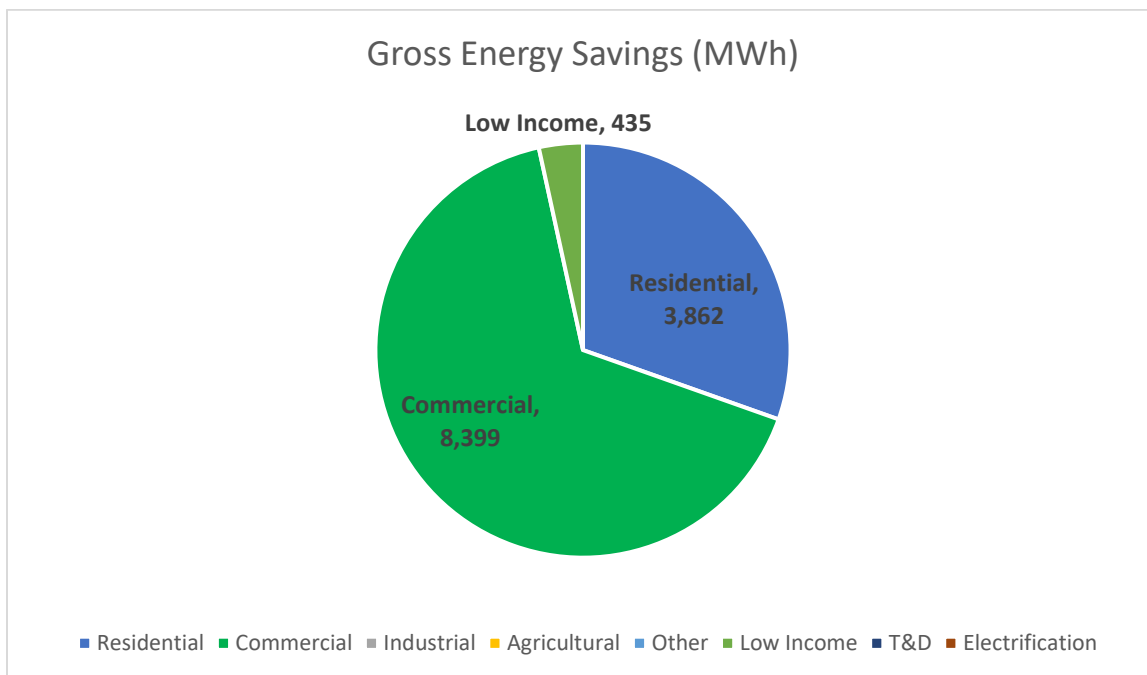


Riverside at a Glance

- Climate Zone(s): 10
- Customers: 113,082
- Total annual retail sales (MWh): 2,064,551
- Annual Retail Revenue: \$352,501,989
- Annual energy efficiency expenditures for reporting year: \$7,144,896
- Gross annual savings from reporting year portfolio (MWh): 12,696



Riverside Overview

Riverside Public Utilities (RPU) has been providing efficient, reliable water and electric services throughout the city since 1895. RPU is committed to providing the highest quality services at the lowest possible rates to benefit customers and the community.

RPU continues to help customers manage their energy use through a comprehensive range of education, rebates and incentives. In Fiscal Year (FY) 2024 RPU reached 57% of the kilowatt-hour (kWh) savings goal of 1% 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 for the benefit of its customers and the community. Staff regularly review the program portfolio and make changes to the rebates and incentives as needed. Since 2020, RPU has developed new and enhanced programs for both commercial and residential customers. This has led to an increase in program participation and resulted in increased energy savings being realized.

Throughout FY 2024, RPU enhanced the program offer via the Tree Power Program, Commercial Outdoor Lighting program, and the Small Business Direct install programs. Beginning FY 2024, RPU implemented some enhancements to the existing Energy Savings Assistance Program (ESAP) with Southern California Gas Co., expanding the program to include refrigerator replacement and whole house fans at no cost to qualifying customers.

Program and Portfolio Highlights

RPU has focused considerable attention on further developing commercial programs. Commercial customers represent almost 12% of the customer base, but account for approximately 65% of the City's load. In FY 2024 RPU entered a second 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.
- 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.
- LEED New Construction – Rebate for LEED certification for new buildings and major renovations.

- 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.
- Refrigerator 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 SCGC. Measures include lighting efficiency upgrades, HVAC tune-ups, smart power strips, and refrigerator recycling (low-income assistance, Res Lighting, Res Cooling, Res Refrigeration).
- 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.
- 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 free qualifying shade tree coupon printed on the March back of the 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

- SHARE – This low-income assistance program credits \$250 toward the electric deposit or as an emergency payment on delinquent balances and/ or assists with a \$16 monthly bill payment and beginning January 1st, 2024, the monthly credit was increased to \$20 to offset the rate increase for qualified low-income applicants annually
- Energy Savings Assistance Program (ESAP) - In partnership with SoCal Gas, ESAP is designed to help lower monthly bills to income-qualified renters and homeowners, making homes more energy efficient through professional no-cost energy-saving home improvements by RPU's authorized contractor Synergy. Participation of ESAP for FY 2024 was 367 with 4,874 different EE measures installed.
- Pool Pump Timer Credit Load Shift Program – This program offers a bill credit of \$5 per month for customers who agree to install and program their residential pool pump timer so that the pump operates only during off-peak hours.

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.
- An onsite inspection rate of a selection of randomly selected residential program participants, performed by RPU staff and contractors.
- A 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.

Major Differences or Diversions from CA POU TRM for Energy Savings

None Noted.

TABLE 1. EnergyEfficiency 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	2,070,068	20,700,684	0	2,070,068	20,700,684	6,916	\$335,406	7.03	9.56	0.020
Appliance & Plug Loads	241	874,538	5,224,956	229	829,256	4,948,015	1,818	\$248,920	2.44	8.24	0.057
Building Envelope	175	192,465	3,557,903	159	175,207	3,231,945	1,229	\$148,957	4.58	8.81	0.066
Commercial Refrigeration	0	116,984	1,359,252	0	116,984	1,359,252	485	\$159,873	0.94	9.56	0.148
HVAC - Cooling	2,311	4,306,156	95,791,775	1,942	3,330,556	71,801,263	26,292	\$2,198,098	5.91	8.42	0.047
Lighting - Indoor	2	415,233	4,177,098	2	415,233	4,177,098	1,395	\$89,599	5.30	9.56	0.026
Lighting - Outdoor	0	1,372,825	13,728,250	0	1,372,825	13,728,250	6,432	\$1,029,220	1.51	9.56	0.091
Miscellaneous	2	2,354,229	22,439,137	2	2,354,007	22,438,249	7,634	\$2,319,499	1.09	9.55	0.125
Service & Domestic Hot Water	0	5,956	60,628	0	5,658	57,597	20	\$2,067	2.85	8.56	0.044
Whole Building	0	552,494	8,287,410	0	552,494	8,287,410	2,936	\$163,096	5.68	9.56	0.026
Energy Efficiency	2,732	12,260,949	175,327,094	2,334	11,222,289	150,729,763	55,156	\$6,694,735	3.32	8.80	0.060
Appliance & Plug Loads		12,288	122,880		12,288	122,880	44	\$24,591	0.67	9.56	0.242
Building Envelope	0	62,355	1,247,100	0	62,355	1,247,100	472	\$146,321	1.96	9.56	0.173
HVAC - Cooling	0	186,806	2,493,777	0	186,806	2,493,777	949	\$209,927	2.14	9.56	0.110
Lighting - Indoor	0	173,153	2,597,295	0	173,153	2,597,295	981	\$69,322	4.22	9.56	0.036
Low-Income	0	434,602	6,461,052	0	434,602	6,461,052	2,446	\$450,161	2.32	9.56	0.094
EE, Low Income and Electrification	2,732	12,695,551	181,788,146	2,334	11,656,891	157,190,815	57,602	\$7,144,896	3.26	8.83	0.062
C&S and T&D								\$0			
Utility Total	2,732	12,695,551	181,788,146	2,334	11,656,891	157,190,815	57,602	\$7,144,896	3.26	8.83	0.062

TABLE 2. EnergyEfficiency 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	1,393	8,398,770	93,711,419	1,246	8,200,225	90,603,173	32,042	\$4,086,481	2.49	9.29	0.056
Residential	1,338	3,862,179	81,615,675	1,088	3,022,064	60,126,589	23,114	\$2,608,254	4.63	8.43	0.068
Energy Efficiency	2,732	12,260,949	175,327,094	2,334	11,222,289	150,729,763	55,156	\$6,694,735	3.32	8.80	0.060
Residential	0	434,602	6,461,052	0	434,602	6,461,052	2,446	\$450,161	2.32	9.56	0.094
Low-Income	0	434,602	6,461,052	0	434,602	6,461,052	2,446	\$450,161	2.32	9.56	0.094
EE, Low Income and Electrification	2,732	12,695,551	181,788,146	2,334	11,656,891	157,190,815	57,602	\$7,144,896	3.26	8.83	0.062
C&S and T&D								\$0			
Utility Total	2,732	12,695,551	181,788,146	2,334	11,656,891	157,190,815	57,602	\$7,144,896	3.26	8.83	0.062

TABLE 3. EnergyEfficiency 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	1,393	6,573,878	76,705,467	1,246	6,375,333	73,597,222	26,262	\$2,655,990	3.11	9.23	0.045
Other Commercial	0	1,883,609	17,769,261	0	1,883,609	17,769,261	6,058	\$1,802,219	1.11	9.56	0.122
Residential	1,338	3,803,463	80,852,366	1,088	2,963,348	59,363,280	22,837	\$2,236,525	5.36	8.42	0.060
Energy Efficiency	2,732	12,260,949	175,327,094	2,334	11,222,289	150,729,763	55,156	\$6,694,735	3.32	8.80	0.060
Residential	0	434,602	6,461,052	0	434,602	6,461,052	2,446	\$450,161	2.32	9.56	0.094
Low-Income	0	434,602	6,461,052	0	434,602	6,461,052	2,446	\$450,161	2.32	9.56	0.094
EE, Low Income and Electrification	2,732	12,695,551	181,788,146	2,334	11,656,891	157,190,815	57,602	\$7,144,896	3.26	8.83	0.062
C&S and T&D								\$0			
Utility Total	2,732	12,695,551	181,788,146	2,334	11,656,891	157,190,815	57,602	\$7,144,896	3.26	8.83	0.062

WATER | ENERGY | LIFE



RIVERSIDE PUBLIC UTILITIES ANNUAL UPDATE

GOOD MORNING, RIVERSIDE

July 10, 2025

RiversidePublicUtilities.com

RPU - 30 YEARS IN EDUCATION



RPU's Customer Engagement Team has been inspiring and educating Riverside's youth for three decades.

IT ALL STARTED IN 1995...



WHAT THE TEAM OFFERS

- Career Days
- Contests
- Family Science Technology Engineering Art and Math (STEAM) Day Program
- Science Technology Engineering Math Public Utilities Learning Labs STEM PULL
- STEM FUNdamentals
- Field Trips
- Hands-on learning opportunities



WHAT THE TEAM OFFERS



WATER | ENERGY | LIFE



WHAT WE HAVE DONE SO FAR



30 Years

of teaching Riversiders



3,000+

Classes



300,000+

Students



Countless **awards** and **Thank You** cards
from event organizers and students

THANK YOU



RPU would like to thank the teachers, administrators, students, and Customer Engagement's educators for their extraordinary effort over the last 30 years.

We're looking forward to teaching the next generation of Riverside students.

MEMORANDUM

TO Riverside Public Utilities (Riverside)
FROM GDS Associates, Inc.
DATE March 13, 2025
RE 2025 CMUA Energy Efficiency Potential Forecasting Study

INTRODUCTION

This memo provides the Riverside Public Utilities (Riverside) results of the California Municipal Utilities Association (CMUA) Energy Efficiency (EE) Potential Forecasting Study conducted in 2025 by GDS Associates, Inc. (GDS). The results described here are specific to the Riverside service territory and account for unique characteristics of the service area, customer base, climate zone, economic conditions, and other relevant factors. This memo provides a summary of the EE Savings Forecast and Fuel Substitution/Electrification Efficiency program opportunity, as well as a description of the data provided in the detailed results spreadsheet file provided to the utility. Energy efficiency potential is followed by fuel substitution and electrification efficiency opportunities.

SUMMARY OF ENERGY EFFICIENCY POTENTIAL

This potential study provides a roadmap for Riverside as they develop strategies and programs for energy efficiency. The development of market potential estimates for a range of feasible measures is useful for program planning and modification purposes.

The Riverside energy efficiency program target for the next 10 years (sum of incremental annual, 2026 through 2035) is set at 80,107 MWh. This results in an average annual target of 0.36 percent of total projected energy sales. Figure 1 provides the market potential for the residential and non-residential sectors, as well as the total incremental potential as a percentage of total sales for the 10-year period of 2026 to 2035.

