Docket	:	A.24-11-007
Exhibit Number	:	_____
Commissioner	:	Alice Reynolds
Admin Law Judge	:	Manisha Lakhanpal
	:	Garrett Toy
Witnesses	:	J. Roschen, E. Rodriguez,
	:	R. Dersch, S. Kwatra

PUBLIC ADVOCATES OFFICE
CALIFORNIA PUBLIC UTILITIES COMMISSION

PREPARED TESTIMONY ON THE APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY FOR APPROVAL OF ELECTRIC RULE NO. 30 FOR TRANSMISSION-LEVEL RETAIL ELECTRIC SERVICE

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EXECUTIVE SUMMARY (Rodriguez)

Pacific Gas and Electric Company (PG&E) requests approval of a new Electric Rule to establish a new process for transmission-level customer interconnection (Proposed Rule 30).[1] Currently, PG&E uses Electric Rules 15 and 16 (Existing Rules) to interconnect transmission-level customers, sometimes with modified form agreements. As emerging energy-intensive transmission-level customers such as data centers[2] place increasing demand on the electric grid, a refined approach would assist with managing these customers' interconnection. However, PG&E's proposed framework inadequately protects ratepayers[3] from substantial financial risks posed by transmission-level customers and fails to appropriately allocate infrastructure upgrade costs based on cost causation principles.

PG&E asserts without support that Proposed Rule 30 will provide rate benefits for existing customers. PG&E relies on highly speculative assumptions about load materialization, revenue recovery, and transmission upgrade costs. PG&E's projections fundamentally underestimate the risks that ratepayers will bear if transmission-level customers fail to materialize as expected or if transmission upgrade costs exceed projections. PG&E's Proposed Rule 30 allows substantial capital investments needed to serve transmission-level customers to be passed through to all ratepayers. Without

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[1] Application (A.) 24-11-007, *Application of Pacific Gas and Electric Company (U39E) for Approval of Electric Rule No. 30 for Transmission-Level Retail Electric Service* (Application), November 21, 2024, also referred to as "Proposed Rule 30 Proceeding."

[2] Data centers, in this case, are "a physical room, building or facility that houses IT infrastructure for building, running and delivering applications and services. It also stores and manages the data associated with those applications and service…Many of the largest [data centers]—called hyperscale data centers—are run by major cloud service providers such as Amazon Web Services, Google, and Microsoft. Hyperscale data centers are larger than traditional data centers and can cover millions of square feet. They typically contain at least 5,000 servers and they can sometimes be as large as 60,000 square feet. Cloud service providers typically maintain smaller, edge data centers located closer to cloud customers. Edge data centers form the foundation for…real-time, data-intensive workloads like big data analytics, artificial intelligence, machine learning and content delivery." See Susnjara, Stephanie, *What is a data center?*, IBM, available at: https://www.ibm.com/think/topics/data-centers.

[3] Cal Advocates uses the terms "transmission-level customer", "large-load customer", and "Applicant" in its Testimony to refer to customers seeking or receiving transmission-level retail service from PG&E. Unless otherwise noted, Cal Advocates uses the term "ratepayer" in its Testimony to refer to all other ratepayers in PG&E's service territory.

meaningful modifications, Proposed Rule 30 would establish a framework that fails to adequately protect ratepayers, socialize financial risks, and violates basic regulatory principles of fair cost allocation.

The Commission should not adopt PG&E's Proposed Rule 30 unless the following modifications are made:

- **Align Customer Refunds with Contributions:** Modify the Base Annual Revenue Calculation (BARC) method to cap customers' annual refunds at the net revenue provided by the customer in that year.
- **Eliminate Interest on Refunds:** Remove interest payments on customer advances, or if allowed, ensure such interest is not included in PG&E's rate base.
- **Impose Minimum Demand Charges and Minimum Contract Term Lengths for Data Center Customers:** Require data centers to commit to 15-year service contracts, pay minimum demand charges based on 90% of requested capacity, and face early termination fees to ensure long-term cost recovery.
- **Large Load Task Force (LLTF) Recommendations:** Require PG&E to submit the final LLTF whitepaper to the Commission for review by parties and the Commission**.**
- **Retain Commission Oversight:** Require PG&E to submit Tier 2 Advice Letters for transmission-level service requests over 200 MW or at voltages greater than 230 kilovolts (kV), and for any customer-provided prefunding loans.
- **Strengthen Reporting Requirements:** Require PG&E to provide biannual reports on interconnection costs and customers' actual loads and revenues, to enable ongoing cost-tracking by the Commission.
- **Remove Unnecessary PG&E Discretion:** Eliminate vague or unilateral authority granted to PG&E in Proposed Rule 30 to ensure fair and consistent application of the Rule.

I. INTRODUCTION (Roschen)

On November 21, 2024, Pacific Gas and Electric Company (PG&E) filed Application (A.) 24-11-007 (Application) to request the California Public Utilities Commission (Commission) approve its proposed Electric Rule No. 30 (Proposed Rule 30). PG&E's Proposed Rule 30 would implement a new process to provide retail electric service to large-load customers at transmission-level voltages above 50 kilovolts (kV) (i.e., transmission-level customers).[4, 5] This Testimony presents the analyses and recommendations of the Public Advocates Office at the Public Utilities Commission (Cal Advocates) regarding Proposed Rule 30.

Cal Advocates supports establishing new provisions to address the unique challenges of interconnecting customers seeking retail electric service at the transmission level, provided that they include adequate protections for all other ratepayers.[6] However, under Proposed Rule 30, ratepayers will bear substantial costs for the transmission upgrades built to serve these large-load customers.[7] PG&E's Application as proposed fails to adequately shield ratepayers from the risk of increased bills that could occur should large-load customers utilize PG&E's Proposed Rule 30. Unless modifications to Proposed Rule 30 can adequately address ratepayer risks, Cal Advocates does not support the Commission's adoption of Proposed Rule 30 in whole or in part.

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[4] Application (A.) 24-11-007, *Application of Pacific Gas and Electric Company (U39E) for Approval of Electric Rule No. 30 for Transmission-Level Retail Electric Service* (Application), November 21, 2024, also referred to as "Proposed Rule 30 Proceeding."

[5] A.24-11-007, *Application of Pacific Gas and Electric Company (U39E) for Approval of Electric Rule No. 30 for Transmission-Level Retail Electric Service Supplemental Testimony* (Supplemental Testimony), March 21, 2025, including Attachment A (Proposed Rule 30) and Attachment B (Proposed Form Agreement).

[6] Cal Advocates uses the terms "transmission-level customer," "large-load customer," and "Applicant" in its Testimony to refer to customers seeking or receiving transmission-level retail service from PG&E. Unless otherwise noted, Cal Advocates uses the term "ratepayer" in its Testimony to refer to all other ratepayers in PG&E's service territory.

[7] Supplemental Testimony at 5, lines 4-6.

Proposed Rule 30 comes at a time of significant uncertainty regarding the scale, timing, and nature of emerging large-loads, particularly data centers.[8] At this point, PG&E is unable to provide credible forecasts on how many Applicants[9] requesting transmission-level service from PG&E will ultimately take service. Of those transmission-level customers who do interconnect, Proposed Rule 30 is unlikely to ensure adequate cost recovery from the customers. Inadequate cost recovery methods will result in revenue shortfalls, with unrecovered costs passed through to ratepayers. In addition, ratepayers will likely be impacted by downstream costs of the grid connection, such as generation and reliability costs.

The cost of large-load interconnection requests is simply too great to justify approving rules without ratepayer protection. Instead, the Commission should ensure that any new rule will mitigate the financial risks presented by emerging large-loads. Even while interconnection and operational standards for emerging large-loads are undeveloped at a national level,[10] it is prudent for the Commission to fully address the impacts of large transmission-level loads on the grid through this proceeding.

Under the current process in Electric Rules 15 and 16 (Existing Rules), ratepayers are exposed to financial risk because transmission-level customers are interconnected through distribution agreements and non-standardized exceptional case agreements.

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[8] Data centers, in this case, are "a physical room, building or facility that houses IT infrastructure for building, running and delivering applications and services. It also stores and manages the data associated with those applications and service…Many of the largest [data centers]—called hyperscale data centers—are run by major cloud service providers such as Amazon Web Services, Google, and Microsoft. Hyperscale data centers are larger than traditional data centers and can cover millions of square feet. They typically contain at least 5,000 servers and they can sometimes be as large as 60,000 square feet. Cloud service providers typically maintain smaller, edge data centers located closer to cloud customers. Edge data centers form the foundation for…real-time, data-intensive workloads like big data analytics, artificial intelligence, machine learning and content delivery." See Susnjara, Stephanie, *What is a data center?*, IBM, available at: https://www.ibm.com/think/topics/data-centers.

[9] Cal Advocates uses Applicant as it is defined in Supplemental Testimony, Attachment A at A-15 ("APPLICANT: A person, entity, or agency requesting PG&E to provide Retail Service at transmission voltages from 50 kV up to and including 230 kV. An Applicant may also be referred to as Interconnection Customer.").

[10] Ongoing proceeding at the Federal Energy Regulatory Commission (FERC)*: PJM Interconnection, et al.*, 190 FERC ¶ 61,115 (2025). Ongoing Large Loads Task Force "LLTF" at the North American Electric Reliability Corporation: https://www.nerc.com/comm/RSTC/Pages/LLTF.aspx.

PG&E's Proposed Rule 30 does not mitigate the potential for ratepayer harm from large-load interconnections. It exposes ratepayers to significant risk of subsidizing costly transmission infrastructure for large-load customers and unreasonably limits the Commission's oversight to prevent that risk. Proposed Rule 30 contains multiple deficiencies that, if left unaddressed, may result in higher electricity bills for ratepayers.

Cal Advocates proposes targeted modifications to address the deficiencies of Proposed Rule 30. These changes are essential to ensure that Proposed Rule 30 does not leave ratepayers vulnerable to additional bill increases.

Cal Advocates' Testimony provides analysis on significant ratepayer concerns regarding transmission-level customer interconnections, summarized in Table 1, and set forth in the Assigned Commissioner's Scoping Memo and Ruling (Scoping Memo).[11]

Table 1: Cal Advocates' identification of issues based on the Scoping Memo.[12]

Scoping Memo Issue Items Addressed in Cal Advocates' Testimony	Subsections to Section III
Issue 1, and 1.a: Reasonableness.	A.1-3, D.1-2
Issue 2: Jurisdiction, Statues, and Decisions.	D.2
Issue 3.a-k: Rates, Cost Causation, and Allocation.	A.1-4, B.1-6, C.1-3, D.2
Issue 4.a: Reporting.	E
Issue 5.b: Accounting and operational reporting process.	E

II. SUMMARY OF RECOMMENDATIONS (Roschen)

The Commission should modify PG&E's Proposed Rule 30 to include protections that prevent existing ratepayers from shouldering the financial risks created by new large-

[11] A.24-11-007, *Assigned Commissioner's Scoping Memo and Ruling on Pacific Gas and Electric Company's Request to Implement a New Electric Rule 30 Tariff* (Scoping Memo), March 11, 2025.

[12] Cal Advocates' Testimony does not address Scoping Memo Issue Items 2.a-b on Jurisdiction, Statutes, and Decisions; Item 3.b on information-sharing requirements; Items 5.a, c-d on accounting and operational reporting process; and Issue 6 on Implementation. At the time of writing, Cal Advocates does not identify these issues as raising significant concern notwithstanding further information, proceeding developments, or stakeholder input.

loads. Cal Advocates' recommendations, summarized in Table 2, address the deficiencies of Proposed Rule 30.

Table 2: Summary of Cal Advocates' Recommendations

Cal Advocates' Recommendations for Proposed Rule 30	Testimony Section
1. PG&E should submit the final Large Load Task Force (LLTF) whitepaper by advice letter if it is issued after a final decision.	A.4
2. PG&E should slow refunds through a "Revenue Cap" process, which includes: • Annual refunds based on transmission-level customer revenues, • Monthly charges for underutilized assets, • Actual meter usage data.	B.3, B.4, B.5
3. Interest should not be paid on refunds, or in the alternative, be ineligible for a rate-of-return, to prevent charging ratepayers for costs unrelated to maintaining and operating transmission facilities.	B.6
4. Data centers should be subject to unique rules to ensure fair and consistent long-term cost recovery, including the following measures: • 15-year minimum contract terms, • Early termination fees, • 90% minimum demand charges.	C.1, C.2, C.3
5. Proposed Rule 30 should retain Commission oversight, match existing electrical interconnection rules, and remove unreasonable discretion given to PG&E.	D.1, D.2
6. The Commission should require PG&E to submit Tier 2 Advice Letters for customer interconnection requests of greater than 200 megawatt (MW) or at voltages over 230 kilovolt (kV).	E.1

Cal Advocates' Recommendations for Proposed Rule 30	Testimony Section
7. PG&E should be required to provide biannual reports to the Commission on ongoing transmission-level service interconnection requests, preliminary engineering studies, grid upgrade costs, and monthly customer revenues. The Commission should use this information to assess whether transmission-level customers' payments are commensurate with the costs PG&E incurs to serve them and impose true-up measures in PG&E's General Rate Cases or other forums.	E.1

III. DISCUSSION

A. PG&E's Claimed Ratepayer Benefits Are Highly Speculative and Ignore Financial Risk. (Scoping Memo Issue Item 1 and Issue Item 3.k) (Rodriguez)

In its Application, PG&E asserts that "Electric Rule 30 may provide substantial rate benefits for existing customers and lower monthly customer bills."[13] Specifically, PG&E claims that "under certain scenarios existing electric customers could see approximately $1,600 in total savings over a 10-year period of time."[14, 15] However, the "certain scenarios" under which new transmission-level customers will deliver bill benefits to ratepayers are unlikely. On the contrary, transmission-level customers interconnected under Proposed Rule 30 could increase electric bills for ratepayers.

PG&E's argument that transmission-level customers can deliver bills benefits assumes that revenues generated from new transmission-level customers will exceed the

[13] Application at 13.

[14] Application at 13.

[15] The estimated average savings for residential electric ratepayers was later revised to $3,000 over a 10-year period. See Supplemental Testimony at 34, line 20.

cost of the Transmission Facilities[16] built to serve them.[17] However, this assumption is imprudent and overly optimistic. Many transmission-level customers will directly trigger major infrastructure upgrades, including Transmission Network Upgrades (Facility Type 4),[18] which involve large upfront investments and recovery timelines of multiple decades. These investments in Transmission Network Upgrades often total hundreds of millions of dollars.[19] If transmission-level customers terminate service, reduce load significantly, or fail to meet usage projections, PG&E's Proposed Rule 30 would allow it to seek recovery of the fixed costs of the underutilized Transmission Network Upgrades from ratepayers. The risk of stranded costs from underutilized Transmission Network Upgrades is especially significant given that data centers, which comprise most interconnection requests in PG&E's queue, represent a particularly uncertain customer type (see Section A.3).

Proposed Rule 30 does not fully address the risks that transmission-level customers could raise ratepayer bills. PG&E's Proposed Rule 30 fails to ensure transmission-level customers sustain sufficient load and take service long enough to generate the revenues needed to cover the cost of Transmission Facilities built to serve them (see Section A.2). Nor does it adequately remediate the risk of overbuilding Transmission Facilities for loads that do not materialize (see Section A.3). As a result, PG&E's proposal inadequately mitigates the substantial risk that the costs of Transmission Facilities triggered by new transmission-level customers will be unjustly passed through to residential and small business ratepayers.

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[16] Supplemental Testimony, Attachment A at A-18 ("TRANSMISSION FACILITIES: All facilities including Transmission Service Facilities, Transmission Interconnection Upgrades, Transmission Interconnection Network Upgrades, and/or Transmission Network Upgrades to furnish Retail Service to non-residential Applications seeking Retail Service."); see also Supplemental Testimony, Attachment A at A-6 ("Illustrative Diagram of Transmission Facility Types.").

[17] Supplemental Testimony, Workpaper 2.

[18] Supplemental Testimony, Attachment A at A-19 ("TRANSMISSION NETWORK UPGRADES: Upgrades to PG&E's existing transmission facilities (>50 kV) to mitigate any adverse impact and provide Applicant with adequate electric service to the CAISO controlled grid.").

[19] See Section A.3.

As discussed below, PG&E ignores historical precedent and independent analysis on the impact of large loads on customer bills (Section A.1), discounts the inherent uncertainty of data center loads (Section A.2), and likely underestimates the cost impacts of Transmission Network Upgrades on ratepayers (Section A.3).

1. Ratepayer Bills May Increase Because of Transmission-level Service Customers. (Rodriguez)

PG&E claims that new transmission-level customers will reduce ratepayers' bills.[20] However, historical precedent and growing analysis directly contradict these claims and show that new transmission-level customers may instead increase ratepayers' bills.

Regions with rapid data center and industrial growth such as the PJM[21] area (spanning 13 Mid-Atlantic states) demonstrate that, rather than lowering bills, new capacity needs and grid upgrades have led to higher rates.[22], [23] In these areas, capacity prices have risen sharply because of electric demand outpacing supply. As a result, capacity costs are passed on to customers.[24]

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[20] Application at 13.

[21] PJM Interconnection LLC is the regional transmission organization that covers 61 million people in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. See PJM Learning Center, *Where We Operate*, available at: https://learn.pjm.com/who-is-pjm/where-we-operate.

[22] "Data centers have had a particularly strong impact on Northern Virginia: More than half of all the nation's energy consumption attributed to data centers occurs in the state-mostly in Northern Virginia…Capacity market prices in the last auction nearly doubled across the PJM region and by more than 14 times in Virginia…Billions of dollars of new investment in generation and transmission capacity will be needed to restore a healthy reserve margin and to recover the portion of reserve capacity that has been consumed by data centers. We estimate that failing to make such investments in a timely manner would force regulators to acquiesce to rate increases of as much as 70 percent in the next decade in order to ensure that the grid functions properly and provides energy to all users." Brannon, Ike and Wolf, Samuel, *The Impact of Data Centers on Energy Demand and Market Prices* (Nov. 11, 2024), at 1, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5017484.

[23] Howland, Ethan, *PJM capacity auction to lead to double-digit rate hikes for Exelon utilities: CFO*, Utility Dive (Aug. 2, 2024), available at: https://www.utilitydive.com/news/exelon-pjm-capacity-auction-bge-talen-data-center/723163/.

[24] "PJM…is projecting unprecedented growth in electricity demand. This is primarily due to new data center loads (data center loads make up 70 percent of projected load growth in PJM). Meanwhile, there are considerable challenges to bringing online new generation resources in the region. These dynamics

Furthermore, expert analysis suggests that, while a downward pressure on rates is theoretically possible under specific conditions, new large-load customers will likely increase costs for ratepayers unless special rate structures or cost allocation measures are put in place.[25], [26]

- A report prepared by the Virginia Joint Legislative Audit and Review Commission (JLARC) for the Virginia State Corporation Commission found that, while data center customers in Virginia are currently paying full cost of service, growing energy demand is likely to increase costs for other customers.[27] Virginia utilities are expected to increase generation and transmission investment from $10 billion to $18 billion by 2040, mostly because of data center demands.[28] A large portion of the capital investments associated with new infrastructure would be billed to non-data center

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are leading to an imbalance in electricity demand and supply in PJM, which is driving up capacity market prices and increasing costs to electricity customers." Chavin, Sabine, et. al, *Tackling the PJM Electricity Cost Crisis: An Analysis of the Benefits of PJM Interconnection Reform,* Synapse Energy Economics, Inc. (April 15, 2025), at 6, available at: https://www.synapse-energy.com/sites/default/files/Evergreen%20PJM%20Queue%20Report%204.10.25_%20final%2024-145.pdf.

[25] "Not all electrification scenarios result in downward pressure on rates…Our 2023 Distribution Grid Electrification Model report outlined several factors that could hinder the achievement of downward pressure on rates. These challenges primarily stem from costs to support new load being higher than necessary, as illustrated in Example D. For instance:

- Overbuilt Infrastructure: Utilities constructing unnecessary grid infrastructure or building grid infrastructure in suboptimal locations….
- Unrealized Load Growth: Investments made for anticipated load that doesn't materialize, leaving ratepayers to cover stranded costs."

See Khoe, Richard, *Understanding Electrification and Downward Pressure on Rates*, The Public Advocates Office (Jan. 31, 2025), available at: https://www.publicadvocates.cpuc.ca.gov/press-room/commentary/250131-downward-pressure-on-rates.

[26] "Based on our review of nearly 50 regulatory proceedings about data centers' rates…we are skeptical of utility claims that data center energy costs are isolated from other consumers' bills. After describing the rate mechanisms that shift utility costs among ratepayers, we explain how both existing and new rate structures, as well as secret contracts, could be transferring Big Tech's energy costs to the public." Martin, Eliza and Peskoe, Ari, *Extracting Profits from the Public: How Utility Ratepayers Are Paying for Bing Tech's Power*, Environmental and Energy Law Program Harvard Law School (March 2025), at 3, available at: https://eelp.law.harvard.edu/wp-content/uploads/2025/03/Harvard-ELI-Extracting-Profits-from-the-Public.pdf.

[27] Virginia Joint Legislative Audit and Review Commission (Virginia JLARC), *Data Centers in Virginia* (Dec. 9, 2024), available at https://jlarc.virginia.gov/pdfs/presentations/Rpt598Pres-1.pdf.

[28] Virginia JLARC, *Data Centers in Virginia*, (Dec. 9, 2024), at 42, available at: https://jlarc.virginia.gov/pdfs/presentations/Rpt598Pres-1.pdf.

ratepayers. The report also notes that it will be difficult to provide enough energy supply to keep pace with growing demand, so energy prices could increase for all ratepayers.[29] As a result, typical monthly residential generation and transmission charges could increase by $7 to $23 in 2030 and by $14 to $37 in 2040.[30]

- An analysis from Bain and Company finds that funding the capital investments to serve data center growth over the next decade requires utilities in the United States to generate 10% to 19% in additional revenue each year than previously forecasted, which could increase customer bills by 1% annually through 2032.[31]
- A recent review of 20 large data centers customers by the energy consultancy group, Wood MacKenzie, found that in almost all cases, the revenues electric utilities recovered from data centers are insufficient to cover the cost of the transmission upgrades needed to serve them.[32] Ratepayers would cover the gap.
- The consulting firm, ICF, projects a roughly 70% increase in PG&E's rates from 2025 to 2050 driven by future load growth.[33]
- PG&E provides a hypothetical example of ratepayer benefits, whereby a transmission-level customer with load that fully ramps over the 10-year Refund Period[34] results in a net ratepayer bill

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[29] Virginia JLARC, *Data Centers in Virginia*, (Dec. 9, 2024), at 42, available at: https://jlarc.virginia.gov/pdfs/presentations/Rpt598Pres-1.pdf.

