

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

DOCKET UE-240004 and UG-240005
(Consolidated)

EXHIBIT SNS-10

Gabriela Sandoval & Mark Toney,
Living Without Power: Health Impacts of Utility Shutoffs in California
TURN (2018)

August 6, 2024



Living Without Power

HEALTH IMPACTS OF UTILITY SHUTOFFS IN CALIFORNIA

A Report by TURN - The Utility Reform Network

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**To the 800 California residents who shared their stories with us,
Thank You!**

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A NOTE ABOUT THE DATA

In preparing this report, TURN relied on two primary sources of data. We used public data provided by the utilities in their periodic “Disconnection Data Reports” submitted to the California Public Utilities Commission in Rulemaking (R.) 10-02-005 between 2010 and the present. Most of those reports are available online at: <https://apps.cpuc.ca.gov/apex/f?p=401:57:0::NO>. We refer to this data as “Disconnections Rulemaking Data” throughout this report.

TURN also used ZIP code level disconnections data provided directly to us by the utilities in response to a TURN data request. We refer to this data as “Utility ZIP Code Data” throughout this report.

TURN appreciates the cooperation of PG&E, Southern California Edison, SDG&E and SoCal Gas for providing longitudinal disconnections data disaggregated to the ZIP code level for this research project.

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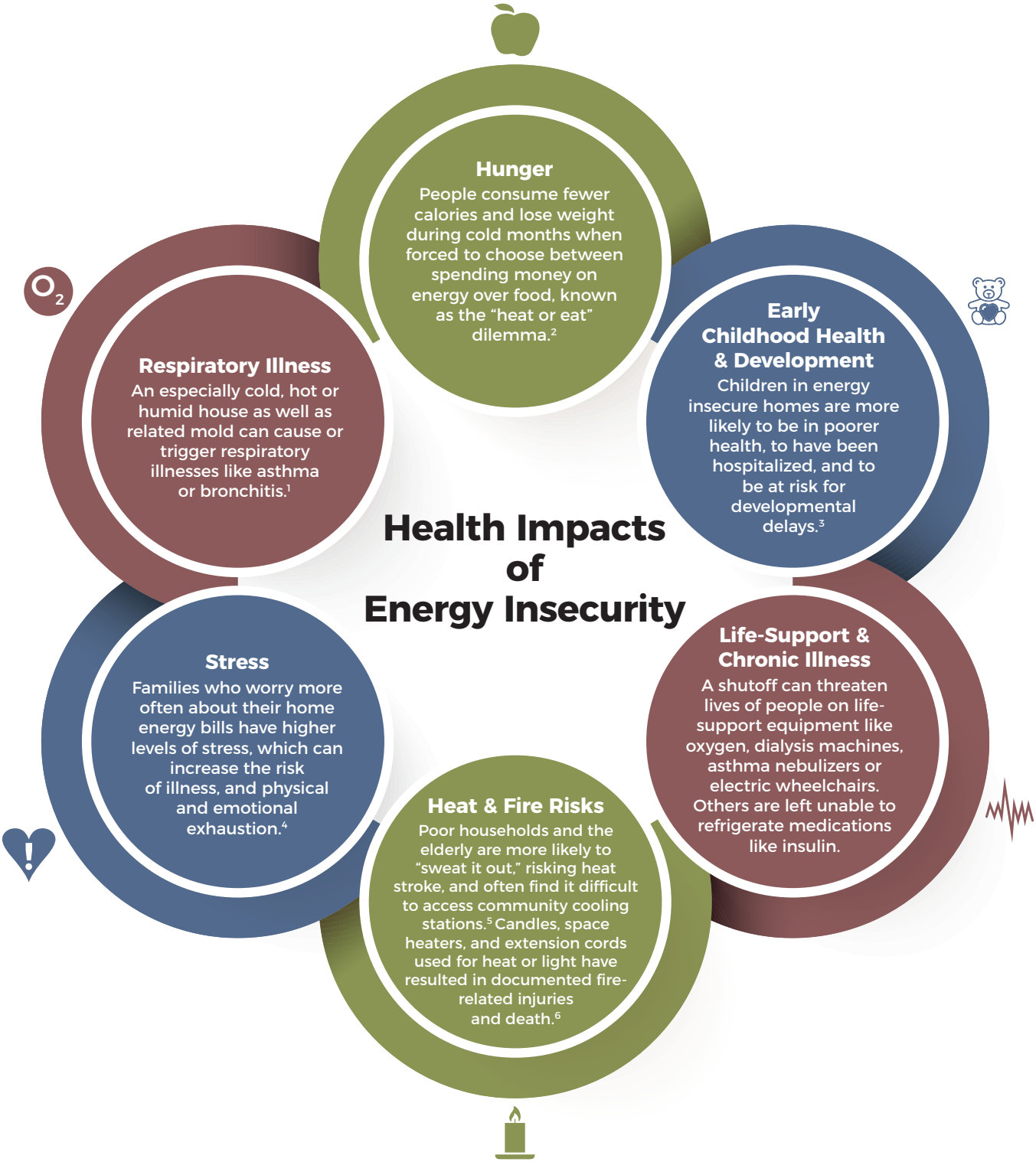
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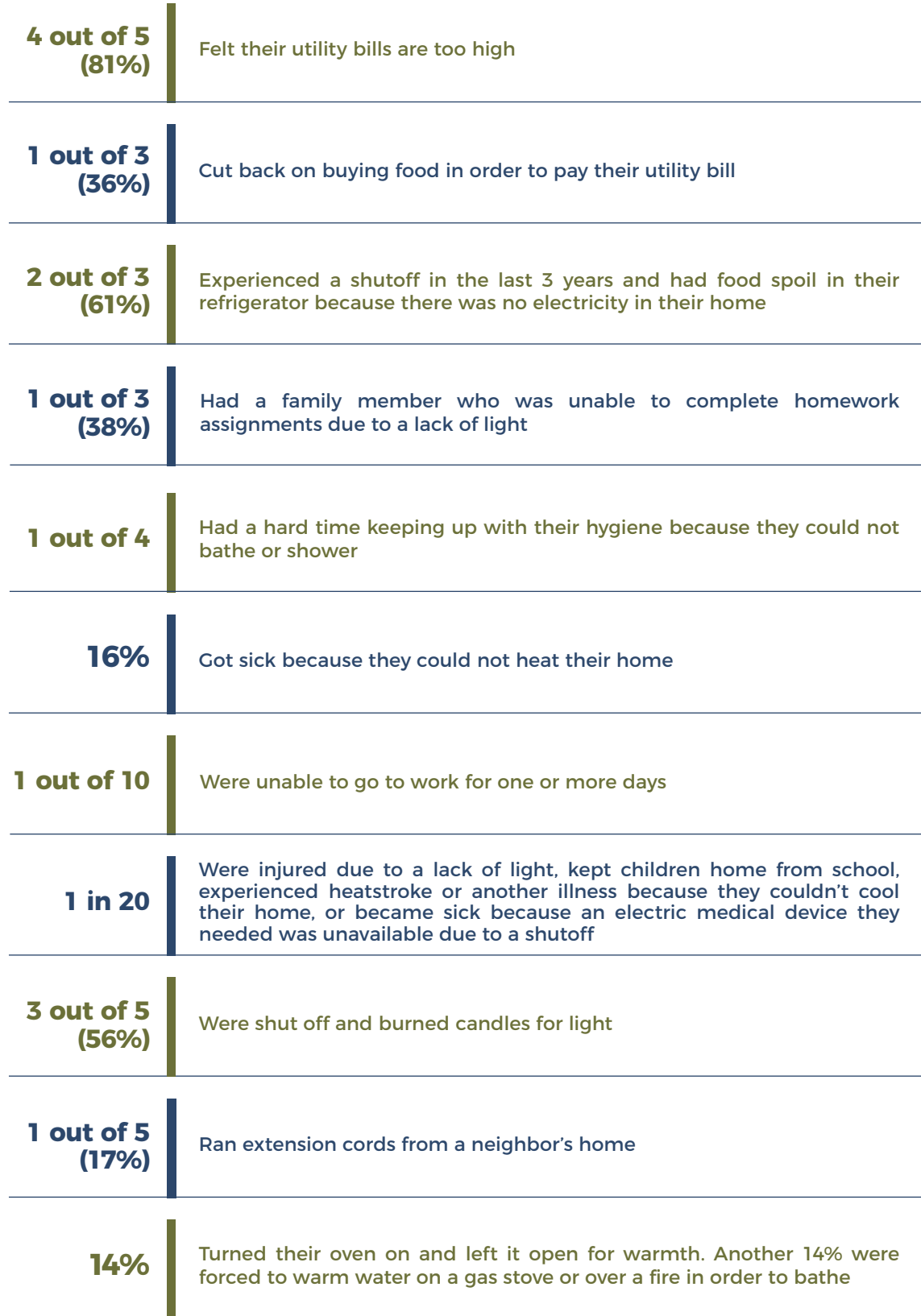
Public Health Impacted by Energy Insecurity

Energy insecurity impacts the health and safety of 25% of California families threatened by utility shutoffs, especially children and people who are medically vulnerable. People whose utility service is shut off, or who are threatened with disconnection, face stress, hunger, respiratory illness, and heat and fire risks. Early childhood health and development can be compromised. Energy insecurity threatens the lives of people with chronic illness and those living on life-support.



Community Surveys Document Energy Insecurity

Key findings of a TURN survey of 750 low-income households conducted by grassroots community partners in Fresno, Long Beach, San Diego, Oakland, San Bernardino, and Stockton document the difficult tradeoffs between paying their utility bill or for rent, food, and healthcare.



California Households Shut Off 886,000 Times by Utilities Last Year

There were 886,000 households in California shut off by PG&E, Edison, SDG&E and SoCal Gas in 2017, impacting more than 2.5 million people, most of whom are children. Those most affected by energy insecurity include families struggling to make ends meet, communities of color, immigrants, people for whom English is not a first language, elders, and people with disabilities.

Energy insecurity is on the rise and utility disconnections have reached crisis levels across the U.S., according to a recently released report by the NAACP.⁷ Electricity and gas are as much a basic need in our lives as water and housing—indeed, remaining in affordable housing often hinges on one’s ability to pay utility bills. As expressed by Robert Huerta of Poverello House, a social service agency in Fresno, “a home without electricity is not fit for human habitation.”

Energy bills represent the second-highest housing cost—exceeded only by mortgage or rent—and comprise up to 41% of income for families struggling to make ends meet.⁸ Shutoffs in California have increased by over 50% in just 7 years. Since 2009, shutoffs have resulted in the deaths of at least 11 California residents due to fires caused by candles, extension cords or carbon monoxide poisoning from portable heaters.⁹

Living Without Power documents energy insecurity and public health threats by:

- Mapping utility disconnections in California so that we can see where and in what communities they are concentrated
- Partnering with grassroots communities across northern, central, and southern California to conduct community research linking utility shutoffs with health impact
- Sharing stories and lived experiences of California residents struggling with energy insecurity to humanize them and remove the stigma of being shut off