FIGURE 1. NET INCREMENTAL MARKET POTENTIAL BY SECTOR (MWH) AND PERCENT OF SALES

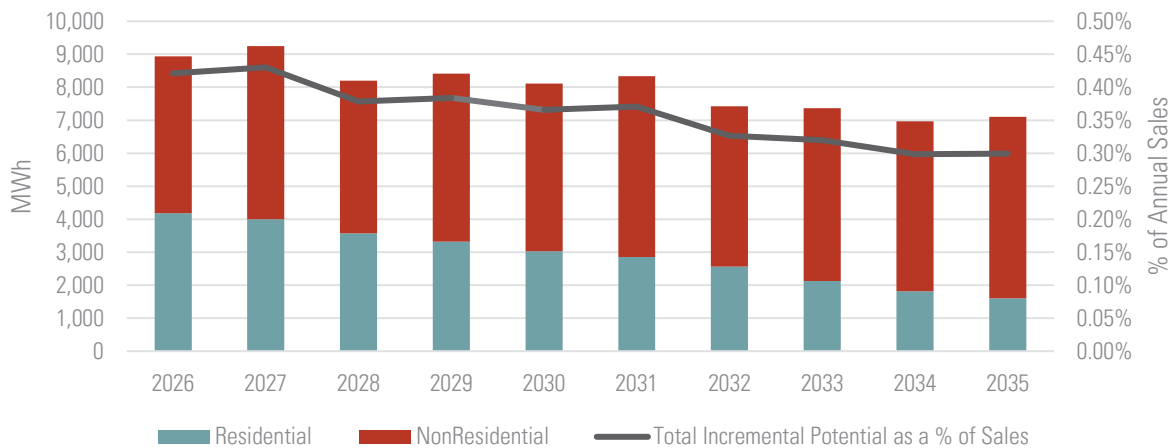


Table 1 below includes the specific inputs used to create Figure 1. The annual energy and demand impacts are provided. The energy impacts are shown as a percentage of forecasted sector-level and total sales. Incremental annual savings range from 6,971 MWh to 9,244 MWh, which corresponds to 0.30% to 0.43% of the forecasted sales.

TABLE 1 NET INCREMENTAL MARKET POTENTIAL BY SECTOR – ENERGY AND DEMAND

10 Year Energy Goals (Incremental Net MWh)										
ALL Sectors (MWh)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Total Market Potential	8,936	9,244	8,203	8,413	8,109	8,339	7,423	7,366	6,971	7,103
Res Market Potential	4,186	4,002	3,577	3,320	3,031	2,850	2,567	2,123	1,815	1,601
Non-Res Market Potential	4,751	5,242	4,626	5,093	5,078	5,489	4,856	5,243	5,156	5,502
Total Potential as a % of Total Sales	0.42%	0.43%	0.38%	0.38%	0.37%	0.37%	0.33%	0.32%	0.30%	0.30%
Res Potential as a % of Res Sales	0.60%	0.56%	0.50%	0.46%	0.41%	0.38%	0.34%	0.28%	0.24%	0.20%
Non-Res Potential as a % of Non-Res Sales	0.33%	0.36%	0.32%	0.35%	0.34%	0.36%	0.32%	0.34%	0.33%	0.35%

10 Year Demand Goals (Incremental kW)										
ALL Sectors (kW)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Total Market Potential	2,955	2,983	2,733	2,714	2,548	2,579	2,279	2,166	1,887	1,809
Res Market Potential	1,674	1,605	1,475	1,376	1,229	1,206	1,055	897	665	545
Non-Res Market Potential	1,282	1,378	1,258	1,338	1,319	1,372	1,224	1,269	1,222	1,264

At a glance, Riverside’s results include:

- A 2026-2035 average annual gross savings target of 0.44% of forecasted retail sales
- A 2026-2035 average annual net savings target of 0.36% of forecasted retail sales
- No claim of savings from codes and standards (C&S)

Detailed Results

GDS has provided Riverside with a detailed results file which includes the summary information described above, as well as additional detailed results. The results file includes the following information:

- 10-yr gross incremental and cumulative annual energy and demand savings
- 10-yr net incremental and cumulative annual energy and demand savings
- 20-yr cumulative annual technical, economic and market potential by sector – energy and demand
- 20-yr incremental annual market potential by sector – energy and demand
- 20-yr market potential by program
- 20-yr market potential by end-use
- 20-yr costs by program
- Comprehensive measure mapping list

SUMMARY OF FUEL SUBSTITUTION AND ELECTRIFICATION EFFICIENCY

The analysis of fuel substitution and electrification efficiency opportunities provides a roadmap for the Riverside as they develop strategies and programs to support fuel substitution and electrification efficiency. The development of program opportunity estimates account for converting fossil fuel heating (space heating and water heating), and cooking for a range of feasible measures associated with the eTRM fuel substitution measures. As the market for fuel substitution moves forward and the disposition of proposed CARB zero-emission rules for space heating and water

heating become clearer, the results are useful for program planning and modification purposes. Fuel substitution and electrification are described separately, with a focus for fuel substitution on the 2026-2029 timeframe, prior to the modeling assumption of proposed CARB rules coming into effect in 2030.

The Riverside fuel substitution opportunity identifies a market opportunity from 2026-2029 of 7,219 net equivalent MWh (eMWh).¹ This result grows from 1,799 in 2026 to 1,812 in 2029. Electricity sales are expected to increase by 1,520 MWh due to in-program measures over the 2026-2029 timeframe. Figure 2 provides program opportunities related to eMWh, MWh load increases, the combined residential and non-residential sectors, as well as the total net eMWh savings. Fuel substitution savings beyond 2029 are solely based on cooking measures, which may be speculative and subject to change given program design decisions and priorities.

FIGURE 2. NET INCREMENTAL FUEL SUBSTITUTION PROGRAM OPPORTUNITY (MWH) AND SAVINGS

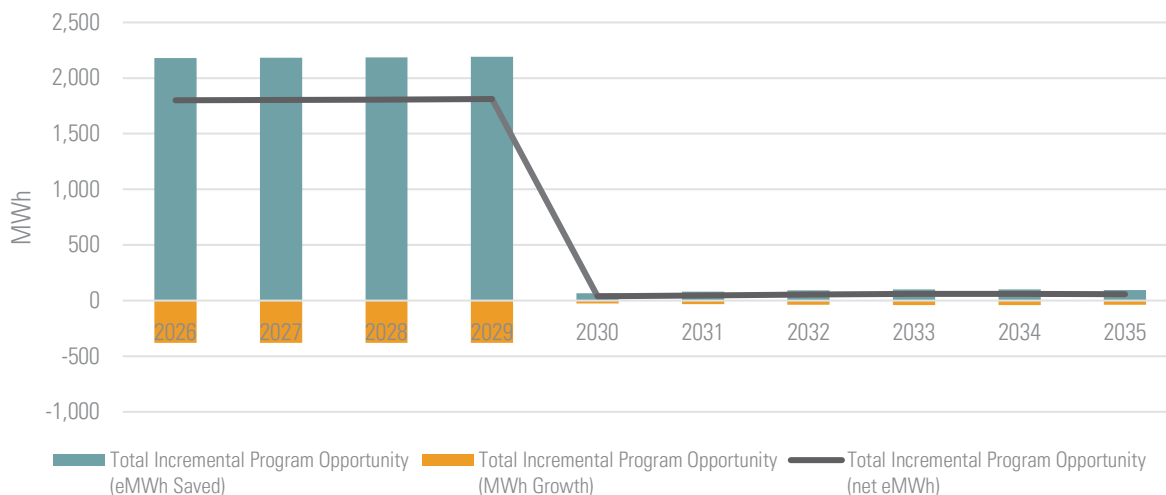


Table 3, below, includes the specific inputs used to create Figure 2. The annual energy and demand impacts are provided. The energy impacts are shown as a percentage of forecasted sector-level and total sales.

TABLE 2 10-YEAR FUEL SUBSTITUTION ENERGY RESULTS, ENERGY AND DEMAND

ALL Sectors (eMWh saved)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Total Incremental Program Opportunity (eMWh saved)	2,180	2,182	2,186	2,191	66	80	93	100	101	95
Res Incremental Program Opportunity	2,051	2,054	2,057	2,063	41	50	58	60	55	44
Non-Res Incremental Program Opportunity	128	128	128	128	25	30	35	41	46	51
ALL Sectors (actual MWh growth)										
Total Incremental Program Opportunity (MWh growth)	-380	-380	-380	-379	-27	-33	-38	-41	-41	-38

¹ Fuel substitution savings are calculated by converting therm savings from gas to equivalent kWh (ekWh). Therm savings are multiplied by 29.3 to create ekWh and divided by 1,000 to create eMWh. The increased electricity from these loads is subtracted from the eMWh to arrive at the net ekWh or net eMWh of savings.

ALL Sectors (eMWh saved)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Res Incremental Program Opportunity	-357	-356	-356	-356	-17	-22	-25	-26	-24	-19
Non-Res Incremental Program Opportunity	-24	-24	-24	-24	-9	-11	-13	-15	-18	-19
ALL Sectors (net eMWh savings)										
Total Incremental Program Opportunity (net eMWh)	1,799	1,802	1,806	1,812	39	47	55	59	60	57
Res Incremental Program Opportunity	1,695	1,697	1,701	1,707	23	29	33	34	31	25
Non-Res Incremental Program Opportunity	105	105	105	105	15	18	22	25	28	31
Total Incremental Program Opportunity as a % of Total Sales	-0.018%	-0.018%	-0.018%	-0.017%	-0.001%	-0.001%	-0.002%	-0.002%	-0.002%	-0.002%
Res Incremental Program Opportunity as a % of Res Sales	-0.051%	-0.050%	-0.050%	-0.049%	-0.002%	-0.003%	-0.003%	-0.003%	-0.003%	-0.002%
Non-Res Incremental Program Opportunity as a % of Non-Res Sales	-0.002%	-0.002%	-0.002%	-0.002%	-0.001%	-0.001%	-0.001%	-0.001%	-0.001%	-0.001%

ALL Sectors (kW)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Total Incremental Program Opportunity	-26	-26	-26	-26	-2	-3	-3	-4	-4	-5
Res Incremental Program Opportunity	-23	-23	-23	-24	0	-1	-1	-1	-1	0
Non-Res Incremental Program Opportunity	-3	-3	-3	-3	-2	-2	-3	-3	-4	-4

The Riverside electrification efficiency opportunity identifies a market opportunity from 2030-2035 of 16,577 MWh in savings. This result is driven by the proposed CARB zero-emission rules and possible energy efficiency adoption level that could come through programs. These results are predicated on the proposed CARB rules, but indicate a significant program opportunity in the future should those rules come to pass. Figure 3 provides the program opportunity for energy savings relative to possible load growth driven by the proposed CARB rules and share of total energy sales after adding the impact of the proposed CARB rules to the baseline forecast. These savings and impacts are highly speculative and dependent on the implementation and timing of proposed CARB rules, as well as future program design decisions.

FIGURE 3. NET INCREMENTAL ELECTRIFICATION EFFICIENCY PROGRAM SAVINGS AND LOAD IMPACTS (MWh)

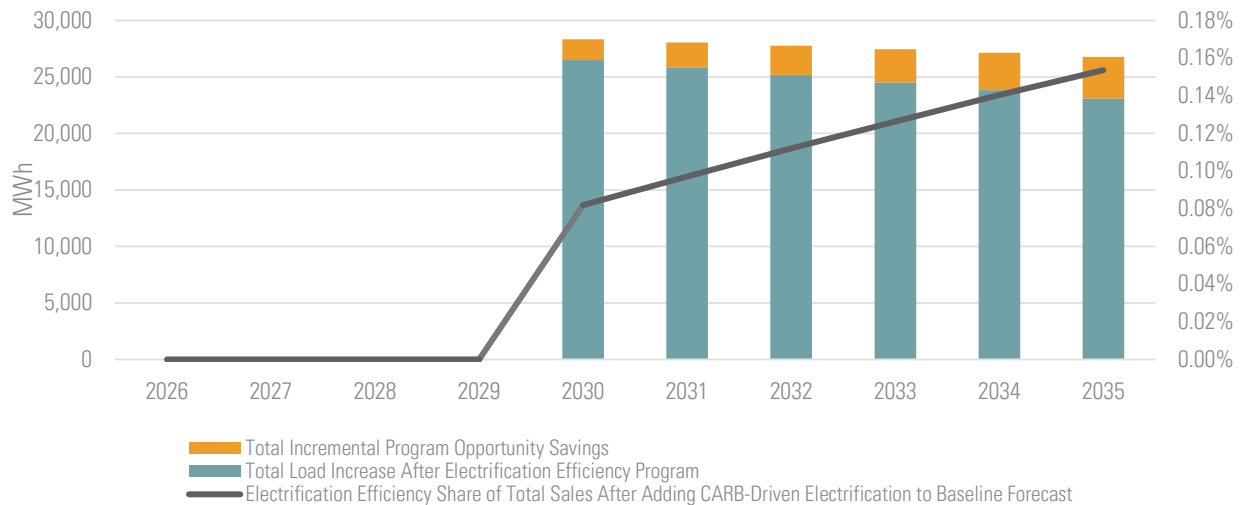


Table 4, below, includes the specific inputs used to create Figure 3. The annual energy and demand savings opportunities are provided, along with annual load growth factors.

At a glance, Riverside’s fuel substitution and electrification results include:

- Growing net eMWh program savings opportunities through 2029, followed by a sharp decline to the modeled impact of proposed CARB rules.
- Minor load growth from fuel substitution programs through 2029.
- A large growth in electrification efficiency opportunities from 2030-2035, with substantial opportunities to offset load growth.

