146	6,407,820	55,677,770	17,351	\$1,525,329	6.85	1.63	0.035
Appliance & Plug Loads	0	336	4,662	0	336	4,662	-0	\$602	-0.05	-0.01	0.169
HVAC - Heat Pump	0	238,863	3,582,950	0	238,863	3,582,950	751	\$296,624	0.93	0.56	0.111
Service & Domestic Hot Water	0	8,460	76,139	0	8,460	76,139	12	\$3,237	1.30	1.72	0.052
Electrification	0	247,660	3,663,751	0	247,660	3,663,751	763	\$300,463	0.94	0.56	0.109
EE, Low Income and Electrification	1,146	6,655,480	59,341,522	1,146	6,655,480	59,341,522	18,114	\$1,825,791	5.87	1.55	0.040
C&S and T&D											
Utility Total	1,146	6,655,480	59,341,522	1,146	6,655,480	59,341,522	18,114	\$1,825,791	5.87	1.55	0.040

**TABLE BWP-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	945	2,559,734	37,710,345	945	2,559,734	37,710,345	11,870	\$803,961	10.36	1.70	0.028
Residential	201	3,848,086	17,967,425	201	3,848,086	17,967,425	5,482	\$721,367	2.93	1.39	0.048
Energy Efficiency	1,146	6,407,820	55,677,770	1,146	6,407,820	55,677,770	17,351	\$1,525,329	6.85	1.63	0.035
Residential	0	247,660	3,663,751	0	247,660	3,663,751	763	\$300,463	0.94	0.56	0.109
Electrification	0	247,660	3,663,751	0	247,660	3,663,751	763	\$300,463	0.94	0.56	0.109
EE, Low Income and Electrification	1,146	6,655,480	59,341,522	1,146	6,655,480	59,341,522	18,114	\$1,825,791	5.87	1.55	0.040
C&S and T&D											
Utility Total	1,146	6,655,480	59,341,522	1,146	6,655,480	59,341,522	18,114	\$1,825,791	5.87	1.55	0.040

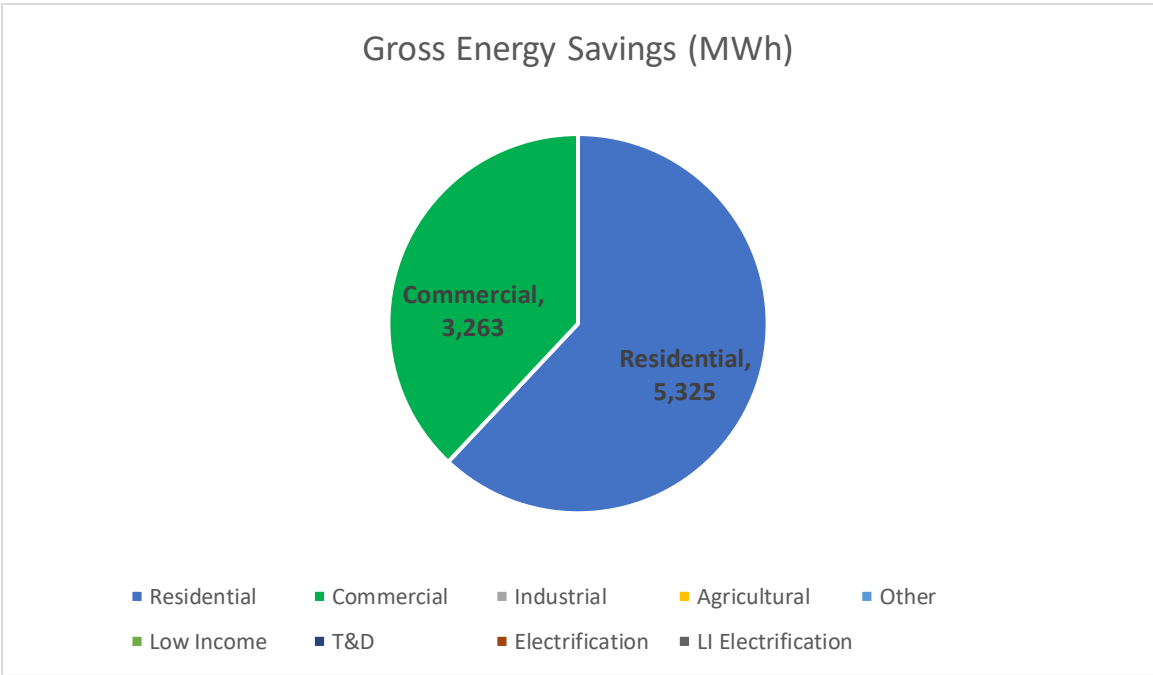
**TABLE BWP-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	945	2,559,734	37,710,345	945	2,559,734	37,710,345	11,870	\$803,961	10.36	1.70	0.028
Multiple	0	353	3,175	0	353	3,175	1	\$280	3.80	5.48	0.104
Residential	199	3,776,633	16,924,623	199	3,776,633	16,924,623	5,193	\$692,020	2.88	1.47	0.049
Residential - Single-Family	2	71,100	1,039,628	2	71,100	1,039,628	288	\$29,068	3.96	0.74	0.038
Energy Efficiency	1,146	6,407,820	55,677,770	1,146	6,407,820	55,677,770	17,351	\$1,525,329	6.85	1.63	0.035
Multiple	0	247,660	3,663,751	0	247,660	3,663,751	763	\$300,463	0.94	0.56	0.109
Electrification	0	247,660	3,663,751	0	247,660	3,663,751	763	\$300,463	0.94	0.56	0.109
EE, Low Income and Electrification	1,146	6,655,480	59,341,522	1,146	6,655,480	59,341,522	18,114	\$1,825,791	5.87	1.55	0.040
<b>C&amp;S and T&amp;D</b>											
Utility Total	1,146	6,655,480	59,341,522	1,146	6,655,480	59,341,522	18,114	\$1,825,791	5.87	1.55	0.040

# COLTON ELECTRIC UTILITY

## Colton Electric Utility at a Glance

- Climate Zone: 10
- Customers: 19,828
- Total annual retail sales: 336,505 MWh
- Annual Retail Revenue: \$82,905,440
- Annual energy efficiency expenditures for reporting year: \$668,409
- Gross annual savings from reporting year portfolio: 8,588 MWh



## Colton Overview

Colton Electric Utility (CEU) was established by Ordinance 119 on October 17th, 1895. For 130 years CEU has been committed to providing cost-effective, reliable power and energy efficiency (EE) programs for the Colton Electric Service territory. CEU proactively pursues new strategies to engage residents and businesses to participate in EE programs. CEU continues to focus on reducing demand on the grid through energy efficiency rebates, direct EE installation programs, inter-utility partnerships with Southern California Gas Company, programs to serve the low-income, and education and outreach.

### **Major Program and Portfolio Changes**

Some of the major changes affecting our programs this year were the consolidation of small businesses that provide EE programs. Many were acquired which led to price increases and in some cases eliminating the programs altogether. The Energy Services team continues to market and provide more online services for a growing population of computer-literate customers.

### **Program and Portfolio Highlights**

Synergy Companies was able to improve their direct installation program by adding additional measures to lower the demand of cooling costs in the summer. Synergy Companies installed whole house fans for eligible customers in our service territory. In the future, they plan to expand this type of program to more homes, including those with limited attic space and even manufactured homes.

### **Commercial, Industrial & Agricultural Programs**

EE Rebates Non-Residential: Commercial and industrial customers participating in lighting and equipment upgrades and custom measures were rebated \$0.10 per kWh saved on the projected first year's savings.

- Municipal Direct Install: This program provided direct installation of energy efficiency measures throughout city-owned facilities.
- Commercial DI: Small business customers with less than 20 kW of demand participated in an energy audit and direct install of EE measures up to \$5,000 per business.
- The Commercial/Industrial Energy Rebate Program provides rebates to commercial/industrial customers that install new energy efficiency equipment from lighting upgrades to programs specific to the customer's business. The amount of the rebate depends upon the annual energy savings.
- Lighting and Equipment Upgrade Rebates: Commercial and industrial buildings can benefit from substantial rebates given for improving lighting and equipment by increasing energy efficiency and lowering consumption. CEU offers \$.10 per kWh saved on the projected first year of savings.
- Commercial Energy Audit: Commercial businesses can participate in CEU commercial energy audit ASHRAE I or level II. Businesses who participate in this audit can be eligible for additional direct install opportunities depending on audit recommendations. This is a program to assist businesses who are concerned with their energy consumption and want to learn how they can minimize their usage, shift their load, and save on energy costs.

- Multifamily Energy Efficiency Direct Install Program: apartment complexes throughout CEU territory can apply to have common area EE upgrades in lighting, thermostats, and AC tune-ups.
- Sustainability Partners: Colton Sustainability partners are champions of the environment, stewards of efficiency, and are committed to the goals of our community. As a partner, a business demonstrates civic pride, a dedication to sustainability and actively seek incentives that benefit both the business and the community at large. CEU will celebrate the business' proactive vision. There are three ways to become a partner:
  - 1) Energy Efficiency – Equipment upgrades, demand-side management, renewables
  - 2) Water Conservation – Drought tolerant landscaping, installation of water-efficient devices (such as smart irrigation controllers)
  - 3) Recycling – Participation in the Commercial Recycling Program, innovative implementation of Commercial/Industrial Recycling & Organics program.

### **Residential Programs**

Energy Efficiency (EE) Upgrade Rebates: CEU offers a variety of rebates on several home energy efficiency improvements. Currently CEU offers rebates on: occupancy sensors, energy star ceiling fans, pool pumps, solar attic fans, whole house fans, room ACs, evaporative coolers, solar tube lights, energy star clothes washers, energy star dishwasher and energy star refrigerators, and smart thermostats. Customers who participate in the rebate program will experience a reduction in their annual energy costs. Additional programs listed below:

- AC Tune-Up Rebate: This program offers a rebate for preventative maintenance on residential customer AC units up to 5 tons in size. The program requires the customer to select their own licensed AC contractor that will replace filters, check refrigerant levels, and adjust the AC unit to minimize seasonal air conditioning costs.
- Air Conditioner Upgrade and Replacement Program: This program offers up to \$200/ton rebate to replace an old AC with a SEER2 15.3 or higher AC system. Upgrading AC systems will significantly lower a residential customer's energy costs.
- Online Energy Audit: Colton Electric Utility's new online energy assessment tool assists customers find ways to save energy and money. The MyEnergyXpert is easy to use and designed to be completed in just a few minutes. This assessment tool provides an easy-to-follow improvement plan. Residents will also be connected to rebates available through the online platform that also links to the web shop.
- Residential Energy Audit: CEU residential customers with energy usage of over 10,000 kWh annually can qualify to participate in a residential energy audit. Participants can be eligible for additional direct install opportunities depending on audit recommendations.

For customers who previously participated in an energy audit in the past two years with over 10,000 kWh of usage they can participate in up to \$500 of direct install measured recommendations.

- Residential Weatherization Rebates: CEU offers residential customers rebates for installing replacement windows and insulation in their homes. Windows must meet Energy Star approval with a U-Factor less than 0.35 and SHGC less than 0.30 at a rebate amount of \$4.00 per sq. ft. Insulation may be added to the attic, and/or exterior walls. Rebates will also be provided for radiant barriers installed within the attic space. Insulation and radiant barrier must meet the following R-Values:
  - Attic Insulation - Minimum R-30    Rebate is \$0.40 per sq. ft.
  - Radiant Barrier - Minimum R-19    Rebate is \$0.30 per sq. ft.
  - Exterior Walls - Minimum R-13    Rebate is \$0.20 per sq. ft.
- Treebate: CEU residents are offered up to \$50.00 a tree to plant an approved tree on their property that would reduce their energy bill by providing shade to their home. Residents have a maximum of 5 trees in a lifetime.

#### **Complementary Programs**

- Electric Vehicles: CEU continues to grow its EV program. The utility currently has 18 level II public chargers available, an EV incentive rate which adds 250 kWh to residential 2nd Tier of energy, a used EV rebate of \$1000 and a low-income rebate of \$1500 and an EV charger rebate of \$500 for level II chargers. CEU also installed 7 Level II chargers for fleet and one 50Kw fast charger.
- Electrification incentives: CEU will continue to explore incentive programs to reduce GHG emissions through electrification. Heat pump water heaters are being evaluated for a future incentive.

#### **Evaluation, Measurement & Verification Studies**

CEU contracts with Alternative Energy Services Consulting (AESC) annually to complete CEU programs studies of the residential and commercial program and associated savings. Current studies are available on CEU website, ([www.ci.colton.ca.us/DocumentCenter/View/3225](http://www.ci.colton.ca.us/DocumentCenter/View/3225)). CEU will continue to make EM&V reports available to the CEC and other parties as they are completed and will continue with its EM&V programs and practices in the future, budgeting \$10,000 per year.

#### **Major Differences or Diversions from CA POU TRM for Energy Savings**

The sources used to calculate program performance were the TRM and DEER data. The TRM vs. 2.4.4 was utilized for all measures that get updated in all Title 24 code changes.

**TABLE CEU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	1	29,379	330,927	0	13,179	156,225	53	\$2,945	1.46	1.33	0.101
Building Envelope	6	34,303	681,536	2	9,605	190,830	43	\$228	26.92	0.00	0.002
HVAC - Cooling	455	3,372,591	83,378,355	401	3,360,073	83,252,679	29,543	\$274,637	33.55	3.64	0.005
Lighting - Indoor	92,512	1,191,542	13,532,223	92,479	878,816	11,968,591	4,258	\$340,974	3.79	3.23	0.040
Lighting - Outdoor	6,498	89,301	1,339,516	6,498	89,301	1,339,516	621	\$4,707	33.55	1.05	0.005
Miscellaneous	11	1,017,730	10,177,305	11	1,017,730	10,177,305	2,559	\$18,083	33.55	33.51	0.002
Water Pumping / Irrigation	159	2,853,517	2,853,517	159	2,853,517	2,853,517	1,092	\$10,394	33.55	33.55	0.004
Energy Efficiency	99,643	8,588,364	112,293,380	99,551	8,222,222	109,938,664	38,169	\$651,968	17.60	0.20	0.009
EE, Low Income and Electrification	99,643	8,588,364	112,293,380	99,551	8,222,222	109,938,664	38,169	\$651,968	17.60	0.20	0.009
Codes & Standards	709	2,070,280	2,070,280	709	2,070,280	2,070,280	781	\$6,842	33.55	33.55	0.003
Codes & Standards	709	2,070,280	2,070,280	709	2,070,280	2,070,280	781	\$6,842	33.55	33.55	0.003
C&S and T&D	709	2,070,280	2,070,280	709	2,070,280	2,070,280	781	\$6,842	33.55	33.55	0.003
Utility Total	100,352	10,658,644	114,363,660	100,260	10,292,502	112,008,944	38,950	\$658,809	17.77	0.20	0.009

**TABLE CEU-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	6,668	3,263,256	11,083,641	6,668	3,263,256	11,083,641	4,019	\$72,460	16.67	6.44	0.009
Residential	92,975	5,325,109	101,209,739	92,883	4,958,966	98,855,023	34,150	\$579,508	17.72	0.18	0.009
Energy Efficiency	99,643	8,588,364	112,293,380	99,551	8,222,222	109,938,664	38,169	\$651,968	17.60	0.20	0.009
EE, Low Income and Electrification	99,643	8,588,364	112,293,380	99,551	8,222,222	109,938,664	38,169	\$651,968	17.60	0.20	0.009
Commercial	709	2,070,280	2,070,280	709	2,070,280	2,070,280	781	\$6,842	33.55	33.55	0.003
Codes & Standards	709	2,070,280	2,070,280	709	2,070,280	2,070,280	781	\$6,842	33.55	33.55	0.003
C&S and T&D	709	2,070,280	2,070,280	709	2,070,280	2,070,280	781	\$6,842	33.55	33.55	0.003
Utility Total	100,352	10,658,644	114,363,660	100,260	10,292,502	112,008,944	38,950	\$658,809	17.77	0.20	0.009

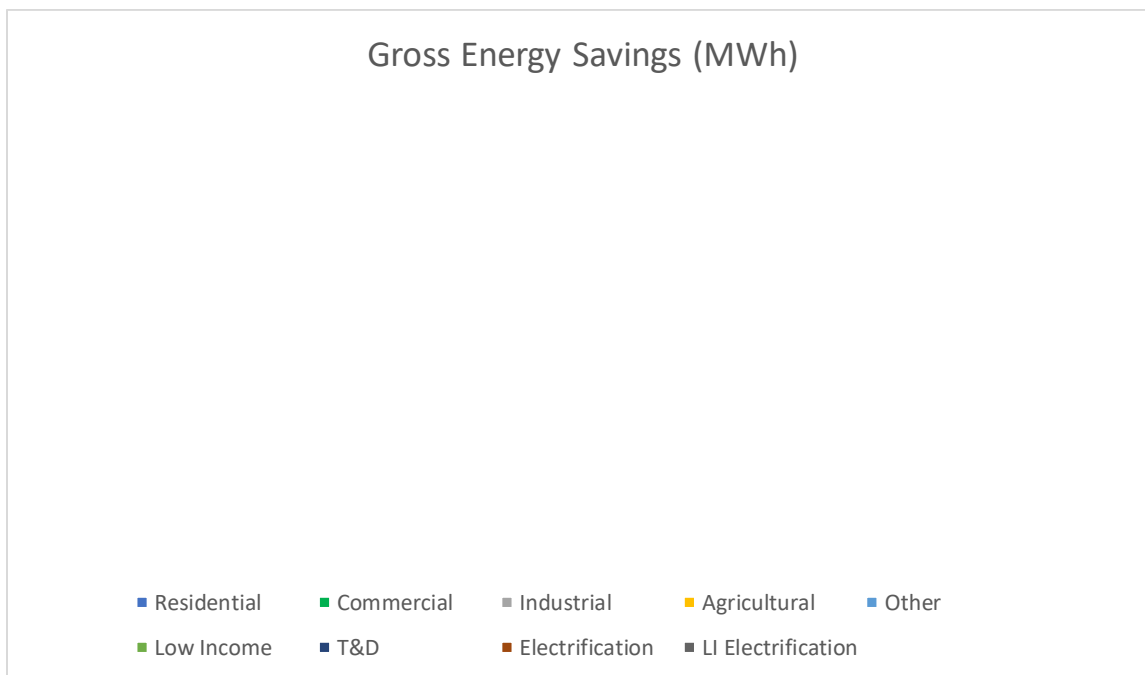
**TABLE CEU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	74	680,830	3,414,050	40	367,708	1,844,478	717	\$6,682	33.55	0.62	0.004
Lodging - Hotel	10	74,688	746,880	10	74,688	746,880	253	\$2,813	33.55	33.55	0.005
Office - Large	0	245,749	6,143,728	0	245,749	6,143,728	2,053	\$54,546	11.13	25.96	0.014
Other Agricultural	159	2,853,517	2,853,517	159	2,853,517	2,853,517	1,092	\$10,394	33.55	33.55	0.004
Other Commercial	6,498	89,301	1,339,516	6,498	89,301	1,339,516	621	\$4,707	33.55	1.05	0.005
Residential	6	37,088	714,589	2	10,723	204,829	46	\$204	33.55	0.90	0.001
Residential - Single-Family	92,895	4,607,191	97,081,100	92,841	4,580,536	96,805,716	33,387	\$572,622	17.53	0.18	0.009
Energy Efficiency	99,643	8,588,364	112,293,380	99,551	8,222,222	109,938,664	38,169	\$651,968	17.60	0.20	0.009
EE, Low Income and Electrification	99,643	8,588,364	112,293,380	99,551	8,222,222	109,938,664	38,169	\$651,968	17.60	0.20	0.009
Any	709	2,070,280	2,070,280	709	2,070,280	2,070,280	781	\$6,842	33.55	33.55	0.003
Codes & Standards	709	2,070,280	2,070,280	709	2,070,280	2,070,280	781	\$6,842	33.55	33.55	0.003
C&S and T&D	709	2,070,280	2,070,280	709	2,070,280	2,070,280	781	\$6,842	33.55	33.55	0.003
Utility Total	100,352	10,658,644	114,363,660	100,260	10,292,502	112,008,944	38,950	\$658,809	17.77	0.20	0.009

## CORONA UTILITIES DEPARTMENT

### *Corona Utilities Department at a Glance*

- Climate Zone: 10
- Customers: 1,845
- Total annual retail sales: 82,300 MWh
- Annual Retail Revenue: \$11,668,000
- Annual energy efficiency expenditures for reporting year: \$0
- Gross annual savings from reporting year portfolio: 0 MWh



### *Corona Utilities Department Overview*

- Established in 2001 with unbundled generation services to existing investor-owned utility customers and bundled service to customers that continue to build new facilities located in the designated service territory.
- All bundled customers' facilities meet or exceed the applicable Title 24 requirements, which reduces the opportunity for energy savings.
- Customers reside in climate zone 10.

- Peak demand was 18.7 megawatts.
- Ninety percent of bundled energy sales were to non-residential customers.
- The budget for energy efficiency programs was \$313,301 and no energy efficiency expenditures were incurred in the reporting year.

### **Major Program and Portfolio Changes**

The energy efficiency rebate program was expanded in 2024 and Corona Utilities Department (CUD) began advertising to customers in early 2025.

### **Program and Portfolio Highlights**

- CUD serves municipal facilities that can be interrupted as scheduled.
- The first round of rebates were issued in July 2025 and will be included in the next reporting year.

### **Commercial, Industrial & Agricultural Programs**

- Packaged Terminal AC (PTAC)/High Temperature High Pressure (HTHP) Unit ( $\leq 2.5$  Ton): \$100 per ton, up to 25% of total project cost or \$25,000 whichever is less.
- Package AC or Heat Pump: \$200 per ton, up to 25% of total project cost or \$25,000 whichever is less.
- Energy Efficiency Upgrade Projects: Up to \$25,000 credit based on the estimated kWh savings for one year at the ERG/NEM rate.

### **Residential Programs**

- Box/Floor Fan: Up to \$15 each
- Occupancy Sensors: Up to \$15 each
- Smart Thermostat\*: Up to \$50 each
- Ceiling Fan: Up to \$50 each
- Stand-alone Freezer\*: Up to \$50
- Stand-alone Refrigerator or Combo Refrigerator\*: Up to \$100
- Clothes Washer\*: Up to \$100
- Clothes Dryer\*: Up to \$100
- Dishwasher\*: Up to \$100
- Induction Stove\*: Up to \$200
- AC Tune-Up: Up to \$80

- AC Purchase, New or Replacement: \$200 per ton up to 25% of total project cost  
\* Item must be listed on energystar.gov

### **Complementary Programs**

- Renewable Energy Programs: Net Metering Program: 24 customers (combined capacity of 1,164 kW) are billed on CUD's net metering tariff schedule.
- CUD Solar Installations: CUD has installed 350 kW of photovoltaic systems.
- Electric Vehicles: CUD installed eight electric charging vehicle stations.
- Energy Storage: Achieved commercial operation for a long-term photovoltaic generating facility power purchase agreement coupled with an 8 MW battery energy storage system.

### **Evaluation, Measurement & Verification Studies**

Engineering analysis programs are the basis for energy savings and incentive calculations. The Energy Efficiency Technical Reference Manual provided energy savings estimates for CUD programs.

**TABLE CUD-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	0	0	0	0	0	0	0	\$0			0.000
Building Envelope	0	0	0	0	0	0	0	\$0			0.000
HVAC - Cooling	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D								\$0			
Utility Total	0	0	0	0	0	0	0	\$0			0.000

**TABLE CUD-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	0	0	0	0	0	0	0	\$0			0.000
Residential	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D								\$0			
Utility Total	0	0	0	0	0	0	0	\$0			0.000

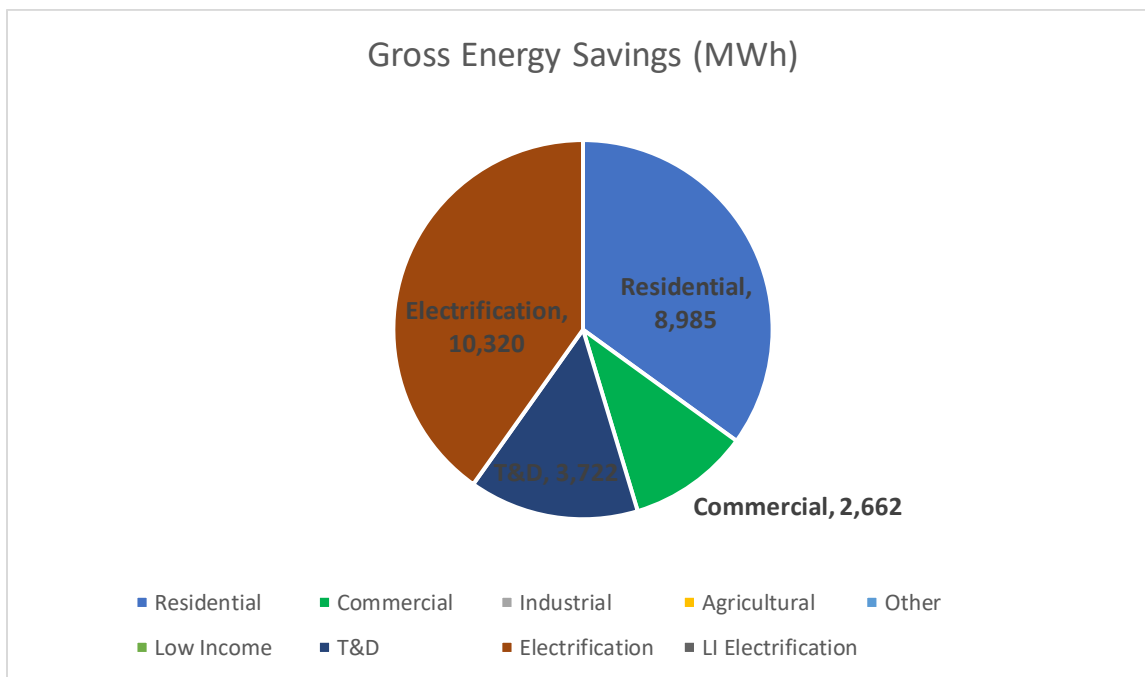
**TABLE CUD-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	0	0	0	0	0	0	0	\$0			0.000
Residential	0	0	0	0	0	0	0	\$0			0.000
Residential - Multi-Family	0	0	0	0	0	0	0	\$0			0.000
Residential - Single-Family	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D								\$0			
Utility Total	0	0	0	0	0	0	0	\$0			0.000

## GLENDALE WATER & POWER

### *Glendale Water & Power at a Glance*

- Climate Zone: 9
- Customers: 91,000
- Total annual retail sales: 993,009 MWh
- Annual Retail Revenue: \$296,145,000
- Annual energy efficiency expenditures for reporting year: \$7,070,174
- Gross annual savings from reporting year portfolio: 25,690 MWh



### *Glendale Overview*

Glendale Water & Power (GWP) is a municipal utility that provides essential electric and water services to over 91,000 electric customers and over 34,000 water customers. Located in Climate Zone 9, the City of Glendale spans 31 square miles and has a population of around 188,000. GWP is dedicated to helping both residents and businesses reduce their energy and water costs through a variety of residential and commercial programs focused on promoting conservation and improving energy-water use efficiency.

In fiscal year (FY) 2024-2025, GWP's energy efficiency programs achieved a total net annual energy savings of 25,690 MWh and reduced peak demand by 0.8 MW. GWP remains committed

to investing in conservation and energy-water use efficiency programs for residential, commercial, and industrial customers.

Glendale is also committed to ensuring a clean energy future for its citizens and by developing policies and programs that help achieve a low-carbon future. Through reliable, affordable, and sustainable clean energy projects, Glendale continues to establish itself as leader in clean energy, with a focus on transitioning to a more sustainable future.

### **Major Program and Portfolio Changes**

In FY 2024-2025, all GWP programs were up and running with no significant portfolio changes. The achieved peak load savings were less than the prior year, mainly due to the increase in electrification projects and the decrease in lighting projects under the Business Energy Upgrade Program, which offered direct installation of energy-saving measures.

### **Program and Portfolio Highlights**

GWP's Business Energy Upgrade Program, Home Energy Reports, and the In-School Energy and Home Energy Saving Upgrades Program produced the most energy savings. The Business Energy Upgrade Program offered a no cost energy audit audits and direct installation of energy efficiency measures for Glendale businesses, consistently meeting and exceeding the program's annual goals. The Home Energy Reports program reached the majority of residential customers and provided constant communication, engagement, and insights.

### **Commercial, Industrial & Agricultural Programs**

Building energy efficiency partnerships with our commercial, industrial, and institutional customers has always been a priority for Glendale.

- Business Energy Upgrade Program: This seven-year commercial direct-install energy efficiency program is designed to deliver up to 8.3 MW and 36,500 MWh of energy savings in commercial buildings by the end of the program term.
- Business Energy Solutions Program: This program provides incentives for medium and large businesses to complete pre-approved energy saving retrofit projects. Qualified customers can receive up to \$100,000 in incentives per fiscal year. Projects must be cost-effective from the customer's perspective based on the value of total estimated energy savings over the life of the installed measures. Incentives for approved retrofit projects are limited to 40% of eligible project cost or 100% of the incremental costs necessary to bring a remodeling and/or new construction project above the minimum Title 24 energy standard. In no case will an incentive exceed the value saved energy over the life of the measures assuming \$0.06 per kWh saved.

### **Residential Programs**

- Home Energy Reports: The program provides print and email energy reports to residential customers on their energy use. Reports also include action steps for each household to help them reduce their electricity consumption. Currently, the program is integrating the existing two-month billing data and a wealth of external data sources to educate customers on how they can save energy. The program provides access to the website where residential customers can review their energy usage in monthly, weekly, daily or hourly intervals.
- Home Energy Savings Rebates: The program offers incentives to encourage the purchase of high-efficiency measures and appliances, including rebates for all-electric home appliances, helping customers electrify their homes and reduce their carbon footprint.
- Tree Power: The program provides up to three no-cost shade trees along with arborist services to ensure proper planting. When correctly sited and cared for, healthy, mature shade trees provide cooling shade for homes, helping reduce air conditioning usage.
- Home Energy Saving Upgrade Program: The program provided no-cost home assessments and the installation of energy and water saving devices, including LED lights.

### **Complementary Programs**

#### Low-Income Programs:

In FY 2024-2025, 59% of the annual Public Benefit Charge (PBC) expenditure went towards funding the below low-income programs.

- Glendale Care: In the first half of FY 2024-2025 the program offered all eligible low-income customers a monthly discount of \$23.50 on their electric bills, which was increased to \$35 as of January 2025.
- Helping Hand: This program assists eligible low-income customers facing a temporary financial hardship by providing a \$150 bill credit towards a bill or deposit payment.
- Guardian: This program provides monthly bill discounts to households using doctor prescribed electrical medical equipment.

#### Transportation Electrification:

GWP continues to meet the growing demand for electric vehicles (EV) by investing in EV infrastructure and customer programs.

- EV Infrastructure: GWP is committed to expanding its public charging network to make EV charging more accessible and support the growing number of electric vehicles on the road.
- Residential EV Charging Station Rebate Program: This program offers rebates of up to \$599 for residential customers, who install a new Level 2 EV charging station and an additional \$800 for required electric panel upgrades. Customers enrolled in the Glendale Care bill assistance program are eligible for higher rebates.
- Commercial EV Charging Station Rebate Program: This program provides rebates to commercial and multi-family building customers who install EV charging stations at their properties. The base rebate is the lesser of \$50,000 or 50% of the total project cost. Eligible customers who meet additional criteria may receive up to \$75,000 or 75% of the total project cost.
- Electric Bicycle Rebates: This program provides a rebate of up to \$300 to residential customers who purchase a new electric bicycle. The rebate is higher for customers enrolled in the Glendale Care bill assistance program.
- Off-Peak EV Charging Rebate Program: The program provides a monthly incentive of \$15 to EV drivers who set their vehicles to charge during off-peak hours, helping to reduce peak load. This program uses AMI data to verify charging times, making the program available to any electric vehicle and any EV charger.
- EV Customer Awareness Website: This educational website offers customers with information on new and used EVs, available incentives, home charging options, EV dealers, and a map of public charging stations.

#### Research, Development, and Demonstration:

- Conservation Voltage Reduction (CVR): This program conserves electricity by operating electric customer voltages in the lower half of the ten percent (10%) voltage band required by ANSI equipment standards. The CVR program builds on GWP's investment in Automated Metering Infrastructure (AMI) by using meter data to reduce power costs by increasing the efficiency of GWP's distribution system. During the 2024-2025 FY, the program produced energy savings of 3,722 MWh.

#### **Evaluation, Measurement & Verification Studies**

GWP plans to initiate Evaluation, Measurement & Verification (EM&V) analysis of energy efficiency programs in support of AB 2021. For the FY 2024-2025 Glendale has budgeted \$50,000 to conduct EM&V studies, which will be conducted by a third-party contractor. GWP

also plans to assess all energy efficiency programs in terms of cost effectiveness, customer participation and efficient administration.

**Major Differences or Diversions from CA POU TRM for Energy Savings**

The sources of energy savings used to calculate program performance were a combination of the Technical Reference Manual (TRM), work papers, and third-party energy efficiency verification.

**TABLE GWP-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC
Appliance & Plug Loads	1	73,556	874,749	1	73,417	872,799	329	\$162,425	0.71	0.96	0.235
Building Envelope	2	3,474	52,780	2	3,474	52,780	20	\$11,942	1.06	0.93	0.312
HVAC - Cooling	93	78,017	2,270,265	92	77,929	2,268,945	772	\$159,787	5.67	6.54	0.123
Lighting - Indoor	486	3,015,218	35,477,082	486	3,015,218	35,477,082	10,183	\$1,585,755	3.52	2.92	0.056
Miscellaneous	190	8,477,573	21,232,946	190	8,477,573	21,232,946	7,421	\$979,529	2.78	2.78	0.049
<b>Energy Efficiency</b>	<b>772</b>	<b>11,647,838</b>	<b>59,907,822</b>	<b>772</b>	<b>11,647,611</b>	<b>59,904,552</b>	<b>18,724</b>	<b>\$2,899,437</b>	<b>3.22</b>	<b>2.95</b>	<b>0.058</b>
Appliance & Plug Loads	0	13,034	188,423	0	13,034	188,423	-10	\$40,445	-0.59	-0.45	0.285
HVAC - Heat Pump	0	118,210	1,773,143	0	118,210	1,773,143	293	\$60,667	0.07	0.08	0.046
Miscellaneous		10,143,335	121,720,020		10,143,335	121,720,020	33,327	\$3,911,771	3.51	3.51	0.040
Service & Domestic Hot Water	0	45,160	451,604	0	45,160	451,604	70	\$9,849	-0.21	-0.15	0.026
<b>Electrification</b>	<b>0</b>	<b>10,319,739</b>	<b>124,133,190</b>	<b>0</b>	<b>10,319,739</b>	<b>124,133,190</b>	<b>33,680</b>	<b>\$4,022,732</b>	<b>3.41</b>	<b>3.40</b>	<b>0.041</b>
<b>EE, Low Income and Electrification</b>	<b>772</b>	<b>21,967,577</b>	<b>184,041,012</b>	<b>772</b>	<b>21,967,349</b>	<b>184,037,742</b>	<b>52,405</b>	<b>\$6,922,170</b>	<b>3.33</b>	<b>3.20</b>	<b>0.047</b>
Any	0	3,722,200	3,722,200	0	3,722,200	3,722,200	1,522	\$148,004	2.70	2.70	0.040
T&D	0	3,722,200	3,722,200	0	3,722,200	3,722,200	1,522	\$148,004	2.70	2.70	0.040
C&S and T&D	0	3,722,200	3,722,200	0	3,722,200	3,722,200	1,522	\$148,004	2.70	2.70	0.040
<b>Utility Total</b>	<b>772</b>	<b>25,689,777</b>	<b>187,763,212</b>	<b>772</b>	<b>25,689,549</b>	<b>187,759,942</b>	<b>53,927</b>	<b>\$7,070,174</b>	<b>3.32</b>	<b>3.19</b>	<b>0.046</b>

**TABLE GWP-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	486	2,662,451	31,949,412	486	2,662,451	31,949,412	8,871	\$1,497,426	3.42	2.81	0.059
Residential	286	8,985,387	27,958,410	285	8,985,160	27,955,140	9,853	\$1,402,011	3.01	3.15	0.056
Energy Efficiency	772	11,647,838	59,907,822	772	11,647,611	59,904,552	18,724	\$2,899,437	3.22	2.95	0.058
Commercial		10,143,335	121,720,020		10,143,335	121,720,020	33,327	\$3,911,771	3.51	3.51	0.040
Residential	0	176,404	2,413,170	0	176,404	2,413,170	354	\$110,961	-0.20	-0.18	0.060
Electrification	0	10,319,739	124,133,190	0	10,319,739	124,133,190	33,680	\$4,022,732	3.41	3.40	0.041
EE, Low Income and Electrification	772	21,967,577	184,041,012	772	21,967,349	184,037,742	52,405	\$6,922,170	3.33	3.20	0.047
Any	0	3,722,200	3,722,200	0	3,722,200	3,722,200	1,522	\$148,004	2.70	2.70	0.040
T&D	0	3,722,200	3,722,200	0	3,722,200	3,722,200	1,522	\$148,004	2.70	2.70	0.040
C&S and T&D	0	3,722,200	3,722,200	0	3,722,200	3,722,200	1,522	\$148,004	2.70	2.70	0.040
Utility Total	772	25,689,777	187,763,212	772	25,689,549	187,759,942	53,927	\$7,070,174	3.32	3.19	0.046

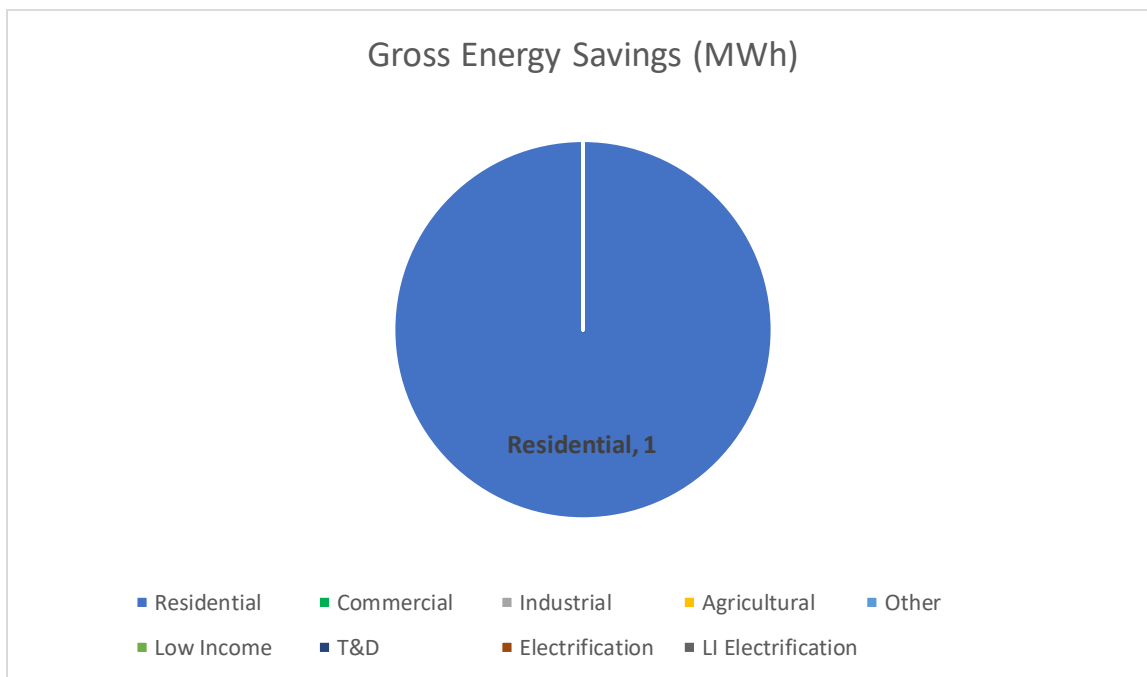
**TABLE GWP-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	82	158,964	1,893,917	82	158,964	1,893,917	528	\$177,445	2.65	0.94	0.118
Multiple	594	3,398,046	39,002,062	594	3,397,907	39,000,111	11,412	\$1,712,528	3.66	3.66	0.055
Residential	3	7,958,480	16,077,084	2	7,958,392	16,075,764	5,741	\$717,951	2.23	2.22	0.046
Residential - Single-Family	93	132,348	2,934,758	93	132,348	2,934,758	1,043	\$291,513	3.45	4.42	0.160
Energy Efficiency	772	11,647,838	59,907,822	772	11,647,611	59,904,552	18,724	\$2,899,437	3.22	2.95	0.058
Multiple	0	10,319,739	124,133,190	0	10,319,739	124,133,190	33,680	\$4,022,732	3.41	3.40	0.041
Electrification	0	10,319,739	124,133,190	0	10,319,739	124,133,190	33,680	\$4,022,732	3.41	3.40	0.041
EE, Low Income and Electrification	772	21,967,577	184,041,012	772	21,967,349	184,037,742	52,405	\$6,922,170	3.33	3.20	0.047
Multiple	0	3,722,200	3,722,200	0	3,722,200	3,722,200	1,522	\$148,004	2.70	2.70	0.040
T&D	0	3,722,200	3,722,200	0	3,722,200	3,722,200	1,522	\$148,004	2.70	2.70	0.040
C&S and T&D	0	3,722,200	3,722,200	0	3,722,200	3,722,200	1,522	\$148,004	2.70	2.70	0.040
Utility Total	772	25,689,777	187,763,212	772	25,689,549	187,759,942	53,927	\$7,070,174	3.32	3.19	0.046

## GRIDLEY MUNICIPAL UTILITY

### *Gridley Municipal Utility at a Glance*

- Climate Zone: 11
- Customers: 3,144
- Total annual retail sales: 34,009 MWh
- Annual Retail Revenue: \$8,323,355
- Annual energy efficiency expenditures for reporting year: \$44,474
- Gross annual savings from reporting year portfolio: 1 MWh



### *Gridley Municipal Utility Overview*

Gridley is a neighborhood community with agricultural roots and a historic downtown. It's located in Butte County, California, United States, 29 miles south of Chico, California, and 56 miles north of Sacramento, California.

Gridley Municipal Utility (GMU) feels a significant responsibility to its community to invest its Public Benefits funds in such a way as to impact both energy savings and financial savings/positive economics in Gridley. GMU offers a comprehensive menu of rebates to all residential, commercial, and industrial customers. GMU's customer demographic has historically resulted in lower customer participation in programs that require capital investment by the customer.

### **Major Program and Portfolio Changes**

There were no major program changes implemented in FY25. GMU has offered a comprehensive menu of energy efficiency rebate programs for many years. Both customers and local contractors find value in maintaining a consistent program.

### **Program and Portfolio Highlights**

Program participation was slightly better than last year with seven residential rebates processed.

### **Commercial, Industrial & Agricultural Programs**

GMU manages a comprehensive energy efficiency incentive program for commercial customers focusing on energy efficiency and peak load reduction. Rebates are available for upgraded lighting, HVAC, appliances, refrigeration equipment, and electronics, and in cases where an analysis is performed rebates can be offered for additional equipment that reduces energy use and/or demand. On-site energy audits are provided by energy specialists. Energy efficiency measures are recommended, and additional visits are completed upon request.

- Commercial Lighting Program: GMU offers rebates to business owners who invest in the installation of energy-efficient lighting upgrades. There is a prevalence of inefficient lighting throughout the city and most high bay lighting uses high-intensity discharge fixtures instead of more efficient fluorescent or LED fixtures.
- Commercial HVAC: The City offers rebates to commercial customers for energy-efficient HVAC upgrades.
- Commercial Refrigeration: Rebates are available to improve the efficiency of commercial refrigeration systems.
- Commercial Appliances: Rebates are available for energy-efficient cooking equipment such as ovens, dishwashers, fryers, griddles, etc.
- Commercial Electronics: The City offers rebates for uninterrupted power supplies, plug-load occupancy sensors, and smart power strips.
- Commercial Custom Program: GMU offers rebates to business owners based on site-specific consumption. Rebates are tailored to the individual business owner's needs based on the audit and the potential energy savings associated with the customer project.

### **Residential Programs**

Rebates are offered to residential customers for the installation of various energy efficiency measures, such as lighting, HVAC, appliances, and weatherization. On-site energy audits are provided by energy specialists. Energy efficiency measures are recommended, and additional visits are completed upon request.

- Residential Lighting Program: GMU offers rebates to homeowners who install ENERGY STAR® qualified LED lamps/bulbs, ceiling fans, and LED holiday lights.
- Residential HVAC Program: GMU offers rebates to homeowners who install high-performance heat pumps, central air-conditioners, room air-conditioners, or whole house fans that exceed current state requirements. GMU also offers a rebate for duct sealing when not required by code.
- Residential Equipment Program: GMU offers rebates to homeowners who purchase new ENERGY STAR-qualified products, including clothes washers, room air conditioners, dishwashers, pool pumps, and refrigerators.
- Residential Weatherization Program: GMU offers rebates to homeowners who invest in weatherizing their homes, including attic and wall insulation, window treatments, window replacement, or air/duct sealing.
- Residential Water Heater Rebate Program: GMU offers rebates to homeowners who purchase a new, energy-efficient electric water heater.

### **Complementary Programs**

When applicable, GMU refers customers to the state-funded Community Action Agency HEAP Program for low-income Butte County residents.

### **Evaluation, Measurement & Verification Studies**

Information on GMU's EM&V is available at <https://www.cmua.org/>.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

GMU has relied heavily on the savings listed in the CMUA Technical Resource Manual and eTRM Unit Energy Savings. Non-residential lighting and custom projects rely on custom savings calculations.

**TABLE GMU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	0	122	1,533	0	52	659	0	\$10,308	0.01	0.01	19.937
Building Envelope	0	-355	-3,546	0	-99	-993	-0	\$7,743	0.00	0.00	-9.430
HVAC - Cooling	1	1,439	18,538	0	845	11,204	5	\$26,422	0.07	0.07	3.101
Energy Efficiency	1	1,206	16,525	0	798	10,870	5	\$44,474	0.04	0.04	5.412
EE, Low Income and Electrification	1	1,206	16,525	0	798	10,870	5	\$44,474	0.04	0.04	5.412
C&S and T&D											
Utility Total	1	1,206	16,525	0	798	10,870	5	\$44,474	0.04	0.04	5.412

**TABLE GMU-2. Energy Efficiency Program Results by Sector**

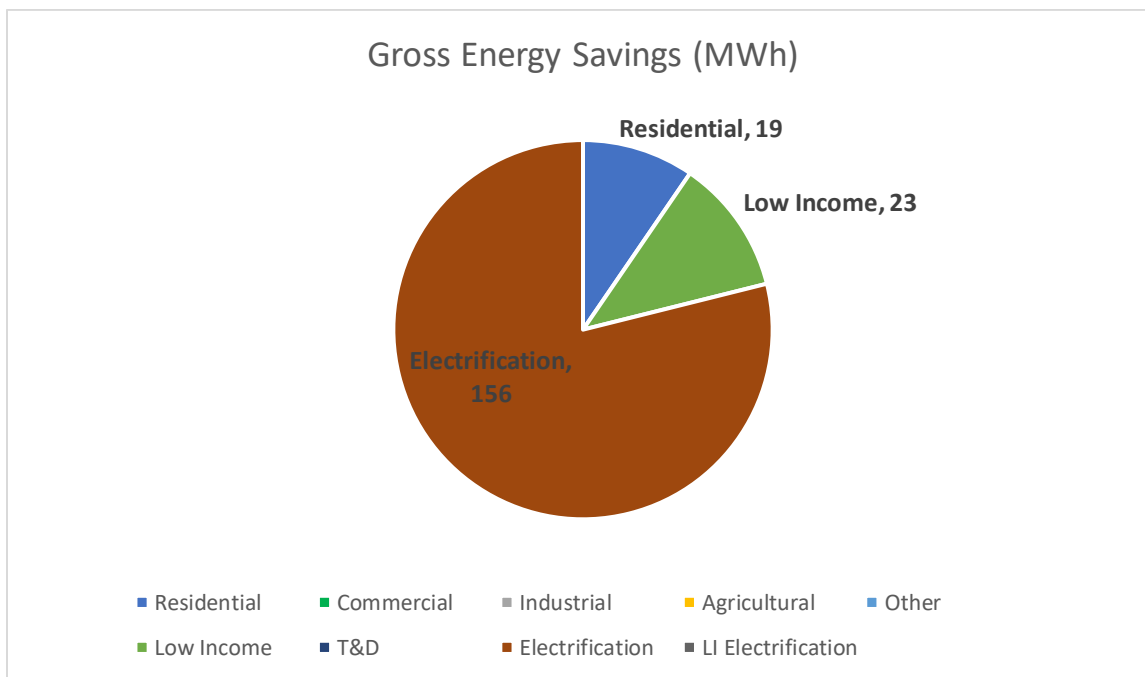
Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Residential	1	1,206	16,525	0	798	10,870	5	\$44,474	0.04	0.04	5.412
Energy Efficiency	1	1,206	16,525	0	798	10,870	5	\$44,474	0.04	0.04	5.412
EE, Low Income and Electrification	1	1,206	16,525	0	798	10,870	5	\$44,474	0.04	0.04	5.412
<b>C&amp;S and T&amp;D</b>											
Utility Total	1	1,206	16,525	0	798	10,870	5	\$44,474	0.04	0.04	5.412

**TABLE GMU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	1	1,473	19,014	0	859	11,409	5	\$30,611	0.06	0.06	3.527
Residential	0	-267	-2,489	0	-61	-538	0	\$13,862	0.01	0.01	-30.131
Energy Efficiency	1	1,206	16,525	0	798	10,870	5	\$44,474	0.04	0.04	5.412
EE, Low Income and Electrification	1	1,206	16,525	0	798	10,870	5	\$44,474	0.04	0.04	5.412
C&S and T&D											
Utility Total	1	1,206	16,525	0	798	10,870	5	\$44,474	0.04	0.04	5.412

**Healdsburg Electric at a Glance**

- Climate Zone: 2
- Customers: 6,144
- Total annual retail sales: 80,905 MWh
- Annual Retail Revenue: \$18,023,210
- Annual energy efficiency expenditures for reporting year: \$374,574
- Gross annual savings from reporting year portfolio: 198 MWh



**Healdsburg Overview**

The City of Healdsburg’s Electric Department (Healdsburg Electric) manages a comprehensive energy efficiency and greenhouse gas reduction program for residential and commercial customers by incentivizing energy conservation, peak load reduction, and efficient electrification. For residential customers, rebates help drive installations of a variety of energy efficiency and efficient electrification measures. Residential rebates are offered in the following areas: appliances, heating and cooling, and weatherization. Commercial rebates are predominately for heat pump projects or site-specific lighting upgrades. For commercial customers, rebates can also include custom programs when analysis demonstrates savings. This custom rebate approach allows greater flexibility and variety of incentives to the commercial end users. These energy rebates and other greenhouse gas reduction programs are

predominately supported by proceeds from the Cap-and-Invest Program allocations. (Unless otherwise indicated, all programs discussed in this narrative are funded by proceeds from the Cap-and-Invest Program allocations.)

### **Major Program and Portfolio Changes**

During 2025, Healdsburg Electric continued implementing a multi-family program for appliance replacements in income-qualified multi-family properties. Healdsburg Electric has also continued the promotion and implementation of existing rebate programs.

In 2025, Healdsburg Electric made minor modifications to the rebate programs as needed for continuous program improvement and also continued implementation of a new Home Energy Load Management program for managed EV charging and smart thermostat control. Additionally, Healdsburg Electric supported an in-depth energy audit of the Wastewater Reclamation Facility, one of the highest electricity consumers in the City, to identify energy efficiency opportunities for the treatment facility.

### **Program and Portfolio Highlights**

Healdsburg Electric continued implementation of the strategies and actions outlined in its citywide Climate Mobilization Strategy to help reduce greenhouse gas (GHG) emissions in Healdsburg. One of these programs is the Appliance Replacement Program for income-qualified multi-family properties, which completed refrigerator replacements at four eligible properties in 2025, with two more properties in progress and another pre-assessment completed to determine appliance eligibility at one more property. Healdsburg Electric collaborated with a local non-profit organization that received a Climate Mayors Community Climate Implementation Fund grant award for the non-profit group's support with outreach and on-the-ground implementation of the program.

### **Commercial, Industrial & Agricultural Programs**

Healdsburg Electric offers the following commercial programs:

- **Commercial Lighting Rebates:** This program promotes energy-efficient lighting upgrades and lighting sensors/controls through technical assistance and financial incentives available from Healdsburg Electric. In 2025, adjustments to the lighting calculator used to estimate savings were made due to new building codes and health and safety regulations regarding the sale of mercury light fixtures.
- **Commercial HVAC Rebates:** Healdsburg Electric offers commercial customers a variety of HVAC rebates. There are rebate offerings for heat pump HVAC systems and heat pump water heaters to promote efficient electric space heating and cooling and water heating.

- **Electric Kitchen Equipment:** Healdsburg Electric offers rebates for efficient electric commercial kitchen equipment, based on the California Energy Wise program.
- **Custom EE Programs:** Healdsburg Electric will consider site-specific custom energy efficiency or electrification projects. Healdsburg Electric requires that its contractor review and endorse all custom programs. This review confirms the estimated savings and allows greater flexibility for the program. Healdsburg Electric retains the sole right to approve or deny custom projects. The in-depth energy audit of the Wastewater Reclamation Facility is expected to result in one or more custom program rebates. The audit was supported by Public Benefits Funds to identify innovative and cost-effective energy efficiency opportunities for the treatment facility, which had \$29,112.66 in consultant and program staff costs in 2025.

### **Residential Programs**

Healdsburg Electric offers the following residential programs:

- **Residential Heat Pump Rebates:** Healdsburg Electric offers rebates for residential and small business customers who install high performance heat pump HVAC systems and/or heat pump water heaters. Higher rebate amounts are available for replacing an existing natural gas appliance with an efficient electric heat pump. New in 2025, Healdsburg Electric also offers a heat pump pool heater rebate for existing natural gas pool heaters that switch to an efficient heat pump pool heater.
- **Weatherization Rebates:** Healdsburg Electric provides financial incentives for property owners who invest in home weatherization such as ceiling insulation or wall insulation. In 2025, Healdsburg Electric sunset its efficient window replacement rebate.
- **Laundry Rebates:** Healdsburg Electric offers incentives for high performance clothes washers to encourage energy efficiency and water conservation. Clothes dryer rebates are also offered to further encourage energy efficiency and electric heat pump clothes drying.
- **Device Rebates:** In 2025, Healdsburg Electric sunset its variable speed pool pump rebate. The smart thermostat rebate also ended in late 2024 with the launch of the Home Energy Load Management program, which provides enrollment and ongoing incentives for smart thermostats. However, smart thermostat rebates are still available for low-income customers who enroll their new thermostat in the load management program.
- **Electric Stove:** Healdsburg Electric offers an electric stove/cooktop rebate to promote electric cooking in place of cooking with natural gas. To inform customers regarding electric cooktops, specifically induction cooktops, Healdsburg Electric also offers a free

induction cooktop loaner for customers interested in cooking with electricity rather than natural gas. The loaner program includes pans compatible with induction cooktops.

