



The Public Advocates Office

2018 ANNUAL REPORT

The Voice of Consumers Making a Difference





It is an honor to present the 2018 Annual Report of the Public Advocates Office (formerly the Office of Ratepayer Advocates). As the independent voice of consumers at the California Public Utilities Commission (CPUC), our mission is to obtain the lowest possible rate for service consistent with safety, reliability, and the state's environmental goals. We are proud to share our 2018 key actions and accomplishments to fulfill this important mission.

Our goal is to achieve the best value for consumers across the regulated industry sectors – energy, water, and communications. We strive to ensure that no one is left behind and that all communities have access to safe, affordable utility services. Last year, our office saved customers more than \$3.3 billion in the form of lower utility revenues, avoided rate increases, and customer refunds.

We also provide important value to consumers by advocating for the improved safety of critical utility infrastructure and operations. With California's devastating wildfires in 2017 and 2018, this work is even more critical and urgent. Our office has been instrumental in improving methodologies to assess safety risk. We also have played a lead role in successfully holding utilities accountable for harm associated with their failure to reasonably maintain their operations and facilities.

We strongly support California's aggressive climate goals, including reducing greenhouse gas emissions through increased reliance on preferred resources such as energy efficiency, renewables, and energy storage. Our office is actively engaged in furthering ways to cost effectively integrate distributed energy resources and electrified transportation onto the electric grid. By achieving the state's climate goals in a cost-effective manner, we hope to both benefit California consumers and help create a model that other states and entities can follow.

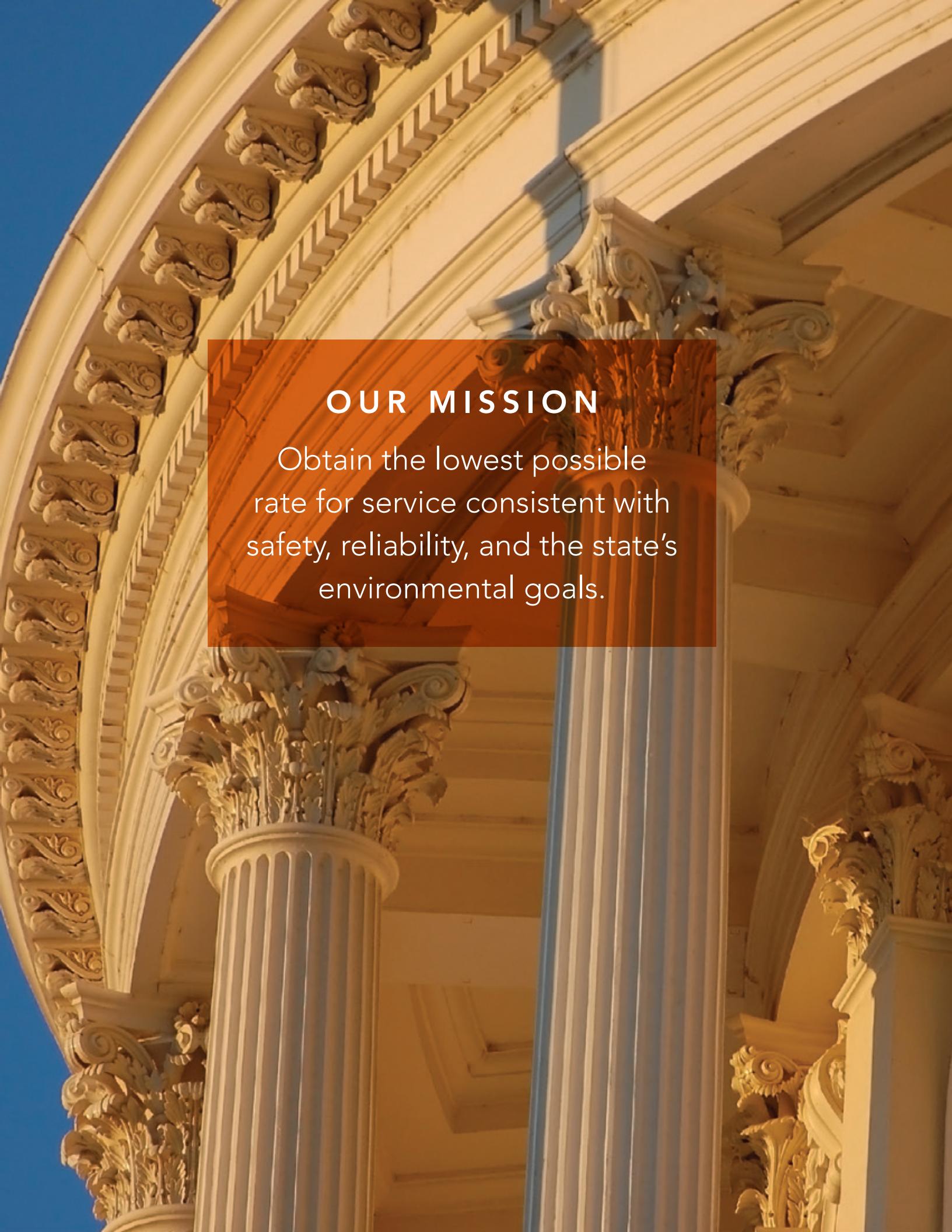
Our office is a critical voice for millions of consumers, many of whom have neither the time nor the resources to navigate the state's complex regulatory processes. Our committed team of analysts, engineers, economists, lawyers, and auditors represent utility customers in all significant CPUC proceedings and in other forums.

We look forward to working with Governor Newsom, the California State Legislature, the CPUC, the public, and other stakeholders to ensure that all Californians have access to affordable, safe, reliable utility services and to continue to advance the state's environmental goals.

– Elizabeth Echols, Public Advocates Office Director

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OUR MISSION

Obtain the lowest possible rate for service consistent with safety, reliability, and the state's environmental goals.

THE VOICE OF CONSUMERS

Making a Difference



Public Advocates Office PG&E Site Visit for Tree Removal in Calaveras County



Public Advocates Office Staff Viewing Battery at SDG&E Site Visit

In 2018, the Public Advocates Office participated in 168 CPUC proceedings and filed approximately 804 pleadings to advocate for the interests of California consumers.



Director Echols at Advanced Energy Economy Pathway to 2050 Energy Symposium in Sacramento

Our Office History

2018

SB 854 changed our name from Office of Ratepayer Advocates (ORA) to the Public Advocates Office to make it more understandable to the people we serve and to better convey our public interest mission.



2013

SB 96 provided ORA more autonomy by making it an independent organization at the CPUC.

2005

SB 608 provided ORA autonomy over its budget, the staff, and appointment of the Chief Counsel.

1996

SB 960 made ORA independent from the CPUC for policy, consumer advocacy, and budget, and made ORA Director an appointee of the Governor.

1984

CPUC created ORA (formerly known as Public Staff Division).

In the last decade,
the Public Advocates
Office has saved
consumers over:

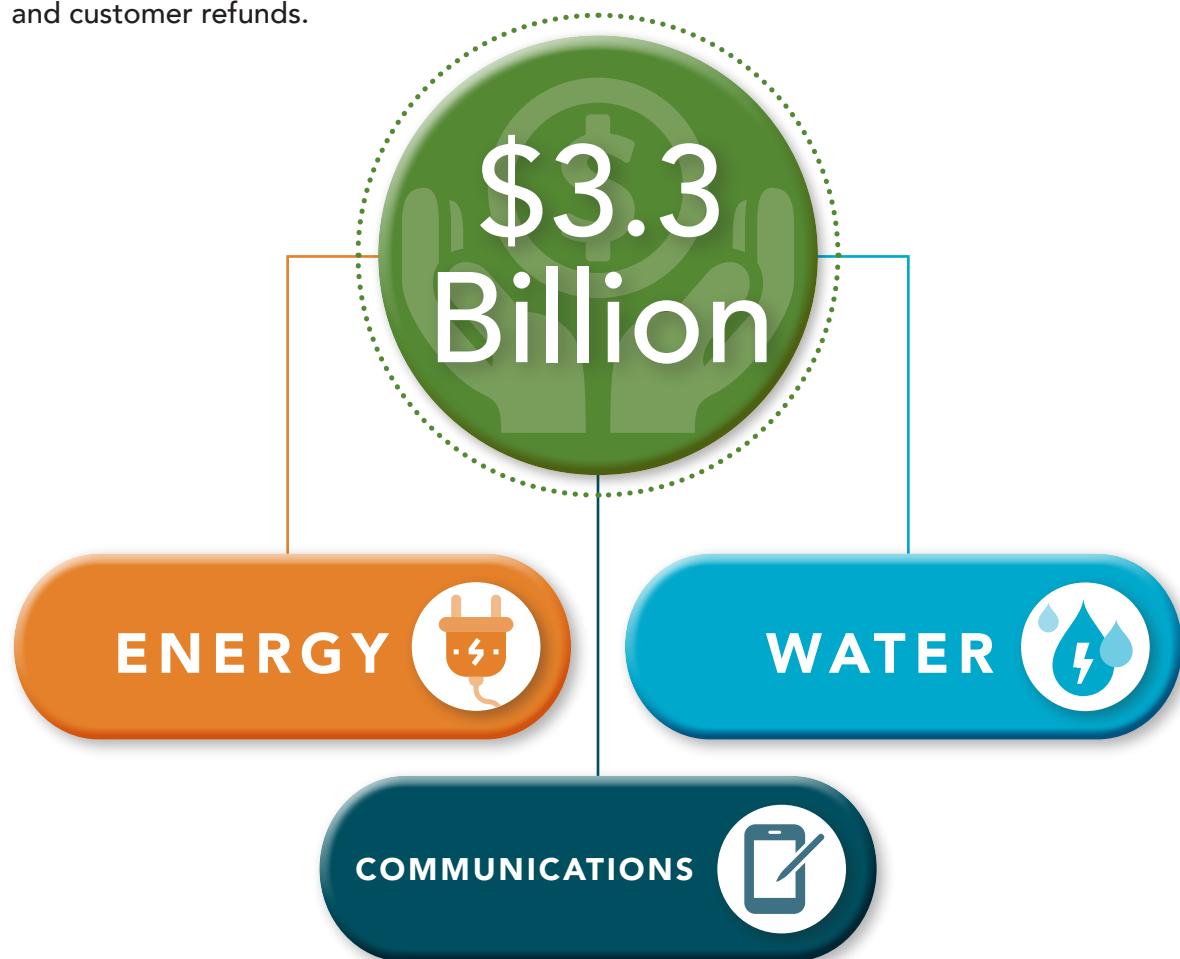
\$43
Billion



THE PUBLIC ADVOCATES OFFICE

2018 Customer Savings

Total customer savings by reduced utility revenues, avoided rate increases, and customer refunds.