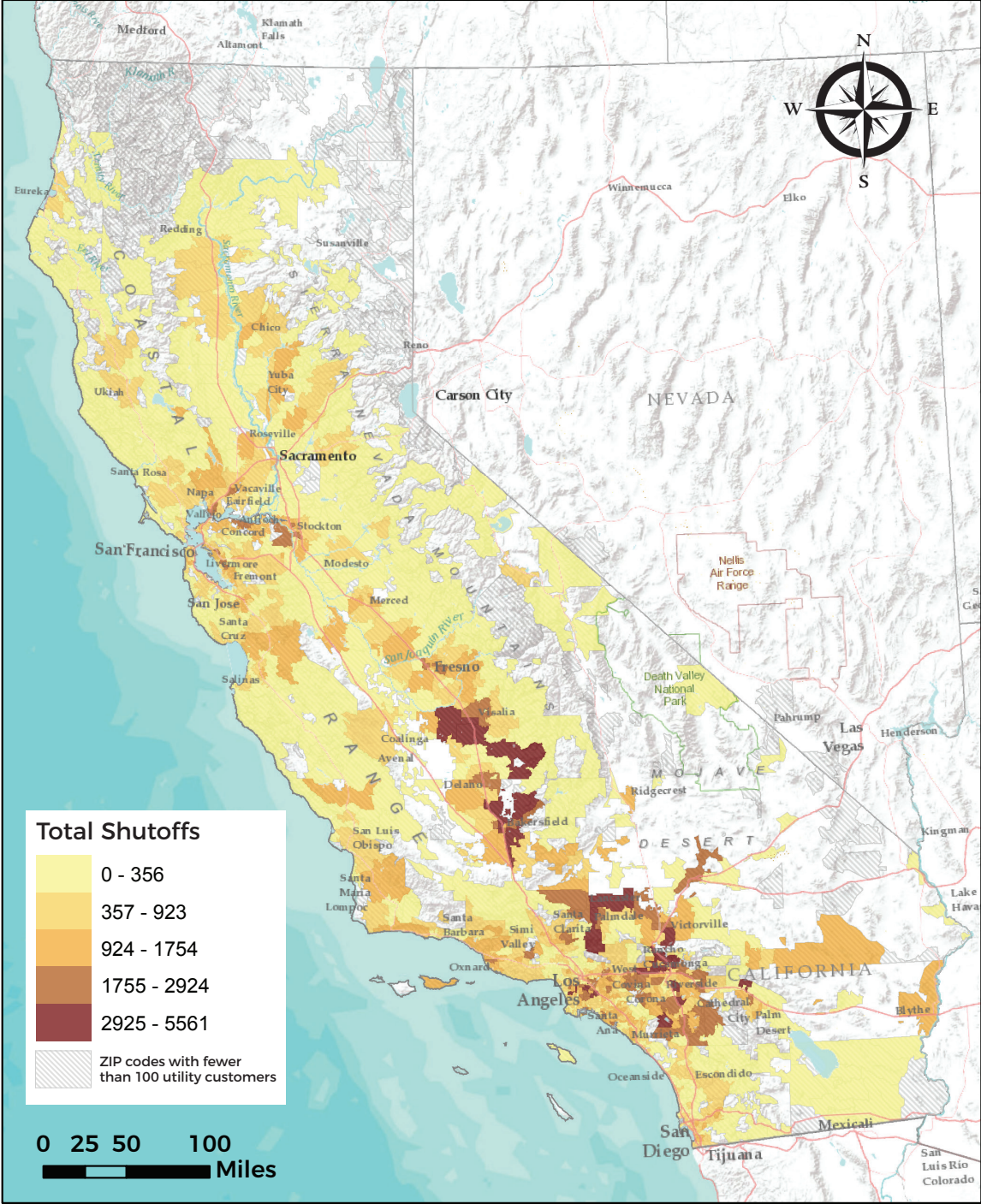
“I have lupus and diabetes. I had to stop seeing my doctor because I couldn’t afford it. I haven’t seen my doctor in 3 years. One of my medications costs \$1,000 a month so I only take it every other day to try to save money.

Our utility bill is \$2,600. It’s high because there are seven of us in the house: it’s me and my husband, my sister, my daughter, and her three kids. I just got a new job, but for a while more than half of our income was going to pay rent.

PG&E is threatening to shut us off again, and we just got an eviction notice. We can only afford one or the other. Once you get behind, everything starts snowballing.”

~ Silvia Flores, Stockton

Utility Shutoffs in California by ZIP Code



Source: Utility ZIP Code Data

In 2016, California households experienced 884,380 disconnections conducted by PG&E, Edison, SoCal Gas, and SDG&E. Shutoffs disproportionately impact children, low-income communities, and communities of color.

Energy Insecurity Impacts 25% of California Families

Because of differences in policy and practice across the utilities, there is no single metric that can adequately represent the number of families for whom energy is priced beyond reach in California. For example, SDG&E allows its customers to carry larger debts before shutting them off and Edison sent 28% of its customers at least one 48-hour notice. However, when we look at a combination of the following factors, it is clear that at least a quarter of California's utility customers is living with energy insecurity:

- 16% of utility customers received at least one 48-hour disconnection notice in 2016
- 12% of utility customers were at least 2 months behind on their utility bills in December 2016
- 5.3 shutoffs for every 100 households in California in 2016

According to various metrics, between 19% and 28% of utility customers are living with energy insecurity in California.

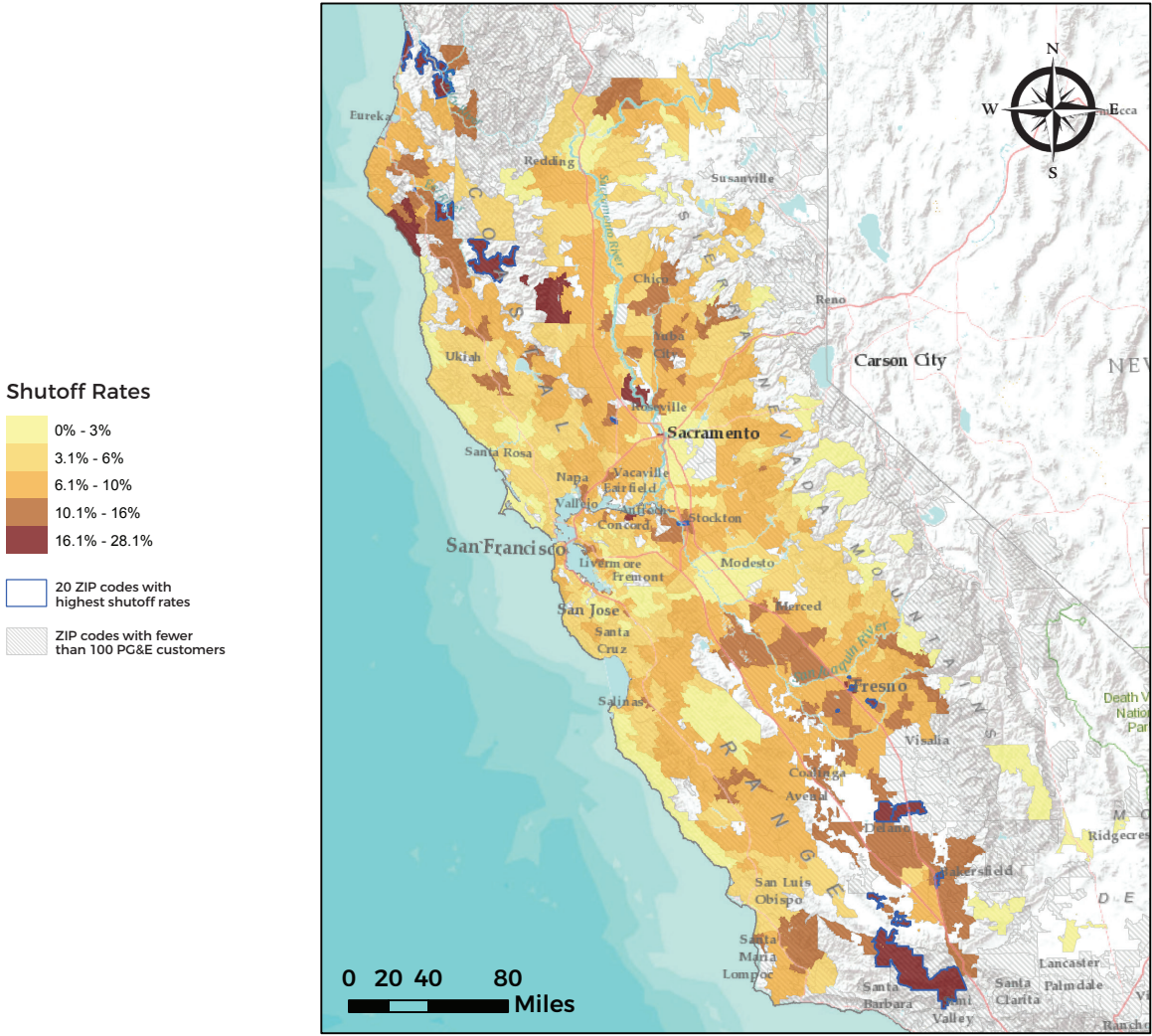
	Average total customers	Unique 48-hour disconnection notices	Percent of customers receiving notices	Customers 60+ days in arrears in Dec 2016	Percent of customers 60+ days in arrears in Dec 2016	Total shutoffs	Shutoff rate
PG&E	5,451,347	785,004	14%	528,230	10%	312,007	5.7%
Edison	4,353,680	1,234,601	28%	495,726	11%	402,761	9.2%
SoCal Gas	5,496,386	609,960	11%	758,239	14%	129,545	2.3%
SDG&E	1,350,527	78,915	6%	255,240	19%	40,067	2.9%

Source: Disconnections Rulemaking Data. Shutoff rates show the number of shutoffs per total customers, not the percentage of customers experiencing disconnection.

“I felt powerless when SDG&E refused to give me a payment plan. I ended up having to get a payday loan. My family is trying to use air conditioning less, but it makes our home so uncomfortable some days. Now, SDG&E wants a \$200 deposit. I just can't keep up.”

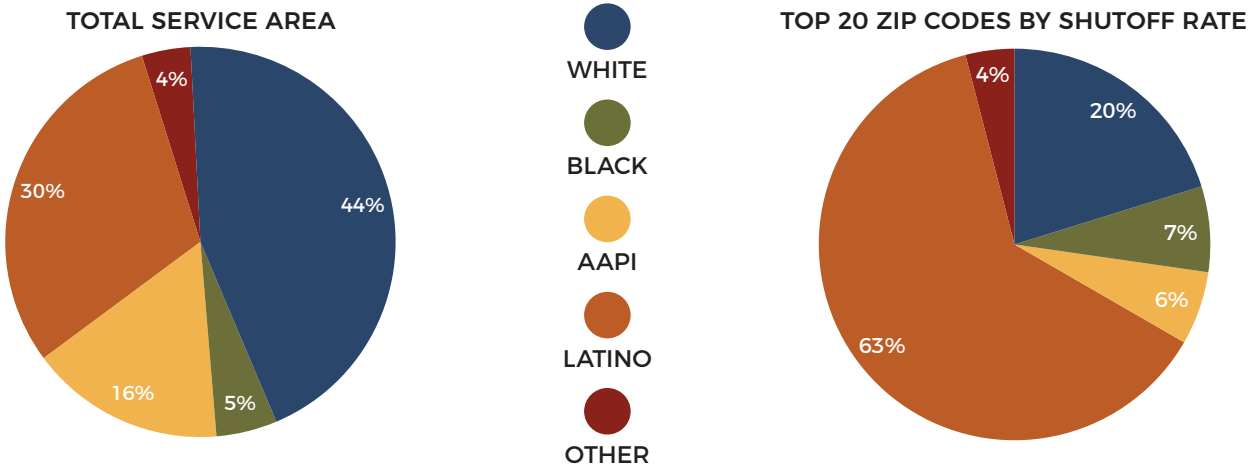
~ Bob, San Diego

2016 PG&E Shutoff Rates by ZIP Code



Source: PG&E ZIP Code Data. Shutoff rates show the number of shutoffs per total customers, not the percentage of customers experiencing disconnection. Only ZIP codes with over 100 PG&E customers in 2016 are displayed.

Racial Demographics: PG&E



Communities Burdened by PG&E Shutoffs

Latino and Native Communities Hit Hardest

PG&E conducted over 312,000 shutoffs in 2016. In 2016, the top 20 ZIP codes had shutoff rates from 17% to 28%. In the 7 ZIP codes with the highest shutoff rates, there was at least 1 shutoff for every 4 PG&E customers.