- **Multi-Family Income-Restricted Properties:** Healdsburg Electric continued implementation of an appliance replacement program for multi-family income-restricted properties. The program includes replacing old inefficient appliances with efficient electric appliances, starting with dishwashers and refrigerators. Of the 8 identified properties, four have completed the replacements in 2025, two are in progress, one declined participation, and one was determined to be ineligible. An additional eligible property was identified and has completed their pre-assessment. For the two properties that were in progress, an initial rebate was processed in 2025 to help property management with the upfront appliance purchase costs and a final rebate is processed after installation verification. Savings for these two properties will be claimed in the year of the installation verification and final rebate. Healdsburg Electric collaborated with a local non-profit focused on Spanish-speaking outreach and support that received a Climate Mayors Community Climate Implementation Fund grant award. The non-profit, Corazón Healdsburg, provided additional on-the-ground support to property managers and residents. During the program, the non-profit also promoted additional programs in which the property management or residents could participate. In Phase 1 of the Appliance Replacement Program, it was the responsibility of the property manager to solicit appliance quotes and coordinate the installation, which stalled program progress at the properties given the property managers' multiple priorities and day-to-day property management demands. In 2025, Healdsburg Electric began planning for Phase 2 of the program, which will potentially include direct install and/or additional technical support to address these challenges.

### **Complementary Programs**

Healdsburg Electric offers the following complementary programs:

- **Low-Income Programs:** Healdsburg Electric actively supports a low-income discount for income-qualified customers. This program was expanded during COVID to include customers with income at 80% or below area median income. Currently, this discount supports approximately 576 families, or about 11% of residential customers. Income-qualified customers receive a 25% discount on their electric bill through this program. In 2025, electric bill discounts totaled \$110,036.00 with staff administration and overhead costs of \$83,729.88, totaling \$193,765.88 for the program. The low-income bill discount is the primary program supported by Public Benefits Funds.
- **Electric Vehicles:** Healdsburg Electric offered an EV Discount for residents who drive a battery electric vehicle and switch to the Time of Use rate. This program sunset in June 2025. The new Home Energy Load Management program replaced the EV Discount Program and provides better management of peak energy demands caused by EV charging and smooths the overnight demands from EV charging.

- **Public EV Charging:** Healdsburg Electric operates 24 public charging ports with affordable user fees, located at four public parking locations. The user fee structure was updated in 2024 to better recover electric costs and discourage charging during evening peak hours. A 50% discount on the user fees is available for low-income customers, supported by proceeds from Low Carbon Fuel Standards. In 2025, Healdsburg Electric expanded public charging opportunities with 10 new charging ports at 2 downtown public parking lots (included in the totals above). Healdsburg Electric also offers a commercial EV charger rebate to encourage workplace charging and charging during the day when abundant solar is available.
- **Home Energy Load Management:** Healdsburg Electric launched its Home Energy Load Management Program in late 2024 for managed EV charging and smart thermostat control. Low-income EV owners that do not have a home charger can also qualify for an EV charger rebate including a supplemental rebate if a panel/service upgrade is needed (supported by proceeds from Low Carbon Fuel Standards), if they enroll the charger and/or EV in the load management program.
- **E-bikes:** Healdsburg Electric offers an e-bike rebate for residents who purchase an e-bike to replace driving trips. This program provides various levels of rebates relative to customer income and purchase location to help offset the cost of purchasing an e-bike.
- **Technical Consulting on all-electric construction:** The City of Healdsburg implemented a Reach Code in 2019, which was updated in 2022, that required electric space and water heating in new construction. Although the Reach Code is no longer being enforced, Healdsburg Electric still offers free technical consulting through a consultant engineering firm to support builders and contractors interested in all-electric construction.
- **Green Rate:** Healdsburg Electric offers a voluntary opt-in 100% renewable electricity rate for an approximately \$0.3 additional charge per kWh. Roughly 8% of electricity usage is attributed to customers enrolled in the Green Rate. All municipal accounts are on the Green Rate and make up the majority of this usage.
- **Renewable Energy Programs:** Healdsburg Electric continues to see PV solar array installations in both residential and commercial sectors. At the end of 2025, there was a total of 7.16 MWac of interconnected solar capacity and 0.96 MW of battery capacity. This includes Healdsburg Electric's 3 MWac floating photovoltaic (FPV) system at the City's Water Reclamation Facility. The system provides about 7% of community-wide annual electric needs. In 2025, the system generated 5,570 MWh directly into Healdsburg Electric's distribution system and offset roughly 0.5 MW of the peak coincident demand.

- **Water Conservation:** The City of Healdsburg Water Department offers multiple water conservation programs, such as lawn conversion, high efficiency toilets, irrigation controllers, and more. During the multi-year drought significantly impacting Healdsburg, there was increased promotion and participation in these rebates. Customers continued their water conservation in 2025 with an approximately 16% reduction in potable water consumption, compared to before the drought. Water conservation can help reduce the amount of electricity needed for treating and conveying water. Funding for water conservation programs is primarily funded by the City’s water department and regional conservation grants.

**Evaluation, Measurement & Verification Studies**

EM&V previously completed by the City of Healdsburg is available at [www.cmua.org](http://www.cmua.org).

**Major Differences or Diversions from CA POU TRM for Energy Savings**

In 2025, Healdsburg Electric predominately relied on the California eTRM streamlined values for savings calculations. Fuel substitution calculations provide the negative kWh savings and positive therm savings, which are converted to claim the total equivalent energy savings in kWh.

For the Appliance Replacement Program for income-qualified multi-family properties, refrigerator kWh savings are determined by comparing the appropriate ENERGY STAR Flip Your Fridge estimation for the existing appliance with the actual ENERGY STAR information for the replacement appliance. Dishwasher kWh savings are determined by comparing the existing appliance Energy Guide with the replacement appliance Energy Guide.

Savings for the Commercial Lighting Program are calculated based on the actual equipment replaced and installed.

**TABLE Healdsburg-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results			
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	0	1,115	17,838	0	1,115	17,838	1	\$3,375	0.19	0.11	0.258	
HVAC - Heat Pump	0	150,783	2,261,752	0	150,783	2,261,752	320	\$156,017	0.73	0.45	0.092	
Service & Domestic Hot Water	0	4,074	40,741	0	4,074	40,741	6	\$3,636	0.78	0.76	0.108	
<b>Electrification</b>	<b>0</b>	<b>155,972</b>	<b>2,320,331</b>	<b>0</b>	<b>155,972</b>	<b>2,320,331</b>	<b>326</b>	<b>\$163,028</b>	<b>0.72</b>	<b>0.45</b>	<b>0.094</b>	
Appliance & Plug Loads	0	156	1,874	0	67	806	0	\$271	0.29	0.06	0.423	
Building Envelope	0	1,190	23,795	0	500	9,994	2	\$990	0.81	0.43	0.146	
HVAC - Heat Pump	3	13,699	205,490	2	8,494	127,404	54	\$27,342	0.81	0.66	0.287	
Service & Domestic Hot Water	1	3,851	38,510	0	2,118	21,181	8	\$2,611	0.73	0.54	0.149	
<b>Energy Efficiency</b>	<b>3</b>	<b>18,896</b>	<b>269,669</b>	<b>2</b>	<b>11,178</b>	<b>159,384</b>	<b>64</b>	<b>\$31,214</b>	<b>0.80</b>	<b>0.62</b>	<b>0.260</b>	
Appliance & Plug Loads	0	22,820	143,035	0	9,813	61,505	22	\$180,331	0.03	0.04	3.374	
<b>Low-Income</b>	<b>0</b>	<b>22,820</b>	<b>143,035</b>	<b>0</b>	<b>9,813</b>	<b>61,505</b>	<b>22</b>	<b>\$180,331</b>	<b>0.03</b>	<b>0.04</b>	<b>3.374</b>	
<b>EE, Low Income and Electrification</b>	<b>3</b>	<b>197,689</b>	<b>2,733,035</b>	<b>2</b>	<b>176,964</b>	<b>2,541,220</b>	<b>413</b>	<b>\$374,574</b>	<b>0.40</b>	<b>0.32</b>	<b>0.196</b>	
<b>C&amp;S and T&amp;D</b>												
Utility Total	3	197,689	2,733,035	2	176,964	2,541,220	413	\$374,574	0.40	0.32	0.196	

**TABLE Healdsburg-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	0	14,456	216,836	0	14,456	216,836	43	\$24,256	0.68	0.66	0.150
Residential	0	141,517	2,103,494	0	141,517	2,103,494	283	\$138,772	0.72	0.42	0.088
Electrification	0	155,972	2,320,331	0	155,972	2,320,331	326	\$163,028	0.72	0.45	0.094
Residential	3	18,896	269,669	2	11,178	159,384	64	\$31,214	0.80	0.62	0.260
Energy Efficiency	3	18,896	269,669	2	11,178	159,384	64	\$31,214	0.80	0.62	0.260
Residential	0	22,820	143,035	0	9,813	61,505	22	\$180,331	0.03	0.04	3.374
Low-Income	0	22,820	143,035	0	9,813	61,505	22	\$180,331	0.03	0.04	3.374
EE, Low Income and Electrification	3	197,689	2,733,035	2	176,964	2,541,220	413	\$374,574	0.40	0.32	0.196
<b>C&amp;S and T&amp;D</b>											
Utility Total	3	197,689	2,733,035	2	176,964	2,541,220	413	\$374,574	0.40	0.32	0.196

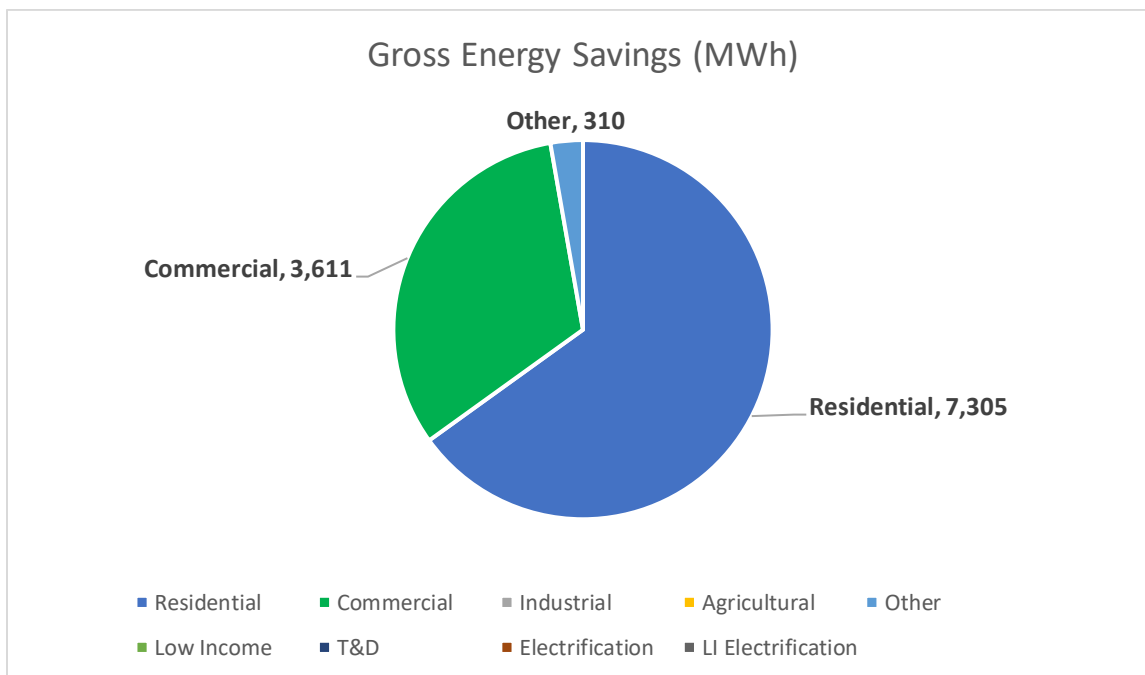
**TABLE Healdsburg-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	0	155,972	2,320,331	0	155,972	2,320,331	326	\$163,028	0.72	0.45	0.094
Electrification	0	155,972	2,320,331	0	155,972	2,320,331	326	\$163,028	0.72	0.45	0.094
Multiple	3	18,740	267,795	2	11,111	158,578	64	\$30,944	0.80	0.64	0.259
Residential	0	156	1,874	0	67	806	0	\$271	0.29	0.06	0.423
Energy Efficiency	3	18,896	269,669	2	11,178	159,384	64	\$31,214	0.80	0.62	0.260
Residential - Multi-Family	0	22,820	143,035	0	9,813	61,505	22	\$180,331	0.03	0.04	3.374
Low-Income	0	22,820	143,035	0	9,813	61,505	22	\$180,331	0.03	0.04	3.374
EE, Low Income and Electrification	3	197,689	2,733,035	2	176,964	2,541,220	413	\$374,574	0.40	0.32	0.196
<b>C&amp;S and T&amp;D</b>											
Utility Total	3	197,689	2,733,035	2	176,964	2,541,220	413	\$374,574	0.40	0.32	0.196

## IMPERIAL IRRIGATION DISTRICT

### *Imperial Irrigation District at a Glance*

- Climate Zone: 15
- Customers: 167,147
- Total annual retail sales: 3,506,672 MWh
- Annual Retail Revenue: \$647,109,779
- Annual energy efficiency expenditures for reporting year: \$12,257,490
- Gross annual savings from reporting year portfolio: 11,226 MWh



### *Imperial Irrigation District Overview*

As the seventh largest utility in California, Imperial Irrigation District (IID) controls more than 1,200 megawatts of energy derived from a diverse resource portfolio that includes its own generation, and long- and short-term power purchases. IID's Energy Department provides electric power to more than 165,000 customers in the Imperial Valley and parts of Riverside and San Diego counties.

As a consumer-owned utility, IID works to efficiently and effectively meet our customers' demands at the best possible rates, tying our area's low-cost of living directly with low-cost utilities. Our diverse resource portfolio provides our customers with some of the lowest cost

rates in southern California which is critical given unemployment rates within the service territory are one of the highest in the nation.

IID's energy efficiency programs are a key factor in the utility's overall goal. These programs provide a positive impact on utility cost by stabilizing energy consumption and reducing purchases of expensive peak power. Additionally, customers are provided with an opportunity to take charge of their energy utilization and by doing so, reducing their electricity consumption and cost.

### **Major Program and Portfolio Changes**

The program portfolio and rebate levels had some additions from the previous year. The IID Board of Directors in 2025 transferred \$5M from the General Fund into the Public Benefits fund to provide further customer benefits and create new annual programs. Though IID's refrigerator recycling program continued, and a new program, EASY (Energy-efficient Appliance Savings Year-round) was introduced. Through EASY, customers signed up for IID's rate-assistance programs could qualify for a brand-new refrigerator replacement.

Furthermore, an HVAC grant program for schools was introduced (GEMS) along with a grant program to fund school sports fields with new LED projects (GLOW).

### **Program and Portfolio Highlights**

IID achieved 94% of its adopted energy saving target goals. A feat which we are proud to share.

IID strives to provide an energy efficiency portfolio tailored toward the unique needs of the ratepayers that generates long-term energy savings while maintaining low-cost, reliable power. With new programs offered, the district's portfolio offers residential customers with staple programs such as energy assessments and prescriptive rebates and non-residential customers with a customized program that allows flexibility necessary to encourage investments in efficient technologies. Lastly, the Weatherization program received such a high volume of interest from customers that even with additional funding allocated to it than originally planned, it was fully subscribed prior to year's end.

### **Commercial, Industrial & Agricultural Programs**

- Custom Energy Solutions Program (CESP): This program is designed to promote energy efficiency by offering financial incentives to commercial customers who install energy-efficiency equipment. The larger commercial customers that participate generally have their own energy efficiency specialists they've consulted with for their upgrades and have identified the details of their project prior to applying for the rebate. However, for all other commercial customers that may not have access to an energy efficiency specialist, IID offers technical expertise to assist them in identifying the energy efficiency

measures and cost saving opportunities. Measures incentivized include interior and exterior lighting, process loads and HVAC/refrigeration.

- **Energy Rewards Rebate Program:** This program offers commercial customers prescriptive rebates for qualified energy efficient measures. Qualifying measures must retrofit, replace or upgrade old equipment with new, energy-efficient technologies that meet and/or exceed the Title 24 standards in effect at the time of installation.
- **Public Green Space Program:** This program offers funding for public tree-planting projects for non-residential agencies for cities, counties, special districts, non-profit organizations, and community organizations.
- **GLOW:** This is a non-residential LED lighting grant program. The primary focus is on replacement of old outdated lighting systems at sports complex facilities with new energy-efficient lighting technology. The concentration is on cities, counties, school districts, special districts, nonprofits, and community organizations, in which they are encouraged to apply.
- **GEMS:** Through GEMS, IID has issued a Call for Projects. The Call for Projects is focused on all public, private and chartered schools (K-12) within IID's service territory. Only school districts qualify. Qualifying energy efficient upgrades are specific to Heating, Ventilation and Air Conditioning (HVAC) measures.

### **Residential Programs**

- **Energy Rewards Rebate Program:** This program offers residential customers prescriptive rebates for qualified energy efficient measures. Qualifying residential measures must retrofit, replace or upgrade old equipment with new, energy-efficient technologies that meet and/or exceed the Title 24 standards in effect at the time of installation.
- **Refrigerator Recycling:** This program is designed to encourage customers to recycle their old refrigerators or freezers rather than using them as a secondary, usually located either in uninsulated garages or outdoors. Through this program, a customer's refrigerator or freezer will be picked-up and recycled, in addition to providing them receiving a \$50 incentive per unit.
- **EV Charger Rebate program (ReCharge):** For those who have chosen to go electric, IID offers rebates of up to \$500 to customers who purchase and install a Level 2 (240-volt) plug-in electric vehicle charger.
- **EASY (Easy Appliance Savings Year-round) program:** IID customers may qualify to replace their old, existing refrigerator for a brand new one for FREE. Only available to customers on IID Rate Assistance programs (READY, EASE, CARE), and on a first come, first serve

basis. (Customers on average payment do not qualify). The existing refrigerator must be in working condition (cooling must function) and more than 5 years old. The new refrigerators are top-mount, white, with no ice maker. Three (3) different sizes will be available to choose from.

- Weatherization: Imperial Irrigation District is pleased to announce its Residential Weatherization Program for 2024 where participating IID electric customers receive energy saving services and equipment that can help reduce heating and cooling costs while boosting their home's comfort level. IID customers currently enrolled in the district's income qualified Residential Energy Assistance Program (REAP) also receive an additional allotment towards installed products and services through the weatherization program. The no-cost services may include: Smart programmable thermostat, Air conditioner tune-up, High efficiency air conditioning motor, Duct leak sealing, Efficient fan control, Ceiling fan, Smart power strip, LED lighting, Door shoes, Door thresholds, Door weather-stripping.
- Tree For All Residential Program: One tree per customer while trees last.

### **Complementary Programs**

- Low-Income Programs  
As a large number of IID's residential customers participate in its income-qualified programs, a significant portion of revenue generated through the public benefits charge is allocated towards these programs. Back in 2019, IID modified its rate assistance eligibility criteria to allow for greater participation by reducing the age for qualifying seniors and increasing the maximum income level.
  - Residential Energy Assistance Program (REAP) – This program provides customers with a discounted rate on their electric bill. Qualification is based on the number of residents per household and the total gross income of all the income sources in the home. Qualifying customers may receive a 20 percent discount on their monthly bill. Qualifying seniors 60 or older may apply to receive a 30 percent discount.
  - Emergency Energy Assistance Program (EEAP) – This program provides financial assistance to customers in a financial crisis, facing disconnection for nonpayment.
  - Medical Equipment Energy Assistance Program (MEEUAP) – This is an assistance program that reduces the electric rate for a defined quantity of electricity used to operate medical equipment by a household that has a full-time resident who requires specific medically necessary electric equipment to sustain life or prevent deterioration of a person's medical condition.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

IID utilized a combination of savings from the TRM, KEMA 2009 report, utility work papers and custom savings when applicable. Prescriptive rebate programs such as Energy Rewards and Refrigerator Recycling used deemed savings values from credited documents for measures such as HVACs, refrigerators, pool pumps, etc., since the individual efficiency measure's performance characteristics and use conditions were well known and consistent. For the CESP program on the other hand, custom savings were calculated (for categories such as lighting, refrigeration, process loads, and HVAC) taking into account the properties of existing equipment, replacement equipment and future use.

**TABLE IID-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC
Appliance & Plug Loads	46	232,054	2,877,130	42	213,944	2,786,578	979	\$1,085,138	0.28	0.28	0.526
Building Envelope	34	309,908	12,396,317	34	309,908	12,396,317	2,018	\$1,114,167	0.79	1.63	0.243
Commercial Refrigeration	51	54,865	1,097,300	43	46,087	921,732	320	\$20,096	4.33	10.14	0.033
HVAC - Cooling	337	1,322,777	26,284,274	337	1,321,244	26,282,741	7,497	\$2,756,790	0.76	7.91	0.160
Lighting - Outdoor	101	2,233,833	44,676,669	84	1,854,082	37,081,635	12,748	\$361,521	10.01	12.84	0.015
Miscellaneous	4,569	7,072,863	67,311,633	4,569	7,072,863	67,311,633	27,051	\$6,696,752	1.19	1.67	0.136
Energy Efficiency	5,138	11,226,300	154,643,323	5,109	10,818,127	146,780,637	50,613	\$12,034,464	1.24	2.15	0.123
Any	0	0	0	0	0	0	0	\$113,590			0.000
Electrification	0	0	0	0	0	0	0	\$113,590			0.000
EE, Low Income and Electrification	5,138	11,226,300	154,643,323	5,109	10,818,127	146,780,637	50,613	\$12,148,054	1.23	2.14	0.124
Codes & Standards	0	24,841,000	24,841,000	0	24,841,000	24,841,000	9,765	\$109,436	23.87	23.87	0.004
Codes & Standards	0	24,841,000	24,841,000	0	24,841,000	24,841,000	9,765	\$109,436	23.87	23.87	0.004
C&S and T&D	0	24,841,000	24,841,000	0	24,841,000	24,841,000	9,765	\$109,436	23.87	23.87	0.004
Utility Total	5,138	36,067,300	179,484,323	5,109	35,659,127	171,621,637	60,378	\$12,257,490	1.44	2.47	0.100

**TABLE IID-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	34	309,908	12,396,317	34	309,908	12,396,317	2,018	\$1,114,167	0.79	1.63	0.243
Commercial	489	3,611,475	72,058,243	463	3,221,413	64,286,109	20,565	\$3,138,407	1.85	10.45	0.075
Residential	4,615	7,304,917	70,188,763	4,611	7,286,807	70,098,211	28,030	\$7,781,890	1.07	1.41	0.152
Energy Efficiency	5,138	11,226,300	154,643,323	5,109	10,818,127	146,780,637	50,613	\$12,034,464	1.24	2.15	0.123
Other	0	0	0	0	0	0	0	\$113,590			0.000
Electrification	0	0	0	0	0	0	0	\$113,590			0.000
EE, Low Income and Electrification	5,138	11,226,300	154,643,323	5,109	10,818,127	146,780,637	50,613	\$12,148,054	1.23	2.14	0.124
Residential	0	24,841,000	24,841,000	0	24,841,000	24,841,000	9,765	\$109,436	23.87	23.87	0.004
Codes & Standards	0	24,841,000	24,841,000	0	24,841,000	24,841,000	9,765	\$109,436	23.87	23.87	0.004
C&S and T&D	0	24,841,000	24,841,000	0	24,841,000	24,841,000	9,765	\$109,436	23.87	23.87	0.004
Utility Total	5,138	36,067,300	179,484,323	5,109	35,659,127	171,621,637	60,378	\$12,257,490	1.44	2.47	0.100

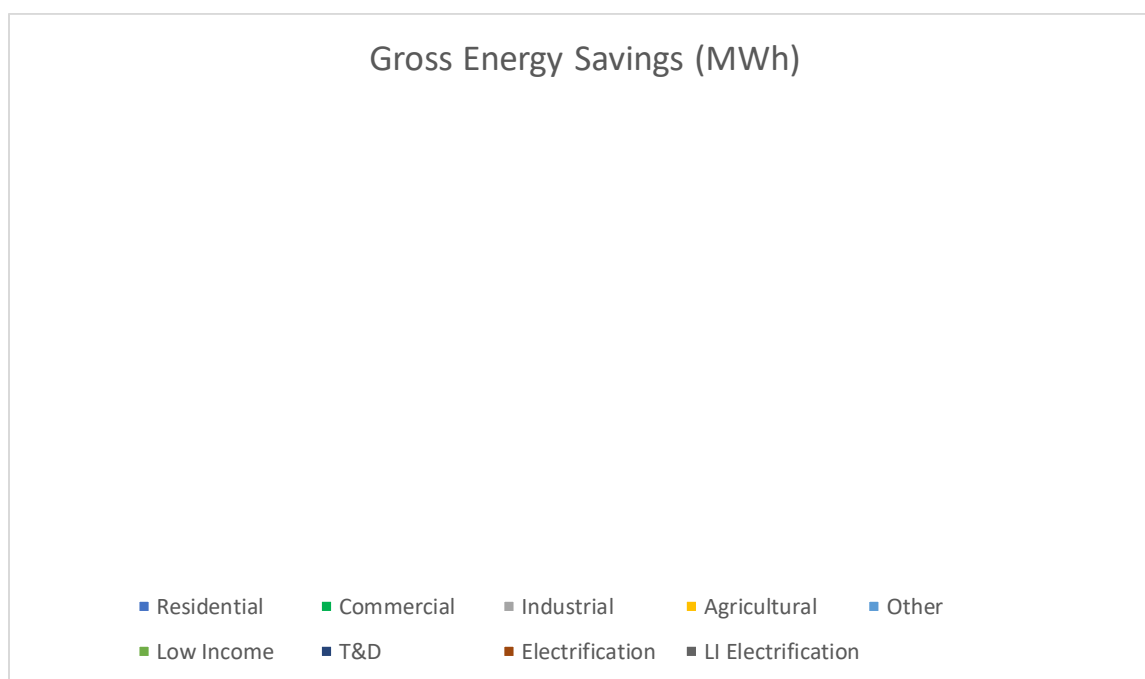
**TABLE IID-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	523	3,921,383	84,454,560	498	3,531,321	76,682,426	22,583	\$4,252,574	1.57	6.09	0.091
Residential	34	171,686	2,575,290	34	171,686	2,575,290	901	\$849,504	0.33	0.33	0.454
Residential - Single-Family	4,581	7,133,231	67,613,473	4,577	7,115,121	67,522,921	27,129	\$6,932,386	1.16	1.60	0.140
Energy Efficiency	5,138	11,226,300	154,643,323	5,109	10,818,127	146,780,637	50,613	\$12,034,464	1.24	2.15	0.123
Any	0	0	0	0	0	0	0	\$113,590			0.000
Electrification	0	0	0	0	0	0	0	\$113,590			0.000
EE, Low Income and Electrification	5,138	11,226,300	154,643,323	5,109	10,818,127	146,780,637	50,613	\$12,148,054	1.23	2.14	0.124
Any	0	24,841,000	24,841,000	0	24,841,000	24,841,000	9,765	\$109,436	23.87	23.87	0.004
Codes & Standards	0	24,841,000	24,841,000	0	24,841,000	24,841,000	9,765	\$109,436	23.87	23.87	0.004
C&S and T&D	0	24,841,000	24,841,000	0	24,841,000	24,841,000	9,765	\$109,436	23.87	23.87	0.004
Utility Total	5,138	36,067,300	179,484,323	5,109	35,659,127	171,621,637	60,378	\$12,257,490	1.44	2.47	0.100

## INDUSTRY POWER UTILITY COMPANY

### *Industry Power Utility Company at a Glance*

- Climate Zone: 9
- Customers: 140
- Total annual retail sales: 42,400 MWh
- Annual Retail Revenue: \$6,160,000
- Annual energy efficiency expenditures for reporting year: \$0
- Gross annual savings from reporting year portfolio: 0 MWh



### *Industry Power Utility Company Overview*

- Industry Power Utility (IPU) was established in 2002 to provide electric service to retail customers who build new facilities located in the designated service territory.
- All customers' facilities meet or exceed the applicable Title 24 requirements. The recent age of these facilities provides less energy efficiency upgrade opportunities.
  - Customers reside in climate zone 9.
  - 99.6% of energy sales were to non-residential customers.
  - Peak demand was 8.6 megawatts.

- Annual budget for energy efficiency is \$149,000; and no energy efficiency expenditures were incurred in the reporting year.

### **Program and Portfolio Highlights**

- The IPU Energy Efficiency Program provides incentives in four program categories: Large General Service Program; General Service Program; Domestic Service Program; and IPU energy efficiency measures.
- No energy efficiency rebates were issued in the reporting year.

### **Commercial, Industrial & Agricultural Programs**

- Survey – Non-Residential – General Service Customers - Rebates: On-site energy survey, at no cost to the customer, that analyze customer usage and demand to develop recommendations designed to improve operating energy efficiency and reduce load requirements. Rebates are available for the installation of specified energy measures, up to \$1,000 every two years.
- Audits – Large General Service Customers – Non-Res Audits: On-site energy audits, at no cost to the customer once every two years, that analyze customer usage and demand to develop recommendations designed to improve energy operating efficiency and reduce load requirements. Rebates are available for energy efficiency upgrades identified in these audits. Verification services to ensure appropriate installation of recommended measures are also provided.
- Lighting – Large General Service Customers – Non-Res Lighting: Provides incentives to improve energy efficiency for lighting applications, which reduce energy usage by a specified amount. Rebates are available based on a rate of \$0.059/kWh for one year of energy savings and shall not exceed \$50,000 over a two-year budget cycle or 50% of the lighting material costs.
- Customize Projects – Large General Service Customers – Non-Res Customize Projects: Financial incentives for the replacement of equipment/technology that conserves energy and permanently reduces coincident summer/winter peak demand and exceeds state-mandated codes, federal mandated codes, industry accepted standards or other baseline performance standards. The rebate is based on a rate of \$0.059/kWh for one year of energy savings and \$150/kW for each on-peak kW that has been reduced and shall not exceed or 50% of the total cost associated with the equipment/material.
- New Construction Projects – Large General Service Customers – Non-Res Construction Projects: Financial incentives for new equipment components that exceed state-mandated codes, federal-mandated codes, industry-accepted performance standards,

or other baseline energy performance standards by more than 10%. The rebate is based upon the lesser of 25% of the cost difference between standard and upgraded new equipment and/or materials or \$50,000 over a two-year budget cycle.

- IPU Energy Efficiency Measures: Payment for eligible projects must be authorized by the IPU Commission and shall not exceed \$10,000 per year.

### **Residential Programs**

- Survey – Residential – Rebates: On-site energy survey, at no cost to the customer, that analyze customer usage and demand to develop recommendations designed to improve energy operating efficiency and reduce load requirements. Rebates are available for approved Energy Star® appliances up to \$250 per residence; and program allowance for the installation of specified energy measures, up to \$500 every two years.

### **Complementary Programs**

- Renewable Energy Programs: IPU Solar Installations: Industry Metrolink 1,600 kW Photovoltaic-1 Solar project.
- Energy Storage: Achieved commercial operation for a long-term photovoltaic generating facility power purchase agreement coupled with a 4 MW battery energy storage system.

### **Evaluation, Measurement & Verification Studies**

- Engineering analysis programs are the basis for energy savings and incentive calculations. The Energy Efficiency Technical Reference Manual provides energy savings estimates for IPU programs.

**TABLE IPU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$0			0.000

**TABLE IPU-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Industrial	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$0			0.000

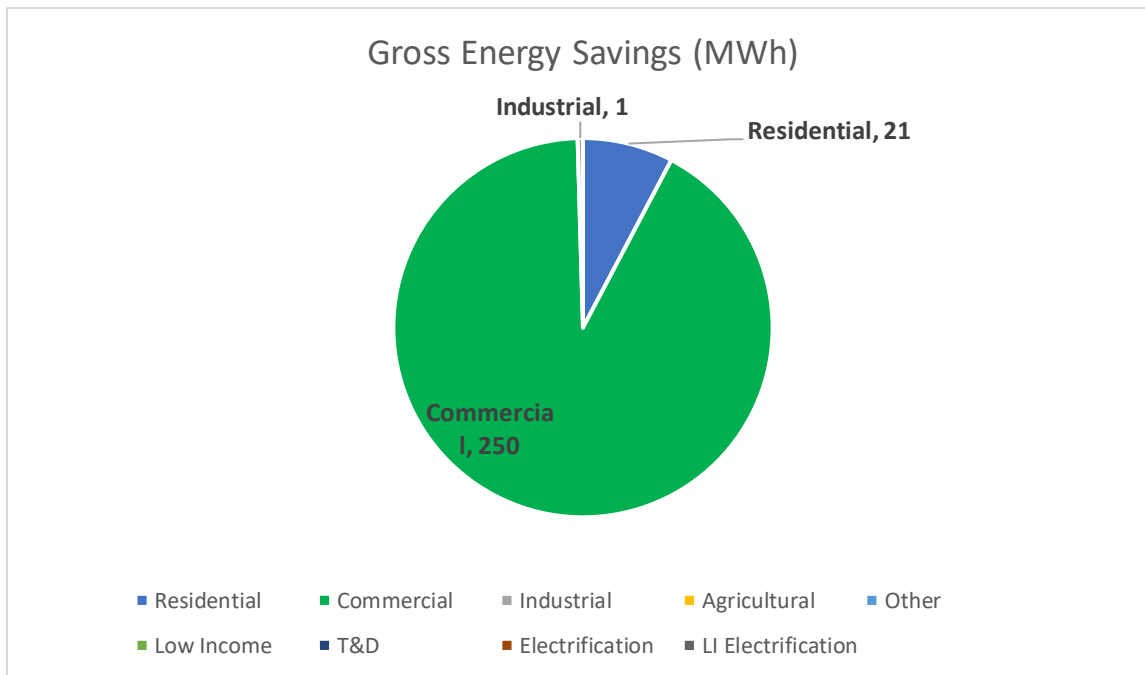
**TABLE IPU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$0			0.000

## LASSEN MUNICIPAL UTILITY DISTRICT

### *Lassen Municipal Utility District at a Glance*

- Climate Zone: 16
- Customers: 10,535
- Total annual retail sales: 162,668 MWh
- Annual Retail Revenue: \$32,533,685
- Annual energy efficiency expenditures for reporting year: \$278,934
- Gross annual savings from reporting year portfolio: 272 MWh



### *Lassen Municipal Utility District Overview*

Lassen Municipal Utility District (LMUD) remains committed to helping customers manage their energy use through energy education and a comprehensive offering of energy efficiency incentives. For residential customers, rebates are offered for the installation of various energy efficiency measures. For commercial customers, rebates are available for upgraded lighting, refrigeration equipment, and HVAC equipment, and in cases where an analysis is performed rebates can be offered for additional equipment that reduces energy use and/or demand. Many customers cannot participate in standard rebate programs that require significant capital investment of their own. To compensate for this, LMUD periodically offers direct installation programs at no cost to commercial and residential customers that provide energy savings and other benefits.

### **Major Program and Portfolio Changes**

LMUD offers a comprehensive menu of energy efficiency rebate programs to our residential, commercial and agricultural customers. There were no major changes to the program in FY25. We find that the customers and local contractors value consistency in program offerings.

### **Program and Portfolio Highlights**

LMUD continued the Prescriptive Commercial DIY Lighting Program, which offers fixtures at no cost to customers, delivered 69% of the gross annual energy savings in FY25. LMUD achieved 164% of the target net annual kWh savings for the last five years.

### **Commercial, Industrial & Agricultural Programs**

LMUD manages a comprehensive energy efficiency incentive program for commercial, industrial and agricultural customers.

- Non-Res Lighting Program: LMUD offers rebates to business owners who invest in the installation of energy efficiency lighting upgrades.
- Non-Res HVAC: LMUD offers rebates to commercial customers for energy efficient HVAC upgrades.
- Non-Res Refrigeration: Rebates are available to improve the efficiency of commercial refrigeration systems.
- Non-Res Appliances: Rebates are available for energy efficient kitchen equipment such as ovens, dishwashers, fryers, griddles, etc.
- Non-Res Custom Program: LMUD offers rebates to business owners based on site-specific consumption. Rebates are tailored to the individual business owner's needs based on the audit and the potential energy savings associated with the customer project.
- Agricultural Custom Program: LMUD offers rebates to agricultural customers to make energy efficiency improvements at their sites.

### **Residential Programs**

LMUD manages a comprehensive energy efficiency incentive program for residential customers.

- Residential Lighting Program: LMUD offers rebates to homeowners who install ENERGY STAR-certified LED lamps/bulbs, ceiling fans and LED holiday lights.
- Residential HVAC Program: LMUD offers rebates to homeowners who install high performance heat pumps, central air-conditioners, whole house fans and ground source heat pumps that exceed current state requirements.
- Residential Equipment Program: LMUD offers rebates to homeowners who purchase new ENERGY STAR-certified products, including clothes washers, room air conditioners, dishwashers, refrigerators, freezers and advanced power strips.
- Residential Water Heater Rebate Program: LMUD offers rebates to customers who purchase new, energy efficient electric water heaters and heat pump water heaters.

### **Complementary Programs**

- Low-Income Programs: LMUD offers two low-income programs. WEAR, Winter Energy Assistance Rate, offers rate assistance, from November through April. EEAP provides a one-time assistance payment to help avoid disconnection in the case of a financial emergency. This program is funded by LMUD's Public Benefits Program and administered by the local Salvation Army Office. LMUD also works with Lassen Economic Development Corporation to identify customers who qualify for state and federal LIHEAP, Low-Income Home Energy Assistance Program.
- Renewable Energy Programs: LMUD offers customers a customer generation rate that pays customers for excess generation. Our NEM limit of 5% total peak load of 25MW was met in 2018. LMUD no longer offers NEM for solar or other distributed generation systems. LMUD now offers a Customer Distributed Generation rate of 0.10 per exported kilowatt hour.
- Electric Vehicles: LMUD offers customers rebates on EV charging stations. Publicly accessible and residential are based on a first-come, first-served basis.

### **Evaluation, Measurement & Verification Studies**

Previous EM&V reports are available on the California Municipal Utilities website: <https://www.cmua.org/>.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

LMUD has relied heavily on the savings listed in the CMUA Technical Resource Manual and streamlined eTRM measures. Non-residential lighting, custom projects, and non-deemed refrigeration measures use custom savings calculations.

**TABLE LMUD-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	0	4,392	50,792	0	1,576	18,407	6	\$29,797	0.07	0.06	2.029
HVAC - Cooling	0	234	2,110	0	84	759	0	\$396	0.49	0.62	0.617
HVAC - Heat Pump	3	16,378	245,673	2	10,154	152,317	62	\$17,065	1.54	1.04	0.150
Lighting - Indoor	13	64,301	771,616	10	51,441	617,293	204	\$13,167	4.42	1.39	0.027
Lighting - Outdoor	43	186,658	2,239,899	35	149,327	1,791,919	819	\$218,510	1.07	1.07	0.154
Energy Efficiency	60	271,964	3,310,090	47	212,583	2,580,695	1,093	\$278,934	1.15	1.00	0.137
EE, Low Income and Electrification	60	271,964	3,310,090	47	212,583	2,580,695	1,093	\$278,934	1.15	1.00	0.137
<b>C&amp;S and T&amp;D</b>											
Utility Total	60	271,964	3,310,090	47	212,583	2,580,695	1,093	\$278,934	1.15	1.00	0.137

**TABLE LMUD-2. Energy Efficiency Program Results by Sector**

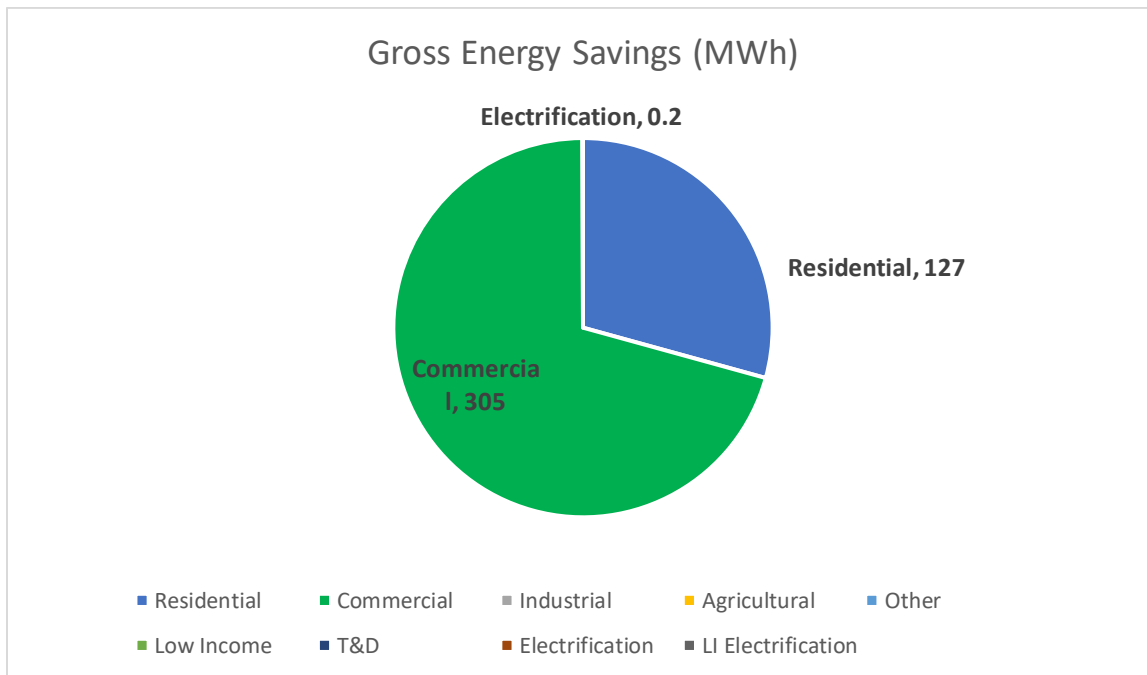
Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	56	249,727	2,996,724	45	199,782	2,397,379	1,020	\$230,787	1.26	1.12	0.121
Industrial	0	1,233	14,791	0	986	11,833	4	\$889	1.26	0.85	0.095
Residential	4	21,004	298,575	2	11,815	171,483	69	\$47,257	0.60	0.46	0.366
Energy Efficiency	60	271,964	3,310,090	47	212,583	2,580,695	1,093	\$278,934	1.15	1.00	0.137
EE, Low Income and Electrification	60	271,964	3,310,090	47	212,583	2,580,695	1,093	\$278,934	1.15	1.00	0.137
C&S and T&D											
Utility Total	60	271,964	3,310,090	47	212,583	2,580,695	1,093	\$278,934	1.15	1.00	0.137

**TABLE LMUD-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	47	206,800	2,528,121	37	160,771	1,958,951	886	\$255,955	1.02	0.97	0.165
Other Industrial	0	1,233	14,791	0	986	11,833	4	\$889	1.26	0.85	0.095
Residential	0	863	10,353	0	371	4,452	2	\$9,812	0.07	0.06	2.776
Retail - Large	13	63,069	756,825	10	50,455	605,460	201	\$12,277	4.65	1.41	0.026
Energy Efficiency	60	271,964	3,310,090	47	212,583	2,580,695	1,093	\$278,934	1.15	1.00	0.137
EE, Low Income and Electrification	60	271,964	3,310,090	47	212,583	2,580,695	1,093	\$278,934	1.15	1.00	0.137
C&S and T&D											
Utility Total	60	271,964	3,310,090	47	212,583	2,580,695	1,093	\$278,934	1.15	1.00	0.137

***Lodi Electric Utility at a Glance***

- Climate Zone: 12
- Customers: 28,448
- Total annual retail sales: 458,245 MWh
- Annual Retail Revenue: \$91,198,776
- Annual energy efficiency expenditures for reporting year: \$282,588
- Gross annual savings from reporting year portfolio: 432 MWh



***Lodi Electric Utility Overview***

Lodi Electric Utility (LEU) utilizes the energy efficiency program to engage with residential customers, bring value to local businesses, and through its commercial energy efficiency programming, expand the business relationship with key accounts. The energy efficiency program is designed to benefit all customer segments and offers a wide variety of opportunities for participation. Residential programs allow households to not only receive rebates by purchasing energy-efficient appliances but also encouraging a new way of looking at household energy use and how making a few simple changes can make a difference in their carbon footprint. In 2025, the median household income in Lodi is \$89,963. In addition, there are 6 percent more households who own their homes than there are renters in the same year. Owners versus renters are 53 percent to 47 percent. LEU customers, whether owners or

renters, can make energy efficient improvements by taking advantage of the many incentives available for households ranging from appliances to home weatherization, and from Heating, Ventilation, and Air Conditioning (HVAC) units to pool pumps. Business accounts, from small commercial to large industrial, can generate significant operational efficiencies by upgrading lighting, production systems, and equipment with energy-efficient improvements made affordable through rebates offered by Lodi Electric.

### **Major Program and Portfolio Changes**

In FY 25, LEU continued to offer a comprehensive selection of programs for commercial, industrial, and residential customers. Reportable energy savings have decreased from last year due to a decrease in commercial and industrial projects. In FY 25, Lodi achieved 25% of net annual energy savings targets and 130% of the target over the past five-year period. In FY 25, LEU began its fourth year of successfully partnering with Tree Lodi, a non-profit community-based organization, to preserve, protect and enhance Lodi's urban forest. This all-volunteer organization procures trees from local and regional nurseries, schedules and delivers trees, determines the most appropriate species for planting, evaluates site conditions for homeowners and teaches homeowners how to care for trees. Since the inception of this partnership in FY 21, Tree Lodi has provided homeowners with 3,200 shade trees.

### **Program and Portfolio Highlights**

- Residential and Non-Residential
  - LEU continued to offer the Residential Direct Install and Snapshot Audit program that began in FY 16. This program offers installation of LEDs (Light Emitting Diode), advanced power strips, thermostatic shower valves, shower heads, and aerators in customer homes at no cost. The intent is to provide a program for residential customers who do not traditionally participate in energy efficiency rebate programs. While open to all residential customers, the program specifically targets multi-family and low-income properties, as they are not likely to benefit from traditional energy efficiency programs.
  - The Non-Residential Rebate Program continues to provide a substantial portion of energy savings achieved, accounting for 79% of annual net savings for FY 25. Through key accounts management, the utility maintains a proactive and positive relationship with Lodi's largest energy consumers. These relationships are essential to the stability of Lodi Electric Utility and vital to the overall economic development strategy for the City of Lodi.

### **Commercial, Industrial & Agricultural Programs**

- Standard and Custom Rebates
  - LEU manages a comprehensive energy efficiency incentive program for commercial and industrial customers focusing on energy efficiency and peak load

reduction. Rebates are available for small and large-scale upgraded lighting, HVAC, commercial kitchen appliances, retail refrigeration equipment, warehouse refrigeration and motorized equipment. In cases where an energy efficiency analysis is conducted, rebates can be offered for additional equipment not mentioned above that reduces energy use and/or demand. These on-site energy efficiency audits, provided by energy efficiency advisors, enable recommendations for improvements to achieve energy efficiency savings.

- LEU offers standard rebates for commercial appliances for ENERGY STAR-certified appliances based upon industry standards. Other rebates for LED lighting, HVAC improvements, refrigeration, and motorized equipment are based on energy savings as measured in kilowatt hours compared to the baseline measurement or old equipment being replaced. These upgrades are essential to businesses aiming to reduce costs, conserve energy and contribute to environmental sustainability.
- The Keep Your Cool program provides direct install energy savings measures for restaurants, convenience stores, and any other commercial application requiring refrigeration. Examples include door closers, anti-sweat heater controls, insulating materials and case lighting.
- Over half of all electrical energy consumed in the United States, is used by electric motors. Businesses investing in improved design, materials, and manufacturing techniques enable energy-efficient motors to accomplish more work per unit of electricity consumed. LEU offers rebates on energy-efficient motors based upon number of kilowatt hours saved.
- One size does not fit all. LEU encourages businesses to design their own energy efficiency upgrades and facility improvements to match business energy needs and importantly, budget.
- Lodi Electric provides custom-designed rebates based upon energy savings equal to \$0.15 cents per kilowatt hour saved capped at 50 percent of the project's total cost, and up to a maximum of \$75,000. In addition, LEU offers a zero percent energy financing program that allows commercial customers to install energy-efficient improvements up to \$150,000. The loan requirements are easy. Customers in good standing can install improvements and pay back the loan over 24 months on their monthly utility bill.
- Standard and custom rebate information and applications are available online at Lodi Electric Utility.

### **Residential Programs**

- Rebates and Direct Install Measures
  - Lodi Electric offers energy efficiency incentives or rebates to all residential customers for the purchase of upgraded home weatherization, HVAC, water heating, variable speed pool pumps and other appliances. While rebates vary by appliance or measure purchased, rebates are evaluated on a regular basis to conform to the latest industry standard. Examples of measures include but are not limited to connected thermostats, whole house fans, and high-performance HVAC equipment that exceed current state minimum efficiency requirements. Household appliances ranging from clothes washers and dryers, and from refrigerators to energy efficient HVAC equipment account for most rebates. Residential weatherization materials including attic and wall insulation are also rebated.
  - The residential Direct Install Program offered by LEU is a no cost energy efficient measure installation program to homeowners and renters who without incentives would likely not make household energy efficient improvements. In many ways, this program begins to unlock the potential of home energy efficiency for rate payers and empowers residents to make future decisions to achieve greater conservation and savings. Lodi Electric deploys home energy advisors to assess the home and install smart power strips, LED lighting, faucet aerators, thermostatic shower valves, leave behind smart thermostats and weather-stripping. As the market has transformed for residential lighting, we are seeing a decrease in kWh savings opportunity in the residential direct install program.

### **Complementary Programs**

- Payment Assistance for Low-income Households
  - Lodi CARE Program: Provides payment assistance grants to very low-income customers in need of assistance paying their electric utility charges. In 2025, utility staff obtained approval from City Council to increase CARE assistance payments, which increased from \$150 to \$162. Approval was also granted to automatically increase the annual benefit amount based on a three-year rolling average change in power supply costs to better ensure benefits align with customer bill amounts. In FY 25, Lodi Electric Utility account holders received nearly \$37,000 in benefits.
  - Lodi SHARE Discount Rate: LEU provides a rate discount of 30% for qualifying residential customers on their monthly electric utility billing statement; approximately \$338,000 was budgeted in FY 25 for this rate discount from the Lodi Public Benefits Program fund.

- Sustainability
  - Renewable Energy Programs: LEU offers an Energy Purchase rate tariff for customers interested in installing solar. In addition, LEU funds a portion of its eligible power supply costs from the Public Benefits Program fund each year. For FY 25, this totaled nearly \$135,000.
- - Electric Vehicles: In FY 25, LEU continued to offer rebates for residential and commercial EV chargers, and rebates for the purchase of new and used zero-emission vehicles including both standard and income-qualifying rebates. Lodi Electric Utility provides Level 2 EV public charging at multiple City-owned sites and is currently working to implement its EV Charging Infrastructure Master Plan which will include the deployment of new Level 2 and DCFC infrastructure throughout the City, including specifically disadvantaged and low-income communities.
- Energy Efficiency and Conservation Curriculum:
  - In FY 25, Lodi Electric Utility implemented another successful energy efficiency education program within the Lodi middle school educational curriculum designed to teach students about how to use energy responsibly. Energy education efforts include a science-based energy efficiency curriculum designed to demonstrate how minor changes in energy use can make a significant impact on overall energy consumption. Beginning in August 2024 to June 2025, educational program highlights included lessons delivered through an in-person and online platform to 564 students across 10 Lodi middle schools. This content was followed with hands-on activities to enhance learning retention. During the implementation period, teachers, students, and parents were given access to the online Web App. During the final lesson, students completed exercises that required measuring current home energy use and retrofitting home energy use devices with high-efficiency devices from take-home kits. In FY 23, an educational component was incorporated into the curriculum to educate young students about the benefits of electric vehicles. In FY 25, the electric vehicle education component was expanded into a full electrification lesson, providing students with a more holistic understanding of how electrification supports energy efficiency, sustainability, and long-term energy planning.

### **Evaluation, Measurement & Verification Studies**

The Evaluation, Measurement & Verification (EM&V) study for Lodi Electric Utility’s Commercial Energy Efficiency Programs covering FY22–23 and FY23–24 was conducted by ADM Associates, a Qualus Company, to assess program performance and verify reported energy and demand savings. The evaluation utilized a stratified sampling approach and detailed desk reviews of nine projects representing various measures, including lighting, HVAC, and refrigeration upgrades. Overall, the programs achieved a gross realization rate of 96% for energy savings and 91% for

peak demand reductions, demonstrating strong alignment between reported and verified results.

**Major Differences or Diversions from CA POU TRM for Energy Savings**

LEU relies heavily on the unit energy savings listed in the Technical Resource Manual and the eTRM. The Commercial Lighting and Commercial Custom programs use custom savings calculations based on actual pre- and post-equipment specifications.

**TABLE LEU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC
Appliance & Plug Loads	1	15,117	171,342	1	6,090	65,954	21	\$57,331	0.11	0.07	1.083
Building Envelope	19	66,519	1,330,374	11	29,315	586,295	168	\$64,426	0.68	0.23	0.162
Commercial Refrigeration	72	254,634	2,057,070	69	241,903	1,954,216	686	\$99,335	1.92	1.92	0.059
HVAC - Cooling	5	24,999	262,477	3	13,430	141,822	45	\$15,432	0.89	0.70	0.134
HVAC - Heat Pump	4	16,460	246,895	3	10,205	153,075	68	\$25,376	0.99	0.84	0.222
Lighting - Indoor	3	11,253	125,194	3	10,691	118,935	50	\$4,342	3.29	1.19	0.045
Lighting - Outdoor	0	41,788	501,046	0	39,699	475,994	158	\$8,305	5.45	0.51	0.022
Miscellaneous	0	1,090	10,900	0	600	5,995	2	\$4,922	0.14	0.13	0.993
Energy Efficiency	105	431,861	4,705,298	88	351,932	3,502,285	1,199	\$279,469	1.22	0.64	0.098
Appliance & Plug Loads	0	212	3,392	0	212	3,392	1	\$3,120	0.12	0.09	1.254
Electrification	0	212	3,392	0	212	3,392	1	\$3,120	0.12	0.09	1.254
EE, Low Income and Electrification	105	432,073	4,708,689	88	352,144	3,505,677	1,200	\$282,588	1.20	0.63	0.099
C&S and T&D											
Utility Total	105	432,073	4,708,689	88	352,144	3,505,677	1,200	\$282,588	1.20	0.63	0.099

**TABLE LEU-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	75	305,346	2,674,001	71	288,819	2,521,404	882	\$109,971	2.24	1.25	0.052
Residential	30	126,515	2,031,296	17	63,114	980,881	316	\$169,498	0.55	0.28	0.239
Energy Efficiency	105	431,861	4,705,298	88	351,932	3,502,285	1,199	\$279,469	1.22	0.64	0.098
Residential	0	212	3,392	0	212	3,392	1	\$3,120	0.12	0.09	1.254
Electrification	0	212	3,392	0	212	3,392	1	\$3,120	0.12	0.09	1.254
EE, Low Income and Electrification	105	432,073	4,708,689	88	352,144	3,505,677	1,200	\$282,588	1.20	0.63	0.099
C&S and T&D											
Utility Total	105	432,073	4,708,689	88	352,144	3,505,677	1,200	\$282,588	1.20	0.63	0.099

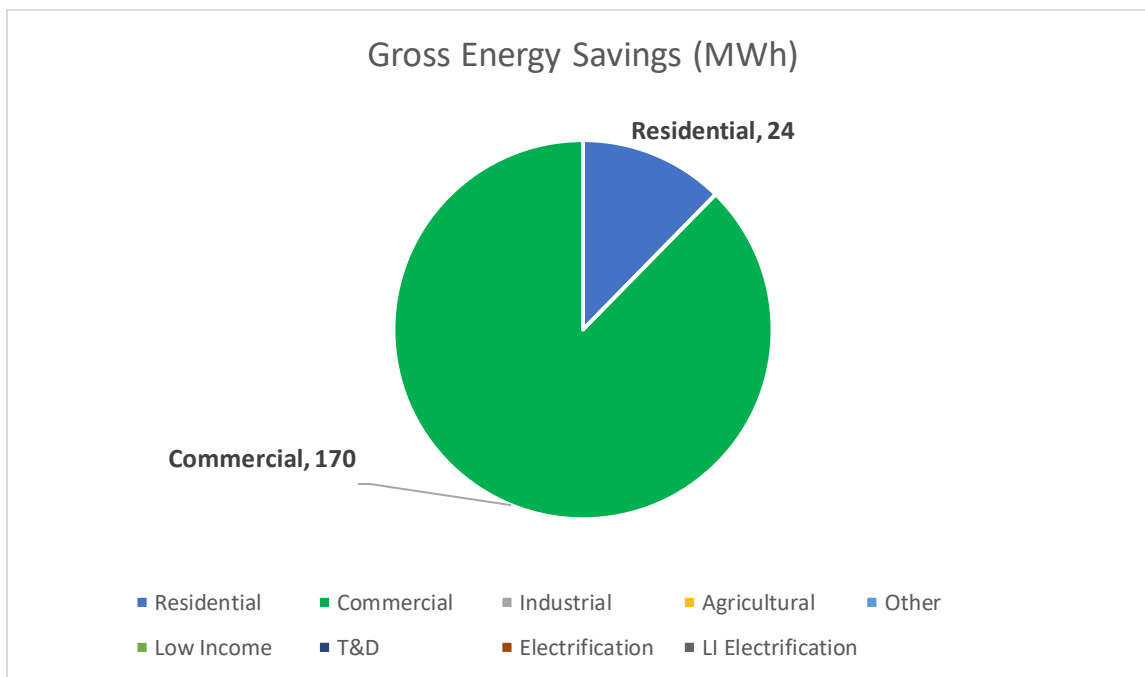
**TABLE LEU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	74	302,546	2,632,008	71	287,419	2,500,408	877	\$108,961	2.25	1.25	0.052
Multiple	16	85,529	1,231,241	9	44,576	618,920	195	\$108,977	0.51	0.34	0.235
Residential	14	42,696	831,149	8	19,338	376,962	124	\$56,609	0.67	0.23	0.220
Residential - Single-Family	0	1,090	10,900	0	600	5,995	2	\$4,922	0.14	0.13	0.993
Energy Efficiency	105	431,861	4,705,298	88	351,932	3,502,285	1,199	\$279,469	1.22	0.64	0.098
Multiple	0	212	3,392	0	212	3,392	1	\$3,120	0.12	0.09	1.254
Electrification	0	212	3,392	0	212	3,392	1	\$3,120	0.12	0.09	1.254
EE, Low Income and Electrification	105	432,073	4,708,689	88	352,144	3,505,677	1,200	\$282,588	1.20	0.63	0.099
C&S and T&D											
Utility Total	105	432,073	4,708,689	88	352,144	3,505,677	1,200	\$282,588	1.20	0.63	0.099

## CITY OF LOMPOC ELECTRIC UTILITY

### *City of Lompoc Electric Utility at a Glance*

- Climate Zone: 5
- Customers: 15,314
- Total annual retail sales: 115,021 MWh
- Annual Retail Revenue: \$25,189,956
- Annual energy efficiency expenditures for reporting year: \$454,320
- Gross annual savings from reporting year portfolio: 194 MWh



### *City of Lompoc Electric Utility Overview*

Established in 1923, the City of Lompoc Electric Utility (The City) provides electric service to more than 15,000 customers along California’s Central Coast. The City administers a comprehensive portfolio of energy efficiency and conservation programs designed to help customers manage electricity costs while supporting long-term system sustainability. Program design and implementation are informed by local climate conditions, customer mix, and community demographics to ensure resources are targeted where they are most effective.