Detailed Results

GDS has provided Riverside with a detailed results file which includes the summary information described above, as well as additional detailed results. The results file includes the following information:

- 10-yr gross incremental and cumulative annual energy and demand impacts from fuel substitution and electrification efficiency
- 20-yr incremental annual market impacts by sector impacts from fuel substitution and electrification efficiency load and demand growth, as well as program impacts

TABLE 3 10-YEAR ELECTRIFICATION EFFICIENCY ENERGY RESULTS, ENERGY AND DEMAND

ALL Sectors (MWh)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Total Cumulative Increased Electricity	0	0	0	0	28,342	28,053	27,762	27,458	27,134	26,787
Res Cumulative Increased Electricity	0	0	0	0	16,072	16,027	15,975	15,908	15,821	15,718
Non-Res Cumulative Increased Electricity	0	0	0	0	12,269	12,026	11,787	11,550	11,313	11,069
Total Cumulative Program Opportunity Savings	0	0	0	0	1,842	2,210	2,579	2,947	3,315	3,684
Res Cumulative Program Opportunity Savings	0	0	0	0	365	438	511	584	657	730
Non-Res Cumulative Program Opportunity Savings	0	0	0	0	1,477	1,772	2,067	2,363	2,658	2,953
Total Load Increase After Electrification Efficiency Program	0	0	0	0	26,500	25,842	25,183	24,511	23,819	23,103
Res Load Increase After Electrification Efficiency Program	0	0	0	0	15,707	15,588	15,463	15,324	15,164	14,987
Non-Res Load Increase After Electrification Efficiency Program	0	0	0	0	10,793	10,254	9,720	9,188	8,655	8,116
Total Cumulative Program Opportunity as a % of Total Sales	0.00%	0.00%	0.00%	0.00%	0.08%	0.10%	0.11%	0.13%	0.14%	0.15%
Res Cumulative Program Opportunity as a % of Res Sales	0.00%	0.00%	0.00%	0.00%	0.05%	0.06%	0.07%	0.08%	0.08%	0.09%
Non-Res Cumulative Program Opportunity as a % of Non-Res Sales	0.00%	0.00%	0.00%	0.00%	0.10%	0.12%	0.13%	0.15%	0.17%	0.18%

ALL Sectors (kW)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Total Incremental Program Opportunity	0	0	0	0	0	709	851	993	1,134	1,276
Res Incremental Program Opportunity	0	0	0	0	0	8	10	12	14	15
Non-Res Incremental Program Opportunity	0	0	0	0	0	701	841	981	1,121	1,261



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: FEBRUARY 10, 2025

SUBJECT: UPDATE ON THE STATE MANDATED PUBLIC BENEFITS ENERGY SURCHARGE FUND PROGRAM AND FINANCIAL UPDATE

ISSUE:

Consider receiving an update on the State Mandated Public Benefits Energy Surcharge Fund program and financial activity and direct staff to return to the Board of Public Utilities with a Public Benefits Energy Surcharge Plan considering current program enhancements and introduce new programs.

RECOMMENDATION:

That the Board of Public Utilities:

1. Receive an update on the State Mandated Public Benefits Energy Surcharge Fund program and financial activity; and
2. Direct staff to return to the Board of Public Utilities with a Public Benefits Energy Surcharge plan to consider current program enhancements and to introduce new programs.

LEGISLATIVE HISTORY:

Assembly Bill (AB) 1890 (Brulte, 1996) requires each local publicly owned utility (POU) to establish a non-bypassable, usage based charge of 2.85% of electric revenue to be utilized to fund public benefits programming and which must be used in at least one of four areas: cost effective demand side management (energy efficiency and energy conservation), new investment in renewable energy, low-income assistance and education, or research, development, and demonstration.

Senate Bill (SB) 2 (Alarcon, 2001) required utilities that had not implemented programs for low-income electricity customers to prepare a needs assessment for those customers and required publicly owned utilities to consider increasing the level of discounts or raising eligibility levels to reflect customer need, streamline enrollment, and to establish participation goals.

SB 1037 (Kehoe, 2005) set ambitious energy conservation policies and goals requiring POU's to report annually the kilowatt hour (kWh) savings to the California Energy Commission (CEC) and to its customers.

AB 2021 (Levine, 2006) required all California POU's beginning in 2007, and every three years thereafter, to identify all potentially achievable cost-effective energy efficient savings and establish annual targets for energy savings and demand reduction over a ten-year period.

AB 2227 (Bradford, 2012) changed the frequency of the energy efficiency ten-year target setting requirements of AB 2021 from once every three years to once every four years.

SB 350 (De Leon, 2015) establishes annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas by January 1, 2030. The bill requires local POU's to establish annual targets for energy efficiency savings and demand reduction consistent with this goal.

BACKGROUND:

At the August 12, 2024, Board of Public Utilities Meeting, the Board requested that staff provide an overview of the Public Benefits Charge, programming and expenditure. This report provides the overview of the program, funds, and expenditures.

In January 1998, per AB 1890, RPU began collecting the State mandated Public Benefits Energy Surcharge on customer utility bills. The Public Benefits Energy Surcharge requires a minimum 2.85% charge on all electric sales to implement programs within four specific categories. These include:

1. Residential and Commercial Energy Efficiency and Energy Conservation Programs
2. New Investment in Renewable Energy
3. Low-Income Assistance Programs and education
4. Research, Demonstration and Development

An average residential RPU customer pays approximately \$3.00 per month for this surcharge, and commercial customers pay approximately \$10.00. The Surcharge collects approximately \$10 million annually. While also adhering to the requirements set forth in AB 1890, programs and project expenditures that utilize Riverside's Public Benefit Surcharge funds are considered and approved by the City Council and RPU Board.

Public Benefits funds are used in a variety of approved ways, all of which support our commercial and residential customers and promote education and outreach across our communities. RPU provides and manages energy efficiency programs and rebates, low-income assistance programs, marketing and outreach to support programs and a comprehensive educational program that starts younger residents thinking about being proactive towards energy efficiency. RPU also provides face-to-face customer support for rebates and assistance programs at the Customer Resource Center, based in the Casa Blanca community where staff provide front line support for customers in the heart of the community. The energy efficiency programs for commercial and residential customers help RPU achieve energy efficiency goals and the adopted ten-year annual energy savings goal equivalent to 1% of retail electric sales as approved by Board and City Council on May 10, 2021, and June 15, 2021, respectively.

DISCUSSION:

PROGRAMS OVERVIEW

RPU offers a wide variety of residential and commercial energy efficiency rebate programs, which contribute to achieving mandated energy efficiency goals. The success of public benefit programs and the ability to meet kWh savings goals is dependent on voluntary customer participation in RPU’s programs. Since fiscal year (FY) 2014/15, RPU staff have processed over 190,294 residential and 10,859 commercial rebate incentives. RPU currently offers 12 residential and 8 commercial energy efficiency programs (Attachment 2) that include rebates for energy star products, lighting, weatherization, air conditioning and direct installation programs. In addition, RPU offers several low-income assistance programs to support all communities in achieving energy efficiency goals. RPU also provides grant programs which support local higher education and businesses in developing energy efficiency innovations. Since FY 2014/15, RPU’s customers have saved nearly 153,482,359 kWh through programs by spending just over \$34 million dollars on these programs.

Public Benefits funds can only be applied to the four categories outlined previously. The table below highlights expenditures in these categories over the last ten years:

Category (Fiscal Years 2014/15 – 2023/24)	Expenditure (\$)	% of Entire Budget
1. Energy Efficiency and Conservation Programs	\$34,599,677	61%
2. New Renewable Energy (Solar)	\$3,802,885	7%
3. Low-Income Assistance Programs (SHARE, ESAP, Reliability Refund, COVID)	\$16,801,975	30%
4. Research, Demonstration and Development (RD&D)	\$1,200,889	2%
Total	\$56,405,426	100%

Note: Program support costs associated with these programs as well as to provide educational programming totaled \$14,630,484 in addition to the program expenditures show for the same period.

1. Energy Efficiency Programs

RPU has developed an array of energy efficiency programs for commercial and residential customers. As well as supporting customers to become more energy efficient, these programs help RPU in achieving energy efficiency goals and adopted an annual energy savings goal, currently the equivalent to 1% of retail electric sales, as approved by Board and Council.

a. Residential Programs

Efficiency programs include:

- AC Incentives Rebates for replacing Central Air Conditioners with a SEER rating of 15.2 and above.
- HVAC tune-up rebates
- Electric Heat Pump Air Conditioner SEER rating of 15.2 and above is a newly created (June 2024) rebate
- Appliance Recycling for old, inefficient refrigerators and freezers

- Energy Star® Appliances Rebates for purchase of Energy Star® -rated refrigerators, dishwashers, clothes washers, room air conditioners, ceiling fans, and televisions
- 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 free qualifying shade tree coupon

The new (August 2024) RPU Mobile-Home and Multi-Family Energy Efficiency Program in partnership with SoCal Gas provides direct install improvements. The Program provides these residents with the opportunity to benefit from no-cost energy efficiency savings with measures tailored specifically to their homes. Program qualification is based on housing type to streamline the administrative process while ensuring optimal participation amongst the residents in qualified homes.

b. Commercial Programs

RPU has a robust range of commercial programs including:

- Business Outdoor Lighting Program which provides direct installation for medium and large business.
- Key Account EE Program (KEEP) which provides Key Account customers with a comprehensive energy efficiency plan.
- 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.
- Refrigerator Load Program which offers the direct installation of 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) that provides small and medium-sized businesses with energy audits, and direct installation of 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.

2. Renewable Energy

In 2008, RPU created the Solar Rebate program in response to the requirements of SB 1 Solar Energy. SB 1 required RPU to make available approximately \$25 million over a ten-year period to fund solar rebates for commercial and residential customers. The solar rebate program was funded entirely through Public Benefit Funds and RPU allocated \$2.5 million per year to the program. The solar rebate program sunset on December 31, 2017. Over the course of the program RPU expended \$17.9 million on almost 2,000 commercial and residential solar rebates, equating to 13.5 megawatts of customer generated solar energy in Riverside.

3. Low-Income Assistance Programs

a. Sharing Households Assist Riverside's Energy - SHARE

The Sharing Households Assist Riverside's Energy (SHARE) program is a low-income assistance program that annually credits up to \$250 towards electric deposit or urgent notice assistance for qualified low-income applicants. Customers also receive monthly bill credits of \$20 towards the

electric portion of their bill; the amount of monthly assistance increases in alignment with rate changes. The income qualification for customers participating in SHARE is set at 250% or less of Federal Poverty Guidelines (revised annually). RPU's SHARE program assists approximately 5,000 low-income customers each year and in FY 2023/24 provided \$1,165,250 to assist low-income households.

b. Energy Savings Assistance Program - ESAP

The Energy Savings Assistance Program (ESAP) is a low-income, direct installation program that offers a range of efficiency upgrades including lighting, HVAC tune-ups, smart power strips, refrigerators and refrigerator recycling. The program began in 2013 when RPU partnered with the Southern California Gas Company (SoCal Gas) to take a comprehensive utility approach to upgrades within qualified customer's homes. Since 2015, the ESAP program served 3,884 low-income customers and in Fiscal Year 2023-24 only, ESAP served 398 customers with energy efficiency upgrades in their home. The income qualification mirrors the SHARE program and is set at 250% or below of Federal Poverty Guidelines.

c. Energy Recovery Assistance Program - ERAP (COVID-assistance)

The Emergency Recovery Assistance Program, or ERAP Program, was established in March 2020 as a COVID-19 assistance package using Public Benefit funds for residents who faced a temporary loss of household income due to the COVID-19 Emergency and Stay at Home orders. The program was set up for a limited time and provided a one-time bill credit of \$250 (increased to \$400 in October 2020) to customers that are considered low-income or temporarily low-income due to the COVID-19 pandemic. Residential customers qualified as low-income for this program if they had lost their job, were furloughed or are faced a reduction of income due to the Stay-at-Home orders. This program ceased in May 2023 when the COVID-19 Emergency ended.

d. Reliability Charge Assistance

RPU offers low-income residents and seniors with disabilities a Reliability Charge refund on their monthly bill. Customers can apply annually for this refund to receive this assistance.

4. Research, Demonstration and Development (RD&D)

Grant Programs

RPU continues to invest in RD&D grant funded programs through partnerships with both businesses and local higher education institutions. RPU has expended approximately \$1,200,889 in Public Benefit Funds through its Energy Innovation and Custom Energy Technology Grant Programs that support energy research at local institutions of higher learning and the local business community.

The Custom Energy Technology Grant program provides our business electric customers with the opportunity to request funds for the advancement of renewable energy and utility industry solutions. Winning proposals address changes in the utility industry by supporting the advancement of technology and by addressing impacts in the utility space.

The Energy Innovations Grant program provided research funds for local Universities, helping post-secondary institutions look for new ways to advance science and technology in energy-related fields.

To date, RPU has awarded UC Riverside grant funding for a study of photovoltaic solar, battery storage systems and electric vehicle chargers at the distribution system level as well as California Baptist University to study solar powered HVAC equipment. RPU has also collaborated on grant projects with local businesses on battery storage and thermal energy storage.