THE PUBLIC ADVOCATES OFFICE

Rates and Services

Our Work on General Rate Cases and Other Ratemaking Proceedings

One of the primary ways we accomplish our statutory mandate is by successfully advocating for consumers in General Rate Case (GRC) proceedings. We perform an in-depth review and then develop fact-based recommendations to advocate for the lowest possible customer rates consistent with safety, reliability, and the state's environmental goals. As one of the only entities that evaluates these applications in their entirety, the Public Advocates Office typically devotes the greatest resources to the issues that have the most significant impact on consumers' monthly bills.

WHAT IS A GENERAL RATE CASE PROCEEDING?

A process where an investor-owned utility requests CPUC authorization to collect the revenue from its customers that is necessary to operate its business.

These requests are usually made every three years and include thousands of proposals which will be evaluated over the approximately 18 months that it takes to conclude a General Rate Case (GRC) proceeding.

ENERGY GENERAL RATE CASES

The Public Advocates Office represents approximately 80% of California's electric and natural gas consumers with an emphasis on residential and small business customers. We evaluate investor-owned utility companies in the areas of customer rates, procurement, renewables, distributed energy resources, transmission and distribution infrastructure, safety, and consumer protection. We closely examine the proposals to determine if they are necessary, will keep rates affordable, support California's energy goals, and promote the safety and reliability of the state's energy infrastructure.



Public Advocates Office Staff Site Visit at SCE's Hydro Project

In 2018, the Public Advocates Office reviewed four energy utility GRC applications filed by Southern California Edison Company (SCE), San Diego Gas & Electric Company and Southern California Gas Company (Sempra Utilities), and Bear Valley Electric Service. These proceedings are expected to conclude in 2019.

SCE GRC

In September 2016, SCE filed its GRC application for the 2018-2020 period. SCE requested a \$2.3 billion cumulative revenue increase. Based on our in-depth analyses of SCE's request, we concluded that SCE had overestimated its needs in areas such as incentive compensation, distribution grid modernization, and capital expenditures in transmission, distribution, power supply, and operational services.

The Public Advocates Office is seeking a reduction of \$1.1 billion to SCE's request. The CPUC held evidentiary hearings in Los Angeles and San Francisco in July and August 2017, and parties submitted legal briefs in late 2017. In February 2018, SCE submitted supplemental testimony to address the impact of the federal Tax Cuts and Jobs Act of 2017 (TCJA). A CPUC decision is expected in 2019.



Public Advocates Office Staff Site Visit at SDG&E's Palomar Energy Center

San Diego Gas & Electric and Southern California Gas Companies' GRC

In October 2017, Southern California Gas Company (SoCalGas) filed a GRC application requesting a \$3.5 billion cumulative revenue increase for the 2019-2022 period, and SDG&E filed its application for a \$1.7 billion cumulative increase for the same period. The utilities' requests would result in a 17.7% bill increase in 2019 for an average-usage SoCalGas customer compared to their 2018 bill and an 8.4% bill increase in 2019 for a SDG&E customer compared to their 2018 bill.

The Public Advocates Office recommend a \$2.1 billion or 40% decrease to SoCalGas' request and a \$1.17 billion or 69% decrease to SDG&E's. Based on our analyses, we concluded that the two utilities had overestimated their needs in areas such as incentive compensation, fleet and facilities costs, information technology costs, and parent-company expenses.

The CPUC held evidentiary hearings over the summer, and parties submitted legal briefs in September and October. A CPUC decision is expected in 2019.

Bear Valley GRC

In May 2017, Bear Valley Electric Service Division (BVES) filed its GRC application proposing a \$5.1 million cumulative revenue increase for a four-year GRC period from 2018-2021. The Public Advocates Office served testimony in September 2017, which recommended a \$19.7 million cumulative revenue decrease for the four-year period.

The CPUC held an evidentiary hearing in May 2018, and parties filed legal briefs in June and July. The Public Advocates Office and BVES reached a settlement agreement that was filed in November 2018. The settlement agreement will result in a \$13.7 million cumulative revenue decrease over the four-year period. A CPUC decision is expected in 2019.



Public Advocates Office Staff Site Visit at SDG&E in Escondido

OTHER ENERGY RATEmAKING PROCEEDINGS

San Onofre Nuclear Generating Station

In August 2015, the Public Advocates Office filed a petition with the CPUC stating that had SCE reported its communications with decision makers in a proper and timely manner as required by law, the terms of the 2014 settlement agreement would have been more favorable to customers. The CPUC ultimately reopened the proceeding and directed parties to confer and provide further recommendations for procedural action and substantive modifications to the 2014 settlement agreement.

In January 2018, the Public Advocates Office reached a settlement that stops Southern California Edison Company ("SCE") and San Diego Gas & Electric Company ("SDG&E") from passing on a substantial portion of the costs associated with the premature closure of the San Onofre Nuclear Generating Station ("SONGS") to their customers. The settlement between SCE, SDG&E, Public Advocates Office and other organizations provides that SCE and SDG&E can no longer recover \$775 million in costs from their customers. In July 2018, the CPUC adopted the settlement with some modifications, resolving the CPUC's SONGS investigation. The 2018 settlement agreement resulted in total customer savings of \$775 million in addition to the 2014 settlement agreement previously approved by the CPUC.

PG&E's Catastrophic Emergency Memorandum Account

The Public Advocates Office conducts in-depth reviews of utilities' costs associated with restoring service during and after catastrophic events. The utilities are allowed to record such costs in an account called the Catastrophic Emergency Memorandum Account and can seek recovery of these costs from their customers. In October 2016, PG&E requested recovery of \$146 million for service restoration and other activities pertaining to 20 declared disasters occurring between 2012 and 2016. After conducting an audit of PG&E's records, we recommended the CPUC reduce the amount PG&E could recover to \$100 million since the remaining costs had already been authorized in PG&E's most recent GRC proceeding. In June 2018, the CPUC approved a settlement agreement between PG&E, the Public Advocates Office, and The Utility Reform Network (TURN), which allows PG&E to recover \$117 million. The settlement agreement results in a \$29 million savings for PG&E customers compared to PG&E's request.

PG&E's Gas Cost Allocation Proceeding

The Public Advocates Office analyzed ways to reduce volatility of natural gas bills for residential customers. Together with PG&E and TURN, the Public Advocates Office entered into an agreement that sets a new structure for the residential winter baseline season in order to minimize natural gas bill volatility for PG&E's residential customers consistent with Senate Bill (SB) 711 (Hill, Chapter 467, Statutes of 2017). In October 2018, the CPUC approved the Residential Baseline Season Restructuring Settlement Agreement, which will be implemented prior to the 2019 winter season.



Public Advocates Office Staff Site Visit at SDG&E in Escondido

WATER GENERAL RATE CASES

The Public Advocates Office represents about 15% of California's urban water customers. We advocate for affordable, safe, and reliable water service, and for water rate assistance programs that serve low-income customers. We support cost-effective conservation programs and long-term water supply solutions. In fulfilling our mission, we represent over 4 million customers (or 1.3 million service connections) of California investor-owned water utilities.

California American Water Company GRC

On July 1, 2016, the California American Water Company filed its GRC application requesting a cumulative revenue increase of \$128.4 million from 2018 through 2020. We advocated for a \$94.9 million reduction to this request because its proposed budgets for capital, operations and maintenance, and general and administrative expenses were too high. In particular, the company's request inappropriately included costs for infrastructure not used in providing service. The CPUC's final decision on December 13, 2018 adopted a cumulative revenue increase of \$68.2 million, about 47 percent less than the company's original request.

Suburban Water Systems GRC

On January 3, 2017, Suburban Water Systems filed its GRC application requesting a cumulative revenue increase of \$50.9 million from 2018 through 2020. The Public Advocates Office advocated for a \$40.6 million reduction to this request because the company's proposed budgets for capital, operations and maintenance, and general and administrative expenses were more than necessary. In particular, the company's request inappropriately included costs that should be allocated to its parent and affiliated companies. The CPUC's final decision is expected sometime in 2019.

San Jose Water Company GRC

On January 4, 2018, the San Jose Water Company filed its GRC application requesting a cumulative revenue increase of \$151.9 million from 2019 through 2021. Our testimony demonstrated that the company's proposed budgets for capital, operations and maintenance, and general and administrative expenses were too high. In particular, the company's request inappropriately included funding for the labor cost of employees who work on non-regulated operations. On November 29, 2018, the CPUC adopted a settlement agreement between the Public Advocates Office and the company which recommended a smaller cumulative revenue increase of \$84.9 million, about 44 percent lower than the utility's original request.

Golden State Water Company GRC

On July 19, 2018, Golden State Water Company filed its GRC application requesting a cumulative revenue increase of \$128.5 million from 2019 through 2021. Our testimony demonstrated that the company's proposed budgets for capital, operations and maintenance, and general and administrative expenses were more than necessary. In particular, the company requested an aggressive pipeline replacement program that was unnecessary and costly. We advocated for a more gradual pipeline replacement program consistent with the company's asset management data. On August 15, 2018, we reached a settlement agreement with the company which recommends a cumulative revenue increase of \$59.4 million, about 54 percent lower than the utility's original request. The CPUC's final decision is expected sometime in 2019.



COMMUNICATIONS RATEmAKING PROCEEDINGS

The California High Cost Fund A Program

The California High Cost Fund A (CHCF-A) program provides subsidies to small independent local exchange carriers (small ILECs) in amounts sufficient to meet their revenue requirements. Out of 13 small ILECs, 10 participate in the program¹. These 10 participants serve more than 50,000 customers. In 2018, these small ILECs received an average annual subsidy of \$1,140 per line (\$776 from the CHCF-A program and \$364 from the federal government's Universal Service Fund High Cost Support).

The CPUC establishes the revenue requirement for small ILECs in GRC proceedings. In these GRC proceedings, we represent not only the customers served by these small ILECs, but also all communications customers statewide who pay surcharges on their bills to fund the CHCF-A program. We conduct a detailed review to assess the reasonableness of proposed costs -- for example, executive compensation, operations and maintenance, customer care, general and administrative expenses, and infrastructure investments. We also examine each small ILEC's transactions with its non-regulated affiliates to ensure the allocation of direct and common costs is done accurately and fairly. Our advocacy in these GRC proceedings is consistent with the statutory requirement that the subsidy provided to these small ILECs is not excessive

in order to limit the burden on customers statewide who fund the program.