[30] "Typical monthly residential charges are the sum of the amount billed to Dominion Energy residential customers assuming typical use of 1,000 kWh. Dominion Energy is Virginia's largest electric utility and is responsible for providing generation and transmission to much of the state, including areas where most of the state's data center industry is concentrated." Virginia JLARC, *Data Centers in Virginia*, (Dec. 9, 2024), at 43, available at: https://jlarc.virginia.gov/pdfs/presentations/Rpt598Pres-1.pdf.

[31] Rouch, Maeghan et al., *Utilities Must Reinvent Themselves to Harness the AI-Driven Data Center Boom*, Bain & Company (Oct., 2024), available at: https://www.bain.com/insights/utilities-must-reinvent-themselves-to-harness-the-ai-driven-data-center-boom/.

[32] See Penn, Ivan, *Data Centers' Hunger for Energy Could Raise All Electric* Bills, The New York Times (May 16, 2025), available at: https://www.nytimes.com/2025/05/16/business/energy-environment/data-centers-utilities-electricity-bills.html.

[33] The ICF report considers load growth from data centers, building electrification, and EV charging and models rate increases based on PGE's E-TOU-D residential rate schedule. Batra, Lalit et al., *Rising current: America's growing electricity demand*, ICF (May 20, 2025), available at: https://www.icf.com/-/media/files/icf/reports/2025/energy-demand-report-icf-2025_report.pdf?rev=c87f111ab97f481a8fe3d3148a372f7f.

[34] Supplemental Testimony, Attachment A at A-17 ("REFUND PERIOD: The first full calendar year after the Transmission Facilities go into service and shall last for ten (10) years.").

benefit of $27.42 per ratepayer.[35] Cal Advocates performed analysis based on discovery from PG&E that if that same customer ceases operations in year 3, ratepayer bills will increase by $6.04 per ratepayer (See Section B.2).[36]

These findings directly contradict PG&E's central premise that new transmission-level customers interconnected under Proposed Rule 30 will generate net benefits for ratepayers. PG&E ratepayers already bear some of the highest rates in the country.[37], [38] The Commission must ensure that Proposed Rule 30, if approved, addresses the risks that Transmission Facilities built to serve new transmission-level customers may impose significant additional costs on PG&E ratepayers.

2. PG&E Ignores Risks Posed by the Inherent Uncertainty of Data Center Loads. (Rodriguez)

PG&E's Proposed Rule 30 ignores the substantial financial uncertainty and risk posed by data center load requests. Data centers comprise 75% of PG&E's transmission-level service requests[39] and [redacted],[40] but are characterized by distinctly speculative and uncertain future loads. This uncertainty is a problem because it

[35] Supplemental Testimony at 30-32.

[36] See Appendix D (10-year bill analysis).

[37] The Public Advocates Office at the California Public Utilities Commission, *Q1 2025 Electric Rates Report*, May 20, 2025, available at: https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/242005-public-advocates-office-q1-2025-rates-report.pdf.

[38] Electric Power Monthly, "Table 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Sector by State, March 2025 and 2024 (Cents per Kilowatt-hour)," U.S. Energy Information Agency, available at: https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a.

[39] Supplemental Testimony, Attachment A at A-15 ("APPLICANT: A person, entity, or agency requesting PG&E to provide Retail Service at transmission voltages from 50 kV up to and including 230 kV. An Applicant may also be referred to as Interconnection Customer.").

[40] Supplemental Testimony at 5, line 8. PG&E states that 75% of total transmission level service requests from 2023 and 2024 are from data center customers. A review of PG&E's transmission level service requests as of June 2, 2025, confirms that [redacted] of requests and [redacted] come from data centers. See Appendix C-1 at C-0003–C-0013 (PG&E Revised Supplemental Response to Cal Advocates Data Request No. 06, Question 03, served on June 2, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_ DR_CalAdvocates006-Q003Rev01Supp01Atch01CONF.xlsx*). These calculations include all [redacted] that PG&E [redacted] as of June 2, 2025. The [redacted] differs from the 75% figure in PG&E's Testimony because it includes [redacted].

could result in unnecessary infrastructure upgrades. If PG&E builds costly transmission upgrades for loads that do not materialize, the resulting shortfall in revenue will leave ratepayers to cover the cost of the underutilized assets. The following section explains why data centers pose unique financial risks that should be addressed through targeted safeguards in Proposed Rule 30.

a. Speculative data center interconnection requests may trigger oversized Transmission Network Upgrades.

Forecasted data center load growth is uncertain for several reasons. Recent coverage of data center interconnections highlights the systematic overestimation of load growth caused by speculative load interconnection requests or a tendency to "shop around."[41], [42], [43] The low barrier to entry for a customer to request interconnection allows companies to enter into duplicative interconnection requests across multiple service areas

[41] "Whether it shows up as several different load interconnection requests for one viable project or a single request for a half-baked opportunity, the result is a significant amount of "phantom" load that not only inflates demand projections across the country but also introduces material uncertainty and inefficiency into individual utilities' load interconnection processes." Freed, Peter and Clements, Allison, *How to reduce large load speculation? Standardize the interconnection process*, Utility Dive (Feb 19, 2025), available at: https://www.utilitydive.com/news/data-center-large-load-interconnection-process-clements/740272/.

[42] Martucci, Brian, *A fraction of proposed data centers will get built. Utilities are wising up*, Utility Dive (May 15, 2025), available at: https://www.utilitydive.com/news/a-fraction-of-proposed-data-centers-will-get-built-utilities-are-wising-up/748214

[43] "As companies race to secure their place in the booming data center market, they're flooding power providers with speculative, or "phantom," load requests — many of which will never materialize. As a result, utilities and grid operators are drowning in requests, and load queues are piling up so fast that they distort load growth forecasts and sow confusion throughout the industry." Giacobone, Bianca, *Phantom data centers are flooding the load queue*, Latitude Media, (March 26, 2025), available at: https://www.latitudemedia.com/news/phantom-data-centers-are-flooding-the-load-queue/.

to see which utility can offer service quickly and at the lowest rate.[44], [45], [46] Large data center customers like Microsoft, Amazon, and Google propose more projects than they need due to uncertainty around power availability and permitting at any given site.[47] Less sophisticated developers abandon proposed projects at a higher rate.[48] One expert estimates that interconnection requests are five to ten times more than the number of actual data centers that will be built.[49] A survey of 25 electric utilities found that all face challenges around incorporating data center into load forecasts given the speculative nature of the service requests.[50] Of PG&E's [redacted] formal transmission-level service requests from data centers between [redacted], at [redacted] have withdrawn

[44] Martucci, Brian, *A fraction of proposed data centers will get built. Utilities are wising up*, Utility Dive (May 15, 2025), available at: https://www.utilitydive.com/news/a-fraction-of-proposed-data-centers-will-get-built-utilities-are-wising-up/748214.

[45] "The prevalence of speculative load interconnection applications makes it increasingly difficult to distinguish credible customers from those submitting speculative requests. This issue arises due to a combination of factors that reduce the barriers to entry for prospective applicants, effectively allowing them to engage with the utility without significant consequences. In many cases, large load interconnection applicants face minimal or no financial commitments, lack site control, have limited financial credibility, submit redundant or duplicative applications, or are technologically unprepared." Elevate Energy Consulting, *Practical Guidance and Considerations for Large Load Interconnections*, GridLab (March 2025), available at: https://gridlab.org/wp-content/uploads/2025/03/GridLab-Report-Large-Loads-Interim-Report.pdf.

[46] Customers requesting transmission-level service from PG&E are only required to submit a $25,000 deposit which is a negligible fraction of the cost of financing a data center. See Appendix C-2 at C-0020–C-0023 (PG&E Response to Cal Advocates Data Request No. 01, Question 09, served on January 23, 2025).

[47] Martucci, Brian, *A fraction of proposed data centers will get built. Utilities are wising up*, Utility Dive (May 15, 2025), available at: https://www.utilitydive.com/news/a-fraction-of-proposed-data-centers-will-get-built-utilities-are-wising-up/748214.

[48] Martucci, Brian, *A fraction of proposed data centers will get built. Utilities are wising up*, Utility Dive (May 15, 2025), available at: https://www.utilitydive.com/news/a-fraction-of-proposed-data-centers-will-get-built-utilities-are-wising-up/748214.

[49] Martucci, Brian, *A fraction of proposed data centers will get built. Utilities are wising up*, Utility Dive (May 15, 2025), available at https://www.utilitydive.com/news/a-fraction-of-proposed-data-centers-will-get-built-utilities-are-wising-up/748214.

[50] Larson, D., *Utility Experiences and Trends Regarding Data Centers 2024 Survey*, EPRI (Sept. 2024), available at https://restservice.epri.com/publicdownload/000000003002030643/0/Product.

their application.[51] [52] The significant volume of speculative data center interconnection requests and [redacted] withdrawal [redacted] highlight the fundamental uncertainty around whether many of the applications in PG&E's queue will ultimately result in actual interconnections.

As a result of speculative interconnection requests, future demand forecasts from data centers vary widely. Current projections of added data center demand in the United States range from 9 to 52 gigawatts (GW) by 2030.[53] The California Energy Commission's (CEC) forecasts for data center loads in PG&E's territory also range widely, from approximately 1,600 MW to 2,700 MW in 2035.[54] These wide-ranging forecasts indicate the fundamental uncertainty in planning for data center loads.

The uncertainty around future data center demands is problematic because it can result in unnecessary infrastructure upgrades to serve new load that may not materialize. Speculative and duplicative interconnection requests across multiple utilities can lead utilities and state agencies to overestimate data center loads in demand forecasts. Current interconnection requests are used as primary input in the CEC's Integrated Energy Policy Report (IEPR) load forecasts[55] which then informs the California Independent System Operator's (CAISO) identification of needed Transmission Network Upgrades in its

[51] See Appendix C-3 at C-0026–C-0035 (PG&E Response to Cal Advocates Data Request No. 06, Question 03, served on April 10, 2025, at attachment *ElectricRule30-TransmissionLevelInterconnection_DR_CalAdvocates_006-Q003Atch01CONF.xlsx).*

[52] See Appendix C-1 at C-0003–C-0013 (PG&E Revised Supplemental Response to Cal Advocates Data Request No. 06, Question 03, served on June 2, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_ DR_CalAdvocates006-Q003Rev01Supp01Atch01CONF.xlsx*).

[53] Riu, Isabelle et al., *Load Growth Is Here to Stay, but Are Data Centers?: Strategically Managing the Challenges and Opportunities of Load Growth*, Energy and Environmental Economics, Inc. (July 2024), at 11, available at: https://www.ethree.com/wp-content/uploads/2024/07/E3-White-Paper-2024-Load-Growth-Is-Here-to-Stay-but-Are-Data-Centers-2.pdf.

[54] Chen, Jenny, *Data Center Forecast*, California Energy Commission (Dec. 23, 2024), available at: https://www.energy.ca.gov/sites/default/files/2024-12/Data_Center_Forecast_Update_ada.pdf.

[55] Chen, Jenny, *Data Center Forecast*, California Energy Commission (Dec. 23, 2024), available at: https://www.energy.ca.gov/sites/default/files/2024-12/Data_Center_Forecast_Update_ada.pdf.

Transmission Planning Process (TPP).[56] If forecasts overestimate demand, there is a high risk that PG&E will overbuild its system to serve a peak demand that may not materialize. In Supplemental Testimony, PG&E fails to acknowledge that various scenarios can result in stranded assets while addressing how Proposed Rule 30 protects ratepayers from financial risk (Scoping Memo Issue Item 3.k).[57] The fact that speculative interconnection requests pose risks of overbuilding is pertinent to how the Commission rules on PG&E's Application.

b. Data centers have demanding load characteristics and operational needs.

Data center customers pose unique financial risks compared to other large-load customers due to the nature of their operational needs. Data centers operate at very high energy intensities – using at least 10 to 40 times more energy per square foot than the typical office building.[58] High energy intensity creates significant localized demand and a likely increased need for concentrated and large-scale Transmission Facilities. PG&E's data centers seeking transmission-level service from PG&E average a [redacted] as compared to [redacted] for non-data center customers requesting transmission-level service.[59] Several recent data center applications request capacity of 500 MW to 1,000 MW at a single site.[60]

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[56] "The ISO's annual transmission planning process reliability assessment uses as inputs assumptions developed by the California Energy Commission's (CEC) energy demand forecast…. [T]he reliability analysis is based on the CEC's 2023 IEPR." CAISO 2024-2025 Transmission Plan (May 30, 2025), at 41, available at: https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/2024-2025-Transmission-planning-process.

[57] Supplemental Testimony at 54.

[58] U.S. Energy Information Administration, *2018 CBECS Data Center Pilot Result*, (May 2021) available at: https://www.eia.gov/consumption/commercial/data/2018/pdf/2018_CBECS_Data_Center_Pilot_Results.pdf .

[59] See Appendix C-1 at C-0003–C-0013 (PG&E Revised Supplemental Response to Cal Advocates Data Request No. 06, Question 03, served on June 2, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_006-Q003Rev01Supp01Atch01CONF.xlsx*).

[60] Kearney, Laila, *Biggest California utility sees more than 40% jump in data center interest, executive says,* Reuters, (May 28, 2025), available at: https://www.reuters.com/business/energy/biggest-california-utility-sees-more-than-40-jump-data-center-interest-executive-2025-05-27/.

Data centers also tend to cluster in certain areas due to access to land and fiber infrastructure.[61] [62] Of PG&E's [redacted] transmission-level service requests as of June 2, 2025, [redacted] (primarily data centers) [redacted].[63] Another [redacted].[64] Data center clusters further contribute to highly localized strain on the transmission system and require substantial Transmission Network Upgrades to reliably serve these new loads (see Section A.4). Currently, and under Proposed Rule 30, these Transmission Network Upgrades are unjustly socialized across all CAISO ratepayers.[65]

In addition to operating in concentrated areas and at very high energy intensities, data centers intend to operate 24 hours per day, 365 days per year with minimal tolerance for outages.[66] As a result, they require extremely high reliability and redundancy in power supply, further contributing to substantial Transmission Facilities. In Section G.X, Cal Advocates addresses recommendations to accommodate interconnection requests for redundant service.

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[61] Of PG&E's [redacted] transmission-level service requests as of June 2, 2025, [redacted]. See Appendix C-1 at C-0003–C-0013 (PG&E Revised Supplemental Response to Cal Advocates Data Request No. 06, Question 03, served on June 2, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_006-Q003Rev01Supp01Atch01CONF.xlsx)*.

[62] National Renewable Energy Laboratory, Data Center Infrastructure in the United States, 2025 (Map), available at: https://research-hub.nrel.gov/en/publications/data-center-infrastructure-in-the-united-states-2025-map.

[63] See Appendix C-1 at C-0003–C-0013 (PG&E Revised Supplemental Response to Cal Advocates Data Request No. 06, Question 03 served on June 2, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_006-Q003Rev01Supp01Atch01CONF.xlsx*).

[64] See Appendix C-1 at C-0003–C-0013 (PG&E Revised Supplemental Response to Cal Advocates Data Request No. 06, Question 03 served on June 2, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_006-Q003Rev01Supp01Atch01CONF.xlsx*).

[65] The Transmission Access Charge (TAC) socializes the cost of Transmission Network Upgrades across all CAISO customers.

[66] Southern California Edison Company, *Energy Management Solutions: Data Centers*, at 1, available at: https://www.sce.com/sites/default/files/inline-files/Data+Centers+IS+r2_WCAG.pdf.

c. Data centers may be more likely than other customers to terminate service or underutilize capacity.

After interconnecting, data centers may be more likely than other customer types to underutilize capacity or terminate service entirely. Unlike manufacturing facilities or institutional customers with established operational needs, data centers are subject to more uncertain market conditions and potential changes in efficiency.[67] Moody's highlights that the rapid pace of technological advancement and shifting enterprise needs are contributing to a growing risk that data centers may relocate or terminate service at specific sites.[68] As companies pursue newer, more advanced facilities, existing projects face potential obsolescence, increasing the likelihood of underutilization or early exit from previously committed load. The risk of lower-than-expected data center loads is not a hypothetical. In Texas, ERCOT[69] load forecasts for data centers are negatively adjusted to reflect that data centers energized between 2022 and 2024 have average actual loads 48.9% lower than the requested amounts.[70]

If approved, Proposed Rule 30 must mitigate the ratepayer risks from stranded assets in the case that data centers underutilize capacity or terminate service.

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[67] Riu, Isabelle et al., *Load Growth Is Here to Stay, but Are Data Centers?: Strategically Managing the Challenges and Opportunities of Load Growth*, Energy and Environmental Economics, Inc. (July 2024), at 11, available at: https://www.ethree.com/wp-content/uploads/2024/07/E3-White-Paper-2024-Load-Growth-Is-Here-to-Stay-but-Are-Data-Centers-2.pdf ("Each of the steps in the energy-to-AI value chain has an associated transformation efficiency, with both physical factors and financial factors acting on those efficiencies. For example, an increase in microchip energy or cooling efficiency would enable more compute to be extracted from an energy input, decreasing the energy needed to run the same amount of AI capacity…Toggling just the variable of efficiency improvements can have significant impacts on the total energy needed to meet this new AI-driven demand.").

[68] Mody's, *Data centers: Managing risk amid a market boom*, (May 15, 2025), available at: https://www.moodys.com/web/en/us/creditview/blog/data-centers-managing-risk-amid-a-market-boom.html.

[69] Electric Reliability Council of Texas (ERCOT), the grid operator for 90% of the state of Texas.

[70] Board of Directors Meeting, *Item 8.1: Long-Term Load Forecast Update (2025-2031) and Methodology Changes*, ERCOT Public (April 7-8, 2025), available at: https://www.ercot.com/files/docs/2025/04/07/8.1-Long-Term-Load-Forecast-Update-2025-2031-and-Methodology-Changes.pdf.

d. Data centers pose unique risks and should be subject to unique rules.

The high volume of likely speculative interconnection requests, combined with data center's unique characteristics, makes them an uncertain and higher-risk customer type. Specifically, PG&E's large queue of data center interconnection requests necessitates mitigation of the uncertainty of data center loads and the resulting risk to ratepayers. PG&E does not address the uncertainty or mitigation thereof in Proposed Rule 30. Without additional protection, Proposed Rule 30 will force ratepayers to bear the costs of any stranded or oversized assets.[71]

In Section B and C, Cal Advocates recommends modifications to Proposed Rule 30 to ensure long-term and reliable cost recovery from data centers.

3. Proposed Rule 30 Unreasonably Requires Ratepayers to Pay for Costly Transmission Network Upgrades (Facility Type 4) that Primarily Serve Transmission-level Customers. (Rodriguez)

In its Application, PG&E underestimates how Transmission Network Upgrades (Facility Type 4) costs will be borne by ratepayers. PG&E claims that all ratepayers benefit from Transmission Network Upgrades and that it is therefore reasonable for all ratepayers to cover their costs.[72] However, the recent CAISO Transmission Plans indicate that ratepayers could begin to bear substantial costs of Transmission Network Upgrades intended primarily to serve transmission-level customers.[73]

PG&E has at least six projects in the 2024-2025 TPP that are proposed, in part, to address projected data center loads. These projects are: (1) the South Oakland

[71] The Transmission Access Charge (TAC) socializes the cost of Transmission Network Upgrades across all CAISO customers.

[72] Supplemental Testimony at 9, line 8.

[73] The CAISO's 2024-25 Transmission Plan approved 28 reliability-driven projects totaling an estimated $4.6 billion. These projects are driven by the need to reliably meet the increase in forecasted load related to building electrification, electric vehicle charging, and data centers. See CAISO 2024-25 Transmission Plan, May 30, 2025, at 9, available at: https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/2024-2025-Transmission-planning-process.

Reinforcement, (2) Greater Bay Area 500 kV Transmission Reinforcement, (3) the South Bay Reinforcement Project, (4) Metcalf 500/230 kV Transmission Bank Addition, (5) San Jose B-NRS 230 kV Line and (6) the Ames Distribution – Palo Alto 115 kV Transmission Line projects.[74] The total cost estimate for these projects ranges from $1.1 to $1.8 billion. The CAISO states, regarding the approximately $600 million Greater Bay Area (GBA) Project, that:

> Metcalf [Substation] is one of the primary supply sources for the GBA, especially for the South Bay, which is becoming the main energy consumption center in the Bay Area and the entire PG&E system. With substantial loads connected in the San Jose, Silicon Valley, and Morgan Hill areas —primarily driven by data centers — this relatively small urban area is projected to experience a load growth of 2.5 GW between 2026 and 2039. This increase represents 40% of the total load growth expected for the GBA during that period.[75]

The CAISO provides, regarding the approximately $350 million South Bay Reinforcement Project that:

> [The South Bay Area] hosts many high-tech companies and serves as a hub for new technologies, including Artificial Intelligence and various data-driven services and applications. The forecasted increase in load in this region is substantial. Previously approved projects… were intended to accommodate the anticipated load growth outlined in earlier Transmission Plans. However, due to the aggressive trends reflected in the current load forecast, these projects are no longer sufficient to meet the demand.[76]

The CAISO also provides, regarding the approximately $180 million Metcalf 500/230 kV Transformer bank addition, that:

> The Metcalf Substation is one of the main supply sources in the South Bay Area, particularly for the San Jose/Silicon Valley area….The demand in this pocket is mainly driven by the distribution customers in the Silicon

[74] The CAISO states that each of these projects are driven by the need to support expected data center loads. Other CAISO-approved projects in the PG&E service area also contribute to reliably serving data center loads but are not directly referenced as such in the Transmission Plan. See CAISO 2024-2025 Transmission Plan, May 30, 2025, at 65-74.

[75] CAISO 2024-2025 Transmission Plan, May 30, 2025, at 70.