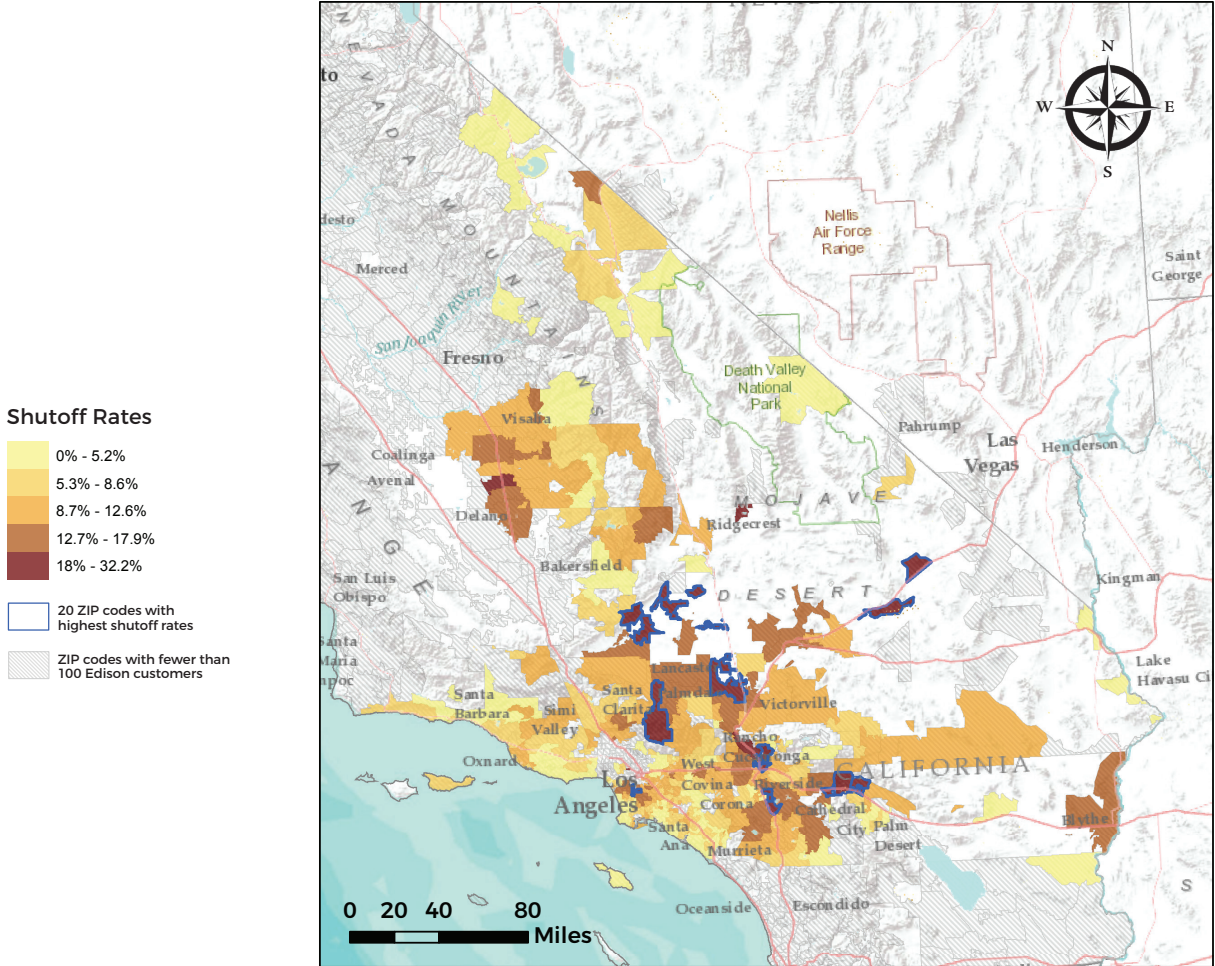
Racial disparities in the distribution of shutoffs are most evident with respect to the Latino population. While Latinos make up about a third (31%) of people living in PG&E's service territory, they comprise almost two-thirds (62%) of those living in ZIP codes with the highest shutoff rates. It is also important to note that the fourth highest rate of disconnections (26%) is experienced by people living on the Hoopa reservation.

Highest Shutoff Rates by ZIP in 2016: PG&E

Rank	ZIP Code	Total Customers	Total Shutoffs	Shutoff Rate	Location
1	95511	121	34	28%	Alderpoint
2	93701	2783	751	27%	Fresno
3	93201	316	83	26%	Alpaugh
4	95546	1073	281	26%	Hoopa
5	95202	2526	641	25%	Stockton
6	93301	3829	970	25%	Bakersfield
7	95555	223	56	25%	Orick
8	93219	131	30	23%	Earlimart
9	95428	901	190	21%	Covelo
10	93652	129	27	21%	Raisin City
11	95203	4201	866	21%	Stockton
12	93304	11823	2396	20%	Bakersfield
13	93224	123	24	20%	Fellows
14	93650	765	147	19%	Fresno
15	93305	9677	1836	19%	Bakersfield
16	95653	144	27	19%	Madison
17	95571	176	31	18%	Weott
18	93252	433	76	18%	Maricopa
19	93616	484	83	17%	Del Ray
20	93703	8490	1446	17%	Fresno

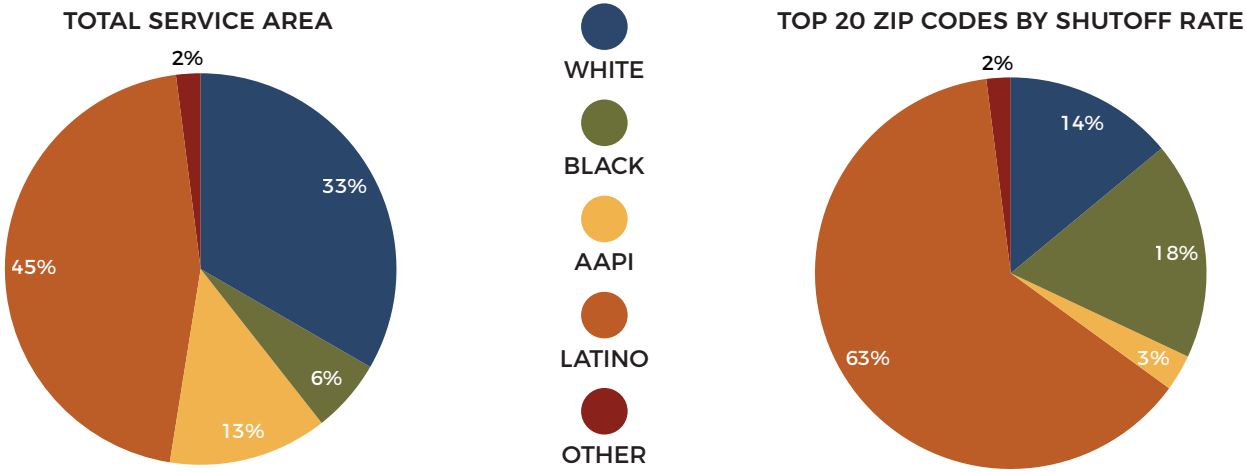
Source: Utility ZIP Code Data

2016 Edison Shutoff Rates by ZIP Code



Source: Edison ZIP Code Data. Shutoff rates show the number of shutoffs per total customers, not the percentage of customers experiencing disconnection. Only ZIP codes with over 100 Edison customers in 2016 are displayed.

Racial Demographics: Edison



Source: Utility ZIP Code Data and 2011-2015 American Community Survey, US Census Bureau

Communities Burdened by Edison Shutoffs

Latino and Black Communities Hit Hardest

Edison conducted over 400,000 shutoffs in 2016. The ZIP codes with the highest shutoff rates are concentrated in Riverside, San Bernardino, Los Angeles, and Kern Counties. In the ZIP codes with the highest shutoff rate, Edison conducted 1 shutoff for every 3 customers. They conducted at least 1 shutoff for every 5 customers in 13 ZIP codes.

One third of the population in Edison's service territory is white. The other 67% of the service territory is made up of people of color. However, in the 20 ZIP codes with the highest shutoff rates, less than 1 out of 6 people are white, while 4 out of 5 are people of color. Latinos make up just under half of those in the service territory (45%) but represent almost two thirds (63%) of the people in the ZIP codes with the highest shutoff rates. Similarly, Black people comprise 6% of those living in Edison territory, but triple to 18% of those living in ZIP codes with the highest shutoff rates. Four out of every 5 people in the high shutoff rate ZIP codes are Black or Latino.

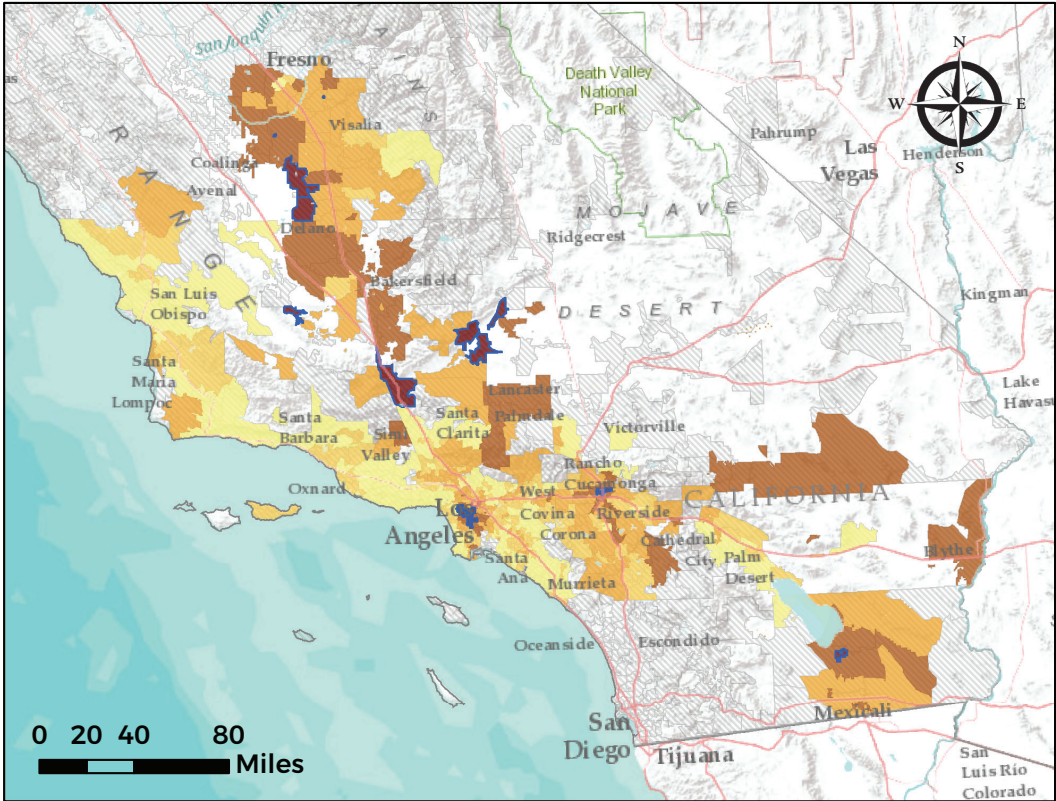
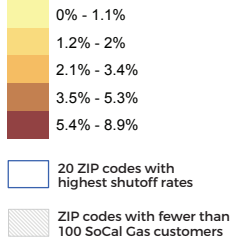
Highest Shutoff Rates by ZIP in 2016: Edison

Rank	ZIP Code	Total Customers	Total Shutoffs	Shutoff Rate	Location
1	92401	608	196	32%	San Bernardino
2	92258	152	46	30%	North Palm Springs
3	92301	9,764	2,335	24%	Adelanto
4	92405	9,618	2,235	23%	San Bernardino
5	92404	19,024	4,332	23%	San Bernardino
6	93501	2,120	470	22%	Mojave
7	92230	887	195	22%	Cabazon
8	92410	13,306	2,907	22%	San Bernardino
9	92551	7,151	1,475	21%	Moreno Valley
10	90044	8,307	1,675	20%	Los Angeles
11	92553	20,667	4,145	20%	Moreno Valley
12	93550	23,005	4,573	20%	Palmdale
13	92240	13,494	2,672	20%	Desert Hot Springs
14	92309	190	37	19%	Baker
15	92282	551	107	19%	Whitewater
16	90002	3,276	628	19%	Los Angeles
17	92408	3,805	728	19%	San Bernardino
18	92571	13,408	2,553	19%	Perris
19	93516	877	165	19%	Boron
20	93505	5,006	937	19%	California City

Source: Utility ZIP Code Data

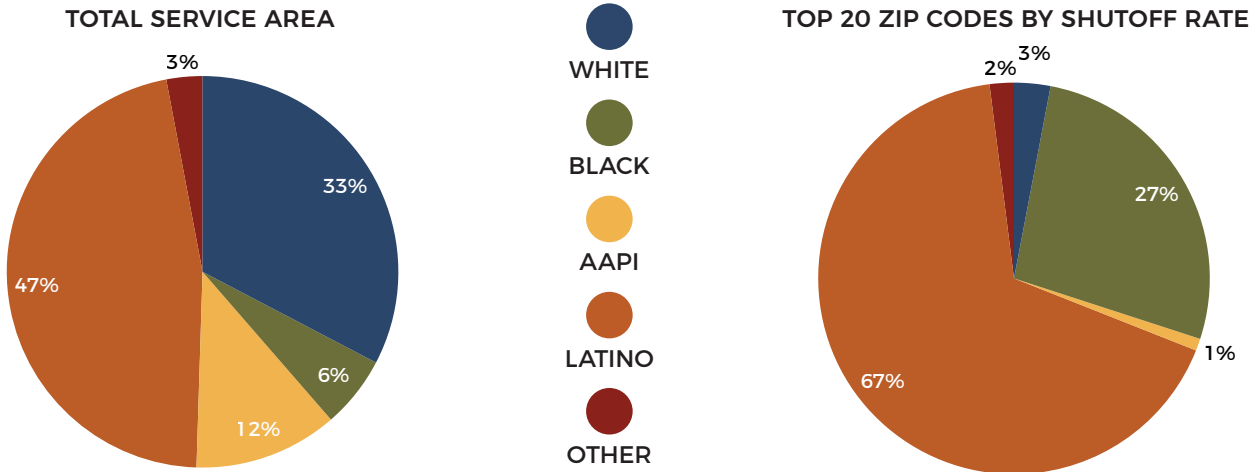
2016 SoCal Gas Shutoff Rates by ZIP Code

Shutoff Rates



Source: SoCal Gas ZIP Code Data. Shutoff rates show the number of shutoffs per total customers, not the percentage of customers experiencing disconnection. Only ZIP codes with over 100 SoCal Gas customers in 2016 are displayed.

