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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Building Decarbonization.	Rulemaking 19-01-011 (Filed January 31, 2019)

OPENING COMMENTS OF PACIFIC GAS AND ELECTRIC COMPANY, SAN DIEGO GAS & ELECTRIC COMPANY, AND SOUTHERN CALIFORNIA GAS COMPANY ON THE PHASE III STAFF PROPOSAL

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I. INTRODUCTION

Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Gas Company (SoCalGas) (collectively, the Joint Utilities)[1] respectfully provide the following opening comments on Energy Division's Phase III Staff Proposal (Staff Proposal), provided in Appendix A to the Assigned Commissioner's Amended Scoping Memo and Ruling issued on November 16, 2021 (Phase III Scoping Memo). In their opening comments, the Joint Utilities respond to the questions posed in Appendix B of the Phase III Scoping Memo. Per the Phase III Scoping Memo's direction encouraging parties to file jointly and to indicate where the parties do not agree on all matters, the Joint Utilities have indicated where they agree on a matter by designating the response as "Joint Utilities' Response." Where a response is by a specific party, the response will indicate the party providing the response.

II. RESPONSES TO THE SPECIFIC QUESTIONS POSED IN APPENDIX B

As directed in the Phase III Scoping Memo, the Joint Utilities provide the following responses to each of the questions posed in Appendix B.

[1] Pursuant to Rule 1.8(d), PG&E has been authorized to file this document on behalf of the Joint Utilities.

1. **(Gas IOUs only) What is the total amount projected to be paid by your ratepayers under the following categories for the current year and each of the next five years (2021-2026)? What are the factors contributing to each year's projected decrease or increase?**

   a. **Gas line extension allowances for residential customers;**

   b. **Gas line extension allowances for non-residential customers;**

   c. **The 10-year refundable payment option for residential gas customers;**

   d. **The 10-year refundable payment option for non-residential gas customers;**

   e. **The 50 percent discount payment option for residential gas customers; and**

   f. **The 50 percent discount payment option for non-residential gas customer classes.**

Joint Utilities' Response:

Given the complexity of this request for forecasted payment information and the short turn-around, the Joint Utilities will require additional time to produce the forecasted data in a consistent manner. While the Joint Utilities work to comply with this request for additional data, they note that realized allowance, refund, and discount amounts for the 2021-2026 period are dependent on a variety of factors that are complex to understand and project. The Joint Utilities have developed a working group to establish a shared understanding of the questions and standardized calculation methods. This synchronization would allow the Joint Utilities to provide transparent and easily comparable responses to the Commission's questions on forecasting.

In the interim, the Joint Utilities provide the information below in response to Question 1.

PG&E's Response:

Gas Distribution: Below are the total amounts projected to be paid by ratepayers for new gas Distribution extensions, under the categories requested, for the current year and each of the next five years (2021-2026). PG&E applied the following methodology for calculating the projected amounts:

$$Projected\ Amount\ = 2020\ Actuals^{2} \times Percentage\ of\ Forcasted\ Change\ in\ New\ Connections$$

- Projections include:
    - Number of new connections per year
    - Impacts due to agency ordinances (expected reduction of gas connections due to agency ordinances restricting the new gas development)
- Projections do not include:
    - Cost escalations
    - Adjustments to non-residential allowances due to Cost-of-Service Factor updates
    - Adjustments to residential allowances due to changes in per-unit allowances
    - Unforeseen changes in distribution rates for residential and non-residential customers
    - Unforeseen changes in development trends for residential and non-residential customers
    - The long-term effects of Covid-19 on the construction industry

Year	Gas Line Extension Allowances		10-Year Refundable Payment Option		50% Discount Payment Option	
	Res	Non-Res	Res	Non-Res	Res	Non-Res
2021	$39,206,500	$13,851,727	$378,207	$639,244	$15,240,426	$9,368,584
2022	$49,685,430	$18,120,578	$479,292	$836,248	$19,313,816	$12,255,811
2023	$51,995,988	$17,830,951	$501,581	$822,882	$20,211,980	$12,059,923
2024	$49,254,481	$15,539,120	$475,135	$717,116	$19,146,297	$10,509,848
2025	$48,276,073	$14,254,687	$465,697	$657,841	$18,765,968	$9,641,125
2026	$44,608,097	$13,549,508	$430,313	$625,297	$17,340,145	$9,164,179

Gas Transmission: Unlike with distribution customers, PG&E does not discretely track the break out of allowances, discounts, and refunds for our transmission customers. PG&E's Business Development team recently has taken a proactive approach in presenting options to its large commercial and industrial customers. This has driven discussions regarding customers' preferred energy commodity for their operations and opportunities to lower GHG emissions, which is in accordance with the State of California's GHG Emission reduction goals. These efforts resulted in a current total of over 100 active Non-Residential projects in 2021 as compared to 15 projects in 2020. PG&E does not anticipate all of these projects will progress to construction; however, it does anticipate throughput growth and an increase in the total allowances offered. There are a number of variables contributing to this growth. PG&E has an interest in construction of CNG stations and fleet conversions from diesel to natural gas. As the commodity market fluctuates, PG&E has seen an increase in developers seeking to switch from dirtier fuels to natural gas for facility conversion and backup generation. Also, as electrification advances, there is concern of grid stability and data centers are particularly focused on ensuring that they have reliable backup generation and are now pursuing fueling backup generation with natural gas versus diesel. PG&E has had requests for analysis of over 10 large commercial data centers seeking backup generation fueled by natural gas in 2021 as compared zero the previous year. PG&E anticipates this trend to continue in other lines of business such as distributions centers, state agencies, and hospitals or emergency service industries. In addition to these projects and our typical load projects, there are facilities that are projecting to increase natural gas load displacing coal, pet coke and other dirtier fuels. This transition supports the State's GHG emission goals and also maintains the gas infrastructure allowing for future growth in RNG and hydrogen. Based upon the PG&E Business Development team's recent experience and the increase in 2021 interconnection activity, it appears that the historical data for transmission

interconnections would not be an accurate assumption to use to establish future projections for the requeted 2021-2026 time period.

SDG&E's Response:

SDG&E will not be able to provide data for questions 1a. and 1b. because its project management system (CPD) does not facilitate data extraction of allowances granted. SDG&E does not utilize the same systems as other IOUs and does not have standardized capability to extract data for allowance tracking, therefore SDG&E will not be able to electronically calculate a forecast.

SDG&E's response to question 1c – 1f below are the total amounts projected to be paid by ratepayers, under the categories requested, for the current year and each of the next five years (2021-2026). SDG&E applied the following methodology for calculating the projected amounts:

Projected Amount =2020 Actuals[3] ×Percentage of Forcasted Change in New Connections

Projections include: Number of new connections per year

Projections do not include: Adjustments for inflation

Year	Gas Advances (Refundable)		Gas Advances (Non-Refundable)	
	Res (Q1C)	Non-Res (Q1D)	Res (Q1E)	Non-Res (Q1F)
2021	(1,341,062)	(63,836)	(62,238)	(391)
2022	(1,351,752)	(64,345)	(62,734)	(394)
2023	(1,363,236)	(64,892)	(63,267)	(397)
2024	(1,374,763)	(65,441)	(63,802)	(400)
2025	(1,386,340)	(65,992)	(64,340)	(404)
2026	(1,397,635)	(66,529)	(64,864)	(407)

SoCalGas's Response:

SoCalGas applied the following methodology for calculating the projected amounts:

Projected Amount =2020 Actuals[4] ×Percentage of Forcasted Change in New Connections

[3] SDG&E used, as its 2020 baseline, data previously reported to the Commission in the following 11/5/21 INTERPRETATION OF CUSTOMER ALLOWANCES Data Responses: Q04 Table Two Total Nonrefundable Construction Gas Advances and Q04 Table Three Total Refundable Gas Advances.

[4] SoCalGas used, as its 2020 baseline, information provided in SoCalGas's response to Question 1B from

Projections include: Number of new connections per year

Projections do not include: Adjustments for inflation

Year	Gas Line Extension Allowances		10-Year Refundable Payment Option		50% Discount Payment Option	
	Res (A)	Non-Res (B)	Res (C)	Non-Res (D)	Res (E)	Non-Res (F)
2021	39,118,909	11,232,542	30,700	0	856,781	24,630
2022	39,347,932	11,298,303	30,880	0	861,797	24,775
2023	39,570,851	11,362,312	31,055	0	866,680	24,915
2024	39,794,045	11,426,399	31,230	0	871,568	25,056
2025	39,977,188	11,478,986	31,373	0	875,579	25,171
2026	40,147,846	11,527,989	31,507	0	879,317	25,278

2. Should the Commission eliminate or modify gas line extension allowances provided in current gas rules for all or some of the customer classes (residential and non-residential)? If so, explain why.

a. If the position is to modify, and not eliminate the allowances, provide a specific recommendation on how the allowances should be modified and for which customer class.

Joint Utilities' Response:

A. The Joint Utilities Recommend Modifying the Staff Proposal Regarding Gas Line Extension Allowances, Refunds, and Discounts for Non-residential Customer Classes

The Joint Utilities do not oppose the Staff Proposal for the elimination of gas line extension allowances, refunds,[5] and discounts for all residential customers. However, a more nuanced approach is needed for non-residential allowances, discounts, and refunds to account for potential environmental and financial benefits associated with non-residential new connections. The Joint Utilities propose an approach that generally revamps and focuses allowances, refunds, and discounts, instead of a blanket elimination across all non-residential customer classes. In the

data request titled "Supplemental Request on Gas Allowances" submitted October 28, 2021; and "Supplemental Response to October 28 data" provided on November 8, 2021.

[5] SoCalGas and SDG&E are concerned about the elimination of the 10-year refundable payment option based on equity concerns as further explained in SDG&E's and SoCalGas's Response to Question 3a.

Staff Proposal, Energy Division staff states its desire to both "maximize GHG reductions"[6] and avoid "increasing the future cost of receiving gas service for customers that are unwilling or unable to decarbonize."[7] However, the Staff Proposal to remove non-residential gas allowances, discounts and refunds across the board could discourage the development of projects that provide environmental and financial benefits to California ratepayers. The Joint Utilities, therefore, advocate for non-residential gas line extension rules to be continued for any non-residential projects that provide environmental or financial benefits to California ratepayers, as further described in this section and Table 1 below. Due to the changing regulatory and technology landscapes, the Joint Utilities also propose that the Commission establish a mechanism to update these categories periodically.

Table 1: Examples of Proposed Non-Residential Allowances Categories That Provide Financial and/or Environmental Benefits to California Ratepayers

- Renewable Natural Gas (RNG) or Hydrogen (Piped and Virtual)
- Compressed Natural Gas (CNG), Liquid Natural Gas (LNG), and Hydrogen Stations
- Electric Generation Projects
- Backup Generation Projects
- Facility Conversions (facilities switching from dirtier fuels)
- Large Commercial Customers
- Industrial Customers
- Transmission Customers
- Critical Load
- (SDG&E and SoCalGas) Restaurants[8]

[6] Staff Proposal at 2.

[7] Staff Proposal at 25.

[8] SoCalGas and SDG&E assert that restaurants should be included in the category of commercial customers who should continue to receive gas allowances, refunds and discounts. See the SoCalGas and SDG&E response to Question 2(a) below for further discussion.

