

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

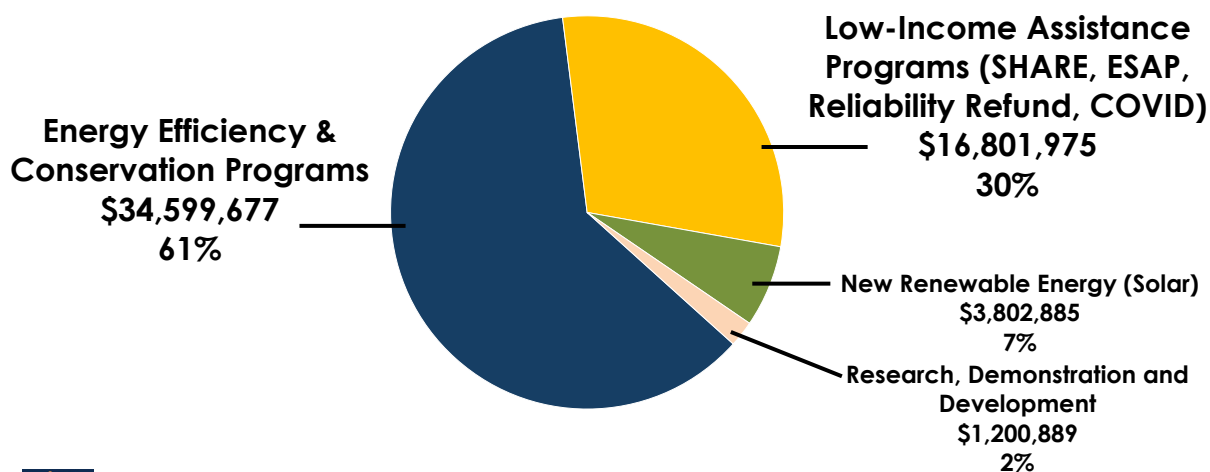


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FUND EXPENDITURE BY PROGRAM TYPE (LAST 10 YEARS)



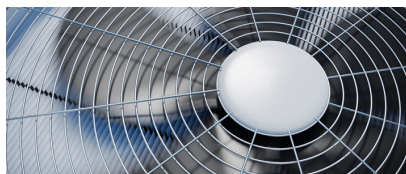
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RESIDENTIAL ENERGY EFFICIENCY PROGRAMS

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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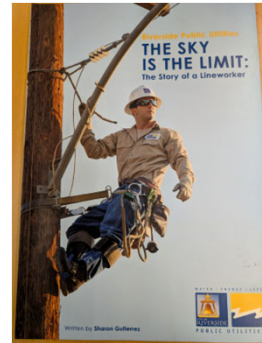
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EDUCATION PROGRAMS

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 event 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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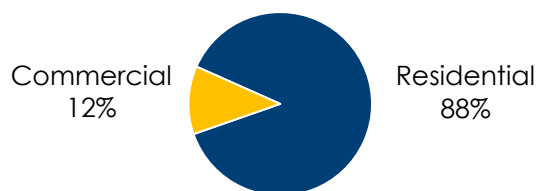
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ENERGY PROGRAM DEVELOPMENT

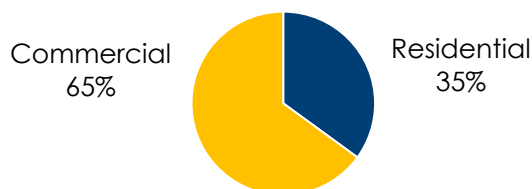
4. RPU's customer base plays a major role in determining program offerings
 - RPU commercial customers represent 12% of the total customer base and approximately 65% of the total utility consumption
5. New construction - RPU incentivizes customers who purchase products above California building code:
 - 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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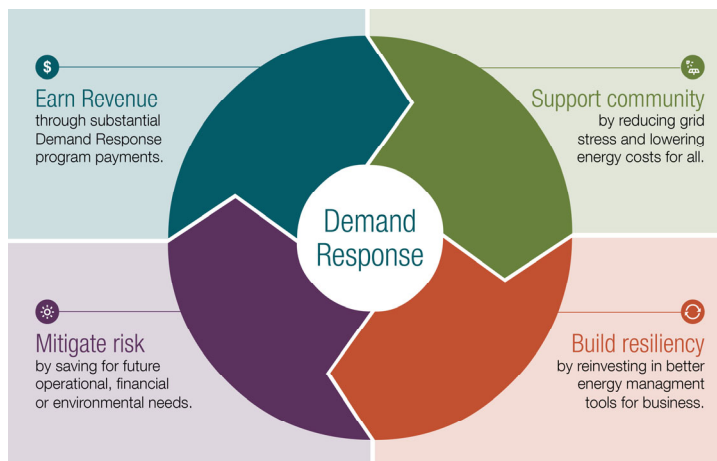
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ENERGY EFFICIENCY AND DEMAND RESPONSE