During FY 2025, the majority of reported energy savings were achieved through commercial lighting retrofit projects, including upgrades at City-owned facilities. Lompoc’s mild coastal climate results in minimal demand for air conditioning, and most buildings rely on natural gas

for space heating, limiting opportunities for HVAC-related electric savings. Residential customers accounted for approximately 90% of total accounts in FY 2025, with an average monthly electricity consumption of 319 kWh. Although commercial and demand customers comprise only about 10% of total accounts, these customers continue to present the greatest opportunity for cost-effective electric energy savings within the City's service territory.

Community demographics also influence participation in energy efficiency programs. Lompoc's median household income is \$72,004, and approximately 17.3% of residents live below the poverty level (2025 U.S. Census QuickFacts). Many households face financial barriers that limit their ability to invest in energy efficiency upgrades. To address these challenges, the City continued to emphasize robust rebate offerings and income-qualified programs to reduce upfront costs and expand access to energy efficiency measures.

### **Major Program and Portfolio Changes**

In FY 2025, the City continued to refine and expand its energy efficiency offerings while maintaining its core programs. Leveraging its automatic meter reading (AMR) system, the City provided high-energy-use customers with customized energy-reduction recommendations and technical assistance to lower both consumption and peak demand.

The City also continued its LED Lightbulb Replacement Program and LED Holiday Light Exchange Program, both launched in FY 2022. These programs allow customers across all rate classes to exchange old, inefficient light bulbs or holiday light strings for new, high-efficiency LED products at no cost. Funded through public benefits resources, the programs also include proper disposal of hazardous and electronic waste. By eliminating upfront costs, these programs help customers reduce energy use and mitigate seasonal bill increases, particularly during the winter holiday period.

### **Program and Portfolio Highlights**

The Commercial Lighting Rebate Program continued to deliver the majority of the City's energy savings in FY 2025. Participation from commercial, industrial, and institutional customers increased compared to prior years, resulting in measurable gains in annual and lifecycle energy savings. The program incentivizes the replacement of outdated, inefficient lighting systems with high-efficiency LED fixtures and accounted for approximately 87% of total reported energy savings during the reporting year. The City intends to further expand participation in this program in future years.

### **Commercial, Industrial & Agricultural Programs**

The City offers a range of rebate programs for commercial customers, including incentives for lighting, HVAC equipment, and other energy-efficient technologies. Customers may also apply for rebates for custom projects that demonstrate verifiable energy savings. Industrial and

agricultural customers are currently classified within the commercial rate category; as such, no sector-specific programs are offered for these customers at this time.

### **Residential Programs**

Residential customers are eligible for several rebate programs, including the ENERGY STAR® Appliance Rebate Program, the LED Lighting Replacement Program, and the Holiday Light Replacement Program. While individual residential measures account for a relatively small share of total portfolio energy savings, these programs ensure broad customer access to energy-efficiency opportunities.

Clothes washer rebates offered through the ENERGY STAR® Appliance Rebate Program are partially funded through Public Benefits charges and are coordinated with the City's Water Conservation Fund, reflecting the City's provision of both electric and water services. To further support low-income households, the City continued its Income-Qualified ENERGY STAR® Refrigerator Replacement and Recycling Program in FY 2025. Program success is driven by a streamlined pre-approval process and coordination with a local appliance dealer responsible for delivery, installation, and recycling of replaced units. Participating customers must meet income eligibility guidelines established by the U.S. Department of Housing and Urban Development (HUD) and repay a portion of the appliance cost to the City over a one-year period. This approach reduces barriers to participation while ensuring proper disposal of inefficient appliances.

### **Complementary Programs**

In addition to its energy efficiency portfolio, the City offers several complementary programs, including electric rate assistance, customer energy audits, and ongoing evaluation of electric vehicle (EV) charging services. Rate assistance is available to customers whose household income falls below HUD low-income thresholds.

The Customer Energy Audit Program remains a highly utilized service. Using AMR data, City staff analyze daily and hourly electricity usage and provide customers with detailed reports and practical recommendations to reduce consumption without requiring capital investments. Audits are available in person, by phone, or via email, and customers may borrow watt meters at no cost to evaluate energy use for appliances and electronics.

The City also administers water conservation rebate programs for WaterSense®-certified fixtures, irrigation controls, rain barrels, and plumbing leak detection and repair, supporting integrated water and energy conservation goals.

### **Evaluation, Measurement & Verification Studies**

Previously completed EM&V reports are available for review at: <https://www.cmua.org/emv-reports>.

**Major Differences or Diversions from CA POU TRM for Energy Savings**

For FY 2025 reporting, the City of Lompoc used the California Municipal Utilities Association (CMUA) Savings Estimation Technical Reference Manual (TRM) and electronic TRM (eTRM) as the primary sources for calculating and reporting energy efficiency savings. No major deviations from the CA POU TRM were identified.

**TABLE Lompoc-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	2	21,377	208,895	1	8,680	76,428	20	\$88,249	0.05	0.05	1.391
HVAC - Cooling	0	349	3,198	0	191	1,751	0	\$866	0.17	0.15	0.588
HVAC - Heat Pump	0	1,968	29,521	0	1,220	18,303	7	\$10,094	0.21	0.19	0.737
Lighting - Indoor	8	39,247	471,553	6	31,346	376,470	120	\$75,435	0.44	0.47	0.252
Lighting - Outdoor	0	130,590	1,567,080	0	104,472	1,253,664	430	\$279,676	0.43	0.48	0.281
Energy Efficiency	10	193,530	2,280,247	8	145,908	1,726,616	577	\$454,320	0.36	0.37	0.331
EE, Low Income and Electrification	10	193,530	2,280,247	8	145,908	1,726,616	577	\$454,320	0.36	0.37	0.331
<b>C&amp;S and T&amp;D</b>											
Utility Total	10	193,530	2,280,247	8	145,908	1,726,616	577	\$454,320	0.36	0.37	0.331

**TABLE Lompoc-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	8	169,639	2,035,663	6	135,711	1,628,530	549	\$352,754	0.44	0.48	0.273
Residential	2	23,892	244,585	1	10,198	98,086	28	\$101,566	0.07	0.06	1.273
Energy Efficiency	10	193,530	2,280,247	8	145,908	1,726,616	577	\$454,320	0.36	0.37	0.331
EE, Low Income and Electrification	10	193,530	2,280,247	8	145,908	1,726,616	577	\$454,320	0.36	0.37	0.331
C&S and T&D											
Utility Total	10	193,530	2,280,247	8	145,908	1,726,616	577	\$454,320	0.36	0.37	0.331

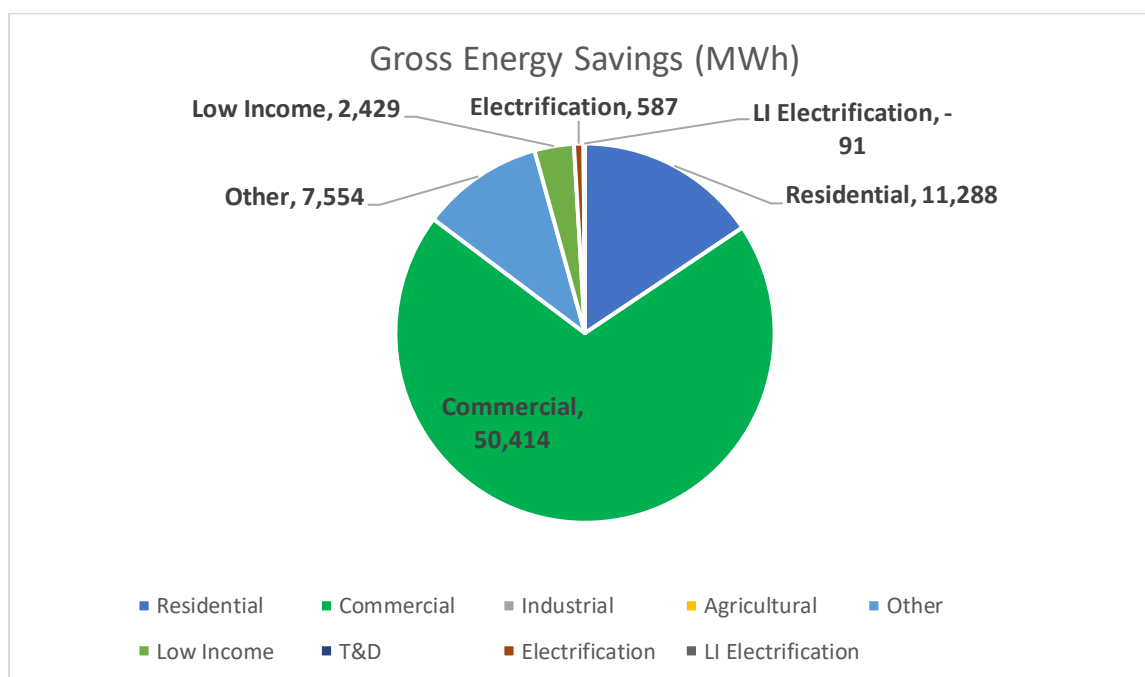
**TABLE Lompoc-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	1	4,678	22,716	1	3,275	15,901	6	\$25,582	0.07	0.07	1.749
Multiple	1	19,016	218,899	0	6,816	80,581	22	\$73,626	0.07	0.06	1.151
Other Commercial	8	169,639	2,035,663	6	135,711	1,628,530	549	\$352,754	0.44	0.48	0.273
Residential	0	198	2,970	0	107	1,604	1	\$2,357	0.07	0.07	1.964
Energy Efficiency	10	193,530	2,280,247	8	145,908	1,726,616	577	\$454,320	0.36	0.37	0.331
EE, Low Income and Electrification	10	193,530	2,280,247	8	145,908	1,726,616	577	\$454,320	0.36	0.37	0.331
C&S and T&D											
Utility Total	10	193,530	2,280,247	8	145,908	1,726,616	577	\$454,320	0.36	0.37	0.331

## LOS ANGELES DEPARTMENT OF WATER AND POWER

### *Los Angeles Department of Water and Power at a Glance*

- Climate Zones: 6, 8, 9, 16
- Customers: 1,588,241
- Total annual retail sales: 20,828,937 MWh
- Annual Retail Revenue: \$4,825,400,000
- Annual energy efficiency expenditures for reporting year: \$99,044,414
- Gross annual savings from reporting year portfolio: 72,180 MWh



### *Los Angeles Department of Water & Power Overview*

The Los Angeles Department of Water and Power (LADWP) was established in 1902 to deliver water to the City of Los Angeles and distribute electricity in 1916. LADWP is the largest municipal utility in the nation, providing reliable energy and water services to 4 million residents and 450,000 businesses (1.6M customer accounts) in four different climate zones: CZ6, CZ8, CZ9, and CZ16. A peak demand of 91,902 MW was registered on August 22, 2025.

### *Major Program and Portfolio Changes*

In support of property owners rebuilding homes substantially damaged or destroyed by the January 2025 Palisades, Hurst, Kenneth, Archer and Sunset Wildfires, LADWP's Zero By Design

new construction incentive program will be expanded to include offerings for single family and low-rise multifamily new construction. Under the program's residential counterpart, the High-performance, Optimized, Modern Electrification for Los Angeles (HOME LA) pilot program, homeowners may receive financial incentives for building all-electric. While the program will be limited to properties affected by the wildfires, program participation will be expanded as resources become available.

The Business Offerings for Sustainable Solutions (BOSS) program officially replaced the long-standing Custom Performance Program (CPP) in July 2024, marking a major strategic shift in DES's approach to commercial energy efficiency. BOSS introduced an expanded menu of prescriptive and electrification measures, including advanced HVAC systems, horticultural lighting, and refrigeration upgrades. Incentive rates were significantly increased, making participation more attractive for energy-intensive industries such as cannabis cultivation and film production. The streamlined application process and enhanced outreach efforts have driven strong engagement, positioning BOSS as a cornerstone for achieving LA's decarbonization and grid reliability goals.

The Commercial Lighting Incentive Program (CLIP) updated its incentive structure and shifted its focus toward networked lighting controls, reflecting market transformation and the growing importance of demand-responsive technologies. These controls enable automated scheduling, daylight harvesting, and occupancy-based adjustments, delivering deeper energy savings beyond fixture replacement. CLIP also expanded its outreach through virtual and in-person workshops, industry events, and targeted campaigns to educate customers on the benefits of advanced lighting systems. This evolution ensures CLIP remains relevant in a rapidly changing technology landscape while continuing to deliver measurable carbon reductions and operational cost savings for commercial customers.

As LADWP relaunches its residential Efficient Product Marketplace, development of the Commercial Product Marketplace (CPM) is in the works. The new online marketplace will educate commercial customers on the benefits of electrification and feature all electric equipment available for purchase. Customers will be able to research product features and efficiencies, as well as receive rebates when purchasing heat pump HVAC, heat pump water heaters and all electric cooking equipment from the CPM.

After a 14-month hiatus, the Efficient Product Marketplace (EPM) resumed online marketplace services. The online portion of the marketplace provides the additional bonus of assisting customers in identifying, shopping, and purchasing qualifying products. Additionally, the online marketplace allows customers the option to receive their rebate in the form of a gift card or receive a point-of-sale credit, which reduces the out-of-pocket costs to customers. The marketplace has plans to expand in FY 25-26, to include offerings such as a reduced cost portable heat pump air conditioning units as well as provide a financing mechanism to assist customers who do not have the ability to purchase qualifying products.

The Low-Income Refrigerator Exchange Program, the Refrigerator Turn In and Recycling Program, and the AC Optimization Program, remained unavailable for FY24-25. The tentative relaunch date for the AC Optimization Program is end of FY-25-26. In light of AB 628, the Department will be reviewing and updating the Low-Income Refrigerator Exchange Program; Q2 FY26-27 is the anticipated launch date for the new program offering.

The Consumer Rebates Program (CRP) expanded its current program offerings FY-24-25 from energy efficiency measures only to include rebates for electrification measures. Electrification measures include heat pump water heaters as well as heat pump heating ventilation and air conditioner systems. In order to encourage the purchase of high efficiency electrification measures, CRP will restructure the rebate structure from a flat per ton amount, to a tiered system that provides a higher incentive for higher efficiency measures.

The Commercial Direct Install Program, CDI, resumed program services towards the end of FY24-25. The CDI will expand its measure offerings in FY25-26 to include Type B lighting, anti-sweat heater controllers, as well as include electrification measures such as heat pump water heaters.

### **Program and Portfolio Highlights**

DES accelerated impact across equity, efficiency, and electrification.

Through Cool LA and community events, DES delivered heat relief and program enrollments citywide, including largescale portable A/C distributions and concierge support at Customer Support Saturdays, expanding access in disadvantaged communities.

Major commercial savings projects closed the fiscal year strong.

The CLIP program enabled flagship retrofits—e.g., downtown high-rise and broadcast center projects—each surpassing 1.2 GWh annual savings while modernizing controls and lighting, with six-figure incentives and measurable carbon reductions.

BOSS unlocked new sectors and deep retrofits.

DES's Business Offerings for Sustainable Solutions (BOSS) paid its first horticultural lighting incentive and funded a central plant chiller modernization (~1.99 GWh/year savings), demonstrating expanded measures and sizable emissions cuts.

Comprehensive Affordable Multifamily Retrofits (CAMR) delivered fully funded multifamily electrification.

The Sage Park retrofit combined CAMR and external funding to deliver a no cost owner experience, cutting 86 metric tons CO<sub>2</sub>e/year and reducing tenant utility burdens—an equity focused model DES can replicate.

Zero By Design (ZBD) and Project PowerHouse advanced affordable, all electric new construction.

LADWP ZBD partnered with Project PowerHouse to streamline timelines and offer prescriptive/electrification incentives—engaging architects and developers to scale affordable housing with sustainability.

### **Commercial, Industrial & Agricultural Programs**

City Plants:

- The City Plants (CP) Program provides free shade trees for residents and property owners in Los Angeles to promote tree planting to improve the city's tree canopy, air quality, stormwater retention, and, importantly, building energy efficiency. This program is operated by the City Plants team under the city's Board of Public Works and supported by LADWP.
- Through this partnership, City Plants can provide free shade trees for residents and property owners, along with guidance on optimal planting locations to maximize energy efficiency benefits. City Plants currently focuses on delivering trees to residential and commercial customers and planting trees on residential parkways, commercial parkways, and other city property (Res Cooling, Res Shell, Commercial Shell).

Codes and Standards (C&S):

- The Codes, Standards & Ordinances Program conducts advocacy activities to improve building, appliance, and water use efficiency regulations. These activities include monitoring and active participation in code and standard development, compliance and enforcement support with our sister agency LA Department of Building and Safety, legislative review, sponsorship of local ordinances, and participation in policy efforts with other City departments, state agencies and utilities. The goal of this program is to promote sustainability concerning water and energy use.
- The principal audience includes the LA City Department of Building and Safety, LA City Planning, LA City Department of Public Works, and the LA City Council, which develop and adopt codes and standards specific to Los Angeles that go beyond state and federal regulation. Other audiences include state agencies, which conduct periodic rulemakings to update energy efficiency and water conservation regulations and standards, and industry groups that conduct research and develop industry-specific standards. (Non-Res Process)

Commercial Direct Install:

- The Commercial Direct Install (CDI) Program is a free direct-install program that targets small, medium, and large business customers within the LADWP service territory. The

CDI program is designed to identify and implement energy-efficiency retrofits for qualifying businesses whose average monthly electrical demand is 250 kilowatts (kW) or less. The program offers direct installation of upgrades for exterior lighting, interior lighting, refrigeration, sensors, and light emitting diode or LED exit signs. (Non-Res Lighting)

#### Commercial Lighting Incentive Program:

- The Commercial Lighting Incentive Program (CLIP) offers customers incentives for newly purchased and installed energy-efficient lighting and controls. CLIP currently provides incentives to customers whose monthly electrical use is greater than 200 kilowatts (kW). CLIP's calculated savings approach allows customers to tailor their lighting efficiency upgrades to better meet their lighting needs, attain greater energy savings, and receive higher incentives. To aid customers in identifying the most energy efficient lighting equipment available, CLIP has partnered with the Design Lights Consortium (DLC), whose qualified product list serves as the industry standard and is recognized throughout the country. Use of DLC certification has streamlined the application process by allowing customers to qualify their new lighting products more quickly and easily. (Non-Res Lighting)

#### Business Offerings for Sustainable Solutions (BOSS):

- Launched in July 2024, LADWP's Business Offerings for Sustainable Solutions (BOSS) Program replaced the long-standing Custom Performance Program (CPP) and builds upon its established framework. BOSS provides cash incentives for non-residential energy efficiency and electrification measures that exceed Title 24 or industry standards that are not covered by existing programs. Eligible measures may include but are not limited to equipment controls, industrial processes, retro-commissioning, HVAC, commercial refrigeration, high-efficiency motors, and other innovative energy savings strategies. The program's enhanced custom features allow LADWP to tailor incentives to project scope, maximizing energy savings and electrification outcomes.
- Energy savings and incentives are determined through two pathways. The Prescriptive path uses standardized tools and deemed savings for less energy-intensive projects to streamline processing and accelerate incentive payments. The Custom Calculated path applies project-specific engineering analysis to calculate energy savings based on existing facility conditions, supporting more complex projects and maximizing savings potential. (Non-Res Cooling, Non-Res Comprehensive, Non-Res Motors, Non-Res Lighting, Non-Res Refrigeration)

#### Food Service:

- The Food Service Program (FSP) offers incentives to encourage retrofit measures and technologies to reduce energy consumption in supermarkets, liquor stores, convenience

stores, restaurants, etc. Rebates are offered for ovens, griddles, steam cookers, holding cabinets, glass and solid door refrigerators/freezers, ice makers, dishwashers and handwrappers. (Non-Res Refrigeration, Non-Res Cooking)

#### LADWP Facilities:

- The LADWP Facilities Upgrade Program strives to improve energy and water efficiency throughout LADWP's facilities with energy efficiency upgrades in HVAC and lighting and water efficiency upgrades in plumbing fixtures, leak correction and landscaping improvements. It identifies and assists those LADWP facilities to reduce energy and water usage, which results in a reduction in energy and water consumption and procurement expense for LADWP that would otherwise be borne by LADWP customers. (Non-Residential Lighting)

#### LAUSD Direct Install:

- The Los Angeles Unified School District Direct Install Program is designed to improve energy and water efficiency throughout LAUSD's facilities through upgrades in electric and water systems. This program provides energy efficiency design assistance, project management experience, and retrofitting installation, utilizing LADWP's Power Construction Maintenance (PCM) and Commercial Direct Install (CDI) program to assist LAUSD facilities reducing energy usage and corresponding utility expenses. (Non-Res Lighting)

#### Zero by Design (ZBD):

- LADWP's Zero By Design (ZBD) Program encourages sustainable development by providing financial incentives for commercial and high-rise multifamily new construction projects that exceed Title 24 or applicable industry standards. Program offerings include complimentary up-front design assistance, owner and design team incentives, and access to energy design resources. ZBD utilizes two pathways to identify and quantify energy efficiency and electrification improvements, providing flexibility across a wide range of new construction projects. Express offers incentives for the installation of high-efficiency and electrification measures using deemed energy savings calculations. Whole Building Performance rewards projects that exceed Title 24 requirements by more than 5% through a comprehensive analysis. This pathway emphasizes systems integration and connectivity to maximize energy efficiency, reduce operating costs, and enhance occupant comfort. (Non-Res Comprehensive)

#### Comprehensive Affordable Multifamily Retrofits (CAMR) Program

- The Comprehensive Affordable Multifamily Retrofits (CAMR) program is a groundbreaking initiative that is pioneering support for Los Angeles' low-income multifamily property owners. Through no-cost property assessments, CAMR helps

owners identify energy efficiency and electrification opportunities that lower energy consumption, reduce operating costs, and lower overall greenhouse gas (GHG) emissions—delivering tangible benefits to both owners and residents.

### **Residential Programs**

#### Consumer Rebate Program (CRP):

- The Consumer Rebate Program (CRP) offers incentives to its residential customers to promote and advance comprehensive energy efficiency measures, including whole-house solutions, plug load efficiency, performance standards, and integration opportunities. CRP is designed to offer and promote specific and comprehensive energy solutions within the residential market sector. (Res Heating/Cooling, Res Shell, Res Pool Pump)

#### Efficient Product Marketplace (EMP):

- The Efficient Product Marketplace (EPM) offers customers the opportunity to research, locate, and purchase energy efficient products online. Residential customers can also apply for rebates on qualifying ENERGY STAR® products, including smart thermostats, refrigerators, room air conditioners, LED lighting, and televisions. Rebates for room air cleaners were added as an offering in Spring 2025. Customers have the option of purchasing qualified products from a third-party retailer and submitting a rebate application or purchasing select products directly through the online marketplace and having the rebate applied as an instant discount at the time of purchase. (Res Cooling, Res Lighting, Res Refrigeration)

#### Home Energy Improvement Program (HEIP):

- The Home Energy Improvement Program (HEIP) is a comprehensive direct install whole-house retrofit program that offers residential customers a full suite of free products and services to improve the home's energy and water efficiency by upgrading/retrofitting the home's envelope. While not limited to low-income customers, HEIP has expanded to serve disadvantaged communities and multi-residential customers by including the multi-family segment; for properties comprised of 5 or more units. (Res Shell, Res Lighting)

#### HVAC Optimization Program:

- The AC Optimization Program provides services by certified, professional heating, ventilation, and air conditioning (HVAC) technicians to analyze cooling systems and provide basic maintenance to maximize system efficiency. This service is offered to eligible residential and commercial LADWP customers at no cost. This program also offers a programmable, Wi-Fi enabled thermostat free of charge to residential customers. This program has been on hiatus since December 2023. (Res Cooling)

#### Residential Lighting Efficiency Program:

- The Residential Lighting Efficiency Program (RLEP) provides light-emitting diode (LED) lamps to customers to reduce their home electrical use. The primary channel for distributing the LED lamps is by way of Direct-to-Door to residential customers within LADWP's service territory. Lamps are also distributed at community events and by community-based organizations. Alternative and additional distribution campaigns continue to be evaluated. (Res Lighting)

#### Attic Insulation:

- The Attic Insulation Rebate Program is returning to help Los Angeles residents improve home comfort and reduce energy costs. The program is designed for customers living in detached single family homes as well as multi family or attached homes, such as duplexes. It focuses on attic insulation, one of the most effective energy saving measures available. By preventing heat loss during the winter and heat gain during the summer, attic insulation can significantly reduce heating and cooling demands and lower overall electricity consumption.
- During its previous run, the program generated strong customer interest, highlighting the community's commitment to energy efficiency. This success has prompted LADWP to bring the program back in September 2025, offering homeowners another opportunity to upgrade their homes and save money. Customers who install attic insulation can cut energy use and save up to \$374 annually, depending on the size and location of their home.
- By reintroducing this popular rebate program, LADWP continues to support sustainable living and help residents manage utility costs while contributing to a greener future. (Res Shell)

#### **Complementary Programs**

#### Low-Income Programs:

- Refrigerator Exchange Program, Home Energy Improvement Program and Commercial Direct Install Program are key programs offered to the community, small business customers, hard to reach customers, low-income customers, and multi-unit dwellings.

#### Emerging Technologies Program (ETP):

- The LADWP Emerging Technologies Program (ETP) is designed to accelerate the introduction of innovative energy and water-efficient technologies, applications, and analytical tools that are not yet widely adopted in California. By reducing both the performance uncertainties associated with new products and institutional barriers, this program's ultimate goal is to increase the probability that promising energy and water efficiency technologies will be commercialized and adopted throughout Los Angeles.

- As a non-resource program for LADWP and focused on promoting the development and implementation of new technologies in the LADWP community, ETP provides energy and water savings that are ultimately captured in LADWP’s resource programs. In this way, ETP plays a vital role in positioning LADWP as a state and national leader in energy and water efficiency.

#### Green Power for a Green L.A. Program:

- The Green Power for a Green L.A. program gives Los Angeles residents, businesses, and governmental agencies a stake in preserving and protecting our environment through their voluntary contribution to support additional renewable energy. Customers who sign up for Green Power choose to have all, or a portion, of their electricity needs generated from renewable energy sources.

#### Program Outreach & Community Partnerships Program

- The Program Outreach & Community Partnerships Program (Program) is an advocacy program that strives to improve customer awareness among LADWP’s “hard-to-reach” customers of electric efficiency and water conservation programs through community-based activities organizations. This program offers grants to local non-profit organizations that are awarded through a competitive selection process to work in one of the fifteen Los Angeles City Council Districts, or, on an at-large basis, to improve community and customer awareness of LADWP’s core energy efficiency and water conservation programs and free services customers can take to reduce energy and water use. The program has expanded to focus on other topics such as financial assistance, community solar, water quality, and electric vehicles.

#### Research, Development, and Demonstration:

- LADWP is involved in various internal energy storage studies and projects using various technologies and use cases, including lithium-ion, flow batteries, compressed air, thermal energy storage at levels of the power system, including generation, transmission, distribution, and behind the meter. Some of these studies are in collaboration with The Electric Power Research Institute (EPRI).

#### Electric Vehicle Charger Rebate Program:

- LADWP introduced the Electric Vehicle Charger Rebate Program, “Charge Up L.A.!” to encourage the installation of convenient electric vehicle (EV) charging stations at residential and commercial locations to support the purchase and use of EVs. This program benefits the environment and helps EV drivers save on fuel costs at the same time. The rebate is offered to qualifying commercial customers who purchase and install Level 2 (240-volt) chargers at their business place. Customers who choose to install an

optional dedicated time-of-use (TOU) meter will qualify for the LADWP's EV discount of 2.5 cents per kilowatt-hour (kWh). This dedicated service will add additional cost to the installation process but will yield lower electricity costs for off-peak charging.

### **Evaluation, Measurement & Verification Studies**

The next round of EM&V services are in the RFP phase and will go through administrative processing and review.

In prior years:

- The total NTE budget for the previous round of EM&V over the 3-year contract period is \$4,895,135, which is equivalent to approximately 1% of the total portfolio budget annually.
- This evaluation will review past (retrospective) impact savings from FY15/16 thru 19/20 while simultaneously reviewing impact savings as it occurs (concurrently), from FY20/21 thru FY22/23. The process evaluation portion of the scope will only review the concurrent period. The new round of LADWP EM&V activities started Q3 of 2020 to capture impact evaluation for retrospective years. Both impact and process evaluation will be evaluated for concurrent years.
- Like prior years, the current round of EM&V contract will also have a contract term duration of 3 years. With comparable budgets as proportioned to the portfolio savings.
- LADWP has opted to evaluate its programs and activities from a holistic standpoint, emphasizing the effects of energy efficiency programs. Beyond the core impact and process evaluation findings, the new EM&V efforts will build upon the preliminary Market Transformation (MT) evaluation plan reported in prior years. One of the MT evaluation results will be to quantify the incremental energy savings potential due to market intervention introduced by the City of Los Angeles and a plan to track market indicators to re-calibrate early projections moving forward.
- Retrospective (2015-2020) Impact Evaluation Scope results and reports were delivered by June of 2021. With comprehensive concurrent (2020-2023) final results and report provided by Dec of 2023.

LADWP will publish all past and future reports on the LADWP Website:

[www.ladwp.com/reports](http://www.ladwp.com/reports)

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

Sources of energy savings include custom engineering calculations using building simulation modeling software such as EnergyPro and eQuest, Openstudio/Energyplus, and simple engineering calculations in spreadsheet format. LADWP's Custom Performance Program and Commercial Lighting incentive Programs apply these methods, respectively. For direct install and residential programs, deemed savings supported by a combination of the latest Technical

Reference Manual and utility workpapers are used. Examples of programs using this approach include the Commercial Direct Install, Consumer Rebate Program, the Food Service Program, Refrigerator Exchange, and Refrigerator Recycling Programs.

LADWP is currently transitioning towards leveraging the California Technical Forum Electronic Technical Reference Manual (eTRM) for its deemed savings references. Moving forward, all new additions and updates will be referring to the eTRM as the primary source.

For the current FY24-25 SB1037 portfolio submission, all gross savings claims are not EM&V verified or Ex-Post adjusted. Future EM&V evaluation RFP/Contract is in procurement phase, thus FY23-25 Ex-Post savings will need to be updated when EM&V contract and perform a retrospective review the FY23-24 and FY 24-24 EE portfolios.

**TABLE LADWP-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC
Appliance & Plug Loads	0	78,324	794,614	0	78,324	794,614	39	\$892,273	0.09	0.09	1.373
Building Envelope	0	8,818,911	174,253,462	0	8,818,911	174,253,462	6,763	\$10,563,280	3.26	2.71	0.089
Commercial Refrigeration	0	1,292,748	16,040,621	0	1,292,748	16,040,621	580	\$1,265,250	0.93	0.59	0.101
Food Service	0	8,185	96,886	0	8,185	96,886	3	\$25,366	0.34	0.04	0.329
HVAC - Cooling	0	4,364,291	50,998,822	0	4,364,291	50,998,822	1,761	\$3,131,530	1.41	0.49	0.081
HVAC - Heat Pump	0	170,720	3,414,405	0	170,720	3,414,405	99	\$240,212	2.43	0.16	0.104
Lighting - Indoor	0	41,345,922	486,289,839	0	41,345,922	486,289,839	16,715	\$43,056,659	0.88	0.84	0.111
Lighting - Outdoor	0	900,491	10,805,887	0	900,491	10,805,887	520	\$1,334,672	0.44	0.41	0.156
Miscellaneous	0	0	0	0	0	0	0	\$6,403,090			0.000
Process	0	3,602,600	63,667,288	0	3,602,600	63,667,288	2,113	\$2,254,765	2.03	1.02	0.050
Service & Domestic Hot Water	0	77	843	0	77	843	0	\$768	0.09	0.09	1.124
Water Pumping / Irrigation	0	8,045,868	118,231,825	0	8,045,868	118,231,825	3,752	\$1,655,613	5.92	5.92	0.019
Whole Building	0	627,413	3,796,886	0	627,413	3,796,886	149	\$657,806	0.48	0.36	0.201
<b>Energy Efficiency</b>	<b>0</b>	<b>69,255,550</b>	<b>928,391,380</b>	<b>0</b>	<b>69,255,550</b>	<b>928,391,380</b>	<b>32,494</b>	<b>\$71,481,284</b>	<b>1.31</b>	<b>1.06</b>	<b>0.101</b>
HVAC - Heat Pump	0	297,021	6,462,508	0	297,021	6,462,508	2,002	\$477,160	-1.00	-0.97	0.113
Process	0	-56,549	-848,235	0	-56,549	-848,235	-27	\$271,644	-0.22	-0.12	-0.428
Service & Domestic Hot Water	0	346,557	3,454,110	0	346,557	3,454,110	887	\$243,734	0.10	0.10	0.085
<b>Electrification</b>	<b>0</b>	<b>587,029</b>	<b>9,068,383</b>	<b>0</b>	<b>587,029</b>	<b>9,068,383</b>	<b>2,863</b>	<b>\$992,538</b>	<b>-0.52</b>	<b>-0.41</b>	<b>0.154</b>
Appliance & Plug Loads	0	-4,694	-75,104	0	-4,694	-75,104	-3	\$85,179	-0.09	-0.08	-1.546
HVAC - Heat Pump	0	5,550	58,525	0	5,550	58,525	27	\$194,391	-0.04	-0.01	3.791
Service & Domestic Hot Water	0	-91,830	-2,513,697	0	-91,830	-2,513,697	-17	\$2,813,289	-0.07	-0.06	-1.801
<b>Low-Income Electrification</b>	<b>0</b>	<b>-90,975</b>	<b>-2,530,276</b>	<b>0</b>	<b>-90,975</b>	<b>-2,530,276</b>	<b>7</b>	<b>\$3,092,859</b>	<b>-0.07</b>	<b>-0.05</b>	<b>-1.975</b>
Appliance & Plug Loads	0	2,020	20,302	0	2,020	20,302	1	\$23,080	0.09	0.09	1.389
Building Envelope	0	32,188	634,139	0	32,188	634,139	24	\$211,660	0.56	0.56	0.499
HVAC - Cooling	0	5,569	65,333	0	5,569	65,333	3	\$75,298	0.17	0.10	1.467
Lighting - Indoor	0	2,272,824	36,365,179	0	2,272,824	36,365,179	1,451	\$1,015,244	2.37	2.20	0.038
Lighting - Outdoor	0	1,327	21,232	0	1,327	21,232	1	\$16,459	0.09	0.07	1.057
Miscellaneous	0	0	0	0	0	0	0	\$102,837			0.000
Service & Domestic Hot Water	0	56,788	731,337	0	56,788	731,337	36	\$648,922	0.08	0.08	1.142
Water Pumping / Irrigation	0	58,136	581,364	0	58,136	581,364	24	\$394,782	0.12	0.13	0.821
<b>Low-Income</b>	<b>0</b>	<b>2,428,852</b>	<b>38,418,885</b>	<b>0</b>	<b>2,428,852</b>	<b>38,418,885</b>	<b>1,539</b>	<b>\$2,488,282</b>	<b>1.06</b>	<b>1.00</b>	<b>0.088</b>
<b>EE, Low Income and Electrification</b>	<b>0</b>	<b>72,180,457</b>	<b>973,348,372</b>	<b>0</b>	<b>72,180,457</b>	<b>973,348,372</b>	<b>36,903</b>	<b>\$78,054,964</b>	<b>1.23</b>	<b>0.99</b>	<b>0.106</b>
Any	0	1,319,760	16,914,182	0	1,319,760	16,914,182	669	\$8,876	386.22	386.22	0.001

Appliance & Plug Loads	0	29,057,784	435,866,757	0	29,057,784	435,866,757	17,546	\$105,015	386.22	386.22	0.000
Building Envelope	0	15,210,613	228,159,198	0	15,210,613	228,159,198	7,694	\$91,164	386.22	386.22	0.001
Commercial Refrigeration	0	15,493,432	232,401,484	0	15,493,432	232,401,484	8,277	\$41,396	386.22	386.22	0.000
Food Service	0	13,602	204,033	0	13,602	204,033	7	\$38	386.22	386.22	0.000
HVAC - Cooling	0	37,477,819	562,167,286	0	37,477,819	562,167,286	18,599	\$137,869	386.22	386.22	0.000
Lighting - Indoor	0	145,482,534	2,182,238,014	0	145,482,534	2,182,238,014	76,507	\$422,174	386.22	386.22	0.000
Miscellaneous	0	14,777,099	221,656,490	0	14,777,099	221,656,490	7,331	\$20,066,807	0.81	0.81	0.121
Process	0	46,053	690,798	0	46,053	690,798	23	\$130	386.22	386.22	0.000
Service & Domestic Hot Water	0	3,013,068	45,196,023	0	3,013,068	45,196,023	1,614	\$8,020	386.22	386.22	0.000
Whole Building	0	33,436,241	501,543,621	0	33,436,241	501,543,621	17,833	\$107,962	386.22	386.22	0.000
Codes & Standards	0	295,328,007	4,427,037,887	0	295,328,007	4,427,037,887	156,102	\$20,989,450	17.75	17.75	0.006
C&S and T&D	0	295,328,007	4,427,037,887	0	295,328,007	4,427,037,887	156,102	\$20,989,450	17.75	17.75	0.006
Utility Total	0	367,508,464	5,400,386,258	0	367,508,464	5,400,386,258	193,005	\$99,044,414	4.73	3.99	0.024

**TABLE LADWP-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	0	7,554,000	113,310,000	0	7,554,000	113,310,000	3,553	\$9,045	1,036.77	1,036.77	0.000
Commercial	0	50,413,549	605,202,735	0	50,413,549	605,202,735	20,737	\$51,475,089	0.92	0.71	0.108
Residential	0	11,288,001	209,878,645	0	11,288,001	209,878,645	8,204	\$19,997,150	1.85	1.69	0.138
Energy Efficiency	0	69,255,550	928,391,380	0	69,255,550	928,391,380	32,494	\$71,481,284	1.31	1.06	0.101
Commercial	0	-61,185	-913,188	0	-61,185	-913,188	-29	\$443,278	-0.15	-0.10	-0.648
Residential	0	648,213	9,981,571	0	648,213	9,981,571	2,892	\$549,260	-0.81	-0.81	0.077
Electrification	0	587,029	9,068,383	0	587,029	9,068,383	2,863	\$992,538	-0.52	-0.41	0.154
Residential	0	-90,975	-2,530,276	0	-90,975	-2,530,276	7	\$3,092,859	-0.07	-0.05	-1.975
Low-Income Electrification	0	-90,975	-2,530,276	0	-90,975	-2,530,276	7	\$3,092,859	-0.07	-0.05	-1.975
Residential	0	2,428,852	38,418,885	0	2,428,852	38,418,885	1,539	\$2,488,282	1.06	1.00	0.088
Low-Income EE, Low Income and Electrification	0	2,428,852	38,418,885	0	2,428,852	38,418,885	1,539	\$2,488,282	1.06	1.00	0.088
EE, Low Income and Electrification	0	72,180,457	973,348,372	0	72,180,457	973,348,372	36,903	\$78,054,964	1.23	0.99	0.106
Any	0	1,319,760	16,914,182	0	1,319,760	16,914,182	669	\$8,876	386.22	386.22	0.001
Commercial	0	186,638,559	2,799,578,383	0	186,638,559	2,799,578,383	91,413	\$9,195,954	24.42	24.42	0.004
Industrial	0	3,758,854	56,382,804	0	3,758,854	56,382,804	1,870	\$10,594	386.22	386.22	0.000
Residential	0	103,610,835	1,554,162,518	0	103,610,835	1,554,162,518	62,150	\$11,774,026	11.94	11.94	0.010
Codes & Standards	0	295,328,007	4,427,037,887	0	295,328,007	4,427,037,887	156,102	\$20,989,450	17.75	17.75	0.006
C&S and T&D	0	295,328,007	4,427,037,887	0	295,328,007	4,427,037,887	156,102	\$20,989,450	17.75	17.75	0.006
Utility Total	0	367,508,464	5,400,386,258	0	367,508,464	5,400,386,258	193,005	\$99,044,414	4.73	3.99	0.024

**TABLE LADWP-3. Energy Efficiency Program Results by Building Type**

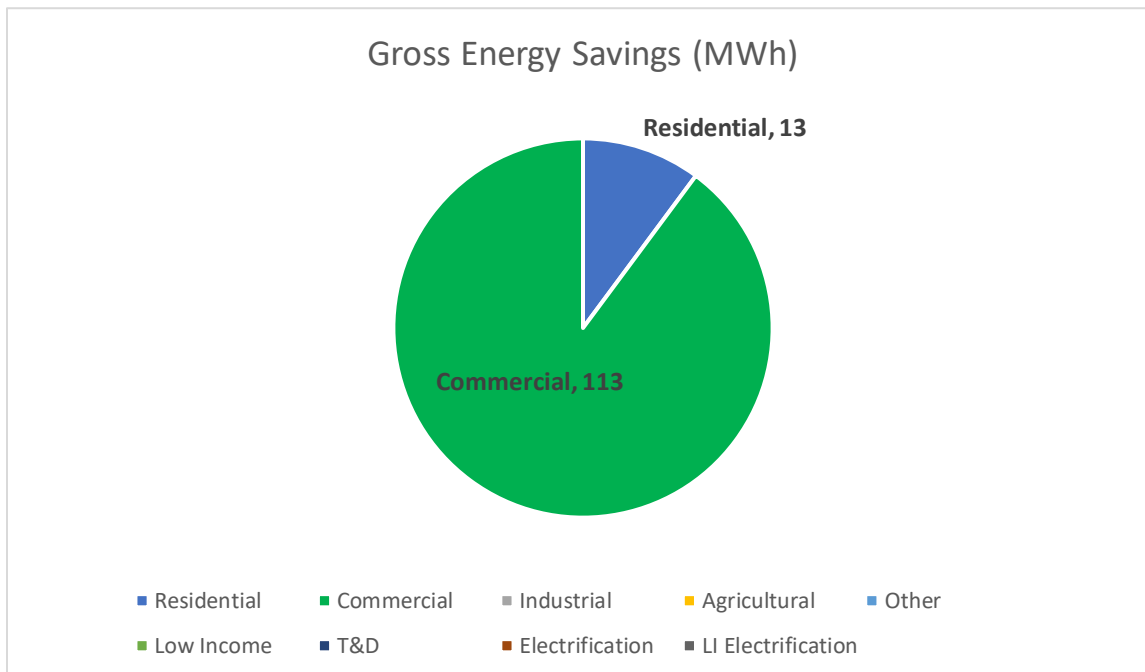
Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	0	16,802,928	292,791,888	0	16,802,928	292,791,888	10,541	\$2,325,215	18.06	9.79	0.011
Assembly	0	207,096	2,485,147	0	207,096	2,485,147	82	\$88,427	2.25	1.84	0.045
Education - Community College	0	299,210	3,562,900	0	299,210	3,562,900	127	\$514,238	0.56	0.56	0.182
Education - Primary School	0	3,017,127	35,894,566	0	3,017,127	35,894,566	1,125	\$10,954,232	0.26	0.26	0.384
Education - Secondary School	0	118,045	1,180,450	0	118,045	1,180,450	41	\$245,102	0.41	0.41	0.251
Education - University	0	2,840,601	34,474,261	0	2,840,601	34,474,261	1,277	\$1,656,508	1.63	1.50	0.061
Grocery	0	1,292,129	17,628,807	0	1,292,129	17,628,807	631	\$678,886	1.85	1.01	0.050
Health/Medical - Hospital	0	2,851,482	34,090,734	0	2,851,482	34,090,734	1,225	\$2,072,372	1.18	0.73	0.076
Lodging - Hotel	0	1,248	14,974	0	1,248	14,974	1	\$1,958	0.62	0.62	0.165
Lodging - Motel	0	1,178,961	14,138,805	0	1,178,961	14,138,805	490	\$1,835,883	0.63	0.63	0.164
Manufacturing Light Industrial	0	158,245	1,962,191	0	158,245	1,962,191	70	\$89,875	1.57	0.64	0.058
Office - Large	0	24,538,295	290,793,310	0	24,538,295	290,793,310	9,793	\$13,771,167	1.70	0.97	0.060
Office - Small	0	309,434	3,900,004	0	309,434	3,900,004	134	\$165,542	1.75	1.52	0.054
Other Commercial	0	8,699,303	102,248,787	0	8,699,303	102,248,787	3,565	\$12,634,527	0.62	0.54	0.161
Other Industrial	0	793,721	11,905,815	0	793,721	11,905,815	412	\$327,317	2.55	2.41	0.037
Residential	0	0	0	0	0	0	0	\$381,334			0.000
Residential - Multi-Family	0	112,969	1,453,680	0	112,969	1,453,680	60	\$1,717,427	0.11	0.11	1.549
Residential - Single-Family	0	1,926,105	28,943,077	0	1,926,105	28,943,077	1,157	\$15,582,219	0.27	0.27	0.739
Restaurant - Fast-Food	0	90,766	1,110,969	0	90,766	1,110,969	38	\$155,298	0.61	0.58	0.178
Restaurant - Sit-Down	0	197,210	2,107,811	0	197,210	2,107,811	76	\$308,596	0.56	0.21	0.182
Retail - Large	0	1,341,038	16,233,377	0	1,341,038	16,233,377	574	\$2,235,059	0.56	0.55	0.174
Retail - Small	0	1,800,488	22,094,018	0	1,800,488	22,094,018	746	\$3,198,187	0.55	0.55	0.184
Storage - Conditioned	0	445,000	6,675,000	0	445,000	6,675,000	240	\$213,955	2.13	1.61	0.043
Storage - Unconditioned	0	206,899	2,482,787	0	206,899	2,482,787	83	\$318,610	0.56	0.56	0.162
Warehouse - Refrigerated	0	27,253	218,021	0	27,253	218,021	9	\$9,349	1.74	0.40	0.050
<b>Energy Efficiency</b>	<b>0</b>	<b>69,255,550</b>	<b>928,391,380</b>	<b>0</b>	<b>69,255,550</b>	<b>928,391,380</b>	<b>32,494</b>	<b>\$71,481,284</b>	<b>1.31</b>	<b>1.06</b>	<b>0.101</b>
Office - Large	0	-56,549	-848,235	0	-56,549	-848,235	-27	\$271,644	-0.22	-0.12	-0.428
Other Commercial	0	-4,636	-64,953	0	-4,636	-64,953	-2	\$171,634	-0.04	-0.04	-3.484
Residential - Multi-Family	0	29,282	462,853	0	29,282	462,853	135	\$19,362	-0.43	-0.43	0.059
Residential - Single-Family	0	618,932	9,518,718	0	618,932	9,518,718	2,757	\$529,899	-0.83	-0.83	0.078
<b>Electrification</b>	<b>0</b>	<b>587,029</b>	<b>9,068,383</b>	<b>0</b>	<b>587,029</b>	<b>9,068,383</b>	<b>2,863</b>	<b>\$992,538</b>	<b>-0.52</b>	<b>-0.41</b>	<b>0.154</b>
Residential - Multi-Family	0	-132,637	-2,990,097	0	-132,637	-2,990,097	-107	\$3,077,250	-0.07	-0.06	-1.590
Residential - Single-Family	0	41,662	459,821	0	41,662	459,821	114	\$15,609	0.09	0.09	0.042
<b>Low-Income Electrification</b>	<b>0</b>	<b>-90,975</b>	<b>-2,530,276</b>	<b>0</b>	<b>-90,975</b>	<b>-2,530,276</b>	<b>7</b>	<b>\$3,092,859</b>	<b>-0.07</b>	<b>-0.05</b>	<b>-1.975</b>

Any	0	2,234,959	35,759,344	0	2,234,959	35,759,344	1,427	\$517,206	4.57	4.57	0.020
Residential	0	0	0	0	0	0	0	\$102,837			0.000
Residential - Multi-Family	0	128,513	1,662,361	0	128,513	1,662,361	73	\$1,490,114	0.09	0.08	1.162
Residential - Single-Family	0	65,380	997,180	0	65,380	997,180	39	\$378,126	0.39	0.39	0.526
Low-Income	0	2,428,852	38,418,885	0	2,428,852	38,418,885	1,539	\$2,488,282	1.06	1.00	0.088
EE, Low Income and Electrification	0	72,180,457	973,348,372	0	72,180,457	973,348,372	36,903	\$78,054,964	1.23	0.99	0.106
Any	0	295,328,007	4,427,037,887	0	295,328,007	4,427,037,887	156,102	\$964,763	386.22	386.22	0.000
Other Commercial	0	0	0	0	0	0	0	\$8,614,551			0.000
Residential	0	0	0	0	0	0	0	\$11,410,136			0.000
Codes & Standards	0	295,328,007	4,427,037,887	0	295,328,007	4,427,037,887	156,102	\$20,989,450	17.75	17.75	0.006
C&S and T&D	0	295,328,007	4,427,037,887	0	295,328,007	4,427,037,887	156,102	\$20,989,450	17.75	17.75	0.006
Utility Total	0	367,508,464	5,400,386,258	0	367,508,464	5,400,386,258	193,005	\$99,044,414	4.73	3.99	0.024

## MERCED IRRIGATION DISTRICT

### *Merced Irrigation District at a Glance*

- Climate Zone: 13
- Customers: 13,670
- Total annual retail sales: 501,029 MWh
- Annual Retail Revenue: \$93,318,808
- Annual energy efficiency expenditures for reporting year: \$126,636
- Gross annual savings from reporting year portfolio: 125 MWh



### *Merced Irrigation District Overview*

For over 75 years, Merced Irrigation District (MID) has generated wholesale electrical power. Authorized under the California Water Code, MID has operated hydroelectric facilities on the Merced River since 1927 and began selling retail electricity in 1996. Since then, more than 13,000 customers have been connected to MID's electric system. MID provides reliable electric services to customers in eastern Merced County, including Livingston, Atwater, Merced, Castle Airport, and the Aviation Development Center.

While a large portion of MID’s energy efficiency savings comes from industrial customers—who make up roughly 15% of the customer base—most residential customers live in newer construction.

### **Major Program and Portfolio Changes**

MID did not have any major program changes for 2025.

### **Program and Portfolio Highlights**

MID continued to offer a range of residential incentives in 2025. These rebates were supported by refined reporting categories aligned with the eTRM, ensuring consistency, transparency, and regulatory compliance in program reporting.

While no major program changes were introduced during the 2025 program year, MID benefited from updates to the residential rebate applications implemented at the end of 2024. These updated applications were used throughout 2025 and improved the accuracy and completeness of submitted information, while also making the rebate process easier and more user-friendly for customers.

Collectively, these efforts reflect MID’s continued focus on maintaining effective and accessible energy efficiency programs, while prioritizing data quality and a positive customer experience.

### **Commercial, Industrial & Agricultural Programs**

In the area of commercial, industrial, and agricultural programs, MID continued to offer the Customized/Industrial Retrofit Program, which allows qualifying customers to apply for financial incentives for specialized and comprehensive energy-saving measures that fall outside the scope of the Commercial Lighting Program. Each project is evaluated and approved on an individual basis. Incentives are issued based on verified annual energy savings, calculated using either kilowatt-hour (kWh) reductions or kilowatt (kW) demand savings, whichever is greater for the completed and approved project.

In 2025, MID approved three commercial rebate projects under this program, which included lighting and HVAC upgrades.

In addition, MID continued to offer the eMeter Manager tool to eligible commercial and industrial customers with demands of 300 kW or greater who are equipped with interval data recorder (IDR) meters. eMeter Manager provides customers with access to 15-minute interval usage and demand data, enabling them to monitor energy consumption trends, download data for analysis, and take a more active role in managing energy use.

### **Residential Programs**

MID continued to offer residential energy efficiency programs in 2025 with measures aligned to the Electronic Technical Reference Manual (eTRM). MID maintained its existing residential rebate offerings and focused on program administration, data quality, and customer accessibility.

MID continues to evaluate potential future residential offerings, including incentives for low-income customers and electrification measures.

### **Complementary Programs**

Complementing its energy efficiency initiatives, MID continues to offer the California Alternate Rates for Energy (CARE) Program, which has provided bill discounts to income-qualified low-income households since 2000. In addition, the Medical Baseline Program provides an additional 500 kilowatt-hours to a customer's monthly baseline allowance for those with qualifying medical conditions.

MID continues to make applications for these programs available in multiple languages and conducts ongoing customer outreach through local businesses and community locations. These efforts support increased awareness and participation, helping ensure that eligible customers have access to critical energy assistance programs.

