Pacific Gas and Electric Company

Pursuant to the requirements of Senate Bill (SB) 695, which was codified into Public Utilities Code Section 748,¹ Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide its annual report to the California Public Utilities Commission (CPUC or Commission) on measures PG&E recommends be taken to limit costs and rate increases.

This report includes:

- A summary report and recommendations to the CPUC and Legislature to reduce utility costs and rates;
- A description of PG&E's overall rate policies;
- A discussion of PG&E's management of rate components;
- A discussion of PG&E's policies and recommendations for limiting costs and rate increases while meeting the state's energy and environment goals for reducing greenhouse gases;
- A description of PG&E's revenue requirements effective January 1, 2020
- A discussion of PG&E's sales forecasts and recorded sales
- A description of PG&E's energy burden by baseline territory and service territory;
- A discussion of PG&E's Chapter 11 case and compliance with AB 1054; and
- A schedule of PG&E's filings that may affect rates in 2019 and beyond.

1. Summary of Report and Recommendations to CPUC and Legislature to Reduce Utility Costs and Rates

PG&E knows how important it is to our customers that we keep monthly electricity and gas costs affordable while maintaining safe and reliable service. In addition to mitigating cost pressures, within the framework for the allocation of costs and rate design mandated by the California Legislature (Legislature) and the CPUC, PG&E seeks to equitably allocate costs among its customers based on cost-of-service principles. Crafting equitable allocation rules for revenue requirements among and within customer classes poses challenges, in part due to rate designs mandated by law and the need to collect revenues to fund programs that benefit a specific set of customers but are paid for by nonparticipating customers (where that allocation among customers may in some cases also be mandated by law).

Since the issuance of Decision (D.)15-07-001, *Decision on Residential Rate Reform,* the energy sector in California has seen rapid changes, including: technology innovations, new market entrants and expanded customer choice. Further, the state has continued to pursue efforts consistent with its vision for a clean electric future for California that includes a path to a 100 percent greenhouse gas (GHG) free electricity future (as evidenced by the passage of SB 100 in 2018). Critical to this future is a robust electric network that enhances reliability and safety, is affordable, and allows all Californians to equitably benefit from and finance this clean energy future.

¹ SB 695 was approved by then-Governor Brown on October 11, 2009.

As California approaches a time in which nearly all electrons are green and the "average" electric customer becomes harder to define, enhancing and maintaining the network that delivers those green electrons to all Californians becomes more and more important. To support this clean electricity future, in which customers have more choice than they had in the past, the rate architecture needs to continue to evolve and ultimately transition to a structure under which customers pay for the network separately from paying for the electrons. Great progress has been made in California over the past five plus years through the Commission's leadership on residential rate reform. Reducing the emphasis on tiered pricing and beginning the gradual transition toward more cost-based TOU rates are two significant accomplishments thus far in the Commission's Residential Rate Reform proceeding.

However, despite these efforts, there remain fundamental challenges with the current path. Relying almost exclusively on volumetric rates for residential customers, even if differentiated by time-of-use, is not sustainable, as such designs do not reflect the way the actual cost structure scales. In the absence of reasonable fixed charges that collect at least a portion of utility fixed costs, higher-usage customers are forced to pay disproportionate shares of the fixed costs and subsidize lower-usage customers. Moreover, an inclining block tiered rate structure exacerbates these subsidies from higher-usage customers to lower-usage ones.

Such rate structures, where volumetric electric rates (and, particularly, volumetric upper-tier rates) end up being set far in excess of the actual marginal costs of generating and delivering electricity, provide economically inefficient price signals to customers. They also run counter to the public policy objective of encouraging building electrification, by incenting customers to switch from appliances/equipment that use natural gas to those that use electricity in order to reduce emissions. Customers facing the choice between gas or electric appliances/equipment that provide the same service (for example, a residential household deciding whether to heat its home with a gas furnace or with an electric heat pump) will be less likely to choose the electric option if electric volumetric rates are set at artificially high levels - since doing so will lead to a much higher bill. Furthermore, a growing number of municipalities are passing ordinances requiring new residential and business construction to use electricity rather than natural gas for space heating, water heating and cooking.² Customers affected by these new ordinances may see much higher than expected bills due to being forced to pay high volumetric electric rates, risking customer backlash against such ordinances.

For electrification to succeed, it is critical to reduce volumetric electric rate levels to achieve the desired emissions reductions. This can be accomplished via a number of changes electric rate designs, summarized in bullet form below (and further described in the following three sub-sections):

² Such ordinances have been recently enacted in Berkeley, ..., and ...[list all the other cities].

- Introducing and/or increasing fixed charges to collect a reasonable portion of utility fixed costs, resulting in lower volumetric electric rates;
- Further reforming tiered rate structures for electricity to either eliminate noncost-based tiered prices or, at minimum, reducing the magnitudes of the price differentials between tiers; and
- Further reforming the compensation provided to customer-generators with onsite solar systems via Net Energy Metering (NEM).

Fixed Charges Coupled With Lower Volumetric rates.

As noted above, a critical step to fair and equitable rates is the implementation of a fixed charge to recover fixed costs that do not vary with usage. Such a charge is permitted by Assembly Bill (AB) 327.3 Work has proceeded on a methodology for developing such a charge in Phase 2 of PG&E's 2017 General Rate Case (GRC) and fixed charge proposals by PG&E (as well as by the other two large California investor-owned utilities) are presently being considered in Phase III of the 2018 Rate Design Window (RDW) Proceeding. PG&E supports having a fixed monthly charge in residential rates, consistent with rate design policies adopted by public utility regulators around the country and similar to the fixed monthly charges that have been in all of PG&E's non-residential rates for years, as a more cost-based rate design that will spread costs to customers in a more equitable way based on the fixed costs to serve them. The resulting volumetric electric rates will be lower and closer to marginal costs of service, providing increased incentives for customers to switch to cleaner electric appliances and equipment.

Eliminating Steeply-Tiered Residential Rates

Since 2010, PG&E has been advocating for fewer tiers in residential rates, along with smaller price differentials between tiers. In July 2015, in D.15-07-001, the CPUC adopted a multi-year "glide path" trajectory that represented an important step in that direction, reducing the number of tiers and gradually reducing the ratio of the Tier 2 rate to the composite Tier 1 rate. As of March 1, 2019, the ratio between PG&E's Tier 2 and composite Tier 1 rates had decreased to the 1.25-to-1 final glide path ratio directed by D.15-07-001. But, while an improvement over the situation that existed in 2015, a 1.25-to-1 ratio still over-charges customers for usage above their baseline amount, while subsidizing customers whose

³ AB 327 was signed into law in 2013.