Large non-residential or industrial customers are likely to be using gas for an industrial process, for shipping or rail or long-haul trucking, or for uses – such as electric generation or electric backup power – that displace current use of higher GHG emitting fuels such as diesel. Currently, PG&E estimates that over 100 projects that are underway or planned fall into these categories. Whereas on the residential side, the intent of the Staff Proposal is that the discontinuance of allowances sends a GHG-based signal to developers, the inverse is true in these cases. The removal of the allowances, discounts and refunds for these non-residential projects creates additional hardship, which may cause developers to either abandon projects or develop projects outside of California. For instance, as stated in D.07-07-019, "[P]rohibiting IOUs from offering line extension allowances, while the [Publicly Owned Utilities] can do so, would inhibit their ability to compete for new customers in those areas."[9] Additionally, while PG&E projects a reduction in the footprint of the gas distribution system through 2045, the transmission system will largely remain in service, with increasing amounts of renewable natural gas (RNG) and hydrogen (H2) being blended into the system. Thus, there is a societal benefit in continuing allowances for non-residential customers as identified in Table 1.

There are also financial benefits for maintaining allowances, discounts, and refunds for certain non-residential customer classes. As evidenced by PG&E's low deficiency billing rate of less than 1% for non-residential customers in 2019 and 2020, nearly all these large commercial customers generally pay back their investment in the gas system within three years, reducing the remaining system costs for all remaining gas ratepayers, including residential customers. As such, there is an imperative to continue allowances, discounts, and refunds for such projects that may either reduce emissions in order to help California meet its climate goals or provide financial benefit to all California ratepayers.

[9] D.07-07-019, Opinion Addressing Electric and Gas Residential Line Extension Allowance Calculation Methodology at 31.

B. The Joint Utilities Support a Phased Approach to Any Modifications to the Gas Line Extension Rules

Modification or removal of gas line extension allowances, discounts, and refunds (extension rules) will inform current, and future gas ratemaking, impact of projects currently being planned by customers, and potentially cause electric load impacts that need further study. Therefore, the Joint Utilities recommend a purposefully phased approach to the implementation of any changes to gas line extension rules adopted in this proceeding

Any changes to the interconnection incentives should be introduced gradually to avoid impacting gas rates, give customers time to account for shifts in project costs, and to allow electric and dual-fuel utilities time to observe the impact on electric load and electric grid impacts.

Removing the gas interconnection incentives too quickly could result in a near-term increase in gas rates if the proposed changes substantially reduce the number of new connections relative to the forecasts within the utilities' approved and ongoing ratemaking proceedings.

It is important to note that the gas utilities in this Building Decarbonization Rulemaking have varying schedules for their ratemaking proceedings, so a utility-specific phase-in may be appropriate. PG&E, for example, filed its 2023 GT&S Cost Allocation and Rate Design application on September 30, 2021, which determines its adopted gas throughput and customer forecast for the period 2023-2026, a foundational aspect to the rates and allocations proposed by PG&E and reviewed by parties and the Commission. Core and noncore customers, respectively, would be impacted by shortfalls if new connections fail to materialize due to an end to gas allowances, discounts and refunds.

Additionally, failure to provide sufficient time for customers to account for increased project costs could lead to a decrease in business activity, impacting employment, income, and economic productivity. Given Covid-19's already devastating impact on the California economy, care should be taken to minimize the impact that modification of the extension rules may have on new developers and supporting construction industries in California.

Lastly, the impact of modifying the extension rules on electric load has not been studied. A phased approach would allow single-fuel and dual-fuel utilities to study the impact these new policies would have on their territory's electric load profile and generation needs to ensure the safety and reliability of their electric services.

Should the Commission wish to modify the gas line extension rules, the Joint Utilities recommend that all modifications to the existing extension rules established within this proceeding be phased in over the three to four years following issuance of a final Commission decision. For example, if residential gas allowances were eliminated in this OIR, the Joint Utilities would recommend reducing the incentives by a certain percentage every year following the decision until they are entirely eliminated. The Joint Utilities do not have a specific percentage recommendation at this time. The Joint Utilities would also like to note that implementing these changes through some small-scale pilot projects would likely improve communication, implementation, and ability to measure the success of these decisions.

The Joint Utilities also understand that non-residential customers identified as having economic and environmental benefits to gas ratepayers can shift over time and that the removal of residential allowances may have a negative impact on affordable housing developers. For this reason, the Joint Utilities also recommend that the categories of customers receiving gas allowances be reviewed via a Tier 2 Advice Letter (AL2) periodically to ensure that gas ratepayers continue to benefit from providing gas allowances, discounts and refunds. The Joint Utilities recommend that either this AL2 be filed every three years, starting 2026, or that a cadence for re-visiting of allowances be established in the ongoing Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Safe and Reliable Gas Systems in California and Perform Long-Term Gas System Planning (R.20-01-007) to correspond to long-term planning horizons for decarbonization of the gas system.

PG&E's Response:

A. PG&E Does Not Oppose the Elimination of Gas Line Extension Allowances, Refunds, and Discounts for Residential Customer Classes

Consistent with PG&E's commitment to reducing emissions and maintaining stable rates for our customers, PG&E does not oppose the Staff Proposal for the elimination of gas line extension allowances, refunds, and discounts for all residential customers. Since 2019, PG&E has voiced public support for jurisdictions in our service territory that pursue all-electric "reach" codes that either mandate or give preference to all-electric new construction.[10] Analysis by the California Energy Codes and Standards statewide team shows that all-electric new construction homes are less expensive to build and have approximately one-quarter of the emissions of their dual fuel peers.[11] To date, 51 towns, cities, and counties in California have adopted reach codes, 43 of which are located in PG&E's service territory. As residential electric technologies continue to gain market share and customer acceptance, PG&E recognizes that this may be a potential opportunity to reduce costs for our remaining gas customers and avoid investment in assets that may later prove to be underutilized.

Two issues regarding residential allowances, refunds, and discounts will be particularly challenging in California's deeply decarbonized future. First, residential allowances are calculated based on expected revenue associated with a fixed assumption of gas use from the Residential Appliance Saturation Survey. Even now, there is no guarantee that a residential customer fully "pays back" its investment in newly extended gas infrastructure, and the likelihood that such an investment will be underutilized may rise as cities, counties, local and state agencies advance building decarbonization efforts. Second, residential allowances are based partially on the distribution rates of the utility. While the other components in calculating PG&E's residential allowances have remained relatively static, the distribution rate used in the allowance calculation has risen, primarily due to authorized increases in distribution revenue

[10] PG&E Comments on 2022 Energy Code Pre-Rulemaking (Docket Number 19-BSTD-03), March 10, 2021.

[11] 2019 Cost-effectiveness Study: Low-Rise Residential New Construction.

requirement but also due to declining adopted distribution-level throughput consistently over the life of PG&E residential allowances: from $0.51937 per therm in 2012 to $0.92832 per therm as proposed in 2021.[12] This increase in the distribution rate has driven a corresponding increase in the residential allowance amounts. It stands to reason that this trend will continue and potentially be exacerbated when forecasting future residential gas allowance amounts. As Energy and Environmental Economics, Inc. (E3) highlights in its report, "The Challenge of Retail Gas in California's Low-Carbon Future," "…the state's gas revenue requirement is expected to increase, but gas throughput is expected to decrease. Gas rates are, at a high level, based on the average cost of service. If costs increase but gas demand does not, rates will rise. That phenomenon is borne out in the PATHWAYS current policy reference scenario, where rates increase for all customer classes."[13] Absent a policy intervention to discontinue allowances, low-income customers who are less able to electrify may face a future where they bear a disproportionate amount of the socialized residential gas extension allowance costs.

The Staff Proposal identifies less than one percent (1%) of additional costs to consumers associated with the removal of allowances, discounts, and refunds, with a specific question as to the impact on low-income customers and affordable housing developers. While PG&E shares a similar concern, current incentives through both the BUILD Program and the California Energy-Smart Homes Program (launching in 2022) are likely to mitigate such upfront effects on the affordable housing and low-income sectors. Although a majority of studies[14] show that all-electric new construction homes may be less costly to operate than dual-fuel new construction homes, real-world results will depend greatly on occupant behavior, geography, and whether that residential customer installs solar photovoltaics, among other variables. Rates like PG&E's newly approved Schedule E-ELEC (D.21-11-016) will be a useful tool that may help mitigate the operational burden on low-income customers. In addition, other rate discount programs such as

[12] 2885-G_3153-E.doc (pge.com) and 2885-G_3153-E.doc (pge.com)

[13] https://www.energy.ca.gov/sites/default/files/2021-06/CEC-500-2019-055-F.pdf

[14] E3_Residential_Building_Electrification_in_California_April_2019.pdf (ethree.com)

CARE and FERA may help mitigate a high rate burden on qualified customers. As described in the Staff Proposal, the Commission has "also recently directed California's three large electric Investor-Owned Utilities (IOUs) to each study energy bill impacts that result from switching from gas water heaters to electric heat pump water heaters, and to propose a new rate adjustment in a new Rate Design Window application if their study reflects a net energy bill increase."[15] In the Joint Utilities' response to Question 2.a. above, PG&E also proposes a mechanism to re-address line extension allowances, refunds, and discounts on a periodic basis. Such a mechanism would allow adjustment to affordable housing developer line allowances, discounts, and refunds should a negative impact on disadvantaged customers be realized in the future.

Additionally, for non-residential projects that provide environmental or financial benefits to California ratepayers, such as those included in Table 1 above, PG&E proposes two new methods for calculating allowance amounts: the ability for all current calculations of distribution to be applied to the non-residential projects, and the addition of a graduated discount when additional load reduces GHG emissions. Furthermore, PG&E proposes the allowances, discounts, and refunds be modified such that customers cannot switch from core service to non-core service until the allowance amount is fully recovered through revenue. The current practice of switching from core to non-core service creates an unsustainable loophole where customers can receive a higher allowance amount which may not be fully recovered should they switch to non-core service before the allowance amount is recovered. These proposals are in line with the Staff Proposal's intent to "maximize GHG reductions"[16] and avoid "increasing the future cost of receiving gas service for customers that are unwilling or unable to decarbonize."[17]

SDG&E's and SoCalGas' Response:

SDG&E and SoCalGas appreciate the importance of addressing building decarbonization to help meet California's greenhouse gas (GHG) reduction goals. As the Commission is aware,

[15] Staff Proposal at 3.

[16] Staff Proposal at 2.

[17] *Id.* at 25.

both SoCalGas and SDG&E have established goals to achieve net zero GHG emissions in operations and delivery of energy by 2045. SoCalGas has recently released a detailed assessment of approaches, grounded in public interest, for achieving carbon neutrality. In addition to releasing an update to SDG&E's Sustainability Plan in October of 2021, SDG&E is undertaking an economy-wide GHG study supported by leading third-party experts to inform options for achieving net zero emissions by 2045 and to develop a decarbonization roadmap that maintains resiliency and reliability. To reach its decarbonization goals, California should recognize that electricity, traditional gas, and clean fuels complement each other and it will take an integrated energy system approach to seek achievement of the greatest public interest benefits. While building decarbonization is an important part of the State's decarbonization goals, it is but one piece of the greater puzzle.