[76] CAISO 2024-2025 Transmission Plan, May 30, 2025, at 74.

> Valley area and newly interconnected large load, such as data centers and other related data-driven industries.[77]

Lastly, in November 2024, the CAISO modified the scope of the Newark – NRS HVDC Project and the Metcalf – San Jose B HVDC Project that were approved by the CAISO in its 2021-2022 Transmission Plan.[78] Regarding the modification, CAISO notes:

> The [projects] were approved to serve the forecast load in the San Jose area… Mostly driven by the data center load, the long term load forecast in the San Jose area has increased from 2,100 MW in the 2021-2022 Transmission Plan to around 3,400 MW in the base scenario and around 4,200 MW in the sensitivity scenario in the current 2024-2025 transmission planning studies. Given the significant increase in the long term load forecast in the area, the ISO's studies identified that the above projects no longer provide the required capacity to reliably serve the load in the area.
>
> Including the complementary San Jose B-NRS 230 kV Line from the 2024-25 Transmission Plan, the total cost estimate of this San Jose area transmission line project is $2.429 billion.[79], [80]

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[77] CAISO, 2024-2025 Transmission Plan, May 30, 2025, at 71, available at: https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/2024-2025-Transmission-planning-process.

[78] CAISO, *San Jose Area Transmission Plan Engineering Study Report Draft Report Revision: R0*, November 5, 2024, available at: https://www.caiso.com/documents/decision-on-modifications-to-the-2021-2022-transmission-plan-study-nov-2024.pdf,

[79] Metcalf – San Jose B Project: $1.321 - $1.371 billion; Newark – NRS Project $593 – $858 million; San Jose B-NRS 230 kV line: $150-200 million. Cost estimates provided by the project sponsor, LS Power Grid California, LLC and CAISO. See CAISO, *San Jose Area Transmission Plan Engineering Study Report Draft Report Revision: R0*, November 5, 2024, at 10 available at: https://www.caiso.com/documents/decision-on-modifications-to-the-2021-2022-transmission-plan-study-nov-2024.pdf; CAISO, 2024-25 Transmission Plan at 72-73.

[80] The San Jose B – NRS Project is included as a component of the larger San Jose Line that includes the Newark NRS and Metcalf – San Jose B Lines. See CAISO 2024-25 Transmission Plan, May 30, 2025, at 72 ("To complement [the Newark – NRS HVDC and the Metcalf – San Jose B HVDC Project] scope changes and provide further load serving capability in the area, a new 230 kV line is needed between the new San Jose B 230 kV (to be created as part of the Metcalf-San Jose B HVDC project) and Silicon Valley Power (SVP) NRS 230 kV station… The new line provides additional path for the 1000 MW injection at the San Jose B from the HVDC line and also provide 230 kV source to San Jose B during outage of the DC supply.").

CAISO's statements make it clear that PG&E will make hundreds of millions of dollars in capital investments over the next decade to accommodate increases in data center demand forecasts in the South Bay Area. This localized and relatively rapid forecasted load growth is leading to the approval of Transmission Network Upgrades at a scale and pace beyond what would be needed if not for anticipated data center loads. However, all CAISO ratepayers pay for these Transmission Network Upgrades. It is unclear if the data center service requests that triggered these upgrades will materialize and provide sustaining revenues such that other ratepayers are not required to bear the costs of these significant and costly upgrades. Without proper safeguards, all CAISO ratepayers will bear the immense costs of Transmission Network Upgrades built to serve uncertain future data center loads.

The Preliminary Engineering Study (PES) Reports that PG&E prepared for the data center interconnection applications included in its 2024 Pilot Cluster Program[81] also confirm the scale of Transmission Network Upgrades that are directly needed to serve new data centers. All [redacted] of the transmission-level service applications from data centers included in PG&E's Pilot Cluster Program are [redacted] (See Table 3).[82]

[81] See Appendix C-4 at C-0043–C-0044, e.g., C-0073–C-0096 (PG&E Revised Response to Cal Advocates Data Request No. 04, Question 13 served on March 24, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_004-Q013Rev01Atch01CONF)*. In 2024, PG&E initiated the Pilot Cluster Program for data centers located in Santa Clara County and Alameda Counties. The Pilot Cluster Program is an approach by PG&E to streamline applications for large data center loads within a specific geographic area allowing customers to submit applications and be grouped based on their proximity to PG&E's transmission and distribution system. PG&E provided Preliminary Engineering Studies (PES) Reports included as part of the Pilot Cluster.).

[82] See Appendix C-4 (Cal Advocates' Summarizing PG&E PES Reports from PG&E Revised Response to Cal Advocates Data Request No. 04, Question 13 served on March 24, 2025, at *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_004-Q013Rev01Atch01_CONF)*.

Table 3. CAISO-Approved Transmission Network Upgrades and Dependent Transmission Level Service Interconnection Requests.[83]

[redacted]						
[redacted]	X	X				
[redacted]		X	X			
[redacted]		X	X	X		
[redacted]		X			X	
[redacted]		X			X	
[redacted]		X			X	
[redacted]		X	X	X		X
[redacted]		X	X	X		X
[redacted]		X	X	X		X
[redacted]		X	X	X		X
[redacted]		X			X	
[redacted]		X	X	X		
[redacted]		X	X			
[redacted]		X			X	
[redacted]	X	X				
[redacted]		X	X	X		
[redacted]		X	X	X		
[redacted]		X	X	X		

Furthermore, the PES Reports from PG&E's Pilot Cluster Program identify [redacted].[84] PG&E also notes that "recent trends in clustering of large retail large load applications, mostly data center loads in certain geographic areas, has triggered the need for Transmission Network Upgrades beyond what has been identified by the CAISO's [Transmission Plan]."[85] The

[83] See Appendix C-4 (Cal Advocates' Summarizing PG&E PES Reports from PG&E Revised Response to Cal Advocates Data Request No. 04, Question 13 served on March 24, 2025, at *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_004-Q013Rev01Atch01_CONF).*

[84] See Appendix C-4 (Cal Advocates' Summarizing of PG&E's Pilot Cluster Program PES Reports from PG&E Revised Response to Cal Advocates Data Request No. 04, Question 13 served on March 24, 2025, at *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_004-Q013Rev01Atch01_CONF).*

[85] See Appendix C-5 at C-0613–C-0616 (PG&E Supplemental Response to Cal Advocates Data Request No. 01 Question 2 served on February 14, 2025).

cost of these additional upgrades to serve projected data center loads will likely be substantial.

The uncertainty in forecasting data centers loads combined with the immense cost of Transmission Network Upgrades to serve those loads creates a sizeable risk of burdening ratepayers with high costs if the forecasted loads do not materialize. Proposed Rule 30 does not mitigate this risk. It provides no assurance that PG&E can recover Transmission Network Upgrade costs from transmission-level customers and instead requires ratepayers to cover these costs. In Section B and Section C, Cal Advocates provides measures to better ensure that Transmission Network Upgrades are paid for by the customers that trigger them.

4. PG&E Fails to Recognize the Risks that Large-Loads Pose to Grid Reliability. (Scoping Memo Issue Item 3.e) (Dersch)

In its Application and Testimony, PG&E does not adequately address the potential reliability impacts that large-load customers may have on the electric system.[86] PG&E states that large-load customer facilities will have the ability to disconnect from the grid and isolate from failed components for maintenance and prevention of wide-spread outages.[87] Ratepayers can be protected from an outage event when transmission-level facilities disconnect from grid. However, there are many situations where large-load customers pose a risk to grid reliability. In July 2024, a reliability incident in Virginia highlighted these risks. The North American Electric Reliability Corporation (NERC) identified the "large amounts of voltage-sensitive load loss" caused by large-load customers as a significant concern.[88] Data centers, in particular, are highly sensitive to voltage fluctuations and may suddenly disconnect from the grid and switch to backup

[86] The Scoping Memo asks how the "load from new transmission-level customers affect electric service and reliability, electric utility revenue requirement, and electric rates for existing customers" See Scoping Memo at 7 (Item 3.e).

[87] Supplemental Testimony 35-36, lines 28-3.

[88] NERC, *Incident Review: Considering Simultaneous Voltage-Sensitive Load Reductions*, January 8, 2025, available at: https://www.nerc.com/pa/rrm/ea/Documents/Incident_Review_Large_Load_Loss.pdf.

power.[89] This abrupt drop in load can create voltage and frequency disturbances that compromise power quality across the system.[90] NERC cautioned in its incident report that "when considering data centers and cryptocurrency mining facilities, entities should be aware of the potential for large amounts of voltage-sensitive load loss during normally cleared faults on the Bulk Electric System."[91]

NERC has launched a Large Load Task Force (LLTF) to study the reliability challenges posed by large-loads interconnections. The LLTF will publish a series of white papers between Q2 2025 and Q2 2026 addressing the unique operational risks of large-load customers.[92] In these reports issued in the time frame of these proceedings, NERC will provide formal recommendations to address large-load reliability requirements. Recommendations from the NERC LLTF to mitigate reliability impacts could provide crucial insights into how Proposed Rule 30 customers should be interconnected to the transmission grid and regulated to protect electric system reliability and ratepayers from harm. Cal Advocates recommends that the Commission require PG&E to submit the final LLTF whitepaper by advice letter if it is issued after a final decision. This would allow parties to provide a response or protest to the advice letter that identifies the impact that the LLTF whitepaper presents for Proposed Rule 30 and provide potential modifications.

[89] NERC, *Incident Review: Considering Simultaneous Voltage-Sensitive Load Reductions*, January 8, 2025, available at: https://www.nerc.com/pa/rrm/ea/Documents/Incident_Review_Large_Load_Loss.pdf.

[90] NERC, *Incident Review: Considering Simultaneous Voltage-Sensitive Load Reductions*, January 8, 2025, available at: https://www.nerc.com/pa/rrm/ea/Documents/Incident_Review_Large_Load_Loss.pdf.

[91] NERC, *Incident Review: Considering Simultaneous Voltage-Sensitive Load Reductions*, January 8, 2025, available at: https://www.nerc.com/pa/rrm/ea/Documents/Incident_Review_Large_Load_Loss.pdf.

[92] A Reliability Guideline: Risk Mitigation for Emerging Large Loads is scheduled for release in Q2 of 2026. The LLTF Work Plan is available at: https://www.nerc.com/comm/RSTC/LLTF/LLTF%20Work%20Plan.pdf.

B. If the Commission Elects to Approve Proposed Rule 30 in Whole or in Part, it Should Modify the Base Annual Revenue Calculation (BARC) Formula to Align Refunds with Actual Earned Revenues. (Scoping Memo Issue Item 3.a, Issue Item 3.g, and Issue Item 3.k) (Roschen)

In its Application, PG&E proposes to implement ratepayer safeguards through the Base Annual Revenue Calculation (BARC) process.[93, 94] The BARC process provides Refunds[95] to transmission-level customers, "intended to repay a customer for Advances, Contributions, Actual Cost Payments, and customer build costs" to build the facilities required to meet the customer's requested demand.[96]

PG&E asserts that the BARC is a fair process to use under its Proposed Rule 30 because the BARC is already used to identify distribution-level interconnection costs under Existing Rules[97, 98] In actuality, PG&E applies the BARC process in Existing Rules to customers with distinct financial risk profiles from transmission-level customers. Implementing the BARC process in Proposed Rule 30 raises three key issues.

First, typical customers connect to the distribution grid under Existing Rules with relatively small loads.[99] Transmission-level customers have a significant impact on the

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[93] Supplemental Testimony, Attachment A at A-15 ("BASE ANNUAL REVENUE CALCULATION or BARC: The amount calculated using the retail electric components of the Applicant's energy bill for the one-year period following the commencement of the Refund Period using the following formula: $BARC\ FORMULA = \frac{Net\ Revenue}{CoSF} * (1 + ITCC)$").

[94] Supplemental Testimony at 19, lines 3-8, at 57, lines 31-37.

[95] See Supplemental Testimony, Attachment A at A-17 ("REFUND: A portion or all of the Total Refund Amount that may be refunded to the Applicant after the Transmission Facilities go into service.").

[96] Supplemental Testimony at 10, lines 13-15.

[97] Supplemental Testimony at 47, lines 10-19, citing Decision (D.) 15-06-045, *Decision on Two Issues Referred by Bankruptcy Court*, June 26, 2015. It is a well-established principle that Commission decisions are not binding on future decisions. Additionally, the Commission's determination in D.15-06-045 was a resolution of issues regarding claims filed in PG&E's Chapter 11 bankruptcy case concerning Forecast Group et al. and PG&E. It is our understanding that the Commission's determination in D.15-06-045 does not predispose it from considering alternatives to the BARC review process in this proceeding.

[98] Supplemental Testimony at 51, lines 12-14.

[99] Typical customers taking retail service at the distribution level of the grid represent the majority of residential or commercial customers and excludes outliers with extremely high electricity usage, unique connection set ups, or special circumstances.

grid, sometimes consuming up to roughly 1,000 times more gigawatt-hours annually than typical distribution customers.[100] Transmission-level customer demands require dedicated infrastructure capable of meeting discrete system peaks, driving higher total average system costs and inflexible grid operation (see Section A.2, A.3 and A.4).

Second, the BARC process as proposed creates a significant risk of unfair cost shifts to ratepayers. A single transmission-level customer under Proposed Rule 30 can drive significant investment in transmission infrastructure (see Section A.3).[101], [102] This means that when a customer departs or fails to meet its projected demand, more costs are shifted onto ratepayers for assets underutilized by large-loads than the typical customer connected under Existing Rules.[103] For these reasons, the fundamental differences between customer groups under Existing Rules and Proposed Rule 30 make it inappropriate to borrow the BARC process because it exposes ratepayers to unfair and disproportionate financial risks.

Third, PG&E's minimal modifications to the BARC formula "to address transmission facilities" fail to account for the higher system costs driven by large-

[100] The annual net load (GWh) per transmission customer over annual net load (GWh) per distribution customer. Appendix C-6 at C-0617–C-0619 (PG&E Response to Cal Advocates Data Request No. 04 Question 19 served on March 21, 2025).

[101] Transmission interconnection costs are higher than distribution interconnection costs. For example, reconductoring circuits to upgrade electric lines cost estimates are $844,440 per mile at distribution voltages, and $1,028,000 per mile at transmission voltages. *See* PG&E 2023 Final Per Unit Cost guide on CAISO website (single circuit light duty steel pole at 115 kv); see also Appendix C-7 at C-0621–C-0624 (PG&E Response to Cal Advocates Data Request No. 04, Question 05, served on March 20, 2025). Also, PG&E estimates $50 million in average Transmission Network Upgrade costs per transmission-level customer. *See* Appendix C-8 at C-0626–C-0627 (PG&E Response to Cal Advocates Data Request No. 02, Question 05 served on February 4, 2025).

[102] Supplemental Testimony at 58, lines 1-3. See also Appendix C-9 at C-0629–C-0631 (PG&E Response to Cal Advocates Data Request No. 01, Question 01 served on January 23, 2025 ("it is likely that interconnections under Electric Rule 30 will cost substantially more than interconnections under Electric Rules 15/16.")).

[103] Some interconnection costs may not shift onto ratepayers if a subsequent customer uses Facility Type 2 and 3 assets initially paid for by an earlier customer in Proposed Rule 30. See Supplemental Testimony, Attachment A at A-11.

loads.[104] As transmission-level customers require extensive transmission upgrades, they should share more system costs, not less. However, the BARC process allows PG&E to issue Refunds to customers before they pay a fair share of PG&E's annual revenue requirement through electric transmission rates (i.e., transmission revenues).

The Commission's framework on cost causation states that revenues collected from retail customers should reflect the utility's cost to serve those customers.[105] Consistent with the cost causation framework, PG&E collects transmission revenues to recover system costs allocated to customers. However, the BARC formula uses Net Revenue[106] to justify new costs associated with interconnection facilities (Facility Types 1-3), replacing the existing costs being recovered in rates.[107] Thus, the BARC process, as proposed, reduces the transmission-level customer's contribution to embedded system costs in the short term.

Under Proposed Rule 30, Refunds are calculated by estimating the capital costs that a transmission-level customer's Net Revenue can support.[108] PG&E uses a "Cost of

[104] Other variations of the BARC were not considered in the development of Proposed Rule 30. *See* Appendix C-10 C-0633–C-0634 (PG&E Response to Cal Advocates Data Request No. 02, Question 01 served on February 4, 2025).

[105] *See* California Public Utilities Commission, *2024 Senate Bill 695 Report,* (July 2024), at 105. The report provides key ratemaking terms and definitions, including "Revenue Allocation: Allocating total revenue requirement to individual customer classes (residential, commercial, agricultural, industrial) based on the utility's cost to serve that class."

[106] Supplemental Testimony, Attachment A at A-17 ("NET REVENUE: That portion the total rate revenues that supports the Transmission Facilities. The term Net Revenues excludes items such as energy, public purpose programs, non-bypassable charges, revenue cycle services, and other revenues that do not support the Transmission Facilities costs.")

[107] Table 6 and 7 in Supplemental Testimony assume revenue is generated over a 10-year period to support the Refund investment. The Net Revenue which PG&E uses to calculate is based of a transmission rate to cover PG&E's existing system costs. Supplemental Testimony at 50 and 51, line 15 to line 5.

[108] Supplemental Testimony at 47, lines 25 and 26 ("revenues [generated from the customer's Facility] support the capital investment associated with the electric facilities."). See also D.15-06-045 at 25, describing the annual, ongoing costs that must be supported by revenues, including taxes, operations and maintenance (O&M) costs, depreciation, and return.

Service Factor"[109] from Electric Rule No. (Rule) 2, last updated in 1996, to determine the investment it will make for every dollar of customer revenue dedicated to the investment.[110] Currently, for every $1 in annual Net Revenue, PG&E will invest $7.31 of Transmission Facilities (Types 1-3) costs.[111], [112] PG&E socializes the rest of the fixed costs (i.e., $6.31 per dollar of Net Revenue) across all ratepayers. As a result, PG&E would issue Refunds to transmission-level customers that are on average 3.71 times the customer's transmission revenue depending on the load and facilities' costs.[113] Because Refunds can be larger than Net Revenue, PG&E adds more capital costs into rate base than a customer may contribute.

These three key reasons explain why BARC cannot be borrowed from Existing Rules and applied as is in Proposed Rule 30. As explained below, the Commission should modify the BARC formula in Proposed Rule 30 to ensure that the Refunds issued to transmission-level customers align with their annual contribution to PG&E's transmission revenue requirement.

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[109] Supplemental Testimony, Attachment A at A-16 ("COST-OF-SERVICE FACTOR (CoSF): The annualized utility-financed Cost of Ownership as stated in monthly format in Electric Rule No. 2 that includes taxes, return and depreciation.").

[110] Supplemental Testimony at 47 and 48, line 28 to line 2. See PG&E Electric Rule No. 2, Section I.3.b for the PG&E-financed monthly Cost of Ownership charge (1.14% of the additional cost for transmission facilities); see also Advice Letter (AL) 1960-G/1587-E, *Revises the Cost-of Ownership Charges for Special Facilities in Gas and Electric Rules 2- Description of Service*, effective August 5, 1996.

[111] The BARC formula calculates a Refund of $9.00 per $1.00 of Net Revenue with Income Tax Component of Contributions (ITCC) which taxes refundable and nonrefundable contributions in aid of construction. See Supplemental Testimony at 48, lines 4-6, 50, line 9.

[112] See Supplemental Testimony at 50, line 8 (the "Cost of Service" factor is the "annualized utility-financed- Cost of Ownership," stated in a monthly format in Electric Rule 2). PG&E assumes a 1.14% monthly utility-financed Cost of Ownership in the BARC formula for Rule 30 demonstrated in PG&E Workpaper 1 pursuant to Electric Rule No. 2.I.3.b.

[113] This estimate is an average weighted by variances in customer profiles and load scenarios (8) – PG&E's Example Customers A and B in Supplemental Testimony at 30, lines 9-23 (2), Load Dropping Scenarios (2), and projects with various eligible refund amounts and project load ratings (4). See also Appendix D for Cal Advocates' best effort to calculate hypothetical Refunds for the eight customers using PG&E's proposed BARC formula and assumptions. This estimate is also subject to possible changes in PG&E's designated Monthly PG&E Financed, and Customer Financed Cost of Ownership Transmission Factors from Rule 2.

1. The Proposed BARC Formula Reduces the Potential for Ratepayer Savings. (Scoping Memo Issue Item 3.g and Issue Item 3.c) (Roschen)

PG&E's proposed BARC process results in an avoidable acceleration of new infrastructure costs, ultimately increasing the financial burden on ratepayers. PG&E's proposed BARC formula should be modified in favor of a slower, prudent, distribution of Refunds over the 10-year Refund Period.

Ratepayers are harmed from costs accelerated through the proposed BARC process in two key ways:

- **Higher Rates in the Short-Term:** The BARC process could add significant costs (e.g., $100 million) to PG&E's revenue requirement within just 3.5 years after service begins per new interconnected transmission-level customer.[114], [115] By refunding Advances on the schedule in Proposed Rule 30, PG&E makes rapid investments in its rate base relative to depreciable life of rate base assets (e.g., 40-50 years). Growth in PG&E's rate base allows PG&E to collect a higher return from customers, driving up revenue requirements and, in turn, raising rates for ratepayers.
- **Loss of Ratepayer Value:** When PG&E accelerates Refunds through the BARC process, ratepayers are harmed. Rapid Refunds mean that PG&E must quickly return funds to the transmission-level customer for their Advance. These funds would otherwise be available to offset PG&E's ongoing capital investment needs, helping to keep PG&E's rate base – and the associated revenue requirement – lower for all ratepayers. Additionally, Refunds issued in the near term have a greater net present value [116] than if those Refunds were paid gradually over time. High inflation rates further

[114] Current total cost estimates for Facility Types 1-4 for a single transmission-level customer range from $65 million - $170 million. PG&E assumes that Transmission Network Upgrades (Facility Type 4) are added to rate base in the customer's first year of service. *See* Appendix C-8 at C-0626–C-0627 (PG&E Response to Cal Advocates Data Request No. 02, Question 05 served on February 4, 2025).

[115] The 3.5-year estimate is an average duration for a Refund (Facility Types 1-3 costs) to be issued during the Refund Period calculated using Refund duration data from eight customer profiles, including PG&E's Example Customers A and Customer B in Supplemental Testimony at 30, lines 9-23. See Appendix D.