### **Evaluation, Measurement & Verification Studies**

MID again partnered with Modesto Irrigation District and Turlock Irrigation District to conduct a joint Evaluation, Measurement, and Verification (EM&V) effort. These three districts, collectively referred to as MTM, are located in California's Central Valley and collaborate to improve consistency and efficiency in EM&V activities.

The EM&V study was conducted by Anchor Blue. The final report for the 2024 program year was received in December 2025 and is currently under review. Findings from the study will be used to inform potential program improvements.

**TABLE Merced-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	0	46	911		0	0	0	\$175			0.000
Appliance & Plug Loads	0	10,106	109,321	0	5,454	56,006	18	\$10,301	0.51	0.61	0.225
HVAC - Cooling	6	14,523	216,883	5	12,207	182,751	49	\$18,615	0.74	0.89	0.136
HVAC - Heat Pump	2	2,166	32,490	1	1,300	19,494	8	\$5,739	0.36	0.57	0.393
Lighting - Indoor	8	98,415	1,476,225	5	54,128	811,924	274	\$91,807	0.87	0.91	0.151
Energy Efficiency	16	125,255	1,835,830	10	73,089	1,070,175	349	\$126,636	0.79	0.87	0.157
EE, Low Income and Electrification	16	125,255	1,835,830	10	73,089	1,070,175	349	\$126,636	0.79	0.87	0.157
<b>C&amp;S and T&amp;D</b>											
Utility Total	16	125,255	1,835,830	10	73,089	1,070,175	349	\$126,636	0.79	0.87	0.157

**TABLE Merced-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	7	25,120	376,759	5	18,047	270,692	78	\$26,994	0.82	0.91	0.133
Commercial	7	87,461	1,311,915	4	48,104	721,553	243	\$81,588	0.87	0.91	0.151
Residential	2	12,674	147,156	1	6,938	77,930	27	\$18,054	0.43	0.58	0.290
Energy Efficiency	16	125,255	1,835,830	10	73,089	1,070,175	349	\$126,636	0.79	0.87	0.157
EE, Low Income and Electrification	16	125,255	1,835,830	10	73,089	1,070,175	349	\$126,636	0.79	0.87	0.157
C&S and T&D											
Utility Total	16	125,255	1,835,830	10	73,089	1,070,175	349	\$126,636	0.79	0.87	0.157

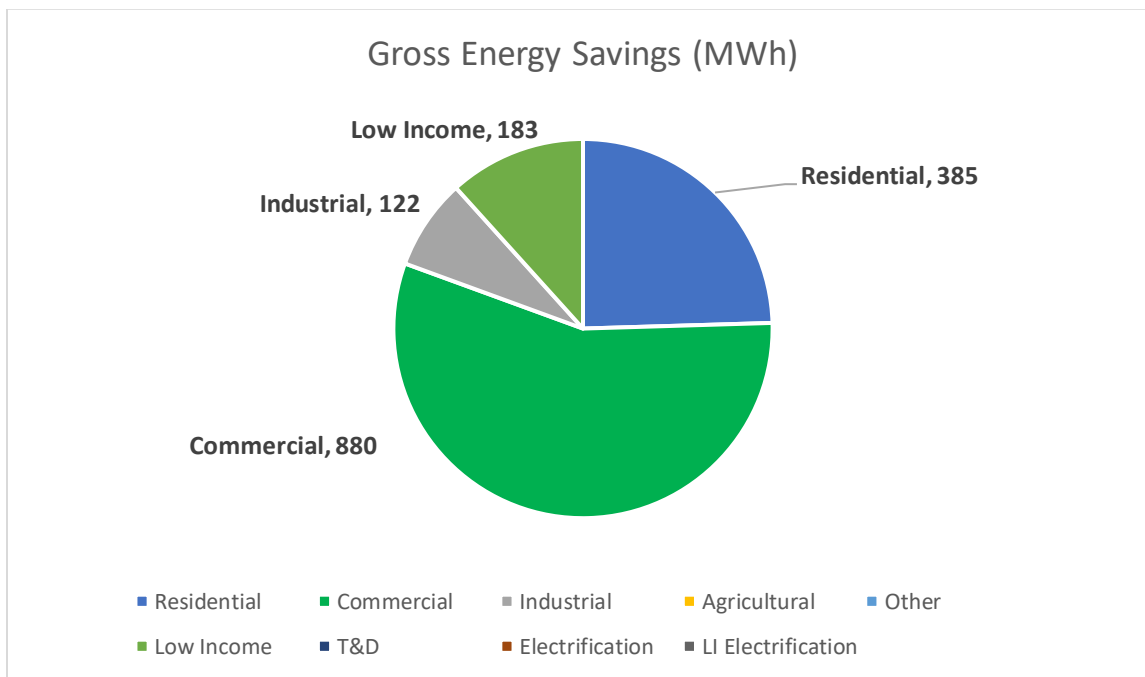
**TABLE Merced-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	0	1,223	16,325	0	516	6,929	3	\$2,068	0.60	0.41	0.388
Residential - Single-Family	2	11,495	131,450	1	6,441	71,267	24	\$16,134	0.40	0.63	0.282
Retail - Large	13	112,537	1,688,055	9	66,132	991,979	321	\$108,434	0.86	0.91	0.146
Energy Efficiency	16	125,255	1,835,830	10	73,089	1,070,175	349	\$126,636	0.79	0.87	0.157
EE, Low Income and Electrification	16	125,255	1,835,830	10	73,089	1,070,175	349	\$126,636	0.79	0.87	0.157
<b>C&amp;S and T&amp;D</b>											
Utility Total	16	125,255	1,835,830	10	73,089	1,070,175	349	\$126,636	0.79	0.87	0.157

## MODESTO IRRIGATION DISTRICT

### *Modesto Irrigation District at a Glance*

- Climate Zone: 12
- Customers: 134,563
- Total annual retail sales: 2,592,230 MWh
- Annual Retail Revenue: \$475,441,776
- Annual energy efficiency expenditures for reporting year: \$1,311,639
- Gross annual savings from reporting year portfolio: 1,570 MWh



### *Modesto Irrigation District Overview*

The Modesto Irrigation District (MID) was formed in 1887 to provide irrigation water within a service area of over 100,000 acres. MID began providing electric service in 1923 within an original service area of 160 square miles, which was expanded by 7.5 square miles in 2001. Since 1996, MID has also provided non-exclusive electric service in an adjacent 400 square mile area. In 1994, MID began providing treated domestic water to the City of Modesto on a wholesale basis.

MID's 2025 annual retail electric sales by customer class are: 36.41% residential, 27.48% commercial, 30.66% industrial, 4.46% agricultural and pumping, 0.64% other. For 2025 load

growth was -3.47% (based on Total System Input GWH). Load growth was negative because there was less load in 2025 than 2024.

MID has robust energy efficiency program offerings, but savings can fluctuate year to year independent of changes to the programs or to the economic outlook. A key contributor is multi-year construction cycles for energy efficiency projects of large industrial customers. Typically, when lower energy savings are reported in the current year, we anticipate a surge in the following year as projects complete.

### **Major Program and Portfolio Changes**

MID did not have any changes for 2025.

### **Program and Portfolio Highlights**

MID continued to promote low to moderate income energy efficiency programs by providing staff presentations on energy efficiency to non-profit agencies and low-income advocacy groups in our area in 2025. Social media promotions have improved customer awareness of MID programs.

### **Commercial, Industrial & Agricultural Programs**

Programs offered are Business, Business Custom and Business New Construction. See MID website ([www.mid.org](http://www.mid.org)) for program details.

### **Residential Programs**

MID offers a variety of residential rebates. See MID website ([www.mid.org](http://www.mid.org)) for program details.

### **Complementary Programs**

- Energy Audits – MID energy specialists provide free virtual and on-site energy audits that include usage analysis, identification, and recommendation of energy conservation measures to reduce load and improve energy efficiency.
- CARES Program – Income qualifying households will receive a 60 percent reduction on their fixed monthly charge and a 23.1 percent discount on the first 850 kilowatt-hours each billing cycle. The MID CARES discount is also applicable to group residences where low-income persons are accommodated without a rental charge by a non-profit agency.
- Medical Life Support Rate – Customers who need electricity for life-sustaining devices or who have a condition that requires special heating or air conditioning may qualify for 50 percent off the first 500 kilowatt-hours used during each residential billing cycle.

- Weatherization – Our Weatherization program provides energy efficient measures to income qualified households to help reduce their energy consumption. Energy savings from the weatherization program are included in the results for the SB1037 report. However, MID continues to facilitate new partnerships with other organizations and agencies to increase its outreach and provide additional weatherization services to low-income customers.
- Good Neighbor Program – Each month, many MID customers seek emergency assistance to help pay their electric bills. With MID's Good Neighbor Program, customers can donate money to a designated fund for MID customers that seek assistance. MID works with the Salvation Army to ensure that 100% of the donations go only to those MID customers who are experiencing hardships.

### **Evaluation, Measurement & Verification Studies**

MID continued its ongoing efforts to obtain independent, third-party review of its EE programs, which is employed as part of the review and approval process for selected projects as well as after the fact for the overall portfolio.

Anchor Blue Consulting conducted M&V on the 2024 EE portfolio. Review of the 2026 portfolio will be done in 2027.

MID's 2025 budget for EM&V work was \$20,800 and completed studies can be found at: <https://www.cmua.org/emv-reports> .

**TABLE MID-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC
Appliance & Plug Loads	2	115,751	1,225,322	2	114,837	1,215,267	355	\$85,915	1.85	0.76	0.088
Building Envelope	46	43,104	769,694	46	43,104	769,694	348	\$112,961	2.15	0.71	0.213
Commercial Refrigeration	0	1,459	10,213	0	730	5,107	2	\$481	1.52	0.63	0.109
HVAC - Cooling	41	238,243	2,997,633	25	135,438	1,726,845	669	\$185,817	1.65	1.00	0.140
Lighting - Indoor	27	366,970	5,502,908	15	201,834	3,026,600	1,007	\$185,281	2.35	1.52	0.082
Lighting - Outdoor	13	610,936	9,161,567	7	336,015	5,038,862	1,681	\$300,644	2.33	1.73	0.080
Service & Domestic Hot Water	1	9,330	93,304	1	9,330	93,304	31	\$8,041	1.75	1.24	0.105
Water Pumping / Irrigation	0	1,230	12,289	0	615	6,145	2	\$704	1.20	1.13	0.140
<b>Energy Efficiency</b>	<b>132</b>	<b>1,387,024</b>	<b>19,772,930</b>	<b>97</b>	<b>841,902</b>	<b>11,881,823</b>	<b>4,095</b>	<b>\$879,845</b>	<b>2.11</b>	<b>1.19</b>	<b>0.099</b>
Appliance & Plug Loads	4	28,248	420,187	4	28,248	420,187	147	\$80,548	0.81	0.72	0.258
Building Envelope	5	6,294	52,774	5	6,294	52,774	23	\$56,692	0.26	0.55	1.289
HVAC - Cooling	5	32,345	167,318	5	32,345	167,318	79	\$59,589	0.63	0.59	0.399
Lighting - Indoor	10	102,286	1,631,767	10	102,286	1,631,767	593	\$196,150	1.37	1.39	0.165
Miscellaneous	1	4,497	43,092	1	4,497	43,092	12	\$30,416	0.20	0.20	0.882
Service & Domestic Hot Water	2	9,800	97,925	2	9,800	97,925	35	\$8,400	1.81	1.72	0.105
<b>Low-Income</b>	<b>27</b>	<b>183,470</b>	<b>2,413,062</b>	<b>27</b>	<b>183,470</b>	<b>2,413,062</b>	<b>889</b>	<b>\$431,794</b>	<b>0.94</b>	<b>0.99</b>	<b>0.238</b>
<b>EE, Low Income and Electrification</b>	<b>159</b>	<b>1,570,494</b>	<b>22,185,992</b>	<b>124</b>	<b>1,025,372</b>	<b>14,294,885</b>	<b>4,984</b>	<b>\$1,311,639</b>	<b>1.73</b>	<b>1.15</b>	<b>0.122</b>
<b>C&amp;S and T&amp;D</b>											
<b>Utility Total</b>	<b>159</b>	<b>1,570,494</b>	<b>22,185,992</b>	<b>124</b>	<b>1,025,372</b>	<b>14,294,885</b>	<b>4,984</b>	<b>\$1,311,639</b>	<b>1.73</b>	<b>1.15</b>	<b>0.122</b>

**TABLE MID-2. Energy Efficiency Program Results by Sector**

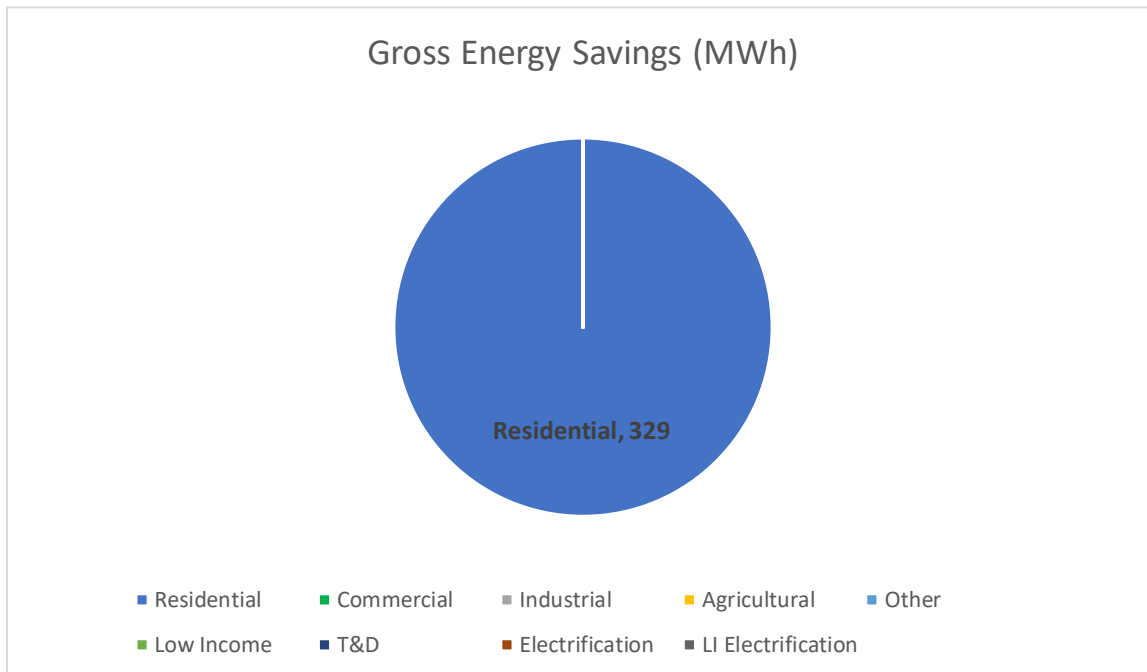
Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	33	880,272	13,152,273	18	482,952	7,218,207	2,404	\$435,909	2.32	1.64	0.081
Industrial	10	121,581	1,823,066	6	66,870	1,002,687	332	\$61,861	2.35	1.58	0.083
Residential	88	385,170	4,797,590	73	292,080	3,660,929	1,360	\$382,075	1.84	0.82	0.136
Energy Efficiency	132	1,387,024	19,772,930	97	841,902	11,881,823	4,095	\$879,845	2.11	1.19	0.099
Residential	27	183,470	2,413,062	27	183,470	2,413,062	889	\$431,794	0.94	0.99	0.238
Low-Income	27	183,470	2,413,062	27	183,470	2,413,062	889	\$431,794	0.94	0.99	0.238
EE, Low Income and Electrification	159	1,570,494	22,185,992	124	1,025,372	14,294,885	4,984	\$1,311,639	1.73	1.15	0.122
<b>C&amp;S and T&amp;D</b>											
Utility Total	159	1,570,494	22,185,992	124	1,025,372	14,294,885	4,984	\$1,311,639	1.73	1.15	0.122

**TABLE MID-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	41	988,406	14,785,466	23	543,098	8,125,957	2,703	\$491,453	2.32	1.63	0.081
Grocery	0	1,459	10,213	0	730	5,107	2	\$481	1.52	0.63	0.109
Multiple	0	92,268	839,168	0	48,902	444,759	96	\$17,256	1.24	1.07	0.047
Other Commercial	2	11,988	179,660	1	5,994	89,830	31	\$5,837	2.35	2.15	0.087
Residential	41	150,168	2,193,264	26	100,444	1,451,012	625	\$186,661	1.69	0.78	0.172
Residential - Multi-Family	3	1,512	30,174	3	1,512	30,174	11	\$5,437	1.78	0.39	0.266
Residential - Single-Family	45	141,223	1,734,984	45	141,223	1,734,984	628	\$172,721	2.08	0.88	0.131
Energy Efficiency	132	1,387,024	19,772,930	97	841,902	11,881,823	4,095	\$879,845	2.11	1.19	0.099
Multiple	2	11,266	105,203	2	11,266	105,203	37	\$21,834	0.71	0.96	0.253
Residential	24	166,642	2,256,645	24	166,642	2,256,645	836	\$393,735	0.98	1.00	0.234
Residential - Single-Family	2	5,562	51,214	2	5,562	51,214	16	\$16,225	0.49	0.71	0.388
Low-Income	27	183,470	2,413,062	27	183,470	2,413,062	889	\$431,794	0.94	0.99	0.238
EE, Low Income and Electrification	159	1,570,494	22,185,992	124	1,025,372	14,294,885	4,984	\$1,311,639	1.73	1.15	0.122
<b>C&amp;S and T&amp;D</b>											
Utility Total	159	1,570,494	22,185,992	124	1,025,372	14,294,885	4,984	\$1,311,639	1.73	1.15	0.122

***Moreno Valley Utility at a Glance***

- Climate Zone: 10
- Customers: 9,473
- Total annual retail sales: 217,444 MWh
- Annual Retail Revenue: \$60,586,911
- Annual energy efficiency expenditures for reporting year: \$531,987
- Gross annual savings from reporting year portfolio: 329 MWh



***Moreno Valley Utility Overview***

Moreno Valley Utility (MVU) is a municipally owned utility founded in 2001 and has been providing electric service to customers since 2004. MVU has experienced load growth over the years, with peak demand reaching just over 217K megawatts. Approximately 82% of MVU’s customer base is residential. Due to Moreno Valley’s rapid growth, a substantial share of MVU’s service territory is comprised of new construction that adheres to enhanced energy-efficiency standards. Nevertheless, MVU is committed to the development of innovative and engaging Energy Efficiency (EE) programs for both residential and commercial customers. MVU’s energy savings goals are primarily driven by Residential Energy Audit and Direct-Install programs, which support the implementation of energy-efficiency measures throughout the service territory.

### **Major Program and Portfolio Changes**

MVU did not implement any major program changes during this reporting year. Programs staff continue to actively market energy efficiency programs and improve program accessibility by streamlining and expanding application availability. The program portfolio is reviewed annually to identify opportunities for adjustments that enhance customer participation and maximize energy savings.

### **Program and Portfolio Highlights**

MVU's residential direct-install and residential appliance programs have proven to be the most popular among its energy efficiency offerings. Within these programs, the HVAC Brushless Fan Motor direct-install measure and the ENERGY STAR®-rated refrigerator rebate were the most utilized measures in 2025. MVU continues to seek increased participation across all energy efficiency programs, with a particular focus on expanding engagement within the commercial sector.

### **Commercial, Industrial & Agricultural Programs**

- Lighting Retrofits – rebates are available to commercial customers for LED lighting retrofits, other energy efficient lighting replacements, and for LED or photo-luminescent exit signs.
- Commercial EE Program – this Direct Install program provides small to medium-sized customers with an onsite energy audit and energy saving measures at no cost to the customer.
- Commercial HVAC Retrofits – customers that install new high SEER HVAC units or replace older inefficient units can participate in this rebate program. The installation of new chillers that exceed Title 24 requirements or load-shifting Thermal Energy Storage (TES) systems may also qualify for rebates.
- New Construction and Major Tenant Renovation – this program offers incentives for projects exceeding Title 24 by at least ten percent. Eligible customers are responsible for providing documentation of energy savings using energy modeling software and all calculations must be signed by a licensed mechanical engineer.
- Outreach Programs – the utility works closely with the City's Economic Development department to provide the largest commercial customers with detailed energy usage information to help efficiently manage their energy consumption and evaluate potential EE projects.

### **Residential Programs**

- Residential Energy Audit & Direct Install – this program targets very high energy use customers and participants in our Low-Income Program. The program provides eligible residential customers with a full in-home energy audit and specific recommendations for their home plus a fixed set of EE upgrades, including smart thermostats, at no cost to the customer.
- EnergyStar® Appliance Rebates – customers who purchase EnergyStar® Qualified appliances can apply for a fixed rebate amount under this program. Weatherization – rebates are available for energy efficient windows, doors, attic insulation, and high SEER AC and heat pumps.
- Building Electrification - MVU offers rebates for electric heat pump water heaters for those customers who want to remove their natural gas appliances.
- Shade Tree Program (Launching 2026): customers who purchase a qualifying shade tree will be eligible for a rebate, in aim to reduce heat-island effects and improve home energy efficiency.
- Solar Generator Rebate for Medical Baseline Customers (Launching 2026): customers enrolled in MVU’s Medical Baseline Program will qualify for a solar generator rebate, providing a more energy-efficient and reliable backup power option during medical emergencies.

### **Complementary Programs**

- Low-Income Programs: MVU’s Energy Bill Assistance Program provides income qualified residents with a 23% or 35% discount on monthly energy charges. MVU also offers the Emergency Assistance Fund program that allows customers experiencing hardships to receive a one-time bill credit of up to \$1400. Last fiscal year’s expenditure for low-income programs was approximately \$464K
- Research Design & Development (RD&D): Small scale projects have been initiated by our interns in hopes of promoting efficient renewable energy. Project such as the Solar Canopy include a modified canopy that utilizes solar panels and batteries to create and store energy from the sun, then power three daily loads found in most households. MVU seeks to expand research, design, and development (RD&D) projects focused on renewable energy technologies.
- Electric Vehicles (EVs): MVU has two programs that aim in the encouragement of adopting EVs and related infrastructure in the community. Both programs offer rebates for commercial and residential engagement. The residential EV program, also offers a monthly bill discounts. These incentives help reduce the upfront costs of purchasing and installation. Thus, making it more accessible to adopt an eco-friendlier lifestyle.

- Energy Storage: MVU has seen a significant increase in battery storage devices with residential solar installations. New solar installations are served under a Time-of-Use (TOU) rate, MVU anticipates an ongoing increase in customer adoption of battery storage systems.
- Solar Electric Incentive Program: MVU continues to experience steady growth in photovoltaic (PV) solar array installations across both the residential and commercial sectors. In 2025, the City interconnected 1,815 kW (AC) of new solar capacity.

### **Evaluation, Measurement & Verification Studies**

MVU is committed to providing ongoing evaluation to support verification efforts across its programs. Engineering analysis tools, such as DOE-2, serve as the foundation for calculating energy savings and determining incentive amounts. For all projects resulting in a commercial rebate exceeding \$5,000, MVU requires both pre- and post-inspections. Direct install programs are periodically audited to ensure compliance with program requirements and proper verification of incentive eligibility. Sources of Energy Savings: MVU primarily relied on values from the updated CET/RP model and supplemented these with reported energy savings from trusted engineering contractors to calculate overall program performance.

**TABLE MVU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	5	32,868	488,700	4	31,181	464,049	167	\$60,878	0.88	0.88	0.175
Appliance & Plug Loads	1	2,554	32,340	0	1,416	18,564	7	\$872	2.84	2.10	0.061
HVAC - Cooling	136	224,727	1,793,942	82	141,279	1,107,453	430	\$452,665	0.58	0.60	0.481
Lighting - Indoor	11	69,000	830,000	11	69,000	830,000	305	\$17,572	5.69	5.69	0.027
Energy Efficiency	152	329,150	3,144,982	97	242,876	2,420,066	907	\$531,987	0.78	0.81	0.272
EE, Low Income and Electrification	152	329,150	3,144,982	97	242,876	2,420,066	907	\$531,987	0.78	0.81	0.272
C&S and T&D								\$0			
Utility Total	152	329,150	3,144,982	97	242,876	2,420,066	907	\$531,987	0.78	0.81	0.272

**TABLE MVU-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Residential	152	329,150	3,144,982	97	242,876	2,420,066	907	\$531,987	0.78	0.81	0.272
Energy Efficiency	152	329,150	3,144,982	97	242,876	2,420,066	907	\$531,987	0.78	0.81	0.272
EE, Low Income and Electrification	152	329,150	3,144,982	97	242,876	2,420,066	907	\$531,987	0.78	0.81	0.272
C&S and T&D								\$0			
Utility Total	152	329,150	3,144,982	97	242,876	2,420,066	907	\$531,987	0.78	0.81	0.272

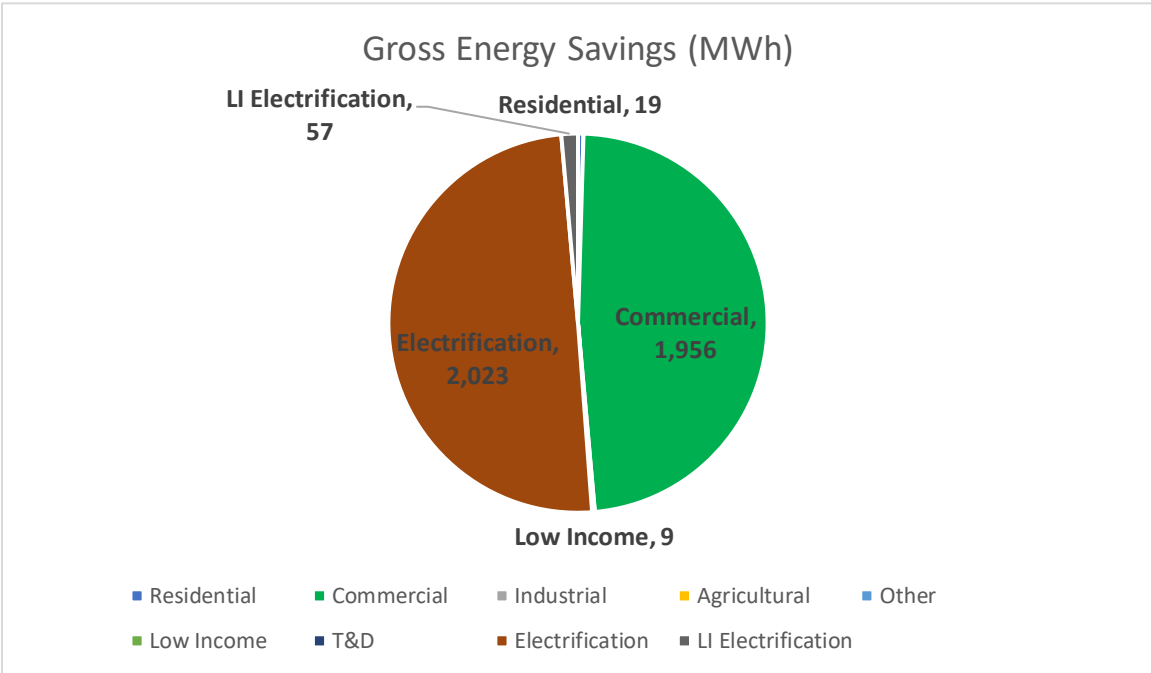
**TABLE MVU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	0	174	1,740	0	104	1,044	0	\$68	2.10	2.86	0.079
Multiple	7	43,875	453,125	7	43,875	453,125	169	\$9,941	5.69	5.69	0.027
Residential	133	223,670	2,238,274	81	153,202	1,622,994	606	\$451,715	0.63	0.64	0.350
Residential - Single-Family	12	61,431	451,843	9	45,695	342,903	132	\$70,263	1.08	1.27	0.240
Energy Efficiency	152	329,150	3,144,982	97	242,876	2,420,066	907	\$531,987	0.78	0.81	0.272
EE, Low Income and Electrification	152	329,150	3,144,982	97	242,876	2,420,066	907	\$531,987	0.78	0.81	0.272
C&S and T&D								\$0			
Utility Total	152	329,150	3,144,982	97	242,876	2,420,066	907	\$531,987	0.78	0.81	0.272

# CITY OF PALO ALTO UTILITIES

## City of Palo Alto Utilities at a Glance

- Climate Zone: 4
- Customers: 30,196
- Total annual retail sales: 911,001 MWh
- Annual Retail Revenue: \$185,514,392
- Annual energy efficiency expenditures for reporting year: \$2,938,081
- Gross annual savings from reporting year portfolio: 4,064 MWh



## City of Palo Alto Utilities Overview

The City of Palo Alto Utilities (CPAU) has implemented a variety of energy efficiency (EE) programs since the 1970s. In 1998, in response to California’s landmark energy legislation (AB 1890), CPAU established the Electric Public Benefits (PB) Program and increased the Electric PB program budget to 2.85 percent of projected annual revenue to fund EE programs. This report is not a comprehensive accounting of these Public Benefits funds, but a portion of PB funds do serve as a primary funding source for many of the included programs. CPAU’s electric efficiency program budget can also be supplemented with supply funds to meet state requirements that publicly owned electric utilities, in procuring energy, first acquire all available EE and demand reduction resources that are cost effective, reliable and feasible.

CPAU is committed to supporting environmental sustainability through promoting efficiency programs, promoting distributed renewable generation, and influencing consumer demand through incentives and education. In March 2013, Palo Alto City Council approved a Carbon Neutral Electric Resource Plan, committing CPAU to a carbon-neutral electric portfolio beginning in 2013. Since July 2017, CPAU has also maintained a carbon neutral natural gas portfolio by purchasing carbon offsets; this serves as a bridge strategy to meeting the City's greenhouse gas reduction goal. Palo Alto is committed to reducing fossil fuel use and helping residents and businesses pursue electrification opportunities in the building and transportation sectors.

In May 2021, Palo Alto City Council approved a set of annual electric EE goals for 2022-2031. The EE goal for FY 2025 was set at 0.60% of forecast electric load, increasing to 0.80% in FY 2031. In June 2025, Palo Alto City Council approved a new set of annual EE goals for 2026-2035 with the goal ranging from 0.24% in FY 2026 to 0.53% in FY 2035. The lower target EE levels compared to previous goal setting are a reflection of a shrinking EE market as electrification alternatives overshadow traditional EE projects and tightening regulatory requirements reduce opportunities for EE programs to claim savings. These EE goals are based on the results of an EE potential model that considers planned program offerings, expenditures, market saturation of energy efficient technologies, load forecast, and a planned conservation voltage reduction program following the city-wide deployment of Advanced Metering Infrastructure (AMI).

For FY 2025, CPAU fell short of its electricity savings targets, achieving 0.20% versus its goal of 0.60%. However, these FY 2025 electric efficiency savings keep CPAU on track to achieve its updated EE goals starting in FY 2026. As mentioned above, these new goals account for changes to the EE market over the last few years and better represent CPAU's current expectations for annual EE savings. The FY 2025 report also includes completed electrification projects, but efficiency improvements from electrification are not counted towards CPAU's EE goals and achievements.

### **Major Program and Portfolio Changes**

In FY 2025 CPAU had significant changes in commercial EE programs and residential electrification programs. On the commercial side, FY 2025 showed a marked increase in EE savings from Business Energy Advisor participants, while the Commercial and Industrial EE Program yielded 6 more electrification projects compared to FY 2024. FY 2025 is also the first year that CPAU is reporting on electrification projects completed by participants in the Business Electrification Technical Assistance Program that was initially launched in 2023. On the residential side, CPAU expanded its electrification program offerings to include a Heat Pump Water Heater Emergency Replacement Program alongside the existing Full Service Heat Pump Water Heater Program, previously referred to as the Advanced Heat Pump Water Heater Pilot Program. CPAU also launched a residential Rebate Hub Program offering rebate options for projects including heat pump water heaters, HVAC, attic/roof insulation, and other measures. Energy efficiency savings are reported for electrification projects by converting gas therm

savings to equivalent electric kWh savings by multiplying the therms saved by approximately 29.3 and then subtracting any incremental electricity usage of the new electric appliance.

### **Program and Portfolio Highlights**

The highlight of CPAU's FY 2025 portfolio is its expanding electrification portfolio. This year, CPAU's equivalent electric savings reached 2,080 annual MWh from electrification projects, while its traditional electric efficiency programs saved 1,845 annual MWh. This marks the first year that CPAU has seen greater energy savings from electrification projects than from energy efficiency projects. This trend is expected to continue as Palo Alto continues working towards its ambitious GHG reduction goal of 80% reduction below 1990 levels by 2030.

### **Commercial, Industrial & Agricultural Programs**

- **Business Customer Rebates (BCR):** Incentives are offered to commercial customers for investments in efficiency, lighting, motors, HVAC and custom projects that target gas, peak demand and energy reductions. In FY 2025, the BCR program resulted in annual equivalent electric savings of 9,370 kWh.
- **Commercial and Industrial EE Program (CIEEP):** This program provides Key Account customers with access to an engineering consulting firm to evaluate and implement EE projects. In FY 2025, the CIEEP program delivered annual equivalent electric savings of 1,056,645 kWh and annual traditional electric efficiency savings of 178,729 kWh.
- **Business Energy Advisor (BEA) program:** This program dispatches trained energy professionals to evaluate energy equipment such as lighting, heating, ventilation, and AC (HVAC) systems, hot water systems, refrigeration and more at small to medium business customers. Their customized assessments pinpoint exactly where businesses can benefit from efficiency by identifying cost-effective upgrades to electric, gas and water use equipment. Energy Advisors review assessment reports with customers and explain where they can reduce energy or water use. In FY 2025, the BEA program resulted in annual traditional electric efficiency savings of 1,611,847 kWh.
- **Business Electrification Technical Assistance Program (BETAP):** This program assists non-residential customers with conversion of gas equipment to efficient electric alternatives at their offices or facilities. By signing up for the Business Electrification Technical Assistance Program, participants receive free consultation and on-site assessments to identify electrification opportunities relevant to your business and facilities, help finding qualified contractors for project upgrades, and rebates for eligible products to help offset project costs. In FY 2025, the BETAP program delivered annual equivalent electric savings of 88,150 kWh.

## **Residential Programs**

- **MultiFamily Plus:** This program provides no-cost, direct installation of EE measures to multifamily residences with four or more units including hospices, care centers, and rehab facilities. These properties are typically very difficult to engage in and unlikely to implement EE measures on their own. In FY 2025, the MultiFamily Plus program delivered annual traditional electric savings of 8,791 kWh.
- **Residential Energy Assistance Program (REAP):** This program provides weatherization and equipment replacement services to low-income residents and those with certain medical conditions, at no cost to the residents. This program has an equal focus on efficiency and comfort. As a program serving income and medically qualified residents, it is not meant to be cost-effective, and neither costs nor savings are included in CPAU's calculation of EE portfolio cost effectiveness. In FY 2025, REAP resulted in annual equivalent electric savings of 57,408 kWh and annual traditional electric efficiency savings of 1,994 kWh.
- **Full Service Heat Pump Water Heater (HPWH) program:** This program offers an end-to-end advisory and installation service to homeowners to replace their gas water heater with an efficient electric heat pump water heater; this includes a prescreened contractor, zero-interest financing, attractive pricing with CPAU subsidies, and more. In addition to the full-service option, customers can also choose their own contractor for their project and apply for a rebate after the HPWH is installed. In FY 2025, the Full Service HPWH program installed 137 new water heaters and produced annual equivalent electric savings of 561,779 kWh.
- **Heat Pump Water Heater Emergency Replacement program:** CPAU expanded its Full Service HPWH program to include services specifically for those in need of an emergency replacement. This program works directly with plumbers to offer quick turnaround HPWH installations for residents with water heater failures. In FY 2025, the HPWH Emergency Replacement program installed 26 new water heaters, yielding an annual equivalent electric savings of 106,615 kWh.
- **Rebate Hub:** The City's new Electrification Rebate Hub allows customers to identify available rebates, bundle them, get a project quote, and submit required documentation all through an online portal. This program is designed to provide rebates for customers who are looking to take on projects more independently, with less hands-on support from CPAU staff. In FY 2025, the Rebate Hub supported installation of 44 heat pump water heaters, 19 heat pump HVAC systems, and 1 attic insulation project, yielding an annual equivalent electric savings of 200,446 kWh and annual traditional electric savings of 178 kWh.

### **Complementary Programs**

- **C&S: Green Building Ordinance:** Since 2008, as part of the Green Building Ordinance the City of Palo Alto has enforced energy reach codes that are more stringent than the state’s Title 24 building energy standards. The energy reach code requirements apply to both new residential and commercial buildings. However, in FY 2025 resource limitations restricted the amount of project data that staff could review to only the largest commercial projects. In FY 2025, 43,200 kWh of savings were attributable to the city’s Green Building Ordinance.
- **Community Resource Education Programs:** CPAU offers free EE advice and energy education programs to the community. Activities include residential energy workshops on topics such as the SunShares solar group-buy program and tabling at neighborhood association events, local fairs and various special events throughout the city.
- **Low-Income Program: Rate Assistance Program (RAP):** CPAU offers a 25% discount on gas and/or electricity charges for residents with qualifying financial or medical needs. All households receiving Supplemental Security Income, Temporary Assistance to Needy Families or Food Stamps automatically qualify for this rate discount which began in FY 1993.
- **Public School Program:** CPAU provides an annual grant of up to \$50,000 to the Palo Alto Unified School District (17 schools with 12,000 students total) to support teacher training programs and the development of curriculums and education projects promoting renewable energy and energy and water efficiency. CPAU participates in quarterly sustainable schools committee meetings and gives educational presentations to classes on EE, renewable energy, and safety.
- **SunShares Solar Discount Program:** Palo Alto has participated in this regional solar group-buy program since 2015. This program is administered by a non-profit agency and offer discounted prices for residential solar PV and battery storage systems from a few pre-qualified contractors.
- **Home Energy Advisor:** The Home Energy Advisor (previously referred to as the Home Efficiency Genie) program was launched in June 2015 to provide residents with professional advice and information to improve their home’s efficiency and comfort, lower their energy and water usage, and more recently, offer guidance on home electrification options. This program discontinued the in-home assessment portion of its services in 2024, and CPAU no longer claims efficiency savings from this program.

### **Evaluation, Measurement & Verification Studies**

In FY 2025, CPAU did not undertake evaluation, measurement, and verification by any third parties for any of its programs.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

The energy savings data used for most of CPAU's programs were taken from the California Electronic Technical Reference Manual (eTRM) or custom calculations based on measured project data. All savings data claimed by CPAU was vetted by staff and relies on conservative assumptions.

**TABLE CPAU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC
Food Service	-40	227,079	4,541,589	-34	193,018	3,860,350	436	\$93,825	-1.81	-0.39	0.035
HVAC - Heat Pump	-23	886,346	17,726,927	-20	753,394	15,067,888	2,328	\$606,824	0.24	0.02	0.058
Service & Domestic Hot Water	-71	909,579	10,914,952	-60	773,142	9,277,709	1,213	\$1,548,509	-0.01	-0.00	0.208
<b>Electrification</b>	<b>-135</b>	<b>2,023,005</b>	<b>33,183,468</b>	<b>-115</b>	<b>1,719,554</b>	<b>28,205,947</b>	<b>3,977</b>	<b>\$2,249,158</b>	<b>-0.02</b>	<b>-0.00</b>	<b>0.109</b>
Building Envelope	0	7,558	151,151	0	6,424	128,478	26	\$45,499	0.09	0.08	0.511
Codes & Standards	6	43,200	864,000	5	36,720	734,400	234	\$3,892	17.15	17.15	0.008
HVAC - Cooling	10	206,372	4,127,440	8	175,416	3,508,324	877	\$54,447	3.46	3.11	0.022
HVAC - Heat Pump	11	94,133	1,882,660	9	80,013	1,600,261	525	\$49,681	2.86	0.62	0.045
Lighting - Indoor	180	1,620,437	16,204,370	153	1,377,371	13,773,715	4,154	\$275,617	5.01	4.21	0.024
Miscellaneous	0	0	0	0	0	0	0	\$4,554			0.000
Water Pumping / Irrigation	0	2,770	41,551	0	2,355	35,318	7	\$3,824	0.29	0.29	0.143
<b>Energy Efficiency</b>	<b>207</b>	<b>1,974,470</b>	<b>23,271,171</b>	<b>176</b>	<b>1,678,299</b>	<b>19,780,496</b>	<b>5,824</b>	<b>\$437,514</b>	<b>4.08</b>	<b>2.63</b>	<b>0.028</b>
Appliance & Plug Loads	0	185	1,850	0	185	1,850	1	\$1,777	0.11	0.11	1.150
Building Envelope	0	6,146	122,927	0	6,146	122,927	25	\$38,812	0.10	0.10	0.456
HVAC - Cooling	0	138	2,760	0	138	2,760	1	\$2,878	0.11	0.11	1.505
Lighting - Indoor	0	1,318	13,180	0	1,318	13,180	5	\$14,454	0.10	0.10	1.313
Lighting - Outdoor	0	39	390	0	39	390	0	\$446	0.09	0.09	1.370
Miscellaneous	0	0	0	0	0	0	0	\$1,084			0.000
Water Pumping / Irrigation	0	1,586	23,784	0	1,586	23,784	5	\$13,747	0.05	0.05	0.761
<b>Low-Income</b>	<b>0</b>	<b>9,412</b>	<b>164,891</b>	<b>0</b>	<b>9,412</b>	<b>164,891</b>	<b>36</b>	<b>\$73,198</b>	<b>0.09</b>	<b>0.09</b>	<b>0.620</b>
Service & Domestic Hot Water	-5	57,408	688,897	-5	57,408	688,897	89	\$178,211	-0.00	-0.00	0.322
<b>Low-Income Electrification</b>	<b>-5</b>	<b>57,408</b>	<b>688,897</b>	<b>-5</b>	<b>57,408</b>	<b>688,897</b>	<b>89</b>	<b>\$178,211</b>	<b>-0.00</b>	<b>-0.00</b>	<b>0.322</b>
<b>EE, Low Income and Electrification</b>	<b>68</b>	<b>4,064,295</b>	<b>57,308,427</b>	<b>57</b>	<b>3,464,674</b>	<b>48,840,231</b>	<b>9,927</b>	<b>\$2,938,081</b>	<b>0.60</b>	<b>0.17</b>	<b>0.080</b>
<b>C&amp;S and T&amp;D</b>											
<b>Utility Total</b>	<b>68</b>	<b>4,064,295</b>	<b>57,308,427</b>	<b>57</b>	<b>3,464,674</b>	<b>48,840,231</b>	<b>9,927</b>	<b>\$2,938,081</b>	<b>0.60</b>	<b>0.17</b>	<b>0.080</b>

**TABLE CPAU-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	-27	927,086	18,055,632	-23	788,023	15,347,287	2,375	\$536,299	0.27	0.02	0.050
Industrial	-40	227,079	4,541,589	-34	193,018	3,860,350	436	\$93,825	-1.81	-0.39	0.035
Residential	-68	868,840	10,586,247	-57	738,514	8,998,310	1,166	\$1,619,034	-0.01	-0.00	0.225
Electrification	-135	2,023,005	33,183,468	-115	1,719,554	28,205,947	3,977	\$2,249,158	-0.02	-0.00	0.109
Commercial	205	1,955,552	22,992,570	174	1,662,219	19,543,684	5,765	\$345,936	5.12	3.03	0.022
Residential	1	18,918	278,602	1	16,080	236,811	59	\$91,578	0.14	0.14	0.518
Energy Efficiency	207	1,974,470	23,271,171	176	1,678,299	19,780,496	5,824	\$437,514	4.08	2.63	0.028
Residential	0	9,412	164,891	0	9,412	164,891	36	\$73,198	0.09	0.09	0.620
Low-Income	0	9,412	164,891	0	9,412	164,891	36	\$73,198	0.09	0.09	0.620
Residential	-5	57,408	688,897	-5	57,408	688,897	89	\$178,211	-0.00	-0.00	0.322
Low-Income Electrification	-5	57,408	688,897	-5	57,408	688,897	89	\$178,211	-0.00	-0.00	0.322
EE, Low Income and Electrification	68	4,064,295	57,308,427	57	3,464,674	48,840,231	9,927	\$2,938,081	0.60	0.17	0.080
<b>C&amp;S and T&amp;D</b>											
Utility Total	68	4,064,295	57,308,427	57	3,464,674	48,840,231	9,927	\$2,938,081	0.60	0.17	0.080

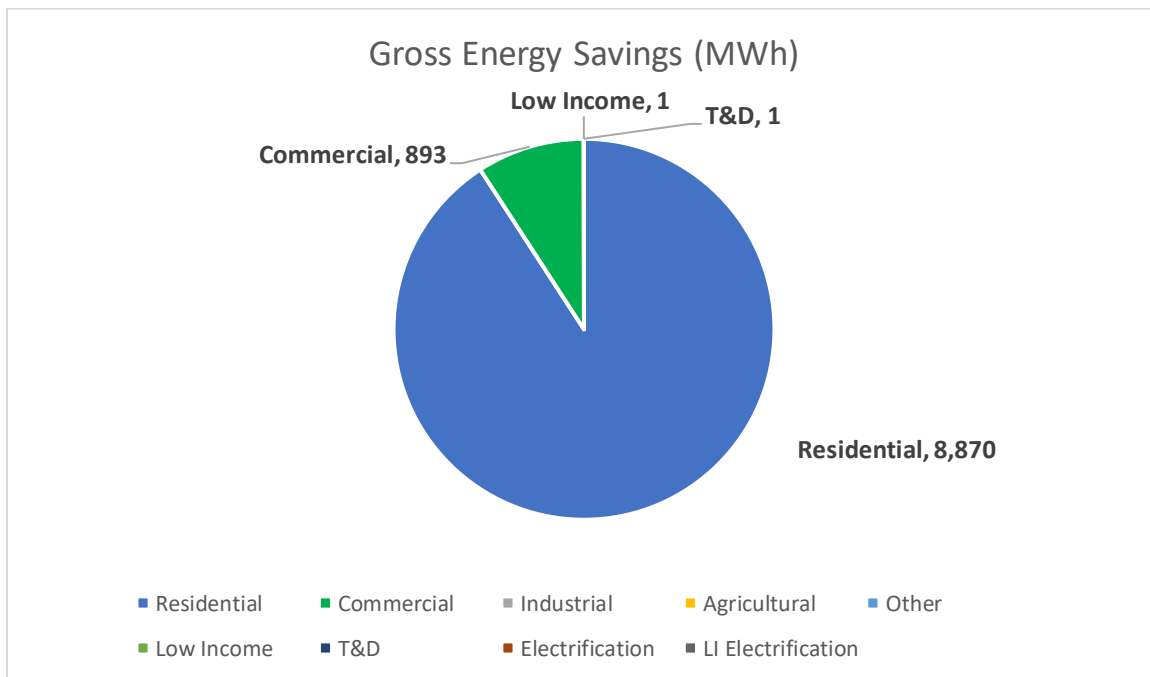
**TABLE CPAU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Assembly	-2	57,363	798,611	-1	48,759	678,820	117	\$52,324	0.19	0.09	0.101
Education - Primary School	-11	626,601	12,532,023	-10	532,611	10,652,220	1,660	\$188,346	0.67	0.02	0.026
Health/Medical - Hospital	-40	227,079	4,541,589	-34	193,018	3,860,350	436	\$93,825	-1.81	-0.39	0.035
Lodging - Hotel	-9	167,289	3,345,785	-8	142,196	2,843,918	393	\$42,181	-0.04	-0.00	0.021
Office - Small	-1	36,966	627,424	-1	31,421	533,310	93	\$142,368	0.05	0.05	0.369
Other Commercial	-3	35,675	713,499	-3	30,324	606,474	107	\$105,760	0.03	0.01	0.252
Residential - Single-Family	-68	868,840	10,586,247	-57	738,514	8,998,310	1,166	\$1,619,034	-0.01	-0.00	0.225
Restaurant - Fast-Food	-0	3,191	38,289	-0	2,712	32,545	5	\$5,320	-0.02	-0.02	0.203
<b>Electrification</b>	<b>-135</b>	<b>2,023,005</b>	<b>33,183,468</b>	<b>-115</b>	<b>1,719,554</b>	<b>28,205,947</b>	<b>3,977</b>	<b>\$2,249,158</b>	<b>-0.02</b>	<b>-0.00</b>	<b>0.109</b>
Assembly	11	216,723	4,230,950	10	184,215	3,596,307	905	\$56,308	3.51	2.95	0.022
Education - Secondary School	66	733,005	7,330,050	56	623,054	6,230,542	1,789	\$107,338	5.74	5.74	0.021
Lodging - Hotel	11	94,133	1,882,660	9	80,013	1,600,261	525	\$49,681	2.86	0.62	0.045
Office - Large	71	561,566	5,615,660	61	477,331	4,773,311	1,491	\$85,198	5.66	4.58	0.021
Office - Small	14	113,143	1,131,430	12	96,172	961,716	300	\$17,565	5.53	2.14	0.022
Other Commercial	28	211,121	2,543,210	23	179,453	2,161,729	687	\$26,234	8.11	8.07	0.015
Residential	0	0	0	0	0	0	0	\$0			0.000
Residential - Multi-Family	1	16,450	229,241	1	13,982	194,855	50	\$57,557	0.20	0.20	0.390
Residential - Single-Family	0	2,468	49,361	0	2,098	41,957	9	\$34,021	0.04	0.04	1.170
Restaurant - Fast-Food	4	25,861	258,610	3	21,982	219,819	67	\$3,612	6.33	6.33	0.020
<b>Energy Efficiency</b>	<b>207</b>	<b>1,974,470</b>	<b>23,271,171</b>	<b>176</b>	<b>1,678,299</b>	<b>19,780,496</b>	<b>5,824</b>	<b>\$437,514</b>	<b>4.08</b>	<b>2.63</b>	<b>0.028</b>
Residential - Single-Family	0	9,412	164,891	0	9,412	164,891	36	\$73,198	0.09	0.09	0.620
<b>Low-Income</b>	<b>0</b>	<b>9,412</b>	<b>164,891</b>	<b>0</b>	<b>9,412</b>	<b>164,891</b>	<b>36</b>	<b>\$73,198</b>	<b>0.09</b>	<b>0.09</b>	<b>0.620</b>
Residential - Single-Family	-5	57,408	688,897	-5	57,408	688,897	89	\$178,211	-0.00	-0.00	0.322
<b>Low-Income Electrification</b>	<b>-5</b>	<b>57,408</b>	<b>688,897</b>	<b>-5</b>	<b>57,408</b>	<b>688,897</b>	<b>89</b>	<b>\$178,211</b>	<b>-0.00</b>	<b>-0.00</b>	<b>0.322</b>
<b>EE, Low Income and Electrification</b>	<b>68</b>	<b>4,064,295</b>	<b>57,308,427</b>	<b>57</b>	<b>3,464,674</b>	<b>48,840,231</b>	<b>9,927</b>	<b>\$2,938,081</b>	<b>0.60</b>	<b>0.17</b>	<b>0.080</b>
<b>C&amp;S and T&amp;D</b>											
<b>Utility Total</b>	<b>68</b>	<b>4,064,295</b>	<b>57,308,427</b>	<b>57</b>	<b>3,464,674</b>	<b>48,840,231</b>	<b>9,927</b>	<b>\$2,938,081</b>	<b>0.60</b>	<b>0.17</b>	<b>0.080</b>

## PASADENA WATER & POWER

### *Pasadena Water & Power at a Glance*

- Climate Zone: 9
- Customers: 67,781
- Total annual retail sales: 1,020,676 MWh
- Annual Retail Revenue: \$242,354,000
- Annual energy efficiency expenditures for reporting year: \$2,197,235
- Gross annual savings from reporting year portfolio: 9,765



### *Pasadena Overview*

Pasadena Water and Power (PWP) is a community-owned utility serving over 67,000 electric customers. PWP's energy efficiency and electrification portfolio is designed to provide sustainable, affordable, and reliable service while aggressively pursuing the City Council's Resolution 9977 goal to source 100% of Pasadena's electricity from carbon-free sources by the end of 2030. Funded primarily by the Public Benefit Charge, PWP's programs help residents and businesses reduce consumption, adopt clean energy technologies, and lower their utility bills.

### **Major Program and Portfolio Changes**

PWP has continued to develop and implement various conservation and sustainability programs for all of its customers, while meeting annual energy efficiency goals adopted by the City

Council and supporting GHG emissions reduction goals outlined in the City's Climate Action Plan. PWP ended our WeDIP program in FY25 as well as our appliance recycling programs. We are currently evaluating new programs for distributed generation incentives and demand response.

### **Program and Portfolio Highlights**

Energy savings for FY25 are broken down into five separate categories. Commercial energy efficiency programs contributed 186 MWh, Residential energy efficiency programs contributed 8,303 MWh, Water-Energy transfer (embedded energy savings from water conservation efforts) contributed 706 MWh and Transmission and Distribution ("T&D") upgrades contributed roughly 0.9 MWh. In total, PWP's energy efficiency programs produced 9,196 MWh of energy savings for FY25.

### **Commercial, Industrial & Agricultural Programs**

PWP's commercial offerings fall into two distinct categories: rebates and direct-install programs.

1. The Customized Incentive and Business Rebate programs provides incentives to any commercial electric customer to help offset the upfront costs of efficiency upgrades and capital improvement projects that generates above code energy savings.
2. The no-cost Water and Energy direct install program (WeDIP) serves small businesses and includes a free evaluation to go with a customized report. Efficiency measures offered through the WeDIP include LED Lighting, refrigeration upgrades, aerators, efficient kitchen equipment and low-flow toilet replacements.

### **Residential Programs**

PWP has seven residential offerings also fall into three distinct categories, rebates, direct-install and behavioral programs.

- The Home Energy Rebate program provides rebates on the purchase of Energy Star certified appliances, qualifying variable speed pool pumps, efficient air conditioning/heat pump equipment and various building shell improvements that include wall and ceiling insulation.
- The ESAP is a partnership with the SoCalGas that provides no cost direct install services to qualifying income qualified customers. As part of the program, eligible residential customers will receive various efficiency upgrades to help improve the comfort of their home while lowering energy/water consumption. Measures include attic insulation, AC Tune-up, LED light bulbs, smart power strips, smart thermostats, smart irrigation controllers, low-flow toilets and much more.

- The Home Improvement program provides no cost direct install services to all residential electric customers. As part of the program, eligible residential customers will receive various efficiency upgrades to help improve the comfort and efficiency of their home. Measures include attic insulation, duct sealing, AC Tune-up, smart thermostats, smart irrigation controllers and much more.
- The Home Energy Report is a residential behavioral program that is mailed to approximately 40,000 customers on a quarterly basis, helping residents better understand their energy consumption and how it compares with similar households in the vicinity. The report also has customizable sections that help promote other PWP efficiency programs that may be of interest.
- The Public Benefits fund also help share the cost of the utility's education programs for school-aged children. In particular, this involves educational field trips for students of the Pasadena Unified School District ("PUSD"), scholarship for high school seniors, the Living wise green curriculum, and the Solar Cup through the Metropolitan Water District. On average, the utility is able to reach about 5,000 students each year. In particular, the green curriculum is available to all 2nd grade PUSD students and emphasizes ways to incorporate sustainability as part of their daily lifestyles.

#### **Complementary Programs**

- Income Qualified Rate Assistance Programs: PWP has offered electric rate assistance programs to eligible low-income customers for several decades. The Electric Utility Assistance Program ("EUAP") became effective in 2006 and provides monthly assistance to customers between the ages of 18-61 that meets the established income guidelines. The CARES and CARES Plus program provides additional assistance for low-income seniors (ages 62 and up), plus customers with a permanent disability that meets the established income guidelines. Project APPLE ("Assisting Pasadena People with Limited Emergencies") provides a one-time utility bill payment assistance program that provides eligible income qualified customers who are at risk of power shut off, up to \$200 per year. Project APPLE is primarily funded by PBC revenues, plus donations from PWP customers as well. In addition, PWP also offers added services to eligible low-income customers which includes bonus rebates on qualifying efficiency products offered through the Home Energy Rebates program, no-cost direct installation of energy and water efficiency services, and much more.
- PWP also offers a Green Power Program, where customers can opt to pay a premium on their electricity bill for clean, renewable power. This program is open to both residential and commercial customers.