In analyzing the future of energy in the state, California should take a holistic approach that looks at the full energy picture including just and reasonable rates, obligations to serve core customers, the gas system's capabilities in managing reliability and resiliency, and the potential for the pipeline system to carry carbon-neutral and carbon-negative fuels that can promote decarbonization. This broader analysis should occur and, indeed, much of the same considerations (and required findings under Public Utilities Code Section 783(b)) are scheduled to occur in Track 2 of R.20-01-007 including affordability, proper cost allocation, workforce issues, and utilities' obligation to serve.

However, if the Commission believes it is appropriate to address line extension rules in this proceeding, SDG&E and SoCalGas agree with PG&E that the implementation of a modified approach, instead of a blanket elimination across all non-residential new connections is prudent and will yield increased environmental benefits. The Staff Proposal to remove the non-residential allowances, discounts and refunds for all non-residential projects could create additional hardship and discourage the development of projects that provide GHG emission reduction opportunities, as well as economic benefits to California ratepayers by causing them to develop projects outside of California.

In addition to decarbonizing the operations of the critical and much needed thermal generation fleet, clean fuels and carbon management strategies will be needed by other sectors as California advances towards its net zero 2045 goal. California leads the nation in economic output from manufacturing and is home to over 35,000 firms employing 1.3 million people.[18] Despite advancements made in some market segments, industrial sectors, such as thermal load-dependent processes in manufacturing, have yet to see energy options that can help them transition to a decarbonized future. There is a group of customers that do not have electric options available to them[19] or use the natural gas for a feedstock in their process. These hard to decarbonize customers still require use of the natural gas system and will only be able to decarbonize using clean energy fuels or carbon management. Furthermore, restaurants rely on natural gas to cook particular foods.[20] These customers may also have to deal with higher energy and capital costs, while also being unable to provide food in the event of a power outage.[21]

During a 2021 Integrated Energy Policy Report (IEPR) Workshop on Natural Gas Infrastructure, stakeholders expressed interest in modeling hydrogen blending into the gas grid to understand overall impacts, especially for industrial end-uses.[22] Stakeholders' comments are aligned with the modeling work SoCalGas is doing to advance the modeling, science, and real-world applications of hydrogen for energy supply, energy storage, and energy grid decarbonization. In effect, successful energy system decarbonization depends on the successful integration at scale of decarbonized molecules.

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18 *See* The Governor's Office of Business and Economic Development: Manufacturing, 2021. Available at https://business.ca.gov/industries/manufacturing/.

19 https://energy.zoom.us/rec/play/1sX8_hdxCJwgtTRSkYh_tGyAnk57seitHOVYN-mTbk1zCLigfBOSIjK4eL8xyVoW5zdVGHtk6beRqmW3.c51b0UO4dgSZ-k_8?continueMode=true&_x_zm_rtaid=hqp5o2BYTJWcENCCXC_X5w.1638306654054.e5c3a025e85a2ddd3b6c5dd4f1ef6303&_x_zm_rhtaid=113, time stamp is 20:39

20 *See*, *California Restaurant Association v. City of Berkeley*, Case No. 4:19-cv-07668-YGR (asserting claims against the City of Berkeley resulting from the ban of natural gas in new buildings).

21 https://www.calrest.org/government-affairs/cra-files-suits-against-city-berkeley-over-natural-gas-ban

22 CEC Integrated Energy Policy Report (IEPR) Commissioner Workshop on Natural Gas Infrastructure Held June 3, 2021.

SoCalGas is studying how the existing gas transmission and delivery system can be leveraged to transport low-carbon gases, such as hydrogen and renewable natural gas (RNG). Combustion of hydrogen produces no carbon dioxide emissions. Blending hydrogen with other gaseous fuels thus can reduce carbon emissions across gas end-uses, including gas-fired electric generation, depending both on how the hydrogen is produced and on the amount of hydrogen in the fuel.[23]

SDG&E is also committed to studying the role of hydrogen in the gas distribution system and understanding the preferences and concerns of SDG&E customers between the option of either clean gases like hydrogen and RNG replacing or contributing to their natural gas service and full electrification.

Research indicates hydrogen-natural gas blends may be compatible with sections of the natural gas distribution system.[24] Achieving commercialization and cost reductions for the deployment of low- and zero-carbon hydrogen at scale are emerging as the preferred pathway to decarbonize many sectors including industry (e.g., steel, cement, glass, and chemical), electricity generation and the transportation sector (including light-, medium- and heavy-duty vehicles, goods movement, and air travel) and accelerate progress towards the State's climate, clean air, and clean energy goals. More research is needed to understand key challenges for safety, system integrity, and system reliability and how they should be addressed.[25]

Many commercial and industrial customers also have complex energy profiles which may be best supported with onsite distributed energy resources (DERs), including microgrids.[26] Gas-

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[23] *See* Electric Power Research Institute, *Technology Insights Brief: Hydrogen-Capable Gas Turbines for Deep Decarbonization,* 14 November 2019, p. 2. Available at https://www.epri.com/research/products/000000003002017544.

[24] *See* CPUC A. 20-11-004, Chapter 4 testimony. Available at https://www.socalgas.com/sites/default/files/2020-11/H2_Application-Chapter_4-Technical.pdf.

[25] *See* Application (A.) 20-11-004. SoCalGas and SDG&E also proposed a Hydrogen Blending Demonstration Program in this application. The first project would have blended hydrogen into an isolated section of primarily polyethylene (PE) plastic distribution system in SoCalGas' service territory. The initial hydrogen blend level was planned at one percent with the goal to increase to as much as twenty percent.

[26] *See* CEC, "A Comprehensive Assessment of Small Combined Heat and Power Technical and Market Potential in

fired generation technologies can meet businesses' energy and resiliency needs while supporting greater renewables penetration. As noted in the Industrial Outlook session at the 2021 IEPR CEC Commissioner Workshop by Panelist Jeff Malin with Applied Medical, "[m]icrogrids aren't feasible [today] without natural gas" and gas-fired microgrids provide reliability to Applied Medical's business operations during Public Safety Power Shutoff (PSPS) events.[27] Allowances can be applied to the development of microgrids, which can provide resiliency for California's commercial and industrial customers, including critical customers. As several parties have noted in Order Instituting Rulemaking (OIR) 19-09-009,[28] investments in microgrid technologies require significant financial support and allowances reduce those upfront costs for microgrids. Further, utilization of the gas infrastructure allows for a high penetration of other renewable resources into microgrids, such as solar and storage, while maintaining the highest level of resilience and reliability. In addition, natural gas in microgrids allows for a transition to RNG over time without incremental infrastructure upgrades.

Table 2[29] (below) shows various market segments with facilities that do not lend themselves well to the integration of renewable generation technologies in behind-the-meter (BTM) applications. Due to intermittent generation, space limitations, cost-effectiveness issues, and overall level of demand, solar photovoltaics (PV) and battery storage seldom meet electric load needs for various customer classes. Many of these market segments are considered essential businesses and/or facilities that provide essential public health and safety services for society and

California", p. 98, available at https://www.energy.ca.gov/publications/2019/comprehensive-assessment-small-combined-heat-and-power-technical-and-market

[27] *See* CEC, "IEPR Commissioner Workshop to Accelerate Industrial Decarbonization: Session 2", available at https://www.energy.ca.gov/event/workshop/2021-08/session-2-iepr-commissioner-workshop-accelerate-industrial-decarbonization

[28] Opening Comments of Scale Microgrid Solutions to Order Instituting Rulemaking 19-09-009 p. 4, filed 9/12/2019; Reply Comments of Microgrid Resources Coalition to Order Instituting Rulemaking 19-09009 at 3, filed 9/12/2019; Reply Comments of the California Hydrogen Business Council on the Administrative Law Judge's Ruling Requesting Comments on Track 1 Microgrid and Resiliency Strategies Staff Proposal, at 3, filed 9/12/2019.

[29] *See* ICF, "Assessment of Backup Power and 24/7 Resilient Power Options for Critical Facilities and Commercial Customers with High Resiliency Needs," October 2020, p. 5. Available at https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M349/K245/349245336.PDF.

thus should have the opportunity to utilize the "right fit" technology to provide for reliability and resiliency.

Table 2. Critical Facilities Analyzed in SoCalGas Service Territory[30]

Building Type	Number of Buildings Analyzed	Average Electric Load (kW)	Maximum Thermal CHP Size (kW)	Summer Loads met by PV Output (%)	Storage Capacity for 24-hour Resilience (kWh)	Life-Support Loads
Hospitals	296	3,706	1,800	4%	88,877	Yes
Nursing Homes (med-large)	794	369	100	6%	9.044	Yes
Colleges/ Universities	215	4,943	1,000	10%	112,488	-
Hotels	656	677	600	10%	15,411	-
Restaurants (large)	3,595	291	200	9%	6,563	-
Fast Food Restaurants	6,392	52	n/a	13%	1,125	-
Grocery Stores (large)	648	370	170	23%	7,166	-
Gas Stations	747	79	n/a	3%	6,077	-
Fire Stations	637	25	n/a	63%	361	Yes
Police Stations	157	277	n/a	40%	4,747	Yes

Within the City of Fremont, for instance, solar and battery storage microgrids were installed at three critical fire stations. These microgrids protect critical facilities against electric grid power outages as the batteries have capacity to island for 8-12 hours. At any given time, the Fremont fire stations can island for three hours.[31] The fire stations also installed diesel generators as a secondary backup to the solar and battery microgrid. According to Rachel DiFranco, Sustainability Manager of the City of Fremont, the secondary diesel generators are used during critical needs and are still run monthly to test and make sure they work properly for such needs.[32] As such, an emissions challenge remains prevalent with the use of solar and battery microgrids.

[30] *See* ICF, "Assessment of Backup Power and 24/7 Resilient Power Options for Critical Facilities and Commercial Customers with High Resiliency Needs," October 2020, p. 5. Available at https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M349/K245/349245336.PDF.

[31] *See* Rachel DiFranco Presentation on Resilience Impacts on the Microgrid Market at 2020 IEPR Commissioner Workshop on Assessing the Future Role for Microgrids in California, 09 July 2020. Available at https://efiling.energy.ca.gov/GetDocument.aspx?tn=233761&DocumentContentId=66393.

[32] *Ibid.*

Utilizing another technology, such as fuel cells running on hydrogen, renewable natural gas, or natural gas can reduce harmful emissions emitted by secondary backup diesel generators.[33]

When connected to the gas grid, gas-fired microgrids can be designed to deliver continuous power generation. In addition, gas-fueled DERs can support increased use of renewables in industrial applications, because they can increase (or decrease) their power generation to support solar or storage assets within the microgrid. This allows California businesses to manage their energy profiles to meet their operational, financial, and decarbonization needs and provide goods and services to local communities and the public. As the gas grid continues to decarbonize, renewable gases can support microgrids through stationary fuel cells, cleaner combined heat and power (CHP), and tri-generation applications which can support fuel cell vehicle charging from the integration of a hydrogen purification station even when energy from the electric grid is otherwise unattainable.

Additionally, agricultural customers can utilize the CO_2 generated from the use of natural gas in their greenhouses, while reducing their overall energy usage by using combined heat and power.[34] Forcing greenhouses to utilize electricity would likely result in the greenhouses increasing their energy use by transporting in the CO_2 required for their greenhouses. This would most likely lead to an overall increase in their carbon footprint.