[116] The time value of money principle states that money available today is worth more than the same amount in the future due to its potential earning capacity.

the loss to ratepayers by compounding the discount on future costs.[117]

PG&E's Proposed Rule 30 does not include meaningful measures to protect ratepayers from these initial costs. In fact, PG&E assumes in its testimony that transmission-level customers, upon reaching their forecasted load, will likely be fully reimbursed on their payments within 3 years.[118] PG&E's approach prioritizes the interests of new large-loads over average ratepayers. Consumer advocates across the country have recommended utility reforms that structure customer refunds to better protect the interests of ratepayers.[119]

2. The Proposed BARC Formula Does Not Ensure That Transmission-level Customers Will Provide Long Term Revenues. (Scoping Memo Issue Item 3.g and Issue Item 3.k) (Roschen)

PG&E asserts that "customer's revenues offset the costs of Facility Types 1-3."[120] To make this claim, PG&E assumes that transmission-level customers will maintain or increase electricity consumption after receiving a Refund (See Section A.2). On the contrary, the BARC process does not address the risk of early customer departure.

A key deficiency of Proposed Rule 30 is the lack of guardrails assuring transmission-level customers continue service in such a way that their forecasted load generates "sufficient revenue."[121] If the customer ceases operations or disconnects from

[117] U.S. Bureau of Labor Statistics, *Projected Consumer Price Index in the United States from 2010 to 2029*, released April 2024, available at:: https://www.statista.com/statistics/244993/projected-consumer-price-index-in-the-united-states/.

[118] *See* Supplemental Testimony at 46, lines 6-7, 49, lines 9-10 (A customer is "eligible to recover [transmission facility] costs if it produces sufficient revenues (i.e., its forecasted load materializes)"; and "PG&E expects that within three years of a facility being on-line, a customer's facility will be at its full electric load (i.e., Usage Forecast)."

[119] In Illinois, refunds were issued to customers after a change in the rate-setting system. Citizens Utility Board of Illinois, "ICC orders $38 million ComEd scandal refund – a step forward, but not enough", August 19, 2022, available at: https://www.citizensutilityboard.org/blog/2022/08/19/icc-orders-38-million-comed-scandal-refund-a-step-forward-but-not-enough.

[120] Supplemental Testimony at 43, lines 5-6.

[121] PG&E describes the transmission-level customer as producing "sufficient revenues" if "its forecasted load materializes." *See* Supplemental Testimony at 46, lines 6-7. Cal Advocates disagrees with this

the grid or fails to achieve its forecasted load after receiving Refunds,[122] the remaining unpaid costs of the upgrades shift to ratepayers.[123]

For example, PG&E provides a hypothetical example where a transmission-level customer recovers its full Advance of $50 million after only 3 years of operation.[124] At that point, the customer only generated enough Net Revenue to cover $13.8 million of the cost of the transmission upgrades (e.g., Facility Types 1-4) required to serve that customer. If that customer ceases operations after year 3 or dramatically reduces its load, ratepayers would pay the remaining $36.2 million in transmission costs incurred to serve that customer.

PG&E claims that ratepayers will experience a net benefit from Proposed Rule 30.[125] PG&E provides a hypothetical example to support its claim, whereby a transmission-level customer with load that fully ramps over the 10-year Refund Period results in a net ratepayer bill benefit of $27.42 per ratepayer.[126] However, this assumes that the transmission-level customer operates at its forecasted load for the full time period. Cal Advocates performed analysis based on discovery from PG&E that shows if that same customer ceases operations (i.e., falls to 0 MW of load) in year 4, ratepayer bills will *increase* by $6.04 per ratepayer.[127] This scenario demonstrates that when load

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definition. We refer to "sufficient revenues" as revenues offsetting the infrastructure costs PG&E incurred to serve that customer.

[122] See Section A.2 on early load departure risks at data center facilities.

[123] Under Proposed Rule 30, PG&E will rate base the refund amounts and recover it from ratepayers in retail rates. See PG&E Supplemental Testimony at 52, lines 1-7 and Testimony Work Paper 2 Excel Row 143; Cost shifts occur because regardless of how PG&E allocates costs among customers, the utility will recover its full revenue requirement – including expenses, capital costs, and a return on investment – for infrastructure built to a serve a customer, even after that customer has left the system.

[124] In its Supplemental Testimony, PG&E describes this same hypothetical transmission-level customer as "Customer A." Customer A achieves its load forecast of 75 MW by year 3 of the Refund Period. See Supplemental Testimony at 30, lines 9-15.

[125] Supplemental Testimony at 27, lines 6-8.

[126] Supplemental Testimony, Table 4, line 6.

[127] The 10-year ratepayer bill analysis only considers the interconnection of a single transmission customer, and would compound per ratepayer by the number of transmission-level customers taking service from PG&E. See Appendix D at D-0008 (10-year bill analysis customer scenario no. 7).

drops, the BARC process overcommits Refunds and can cause harm to ratepayers as a result.

By accelerating Refunds, the BARC process provides no certainty that transmission-level customers, especially those with unpredictable energy demands like data centers, will continue operating at their forecasted loads.[128] A transmission-level customer can fully recoup its Advance while operating at high usage but has no obligation to sustain that load. Data center customers, for example, that temporarily change their load in the initial years of service,[129] could reduce consumption below the forecasted amount in subsequent years to avoid high demand charges or other energy rates. In this scenario, the customer has no obligation to use the Transmission Facilities and PG&E will need to recover its costs from other ratepayers.

PG&E's declaration of "existing electric customer benefits" via the upfront Advance and Actual Cost Payments is overstated.[130] Ratepayers are not shielded when transmission-level customers fail to achieve their load forecasts or halt service.[131] To address these issues, Proposed Rule 30 should be modified to ensure that transmission-level customers provide long-term revenues that align with the costs to serve them.

[128] Large-load requests are inherently uncertain due to the developing nature of the industry, and PG&E limited historical data to indicate the likelihood of future trends. California Energy Commission, Docket 24-IEPR-03 TN# 256421, "[PG&E] Forecasting Electric System Impacts of New Large Loads: Challenges and Opportunities", May 16, 2024. Also see Section A.2.c.

[129] Electric Power Research Institute, *Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption*, 2024, available at: https://www.epri.com/research/products/000000003002028905 ("Flexible computation strategies: Optimizing data center computation and geographic location to respond to electricity supply conditions, electricity carbon intensity, and other factors in addition to minimizing latency enables data centers to actively adjust their electricity consumption.").

[130] Application at 12.

[131] Supplemental Testimony at 25, lines 29-32 ("PG&E's existing customers will not bear any costs associated with the interconnection until the new transmission level customer's forecasted load materializes and the customer is eligible for refunds.").

3. Proposed Rule 30 Should Cap Refunds at Annual Net Revenue.[132] (Scoping Memo Issue Item 3.h) (Roschen)

To ensure that ratepayers don't subsidize transmission-level customer costs, Refunds should be directly dependent on a transmission-level customer's revenue contribution over a 5-10-year period. Cal Advocates recommends that PG&E's Cost of Service Factor (CoSF)[133] be removed from the BARC formula to align Refunds with customer revenues collected during the Refund Period. For ease of reference, Cal Advocates hereafter refers to this recommendation as the "Revenue Cap method."

The Revenue Cap method calculates Refunds according to the transmission-level customer's annual Net Revenue instead of the CoSF.[134] Specifically, transmission-level customers would be refunded based on their Net Revenue and appropriate Income Tax Component of Contribution (ITCC) less any Customer-financed Monthly Ownership Charge.[135] Same as Proposed Rule 30, PG&E would issue Refunds to the customer until the ten-year Refund Period is over or the Total Refund Amount[136] is paid, whichever is

[132] Supplemental Testimony, Attachment A at A-17 ("NET REVENUE: That portion the total rate revenues that supports the Transmission Facilities. The term Net Revenues excludes items such as energy, public purpose programs, non-bypassable charges, revenue cycle services, and other revenues that do not support the Transmission Facilities costs.").

[133] Supplemental Testimony, Attachment A at A-16 ("COST-OF-SERVICE FACTOR (CoSF): The annualized utility-financed Cost of Ownership as stated in monthly format in Electric Rule No. 2 that includes taxes, return and depreciation.").

[134] The formula proposed by PG&E to calculate Net Revenue was not modified.

[135] Supplemental Testimony, Attachment A at A-10 ("MONTHLY OWNERSHIP CHARGE. When any portion of the Total Refund Amount has not been provided as a Refund after the first calendar year of the Refund Period, for each calendar year during the Refund Period following the first calendar year the financed Cost of Ownership percentage from Electric Rule No. 2.I.3.b, as may be amended from time to time, shall be applied to the difference between the Total Refund Amount and the Refunds paid to date and paid by the Applicant as a Monthly Ownership Charge. The Monthly Ownership Charge serves to recover the cost of operating and maintaining Transmission Facilities that are not fully utilized.").

[136] Supplemental Testimony, Attachment A at A-18 ("TOTAL REFUND AMOUNT. The sum of the Adjusted Applicant Payment, Adjusted Applicant Build Cost, and/or the Adjusted Contribution Cost, plus interest.").

earlier.[137] See Section D "Refunds" in Appendix B-1 for Cal Advocates' recommended redlines to Proposed Rule 30.[138]

In the Revenue Cap method, transmission-level customers are eligible to be reimbursed for any refundable Transmission Facility costs over PG&E's ten-year Refund Period, but annual Refund amounts are capped. For example, under PG&E's BARC proposal, Customer A earns a Refund of $24 million in year 1 of the Refund Period, which is roughly ten times the customer's Net Revenue that year.[139] The Revenue Cap method would not allow the customer to receive the full Refund because it exceeds their Net Revenue. Instead, PG&E would issue a $2.7 million Refund in year 1, which is the customer's annual Net Revenue that year. Table 4 below compares Customer A's Refunds under PG&E's BARC process paid over three years[140] and the same using the Revenue Cap method paid over eight years.[141]

Table 4: BARC and Revenue Cap proposal comparison for PG&E's Customer A (Testimony example) Refund Amounts during the Refund Period

Year	MW Load	Net Revenue - Annual	BARC Refund	Revenue Cap Refund
1	19	$2,713,293	$24,594,173	$2,713,293
2	25	$3,512,805	$6,484,863	$2,094,203
3	56	$7,643,616	$18,920,964	$6,287,841
4	63	$8,576,380	-	$7,409,240
5	75	$10,175,404	-	$9,230,542
6	75	$10,175,404	-	$9,507,458

[137] Supplemental Testimony, Attachment A at A-9 ("The total Refunds received by Applicant during the Refund Period may be less than the Total Refund Amount but shall never exceed the Total Refund Amount.").

[138] Appendix B-10 at B-0011–B-0014.

[139] Net Revenue is based on assumptions which PG&E models for purposes of the example presented in Workpaper 1 to the Application. PG&E should calculate Refunds based on actual revenues from actual meter usage data, discussed further in Section B.5.

[140] Supplemental Testimony, Table 6.

[141] Appendix D at D-0002 (10-year bill analysis for customer scenario no. 1).

Year	MW Load	Net Revenue - Annual	BARC Refund	Revenue Cap Refund
7	75	$10,175,404	-	$9,792,682
8	75	$10,175,404	-	$2,964,741
9	75	$10,175,404	-	-
10	75	$10,175,404	-	-
		Total Refund Issued	$50,000,000	$50,000,000

The significant difference between PG&E's BARC proposal and the Revenue Cap method is the extended distribution of Refunds in order to better protect ratepayers. Overall, the Revenue Cap method slows the allocation of Refunds to transmission-level customers based on the customer's Net Revenue. The Commission should require PG&E to time Refunds so they are aligned with a customer's contribution to its annual revenue requirement with the costs to build and operate the transmission assets that serve them. The Revenue Cap method extends the refund process by seven to eight years for customers who meet their expected load ramp, a three- to four-year improvement from the proposed BARC process.[142]

The Revenue Cap method does not remove the opportunity for transmission-level customers to receive full Refunds. To demonstrate that customers can still receive their full Refund, Cal Advocates analyzed three scenarios where a customer reaches its expected load.[143] In these scenarios, PG&E returns the Advance in full, but with higher savings to ratepayers than afforded by PG&E's proposed BARC process. Table 5 below

[142] The three to four-year difference in the refund duration represents customer profiles that meet expected load during the Refund Period (3) receiving a Refund in Cal Advocates' proposal or PG&E's proposed BARC (e.g., PG&E's Customer A in PG&E's Testimony would receive a Refund in 3 years under PG&E's BARC, and 8 years under Cal Advocates' proposal). See Appendix D (10-year bill analysis).

[143] Appendix D at D-0002–D-0004 (10-year bill analysis for customer scenario nos. 1-3).

shows the potential for greater ratepayer bill savings when transmission-level loads reach expected levels under the Cal Advocates' Revenue Cap method.[144]

Table 5: Net ratepayer 10-year bill savings for expected load scenarios under proposed BARC formula and Cal Advocates' proposal

Customer Scenario and Load[145]		Refund	BARC Formula 10-Year Savings per Ratepayer	Revenue Cap Method 10-Year Savings per Ratepayer	Ratepayer Savings % v. BARC per Applicant
1 – (PG&E E.g. A)	75 MW	$50 million	$27.42	$28.86	+5%
2 – (DR No. 07 Q01.C)	90 MW	$57.5 million	$25.92	$27.53	+6%
3 – (DR No. 07 Q01.E)	90 MW	$52.5 million	$40.15	$41.57	+4%

Ratepayers will receive greater savings for each transmission-level customer refunded under the Revenue Cap method than in PG&E's proposed BARC process. For example, implementing the Revenue Cap method for Customer A (i.e., Customer 1) results in 6% higher savings. Customer A receives its total Advance, just like it would under the proposed BARC process, but the costs added to PG&E's rate base are extended over more years of the Refund Period. Under the Revenue Cap method, PG&E reduces its 10-year revenue requirement by 11%, lowering costs for ratepayers all else being equal. Table 6 shows the reduction to PG&E's revenue requirement.

[144] The 10-year ratepayer bill analysis only considers the interconnection of a single transmission customer, and would compound per ratepayer by the number of transmission-level customers taking service from PG&E.

[145] Appendix D at D-0002–D-0004 (10-year bill analysis for customer scenario nos. 1-3).

Table 6: Impact of PG&E BARC formula and Revenue Cap method proposals on expected 10-year revenue requirement (RRQ) to serve Customer A

Year	MW Load	RRQ (in millions) in BARC Formula[146]	RRQ (in millions) in Revenue Cap Method[147]	Short Term % Change vs BARC
1	19	$9.60	$7.57	-21%
2	25	$10.95	$8.52	-22%
3	56	$12.39	$8.90	-28%
4	63	$11.98	$9.46	-21%
5	75	$11.57	$10.22	-12%
6	75	$11.26	$11.07	-2%
Refund Fully Paid to Customer in Year 7				
7	75	$10.95	$10.95	0%
8	75	$10.64	$10.64	0%
9	75	$10.24	$10.24	0%
10	75	$9.93	$9.93	0%
10-Year Total		**$121.09**	**$107.73**	**-11%**

Further, while the Revenue Cap method reduces the revenue requirements associated with transmission-level interconnection costs, PG&E's cost recovery is unaffected. The Revenue Cap method simply adjusts the timing of recovery to align with a transmission-level customer's near-term revenues. As shown in Table 6, PG&E begins recovering the same revenue requirement once the Refund amount is fully paid to the customer after Year 7 of the Refund Period.

In cases where a customer's load does not fully match the expected levels, the Revenue Cap method adjusts Refunds proportionate to the customer's revenue over the ten-year Refund Period. For example, PG&E provides a hypothetical Customer B to

[146] Supplemental Testimony, Table 4, line 4.

[147] Appendix D at D-0002 (10-year bill analysis for customer scenario no. 1), Table 1, line 4.

demonstrate potential bill benefits for ratepayers.[148] Applying the Revenue Cap method to PG&E's Customer B results in a 12% lower Refund over the 10-year period. Example refund distributions in Table 7 demonstrate the improvement to bill impacts provided by the Revenue Cap method when three example transmission-level customers, including Customer B, do not meet their expected load. Customer B under the Revenue Cap method generates 27% more savings than under PG&E's BARC proposal.

Table 7: Net ratepayer 10-year bill savings for partial load scenarios under proposed BARC formula and Cal Advocates' proposal

Customer Scenario[149]	Expected Load	Reached Load	Cost Metrics	BARC Formula	Revenue Cap Method	Savings % vs BARC
4 – (PG&E E.g. B)	75 MW	30 MW	10-year savings per ratepayer	$4.71	$5.96	+27%
			Refund ($ million)	$33.68	$29.58	-12%
5 – (DR No. 07, Q01.F)	90 MW	36 MW	10-year savings per ratepayer	$12.23	$13.72	+12%
			Refund ($ million)	$41.21	$37.25	-10%
6 – (DR No. 07, Q01.D)	90 MW	36 MW	10-year savings per ratepayer	($1.55)	($0.04)	+98%
			Refund ($ million)	$40.36	$35.73	-11%

The Revenue Cap method reduces the Refund to Customer B because the customer's Net Revenue does not cover its actual contribution to system costs. Additionally, smaller Refunds to Customer B under the Revenue Cap method reduces PG&E's initial revenue requirements by 14% shown in Table 8 below.

[148] PG&E's example of "Customer B" assumes that the customer has a load forecast of 75 MW but only reaches 30 MW during the Refund Period. In the example, Customer B provides a $50 million in Advance and Actual Cost Payments for Facility Types 1-3, and requires $50 million of Transmission Network Upgrades (i.e., Facility Type 4). See Supplemental Testimony at 30, lines 16-23.

[149] Appendix D at D-0005–D-0007 (10-year bill analysis for customer scenario nos. 4-6).

Table 8: Impact of PG&E BARC formula and Revenue Cap method proposals on expected 10-year revenue requirement (RRQ) to serve example Customer B

Year	MW Load	RRQ (in millions) in BARC Formula[150]	RRQ (in millions) in Revenue Cap Method[151]	Short Term % Change vs BARC
1	5	$7.95	$7.28	-9%
2	10	$9.11	$8.04	-12%
3	15	$9.19	$7.84	-15%
4	20	$9.27	$7.62	-18%
5	30	$10.02	$7.60	-24%
6	30	$9.71	$7.68	-21%
7	30	$9.31	$7.66	-18%
8	30	$10.64	$10.64	0%
9	30	$8.69	$7.82	-10%
10	30	$8.38	$7.99	-5%
10-Year Total		**$102.30**	**$87.78**	**-14%**

Importantly, the Revenue Cap method does not alter the funds PG&E collects to operate the Transmission Facilities built to serve transmission-level customers under Proposed Rule 30. PG&E would recover its costs either through rates, or the non-refundable portion of payments made by the customer in Proposed Rule 30.[152]

When Refunds are proportionate to the customer's revenue, ratepayers can see significant bill benefits. In the example of Customer B, the Revenue Cap method directly reduces PG&E's revenue requirements because the utility has less capital to recover from ratepayers. The smaller Refunds mean the utility's cost recovery is lower, so ratepayers benefit from lower charges each year during the Refund Period.

[150] Supplemental Testimony, Table 5, line 4.

[151] Appendix D at D-0005 (10-year bill analysis for customer scenario no. 4), Table 1, line 4.

[152] Supplemental Testimony, Attachment A at A-9 ("At the end of the Refund Period, if the total Refunds are less than the Total Refund Amount, Applicant forfeits its right to receive any additional Refunds."). Excess facilities are removed, abandoned, or replaced at the expense of the Applicant. See Supplemental Testimony, Attachment A at A-8.

The Revenue Cap method, if implemented in Proposed Rule 30, will ensure that transmission-level customers' revenue streams offset the cost of new transmission facilities built to serve them and deliver greater bill stability to ratepayers.

a. Slower Refund distribution protects ratepayers in the event the transmission-level customer decreases its load or cancels service.

The Revenue Cap method protects ratepayers from subsidizing Transmission Facilities built to serve transmission-level customers that don't sustain revenue (see Section A.1 and A.2 on revenue recovery risks). If a transmission-level customer lowers demand or terminates service altogether, the Revenue Cap method ensures that a customer will contribute to the utility's cost to serve them through PG&E-billed revenues.

As shown below in Table 9, the Revenue Cap method reduces ratepayer risks in two scenarios where a transmission-level customer drops load after three years of service.[153]

Table 9: Net ratepayer 10-year bill savings for early load departures under proposed BARC formula and Cal Advocates' proposal

Customer Scenario[154]	Expected Load	Load Drop in Y3	Cost Metrics	BARC Formula	Revenue Cap Method	Savings % vs BARC
7 – (DR No. 07, Q01.A)	75 MW	56 MW	10-year savings per ratepayer	($6.04)	($2.61)	+57%
			Refund ($ million)	$50.00	$14.49	-71%
8 – (DR No. 07, Q01.B)	75 MW	75 MW	10-year savings per ratepayer	($0.03)	$2.29	+7000%
			Refund ($ million)	$50.00	$31.57	-37%

By associating Refunds with the revenue generated by each customer, the Revenue Cap method ensures that PG&E can equitably distribute costs across its entire customer

[153] Appendix D (10-year bill analysis).

[154] Appendix D at D-0008–D-0009 (10-year bill analysis for customer scenario nos. 7 and 8).

base. In sum, PG&E's cost recovery under the Revenue Cap method ensures customers contribute to system costs in proportion to their usage and impact, a principle developed in forward-thinking and advanced rate design practices.[155]

4. The Customer-Financed Cost of Ownership should be used in the Revenue Cap method Refund process. (Scoping Memo Issue Item 3.f) (Roschen)

PG&E incurs costs to own, maintain, and operate Transmission Facilities. PG&E will recover the costs through its revenue requirement for Transmission Facilities that are rate-based. If Transmission Facilities are not capitalized, PG&E cannot collect those costs accordingly and therefore must charge the transmission-customer for the costs directly.[156], [157] During the Refund Period, PG&E proposes to accrue a Monthly Ownership Charge on the refundable portion of the Advance held in a liability account based on the customer-financed Cost of Ownership[158] factor from Rule 2.[159] If funds remain in the liability account after the Refund Period ends, PG&E will use those funds to cover its costs.[160] These mechanisms should be preserved to ensure ratepayers are not left responsible for the costs associated with unused Transmission Facilities.