Education Programing – Supports all permissible activities

RPU provides a comprehensive educational program that focuses on teaching younger people about electricity and the importance of being energy efficient for the future including:

- 4th Grade Electricity Class

Includes a series of virtual lessons that are aligned with the 4th grade science standards. Students learn the science of electricity how it is produced, the program includes:

1. What is Electricity? (atomic nature of electricity, circuit building, conductivity testing)
2. How Do We Measure Electricity So It Will Do Work for Us? (Amperes, Volts, Ohms, kWh)
3. How Does Electricity Make Things Move? (electromagnetics and power generation, build a motor)
4. Why Should I Conserve Electricity? (pros/cons of various renewable and non-renewable energy sources, learn the science behind why we conserve, build a model power plant, discuss ways to turn the turbines without pollution, call to action)

- TK/Kindergarten Community Helpers

Aligned with Kindergarten Social Science Standards: This is a partnership with our field crews. RPU staff created a book, “The Sky is the Limit: The Story of a Lineman” which is distributed to Transitional Kindergarten and Kindergarten classrooms, along with other age-appropriate materials on how to conserve electricity.

- 9th – 10th grades STEM Public Utilities Learning Lab (STEM PULL)

In collaboration with the Science Technology Engineering Partnership, Riverside Public Utilities offers a weeklong summer learning lab for high school students, the purpose of which is to give students hands on experiences with career pathways in the utility industry. Provide them the opportunity to participate in the application of STEM topics they study in school, to specific real-world problems. Allow students to build models of power grid systems and challenges them to work collaboratively on a team to develop solutions to energy conservation problems, safety issues, etc.

- 7th and 8th grade STEM FUNDamentals

In collaboration with the Science Technology Engineering Partnership, Riverside Public Utilities offers a 3-day summer learning lab for middle school students. This program is aligned to Engineering Standards for middle school students.

- Family STEAM Day at the Library

RPU offers a “pop-up” STEAM event at a different city library throughout the months of the year. This is an all-ages events in which children, parents and others come to the library and participate

in STEAM themes that includes topics such as Wind Energy where they can design, build and test wind turbine blades to produce the highest possible voltage (Using KidWind Materials), Snap Circuits Table where they can build various circuits, understand loads and voltage. Participate in a 'Tinker Table' to learn what's inside technology – participants can dissect old technology to find similar parts like gears, resistors, motors and magnets, etc.

ENERGY PROGRAM DEVELOPMENT

In addition to legislative and regulatory mandates, RPU staff determines new programs in consideration of customer's market needs, new technology advances and achieving kWh savings potential. Previous programming included reaching customers upstream at the wholesale distribution and supplier level via an energy efficient commercial air conditioning program, midstream at the retail store level via a LED instant rebate program and downstream focusing on incentives paid through an application process once an energy efficiency project is completed. These programs were discontinued in 2018 when City Council directed RPU to discontinue procurement of vendor supported programming previously procured through the Southern California Public Power Authority (SCPPA) procurement process. Programming was further delayed in 2020 through 2023 due to the COVID-19 pandemic which rendered many programs infeasible due to limitations placed on social contact.

As RPU staff have pivoted to create a new suite of programs with procurement of program vendors conducted by the City and RPU staff, staff have continued to align programs with new market trends and with customer needs while considering technological advances to best position RPU customers for the future.

RPU's customer base plays a major role in determining program offerings. RPU commercial customers represent 12% of the total customer base however, the combined energy load of all commercial customers represents approximately 65% of the total utility consumption. To this end, RPU has dedicated significant program resources to assist the commercial customer segment in achieving energy efficiency goals.

For new construction, RPU incentivizes customers who purchase products above California building code or the baseline efficiency, this includes measures such as lighting, building envelope, Energy Star appliances, etc.

RPU staff reviews potential programs for their greatest kWh savings in our climate zone and region. For example, RPU provides both A/C and Heat Pump rebate incentive programs for commercial and residential customers. The current air conditioning rebate realizes greater kWh savings than that of Northern California climates or nearby coastal communities where A/C load realizes less kWh savings. In Fiscal Year 2014-15, RPU increased rebate amounts for the residential HVAC Replacement program for 16 SEER or higher rated units to incentivize customers to install more efficient HVAC equipment. Present incentives for A/C are \$250 per ton for 16+ SEER and \$150 per ton for below 16 SEER rating. As a utility located in Climate Zone 10, HVAC load is a major energy efficiency target and peak demand reduction measure. RPU recently introduced a Heat Pump program which provides a \$750 per ton incentive for electric heat pumps with SEER of 15.2 or greater.

ENERGY EFFICIENCY AND DEMAND RESPONSE AS A RESOURCE

Energy efficiency is a critical element of the resource planning process for generation, transmission, distribution and demand-side management resources. The primary reason for

pursuing energy efficiency as a utility-sector resource is the long-term stream of benefits to the utility (e.g., avoided energy and capacity costs), to participating customers (e.g., reduced energy costs), and to society at large (e.g., avoided emissions and avoided adverse health impacts). RPU staff supports its customers who seek to participate in the Demand Side Grid Support program administered by the CEC.

RPU currently has had sufficient resources and capacity to meet summer seasonal demands through wholesale power procurement and use of RPU's internal generation asset such as Riverside Energy Resource Center peaker plant. RPU staff is continuing to look at potential benefits of demand response as a tool for customers to reduce their peak load through programs. In Fiscal Year 2014/15, RPU launched a new Thermal Energy Storage Pilot Program that replaced old HVAC equipment with new energy efficient equipment installed concurrently with Ice Energy's Ice Bear thermal energy storage. This pilot program also included approximately one megawatt of demand response capability by direct load control of these Ice Bear enabled HVAC systems during peak energy demand periods. This program has been discontinued due to the bankruptcy of the company offering the Ice Bear systems though Customer Engagement Staff still co-manages existing customers with the Power Resources Division (ROSA).

Last year, the City Council approved a program to allow RPU customers to participate in the California Energy Commission's Demand Side Grid Support program which provides incentive payment to large usage customers who reduce load during statewide grid emergencies.

COST EFFECTIVENESS EVALUATION

Staff reviews the cost of energy efficient measures to determine overall program benefit to the utility. Energy efficient measures are determined by dividing the cost of the measure by the total kWh savings the measure yields. RPU's commercial programs offer the greatest energy savings per dollar spent, which results in an average price per kWh saved for commercial energy efficiency portfolio programs that is lower than residential programs (see charts below). RPU's Key Account program is a tool to achieving these goals by leveraging relationships and partnerships with the business community. Although RPU sees greater participation within the residential sector (190,294 applications) compared to commercial (10,859), this is due to a greater population of residents compared to businesses within the service territory. Staff balance high-cost programs that may have a greater customer benefit with low-cost programs to meet resource and program goals.

Staff reviews the "Cost to Conserve Energy" over the lifetime of particular measures for assessing the benefit and cost effectiveness of energy efficiency programs and for forecasting loads in resource planning. Lifetime savings is the length of time that a specific energy efficiency measure or activity saves energy over the life of measure (often the anticipated lifetime of an appliance or tree). Essentially, this measure identifies the cost per kWh saved and in all year's this cost or expenditure from the program is less than what it would have cost the utility to procure that electricity.

Residential Rebate Programs

	# of Rebates Processed	\$ Spent towards Rebates	Annual kWh Savings	\$ per Annual kWh	Cost to Conserve Energy*
FY 14/15	22,691	\$1,765,042	5,675,211	\$0.31	\$0.04
FY 15/16	18,639	\$1,521,110	6,726,489	\$0.23	\$0.06
FY 16/17	16,973	\$1,594,986	7,293,244	\$0.22	\$0.03
FY 17/18	15,954	\$1,372,694	4,497,314	\$0.31	\$0.04
FY 18/19	21,449	\$1,370,299	8,287,410	\$0.17	\$0.02
FY 19/20	32,974	\$1,189,621	6,966,471	\$0.17	\$0.02
FY 20/21	16,557	\$1,269,834	3,143,710	\$0.40	\$0.06
FY 21/22	16,022	\$1,070,269	3,964,074	\$0.27	\$0.04
FY 22/23	14,625	\$1,123,576	3,718,261	\$0.30	\$0.04
FY 23/24	14,410	\$1,065,244	3,354,610	\$0.32	\$0.05
Total	190,294	\$13,342,675	53,626,794	\$0.25	\$0.04

Note: Cost to Conserve Energy is the approximate lifetime energy savings resulting from the measures implemented.

Commercial Rebate Programs

	# of Rebates Processed	\$ Spent towards Rebates	Annual kWh Savings	\$ per Annual kWh	Cost to Conserve Energy*
FY 14/15	1,441	\$2,025,752	15,196,631	\$0.13	\$0.02
FY 15/16	4,205	\$2,757,036	14,229,506	\$0.19	\$0.03
FY 16/17	1,424	\$2,927,293	14,799,000	\$0.20	\$0.03
FY 17/18	1,440	\$3,373,682	17,910,438	\$0.19	\$0.03
FY 18/19	846	\$3,773,464	12,239,274	\$0.31	\$0.04
FY 19/20	83	\$901,808	12,457,433	\$0.07	\$0.01
FY 20/21	46	\$488,351	6,524,865	\$0.07	\$0.01
FY 21/22	38	\$758,095	6,759,720	\$0.11	\$0.02
FY 22/23	298	\$1,340,084	6,818,657	\$0.20	\$0.03
FY 23/24	1,038	\$2,911,436	8,118,524	\$0.36	\$0.05
Total	10,859	\$21,257,001	115,054,048	\$0.18	\$0.03

Note: Cost to Conserve Energy is the approximate lifetime energy savings resulting from the measures implemented.

ENERGY PROGRAM REPORTING

Per state mandates such as SB 1037, AB 2021 and AB 2227, RPU staff set ambitious energy efficiency goals. On May 10, 2021 the RPU Board and on June 15, 2021 the City Council adopted an annual energy savings goal equivalent to 1% of retail electric sales for the ten-year period from 2022 to 2031.

Since the adoption of SB 1037 in 2005, publicly owned utilities (POU's) have invested in the development of tools and resources for accurately reporting the results of energy efficiency programs through a partnership between SCPPA, California Municipal Utilities Association (CMUA) and the Northern California Power Agency (NCPA). The Technical Reference Manual (TRM) is the primary source for calculating and reporting annual and lifetime program performance. The TRM provides the methods, formulas, and default assumptions for estimating energy savings and peak demand impacts from energy efficiency measures and projects. Energy savings are then submitted annually to the CEC and in accordance with CEC guidelines, POU's report energy savings based upon first year kWh savings of the measure reported.

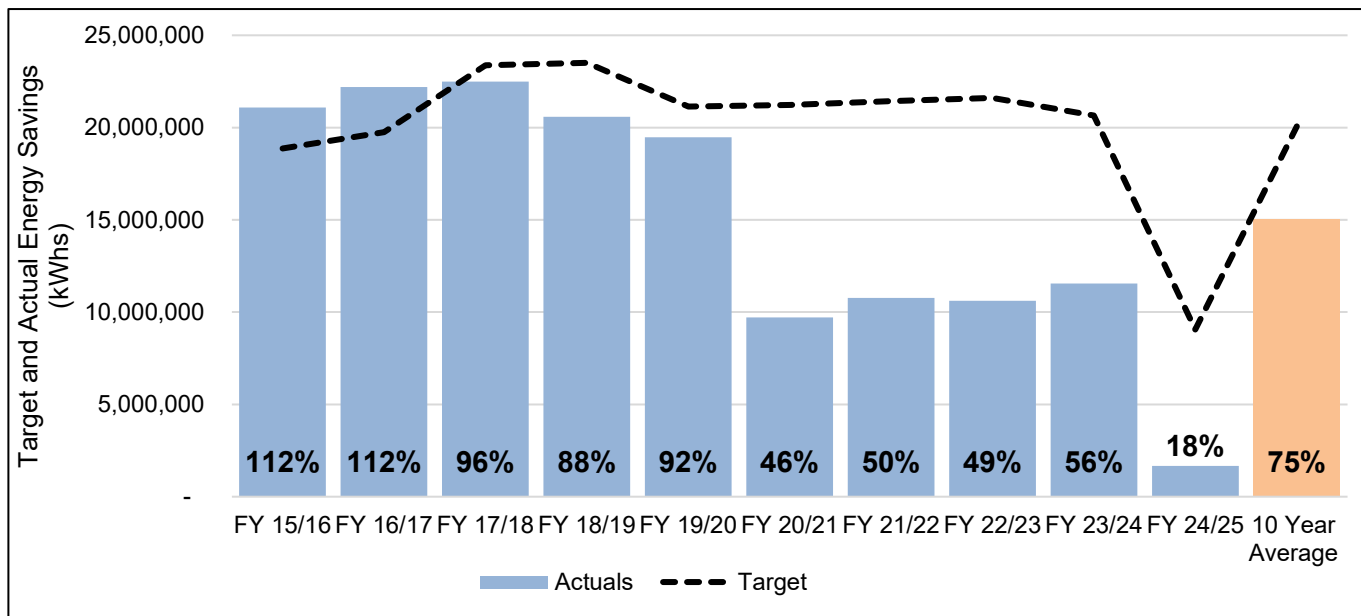
AB 2227 requires each POU to identify ten-year energy efficiency targets that are cost effective on a four-year basis. RPU last set these targets in 2021 and is now participating in the next potential study for the subsequent ten-year targets. RPU Staff will review data and make an appropriate efficiency savings determination for approval by RPU Board and City Council for the next ten-year period.