SDG&E and SoCalGas support the need for additional comprehensive studies to better understand the impact on non-residential customers. Non-residential projects are typically larger and therefore SDG&E and SoCalGas urge the Commission to move thoughtfully so that any decision on the extension rules can be carefully studied for the best outcome. At a minimum,

[33] SoCalGas also filed a Petition for Modification of CPUC Decision (D.)15-10-049 in CPUC Application (A.)14-08-007, relating to its Distributed Energy Resources Services Tariff. The petition seeks to expand eligibility of the tariff to meet the reliability and resiliency needs of critical customers and decrease greenhouse gas emissions and reducing reliance on diesel backup generation.

[34] https://www.csemag.com/articles/gas-fueled-chp-delivers-heat-co2-for-greenhouses/

SDG&E and SoCalGas believe that modifying the extension rules as proposed in the Staff Proposal can have a negative impact for the customer categories identified in Table 1 above.

b. If the position is to modify, and not eliminate the allowances, provide support for why the proposed modification should be considered over the Staff Proposal's recommendation to eliminate.

PG&E's Response: Please see the Joint Utilities' Response and PG&E's Response to Question 2.a above.

SDG&E's and SoCalGas' Response: Please see the Joint Utilties' Response and SDG&E's and SoCalGas' Response to Question 2.a. above.

c. What are the implications of your recommendation for the affordable housing sector and low-income customers? How can any potential negative implications be mitigated?

PG&E's Response: Please see the Joint Utilities' Response and PG&E's Response to Question 2.a above.

SDG&E's and SoCalGas' Response: Please see SDG&E's and SoCalGas' Response to Question 7 below.

3. Should the Commission eliminate or modify the 10-year refundable payment option for all or some of the customer classes (residential and non-residential)? If so, explain why.

a. If the position is to modify, and not eliminate the refunds, provide a specific recommendation on how the refunds should be modified and for which customer class.

PG&E's Response: For the purposes of these opening comments, PG&E is proposing a similar treatment of allowances, discounts, and refunds and thus has offered a combined response to Appendix B Questions 2-4, while providing differing perspectives on how allowances, discounts, and refunds should be addressed in residential versus non-residential projects. Please see the Joint Utilities' Response and PG&E's Response to Question 2.a. above.

SDG&E and SoCalGas Response: SoCalGas and SDG&E are concerned about the elimination of the 10-year refundable payment option. If a customer chooses to pay for the main and distribution gas line extensions, equity dictates that the customer be able to receive a portion

of the customer's investment from any additional customers that choose to use the initial customer's main gas pipeline. Otherwise, new customers could then piggyback on an initial customer's investment without compensating the initial customer. This could have the opposite impact that Staff is intending in eliminating the refunds. For additional reasons, please see the Joint Utilities' Response and SDG&E and SoCalGas' Response to Question 2.a. above.

b. If the position is to modify, and not eliminate the refunds, provide support for why the proposed modification should be considered over the Staff Proposal's recommendation to eliminate.

PG&E's Response: For the purposes of these opening comments, PG&E is proposing a similar treatment of allowances, discounts, and refunds and thus has offered a combined response to Appendix B Questions 2-4, while providing differing perspectives on how allowances, discounts, and refunds should be addressed in residential versus non-residential projects. Please see the Joint Utilities' Response and PG&E's Response to Question 2.a. above.

SDG&E's and SoCalGas' Response: Please see the Joint Utilities' Response and SDG&E and SoCalGas' Response to Question 2 and 3.a. above.

c. What are the implications of your recommendation for the affordable housing sector and low-income customers? How can any potential negative implications be mitigated?

PG&E's Response: For the purposes of these opening comments, PG&E is proposing a similar treatment of allowances, discounts, and refunds and thus has offered a combined response to Appendix B Questions 2-4, while providing differing perspectives on how allowances, discounts, and refunds should be addressed in residential versus non-residential projects. Please see the Joint Utilities' Response and PG&E's Response to Question 2.a. above.

SDG&E's and SoCalGas' Response: Please see SDG&E's and SoCalGas' Response to Question 7 below.

4. Should the Commission eliminate or modify the 50 percent discount payment option for all or some of the customer classes (residential and non-residential)? If so, explain why.

a. If the position is to modify, and not eliminate the discounts, provide a specific recommendation on how the discounts should be modified and for which customer class.

PG&E's Response: For the purposes of these opening comments, PG&E is proposing a similar treatment of allowances, discounts, and refunds and thus has offered a combined response to Appendix B Questions 2-4, while providing differing perspectives on how allowances, discounts, and refunds should be addressed in residential versus non-residential projects. Please see the Joint Utilities' Response and PG&E's Response to Question 2.a. above.

SDG&E and SoCalGas Response: Please see the Joint Utilities' Response and SDG&E and SoCalGas' Response to Question 2.a. above.

b. If the position is to modify, and not eliminate the discounts, provide support for why the proposed modification should be considered over the Staff Proposal's recommendation to eliminate.

PG&E's Response: For the purposes of these opening comments, PG&E is proposing a similar treatment of allowances, discounts, and refunds and thus has offered a combined response to Appendix B Questions 2-4, while providing differing perspectives on how allowances, discounts, and refunds should be addressed in residential versus non-residential projects. Please see the Joint Utilities' Response and PG&E's Response to Question 2.a. above.

SDG&E's and SoCalGas' Response: Please see the Joint Utilities' Response and SDG&E and SoCalGas' Response to Question 2 above.

c. What are the implications of your recommendation for the affordable housing sector and low-income customers? How can any potential negative implications be mitigated?

PG&E's Response: For the purposes of these opening comments, PG&E is proposing a similar treatment of allowances, discounts, and refunds and thus has offered a combined response to Appendix B Questions 2-4, while providing differing perspectives on how allowances, discounts, and refunds should be addressed in residential versus non-residential projects. Please see the Joint Utilities' Response and PG&E's Response to Question 2.a. above.

SDG&E's and SoCalGas' Response: Please see SDG&E's and SoCalGas' Response to Question 7 below.

5. Aside from lowering the upfront costs of the gas line extensions to the builder or homeowner, what ancillary benefits to stakeholders (including but not limited to the utility, builder, homeowner, ratepayers, society), are provided through continuing these allowances, refunds, and discounts?

Joint Utilities' Response

In addition to lowering upfront costs to builders and developers, the continuation of the extension rules for certain customer classes may have financial and/or environmental benefits to society and customers.

In the Staff Proposal, the Commission asserts that the elimination of gas allowances, discounts, and refunds "would send a strong signal to the builder community that future building projects should transition away from gas use, thus encouraging all-electric new construction and aiding the effort to reduce GHG emissions across California."[35] The Joint Utilities agree that the removal of allowances, discounts, and refunds would send a strong price signal to project developers. However, the Joint Utilities urge the Commission to consider that certain non-residential gas interconnection projects may provide environmental benefits to customers, namely where a project would encourage low-carbon development (e.g., RNG or CNG). By the Commission's logic, it stands to reason that the removal of allowances, discounts, and refunds would send a negative price signal to the developers of such projects, discouraging their development.

Speaking in general terms, a line extension allowance provides an economic benefit to customers when the connecting gas customer offers a large gas throughput that will remain steady throughout the depreciation of the gas infrastructure asset. This discussion around syncing gas infrastructure life cycles with the life of the interconnected building and its end uses has been raised several times throughout the life of gas and electric line allowances. In

[35] Staff Proposal at 2.

considering a modification to electric allowances in D.11-07-029, the Commission stated that "the more critical question is whether the infrastructure deployed to serve an Electric Vehicle will continue to be used over its useful life to serve load anticipated from Electric Vehicles."[36]

SDG&E and SoCalGas' Response:

A significant amount of consideration would be needed on how the Commission would phase or manage the impact of this Staff Proposal for developers that are in the process of receiving 10-year refunds for gas infrastructure where they will be extending gas service lines over the next several years. The impact will also affect developments where individual homeowners and builders who have purchased land with the assumption that they would have access to the gas infrastructure and allowances. Consideration of how to address communities already in flight would need to be determined.

SoCalGas Response:

Continuing the allowances for gas line extensions to non-residential customers provides three valuable benefits to stakeholders: decarbonization, resiliency and affordability. Natural gas allowances are utilized by the transportation industry when constructing new compressed natural gas stations. Last year the GHG reductions from the use of Renewable Natural Gas (RNG) as a transportation fuel was equivalent to taking about 760,000 passenger vehicles off the road or reducing Carbon Dioxide (CO2) emissions from approximately 394 million gallons of gasoline consumed.[37] By eliminating natural gas allowances, California may slow down the construction of Compressed Natural Gas (CNG) stations providing RNG, which may create a deceleration in the progress on GHG reductions. The elimination of allowances will not just impact the expansions of stations but could also put the brakes on the adoption of cleaner technology in the transportation/mobility sector, which accounts for about 50 percent of California's GHG

[36] D.11-07-029 Establishing Policies to Overcome Barriers to Electric Vehicle Deployment and Complying with Public Utilities Code Section 740.2 (ca.gov)

[37] "Decarbonize Transportation with Renewable Natural Gas," RNG Coalition and NGV America, April 2021. Available at https://ngvamerica.org/wp-content/uploads/2021/04/Decarbonize-Transportation-with-RNG-Updated-April-16-2021.pdf.

emissions and 80 percent of Nitric Oxide (NOx) emissions statewide.[38] Without alternatives, the heavy-duty industry will continue to turn to diesel trucks. However, keeping allowances provides the following benefits:

- Increases the amount of alternative fueling infrastructure
  - It avoids the "chicken or the egg" problem of what comes first for clean vehicle adoption.
  - Removes range anxiety businesses have with adopting alternative fuels.
- Contribution to future adoption of Zero Emission Vehicles (ZEVs).
  - Shows support for the deployment of new low-emission technologies that can accelerate future market demand.
  - Allows utilities "learning-by-doing," where lessons learned from deployment can lead to better rates, tariffs and internal process in future markets such as Hydrogen (H2).
  - Provides GHG and NOx reductions now, especially in disadvantaged communities, while ZEV infrastructure and technologies are developed.

Electrification also has a cost impact to customers as electricity can cost an industrial user six times as much, while not necessarily decreasing GHGs.[39] Some businesses operate on thin margins and compete on the global stage, which limits their ability to raise prices if they have to use higher priced energy.[40]

For some customers, dissuading gas line extensions could negatively impact energy reliability. Commercial, industrial, and medical baseline facilities need high levels of energy reliability. If those customers were in all-electric buildings in areas with low electricity reliability, then they could suffer undue burdens as opposed to those customers in higher reliability areas. For Southern California, Southern California Edison Company's (SCE) service territory overlaps the most with SoCalGas's service territory. The following table names the circuit, county, the number of outages, and the total duration of outage for the top 50 circuits

[38] https://www.energy.ca.gov/about/core-responsibility-fact-sheets/transforming-transportation#:~:text=California's%20transportation%20sector%20accounts%20for,of%20diesel%20particulate%20matter%20pollution.

[39] https://www.energy.ca.gov/event/workshop/2021-08/session-2-iepr-commissioner-workshop-accelerate-industrial-decarbonization. CEC Working Group Presentation S2.3B Scott Star, California Steel Industries, slide 12.