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[155] Energy and Environmental Economics, *"Electric Infrastructure and Customer Rate Impacts",* (Dec. 2024), at slide 19, available at: https://jlarc.virginia.gov/pdfs/presentations/JLARC%20Virginia%20Data%20Center%20Study_FINAL_12-09-2024.pdf.

[156] Supplemental Testimony at 19, lines 9-14.

[157] Supplemental Testimony, Attachment A at A-10 (The Monthly Ownership Charge serves to recover the cost of operating and maintaining Transmission Facilities that are not fully utilized.").

[158] Supplemental Testimony, Attachment A at A-10 ("…the financed Cost of Ownership percentage from Electric Rule No. 2.I.3.b, as may be amended from time to time, shall be applied to the difference between the Total Refund Amount and the Refunds paid to date and paid by the Applicant as a Monthly Ownership Charge.").

[159] Appendix C-11 at C-0636 (PG&E Response to Cal Advocates Data Request No. 04, Question 01 served on February 28, 2025 ("The Refundable Advance is subject to Cost of Ownership pursuant to the language used in Electric Rule 15 which is based on Electric Rule 2. Any accrued Cost of Ownership would be applied to the amount of the refund and any balance left would be the amount paid to the customer.")).

[160] Supplemental Testimony at 49, lines 1-3 and at 51, lines 15-21. Supplemental Testimony, Attachment A at A-9 ("At the end of the Refund Period, if the total Refunds are less than the Total Refund Amount, Applicant forfeits its right to receive any additional Refunds."). Excess facilities are removed,

Under Proposed Rule 30, PG&E provides itself with the option to collect the Cost of Ownership through an invoice, or to deduct the accrued amount from the Refund due to the transmission-level customer. When PG&E issues an invoice to the customer, the Refund amount due to the customer does not change, despite the customer owing the utility for additional costs. As a result, ratepayers could pay unnecessary costs for the Refund amount equal to the infrastructure investments added to PG&E's rate base.

The Commission should require PG&E to deduct the Monthly Ownership Charge from the Refund in most cases. PG&E evidently has a process in place to collect the Cost of Ownership through Refunds that it can follow in Proposed Rule 30.[161] When possible, PG&E should, consistent with Electric Rule No. (Rule) 15 practice, "start accruing the Monthly Cost of Ownership on the remaining balance until the next refund becomes eligible at which time the accrued amount will be deducted from the refund."[162]

PG&E should only use invoices to collect the Monthly Ownership Charge when the customer-financed Cost of Ownership cannot be applied to the Refund amount. The only case where invoices are necessary is when the Cost of Ownership is greater than the Refund amount or there is no Refund. Cal Advocates proposes modifications to Proposed Rule 30 to ensure fair and reasonable collection of the Monthly Ownership Charge.[163]

abandoned, or replaced at the expense of the Applicant. See Supplemental Testimony, Attachment A at A.

[161] Appendix C-12 at C-0638–C-0642 (PG&E Response to Cal Advocates Data Request No. 010, Question 012 served on June 3, 2025).

[162] Appendix C-12 at C-0638–C-0642 (PG&E Response to Cal Advocates Data Request No. 010, Question 012 served on June 3, 2025).

[163] Appendix B-1 at B-0012–B-0013.

5. Refund Calculations Should Use Transmission-level Customers' Actual Usage, Not Estimates or Forecasts. (Scoping Memo Issue Item 3.f) (Roschen)

While PG&E asserts that Refunds will be based on actual usage and revenues, its proposed language is unclear and could lead to confusion or misapplication.[164] Despite assurances regarding meter usage data, PG&E references "expected" or "forecasted" revenues in its proposal to use the BARC process.[165] PG&E also calculates static revenues based on 2025 usage rates throughout the Refund Period in its workpapers.[166] Using actual data, revenues would reflect the customer's usage in accordance with rate increases that are nearly certain to occur in each future year.[167] PG&E's unclear process to calculate revenues in Proposed Rule 30 creates a risk that costs will be based on outdated or estimated figures, rather than actual, verifiable data.

To ensure reasonableness and accuracy for all ratepayers, the Commission should require that PG&E calculate Refunds using the most recent full year of actual usage charges and rates in effect. Clear and explicit language in the final tariff will help to prevent any unintended overpayments. For example, should a transmission-level customer have a lower demand than PG&E estimates, the customer's contribution to PG&E's transmission revenue requirements may also be lower than expected. Cal Advocates proposes language in Proposed Rule 30 to reflect that all Revenue Cap calculations develop from transmission-level customers' actual usage and the demand

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[164] See Appendix C-13 at C-0644–C-0645 (PG&E Response to Cal Advocates Data Request No. 010, Question 010 served on June 03, 2025). ("Proposed Rule 30, Section D.4.a states that "PG&E will calculate Refunds, if any, for the first three calendar years of the Refund Period using the Base Annual Revenue Calculation." "Rule 30 BARC reviews for refunds will be based on actual revenue developed from demand and usage charges.").

[165] Supplemental Testimony at 47, lines 21-25.

[166] PG&E's electric schedule for customers with Maximum Demands of 1000 Kilowatts or More is B-20, available at: https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_SCHEDS_B-20.pdf. See also PG&E's illustrative Net Revenue calculations based on B-20 rates effective October 1, 2024, in PG&E's Supplemental Testimony Workpaper 1.

[167] Public Advocates Office, *Q1 2025 Electric Rates Report*, May 20, 2025, available at: https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/242005-public-advocates-office-q1-2025-rates-report.pdf.

and usage charges reflected on their bills.[168] [169] If the Commission adopts an alternative to the Revenue Cap method, it should ensure that the alternative uses actual customer data accordingly. Should the Commission adopt PG&E's proposed BARC process, Proposed Rule 30 should be modified to require use of actual customer data in the Net Revenue formula. This change will align PG&E's implementation with its stated intent and protect both customers and ratepayers.

6. Proposed Rule 30 Refunds Should Not Include Interest. (Scoping Memo Issue Item 3.f) (Roschen)

Under Proposed Rule 30, refunds for Advances and Actual Costs Payments will include interest.[170] PG&E makes this proposal at the request of transmission-level customers.[171] Including interest on Refunds is abnormal among other load interconnection processes. For example, PG&E generally issues Refunds without interest to customers who make initial payments for Distribution Line Extensions under Electric Rule 15.[172] As explained below, the Commission should reject PG&E's proposal to recover interest on Refunds issued to transmission-level customers.

PG&E claims that providing interest on Refunds is needed to provide relief for the "substantial outlays" needed to construct transmission upgrades.[173] PG&E's reasoning is insufficient to deviate from the common practice of providing refunds without interest. If transmission-level customers need to secure significant capital to pay PG&E for

[168] Appendix B-1 at B-0013–B-0014, B-0021.

[169] If the Commission approves Cal Advocates' recommendation for a minimum demand charge provided in Section C.2, a stipulation should be added to Proposed Rule 30 which removes demand charges in excess of the customer's actual usage from the Net Revenue formula. See Appendix B-1 at B-0011–B-0012.

[170] Supplemental Testimony at 24, lines 23-26.

[171] A.24-11-007, *Pacific Gas and Electric Company (U 39 E) Reply to Responses Regarding Motion for Interim Implementation of Electric Rule No. 30* (PG&E Reply to Motion Responses), February 18, 2025, at Attachment B at B4.

[172] See Electric Rule No. 15, Sec. 15.E.5 for timing of refunds without interest. Accessed at: https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_RULES_15.pdf.

[173] Appendix C-9 at C-0629–C-0631 (PG&E Response to Cal Advocates Data Request No. 01, Question 01, served on January 23, 2025).

Transmission Facilities, the associated cost of accessing that capital reflects the customer's own financial capability. The inclusion of interest in the eligible Refund amount adds unnecessary costs into PG&E's rate base and applies differential treatment from distribution-level customer interconnections. Interest should therefore be excluded from any refunds under Proposed Rule 30.

PG&E claims that the BARC formula benefits ratepayers. However, PG&E's hypothetical ratepayer bill savings calculations are insufficient to demonstrate the benefits of including interest on Refunds. PG&E provides examples of two customers eligible to receive a refund up to their respective Advance amounts of $50 million each.[174] In these examples, the interest amounts are not subject to BARC review.[175] Additionally, PG&E provides no example to quantify how much additional monies from interest will be provided to the customer from accruals during the Interest Period.[176] Further, given PG&E's disallowance of interest refunds in Rule 15, PG&E lacks any evidence showing why interest should be included. Despite claiming that interest on Refunds are reasonable,[177] PG&E completely excludes interest in its Workpapers demonstrating bill reductions.[178]

For these reasons, the Application does not demonstrate that interest should be included in Refunds. Therefore, the interest provisions in Proposed Rule 30 are

[174] Supplemental Testimony at 30, lines 9-23.

[175] Appendix C-14 at C-0647 (PG&E Response to Cal Advocates Data Request No. 011, Question 15, served on June 12, 2025).

[176] Supplemental Testimony, Attachment A at A-16 ("INTEREST PERIOD: The period of time during which interest accrues on an Advance and/or Actual Cost Payment. The Interest Period commences on the date that PG&E receives the Advance or, if there is no Advance, the date PG&E receives the first Actual Cost Payment and ends on the earlier of: (1) energization of the Transmission Facilities; or (2) the estimated in-service date in the Preliminary Engineering Study provided to the Applicant.").

[177] Supplemental Testimony at 58, lines 4-9.

[178] Appendix C-14 at C-0647 (PG&E Response to Cal Advocates Data Request No. 011, Question 15, served on June 12, 2025).

unreasonable.[179] Proposed Rule 30 should exclude interest on Refunds consistent with existing electric rules and the requirement for just and reasonable rates.[180]

a. If the Commission Approves Interest Payments, Interest Should Be Excluded from PG&E's Rate Base.

If the Commission approves Proposed Rule 30 with interest on Refunds, the interest should be excluded from PG&E's rate base. The standard of whether infrastructure investments are "used and useful" is a prerequisite for inclusion of costs in rate base, and in clear reference to capital eligible on which the utility can earn a rate of return.[181]

PG&E admits that its interest proposal is new because Proposed Rule 30 does not meet the existing regulatory treatment of customer Advances.[182] PG&E's standard practice at the Commission is to exclude interest on customer advances from its rate base.[183] If including interest on Refunds is approved, PG&E should record any authorized interest associated with a Refund amount as a separate expense amortized over the same period as the rest of that year's Refund.

C. If Approved in Whole or in Part, Proposed Rule 30 Should Apply Additional Contract Terms to Data Center to Ensure Fair Cost Recovery. (Scoping Memo Issue Item 3.d and Issue Item 3.k) (Rodriguez)

In Proposed Rule 30, PG&E primarily relies on Applicant-provided Advances[184] as the single mechanism to prevent cost shifting of interconnection costs to ratepayers.[185]

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[179] Supplemental Testimony, Attachment A at A-8 and A-10.

[180] Appendix B-1 at B-0010–B-0011, B-0012, B-0023.

[181] Pub. Util. Code § 790 ("The commission retains continuing authority to determine the used, useful, or necessary status of any and all infrastructure improvements and investments.").

[182] Supplemental Testimony at 58, lines 10-18.

[183] Supplemental Testimony at 58, lines 10-18.

[184] See Supplemental Testimony, Attachment A at A-15. ("ADVANCE: Cash payments made to PG&E for work that has been or will be performed by PG&E on the Transmission Facilities. An Advance may not include preliminary work performed by PG&E as described in Section C.2.a.")

[185] Supplemental Testimony at 19, lines 3-8, 57, lines 31-37.

However, the Advance and Refund process in Proposed Rule 30, while partially mitigating ratepayer risks posed by Facility Type 1-3, does not protect ratepayers from paying for substantial Transmission Network Upgrade costs. As noted in Section B.2, Proposed Rule 30 allows customers to terminate or reduce service after receiving Refunds, but well before PG&E recovers the costs of the Transmission Facilities built to serve them. As discussed in Section A.2, data centers in particular pose a unique risk of triggering substantial Transmission Network Upgrades but underutilizing capacity. To address the increased ratepayer risk posed by data center loads, Proposed Rule 30 should include additional terms specific to data center customers to ensure they adequately cover the costs of the Transmission Facilities they trigger.

Cal Advocates proposes two additional contract terms for data centers: 1) a monthly Minimum Demand Charge (Section C.1); and 2) a 15-year Minimum Contract Term (Section C.2). Minimum Demand Charges impose fixed charges regardless of a customer's actual usage while Minimum Contract Terms provide a contractual obligation to take service for at least 15 years and require fees for early termination. Together, Minimum Demand Charges and Minimum Contract Terms increase the likelihood that data center customers provide adequate and sustained payments to cover the fixed infrastructure upgrade costs PG&E incurs to serve them. The additional contract terms are taken, in part, from contract provisions adopted or under consideration in other states that aim to reduce cost shifts to ratepayers. Specifically, Cal Advocates' proposed terms achieve multiple goals:

- By expanding financial commitments beyond the Refund Period, Minimum Contract Terms increase assurance that a transmission-level customer will continue to provide consistent revenues after its Advance is refunded.
- By providing PG&E with predictable and consistent revenue streams, the Minimum Demand Charge helps to ensure cost recovery to fund the Transmission Facilities built to serve the transmission-level customer.
- By linking financial commitments to the amount of requested capacity, the Minimum Demand Charge discourages transmission-

level Applicants from over-requesting capacity which reduces the risk of resulting oversized Transmission Facility investments.

1. If Approved in Whole or in Part, Proposed Rule 30 Should Apply Specific Terms to Data Center Customers and Define the Term "Data Center." (Scoping Memo Item 3.k) (Rodriguez)

As discussed in Section A.2, data centers are a customer class with unique characteristics and should be subject to unique rules under Proposed Rule 30. Data center Applicants often engage in speculative interconnection requests, are particularly energy intensive, and have highly uncertainty future energy needs. Cal Advocates is not aware of information that indicates that any other large-load customer type or industry (e.g., manufacturing, government, universities) poses the same combination of attributes as data centers. Given the distinct risks posed by data centers compared to other transmission-level customers, Cal Advocates recommends that Proposed Rule 30 impose additional contract terms on data center customers.[186]

A clear definition of "data center" should be established in any approval of Proposed Rule 30 such that the Rule can apply specific provisions to these customers. A settlement agreement for a Data Center Tariff under consideration by the Public Utilities Commission of Ohio provides a regulatory definition that is appropriate for use in Proposed Rule 30.[187] The Commission should adopt the following definition for Data Centers:

> DATA CENTER: A centralized facility (a) used primarily or exclusively for electronic information services such as the management, storage, processing, and dissemination of electronic data and information through the use of computer systems, servers, networking equipment, and related

[186] See Appendix B-1, Section H at B-0019–B-0020.

[187] The settlement agreement is pending before the Public Utilities Commission of Ohio. See Case No. 24-508-EL-ATA , *In the Matter of the Application of Ohio Power Company for New Tariffs Related to Data Centers and Mobile Data Centers,* available at: https://dis.puc.state.oh.us/CaseRecord.aspx?Caseno=24-0508&link=DIVA.

components that (b) has an aggregate monthly maximum demand of greater than 25,000 kW.[188]

This definition clearly describes the physical characteristics and function of data center facilities in broad terms. By establishing a threshold of 25,000 kW it excludes any smaller scale data center that may pose a lesser risk of stranded assets or unrecovered costs. Also, this definition (and the Ohio Data Center Tariff as a whole) has already undergone scrutiny and been accepted by the utility AEP Ohio, staff of the Public Utilities Commission of Ohio, the Ohio Consumers' Counsel, and the Ohio Energy Group.[189]

2. Proposed Rule 30 Should Impose a Minimum Demand Charge for Data Center Customers to Ensure Cost Recovery and Protect Ratepayers. (Scoping Memo Item 3.k) (Rodriguez)

Should the Commission approve Proposed Rule 30, it should require monthly Minimum Demand Charges for data center customers. A Minimum Demand Charge, as proposed below, would impose a monthly charge proportional to the difference between the customer's requested load and its actual load. The charge provides assurance that PG&E can reasonably recover its cost of providing service to data center customers. It also provides measures to protect ratepayers from the financial risk of stranded costs and makes ratepayers whole for any shortfall between the projected and actual revenue from Proposed Rule 30 customers (Scoping Memo Issue Item 3.k).

A Minimum Demand Charge can be implemented through Proposed Rule 30 and align with PG&E's existing transmission-level interconnection processes. Currently, an Applicant seeking transmission-level service from PG&E specifies its requested capacity

[188] See Case No. 24-508-EL-ATA , *AEP Ohio Joint Stipulation and Recommendation In the Matter of the Application of Ohio Power Company for New Tariffs Related to Data Centers and Mobile Data Centers*, October 23, 2024, Exhibit A, at 1, available at: https://dis.puc.state.oh.us/ViewImage.aspx?CMID=A1001001A24J23B55758I01206.

[189] The settlement agreement is pending before the Public Utilities Commission of Ohio. See American Electric Power (AEP Ohio), *AEP Ohio, PUCO Staff, Ohio Consumers' Counsel, Ohio Energy Group and Others Agree on How to Address Growing Data Center Power Needs*, (Oct. 23, 2024), available at: https://www.aep.com/news/stories/view/9829/?utm_campaign=news-alert-9829.

and load ramp schedule as part of submitting a formal interconnection request to PG&E.[190] The load ramp schedule indicates the Applicant's expected future load (in MWs) at specified increments between its interconnection and a final date when it expects to reach its maximum load.[191] These terms are reflected in PG&E's term "Usage Forecast" provided in Proposed Rule 30 defined as "Applicant shall provide to PG&E in its application for service a forecast of expected load for the first ten (10) years that the Transmission Facilities are in service."

Requiring a Minimum Demand Charge in Proposed Rule 30 would make the customer's maximum expected load a contractual commitment. If the size and cost of Transmission Facilities are based on a data center customer's requested capacity (i.e., a higher capacity requires larger and more costly Transmission Facilities), it is important that data center customers contribute payments proportional to their requested capacity. That is, Proposed Rule 30 should ensure that data center customers are charged based on requested capacity even if their actual usage falls short. The Minimum Demand Charge achieves this by making up the difference between the customer's expected bill charges and its actual bill charges when the actual usage is lower than expected.

a. Minimum Demand Charges for Data Centers Have Been Considered and Adopted in Other Jurisdictions.

Other states have adopted or are actively considering Minimum Demand Charges for data centers. The Public Utilities Commission of Ohio is considering American Electric Power's (AEP) proposed tariff structure requiring data centers to pay Minimum

[190] See Appendix C-4 at C-0043–C-0044, e.g., C-0073–C-0096, C-15 at C-0650–C-0651 (PG&E Response to Cal Advocates Data Request No. 04, Question 13, serve March 24, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_004-Q013Rev01Atch01CONF*; PG&E Response to Cal Advocates Data Request No. 04, Question 14, serve February 21, 2025).

[191] As example, see Appendix C-4 at C-0043–C-0044, e.g., C-0073–C-0096, C-15 at C-0650–C-0651 (PG&E Response to Cal Advocates Data Request No. 04, Question 13, serve March 24, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_004-Q013Rev01Atch01CONF*; PG&E Response to Cal Advocates Data Request No. 04, Question 14, serve February 21, 2025).

Demand Charges based on 85-95% of their contracted capacity.[192] In early 2025, the Indiana Utility Regulatory Commission approved a modified industrial power tariff for the utility, Indiana Michigan Power that established a Minimum Demand Charges of 80% of contracted capacity, coupled with 12-year minimum contract.[193] Duke Energy in North Carolina is pursuing contract terms with data centers that include "minimum take" clauses that require the customer to pay for a fixed amount of power regardless of how much it uses.[194]

These jurisdictions designed these charges to safeguard against cost shifts to ratepayers. The Minimum Demand Charge ensures that the utility can recover the long-term costs of transmission and system upgrades required to serve transmission-level service customers, even in cases of delayed or reduced usage.

b. Proposed Rule 30, if Adopted, Should Require a Minimum Demand Charge for Data Center Customers.

Cal Advocates recommends a Minimum Demand Charge of 90% of the customer's requested capacity after an initial 5-year ramp-up period. The Minimum Demand Charge is proportional to the difference between the customer's expected usage and its actual usage, with the expected usage scaling gradually over a fixed ramp-up period. Cal Advocates provides a new Section H to Proposed Rule 30 to implement these measures.[195]

A 90% Minimum Demand Charge is a necessary and reasonable safeguard to ensure that data centers use and pay for a reasonable portion of the capacity of the

[192] See Case No. 24-508-EL-ATA, *AEP Ohio Joint Stipulation And Recommendation In the Matter of the Application of Ohio Power Company for New Tariffs Related to Data Centers and Mobile Data Centers*, October 23, 2024, available at: https://dis.puc.state.oh.us/ViewImage.aspx?CMID=A1001001A24J23B55758I01206.

[193] See Cause No. 46097, *Order Of The Commission In The Matter Of The Verified Petition Of Indiana Michigan Power Company For Approval Of Modifications To Its Industrial Power Tariff – Tariff I.P*, February 19, 2025, available at: https://www.in.gov/iurc/files/ord_46097_021925.pdf.

[194] Kearney, Laila, *Duke Energy seeks take or pay power contracts for data centers*, Reuters (May 7, 2024), available at: https://www.reuters.com/business/energy/duke-energy-seeks-take-or-pay-power-contracts-data-centers-2024-05-07/.

[195] Appendix B, Section H, at B-0019–B-0020.

Transmission Facilities built to serve them. The hundreds of millions of dollars of Transmission Facilities to serve a single customer require sustained high utilization to justify the expenditure and avoid stranded costs. A high Minimum Demand Charge (in conjunction with long-term contracts recommended in Section C.3) is an effective mechanism to increase the certainty that transmission-level customers will provide consistent and long-term revenues to offset the cost of Transmission Network Upgrades. Given that Proposed Rule 30 provides no assurance of recovering costs of Transmission Network Upgrades, Cal Advocates' recommended terms are critical. A high Demand Charge based on the customer's capacity commitments also discourages the customer from requesting more capacity than they intend to use simply to secure future optionality at ratepayers' expense.