⁴ The Tier 1 rate applies to usage between zero and the customer's baseline amount, while the Tier 2 rate applies to usage between 100 percent and 400 percent of the customer's baseline amount. The composite Tier 1 rate is calculated by adding any revenues from a fixed charge or a minimum bill amount to Tier 1 energy revenues, then dividing by Tier 1 sales. Thus, the composite Tier 1 rate exceeds the nominal Tier 1 rate actually paid by customers for Tier 1 kWh usage.

⁵ Because the composite Tier 1 rate exceeds the actual Tier 1 rate, the resulting nominal rates have a ratio that exceeds 1.25-to-1.

usage stays in Tier 1. As noted above, this will dis-incent customers from switching to cleaner electric appliances, since such purchases will likely drive electric usage of Tier 1 users into the higher-priced Tier 2. Moreover, D.15-07-001 also introduced, beginning in 2017, a new "super user of electricity (SUE) surcharge" (which PG&E has implemented as a "High Usage Surcharge," or "HUS"), that applies to usage above 400 percent of the customer's baseline amount. As directed by that decision, the ratio of PG&E's HUS tier rate to its composite Tier 1 rate is now set at 2.19-to-1.6 Charging HUS usage more than double Tier 1 usage has no basis in cost, greatly increases summer bill volatility for customers in hot climate zones, and provides a severe dis-incentive for customers to switch to electric appliances if such a switch would push their electric usage up even further, into the HUS tier. Unless further rate reforms are enacted by the legislature and CPUC to either eliminate tiered rates, or at minimum to reduce the magnitudes of the price differentials between tiers, it will be very difficult to achieve electrification goals in the residential class.

Rate structure and compensation for Net Energy Metering (NEM)

The NEM tariff allows customers with on-site generation (primarily rooftop) solar photovoltaic (PV) equipment) to receive a retail-based credit (for generation plus transmission and distribution rates less certain public purpose program and other non-by-passable charges) for the energy they send out to the grid to offset the cost of their consumption within the month and within an annual true-up period. 8 PG&E recommends adopting the Modern Rate Architecture framework9 to guide design of future rates and compensation structures for NEM customers. In particular, PG&E supports NEM compensation based on the value produced by on-site generation (including avoided energy, capacity, distribution, transmission, and other benefits identified by the CPUC). As of December 31, 2019, the estimated annual NEM cost shift reached \$1.3 billion after an \$180 million increase over the previous year. If policy makers choose to continue to incent PV equipment installations beyond the avoided costs savings provided, such compensation should be quantified and separately tracked as a policy cost that is borne by all customers and not bypassable.

⁶ Effective January 1, 2020, PG&E's HUS rate is 52.0 cents per kWh, compared to the Tier 1 rate of 23.6 cents per kWh (the Tier 2 rate is 29.7 cents per kWh).

⁷ It is worth noting that the default time-of-use (TOU) rates approved by the CPUC, while providing better price signals to customers to shift their electric usage from high-cost peak hours to lowcost off-peak ones, still have a two-tiered structure that dis-incents customers from switching to electric appliances.

The 2016 NEM successor tariff decision, Decision (D.)16-01-044, required customers to pay certain non-bypassable charges on all usage not offset by on-site generation, reducing some of this cross-subsidization.

⁹ See "A Modern Rate Architecture for California's Future", Public Utilities Fortnightly, Nov 1 2018, p.8

PG&E believes that these residential rate design and NEM reforms can have a beneficial near-term impact on its cost of delivering safe and reliable gas and electric services to its customers, as well as more fairly charging customers rates which better reflect PG&E's cost to serve them – all the while incenting building electrification policies by making electric service more affordable to higher-usage customers.

2. PG&E's Overall Rate Policies

PG&E strives to provide its customers with reasonable rates for gas and electric service. When proposing rates, PG&E considers cost-based pricing, equity within and among customer classes, simple and understandable rates, and public policy objectives. PG&E's rate policy focuses on providing customers with reasonable rates by minimizing the number of rate changes per year¹⁰ and smoothing the impact of revenue and rate changes on its customers.

PG&E understands that its customers value transparency and stability in the rates they pay for energy. The Commission and PG&E should work collaboratively to manage the timing of revenue changes to smooth the impact on gas and electric customers by offsetting approved increases in revenues with offsetting approved decreases. Planning rate changes in this manner could avoid situations where customers face a rate decrease in one month followed soon after by rate increases in subsequent months, and thereby decrease rate volatility and improve PG&E's customers' experience.

As illustrated in Figure 1 below, for nearly 30 years PG&E's system average bundled electric rate has increased at a rate lower than or close to the consumer price index (CPI) growth in California.

¹⁰ For gas rate changes, as required by prior Commission decisions, PG&E files monthly changes to the gas commodity rate and seeks an annual rate change to reflect changes in gas transportation and Public Purpose Program costs.

Figure 1: Historic California CPI¹¹ vs. System Average Bundled Electric Rate

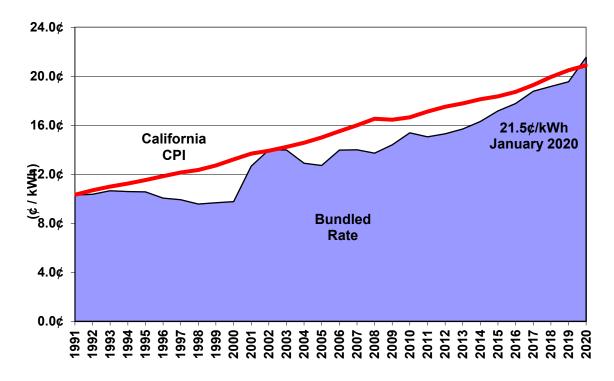


Figure 2 below shows a breakdown of the system average rate by customer class for the 2010-2020 period. Each class shows the same upward trend as the system average rate over this period, with the residential and small and medium business customers generally having higher average rates than the system average and the large industrial and agricultural customers generally having lower average rates.