[40] https://blogs.callutheran.edu/cerf/files/2013/09/SanJoaquinValley_final.pdf, p. 13..

with the most PSPS outage events from October 2019 through the end of January 2021 in SCE's service territory. Numbers of commercial and industrial, and medical baseline customers affected by PSPS events in the one and a half years' worth of data range from a few dozen to hundreds of customers and from a handful of outages of a couple hundred hours to over 50 outages for a couple thousand hours' worth of outages.

Table 3: Top 50 SCE Circuits with the most PSPS outages[41]

SCE Circuit Name	County	# Of Outages in Measured Period	Total Length of Outages (Hours)	# Commercial/ Industrial Customers Impacted	# Medical Baseline Customers Impacted
Energy	Los Angeles	85	2630	891	297
Sand Canyon	Los Angeles	64	2287	423	200
Davenport	Los Angeles	59	1804	322	297
Atento	Orange	45	1004	501	161
Shovel	Los Angeles	43	1432	146	83
Mettler	Kern	37	1198	53	136
Big Rock	Los Angeles	34	869	445	427
Chawa	Riverside	29	530	194	217
Condor	Kern	29	639	356	328
Gnatcatcher	Kern	26	574	332	470
Sonoma	Riverside	26	664	49	78
Bootlegger	Los Angeles	26	259	499	208
Fingal	Riverside	24	549	70	96
Hillfield	Los Angeles	24	603	447	283
Tanager	Kern	24	487	50	342
Arlene	Los Angeles	23	480	177	185
Impala	San Bernardino	22	442	270	112
Anton	Ventura	22	723	423	31
Rainbow	Ventura	22	730	113	16
Estaban	Ventura	20	486	263	110
Napa	Riverside	20	336	20	24
Northpark	San Bernardino	20	470	158	155
Steel	Riverside	19	515	144	0
Calstate	San Bernardino	18	488	325	30

[41] PSPS rolled up report available at: https://www.cpuc.ca.gov/consumer-support/psps/utility-company-psps-post-event-reports

Amethyst	San Bernardino	18	270	86	140
Tapo	Ventura	17	440	183	70
Guitar	Los Angeles	16	411	533	0
Lopez	Los Angeles	16	405	210	18
Red Box	Los Angeles	16	548	63	0
Balcom	Ventura	16	564	156	51
Ros	Riverside	14	146	29	86
Donlon	Ventura	13	406	151	15
Easter	Riverside	13	291	120	0
Great Salt	Riverside	12	259	25	13
Napoleon	Riverside	12	213	62	94
Roundel	Riverside	12	220	46	134
Saunders	Riverside	12	462	30	40
Twin Lakes	Ventura	12	210	218	230
Cuthbert	Los Angeles	11	371	164	69
Dartmouth	Riverside	11	239	232	159
Duke	Riverside	11	186	182	123
Honeycrisp	Riverside	11	111	47	86
Saddleback	Riverside	11	293	7	2
Acosta	San Bernardino	10	440	264	140
Ferrara	San Bernardino	10	229	90	3
Julius	Los Angeles	10	191	82	138
Cabana	Riverside	10	155	236	358
Rustic	Orange	9	289	162	9
Cobra	Los Angeles	7	129	59	38
Racer	Los Angeles	7	135	26	25
Totals		**1078**	**27812**	**10134**	**6327**

6. What impact (including but not limited to financial, economic, environmental, equity), if any, would the elimination of these allowances, refunds, and discounts have on the following groups or items in the short term and long term. How can any potential negative impacts be mitigated?

a. Current and future gas ratepayers

Joint Utilities' Response:

The Staff Proposal asserts that "…with California now seeking to reduce GHG emissions by phasing out gas usage, any new gas infrastructure is likely to become a stranded asset that will need to be paid for by a shrinking number of future gas customers, which will be reflected in higher rates. As such, the provision of gas line extension allowances makes it harder to meet California's GHG reduction goals while increasing the future cost of receiving gas service for

customers that are unwilling or unable to decarbonize."[42] Full elimination of gas allowances, discounts, and refunds will have negative impacts for current and future ratepayers in the below scenarios:

1. Elimination of allowances, discounts, and refunds will have a negative environmental impact to current and future gas ratepayers where doing so impedes the development of a new project that has long-term environmental benefits, such as CNG stations or RNG projects, or prevents a non-residential customer from switching from a dirtier fuel, such as a customer converting from diesel or incineration. Assuming that the removal of line allowances, discounts, and refunds promotes additional all-electric new construction, the Joint Utilities generally agree with the Staff Proposal's assertion that some projects may have positive environmental benefit to ratepayers and to communities in which we serve.

2. The near-term financial impact of eliminating allowances, refunds, and discounts on all gas ratepayers will depend on the profitability of the particular customer connecting to the gas system. Speaking in generalities, a large gas user that stays connected to the gas system through the pipeline's life could be a good investment of ratepayer dollars in terms of continuing line extension allowances. Assuming a new customer fully pays back their investment into the gas system, they are then able to contribute to paying down gas system costs for all ratepayers. Conversely, a small or diminishing gas load could represent a long-term financial risk to utilities and ratepayers.

3. If the State's gas consumption declines but the cost of operating and maintaining the gas grid does not decline proportionately, "then large financial obligations will be left to be paid by a smaller number of customers."[43] Particularly concerning is the prospect that low- and moderate-income Californians or renters, who may be unable to transition to electrification households, could bear the impact of these cost increases.

In D.07-07-019, the Commission found that "[i]n order for the line extension allowance to be an unreasonable subsidy, the costs of the allowance must exceed its benefits."[44] In line with this thinking, the Joint Utilities propose that the Commission expand the definition of costs and benefits to be inclusive of all known financial, economic, environmental, and equity impacts per the Staff Proposal. To promote a positive outcome for customers, Staff should consider an approach that maintains allowances, discounts, and refunds where there is both a positive

[42] Staff Proposal at 25.

[43] *See* CEC, "The Challenge of Retail Gas in California's Low-Carbon Future - Technology Options, Customer Costs, and Public Health Benefits of Reducing Natural Gas Use," April 2020, p. 69. Available at https://www.energy.ca.gov/sites/default/files/2021-06/CEC-500-2019-055-F.pdf.

[44] D.07-07-019, Finding of Fact 11.

financial and environmental benefit to doing so. In these opening comments, the Joint Utilities identify a preliminary list of categories in Table 1 that meet those qualifications. Should the Commission decide to modify, rather than eliminate, allowances, discounts, and refunds, the Joint Utilities also propose a mechanism for periodically revisiting the continuance of allowances to ensure that all use cases that have financial and environmental benefits continue to receive allowances, discounts, and refunds. (See Joint Utilities' response to Question 2.a.)

b. Current and future electric ratepayers

PG&E's and SDG&E's Response: Electric ratepayers would be assumed to experience the same environmental impacts described in the Joint Utilities' response to Question 6 above. While the removal of gas line allowances, discounts, and refunds is not anticipated to have a near-term effect on electric ratepayers, the long-term effect of such an intervention may stabilize future electric rates due to an expanded rate base over which fixed utility costs may be spread. This effect, however, will only be experienced if the removal of gas allowances, discounts, and refunds leads to an increase in the amount of newly constructed all-electric homes and non-residential projects. As PG&E, SDG&E and other gas utilities still have an obligation to serve gas to our customers, we need to better understand at what rate the price signal of removing gas allowances, discounts, and refunds will result in all-electric construction to fully understand the impact on electric ratepayers.

c. New home and/or new home construction prices

Joint Utilities' Response: In D-07-07-019, the Commission found that an "allowance reduces the total cost to construct a dwelling" but that "the record does not indicate that the rent charged for a new dwelling will be strictly cost-based, it does not indicate what benefit the renter of a new dwelling will actually receive from the allowance."[45] The Joint Utilities urge the Commission to seek additional feedback on these impacts, per Pub. Util. Code §783, should

[45] D.07-07-19 at 18.

parties' opening comments not sufficiently address any negative impacts to new home and/or new home construction prices.

d. New commercial building and/or commercial building construction prices

Joint Utilities' Response: The Joint Utilities do not have additional information to provide at this time on the impact of the removal of gas allowances, discounts, and refunds on new commercial building and/or commercial building construction prices. The Joint Utilities urge the Commission to seek additional feedback on these impacts, per Pub. Util. Code §783, should parties' opening comments not sufficiently address any negative impacts to new commercial building and/or commercial building construction prices.

e. Contractor and Builder community

Joint Utilities' Response: The Joint Utilities do not have additional information to provide at this time on the impact of the removal of gas allowances, discounts, and refunds on the contractor and builder community. The Joint Utilities urge the Commission to seek additional feedback on these impacts, per Pub. Util. Code §783, should parties' opening comments not sufficiently address any negative impacts to the contractor and builder community.

f. Affordable housing developers

Joint Utilities' Response: PG&E describes ways to mitigate potential effects on affordable housing developers and occupants in Question 7.

SoCalGas and SDG&E have no further comments on affordable housing at this time other than those provided in their Response to Question 7.

The Joint Utilities urge the Commission to seek additional feedback on these impacts, per Pub. Util. Code §783, should parties' opening comments not sufficiently address any negative impacts to affordable housing developers.

g. New homeowners

Joint Utilities' Response: In D.07-07-019, the Commission found that an "allowance reduces the total cost to construct a dwelling" but that "the record does not indicate that the rent charged for a new dwelling will be strictly cost-based, it does not indicate what benefit the renter of a new dwelling will actually receive from the allowance."[46] The Joint Utilities urge the Commission to seek additional feedback on these impacts, per Pub. Util. Code §783, should parties' opening comments not sufficiently address any negative impacts to new home and/or new home construction prices.

h. Commercial property owners

Joint Utilities' Response: The Joint Utilities do not have additional information to provide at this time on the impact of the removal of allowances, discounts, and refunds on commercial property owners. The Joint Utilities urge the Commission to seek additional feedback on these impacts, per Pub. Util. Code §783, should parties' opening comments not sufficiently address any negative impacts to commercial property owners.

i. Low income, disadvantaged, low ranked Socioeconomic Vulnerability Index (SEVI) communities, and Environmental and Social Justice (ESJ) communities

PG&E's Response: PG&E describes ways to mitigate effects on affordable housing developers and occupants in Question 7.

SDG&E's and SoCalGas' Response: SDG&E and SoCalGas do not have further comments at this time than those provided in their Response to Question 7.

The Joint Utilities urge the Commission to seek additional feedback on these impacts, per Pub. Util. Code §783, should parties' opening comments not sufficiently address any negative impacts to affordable housing developers.

j. Gas industry workforce

[46] D.07-07-19 at 18.

Joint Utilities' Response: If approved, the Staff Proposal likely will have a detrimental impact on the gas industry workforce. While this issue is anticipated to be discussed in Track 2 of the Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Safe and Reliable Gas Systems in California and perform Long-Term Gas System Planning (R.20-01-007), the Joint Utilities urge the Commission to study and create a robust plan and funding to mitigate any effects on the gas industry workforce, as well as any non-utility workforce effects.

k. The electric grid and electricity demand

PG&E's Response: While PG&E already does make forecasts on all-electric new construction that feed into forecasting load estimates, additional time and effort is needed to better understand the impact of modification to gas allowances, discounts, and refunds upon the electric grid and electricity demand. Care would be needed to coordinate with service planning to ensure adequate electrical capacity assuming an accelerated transition to all-electric construction. In particular, PG&E highlights the need to work collaboratively with the CPUC, CEC, and CAISO to account for potential changes to CEC forecasts used in near and long-term grid planning. In addition, utilities would need to determine and secure any necessary load needed to serve additional electric residences and businesses. Given that the Commission is already taking such measures as creating "Emergency Load Reduction Program as another tool that can provide emergency load reduction and serve as an insurance policy against the need for future rotating outages,"[47] additional time will be needed to determine the impacts of such a policy shift in projected load. Due to these complexities, PG&E is asking for a phased-in approach for the implementation of any modifications. This will allow utilities to ensure adequate capacity and load for all customers.