Implementing a Minimum Demand Charge requires definitions for several new terms that expand on the definitions of "Usage Forecast" and "Load" used in Proposed Rule 30.[196], [197] Cal Advocates proposes the following definitions.

Maximum Demand: The Applicant's anticipated average maximum peak demand over a 15-minute period in kW over its 10-year Usage Forecast. The Maximum Demand is provided by the Applicant upon submission of its interconnection request and agreed upon between the Applicant and PG&E prior to interconnection. After interconnecting, the Maximum Demand may be raised to reflect the single-highest 15-minute integrated peak in kW, as registered at the Applicant's Facility during the month by a demand meter, but shall in no event be less than 60 percent of the greater of (a) the customer's initial Maximum Demand

[196] Supplemental Testimony, Attachment A at A-17 (PG&E defines "Usage Forecast" as "Applicant shall provide to PG&E in its application for service a forecast of expected load for the first ten (10) years that the Transmission Facilities are in service." PG&E defines Load as "the actual electrical usage of the [Applicant's] Facility".).

[197] The additional proposed terms are not in Proposed Rule 30 or PG&E's documents. The terms will add clarity to the Rule. See, *e.g.*, Appendix C-4 at C-0043–C-0044, e.g., C-0073–C-0096 (PG&E Response to Cal Advocates Data Request No. 04, Question 13, served on March 24, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_004-Q013Rev01Atch01CONF)*

or (b) the customer's highest previously established monthly billing demand during the past 11 months.[198]

Expected Usage: The monthly energy usage expected from the customer in MWh based on a percentage of their Maximum Demand, scaled to reflect load ramp expectations. The Expected Usage is 50% of the Applicant's Maximum Demand in Year 1, 60% of Applicant's Maximum Demand in Year 2, 70% of the Applicant's Maximum Demand in Year 3, 80% of the Applicant's Maximum Demand in Year 4, and 90% of the Applicant's Maximum Demand for the remainder of the contract term.

Actual Usage: The actual metered energy consumed by the Interconnection Customer in a given month in MWh.[199]

Usage Gap (MWh): The difference between Expected Usage and Actual Usage in a given month in MWh. The Minimum Demand Charge as defined in Section H is assessed monthly based on the Usage Gap, applied at the applicable retail electric rate ($/MWh).

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[198] In Proposed Rule 30, PG&E uses the term "Usage Forecast" to convey a similar concept as "Maximum Demand" (For example, "Customer A is a transmission-level customer that provides...a Usage Forecast of 75 MW." or "PG&E expects that within three years of a facility being on-line, a customer's facility will be at its full electric load (i.e., Usage Forecast)").

However, PG&E's formal definition of "Usage Forecast" does not match how the term is used in its Application and Testimony. PG&E defines "Usage Forecast" as "Applicant shall provide to PG&E in its application for service a forecast of expected load for the first ten (10) years that the Transmission Facilities are in service." **While PG&E defines Usage Forecast as the Applicant's variable load across a 10-year period (a range of multiple values), it uses the term to refer to the Applicant's single ultimate maximum load in a given year (a discrete value)**.

In contrast, PG&E's Preliminary Engineering Study (PES) Reports [redacted], which is conveyed to PG&E as a [redacted] during the Applicant's formal application. The inconsistent use of these terms creates ambiguity. Regardless of if the Commission approves a Minimum Demand Charge, the term "Usage Forecast" should be changed or supplemented with a more accurate term for the customer's final, maximum demand to ensure consistent interpretation and application in Proposed Rule 30. See, e.g., Appendix C-4 at C-0043–C-0044, e.g., C-0073–C-0096 (PG&E Revised Response to Cal Advocates Data Request No. 04, Question 13 served on March 24, 2025, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_004-Q013Rev01Atch01CONF)*.

[199] This term can replace PG&E's proposed definition of "Load."

The customer pays a minimum demand charge commensurate with the following Expected Usages.

Table 10: Expected Load Ramp

Contract Year	Expected Demand as Percent of Customer's Maximum Demand
Year 1	50%
Year 2	60%
Year 3	70%
Year 4	80%
Year 5 +	90%

A standardized load ramp period ensures predictable cost recovery from data center customers regardless of actual usage while maintaining some flexibility for the customer to ramp up to full usage. A five-year ramp up period is appropriate because it aligns with PG&E and data center customers' anticipated load ramp period. Cal Advocates' review of [redacted] Preliminary Engineering Study Reports prepared as part of PG&E's Pilot Cluster Program shows that most customers requested a load ramp period of between [redacted].[200] PG&E also states that it expects a customer will be at its full electric load within three years of coming online.[201] Allowing five years for a customer to reach its full load is more than reasonable.

The Minimum Demand Charge is calculated monthly based on the difference between the Expected Usage (kWh) and the Actual Usage (kWh) in a given month. The

[200] See Appendix C-4 at C-0043–C-0044, e.g., C-0073–C-0096 (PG&E Revised Response to Cal Advocates Data Request No. 04, Question 13, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_004-Q013Rev01Atch01CONF* served on March 24, 2025 (In 2024, PG&E initiated the Pilot Cluster Program for data centers located in Santa Clara County and Alameda Counties. The Pilot Cluster Program is an approach by PG&E to streamline applications for large data center loads within a specific geographic area allowing customers to submit applications and be grouped based on their proximity to PG&E's transmission and distribution system. PG&E provided Cal Advocates the Preliminary Engineering Studies (PES) Reports included as part of the Pilot Cluster.)

[201] Supplemental Testimony at 49.

Expected Usage is calculated by multiplying the Expected Demand by the number of hours in the month and an assumed load factor of 0.9.[202,203]

$$\textbf{Expected Usage}\ (\text{kWh}) = \textbf{Expected Demand}\ (\text{kW}) * 0.9 * 24\ \text{Hours} * \text{Days in Month}$$

The Usage Gap is calculated as the difference of expected and actual usage:

$$\textbf{Usage Gap}\ (\text{kWh}) = \textbf{Expected Usage}\ (\text{kWh}) - \textbf{Actual Usage}\ (\text{kWh})$$

If the customer's Actual Usage is less than the Expected Usage, the customer pays the Minimum Demand Charge for that month. The Minimum Demand Charge is calculated each month as the product of the current applicable rate and the Usage Gap:

$$\textbf{Minimum Usage Charge} = \text{Usage Gap (kWh)} * \text{Current Applicable Rate (\$/kWh)}$$

The charge represents the additional rate revenues in excess of the customer's actual bill that would be collected if the customer was operating at its Expected Demand. For example, a customer that requests 100 MW would have an Expected Demand of 50 MW in Year 1 (50% of 100 MW). The customer's Expected Usage for December of Year 1 would be 33480 MWh (50 MW * 24 hours * 31 days * 0.9 Load Factor). If the customer's Actual Usage in December is above 33480 MWh it would not be charged a Minimum Demand Charge. If the customer's Actual Usage in December is below 33480 MWh it would be charged a Minimum Demand Charge based on the above formula. See two examples in Table 11 and Table 12 below. In example A, the customer ramps load as expected per the five-year load ramp and is not subject to a Minimum Demand Charge.

[202] The Load Factor is "the ratio of the average load over a designated period of time to the peak load occurring in that period." Institute of Electrical and Electronics Engineers (IEEE) Standard 141-1993 (Red Book), *Recommended Practice for Electrical Power Distribution for Industrial Plants*, December 2, 1993, at Chapter 6.

[203] Data centers have a high load factor between 80 and 100%. See Sidney Electric, *Load Factor vs. Power Factor: Understanding Energy Efficiency in Commercial Buildings*, available at: https://sidneyelectric.com/news/load-factor-vs-power-factor-understanding-energy-efficiency-in-commercial-buildings/. PG&E assumes a load factor of 80% in its Supplemental Testimony Workpapers.

Table 11: Minimum Demand Charge Example A: Customer with 100 MW Maximum Demand Following and Exceeding Expected Load Ramp.

Maximum Demand: 100 MW					
Year	**Load Ramp: Percent of Maximum Demand (%)**	**Expected Demand (MW)**	**Actual Demand (MW)**	**Demand Gap[204] (MW)**	**Monthly Minimum Demand Charge**
Year 1	50%	50	50	0	$0
Year 2	60%	60	70	-10	$0
Year 3	70%	70	90	-20	$0
Year 4	80%	80	95	-15	$0
Year 5	90%	90	95	-5	$0
Year 6	90%	90	100	-10	$0
Year 7	90%	90	100	-10	$0
Year 8	90%	90	100	-10	$0
Year 9	90%	90	100	-10	$0
Year 10	90%	90	100	-10	$0

In example B, the customer's demand remains below the defined Load Ramp Schedule in Years 1 through 6 and it is charged a monthly Minimum Demand Charge proportional to the Usage Gap. The customer uses 95% of its Maximum Demand in Years 6 and 7 and so is not subject to a Minimum Demand Charge over this period. The customer returns to below 90% of its Maximum Demand in years 8 through 10 and is again subject to a Minimum Demand Charge. In effect, PG&E recovers the costs (between rate revenues and the Minimum Demand Charge) roughly equivalent to if the customer used its full Expected Demand even in years when the customer underutilizes capacity.

[204] For simplicity, a "Demand Gap" in MW is shown in this table rather than the term "Usage Gap" in MWh described above. The conversion of demand (i.e., energy) to usage (i.e., power) is consolidated in the Monthly Minimum Demand Charge column.

Table 12: Minimum Demand Charge Example B: Customer with 100 MW Maximum Demand Underutilizing Capacity.

Maximum Demand: 100 MW					
Year	**Load Ramp: Percent of Maximum Demand (%)**	**Expected Demand (MW)**	**Actual Demand (MW)**	**Demand Gap[205] (MW)**	**Monthly Minimum Demand Charge [206]**
Year 1	50%	50	40	10	$473,040
Year 2	60%	60	40	20	$946,080
Year 3	70%	70	50	20	$946,080
Year 4	80%	80	50	30	$1,419,120
Year 5	90%	90	70	20	$946,080
Year 6	90%	90	95	0	$0
Year 7	90%	90	95	0	$0
Year 8	90%	90	75	15	$709,560
Year 9	90%	90	75	15	$709,560
Year 10	90%	90	75	15	$709,560

c. A Minimum Demand Charge Should Allow Customers to Modify Contracted Maximum Demand.

Cal Advocates proposes additional provisions under "Section H.2 Minimum Demand Charge" to ensure that the Minimum Demand Charge operates as intended while giving customers a reasonable degree of flexibility to increase or decrease their intended usage (See Section H.3 of Cal Advocates Redlines in Appendix B).

Customers may request a reduction in their Maximum Demand by submitting a written request to PG&E at least 365 days in advance. The revised Maximum Demand should become effective either on the requested date or 365 days after notice is received, whichever is later. Customers should not be allowed to reduce their contracted

[205] For simplicity, a "Demand Gap" in MW is shown in this table rather than the term "Usage Gap" in MWh described above. The conversion of demand (i.e., energy) to usage (i.e., power) is consolidated in the Monthly Minimum Demand Charge column.

[206] The minimum demand charge is charged monthly. For simplicity, the actual load in each year is assumed to be constant for that year. PG&E's B20-T rate schedule is assumed. In this example, the Monthly Minimum Demand Charge is calculated as the Demand Gap * 24 hours * 30 days * 0.9 Load Factor * $0.073/kWh (current B-20-T rate schedule).

Maximum Demand below the peak usage recorded in the previous 12 months unless they can demonstrate verifiable changes to their operations, such as equipment decommissioning or facility closure.

This process aligns with PG&E's current Proposed Rule 30 requirements whereby, "if a customer's permanent electric load increases, the customer may notify PG&E of any permanent load increase [during the] Refund Period. Notifications of increased load must be submitted to PG&E no later than December 31 and be accompanied with supporting documentation of the permanent load increase."[207]

To enforce adherence to the contracted Maximum Demand, Proposed Rule 30 should impose penalties for sustained over-usage. If a customer's load exceeds 110% of contracted Maximum Demand for three consecutive months, PG&E should be required to retroactively amend the customer's contracted Maximum Demand to reflect the customers actual usage and revise their form agreements. PG&E should retain the right to terminate the service agreement if the customer commits a material breach of contract, fails to pay the required charges, or if its load exceeds the contracted level without notification. PG&E should be required to monitor compliance and provide quarterly usage summaries to each customer.

These provisions prevent a customer from circumventing the Minimum Demand Charge by temporarily lowering contract obligations while continuing to use greater capacity.

See Section H.3 "Minimum Demand Charge" in Appendix B for Cal Advocates' recommended redlines to Proposed Rule 30.

d. A Minimum Demand Charge Aligns Proposed Rule 30 with Existing Rules, and PG&E's current transmission-level service interconnection process.

A Minimum Demand Charge aligns with Existing Rules and PG&E's existing transmission-level service interconnection process. The Applicant's requested electrical load (i.e., demand) and load ramp schedule and load ramp schedule is currently provided

[207] Supplemental Testimony at 49.

by the Applicant in interconnection requests [redacted].[208]

Furthermore, Rule 15 and Proposed Rule 30 include other terms related to "Excess Facilities" that take effect if an Applicant underutilizes its requested capacity. In both rules if an Applicant's load is significantly lower than the installed facilities, the "Applicant shall pay PG&E its estimated total costs to remove, abandon, or replace the excess facilities, less the estimated salvage of any removed facilities."[209]

3. Proposed Rule 30 Should Require Minimum Contract Terms of 15 Years for Data Center Customers. (Scoping Memo Item 3.k) (Rodriguez)

Proposed Rule 30 should include mandatory 15-year minimum contract terms for data centers seeking transmission-level service. Long-term contracts will require transmission-level customers to remain on the system and pay for service over a timeframe that better matches PG&E's recovery of the fixed costs incurred to serve the customer.

Emerging and recently approved rules in other states require long-term contracts for data centers. Indiana Michigan Power Company's revised tariff for large-load customers recently instituted a 12-year minimum contract term for customers with a contract capacity greater than 70 MW.[210] A similar 10-year minimum contract term is

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[208] See Appendix C-2 at C-0020–C-0025 (PG&E Supplemental Response to Cal Advocates Data Request No. 01, Question 9 served on February 7, 2025). [redacted] As referenced in Section A.3, the CEC uses Applicant's requested capacity to inform load forecasts which are used as a primary input in the CAISO's TPP. PG&E's PES Reports are also submitted directly to CAISO for consideration in its Transmission Planning Process. The CAISO already approved Transmission Network Upgrades based on increasingly unpredictable data center loads. See Appendix C-4 at C-0043–C-0044, e.g., C-0073–C-0096 (PG&E Revised Response to Cal Advocates Data Request No. 04, Question 13, at attachment *ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_004-Q013Rev01Atch01CONF* served on March 24, 2025).

[209] See Electric Rule No. 15 at 12; Supplemental Testimony, Attachment A at A-8.

[210] See Cause No. 46097, *Order Of The Commission In The Matter Of The Verified Petition Of Indiana Michigan Power Company For Approval Of Modifications To Its Industrial Power Tariff – Tariff I.P*, February 19, 2025, available at: https://www.in.gov/iurc/files/ord_46097_021925.pdf.

included in the Data Center Tariff under consideration at the Public Utilities Commission of Ohio.[211] Other utilities have adopted contract terms ranging from 10 to 20 years.[212]

A 15-year minimum contract term is ideal because a larger portion of the Transmission Facility cost recovery occurs in the early portion of their service lives. For example, 42% of the revenue requirement for PG&E's hypothetical Customer A is recovered at year 15 out of 55 total years of the customer's asset lifespan.[213] A 15-year minimum contract term mitigates bill increases for other ratepayers during the period when the annually recovered revenue requirement has an outsized impact on rates.

Cal Advocates proposes provisions for data centers that specify that form agreements made under Proposed Rule 30 are for service of at least 15 years. The form agreements can be extended following the initial 15-year term. If a customer wishes to terminate the service agreement early, it should be required to provide at least 24 months' written notice to PG&E and pay all outstanding charges. The customer should also be subject to a Termination Fee equivalent to the net present value of the remaining Minimum Demand Charges.

See Section H.2 "Minimum Service Term" in Appendix B for Cal Advocates' recommended redlines to Proposed Rule 30.

D. Proposed Rule 30 Provides PG&E Unnecessary Discretion. (Scoping Memo Issue Item 1 and Issue Item 2) (Kwatra)

Proposed Rule 30 fails to ensure that the interconnection of transmission-level loads is fair and transparent. In Supplemental Testimony, PG&E argues that Proposed Rule 30 will provide "clear, transparent, and uniform rules."[214] However, Proposed Rule

[211] See Case No. 24-508-EL-ATA , *In the Matter of the Application of Ohio Power Company for New Tariffs Related to Data Centers and Mobile Data Centers,* available at: https://dis.puc.state.oh.us/CaseRecord.aspx?Caseno=24-0508&link=DIVA.

[212] Sherwood, Stacy, *Review of Large Load Tariffs to Identify Safeguards and Protections for Existing Ratepayers*, Energy Futures Group (Jan. 28, 2025), at 6 available at: https://energyfuturesgroup.com/wp-content/uploads/2025/01/Review-of-Large-Load-Tariffs-to-Identify-Safeguards-and-Protections-for-Existing-Ratepayers-Report-Final.pdf.

[213] Supplemental Testimony, Workpaper 2, "Customer A RRQ_All" tab, line 157.

[214] Supplemental Testimony at 6, line 13.

30 gives PG&E undue discretion and decision-making power over aspects of the interconnection process that can have far-reaching impacts on existing ratepayers. Proposed Rule 30 includes unclear definitions and provisions as well as wording that deviates from existing rules and claims PG&E makes in its Testimony. It also lacks sufficient reporting requirements. Cal Advocates makes a number of recommendations below to ensure Proposed Rule 30 creates a "clear, transparent, and uniform" process.[215]

1. PG&E Limits Commission Oversight in Proposed Rule 30. (Scoping Memo Issue Item 1) (Kwatra)

PG&E's Proposed Rule 30 reduces Commission oversight of transmission-level applications compared to the current interconnection process under Existing Rules.[216] When the application of Proposed Rule 30 appears "impractical or unreasonable to either party or to ratepayers", only "PG&E may refer the matter to the Commission for a special ruling or for special conditions."[217] Whereas under Existing Rules, "PG&E or Applicant" can bring an issue to the "Commission for a special ruling or for special condition(s), which may be mutually agreed upon."[218] The special ruling referred to is the Tier 3 advice letter process and is the last opportunity for external oversight of the contract between PG&E and the transmission-level customer. PG&E does not explain why, under Proposed Rule 30, the Applicant should no longer have the ability to escalate an issue to the Commission if the Applicant deems it to be impractical or unjust. Proposed Rule 30 should not include provisions that decrease Commission oversight to the transmission interconnection process. As such, the Exceptional Cases provision in Proposed Rule 30 should follow the precedent of Existing Rules to allow PG&E or the Applicant to refer a matter to the Commission for a special ruling or for special

[215] Supplemental Testimony at 6, line 13.

[216] See Appendix B-2, Table 1, Row 13 for Exceptional Cases under Proposed Rule 30 compared with prior submittals.

[217] Supplemental Testimony, Attachment A at A-14.

[218] See Electric Rule No. 15.I.3; Electric Rule No. 16.G.

condition(s), ensuring Commission oversight of the large Transmission Facilities costs incurred to serve transmission-level customers.[219]

Proposed Rule 30 permits advice letter filings in cases deemed "impractical or unreasonable" for either party or for ratepayers.[220] To ensure adequate Commission oversight, Tier 2 advice letters should be required for all exceptionally large-load interconnection requests. These should include applications exceeding 200 MW or requests for service at voltages above 230 kV. Tier 2 filings will allow Commission Staff to assess whether these requests are consistent with established policy and ensure that they do not result in unreasonable cost or reliability impacts. Commission staff may need to review the costs or how PG&E is using its discretion in the service contract. The scale of these exceptionally large requests may require additional scrutiny to ensure existing ratepayers are protected.

Other jurisdictions have recently approved or considered measures to ensure adequate Commission review of large-load contracts. The Georgia Public Service Commission (PSC) approved updates to electric rules that require electric utilities to submit electric service agreements for service requests over 100 MW to the PSC for review and approval.[221] Similar provisions exist in Utah's Senate Bill 132.[222] Idaho's Schedule 20 and Missouri's Evergy Special High-Load Factor Market Rate ("Schedule MKT") also feature requirements for their respective State Commission approval for transmission-level customer contracts.[223], [224] New loads of this scale at a single

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[219] Appendix B-1 at B-0018.

[220] Supplemental Testimony, Attachment A at A-14.

[221] Georgia Public Service Commission News Release, *PSC approves rule to allow new power usage terms for data centers*, January 23, 2025, available at: https://psc.ga.gov/site/assets/files/8617/media_advisory_data_centers_rule_1-23-2025.pdf.

[222] Utah State Legislature, *Senate Bill 0132: Electric Utility Amendments*, March 25, 2025, available at: https://le.utah.gov/~2025/bills/static/SB0132.html.

[223] Idaho Power Company, *Schedule 20 Speculative High-Density Load,* January 23, 2024, available at: https://docs.idahopower.com/pdfs/AboutUs/RatesRegulatory/Tariffs/20.pdf.

[224] Evergy Metro Inc, *Special High-Load Factor Market Rate Schedule MKT*, June 13, 2023, available at: special-high-load-factor-market-rate.pdf

interconnection point can trigger immense infrastructure upgrades that would otherwise not be needed.[225] Providing an opportunity for Commission review of exceptionally large transmission-level service requests can help ensure transparent agreements and allow the Commission to evaluate the rate impacts of exceptionally large requests.

See Section G.3 "Exceptional Cases" in Appendix B for Cal Advocates' recommended redlines to Proposed Rule 30.

2. Proposed Rule 30 Provides Unreasonable Discretion to PG&E Compared with Previous Rules. (Scoping Memo Issue Item 1, Issue Item 2, Issue Item 3.d, and Issue Item 3.f) (Kwatra)

In Proposed Rule 30, PG&E changes wording from its existing electric rules with no explanation. PG&E uses descriptions of "Special Facilities,"[226] "Applicant Build Facilities,"[227] and "Optional Contributions"[228] that differ from existing rules.[229] In each instance, PG&E provides that decisions regarding each of these provisions fall under "PG&E's sole discretion."[230, 231] PG&E introduces the term "sole discretion" when describing multiple other issues as well, including Transfer of Ownership and Facility

[225] A.24-11-007, *PG&E Response to ALJ's Ruling Requesting Information on the Motion for Interim Implementation of Electric Rule No. 30*, April 4, 2025, Table 1.