The 1% energy savings goal that was recommended by RPU and approved by Board and Council was an ambitious goal, although, it was considered attainable through the use of previously administered SCPPA programs. After examining the performance of RPU programs and past results, the staff recommendation to maintain the 1% savings target, instead of the consultant identified market potential of 0.59%, for the 2022 through 2031 period. This higher target was anticipated to be achieved with an increase in outreach and continued direct installation programs in both the residential and commercial sectors once COVID-19 related restrictions are lifted. The higher target demonstrates RPU's ongoing commitment to contributing to the statewide goal of doubling energy efficiency by 2030 as established under SB 350.

RPU's accumulated savings since 2015 is 75% of the ten-year goal with a total of 150,141,852 kWh saved through to-date FY 24/25. Due to the combination of COVID-19 impacts beginning in 2020, in conjunction with the move away from SCPPA programming RPU did not achieve its 1% target over the review period. Since RPU has developed a replacement suite of programming post-COVID, program participation has increased, and corresponding energy savings have increased.

--Report Continues on the next page--

Total kWh Savings Targets (All Programs) – 1% of Retail Sales*



Note: In FYs 20/21 through 20/23, programming was significantly impacted by the COVID-19 pandemic. Rebate programs that required on-site installations or customer contact were limited due to health restrictions resulting in a decline in energy savings. Programs have been relaunched beginning in FY 23/24 through FY 24/25.

ENERGY PROGRAM INSPECTION AND COMPLIANCE

The Customer Engagement Team regularly performs inspections of residential and commercial rebate applications. This means that staff are on-site inspecting measure installations to ensure that they need set criteria to claim kWh savings and also make sure that customers are satisfied with the installation and service they have received from RPU.

Inspections take the form of the following:

1. An onsite inspection rate of 10% for all residential program participants, performed by RPU staff and contractors;
2. A pre- and post-inspection of 100% of commercial rebate participants, including a review of historical energy usage, energy-saving calculations and post measure bill analysis;
3. Contract with engineering firms to verify claimed energy savings on large, complex or technical commercial projects before issuing a rebate incentive;
4. 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.

PUBLIC BENEFITS ENERGY SURCHARGE FUND ACTIVITY

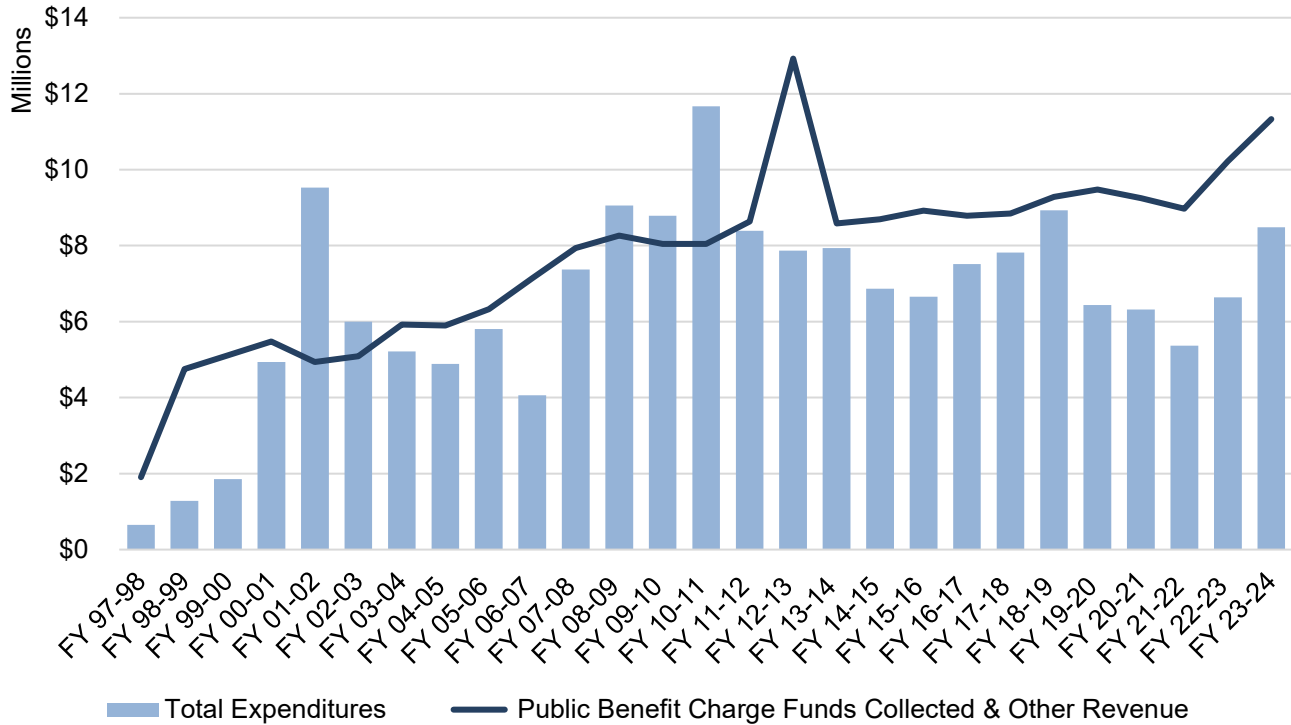
The financial details of funding in the Public Benefits Energy Surcharge Fund for the entirety of the Fund are provided in the following table. An explanation of each of the columns follows the table.

Total Public Benefits Energy Surcharge Fund Revenues and Expenditures (Costs):

	Surcharge Collected	Other Credits, Operating Transfers, Interest Earned, & GASB 31*	Program Costs	Program Support Costs	Fund Balance
FY 97-98	\$1,886,928	\$18,584	\$109,658	\$543,954	\$1,251,901
FY 98-99	\$4,572,458	\$175,892	\$614,328	\$665,156	\$4,720,767
FY 99-00	\$4,804,365	\$309,080	\$1,074,946	\$780,505	\$7,978,761
FY 00-01	\$4,799,089	\$676,562	\$4,167,085	\$773,045	\$8,514,282
FY 01-02	\$4,742,624	\$198,828	\$8,370,691	\$1,159,159	\$3,925,883
FY 02-03	\$5,004,769	\$83,947	\$4,746,030	\$1,252,174	\$3,016,395
FY 03-04	\$5,699,519	\$226,046	\$3,978,361	\$1,237,896	\$3,725,703
FY 04-05	\$5,837,735	\$56,813	\$3,555,945	\$1,332,293	\$4,732,013
FY 05-06	\$6,210,315	\$118,582	\$4,526,933	\$1,274,667	\$5,259,310
FY 06-07	\$6,819,439	\$329,008	\$2,806,367	\$1,257,302	\$8,344,089
FY 07-08	\$7,371,687	\$566,749	\$5,954,997	\$1,417,552	\$8,909,975
FY 08-09	\$7,802,433	\$465,888	\$7,369,927	\$1,682,984	\$8,125,386
FY 09-10	\$7,874,337	\$174,178	\$6,925,397	\$1,859,553	\$7,388,950
FY 10-11	\$7,986,633	\$60,916	\$10,272,679	\$1,391,796	\$3,772,024
FY 11-12	\$8,640,314	(\$950)	\$7,616,591	\$773,528	\$4,021,268
FY 12-13	\$8,847,367	\$4,076,682	\$6,901,314	\$966,605	\$9,077,398
FY 13-14	\$8,467,420	\$119,808	\$7,039,272	\$893,644	\$9,731,711
FY 14-15	\$8,604,423	\$89,504	\$6,534,583	\$335,594	\$11,555,461
FY 15-16	\$8,727,925	\$196,066	\$6,289,915	\$367,560	\$13,821,978
FY 16-17	\$8,845,617	(\$58,748)	\$5,872,508	\$1,641,857	\$15,094,481
FY 17-18	\$8,763,414	\$81,614	\$6,137,337	\$1,679,835	\$16,122,337
FY 18-19	\$8,729,101	\$555,754	\$7,127,302	\$1,803,854	\$16,476,036
FY 19-20	\$8,872,837	\$603,061	\$4,289,881	\$2,148,543	\$19,513,510
FY 20-21	\$9,204,829	\$45,798	\$4,521,710	\$1,798,184	\$22,444,244
FY 21-22	\$9,623,577	(\$646,979)	\$3,775,599	\$1,588,184	\$26,057,059
FY 22-23	\$9,919,406	\$301,925	\$5,083,864	\$1,556,997	\$29,637,529
FY 23-24	\$10,074,814	\$1,251,988	\$6,772,727	\$1,709,876	\$32,481,727
Total	\$198,733,376	\$10,076,595	\$142,435,949	\$33,892,295	

Note: GASB 31 Accounting and Financial Reporting for Certain Investments and for External Investment Pools

Public Benefit Charge: Revenue Compared to Expenditures



Revenues for the Public Benefits Charge are shown in two columns: “Surcharge Collected” and “Other credits, operating transfers, interest earned, and Governmental Accounting Standards Board rule 31 (GASB 31)”. “Surcharge Collected” represents the surcharge billed to all customers based on the 2.85% requirement of state law. “Other credits, et. al.” represents revenues or losses from other sources as stated. Unspent revenues are carried from one year to the next since their use is restricted. It is typical to carry these funds and have them available for new programs or for programs that receive high levels of participation. When this happens, the Board and Council are asked to approve an increase in the program expenditure for the program. Unspent funds in the Fund Balance have increased recently principally due to the lack of programming during the COVID-19 pandemic and have grown to a total of \$32,481,727.

It is important to note that in FY 12/13, the Board and City Council approved the transfer of electric reserve funds to the Public Benefit Charge Fund in order to meet program costs related to the mandated solar photovoltaic rebate program so as not to reduce program expenditure on other benefit programs. As can be seen in FYs 08/09 through FY 10/11, program expenses were greater than the revenues in the fund, necessitating the additional funds or a reduction in programming. The City chose to add funding. Additionally, staff time for program support was not charged to the public benefit charge fund and was instead charged to electric operating expenses. Upon the conclusion of the solar photovoltaic rebate program in 2017, staff positions were again charged to the public benefit charge fund. The additional funding in FY 12/13 is shown in the table and on the chart above. The changes to how staff charges were allocated are shown in the next table presented.

“Program Costs” are the direct payments or costs of the program including rebates, SHARE program support for customers, and payment to vendors (which include the measures included – such as for direct-install programs).

“Program support costs” include all staff and materials costs necessary for RPU to be able to provide the wide range of programs and services that support all customers. These costs incorporate staff responsibilities including program creation, development, implementation, marketing, and customer support form critical elements of how programs are delivered. For commercial customers, RPU staff manage business relationships, develop and manage incentive programs that encourage business retention as well as bringing new businesses to the area. This in turn supports economic development and boosts the local economy and well positions Riverside as a preferred business and residential destination.

For full transparency, the table below includes the breakdown of actual program support costs by category as tracked by RPU’s Finance Division. Categories shown in the table include:

1. FTE: The number of full-time equivalent (FTE) RPU personnel members authorized by the budget and dedicated to serving the Public Benefit Programs, Education, and collateral development.
2. Direct Charge for Personnel: Positions housed in other funds that were dedicated, either in-full or in-part, to support Public Benefit programming. The proportional cost of each position is directly charged to RPU funds.
 - a. Until FY 20-21, the costs associated with FTEs supporting the electric programs were identified by “Direct Charges for Personnel.”
 - b. Beginning in FY 20-21, FTEs were and currently are estimated based on the allocation the portion of total authorized Customer Engagement FTEs assigned to energy efficiency programming and education. The costs of these positions are included in “Charges from other RPU Funds”.
3. Non-personnel: Includes small programming expenses including software and licensing, as well as educational and office supplies.
4. Bad Debt: Public Benefit Fund accounting for the fund’s share of the utility accounts written off due to uncollected debt.
5. Cost Allocation Charges: Charges from the City’s General Fund internal service departments including Human Resources, General Services, City Manager’s Office, Finance, and Communications to recipient funds pursuant to the City’s Cost Allocation Plan.
6. Charges To and From Other RPU Funds: RPU costs for labor including full time equivalent staff and building occupancy related expenses.