¹¹ CPI Provided by IHS Economics

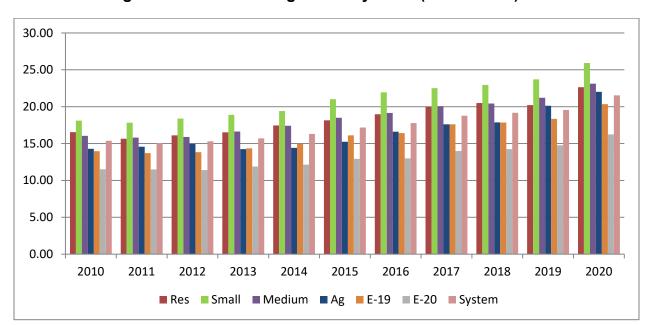


Figure 2: Historic average rates by class (2010 - 2020)

3. Management of Rate Components

PG&E is committed to controlling costs and managing rates while providing safe and reliable gas and electric service to its customers. However, many factors that affect customer rates are outside of PG&E's control. The factors include – but are not limited to – market prices of natural gas and electricity, retail sales volumes, weather (including the impacts on hydroelectric operations), interest rates, and the cost of implementing regulatory mandates. Nonetheless, PG&E diligently seeks to manage its costs across all categories to make efficient and effective use of revenues collected from customers.

PG&E included affordability and cost savings in both its 2020 GRC and 2019 Gas Transmission and Storage (GT&S) rate cases. PG&E's commitment is to keep customer costs as low as possible while meeting our responsibilities to safely serve customers, even as our changing climate presents significant new challenges and risks.

Aside from these major rate cases, certain components of gas and electric rates are largely beyond the direct control of utilities, and instead result from market forces, as well as policy or regulatory mandates (many of which PG&E and the CPUC supported). Among the requirements creating further cost pressures on PG&E's electric and gas rates are the Renewables Portfolio Standards (RPS) program and GHG emissions restrictions resulting from AB 32.¹²

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¹² AB 32 was approved by then-Governor Brown on September 27, 2006.

These legislative and regulatory mandates and policies seek to achieve worthy overall goals. However, to the extent they raise electric and gas rates or restrict the ability of utilities to manage or mitigate costs, the Legislature and Commission should then periodically review these mandates and policies to ensure they appropriately balance the social or customer benefits with the overall cost to customers.

4. PG&E's Policies and Recommendations for Limiting Costs and Rate Increases While Meeting the State's Energy and Environment Goals for Reducing Greenhouse Gases

PG&E and the Commission have endorsed rate policies based on cost of service. Such policies encourage efficient decision making by customers. At times, departing from cost-based rates can be appropriate in order to accomplish other public policy objectives. Such objectives may include energy efficiency, benefits to low-income customers, mitigation of rate changes from year to year, promotion of renewable generation, GHG emissions reductions, and encouragement of innovation and developing technologies.

However, each departure from cost-based rates needs to be carefully evaluated to determine whether the rate increases are reasonable in light of the overall benefits to society and the impact on non-benefiting customers. Moreover, as described in Section 1, any cost-shifts or cross-subsidies should be transparent and should generally be borne by all customers on a non-bypassable basis.

5. Revenue Requirements effective January 1, 2020

A description of PG&E's authorized electric and gas revenue requirement categories and the percent contribution to the total 2020 revenue requirement is provided separately. The key categories of revenue requirements are based on PG&E's major rate components.

Figure 3: Summary of Electric Revenue Requirements and Percentage of Total Revenue as of January 1, 2020 Compared to January 1, 2019

RATE COMPONENT	2020 Electric Revenue Requirement \$M	%	2019 Electric Revenue Requirement \$M	2020 vs 2019 % Change	
Energy and Generation	\$5,257	38%	\$5,599	43%	-6%
Competition Transition Charge	221	2%	\$225	2%	-2%
Distribution (1)	4,552	33%	\$3,919	30%	16%
Energy Recovery Bonds and	,		, ,		
Department of Water Resource Bonds	388	3%	\$371	3%	5%
Electric Transmission	2,506	18%	\$1,971	15%	27%
Public Purpose Programs	924	7%	\$1,044	8%	-11%
Nuclear Decommissioning	74	1%	\$17	0%	334%
Total Authorized Revenue Requirement	\$13,921	100%	\$13,146	100%	

- (1) Includes 2020 CARE discount of approximately \$482M.
- (2) Values are approximated to the nearest million.
 - a. Electric revenue requirements are grouped into the following major rate categories: (1) Energy and Generation, (2) Distribution, (3) Energy Recovery Bonds and Department of Water Resources bonds, (4) Competition Transition Charge and New System Generation Charge, (5) Transmission, (6) Nuclear Decommissioning, and (7) Public Purpose Programs. Below is a description of each electric revenue requirement category and in instances where the revenue requirement has changed by more than 10% when comparing 2020 to 2019, a reason for the change:
 - 1) Energy and Generation contribute approximately 38 percent to the total authorized electric revenue requirement in 2020. Through the Generation rate component, PG&E recovers the costs of its generation portfolio which include the cost of PG&E's utility-owned generation (UOG) consisting of the fuel, base Operations and Maintenance (O&M) and capital-related revenue requirements associated with its nuclear, solar, gas, and hydro plants. Energy costs also include amounts related to long-term power contracts entered into by the DWR on behalf of the state's IOUs. In addition, PG&E recovers all of its purchased power costs required to meet its load. The purchased power costs include the costs of Qualifying Facilities, and all other bilateral contracts that PG&E has entered into when the company was authorized to resume the power procurement

function and make purchases and sales through the wholesale markets. The impact of renewable contracts entered into to meet the RPS and GHG costs are also reflected in generation rates.