On October 2, 2017, Ducor Telephone Company and Foresthill Telephone Company filed their GRC applications requesting cumulative revenues of \$7.9 million and \$16.8 million respectively for 2019 through 2021. The Public Advocates Office has recommended these requests be reduced by \$2.1 million and \$3.9 million respectively because the companies' proposed budgets for capital, operations and maintenance, and general and administrative expenses were too high. In particular, the companies' request inappropriately included costs that should be allocated to its parent and affiliated companies. The CPUC decisions in these two proceedings are expected sometime in 2019.

¹ The ten utilities that participate in CHCF-A are Calaveras Telephone Company (U 1004 C) ("Calaveras"), Cal-Ore Telephone Co. (U1006 C) ("Cal-Ore"), Ducor Telephone Company (U 1007 C) ("Ducor"), Foresthill Telephone Co. (U1009 C) ("Foresthill"), Kerman Telephone Co. (U 1012 C) ("Kerman"), The Ponderosa Telephone Co. (U 1014 C) ("Ponderosa"), Sierra Telephone Company, Inc. (U 1016 C) ("Sierra"), The Siskiyou Telephone Company (U 1017 C) ("Siskiyou"), and Volcano Telephone Company (U 1019 C) ("Volcano").



Our Policy Efforts

The mission of the Public Advocates Office is to achieve the lowest possible utility rates for California consumers consistent with safety, reliability, and the state's environmental goals. Our goal is to achieve the best value for consumers across the regulated industry sectors (energy, water, and communications) and ensure that all communities have access to affordable utility services.

The Public Advocates Office is committed to providing policy advocacy that keeps pace with California's commitment to leadership in environmental, safety, and equitable access policies. The state's regulatory processes are complex and the average consumer has neither the time nor the resources to navigate these procedures on their own. We dedicate significant expertise, including analysts, engineers, lawyers, auditors, and financial experts to a thorough examination of the benefits and costs of proposed programs and policies. We advocate for outcomes that are both consistent with state policy goals and in the best interests of the consumer.

We successfully represent the interests of California consumers in the following policy areas.

ACCESS AND AFFORDABILITY

The Public Advocates Office is committed to advancing universal and affordable access to utility service, especially to those most in need. In 2018, we participated in hundreds of proceedings at the CPUC and in forums at the California Air Resources Board,

California Energy Commission, the California Independent System Operator, and the State Water Control Resources Board.

SAFETY AND RELIABILITY

The Public Advocates Office advocates for cost-effective utility services that are provided in a safe and reliable manner. We examine utility proposals, safety claims, risk analysis, and analyze utility costs. As part of our advocacy, we also determine whether utility safety proposals are compliant with federal and state laws and regulations.

ENVIRONMENTAL GOALS

The Public Advocates Office supports California's ambitious environmental goals and strives to achieve them in the most cost-effective manner possible. We work directly with the CPUC, stakeholders, and the public to help implement the state's goal of reducing greenhouse gas emissions through increased reliance on preferred resources such as energy efficiency, renewables, and energy storage. We also work to identify and assess the best ways to integrate distributed energy resources onto the electric grid and further transportation electrification.



ACCESS AND AFFORDABILITY

AFFORDABILITY RULEMAKING

The CPUC initiated a rulemaking in July 2018 to develop a framework to measure affordability across all utility-industry areas: electric, water, gas, and telecommunications.

The new rulemaking recognizes that the impact of individual, piecemeal requests made by utilities outside the General Rate Case (GRC) process are not readily transparent and place pressure on residential rates and customer bills. The Public Advocates Office recommends that the CPUC require each company seeking a revenue increase outside of a GRC to accompany the request with information on the cumulative effect of recent, pending, and future increases on residential rates and bills. This will enable the CPUC to consider these cumulative effects in deciding whether to approve utility requests that are made outside the GRC process.

The new rulemaking also recognizes the importance of understanding and updating what an essential service is for each industry. The Public Advocates Office recommends the CPUC consider the differences throughout the state, including varying temperature, geography, and cost-of-living in assessing the affordability of essential utility services. We are working with various groups to develop an affordability framework that better identifies areas of the state with the most need, including disadvantaged communities.

AFFORDABLE ENERGY SERVICES

Low-Income Customers and Disadvantaged Communities

The Public Advocates Office actively advocates for low-income energy customers and disadvantaged communities to ensure that they benefit from programs that can improve their health and safety. This includes providing customers access to clean energy in addition to lowering their energy bills. We successfully have advocated for the CPUC to use CalEnviroScreen, when considering policies and programs to support disadvantaged communities. The CalEnviroScreen is a tool developed by the California Environmental Protection Agency to identify the state's most disadvantaged communities and those that are disproportionately burdened by pollution.

In 2018, the Public Advocates Office actively participated in the following proceedings focusing on low-income customers and disadvantaged communities:



Increasing Access to Affordable Energy in San Joaquin Valley Disadvantaged Communities

The Public Advocates Office has been actively involved in the CPUC's proceeding on increasing access to affordable energy service in disadvantaged communities within the San Joaquin Valley. This proceeding was established pursuant to AB 2672 (Perea, Chapter 611, Statutes of 2014). We developed a comprehensive framework and timeline for identifying and assessing which disadvantaged communities do not have access to natural gas service within this region. With these communities now identified, the proceeding has entered Phase 2 where pilot projects are under development.

We have focused on four key objectives for the pilot projects:

- (1) Testing scalable approaches to find effective ways to help disadvantaged communities across the San Joaquin Valley and, eventually, statewide;
- (2) Protecting participating residents from unintended adverse consequences of pilot projects such as rent increases and safety hazards;
- (3) Ensuring that pilot projects are consistent with the state's ambitious environmental goals which include reducing greenhouse gas emissions and air pollution; and
- (4) Developing a comprehensive framework for evaluating the benefits and costs of proposed pilot projects, with a central focus on how to most efficiently increase access to affordable energy in disadvantaged communities.

In December 2018, the CPUC approved a decision that established eleven pilot communities. The decision also adopted our recommendations to include a competitive solicitation process, establish workforce skills

standards, require pilot administrators to include a comprehensive safety plan, and set cost caps for administrative overhead.

Expanding the Benefits of Distributed Generation to Disadvantaged Communities

In June 2018, the CPUC established three new programs to promote solar energy in disadvantaged communities (DAC): Single-family Solar Homes Program (DAC-SASH), Green Tariff program (DAC-GT), and Community Solar Green Tariff program (CS-GT). The CPUC adopted the Public Advocates Office's proposal for a Community Solar Green Tariff program that would bring significant bill reductions to low-income customers while limiting cost increases to residents not participating in the program.

Ensuring Cost-Effective Programs to Assist Low-income Customers

The Public Advocates Office is participating in a working group that is designing and refining methodologies to determine the cost-effectiveness of the CPUC's low-income energy efficiency programs, also referred to as the Energy Savings Assistance Program. We are currently collaborating with other organizations on the design of a study to more precisely measure program benefits to low-income customers that go beyond energy savings and include improvements in health, safety, and welfare also referred to as "non-energy benefits". The study will help ensure that the Energy Savings Assistance Program properly accounts for these non-energy benefits as a part of program design and approval.

We are also participating in a working group to implement the CPUC's direction to expand spending for projects that serve apartment buildings that primarily house low-income customers. In 2016, the CPUC established a budget of \$80 million of unspent energy efficiency funds for upgrades to common area measures and created a dedicated multifamily

working group. The Public Advocates Office is participating in this group and providing input on the development of the common area implementation plans. Our focus is to develop programs that provide benefits to low-income customers in targeted multifamily buildings and generate meaningful energy savings.

Diablo Canyon Retirement

The Public Advocates Office supports the retirement of California's last operable nuclear plant, PG&E's Diablo Canyon Nuclear Power Plant, by 2025. We successfully advocated that PG&E's request to charge its customers \$1.8 billion for costs associated with the plant closure was excessive. Consistent with our recommendations, the CPUC significantly reduced PG&E's request to \$241.2 million saving customers approximately \$1.56 billion.

Electric Rate Protections

The Public Advocates Office advocates for visibility into how individual utility requests for cost recovery collectively impact customers' bills rather than considering each request in isolation. As discussed above, we recommend that the CPUC require the utilities to provide a running total of all pending and approved increases to customer bills. As part of this effort, the Public Advocates Office has developed a framework that takes into account the bill impacts of all sources of rate increases. The CPUC and stakeholders can use this framework to prioritize utility proposals. We have raised this framework in several ongoing CPUC proceedings, including the Affordability and Service Disconnection Rulemakings.

The Public Advocates Office is also tracking rate trends over time for California's three major electric utilities. We use this information to detect early signs of significant and/or sudden rate increases (also known as rate shock) and to recommend proactive interventions. We review the utilities' proposals

to determine rate and bill impact and make recommendations to mitigate those impacts.

Electric Revenue Allocation and Rate Design

Revenue allocation is how a utility's authorized revenue is allocated across customer classes, such as residential, small commercial, large commercial and industrial, and agricultural. Once the revenue allocation is approved by the CPUC, rates are designed for all services provided to customers within a customer class so that the utility can collect its authorized revenue through customers' bills.

Consistent with our legislative mandate, the Public Advocates Office participates in numerous rate proceedings to advocate for the interests of residential and small commercial customers. We develop revenue allocation and rate design proposals that balance customer needs, bill impacts, and the state's environmental and policy goals.

Electric Revenue Allocation

The Public Advocates Office and other parties entered into a settlement agreement which saves residential customers money by reducing PG&E's proposed revenue allocation to these customers by \$23 million. The CPUC adopted the settlement in August 2018, with the revenue allocation reduction reflected in rates starting January 2019.

In addition, the Public Advocates Office and other parties entered into a settlement agreement with SCE, which reduced revenue allocation to residential customers by \$167 million. The settlement also provides small commercial customers with a default time-of-use rate with a mild price differential between peak and off-peak periods, and a reduced fixed charge. The CPUC approved the agreement in November 2018, with the reduction reflected in rates starting March 2019.