- Research, Development, and Demonstration ("RD&D"): While there were no RD&D projects in FY25, PWP continues to seek out a variety of new opportunities that aligns with current utility objectives.
- Transportation Electrification: PWP continues to encourage the private sector to build additional charging sites for public and private fleet use through a robust incentive program offering rebates of up to \$100,000 per commercial electric account. Commercial customers that install charging infrastructure are eligible to receive \$4,000 per unit, which doubles to \$8,000 if the chargers are in DAC locations. Incentives are also in place to encourage Pasadena residents to buy or lease an EV and EV charger to enable charging at home. In particular, PWP residential electric customers can receive up to \$1,500 for a used EV and up to \$600 for a new Wi-Fi enabled L2 EV charger.

### **Evaluation, Measurement & Verification Studies**

PWP used EM&V efforts for various energy efficiency programs to justify program design, expenditures and verify results:

- Residential Rebate Program: Utility staff requested and verified proof of install documentation on residential energy-efficient equipment purchases and installations that were selected for inspection.
- Residential Direct Install Program: Program implementer performed quality assurance inspections on a percentage of sub-contract direct installations.
- Commercial Rebate Programs: For custom projects, utility staff or third party engineering consultant conducted inspections on all installations. For non-custom projects participating in the deemed rebate program, utility staff conduct a percentage of inspections after installations are complete.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

PWP relies on the latest version of the California Municipal Utilities Association Technical Reference Manual ("CMUA TRM") or California Technical Forum e-Technical Reference Manual ("CTF eTRM") data, supplemented by best available technical information from independent engineering analysis or approved CA utility work papers, when e-TRM measures are not available. For commercial programs, as discussed above, PWP may rely on independent engineering analysis conducted by PWP's third-party engineering consultant and/or an online rebate estimator with industry accepted models and simulations. Customized commercial efficiency offerings like the "CIP" provide commercial electric customers with the ability to participate with any proven technology that can produce above code energy savings, provided it meets the existing program requirements at the time.

**TABLE PWP-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC
Any	40	166,953	1,335,624	40	166,953	1,335,624	490	\$1,309,783	0.19	1.69	1.156
Appliance & Plug Loads	4	16,641	189,501	2	8,864	100,185	34	\$18,667	0.93	0.92	0.238
BROs	1,906	7,886,730	7,886,730	1,906	7,886,730	7,886,730	3,169	\$414,746	3.19	3.19	0.053
Building Envelope	561	582,281	11,635,202	158	163,974	3,273,760	1,245	\$56,705	22.96	22.74	0.026
HVAC - Cooling	17	17,988	137,737	10	11,132	86,781	34	\$32,584	1.18	2.37	0.456
HVAC - Heat Pump	3	3,579	53,678	2	2,863	42,942	17	\$42,584	0.36	0.36	1.365
Lighting - Indoor	22	184,836	1,429,467	22	184,836	1,429,467	461	\$168,444	1.09	1.68	0.138
Miscellaneous	66	903,916	2,975,918	29	197,158	2,269,160	822	\$75,472	4.32	6.90	0.042
Whole Building	0	0	0	0	0	0	0	\$1,900			0.000
<b>Energy Efficiency</b>	<b>2,618</b>	<b>9,762,924</b>	<b>25,643,857</b>	<b>2,169</b>	<b>8,622,509</b>	<b>16,424,649</b>	<b>6,270</b>	<b>\$2,120,886</b>	<b>1.63</b>	<b>4.04</b>	<b>0.148</b>
Any	0	1,069	11,759	0	1,069	11,759	4	\$3,717	0.57	5.17	0.399
<b>Low-Income</b>	<b>0</b>	<b>1,069</b>	<b>11,759</b>	<b>0</b>	<b>1,069</b>	<b>11,759</b>	<b>4</b>	<b>\$3,717</b>	<b>0.57</b>	<b>5.17</b>	<b>0.399</b>
Appliance & Plug Loads	0	0	0	0	0	0	0	\$8,180			0.000
Service & Domestic Hot Water	0	0	0	0	0	0	0	\$1,000			0.000
Electrification	0	0	0	0	0	0	0	\$9,180			0.000
<b>EE, Low Income and Electrification</b>	<b>2,619</b>	<b>9,763,993</b>	<b>25,655,616</b>	<b>2,169</b>	<b>8,623,578</b>	<b>16,436,408</b>	<b>6,275</b>	<b>\$2,133,783</b>	<b>1.62</b>	<b>4.00</b>	<b>0.149</b>
Codes & Standards	1,769	14,254,000	14,254,000	1,769	14,254,000	14,254,000	5,363	\$63,356	27.39	27.39	0.004
<b>Codes &amp; Standards</b>	<b>1,769</b>	<b>14,254,000</b>	<b>14,254,000</b>	<b>1,769</b>	<b>14,254,000</b>	<b>14,254,000</b>	<b>5,363</b>	<b>\$63,356</b>	<b>27.39</b>	<b>27.39</b>	<b>0.004</b>
Transmission & Distribution	0	919	25,732	0	919	25,732	8	\$96	27.39	27.39	0.007
<b>T&amp;D</b>	<b>0</b>	<b>919</b>	<b>25,732</b>	<b>0</b>	<b>919</b>	<b>25,732</b>	<b>8</b>	<b>\$96</b>	<b>27.39</b>	<b>27.39</b>	<b>0.007</b>
<b>C&amp;S and T&amp;D</b>	<b>1,769</b>	<b>14,254,919</b>	<b>14,279,732</b>	<b>1,769</b>	<b>14,254,919</b>	<b>14,279,732</b>	<b>5,372</b>	<b>\$63,452</b>	<b>27.39</b>	<b>27.39</b>	<b>0.004</b>
<b>Utility Total</b>	<b>4,388</b>	<b>24,018,912</b>	<b>39,935,348</b>	<b>3,938</b>	<b>22,878,497</b>	<b>30,716,140</b>	<b>11,646</b>	<b>\$2,197,235</b>	<b>2.36</b>	<b>5.60</b>	<b>0.077</b>

**TABLE PWP-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	59	893,379	2,144,374	22	186,621	1,437,616	463	\$220,185	0.84	1.26	0.180
Residential	2,559	8,869,545	23,499,483	2,147	8,435,888	14,987,033	5,807	\$1,900,701	1.72	4.62	0.145
Energy Efficiency	2,618	9,762,924	25,643,857	2,169	8,622,509	16,424,649	6,270	\$2,120,886	1.63	4.04	0.148
Residential	0	1,069	11,759	0	1,069	11,759	4	\$3,717	0.57	5.17	0.399
Low-Income	0	1,069	11,759	0	1,069	11,759	4	\$3,717	0.57	5.17	0.399
Residential	0	0	0	0	0	0	0	\$9,180			0.000
Electrification	0	0	0	0	0	0	0	\$9,180			0.000
EE, Low Income and Electrification	2,619	9,763,993	25,655,616	2,169	8,623,578	16,436,408	6,275	\$2,133,783	1.62	4.00	0.149
Commercial	1,769	14,254,000	14,254,000	1,769	14,254,000	14,254,000	5,363	\$63,356	27.39	27.39	0.004
Codes & Standards	1,769	14,254,000	14,254,000	1,769	14,254,000	14,254,000	5,363	\$63,356	27.39	27.39	0.004
Commercial	0	919	25,732	0	919	25,732	8	\$96	27.39	27.39	0.007
T&D	0	919	25,732	0	919	25,732	8	\$96	27.39	27.39	0.007
C&S and T&D	1,769	14,254,919	14,279,732	1,769	14,254,919	14,279,732	5,372	\$63,452	27.39	27.39	0.004
Utility Total	4,388	24,018,912	39,935,348	3,938	22,878,497	30,716,140	11,646	\$2,197,235	2.36	5.60	0.077

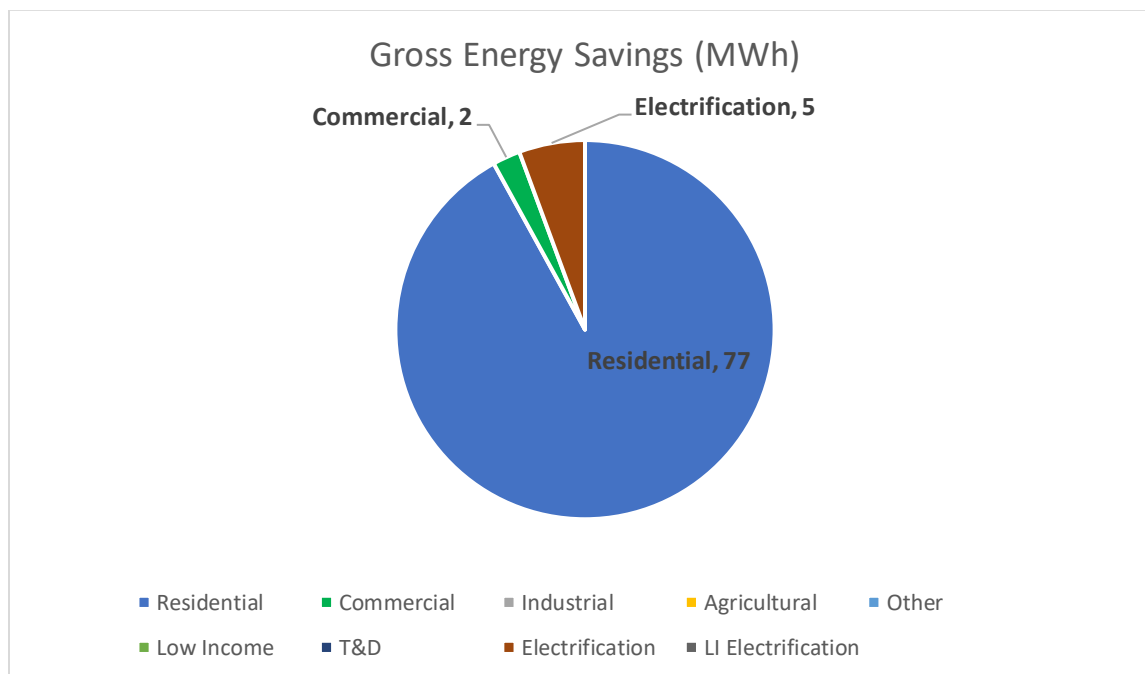
**TABLE PWP-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	59	893,379	2,144,374	22	186,621	1,437,616	463	\$218,285	0.85	1.28	0.178
Multiple	0	0	0	0	0	0	0	\$1,900			0.000
Residential	2,555	8,854,908	23,330,028	2,145	8,428,247	14,899,081	5,776	\$1,883,616	1.72	4.71	0.144
Residential - Single-Family	4	14,636	169,455	2	7,641	87,952	31	\$17,085	1.00	0.99	0.249
Energy Efficiency	2,618	9,762,924	25,643,857	2,169	8,622,509	16,424,649	6,270	\$2,120,886	1.63	4.04	0.148
Residential	0	1,069	11,759	0	1,069	11,759	4	\$3,717	0.57	5.17	0.399
Low-Income	0	1,069	11,759	0	1,069	11,759	4	\$3,717	0.57	5.17	0.399
Residential	0	0	0	0	0	0	0	\$9,180			0.000
Electrification	0	0	0	0	0	0	0	\$9,180			0.000
EE, Low Income and Electrification	2,619	9,763,993	25,655,616	2,169	8,623,578	16,436,408	6,275	\$2,133,783	1.62	4.00	0.149
Any	1,769	14,254,000	14,254,000	1,769	14,254,000	14,254,000	5,363	\$63,356	27.39	27.39	0.004
Codes & Standards	1,769	14,254,000	14,254,000	1,769	14,254,000	14,254,000	5,363	\$63,356	27.39	27.39	0.004
Any	0	919	25,732	0	919	25,732	8	\$96	27.39	27.39	0.007
T&D	0	919	25,732	0	919	25,732	8	\$96	27.39	27.39	0.007
C&S and T&D	1,769	14,254,919	14,279,732	1,769	14,254,919	14,279,732	5,372	\$63,452	27.39	27.39	0.004
Utility Total	4,388	24,018,912	39,935,348	3,938	22,878,497	30,716,140	11,646	\$2,197,235	2.36	5.60	0.077

## PLUMAS-SIERRA RURAL ELECTRIC COOPERATIVE

### *Plumas-Sierra Rural Electric Cooperative at a Glance*

- Climate Zone: 16
- Customers: 8,184
- Total annual retail sales: 140,708 MWh
- Annual Retail Revenue: \$31,654,588
- Annual energy efficiency expenditures for reporting year: \$78,753
- Gross annual savings from reporting year portfolio: 83 MWh



### *Plumas-Sierra Rural Electric Cooperative Overview*

Plumas-Sierra Rural Electric Cooperative (PSREC) is a member-owned, not-for-profit utility located in the eastern Sierras of Northern California. PSREC provides electricity to more than 8,100 rural residents in portions of Plumas, Sierra and Lassen counties in California and part of Washoe County, Nevada.

Plumas-Sierra's service territory encompasses more than 1,700 square miles with more than 1,300 miles of transmission and distribution power line. PSREC serves just six members per mile line, compared to the average of 34 customers per mile line for investor-owned utilities. The goal of PSREC's energy efficiency programs is to help members understand and control their energy use.

### **Major Program and Portfolio Changes**

There were no major changes to the PSREC programs or portfolios in 2025.

### **Program and Portfolio Highlights**

Most of the energy savings for the CY25 program were provided by the residential sector.

### **Commercial, Industrial & Agricultural Programs**

PSREC provides free energy audits to businesses to assist with energy conservation and troubleshooting high energy consumption. This program has been successful in assisting business owners in making decisions in efficiency upgrades and conservation.

PSREC offers rebates for commercial and industrial members who install efficiency upgrades including lighting and other custom measures.

To encourage the installation of energy efficient equipment in agricultural irrigation systems PSREC offers rebates for pump tests and efficiency improvements.

### **Residential Programs**

- Geothermal Heating/Cooling Loans: 0% interest ground source heat pump loop loans available for installation of ground-source heat pumps.
- HVAC Rebates: PSREC provides members with rebate options to encourage installation of energy-efficient electric heat pumps and ground-source heat pumps in new construction and existing homes and small businesses. Upgrading to an energy-efficient heating and cooling system will contribute to increased comfort in homes while helping to reduce overall energy use.
- ENERGY STAR® Rebates: Rebates available for the purchase of an ENERGY STAR® refrigerator, dishwasher or clothes washer.
- Appliance Recycling: Rebates offered for recycling a non-essential freezer or refrigerator.
- ENERGY STAR® Lighting Rebates: Offers rebates for the purchase and installation of LED lamps.
- LED Holiday Light Rebate: Provides an incentive to replace incandescent holiday light strands with qualified new ENERGY STAR LED holiday light strands.

- Water Heater Sales and Rebates: Discounted sales of, and rebates for the purchase of high-efficiency electric water heaters, including heat pump water heaters.
- Weatherization Rebates: PSREC offers members rebates for upgrading windows and insulation in their homes. By retrofitting a home to above-code R-Values, and upgrading windows to double-pane high-performance windows, members not only realize the added comfort, but also gain increased home values. PSREC encourages members to invest in weatherization measures prior to, or in addition to, investing in a new heating source for energy conservation.
- Annual Member Meeting Efficiency Giveaways: PSREC provides members who attend the annual meeting with efficiency items such as LED lights, low-flow showerheads, faucet aerators, etc.
- Efficiency Education: PSREC provides energy efficiency and conservation information, as well as kilowatt meters, to interested members to help them reduce their bill, understand their energy consumption and make their home more efficient. This program has successfully addressed high bill concerns by empowering members to use information such as our 'Do-It-Yourself Energy Audit' to learn more about their home and how they use energy.
- Efficiency Education - Energy Audits: PSREC provides free comprehensive energy audits to assist members with energy conservation and troubleshooting high energy consumption in their home. This program has been successful in educating members about efficiency and conservation and assisting in reduction of energy use, especially in low-income homes.

### **Complementary Programs**

- Low Income Winter Rate Assistance Program: Income-qualified members can apply for a discounted rate during the heating season. In conjunction, a home energy audit is offered, and efficiency information is provided to assist members with energy conservation.
- Net Metering Program: PSREC offers net metering for members who install renewable energy generation systems.
- Community Shared Solar: PSREC offers solar energy shares to our members who currently cannot install solar on their homes or businesses due to cost, location or ownership status.

- Lending Library and Resource Center: Provides energy efficiency and renewable energy resources to members through a book lending library and resource center in our office lobby.
- Electric Vehicle Rebate: PSREC offers a \$500 rebate for the purchase of an electric vehicle.
- Research, Development, and Demonstration: PSREC is researching electric vehicle charging infrastructure and other program options to encourage the adoption of electric vehicles in its service area.

#### **Evaluation, Measurement & Verification Studies**

PSREC performs a yearly internal review to evaluate program effectiveness and improvement areas. PSREC has committed to seeking third-party evaluation of its programs every five years, dependent upon budget.

#### **Major Differences or Diversions from CA POU TRM for Energy Savings**

PSREC uses the CMUA TRM, and eTRM as the primary sources for most reported energy savings. Savings for the commercial lighting program are custom calculations based on the specific equipment replaced.

**TABLE PSREC-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	1	10,038	92,272	1	4,681	38,058	13	\$26,776	0.15	0.11	0.840
Building Envelope	1	1,780	31,531	0	1,265	24,160	6	\$1,801	1.07	0.22	0.109
HVAC - Cooling	0	745	6,764	0	447	4,059	2	\$317	1.77	1.41	0.093
HVAC - Heat Pump	19	66,059	989,204	11	40,100	600,491	236	\$48,120	1.96	0.42	0.107
Lighting - Indoor	0	35	175	0	19	94	0	\$407	0.02	0.02	4.692
Energy Efficiency	21	78,657	1,119,945	12	46,511	666,862	257	\$77,421	1.30	0.37	0.154
Service & Domestic Hot Water	0	4,697	46,969	0	4,697	46,969	18	\$1,332	4.84	4.27	0.034
Electrification	0	4,697	46,969	0	4,697	46,969	18	\$1,332	4.84	4.27	0.034
EE, Low Income and Electrification	21	83,354	1,166,914	12	51,208	713,831	275	\$78,753	1.36	0.39	0.146
C&S and T&D											
Utility Total	21	83,354	1,166,914	12	51,208	713,831	275	\$78,753	1.36	0.39	0.146

**TABLE PSREC-2. Energy Efficiency Program Results by Sector**

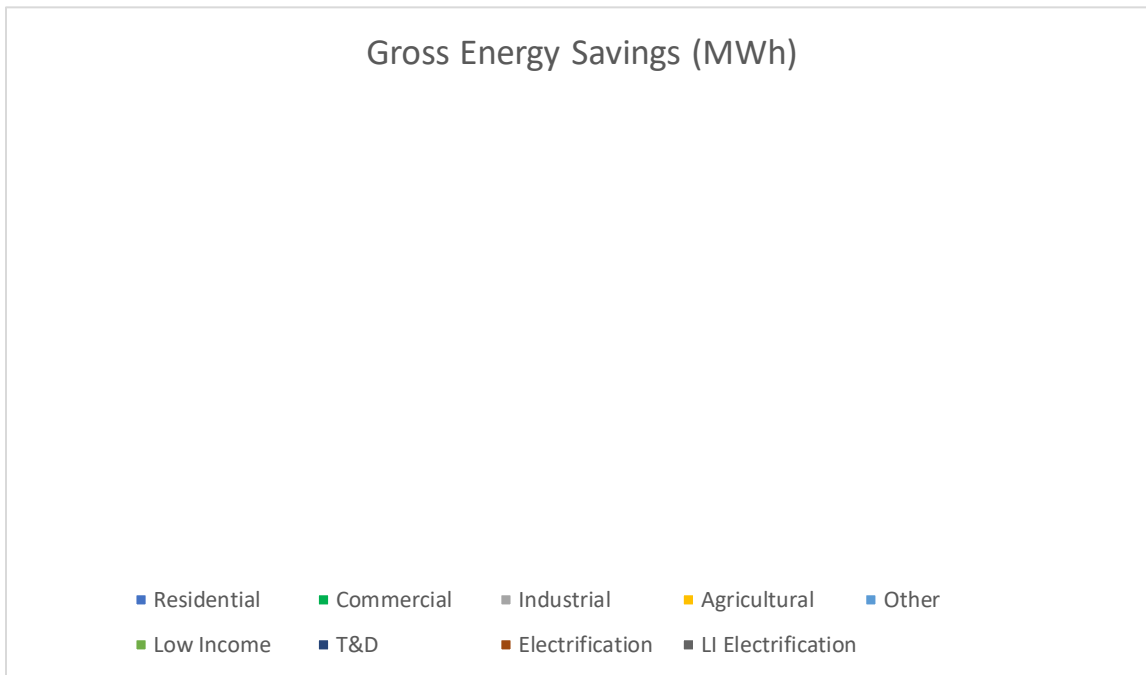
Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	0	1,969	29,538	0	1,153	17,298	5	\$2,742	0.59	0.52	0.212
Residential	20	76,687	1,090,407	12	45,358	649,564	251	\$74,679	1.33	0.37	0.153
Energy Efficiency	21	78,657	1,119,945	12	46,511	666,862	257	\$77,421	1.30	0.37	0.154
Residential	0	4,697	46,969	0	4,697	46,969	18	\$1,332	4.84	4.27	0.034
Electrification	0	4,697	46,969	0	4,697	46,969	18	\$1,332	4.84	4.27	0.034
EE, Low Income and Electrification	21	83,354	1,166,914	12	51,208	713,831	275	\$78,753	1.36	0.39	0.146
<b>C&amp;S and T&amp;D</b>											
Utility Total	21	83,354	1,166,914	12	51,208	713,831	275	\$78,753	1.36	0.39	0.146

**TABLE PSREC-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	1	3,452	16,923	1	2,411	11,818	4	\$8,658	0.16	0.16	0.797
Multiple	5	33,988	479,546	3	19,197	276,518	111	\$34,745	1.33	0.94	0.167
Residential	1	2,188	38,050	0	1,486	27,271	8	\$5,412	0.45	0.19	0.285
Residential - Single-Family	14	39,028	585,426	8	23,417	351,256	134	\$28,607	1.78	0.25	0.109
Energy Efficiency	21	78,657	1,119,945	12	46,511	666,862	257	\$77,421	1.30	0.37	0.154
Multiple	0	4,697	46,969	0	4,697	46,969	18	\$1,332	4.84	4.27	0.034
Electrification	0	4,697	46,969	0	4,697	46,969	18	\$1,332	4.84	4.27	0.034
EE, Low Income and Electrification	21	83,354	1,166,914	12	51,208	713,831	275	\$78,753	1.36	0.39	0.146
C&S and T&D											
Utility Total	21	83,354	1,166,914	12	51,208	713,831	275	\$78,753	1.36	0.39	0.146

**Port of Oakland at a Glance**

- Climate Zone: 3
- Customers: 120
- Total annual retail sales: 116,475 MWh
- Annual Retail Revenue: \$24,633,000
- Annual energy efficiency expenditures for reporting year: \$14,400
- Gross annual savings from reporting year portfolio: 0 MWh



**Port of Oakland Overview**

The Port of Oakland (Port) drives critical economic growth, delivers meaningful community benefits, and advances environmental innovation as it works to decarbonize operations and build a cleaner, more sustainable future. In partnership with regional stakeholders, the Port supports 98,345 jobs and generates \$174 billion in annual economic activity. Its responsibilities include oversight of Oakland International Airport (OAK), the Oakland Seaport, nearly 20 miles of waterfront property, including Jack London Square, and a publicly owned utility.

**Major Program and Portfolio Changes**

No major program and portfolio changes in FY25. The Port continues to actively promote and offer incentives to encourage participation in energy efficiency initiatives.

### **Program and Portfolio Highlights**

Although no customers completed energy efficiency projects in FY25, the Port achieves significant progress in its own decarbonization efforts, most notably Oakland International Airport (OAK) earning Level 4 Airport Carbon Accreditation, in recognition of its expanded emissions accounting and implementation of carbon reduction strategies across operations.

### **Commercial, Industrial & Agricultural Programs**

- **Energy Audits:** The Port provides financial and technical assistance for energy audits that identify at least five major energy-saving retrofit or improvement projects designed to reduce load and improve overall energy efficiency.
- **Energy-Saving Measures Exceeding Title 24 Standards:** The Port offers rebates for new facilities constructed on Port property by its electric customers that exceed California Title 24 energy efficiency standards. Eligible facilities must demonstrate a minimum 10% reduction in energy use compared to a code-compliant Title 24 baseline building.
- **Energy-Efficient Equipment Retrofits and Improvements:** The Port administers a rebate program, supported by technical expertise, to assist industrial and commercial customers with the installation of high-efficiency equipment and related energy-saving upgrades.
- **Lighting Retrofits:** The Port provides rebates for the installation of energy-efficient lighting systems and upgrades to improve performance and reduce energy consumption.

### **Residential Programs**

The Port does not have any residential customers.

### **Complementary Programs**

In addition to its Energy Efficiency Rebate Program, the Port continues to advance a comprehensive suite of complementary initiatives to further reduce emissions and strengthen operational resilience. These efforts include renewable energy procurement, investment in on-site and off-site energy storage, accelerated adoption of electric vehicles (EVs), and expansion of EV charging infrastructure across Port facilities. Together, these programs support the Port's broader decarbonization strategy, lower greenhouse gas emissions, and position Port operations and tenants for a more sustainable and energy-secure future

**Evaluation, Measurement & Verification Studies**

Go to <https://www.cmua.org/> for more information on EM&V.

**Major Differences or Diversions from CA POU TRM for Energy Savings**

Reported energy savings are based on customized calculations reflecting the specific equipment replaced and installed.

**TABLE Oakland-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Lighting - Indoor	0	0	0	0	0	0	0	\$14,400			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$14,400			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$14,400			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$14,400			0.000

**TABLE Oakland-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	0	0	0	0	0	0	0	\$14,400			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$14,400			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$14,400			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$14,400			0.000

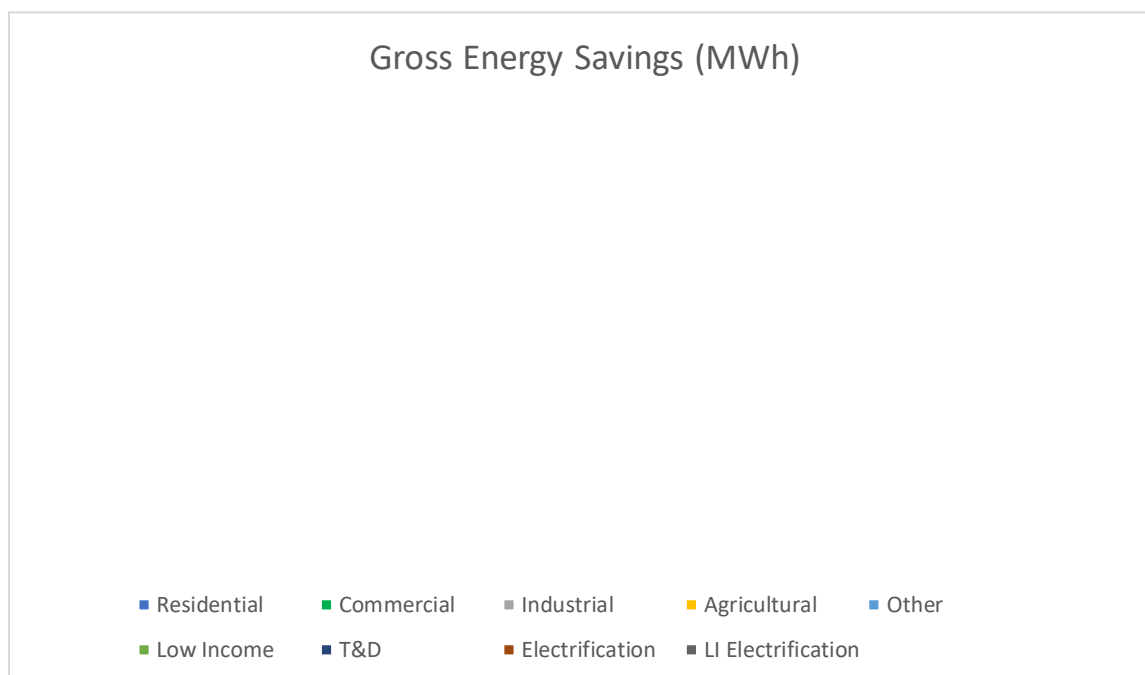
**TABLE Oakland-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	0	0	0	0	0	0	0	\$14,400			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$14,400			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$14,400			0.000
<b>C&amp;S and T&amp;D</b>											
Utility Total	0	0	0	0	0	0	0	\$14,400			0.000

## RANCHO CUCAMONGA MUNICIPAL UTILITY

### *Rancho Cucamonga Municipal Utility at a Glance*

- Climate Zone: 10
- Customers: 3,714
- Total annual retail sales: 129,477 MWh
- Annual Retail Revenue: \$20,130,288
- Annual energy efficiency expenditures for reporting year: \$32,000
- Gross annual savings from reporting year portfolio: 0 MWh



### *Rancho Cucamonga Municipal Utility Overview*

The Rancho Cucamonga Municipal Utility (RCMU) began providing electric services in 2004 to primarily commercial customers. Since then, RCMU has grown and expanded to residential and industrial customers and new developments. Interest and participation in EE programs continue to have low demand due to existing customer base and new growth coming from new construction that meets or exceeds Title 24 requirements.

### *Major Program and Portfolio Changes*

There were no major program changes implemented in FY 2025.

### **Program and Portfolio Highlights**

In previous years, the greatest participation in EE programs has been attained by the commercial EE rebate program. Replacing inefficient lamp fixtures with LEDs continues to be the trend for EE rebates. Programs and EE practices are promoted online and billing inserts. Free energy audits are continuing to be offered to educate customers on energy savings and potential upgrades on existing equipment.

- EE Program: Non-Res Lighting, Non-Res Refrigeration
  - RCMU has adopted an "Express Solution" model for EE rebates.
- Customers receive a rebate for estimated kilowatt hour saving for the first year in the following categories: Lighting, Interior LED, Exterior LED, Delamping, HVAC, Motors and Refrigeration.
- Direct Savings Program: Non-Res Lighting: To encourage and assist small and medium businesses to reduce their energy usage. RCMU will pay and install up to \$1,500 of recommended retrofit items that are determined from the complementary energy audit. Any cost above the \$1,500 limit is paid by the customer.
- There was no participation in the commercial EE program this year due to possibly businesses being concerned about economic issues and budget limitations, but concentrated outreach is planned. Staff is exploring expanding the Direct Savings program to residential customers to increase participation.

### **Commercial, Industrial & Agricultural Programs**

- EE Program: Non-Res Lighting, Non-Res Refrigeration: RCMU has adopted an "Express Solution" model for EE rebates. Customers receive a rebate for estimated kilowatt hour savings for the first year in the following categories: Lighting, Interior LED, Exterior LED, Smart Thermostat, HVAC Optimization, Plug Load Controls.
- Direct Savings Program: Non-Res Lighting: To encourage and assist small and medium sized businesses to reduce their energy usage, RCMU will pay and install up to \$1,500 of recommended retrofit items that are determined from the complimentary energy audit. Any cost above the \$1,500 limit is paid by the customer.

### **Residential Programs**

During this reporting period, the RCMU residential customer base expanded from primarily leasing multi-family tenants to include single-family owned residences. With the growth coming from new developments that meet or exceed Title 24, there is a continued challenge to find interest in EE improvements among the residential customers. The homes are built with LED

lighting fixtures, energy efficient appliances, smart thermostats, whole house fans, and may include solar PV systems. The relatively new residential rebate program has low demand which was anticipated. Staff will be expanding the Direct Savings program encompassing single-family homes to increase participation.

### **Complementary Programs**

- **Energy Audits:** RCMU offers free, customized energy audits including lighting, HVAC and equipment assessment and a review of energy usage. Specific cost-effective recommendations to improve EE and reduce energy use are provided.
- **Low Income:** The program is intended to assist customers with their bills and is funded by RCMU Public Benefit Fund. The household size and gross income requirements is based off the San Bernardino County Income Limits and Documentation System. RCMU also offers acceptance into the low-income program based on LIHEAP acceptance.
- **Medical Support Assistance Program:** The program will assist eligible residential customers where a full-time resident of the household regularly requires the use of essential medical support equipment. An application with supporting documentation from the patient's doctor is required to receive the credit each month.

**TABLE RCMU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
HVAC - Heat Pump	0	0	0	0	0	0	0	\$32,000			0.000
Electrification	0	0	0	0	0	0	0	\$32,000			0.000
Energy Efficiency								\$0			
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$32,000			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$32,000			0.000

**TABLE RCMU-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Residential	0	0	0	0	0	0	0	\$32,000			0.000
Electrification	0	0	0	0	0	0	0	\$32,000			0.000
Energy Efficiency								\$0			
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$32,000			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$32,000			0.000

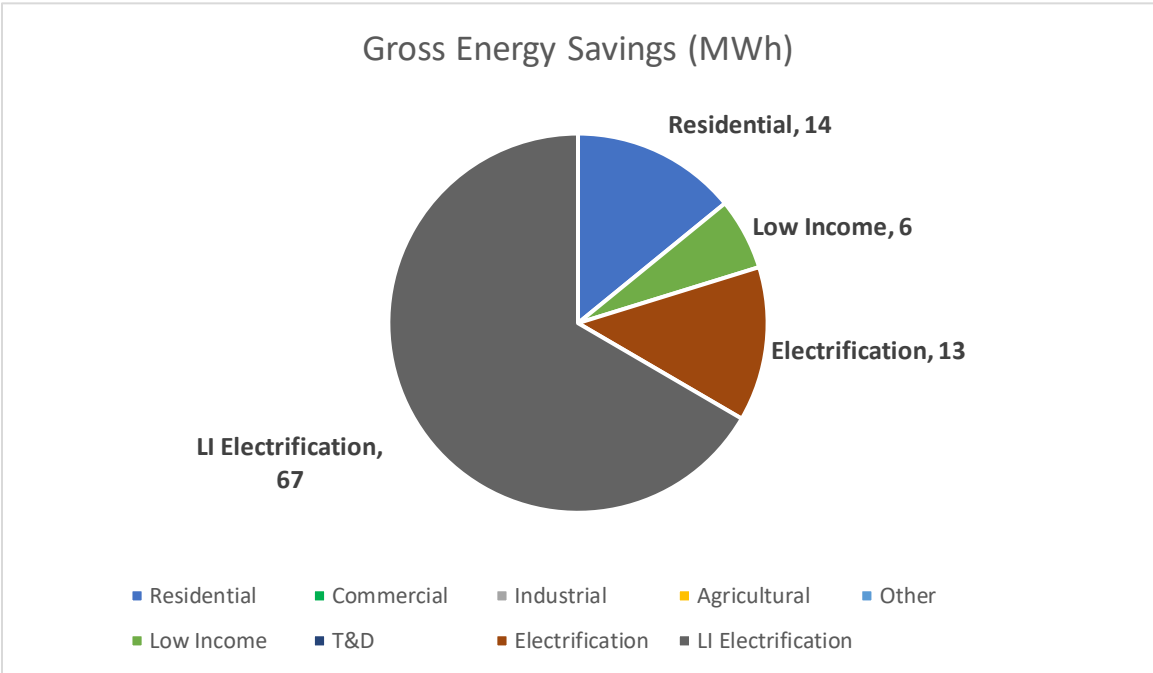
**TABLE RCMU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	0	0	0	0	0	0	0	\$32,000			0.000
Electrification	0	0	0	0	0	0	0	\$32,000			0.000
Energy Efficiency								\$0			
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$32,000			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$32,000			0.000

# REDDING ELECTRIC UTILITY

## Redding Electric Utility at a Glance

- Climate Zone: 11
- Customers: 45,489
- Total annual retail sales: 770,495 MWh
- Annual Retail Revenue: \$141,255,288
- Annual energy efficiency expenditures for reporting year: \$434,226
- Gross annual savings from reporting year portfolio: 101 MWh



## Redding Electric Utility Overview

Total sales for FY 2025 were 770,495 MWh – a 4.59% increase compared to FY 2024. Redding Electric Utility (REU) attributes the increase in retail sales to rising interest in both transportation and building electrification measures, as well as a warm and longer than average summer. Redding continuously develops electric sales forecasts, especially as the utility expects to see sustained increases in sales attributed to economic growth and increased building and transportation electrification.

Due to Redding’s hot summer climate and high residential load, REU’s peak demand typically occurs in the summer between 4:00-5:00 p.m. and is more than double the peak demand during non-cooling months.

In prior reporting years, Redding strategically directed Cap-and-Invest (C&I) auction proceeds toward energy efficiency and electrification investments that deliver measurable, long-term emissions reductions and reliable energy savings, including upgrades for income-eligible customers. Redding does not expect to receive additional funding from C&I auction proceeds for customer programs and is actively ramping down greenhouse gas-funded programs over the next few years. There are no plans for new customer-facing programs utilizing C&I auction proceeds.

### **Major Program and Portfolio Changes**

REU continuously evaluates and makes changes to the public benefits programs to maximize the benefits to the community and maintain compliance with State and Federal Regulations.

In September 2021, Redding's City Council approved REU's Demand-Side Management Integrated Resource Plan (DSM-IRP). The DSM-IRP found that, given Redding's relatively low avoided costs, traditional energy efficiency programs were not cost-effective for ratepayers, particularly when accounting for the lost revenue associated with programs that reduce electricity sales. In contrast, electrification programs are cost-effective for all ratepayers (not just participants), provide a positive revenue source to help sustain Public Benefits funding, and are a cost-effective way to reduce carbon. As a result, the City Council approved a recommendation to terminate all energy efficiency rebate programs paid through Public Benefits, and replaced them with a new suite of building electrification programs beginning in FY2023. The approved DSM-IRP report is available on the City of Redding's website ([http://reddingcityca.iqm2.com/Citizens/Detail\\_LegiFile.aspx?Frame=&MeetingID=3604&MediaPosition=&ID=7641&CssClass](http://reddingcityca.iqm2.com/Citizens/Detail_LegiFile.aspx?Frame=&MeetingID=3604&MediaPosition=&ID=7641&CssClass)).

Redding implemented several electrification programs effective July 1, 2022, including:

- Residential Electrification Rebates
  - Heat Pump Water Heaters
  - Heat Pump Clothes Dryers
- Commercial Electrification Rebates
  - Heat Pump Water Heaters
- New Construction Residential Rebates
  - Heat Pump Space and Water Heating Package

In FY25, Redding re-evaluated its rebate offerings and determined that the Heat Pump Clothes Dryer rebate was underutilized. As a result, Redding made the decision to remove it in FY26 from the program and reallocate those funds toward higher-demand rebates.

The Residential Energy Assistance Program (REAP) was introduced in FY25 and provides direct installation of electric appliances to replace fossil-fueled appliances in income-qualified households. Eligible measures include heat pump clothes dryers, heat pump space and water heating systems, and induction cooking.

Redding's Energy Efficiency Economic Recovery Plan (EEE-RP) is the final remaining energy efficiency savings program, which is utilized for upgrades to City facilities. The EEE-RP program is expected to be sunset in FY26; all activities in FY25 were related to construction management. No projects were completed during FY25.

### **Program and Portfolio Highlights**

All activities related to EEE-RP in FY25 were limited to construction management activities. No projects were completed during the fiscal year.

Redding utilizes the kWh equivalent (e-kWh) for therms saved when evaluating the total energy savings. On the residential side, REAP accounted for 73.0% of total annual energy savings for the year, or 72,378 e-kWh. Residential Electrification Rebates Programs accounted for 13.4% of total annual energy savings for the year, or 13,254 e-kWh. Redding continues to evaluate program offerings and conduct marketing and outreach efforts to increase participation in the new electrification programs.

### **Commercial, Industrial & Agricultural Programs**

- Water Heaters – Deemed rebates for converting from fossil-fueled water heaters to heat pump technology.
- City Facilities Energy Efficiency – Funding from C&I auction proceeds provide updates to City of Redding facilities, including lighting retrofits and upgrades to energy-efficient equipment. Retrofit lighting projects are calculated using a custom calculator to determine savings based on existing equipment, retrofit equipment, and hours of operation.

### **Residential Programs**

- Water Heater Electrification – Deemed rebates for converting from fossil-fueled water heaters to heat pump technology.
- Clothes Dryer Electrification – Deemed rebates for converting from fossil-fueled clothes dryers to heat pump technology. This program was sunset in FY25 due to extremely low participation rates.
- Single-Family New Construction Electrification – Deemed rebates for installing heat pump space and water heating equipment (in lieu of fossil-fuel appliances) and Wi-Fi capable thermostats in new construction single-family homes.

- Residential Electrification Assistance Program (REAP) – Provides direct installation of electric appliances to replace fossil-fueled appliances in income-qualified households. Eligible measures include heat pump clothes dryers, heat pump space and water heating systems, and induction cooking.

### **Complementary Programs**

- Low-Income Programs – Low-income assistance spending (through the CARES Program and Residential Energy Discount) continues to be the second-largest area of our Public Benefits Program expenditures. During FY 2025, rate discounts represented about \$1.73 million, and assistance programs represented about \$0.05 million paid with public benefits funds. Low-income programs have been most beneficial to a significant portion of our customer base that has limited situational and/or financial means to participate in other energy efficiency programs.
- Electric Vehicle (EV) and Charging Infrastructure – Redding offers Transportation Electrification (TE) vouchers towards the purchase or lease of electric vehicles or electric bikes (E-Bikes) for low-income residential ratepayers through Low Carbon Fuel Standard (LCFS) funding. The DC fast charger rebate for commercial ratepayers was sunset in FY25 due to low participation.
- Residential Education – Redding offers a variety of in-home services through the Residential Energy Advisor program. This includes guiding customers through the rebate programs while educating them with energy-saving tips and discussing the benefits of electrification.
- Commercial Education – Redding offers a variety of in-business services through the Commercial Energy Advisor program. This includes guiding customers through the rebate programs while educating them with energy-saving tips and discussing the benefits of electrification.

### **Evaluation, Measurement & Verification Studies**

The results of Redding EM&V reports are available on CMUA's website:  
<https://www.cmua.org/emv-reports>.

In addition to these activities, rebate processing includes technical reviews on 100% of the rebate applications submitted to ensure that projects align with program requirements.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

For the vast amount of its energy efficiency programs, REU uses the standard measures as constructed within the Energy Services Platform's (ESP) reporting tool. For REU's unique programs (City Energy Efficiency), REU used the custom measure feature in ESP to represent

the energy and demand impacts of those programs. REU utilizes a custom calculation for lighting retrofit projects in the City Energy Efficiency programs.

**TABLE REU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
HVAC - Heat Pump	2	8,545	128,179	2	8,118	121,770	34	\$10,830	0.99	0.36	0.102
Service & Domestic Hot Water	-0	5,647	56,466	-0	5,364	53,643	9	\$6,992	0.60	0.52	0.142
Energy Efficiency	2	14,192	184,645	2	13,482	175,412	43	\$17,821	0.84	0.40	0.115
Appliance & Plug Loads	0	180	2,155	0	180	2,155	0	\$484	0.33	0.13	0.250
Service & Domestic Hot Water	0	13,075	130,747	0	13,075	130,747	19	\$20,781	0.49	0.46	0.173
Electrification	0	13,254	132,902	0	13,254	132,902	20	\$21,264	0.48	0.44	0.175
Appliance & Plug Loads	0	1,026	12,600	0	898	10,934	3	\$30,445	0.03	0.07	3.104
Building Envelope	1	3,712	74,242	1	3,712	74,242	17	\$7,922	0.86	0.65	0.128
HVAC - Cooling	0	51	474	0	51	474	0	\$266	0.15	0.50	0.609
Service & Domestic Hot Water	0	1,360	13,600	0	748	7,480	3	\$3,698	0.18	0.29	0.540
Low-Income	1	6,149	100,916	1	5,409	93,130	23	\$42,331	0.20	0.31	0.536
Appliance & Plug Loads	0	1,779	25,591	0	1,779	25,591	1	\$17,167	0.12	0.19	0.765
HVAC - Heat Pump	0	27,787	416,812	0	27,787	416,812	16	\$295,057	0.12	0.54	0.810
Service & Domestic Hot Water	0	37,402	374,023	0	37,402	374,023	52	\$40,586	0.71	2.17	0.118
Low-Income Electrification	0	66,969	816,426	0	66,969	816,426	70	\$352,809	0.19	0.74	0.484
EE, Low Income and Electrification	3	100,564	1,234,889	3	99,114	1,217,870	155	\$434,226	0.23	0.56	0.400
<b>C&amp;S and T&amp;D</b>											
Utility Total	3	100,564	1,234,889	3	99,114	1,217,870	155	\$434,226	0.23	0.56	0.400

**TABLE REU-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Residential	2	14,192	184,645	2	13,482	175,412	43	\$17,821	0.84	0.40	0.115
Energy Efficiency	2	14,192	184,645	2	13,482	175,412	43	\$17,821	0.84	0.40	0.115
Residential	0	13,254	132,902	0	13,254	132,902	20	\$21,264	0.48	0.44	0.175
Electrification	0	13,254	132,902	0	13,254	132,902	20	\$21,264	0.48	0.44	0.175
Residential	1	6,149	100,916	1	5,409	93,130	23	\$42,331	0.20	0.31	0.536
Low-Income	1	6,149	100,916	1	5,409	93,130	23	\$42,331	0.20	0.31	0.536
Residential	0	66,969	816,426	0	66,969	816,426	70	\$352,809	0.19	0.74	0.484
Low-Income Electrification	0	66,969	816,426	0	66,969	816,426	70	\$352,809	0.19	0.74	0.484
EE, Low Income and Electrification	3	100,564	1,234,889	3	99,114	1,217,870	155	\$434,226	0.23	0.56	0.400
<b>C&amp;S and T&amp;D</b>											
Utility Total	3	100,564	1,234,889	3	99,114	1,217,870	155	\$434,226	0.23	0.56	0.400

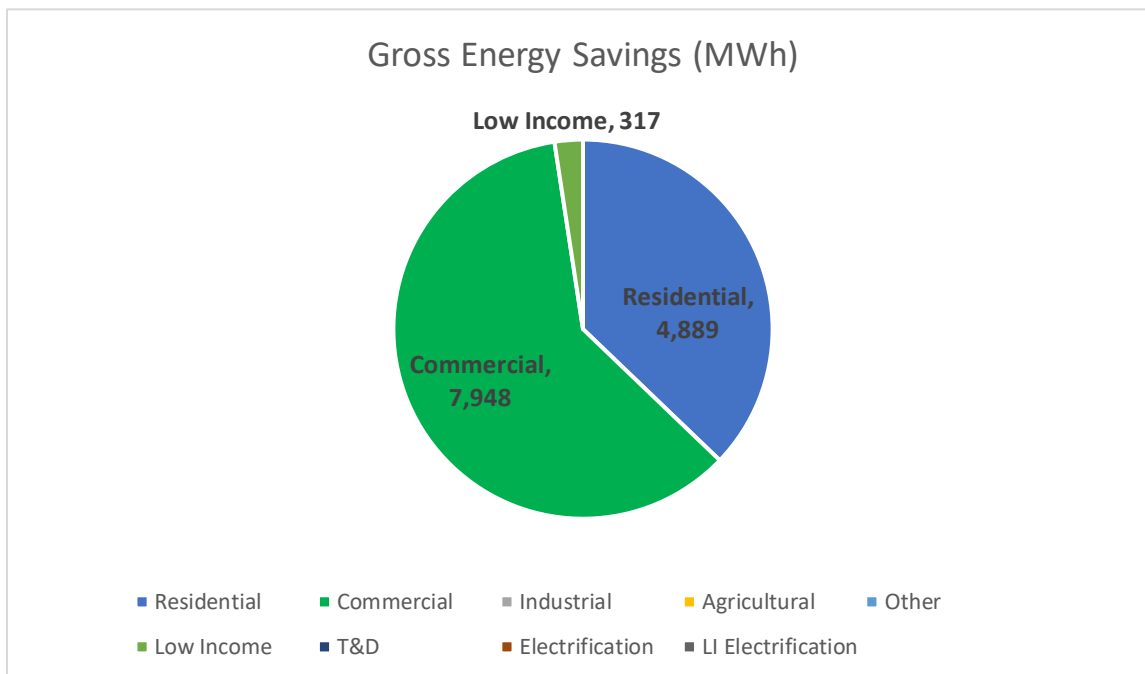
**TABLE REU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	2	14,192	184,645	2	13,482	175,412	43	\$17,821	0.84	0.40	0.115
Energy Efficiency	2	14,192	184,645	2	13,482	175,412	43	\$17,821	0.84	0.40	0.115
Multiple	0	13,254	132,902	0	13,254	132,902	20	\$21,264	0.48	0.44	0.175
Electrification	0	13,254	132,902	0	13,254	132,902	20	\$21,264	0.48	0.44	0.175
Multiple	1	5,195	89,477	1	4,551	82,835	20	\$21,795	0.35	0.39	0.312
Residential - Single-Family	0	953	11,439	0	858	10,295	3	\$20,536	0.04	0.11	2.219
Low-Income	1	6,149	100,916	1	5,409	93,130	23	\$42,331	0.20	0.31	0.536
Multiple	0	66,969	816,426	0	66,969	816,426	70	\$352,809	0.19	0.74	0.484
Low-Income Electrification	0	66,969	816,426	0	66,969	816,426	70	\$352,809	0.19	0.74	0.484
EE, Low Income and Electrification	3	100,564	1,234,889	3	99,114	1,217,870	155	\$434,226	0.23	0.56	0.400
<b>C&amp;S and T&amp;D</b>											
Utility Total	3	100,564	1,234,889	3	99,114	1,217,870	155	\$434,226	0.23	0.56	0.400

## RIVERSIDE PUBLIC UTILITIES

### *Riverside Public Utilities at a Glance*

- Climate Zone: 10
- Customers: 114,180
- Total annual retail sales: 2,157,265 MWh
- Annual Retail Revenue: \$384,989,367
- Annual energy efficiency expenditures for reporting year: \$8,621,615
- Gross annual savings from reporting year portfolio: 13,155 MWh



### *Riverside Public Utilities Overview*

Riverside Public Utilities (RPU) has provided efficient and reliable water and electric services to the City of Riverside since 1895. RPU is committed to delivering high-quality services at the lowest possible cost for the benefit of its customers and the community.

RPU continues to support customers in managing their energy use through a comprehensive portfolio of education, rebates, and incentive programs. In Fiscal Year (FY) 2025, RPU achieved 57 percent of its kilowatt-hour (kWh) savings goal of one percent of retail sales, as adopted by the Board of Public Utilities in 2021.

### **Major Program and Portfolio Changes**

RPU continues to enhance and expand its energy efficiency program portfolio to better serve customers and the broader community. Staff regularly evaluate program performance and make adjustments to incentives and offerings as needed to effectiveness and alignment with program objectives.

In FY 2025, to improve program tracking mechanisms, RPU separated the previously combined air conditioning and heat pump rebate programs. This change increased focus on the adoption of higher-efficiency heat pump units and enabled more effective measurement of program benefits and performance.

RPU introduced a new Multi-Family and Mobile-Home direct install program in partnership with Southern California Gas Company. Program participation has been strong, and the program was enhanced to include additional measures and increase funding. The program provides a range of energy savings measures at no cost to the customer and program qualification is based on housing type. This program complements RPU's Energy Savings Assistance Program (ESAP), which is an income-based direct install program for low-income residential customers.

### **Program and Portfolio Highlights**

RPU placed significant emphasis on continued development of commercial energy efficiency programs. Commercial customers represent approximately 12 percent of RPU's customer base while accounting for roughly 65 percent of the City's total electric load.

In FY 2025 RPU entered a third year of the Medium and Large Business Outdoor Lighting Program, Small Business Direct Installation Program and Small Business Refrigerator Load Program.

### **Commercial, Industrial & Agricultural Programs**

- Air Conditioning Incentives – Rebates for replacement of energy inefficient AC units.
- Business Outdoor Lighting Program – Program provides direct installation for medium and large business with outdoor lighting conversion to efficient LED.
- Commercial Management Systems – Rebates for Commercial/Industrial Energy Management Systems
- Energy Star Appliances - Rebates for purchase of Energy Star-rated refrigerators, dishwashers, clothes washers, room air conditioners, ceiling fans, and televisions.
- Key Account Energy Efficiency Program (KEEP) – Program targeting RPU's largest Time of Use Customers and includes the top 300 RPU customers in terms of consumption. KEEP

is intended to provide Key Account customers with a comprehensive energy efficiency plan including a priority list of recommended energy efficiency measures along with an estimated return on investment and applicable utility incentives.

- Lighting Incentive – Rebates for kWh savings on installation of more energy efficient lighting and controls.
- Performance Based Incentive – Rebates for customers who can demonstrate a kWh savings based on custom energy-efficiency measures.
- Refrigerated Load Program - Program offers the direct installation of energy efficiency measures such as air curtains, cooler gaskets, automatic door closures, LED case lighting retrofits and high-efficiency motor upgrades.
- Small Business Direct Install Program (SBDI) - Program provides small and medium-sized businesses with energy audits, and direct installation of energy efficiency measures such as lighting upgrades and controls, HVAC tune-ups, exit and open/closed signs, advanced power strips and weatherization.
- Weatherization – Rebates for installation of insulation, window film and cool roofs.

### **Residential Programs**

- Air Conditioning Incentives – Rebates for replacing Central Air Conditioners with a SEER rating of 15 above and HVAC tune-up.
- Appliance Recycling – Free recycling service for old inefficient refrigerators and freezers.
- Energy Savings Assistance Program (ESAP) – Direct installation program targeting low-income customers, offered in partnership and cooperation with SoCal Gas. Measures include lighting efficiency upgrades, HVAC tune-ups, smart power strips, and refrigerator recycling.
- Energy Star Appliances – Rebates for purchase of Energy Star-rated refrigerators, dishwashers, clothes washers, room air conditioners, ceiling fans, and televisions.
- Heat Pumps – New rebate to residential electric customers when they purchase and install new energy-efficient heat pumps.
- Multifamily and Mobile Home Direct Install Program - Direct installation program offered in partnership and cooperation with SoCal Gas. Measures include lighting efficiency upgrades, HVAC tune-ups, smart power strips, and refrigerator replacement with recycling.

- Pool Saver – Rebates for purchase and installation of high efficiency, variable speed, or multi-flow pool pump motors.
- Tree Power – Rebates for purchasing and planting of up to five qualifying shade trees per year and one qualifying shade tree coupon printed on the back of the March bill.
- Weatherization – Rebates for installing attic insulation or wall insulation, standard rebates for duct replacement, duct testing/sealing, window film, solar and standard attic fans, whole house fans, and cool roofs.

### **Complementary Programs**

- Sharing Households Assist Riverside’s Energy Program (SHARE) – This low-income assistance program provides qualified customers with a \$250 credit toward an electric service deposit or as an emergency payment on delinquent balances. During FY 2025, RPU assisted 4,538 customers with the \$250 deposit credit. The program also provides qualified customers with a monthly bill credit of \$24. During FY 2025, an average of 5,287 customers received monthly bill assistance.
- Energy Savings Assistance Program (ESAP) - In partnership with SoCal Gas, ESAP is designed to reduce monthly energy bills for income-qualified renters and homeowners by improving household energy efficiency. Services are provided at no cost through professional energy-savings home improvements installed by RPU’s authorized contractor, Synergy. During FY 2025, ESAP assisted 385 participants and implemented a total of 2,119 energy efficiency measures.
- Multifamily and Mobile Home Direct Install Program - Offered in partnership with SoCal Gas, this direct-install program helps reduce monthly energy bills for multifamily and mobile home residents by improving energy efficiency through professional, no-cost energy-saving home improvements installed by RPU’s authorized contractor, Synergy. During FY 2025, the program assisted 777 participants and implemented a total of 5,064 energy efficiency measures.
- Pool Pump Timer Credit Load Shift Program – This program offers a bill credit of \$5 per month for customers who install and program a residential pool pump timer to operate exclusively during off-peak hours, supporting load shifting and grid efficiency.