Racial Demographics: SoCal Gas



Source: Utility ZIP Code Data and 2011-2015 American Community Survey, US Census Bureau

Communities Burdened by SoCal Gas Shutoffs

Latino and Black Communities Hit Hardest

SoCal Gas conducted almost 130,000 shutoffs in 2016. Most troubling for Southern California residents is the fact that 5 of the top 20 highest shutoff rate ZIP codes for SoCal Gas also appear in the top 20 ZIP code list for Edison (See the highlighted fields in the tables above and below).

The 20 ZIP codes with the highest shutoff rates per total customers in SoCal Gas's service territory range from 5% to 9%. Half of these ZIP codes are concentrated in the City of Los Angeles with the others in Imperial (1); Kern (3); Kings (2); Tulare (2); and San Bernardino Counties (2).

One out of 3 people in SoCal Gas's service territory is white and 67% are people of color. The disproportionate impact of shutoffs along racial lines is stark in SoCal Gas's territory. While Latinos make up just under half of the households in SoCal Gas's territory (47%), they comprise fully 67% of the people in the 20 ZIP codes with the highest shutoff rates. The disparity with regard to the Black population is much larger in the highest shutoff rate ZIP codes. The Black population is four and a half times greater in the ZIP codes with the highest shutoff rates than in the total SoCal Gas service territory—jumping up from 6% to 27%.

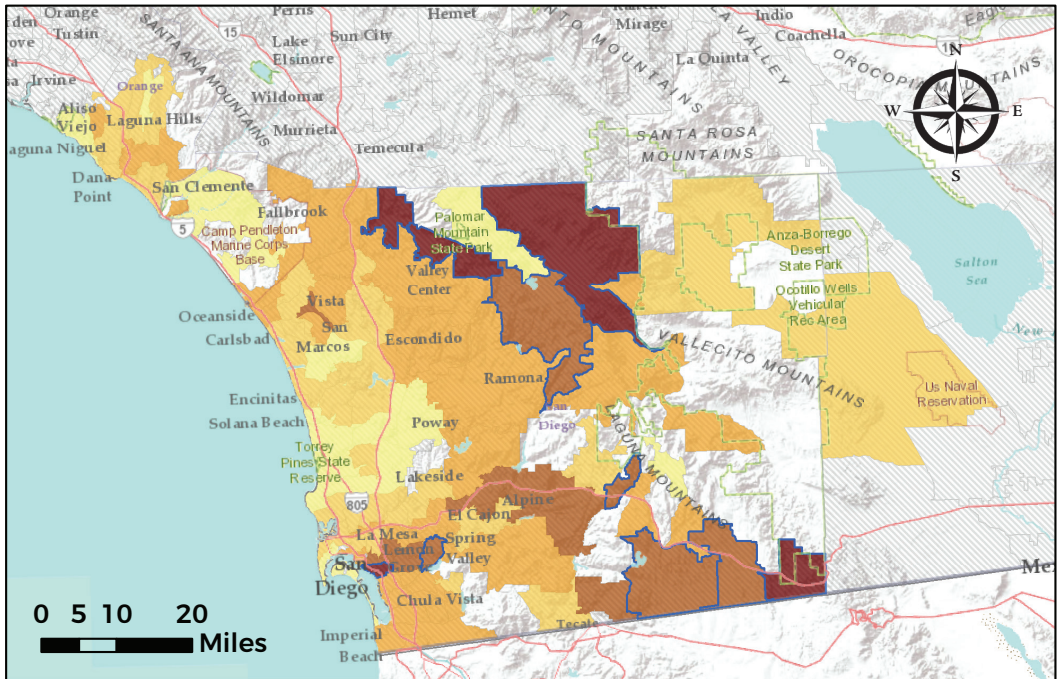
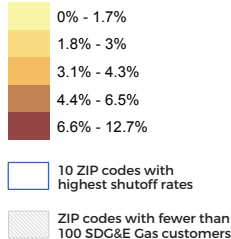
Highest Shutoff Rates by ZIP in 2016: SoCal Gas

Rank	ZIP Code	Total Customers	Total Shutoffs	Shutoff Rate	Location
1	92401	707	63	9%	San Bernardino
2	90003	19567	1606	8%	Los Angeles
3	93666	151	12	8%	Sultana
4	93202	1402	108	8%	Armona
5	93224	127	9	7%	Fellows
6	93501	1888	128	7%	Mojave
7	90037	17621	1182	7%	Los Angeles
8	92281	725	47	6%	Westmorland
9	90062	10097	652	6%	Los Angeles
10	90044	29392	1882	6%	Los Angeles
11	90061	7970	503	6%	Los Angeles
12	93212	4907	305	6%	Corcoran
13	90011	23734	1472	6%	Los Angeles
14	90008	16162	996	6%	Los Angeles
15	93243	509	31	6%	Lebec
16	93201	250	14	6%	Alpaugh
17	90002	12028	668	6%	Los Angeles
18	90016	18270	1006	6%	Los Angeles
19	90043	18144	998	6%	Los Angeles
20	92410	14329	785	5%	San Bernardino

Source: Utility ZIP Code Data

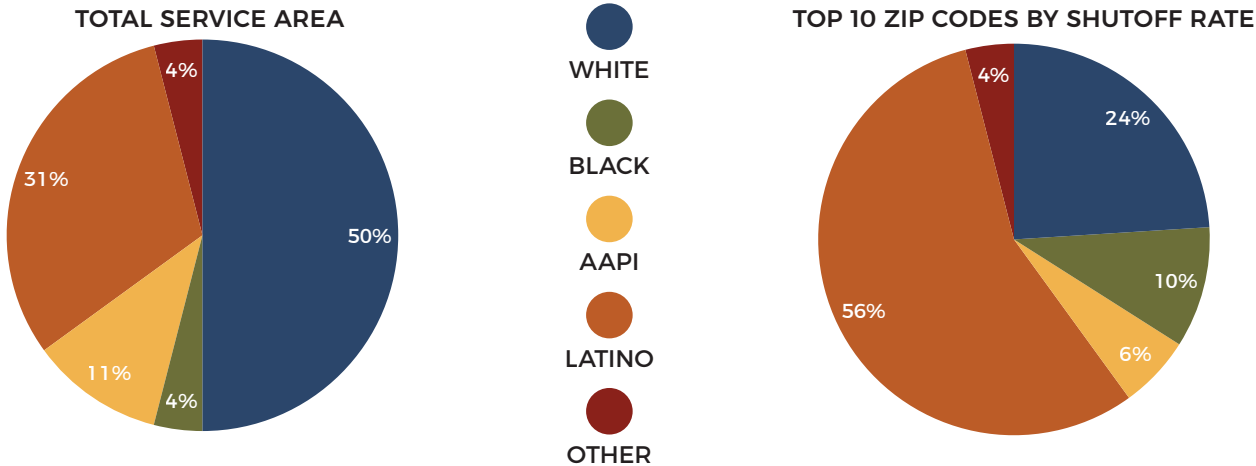
2016 SDG&E Shutoff Rates by ZIP Code

Shutoff Rates



Source: SDG&E ZIP Code Data. Shutoff rates show the number of shutoffs per total customers, not the percentage of customers experiencing disconnection. Only ZIP codes with over 100 SDG&E customers in 2016 are displayed.

Racial Demographics: SDG&E



Source: Utility ZIP Code Data and 2011-2015 American Community Survey, US Census Bureau

Communities Burdened by SDG&E Shutoffs

Latino and Black Communities Hit Hardest

SDG&E conducted over 40,000 shutoffs in 2016.

All of the 10 ZIP codes with the highest shutoff rates per total customers in SDG&E's service territory are located in San Diego County and are distributed among 10 different cities. The shutoff rates range from 5% to 13%.

Half of the people in SDG&E's territory are white and half are people of color. Although Latinos comprise only 3 out of 10 people in the service territory, they are more than half (56%) of the population in the ZIP codes with the highest shutoff rates.¹⁰ Blacks are also disproportionately represented in the highest shutoff rate ZIP codes. Although they represent only 4% of the total service territory, Black families comprise 10% of the people in the highest shutoff rate ZIP codes.

Highest Shutoff Rates by ZIP in 2016: SDG&E

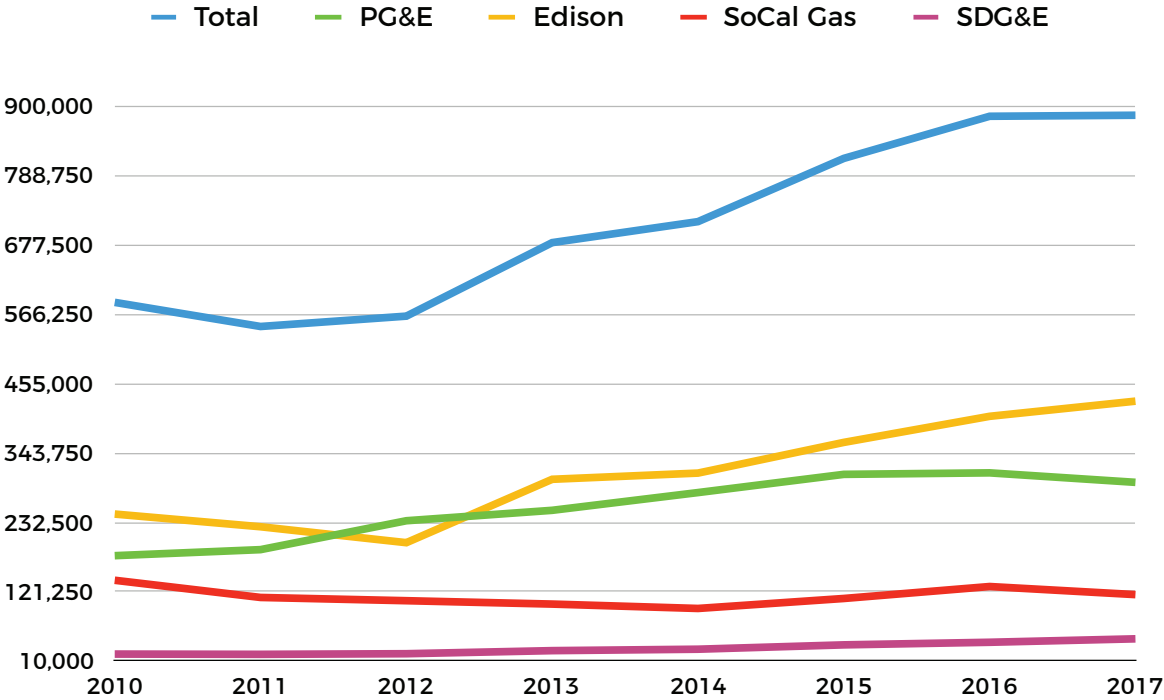
Rank	ZIP Code	Total Customers	Total Shutoffs	Shutoff Rate	Location
1	92059	585	74	13%	Pala
2	92086	457	38	8%	Warner Springs
3	91934	306	24	8%	Jacumba Hot Springs
4	92113	13,588	1,025	8%	San Diego
5	92061	1,065	77	7%	Pauma Valley
6	91906	1,330	87	7%	Campo
7	91905	778	47	6%	Boulevard
8	91931	102	6	6%	Gautay
9	92070	383	22	6%	Santa Ysabel
10	91977	20,644	1,117	5%	Spring Valley

Source: Utility ZIP Code Data

Shutoffs Have Skyrocketed Since 2010

Since 2010, shutoffs have increased by over 50%. At the height of the Great Recession there were just over half a million shutoffs by the utilities. That number has skyrocketed to over 886,000 shutoffs in 2017—roughly equivalent to all of the households in San Diego and San Francisco combined.