Energy Efficiency

The Public Advocates Office has been a driving force in ensuring that California's energy efficiency programs reduce customers' bills and spur innovation to enable the state to cost-effectively meet its aggressive greenhouse gas (GHG) emissions reduction goals. California utilities collectively spend about \$900 million per year

on customer-funded energy efficiency. The Public Advocates Office continues to push for increased program benefits, while eliminating wasteful spending on administrative costs.

Expanding Participation to Spur Innovation and Lower Costs

The Public Advocates Office is working hard to promote greater involvement of non-utility energy efficiency implementers to enable more innovation, foster competition, and reduce costs. Under this new framework, the utilities would continue to administer the programs, and third-party organizations including local governments would compete to design and implement specific programs.

Increasing Transparency and Accountability

The Public Advocates Office strongly advocates for transparency and accountability in utility spending on energy efficiency. Following our January 2018 recommendations, the CPUC required the utilities to hire independent experts to advise them on competitive solicitations for energy efficiency, and to consult with stakeholders through a Procurement Review Group. These steps will

Electric Rate Design

The Public Advocates Office supports default rate designs that fit the needs of the majority of customers, and optional rates that provide choices for customers who have more specific needs. Specifically, we support Time-of-Use (TOU) default rates that feature small differences between on-peak and off-peak rates to give customers mild price signals, also referred to as "TOU lite." For most customers, the TOU lite rates are sufficient to promote conservation and shift usage to off-peak periods. We have designed TOU lite rates that are not punitive for customers who are less able to respond to time-based pricing.

The Public Advocates Office also has developed rates designed for customers who have more sophisticated load profiles. Customers who own an electric vehicle, behind-the-meter generation, or behind-the-meter storage should have the option to choose rates that are responsive to their needs and to new technology.



help ensure that the procurement process is fair and competitive, so that California utility customers get the environmental and economic benefits they expect from efficiency programs.

Setting Standards for Hiring Skilled Workers

The Public Advocates Office urged the CPUC to adopt strong standards for hiring skilled workers to install complex energy technologies. Following our recommendations, the CPUC adopted training standards to ensure that complex energy efficiency projects are installed properly. This will provide assurances that efficiency projects produce the real energy savings that customers expect.

Reducing GHG Emissions

The Public Advocates Office offered substantial recommendations in two policy areas that are vital to the future of energy efficiency: helping customers switch from natural gas to efficient electric appliances, and developing markets for new, efficient technologies. We recommended a policy framework to pay for and measure the value of high-efficiency technologies that replace natural gas with electricity, such as heat-pump space heaters and heat-pump water heaters. This could enable customers to move toward an all-electric, highly efficient, carbon-free home.

Electricity Procurement Costs

PG&E, SCE, and SDG&E record costs of generating and purchasing power in accounts called Energy Resource and Recovery Accounts (ERRA). Each year, the utilities must request CPUC authority to recover these costs in the rates charged to their customers.

The Public Advocates Office is often the only consumer advocate participating in ERRA proceedings. Our participation includes reviewing utility-owned generation operations, fuel expenses and procurement, contract administration, least-cost dispatch, demand response, and greenhouse gas compliance instrument procurement.

In 2018, we successfully advocated that the CPUC disallow some of the utilities' 2016 ERRA costs, resulting in savings to customers of over \$500,000.

The Power Charge Indifference Adjustment

State law prohibits a utility from shifting the costs incurred to purchase power on behalf of customers who then leave the utility to take service from Community Choice Aggregators (CCAs) or Direct Access (DA) providers, to customers who remain with the utility. The Power Charge Indifference Adjustment (PCIA) is a cost recovery mechanism intended to ensure that customers for whom the utilities procure energy (bundled service customers) are financially unaffected by customers who choose Community Choice Aggregation (CCA) and Direct Access (DA). The Public Advocates Office supports rules and methodologies that are fair to both sets of customers by upholding this cost indifference concept. We were largely supportive of the CPUC's decision issued in October 2018.

AFFORDABLE WATER RATES

We advocate to ensure affordable water rates primarily in cost of capital and GRC proceedings where we rigorously examine utility requests and advocate to include in customer rates only costs that are essential in providing safe and reliable service.

Cost of Capital

In cost of capital proceedings, the CPUC determines the financing cost for utilities, including investor returns on investment. Changes to the cost of capital can have a significant impact on the rates that customers pay.

In this proceeding for the four Large Class A water companies, we recommended authorized investor returns below 9% to reflect the numerous risk-reducing, alternative ratemaking mechanisms that have been

adopted by the CPUC. Our recommendation would have resulted in a cumulative savings of \$141 million from 2018 through 2020. While the Administrative Law Judge's Proposed Decision agreed with our recommendation, the CPUC's final decision adopted investor returns higher than what we recommended, resulting in more modest cumulative savings of \$60 million.



In the Cost of Capital proceeding for the four Small Class A water companies, we entered into a partial settlement agreement that would lower average system rates between 2 percent and 5 percent and produce about \$18.6 million in cumulative savings from 2019 through 2021. On December 13, 2018, the CPUC adopted the partial settlement agreement. While we advocated for the lower cost of capital to take effect immediately, the CPUC's final decision allowed two of the utilities to delay implementing the lower rates until July 1, 2019.

California American Water Monterey Desalination Plant

In April 2012, California American Water sought CPUC approval to construct a desalination plant in Monterey, which will be the largest Class A Water utility infrastructure project in history. We recommended and achieved significant ratepayer protections in the CPUC's recently adopted final decision approving construction of the Monterey Peninsula Water Supply Project. If the desalination plant and associated facilities underperform, customers' surcharges can be refunded and rates lowered.





Golden State Water GRC

In the Golden State Water GRC, we reached a settlement agreement with the utility. The settlement agreement ensures that customer discounts will be no less than previously adopted. It also allows for a pilot program that provides a credit card payment option free of charge, in accordance with AB 1180 (Holden, Chapter 617, Statutes of 2017).

Water Action Plan and Water Rate Assistance Programs

The CPUC initiated a rulemaking in June 2017 to evaluate the current Water Action Plan and low-income rate assistance programs. In addition to providing comments on the importance of comprehensive reviews of rate designs in GRCs, we highlighted the impacts of bill surcharges, which are typically excluded from affordability calculations. We will participate in the joint workshops held by the CPUC and State Water Resources Control Board on affordability and water rate assistance programs in 2019.

AFFORDABLE COMMUNICATION SERVICES

LifeLine Program

In efforts to reform Lifeline, the CPUC hosted several workshops in 2018 to develop pilot

programs for eligible customers. The pilot programs will partner with existing social service agencies and community-based organizations to expedite eligibility verification for customers (i.e., a customer being verified for a compatible public assistance program eliminates the LifeLine verification step). Pilot programs also will test whether more flexible rules will attract and retain service providers. We advocated for using an online platform to ease customer enrollment. We also advocated for rigorous evaluation of the pilots to ensure that the lessons learned can be scaled up to the full program and be made available to all eligible customers. The pilots are expected to launch sometime in 2019.

California High Cost Fund A Program

We strive to maintain the integrity of the California High Cost Fund A (CHCF-A) Program. In 2018, the CPUC adopted our recommendations to ensure that all customers benefit from the Federal Tax Cut and Jobs Act of 2017. In addition, we evaluated the annual filings made by 10 small incumbent telephone companies requesting increases in the subsidy amount they receive from the program for 2019. We found multiple errors and omissions in the companies' requests and recommended that the CPUC increase the due diligence required by a prior CPUC decision to ensure the companies do not receive subsidy amounts greater than what they need.

In the Ducor Telephone Company GRC, in response to input from customers received during the Public Participation Hearings, we recommended that the utility work with its affiliate to offer a stand-alone broadband service plan. We also recommended that the CPUC require the utility to submit an analysis of the least-cost options for implementing a broadband plan for low-income customers. The CPUC's final decision is expected sometime in 2019.

Compliance to Merger Conditions

We continue to monitor compliance with merger settlement conditions to ensure that companies maintain service quality, provide broadband access to customers in rural and unserved areas, and promote capital investment in California. We participated in stakeholder discussions with CenturyLink/Level 3 Communications to hold the companies accountable for meeting settlement conditions reached with the Public Advocates Office and other parties in June 2017. In the settlement approving the merger, the merged companies committed to invest at least \$323 million in California from 2018 through 2020, including expenditures on new middle-mile infrastructure investment and new points of presence. Through these stakeholder discussions, we helped focus the companies' expenditures on unserved and underserved communities. CenturyLink/Level 3 agreed to build two middle-mile projects, one in Colfax (benefiting an estimated 2,000 people/929 households), and another on Highway 50 (benefiting six rural counties in northern California).

We continue to monitor Frontier Communications' (Frontier) compliance with broadband deployment commitments made in its acquisition of Verizon's landline operations. Specifically, Frontier is required to provide 250,000 households with broadband

access of at least 25 Mbps download/3 Mbps upload, 50,000 households with speeds of 10 Mbps download/3 Mbps upload, and 50,000 households with speeds of 6 Mbps download/1.5 Mbps upload by December 2018. We also continue to review their customer satisfaction survey results.



As a condition of the settlement agreement in the merger of Charter Communications with Time Warner Cable in October 2017, New Charter agreed to provide broadband access at upload speeds of at least 300 Mbps to one hundred percent of its households by December 2019. New Charter must submit annual progress reports to track advancement towards meeting this goal. We are in the process of analyzing the data underlying New Charter's latest report to determine if it is on track to meet its merger commitments. We also are analyzing results from an ongoing customer satisfaction survey that New Charter is required to conduct (through an independent survey consultant) as a condition of the merger.

SAFETY AND RELIABILITY

EMERGENCY DISASTER RELIEF RULEMAKING

In November 2017 and January 2018, the CPUC adopted resolutions, which require utility companies (electric, gas, communications, and water) to take reasonable and necessary steps to assist Californians affected by a series of devastating wildfires in northern and southern California. The protections adopted in these resolutions are designed to ensure

that Californians who experienced housing or financial crises due to a disaster or state of emergency do not lose access to vital utility services. These protections currently apply only to the specific incidents identified in the resolutions.

In March 2018, the CPUC opened a proceeding to consider whether these protections should be expanded to all emergency disasters. The Public Advocates Office recommends these protections be automatically triggered when the governor issues a state of emergency proclamation. We also recommend assessing the effectiveness and efficacy of the proposed protections. While our analysis indicates that the emergency protections are the right ones for customers, we recommend that the CPUC re-evaluate them as the utilities develop experience with implementing the protections to ensure that the measures are effective and sufficient, and to determine if better measures may be available.