SDG&E's Response: SDG&E supports the addition of all-electric new construction in the forecasting load estimates but has not done so at this time. SDG&E agrees that additional

[47] D.21-03-056 at 2, OP 7.

time and effort is needed to better understand the impact of modification to allowances, discounts and refunds upon the electric grid and electricity demand.

l. The gas system and gas demand

Joint Utilities' Response: Maintaining a safe and reliable gas system is a fundamental need, the costs of which are recovered through customer gas rates. If developers respond to the economic signal of removing gas allowances, discounts, and refunds by building more all-electric homes and businesses, the Staff Proposal could lead to a decrease in gas throughput, which in turn would lead to less gas utility revenue while the costs to maintain a safe and reliable gas system remain the same or increase. This, in turn, could cause an increase in rates for remaining gas system customers, which are likely to be those customers that are less able to afford to electrify. While long-term strategies to mitigate such effects are scheduled to be discussed in detail in the Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Safe and Reliable Gas Systems in California and perform Long-Term Gas System Planning (R.20-01-007), the Joint Utilities urge the Commission to work with stakeholders to assist with long-term affordability.

PG&E's Response: In addition to the above response, PG&E suggests that such strategies may include, but not be limited to, a removal of policy and financial barriers impeding zonal electrification, accelerated depreciation of gas assets, capitalization of utility electrification project costs, and rate reform.

m. Gas and electric utilities.

Joint Utilities' Response: In these opening comments, the Joint Utilities have opined on the benefits and negative impacts of the proposed modification of allowances, discounts, and refunds. In order to mitigate any potential negative impacts to customers, the Joint Utilities make two specific asks:

- Additional time to phase in any modifications to gas allowances, discounts and refunds to mitigate any potential negative impacts on electric load or the electricity grid and account for the negative financial impact to our customers.

- An ability to revisit allowances on a periodic basis to ensure allowances are provided for projects with environmental and financial impact to California ratepayers and to mitigate any potential negative impacts on affordable housing developers or vulnerable customers.

7. How would the proposed elimination of these allowances, refunds, and discounts impact the utility bills of those customers in a new all-electric building versus a new dual fuel building in the short term and long term?

PG&E's Response: The Staff Proposal identifies less than 1% of additional costs to consumers associated with the removal of gas allowances, discounts, and refunds, with a specific question as to the impact on low-income customers and affordable housing developers. While PG&E shares a similar concern, current incentives through both the BUILD Program and the California Energy-Smart Homes Program (launching in 2022) are likely to mitigate such upfront effects on the affordable housing and low-income sectors. Although a majority of studies[48] show that all-electric new construction homes may be less costly to operate than dual fuel new construction homes, real world results will depend greatly on occupant behavior, geography, and whether that customer installs solar photovoltaics on their home, among other variables. Rates like PG&E's proposed E-ELEC may be a tool to help mitigate operational burden on low-income customers. In addition, other rate discount programs such as CARE and FERA may help mitigate a high rate burden on income qualified customers.

The potential rate impacts on non-residential customers may be harder to quantify as non-residential customers have both more diverse uses and occupancy patterns than their residential peers. In the 2019 Non-Residential New Construction Reach Code Cost Effectiveness Study, mixed results of cost-effectiveness for all-electric non-residential new construction buildings were found. While retail and hotel occupancies tended to show high cost-effectiveness in the all-electric simulations, the all-electric new construction projects were not cost effective in every

[48] E3_Residential_Building_Electrification_in_California_April_2019.pdf (ethree.com)

climate zone or occupancy type.[49] The study also did not, understandably, look at the impacts of electric new construction on industrial or agriculture end-uses, which are more likely to have specialized equipment that is harder to electrify.

As discussed in the Joint Utilities' response to Question 2.a., PG&E also proposes a mechanism to re-address line extension allowances, refunds, and discounts on a periodic basis. Such a mechanism would allow adjustment to affordable housing developer line allowances, discounts, and refunds should a negative impact on disadvantaged customers be realized in the future.

SDG&E and SoCalGas Response:

Developers of new low income or affordable housing will need to consider the cost differences, appliance availability, and other design considerations between dual fuel and all-electric building for the upfront costs. SDG&E and SoCalGas cannot comment on what developers will decide or what works best in their business model.

Further, SDG&E and SoCalGas are not aware of any comprehensive studies that have been done within California by any of the IOUs, or by the CPUC, on what the bill impacts may be downstream of Staff's Proposal on low-income customers. The issue may be more problematic for low-income customers who are the eventual residents of new affordable housing, and typically as tenants (rather than homeowners). Electric bills are considerably higher than gas on the whole.[50] Moving towards all-electric may result in overall bill increases. While subsidies may offset cost to some degree, careful consideration must be given to potentially disproportionate cost increases for low income communities.

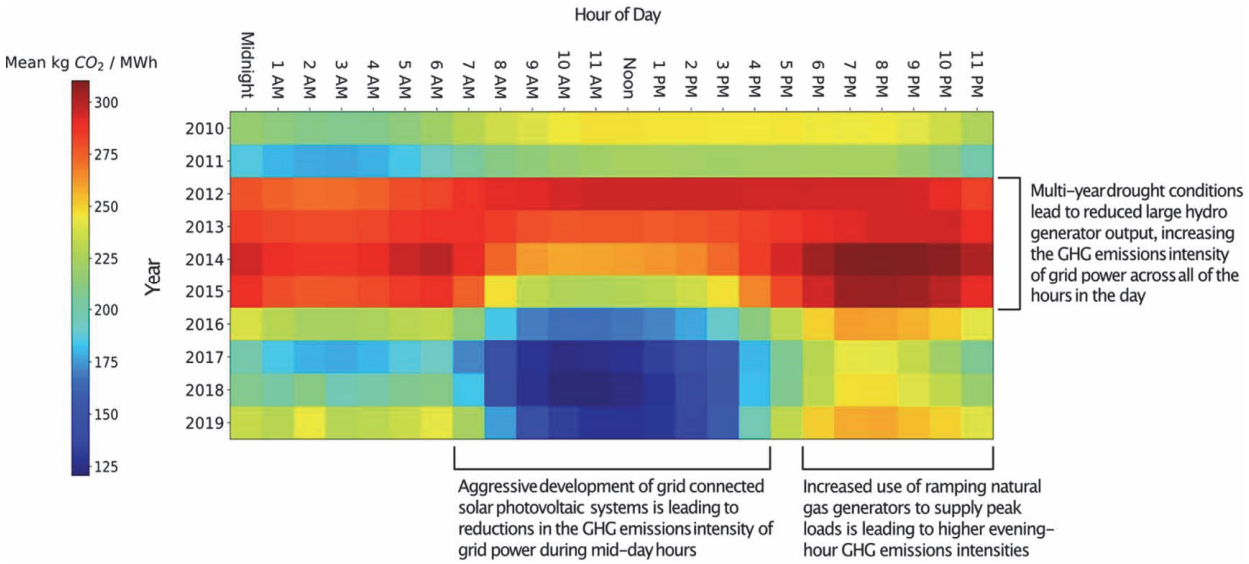
A 2020 study published by the University of California, Los Angeles (UCLA study) evaluated the hourly variations in the intensity of residential household's natural gas use within a

[49] 2019 Nonresidential New Construction Reach Code Cost Effectiveness Study, pages 31-58.

[50] See Eric Daniel Fournier, et al. "Implications of the timing of residential natural gas use for appliance electrification efforts." Environmental Research Letters 15, no. 12 (2020): 124008. Available at https://iopscience.iop.org/article/10.1088/1748-9326/aba1c0/pdf.; see also, https://www.energy.ca.gov/event/workshop/2021-08/session-2-iepr-commissioner-workshop-accelerate-industrial-decarbonization. CEC Working Group Presentation S2.3B Scott Star, California Steel Industries, slide 12.

low-income portion of SoCalGas' service territory.[51] Researchers found that the aggressive electrification of residential end-use appliances has the potential to exacerbate daily peak electricity demand, increase total household expenditures on energy, and, in the absence of a fully decarbonized electrical grid, will likely result in limited GHG emissions abatement benefits. Using templates based on temporal usage data for specific communities can help to distinguish low-income households from wealthier households within the same climate zone. This will also ensure GHG emissions reductions are occurring given the time dependent nature of the carbon intensity of the electric grid. (See Figure 1 below).

Figure 1. Carbon Intensity Heat Map of California's Electric Grid from 2010-2019[52]



SDG&E and SoCalGas share the State's goals of eliminating statewide GHG emissions; however, the cost should not disproportionately impact our most vulnerable and disadvantaged households. According to the Greenlining Institute, California "communities continue to experience high energy costs and energy insecurity, as well as high rates of disconnection when

[51] Eric Daniel Fournier, et al. "Implications of the timing of residential natural gas use for appliance electrification efforts." Environmental Research Letters 15, no. 12 (2020): 124008. Available at https://iopscience.iop.org/article/10.1088/1748-9326/aba1c0/pdf.

[52] Fournier, "Implications of the timing of residential natural gas use for appliance electrification efforts," at 5.

households [cannot] afford their bills."[53] In fact, a 2020 American Council for an Energy-Efficient Economy (ACEEE) report[54] found that 26 million low-income households experience a national median energy burden of 8.1 percent as compared to 5 million non-low-income households that experience an energy burden of only 2.3 percent.[55] Therefore, low-income households spend more than 3.5 times as much of their income on home energy bills as non-low-income households.

Higher energy burdens are not solely owed to lower incomes, but also because of energy inefficiencies in the home and the time-of-use of energy. For most households, there is very little flexibility in the time-of-use of their energy consumption. Most households use their appliances in the early morning hours when preparing to depart from home and in the evening hours when returning home. Under the existing electricity rate structures, switching from a low energy cost appliance to a higher energy cost appliance will increase a household's expenditure on energy. This is because a household's time-of-use coincides with periods of peak-electricity demand when electricity rates are up to four times or more than gas rates on an energy equivalent basis. In fact, Figure 2[56] (below) from the UCLA study shows that "the price premium for electrical energy can grow to a factor of 12 times during peak hours (4PM-9PM)."[57] In contrast, gas prices fluctuate more on a season-by-season basis rather than a minute-to-minute basis. For energy price sensitive households, bills are expected to outpace inflation over the coming decade, according to CPUC electric rates projections.[58] The implication is that, if household incomes are

[53] See Greenlining Institute, Affordable Clean Energy webpage. Available at https://greenlining.org/our-work/energy/affordable-clean-energy/.

[54] Ariel Drehol, Lauren Ross, and Roxana Ayala, *How High Are Household Energy Burdens? An Assessment of National and Metropolitan Energy Burden across the United* States, American Council for an Energy-Efficient Economy, September 2020. Available at https://www.aceee.org/sites/default/files/pdfs/u2006.pdf.