- 2) Distribution contributes approximately 33 percent to the total authorized revenue requirement in 2020. The electric distribution revenue requirement includes the base distribution O&M costs and capital-related revenue requirement, California Solar Initiative, Demand Response, return of proceeds resulting from the cap-and-trade market, and other programs.¹³ The drivers of the 16 percent increase in the 2020 distribution costs compared to 2019 are: GRC attrition, lower GHG revenue, higher CEMA costs and higher balancing account undercollections.
- 3) Energy Recovery Bond (ERB) and Department of Water Resources (DWR) Bond contribute approximately 3 percent to the total authorized revenue requirement in 2020. The ERB is now used to return amounts to customers resulting from settlement agreements with sellers of energy to resolve energy claims related to the Western Energy Crisis of 2000-2001. DWR Bond is a charge that pays for bonds issued by DWR to cover the cost of purchased power during the energy crisis.
- 4) Competition Transition Charge (CTC) and New System Generation Charge (NSGC) contribute approximately 2 percent to the total authorized revenue requirement in 2020. CTC recovers uneconomic (above market) costs resulting from California's electric industry restructuring pursuant to Public Utilities Code Section 367(a). Specifically, costs associated with power purchase contract obligations that were in rates prior to December 20, 1995 continue to be recoverable from non-exempt departing load for the duration of the contract. NSGC recovers the net capacity cost and allocates the resource adequacy benefits associated with resources the Commission has determined provide system and/or local reliability benefits to load serving entities in the IOU's service territory. In addition, net capacity costs associated with new generation authorized under the Qualifying Facility and Combined Heat and Power Settlement are also recovered via the Cost Allocation Mechanism.
- 5) Electric Transmission contributes 18 percent to the total authorized revenue requirement in 2020. Transmission revenue requirements include the following:
 - Base Transmission which recovers the O&M and capital-related revenue requirement associated with transmission assets under ISO operational control and subject to FERC's jurisdiction;

The CARE discount shifts revenue requirements from the distribution rate component to the Public Purpose Program rate component.

- Transmission Revenue Balancing Account Adjustment (TRBAA) is a FERC mechanism that ensures revenues received by PG&E from the ISO are credited to transmission rates for both retail and wholesale customers taking service from PG&E.
- Reliability Services Balancing Account (RSBA) is a FERC mechanism that ensures participating transmission owners properly recover from customers reliability services costs assessed by the ISO.
- End-Use Customer Refund Account (ECRBA) is a FERC mechanism that ensures that End-User customers receive accurate and timely refunds based on the difference between the as-filed and as-settled Transmission Owner Revenue Requirements.
- The Transmission Access Charge Balancing Account Adjustment (TACBAA) is a mechanism that ensures the difference between the costs billed to PG&E as a load-serving entity and the revenues paid to PG&E as a Participating Transmission Owner under the California Independent System Operator Corporation Tariff is recovered from or returned to PG&E's end-use customers.
- The primary driver of the 27 percent increase in electric transmission costs are: (1) increase in recorded costs; and (2) increase in net capital additions. Network Transmission operation and maintenance expenses increased from \$240 million in 2017 to \$286 million in 2018 (primarily due to increased inspection, maintenance, and repair work for the Transmission facilities), and administrative and general expenses increased from \$106 million in 2017 to \$146 million in 2018 (this includes the rising costs in general liability insurance and other expenses).
- 6) Nuclear Decommissioning contributes approximately 1 percent to PG&E's total authorized revenue requirement in 2020. Nuclear Decommissioning pays for the decommissioning/retirement of nuclear power plants. The primary drivers of the 334 percent increase in Nuclear Decommissioning funding are: increase for Diablo Canyon Retirement Program (funding is for employee retraining and Community Impacts) and decrease in balancing account overcollections.
- 7) Public Purpose Programs (PPP) contribute 7 percent to PG&E's total authorized revenue requirement in 2020. These revenue requirements include funding for Energy Efficiency programs, Electric Program Investment Charge, Statewide Marketing Education and Outreach, and the CARE discount. The primary drivers of the 12 percent decrease in PPP funding are: lower energy efficiency funding as well as returning unspent energy efficiency funds.

Figure 4: Summary of Gas Revenue Requirements and Percentage of Total Revenue as of January 1, 2020 Compared to January 1, 2019

RATE COMPONENT	2020 Gas Revenue Requirement \$M	%	2019 Gas Revenue Requirement \$M	%	2020 vs 2019 % Change
Energy Distribution Gas Transmission / Backbone Local Transmission Public Purpose Programs and Other (1)	\$591 2,265 490 875 129	13% 50% 11% 19% 3%	\$668 \$2,312 \$359 \$993 \$233	14% 50% 8% 21% 5%	-12% -2% 37% -12% -45%
Gas Storage	142	3%	\$86	2%	65%
Total Authorized Revenue Requirement	\$4,492	100%	\$4,651	100%	

⁽¹⁾ Includes 2020 CARE discount of approximately \$129M which is collected in PPP rates.

- b. Natural gas revenue requirements are grouped into the following major categories: (1) Energy, (2) Distribution, (3) Backbone Transmission, (4) Local Transmission, (5) PPP, and (6) Storage¹⁴. Below is a description of each gas revenue requirement category:
 - 1) Energy contributes about 13 percent to the total gas revenue requirement in 2020. These revenue requirements include:
 - Gas supply portfolio costs
 - Interstate capacity costs
 - Gas hedging
 - The driver of the 12 percent decrease in gas energy costs is a forecasted decrease in the weighted average cost of gas in 2020.
 - 2) Distribution contributes about 50 percent to the total authorized gas revenue requirement in 2020. It includes the base distribution O&M costs and capital-related revenue requirements. 15

⁽²⁾ Values are approximated to the nearest million.

¹⁴ The Distribution, Backbone Transmission and Local Transmission and Storage comprise the transportation rate component.

¹⁵ The Gas Distribution revenue requirement reflects the CARE discount that is recovered through the CARE surcharge in the PPP rate component. Correspondingly, PPP revenue requirement reflects CARE discount revenue.