ENERGY

Safety

In response to the 2017 wildfires, the Public Advocates Office has been building its expertise in vegetation management and utility infrastructure issues. We are increasing our efforts to expand our analyses of these issues and develop approaches to decreasing the risk of utility infrastructure as ignition sources. We continue to strongly advocate for increased visibility into utility risk management. To this end, we are dedicating additional resources to new CPUC proceedings initiated to implement SB 901 (Dodd, Chapter 626, Statutes of 2018).



Energy Safety Staff on PG&E Site Visit for Tree Mortality

SoCalGas/SDG&E's Proposal to Derate Gas Line 1600 and Build a New Gas Line

The Public Advocates Office successfully advocated that the CPUC reject SoCalGas and SDG&E's request to de-rate natural gas Line 1600 from a transmission to a distribution line.

The CPUC decision was issued in June 2018.

We recommended that Line 1600 be pressure tested even if it is de-rated for safety assurance purposes in compliance with state law. In December 2017, the administrative law judge issued a ruling re-opening the record to include the CPUC's staff's opinion that, even if de-rated, Line 1600 would be a transmission line.

The staff opinion was consistent with our testimony and recommendations presented earlier in the proceeding.

Our advocacy on this issue means that customers living in proximity to Line 1600 will have the entirety of the line pressure tested and portions replaced, in order to enhance safety. We also successfully advocated for an independent audit of the utilities' pipeline records after we discovered pervasive recordkeeping errors and discrepancies in the utilities' records and representations to us and the CPUC. This audit is expected to take place in 2019. The utilities also sought authority to build a new natural gas line, Line 3602, to bring more gas to the San Diego area, which was denied.

In addition, we have been working with the CPUC staff and other parties to clarify

the distinction between transmission and distribution gas pipelines in California. As part of this effort, we are seeking utility data on how different definitions of transmission and distribution impact the safety and cost of the utilities' natural gas systems. Further CPUC

action is anticipated in 2019.



SCE's Proposed Grid Safety and Resiliency Program

In September 2018, SCE filed an application requesting \$582 million to recover costs incurred to combat increased wildfire risk. SCE's proposal includes hardening its infrastructure, increasing situational awareness, and

enhancing operational practices. SCE states that its application is in response to SB 901 (Dodd, Chapter 626, Statutes of 2018), which addresses energy utilities' wildfire cost recovery and mitigation planning, among other things. The Public Advocates Office is currently reviewing these programs to determine if they effectively enhance safety and resiliency, and also is analyzing the costs of the proposed measures. We anticipate submitting testimony in mid-2019.

Service Disconnection Rulemaking

The Public Advocates Office is participating in a rulemaking on residential service disconnections and reconnections initiated pursuant to SB 598 (Hueso, Chapter 362, Statutes of 2017.) The purpose of the rulemaking, which began in July 2018, is to address an increase in residential

disconnections and to determine ways the CPUC can provide relief for affected customers. We have been participating in workshops taking place across the state to identify the causes of residential disconnections. In December 2018, the CPUC approved interim disconnection protection measures, which the Public Advocates Office supported. These interim measures include setting a goal for limiting disconnections in 2019 and setting uniform criteria for disconnections during extreme weather events. In 2019, we will focus on developing effective solutions that reduce the likelihood of service disconnections and ensure that utility rates are affordable for residential customers.

Physical Security of Electric Distribution Facilities Rulemaking

In June 2015, the CPUC opened a rulemaking to examine the physical security of distribution assets such as substations. Pursuant to SB 699 (Hill, Chapter 550, Statutes of 2014), the rulemaking considers adopting rules to protect utility assets from theft, physical attacks, and vandalism. The Public Advocates Office has presented perspectives on issues including data confidentiality, risk prioritization, and jurisdictional issues. Our goal is to ensure the

safety of the electric system with effective oversight.

SoCalGas and SDG&E's Pipeline Safety and Enhancement Program

In September 2016, SDG&E and SoCalGas jointly filed an application to recover costs associated with their Pipeline Safety and Enhancement Program (PSEP) for projects completed by early 2016 throughout the two utilities' service territories. They requested approximately \$195 million for pipeline replacement and pressure testing, and associated activities. We filed testimony in September 2017, recommending that shareholders fund \$1.6 million more than the utilities had proposed. Our recommendation is based on our finding that SoCalGas and SDG&E's costs were too high and that the utilities were inappropriately attempting to pass some costs onto customers where pipeline records are missing. The CPUC is expected to issue a decision in 2019.

In March 2017, SDG&E and SoCalGas filed an application requesting approval of forecasted costs of future work to improve the safety and reliability of their gas system. We submitted testimony that utilized a statistical model to forecast appropriate pipeline replacement and pressure testing costs. We determined that the costs forecast by SoCalGas and SDG&E were too high by approximately \$65 million and that our forecasting method was better able to estimate forecasted costs. The CPUC is expected to issue a decision in 2019.

In November 2018, SDG&E and SoCalGas filed an application to recover costs associated with pipeline safety projects completed by mid-2018 throughout the utilities' service territories. They requested approximately \$854 million for pipeline replacement and \$86.7 million for pressure testing and associated activities. The Public Advocates Office is starting its review and the CPUC is anticipated to issue a decision in late 2019 or in 2020.





Investigation into PG&E's Ex-Parte Communications

Between 2010 and 2014, PG&E violated rules governing the reporting of communications with CPUC decision makers in multiple proceedings including investigations into the explosion of a natural gas pipeline in San Bruno. Only certain kinds of communications between utilities and decision makers are allowed in CPUC proceedings, and many communications must be publicly disclosed. The Public Advocates Office and other parties found that PG&E either did not disclose communications with decision makers or disclosed the contact with decision makers outside of the required time period.

In November 2015, the CPUC opened an investigation into PG&E's improper ex parte contacts and ordered the utility to explain why it should not be found to have violated the prohibition on ex parte communications. The Public Advocates Office, the CPUC's Safety and Enforcement Division, TURN, and the cities of San Bruno and San Carlos examined the communications, requested additional communications searches by PG&E, and

performed other analysis to understand the breadth and depth of PG&E's communications.

In April 2018, the CPUC adopted an all-party settlement agreement that requires PG&E to pay approximately \$86 million in fines and adhere to more stringent reporting requirements. As part of adopting the settlement agreement, the CPUC increased the fines to \$97 million and opened a new phase of the investigation to review additional communications that PG&E had not previously disclosed. This new phase is currently ongoing.

Safety Risk Assessment

In 2014, the CPUC adopted a risk-based decision-making framework to be incorporated into the energy utilities' GRCs, pursuant to SB 705 (Statutes of 2011, Chapter 522). The Public Advocates office together with other parties devised the following processes, which the CPUC adopted:

- 1) The Safety Model Assessment Proceeding (S-MAP): A model has been developed to provide a framework for assessing the safety



risks of the four large utilities' operations. The model is to be continually evaluated for refinement and improvement.

2) The Risk Assessment and Mitigation Phase (RAMP): Each utility uses the S-MAP reporting format to describe how it plans to assess its risks, and to mitigate and minimize such risks. After each utility's RAMP has been clarified or modified, it is then incorporated into the utility's upcoming GRC application.

Refinement of the S-MAP and RAMP is required and will likely take multiple iterations to reach a common and agreed-upon level of understanding and usefulness among the utilities and stakeholders.

The following are specific risk assessment activities that occurred in 2018:

Safety Model Assessment Proceeding

In May 2015, PG&E, SCE, SDG&E, and SoCalGas filed applications for CPUC review of their S-MAP framework and programs. In December 2018, the CPUC approved a settlement agreement filed by the utilities, TURN, Indicated Shippers, and the Public Advocates Office that resolves the issues in the S-MAP proceeding. The settlement provides a common framework which will

ultimately enhance transparency of utility risks and mitigations. Specifically, the settlement agreement sets out how the utilities will be required to assess, measure, and present risks in their GRCs applications. The agreement also defines specific risk-related terms and concepts so that all parties can use a common lexicon when discussing risk in the GRCs.

The first RAMP to utilize this new S-MAP framework will be SoCalGas and SDG&E's RAMP filing due in late 2019.

Risk Assessment and Mitigation Phase Activities

SoCalGas and SDG&E have integrated its RAMP, filed in November 2016, into their most recent GRC application. A CPUC decision is expected on the utilities' GRC application in 2019.

PG&E's RAMP, which was filed in November 2017, requested approval of its risk quantification and mitigation plan. The Public Advocates Office commented on the utility's risk quantification and mitigation plan methodology, and on each of the 22 risks identified by PG&E. In general, we found the utility needed to provide greater specificity in its proposals, and more useful alternative mitigations. We did not make specific budget recommendations due to the preliminary nature of PG&E's mitigation plans and cost forecasts. PG&E's RAMP has been incorporated into its GRC application, which was filed in December 2018.

In SCE's RAMP, filed in November 2018, it requested approval of its risk quantification and mitigation plan. The Public Advocates Office's review is currently underway, and this phase is expected to be completed in mid-2019.

Energy Reliability

Resource Adequacy

The CPUC's Resource Adequacy (RA) program ensures that sufficient resources are provided to the California Independent System Operator (CAISO) for safe and reliable operation of the electric transmission grid. The program also is intended to provide appropriate incentives for the siting and construction of new resources needed for reliability in the future.

In 2018, the Public Advocates Office participated in the CPUC's rulemaking to develop reliability criteria for resources and redesign the RA framework to adapt to changing market conditions including increased RPS targets. Several parties, including the Public Advocates Office presented proposals to address these changes. Specifically, the Public Advocates Office proposed that a load serving entity (LSE) or a coalition of LSEs, as opposed to a central buyer, procure resources that are identified as essential for reliability.

We largely supported the CPUC's decision, issued in June 2018, that made program modifications to improve resource adequacy.

PG&E Energy Storage Solicitation

The Public Advocates Office opposed PG&E's request for approval of four battery storage projects for the South Bay-Moss Landing local area. The cost of three of the projects remains confidential, while the fourth is a utility-owned generation project procured at a cost of \$630 million. While we support storage technology to facilitate the deployment of clean energy resources, based on our analysis, we identified key concerns with these projects. We determined that recent transmission upgrades eliminated the capacity need on which these projects were based. Also, the projects are not located in proximity to clean energy resources, so the projects will not necessarily

charge from clean energy resources. Therefore, they are unlikely to facilitate the use of clean energy resources in a manner that justifies the significant cost to ratepayers. The CPUC approved PG&E's request in November 2018.