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

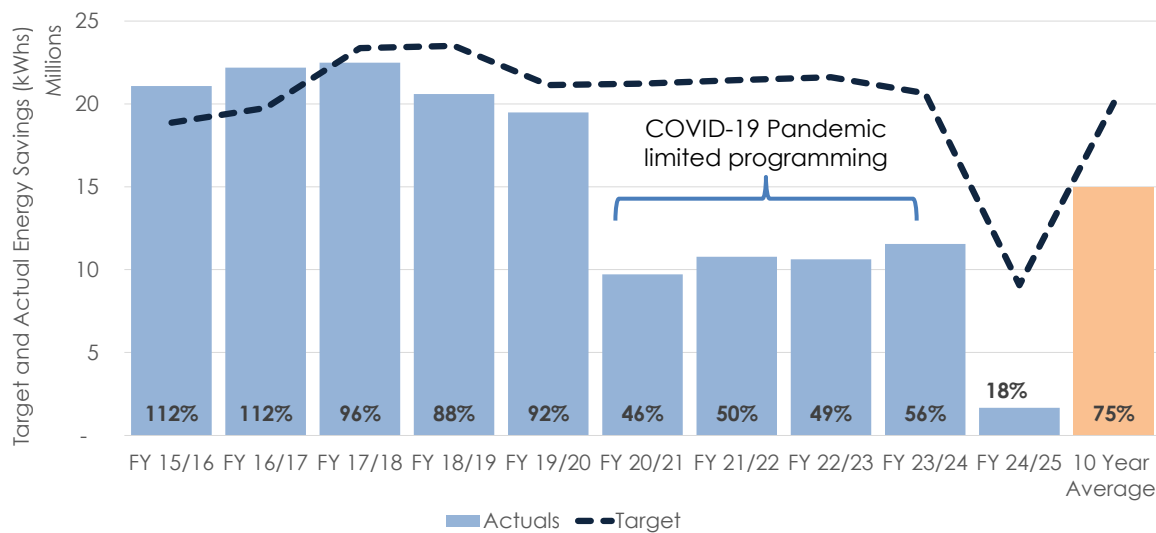


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ENERGY PROGRAM REPORTING



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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

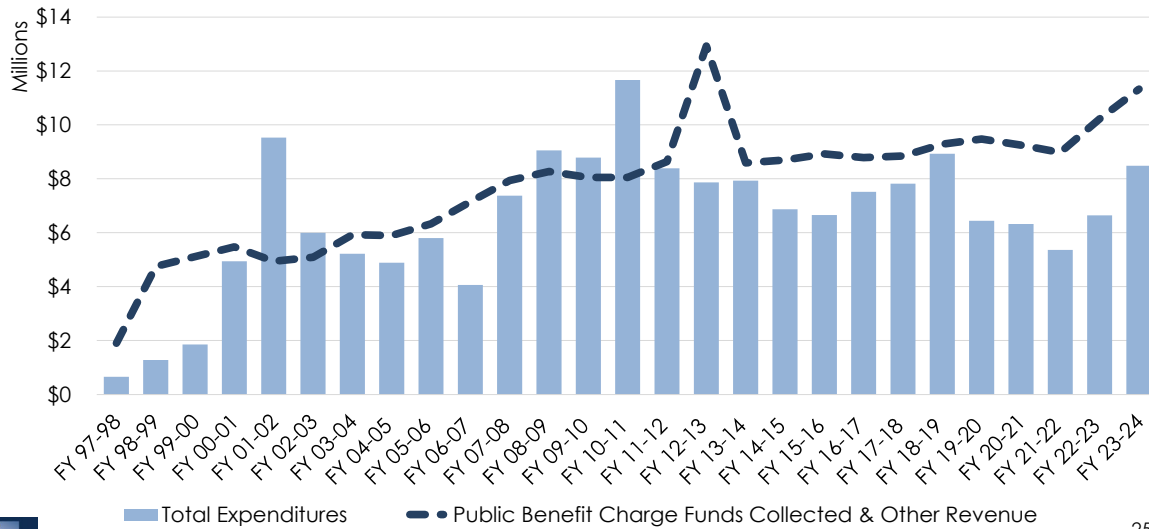


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PB FUND REVENUES AND EXPENDITURES



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TOTAL PROGRAM COSTS

1. Direct Program Cost

- Includes the value of the rebates, SHARE benefit credit, and the costs of some measures
- 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

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

CPUC established Cap and Target Limits for Investor-owned Utilities

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



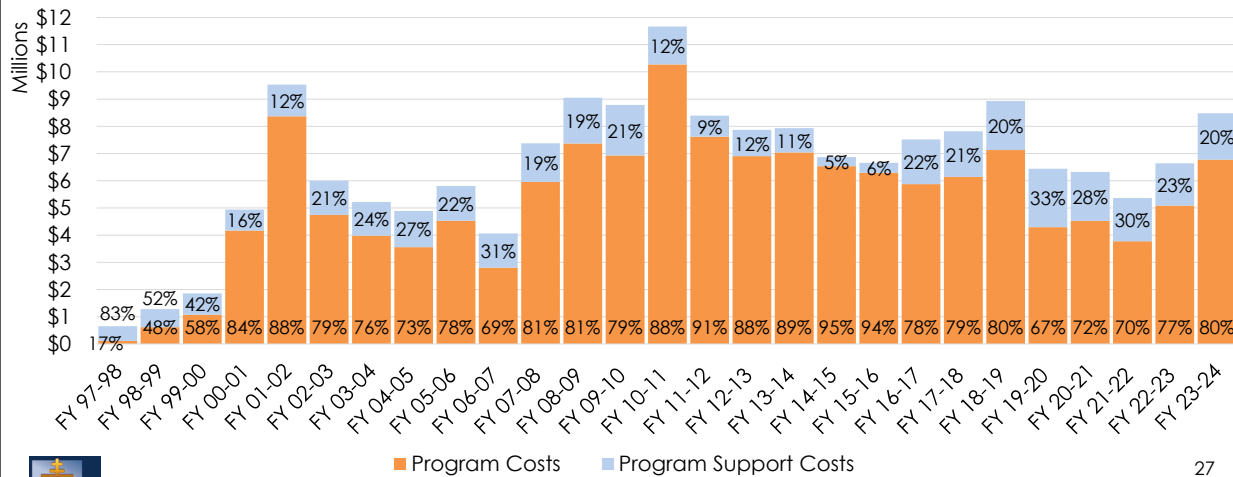
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PROGRAM SUPPORT AND PROGRAM COST

Program Support Costs overall are ~19% the total program costs



Program Costs Program Support Costs

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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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