### **Evaluation, Measurement & Verification Studies**

- RPU is committed to providing cost-effective, ongoing evaluation, measurement, and verification (EM&V) efforts for its energy efficiency programs. EM&V costs are covered in the individual program budgets.

- In addition to periodic program audits, RPU consistently performs the following in support of EM&V activities:
  - Onsite inspections of a selection of randomly selected residential program participants, performed by RPU staff and contractors.
  - Pre-and post-inspection of 100% of large commercial rebate participants, including a review of historical energy usage, energy-saving calculations, and post-measure bill analysis.
  - Audits and installations performed by third-party contractors for RPU direct installation programs have high inspection rates that are performed by both the contractor and RPU staff.
  
- Refrigerator recycling program administered by A&G Recycling Angels assures full inspection when the contractor picks up old appliances.

**TABLE RPU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC
Any	0	511,192	5,111,917	0	511,192	5,111,917	1,684	\$92,050	5.38	8.21	0.022
Appliance & Plug Loads	271	1,057,479	6,272,212	258	1,004,182	5,957,386	2,156	\$294,869	1.94	7.11	0.056
Building Envelope	165	185,200	3,463,608	149	167,938	3,142,407	1,187	\$132,624	4.24	7.53	0.061
Commercial Refrigeration	0	26,177	311,616	0	26,177	311,616	110	\$39,637	0.79	8.21	0.161
HVAC - Cooling	1,952	4,722,034	103,823,022	1,626	3,775,065	80,531,781	29,089	\$3,659,861	3.51	7.25	0.070
HVAC - Heat Pump	0	312	4,680	0	281	4,212	1	\$566	0.96	4.68	0.180
Lighting - Indoor	2	3,002,873	30,909,840	2	3,002,873	30,909,840	10,271	\$584,988	5.19	8.21	0.023
Lighting - Outdoor	0	900,991	9,009,910	0	900,991	9,009,910	4,176	\$733,290	1.50	8.21	0.098
Miscellaneous	1,405	2,428,784	23,135,753	1,405	2,428,462	23,134,465	7,772	\$2,335,707	0.96	8.20	0.122
Service & Domestic Hot Water	0	2,756	28,628	0	2,618	27,197	9	\$952	2.60	7.41	0.043
<b>Energy Efficiency</b>	<b>3,796</b>	<b>12,837,797</b>	<b>182,071,186</b>	<b>3,440</b>	<b>11,819,778</b>	<b>158,140,729</b>	<b>56,455</b>	<b>\$7,874,543</b>	<b>2.65</b>	<b>7.54</b>	<b>0.068</b>
Appliance & Plug Loads	0	20,698	199,490	0	20,698	199,490	71	\$40,846	0.52	8.21	0.247
Building Envelope	0	127,591	2,551,820	0	127,591	2,551,820	959	\$518,265	0.83	8.21	0.299
HVAC - Cooling	0	138,436	1,846,410	0	138,436	1,846,410	698	\$171,911	1.82	8.21	0.122
Lighting - Indoor	0	30,447	456,705	0	30,447	456,705	171	\$16,049	3.05	8.21	0.047
<b>Low-Income</b>	<b>0</b>	<b>317,172</b>	<b>5,054,425</b>	<b>0</b>	<b>317,172</b>	<b>5,054,425</b>	<b>1,899</b>	<b>\$747,072</b>	<b>1.09</b>	<b>8.21</b>	<b>0.204</b>
<b>EE, Low Income and Electrification</b>	<b>3,796</b>	<b>13,154,969</b>	<b>187,125,611</b>	<b>3,440</b>	<b>12,136,950</b>	<b>163,195,154</b>	<b>58,354</b>	<b>\$8,621,615</b>	<b>2.52</b>	<b>7.57</b>	<b>0.072</b>
<b>C&amp;S and T&amp;D</b>											
<b>Utility Total</b>	<b>3,796</b>	<b>13,154,969</b>	<b>187,125,611</b>	<b>3,440</b>	<b>12,136,950</b>	<b>163,195,154</b>	<b>58,354</b>	<b>\$8,621,615</b>	<b>2.52</b>	<b>7.57</b>	<b>0.072</b>

**TABLE RPU-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	2,529	7,948,439	84,987,234	2,414	7,754,277	81,866,459	28,019	\$3,597,892	2.30	7.98	0.054
Residential	1,266	4,889,358	97,083,952	1,026	4,065,502	76,274,270	28,435	\$4,276,651	2.94	7.28	0.086
Energy Efficiency	3,796	12,837,797	182,071,186	3,440	11,819,778	158,140,729	56,455	\$7,874,543	2.65	7.54	0.068
Residential	0	317,172	5,054,425	0	317,172	5,054,425	1,899	\$747,072	1.09	8.21	0.204
Low-Income	0	317,172	5,054,425	0	317,172	5,054,425	1,899	\$747,072	1.09	8.21	0.204
EE, Low Income and Electrification	3,796	13,154,969	187,125,611	3,440	12,136,950	163,195,154	58,354	\$8,621,615	2.52	7.57	0.072
<b>C&amp;S and T&amp;D</b>											
Utility Total	3,796	13,154,969	187,125,611	3,440	12,136,950	163,195,154	58,354	\$8,621,615	2.52	7.57	0.072

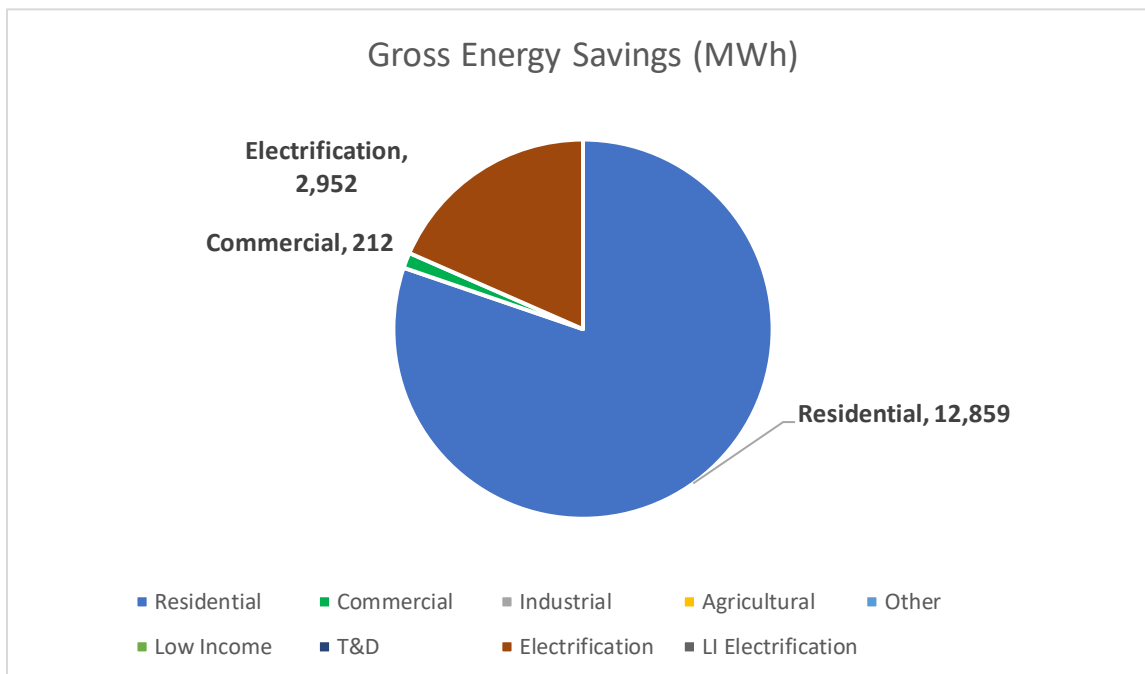
**TABLE RPU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	1,126	5,155,381	58,644,269	1,011	4,961,219	55,523,495	18,064	\$1,576,779	3.51	7.86	0.035
Other Commercial	1,403	2,880,196	27,475,760	1,403	2,880,196	27,475,760	10,363	\$2,454,656	1.17	8.21	0.108
Residential	1,266	3,966,482	80,371,397	1,026	3,142,626	59,561,715	22,080	\$2,777,294	3.56	7.07	0.073
Residential - Mobile Home	0	351,241	8,078,546	0	351,241	8,078,546	3,167	\$358,207	3.89	8.21	0.069
Residential - Multi-Family	0	484,497	7,501,213	0	484,497	7,501,213	2,781	\$707,607	1.65	8.21	0.131
Energy Efficiency	3,796	12,837,797	182,071,186	3,440	11,819,778	158,140,729	56,455	\$7,874,543	2.65	7.54	0.068
Multiple	0	57,498	574,980	0	57,498	574,980	222	\$72,879	1.59	8.21	0.153
Residential	0	240,146	4,282,525	0	240,146	4,282,525	1,606	\$635,011	1.07	8.21	0.211
Residential - Single-Family	0	19,528	196,920	0	19,528	196,920	71	\$39,181	0.55	8.21	0.241
Low-Income	0	317,172	5,054,425	0	317,172	5,054,425	1,899	\$747,072	1.09	8.21	0.204
EE, Low Income and Electrification	3,796	13,154,969	187,125,611	3,440	12,136,950	163,195,154	58,354	\$8,621,615	2.52	7.57	0.072
C&S and T&D											
Utility Total	3,796	13,154,969	187,125,611	3,440	12,136,950	163,195,154	58,354	\$8,621,615	2.52	7.57	0.072

## ROSEVILLE ELECTRIC UTILITY

### *Roseville Electric Utility at a Glance*

- Climate Zone: 11
- Customers: 74,416
- Total annual retail sales: 1,187,042 MWh
- Annual Retail Revenue: \$214,696,727
- Annual energy efficiency expenditures for reporting year: \$3,443,472
- Gross annual savings from reporting year portfolio: 16,024 MWh



### *Roseville Electric Utility Overview*

The City of Roseville is a summer peaking utility located in climate zone 11 and forecast zone 4. Summers are hot and include several days over 100 degrees. Winters are mild with daily highs often in the 50s and 60s, and overnight lows only occasionally dropping into the 30s, but rarely below 32 degrees.

Roseville is the largest and fastest growing city in Placer County, and significantly influences the economy as the retail destination and healthcare hub for the Sacramento region.

Municipal owned Roseville Electric Utility (REU) offers affordable electric rates and reliable power to 63,961 residential accounts and 7,445 commercial accounts.

In Fiscal year 2025 Roseville issued new construction permits for 1133 single family homes, 886 multi family units within 58 buildings and 50 commercial buildings. This FY26 showed notable increase in multifamily construction which is expected to continue in the upcoming years.

Development of industrial land has experienced sustained growth and vacancy rates are at a historic low of 1.9 percent. Alternatively, commercial development has slightly declined in FY25. Current construction is primarily centered around new restaurants, retail space, and other personal service uses. Office space vacancy is up from the previous year at 15.4% and the persistence of remote and hybrid work models is seen to continue to contribute to elevated office space vacancy rates.

The median household income in Roseville is estimated at \$115,775. Over 96% percent of Roseville residents over age 25 have a high school diploma, and 47% of residents over 25 have obtained a Bachelor's degree or higher.

Roseville aims to provide a broad portfolio of programs for both residential and commercial customers to allow for high engagement in energy efficiency installations and behavior throughout the customer base. Roseville makes concerted efforts to rebate products that will mitigate high energy usage during the summer months which is when our customers are most likely to experience higher bills.

Roseville's customer base has embraced new technology such as smart thermostats, heat pump HVACs, Heat Pump Water Heaters, and Electric Vehicles. Interest in rooftop solar remains high amongst our customers.

### **Major Program and Portfolio Changes**

In Fiscal Year 2025, Roseville's rebate offerings were successful in garnering the participation necessary to exceed its gross energy savings target. This year the largest contributors towards Roseville's annual savings target were its new construction whole home electrification, residential retrofit electrification for HVAC, and residential behavior program.

While Roseville continues to report robust energy savings and sees growth in some categories of electrification programming, Roseville also has seen challenges in other programming sectors making it difficult to capture the same level of energy savings as in past years. The two primary challenges are the general opportunity reductions for traditional energy efficiency projects and challenges in the commercial sector.

Capturing participation from the commercial sector within the last two years has been especially difficult in the midst of a changing economy and reduced options for financing commercial projects. In spite of these difficulties, Roseville continues to push forward in researching new opportunities for energy efficiency programs and has intensified the focus in reaching the commercial sector. In the second half of FY25 new programs were opened, and we

kicked off both a broad and targeted marketing campaign to increase awareness within the commercial sector.

In the residential electrification space, HVAC conversions have increased, but other electrification offerings have not increased at the same level. Notably the participation in residential water heater conversions was less than half of what we had seen in either FY23 or FY24. For Electrification of water heating, we still see the need for significant incentives. However, even periods over the past year where Roseville offered higher incentives, and other stackable offerings were available, we did not see participation in these projects significantly increase. HVAC Electrification projects on the other hand seem to require a smaller percentage of project costs to be incentivized to move forward. Roseville did see an immediate participation influx when our own program incentives were raised in order to promote more efficient Heat Pump HVACs.

For the last several years Roseville has made substantial investments in all-electric new construction. While in FY24 the program saw a major delay in home completions, FY25 saw the majority of the planned homes completing on schedule, making this program one of the largest contributors to both annual and lifetime equivalent kWh savings once again. The homes completed in FY25 also marked major progress capturing participation from the multifamily sector. In FY25 330 of the 372 all-electric residences incentivized were for multifamily units.

In previous years Roseville reported electrification savings in terms of kWh exclusively. Roseville would calculate this by taking the gas savings in therms, converting these to their kWh equivalent and then subtracting the kWh of the added electric load to get the total net equivalent kWh savings reported for a measure. This was done knowing that these energy savings should be displayed as a kWh counted towards Roseville's energy savings targets for the purposes of 1037 reporting. Starting last reporting cycle, publicly owned utilities worked on an enhancement within the ESP reporting tool allowing utilities to report the break out of savings between negative kWh for added electric load and saving in terms of gas therms, while also displaying net savings in terms of equivalent kWh saved. Cost effectiveness metrics and bill savings are now able to use the information from both gas and electric rates, and gas and electric avoided costs.

In FY 2025, Roseville Electric introduced a new smart thermostat demand response program named Power Flex which contributed to over 2 MW of load control capabilities. The program enrolled just over 2,000 smart thermostats utilizing OpenADR technology that allowed Roseville to adjust participating customer's temperature settings by up to 4° shifting system load up to 2.3 MW with an average of 1.29 kW per device. The Power Flex program has a season from May through September of each year, with events typically running from 5:00 to 6:00 pm.

In return for their participation in the program, customers receive a one-time \$25 bill credit and an annual \$25 bill credit for remaining in the program. Roseville Electric will continue to expand the program with a goal set to enroll up to 3,000 customers, or approximately 4,500

smart thermostats, which will help Roseville Electric shift load away from peak times during the summer months.

Roseville has maintained a focus of assisting low income customers through rate assistance. Rate Assistance participants receive a \$15 credit on their monthly base charge. In Addition, Roseville's Low Income Rate Discount was increased from 15% to a 20% discount beginning in June 2024. This increased assistance for low income customers was enacted to mitigate the impact of our most recent rate adjustment as well as general economic inflation and cost of living increases. Income eligibility has been maintained at the level of 200% of the Federal Poverty Level. Roseville Electric Utility also offers a specialized rate for those who qualify for Medical Rate Assistance. In addition to the \$15 credit towards the monthly base charge, Medical Rate participants receive a 50% discount on their first 500 kWh and a 20% discount on all other kWh usage. Beyond increasing rate assistance benefits, Roseville has made concerted efforts to increase rate assistance enrollment by increasing general outreach, streamlining application processes, increasing time limits before reapplication is required and creating less burdensome routes for providing proof of income. Roseville now allows qualification through providing evidence of concurrent enrollment in either CalFresh, SNAP, TANF, CAPI, or section 8 housing. In FY25 This resulted in adding an additional 468 households to the program which was a 28% increase in participation. With this enhanced focus on assisting Low Income and Medical Rate customers through rate assistance, Roseville more than doubled it's investment for this program in FY25.

### **Program and Portfolio Highlights**

Residential Home Energy Reports continue to be the largest contributor to Roseville's annual kWh savings. This year the program captured more savings than all other rebate programs combined at nearly 12 GWh. Not only has this program continued to achieve the highest savings but it has also remained as the most cost effective program in Roseville's portfolio on a dollar per annual kWh saved basis.

Our HVAC Tune Up and Smart Thermostat offerings continue to drive the most engagement with our residential customers in terms of rebate offerings. In fiscal year 2025 we were able to rebate 1,127 HVAC tune ups and 595 Smart Thermostats. While this participation is significant, in the case of Smart thermostats we have seen a decline in participation year over year for several years now with a 17% decrease from FY24 to FY25.

Residential Electrification continued to show high participation in FY25 and contributed to almost 2.9 GWh in annual equivalent energy savings and 44 GWh in lifecycle equivalent kWh savings. New Construction Electrification contributed to more than half of the savings. In the retrofit electrification space, Heat Pump HVACs were the largest contributors to savings.

### **Commercial, Industrial & Agricultural Programs**

- Commercial LED and Other Lighting: Offers business customers a wide variety of energy efficient LED interior and exterior LED lighting retrofits and control options for updating their facilities.
- Commercial HVAC: Includes package and split system retrofits, HVAC Electrification, smart thermostats and HVAC tune ups.
- Commercial Custom: Customer driven rebate option targets projects that reduce peak loads and energy consumption and offers unlimited energy efficiency technology opportunities for the large and key account customers.

### **Residential Programs**

- Low-Income Rate Assistance: Roseville Electric assisted approximately 2,094 customers in rate reduction for their utility bills in FY25. Additionally, Roseville works with local agencies and supports the local LIHEAP program.
- Residential Electrification: Rebate program offering incentives for fuel substitution including transitions to Heat Pump HVACs, Heat Pump Water Heaters, Heat Pump Dryers and Induction Cooktops. Incentives for Smart Thermostats are offered in conjunction with the HVAC replacement and incentives for Panel Replacements are offered in order to make electrification accessible.
- Residential Electric to Electric Appliances: Rebate offerings for customers with traditional electric HVACs/Furnaces, Water Heaters, Dryers, and Cooktops to switch to the energy efficient heat pump version and efficient induction technology for cooktops.
- Residential Whole House Fan: Program offering rebates to customers installing a permanently fixed 2000 cfm (or greater) whole house fan.
- Residential Home Energy Reports: Industry-recognized, contractor-managed energy efficiency behavior program providing education, feedback and tips to residential customers.
- Residential HVAC: Provides rebates performing annual HVAC tune-ups and installing smart thermostats.
- Residential Shade Tree: Rebate program designed to incentivize and educate customers to plant drought-tolerant shade trees to keep their home cool. A local urban forester recommends trees. Energy efficiency savings for the trees was obtained from an EM&V performed in 2010.

- Residential Pool Pump: Rebate program designed to incentivize customers to upgrade from a single speed to a variable speed pool pump.
- Residential New Construction: An all-electric home program for single family, multifamily and accessory dwelling units offering incentives to builders. This program was designed to be consistent with new construction programs from neighboring utilities. Offerings included All Electric homes including Induction Cooktop Technology and All Electric Homes without Induction Cooktops. Savings estimates are obtained from HERS energy reports and reviewed by the third-party administrator. This program has been fully reserved through the end of 2025.

### **Complementary Programs**

#### Power Flex Demand Response Program:

Roseville’s Demand Response program utilizing Smart Thermostats to shift peak load during high HVAC use days during the Summer.

#### Electric Vehicle Program:

Roseville Electric participates in California Air Resource Board’s (CARB) Low Carbon Fuel Standard (LCFS) Program. Proceeds from the sale of LCFS credits go to fund vehicle electrification incentive programs.

In FY2025, Roseville’s residential (LCFS) programs provided incentives for low income customers to install level II chargers. FY26 will see the return of level II charger rebates for all residential customers. In FY25 residential offerings were added for e-bikes, including an increased incentive level for low income customers. Additionally, funding was used to promote electric vehicle adoption through outreach and education.

Current funding in the commercial LCFS space is being utilized for EV site assessments, and targeted public charging that can accommodate large populations and areas that serve low income residents. Throughout the years, Roseville has maintained a focus on increasing equity enrollment in LCFS related projects. In FY25 Roseville completed a survey of low income customers to request feedback on vehicle electrification needs. Roseville staff will continue to utilize this survey information to create programs and support our customers going forward.

In FY 2025, a new update to the independent assessment of the potential impact of electric vehicles to the City of Roseville Electric grid was completed for Roseville Electric Utility. This report provided recommendations for a strategic approach to address the electrification of the transportation industry. Roseville staff are using this report and other industry research to identify opportunities for improvements and expansion of our existing EV programs.

### EV + Battery Study:

In FY25 Roseville completed a VPP Virtual Power Plant study which included an assessment of both electric vehicles and small battery storage technologies. Roseville staff are using this report and other industry research to identify opportunities for improvements and expansion of our existing programs.

### Community Solar:

Roseville introduced a 986 kW community solar project, Roseville Solective, to residential households in March 2019. A portion of the program was set aside for low-income customers. The project is funded by the participants and the energy contributes to the Utility RPS requirements. The objective is to explore options for customers who rent or otherwise choose not to install solar on their own homes.

### City of Roseville Utility Exploration Center:

Roseville Electric continues to support and promote energy efficiency and conservation education at this 3,000 sq. ft. educational facility which saw 51,296 visitors last year. The mission of this facility is to educate visitors of all ages with information about water and energy conservation and achieving a sustainable lifestyle.

For nearly 17 years, the Roseville Utility Exploration Center (UEC) has been a learning haven for thousands of community members eager to learn about the world of utility systems. Reimagined in 2024 with all new exhibits, the 3,000-square-foot museum is now ready to continue to grow with our residents into the future. Highlights include encounters with a real garbage truck, engaging in hands-on waste sorting activities aligned with Placer County's recycling practices, delving into the fascinating realm of wastewater-cleaning microbes, and uncovering innovative approaches to delivering electricity to homes with minimal environmental impact.

In our first full year of operation since reimagining and replacing the exhibits, the UEC staff welcomed over 51,000 visitors to explore the center. This is a 20,000 visitor (or 65%) increase over the previous three years. This shows that investing in our community builds our public power partnership and highlights careers and resources public utilities bring to the community.

### Age Specific Programming Includes:

- STEM Story Time for Preschoolers (2,408 attendees) – Offering stories and activities that highlight the work done by Electric employees and ways for residents to partner in conservation.
- Kindergarten and 1st grade field trips exploring energy efficiency. (1728 students and 517 adults chaperones)
- League of Explorers for 7-11 year olds, including electric themed monthly take home kits and in-person science experiments. (491 3rd-5th grade students)

- 4th Grade class visits including information on renewable energy and conducting energy audits. (43 teachers and 1190 students)
- 8th Grade energy efficiency school and home investigation program and community energy efficiency video contest. (1628 students)
- Electric Field day for High schoolers exploring how the Electric Utility operates and the career paths available to pursue. (78 students)
- High school students toured the Roseville energy park including operations of a natural gas power plant to explore real world applications of the concepts they learn in school. (189 students)

Community Events and Workshops include:

- Adult learners participated in hands on workshops covering topics such as solar, electric vehicles, whole home electrification and shade tree care. (372 attendees)
- Big Truck Summer – Residents watch demonstrations and get to meet Roseville Electric lineworkers who highlight the amazing work they do every day to make sure energy flows throughout the City. (1004 attendees)
- Earth Night – Families join our utilities to enjoy an evening celebrating our sustainability initiatives throughout the City and learning how they can work with us to conserve our resources for the future. (841 attendees)

### **Evaluation, Measurement & Verification Studies**

Because Roseville’s energy efficiency programs have had EM&Vs conducted within the last few years, and because our programs have not changed in design, we opted to not EM&V any programs during Fiscal Year 2025. We plan to EM&V our Electrification programs in Fiscal Year 2026.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

Roseville Electric's avoided costs are entered into the 1037 reporting model and are calculated based on energy prices, transmission losses and distribution losses. All modeling is performed using these costs.

Roseville Electric relies on the savings documented in the California Public Utilities Technical Resource Manual (TRM). If not available, the measure is entered into the 1037 reporting model as a custom measure. When a custom program is entered to the model, the source of energy

savings is documented as coming from an industry approved method (Energy Reports), a published industry white paper or published EM&V. HERS reports are provided by Builders for new construction programs and reviewed by a third party consultant. Some measures utilize calculations for watts reduction with calculations for kW and kWh performed with standard industry hours of use data. Savings calculations for residential electrification were produced by a custom study completed for Roseville Electric by Energeia in 2020.

**TABLE Roseville-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results			
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	17	33,774	340,836	16	23,696	239,969	69	\$15,322	1.15	0.38	0.077	
BROs	0	11,981,088	11,981,088	0	7,907,518	7,907,518	3,146	\$567,318	1.32	1.32	0.072	
Building Envelope	0	197,681	3,953,616	0	161,308	3,226,151	1,501	\$155,803	1.71	0.91	0.069	
HVAC - Cooling	5	639,482	3,678,825	4	589,756	3,445,443	1,629	\$241,111	1.54	1.09	0.082	
HVAC - Heat Pump	1	7,275	109,125	1	5,820	87,300	38	\$17,079	0.43	0.11	0.257	
Lighting - Indoor	16	51,455	185,391	14	46,310	166,852	60	\$13,206	1.16	0.71	0.084	
Lighting - Outdoor	39	159,362	578,879	35	143,426	520,992	241	\$41,040	1.16	2.45	0.083	
Service & Domestic Hot Water	0	1,175	17,625	0	940	14,100	6	\$895	1.34	0.61	0.083	
<b>Energy Efficiency</b>	<b>78</b>	<b>13,071,291</b>	<b>20,845,386</b>	<b>71</b>	<b>8,878,772</b>	<b>15,608,324</b>	<b>6,691</b>	<b>\$1,051,775</b>	<b>1.40</b>	<b>1.09</b>	<b>0.075</b>	
Appliance & Plug Loads	0	2,986	42,548	0	2,538	35,827	3	\$10,168	0.28	0.13	0.367	
HVAC - Heat Pump	0	2,830,239	42,453,590	0	2,771,786	41,576,785	-1,403	\$2,291,441	1.36	1.14	0.072	
Service & Domestic Hot Water	0	119,015	1,785,222	0	119,015	1,785,222	258	\$90,087	1.62	2.97	0.066	
<b>Electrification</b>	<b>0</b>	<b>2,952,240</b>	<b>44,281,360</b>	<b>0</b>	<b>2,893,338</b>	<b>43,397,834</b>	<b>-1,143</b>	<b>\$2,391,697</b>	<b>1.37</b>	<b>1.17</b>	<b>0.072</b>	
<b>EE, Low Income and Electrification</b>	<b>78</b>	<b>16,023,531</b>	<b>65,126,746</b>	<b>71</b>	<b>11,772,110</b>	<b>59,006,159</b>	<b>5,548</b>	<b>\$3,443,472</b>	<b>1.38</b>	<b>1.14</b>	<b>0.073</b>	
<b>C&amp;S and T&amp;D</b>												
<b>Utility Total</b>	<b>78</b>	<b>16,023,531</b>	<b>65,126,746</b>	<b>71</b>	<b>11,772,110</b>	<b>59,006,159</b>	<b>5,548</b>	<b>\$3,443,472</b>	<b>1.38</b>	<b>1.14</b>	<b>0.073</b>	

**TABLE Roseville-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	55	212,457	782,311	49	191,211	704,080	306	\$71,589	0.90	1.10	0.108
Residential	23	12,858,834	20,063,075	21	8,687,561	14,904,245	6,385	\$996,885	1.41	1.07	0.075
Energy Efficiency	78	13,071,291	20,845,386	71	8,878,772	15,608,324	6,691	\$1,068,474	1.38	1.07	0.076
Residential	0	2,952,240	44,281,360	0	2,893,338	43,397,834	-1,143	\$2,374,998	1.38	1.17	0.072
Electrification	0	2,952,240	44,281,360	0	2,893,338	43,397,834	-1,143	\$2,374,998	1.38	1.17	0.072
EE, Low Income and Electrification	78	16,023,531	65,126,746	71	11,772,110	59,006,159	5,548	\$3,443,472	1.38	1.14	0.073
<b>C&amp;S and T&amp;D</b>											
Utility Total	78	16,023,531	65,126,746	71	11,772,110	59,006,159	5,548	\$3,443,472	1.38	1.14	0.073

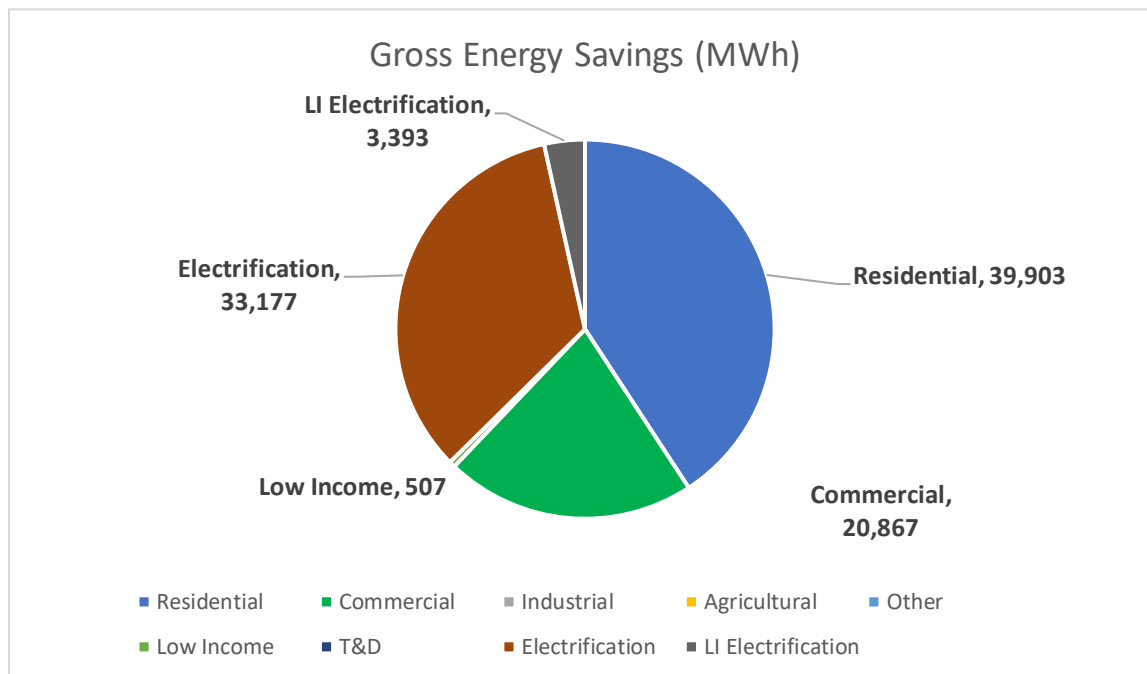
**TABLE Roseville-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Other Commercial	55	212,457	782,311	49	191,211	704,080	306	\$54,889	1.17	1.53	0.083
Residential	20	12,371,087	18,270,960	19	8,256,268	13,372,405	5,687	\$857,376	1.44	1.21	0.072
Residential - Single-Family	3	487,748	1,792,115	2	431,293	1,531,840	698	\$139,509	1.28	0.59	0.098
Energy Efficiency	78	13,071,291	20,845,386	71	8,878,772	15,608,324	6,691	\$1,051,775	1.40	1.09	0.075
Multiple	0	745	8,944	0	745	8,944	-0	\$1,052	0.71	0.13	0.146
Residential - Multi-Family	0	1,078,125	16,171,868	0	1,078,125	16,171,868	-2,544	\$1,074,485	1.20	1.15	0.087
Residential - Single-Family	0	1,873,370	28,100,549	0	1,814,468	27,217,023	1,401	\$1,316,161	1.51	1.19	0.063
Electrification	0	2,952,240	44,281,360	0	2,893,338	43,397,834	-1,143	\$2,391,697	1.37	1.17	0.072
EE, Low Income and Electrification	78	16,023,531	65,126,746	71	11,772,110	59,006,159	5,548	\$3,443,472	1.38	1.14	0.073
<b>C&amp;S and T&amp;D</b>											
Utility Total	78	16,023,531	65,126,746	71	11,772,110	59,006,159	5,548	\$3,443,472	1.38	1.14	0.073

## SACRAMENTO MUNICIPAL UTILITY DISTRICT

### *Sacramento Municipal Utility District at a Glance*

- Climate Zone: 12
- Customers: 682,221
- Total annual retail sales: 10,505,066 MWh
- Annual Retail Revenue: \$1,839,664,398
- Annual energy efficiency expenditures for reporting year: \$52,415,194
- Gross annual savings from reporting year portfolio: 97,847 MWh



### *Sacramento Municipal Utility District Overview*

Sacramento Municipal Utility District (SMUD) is planning program changes to respond to the following industry trends, utility direction and changing customer expectations:

- In July of 2020, the SMUD Board declared a climate emergency and set a goal of delivering carbon neutral electricity by 2030.
- Diversity, Equity, Inclusion, and Belonging (DEIB) is a stated goal in SMUD culture. Many of our programs have included Equity components to help ensure Inclusion. In addition, SMUD Board of Directors issued funding for a Community Impact Plan program offerings to ensure equitable access to decarbonization offerings.

- Energy efficiency, building electrification, transportation electrification, solar and storage will continue to converge toward complete energy solutions, customized to meet the needs of the customer and the utility.
- In early 2026, SMUD initiated an update to its Integrated Resource Plan (IRP), which may include further reconsideration of SMUD’s energy efficiency and building electrification scenarios and goals.

**Major Program and Portfolio Changes**

SMUD continued long-term reduction in the traditional energy efficiency budget with a redirection of funding to electrification with an ensuing reduction in the energy and peak savings achieved. This was a planned reduction as SMUD’s focus shifted towards its 2030 Zero Carbon plan goals, including a redirection of funding to residential electrification as well as growing electrification in the commercial sector.

Major program changes in 2025 include the following:

- The Advanced Homes program continued to conduct delivery coordination with the statewide California TECH program, which provided incentives for heat pump water and space heating conversions.
- Growing participation in commercial electrification programs, with increasing heat pump market adoption supported by the Complete Energy Solutions, Custom Retrofit, and Integrated Design Solutions programs.
- Growing and scaling up residential and commercial load flexibility portfolio of programs, including My Energy Optimizer™ (MEO) Partner (residential smart thermostats), MEO Partner+ (residential battery storage), and PowerDirect (commercial autoDR program).

**Program and Portfolio Highlights**

On July 17, 2020, the SMUD Board of Directors adopted a climate emergency declaration. The SMUD Board of Directors adopted a climate emergency declaration that commits to working toward an ambitious goal of delivering carbon neutral electricity by 2030. The declaration recognizes the immediate risks to our community and demands bold action to achieve results.

As SMUD charts the process to decarbonize our electricity supply, we recognize there is a need to help our customers decarbonize their lives also through energy efficiency, building electrification, and transportation electrification. Building and transportation electrification will both place strain on the distribution grid and force a larger carbon free electricity supply. Managing the load and grid in 2030 will encourage SMUD to operate the supply and grid differently.

Due to these expected changes, SMUD has changed many existing programs and developed new programs to prepare SMUD and our customers for this new future. As we move forward,

this will encourage more bundling of programs and care to develop programs that aid us to a carbon free future.

For 2025, SMUD spent \$49.4 million for residential and commercial energy-efficiency and electrification programs, compared to a budget of \$45.8 million. All expenditures are public-goods funded. These programs delivered 16 megawatts (MW) of peak-load reduction, 159.4 million kilowatt-hours (GWh), and 1,713,693 therms of annual energy savings.

### **Commercial, Industrial & Agricultural Programs**

Expenditures for commercial/industrial energy efficiency retrofit and electrification programs for existing buildings and facilities, and for all-electric commercial and residential new construction were \$18.6 million. Commercial electrification accounted for 715,156 therms savings and \$15.3M in expenditures, while energy efficiency accounted for 22.8 GWh savings and \$2.7M in expenditures.

- Custom Retrofit Energy Efficiency Incentives: Promotes the installation of energy-efficient equipment, controls, and processes at commercial and industrial customer facilities. Provides incentives to contractors and/or customers to promote the installation of energy efficient HVAC, motors, and refrigeration equipment and controls. The program also provides incentives for retro-commissioning, process improvements, and data center storage projects that result in energy savings.
- Complete Energy Solutions: Third party administrator performs comprehensive energy audits of small and medium-sized businesses. Customer receives a customized report detailing recommended energy improvements, estimated savings, estimated cost and payback. Third party administrator then assists customer in hiring a contractor to complete the project.
- Integrated Design Solutions: Provides incentives to builders and their design teams to design new commercial and industrial buildings energy efficient than required by Title 24 (or typical new construction in the case of Title 24-exempt buildings and processes).
- Multifamily Retrofit: Provides incentives to apartment owners and managers to complete energy retrofits
- Smart Homes: Provides incentives to builders and their design teams to design efficient all electric homes and apartments

### **Residential Programs**

Expenditures for residential energy-efficiency and electrification programs for existing homes were \$19.0 million. Residential electrification accounted for 831,361 therms savings and \$14.9M in expenditures, while energy efficiency accounted for 39.3 GWh savings and \$4.1M in expenditures.

- **Advanced Homes:** Provides rebates for qualifying (Energy Star, Consortium for Energy Efficiency, and/or other high-efficiency levels) efficiency improvements, which include mini split heat pump, heat pump space heaters and heat pump water heaters.
- **Home Energy Reports:** Emailed energy reports to support more energy efficient usage within a home.
- **Appliance Efficiency Program:** Included in this program are induction cooking rebates, Refrigerator/Freezer Recycling, SHIFT, and the Retail Partnership Program.
  - Induction Cooking Rebates provides incentives for both electric replacement and gas conversions.
  - Retail Partnership Program is an upstream program that works with big box retailers to pay retailer incentives for all the energy efficiency items they sell in their stores.
  - SHIFT is an upstream program that works with big box retailers to pay retailer incentives to shift adoption away from high volume non-Energy Star models.

### **Low Income Programs**

SMUD continues to expand offerings for income qualified customers in 2025. While continuing to offer no-cost direct installations to our residential low-income customers, SMUD has increased multifamily and commercial installations based upon SMUD’s commitment to leave no community behind as part of our Community Impact Plan.

- **Income Qualified Direct Install:** no-cost direct installations of electrification and energy efficiency measures to our residential income qualified customers
- **Multifamily:** no-cost or low-cost electrification and energy efficiency measures for our multifamily income qualified customers
- **Small and Medium Businesses:** no-cost or low-cost electrification and energy efficiency measures for our SMB income qualified customers

### **Complementary Programs**

SMUD operates numerous additional utility programs. Key complementary programs for energy efficiency and electrification are below. These are supportive programs that are not captured in the annual outcomes reported in this report.

### **Information/Education Programs**

- SMUD provides residential and commercial educational events, classes and seminars through its Energy & Technology center. These activities provide information on a wide range of distributed energy resources, including energy efficiency, building electrification, electric transportation, solar, and battery storage.

### Demand-Reduction Programs

- **Peak Corps:** Peak Corp is a legacy program in which radio-controlled cycling devices were installed on customers' central air conditioners to cycle off their air conditioners to reduce peak load on the electric system. Operators have the ability to activate the entire ACLM cycling program for emergency use only, but the program has not been activated since 2000.
- **Power Direct (Commercial Automated Demand Response):** Launched in 2013, this program enhances customer facilities' energy performance by seamlessly integrating automated response capabilities into participants' energy management, lighting, and HVAC systems; it automatically reduces electricity consumption on Conservation Days in times of high demand.
- **My Energy Optimizer Partner (Residential smart thermostats):** Continuing from 2022, this program utilizes smart thermostat devices for economic load curtailment events. A portion of customers are also enrolled into the Critical Peak Pricing (CPP) Rate.
- **My Energy Optimizer Partner Plus (Residential battery storage):** The program launched in 2023 and offers incentives and performance payments for event-based battery utilization.

### Other Complementary Programs

- **Shade Trees:** Provides free shade trees to SMUD customers. Implemented through the community-based non-profit Sacramento Tree Foundation (STF). STF foresters review tree selection and site locations with customers, who plant the trees.
- **Electric Vehicles:** In 2025, SMUD's Drive Electric program continued to promote adoption of plug-in electric vehicles through special PEV rate offerings, participation in educational events, and educational offerings through our website [SMUD.org/PEV](http://SMUD.org/PEV). SMUD incentivized EV chargers for commercial customers and provided rebates for EV chargers for residential customers. SMUD also completed direct installation of chargers for income eligible customers.
- **Renewable Energy Programs:** SMUD has continued to work closely with our community to develop new programs for our customers including an Affordable Housing Virtual Solar option. This new program, coupled with the Solar and Storage rate, has joined our voluntary green pricing programs including SolarShares, which supports expansion of distributed solar, and commercial and residential REC purchase programs.
- **Codes & Standards:** SMUD continues to pursue the development and implementation of codes and standards (e.g. T24, T20, etc.) as the most cost-effective source of Energy Savings. SMUD participates in several working groups, drives code compliance through programs, assists with workforce training, conducts research, and develops data management systems to improve tracking and reporting. Based upon recalculation of attributable savings to SMUD associated with the Statewide Codes and Standards Team for 2025, SMUD is claiming 98.1 net GWh energy savings.

- Research, Development, and Demonstration: SMUD has a centralized research and development program that conducts public good research across the electricity enterprises from the supply side to demand side. Research is conducted in eight research areas which include renewable energy, electric transportation, climate change, distributed generation, energy efficiency, demand response, storage and smart grid. These programs seek to track emerging technologies, demonstrate promising technologies and prepare SMUD and SMUD customers for adoption of these emerging technologies.

### **Evaluation, Measurement & Verification Studies**

Evaluation studies are managed through SMUD’s Finance & Strategy division’s Enterprise & Risk business unit. Studies are selected based on its importance to SMUD’s Enterprise Strategy pillars, which covers a wide range of initiatives, including Environmental Leadership activities.

For 2025, evaluation studies completed included:

- My Energy Optimizer Partner Thermostat Year 3
- Peak Conserve Year 2
- Residential Behavioral Energy Efficiency – Home Energy Reports, Rate Coach Emails, and High Bill Alerts

In 2026, the following evaluation studies will be completed:

- Residential Equity Building Decarbonization
- Transportation Electrification Portfolio Evaluability
- Home Energy Reports & Rate Coach
- SMUD TECH Program Analysis

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

In order to determine energy savings, programs may rely on several sources: the California Technical Reference Manual, Energy Modeling Software, or specific studies conducted by utilities or recognized working groups. The goal is to use the most current studies/workpapers which best represent Climate Zone 12 and SMUD customers.

**TABLE SMUD-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	1,272	5,793,498	74,359,740	1,023	4,661,549	60,304,224	3,413	\$1,748,126	0.54	0.09	0.041
Commercial Refrigeration	37	313,278	4,699,170	13	112,517	1,687,761	83	\$43,041	0.55	0.47	0.038
Food Service	8	51,868	518,680	6	41,494	414,944	31	\$16,706	0.43	0.66	0.052
HVAC - Cooling	1,424	6,951,293	99,807,645	1,001	5,068,759	73,181,887	3,771	\$993,226	1.17	0.43	0.020
HVAC - Heating	0	12,896,839	193,452,585	0	7,738,103	116,071,551	5,696	\$530,984	0.55	0.01	0.007
Lighting - Indoor	1,227	9,634,054	67,438,380	810	6,271,218	43,898,527	4,642	\$1,392,406	0.61	0.20	0.038
Lighting - Outdoor	13	291,960	2,043,720	11	233,568	1,634,976	175	\$62,910	0.48	0.63	0.046
Miscellaneous	5	36,590	548,850	4	29,272	439,080	22	\$26,668	0.23	0.04	0.090
Process	198	1,685,177	25,277,655	155	1,327,078	19,906,177	979	\$291,299	0.95	1.12	0.022
Service & Domestic Hot Water	269	1,235,764	14,146,285	192	1,013,649	11,209,680	756	\$372,241	0.53	0.06	0.045
Whole Building	3,092	21,879,288	74,290,376	2,367	16,687,510	47,193,501	6,909	\$2,599,108	0.44	0.45	0.063
Energy Efficiency	7,544	60,769,609	556,583,086	5,584	43,184,720	375,942,308	26,476	\$8,076,714	0.61	0.11	0.029
Appliance & Plug Loads	-23	307,948	3,079,481	-19	246,358	2,463,585	597	\$712,027	0.09	0.09	0.374
Food Service		80,828	808,280		64,662	646,624	129	\$98,512	0.16	0.15	0.197
HVAC - Heat Pump	-4,343	18,769,686	249,550,654	-4,225	18,399,234	243,993,877	61,921	\$21,198,194	0.25	0.07	0.123
Miscellaneous	0	0	0	0	0	0	0	\$327,500			0.000
Service & Domestic Hot Water	-116	2,667,770	34,620,198	-114	2,653,144	34,444,687	8,662	\$2,748,511	0.32	0.22	0.112
Whole Building	-641	11,350,524	200,544,265	-0	0	0	0	\$6,729,625			0.000
Electrification	-5,124	33,176,756	488,602,878	-4,357	21,363,399	281,548,774	71,309	\$31,814,369	0.19	0.07	0.159
Appliance & Plug Loads	-5	62,956	783,110	-4	47,294	580,423	143	\$59,210	0.24	0.11	0.142
Food Service	-0	14,733	147,334	-0	11,787	117,867	24	\$73,863	0.04	0.13	0.811
HVAC - Heat Pump	-401	2,021,638	30,324,575	-320	1,611,892	24,178,383	6,053	\$8,356,941	0.06	0.18	0.511
Service & Domestic Hot Water	-61	1,293,566	15,522,792	-46	959,846	11,518,150	2,934	\$2,952,675	0.10	0.19	0.350
Low-Income Electrification	-467	3,392,894	46,777,811	-369	2,630,819	36,394,824	9,156	\$11,442,690	0.07	0.18	0.452
Appliance & Plug Loads	0	1,368	13,680	0	1,094	10,944	1	\$3,124	0.06	0.30	0.369
Building Envelope	74	207,059	3,105,885	52	144,941	2,174,120	109	\$475,781	0.10	0.33	0.323
HVAC - Cooling	215	201,412	3,021,180	150	141,061	2,115,909	113	\$471,726	0.14	0.44	0.329
Lighting - Indoor	2	12,602	88,214	2	10,082	70,571	7	\$10,497	0.13	0.34	0.177
Service & Domestic Hot Water	10	84,843	1,018,116	7	59,390	712,681	44	\$175,833	0.06	0.20	0.337
Low-Income EE, Low Income and Electrification	301 2,255	507,284 97,846,543	7,247,075 1,099,210,850	211 1,068	356,568 67,535,506	5,084,225 698,970,130	274 107,215	\$1,136,961 \$52,470,734	0.11 0.23	0.36 0.09	0.325 0.104
Codes & Standards	14,078	98,100,000	1,471,500,000	113	784,800	11,772,000	587	\$275,871	0.66	0.66	0.035
Codes & Standards	14,078	98,100,000	1,471,500,000	113	784,800	11,772,000	587	\$275,871	0.66	0.66	0.035

C&S and T&D	14,078	98,100,000	1,471,500,000	113	784,800	11,772,000	587	\$275,871	0.66	0.66	0.035
Utility Total	16,332	195,946,543	2,570,710,850	1,181	68,320,306	710,742,130	107,802	\$52,746,605	0.23	0.09	0.103

**TABLE SMUD-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	2,723	20,866,645	233,332,225	1,821	13,861,918	155,683,003	10,257	\$3,343,093	0.76	0.33	0.030
Residential	4,821	39,902,964	323,250,861	3,763	29,322,802	220,259,305	16,218	\$4,598,601	0.52	0.06	0.029
Energy Efficiency	7,544	60,769,609	556,583,086	5,584	43,184,720	375,942,308	26,476	\$7,941,694	0.62	0.11	0.029
Commercial	-971	8,067,522	120,500,130	-622	2,414,955	35,814,167	12,486	\$10,045,922	0.07	0.05	0.413
Residential	-4,153	25,109,235	368,102,748	-3,735	18,948,444	245,734,606	58,823	\$22,024,906	0.25	0.08	0.126
Electrification	-5,124	33,176,756	488,602,878	-4,357	21,363,399	281,548,774	71,309	\$32,070,828	0.19	0.07	0.161
Commercial	-101	895,028	13,382,117	-81	716,023	10,705,694	2,773	\$2,580,698	0.09	0.26	0.356
Residential	-366	2,497,865	33,395,694	-289	1,914,796	25,689,131	6,383	\$8,396,870	0.07	0.19	0.465
Low-Income Electrification	-467	3,392,894	46,777,811	-369	2,630,819	36,394,824	9,156	\$10,977,567	0.07	0.21	0.434
Commercial	2	13,324	99,044	2	10,659	79,235	8	\$18,520	0.08	0.18	0.284
Residential	299	493,960	7,148,031	209	345,909	5,004,990	266	\$1,123,502	0.11	0.36	0.328
Low-Income	301	507,284	7,247,075	211	356,568	5,084,225	274	\$1,142,023	0.11	0.35	0.327
EE, Low Income and Electrification	2,255	97,846,543	1,099,210,850	1,068	67,535,506	698,970,130	107,215	\$52,132,112	0.23	0.09	0.104
Any	14,078	98,100,000	1,471,500,000	113	784,800	11,772,000	587	\$283,081	0.64	0.64	0.036
Codes & Standards	14,078	98,100,000	1,471,500,000	113	784,800	11,772,000	587	\$283,081	0.64	0.64	0.036
C&S and T&D	14,078	98,100,000	1,471,500,000	113	784,800	11,772,000	587	\$283,081	0.64	0.64	0.036
Utility Total	16,332	195,946,543	2,570,710,850	1,181	68,320,306	710,742,130	107,802	\$52,415,194	0.23	0.09	0.103

**TABLE SMUD-3. Energy Efficiency Program Results by Building Type**

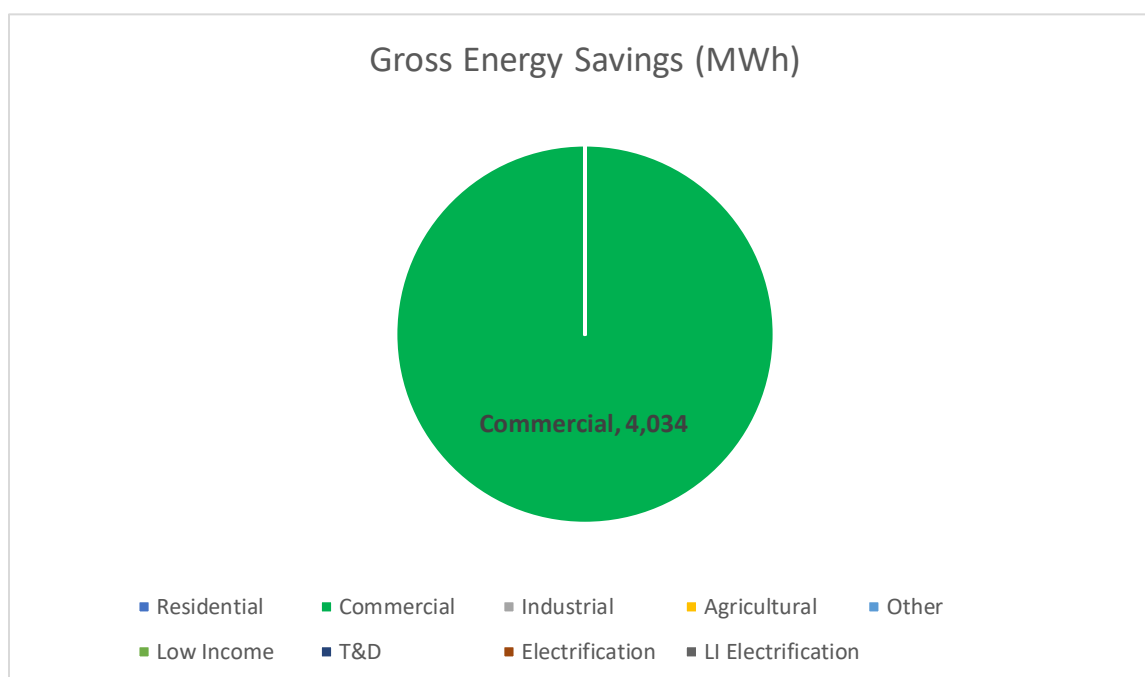
Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Assembly	106	753,018	9,908,564	49	345,480	4,235,752	256	\$165,024	0.40	0.10	0.055
Education - Primary School	246	2,081,536	14,685,442	45	385,105	2,787,485	281	\$318,057	0.16	0.17	0.138
Education - Secondary School	146	1,423,475	15,173,925	114	1,105,500	11,639,940	808	\$331,625	0.56	0.58	0.039
Grocery	22	187,228	2,808,420	8	65,530	982,947	49	\$20,862	0.65	0.86	0.031
Lodging - Hotel	148	1,077,404	15,268,932	118	861,923	12,215,146	639	\$395,874	0.48	0.69	0.047
Manufacturing Light Industrial	252	2,138,619	28,793,453	180	1,535,074	21,481,744	1,133	\$374,608	0.81	0.88	0.025
Office - Large	1,358	10,005,727	107,413,591	1,086	8,004,582	85,930,873	5,935	\$1,135,133	1.28	0.28	0.018
Office - Small	182	1,383,036	17,213,060	46	356,003	2,514,064	264	\$278,985	0.18	0.25	0.133
Other Agricultural	44	302,100	4,531,500	0	0	0	0	\$0			0.000
Other Commercial	104	719,100	10,786,500	83	575,280	8,629,200	427	\$156,729	0.82	1.42	0.027
Residential	2,803	19,530,688	39,061,376	2,242	15,624,550	31,249,101	6,125	\$1,843,967	0.49	0.49	0.061
Residential - Multi-Family	0	0	0	0	0	0	0	\$10,727			0.000
Residential - Single-Family	2,018	20,372,276	284,189,485	1,521	13,698,252	189,010,204	10,093	\$2,743,907	0.55	0.04	0.021
Restaurant - Fast-Food	1	7,320	102,264	1	5,856	81,811	4	\$1,627	0.76	1.06	0.029
Restaurant - Sit-Down	14	86,332	838,932	10	60,184	537,928	45	\$20,766	0.46	0.34	0.050
Retail - Big Box	91	635,780	5,328,476	73	508,624	4,262,781	377	\$128,254	0.59	0.42	0.038
Retail - Small	9	53,652	392,940	7	42,922	314,352	32	\$12,482	0.49	0.31	0.048
Storage - Conditioned	2	10,692	74,844	1	8,554	59,875	6	\$2,863	0.40	0.33	0.057
Storage - Unconditioned	0	1,626	11,382	0	1,301	9,106	1	\$204	0.86	0.22	0.027
<b>Energy Efficiency</b>	<b>7,544</b>	<b>60,769,609</b>	<b>556,583,086</b>	<b>5,584</b>	<b>43,184,720</b>	<b>375,942,308</b>	<b>26,476</b>	<b>\$7,941,694</b>	<b>0.62</b>	<b>0.11</b>	<b>0.029</b>
Assembly	-166	820,968	12,314,524	-133	656,775	9,851,619	2,951	\$1,664,622	0.12	0.12	0.250
Education - Primary School	-18	8,244	137,393	-14	1,249	29,727	335	\$367,074	0.01	0.01	20.757
Education - Secondary School	-70	1,155,854	17,337,814	-25	-262,465	-3,936,977	-176	\$1,317,928	-0.06	-0.07	-0.495
Grocery	-4	21,304	319,553	-3	17,043	255,643	86	\$36,918	0.11	0.13	0.213
Lodging - Hotel	-10	57,586	863,792	-8	46,069	691,034	213	\$128,560	0.13	0.15	0.275
Lodging - Motel	-1	-2,880	-43,207	-1	-2,304	-34,566	3	\$8,809	-0.05	-0.07	-0.377
Manufacturing Light Industrial	-12	49,530	742,953	-11	40,184	602,760	175	\$114,880	0.09	0.11	0.282
Office - Large	-98	-54,796	-829,009	-81	-20,996	-320,595	556	\$933,204	-0.01	-0.02	-4.326
Office - Small	-374	3,927,055	58,750,196	-170	675,185	10,003,280	3,287	\$3,092,102	0.07	0.03	0.455
Other Commercial	-27	743,044	11,145,653	-0	0	0	0	\$243,783			0.000
Residential - Multi-Family	-322	4,100,874	81,441,952	-12	80,573	1,208,596	303	\$4,152,789	0.01	0.01	5.077
Residential - Single-Family	-3,831	21,008,361	286,660,796	-3,723	18,867,871	244,526,011	58,521	\$17,872,117	0.30	0.08	0.102
Restaurant - Fast-Food	-22	126,549	1,898,231	-21	125,218	1,878,265	518	\$247,137	0.15	0.12	0.194
Restaurant - Sit-Down	-57	317,565	4,413,875	-46	255,587	3,554,123	1,043	\$733,709	0.10	0.13	0.298

Retail - Big Box	-97	682,680	10,240,203	-96	684,235	10,263,531	2,756	\$776,215	0.27	0.26	0.112
Retail - Small	-13	210,106	3,151,597	-13	195,405	2,931,076	718	\$362,943	0.17	0.17	0.183
Warehouse - Refrigerated	-2	4,713	56,561	-2	3,771	45,249	23	\$18,039	0.09	0.10	0.544
Electrification	-5,124	33,176,756	488,602,878	-4,357	21,363,399	281,548,774	71,309	\$32,070,828	0.19	0.07	0.161
Assembly	-15	-34,120	-507,903	-12	-27,296	-406,323	17	\$184,707	-0.05	-0.13	-0.670
Education - University	-1	2,357	28,280	-1	1,885	22,624	12	\$17,494	0.06	0.15	1.056
Lodging - Motel	-6	18,825	282,382	-5	15,060	225,905	90	\$78,692	0.08	0.17	0.515
Office - Large	-13	25,781	313,053	-10	20,625	250,442	129	\$530,377	0.01	0.03	2.933
Office - Small	-32	672,682	10,062,019	-26	538,146	8,049,615	1,802	\$826,640	0.21	0.53	0.152
Residential - Multi-Family	-40	834,964	10,274,247	-28	584,474	7,191,973	1,779	\$1,269,664	0.14	0.13	0.243
Residential - Single-Family	-326	1,662,902	23,121,448	-261	1,330,321	18,497,158	4,604	\$7,127,206	0.06	0.25	0.555
Restaurant - Fast-Food	-2	1,077	16,149	-1	861	12,920	12	\$69,585	0.00	0.01	7.957
Restaurant - Sit-Down	-30	-79,848	-1,132,089	-24	-63,878	-905,672	3	\$641,750	-0.03	-0.10	-1.027
Retail - Big Box	0	34,266	513,983	0	27,412	411,186	82	\$50,212	0.17	0.50	0.180
Retail - Small	-2	254,009	3,806,244	-2	203,207	3,044,995	627	\$181,240	0.36	0.78	0.088
Low-Income Electrification	-467	3,392,894	46,777,811	-369	2,630,819	36,394,824	9,156	\$10,977,567	0.07	0.21	0.434
Assembly	1	6,958	48,706	1	5,566	38,965	4	\$6,940	0.11	0.26	0.212
Residential - Single-Family	299	493,960	7,148,031	209	345,909	5,004,990	266	\$1,123,502	0.11	0.36	0.328
Retail - Small	1	6,366	50,338	1	5,093	40,270	4	\$11,581	0.06	0.14	0.357
Low-Income	301	507,284	7,247,075	211	356,568	5,084,225	274	\$1,142,023	0.11	0.35	0.327
EE, Low Income and Electrification	2,255	97,846,543	1,099,210,850	1,068	67,535,506	698,970,130	107,215	\$52,132,112	0.23	0.09	0.104
Any	14,078	98,100,000	1,471,500,000	113	784,800	11,772,000	587	\$283,081	0.64	0.64	0.036
Codes & Standards	14,078	98,100,000	1,471,500,000	113	784,800	11,772,000	587	\$283,081	0.64	0.64	0.036
C&S and T&D	14,078	98,100,000	1,471,500,000	113	784,800	11,772,000	587	\$283,081	0.64	0.64	0.036
Utility Total	16,332	195,946,543	2,570,710,850	1,181	68,320,306	710,742,130	107,802	\$52,415,194	0.23	0.09	0.103

## SAN FRANCISCO PUBLIC UTILITIES COMMISSION

### *San Francisco Public Utilities Commission at a Glance*

- Climate Zone: 3
- Customers: 8,419
- Total annual retail sales: 943,056 MWh
- Annual Retail Revenue: \$192,942,667
- Annual energy efficiency expenditures for reporting year: \$762,514
- Gross annual savings from reporting year portfolio: 4,034 MWh



### *San Francisco Public Utilities Commission Overview*

Hetch Hetchy Power manages a portfolio of electric generation, which includes the San Francisco Public Utilities Commission's (SFPUC) Hetch Hetchy Water and Power System, which generates an average of 1.4 million MWh of clean hydroelectric power each year, 28 municipal solar photovoltaic installations (8.0 MW), and a biogas cogeneration facility (2 MW). Hetch Hetchy Power has made a commitment to energy efficiency as its highest priority resource.