Shutoff Trends



Source: Disconnections Rulemaking Data

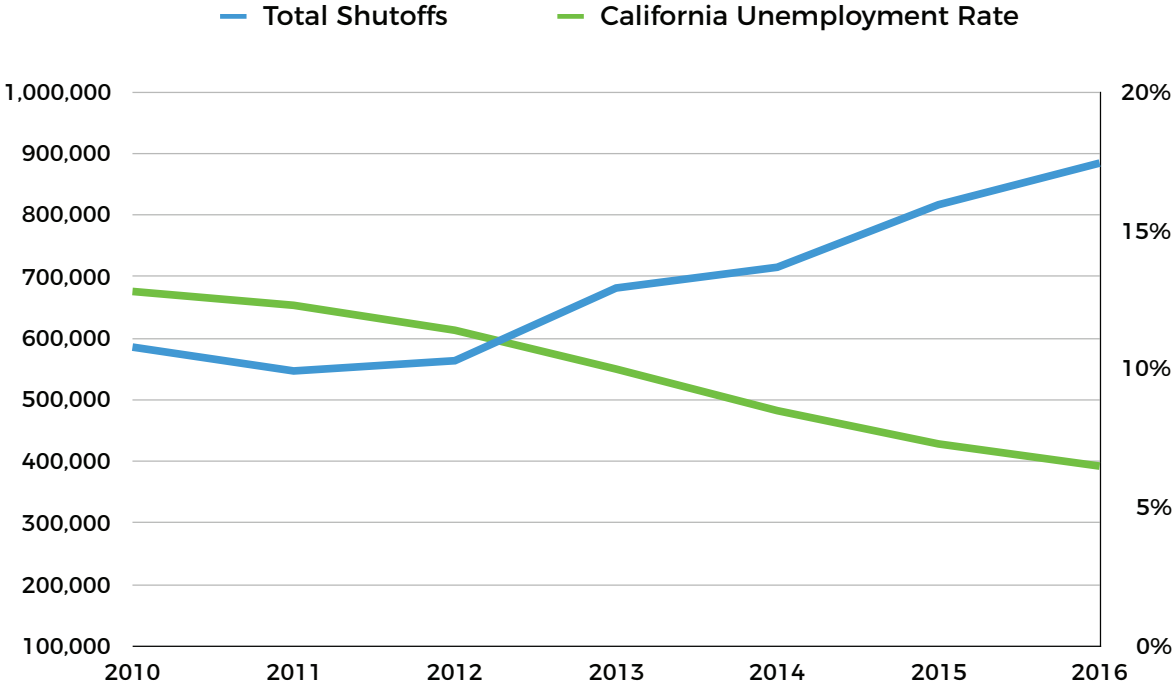
While SoCal Gas has seen a slight decrease in their shutoff rate per customer—dropping from 2.6% in 2010 to 2.4% in 2016—all other utilities have seen their shutoff rates increase in the same time period.

Electric Shutoff Rates Skyrocket

	2010	2016
PG&E	3.4%	5.7%
Edison	5.8%	9.3%
SoCal Gas	2.6%	2.4%
SDG&E	1.7%	3.0%

Source: Disconnections Rulemaking Data. Shutoff rates show the number of shutoffs per total customers, not the percentage of customers experiencing disconnection.

Total Shutoffs vs Median Household Income and Unemployment Rate



Source: U.S. Census Bureau, American Community Survey 1-Year Estimates, 2010-2016

Even as the economy has recovered, the number of people shut off continues to rise. For instance, California’s unemployment rate fell from almost 13% in 2010 to 6.5% in 2016. During that same time period, when shutoffs were increasing from 585,672 to 884,380, California’s median income increased by over \$4,000.





“During those months after I realized how high my bill was, I had to walk around in sweatpants, sweaters, and even went to bed with a hat on my head trying to keep warm. For someone who is a senior citizen, living on a fixed income, with medical conditions, particularly arthritis – you have to have heat or it becomes even more debilitating. Something has to be done because we are suffering.”

~ Ernestine J. Wilson, Oakland

Shutoffs Increase at Highest Rate for Customers Who Don't Qualify for Discounts

Skyrocketing shutoffs for customers whose income is too high to qualify for CARE or FERA discounts provide strong evidence that monthly utility bills are too high for the majority of California residents.

California Alternate Rates for Energy (CARE) provides a 30-35% discount to customers at or below 200% of the Federal Poverty Line, and has a participation rate of over 80%.

Family Electric Rate Assistance (FERA) provides a 12% discount to families of 3 or more whose household incomes fall between 200% and 250% of the Federal Poverty Line. Unlike CARE, FERA is very under-enrolled with a participation rate of about 13%.

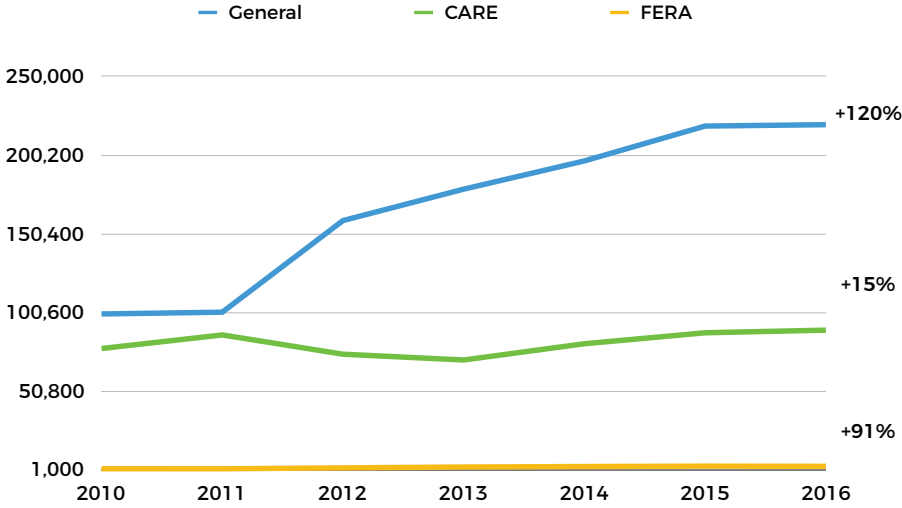
“My electricity was shut off over a month ago. I have 3 children. All our refrigerated food spoiled. PG&E won't reconnect my service unless I pay them more than \$2,000. I just can't afford it.”

~ Lisandra, Fresno

Pacific Gas & Electric Company

Since 2010, shutoffs among PG&E CARE customers increased 15%. Among FERA customers shutoffs almost doubled—a 91% increase. Shutoffs among customers who were not enrolled in an assistance program showed a 120% increase—more than doubling from about 99,637 to 219,411.

Shutoff Trends by Customer Type: PG&E

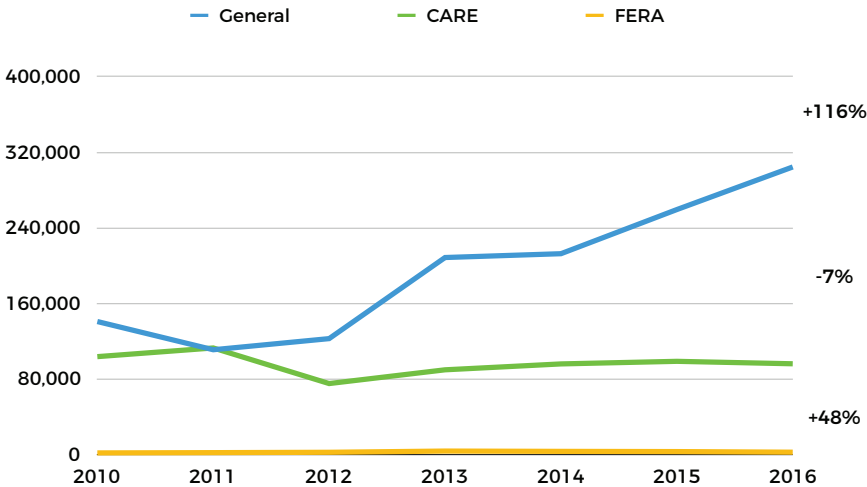


Source: Disconnections Rulemaking Data

Southern California Edison

Edison’s CARE customers experienced a 7% drop in shutoffs from 2010 to 2016. Shutoffs among FERA customers increased by 48%. General customers experienced a 116% rise in shutoffs, doubling from 140,717 shutoffs in 2010 to over 300,000 shutoffs in 2016.

Shutoff Trends by Customer Type: Edison

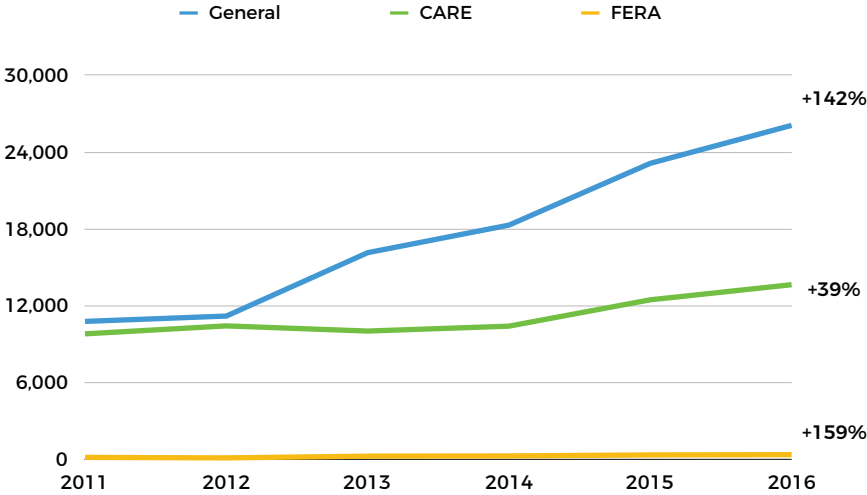


Source: Disconnections Rulemaking Data

San Diego Gas & Electric

Shutoffs among SDG&E CARE customers increased 39% between 2011 and 2016. SDG&E more than doubled the number of shutoffs among both the general population (142%) and their FERA customers (159%).

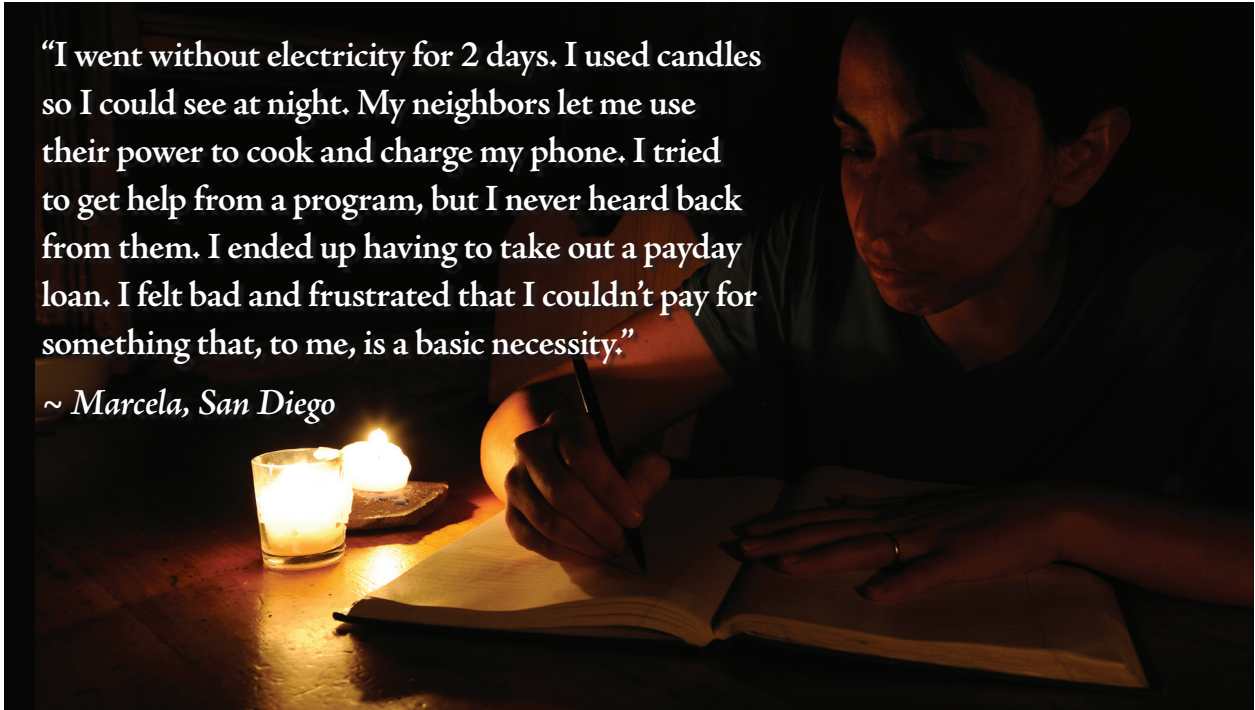
Shutoff Trends by Customer Type: SDG&E



Source: Disconnections Rulemaking Data

“I went without electricity for 2 days. I used candles so I could see at night. My neighbors let me use their power to cook and charge my phone. I tried to get help from a program, but I never heard back from them. I ended up having to take out a payday loan. I felt bad and frustrated that I couldn’t pay for something that, to me, is a basic necessity.”