Breakdown of Program Support Costs:

Fiscal Year	FTEs in Electric Programs	Direct Charges for Personnel	Non-Personnel	Bad Debt	Cost Allocation Charges	Charges to and from other RPU Funds
FY 97-98*	0	\$0	\$242,463	\$10,253	\$291,237	\$0
FY 98-99*	0	\$210,743	\$170,072	\$1,076	\$283,266	\$0
FY 99-00*	0	\$239,462	\$172,077	\$26,318	\$342,648	\$0
FY 00-01*	0	\$298,053	\$293,116	\$10,571	\$175,195	(\$3,890)
FY 01-02*	0	\$581,411	\$341,669	\$10,754	\$226,821	(\$1,495)
FY 02-03*	0	\$719,554	\$209,232	\$12,510	\$316,654	(\$5,776)
FY 03-04	14.90	\$728,527	\$300,920	\$16,547	\$191,902	\$0
FY 04-05	14.15	\$806,190	\$218,482	\$9,994	\$322,011	(\$24,384)
FY 05-06	14.15	\$835,897	\$182,725	\$6,353	\$305,153	(\$55,461)
FY 06-07	13.65	\$802,538	\$133,791	\$11,392	\$292,120	\$17,461
FY 07-08	11.15	\$668,984	\$241,686	\$27,319	\$452,161	\$27,403
FY 08-09	11.15	\$804,367	\$181,665	\$36,336	\$586,655	\$73,960
FY 09-10	12.50	\$901,535	\$228,459	\$27,265	\$623,373	\$78,921
FY 10-11	10.50	\$434,911	\$248,276	\$22,377	\$761,197	(\$74,966)
FY 11-12	0	\$0	\$167,291	\$24,058	\$523,650	\$58,530
FY 12-13	0	\$0	\$211,202	\$26,177	\$729,226	\$0
FY 13-14	0	\$0	\$172,011	\$16,237	\$705,396	\$0
FY 14-15	0	\$0	\$193,806	\$22,600	\$119,187	\$0
FY 15-16	0	\$0	\$217,265	\$22,777	\$127,518	\$0
FY 16-17	13.50	\$1,026,118	\$224,661	\$14,952	\$149,782	\$226,343
FY 17-18	14.50	\$1,048,252	\$253,643	\$20,064	\$137,115	\$220,761
FY 18-19	13.50	\$976,797	\$108,518	\$20,865	\$528,370	\$169,305
FY 19-20	13.50	\$1,189,734	\$147,944	\$51,940	\$583,340	\$175,585
FY 20-21**	13.00	\$0	\$0	\$104,486	\$423,443	\$1,270,255
FY 21-22**	13.00	\$0	\$0	\$53,460	\$220,368	\$1,314,356
FY 22-23**	13.00	\$0	\$0	\$3,843	\$128,455	\$1,424,699
FY 23-24	13.00	\$0	\$0	\$101,768	\$149,329	\$1,458,779
Subtotal		\$12,273,075	\$4,860,973	\$712,291	\$9,695,571	\$6,350,385
Total for Program Support Charges \$33,892,295						

* Information is not available for these fiscal years.

**Includes the corrections for the respective Fiscal Years for the Office of Communications Charges; the audited financial statements included the total adjustment in FY 23-24.

Comparison of Program Support Costs to Program Costs

There are no established standards related to direct program costs compared to program support costs for the use of Public Benefits Charge funds for publicly owned utilities. However, the California Public Utilities Commission (CPUC) set standards for investor-owned utilities (IOUs) customer programming that addresses and limits through a cap and target system established by the CPUC on September 24, 2009 in Decision 09-09-047. Under this decision, limits are set on

program support costs. While there have been subsequent decisions that clarify what costs may or may not be included as part of these expenditures, the percentages of expenditure have remained the same. Generally, these standards are set at the following levels and take into consideration national average and best practices for similar types of programming nationwide: and can serve as a measure of the appropriate level of expenditure on these activities when undertaken by RPU staff.

1. Administrative costs capped at 10% of the energy efficiency budget. These costs include the costs to process rebates and other expenditures, management of the program, and finance administration costs as well as the systems that support them.
2. Marketing, Education, and Outreach (MEO) costs are capped at 6% of the energy efficiency budget. MEO funding provides awareness of the programs and helps to support behavioral change and attitude towards energy efficiency and energy use overall as they relate to the programming offered.
3. Evaluation, Measurement, and Verification (EM&V) costs capped at 4% of the total adopted energy efficiency budget. EM&V ensures that programs are audited to verify that measures are installed and to measure the energy savings that results.
4. Non-resource costs capped at 20% of the total adopted energy efficiency budget. Non-resource costs include activities that are not related to a direct rebate to a customer or program participant but that support strategic planning efforts of the IOUs and programs intended to support communities. *It is important to note that not all programs offered by IOUs in this category are available to be offered to POUs as they do not fall into the categories specified in state law for the use of public benefit charge programming. Therefore, the full amount of this capped item should not be considered for measurement of POU measures.*

For IOUs, the CPUC considers staff time that includes direct interface with the customer or program participant as a Direct Implementation Cost and it is included in the “cost of the measure” and is not one of the above categories. Also included are customer support for programs, some sup-programs such as energy audits, and project management. Some low-income support programs are also not included in the IOU customer programs funding and program development such as low-income utility rates.

Please note that for RPU, these staff time costs are included in the “Program Support” column of the table above and as they are not tracked separate from other support activities. For POUs, similar activities of administration, MEO, EM&V as well as direct implementation and non-resource costs could total between 20% and 40% of programming budgets. For most years except program start-up and during the COVID-19 pandemic, program support costs have been below 25% of the total programming cost.

Comparison of Program Costs to Program Support Costs:

Fiscal Year	Program Costs	Program Costs as % of Total	Program Support Costs	Support Costs as % of Total	Total Programming Costs	Comment
FY 97-98	\$109,658	17%	\$543,954	83%	\$653,612	Program Start
FY 98-99	\$614,328	48%	\$665,156	52%	\$1,279,484	
FY 99-00	\$1,074,946	58%	\$780,505	42%	\$1,855,451	
FY 00-01	\$4,167,085	84%	\$773,045	16%	\$4,940,130	
FY 01-02	\$8,370,691	88%	\$1,159,159	12%	\$9,529,850	
FY 02-03	\$4,746,030	79%	\$1,252,174	21%	\$5,998,204	
FY 03-04	\$3,978,361	76%	\$1,237,896	24%	\$5,216,257	
FY 04-05	\$3,555,945	73%	\$1,332,293	27%	\$4,888,238	
FY 05-06	\$4,526,933	78%	\$1,274,667	22%	\$5,801,600	
FY 06-07	\$2,806,367	69%	\$1,257,302	31%	\$4,063,669	
FY 07-08	\$5,954,997	81%	\$1,417,552	19%	\$7,372,549	
FY 08-09	\$7,369,927	81%	\$1,682,984	19%	\$9,052,911	
FY 09-10	\$6,925,397	79%	\$1,859,553	21%	\$8,784,950	
FY 10-11	\$10,272,679	88%	\$1,391,796	12%	\$11,664,475	
FY 11-12	\$7,616,591	91%	\$773,528	9%	\$8,390,119	
FY 12-13	\$6,901,314	88%	\$966,605	12%	\$7,867,919	
FY 13-14	\$7,039,272	89%	\$893,644	11%	\$7,932,916	
FY 14-15	\$6,534,583	95%	\$335,594	5%	\$6,870,177	
FY 15-16	\$6,289,915	94%	\$367,560	6%	\$6,657,475	
FY 16-17	\$5,872,508	78%	\$1,641,857	22%	\$7,514,365	
FY 17-18	\$6,137,337	79%	\$1,679,835	21%	\$7,817,172	
FY 18-19	\$7,127,302	80%	\$1,803,854	20%	\$8,931,156	
FY 19-20	\$4,289,881	67%	\$2,148,543	33%	\$6,438,424	COVID-19 Pandemic
FY 20-21	\$4,521,710	72%	\$1,798,184	28%	\$6,319,894	
FY 21-22	\$3,775,599	70%	\$1,588,184	30%	\$5,363,783	
FY 22-23	\$5,083,864	77%	\$1,556,997	23%	\$6,640,861	
FY 23-24	\$6,772,727	80%	\$1,709,876	20%	\$8,482,603	
Total and overall expenditure %ages	\$142,435,949	81%	\$33,887,233	19%	\$176,323,182	
Total and Expenditure %ages FY 14/15 through FY 23/24*	\$56,405,426	79%	\$14,630,484	21%	\$71,035,910	

Note: FY 14/15 through FY 23/24 are shown in summary tables in this report and the information is presented here for reference.

The Public Benefit Fund is presented to the Board and City Council for each budget year as part of the annual budget process. Programs being offered by RPU are increasing and expanding as the utility comes out of the COVID-19 pandemic. Additionally, the development of an Energy Efficiency and Electrification Programming Strategy is in development utilizing funding from the Energy Efficiency and Conservation Block Grant (EECBG) that was awarded to RPU in October of this year. RPU will be evaluating existing programs, identifying new programs, and planning

for the expenditure of the unspent funds in the Fund Balance during this strategic planning effort. This effort is expected to take about 1 ½ years and should be completed by the middle to end of 2026.

STRATEGIC PLAN ALIGNMENT:

This report aligns with the High Performing Government strategic priority, specifically goal 5.3 Enhance communication and collaboration with community members to improve transparency, build public trust, and encourage shared decision-making.

This item aligns with each of the five Cross-Cutting Threads as follows:

1. **Community Trust** – The report analysis reflects the City's dedication to sound policy and the use of reliable information for the greater public good.
2. **Equity** – The report provides equal access to the details on the financial activity of the Public Benefits Energy Surcharge fund.
3. **Fiscal Responsibility** – Staff's continuous evaluation, improvement, and budgeting strategies align with industry best practices demonstrate dedication to fair and accurate distribution of costs.
4. **Innovation** – Staff's dedication to continuous improvement and conformity with industry-wide best practices demonstrates innovation in meeting the City's changing needs.
5. **Sustainability & Resiliency** – The Public Benefits Energy Surcharge financial activity and program update allows for a transparent method of providing program cost details to the community without compromising the needs of the future.

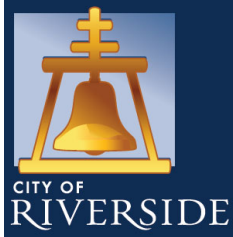
FISCAL IMPACT:

There is no fiscal impact for receiving this informational update.

Prepared by: Brian Seinturier, Utilities Assistant General Manager/Finance and Administration
Approved by: David A. Garcia, Utilities General Manager
Certified as to availability of funds: Kristie Thomas, Finance Director/Assistant Chief Financial Officer
Approved by: Rafael Guzman, Assistant City Manager
Approved as to form: Jack Liu, Interim City Attorney

Attachments:

1. June 2024 General Manager Report presented to the Board of Public Utilities on August 12, 2024
2. RPU Current Public Benefit Energy Surcharge Programs
3. Presentation



UPDATE ON STATE MANDATED PUBLIC BENEFITS ENERGY SURCHARGE FUND

Customer Engagement

Board of Public Utilities
February 10, 2025

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LEGISLATIVE HISTORY

1. **Assembly Bill (AB) 1890** requires that 2.85% of electric revenue be utilized to fund public benefits programming and must be used in at least one of four areas:
 - a. demand side management (energy efficiency),
 - b. renewable energy,
 - c. low-income assistance, or
 - d. research, development, and demonstration

2. **Senate Bill (SB) 1037** requires Publicly Owned Utilities to report annually kilowatt hour (kWh) savings to the California Energy Commission



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LEGISLATIVE HISTORY

3. **AB 2021** requires all California POU's to identify potentially achievable cost-effective energy efficient savings and establish annual targets for energy savings and demand reduction every three years, over a ten-year period
4. **AB 2227** changed the frequency of the energy efficiency ten-year target setting requirements of AB 2021 from once every three years to once every four years
5. **SB 350** establishes annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas by January 1, 2030



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BACKGROUND

1. January 1998 - State mandated Public Benefits Energy Surcharge of minimum 2.85% was included on customer bills
2. Today, the Public Benefits Surcharge means that on average residential customers pay about \$3.00 and commercial customers about \$10.00 per month
3. Annually, the Public Benefits Surcharge Fund collects approximately \$10 million



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DISCUSSION

1. Since 2014/15 RPU has:
 - a. Processed 190,294 residential and 10,859 commercial rebates
 - b. Saved nearly 168,680,842 kWh
 - c. Spent just over \$34 million on Public Benefit efficiency programs
2. RPU currently offers 12 residential and 8 commercial energy efficiency programs
3. RPU has several low-income assistance programs
4. RPU provides two grant programs to support higher education and businesses in developing energy efficiency innovations

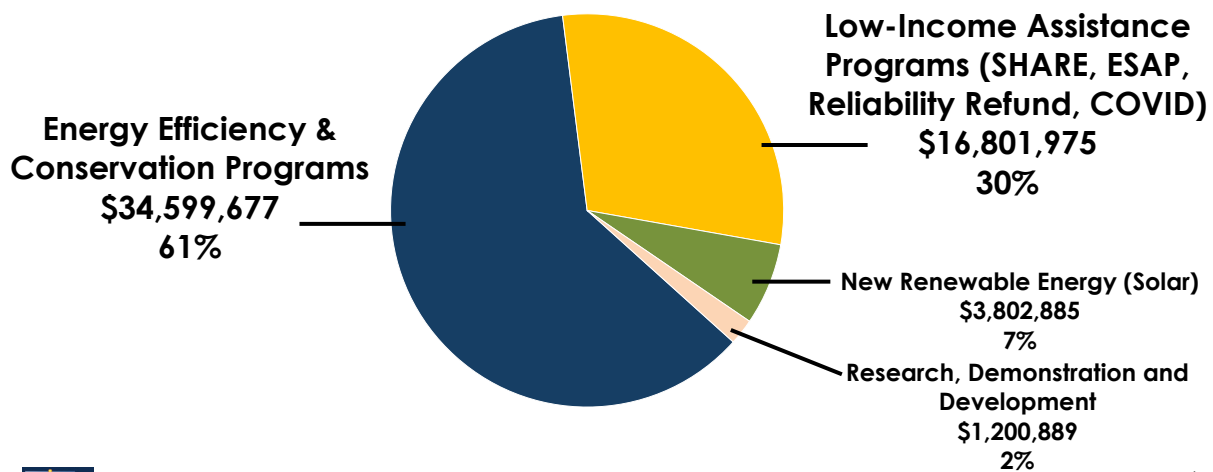


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FUND EXPENDITURE BY PROGRAM TYPE (LAST 10 YEARS)



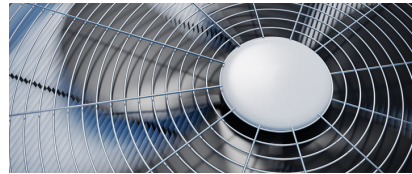
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RESIDENTIAL ENERGY EFFICIENCY PROGRAMS

1. A/C incentives
2. HVAC Tune ups
3. Energy Star Appliances
4. Heat Pump Rebates
5. Pool Saver Rebates
6. Appliance Recycling
7. Tree Power
8. Mobile Home / Multi Family Rebates
9. Weatherization Programs



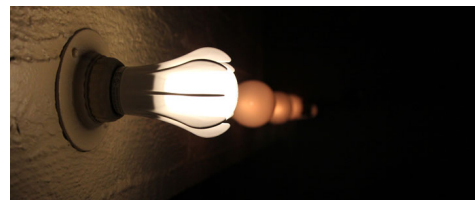
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COMMERCIAL ENERGY EFFICIENCY PROGRAMS

1. Business Outdoor Lighting
2. Key Account EE Program (KEEP)
3. Lighting Incentives
4. Performance Based Incentive Rebates
5. Refrigerator Load Program
6. Small Business Direct Install Program
7. Weatherization Rebates



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RENEWABLE ENERGY PROGRAMS

In 2008, SB-1 required RPU to:

1. Make available approximately \$25 million over a ten-year period to fund solar rebates for commercial and residential customers
2. Create a Solar Rebate program
 - a. The solar rebate program was funded entirely through Public Benefit Funds and RPU allocated \$2.5 million per year for the program
 - b. The solar rebate program, sunset on December 31, 2017, and RPU spent \$17.3 million on 1,845 commercial and residential solar rebates, equating to 11 megawatts of customer generated solar energy in Riverside.