- 3) Backbone Transmission contributes approximately 11 percent to the total gas revenue requirement in 2020 and includes intrastate capacity costs. The Backbone Transmission System includes Lines 2, 300, 400 and 401, is used to transport gas from PG&E's interconnection with interstate pipelines, other local distribution companies, and California gas fields to PG&E's local transmission and distribution system. The primary driver of the 37 percent increase in Backbone costs, as recently adopted in PG&E's 2019 Gas Transmission and Storage (GT&S) Decision (D.) 19-09-025, are increased backbone costs related to targeted investments that will strengthen and modernize PG&E's gas system.
- 4) Local Transmission contributes approximately 19 percent to the total authorized gas revenue requirement in 2020. Local Transmission includes the pipelines used to accept gas from the backbone transmission system and transport it to the distribution system. Local transmission costs are included in end-use customer gas rates. The primary driver of the 12 percent decrease in Local Transmission costs, as adopted in PG&E's 2019 GT&S D.19-09-025, is a significant decrease in the Local Transmission undercollection in rates. Due to the timing of the 2015 GT&S decision, there was approximately \$189 million in rates related to the late implementation for Local Transmission. With the implementation of the 2019 GT&S decision, the Local Transmission undercollection decreased to \$4.1 million.
- 5) Storage contributes about 3 percent to the total authorized gas revenue requirement in 2020. It includes core customer gas storage, carrying cost of working gas in storage for core customers, and unbundled storage. The primary drivers of the 65 percent increase in Storage costs are, as adopted in PG&E's 2019 GT&S D.19-09-025, increased costs for improving safety measures at all three PG&E's gas storage facilities to reflect newly anticipated and more rigorous state laws and regulations.
- 6) Public Purpose Programs contribute about 3 percent to the total authorized gas revenue requirement in 2020. The revenue requirements include the CARE discount collected from Non-CARE customers, Energy Efficiency program costs and the Natural Gas Greenhouse Gas Costs and Credit. The primary drivers of the 45 percent decrease in gas PPP funding are: decrease in the authorized Energy Savings Assistance Program (ESA) Funding and return of unspent Energy Efficiency and ESA funding.

c. Electric and Gas Revenue Requirements by Proceeding

A table for both electric and gas revenue requirements by proceeding that the Commission and the FERC have authorized that sums to the total system level revenue requirement effective January 1, 2020, with corresponding percentage contribution to the total revenue requirement has been provided in a separate attachment. The Decisions, Advice Letter, Resolutions, etc. have

been provided. In addition, the attachment includes the bundled residential share of the revenue requirements.

6. Sales Forecasts and Recorded Sales

Customer sales volatility over time directly impacts rates for gas and electric customers. PG&E updates sales forecasts for its service territory on a regular basis. The updated sales forecasts are typically filed in conjunction with rate change filings with the Commission. In the past, aggregate customer sales typically increased at a pace which partly offset annual increases to the revenue requirement. However, starting with the recession in 2009, and then continuing with the increases in distributed generation and savings from energy efficiency, PG&E has had flat or declining electric sales. This results in fixed costs having to be spread across lower sales resulting in higher rates for most customers. Below are PG&E's recorded 2019 sales and forecast 2020 sales:

Table 5: PG&E's 2019 Historical Sales and 2020 Forecasted Sales

Energy Load (GWh)	2019 Historical Sales ¹	2020 Forecasted Sales ²
Total Retail Sales ³	77,931	79,440
Bundled	36,322	35,945
Direct Access	9,358	9,405
Community Choice Aggregation	32,252	34,091

^{1) 2019} Recorded: PG&E recorded sales data.

7. Energy Burden by Baseline Territory and Service Territory

The following 2 tables provide energy burden (bill share of income) information for Electric and Gas customers for each of the letter-labeled baseline service territories. This analysis uses PG&E customer statistics, but does not use fine-grained income study data. Instead, it uses census block income data that has been aggregated to approximate service territory composition 16. PG&E intends to update this table when the more granular data becomes available.

^{2) 2020} Forecast: PG&E's 2020 ERRA Forecast A.19-06-001, Table 2-3 (November Update).

³⁾ Retail Sales excludes BART energy requirements.

¹⁶ The source of the income data is U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates. It is the median household income in the past 12 months in 2017 inflation-adjusted dollars. Census block groups with missing income data were removed and the income of \$250,000+ was replaced by \$250,000. After that, each PG&E customer with active service was assigned an median income per the census block group the customer belonged to. Customers within a census block group share the same income value. The income data at customer level then gets aggregated by simple average calculation per baseline territory and CARE/Non-CARE. Note that if a census block group had very scattered CARE customers, the income assigned to

Table 6: Energy Burden for Bundled Electric Customers

CARE	Q	Т	V	R	W	Y	Z	X	Р	S
USAGE(kWh/mth)	497	316	336	598	586	603	563	418	660	563
BILL	38	38	53	94	92	93	92	63	103	89
INCOME	7997	5468	3705	3743	3901	4226	4964	6357	4087	4673
BURDEN	0.5%	0.7%	1.4%	2.5%	2.4%	2.2%	1.9%	1.0%	2.5%	1.9%
nonCARE	Q	Т	V	R	W	Y	Z	Х	Р	S
USAGE(kWh/mth)	571	351	593	572	546	418	261	452	583	545
BILL	97	76	140	146	142	101	67	111	144	139
INCOME	7721	6598	4199	5136	5690	4685	5241	8909	4828	6220
BURDEN	1.3%	1.2%	3.3%	2.8%	2.5%	2.2%	1.3%	1.2%	3.0%	2.2%
ALL	Q	Т	V	R	W	Y	Z	Х	Р	S
USAGE(kWh/mth)	563	343	502	584	566	452	270	445	606	551
BILL	91	67	109	122	118	100	68	101	132	123
INCOME	7747	6334	4066	4521	4812	4602	5233	8502	4623	5724
BURDEN	1.2%	1.1%	2.7%	2.7%	2.5%	2.2%	1.3%	1.2%	2.9%	2.1%

Table 7: Energy Burden for Gas Customers

CARE	Q	Т	V	R	W	Y	Х	Р	S
USAGE(therm/mth)	27	27	34	27	28	43	27	34	29
BILL	29	29	38	30	30	49	29	38	32
INCOME	6962	5739	3681	3776	3837	3848	7006	3845	4779
BURDEN	0.4%	0.5%	1.0%	0.8%	0.8%	1.3%	0.4%	1.0%	0.7%
nonCARE	Q	Т	V	R	W	Y	Х	Р	S
USAGE(therm/mth)	30	27	36	28	26	49	31	41	30
BILL	43	40	54	42	38	74	46	63	44
INCOME	7041	8313	3963	5332	5167	4368	9802	4876	6289
BURDEN	0.6%	0.5%	1.4%	0.8%	0.7%	1.7%	0.5%	1.3%	0.7%
ALL	Q	Т	V	R	W	Y	Х	Р	S

the CARE customers will likely be higher than it should be, since the median income of that census block group may come from a Non-CARE customers with higher income within that group.

This process means that the income (census) information is 2 years behind the usage (customer) data. We did not attempt to inflate the income side to have them in 2019 dollars because the effect would have been small while not necessarily capturing the actual income dynamics in that time period.