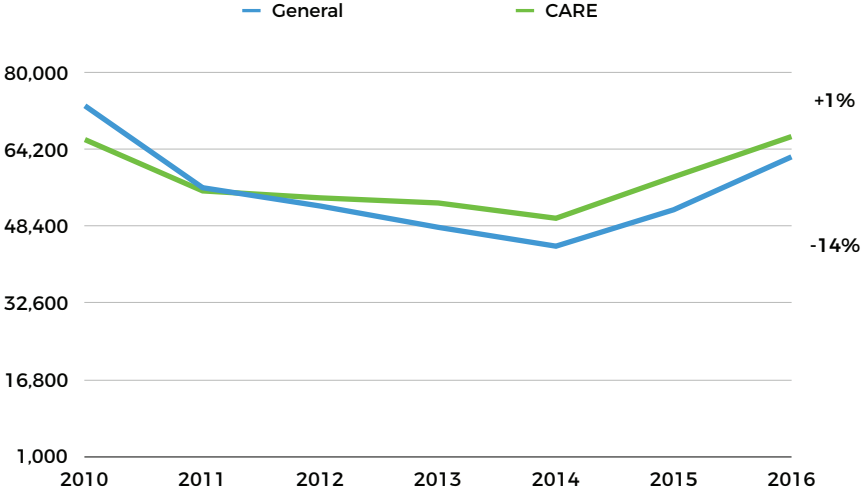
~ Marcela, San Diego



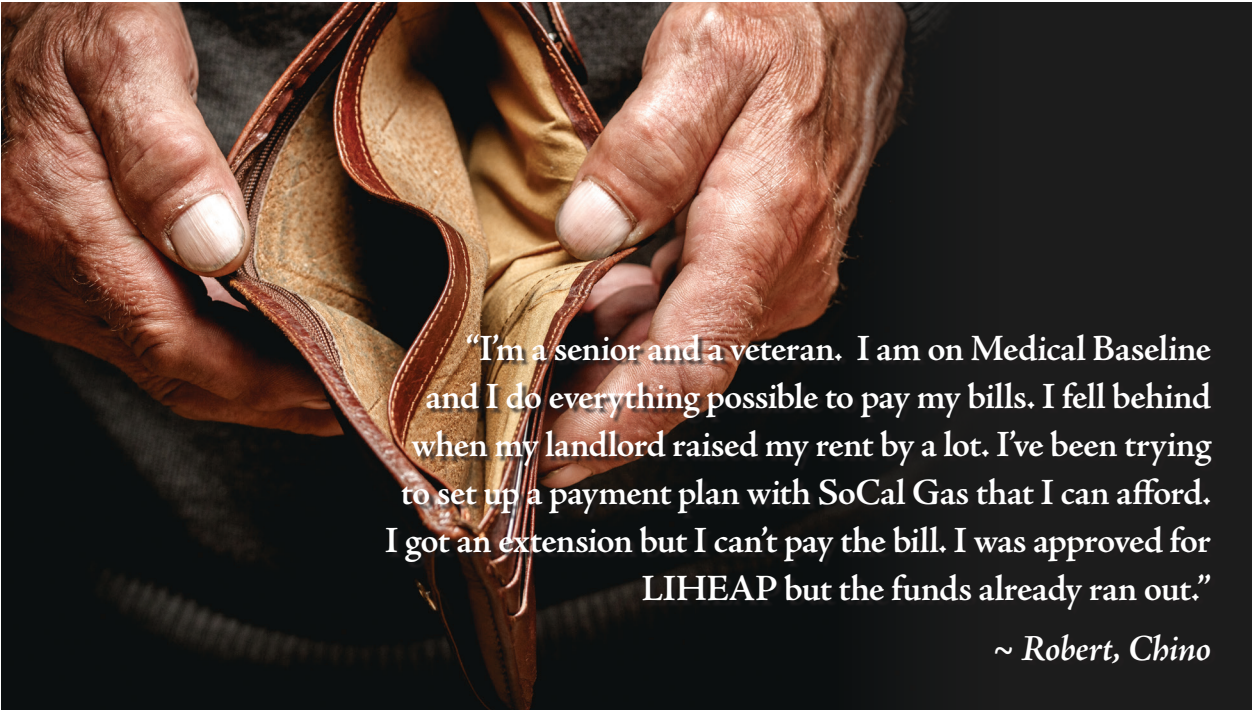
Southern California Gas Company

Southern California Gas showed different trends over time. Both CARE customers and general customers experienced a decrease in disconnections between 2010 and 2014. From 2014 to 2016, both groups experienced an increase in shutoffs. SoCal Gas is also the only major utility who shut off more CARE customers than general customers in 2016.

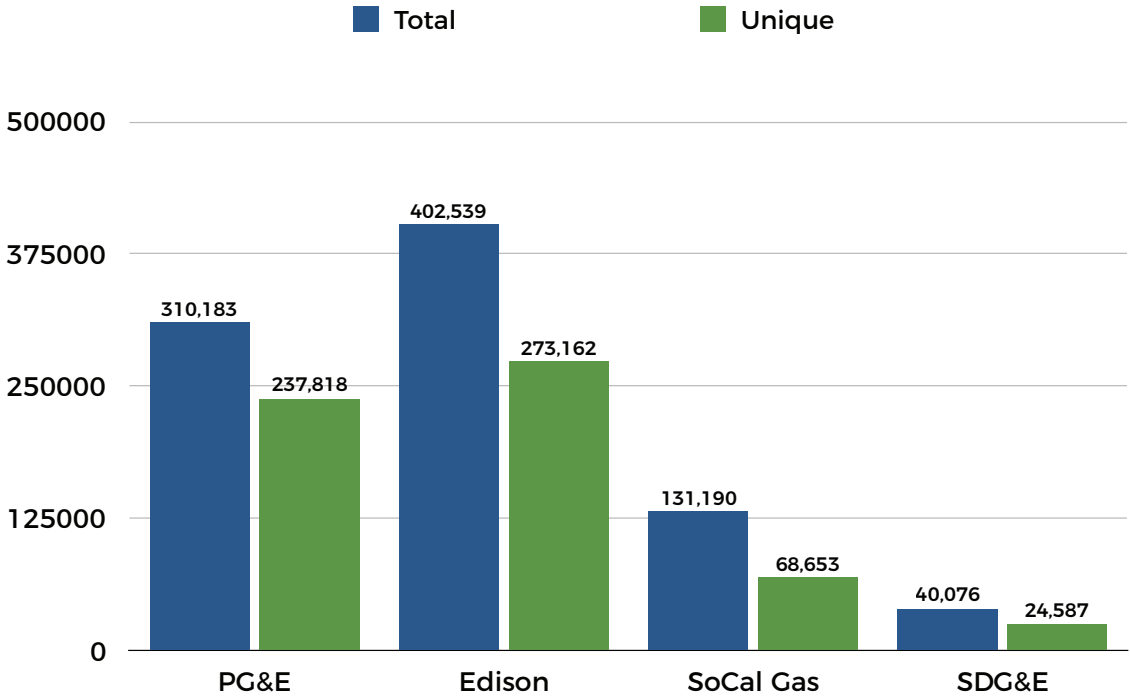
Shutoff Trends by Customer Type: SoCal Gas



Source: Disconnections Rulemaking Data



Multiple Shutoffs in 2016



Source: Utility ZIP Code Data

- PG&E conducted 72,365 multiple shutoffs in 2016.
- Edison shut off electric service 129,377 times in homes that had already been shut off at least once before in 2016.
- SoCal Gas conducted 62,537 shutoffs in homes that had had at least one shutoff already in 2016.
- SDG&E shutoff 15,489 homes that had already experienced at least one shutoff in 2016.

“I have 2 children who are bedridden and connected to medical devices. This makes our bills very high. We are constantly in danger of being shut off. It happens at least once every year, usually during the summer. It’s so stressful.”

~ Gabriel, San Diego

Utility Customers' Health Threatened by Multiple Shutoffs

Each of the utilities disconnects some of their customers multiple times throughout the course of a year. While we cannot tell from the data if a person was shut off 2 times or 5 times, we do know that nearly 280,000 shutoffs took place in homes that had already experienced one shutoff in 2016. The mental and emotional toll of anticipating one's family's next shutoff less than 12 months after the last and the actual physical consequences of multiple shutoffs merit serious consideration by policymakers and utility staff.



“[We get] notices after notices, and we hope one day for a law to pass to protect families like us from getting shut off.”



“I live in Madera. I’m retired after working for the local railroad for many, many years. When I was younger, I adopted and raised eight children. They were brothers and sisters and I didn’t want them to be separated.

When I was diagnosed with kidney failure, I got a home dialysis machine so that my family could care for me at home. The machine uses a lot of electricity and our bills got to be too expensive. Even though we are enrolled in CARE and Medical Baseline, we struggle to pay our PG&E bill.

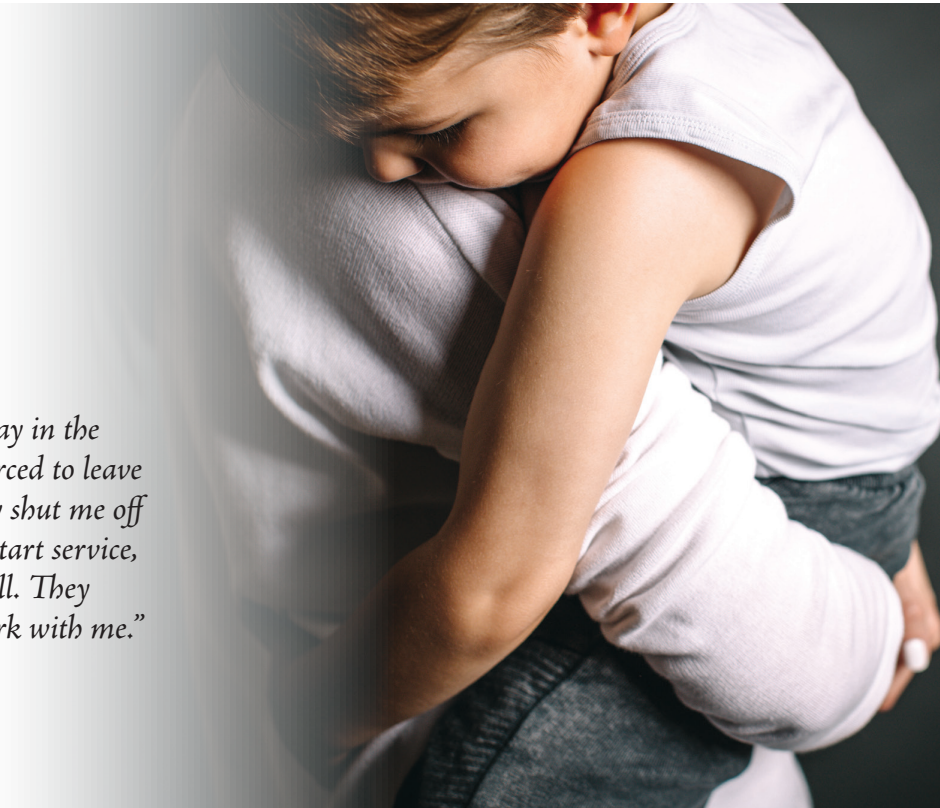
After we fell behind on payments the last time, PG&E shut me off. They didn’t care about my medical condition and told me to come up with the money to pay if I wanted my power turned back on. I had to leave the house while it was shut off. My daughter took me in so that I could run the dialysis machine and stay cool.”