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LOW-INCOME ASSISTANCE PROGRAMS

1. Sharing Households Assist Riverside's Energy – SHARE Program

- a. SHARE credits annually up to \$250 towards electric deposit or urgent notice assistance for qualified low-income applicants
- b. Customers receive monthly bill credits of \$20 towards the electric portion of their bill.
- c. Monthly assistance increases in alignment with rate changes
- d. Income qualification is 250% or less of Federal Poverty Guidelines
- e. SHARE program assists approximately 5,000 customers each year
- f. Fiscal Year 2023/24 spent \$1,165,250 on SHARE program assistance

2. Energy Savings Assistance Program - ESAP

- a. ESAP is a direct installation program that offers efficiency upgrades including lighting, HVAC tune-ups, smart power strips, refrigerators and refrigerator recycling
- b. Established in 2013 RPU partnered with the Southern California Gas Company (SoCal Gas)
- c. Since 2015, the ESAP program served 3,884 low-income customers
- d. Fiscal Year 2023/24, program assisted 398 customers with energy efficiency upgrades
- e. Income qualification mirrors SHARE program - 250% or below of Federal Poverty Guidelines



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LOW-INCOME ASSISTANCE PROGRAMS

3. Energy Recovery Assistance Program - ERAP (COVID-assistance)

- a. ERAP Program, was established in March 2020 as a COVID-19 assistance package
- b. For residents who faced a temporary loss of household income due to the COVID-19 Emergency and Stay at Home orders
- c. The program was set up for limited time and provided a one-time bill credit of \$250 (increased to \$400 in October 2020)
- d. Residential customers qualified as low-income for this program if they had lost their job, were furloughed or faced a reduction of income due to the Stay-at-Home orders
- e. This program ceased in May 2023

4. Reliability Charge Assistance

- a. RPU offers financial assistance to low-income residents and seniors with disabilities with a Reliability Charge refund on their monthly bill
- b. Customers can apply annually for this refund to receive this assistance



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RESEARCH, DEMONSTRATION AND DEVELOPMENT

RPU invests in RD&D grant funded programs with both businesses and local higher education institutions

1. Programs expended approximately \$1,200,889 on Energy Innovation and Custom Energy Technology Grant Programs
2. Energy Innovations Grant program provides research funds for local Universities to advance science and technology in energy-related fields
3. Custom Energy Technology Grant program provides RPU's business electric customers with the opportunity to request funds for the advancement of renewable energy and utility industry solutions
4. Previous awards made to UC Riverside grant funding for a study of photovoltaic solar, battery storage systems and electric vehicle chargers at the distribution system level and California Baptist University to study solar powered HVAC equipment
5. RPU has also collaborated on grant projects with local businesses on battery storage and thermal energy storage



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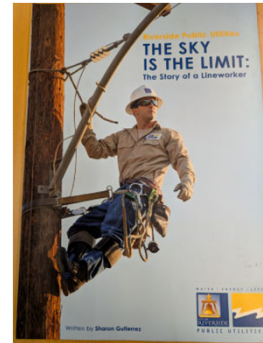
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EDUCATION PROGRAMS

RPU provides a comprehensive educational program that focuses on teaching younger people about electricity and the importance of being energy efficient for the future. The program includes:

- 1. 4th Grade Electricity Class:** A series of virtual lessons that are aligned with the 4th grade science standards. Students learn the science of electricity & how it is produced
- 2. TK/Kindergarten Community Helpers:** Aligned with Kindergarten Social Science Standards, offered in partnership with our field crews. RPU staff created a book, "The Sky is the Limit: The Story of a Lineman", which is distributed to Transitional Kindergarten and Kindergarten classrooms, along with other age-appropriate materials on how to conserve electricity



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EDUCATION PROGRAMS

- 3. STEM Public Utilities Learning Lab (STEM PULL)** for 9th – 10th grades - In collaboration with the Science Technology Engineering Partnership, Riverside Public Utilities offers a weeklong summer learning lab for high school students, the purpose of which is to give students hands on experiences with career pathways in the utility industry
- 4. STEM FUNDamentals** for 7th and 8th grades - In collaboration with the Science Technology Engineering Partnership (STEP), Riverside Public Utilities offers a 3-day summer learning lab for middle school students. This program is aligned to Engineering Standards for middle school students
- 5. Family STEAM Day at the Library** – A "pop-up" STEAM event at a different city library each month. This is an all-ages events in which children, parents and others participate in STEAM themes, build circuits, understand loads and voltage. Participate in a 'Tinker Table' to learn what's inside technology by dissecting old technology to find gears, resistors, motors and magnets, etc...



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ENERGY PROGRAM DEVELOPMENT

1. RPU staff creates new programs in consideration of:
 - a. Customer's market needs
 - b. New technology advances
 - c. Achieving kWh savings potential
2. Many programs were discontinued in 2018 when the City Council directed RPU discontinue procurement of programming through the Southern California Public Power Authority (SCPPA)
3. RPU staff pivoted bring procurement internal to the City and RPU and took the opportunity to create new programs, in consideration of market trends and aligned with customer needs



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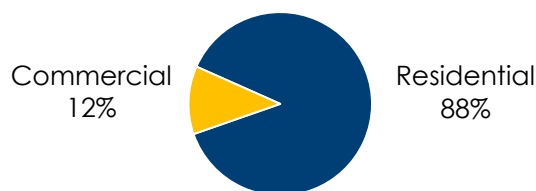
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ENERGY PROGRAM DEVELOPMENT

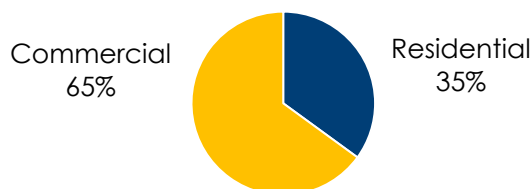
4. RPU's customer base plays a major role in determining program offerings
 - RPU commercial customers represent 12% of the total customer base and approximately 65% of the total utility consumption
5. New construction - RPU incentivizes customers who purchase products above California building code:
 - a. Lighting
 - b. Building envelope
 - c. Energy Star appliances
 - d. Energy efficient windows



Percent of Accounts



Percent of Load



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ENERGY PROGRAM DEVELOPMENT EXAMPLE

RPU provides both A/C and Heat Pump rebate incentive programs for commercial and residential customers:

1. Riverside is in Climate Zone 10; HVAC load is a major energy efficiency target and peak demand reduction measure – market opportunity
2. 2014 - RPU increased rebate amounts to incentivize installation of more efficient HVAC equipment
3. 2024 - With improvements to technology and market demand, Heat Pump incentive increased to \$750 per ton to increase program participation



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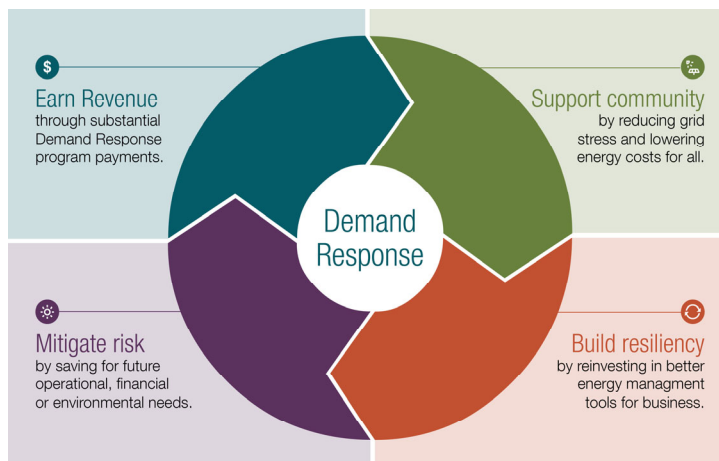
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ENERGY EFFICIENCY AND DEMAND RESPONSE

Energy efficiency is a critical element of the resource planning process for generation, transmission, distribution and demand-side management resources:

1. RPU Staff co-administers the Demand Side Grid Support program in collaboration with the CEC
2. RPU offers the Power Partners Program to its largest Key Accounts



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RESIDENTIAL REBATE PROGRAMS

1. Energy efficient measures are determined by dividing the cost of the measure by the total kWh savings the measure yields
2. Cost to Conserve Energy over the lifetime of measures is used to assess the benefit and cost effectiveness of a program
3. Lifetime savings is the energy saved from a specific energy efficiency measure or activity over the life of measure

	# of Rebates Processed	\$ Spent towards Rebates	Annual kWh Savings	\$ per Annual kWh	Cost to Conserve Energy (Approx. Lifetime Savings)
FY 14/15	22,691	\$1,765,042	5,675,211	\$0.31	\$0.04
FY 15/16	18,639	\$1,521,110	6,726,489	\$0.23	\$0.06
FY 16/17	16,973	\$1,594,986	7,293,244	\$0.22	\$0.03
FY 17/18	15,954	\$1,372,694	4,497,314	\$0.31	\$0.04
FY 18/19	21,449	\$1,370,299	8,287,410	\$0.17	\$0.02
FY 19/20	32,974	\$1,189,621	6,966,471	\$0.17	\$0.02
FY 20/21	16,557	\$1,269,834	3,143,710	\$0.40	\$0.06
FY 21/22	16,022	\$1,070,269	3,964,074	\$0.27	\$0.04
FY 22/23	14,625	\$1,123,576	3,718,261	\$0.30	\$0.04
FY 23/24	14,410	\$1,065,244	3,354,610	\$0.32	\$0.05
Total	190,294	\$13,342,675	53,626,794	\$0.25	\$0.04



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COMMERCIAL REBATE PROGRAMS

	# of Rebates Processed	\$ Spent towards Rebates	Annual kWh Savings	\$ per Annual kWh	Cost to Conserve Energy (Approx. Lifetime Savings)
FY 14/15	1,441	\$2,025,752	15,196,631	\$0.13	\$0.02
FY 15/16	4,205	\$2,757,036	14,229,506	\$0.19	\$0.03
FY 16/17	1,424	\$2,927,293	14,799,000	\$0.20	\$0.03
FY 17/18	1,440	\$3,373,682	17,910,438	\$0.19	\$0.03
FY 18/19	846	\$3,773,464	12,239,274	\$0.31	\$0.04
FY 19/20	83	\$901,808	12,457,433	\$0.07	\$0.01
FY 20/21	46	\$488,351	6,524,865	\$0.07	\$0.01
FY 21/22	38	\$758,095	6,759,720	\$0.11	\$0.02
FY 22/23	298	\$1,340,084	6,818,657	\$0.20	\$0.03
FY 23/24	1,038	\$2,911,436	8,118,524	\$0.36	\$0.05
Total	10,859	\$21,257,001	115,054,048	\$0.18	\$0.03



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ENERGY PROGRAM REPORTING

Per State mandates such as SB 1037, AB 2021 & AB 2227, RPU sets goals and reports annually on them

1. Since adopting SB 1037 in 2005, POU's have invested in the development of tools and resources for accurately reporting the results of energy efficiency programs. Tools are adopted by:
 - a. Southern California Public Power Authority (SCPPA)
 - b. California Municipal Utilities Association (CMUA)
 - c. Northern California Power Agency (NCPA)

2. Currently, the Technical Reference Manual (TRM) is the primary source for calculating and reporting annual and lifetime program performance. TRM provides:
 - a. Methods
 - b. Formulas
 - c. Default assumptions for estimating energy savings and peak demand impacts from energy efficiency measures and projects