[226] Supplemental Testimony, Attachment A at A-2 ("SPECIAL FACILITIES: PG&E normally installs only those standard facilities which PG&E deems, in its sole discretion, are necessary to provide Retail Service. Applicant may request Special Facilities and/or Special Facilities may be required in order to provide Retail Service to Applicant's Facility.").

[227] Supplemental Testimony, Attachment A at A-15 ("APPLICANT BUILD FACILITIES: Transmission Service Facilities and/or Transmission Interconnection Upgrades designed, procured, constructed, and/or installed by an Applicant consistent with the requirements in Section E.").

[228] Supplemental Testimony, Attachment A at A-15 ("APPLICANT BUILD FACILITIES: Transmission Service Facilities and/or Transmission Interconnection Upgrades designed, procured, constructed, and/or installed by an Applicant consistent with the requirements in Section E."); Supplemental Testimony, Attachment at 6 ("OPTIONAL CONTRIBUTIONS: Applicant may, at PG&E's sole discretion, provide in-kind services, equipment, and/or land and property rights to PG&E for purposes of installing the Transmission Facilities.").

[229] See Electric Rule No. 2.I; Electric Rule No. 15.F.

[230] Supplemental Testimony, Attachment A at A-2, A-4, A-6.

[231] See Electric Rule No. 15. A.5; Electric Rule No.16. A.6; Electric Rule No. 2.I.

Relocation or Rearrangement.[232] Previously, PG&E argued that "these provisions are all intended to ensure that the terms of service are not dictated or controlled by the transmission level customer… These are all decisions regularly made by all utilities when interconnecting new customers."[233] If these decisions are "regularly" made by the utility, PG&E should not have to alter the language from existing rules. PG&E is unilaterally increasing its discretionary influence with this language, so it must provide justification as to why it should have increased "discretion" over the agreement terms. Since PG&E has not demonstrated a reasonable need for this language change, PG&E should be required to use language similar to authorized Rules 2, 15, and 16.

Proposed Rule 30 lacks clear definitions distinguishing standard facilities from Special Facilities, creating ambiguity that allows PG&E broad discretion in determining facility types.[234] PG&E's standard practice in Rule 2 is to designate redundant facilities as Special Facilities,[235] or facilities beyond the standard facilities which PG&E would normally provide for delivery of service. Currently, Proposed Rule 30 allows PG&E excessive discretion to determine the Transmission Facilities it will designate as Special Facilities. It does not clarify that secondary points of interconnection are necessarily, and definitionally, not part of PG&E's standard delivery of service.[236] Initially, PG&E did include "reserved capacity" as a criterion for Special Facilities in Proposed Rule 30 prior to filing but removed it at the request of large-load customers.[237] Cal Advocates provides modifications to the language in Proposed Rule 30 to align with standard

[232] Supplemental Testimony Attachment A at A-12, A-14.

[233] A.24-11-007, *PG&E Reply Regarding ALJ Ruling Requesting Information on the Motion for Interim Implementation of Electric Rule 30,* April 11, 2025, at 4.

[234] Supplemental Testimony Attachment A at A-2-A-3.

[235] Electric Rule No. 2 designates certain facilities beyond PG&E's standard service such as back up sources as "Special Facilities." See Electric Rule No. 2.I.1.

[236] According to PG&E's Transmission Interconnection Handbook, standby/back up sources of power are requested, at the expense of the load entity, with large reliability requirements. See PG&E Transmission Interconnection Handbook, Section L2.5 at L2-11, available at: https://www.pge.com/assets/pge/docs/about/doing-business-with-pge/l2.pdf.

[237] PG&E Reply to Motion Responses; Attachment A at A8.

practice in Rule 2 and clarify the Transmission Facilities qualified as "Standard Facilities" necessary to provide regular service through a single interconnection point.[238]

Additionally, the text of Proposed Rule 30 deviates from PG&E's claims in testimony. PG&E's supplemental testimony states that "if the transmission level customer contributes equipment, in-kind services, or property rights for less than it would have cost PG&E for these same items, the customer can lower the amount of its Advance and/or Actual Cost Payments."[239] However, Proposed Rule 30 explains that "after receiving the binding estimated cost, PG&E may, in its sole discretion, decide whether or not to accept some or all of the Applicant's proposed Contribution."[240] Proposed Rule 30 does not ensure that Optional Contributions and Applicant Build Facilities that lower the amount of the Advance and/or Actual Cost Payments will be accepted. Proposed Rule 30 should include language to match PG&E's description in its supplemental testimony. Specifically, Proposed Rule 30 should be revised to state that PG&E will select the Optional Contribution or Applicant Build Option when it lowers the overall cost to build transmission facilities.[241]

PG&E also introduces a pre-funding loan option for Applicants who aim "to accelerate the timing of the work needed to receive Retail Service for its Facility."[242] The pre-funding loan can be used when PG&E does not have the funding to complete Facility Type 4 upgrades, but these upgrades are required to provide service to a transmission-level customer. Under Proposed Rule 30, the transmission-level customer can provide a pre-funding loan that accelerates Facility Type 4 upgrades and will eventually be paid back to the customer.[243] Proposed Rule 30 states that "the terms and conditions of the pre-funding loan and the refund of pre-funds shall be addressed in a

[238] Appendix B at B-0003–B-0004.

[239] Supplemental Testimony at 16, line 2.

[240] Supplemental Testimony, Attachment A at A-7.

[241] Supplemental Testimony, Attachment A at A-3.

[242] Supplemental Testimony, Attachment A at A-14.

[243] Supplemental Testimony at 54.

separate agreement between Applicant and PG&E. The decision as to whether to agree to pre-funding for Transmission Network Upgrades is at PG&E's sole discretion."[244] Although PG&E claims that refunds for pre-funding loans won't affect ratepayers because these "costs would have been incurred regardless,"[245] the pre-funding loan provision allows for potential increases in the rate base with no oversight from the Commission. As explained in Section B.3, the timing of additions to the rate base does impact ratepayers.[246] If the Commission allows for a pre-funding option, Proposed Rule 30 should include a requirement that all pre-funding agreements be submitted to the Commission via a Tier 2 Advice Letter to determine whether the loan is reasonably within the scope of Proposed Rule 30.[247]

See Appendices B-2–B-4 for Cal Advocates' recommended redlines to Proposed Rule 30.[248]

E. If Approved in Whole or in Part, Proposed Rule 30 Should Include Reporting Requirements to Address Load, Reliability, and Affordability Risks. (Scoping Memo Issue Item 4.a) (Kwatra)

The substantial planning uncertainty and potential financial risks associated with new transmission-level customers requires proper Commission oversight of PG&E transmission-level interconnection process. PG&E should be required to annually provide information on both transmission-level Applicants and interconnected customers. The reports should provide information on the transmission upgrades necessary to support transmission-level customers, the transmission-level customer interconnection costs, the costs or benefits to ratepayers as a result of transmission-level customers, and

[244] Supplemental Testimony, Attachment A at A-14.

[245] Supplemental Testimony at 54, line 19.

[246] See Section B.3: Slower refunds provide short-term bill benefits to ratepayers. This section provides examples of three customers and their impacts on rates under two different refund schedules. Under the two scenarios rates experience different savings, indicating that the timing of additions to rate base does impact rates.

[247] Appendix B-1 at B-0018.

[248] See Appendix B-2–B-4, Tables 1-3 for Cal Advocates recommended changes.

how actual load compares to load projections. This information should be included in a brief "Transmission-Level Customer Report"[249] that PG&E provides annually to the Commission.

Annual reporting is necessary to determine whether Proposed Rule 30 equitably allocates costs, or if updates are necessary for the transmission-level interconnection process. PG&E should disclose the Transmission Facility upgrades (including Facility Type 4 upgrades triggered by transmission-level customers) and their costs associated with Applicants under Proposed Rule 30. Capital costs should be compared with the revenue PG&E receives from each transmission-level customer to ensure that the revenue covers PG&E's cost to interconnect transmission-level customers.[250] PG&E should report on each transmission-level customer's Contribution to Margin as provided in its Supplemental Testimony so it is clear if Proposed Rule 30 is causing increases in rates.[251] As an example, Evergy Missouri Metro's Schedule MKT requires the utility to report the costs and revenue associated with each Schedule MKT contract to the Commission.[252] An additional revenue adjustment is required if the rate revenues do not exceed the costs.[253]

Additionally, PG&E should report each pre-funding loan agreement it executes and the infrastructure upgrades it funds. Pre-funding loans will be refunded through PG&E's rates.[254] These loans should be monitored to ensure they do not unreasonably drive up rates and that PG&E customers pay for infrastructure costs that are used by all of

[249] Appendix B-1 at B-0017. ("Transmission-Level Customer Report (Report)": Provided to the CPUC and Cal Advocates annually, the Report shall be sortable and contain up-to-date data on all transmission-level customers served under Electric Rule 30 or a modified Rule 15 or Rule 16 agreement"). A mock Report template is included in Appendix B-1 Attachment A.

[250] See Appendix B-1 Attachment A.

[251] Supplemental Testimony at 32, Table 4.

[252] Evergy Metro Inc, *Special High-Load Factor Market Rate Schedule MKT*, June 13, 2023, available at: special-high-load-factor-market-rate.pdf.

[253] Evergy Metro Inc, *Special High-Load Factor Market Rate Schedule MKT*, June 13, 2023, available at: special-high-load-factor-market-rate.pdf.

[254] Supplemental Testimony at 54, lines 21-22.

California. PG&E should report on the forecasted demand and the actual usage of each transmission-level customer. Understanding how much of the requested capacity transmission-level customers use after interconnection will improve demand forecasts and decrease the chance of unnecessary infrastructure upgrades. Collectively, these reporting requirements will provide the Commission with data to understand the impacts of Proposed Rule 30 on rates and determine if the cost allocation process is reasonable and just.

PG&E should be required to provide a "Transmission-Level Applicant Report"[255] on its application queue to better forecast needed infrastructure upgrades. PG&E's own procedure identifies specific milestones required to interconnect transmission-level applicants. PG&E produced its [redacted] that describes a detailed series of steps with all information required to interconnect.[256] [257] This information is important to ascertain the timeline or likelihood that the current applications will proceed to interconnection. Table 7 provides further detail of the information necessary to understand the status of transmission-level applications in the queue.[258] PG&E should update the attached table and submit it to the Commission and the CEC annually. Access to transmission-level Applicant data will ensure transparency throughout the interconnection process and improved accuracy of

[255] Appendix B-1 at B-0017. ("Transmission-Level Applicant Report (Applicant Report): Provided to the CPUC and Cal Advocates biannually, the Applicant Report shall be tabulated and contain up-to-date data on all Applicants for Retail Service under Electric Rule 30"). The Applicant Report is included in Appendix B-1 Attachment B.

[256] PG&E's [redacted] outlines the specific procedural steps PG&E's takes to interconnect large-load transmission-level applicants. PG&E designated this document confidential. PG&E provided this document to Energy Division staff on January 10, 2025. See Appendix C-16 at C-0659–C-0703 (PG&E Response to Energy Division Data Request No. 01, Follow-Up Question 6c, served on January 10, 2025.)

[257] See Appendix B-1 Attachment B.

[258] In the ALJ's Ruling Requesting Information on the Motion for Interim Implementation of Electric Rule 30 the ALJ directed PG&E to explain the status of the current applications (Questions 1 and 3). However, PG&E's April 4th response to these questions was overly general. To our April 11th Reply Brief to the ALJ's Ruling, Cal Advocates attached a table that requests details on the step of the procedure existing applications are on. This table has been updated for increased granularity and an additional column disclosing if the Applicant has submitted duplicate requests in other locations. See Appendix B-1 Attachment B.

forecasting of infrastructure upgrades. See Tables 6 and 7 for example templates of the Transmission-Level Customer Report and the Transmission-Level Applicant Report.

Proposed Rule 30 allows PG&E and the Applicant to have reasonable access to the other's accounts and records for reviewing and auditing purposes.[259] Reasonable access includes auditing Adjusted Applicant Build Cost[260] and Adjusted Contribution Cost[261] for refund purposes and auditing PG&E's Actual Costs[262] for Actual Cost Payments. Both entities can submit Audit Requests to the other.[263] Currently, under Proposed Rule 30, the Commission has no oversight of or access to these audits. PG&E should be ordered to provide Audit requests, Auditing findings, and the reporting requirements listed above to the Commission and Cal Advocates as part of PG&E's required Rule 30 reporting.[264]

See Section F "Reporting Requirements" in Appendix B for Cal Advocates' recommended redlines to Proposed Rule 30

IV. CONCLUSION (Kwatra)

PG&E's Proposed Rule 30 for interconnection of transmission-level customers fails to adequately protect ratepayers from the significant financial and operational risks posed by speculative and high-demand loads like data centers.

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[259] Supplemental Testimony, Attachment A at A-14-A-15.

[260] Supplemental Testimony, Attachment A at A-15 ("ADJUSTED APPLICANT BUILD COST: The lesser of: (1) the binding estimated cost for the Applicant Build Facilities as described in Section E.11; or (2) the actual cost paid for the Applicant Build Facilities by the Applicant, which shall be subject to audit by PG&E as provided in Section E.9.").

[261] Supplemental Testimony, Attachment A at A-15 ("ADJUSTED CONTRIBUTION COST: The lesser of: (1) the binding estimated cost for the Contribution as described in Section C.3; or (2) the actual cost paid for the Contribution by the Applicant, which shall be subject to audit by PG&E as provided in Section D.9.")

[262] Supplemental Testimony, Attachment A at A-14 ("ACTUAL COST: PG&E's fully loaded costs, including direct, indirect, and overhead costs billed in accordance with PG&E's systems for allocating charges to customers.").

[263] Supplemental Testimony, Attachment A at A-7, A-10, A-13.

[264] Appendix B-1 at B-0009, B-0013, and B-0014–B-0017.

The Commission should modify PG&E's Proposed Rule 30 to ensure consistent treatment of transmission-level interconnections through a new tariff that includes protections for ratepayers. These include a) implementing a revenue-capped refund process based on actual usage; b) imposing minimum demand charges and contract terms for data centers; c) enhancing Commission oversight and reporting; and d) eliminating provisions that unjustifiably shift risk from large-load customers to ratepayers. Together, Cal Advocates' recommendations provide the necessary modification to Proposed Rule 30 to streamline large-load interconnections while mitigating pervasive financial risks for ratepayers.

The scale and speed of emerging large-loads present a critical juncture for grid planning, rate fairness, and long-term reliability. The Commission should act prudently by adopting only a modified Proposed Rule 30 that ensures large-load customers pay their fair share, mitigates risk to ratepayers, and reinforces transparent utility regulation.

APPENDIX A

QUALIFICATIONS OF WITNESSES

QUALIFICATIONS AND PREPARED TESTIMONY

OF

JANE ROSCHEN

Q.1 Please state your name and business address.

A.1 My name is Jane Roschen. My business address is 505 Van Ness Avenue, San Francisco, CA 94102.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the Public Advocates Office at the California Public Utilities Commission as a Senior Public Utilities Regulatory Analyst in the Energy Infrastructure Branch.

Q.3 Briefly state your educational background and experience.

A.3 I hold a Master of Science in Sustainability Management from Columbia University in New York, N.Y. and a Bachelor of Arts in International Affairs and Global Public Health from the George Washington University in Washington, D.C. Prior to joining the Public Advocates Office, I spent four years as an Oak Ridge Institute Fellow at the United States Department of Energy (US DOE) to implement various clean energy policies and programs in state, local, and tribal governments.

For the past 1.5-years with the Public Advocates Office, I have worked on projects and proceedings related to Transmission Owner (TO) rate cases and rates, CAISO's Transmission Planning Process and Transmission Access Charge, transmission project development, and distributed energy resources.

Q.4 What is the scope of your responsibility in this proceeding?

A.4 I am responsible for Section I. Introduction, and Section III. Discussion, Subsection B on the distribution of refunds for new transmission infrastructure in the Public Advocates Office's June 30, 2025, testimony in this proceeding addressing PG&E's request for approval of Electric Rule No. 30.

Q.5 Does this complete your testimony at this time?

A.5 Yes, it does.

QUALIFICATIONS and PREPARED TESTIMONY

OF

EMIL RODRIGUEZ

Q.1 Please state your name and business address.

A.1 My name is Emil Rodriguez. My business address is 505 Van Ness Avenue, San Francisco, CA 94102.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the Public Advocates Office at the California Public Utilities Commission as a Utilities Engineer in the Energy Infrastructure Branch.

Q.3 Briefly state your educational background and experience.

A.3 I received Bachelor of Science Degrees in Civil Engineering and Environmental Engineering from the University of California, Davis in 2022. Prior to joining the Public Advocates Office, I spent two years conducting research on California's energy and urban planning policies as a fellow at the National Center for Sustainable Transportation and UC Davis's Global Ecology & Sustainability Lab.

I have two years of experience at the Public Advocates Office working on electric transmission policy and planning related topics including the Commission rulemaking to update General Order 131-D (transmission permitting), the CAISO's Transmission Planning Process, and transmission project development.

Q.4 What is the scope of your responsibility in this proceeding?

A.4 I am responsible for the following sections of the Public Advocates Office's June 30, 2025, testimony addressing PG&E's request for approval of Electric Rule No. 30: Section III. Discussion, Subsection A and Subsection C regarding potential financial risks induced by large-load customers and recommended provisions for data center customers.

Q.5 Does this complete your testimony at this time?

A.5 Yes, it does.

QUALIFICATIONS and PREPARED TESTIMONY

OF

SANYA KWATRA

Q.1 Please state your name and business address.

A.1 My name is Sanya Kwatra. My business address is 505 Van Ness Avenue, San Francisco, CA 94102.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the Public Advocates Office at the California Public Utilities Commission as a Utilities Engineer in the Energy Infrastructure branch.

Q.3 Briefly state your educational background and experience.

A.3 I received a Bachelor of Science Degree in Electrical Engineering and Computer Science from University of California, Berkeley in 2024.

I worked at the Renewable and Appropriate Energy Laboratory conducting policy analysis and implementing a capacity expansion model integrating renewable energy sources. I have eight months of experience at the Public Advocates Office working on transmission planning and policy topics.

Q.4 What is the scope of your responsibility in this proceeding?

A.4 I am responsible for Section III. Discussion, Subsection E regarding PG&E's discretion, Subsection F on reporting requirements, and Section IV. Conclusion in the Public Advocates Office's June 30, 2025, testimony addressing PG&E's request for approval of Electric Rule No. 30.

Q.5 Does this complete your testimony at this time?

A.5 Yes, it does.

QUALIFICATIONS and PREPARED TESTIMONY

OF

RACHEL DERSCH

Q.1 Please state your name and business address.

A.1 My name is Rachel Dersch. My business address is 505 Van Ness Avenue, San Francisco, CA 94102.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the Public Advocates Office at the California Public Utilities Commission as a Utilities Engineer in the Energy Infrastructure Branch.

Q.3 Briefly state your educational background and experience.

A.3 I received a Bachelor of Science Degree in Electrical Engineering from Michigan State University in 2021. I received a Master of Development Engineering Degree in Energy from University of California Berkeley in 2023.

I have 5 years of experience in the energy industry. I worked for 2 years at Brillouin Energy designing a power supply system for a low-energy nuclear reactor. I also worked for 2 years as an Energy Engineer and Pilot Program Manager for Energy Efficiency Programs at a utility company in Michigan. I have 5 years of work and volunteer experience testing solar power systems for several non-profits including EcoSwell in Peru, OffGridBox in Rwanda, and Solar Circle in Tanzania. I have one year of experience at the Public Advocates Office working on transmission planning and policy issues.

Q.4 What is the scope of your responsibility in this proceeding?

A.4 I am responsible for Section III. Discussion Subsection A.4 on Cost Allocation and D.1 on Reliability in the Public Advocates Office's June 30, 2025, testimony in this proceeding addressing PG&E's request for approval of Electric Rule No. 30.

Q.5 Does this complete your testimony at this time?

A.5 Yes, it does.

APPENDIX B

Proposed Rule 30 (Redlined Version)

LIST OF ATTACHMENT FOR APPENDIX B

APPENDIX	DOCUMENT DESCRIPTION	CONFIDENTIAL DESIGNATION
B-1	1. Modifications To Proposed Rule 30 (Redlined Version) 2. Attachment A: Table 6: Customer Spreadsheet 3. Attachment A: Transmission-level Customer Report 4. Attachment B : Table 7 Applicant Spreadsheet 5. Attachment B: Transmission-level Applicant Report	No
B-2	Table 1: PG&E's Deviations from Approved Tariff Rules in Proposed Rule 30	No
B-3	Table 2: PG&E's Deviations from Claims in Supplemental Testimony in Proposed Rule 30	No
B-4	Table 3: Unreasonable "discretion" in Proposed Rule 30	No
B-5	Table 4: Unreasonable "discretion" in Proposed Rule 30 Form Agreement	No
B-6	Table 5: Changes Required in Form Agreement to align with Cal Advocates' Redlined Proposed Rule 30	No

B-1
1. Modifications To Proposed Rule 30 (Redlined Version)

ELECTRIC RULE NO. 30
RETAIL SERVICE TRANSMISSION FACILITIES

APPLICABILITY: This Rule is applicable to Transmission Facilities to furnish Retail Service to non-residential Applicants for a Facility at transmission voltages from 50 kV up to and including 230 kV. A determination of the voltage at which an Applicant shall receive Retail Service for a Facility shall be made in accordance with this Rule and, under circumstances specified in this Rule, with CPUC approval ~~made by PG&E in its sole discretion~~. If ~~PG&E determines, in its sole discretion, that~~ an Applicant shall receive Retail Service at a Facility at less than 50 kV, the Applicant shall not be eligible to receive service under this Rule.

In this Rule, capitalized terms are defined in Section I~~G~~.