USAGE(therm/mth)	29	27	36	28	27	47	30	38	29
BILL	41	38	49	37	34	65	44	55	41
INCOME	7032	7906	3877	4671	4453	4185	9415	4583	5924
BURDEN	0.6%	0.5%	1.3%	0.8%	0.8%	1.6%	0.5%	1.2%	0.7%

8. PG&E's Bankruptcy Filing and Compliance with Assembly Bill 1054

On January 29, 2019, PG&E filed its voluntary petition for relief under chapter 11 of title 11 of the United States Code in the U.S. Bankruptcy Court for the Northern District of California. On September 9, 2019, PG&E filed its Plan of Reorganization (POR), which was later amended on September 23, 2019, November 4, 2019, December 12, 2019, and January 31, 2020.

Assembly Bill (AB) 1054 establishes a Wildfire Fund to pay eligible claims arising from a covered wildfire and sets the following condition for PG&E participation in the Wildfire Fund: "The commission has determined that the reorganization plan and other documents resolving the insolvency proceeding are . . . neutral, on average, to the ratepayers of the electrical corporation." Pub. Util. Code § 3292(d)(1)(D). PG&E's POR meets the neutrality requirement in AB 1054. Changes in rates as a result of Commission decisions in proceedings outside the POR OII, such as the General Rate Case or other proceedings not related to the POR, do not implicate compliance with AB 1054 because they involve costs PG&E would have had to incur to operate regardless of Chapter 11.

In addition, AB 1054 required that PG&E's POR be approved by the Commission no later than June 30, 2020, in order for PG&E to participate in the State's Wildfire Fund.

Appendix: Schedule of PG&E's Filings That May Affect Rates in 2020 and Beyond

See the table below for a listing of PG&E's pending proceedings affecting PG&E's 2020 and 2021 revenue requirements and new proceedings expected to be filed between now and April 30, 2020. This is not an exhaustive list of PG&E's filings; rather it incorporates planned regulatory filings which are known at this time and are expected to have a rate impact for PG&E's electric and/or gas customers. Actual filing dates, amounts of requests, and actual revenue requirements authorized or settled are subject to change through the normal regulatory approval processes of the CPUC and other regulatory agencies.

Line		Proceeding	Eiling Doto	Requested/ Expected		uested A			Affected	Affected
No.	Filing Name	Reference	Filing Date	Implementation Date	Total Cost	2020 RRQ	2021 RRQ	Description	Rate	Rate Component
1	Transmission Owner 18	FERC Docket No. ER16-2320- 000	July 29, 2016	3/1/2017	1,718	N/A	N/A	Annual filing to recover transmission costs.	Electric	Transmission
2	Transmission Owner 19	FERC Docket No. ER17-2154- 000	July 26, 2017	3/1/2018	1,792	NA	N/A	Annual filing to recover transmission costs.	Electric	Transmission
3	Catastrophic Event Memorandum Account (CEMA) 2018	A.18-03-015	March 31, 2018	January 1 st of the year following CPUC Approval	669	373	296	The purpose of the CEMA is to recover incremental costs associated with repair and restoration of damaged PG&E facilities in association with declared disasters and complying with government orders associated with a declared disaster.	Electric	Electric Distribution; Electric Generation;
4	Nuclear Decommission ing Cost Triennial Proceeding (NDCTP)	A.18-12-008	December 13, 2018	Upon CPUC Approval		417.9	417.9	The purpose of the NDCTP is to recover costs necessary to adequately fund the nuclear decommissioning trust funds for Diablo Canyon and Humboldt Bay Power Plant Unit 3 as well as to fund ongoing O&M costs associated with maintaining the current operational license of Humboldt Bay Power Plant	Electric	Nuclear Decommission

^{*} Amount is based on adopted funding. The amount to be requested has not been determined. [N/A] – No RRQ or Rate Impact [TBD] – To Be Determined

Line		Proceeding		Requested/ Expected		uested A			Affected	Affected
No.	Filing Name	Reference	Filing Date	Implementation Date	Total Cost	2020 RRQ	2021 RRQ	Description	Rate	Rate Component
								Unit 3. PG&E will request a revenue requirement to fund these activities for the period 2020 through 2022.		
5	2020 General Rate Case (GRC) Phase 1	A.18-12-009	December 13, 2018	Upon CPUC Approval		9,093	9,411	Application to request approval of electric and gas distribution and utility-owned electric generation base revenues for the 2020 test year and the 2021-2022 attrition years.	Electric Gas	Electric Distribution; Electric Generation; Gas Distribution
6	Transmission Owner 20	FERC Docket No. ER19-520- 000	July 2019	1/1/2020	2,289	2,289		Annual filing to recover transmission costs.	Electric	Transmission
7	Energy Efficiency Risk Reward Incentive Advice Letter	D.15-10- 028; Advice Letter 4137- G/5628-E	September 3, 2019	1/1/2021	21.6	21.6	N/A	Annual filing to request Energy Efficiency Savings and Performance Incentive	Electric Gas	Electric Customer Energy Efficiency Incentive; Gas PPP
8	Catastrophic Event Memorandum Account (CEMA) 2019	A.19-09-012	Sept. 13, 2019	January 1 st of the year following CPUC Approval	157.3		157.3	The purpose of the CEMA is to recover incremental costs associated with repair and restoration of damaged PG&E facilities in association with declared disasters and	Electric	Electric Distribution; Electric Generation;

^{*} Amount is based on adopted funding. The amount to be requested has not been determined. [N/A] – No RRQ or Rate Impact [TBD] – To Be Determined

Line		Proceeding		Requested/ Expected		uested A \$ million			Affected	Affected
No.	Filing Name	Reference	Filing Date	Implementation Date	Total Cost	2020 RRQ	2021 RRQ	Description	Rate	Rate Component
								complying with government orders associated with a declared disaster.		
9	Low Income Program (2021-2026)	A.19-11-003	November 4, 2019	January 1, 2021			190.2	Request for approval of budgets and programs for the Energy Savings Assistance, California Alternate Rates for Energy and Family Electric Rate Assistance Programs (amounts exclude CARE and FERA discounts provided to income qualified customers).	Electric Gas	Electric and Gas PPP
10	CPIM 2018 Annual Report (Yr. 25)	A.96-08-043	January 6, 2020	Upon CPUC Approval		3.6	NA	Compliance report for gas core procurement incentive mechanism for November 1, 2017 through October 31, 2018.	Gas	Procurement
11	Microgrid and Resiliency Strategies Rulemaking	R.19-09-009	January 21, 2020	August 1, 2020	238.9	187.4	23.7	Application that requests funding to safely reduce the impact of Public Safety Power Shut Off (PSPS) events on customers through the following programs: 1) Upgrades to certain substations to connect local sources of power in the event of a PSPS event; 2)	Electric	Distribution