~ Rubén, Madera



“Our landlord wouldn’t let my family stay in the apartment without power so we were forced to leave and find a new place to live. When they shut me off Edison demanded a \$500 deposit to restart service, in addition to paying my outstanding bill. They wouldn’t give me a payment plan or work with me.”

~ Teresa Colbert, Hemet



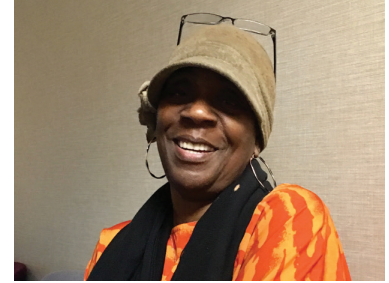
Shutoffs Are a Hidden Driver of Housing Displacement

Approximately 1 out of every 10 customers who has their electricity shut off is never reconnected, driving countless families from their homes. A home without utility service is not fit for habitation. While the data cannot tell exactly what happens to families and individuals who are never reconnected, we know that few people live for extended periods of time without service.

Data from community surveys and individual stories relate that many people end up moving, sometimes crowding in with other family members, couch surfing, or living on the streets. Community partner organizations have documented evictions from subsidized housing due to disconnections, because utility service is a condition of Section 8 and other subsidized and transitional housing leases.

	Total Disconnections	Reconnections	Never Reconnected	% Never Reconnected
PG&E	312,007	275,059	36,948	12%
Edison	402,761	358,403	44,358	11%
SoCal Gas	129,545	89170	40,375	31%
SDG&E	40,067	35,628	4,439	11%

Source: Disconnections Rulemaking Data



“Over the winter, the cold days caused me so much pain because of my rheumatoid arthritis. To keep warm and control the pain, I turned on the heat. I didn’t realize that just keeping the house warm would make my utility bill so high. I try to keep my bills low by turning off lights and washing clothes in cold water. I cut back on food and other needs, but I’m still going to be shut off.”

~ Sheila Clark, Oakland

Medical Baseline Customers Have the Worst Reconnection Rates

Customers enrolled in the Medical Baseline program experience dismal reconnection rates. Medical Baseline is a program administered by the utilities that helps people who have serious medical conditions and/or use medical equipment that make it hard to afford their monthly bill. Customers who qualify for Medical Baseline can get more of their gas and electricity at lower rates. Medical Baseline is not means-tested, so any customer, regardless of income, may qualify.

Too many Medical Baseline customers are never reconnected. They are up to 4 times more likely to never be reconnected than other customers. No one has documented what happens to them. As with regular customers, they may end up marginally housed, in a nursing home or—in the worst-case scenario—dead.

The range of customers never reconnected who are registered for the Medical Baseline program is about 1 in 3 for Edison, SoCal Gas and SDG&E. Most startlingly, PG&E never reconnected half of the Medical Baseline customers they disconnected in 2016.

	MB Disconnections	Reconnections	Never Reconnected	% Never Reconnected
PG&E	1,349	679	670	50%
Edison	1,917	1,261	656	34%
SoCal Gas	199	127	72	36%
SDG&E	197	126	71	36%

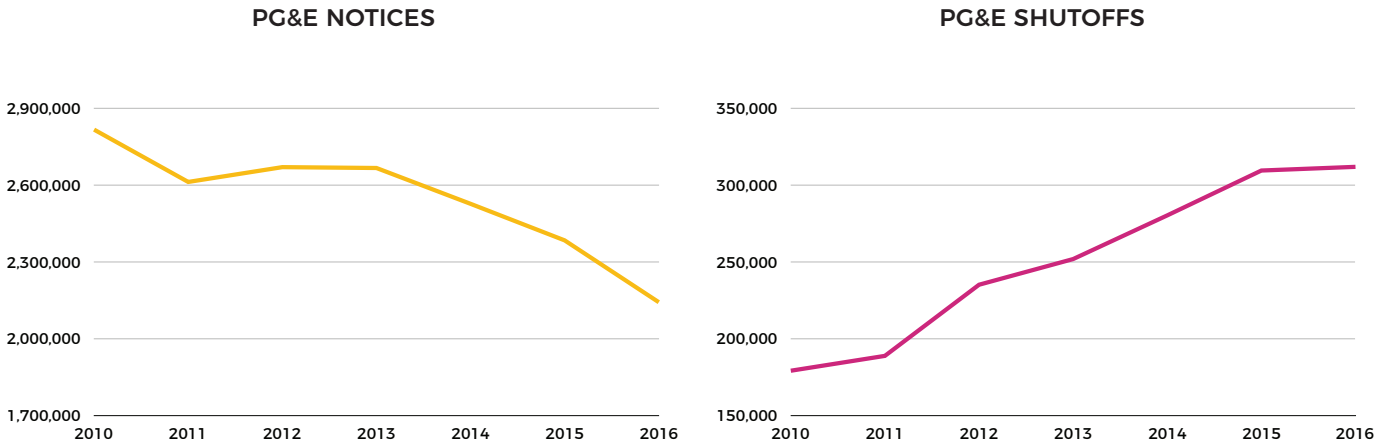
Source: Disconnections Rulemaking Data

Shutoffs are No Longer a Last Resort for Collections

Before Smart Meters were installed at a majority of residences, a crew had to take a truck out to a residence to manually disconnect, and again to reconnect, service at a customer’s home. Since the mass installation of Smart Meters, remote disconnections have replaced virtually all field disconnections.

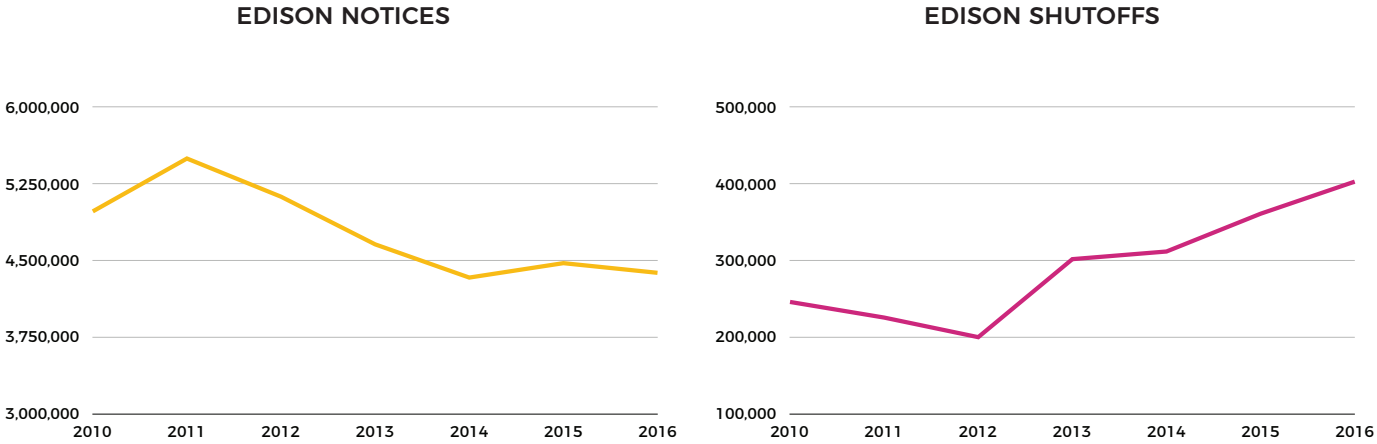
Ironically, as shutoffs have increased, the number of disconnection notices sent to customers has decreased. The data from all four utilities suggest that shutoffs are increasingly used by utility companies as a collection strategy and that they rely far less on disconnection notices.

Disconnection Notices and Shutoffs: PG&E



Source: Disconnections Rulemaking Data

Disconnection Notices and Shutoffs: Edison



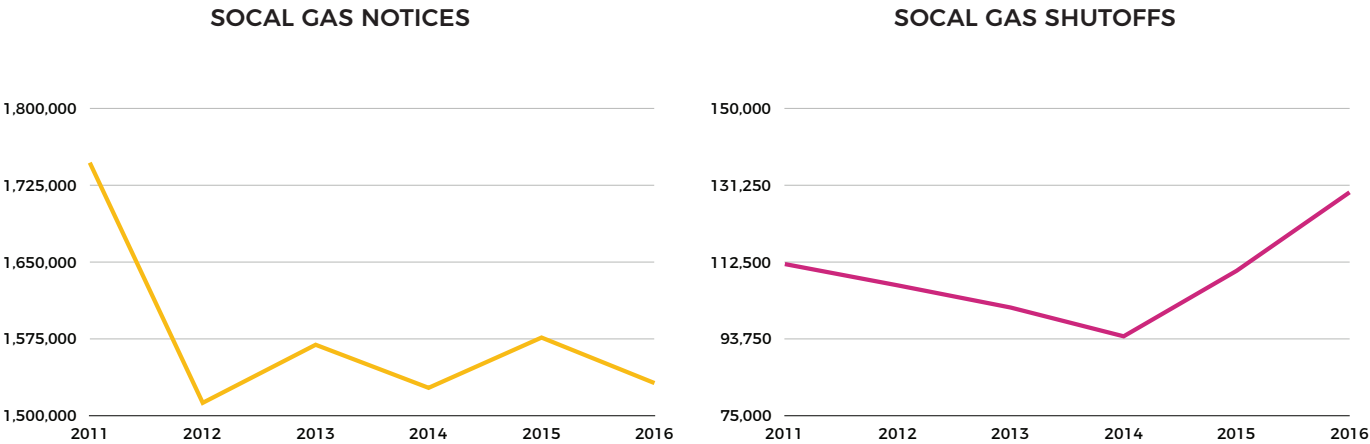
Source: Disconnections Rulemaking Data

Shutoffs Are Not Necessary for Revenue Collection

Southern California Edison had the highest disconnection rate in 2016. At 9.2%, Edison had almost 1 shutoff for every 10 customers. At 5.4%, PG&E had over 1 shutoff for every 20 customers. The Sempra Energy utilities (SDG&E and SoCal Gas) have the lowest rates of shutoffs. SDG&E reported one-third the number of shutoffs that Edison did. At 2.9%, SDG&E had 1 shutoff for every 30 customers. SoCal Gas had the lowest shutoff rate at 2.3%. However, SoCal Gas is unable to shut off their customers' natural gas service remotely. The increased difficulty involved in having to send out a crew to physically shut off natural gas service at customers' homes may be part of the reason SoCal Gas's disconnection rate is the lowest among the utilities.

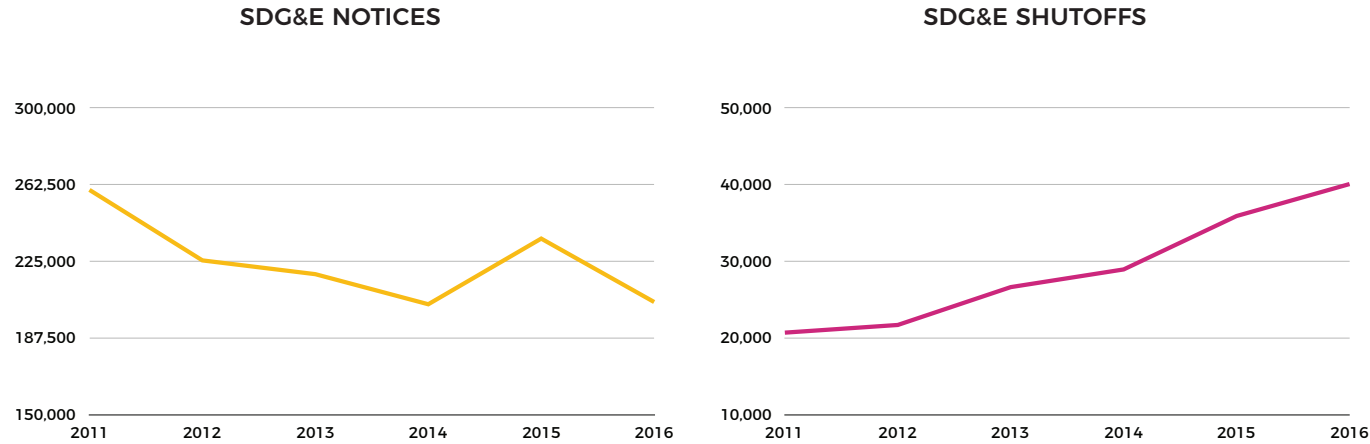
High shutoff rates are not necessary in order to manage customer back bills as evidenced by SDG&E and SoCal Gas's disconnection rates.