Transmission Planning Process

The CAISO determines California transmission needs through an annual Transmission Planning Process (TPP). If transmission system deficiencies are identified, the CAISO examines possible alternatives, including non-wire transmission options to determine if there are more cost-efficient solutions to address the identified need.

The Public Advocates Office participates in the TPP through stakeholder meetings, reviews and evaluates TPP studies, and files comments on the transmission studies when necessary.





For example, for the CAISO's 2017-2018 and 2018-2019 transmission studies, the Public Advocates Office is recommending that the CAISO continue to evaluate previously approved projects and cancel projects that are no longer needed. We also recommend that the cost-benefit analysis of previously approved projects be revisited annually to ascertain whether the projects still meet the cost-benefit ratio threshold. TPP studies should be expanded to include expected retirements of generation either through regulation or economics, or the end of the useful life of these assets. In addition, we recommend that the impacts of new renewable generation and the economic value of local generation or alternative resources be considered. We are awaiting the CAISO's final 2017-2018 TPP and will continue to participate in the 2018-2019 TPP process. Both are expected to be completed in 2019 and 2020, respectively.

SCE Alberhill Substation

In August 2018, the CPUC issued a decision that agreed with the Public Advocates Office's recommendation to deny SCE's request to construct the \$315 million Alberhill 500-kiloVolt (kV) substation. We recommended that the CPUC dismiss the application because there was no need for the project based on actual and forecasted loads in the area.

WATER

Safety & Reliability

Water Action Plan

In the rulemaking examining the CPUC's Water Action Plan, we advocated for updating standards and reporting requirements to improve the safety and reliability of Class A water service. Specifically, we argued that the standards of CPUC General Order 103 pertaining to system pressure, fire-hydrant maintenance, and customer emergency notifications need to be updated to be consistent with current best practices and available technologies. We also recommended that Class A water utilities be required to report operational metrics like those used by energy utilities, such as frequency and duration of service interruptions and customer disconnections for non-payment. This information can help prioritize project funding to better ensure safe and reliable service.

Class A Water GRC Proceedings

In the Suburban Water Systems GRC (2018-2020), we recommended authorizing \$24 million over three years to replace aging pipelines that will improve the utility's water quality, safety and reliability. We also

verified that the utility's water systems are in compliance with federal and state water quality standards, and the Office of Emergency Services Response Plan. The CPUC's final decision is expected sometime in 2019.

In the Golden State Water GRC (2019-2021), we ensured that the capital budgets included critical projects such as constructing additional iron and manganese treatment plants (to address persistent discolored water issues in two regions) and pipeline replacements. The CPUC's final decision is expected sometime in 2019.

In the San Jose Water GRC (2019-2021), we advocated for more efficient use of conservation budgets and testified against returning water tanks to service without first identifying the source of PCB (polychlorinated biphenyls) contamination. Without identifying and correcting the source of previous contamination, there is an unacceptable risk that contamination may continue and endanger public health and safety.

COMMUNICATIONS

Safety & Reliability

Privacy – Wireless Carriers

We advocated for the CPUC to initiate a rulemaking on data privacy, specific to the wireless industry. We provided evidence to support the need for a privacy rulemaking. Among other things, we cited 22 publicly known data breaches in the last five years and explained how most protections apply only after customer data has already been disclosed. We emphasized the need to minimize risks and protect customers before they are harmed and urged the CPUC to review customer notice of privacy terms and conditions, and recommended rules requiring

affirmative customer consent before their private data is shared. We also recommended that the CPUC closely monitor and report on wireless carriers' current data privacy policies, practices, and standards in order to account for the unique access these companies have to customer data. Lastly, we recommended that the CPUC require wireless carriers to perform internal customer surveys to determine how well their customers understand and utilize their privacy rights.

The CPUC agreed that risks to customer data merit attention and confirms it has the authority and jurisdiction to address these risks. However, the CPUC declined to open a rulemaking. Instead, it required monitoring of informal and formal customer complaints received by the CPUC related to telecommunications' privacy through the end of 2021. The CPUC also required annual reporting to the Commissioners, the CPUC's Communications Director, and General Counsel.

California High Cost Fund A GRCs

We examined utility safety, reliability, and service quality performance in the Ducor Telephone and Foresthill Telephone GRCs (2018-2020). Our analysis identified the need for ongoing reporting of service quality information on voice and broadband service. Furthermore, our analysis identified the need for each company to establish Mutual Assistance Agreements (MAAs) with neighboring local public safety entities, such as CalFire, County Sheriff Offices, and County Fire Departments. In case of emergencies, an MAA establishes what resources are available to share, the process for requesting and giving assistance, the cost or financial arrangements among entities, and the activation/deactivation of the agreement.

ENVIRONMENTAL GOALS

ENERGY

Distribution Resource Planning

The CPUC is developing policies to integrate Distributed Energy Resources (DERs) into the utilities' energy procurement and infrastructure planning processes. DERs include solar, electric vehicles, energy storage, energy efficiency, and demand response. The Public Advocates Office actively participates in the CPUC's Distribution Resource Planning proceeding to advocate for a more transparent electric distribution system planning process. With transparent distribution planning and stakeholder participation processes in place, DERs can provide cost-effective and reliable energy resources, and can defer or avoid expansion or upgrades to the utilities' existing infrastructure. To meet these objectives, the Public Advocates Office recommended modeling of accurate distribution load and DER forecasting estimates, careful oversight of the utilities' distribution system upgrades deferral process, public access to non-confidential utility distribution planning data, and standards for the review of distribution system modernization investments.

Integrated Distributed Energy Resources

The Integrated Distributed Energy Resources (IDER) incentive mechanism is intended to encourage electric utilities to deploy distributed energy resources (DERs) and cost-effectively defer or displace electric distribution infrastructure spending. In June 2018, the Public Advocates Office successfully advocated for the CPUC to correct a design flaw in its

newly developed IDER incentive mechanism. Specifically, the Public Advocates Office identified how the mechanism could result in a utility recovering costs twice from its customers for projects that would address the same infrastructure need. Customers were at risk for funding a project to address an infrastructure need through a GRC proceeding while at the same time funding a DER project to meet that same need through the IDER process. The CPUC adopted our recommendations and prohibited a utility from requesting DER deferral funds when the utility already has requested funding for infrastructure projects in its GRC application. Instead, a utility is now required to use its GRC revenues to fund authorized DER deferral projects.

Interconnection of Distributed Energy Resources (DERs)

The interconnection of DERs to the utilities' distribution grid is governed by the CPUC's Tariff Rule 21. This rule sets requirements for how DERs are allowed to interconnect to a utility's distribution system, necessary system upgrades, and cost responsibility for system upgrades. We advocate for an interconnection process that efficiently incorporates new technologies, does not shift upgrade costs to customers, and helps move the state efficiently towards its GHG emissions reduction goals. We helped develop an online tool that allows outside parties to see the capacity of a circuit to accommodate new DERs. This tool will help streamline the interconnection process and reduce or avoid the need for distribution upgrades, both of which provide savings to customers.



Energy Storage

The Public Advocates Office is working to ensure that customer-sited energy storage projects funded through the Self-Generation Incentive Program (SGIP) meet state GHG emissions reduction goals and provide value to customers.

After the release of annual evaluation studies that found that SGIP energy storage projects increased GHG emissions in 2016 and 2017, the CPUC initiated a stakeholder working group process to develop proposals that would ensure that SGIP storage projects lead to GHG emission reductions. The Public Advocates Office has been an active participant in the working group and submitted formal comments to the CPUC, advocating for more robust GHG emission reduction requirements, a strengthened GHG emission reduction enforcement role for the CPUC, and greater oversight to ensure that all SGIP projects contribute to meeting state GHG emission

goals. The CPUC is expected to adopt revised SGIP program rules for energy storage in early 2019.

Integrated Resource Planning

The Public Advocates Office supports achieving the SB 350 mandates (De León, Chapter 547, Statutes of 2015) such as GHG emissions reductions and maintaining system reliability while minimizing impacts on customers' bills. During 2018, we participated in the CPUC's IRP Rulemaking to consider the impact of SB 350 mandates on future procurement needs and develop the process and requirements for the integrated resource plans (IRP) filed by load-serving entities (LSE). The Public Advocates Office reviewed 47 LSEs' proposed IRPs filed in August 2018 and provided comments on several of the IRPs. Our focus is on minimizing impacts on customers' bills by meeting GHG emissions reductions and system reliability needs in a cost effective manner.



In February 2018, the CPUC adopted a statewide guide or Reference System Plan with a 42 million metric ton (MMT) GHG target for 2030. This target is intended to meet or surpass state policy objectives of a 40% reduction in GHG emissions from 1990 levels by 2030 and an 80% reduction in GHG emissions from 1990 levels by 2050. With this Plan, the CPUC is constructing the optimal strategy to fulfill future procurement needs and ensure reliability, while also meeting an aggressive GHG emissions reduction target, which the Public Advocates Office fully supports. A final decision on the California Preferred System Plan, which adopts IRPs for all LSEs is expected in early 2019.

Renewables Portfolio Standard

In 2018, the Public Advocates Office advocated for revisions to Renewable Portfolio Standard (RPS) rules and methodologies that will both support increased reliance on renewable resources and protect customers from significant cost increases. We supported the passage of SB 100 (De León, Chapter 312, Statutes of 2018) which increases RPS program targets to 60% renewable energy procurement by 2030, and establishes a goal of 100% zero carbon energy by 2045. We will continue to advocate for cost-effective

procurement of renewable energy in support of SB 100. We also reviewed the utilities' annual renewable energy procurement plans and recommended that the CPUC ensure that renewable energy procurement provides for reliable and affordable electric service and is aligned with overall RPS program goals.

Transportation Electrification

Transportation Electrification is essential to reducing California's overall GHG emissions and achieving air quality goals.

Transportation Electrification (TE) involves installation of electric vehicle (EV) charging stations in California to enable the ubiquitous deployment of EVs and to further GHG reduction.

In 2018, six electric utilities (PG&E, SCE, SDG&E, Liberty, Bear Valley, and PacifiCorp) requested \$1.02 billion for 28 full-scale TE programs and 22 pilot projects. These projects include a wide array of strategies ranging from rebates to electric vehicle service equipment owners (such as, residential customers, airport shuttles, large-scale transit and school buses) to implementing pilot EV charging programs.