^{*} Amount is based on adopted funding. The amount to be requested has not been determined. [N/A] – No RRQ or Rate Impact [TBD] – To Be Determined

Line		Proceeding Filing Date	Requested/ Expected	Requested Amount (\$ millions)				Affected	Affected	
No.	Filing Name	Reference	Filing Date	Implementation Date	Total Cost	2020 RRQ	2021 RRQ	Description	Rate	Rate Component
								Deployment of mobile temporary power generation units for use during 2020 PSPS events; 3)Funding to support communities interested in implementing their own multi-customer microgrids serving critical or essential facilities.(SB 1339) Application to request		
12	Wildfire Expense Memorandum Account Application	TBD	Q1 2020	January 1, 2021	TBD	N/A	TBD	funding of excess liability insurance. The program is designed to protect PG&E from significant losses, which could ultimately lead to increased rates for customers. The cost of this insurance has increased dramatically due to high wildfire liabilities in California.	Electric Gas	Electric and Gas Distribution
13	Interim Wildfire Mitigation and Catastrophic Events Application	TBD	Q1 2020	Upon CPUC Approval	TBD	TBD	TBD	The application requests recovery of costs related to: mitigating wildfire risk, upgrading the electric system to be more resilient, responding to catastrophic events, including wildfires and	Electric	Distribution

^{*} Amount is based on adopted funding. The amount to be requested has not been determined. [N/A] – No RRQ or Rate Impact [TBD] – To Be Determined

Line		Proceeding		Requested/ Expected	Requested Amount (\$ millions)				Affected	Affected
No.	Filing Name	Reference	Filing Date	Implementation Date	Total Cost	2020 RRQ	2021 RRQ	Description	Rate	Rate Component
								storms, safely restoring utility services to customers after catastrophic events, including repairing, replacing or restoring damaged utility facilities, and complying with governmental agency orders for emergencies declared to be disasters by the State of California or federal authorities.		
14	2019 ERRA Compliance Review (incl. DCSSBA and RPS-related consulting fees)	TBD	February 28, 2020	January 1 st of the year following CPUC Approval	TBD	N/A	TBD	Annual proceeding to review the utility-owned generation operations, economic dispatch of electric resources, utility retained generation fuel procurement, and entries to the ERRA and Diablo Canyon Seismic Studies balancing accounts for the 2017 record period.	Electric	Generation
15	ERRA 2021 Forecast	TBD	June 2020	1/1/2021	TBD	N/A	TBD	An annual application that requests approval of PG&E's forecasted procurement related revenue requirement,	Electric	Generation; CTC; NSGC; PCIA

^{*} Amount is based on adopted funding. The amount to be requested has not been determined. [N/A] – No RRQ or Rate Impact [TBD] – To Be Determined

Line		Proceeding	Filing Date	Requested/ Expected		ested A			Affected	Affected
No.	Filing Name	Reference	Filing Date	Implementation Date	Total Cost	2020 RRQ	2021 RRQ	Description	Rate	Rate Component
								including Energy Resource Recovery Account (ERRA) and non-bypassable charges – Ongoing Competition Transition Charge (CTC), Power Charge Indifference Amount (PCIA) and Cost Allocation Mechanism (CAM) non-bypassable charges.		
16	Energy Efficiency Annual Budget Advice Letters	D.15-10-028 Advice Letter TBD	September 1, 3020	1/1/2021	TBD	N/A	TBD	Annual filing to request gas and electric energy efficiency budgets for the following year.	Electric Gas	Electric and Gas PPP
17	Energy Efficiency Risk Reward Incentive Advice Letter	D.15-10- 028; Advice Letter TBD	September 1, 2020	1/1/2021	TBD	N/A	TBD	Annual filing to request Energy Efficiency Savings and Performance Incentive	Electric Gas	Electric Customer Energy Efficiency Incentive; Gas PPP
18	2021 FERC Rate Filing for Annual Updates to the Transmission Balancing Accounts	FERC Docket No. TBD	October 2020	1/1/2021		N/A	TBD	PG&E annually files with the Federal Energy Regulatory Commission (FERC) requesting a transmission rate change for its retail electric customers, in compliance with Resolution E-3930. The purpose of PG&E's FERC filing is to request	Electric	Transmission

^{*} Amount is based on adopted funding. The amount to be requested has not been determined. [N/A] – No RRQ or Rate Impact [TBD] – To Be Determined

Line		Proceeding		Requested/ Expected		Requested Amount (\$ millions)			Affected	Affected
No.	Filing Name	Reference	Filing Date	Implementation Date	Total Cost	2020 RRQ	2021 RRQ	Description	Rate	Rate Component
								the annual update to the Transmission Revenue Balancing Account Adjustment, the Reliability Services rates and the End-Use Customer Refund Balancing Account Adjustment, for an effective date on or after January 1 of each year. Similarly, the transmission access charge balancing account is filed in December for an effective date of March 1 of the following year		
19	2021 Public Purpose Programs Surcharge Rate Advice Letter	TBD	October 2020	1/1/2021		N/A	TBD	Annual filing consolidating approved gas public purpose programs, gas research and demonstration, and Board of Equalization administrative funding.	Gas	PPP
20	2021 Annual Gas True-Up (AGT) Advice Letter (Tier 2 Preview) and 2021 AGT Advice Letter (Tier 1 Final)	TBD	November 2020 and December 2020	1/1/2021		N/A	TBD	Annual filing consolidating gas transportation rate changes authorized by the CPUC and true-up of balancing account balances. This filing is supplemented in December.	Gas	Distribution; Backbone Transmission; Local Transmission; Gas Storage; CAC; PPP Surcharge

^{*} Amount is based on adopted funding. The amount to be requested has not been determined. [N/A] – No RRQ or Rate Impact [TBD] – To Be Determined