Historically, Hetch Hetchy Power's energy efficiency programs have mainly targeted its municipal customers, and most of its programs have been provided at no charge to these civic agencies. Hetch Hetchy Power also now offers programs for its growing residential and commercial customer sectors.

### **Major Program and Portfolio Changes**

This year's energy savings are primarily derived from direct install lighting and controls projects at the Legion of Honor, de Young Museum, CHN Headquarters, SFPD Richmond Station, SFPD Mission Station, and SFPD Taraval Station. There were also three projects completed at San Francisco Airport through our Upgrade for Savings program.

### **Program and Portfolio Highlights**

Energy efficiency has been an essential component of Hetch Hetchy Power's resource portfolio for more than a decade. In the current reporting period, FY 2024-25, completed energy efficiency projects and programs are estimated to save 3,386 MWh (net savings) of electricity and 22,100 therms of natural gas per year, at a utility cost of \$569 thousand.

Program highlights for FY 2024-25 include:

- Warehouse lighting retrofit at SFO Airfield Warehouse
- Parking garage and interior lighting retrofit at SFO Rental Car Center
- Interior lighting retrofit at SFO QTA
- Interior lighting retrofit at CHN HQ Building
- Interior lighting retrofit at SFPD Mission Station
- Interior lighting retrofit at SFPD Richmond Station
- Interior lighting retrofit at SFPD Taraval Station
- Retrocommissioning at the Legion of Honor
- Retrocommissioning at the de Young Museum

### **Commercial, Industrial & Agricultural Programs**

Hetch Hetchy Power's energy efficiency programs are generally tailored to each customer (almost all of which are other City departments), because most of these customers are large and have varied property characteristics.

These programs include:

- **General Fund Program:** This program provides complete retrofit services and customized incentives to targeted municipal customers. The program focuses on City agencies that are funded primarily through local tax receipts, fees, and federal/state-funded programs. These customers are considered hard-to-reach (due to limited access to capital and engineering, as well as insufficient price signals).
- **Civic Center Sustainability District:** Through a partnership with the Clinton Global Initiative, this program demonstrates green, renewable and energy efficient technologies as a national model for sustainability in historic districts. For energy

efficiency projects, the program provides free energy audits, design, construction management, construction services, and full funding to buildings in the City's Civic Center historic district.

- **Energy Benchmarking Program:** San Francisco requires owners of non-residential buildings over 10,000 square feet to annually benchmark and disclose the energy performance of their buildings. In FY 2024-25, Power Enterprise released its thirteenth annual report benchmarking the energy performance of San Francisco's municipal buildings.
- **Upgrade for Savings:** Hetch Hetchy Power offers customized cash incentives and technical support to help customers make significant upgrades to energy-efficient equipment, systems, and operational practices.
- **Blueprint for Savings:** This new construction energy efficiency program offers design assistance and cash payments to building owners and design teams planning to construct highly energy efficient buildings 50,000 square feet or larger.

### **Residential Programs**

Hetch Hetchy Power primarily serves municipal loads. Hetch Hetchy Power provides distribution service to the former military installations at Treasure Island and Hunters Point, both of which are in the process of being redeveloped to residential/commercial uses. Additional energy efficiency activities for this new residential use are limited as these new units are being built to the latest code and energy efficiency standards. In addition, Hetch Hetchy Power serves a limited number of affordable housing sites. New programs are under development to serve these customers.

### **Complementary Programs**

Hetch Hetchy Power offers several related programs, among them:

#### **Renewable Energy Programs:**

- **Municipal Renewable Program:** Under this program, Hetch Hetchy Power directly installs, maintains, and operates solar PV systems on municipal buildings throughout the City and County of San Francisco; and
- **GoSolarSF:** This program provides incentive payments to San Francisco residents and businesses installing rooftop solar projects. The program includes a component for low-income residents, which complements a statewide program administered by Grid Alternatives, a nonprofit organization.

### Electrification Programs:

- All Electric Multifamily Program: This program provides free electrification planning services, including a building electrification-focused audit and roadmap, for eligible affordable housing developments.
- EV Charge SF: This program provides incentive payments and technical support for qualified municipal, commercial, and multifamily customers installing electric vehicle charging beyond code minimums.
- Electrify My Ride: This program provides point-of-sale rebates for income-qualified customers to purchase electric bicycles.

### **Evaluation, Measurement & Verification Studies**

Historically, most of the energy efficiency retrofit projects funded by Hetch Hetchy Power have included an individual M&V study following the International Performance Measurement and Verification Protocol (IPMVP). These projects have included an M&V plan with a sampling plan, a logging plan, an approach to data recovery and analysis, and a written report.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

Hetch Hetchy Power's mostly direct-install energy efficiency portfolio allows it to report energy savings based on site-specific engineering studies with detailed ex ante savings estimates. These studies base savings on on-site collected data for hours of operation, nameplate data for replaced equipment, and detailed site-specific costs. As such, Hetch Hetchy Power assumes an "existing conditions" baseline for energy savings calculations, and accordingly, Hetch Hetchy Power does not separately claim savings from code advocacy.

**TABLE SFPUC-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
HVAC - Heating	13	850,474	12,757,104	13	850,474	12,757,104	2,980	\$78,302	6.23	13.75	0.008
Lighting - Indoor	365	3,183,529	47,752,935	200	1,669,164	25,037,460	8,276	\$684,212	3.79	2.32	0.037
Energy Efficiency	378	4,034,003	60,510,039	214	2,519,638	37,794,564	11,257	\$762,514	4.04	2.67	0.027
EE, Low Income and Electrification	378	4,034,003	60,510,039	214	2,519,638	37,794,564	11,257	\$762,514	4.04	2.67	0.027
C&S and T&D											
Utility Total	378	4,034,003	60,510,039	214	2,519,638	37,794,564	11,257	\$762,514	4.04	2.67	0.027

**TABLE SFPUC-2. Energy Efficiency Program Results by Sector**

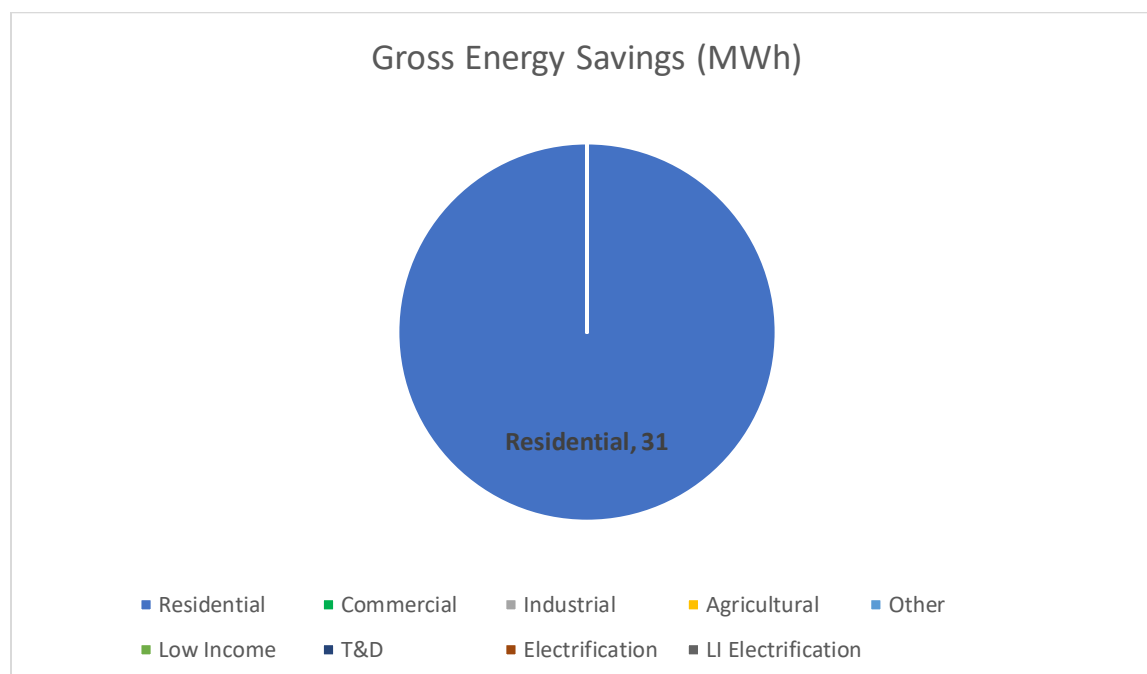
Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	378	4,034,003	60,510,039	214	2,519,638	37,794,564	11,257	\$762,514	4.04	2.67	0.027
Energy Efficiency	378	4,034,003	60,510,039	214	2,519,638	37,794,564	11,257	\$762,514	4.04	2.67	0.027
EE, Low Income and Electrification	378	4,034,003	60,510,039	214	2,519,638	37,794,564	11,257	\$762,514	4.04	2.67	0.027
C&S and T&D											
Utility Total	378	4,034,003	60,510,039	214	2,519,638	37,794,564	11,257	\$762,514	4.04	2.67	0.027

**TABLE SFUC-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	13	850,474	12,757,104	13	850,474	12,757,104	2,980	\$78,302	6.23	13.75	0.008
Other Commercial	365	3,183,529	47,752,935	200	1,669,164	25,037,460	8,276	\$684,212	3.79	2.32	0.037
Energy Efficiency	378	4,034,003	60,510,039	214	2,519,638	37,794,564	11,257	\$762,514	4.04	2.67	0.027
EE, Low Income and Electrification	378	4,034,003	60,510,039	214	2,519,638	37,794,564	11,257	\$762,514	4.04	2.67	0.027
C&S and T&D											
Utility Total	378	4,034,003	60,510,039	214	2,519,638	37,794,564	11,257	\$762,514	4.04	2.67	0.027

**City of Shasta Lake at a Glance**

- Climate Zone: 11
- Customers: 4,606
- Total annual retail sales: 202,814 MWh
- Annual Retail Revenue: \$36,507,431
- Annual energy efficiency expenditures for reporting year: \$95,188
- Gross annual savings from reporting year portfolio: 31 MWh



**City of Shasta Lake Overview**

The City of Shasta Lake (CSL) is in Shasta County north of Redding. CSL invests its Public Benefit funds to promote positive community impacts by promoting electricity-saving measures. CSL utilizes a comprehensive set of traditional rebate programs available to all customers under retrofit projects.

**Major Program and Portfolio Changes**

Reportable savings tend to fluctuate dramatically from year to year. In the last five years, CSL has achieved 22% of net kWh savings targets.

### **Program and Portfolio Highlights**

The Residential sector provided 100% of the gross annual savings in FY25. No commercial or industrial rebates were processed in FY25.

### **Commercial, Industrial & Agricultural Programs**

CSL manages a comprehensive energy efficiency incentive program for commercial customers focusing on energy efficiency and peak load reduction. Rebates are available for upgraded lighting, HVAC, appliances, refrigeration equipment, electronics, and in cases where an analysis is performed rebates can be offered for additional equipment that reduces energy use and/or demand. On-site energy audits are provided by CSL energy specialists. Energy efficiency measures are recommended, and additional visits are completed upon request.

- Commercial/Industrial Lighting Program: CSL offers rebates to business owners who invest in the installation of energy efficiency lighting upgrades (i.e., LEDs) in office areas, exterior lighting, parking lot lighting, and high bay lighting.
- Commercial HVAC: The City offers rebates to commercial customers for energy efficient HVAC upgrades.
- Commercial Refrigeration: Rebates are available to improve the efficiency of commercial refrigeration systems.
- Commercial Appliances: Rebates are available for energy efficient cooking equipment such as ovens, dishwashers, fryers, griddles, etc.
- Commercial Electronics: The City offers rebates for uninterrupted power supplies, plug-load occupancy sensors and smart power strips.
- Commercial/Industrial Custom Program: CSL offers rebates to business owners based on site-specific consumption. Rebates are tailored to the individual business owner's needs based on the audit and the potential energy savings associated with the customer project.

### **Residential Programs**

CSL manages a comprehensive energy efficiency incentive program for residential customers. Rebates are offered for the installation of various energy efficiency measures, such as lighting, HVAC, appliances and weatherization. On-site energy audits are provided by CSL energy specialists. Energy efficiency measures are recommended, and additional visits are completed upon request.

- Residential Lighting Program: CSL offers rebates to homeowners who install ENERGY STAR® qualified LED lamps/bulbs, ceiling fans and LED holiday lights.
- Residential HVAC Program: CSL offers rebates to homeowners who install high performance heat pumps, central air-conditioners, room air-conditioners, or whole house fans that exceed current state requirements. CSL also offers a rebate for duct sealing when not required by code.

- Residential Equipment Program: CSL offers rebates to homeowners who purchase new ENERGY STAR qualified products, including clothes washers, room air conditioners, dishwashers, pool pumps, and refrigerators.
- Residential Weatherization Program: CSL offers rebates to homeowners who invest in weatherizing their homes, including attic and wall insulation, window treatments/replacement, air/duct sealing and radiant barriers.
- Residential Heat Pump Water Heater Rebate Program: CSL offers rebates to homeowners who purchase a new, energy efficient heat pump water heater.

#### **Complementary Programs**

- Low-Income Programs: Lifeline monthly rate discount program and one-time bill assistance known as SHARE
- Renewable Energy Programs: Focus on customized solar projects that benefit the City
- Research, Development, and Demonstration: Focuses on LED lighting in various applications, community solar charging station(s) and latest HVAC applications in City owned facilities
- Water Conservation: Rebates offered for clothes washers with any domestic hot water source, toilets, and automatic irrigation controllers.

#### **Evaluation, Measurement & Verification Studies**

EM&V reports for CSL are posted on the California Municipal Utility Association website

#### **Major Differences or Diversions from CA POU TRM for Energy Savings**

CSL has relied heavily on the unit energy savings listed in the Technical Resource Manual, the and the investor-owned eTRM. Non-residential lighting, custom projects and non-deemed measures utilize custom savings calculations.

**TABLE CSL-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	0	1,978	23,145	0	709	8,396	3	\$10,665	0.08	0.06	1.598
Building Envelope	6	13,501	270,021	3	6,245	124,892	31	\$40,539	0.15	0.12	0.478
HVAC - Cooling	2	2,613	39,193	1	1,809	27,141	11	\$8,301	0.49	0.44	0.409
HVAC - Heat Pump	3	9,184	137,757	2	5,694	85,410	36	\$26,195	0.57	0.55	0.410
Lighting - Indoor	0	52	780	0	28	421	0	\$650	0.07	0.06	2.064
Miscellaneous	0	2,100	21,000	0	1,155	11,550	2	\$7,577	0.09	0.09	0.793
Service & Domestic Hot Water	0	1,500	15,000	0	825	8,250	3	\$1,262	0.59	0.48	0.185
Energy Efficiency	12	30,927	506,896	7	16,465	266,059	86	\$95,188	0.29	0.24	0.495
EE, Low Income and Electrification	12	30,927	506,896	7	16,465	266,059	86	\$95,188	0.29	0.24	0.495
<b>C&amp;S and T&amp;D</b>											
Utility Total	12	30,927	506,896	7	16,465	266,059	86	\$95,188	0.29	0.24	0.495

**TABLE CSL-2. Energy Efficiency Program Results by Sector**

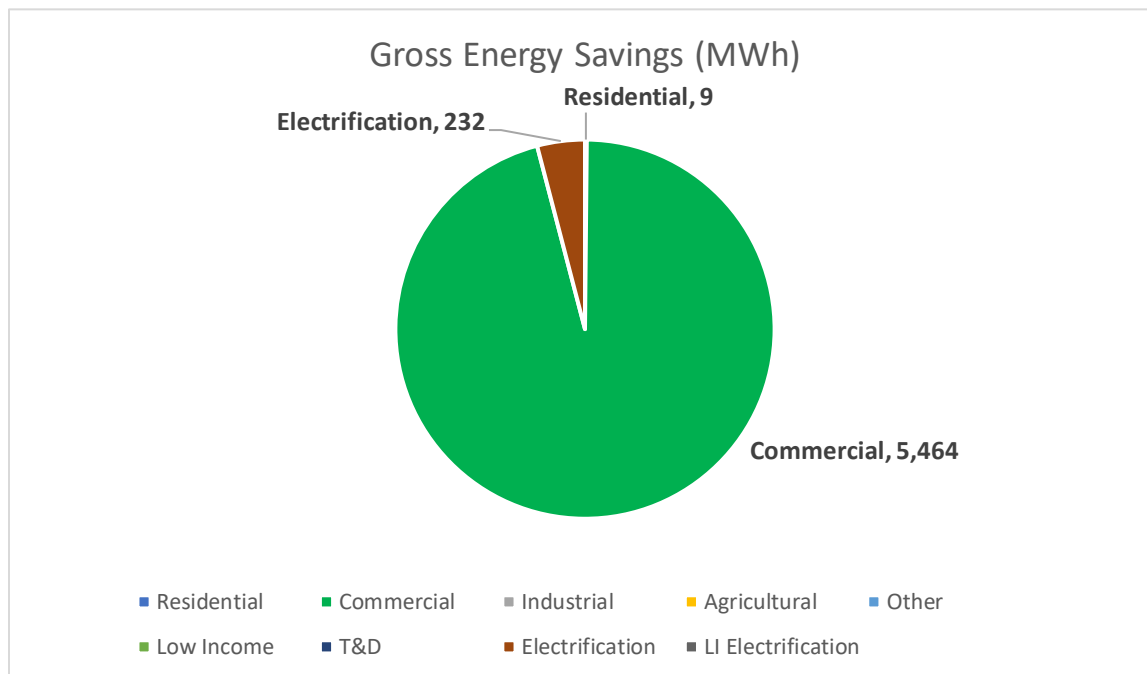
Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Residential	12	30,927	506,896	7	16,465	266,059	86	\$95,188	0.29	0.24	0.495
Energy Efficiency	12	30,927	506,896	7	16,465	266,059	86	\$95,188	0.29	0.24	0.495
EE, Low Income and Electrification	12	30,927	506,896	7	16,465	266,059	86	\$95,188	0.29	0.24	0.495
<b>C&amp;S and T&amp;D</b>											
Utility Total	12	30,927	506,896	7	16,465	266,059	86	\$95,188	0.29	0.24	0.495

**TABLE CSL-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Multiple	8	23,642	389,118	4	12,150	196,266	66	\$64,002	0.34	0.29	0.450
Residential	0	1,683	26,725	0	1,058	16,212	6	\$6,623	0.27	0.26	0.551
Residential - Single-Family	3	5,603	91,052	2	3,257	53,581	14	\$24,563	0.15	0.12	0.644
Energy Efficiency	12	30,927	506,896	7	16,465	266,059	86	\$95,188	0.29	0.24	0.495
EE, Low Income and Electrification	12	30,927	506,896	7	16,465	266,059	86	\$95,188	0.29	0.24	0.495
C&S and T&D											
Utility Total	12	30,927	506,896	7	16,465	266,059	86	\$95,188	0.29	0.24	0.495

**Silicon Valley Power at a Glance**

- Climate Zone: 4
- Customers: 60,980
- Total annual retail sales: 4,700,419 MWh
- Annual Retail Revenue: \$723,676,636
- Annual energy efficiency expenditures for reporting year: \$5,095,075
- Gross annual savings from reporting year portfolio: 5,705 MWh



**Silicon Valley Power Overview**

Silicon Valley Power (SVP) is unique in its mix of customers. While 86% of the customers are residential, 94.5% of the utility retail sales are to commercial, industrial and municipal customers. Over 75% of our electric load is attributable to our largest “Key Customers” and more than half comes from data centers. Historically, it is those customers, including the large data centers, who implement a few large projects that make up the majority of our annual energy savings each year. Our unique customer mix and mild climate results in very little energy savings from the residential sector as compared to the business sector. This is partly because we do not have a high residential air conditioning load, which often makes up a large percentage of residential energy portfolio savings in other climate zones. In recent years, residential programs have focused on efficient electrification to reduce greenhouse gas emissions. Commercial program offerings include efficient electrification but primarily focus on

traditional energy efficiency measures due to the mix of customers we serve and the types of equipment within their facilities.

### **Major Program and Portfolio Changes**

In FY 2024-2025, Silicon Valley Power made the following changes to its program portfolio:

- The midstream heat pump water heater program run through BayREN ended March 31, 2025 when the contract to administer the program ended.
- Silicon Valley Power launched a third party Strategic Energy Management Program for government, schools, and non-profit facilities

### **Program and Portfolio Highlights**

In Fiscal Year 2024-2025, Silicon Valley Power customers completed 69 lighting projects, contributing nearly 2 million kWh in gross energy savings to the program's overall goal. Nearly half of these projects were completed in municipal facilities, utilizing Silicon Valley Power's energy efficiency loan program for municipal customers. This program works in conjunction with the rebate programs. Silicon Valley Power pays the invoice to the vendor, deducts the rebate payment, and applies a loan to the City's utility bill to fund the rest of the project. Loan payments are set so that the energy savings achieved pays for the loan payments and there is no net increase in the utility bill. Payments can be made for up to 5 years.

The Customer Directed Rebate and Data Center Rebate programs contributed an additional 14 projects and approximately 60% of the overall energy savings achieved. Projects completed under these programs include measures that do not fall within the standard prescriptive rebate programs and require a measurement & verification plan with pre- and post-installation data. Some of these projects are performance-based payments to account for projects where persistence of energy savings is uncertain or in the case of new construction data centers, where load may ramp up over several years.

### **Commercial, Industrial & Agricultural Programs**

- Business Rebates: Encourages businesses to install energy efficient lighting, air conditioners, motion sensors, programmable thermostats, food service equipment, etc. The programs are occasionally changed to match statewide programs.
- Emerging Technologies Grant: The program provides grants to encourage businesses to develop new energy-related technologies. The incentive is paid in two installments. The first payment of 50% of the incentive will be paid upon completion of the project and the second payment of 50% will be paid upon verification of energy savings. This is intended to encourage customers to implement innovative energy efficiency projects and minimize some of the risks involved if the savings do not materialize as expected,

which has been one of the barriers to program adoption. SVP reviews emerging technologies and reaches out to customers to inform them about the program and appropriate emerging technologies for their business.

- **Commercial New Construction Rebate:** This program provides a rebate to customers who exceed Title 24 by 10% for the measure being incentivized, in line with our other prescriptive rebates for retrofit projects. A tiered Design Team Incentive is provided up to \$50,000.
- **Business Energy Audits:** Provides free energy efficiency audits to business customers. Energy & Resource Solutions administers this and other business PBC programs.
- **Enhanced Ventilation Controls Rebate:** This program provides an incentive per ton for adding enhanced ventilation controls to HVAC rooftop packaged units 15 tons or smaller.
- **Small Business Efficiency Services Program:** This program is targeted at small business customers, and provides assistance in identifying energy efficiency projects, selecting and managing contractors, and help with filling out rebate application paperwork. The program also provides a 35% incentive for lighting and HVAC rebates, provided that customers to install the lighting measures within 6 months of program enrollment and HVAC measures within 12 months of enrollment in order to receive the additional incentive.
- **Controls Program:** This program is available for projects where at least 80% of the savings come from the control strategies. Incentives are paid on a performance basis with 6 payments made over 5 years. The first payment is made upon project completion and each additional annual payment will be subject to commissioning of the controls system and validation of persistent energy savings.
- **Public Facilities' Energy Efficiency Program:** SVP provides technical assistance and financial incentives for the expansion, remodel, and new construction of City of Santa Clara buildings.
- **Data Center Efficiency Program:** This program targets data centers with IT server load greater than 350 kW or cooling load greater than 100 tons. The incentive is paid as a performance incentive, where the customer will receive five annual payments based on actual measured energy savings, with the first payment made three months after project completion.
- **Customer Directed Rebate:** This program provides incentives based on actual energy saved for energy efficiency measures that do not fall into SVP's standard business rebate programs.

- **Energy Efficiency Grant Program for Nonprofit Organizations:** Organizations registered as a 501c3 are eligible for a grant up to \$25,000 to fund energy efficiency upgrades in their facilities. The grant requires a 20% matching funds contribution through cash, other grant funding, donations, or some other documented means.
- **Commercial Electrification Rebates:** Silicon Valley Power offers commercial electrification rebates including a custom rebate for conversion to heat recovery chillers, a custom rebate for heat pump pool heaters, a rebate for heat pump air conditioners, bonus incentives for electrification of food service equipment and a rebate for installation of heat pump water heaters. The heat pump air conditioner rebate program also offers an incentive to help cover the cost of infrastructure improvements needed to accommodate the new equipment.
- **Strategic Energy Management Program:** Silicon Valley Power contracts with a third party to provide a Strategic Energy Management Program for government and nonprofit facilities to help identify and implement low cost and no cost energy efficiency upgrades. This program requires a multi-year commitment from each participating organization who identifies an energy champion and an energy team to participate in the cohort workshops. There are incentives for achieving energy savings, as well as completing milestones in developing an energy plan.

### **Residential Programs**

- **Residential Pool Pump Rebate:** This program provides a rebate to residential customers installing a new variable speed pool pump with a qualifying controller.
- **ENERGY STAR Residential Heat Pump Electric Water Heater Rebate:** SVP offers a rebate for the purchase of an ENERGY STAR-qualified electric heat pump water heater. The rebate is tiered to provide higher incentives based on income eligibility for income-qualified customers.
- **Residential Energy Efficiency Education and Energy Conservation Hot Line:** The program encourages residents to become more energy efficient and reduce their energy bills. SVP staffs an information booth at City events, providing education on energy efficiency and solar electric generation systems to residents. Staff also answers an energy conservation hotline to assist customers in reducing their electric usage through energy conservation tips, assistance in analyzing energy usage, and suggestions for energy efficiency and building electrification retrofits.
- **SVP Marketplace:** Online marketplace where customers can purchase energy efficient products. The marketplace includes instant rebates on equipment such as ENERGY STAR room air cleaners and electric yard care equipment. Manufacturer rebates are also

provided for a variety of products including smart thermostats and various types of LED light bulbs.

- Heat Pump Water Heater Electrification Program: Silicon Valley Power provides funding for a regional midstream heat pump water heater electrification program through BayREN where enrolled contractors receive a \$1000 incentive for installing an electric heat pump water heater in place of a natural gas water heater. This program ended in March 2025.
- Residential Building Electrification Rebates: residential building electrification rebates for the replacement of gas water heaters, stovetops and clothes dryers with efficient electric heat pump water heaters, induction cooktops and electric clothes dryers. Tiered incentives are provided to pay higher incentives based on income eligibility for income-qualified customers.

### **Complementary Programs**

- Financial Rate Assistance Program (FRAP): This program provides a discount ranging from 25-40% discount on the electric portion of utility bills for income-qualified residential customers, up to the first 800 kWh of use per month. Discounts are tiered based on income levels.
- Low Income EV Charging Station Grant for Multi-family properties: Under its low income programs, SVP offers a grant of up to \$1,000 per charging station for multi-family properties where a specified percentage of customers residing at the property qualify for SVP's low income programs. This is in addition to the rebate program the utility offers to all multifamily complexes in Santa Clara.
- Income-Qualified Solar Grant Program: Silicon Valley Power offers a grant up to \$10,500 to install solar photovoltaic (PV) systems on the homes of low-income residents that will offset nearly 100% of their annual energy consumption.
- Electric Vehicle Charging Infrastructure Rebate: This program provides a rebate up to \$550 per residential electric vehicle charger installed at residences receiving electricity from Silicon Valley Power. Multifamily housing can receive a rebate up to \$3,000 per Level 2 charger installed, and schools and non-profit organizations can receive up to \$5,000 per Level 2 charging station installed.
- Income-Qualified Pre-Owned Electric Vehicle Rebate: his program provides a \$1500 rebate to income qualified customers for the purchase of an all-electric pre-owned vehicle or \$1000 rebate for the purchase of a pre-owned plug-in hybrid electric vehicle (PHEV). Customers who meet LIHEAP income eligibility requirements receive an

additional \$1000 rebate and vehicles with an MPGe of 117 or greater are eligible for an additional \$1,000 rebate.

- **Electric Bicycle Rebate:** This program provides a rebate of 10% of the purchase price of an electric bicycle, up to \$300. Income-qualified customers can receive a bonus incentive of \$200.
- **Smart Electric Panel Rebates:** Silicon Valley Power provides a rebate of \$2000 for residential customers who upgrade their electric panel to a smart panel and install an EV charger or a home electrification measure. A bonus incentive of \$1000 is available to income qualified customers. Customers meeting LIHEAP income guidelines receive an additional \$1000 for a total of \$4000.
- **Educational Outreach in Schools:** Silicon Valley Power contracts with Tinker Teach to provide online energy efficiency education modules for 4th and 10th grade classrooms located within the city of Santa Clara. Tinker Teach works with teachers to provide the modules, training materials and the opportunity to earn mini grants for classroom supplies. Students can compete for points and earn prizes based on completion of the modules. Content is tailored to showcase examples relevant to the local electric utility.
- **Add-on incentives for electric panel upgrades and/or circuit pauser/splitter rebates** when installing a residential building electrification measure.
- **Residential battery storage rebate with additional equity incentives for customers** installing a battery storage system with a PV system, or adding a battery storage system to an existing PV system.
- **Residential Building Electrification Rebates:** In February 2024, Silicon Valley Power launched residential building electrification rebates for the replacement of gas water heaters, stovetops and clothes dryers with efficient electric heat pump water heaters, induction cooktops and electric clothes dryers. Tiered incentives are provided to pay higher incentives based on income eligibility for income-qualified customers.
- **Induction Cooking Demonstration Classes:** Silicon Valley Power retrofitted the Santa Clara Unified School District's Adult Education Cooking Classroom with six induction cooktops and new cookware. The utility sponsors monthly cooking classes for Santa Clara residents to cook on induction cooktops and provides educational materials about the benefits of induction cooktops. Classes are fully funded by Silicon Valley Power and the School District charges a small fee to ensure those who enroll show up for the class.
- **Multifamily Boiler Electrification Pilot Program:** This program provides up to \$100,000 in funding for the conversion of a natural gas boiler to an electric boiler at multifamily

complexes with at least 25 dwelling units. The program covers up to 100% of the incremental cost of replacing the gas boiler with an efficient boiler.

- **Commercial Solar Rebate Program:** Silicon Valley Power offers a solar photovoltaic (PV) rebate to commercial customers who install a qualifying PV system between 50kW and 1 MW, not to exceed 80% of the facility's annual electric usage. The program is intended to help offset the utility's peak demand, especially during the summer months. Rebates will be paid as either an up-front rebate or as a performance-based incentive over two years.
- **Nonprofit Solar Grant:** Qualifying nonprofit organizations can receive a grant for installing a solar photovoltaic (PV) system at their facility. The grant may cover a significant portion of the system cost, with additional funds allocated for qualifying building repairs or infrastructure to make the site PV-ready.
- **Trade School Scholarships:** Silicon Valley Power provides scholarships up to \$5,000 for eligible customers interested in furthering their career in an area supporting the energy industry. This program supports Santa Clara residents to help learn the skills to earn a livable wage while pursuing high demand careers in the energy industry.
- **Student Grants for Energy Efficiency and Renewable Energy Projects:** Silicon Valley Power offers grants up to \$5,000 for high school students to create projects or awareness campaigns that will educate the Santa Clara community about energy efficiency and/or renewable energy.
- **Community Outreach Grants for Energy Efficiency and Building Electrification Education:** Silicon Valley Power offers grants up to \$10,000 for not-for-profit community-based organizations to identify and provide outreach to underserved Santa Clara residential and small business customers, with an emphasis on diversity, equity and inclusion. Examples include but are not limited to educational videos, online resources, printed outreach materials, webinars or workshops.

### **Evaluation, Measurement & Verification Studies**

Silicon Valley Power regularly conducts EM&V studies of its rebate programs. The most current study was completed in October 2025. All past EM&V studies conducted on behalf of Silicon Valley Power can be found on the California Municipal Utilities Association website. [cmua.org/document-library](http://cmua.org/document-library)

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

Silicon Valley Power uses the California eTRM for the majority of its energy savings. Where no savings value exists, Silicon Valley Power uses actual savings verified through metering or an approved measurement and verification plan. In the case of lighting projects, Silicon Valley

Power uses a lighting calculator that utilizes actual operating hours. A copy of the calculator can be found at [siliconvalleypower.com/businesses/rebates](http://siliconvalleypower.com/businesses/rebates).

**TABLE SVP-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	143	2,001,923	30,028,845	121	1,699,322	25,489,823	8,556	\$1,651,013	1.63	1.29	0.087
Appliance & Plug Loads	0	8,649	23,769	0	8,462	22,062	7	\$65,024	0.04	0.04	3.215
HVAC - Cooling	1,434	3,462,137	46,981,843	1,208	2,917,874	39,825,074	13,395	\$1,887,604	2.23	2.55	0.063
Energy Efficiency	1,578	5,472,709	77,034,457	1,330	4,625,657	65,336,959	21,957	\$3,603,641	1.91	1.81	0.074
Any	0	382	4,579	0	382	4,579	-12	\$95,742	-0.04	-0.04	26.330
Appliance & Plug Loads	0	603	8,931	0	603	8,931	-3	\$20,947	-0.03	-0.03	3.135
Service & Domestic Hot Water	0	231,085	2,310,855	0	231,085	2,310,855	-339	\$1,374,745	-0.04	-0.04	0.719
Electrification	0	232,070	2,324,365	0	232,070	2,324,365	-354	\$1,491,434	-0.04	-0.04	0.776
EE, Low Income and Electrification	1,578	5,704,779	79,358,822	1,330	4,857,727	67,661,324	21,603	\$5,095,075	1.34	1.30	0.100
<b>C&amp;S and T&amp;D</b>											
Utility Total	1,578	5,704,779	79,358,822	1,330	4,857,727	67,661,324	21,603	\$5,095,075	1.34	1.30	0.100

**TABLE SVP-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	1,577	5,464,060	77,010,688	1,329	4,617,195	65,314,897	21,950	\$3,538,617	1.95	1.85	0.072
Residential	0	8,649	23,769	0	8,462	22,062	7	\$65,024	0.04	0.04	3.215
Energy Efficiency	1,578	5,472,709	77,034,457	1,330	4,625,657	65,336,959	21,957	\$3,603,641	1.91	1.81	0.074
Residential	0	232,070	2,324,365	0	232,070	2,324,365	-354	\$1,491,434	-0.04	-0.04	0.776
Electrification	0	232,070	2,324,365	0	232,070	2,324,365	-354	\$1,491,434	-0.04	-0.04	0.776
EE, Low Income and Electrification	1,578	5,704,779	79,358,822	1,330	4,857,727	67,661,324	21,603	\$5,095,075	1.34	1.30	0.100
<b>C&amp;S and T&amp;D</b>											
Utility Total	1,578	5,704,779	79,358,822	1,330	4,857,727	67,661,324	21,603	\$5,095,075	1.34	1.30	0.100

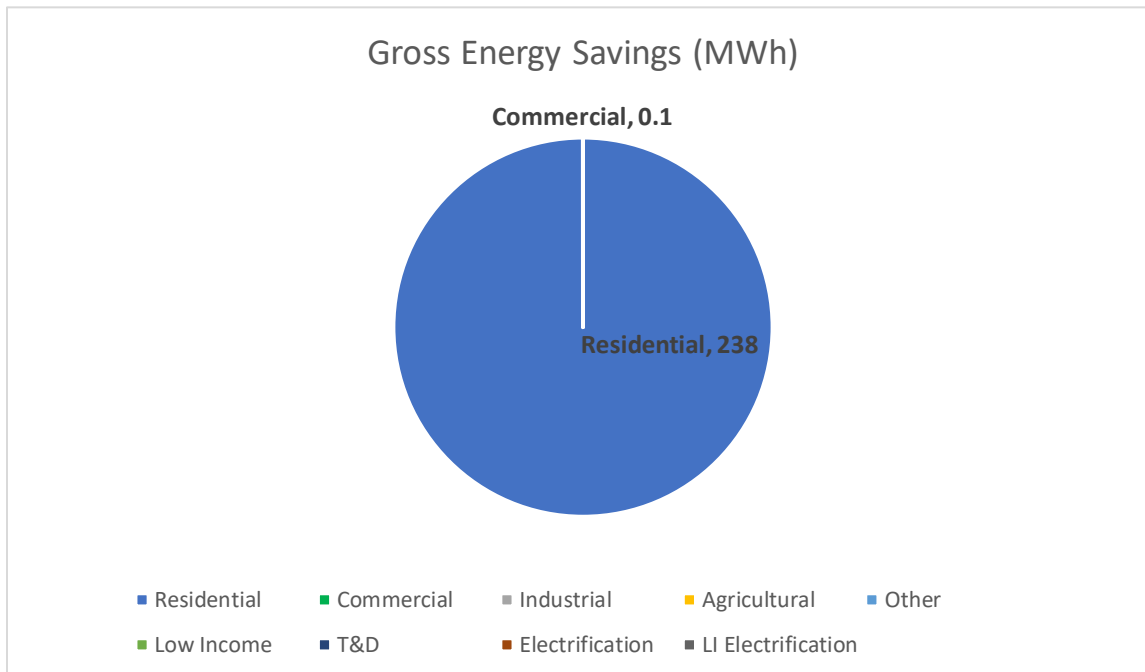
**TABLE SVP-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	370	2,561,320	33,462,218	303	2,152,179	28,333,393	9,537	\$2,042,056	1.46	1.16	0.096
Multiple	1	9,252	138,780	0	5,551	83,268	28	\$3,561	2.46	2.08	0.057
Other Commercial	1,207	2,894,738	43,421,070	1,026	2,460,527	36,907,909	12,388	\$1,518,739	2.56	3.28	0.055
Residential - Single-Family	0	7,399	12,389	0	7,399	12,389	4	\$39,285	0.04	0.04	3.227
Energy Efficiency	1,578	5,472,709	77,034,457	1,330	4,625,657	65,336,959	21,957	\$3,603,641	1.91	1.81	0.074
Multiple	0	232,070	2,324,365	0	232,070	2,324,365	-354	\$1,491,434	-0.04	-0.04	0.776
Electrification	0	232,070	2,324,365	0	232,070	2,324,365	-354	\$1,491,434	-0.04	-0.04	0.776
EE, Low Income and Electrification	1,578	5,704,779	79,358,822	1,330	4,857,727	67,661,324	21,603	\$5,095,075	1.34	1.30	0.100
C&S and T&D											
Utility Total	1,578	5,704,779	79,358,822	1,330	4,857,727	67,661,324	21,603	\$5,095,075	1.34	1.30	0.100

## TRUCKEE DONNER PUBLIC UTILITY DISTRICT

### *Truckee Donner Public Utility District at a Glance*

- Climate Zone: 16
- Customers: 14,859
- Total annual retail sales: 160,458 MWh
- Annual Retail Revenue: \$38,546,696
- Annual energy efficiency expenditures for reporting year: \$2,986,483
- Gross annual savings from reporting year portfolio: 238 MWh



### *Truckee Donner Public Utility District Overview*

Truckee Donner Public Utility District (TDPUD) serves electricity and water to the greater Truckee area comprised of approximately 44 square miles in eastern Nevada County and approximately 1.5 square miles in adjacent Placer County. TDPUD is governed by a locally elected Board of Directors consisting of 5 members with staggered 4-year terms and operates on a calendar year budget. TDPUD is a transmission-dependent utility within NV Energy's control area and secures electric resources primarily through the Utah Associated Municipal Power System (UAMPS). TDPUD has been successful in transitioning towards renewable energy sources (well in excess of our Renewable Portfolio Standard requirements), keeping rates stable, and investing in accessible, cost-effective, energy efficiency programs.

### **Major Program and Portfolio Changes**

TDPUD programs maintained a heavier focus on beneficial electrification compared to previous years, though additional emphasis is being made to advance weatherization measures. No significant changes have been made in 2025 following our portfolio revision(s) in 2021.

### **Program and Portfolio Highlights**

TDPUD's Residential Energy Survey's has historically been very popular program with customers. In 2022 the District piloted an updated version of this program which leverages interactive video conferencing software to facilitate face-to-face interaction and remote data collection. This proved convenient for both the customer and the District staff executing the energy audit on many levels and this has become a stable addition to The District's program offerings. The District continued to offer complimentary energy audits to commercial customers on an ad hoc basis (upon request).

Traditional programs, such as residential appliances and water efficient toilets, continued to perform. However, The District continued to see variegated uptake in its programs compared to pre-2020 levels as economic uncertainties continue to impact District customers and the local community.

### **Commercial, Industrial & Agricultural Programs**

- Commercial Custom Rebate (Non-Res Process): Provides incentives to commercial electric customers for replacing inefficient plant equipment with high efficiency equipment. Customers receive a rebate proportional to the projected first year energy savings.
- Commercial Energy Survey: TDPUD provides ad hoc energy surveys to commercial customers upon request, and subject to staff resources. These energy surveys provide customers analysis of their energy use patterns and an on-site review of their facilities and equipment. The complimentary survey delivers a set of no-capital, low-capital, and high-capital recommendations for business owners to follow-up on.

### **Residential Programs**

- Residential Appliance Rebate (Appliance): Provides increasing incentives to customers to purchase more energy efficient appliances as identified by Energy Star. Due to the saturation of Energy Star appliance purchases this program now only provides rebates for Induction cook-tops and energy star air purifiers.
- Heat Pump Water Heater (Res Electric Water Heater): Provides a \$750 rebate for electric water heaters with a UEF > 2.85, and \$1,000 for gas to electric conversions.

- Residential Building Efficiency Rebates (Res Shell): Provides an incentive of up to \$200 each for building envelope and/or duct air leakage tests and up to \$500 (50% of project cost) each for building envelope or duct leakage mitigation.
- Thermally Efficient Windows Rebate (Res Shell): Provides an incentive of \$3.50 per square foot of window to replace qualifying single-pane windows. Primary heating source must be a permanent electric space heating system.
- Water-Efficient Toilet Rebate (Non-Res Process): Encourages customers to replace high-water use toilets with low water use toilets (1.28 and 1.6 GPF) by providing increasing incentives for more efficient toilets. Rebates range from \$25 to \$100.
- EV Charger Rebates: This rebate pays up to \$950 for any (new) EV smart charger installed at a customer's home with proof of an EV registered at the address. Lower rebates available if the EV charger is not "SMART" but is Energy Star listed.
- Heat Pumps (Space Heating): Heat-pumps replace existing gas furnaces or older (inefficient) heat pumps as the main source of heat for the customer. Rebates are tiered based on the efficiency of the unit(s) being installed and scale with the size of the system (in Tons). Rebates span from \$250 per Ton for an 8.5 HSPF system replacing a pre-existing heat pump to \$800 per Ton for a 10 HSPF unit replacing a gas furnace.

### **Complementary Programs**

- Residential Energy Survey – RES (Res comprehensive): Provides free residential energy surveys and free energy and water-saving measures energy efficient LED bulbs, low-flow shower heads, faucet aerators, weather stripping, and pipe insulation at the time of survey. Customers are also informed about TDPUD conservation programs and good energy efficiency habits that they may benefit from and provided with associated literature.
- Commercial Energy Survey: TDPUD provides ad hoc energy surveys to commercial customers upon request, and subject to staff resources. These energy surveys provide customers analysis of their energy use patterns and an on-site review of their facilities and equipment. The complimentary survey delivers a set of no-capital, low-capital, and high-capital recommendations for business owners to follow-up on.
- Payment Assistance Program Income-Qualified (Res Comprehensive): Provides an annual bill credit and a free residential energy survey to income qualified customers. Customers are qualified by an intermediary agency and are eligible for a one-time credit equal to two-times their highest energy charge in the past 12-months upon completion of the required Residential Energy Survey (RES). The requirement of the RES has been

suspended during the COVID-19 crisis and all participants will be offered the RES when re-instated.

- Patricia S. Sutton Conservation Garden (Not Evaluated): Promotes water-efficient landscaping by demonstrating, at the TDPUD’s headquarters, native and drought tolerant plants, hardscaping/mulching techniques, and efficient irrigation. Plant lists, design, and materials used in the project are all available via a web-based resource at [www.tdpud.org](http://www.tdpud.org).
- School Conservation Education (Res Comprehensive): Promotes energy and water conservation through an innovative series of programs designed to both educate students and deliver, for free, energy and water savings measures.
- Renewable Energy Generation: TDPUD helps buy down the cost of additional renewable generation components within its energy portfolio. This increases our renewables within our RPS while maintaining low rates for our customers.

#### **Evaluation, Measurement & Verification Studies**

No EM&V was performed in 2025. TDPUD is currently seeking an EM&V contractor.

#### **Major Differences or Diversions from CA POU TRM for Energy Savings**

Energy savings were predominately derived from the CA eTRM and in some cases were pulled from the CMUA TRM or from the Pacific Northwest Regional Technical Forum (RTF). One notable exception is found in the embedded energy value applied to our water-energy nexus measures. The embedded energy content for water-energy nexus measures was derived by our EM&V consultant in 2014 using actual water pumping data provided by the District.

**TABLE TDPUD-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	0	0	0	0	0	0	0	\$18,000			0.000
Appliance & Plug Loads	0	2,315	25,445	0	1,273	13,995	5	\$14,027	0.10	0.09	1.248
Building Envelope	0	43,185	958,848	0	12,182	268,758	56	\$35,567	0.19	0.12	0.206
HVAC - Heat Pump	17	151,361	2,264,696	10	83,249	1,245,583	439	\$35,438	3.62	1.58	0.038
HVAC - Heating	0	2,679	8,375	0	2,545	7,956	2	\$4,389	0.05	0.05	0.596
Miscellaneous	2	19,640	33,795	2	13,782	24,336	9	\$429,787	40.84	40.14	19.514
Process	0	9	102	0	5	56	0	\$105,015	0.00	0.00	2,327.818
Service & Domestic Hot Water	2	18,365	183,512	1	10,101	100,931	36	\$3,150	3.27	2.49	0.038
Whole Building	0	0	0	0	0	0	0	\$2,341,109			0.000
Energy Efficiency	22	237,554	3,474,773	12	123,136	1,661,615	546	\$2,986,483	5.93	20.90	2.444
EE, Low Income and Electrification	22	237,554	3,474,773	12	123,136	1,661,615	546	\$2,986,483	5.93	20.90	2.444
<b>C&amp;S and T&amp;D</b>											
Utility Total	22	237,554	3,474,773	12	123,136	1,661,615	546	\$2,986,483	5.93	20.90	2.444

**TABLE TDPUD-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	0	9	102	0	5	56	0	\$123,015	0.00	0.00	2,726.815
Residential	22	237,545	3,474,671	12	123,131	1,661,559	546	\$2,863,468	6.18	26.89	2.343
Energy Efficiency	22	237,554	3,474,773	12	123,136	1,661,615	546	\$2,986,483	5.93	20.90	2.444
EE, Low Income and Electrification	22	237,554	3,474,773	12	123,136	1,661,615	546	\$2,986,483	5.93	20.90	2.444
C&S and T&D											
Utility Total	22	237,554	3,474,773	12	123,136	1,661,615	546	\$2,986,483	5.93	20.90	2.444

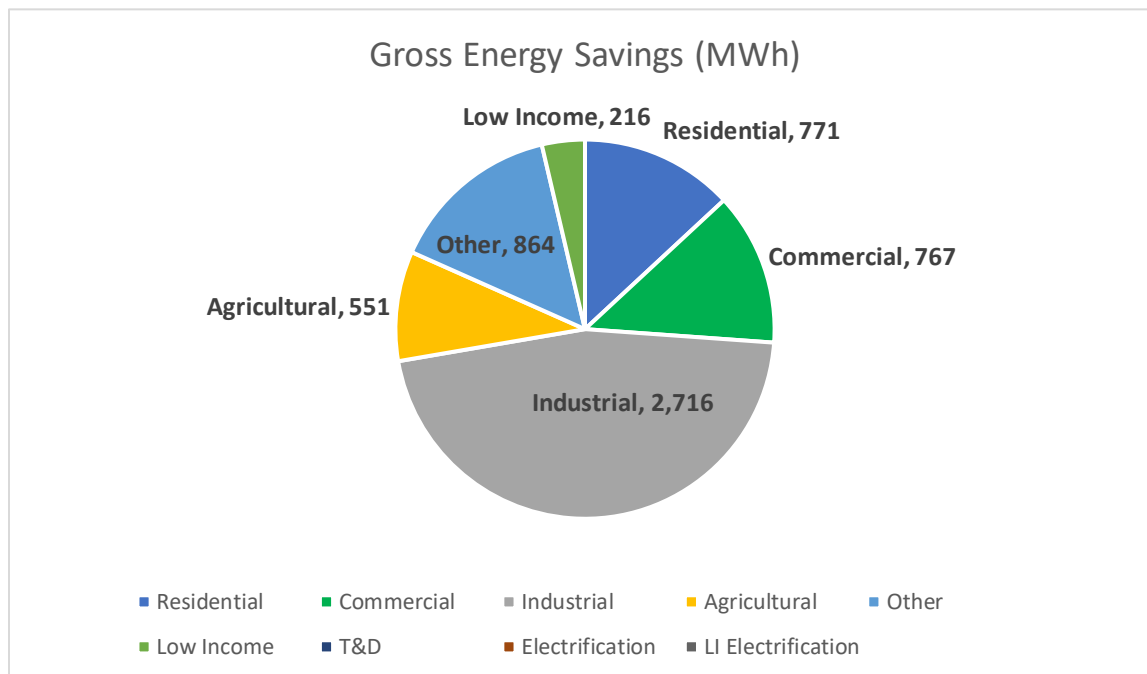
**TABLE TDPUD-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Residential	22	237,545	3,474,671	12	123,131	1,661,559	546	\$2,863,468	6.18	26.89	2.343
Retail - Small	0	9	102	0	5	56	0	\$123,015	0.00	0.00	2,726.815
Energy Efficiency	22	237,554	3,474,773	12	123,136	1,661,615	546	\$2,986,483	5.93	20.90	2.444
EE, Low Income and Electrification	22	237,554	3,474,773	12	123,136	1,661,615	546	\$2,986,483	5.93	20.90	2.444
C&S and T&D											
Utility Total	22	237,554	3,474,773	12	123,136	1,661,615	546	\$2,986,483	5.93	20.90	2.444

## TURLOCK IRRIGATION DISTRICT

### *Turlock Irrigation District at a Glance*

- Climate Zone: 12
- Customers: 96,958
- Total annual retail sales: 2,189,352,612 MWh
- Annual Retail Revenue: \$335,478,794
- Annual energy efficiency expenditures for reporting year: \$2,600,076
- Gross annual savings from reporting year portfolio: 5,885 MWh



### *Turlock Irrigation District Overview*

Turlock Irrigation District (TID) continues to help customers achieve energy savings through the implementation and promotion of a variety of energy efficiency programs for all rate classes. Many programs provide rebate opportunities to encourage customers to conserve energy. A significant portion of the energy efficiency measures adopted by our customers were implemented by industrial and commercial segments. TID provides a variety of options for businesses that are looking to make changes in their existing systems by making upgrades or retrofitting their existing facility. Rebates are available that address areas such as lighting, compressed air systems, refrigeration systems, motors, gaskets, chillers and many other systems components.