[55] Energy burden is defined as utility bills as a percentage of income. Per Ariel Drehol, et al., at 10.

[56] Fournier, "Implications of the timing of residential natural gas use for appliance electrification efforts," at 6.

[57] Ibid.

[58] "Utility Costs and Affordability of the Grid of the Future: An Evaluation of Electric Costs, Rates, and Equity Issues Pursuant to P.U. Code Section 913.1," California Public Utilities Commission, February 2021, at 8. Available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/office-of-governmental-affairs-division/reports/2021/senate-bill-695-report-2021-and-en-banc-whitepaper_final_04302021.pdf.

expected to generally increase at the rate of inflation, bills will become less affordable and more burdensome over time.

Figure 2. Comparison of the Normalized Cost of Energy Between Electricity and Natural Gas for Standard Residential Rate Tiers[59]

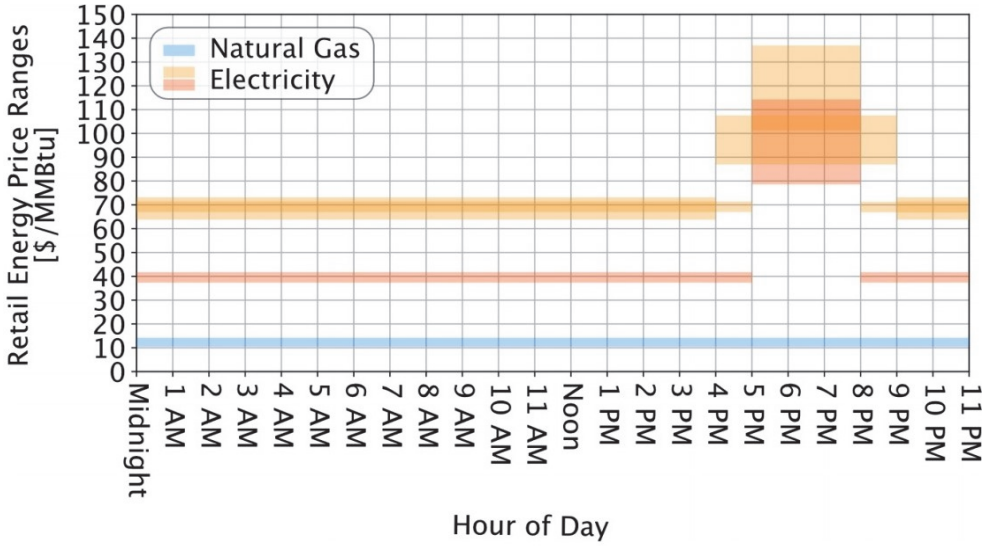


Figure 4. Comparison of local retail price ranges for electricity (red & orange) and natural gas (blue) using standardized energy units ($/*MMBtu*), by hour of day throughout the course of a year. These figures assume current residential rate tariff schedules and within-baseline-tier consumption levels. Note: the two different electricity rate tariffs depicted (red & orange) have different daily basic charges, minimum daily charges, and baseline credits. Thus, the range of values plotted only reflect the marginal cost of energy procurement.

Such energy bill considerations also depend on if developers install solar (and there are programs such as the Solar for Multifamily Affordable Homes, or SOMAH, program which provides incentives for solar for low-income multifamily complexes). But considerations also depend on if developers install lower cost storage electric water heaters that are less efficient than more expensive (and more efficient) electric tankless water heaters, or electric heat pump water heaters.

SDG&E and SoCalGas have concerns that with a shrinking pool of customers who would be paying for the maintenance of the gas system, there could be the gross inequity whereby those remaining customers on the gas system have higher bills, with the lower income customers not having the option to change fuels or access solar. SDG&E and SoCalGas urge caution and the

[59] Ibid.

need to move thoughtfully so that such considerations can be comprehensively studied by policy makers for the best outcomes.

8. Public Utilities Code Section 783(b) states that whenever the Commission "institutes an investigation into the terms and conditions for the extension of services provided by gas and electrical corporations to new or existing customers, or considers issuing an order or decision amending those terms or conditions, the commission shall make written findings" on seven distinct issues. Therefore, to assist the Commission in making written findings, we invite party comments on the issues outlined in Public Utilities Code Section 783(b) and Section 4 of the Staff Proposal (see Appendix A, R.19-01-011 Phase III Staff Proposal, Section 4).

Joint Utilities' Response: In order for the Commission to amend the extension rules, it must comply with the requirements of Pub. Util. Code §783. In enacting Senate Bill 48 as an urgency measure (Senate Bill 48 added Pub. Util. Code §783), the Legislature found that gas corporations "have an obligation to provide extensions of service to new residential, commercial, agricultural, and industrial customers under reasonable terms and conditions."[60] The Legislature has repeatedly determined that gas service to core customers is an "essential service" that gas utilities are required to provide, and that core customers have the right to receive. For example, in Senate Bill (SB) 705, the Legislature imposed safety planning and other related safety obligations on gas corporations, while also underscoring that "[i]n order to ensure that all core customers of a gas corporation continue to receive safe basic gas service, each existing gas corporation shall continue to provide this essential service."[61] The Legislature also required the extension rules to strike a balance between the interests of new residential, commercial and industrial customers in obtaining essential utility services without undue economic burden and any unreasonable impact on utility rates affecting existing ratepayers.[62] The Legislature found that because of the impact on a broad segment of California's economy, "it is imperative that the Public Utilities Commission study their impact on these segments of California's economy as

[60] Senate Bill 48, Chapter 1229 (Cal. Stat. 1983), Section 1(a).

[61] Pub. Util. Code § 963(b)(1) (emphasis added).

[62] Senate Bill 48, Chapter 1229 (Cal. Stat. 1983), Section 1(b).

well as on new and existing ratepayers."[63] As a result, the Legislature stayed the Commission's proposed amendments to the extension rules (which included a phasing out of the extension allowances) and required the Commission to study the impacts of their proposed rule change and make specific findings as required by Pub. Util. Code §783(b).

The Staff Proposal to eliminate extension allowances, refunds, and discounts is a significant policy change that requires a thorough examination of the impact to new and existing ratepayers as well as California's economy. While the Staff Proposal attempts to address the findings required by Pub. Util. Code §783(b), Staff recognizes that it did not have sufficient information for the Commission to make the specific findings required by Pub. Util. Code §783(b) and asks for "[r]obust stakeholder input." The Joint Utilities agree that robust stakeholder input is required and that it requires stakeholders to take a holistic view of the future energy system and how the extension rules fit within that system. However, the Scoping Memo's schedule only permits stakeholders a short period of time to provide this input, which the Joint Utilities believe is insufficient for stakeholders to provide thoughtful comments on the Staff Proposal and responses to the questions raised in Appendix B. To accomplish this, the Joint Utilities propose that the Commission hold at least one workshop for the study and analysis of the issues presented in the Staff Proposal. This would allow stakeholders to provide the Commission with necessary data and information to make the findings required by Pub. Util. Code §783.

a. The economic effect of the line and service extension terms and conditions upon agriculture, residential housing, mobile home parks, rural customers, urban customers, employment, and commercial and industrial building and development.

Joint Utilities' Response: The Joint Utilities respectfully request for the Commission to evaluate the economic impacts of Staff's Proposal on each of the specific sectors required by Pub. Util. Code §783(b)(a). The Joint Utilities agree with the Staff Proposal's observation that "[o]ne significant issue that should also be considered is the economic effect on the affordable

[63] Senate Bill 48, Chapter 1229 (Cal. Stat. 1983), Section 1(h).

housing sector, low-income customers, and disadvantaged communities."[64] Please see the Joint Utilities' Response to Question 2.c. above.

b. The effect of requiring new or existing customers applying for an extension to an electrical or gas corporation to provide transmission or distribution facilities for other customers who will apply to receive line and service extensions in the future.

Joint Utilities' Response: The Joint Utilities do not have additional information to provide on this issue at this time. Per Pub. Util. Code §783, the Joint Utilities urge the Commission to seek additional feedback on these effects through workshops.

c. The effect of requiring a new or existing customer applying for an extension to an electrical or gas corporation to be responsible for the distribution of, reinforcements of, relocations of, or additions to that gas or electrical corporation.

Joint Utilities' Response: The Joint Utilities do not have additional information to provide on this issue at this time. Per Pub. Util. Code §783, the Joint Utilities urge the Commission to seek additional feedback on these effects through workshops.

d. The economic effect of the terms and conditions upon projects, including redevelopment projects, funded or sponsored by cities, counties, or districts.

Joint Utilities' Response: The Joint Utilities do not have additional information to provide on this issue at this time. Per Pub. Util. Code §783, the Joint Utilities urge the Commission to seek additional feedback on these effects through workshops.

e. The effect of the line and service extension regulations, and any modifications to them, on existing ratepayers.

PG&E's Response: Please see PG&E's Response to Question 2.a.

SDG&E's and SoCalGas' Response: SDG&E and SoCalGas respectfully request for the Commission to evaluate the impacts of Staff's Proposal on existing ratepayers. Additionally, please see SDG&E and SoCalGas Response to Question 6.a.

[64] R. 19-01-011, at 33.

f. The effect of the line and service extension regulations, and any modifications to them, on the consumption and conservation of energy.

PG&E's Response: The energy impacts of an elimination of gas allowances, discounts, and refunds will depend largely on the customer end use served. Standard electric heat pump technology can be up to 2 to 3 times more energy efficient than gas alternatives. This is reinforced by the recent California Title 24 Part 6 update that included a shift to baseline assumptions of heat pumps for space and water heating, as well as the prevalence of a number of new incentive statewide and individual utility implemented programs that incentivize space and water heating products. There is less certainty around energy and cost savings associated with a change from gas to electricity for cooking, laundry, or specialized end uses. In addition to consumption and the conservation of energy, PG&E urges the Commission to look at the carbon and cost impacts of the elimination of gas allowances, discounts, and refunds. PG&E has opined on those subjects throughout these Opening Comments, but believes the three factors are intertwined such that they can not, and should not, be considered in isolation.

SDG&E's and SoCalGas' Response: The thermal needs of buildings, as the primary impetus for emissions, are largely clear and straightforward but reducing building emissions is complicated, particularly in consideration of consumer impacts and regulatory constructs. A sizable portion of building emissions, and the majority of emissions from natural gas combustion, result from market participant choices by non-core and/or larger core customers. As a common carrier, SDG&E's and SoCalGas' primary business is to provide non-discriminatory fuel transportation services to those who request it. Larger customers, including some core customers, are free to procure their own fuel and have it delivered by the States' gas utilities. This foundational market design element has significant regulatory jurisdictional implications to building decarbonization strategies. Such jurisdictional parameters suggest that the process for reducing these customer emissions should focus on optimizing gas planning and infrastructure to enable customers to reduce their emissions to comply with the limits they may be subject to.

Further consideration must also be given to the proliferation of diesel backup generators (BUGs) which are likely to offset the benefits of the proposed strategy on an episodic basis due to the increasing episodic emissions that result.[65] The trendline indicates that more electrification results in more diesel and fossil-fired back up generation. South Coast AQMD estimates that in 2019, diesel BUGs emitted approximately 6 tons of NOx during a PSPS event,[66] meaning that such emissions should be expected to increase in the future. Considering the inordinate and regressive cost burden such proposed measure will impose, it is critical for the Commission to carefully and empirically assess emissions impacts. It is in the public interest to weigh costs and benefits of policies that result in a proliferation of backup generation to assure reliable electricity. The growing reliance on these higher-emitting generators undermines efforts made by the State regarding climate change mitigation, energy affordability, equity, air quality attainment requirements, and reliability on clean energy resources.