Line	Filing Name	Proceeding Reference	Filing Date	Requested/ Expected Implementation Date	Requested Amount (\$ millions)				Affected	Affected
No.					Total Cost	2020 RRQ	2021 RRQ	Description	Rate	Rate Component
21	2021 AET Advice Letter and Supplemental Advice Letter filing	TBD	September 2020 and December 2020	1/1/2021		N/A	TBD	Annual filing to adjust for balancing account over/under collections, and consolidation of electric revenue requirements adopted by the CPUC. This filing is supplemental in December.	Electric	CTC; Distribution; DWR; ECRA; Generation; NSGC; ND; PPP; PCIA; Transmission
22	Transmission Access Charge Balancing Account Adjustment (TACBAA)	FERC Docket No. TBD	December 2020	3/1/2021		N/A	TBD	The TACBAA is a ratemaking mechanism designed to ensure that the difference in the amount of costs billed to PG&E as a load-serving entity and the revenues paid to PG&E as a Participating Transmission Owner under the California Independent System Operator Corporation Tariff is recovered from or returned to PG&E's End-Use customers.	Electric	Transmission

^{*} Amount is based on adopted funding. The amount to be requested has not been determined. [N/A] – No RRQ or Rate Impact [TBD] – To Be Determined

PACIFIC GAS AND ELECTRIC COMPANY Non-Case Discovery

Data Response

PG&E Data Request No.:	ED_064-Q01		
PG&E File Name:	Non-CaseDiscovery_D	R_ED_064-Q01	
Request Date:	April 1, 2020	Requester DR No.:	064
Date Sent:	4/13/2020	Requesting Party:	Energy Division
PG&E Witness:	NA	Requester:	Bridget Sieren-Smith

QUESTION 01

My supervisor Paul Phillips and I would like to schedule a half-hour meeting with you and others from PG&E as applicable (GRC team?) as soon as possible to discuss two tables in PG&E's 2020 GRC Phase I that summarize the incremental affordability savings by operational area (both O&M and Capital), see below. We'd like to discuss how we would like PG&E to present this information in an addendum to PG&E's 2020 SB 695 Part II responses (the IOU part of the SB 695 report). The idea is to pick the top 5 or 6 cost savings by operational area (focus on electric, although one of the areas could be gas) and discuss these costs savings in the addendum. We'd like to see these 5 – 6 items total a minimum cost savings of 5% overall for the operational areas selected, for each year in the 2020 GRC timeframe i.e. how cost savings will flow to customers for the years 2020 - 2022.

Please let us know as soon as possible when you are available to set up a meeting to discuss the ask.

(PG&E-2)

TABLE 2-3
SUMMARY OF PG&E EXPENSE AND CORPORATE ITEMS
INCREMENTAL AFFORDABILITY SAVINGS BY EXHIBIT AND CHAPTER
(THOUSANDS OF NOMINAL DOLLARS)

Line No.	Area	Exhibit/Chapter #	2018	2019	2020
1	Gas Distribution		17,009	1,443	_
2	Gas Operation Stewardship Program	Ex. 3, Ch. 2A	17,009	1,443	-
3	Electric Distribution		2,336	15,528	2,605
4 5 6 7 8	Electric Emergency Recovery Distribution System Operations Electric Distribution Maintenance Substation Asset Management Electric Distribution Support Activities	Ex. 4, Ch. 4 Ex. 4, Ch. 5 Ex. 4, Ch. 6 Ex. 4, Ch. 12 Ex. 4, Ch. 18	- - - 2,336	2,446 35 4,173 - 8,874	223 154 119 63 2,046
9	Energy Supply		20,883	22	-
10 11 12	Nuclear Operations Costs Hydro Operations Costs Natural Gas and Solar Generation Operations Costs	Ex. 5, Ch. 3 Ex. 5, Ch. 4 Ex. 5, Ch. 5	15,275 4,547 1,061	- 22 -	- - -
13	Customer Care		2,572	7,526	323
14 15 16	Contact Centers Metering Billing, Revenue and Credit	Ex. 6, Ch. 4 Ex. 6, Ch. 6 Ex. 6, Ch. 7	699 1,120 753	6,690 - 836	18 - 305
17	Shared Services & IT		40,832	14,974	6,156
19 20 21 22 23 24	Transportation Services Materials Sourcing Real Estate Environmental Program Information Technology	Ex. 7, Ch. 2 Ex. 7, Ch. 3 Ex. 7, Ch. 4 Ex. 7, Ch. 5 Ex. 7, Ch. 6 Ex. 7, Ch. 8	16,323 160 696 14,140 90 9,423	6,230 80 784 - - 7,880	160 742 - - 5,254
25	Administrative & General		8,070	790	350
26 27	Finance Organization Law Department	Ex. 9, Ch. 2 Ex. 9, Ch. 6	7,090 980	440 350	350
28	Total		91,702	40,283	9,434

ANSWER 01

On April 8, 2020 CPUC Energy Division representatives Bridget Sieren-Smith and Paul Smith and PG&E representatives Conor Doyle, Andrew Klinger, and Judith Machlin discussed via conference call the status of PG&E's Customer Affordability Roadmap (CAR) program and affordability savings that were factored into PG&E's 2020 GRC forecast and the 2020 GRC settlement agreement. As explained on the conference call and in PG&E's 2020 GRC rebuttal testimony, PG&E has shifted away from the structure of the CAR, however, addressing the customer rate trajectory remains a priority for the company.1

¹ A.18-12-009, Exhibit (PG&E-16), Chapter 2, p.2-1

On December 20, 2019, the Joint Motion of the Public Advocates Office, The Utility Reform Network, Small Business Utility Advocates, Center for Accessible Technology, The National Diversity Coalition, Coalition for California Utility Employees, California City Count Street Light Association, The Office of the Safety Advocate and Pacific Gas and Electric Company for Approval of Settlement Agreement was filed. The Settling Parties agreed to several expense forecast reductions which are not associated with the CAR nor any other specific affordability programs, in the interest of customer affordability as follows:

- Energy Supply (Major Work Category (MWC) AB, MWC CT, MWC CV and MWC CY) \$4 million²
- Corporate Real Estate (MWC EP) \$4 million³
- Information Technology (MWC JV) \$4.2 million4

² A.18-12-009, Settlement Agreement of the 2020 General Rate Case of Pacific Gas and Electric, Section 2.4.1

³ Id, Section 2.3

⁴ Id, Section 2.6.2.3