The Public Advocates Office's advocacy in TE proceedings resulted in the CPUC's adoption of a \$746 million budget which represents a \$271 million reduction in the utilities' program costs. We successfully advocated for several issues including prioritizing TE investments in disadvantaged and low-income communities, setting rates that encourage EV charging at times that enhance grid reliability, and establishing performance accountability measures that maximize lessons learned and public benefit.

The Public Advocates Office also successfully protested SCE's request, submitted in June 2018, to recover from its customers, the costs associated with its medium duty and heavy duty (medium and large commercial-use) transportation program. The Public Advocates Office corrected a calculation error in SCE's request, which the CPUC adopted saving customers approximately \$62 million.

Climate Adaptation

Climate adaptation is a process to plan for and respond to current and potential future climate impacts. In April 2018, the CPUC initiated a new rulemaking to consider climate adaptation issues. The Public Advocates Office provided extensive comments on the rulemaking, which included information on existing climate adaptation frameworks, available data and research on climate adaptation efforts, and applicable statutes and CPUC decisions

that impact climate adaptation activities for regulated IOUs. We also provided input on how to organize the proceeding to produce useful outcomes. In this proceeding, we are advocating for outcomes that can be used to ensure safe and reliable service to the benefit of customers, the public at large, and the environment.

WATER CONSERVATION

Golden State Water GRC

In the Golden State Water GRC (2019-2021), we recommended maintaining the utility's conservation program and funding request not only to reduce reliance on the state's limited water supply but also to eliminate or delay the need to construct costly water supply projects. The CPUC's final decision is expected sometime in 2019.





LEGISLATIVE REPORT

On or before January 10 of each year, the Public Advocates Office is required to provide to the Legislature three pieces of information:¹

1

STAFFING LEVELS OVER 5 YEARS

The number of personnel years utilized by the Public Advocates Office with a comparison of its staffing levels for a five-year period.

2

BUDGET

The total dollars expended by the Public Advocates Office in the prior year, estimated total dollars expended in the current year, and the total dollars proposed for appropriation in the following budget year.

3

WORKLOAD

Standards and measures for the Public Advocates Office.

¹This report is submitted in compliance with section 309.5 (f) and (g) of the Public Utilities Code.

THE PUBLIC ADVOCATES OFFICE STAFFING LEVELS

Each year, the Public Advocates Office reports to the Legislature the number of its staff personnel years utilized with a comparison of its staffing levels for a 5-year period. The Public Advocates Office currently has 165 authorized positions.² The table below provides a comparison of our authorized staffing levels for a 5-year period.

The Public Advocates Office Staffing levels for a 5-year period

Fiscal Year	The Public Advocates Office Authorized Staff
2015-2016	147
2016-2017	147
2017-2018	159
2018-2019	165
2019-2020	183 ³

² This includes the Public Advocates Office's Chief Counsel position which was authorized by Senate Bill 608 (Escutia, Chapter 440, Statutes of 2005). The CPUC Legal Division provides attorneys, and support staff, upon the Public Advocates Office's request, to aid our office in litigation matters. These legal resources, including their overhead, salaries, and benefits are paid for out of the Public Advocates Office's Program Account 3089, but are not Public Advocates Office staff.

³ The Governor's proposed budget provides the Public Advocates Office additional resources to perform mission critical work related to wildfire safety, greenhouse gas reduction programs, and water merger and acquisition analyses.

THE PUBLIC ADVOCATES OFFICE BUDGET

Each year the Public Advocates Office reports to the Legislature the total dollars expended by the office in previous budget cycles, estimated total dollars expended in the current year, and the total dollars proposed for appropriation in the upcoming budget year. We strive to administer our budget prudently to effectively achieve our mandate.

The Public Advocates Office develops our budget internally,⁴ including the cost of shared resources with the CPUC such as infrastructure, human resources, and information services. Our budget is statutorily designated as a separate account into which funds are transferred each year via the annual Budget Act to the CPUC Ratepayer Advocate Account

to be used exclusively by the Public Advocates Office in the performance of its duties. Our \$44,992,000 proposed budget for fiscal year 2019/2020 may change once the final budget for 2019/2020 has been approved by the Governor. The total budget includes staffing, administrative overhead, and CPUC/Public Advocates Office shared resources.

The Public Advocates Office Budget

Fiscal Year	Dollars Authorized ⁵	Dollars Expended
2017-2018	\$31,030.000 ⁶	\$30,046.000
2018-2019	\$33,957.000 ⁷	*
2019-2020	\$44,992.000 ⁸	**

* Year-end expenditures will not be available until August 2019 for the fiscal year ending June 2019.

** Year-end expenditures will not be available until August 2020 for the fiscal year ending June 2020.

⁴ Public Utilities Code Section 309.5(c): The director shall develop a budget for the office that shall be subject to final approval of the Department of Finance. As authorized in the approved budget, the office shall employ personnel and resources, including attorneys and other legal support staff, at a level sufficient to ensure that customer and subscriber interests are effectively represented in all significant proceedings. The office may employ experts necessary to carry out its functions. The director may appoint a lead attorney who shall represent the office, and shall report to and serve at the pleasure of the director. The lead attorney for the office shall obtain adequate legal personnel for the work to be conducted by the office from the commission's attorney appointed pursuant to Section 307. The commission's attorney shall timely and appropriately fulfill all requests for legal personnel made by the lead attorney for the office, provided the office has sufficient moneys and positions in its budget for the services requested.

⁵ The Public Advocates Office has additional budget authorization for reimbursable contracts. The Public Advocates Office is reimbursed for these costs by the relevant utilities. For FY2019/2020, the proposed amount for reimbursable contracts is \$3,000,000. Actual expenditures for reimbursable contracts occur only if there are proceedings that allow for reimbursable contracts. Examples include audits, mergers, and major resource additions, such as the construction of a transmission facility for which the Public Advocates Office may need to contract for expert consultant services to assist the Public Advocates Office in analyzing the utility request or application.

⁶ Reflects Governor's 2017/2018 budget prior to fiscal adjustments.

⁷ Reflects Governor's 2018/2019 budget prior to fiscal adjustments.

⁸ Reflects Governor's proposed 2019/2020 budget.

THE PUBLIC ADVOCATES OFFICE WORKLOAD

IMPACT FOR CONSUMERS

In 2018, the Public Advocates Office's efforts on behalf of ratepayers saved them over \$3.3 billion. These savings were realized in the form of reduced utility revenues, avoided rate increases, and customer refunds.

For every dollar customers invested in the Public Advocates Office \$33,957,000 budget in 2018, they will realize a return of nearly \$100 across their utility bills.

CONSUMER IMPACT

The amount of dollars consumers saved and the return on their investment in the Public Advocates Office.



PLEADINGS

The Public Advocates Office participation in proceedings requires preparation and submission of testimony, formal comments, and legal briefs.

The Public Advocates Office efforts saved consumers over

**\$3.3
Billion**
TOTAL SAVINGS

PROCEEDINGS

The Public Advocates Office advocates on behalf of consumers in hundreds of CPUC proceedings and in other forums.



OUTREACH

The Public Advocates Office enhances its effectiveness through outreach and education.

PROCEEDING WORK

In 2018, the Public Advocates Office participated in 168 formal CPUC proceedings. The Public Advocates Office is often the only voice representing customers' interests in a number of these proceedings. Since the CPUC relies on a formal evidentiary record in rendering its decisions, our participation is essential to ensure that the CPUC has a record that reflects the interests of California's customers.

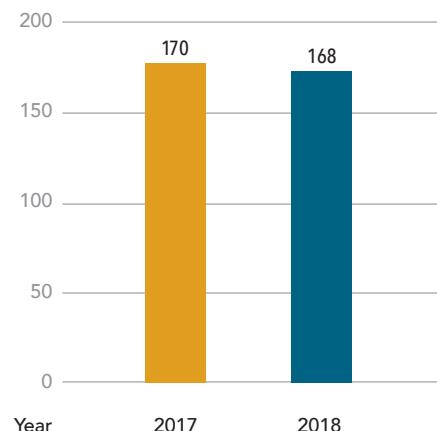
The following charts represent the total number of formal CPUC proceedings in which the Public Advocates Office participated in 2018 in comparison to 2017, as well as broken out by industry group. These numbers do not reflect the greater complexity of the issues being addressed by the Public Advocates Office in omnibus proceedings addressing greenhouse gas emissions, renewable resource development, procurement and transmission working groups, water conservation, and other major initiatives.

In addition, the Public Advocates Office filed many responses to utility advice letters in which the utilities often seek CPUC authority via a more informal process.⁹ Beyond its participation

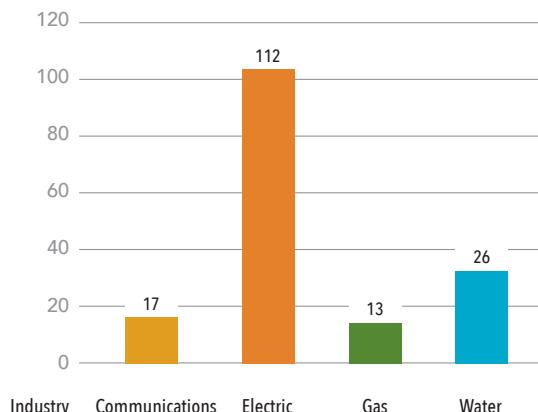
in formal and informal CPUC proceedings, the Public Advocates Office is an active participant in proceedings at the California Energy Commission (CEC), the California Independent System Operator (CAISO), and the California Air Resources Board (CARB), where policy-making will impact ratepayers. The Public Advocates Office also provides consumer representation in other forums related to the CPUC's proceedings, such as meetings to review utility procurement decisions, the Low-Income Oversight Board (LIOB), communications public policy committees, industry committees of the National Association of State Utility Consumer Advocates (NASUCA), and the Pacific Forest and Watershed Stewardship Council.