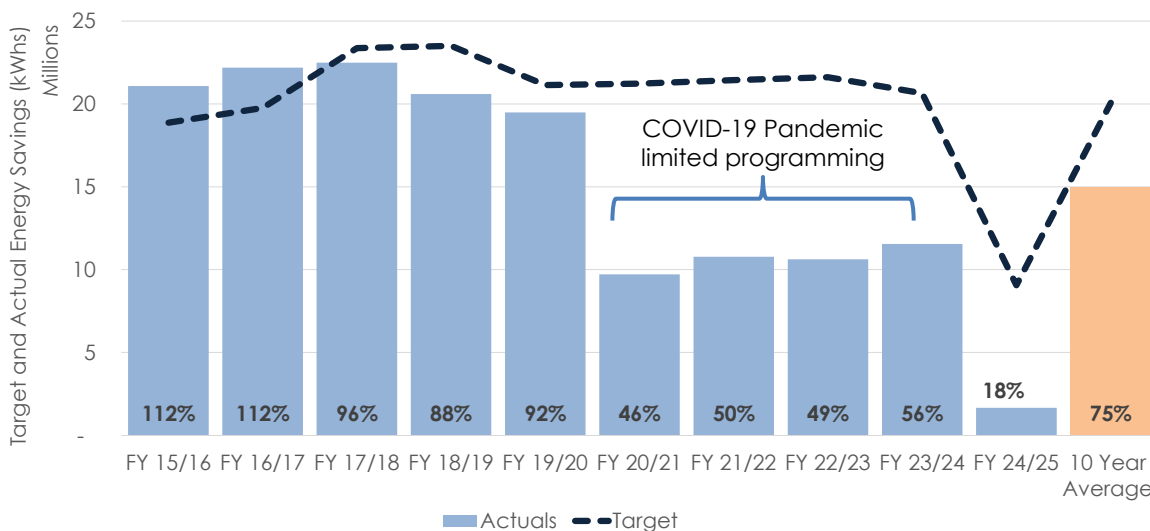


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ENERGY PROGRAM REPORTING



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ENERGY PROGRAM INSPECTION AND COMPLIANCE

1. The Customer Engagement Team regularly performs inspections of residential and commercial rebate applications
2. Staff are on-site inspecting measure installations
3. Inspections take the form of the following:
 - a. Onsite inspection rate of 10% for all residential program participants
 - b. A pre- and post-inspection of 100% of commercial rebate participants, including a review of historical energy usage, energy-saving calculations and post measure bill analysis
 - c. Contract with engineering firms to verify claimed energy savings on large, complex or technical commercial projects before issuing a rebate incentive
 - d. 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



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PUBLIC BENEFIT CHARGE FUND OVERVIEW

1. Public Benefit Charge Fund Revenues

- a. The 2.85% of Public Benefit Charge on all customer bills
- b. Other credits such as interest, operating transfers, and certain investments accounted for per GASB 31

2. Public Benefit Charge Expenditures

- a. Direct Program Costs for customer rebates and direct program cost for program participant (e.g. value of a direct install measure)
- b. Program Support Costs for program administration, development, marketing, education, and outreach and evaluation, measurement and verification

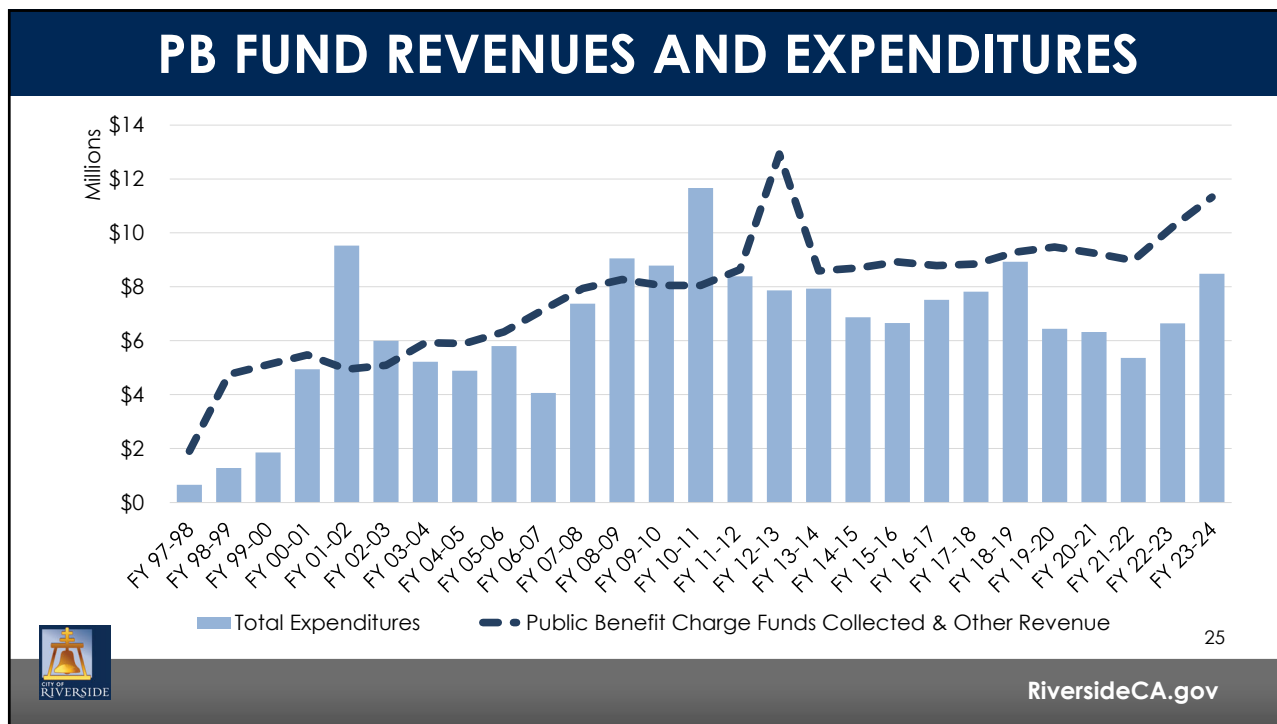
3. Unspent funds from each year are carried to the next and retained in the fund balance



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TOTAL PROGRAM COSTS

1. Direct Program Cost

- a. Includes the value of the rebates, SHARE benefit credit, and the costs of some measures
- b. Direct install and contractor supported programs include costs of the vendors labor to install the measure as that is part of the program cost that benefits the customer

2. Program Support

- a. Includes program administration, development, marketing, education, and outreach and evaluation, measurement and verification

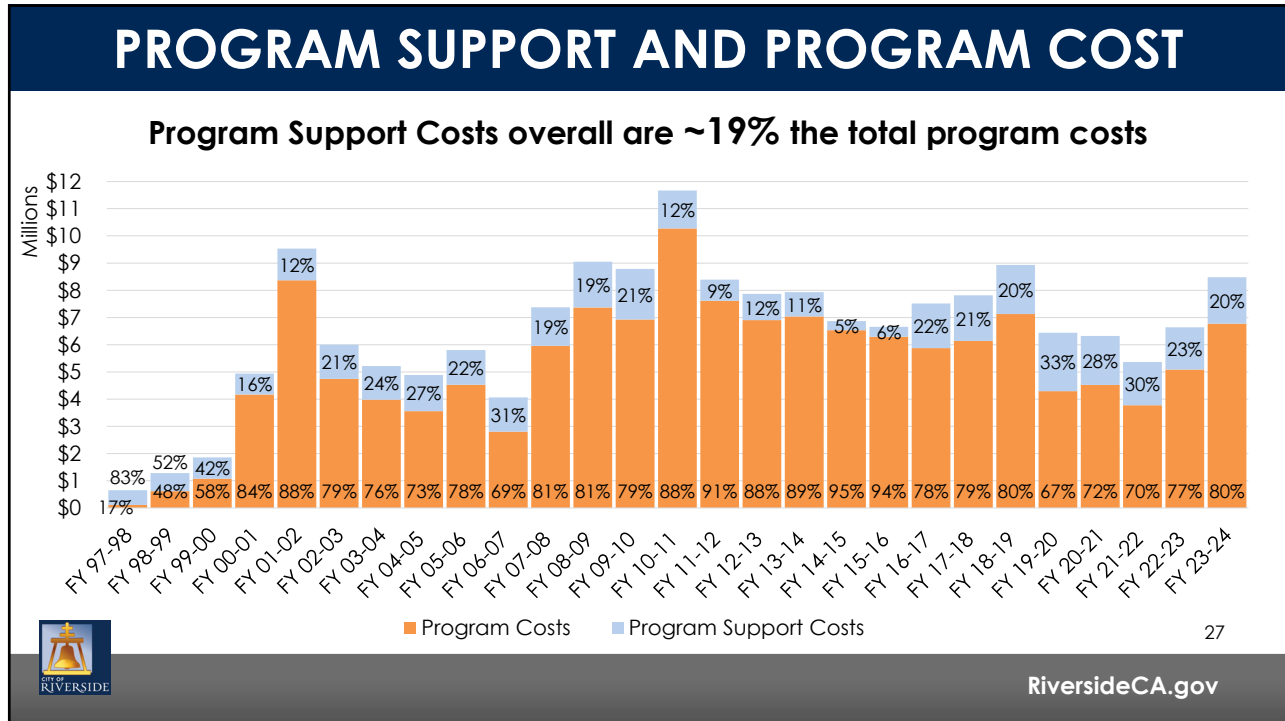
**CPUC established
Cap and Target Limits for
Investor-owned Utilities**

1. Administration: 10%
2. Marketing, Education, and Outreach: 6%
3. Evaluation, Measurement, and Verification: 4%
4. Non-resource Costs: 20%

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- ## NEXT STEPS
1. Public Benefit Charge Funds are budgeted through the two-year budget process and reviewed each year
 2. Program updates are provided each month in the GM report
 3. New programs and program expenditure changes are brought to the Board throughout the year
 4. Unspent funds from each year are carried to the next and retained as the fund balance which is currently over \$32 million
 5. Public Benefit Strategic Plan is being developed using Energy Efficiency and Conservation Block Grant funding to be completed in 2026
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STRATEGIC PLAN ALIGNMENT

Strategic Priority 5 – High Performing Government

Goal 5.3 – Enhance communication and collaboration with community members to improve transparency, build public trust, and encourage shared decision-making

Cross – Cutting Threads



Community Trust



Equity



Fiscal Responsibility



Innovation



Sustainability & Resiliency



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RECOMMENDATIONS

That the Board of Public Utilities:

1. Receive an update on the State Mandated Public Benefits Energy Surcharge Fund program and financial activity; and
2. Direct staff to return to the Board of Public Utilities with a Public Benefits Energy Surcharge plan to consider current program enhancements and to introduce new programs.



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Public Utilities Code

Article 8

Section 385

- (a) Each local publicly owned electric utility shall establish a nonbypassable, usage based charge on local distribution service of not less than the lowest expenditure level of the three largest electrical corporations in California on a percent of revenue basis, calculated from each utility's total revenue requirement for the year ended December 31, 1994, and each utility's total annual expenditure under paragraphs (1), (2), and (3) of subdivision (c) of Section 381 and Section 382, to fund investments by the utility and other parties in any or all of the following:
- (1) Cost-effective demand-side management services to promote energy efficiency and energy conservation.
 - (2) New investment in renewable energy resources and technologies consistent with existing statutes and regulations which promote those resources and technologies.
 - (3) Research, development and demonstration programs for the public interest to advance science or technology which is not adequately provided by competitive and regulated markets.
 - (4) Services provided for low-income electricity customers, including, but not limited to, energy efficiency services, education, weatherization, and rate discounts.
- (b) Each local publicly owned electric utility that has not implemented programs for low-income electricity customers including targeted energy efficiency services and rate discounts based upon the income level of the customer, or completed an assessment of need for those programs, on or before December 31, 2000, shall perform a needs assessment for the programs described in paragraph (4) of subdivision (a) and shall hold one or more public meetings, after notice, to review the findings of the needs assessment. Following the public meetings, the governing body of the local publicly owned electric utility shall determine the amount of the total funds collected pursuant to this section to be allocated to low-income programs, including, but not limited to, targeted energy efficiency services, education, weatherization, and rate discounts. In making its decision on the need for the programs, the governing body shall consider all of the following:

- (1) The number and income level of low-income customers that reside in the service area of the utility.
 - (2) The availability of home weatherization services to low-income customers pursuant to Section 2790.
 - (3) The availability of in-home energy efficiency education in the utility's service area.
 - (4) Other factors that may indicate a need for low-income services.
- (c) Following a determination pursuant to subdivision (b) that low-income services are needed, the local publicly owned utility shall promptly implement or expand those programs. The local publicly owned electric utility shall work with existing weatherization providers to implement energy efficiency, education, and weatherization programs.

Public Utilities Code

Article 8

Section 386

- (a)** Each local publicly owned electric utility shall ensure the following:
- (1)** Low-income families within the utility's service territory have access to affordable electricity.
 - (2)** The current level of assistance reflects the level of need.
 - (3)** Low-income families are afforded no-cost and low-cost energy efficiency measures that reduce energy consumption.
- (b)** The local publicly owned electric utility shall consider increasing the level of the discount or raising the eligibility level for any existing rate assistance program to be reflective of customer need.
- (c)** A publicly owned electric utility shall streamline enrollment for low-income programs by collaborating with existing providers for the Low-Income Home Energy Assistance Program (LIHEAP) and other electric or gas providers within the same service territory.
- (d)** A local publicly owned electric utility shall establish participation goals for its rate assistance program participation.