In fact, according to an analysis conducted by Bloom Energy and PowerOutage.us, from 2017 to 2019, there were 50,000 significant blackout events in California that affected 51 million customers.[67] Utility initiated "de-energization" events (i.e. Public Safety Power Shutoffs), while on the rise, were only a small fraction of outages recorded during this time period.[68] The study also notes that: "Among California's 25 largest cities, San Bernardino—which had 1,208 blackout events affecting the equivalent of 1.4 million utility customers—experienced the most blackouts on a per capita basis. Using customers impacted, divided by population as a rough approximation of how many times a typical resident experienced a blackout, the average person in San Bernardino experienced more than 6 outages … Los Angeles alone accounted for 5,787

[65] "New Study Shows a Rapid Increase of Diesel-Fueled backup Generators Across California," Businesswire, October 6, 2021. Available at https://www.businesswire.com/news/home/20211006005088/en/New-Study-Shows-a-Rapid-Increase-of-Diesel-Fueled-Backup-Generators-Across-California.

[66] *See* South Coast AQMD, "Legislative Update Presentation by Philip Crabbe to the Environmental Justice Community Partnership Advisory Council", September 2, 2020. Available at http://www.aqmd.gov/home/news-events/webcast/live-webcast?ms=0U9KfvvcV3w

[67] *See Bloom Energy,* "California Power Outage Map", available at https://www.bloomenergy.com/bloom-energy-outage-map/

[68] Id.

blackout events affecting the equivalent of 6.4 million utility customers."[69] It has been estimated that a single blackout event in October 2019 incurred over $2 billion in costs to small commercial and industrial businesses [70]

In response to the need for reliable power, diesel-fired generation is growing at a rapid pace in the State with enough capacity to power 15 percent of the electric grid.[71] Per the California Air Resources Board (CARB), "[the] demand for reliable back-up power has health impacts of its own. Of particular concern are health effects related to emissions from diesel back-up engines. Diesel particulate matter (DPM) has been identified as a toxic air contaminant, composed of carbon particles and numerous organic compounds, including over forty known cancer-causing organic substances. The majority of DPM is small enough to be inhaled deep into the lungs and make them more susceptible to injury."[72] According to the Mount Sinai Selikoff Center for Occupational Health, long-term exposure to diesel exhaust can cause the worsening of existing lung conditions, such as asthma.[73] The increase in diesel generation statewide is troublesome, as the generators tend to be located near public spaces, such as schools and workplaces.[74] Even more concerning is that many of the diesel generators are located within disadvantaged communities and can potentially burden these residents with high levels of carcinogenic pollutants.[75] For example, nearly one million people were affected by a Public

[69] Id.

[70] Id.

[71] "The Diesel-Fired California Dream," California Energy Markets, October 8, 2021, No. 1662. Available at https://www.newsdata.com/california_energy_markets/bottom_lines/the-diesel-fired-california-dream/article_f65b1070-2876-11ec-b3f1-f3ef2c8a4076.html.

[72] *See* Use of Back-up Engines for Electricity Generation During Public Safety Power Shutoff Events, California Air Resources Board

[73] *See* Mount Sinai Selikoff Centers for Occupational Health, Diesel Exhaust Exposure, Available at https://www.mountsinai.org/files/MSHealth/Assets/HS/Patient%20Care/Service-Areas/Occupational%20Medicine/Diesel%20Exhaust%20Exposure.pdf

[74] *See* M. Cubed, "Diesel Back-Up Generator Population Grows Rapidly in the Bay Area and Southern California,"Available at https://www.bloomenergy.com/wp-content/uploads/diesel-back-up-generator-population-grows-rapidly.pdf.

[75] Id.

Safety Power Shutoff (PSPS) event in October 2019 and utilized 125,000 diesel backup generators (BUGs) for electrical power.[76] CARB estimated that diesel BUGs used during this time emitted 9 tons of diesel soot, which is the equivalent of about 29,000 heavy-duty diesel trucks driving on California's roadways for one month.

According to a recent analysis, there are 14,800 BUGs capable of generating 7.3 GW of power in the South Coast Air Basin.[77] Since April 1, 2020, the South Coast Air Quality Management District (South Coast AQMD) has seen a 22 percent increase (3,331 units) in permitted BUGs, with diesel-fired units representing over 85 percent of newly permitted units.[78] As seen in Figure 3 (below), an overwhelming majority of BUGs are in environmentally and economic burdened communities highlighted in red and orange, especially in Los Angeles, San Bernardino, and Riverside. Whereas, over the last three years in the Bay Area Air Quality Management District (BAAQMD), backup generation of all types has increased by approximately 34 percent, with most of these generators relying on diesel for power.[79]

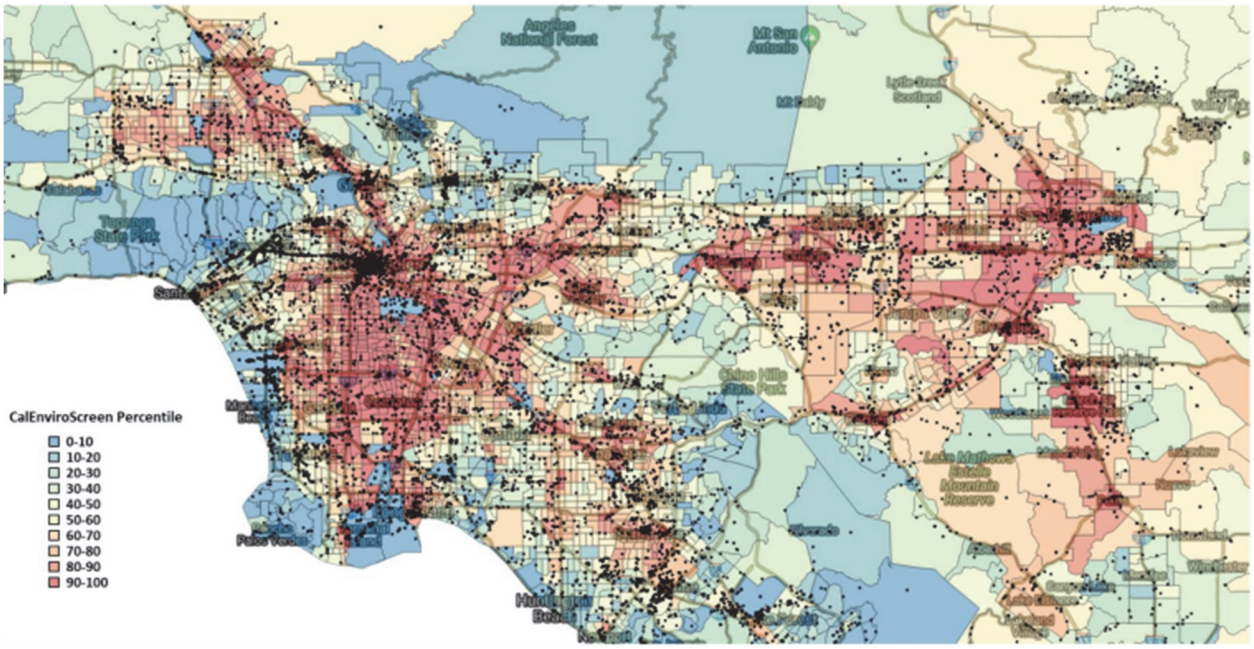
[76] *See* California Air Resources Board, "Emission Impact: Additional Generator Usage Associated with Power Outage," January 30, 2020. Available at https://ww2.arb.ca.gov/sites/default/files/2020-01/Emissions_Inventory_Generator_Demand%20Usage_During_Power_Outage_01_30_20.pdf.

[77] *See M. Cubed, "*Diesel Back-Up Generator Population Grows Rapidly in the Bay Area and Southern California," Available at https://www.bloomenergy.com/wp-content/uploads/diesel-back-up-generator-population-grows-rapidly.pdf.

[78] Id.

[79] *Ibid.*

Figure 3: South Coast AQMD Backup Generators (BUGs)[80]



g. The extent to which there is cost-justification for a special line and service extension allowance for agriculture.

Joint Utilities' Response: The Joint Utilities do not have additional information to provide on this issue at this time. Per Pub. Util. Code §783, the Joint Utilities urge the Commission to seek additional feedback on this requirement through workshops.

9. What other issues and/or factors should the Commission consider in determining whether or not to adopt the Staff Proposal?

PG&E's Response: As stated above in response to Question 2.a., PG&E recommends that the Commission consider a phasing in of any modifications adopted to existing rules for gas line extension allowances, discounts, and refunds.

[80] Id.

SDG&E's and SoCalGas' Response: The Commission should consider how allowances can help customers and communities increase resilience, as underground gas networks are less susceptible to extreme weather.[81]

III. CONCLUSION

The Joint Utilities appreciate the opportunity to provide these opening comments on the Staff Proposal regarding modification of gas line extension allowances, discounts, and refunds to support California's climate goals. The Staff Proposal to eliminate these allowances, refunds, and discounts is a significant policy change that requires a thorough examination of the impact to new and existing ratepayers as well as California's economy. As such, pursuant to Pub. Util. Code §783, before adopting any modifications of gas line allowances, discounts and refunds, the Joint Utilities urge the Commission to conduct additional workshops and gather input from relevant stakeholders, particularly those that will be most affected by the proposed rule change, in order to fully study the impacts of the Staff Proposal and make the findings required by law.

Respectfully Submitted,

By: _____/s/_____
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Attorney for
PACIFIC GAS AND ELECTRIC COMPANY

Dated: December 20, 2021

[81] https://www.socalgas.com/1443742022576/SoCalGas-Case-Studies.pdf

VERIFICATION

I have read the foregoing Opening Comments of Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Gas Company on the Phase III Staff Proposal and know its contents.

I am an officer, to wit, Senior Vice President of Energy Policy and Procurement at PACIFIC GAS AND ELECTRIC COMPANY, party to this action, authorized to make this verification for and on its behalf, and I make this verification for that reason. The matters stated in the foregoing document, that are attributable to PACIFIC GAS AND ELECTRIC COMPANY, are true of my own knowledge, except as to those matters which are stated on information and belief, and as to those matters, I believe them to be true.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on December 20, 2021 at San Francisco, California.

/s/

Fong Wan
Pacific Gas and Electric Company
Senior Vice President of Energy Policy and Procurement

VERIFICATION

I, Daniel F. Skopec, declare the following:

I am an officer of San Diego Gas & Electric Company and Southern California Gas Company and am authorized to make this verification on their behalf. I am informed and believe that the matters stated in the foregoing Opening Comments of Pacific Gas and Electric, San Diego Gas & Electric Company, and Southern California Gas Company on the Phase III Staff Proposal that are attributable to San Diego Gas & Electric Company and/or Southern California Gas Company are true to my own knowledge, except as to matters which are therein stated on information and belief, and as to those matters I believe them to be true.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 20th day of December, 2020 at San Diego, California.

/s/

Daniel F. Skopec
Senior Vice President
State Government Affairs and Chief Regulatory Officer
San Diego Gas & Electric Company
Southern California Gas Company