TOTAL
168 Number of Proceedings the Public Advocates Office Worked on in 2018

Number of 2018 CPUC Proceedings the Public Advocates Office Participated In - 2017 vs. 2018



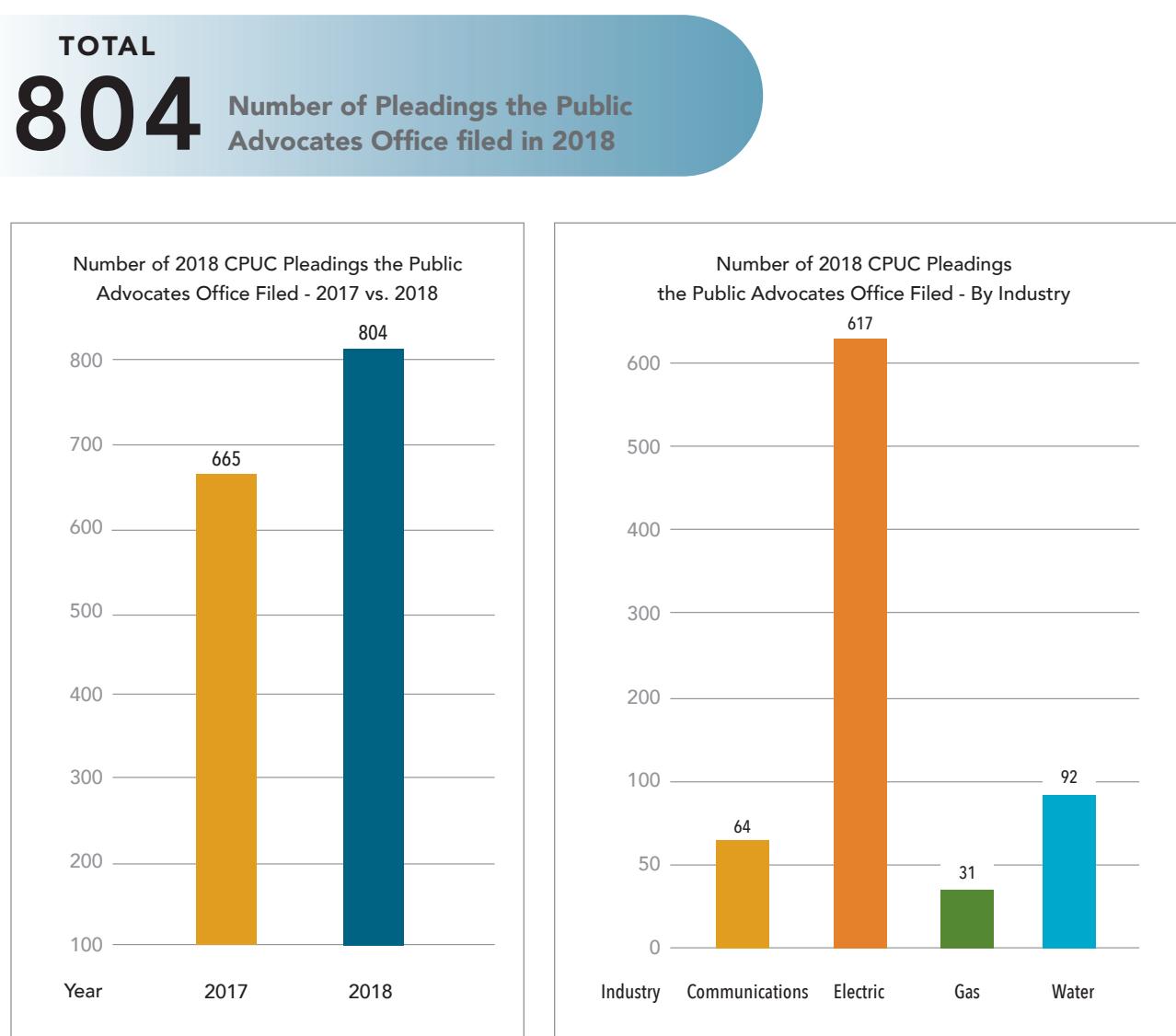
Number of 2018 CPUC Proceedings the Public Advocates Office Participated In - By Industry



⁹ An advice letter is a filing by a utility seeking authority to spend ratepayer money or set/change policies which may have a significant impact on consumers. Utility requests via advice letters are typically authorized by CPUC decision adopted in a formal proceeding, which sets certain parameters for determining whether the advice letter request is valid and should be granted.

PLEADING WORK

In 2018, the Public Advocates Office filed 804 pleadings in formal CPUC proceedings. Our staff and attorneys file hundreds of pleadings annually on behalf of customers, covering issues related to electricity, natural gas, water, and communications. The following charts represent the comparison of the number of pleadings the Public Advocates Office filed in 2018 in comparison to 2017, as well as broken out by industry group.



OUTREACH & EDUCATION

The Public Advocates Office also has developed measures to improve the quality of its work product and increase the effectiveness of its advocacy efforts. In this regard, we measure our outreach efforts by tracking the number of contacts we have with CPUC commissioners and their advisors, the public and press, in connection with our work to provide a strong voice for customers.

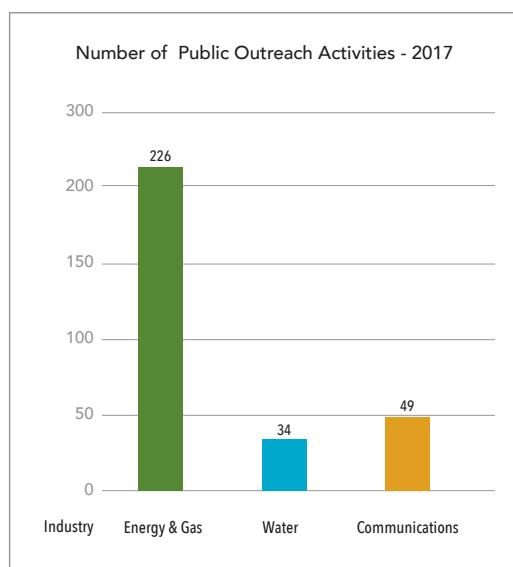
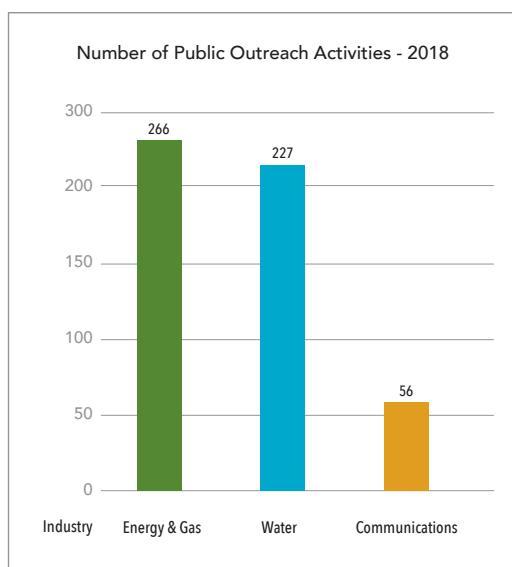
As the public's advocate, it is essential for us to participate in CPUC Public Participation Hearings¹⁰ and Workshops,¹¹ Public Speaking Engagements, Conferences and other events to explain to consumers in plain language how proposed changes to utility rates, practices and policies impact them and how the public can make their voices heard. The state's processes are very complex and the average consumer does not have the time or resources to navigate these processes on their own.

It is also equally important for the Public Advocates Office to interact and learn from

the public regarding their specific needs and challenges. Consumer stories, perspectives and problems are crucial for helping us craft and advocate for long-term solutions in our work.

In 2018, the Public Advocates Office participated in hundreds of public meetings, worked with a wide variety of stakeholders, including customers of small business organizations, community and environmental groups, and other consumer-oriented organizations to advocate for customers before the CPUC and in other forums.

**TOTAL
549** Number of Public Outreach Activities 2018



¹⁰ Public Participation Hearings are forums held by the CPUC for the public to participate and learn about various proceedings underway at the CPUC.

¹¹ Workshops are forums held by the CPUC for stakeholders or outside parties to address specific issues related to a proceeding or matter before the CPUC.

THE PUBLIC ADVOCATES OFFICE IN SACRAMENTO



GOAL

Provide a strong voice for millions of public utility customers in Sacramento

WHAT WE DO

Promote the best interests of consumers, the environment, and the economy by proactively providing the Governor's Office, Legislature, Department of Finance, Legislative Analyst's Office and others robust analysis and recommendations

HOW WE CAN HELP:

- Research complex utility issues and answer questions
- Write new legislation or bill amendments
- Take positions on legislative bills and present testimony
- Provide educational briefings on complex ratemaking, rate design, and other utility policy issues
- Convene or participate in stakeholder meetings to help resolve the most complex or divisive utility issues
- Assist with constituent issues
- Participate in district town hall meetings or other constituent gatherings
- Provide timely updates on CPUC and Public Advocate Office actions and activities

OUR EXECUTIVE TEAM

The Public Advocates Office is led by an executive management team, which oversees the office's seven branches covering the issues of energy, water, and communications. The Public Advocates Office Director is appointed by the Governor and confirmed by the California State Senate.

ELIZABETH ECHOLS

Director

Elizabeth was appointed by Governor Brown as the Public Advocates Office Director in 2016, and the appointment was confirmed by the State Senate. She leads the Public Advocates Office in achieving its mission and directs the activities of 165 staff organized into four energy branches, the Water Branch, the Communications & Water Policy Branch, and the Administrative Branch.

CHRIS UNGSON

Deputy Director for Water & Communications

Chris oversees the Public Advocates Office work on water and communications policy, ratemaking and rate design, infrastructure projects and investments, safety and reliability, as well as water conservation, universal access to voice and broadband services, and service quality.

MATTHEW MARCUS

Governmental Affairs, Policy & Planning

Matthew is responsible for the Public Advocates Office activities in Sacramento and leads our legislative outreach, policy, and educational efforts, as well as responding to inquiries from the California State Legislature and the Office of the Governor.

LINDA SERIZAWA

Deputy Director for Energy

Linda oversees the Public Advocates Office work on energy ratemaking and rate design, infrastructure projects and investments, and safety and reliability measures, as well as programs focusing on electric procurement, GHG reduction, low-income assistance, and demand-side management.

DARWIN FARRAR

Chief Counsel

Darwin is responsible for overseeing all the Public Advocates Office legal issues and managing the work of the Public Advocates Office attorneys. In addition, the Chief Counsel may serve as the lead attorney in settlement negotiations or supervise negotiation strategies, draft proposed rules, regulations, and legislation, as well as briefs, comments, settlement documents, and other written products.

TARA DIAS ANDRESS

Legislative Advisor

Tara serves in Sacramento's Governmental Affairs Office and is responsible for assisting with the Public Advocates Office legislative outreach and advice on issues relevant to members and staff of the California State Legislature and the Office of the Governor.

PUBLIC ADVOCATES OFFICE
California Public Utilities Commission

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