### **Major Program and Portfolio Changes**

TID created Gas-2-Electric increased incentive rebates in 2025 to promote electrification amongst our residential customers. By introducing these electrification rebates, we intended to increase awareness of electrification and GHG emission reductions. We created a budget for the increased incentives and saw such a large amount of participation in the first quarter of 2025, which caused us to decrease the incentives for the remainder of the year to stay within budget. We continue to promote and offer these programs in an effort to educate our customers on the electrification process and benefits.

### **Program and Portfolio Highlights**

In 2025 TID introduced the “Keep Your Cool” program to small and medium businesses (less than 100kW) to promote energy-efficient refrigeration measures. Through the direct install program 28 customers received a unique combination of 13 measures to insulate refrigerated spaces and increase motor efficiency in walk-in coolers and freezers. This program has been successful in reaching small grocery stores, restaurants and convenience stores and generated 554k kWh in savings in 2025.

### **Commercial, Industrial & Agricultural Programs**

- Commercial LED rebate programs: TID offers our non-residential customers a lighting rebate that is paid based on first year kWh savings.
- Commercial and Industrial HVAC: TID offers a prescriptive rebate for heating and cooling measures that, as a summer peaking utility, can greatly benefit our customers.
- Agricultural Irrigation Pump: TID offers a prescriptive rebate for the installation of a VFD, and other pump repairs, on irrigation pumps in an effort to reach our District’s water customers.

### **Residential Programs**

TID offers many rebates for Heating & Cooling, Appliances and General Improvements.

- In 2025, TID adopted the Residential HVAC Tuneup rebate program year around, offering customers a rebate incentive when they had a tuneup performed on their heating & cooling systems. During the year, we saw more than 750 customers take advantage of this rebate. We marketed both to our customers and local HVAC contractors to promote the new program, which has made this program successful. We also increased some incentives for our Energy Star<sup>®</sup> programs and saw an 80% increase in customer participation since 2024.

- Multi-Family Direct Install Program: TID has contracted to provide weatherization services for residents who live in multi-family complexes. The program enables customers to reduce their energy bills by implementing feasible measures to make their homes more energy efficient.

### **Complementary Programs**

#### Assistance Programs:

- TID CARES Program: An energy assistance program for qualified customers to receive a discount on their monthly energy bills. The CARES program reduces the monthly customer charge of \$22 to \$6, a savings of \$16, and provides a 15% discount on the first 800 kWh energy charges.
- Medical Rate Assistance: TID provides a 50% discount on the first 500-kWh energy charges for customers who use additional energy due to life-support equipment or a medical condition.
- Weatherization: TID has contracted with organizations within our community to provide weatherization services for families who meet the income qualification guidelines. The program enables families to reduce their energy bills by making their homes more energy efficient.

### **Evaluation, Measurement & Verification Studies**

Our 2024 EM&V is available at: <https://www.cmua.org/emv-reports>

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

TID continues to calculate the savings for each individual project. In order to capture actual savings for our lighting rebates, paid by first year kWh savings, we administer a pre-inspection for each project to establish a baseline usage. We also administer a post-inspection to confirm the number of fixtures that were upgraded, installed and de-lamped. In doing this we are able to confirm actual savings as precisely as possible.

**TABLE TID-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
	End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC
Appliance & Plug Loads	87	23,309	303,818	74	19,812	258,245	90	\$42,390	0.75	0.56	0.212
Building Envelope	23	95,833	1,047,610	20	81,458	890,469	322	\$103,818	1.03	0.71	0.144
HVAC - Cooling	0	5,156	45,480	0	4,382	38,658	16	\$19,760	0.52	1.40	0.604
Lighting - Indoor	4	87,077	1,306,155	3	74,015	1,110,232	399	\$65,594	2.04	1.58	0.079
Lighting - Outdoor	0	3,030	45,457	0	2,576	38,639	14	\$10,880	0.41	0.37	0.376
Miscellaneous	0	1,272	6,360	0	1,081	5,406	2	\$654	0.90	0.90	0.132
<b>Low-Income</b>	<b>114</b>	<b>215,677</b>	<b>2,754,880</b>	<b>97</b>	<b>183,325</b>	<b>2,341,648</b>	<b>844</b>	<b>\$243,096</b>	<b>1.18</b>	<b>0.92</b>	<b>0.134</b>
Appliance & Plug Loads	3	75,980	851,019	2	40,903	458,319	149	\$56,609	0.88	0.68	0.154
Building Envelope	1	1,721	24,738	0	685	10,994	4	\$2,425	0.54	0.19	0.308
Commercial Refrigeration	393	1,250,976	11,976,325	236	750,586	7,185,795	2,510	\$354,266	2.22	3.17	0.062
HVAC - Cooling	257	405,217	4,952,783	145	237,402	3,012,704	1,166	\$353,067	1.64	1.58	0.157
HVAC - Heat Pump	32	133,534	2,003,010	19	80,120	1,201,806	454	\$330,513	0.59	0.29	0.368
Lighting - Indoor	124	2,885,034	43,233,316	68	1,598,777	23,948,123	8,099	\$863,032	3.17	3.35	0.048
Lighting - Outdoor	14	482,973	7,244,597	8	265,635	3,984,528	1,819	\$220,624	2.17	2.69	0.074
Miscellaneous	4	36,182	363,054	3	21,709	217,832	75	\$74,590	0.34	0.28	0.414
Service & Domestic Hot Water	0	42,108	421,077	0	17,967	179,675	65	\$9,935	1.79	1.39	0.067
Water Pumping / Irrigation	183	335,880	5,038,200	73	134,352	2,015,280	701	\$77,255	2.96	2.96	0.051
Whole Building	22	19,968	399,355	18	16,973	339,451	107	\$14,663	2.29	2.34	0.064
<b>Energy Efficiency</b>	<b>1,033</b>	<b>5,669,573</b>	<b>76,507,473</b>	<b>572</b>	<b>3,165,110</b>	<b>42,554,509</b>	<b>15,148</b>	<b>\$2,356,980</b>	<b>2.18</b>	<b>2.00</b>	<b>0.073</b>
<b>EE, Low Income and Electrification</b>	<b>1,148</b>	<b>5,885,250</b>	<b>79,262,353</b>	<b>670</b>	<b>3,348,436</b>	<b>44,896,157</b>	<b>15,991</b>	<b>\$2,600,076</b>	<b>2.08</b>	<b>1.88</b>	<b>0.076</b>
<b>C&amp;S and T&amp;D</b>											
<b>Utility Total</b>	<b>1,148</b>	<b>5,885,250</b>	<b>79,262,353</b>	<b>670</b>	<b>3,348,436</b>	<b>44,896,157</b>	<b>15,991</b>	<b>\$2,600,076</b>	<b>2.08</b>	<b>1.88</b>	<b>0.076</b>

**TABLE TID-2. Energy Efficiency Program Results by Sector**

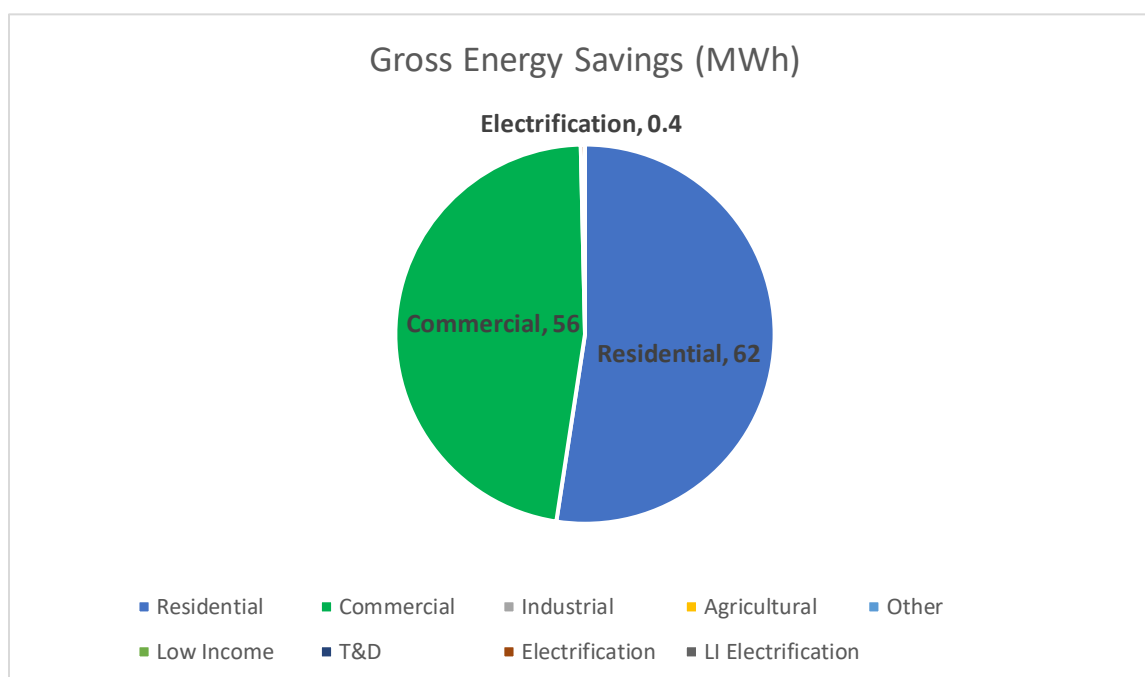
Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Residential	114	215,677	2,754,880	97	183,325	2,341,648	844	\$243,096	1.18	0.92	0.134
Low-Income	114	215,677	2,754,880	97	183,325	2,341,648	844	\$243,096	1.18	0.92	0.134
Agricultural	82	551,404	8,271,055	34	262,459	3,936,878	1,620	\$138,158	3.35	3.35	0.047
Commercial	115	767,498	8,151,432	68	448,374	4,716,834	1,755	\$454,431	1.17	1.50	0.124
Industrial	188	2,716,322	40,744,837	91	1,485,855	22,287,823	7,588	\$685,801	3.71	3.71	0.041
Other	337	863,684	9,328,656	196	511,936	5,503,071	1,913	\$309,765	1.97	2.83	0.072
Residential	312	770,665	10,011,494	183	456,488	6,109,904	2,272	\$768,825	1.28	0.84	0.167
Energy Efficiency	1,033	5,669,573	76,507,473	572	3,165,110	42,554,509	15,148	\$2,356,980	2.18	2.00	0.073
EE, Low Income and Electrification	1,148	5,885,250	79,262,353	670	3,348,436	44,896,157	15,991	\$2,600,076	2.08	1.88	0.076
<b>C&amp;S and T&amp;D</b>											
Utility Total	1,148	5,885,250	79,262,353	670	3,348,436	44,896,157	15,991	\$2,600,076	2.08	1.88	0.076

**TABLE TID-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Residential	114	211,522	2,700,716	97	179,793	2,295,608	827	\$239,748	1.17	0.91	0.134
Residential - Multi-Family	1	4,155	54,165	1	3,532	46,040	17	\$3,348	2.20	2.20	0.094
Low-Income	114	215,677	2,754,880	97	183,325	2,341,648	844	\$243,096	1.18	0.92	0.134
Any	1	2,009	22,097	0	1,105	12,153	5	\$4,942	0.35	0.60	0.502
Education - Primary School	4	86,938	1,304,064	2	47,816	717,235	242	\$144,135	0.57	1.06	0.269
Grocery	290	410,256	6,159,661	174	246,154	3,695,797	1,278	\$131,856	3.05	3.77	0.048
Multiple	116	677,116	6,254,286	70	406,190	3,751,781	1,348	\$528,843	0.89	0.59	0.178
Other Agricultural	190	615,194	9,227,905	77	287,975	4,319,618	1,753	\$151,787	3.33	3.33	0.047
Other Commercial	90	2,405,625	36,042,878	49	1,322,956	19,822,893	6,817	\$723,629	3.13	3.28	0.049
Other Industrial	41	502,471	7,537,071	23	276,359	4,145,389	1,466	\$130,215	3.65	3.65	0.042
Residential	74	396,943	5,973,377	44	244,171	3,735,044	1,435	\$347,044	1.93	1.95	0.127
Residential - Multi-Family	4	36,182	363,054	3	21,709	217,832	75	\$74,590	0.34	0.28	0.414
Residential - Single-Family	206	238,096	2,041,505	119	131,430	1,187,820	388	\$92,895	1.32	0.84	0.097
Restaurant - Fast-Food	1	15,447	154,536	1	9,268	92,721	32	\$4,602	2.22	3.18	0.063
Restaurant - Sit-Down	0	1,056	15,840	0	634	9,504	3	\$258	4.00	4.00	0.036
Storage - Conditioned	17	282,240	1,411,200	10	169,344	846,720	306	\$22,185	4.41	4.41	0.029
Energy Efficiency	1,033	5,669,573	76,507,473	572	3,165,110	42,554,509	15,148	\$2,356,980	2.18	2.00	0.073
EE, Low Income and Electrification	1,148	5,885,250	79,262,353	670	3,348,436	44,896,157	15,991	\$2,600,076	2.08	1.88	0.076
<b>C&amp;S and T&amp;D</b>											
Utility Total	1,148	5,885,250	79,262,353	670	3,348,436	44,896,157	15,991	\$2,600,076	2.08	1.88	0.076

**City of Ukiah at a Glance**

- Climate Zone: 2
- Customers: 7,902
- Total annual retail sales: 100,526 MWh
- Annual Retail Revenue: \$27,910,354
- Annual energy efficiency expenditures for reporting year: \$162,515
- Gross annual savings from reporting year portfolio: 118 MWh



**City of Ukiah Overview**

The City of Ukiah (the City) is in Mendocino County on Highway 101 approximately 100 miles north of San Francisco. The City is committed to helping customers manage energy use through energy education and a comprehensive menu of energy efficiency incentives. The City also provides funding to assist income-qualified customers.

**Major Program and Portfolio Changes**

There were no major program changes in FY25. The City started a Low-Income Direct Install (DI) Program in FY23 and a Commercial Lighting Do It Yourself (DIY) program began in FY25. The City also began incentivizing induction cooktops and ranges in FY24. The rebate program for

replacing gas-powered outdoor yard equipment with fully electric equipment came to an end in FY25.

### **Program and Portfolio Highlights**

The combined savings from the Commercial DIY and Residential DI Programs delivered the greatest percentage of savings in FY25, accounting for 78% of the total savings. The City achieved 22% of the target energy savings over the past five reporting years.

### **Commercial, Industrial & Agricultural Programs**

The City provides comprehensive energy efficiency incentive program offerings for commercial and industrial customers focusing on energy efficiency and peak load reduction. Rebates are available for upgraded lighting, HVAC, appliances, refrigeration equipment, and electronics, and in cases where an analysis is performed rebates can be offered for additional equipment that reduces energy use and demand. Energy specialists provide on-site energy audits. Energy efficiency measures are recommended, and additional visits are completed upon request.

- Non-Res Lighting: The City offers rebates to business owners who invest in the installation of energy-efficient lighting upgrades. There is a prevalence of inefficient lighting throughout the city instead of more efficient fluorescent or LED fixtures.
- Non-Res HVAC: The City offers rebates to commercial customers for energy-efficient HVAC upgrades.
- Non-Res Refrigeration: Rebates are available to improve the efficiency of commercial refrigeration systems.
- Non-Res Appliances: Rebates are available for energy-efficient cooking equipment such as ovens, dishwashers, fryers, griddles, etc.
- Non-Res Electronics: The City offers rebates for uninterrupted power supplies, plug-load occupancy sensors, and smart power strips.
- Non-Res Custom: The City offers rebates to business owners based on site-specific consumption. Rebates are tailored to the individual business owner's needs based on the audit and the potential energy savings associated with the customer project.

### **Residential Programs**

The City provides comprehensive energy efficiency incentive program offerings for residential customers. Rebates are offered for the installation of various energy efficiency measures, such as lighting, HVAC, appliances, and weatherization. Energy specialists provide on-site energy

audits. Energy efficiency measures are recommended, and additional visits are completed upon request.

- Residential Lighting: The City offers rebates to homeowners who install ENERGY STAR® qualified LED lamps/bulbs, ceiling fans, and LED holiday lights.
- Residential HVAC: The City offers rebates to homeowners who install high-performance heat pumps and air-conditioners that exceed current state requirements. The City also offers a rebate for duct sealing when not required by code.
- Residential Equipment: The City offers rebates to homeowners who purchase new ENERGY STAR-certified products, including clothes washers, induction cooktops and ranges, dishwashers, pool pumps, refrigerators, and advanced power strips. Rebates are also available for refrigerator and freezer recycling.
- Residential Weatherization: The City offers rebates to homeowners who invest in weatherizing their homes, including attic and wall insulation, window treatments/replacement, solar attic fans, and air sealing.
- Residential Water Heater Rebate: The City offers rebates to homeowners who purchase a new, energy-efficient electric water heater.

#### **Complementary Programs**

- Low-Income Programs: The City offers a low-income bill assistance program to eligible customers.
- Renewable Energy Program: The City offers net metering agreements to customers wishing to install Solar PV.
- Electric Yard Equipment rebates were offered in FY25 for replacing gas powered items with fully electric equipment, but the program has since ended.
- Electric Vehicles: In addition to the 8 Tesla Fast Charging stations, the Electric Utility has installed four Level II chargers in the downtown area and is reviewing additional locations throughout the City. The City has also received approval to offer a rebate for installation of a Level 2 EV charger in customer homes and up to \$4,000 for public or workplace Level 2 chargers.

#### **Evaluation, Measurement & Verification Studies**

EM&V information for the City can be found at [www.cmua.org](http://www.cmua.org).

**Major Differences or Diversions from CA POU TRM for Energy Savings**

The City has relied heavily on the unit energy savings listed in the California Municipal Utility Association's Technical Resource Manual, and the investor-owned eTRM. The Commercial Lighting and Commercial Custom programs use custom savings calculations.

**TABLE Ukiah-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Appliance & Plug Loads	0	2,152	12,503	0	1,935	10,464	4	\$5,090	0.30	0.22	0.540
Building Envelope	1	20,413	406,479	0	8,669	171,670	37	\$17,221	0.33	0.26	0.147
HVAC - Cooling	0	1,177	10,835	0	702	6,463	2	\$1,340	0.56	0.54	0.247
HVAC - Heat Pump	4	16,744	251,153	2	10,381	155,715	67	\$32,805	0.88	0.64	0.282
Lighting - Indoor	18	65,160	747,347	15	54,704	623,006	215	\$83,631	0.77	0.77	0.167
Lighting - Outdoor	3	12,017	140,502	2	9,489	110,681	49	\$15,729	0.87	0.69	0.178
Service & Domestic Hot Water	0	336	3,355	0	101	1,007	0	\$119	1.10	1.10	0.142
Energy Efficiency	26	117,999	1,572,174	20	85,980	1,079,006	374	\$155,934	0.74	0.64	0.186
Any	0	424	6,784	0	424	6,784	3	\$6,581	0.13	0.07	1.322
Electrification	0	424	6,784	0	424	6,784	3	\$6,581	0.13	0.07	1.322
EE, Low Income and Electrification	26	118,423	1,578,958	20	86,404	1,085,790	377	\$162,515	0.71	0.61	0.193
<b>C&amp;S and T&amp;D</b>											
Utility Total	26	118,423	1,578,958	20	86,404	1,085,790	377	\$162,515	0.71	0.61	0.193

**TABLE Ukiah-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	15	55,920	671,046	12	44,736	536,836	190	\$76,161	0.70	0.67	0.179
Residential	11	62,079	901,128	8	41,244	542,170	184	\$79,772	0.77	0.63	0.194
Energy Efficiency	26	117,999	1,572,174	20	85,980	1,079,006	374	\$155,934	0.74	0.64	0.186
Any	0	424	6,784	0	424	6,784	3	\$6,581	0.13	0.07	1.322
Electrification	0	424	6,784	0	424	6,784	3	\$6,581	0.13	0.07	1.322
EE, Low Income and Electrification	26	118,423	1,578,958	20	86,404	1,085,790	377	\$162,515	0.71	0.61	0.193
C&S and T&D											
Utility Total	26	118,423	1,578,958	20	86,404	1,085,790	377	\$162,515	0.71	0.61	0.193

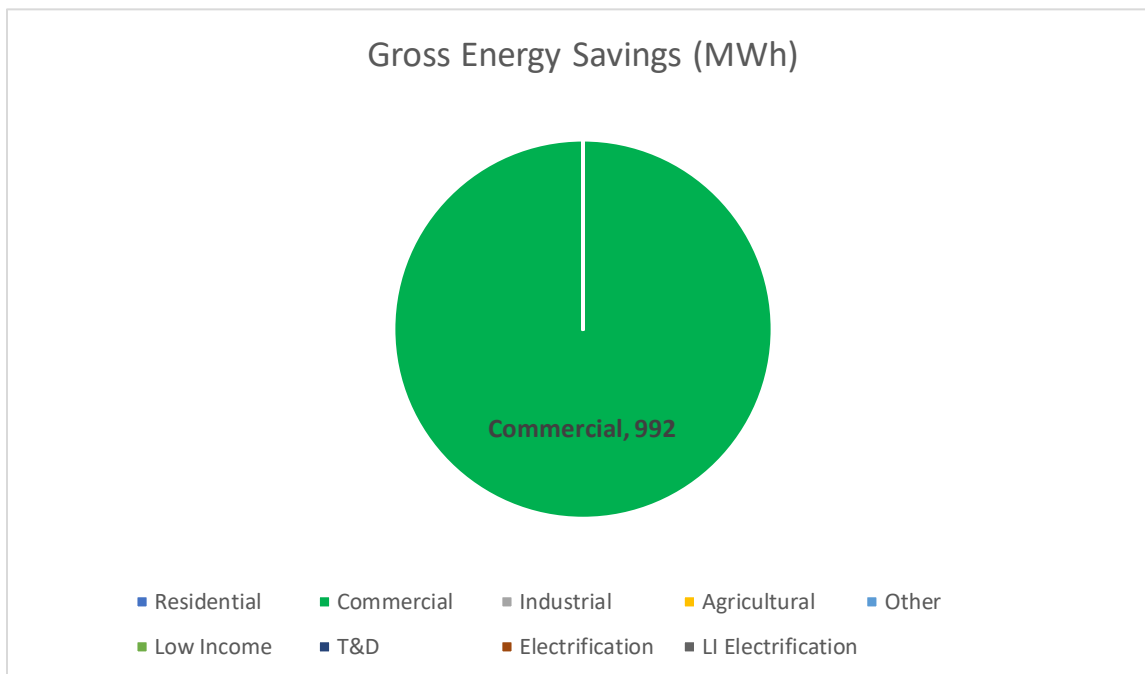
**TABLE Ukiah-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Any	2	462	2,310	1	249	1,247	0	\$1,693	0.07	0.07	1.479
Multiple	9	60,205	877,902	7	40,241	529,745	180	\$67,210	0.90	0.71	0.167
Other Commercial	15	54,411	652,930	12	43,529	522,344	183	\$74,608	0.69	0.69	0.180
Residential	0	1,412	20,916	0	753	11,177	4	\$10,869	0.11	0.10	1.297
Retail - Large	0	1,510	18,115	0	1,208	14,492	7	\$1,554	1.20	0.36	0.135
Energy Efficiency	26	117,999	1,572,174	20	85,980	1,079,006	374	\$155,934	0.74	0.64	0.186
Any	0	424	6,784	0	424	6,784	3	\$6,581	0.13	0.07	1.322
Electrification	0	424	6,784	0	424	6,784	3	\$6,581	0.13	0.07	1.322
EE, Low Income and Electrification	26	118,423	1,578,958	20	86,404	1,085,790	377	\$162,515	0.71	0.61	0.193
C&S and T&D											
Utility Total	26	118,423	1,578,958	20	86,404	1,085,790	377	\$162,515	0.71	0.61	0.193

## VERNON PUBLIC UTILITIES

### *Vernon Public Utilities at a Glance*

- Climate Zone: 8
- Customers: 1,711
- Total annual retail sales: 1,029,262 MWh
- Annual Retail Revenue: \$173,077,289
- Annual energy efficiency expenditures for reporting year: \$171,615
- Gross annual savings from reporting year portfolio: 992 MWh



### *Vernon Public Utilities Overview*

The City of Vernon, located in climate zone 8, is 5.2 square miles and located southeast of Downtown Los Angeles. Founded in 1905, Vernon currently houses more than 1,800 businesses that employ approximately 50,000 people, serving as a vital economic engine in the region. Vernon is home to various businesses that specialize in food and agriculture, apparel, steel, plastics, logistics, information technology and home furnishings.

Vernon Public Utilities (VPU) is an essential resource for the City's ever-growing and evolving business community. As such, the current and future energy efficiency portfolio of VPU is designed to align with the utility's goal of serving its predominantly commercial and industrial customer base with reliable and cost competitive utility rates.

### **Major Program and Portfolio Changes**

For FY25, VPU continued to educate its business community on the importance of efficiency through its no-cost energy audit services and energy efficiency incentive programs. Over the years, businesses have successfully leveraged VPU's programs and services to identify various efficiency opportunities that are eligible for utility incentives. The energy efficiency projects include, but are not limited to, refrigeration control upgrades and large-scale LED lighting retrofits. VPU remains a key partner in the energy efficiency journey as customers continue to identify options to lower operating costs.

With a customer base that is comprised mainly of large commercial and industrial customers, one of the ongoing challenges faced by VPU is the limited types of efficiency measures and projects can be implemented by the customer each year, which directly impacts the utility's ability to meet annual efficiency targets. Any complex energy efficiency project implemented by a business requires proper financial planning, corporate approval for the allocation of funds, and proactive budgeting for capital improvements. Depending on the business needs at a given time, implementation of energy efficiency projects may or may not be a priority.

### **Program and Portfolio Highlights**

For FY25 portfolio highlights, VPU customers in various business sectors explored different equipment upgrades that helped them use energy more efficiently. A cold storage warehouse facility completed its refrigeration system upgrade while a packaging company added insulation to its plastic extrusion machines. In addition, LED lighting retrofits also contributed to a portion of the energy savings through VPU's custom and deemed incentive programs. Several warehouse facilities took part in LED lighting upgrades throughout FY25, given that customers with 24/7 operations and large warehouses can see significant savings by upgrading from non-LED to LED lighting technology.

The utility's longstanding Custom Incentive Program continues to lead the way in providing incentives for any commercial electric customer that implements efficiency upgrades that produces above code savings.

To help support these complex energy efficiency projects, VPU worked with a third-party engineering consultant to conduct evaluation, measurement and verification studies to confirm the validity of the savings generated.

### **Commercial, Industrial & Agricultural Programs**

VPU's Commercial and Industrial programs are comprised of the following:

- Custom Incentive Program (CIP): The CIP provides incentives for the implementation of energy efficient technologies and equipment, such as LED lighting, variable speed drives, air compressors, motors, refrigeration controls, and air conditioning upgrades.

- **Energy Audit Program:** As part of this program, VPU provides no-cost on-site energy audits for commercial and industrial businesses. The comprehensive energy audit includes a detailed billing analysis of energy usage and costs, identification of energy efficiency measures, recommended actions and referral to VPU's incentive programs.
- **Customer Directed Program (CDP):** The CDP provides incentives for custom projects that demonstrate energy savings. Customers are required to contribute a portion of the total project cost and are only eligible if the proposed energy efficiency project does not qualify for any of the other programs.
- **Commercial Energy Rebate Program (CERP):** The CERP is a deemed energy efficiency offering that provides rebates to businesses that install eligible measures to include LED Lighting, HVAC, Heat Pumps and restaurant equipment.
- **Commercial EV Charger Incentive Program (CEVSE):** VPU commercial electric customers are eligible to receive a rebate (per port), for the installation of qualifying Level 2 EV Chargers and Level 3 Direct Current (DC) Fast Chargers.
- **Commercial Electric Forklift Incentive Program (CEF):** VPU commercial electric customers are eligible to receive a rebate towards the lease or purchase of a qualifying electric forklift.

### **Residential Programs**

VPU's Residential programs are comprised of the following:

- **Residential Electric Vehicle (EV) Rebate Program:** VPU's residential electric customers are eligible to receive incentives for the purchase or lease of a qualifying, new or used EV.
- **Residential Electric Vehicle (EV) Charger Rebate Program:** VPU's residential electric customers are eligible to receive incentives for the installation of a qualifying, smart Level 2 EV Charger.

### **Complementary Programs**

VPU's complementary programs and services are comprised of the following:

- **Energy Education and Outreach Services:** VPU hosts meetings on a regular basis to provide businesses with an update of the utility's latest offerings, which encompasses energy efficiency programs. In addition, VPU also has a dedicated newsletter, and bill

inserts that goes out to utility customers to increase overall awareness on various initiatives that are spearheaded by different city departments.

- Time-of-Use (TOU) Rate Plans: VPU customers that meet the electrical demand threshold are eligible to enroll in TOU rate plans that help businesses manage energy costs by taking advantage of lower rates during off-peak periods and avoided higher on-peak rates when energy resources are in demand.

### **Evaluation, Measurement & Verification Studies**

For FY25, energy, measurement & verification (EM&V) studies were conducted for a cold storage warehouse facility and a packaging company. The cold storage warehouse facility replaced its existing refrigeration system while the packaging company added insulation to several plastic extrusion machines. VPU plans to continue to leverage third party engineering consultants to conduct EM&V studies for complex energy efficiency projects implemented by its large commercial and industrial customer base.

### **Major Differences or Diversions from CA POU TRM for Energy Savings**

Due to Vernon's unique customer base that is comprised of almost all industrial and large commercial customers, VPU relies on customized energy savings calculations that are derived from an independent, third-party engineering analysis. The engineering analysis may reference CA investor-owned utility work papers or other reputable industry sources where appropriate. VPU may also utilize the California Technical Forum, E-Technical Reference Manual ("CalTF eTRM") for energy savings on certain deemed measures when the opportunity arises.

**TABLE VPU-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial Refrigeration	0	807,339	11,824,221	0	807,339	11,824,221	4,138	\$144,135	7.84	0.17	0.017
Lighting - Indoor	35	87,132	579,098	35	87,132	579,098	189	\$9,371	5.55	1.76	0.019
Process	0	97,093	1,419,505	0	97,093	1,419,505	481	\$18,109	7.18	1.68	0.018
Energy Efficiency	35	991,564	13,822,824	35	991,564	13,822,824	4,809	\$171,615	7.65	0.20	0.017
EE, Low Income and Electrification	35	991,564	13,822,824	35	991,564	13,822,824	4,809	\$171,615	7.65	0.20	0.017
<b>C&amp;S and T&amp;D</b>											
Utility Total	35	991,564	13,822,824	35	991,564	13,822,824	4,809	\$171,615	7.65	0.20	0.017

**TABLE VPU-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Commercial	35	991,564	13,822,824	35	991,564	13,822,824	4,809	\$171,615	7.65	0.20	0.017
Energy Efficiency	35	991,564	13,822,824	35	991,564	13,822,824	4,809	\$171,615	7.65	0.20	0.017
EE, Low Income and Electrification	35	991,564	13,822,824	35	991,564	13,822,824	4,809	\$171,615	7.65	0.20	0.017
<b>C&amp;S and T&amp;D</b>											
Utility Total	35	991,564	13,822,824	35	991,564	13,822,824	4,809	\$171,615	7.65	0.20	0.017

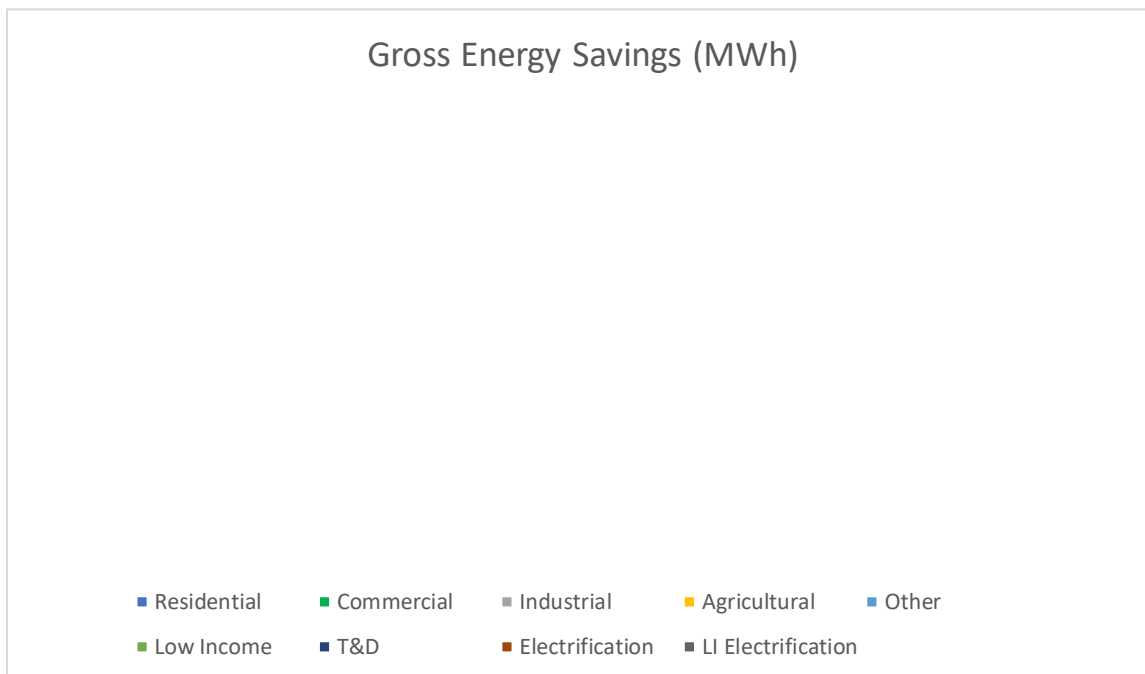
**TABLE VPU-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Manufacturing Light Industrial	0	97,093	1,419,505	0	97,093	1,419,505	481	\$18,109	7.18	1.68	0.018
Other Commercial	35	87,132	579,098	35	87,132	579,098	189	\$9,371	5.55	1.76	0.019
Warehouse - Refrigerated	0	807,339	11,824,221	0	807,339	11,824,221	4,138	\$144,135	7.84	0.17	0.017
Energy Efficiency	35	991,564	13,822,824	35	991,564	13,822,824	4,809	\$171,615	7.65	0.20	0.017
EE, Low Income and Electrification	35	991,564	13,822,824	35	991,564	13,822,824	4,809	\$171,615	7.65	0.20	0.017
<b>C&amp;S and T&amp;D</b>											
Utility Total	35	991,564	13,822,824	35	991,564	13,822,824	4,809	\$171,615	7.65	0.20	0.017

## VICTORVILLE MUNICIPAL UTILITIES SERVICES

### *Victorville Municipal Utilities Services at a Glance*

- Climate Zone: 14
- Customers: 92
- Total annual retail sales: 106,700 MWh
- Annual Retail Revenue: \$21,423,000
- Annual energy efficiency expenditures for reporting year: \$0
- Gross annual savings from reporting year portfolio: 0 MWh



### *Victorville Municipal Utilities Services Overview*

- Victorville Municipal Utilities Services (VMUS) was established in 2001 to provide safe, reliable, and cost-effective service to retail customers who build new facilities located in the designated service territory.
- VMUS only provides service to non-residential customers.
- All customers' facilities meet or exceed the applicable Title 24 requirements, which reduces the opportunity for energy savings.

- Customers are served through 12 kV underground facilities with larger gauge ASCR conductors to improve system reliability and reduce system losses.
- VMUS evaluates circuit load performance to optimize performance and reduce system losses.
- VMUS purchases and installs energy efficient transformers to reduce system losses.
- The system load factor is 68.5%.
- Customers reside in climate zone 14.
- Peak demand was 20.4 megawatts.
- Annual budget for energy efficiency is \$200,000; and no energy efficiency expenditures were incurred in the reporting year.

#### **Major Program and Portfolio Changes**

There were no changes to the energy efficiency programs.

#### **Program and Portfolio Highlights**

- Time-of-use meters and customers' access to their daily usage on the web portal provide the data to assess the cost of their energy usage and demand requirements.
- Cost-effective, reliable, and feasible energy efficiency improvements are a priority in the VMUS' integrated resource plan.
- VMUS serves municipal facilities that can be interrupted as scheduled.
- No energy efficiency rebates were issued in the reporting year.

#### **Commercial, Industrial & Agricultural Programs**

- Audits – Industrial – Non-Res Audits: On-site energy assessment and recommendations designed to potentially improve energy operating efficiency and reduce load requirements.
- Lighting – Industrial – Non-Res Lighting: Financial incentives to improve energy efficiency for lighting applications, based on rate of \$0.15/kWh for one year of energy savings and \$150/kW for each kW that has been reduced. The EE Program payment

shall not exceed 50% of the lighting material cost (including installation) or \$50,000 per fiscal year, whichever is lower.

- **New Construction Projects – Industrial – Non-Res Construction Projects:** Financial incentives for new equipment components that exceed state-mandated codes, federal-mandated codes, industry-accepted performance standards, or other baseline energy performance standards by more than 10%. Financial incentive payment is based on a rate of \$0.15/kWh for each kWh that has been reduced, \$150/kW for each kW that has been reduced, and \$2/therm for each therm that has been reduced (whole building approach) for one year of energy savings between the baseline energy performance standards and the proposed energy performance standards for a whole building approach. Financial incentive payment shall not exceed 50% of the cost difference between standard and upgraded equipment and/or materials, or \$100,000, whichever is lower.
- **Custom Energy Efficiency Incentives:** Financial incentives payment for the replacement of energy efficient equipment/technology that conserves energy and permanently reduces coincident summer/winter on-peak load and exceeds state-mandated codes, federal-mandated codes, industry accepted performance standards or other baseline energy performance standards. Financial incentive payment is based on a rate of \$0.15/kWh or \$2/therm for one year of energy savings and \$150/kW for each kW that has been reduced and shall not exceed 50% of the total cost associated with the equipment/materials (including installation) or \$50,000 per fiscal year, whichever is lower.
- **City Facilities:** City owned facilities that are served by VMUS are qualified to participate in any of the energy efficiency programs herein. Qualifying city facilities served by VMUS could take advantage of our direct install program or custom incentives. The level of incentives or direct install budget will be determined by VMUS on a case-by-case basis.
- **Utility-Side Projects/Activities:** Direct funding for projects/activities on the utility side of the meter that promote a benefit to VMUS customers in terms of improved safety, system integrity, energy efficiency, conservation, or Research and Development (R&D). Projects must be authorized by the City Council as part of the annual operating budget or through a subsequent request in a public meeting.

### **Residential Programs**

VMUS only provides service to non-residential customers.

### **Complementary Programs**

- Energy Storage: Achieved commercial operation for a long-term photovoltaic generating facility power purchase agreement coupled with an 8 MW battery energy storage system.

### **Evaluation, Measurement & Verification Studies**

- Engineering analysis programs are the basis for energy savings and incentive calculations. The Energy Efficiency Technical Reference Manual provides energy savings estimates for VMUS programs.

**TABLE VMUS-1. Energy Efficiency Program Results by End Use**

Summary by End Use	Resource Savings Summary								Cost Test Results		
End Use	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Lighting - Indoor	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$0			0.000

**TABLE VMUS-2. Energy Efficiency Program Results by Sector**

Summary by Sector	Resource Savings Summary								Cost Test Results		
Sector	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Industrial	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$0			0.000

**TABLE VMUS-3. Energy Efficiency Program Results by Building Type**

Summary by Building Type	Resource Savings Summary								Cost Test Results		
Building Type	Gross Peak Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifecycle Energy Savings (kWh)	Net Peak Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifecycle Energy Savings (kWh)	Net Lifecycle GHG Reductions (Tons)	Total Utility Cost	PAC	TRC	Utility (\$/kWh)
Manufacturing Light Industrial	0	0	0	0	0	0	0	\$0			0.000
Energy Efficiency	0	0	0	0	0	0	0	\$0			0.000
EE, Low Income and Electrification	0	0	0	0	0	0	0	\$0			0.000
C&S and T&D											
Utility Total	0	0	0	0	0	0	0	\$0			0.000

# Appendix B

ESPLabs™

## Calculation Reference

## Cost Benefit Calculations

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The Cost/Benefit calculations in ESP are based on the Cost/Benefit tests described in the California Standard Practice Manual. ESP calculates all the tests described in that manual. The following describes the process used to calculate these and the other results in ESP.

### Load Shape Assignment

The default Load Shape for a Measure is determined using a process that involves multiple fields in the Measure:

- Current version of the Load Shape
- Load Shape is either local to the organization or “Shared”
- The following attributes of the Load Shape match the same attribute of the Measure:
  - Climate Zone, or “All”
  - Building Type, or “All”
  - End Use
  - Sector, or “All”
- If an IOU is defined for the Load Shape, then the IOU for the Load Shape must match the IOU for the organization
  - If no IOU is defined for the Load Shape, the Load Shape is available to all Measures

If more than one Load Shape matches the above criteria, ESP uses the following additional process to determine the Load Shape for the Measure:

- ESP gives precedence to the following:
  - Load Shapes local to your organization (as opposed to shared Load Shapes)
  - Specific Building Type over “All”
  - Specific Sector over “Non-Residential” or “All”
  - Specific Climate Zone over “All”

### Dual Baseline Savings, Cost, and Measure Life

The calculations for Gross Savings, Cost, and Measure Life in ESP depend on the selection of Measure Application Type and Delivery Type in the Applied Measure Editor.

Applied Measure Editor

Select a Measure Details

Measure is selected

Measure Name: Ductless mini-split air condition

Unit Type: Tons

Number of Units: 3

Variable Overhead Cost per Unit: \$0.00

Incentives Paid by Utility: \$450.00

Incentives Received by Customer: \$450.00

Measure Type: Energy Efficiency

Measure Type Override: < No selection >

Exclude from Cost Allocation:

NTG Percentage: 80.00 %

NTG Percentage Override:

Measure Application Type: Replace on Burnout

DeliveryType: Any

Measure Life: 15.00

Remaining Useful Life: 0.00

Remaining Useful Life Override:

End Use: HVAC - Cooling

Building Type: Residential

Climate Zone: 3


Is Latest Version:

Is Retired:

Load Shapes

Electric - Residential - SINGLE FAMILY T

Previous Next Save Save and Close Close

 **Note:** Non-zero Values for both Code Baseline and Existing Baseline are required for the Measure to support Dual Baseline calculations.

Each Measure contains the following fields used to calculate the Baseline values:

Measure Editor

Name: -Install Program FY20 - Interior

Owner: Alameda, City of

Version Notes:

Climate Zone: 3

End Use: Lighting - Indoor

Sector: Commercial

Building Type: All

Measure Type: Energy Efficiency

Normalized Unit: Program

Effective Useful Life: 12

Remaining Useful Life: 5

Gross Savings Installation Adjustment: 100.00 %

Net To Gross Percentage: 80.00 %

Measure Cost: 74522.57

Code Baseline		Existing Baseline	
Base Case Cost	0	Base Case Cost	
Electric Savings (kWh)	147679	Electric Savings (kWh)	147679
Peak Load Savings (kW)	33.76	Peak Load Savings (kW)	33.76
Gas Savings (Therms)	0.0	Gas Savings (Therms)	0.0
Water Savings (CCF)	0	Water Savings (CCF)	0

Details Save Cancel

ESP calculates the actual 1<sup>st</sup> and 2<sup>nd</sup> Baseline values used in the calculations from these fields. The derivation of 1<sup>st</sup> and 2<sup>nd</sup> Baseline values depends on the Delivery Type and Measure Application Type selected in the Applied Measure.

Each Delivery Type selected in the Applied Measure belongs to either Group 1 or Group 2:

ESP Name	eTRM Name	Group
Upstream Prescriptive Rebate	PreRebUp	Group 1
Downstream Prescriptive Rebate	PreRebDown	Group 1
Non-upstream	NonUpStrm	Group 1
Building Design Incentive	BldgDesInc	Group 1
Custom Incentive	CustIncent	Group 1
Downstream Custom Incentive	CustIncentDown	Group 1
On-line Audit	OnLineAudit	Group 1
On-site Audit	OnSiteAudit	Group 1
Prescriptive Rebate	PreReb	Group 1
Any	Any	Group 1
Direct Install	DirInstall	Group 2
Direct Install Prescriptive Rebate	PreRebDI	Group 2

Based on the following Delivery Type “Group” and the selected Measure Application Type, the following describes the first and second baseline savings, cost, and years for single and dual baseline.

Delivery Type	Measure Application Type	1 <sup>st</sup> Baseline	2 <sup>nd</sup> Baseline	1 <sup>st</sup> Baseline Costs	2 <sup>nd</sup> Baseline Costs	1 <sup>st</sup> Baseline Years	2 <sup>nd</sup> Baseline Years
Group 1	Early retirement	Existing	Code	MC	MC – BC	RUL	EUL – RUL
	Replace on Burnout	Code	n/a	MC – BC	n/a	EUL	n/a
	New Construction	Code	n/a	MC – BC	n/a	EUL	n/a
	Retro-Commissioning	Existing	n/a	MC	n/a	EUL	n/a
	Retrofit	Existing	Code	MC	MC – BC	RUL	EUL – RUL
	Retrofit Add-on	Existing	n/a	MC	n/a	EUL	n/a
Group 2	Early retirement	Existing	Code	MC	MC – BC	RUL	EUL – RUL
	Replace on Burnout	Existing	n/a	MC	n/a	EUL	n/a
	New Construction	Existing	n/a	MC	n/a	EUL	n/a
	Retro-Commissioning	Existing	n/a	MC	n/a	EUL	n/a
	Retrofit	Existing	Code	MC	MC – BC	RUL	EUL – RUL
	Retrofit Add-on	Existing	n/a	MC	n/a	EUL	n/a

MC = Measure Costs

BC = Base Costs

RUL = Remaining Useful Life (years)

EUL = Estimated Useful Life (years)

If the Measure is dual Baseline, the cost/benefit calculation engine uses the first Baseline savings and costs for the first years of the Measure life, and the second Baseline savings and costs for the remaining years.

### Total Cost Column

The Total Cost Column for Programs is a total of the Incremental Costs for each Applied Measure in the Program. The Increment Costs are calculated based on the Baseline Costs for the Applied Measure as described in the table above. This cost is a per unit cost and is not multiplied by the Number of Units.

## Gross Savings, Adjusted Gross Savings, and Net Savings

ESP calculates 1<sup>st</sup> and 2<sup>nd</sup> Baseline Gross Savings values based on the Measure Application Type and Delivery Type (see table above).

Fields are available for the Measure for Gross Savings Installation Adjustment (GSIA) and Net to Gross Percentage in the Measure Editor.

The screenshot shows the 'Measure Editor' interface. It contains several input fields for configuring a measure. The fields are as follows:

Name	-Install Program FY20 - Interior
Owner	Alameda, City of
Version Notes	
Climate Zone	3
End Use	Lighting - Indoor
Sector	Commercial
Building Type	All
Measure Type	Energy Efficiency
Normalized Unit	Program
Effective Useful Life	12
Remaining Useful Life	5
Gross Savings Installation Adjustment	100.00 %
Net To Gross Percentage	80.00 %
Measure Cost	14922.37

Code Baseline		Existing Baseline	
Base Case Cost	0	Base Case Cost	
Electric Savings (kWh)	147679	Electric Savings (kWh)	147679
Peak Load Savings (kW)	33.76	Peak Load Savings (kW)	33.76
Gas Savings (Therms)	0.0	Gas Savings (Therms)	0.0
Water Savings (CCF)	0	Water Savings (CCF)	0

At the bottom right of the form, there are three buttons: 'Details', 'Save', and 'Cancel'.

GSIA is a factor typically used to account for the following impacts:

- In-Service Rate – number of actual units installed
- Realization Rate – differences between actual and Measure savings based on impact evaluation studies

### Adjusted Gross Savings

The value for Adjusted Gross Savings is determined by the following formula:

---

$$\text{Adjusted Gross Savings} = \text{Gross Savings} * \text{GSIA}$$

---

The cost/benefit calculations use Adjusted Gross Savings to derive participant avoided costs.

#### *Net Savings*

The value for Net Savings is determined by the following formula:

---

$$\text{Net Savings} = \text{Adjusted Gross Savings} * \text{Net to Gross Percentage}$$

---

The cost/benefit calculations use Net Savings to derive utility avoided costs.

### **Annual Data Calculations**

Cost/benefit calculations for full calendar years and are in U.S. dollars. For each hour of each year for the lifetime of the measure, ESP calculations the savings benefit using the following formulas.

#### *Adjusted Gross Savings Benefit*

1. Multiply annual Adjusted Gross Savings (unit = kWh, kW, etc.) by the Load Shape value which results in the Adjusted Gross savings for the hour.

---

$$\text{Annual Savings (unit)} * 8760 \text{ Fraction (unit)} = \text{Hourly Savings (unit)}$$

---

2. Multiply the hourly Adjusted Gross Savings by the hourly Retail Rate to get the Adjusted Gross hourly benefit.

---

$$\text{Hourly Savings (unit)} * \text{Retail Rate (\$/unit)} = \text{Hourly Benefits (\$)}$$

---

3. Add up the Adjusted Gross hourly benefits for a year to get annual Adjusted Gross Benefit (\$).

#### *Net Savings Benefit*

1. Multiply the annual Net savings by the Load Shape hourly value, which results in the Net savings for that hour.

---

$$\text{Annual Savings (unit)} * 8760 \text{ Fraction (unit)} = \text{Hourly Savings (unit)}$$

---

2. Multiply the hourly Net savings by the hourly Avoided Cost rate to get the Net hourly benefit (\$).

---

$$\text{Hourly Savings(unit)} * \text{Avoided Cost Rate(\$/unit)} = \text{Hourly Benefit (\$)}$$

---

ESP treats each type of savings this way; Adjusted Gross Savings, Net Savings, Gas Savings, and Water Savings to get annual dollar benefit values.

Cost values in ESP are already annual dollar values and thus do not require 8760 hourly data or a rate for conversion.

In ESP, Retail Rate and Avoided Cost Rates in ESP are multi-year hourly values. As a result, each year of the calculation uses different hourly values throughout the measure lifetime.

In ESP, each Load Shape resource contains one year of hourly data. As a result, each year of the calculation uses the same values for each year in the Measure lifetime.

## Cost Allocation

ESP allocates Portfolio and Program costs down to the Applied Measure level according to the following rules. This allows the grouping of Applied Measures and their associated cost/benefit values in different ways for analysis.

- Allocates Portfolio overhead costs to each Applied Measure in the Portfolio in proportion to the Net Savings of the measure.
- Allocates Program overhead costs to each Applied Measure in the Program in proportion to the Net Savings of each measure.
- Allocates Sector overhead costs to each Applied Measure according to the Measure Sector setting, in proportion to the Net Savings of each measure.

Applied Measures have an option setting that prevents the allocation of any overhead costs to that Applied Measure.

Applied Measure Editor

Select a Measure Details

Measure is selected

Measure Name: Ductless mini-split air condition

Unit Type: Tons

Number of Units: 3

Variable Overhead Cost per Unit: \$0.00

Incentives Paid by Utility: \$450.00

Incentives Received by Customer: \$450.00

Measure Type: Energy Efficiency

Measure Type Override: < No selection >

**Exclude from Cost Allocation**

NTG Percentage: 80.00 %

NTG Percentage Override:

Measure Application Type: Replace on Burnout

DeliveryType: Any

Measure Life: 15.00

Remaining Useful Life: 0.00

Remaining Useful Life Override:

End Use: HVAC - Cooling

Building Type: Residential

Climate Zone: 3

Is Latest Version:

Is Retired:

Load Shapes

Electric - Residential - SINGLE FAMILY 1

Previous Next Save Save and Close Close

Cost Benefit calculations will not run if it cannot allocate a cost to any Applied Measures. For example, if you enter a cost in the Sector Overhead Residential field, but there are no Residential Measures to allocate the overhead costs, the cost benefit calculation will not run. This also applies to Portfolio Overhead and Program Overhead costs.

Costs are applied to Low Income Applied Measures just like any other Applied Measure even though they are presented separately from the main Portfolio in the results.

## Low-Income

Low income Applied Measures results are separate from the main Portfolio results. So are Transmission & Distribution, Codes & Standards, and Electrification Applied Measures.

Use the “Measure Type Override” option in the Applied Measure to set the Applied Measure as low income, even if its underlying Measure is not of type Low Income. This option also allows you to override the Measure Type with any of the other Measure Type options.

Applied Measure Editor

Select a Measure Details

Measure is selected

Measure Name: Ductless mini-split air condition

Unit Type: Tons

Number of Units: 3

Variable Overhead Cost per Unit: \$0.00

Incentives Paid by Utility: \$450.00

Incentives Received by Customer: \$450.00

Measure Type: Energy Efficiency

Measure Type Override: < No selection >

Exclude from Cost Allocation:

NTG Percentage: 80.00 %

NTG Percentage Override:

Measure Application Type: Replace on Burnout

DeliveryType: Any

Measure Life: 15.00

Remaining Useful Life: 0.00

Remaining Useful Life Override:

End Use: HVAC - Cooling

Building Type: Residential

Climate Zone: 3

Is Latest Version:

Is Retired:

Load Shapes: Electric Residential SIMI EEA.MIV.1

Previous Next Save Save and Close Close



**Note:**

Participant Test and Ratepayer Impact Measure Test are only run if a Retail Rate is selected for the Applied Measure.

## Cost Benefit Calculations

ESP supports the following cost/benefit tests:

- Participant Test
- Ratepayer Impact Measure Test (RIM)
- Total Resource Cost Test (TRC)
- Modified Resource Cost Test (MTRC)
- Societal Test
- Program Administrator Cost Test (PA)

ESP calculates the cost/benefit tests using elements that correspond to the specific costs and benefits in each of the tests. Each Element has an Element Type that describes it in the context of the California Standard Practice Manual.

Element Type	TRC	MTRC	PAC	RIM	PCT	SCT
BR_BillReductionsGross					Benefit	
EmissionsCostSavingsNet						Benefit
FR_FreeRiderCost	Cost					Cost
INC_IncentivesPaidByUtilityGross			Cost	Cost		
INC_IncentivesReceivedByCustomerGross					Benefit	
PC_ParticipantCostsGross					Cost	
PCN_ParticipantCostsNet	Cost	Cost				Cost
PRC_ProgramAdministratorCosts	Cost	Cost	Cost	Cost		Cost
RL_RevenueLossNet				Cost		

Element Type	TRC	MTRC	PAC	RIM	PCT	SCT
UAC_UtilityAvoidedCostsNet	Benefit	Benefit	Benefit	Benefit		Benefit

## Net Present Value Calculations

Formulas in the California Standard Practice Manual use a divisor of  $(1+d)^{t-1}$ , which equals 1 in the first year. In other words, the application of the discount rate should not happen in the first year. This is the implementation of the calculation in ESP.

**Important Note:** Many spreadsheet cost benefit calculations, including the original CMUA CET, use the Excel NPV function to calculate net present values. The NPV function in Microsoft Excel assumes that payments occur at the end of the term, which means the application of the discount rate is to first year costs and benefits. This approach is technically incorrect.