Disconnection Notices and Shutoffs: SoCal Gas



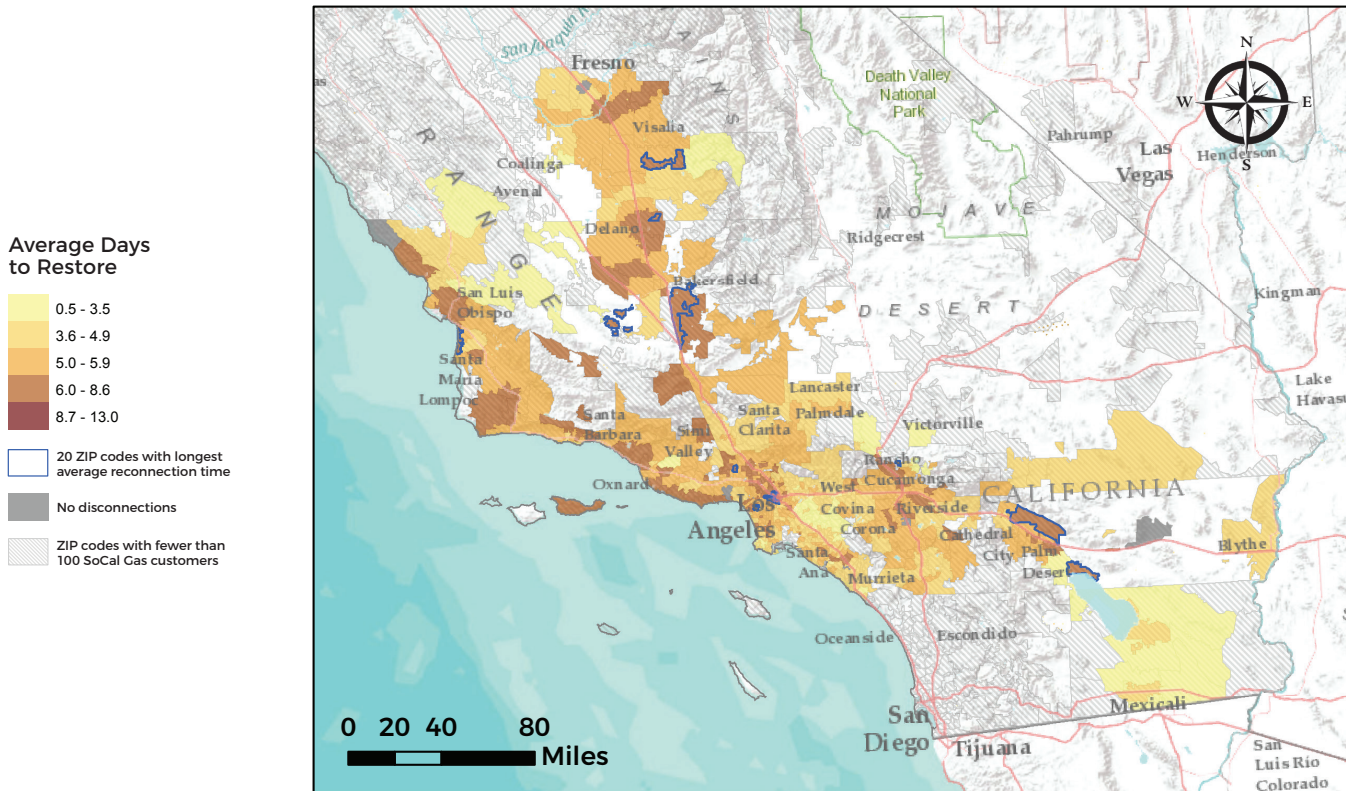
Source: Disconnections Rulemaking Data

Disconnection Notices and Shutoffs: SDG&E



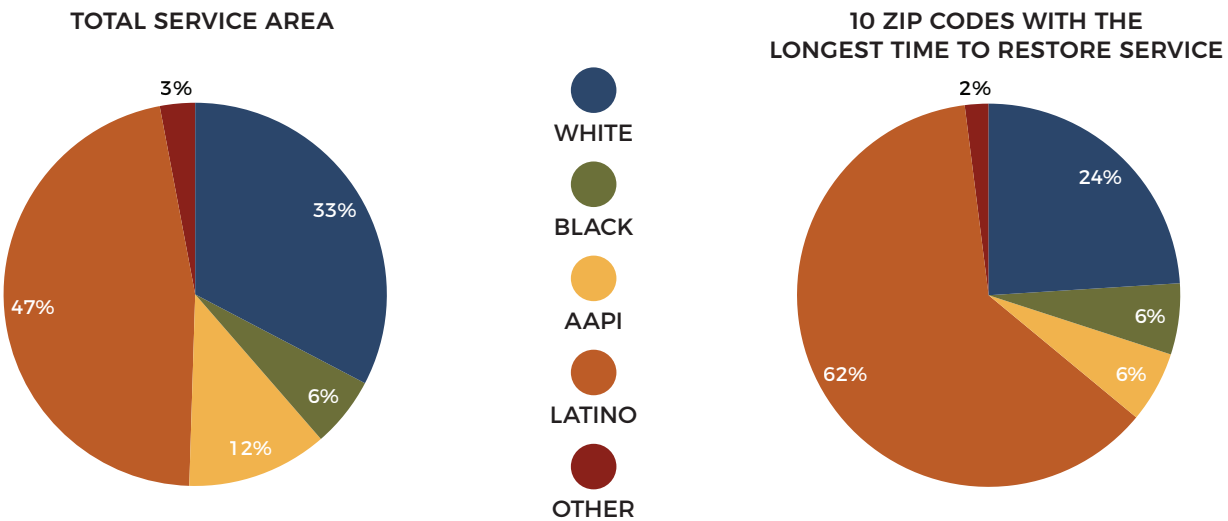
Source: Disconnections Rulemaking Data

Average Days to Restore Service: SoCal Gas



Source: SoCal Gas ZIP Code Data. Only ZIP codes with over 100 SoCal Gas customers in 2016 are displayed.

Time to Restore Service: SoCal Gas



Source: Utility ZIP Code Data and 2011-2015 American Community Survey, US Census Bureau

Restoring Gas Service Takes Longer for Low-Income Communities and Communities of Color

Reconnecting utility service for natural gas takes longer because it must be done in person, not remotely as with electricity.

ZIP code data indicate a trend that it may take longer for SoCal Gas to reconnect gas service in low-income communities and communities of color. As illustrated in the map below, the difference in the time it takes to be reconnected cannot be explained by location or geographic distance from a service center. In fact, in several instances ZIP codes with some of the longest times to reconnection (shown outlined in dark blue) are directly adjacent to ZIP codes with some of the shortest times to reconnection (shown in light yellow). The primary difference we found between these two pairs of ZIP codes is median household income.

The median household income throughout SoCal Gas’s service territory is \$59,539. The median household income of the ZIP codes with the longest time to reconnection is \$34,648, almost \$25,000 less than the median household income in the whole service territory.

Time to Restore Service: SoCal Gas

Median Household Income	
Total Service Area	\$59,539
10 ZIPS With Longest Time to Restore Service	\$34,648

Source: Utility ZIP Code Data and 2011-2015 American Community Survey, US Census Bureau

The racial and class disparities in SoCal Gas’s reconnections are also clear when we look at the racial makeup of the 10 ZIP codes with the longest time to reconnection. While 33% of the total service territory’s population is white, the white population makes up only 24% of ZIP codes with the longest time to reconnect. The Latino population makes up about half (47%) of the service territory, yet Latinos comprise 62% of the population in ZIP codes with the longest time to reconnection.

Policy Challenges

There are several reasons a person's utility bill can become unmanageable. For the majority of people who fall behind on their bills, energy is simply priced beyond reach. However, there are other important factors that contribute to a person's inability to pay.

Bill volatility makes monthly budgeting difficult

No bill is subject to as much volatility as a utility bill. Unlike monthly payments for rent, car, phone, and cable service, utility bills can increase by hundreds of dollars from one month to the next, making it difficult to predict and budget for this expense.

Late and missed payments run up back bills

When faced with a larger-than-usual bill or when managing another unforeseen financial crisis—such as an illness, job loss, or a car breaking down—customers will sometimes miss a payment or pay less than the balance due with the hope of catching up in the future.

Health needs can increase energy usage

Sometimes additional energy usage is unavoidable, for example, when a family brings home a newborn baby, or when a family member becomes ill. Use of medical devices like nebulizers, dialysis machines or other equipment can dramatically increase monthly utility bills.

Deposits put people behind and keep them behind

Customers may be charged a deposit equal to two months of the home's average usage if they have bad credit, no credit, a past disconnection, or pay their bills late for multiple months.

Being forced to pay someone else's bill is unfair

Sometimes utilities will charge a customer for energy use that belongs to somebody else, such as forcing a new tenant to pay the bill left by the previous tenant. Investigations conducted by utilities are done in secret without due process to review or respond to the findings.

Meter or billing errors cause large back bills

Utilities will sometimes surprise customers with corrected bills covering several past months, without informing customers that they cannot be held responsible for more than 3 months of corrected bills due to a meter error or a billing error.

Utility bills are just too high for many people

The bottom line is that utility bills are unaffordable for an increasing number of California residents. For instance, between 2010 and 2017, the average monthly electricity bill for a PG&E customer skyrocketed 50% from \$77 to \$117.¹¹

Legislation results in significant rate increases

Bills adopted by the legislature cause significant increases in monthly bills by requiring CPUC approval for utility ratepayer investments in electric vehicle charging stations, distributed generation, battery storage, "smart" grid equipment, etc.

Policy Solutions

Utility data must be accurate, standardized, accessible, and usable

Utility companies must report accurate data across the data points they are required to file each quarter with the CPUC. Data should be filed in a standardized format across utilities. It should be filed in a manipulable format in addition to PDF. Data should be easy to find and download.

Provide due process to customers accused of falsifying information

Require that customers have the right to see results of a utility investigation that concludes that they previously occupied a home where they are starting new utility service. Currently customers have no right to challenge any evidence collected by utility investigators that result in a large back bill being applied to their account.

Adopt short term goal of 50% reduction in utility disconnections

Greening the grid should not come at the expense of cutting off disadvantaged communities from the grid. CPUC should exercise its authority to require utilities to modify their collection policies to reduce disconnections by 50% by 2020.

Punish utility companies for violating consumer protections

Impose significant fines on utilities that charge customers for energy that was used by someone else, such as previous tenants at the same address or a current roommate at a different address, as well as utilities that charge customers for more than three months of a back bill due to meter or billing errors.

Require utilities to increase participation in Medical Baseline

Develop protocols for increasing participation of people who are seriously ill or dependent on medical equipment to 80% of those eligible for Medical Baseline by contracting with public health departments that serve medically vulnerable communities.

Adopt debt management programs to eliminate back bills

Create affordable debt management plans that forgive 1/12th of a low-income customer's back bills for each month they pay their current bill. This allows customers to focus on their obligation to pay the current bill and, at the same time, work toward a clean slate.

Improve various distributed clean energy programs to reduce utility bills

Reduce energy usage, carbon emissions, and monthly bills by improving existing energy efficiency, demand response and solar programs to more effectively help families threatened with disconnections or who have experienced utility shutoffs.

Cap utility rate increases to no more than inflation

Limit the combined impact of statutory and regulatory increases in utility rates in any year to no more than the Consumer Price Index, or rate of inflation, in order to keep monthly bills in line with increases in salaries and social security benefits.

Aspire to providing universal utility service as a human right

Develop minimum payment plans that guarantee continuous utility service for any household that makes a monthly payment that corresponds to how much they can afford, regardless of the size of their bill.

Endnotes

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City Heights Community Development Corporation

Rickie Brown, Barbara Nevarez, Rosie Ulloa-Sanchez, Gianna Ulloa

Fathers and Families of San Joaquin

Nikki Chan, Gilbert Martinez

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Ana Montes, Gabriela Sandoval, Mark Toney

Housing Long Beach

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Tram Nguyen

Congregations Organized for Prophetic Change (COPE)

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