A. GENERAL

1. TRANSMISSION FACILITIES

a. DESIGN. PG&E will be responsible for planning, designing, and engineering Transmission Facilities using PG&E's standards for material, design, and construction. ~~At PG&E's sole discretion,~~ Applicants may be eligible for the Applicant Build Option provisions in Section E of this Rule to build that portion of the Transmission Facilities normally designed by PG&E.

b. CONSTRUCTION AND DESIGN SPECIFICATIONS, STANDARDS, TERMS, AND CONDITIONS

1) In compliance with California Public Utilities Code Section 783(g)(1), PG&E will apply only those construction and design specifications, standards, terms, and conditions that are applicable to a new project under this Rule for the 18 months following the date an Applicant's application is approved.

2) Consistent with California Public Utilities Code Section 783(g)(2), PG&E may adopt modifications to those construction and design specifications, standards, terms, and conditions applicable to a new project under this Rule only in accordance with any of the following:

a) An order or decision of the CPUC or any other state or federal agency with jurisdiction.

b) A work order issued by PG&E to implement construction or design changes necessitated by an Applicant-driven scope of work modification.

c) A material-related design change identified by PG&E to remedy a construction material defect that could pose a risk to public safety.

3) Consistent with California Public Utilities Code Section 783(h)(1), the Applicant's application approval date refers to the earlier of either: (1) the effective date of the contract for electric service; or (2) the date when PG&E first invoices the Applicant for the extension of electric service.

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c. OWNERSHIP OF FACILITIES. The Transmission Facilities installed under the provisions of this Rule shall be owned, operated, and maintained by PG&E if they are (a) located in the street, road or Franchise Area of PG&E, (b) installed by PG&E on Applicant's Premises for the purpose of the delivery of electric energy to Applicant, or (c) installed by Applicant under the provisions of this rule, and conveyed to PG&E, except for Substructures and enclosures that are on, under, within, or a part of a building or structure owned by Applicant.

d. SERVICE FROM NON-PG&E FACILITIES. PG&E shall not be required to serve any Applicant from Transmission Facilities that are not owned, operated, and maintained by PG&E.

e. STANDARD FACILITIES. Standard Facilities which PG&E would normally provide or allocate for regular service shall be limited to facilities which establish a single, primary connection point where the Applicant connects to the PG&E system in accordance with PG&E tariffs on file with and authorized by the CPUC, including PG&E's Transmission Interconnection Handbook. An Applicant shall only be eligible to receive a refund, described further in Section D, for Transmission Facilities which PG&E designates as Standard Facilities.

1) TEMPORARY SERVICE FACILITIES. Transmission Facilities installed for temporary service or for operations of speculative character or questionable permanency shall be made in accordance with the fundamental installation and ownership provisions of this rule, except that all charges and refunds shall be made under the provisions of Rule 13—Temporary Service.

2) ADDITIONAL CAPACITY REQUESTS. PG&E may provide additional service if Applicant usage exceeds its initial Maximum Demand by more than 1,000 kW. The customer will provide a written notice to PG&E with the expected additional usage and duration of usage through a written notice to PG&E by 120 calendar days prior to the requested service date. If PG&E determines that additional capacity is available from PG&E to serve additional load at the Applicant's Facility, PG&E may also seek mutual agreement to adjust the Applicant's Maximum Demand and Usage Forecast and reserves the right to raise the issue before the CPUC if there is no agreement.

2. TRANSMISSION FACILITIES LOCATION AND PREMISE LAND RIGHTS

a. RIGHTS OF WAY. PG&E will own, operate, and maintain Transmission Facilities only:

1) Along public streets, alleys, roads, highways and other publicly dedicated ways and places which PG&E has the legal right to occupy; and

2) On public lands and private property across which rights of way and permits satisfactory to PG&E may be obtained without cost to or condemnation by PG&E.

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b. NORMAL ROUTE OF TRANSMISSION LINE. The length and normal route of a Transmission Line will be determined by PG&E, and considered as the distance along the shortest, most practical, available, and acceptable route, which is clear of obstructions from the service connection to PG&E's nearest permanent and available transmission facility with both sufficient existing or otherwise planned capacity and adequate existing or otherwise planned protection to completely interconnect and adequately serve the Applicant's Facility.

c. LAND RIGHTS ON APPLICANT'S PREMISES. Applicant shall provide without cost to PG&E all land and/or permanent rights of way or easements, ~~satisfactory to PG&E~~ on Applicant's Premises that PG&E and Applicant deem~~s~~ necessary, ~~in PG&E's sole discretion~~, in order to provide Retail Service to the Facility. Land and/or property rights on the Premises provided by the Applicant to PG&E shall not be considered a Contribution if the land and/or property rights are solely needed to provide Retail Service to the Facility, where the facilities are dedicated to Applicant and not capable of expansion to serve others.

3. SPECIAL ~~FACILITIES~~ OR ADDED FACILITIES. Any special or added facilities PG&E agrees to install at the request of Applicant will be installed at Applicant's expense in accordance with Rule 2— Description of Service. Any other facilities PG&E installs at the request of Applicant, will be installed at Applicant's expense in accordance with the applicable Rule for those facilities. ~~PG&E normally installs only those standard facilities which PG&E deems, in its sole discretion, are necessary to provide Retail Service. Applicant may request Special Facilities and/or Special Facilities may be required in order to provide Retail Service to Applicant's Facility. PG&E may, in its sole discretion, decide not to install Special Facilities. If PG&E agrees to install Special Facilities, then Applicant shall bear Incremental Special Facilities Costs, ITCC if applicable, and the Special Facilities Monthly Cost of Ownership Charge.~~

~~a. Special Facilities include: (1) facilities requested by the Applicant beyond those required for standard service to bona-fide load, where bona-fide load is determined by PG&E using actual and historic load(s) for customer(s) of similar type and size; (2) facilities and/or portions of facilities constructed for the sole use of the Applicant at the Applicant's request which would normally be constructed to allow for potential use by other customers; and/or (3) facilities required by project-specific circumstances, such as but not limited to space constraints, which results in additional costs.~~

~~b. Special Facilities shall be installed, owned, and maintained by PG&E as an accommodation to the Applicant only if: (1) PG&E in its sole discretion agrees to the installation of Special Facilities; and (2) the reliability of service to PG&E's other customers is not impaired by the Special Facilities.~~

~~c. Special Facilities will be installed under the terms and conditions of a Special Facilities Agreement in the form on file with the CPUC.~~

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~~d. When Special Facilities are requested by the Applicant and/or required by project-specific circumstances, PG&E shall provide to the Applicant a Standard Facilities Cost Estimate and a Special Facilities Cost Estimate.~~

~~e. A Special Facilities Monthly Cost of Ownership Charge shall be paid by the Applicant consistent with the percentage in Electric Rule No. 2.I.3.b, as may be amended from time to time.~~

~~f. In accordance with Electric Rule No. 2.I.3.d, as may be amended from time to time, where PG&E determines the collection of continuing Special Facilities Monthly Cost of Ownership Charges is not practicable, the Applicant shall be required to make an equivalent one-time payment in lieu of the Special Facilities Monthly Cost of Ownership Charge.~~

4. CONTRACTS. To receive Retail Service under this Rule, Applicant shall execute all necessary written contract(s). Such contracts shall be in the form on file with the CPUC.

5. ACCESS TO APPLICANT'S PREMISES. PG&E shall at all times have the right to enter and leave Applicant's Premises for any purpose connected with the furnishing of Retail Service (meter reading, inspection, testing, routine repairs, replacement, maintenance, vegetation management, emergency work, etc.) and the exercise of any and all rights secured to it by law or under PG&E's applicable tariff schedules. These rights may include but are not limited to: (1) the installation and use of a PG&E-approved locking device; (2) safe and ready access for PG&E personnel free from unrestrained animals; (3) unobstructed ready access for PG&E's vehicles and equipment to install, remove, repair, or maintain its facilities; and (4) removal of any and all of PG&E's property installed on Applicant's Premises after the termination of service.

6. WORK PERFORMED ON TRANSMISSION FACILITIES. Only personnel duly authorized by PG&E are allowed to connect or disconnect service conductors to or from PG&E-owned electrical facilities, remove PG&E-owned electrical facilities and equipment, or perform any work upon PG&E-owned electrical facilities.

7. FACILITY TAMPERING. Applicant shall provide a suitable means acceptable to PG&E for placing PG&E's seals on meter rings and covers of service enclosures and instrument transformer enclosures which protect unmetered energized conductors installed by Applicant. All PG&E-owned meters and enclosure covers will be sealed only by PG&E's authorized employees and such seals shall be broken only by PG&E's authorized employees. However, in an emergency, PG&E may allow a public authority or other appropriate party to break the seal. Any unauthorized tampering with PG&E-owned seals or connection of Applicant-owned facilities to unmetered conductors at any time is prohibited and is subject to the provisions of Electric Rule No. 11, as may be amended or modified.

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B. INSTALLATION AND METERING REQUIREMENTS AND FACILITY RESPONSIBILITIES

1. UNDERGROUND TRANSMISSION FACILITIES. PG&E is responsible for furnishing and installing cables, switches, and other electrical facilities required for any underground Transmission Facilities. Underground facilities are not eligible to be a part of the Applicant Build Option in Section E.

2. OVERHEAD TRANSMISSION FACILITIES. PG&E is responsible for furnishing and installing all overhead and above-ground facilities required for the Transmission Facilities, subject to the Applicant Build Option in Section E.

3. APPLICANT BUILD OPTION. ~~Subject to PG&E's sole discretion,~~ Applicant may ~~be eligible~~ elect to design, procure, construct, and install, in accordance with PG&E's standards and specifications and using qualified contractors, Applicant Build Facilities. See Section E for further details.

4. METERING FACILITIES

   a. METER USAGE AND LOCATION. Delivery of all electric power and energy will be metered, unless otherwise provided for by PG&E's tariff schedules or by other applicable laws. All meters and associated metering equipment shall be located at some protected location on Applicant's Premises as approved by PG&E.

   b. NUMBER OF METERS. Normally only one meter will be installed for a single non-residential enterprise on a single Premises, except: (1) when otherwise required or allowed under PG&E's tariff schedules; (2) at the option of and as determined by PG&E, for its operating convenience, consistent with its engineering design; (3) when required by law or local ordinance; (4) when additional services are granted by PG&E; or (5) when otherwise approved by PG&E.

   c. MULTIPLE OCCUPANCY. In a building with two or more tenants, or where more than one meter is used on the same Premises, the meters normally shall be grouped at one central location, or as otherwise specified by PG&E, and each meter position or socket shall be clearly and permanently marked by Applicant and/or the owner of the Premises to indicate the particular unit, occupancy, or load supplied by it. For revenue billing electric service shall be individually metered to each tenant in a non-residential building or group of buildings or other development on a single Premises with multiple tenants or enterprises (such as, but not limited to, an office building or shopping center complex). Alternative metering arrangements as determined by PG&E may be allowed only as specified in Electric Rule No. 18 and applicable rate schedules.

d. PG&E-OWNED METERS. When a meter is owned by PG&E, PG&E will be responsible for the necessary instrument transformers where required, test facilities, meters, associated metering equipment, and the metering enclosures when PG&E elects to locate metering equipment at a point that is not accessible to Applicant.

5. APPLICANT FACILITY RESPONSIBILITIES. Applicant shall, at its sole liability, risk, and expense, be responsible to furnish, install, own, maintain, inspect, and keep in good and safe condition, all facilities of any kind or character on Applicant's Premises that are not the responsibility of PG&E but are required by PG&E for Applicant to receive Retail Service. Such facilities shall include but are not limited to the overhead or underground termination equipment, conduits, service entrance conductors, connectors, meter sockets, meter and instrument transformer housing, service switches, circuit breakers, fuses, relays, wireways, metered conductors, machinery and apparatus of any kind or character. Detailed information on PG&E's service equipment requirements will be furnished to the Applicant by PG&E.

6. APPLICANT REASONABLE CARE OF PG&E FACILITIES. Applicant shall exercise reasonable care to prevent PG&E's Transmission Facilities and/or meters on the Applicant's Premises from being damaged or destroyed and shall refrain from interfering with PG&E's operation of the facilities and shall notify PG&E of any obvious defect.

C. ADVANCES, CONTRIBUTIONS, AND ACTUAL COST PAYMENTS

1. GENERAL. Figure 1 below provides an illustrative diagram of the potential different components of Transmission Facilities that may be required in response to an Applicant’s request for Retail Service at its Facilities and/or Premises.

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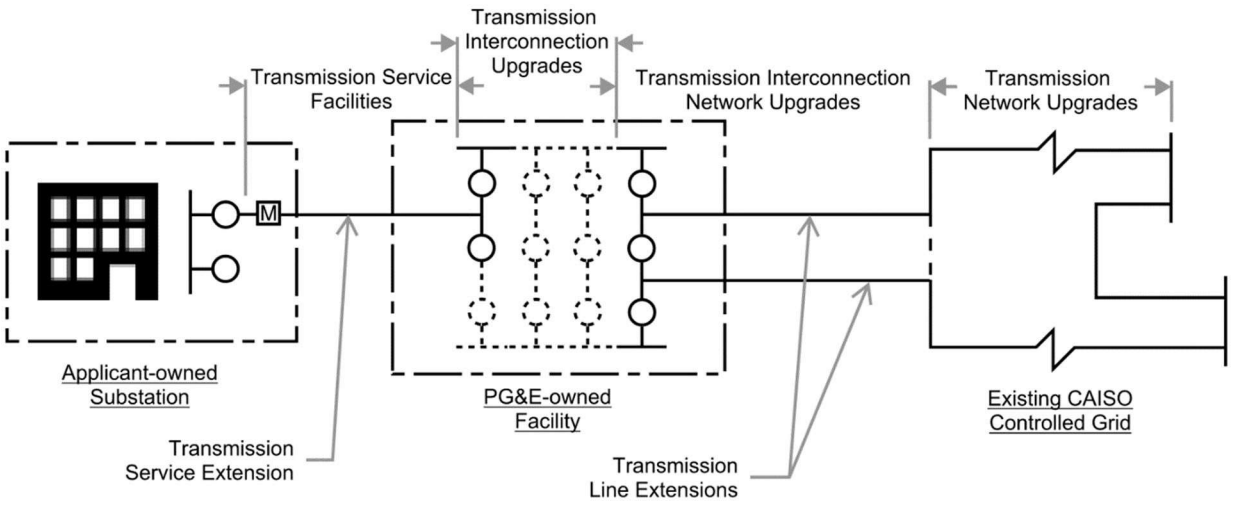
Figure 1: Illustrative Diagram of Transmission Facility Types
(Dashed lines represent potential future Transmission Interconnection Upgrades)



2. REQUIRED ADVANCE. An Advance is required from the Applicant for the design, procurement, construction, and/or installation work that has been or will be performed by PG&E for Transmission Service Facilities, Transmission Interconnection Upgrades, and Transmission Interconnection Network Upgrades. The Advance is based on the Project Specific Cost Estimate provided by PG&E and mutually agreed upon by Applant~~provided to the Applicant by PG&E~~. An Advance is not required for Transmission Network Upgrades because Transmission Network Upgrades are paid for through PG&E's FERC-approved Transmission Owner (TO) Tariff Formula rate.~~by PG&E~~.

   a) An Applicant may be required to provide separate advances for preliminary work performed by PG&E. To the extent that these preliminary advances are not included within the scope of the Advance required in this Rule, they will be addressed through agreements and/or form contracts between PG&E and the Applicant. These advances, which are outside of the scope of the Rule 30 Advance, will~~may~~ not be refundable.

   b) The amount and timing of payment for Advances under this Rule shall be specified in a CPUC-approved form contract between the Applicant and PG&E. If the Applicant fails to pay the Advance in the time specified, PG&E reserves the right to stop performance of its work. If PG&E stops performance, and Applicant subsequently pays the Advance, the timing of PG&E re-commencing work shall be at PG&E's discretion based on availability of resources.

3. OPTIONAL CONTRIBUTIONS. Applicant may~~, at PG&E's sole discretion,~~ provide in-kind services, equipment, and/or land and property rights to PG&E for purposes of installing the Transmission Facilities.

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a. Before providing any Contribution to PG&E, Applicant shall provide to PG&E a binding estimated cost of each service, piece of equipment, and/or land and property rights included in the Applicant's proposed Contribution.

b. ~~After receiving the binding estimated cost, PG&E may, in its sole discretion, decide whether or not to accept some or all of the Applicant's proposed Contribution.~~ After receiving the binding cost estimate of the Contribution, PG&E will accept the Applicant's proposed Contribution if it provides a lesser cost than what PG&E would pay for the same equipment, property rights, or in-kind services unless reasonable circumstances exist to reject the Contribution.

c. Consistent with Section A.2.c, land and/or property rights provided on the Applicant's Premises shall not be considered a Contribution if the land and/or property rights are solely needed to provide Retail Service to the Facility, where the facilities are dedicated to Applicant and not capable of expansion to serve others.

4. ACTUAL COST PAYMENTS. PG&E is entitled to receive from Applicant PG&E's Actual Costs for work performed on the Transmission Service Facilities, Transmission Interconnection Upgrades, and/or Transmission Interconnection Network Upgrades.

a. When PG&E's Actual Costs for work on the Transmission Service Facilities, Transmission Interconnection Upgrades, and/or Transmission Interconnection Network Upgrades exceed the Advance, PG&E ~~may~~ will submit an invoice to Applicant, in accordance with PG&E invoicing standards, not more than once each month for Actual Costs incurred by PG&E to date that exceed the Advance. PG&E and Applicant will ~~may, in its sole discretion,~~ determine and mutually agree upon the timing for providing invoices but not more than once each month.

b. Applicant shall pay all invoiced amounts within forty-five (45) calendar days after receipt of PG&E's invoice ("Actual Cost Payments"). If the Applicant does not pay PG&E within forty-five (45) calendar days after receipt of an invoice, the Applicant shall pay PG&E interest on the unpaid amount at the Interest Rate. With CPUC approval, PG&E shall also be entitled to stop performance of its work until an overdue payment is received. If PG&E stops performance, and Applicant subsequently pays outstanding invoiced amounts, the timing of PG&E re-commencing work shall be at PG&E's discretion based on availability of resources.

c. The Applicant shall have reasonable access to PG&E's accounts and records for the purposes of reviewing PG&E's invoices for payment and auditing PG&E's Actual Costs. Audit request(s) and support will be at the expense of the Applicant. Audit requests shall be made in writing to PG&E and shall specify the material(s) and information requested. Audit findings will also be made available to Energy Division staff at the CPUC. The CPUC may also direct PG&E, when agreeable with the Applicant, to provide an audit request at the Applicant's expense to ensure that PG&E is only recovering its Actual Costs.

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5. TAX. All taxable Advances, Contributions, and/or Actual Cost Payments by Applicant shall include an Income Tax Component of Contribution (ITCC) at the rate provided in PG&E's Preliminary Statement J. ITCC will be either refundable or non-refundable in accordance with the corresponding Advances, Contributions, and/or Actual Cost Payments.

6. JOINT APPLICANTS. In circumstances where several Applicants are seeking Retail Service and the same Transmission Interconnection Upgrades and/or Transmission Interconnection Network Upgrades are required to furnish Retail Service to each of these Applicants (Joint Applicants), the Joint Applicants shall mutually agree on apportioning among themselves the Advances, Contributions, and/or Actual Cost Payments for the Transmission Interconnection Upgrades and/or Transmission Interconnection Network Upgrades (Apportionment Agreement) and shall provide the written Apportionment Agreement to PG&E in a form acceptable by PG&E before any of the Joint Applicants executes a contract(s) for electric service. Where necessary, PG&E will work with the Joint Applicants to facilitate an Apportionment Agreement. If the Joint Applicants are unable to agree on the terms of an Apportionment Agreement, PG&E shall prepare an Apportionment Agreement that each Joint Applicant will be required to execute in order to receive Retail Service. The Apportionment Agreement shall be incorporated into each Joint Applicant’s contract(s) for Retail Service.

7. TERMINATION OF SERVICE REQUEST PRIOR TO TRANSMISSION FACILITIES BEING PUT INTO SERVICE. If at any point in time prior to the Transmission Facilities going into service, the Applicant terminates its request for Retail Service as a result of bankruptcy or for any other reason, PG&E reserves the right to retain the portion of any Advance and/or Actual Cost Payments that it has earned based on the work performed for the Applicant prior to termination. PG&E shall return to Applicant any portion of the Advance and/or Actual Cost Payments that exceed the cost of the work performed by PG&E prior to the Applicant’s termination. Termination of a request for retail Service from the Applicant must be provided in writing to PG&E.

8. FAILURE TO TAKE SERVICE. If the Applicant does not take any electrical service from PG&E for any reason by the end of the first calendar year after the Transmission Facilities are in service, the Applicant forfeits the right to receive any Refund under Section D.

9. EXCESS FACILITIES. If the Applicant’s Load is significantly lower than the Applicant’s Usage Forecast, PG&E reserves the right to remove, abandon, or replace Excess Facilities and Applicant shall pay PG&E its Actual Costs to remove, abandon, or replace the Excess Facilities, less the estimated salvage of any removed facilities.

10. REFUND OF ADVANCE IN EXCESS OF ACTUAL COSTS. If PG&E’s Actual Costs for the Transmission Service Facilities, Transmission Interconnection Upgrades, and/or Transmission Interconnection Network Upgrades are less than the Advance, PG&E shall refund to the Applicant the amount of the Advance that exceeds the Actual Costs. ~~The refund shall include interest on the refunded amount at the Interest Rate accruing during the Interest Period. The Applicant is not entitled to interest on~~

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~~any ITCC amount included in the Advance.~~

D. REFUNDS

1. GENERAL. Refunds may be provided by PG&E to the Applicant during the Refund Period. Applicant may be eligible for Refunds of the following amounts:

   a. Adjusted Applicant Payment

   b. Adjusted Contribution Cost

   c. Adjusted Applicant Build Cost

   These three amounts are referred to as the Total Refund Amount.

2. REFUND AVAILABILITY. Refunds are available for Transmission Service Facilities, Transmission Interconnection Upgrades, and/or Transmission Interconnection Network Upgrades. Refunds are not available for Transmission Network Upgrades because an Applicant is not required to provide an Advance and/or Actual Cost Payments for a Transmission Network Upgrade.

3. REFUND PERIOD. The Refund Period shall start from the date the Applicant begins receiving Retail Service ~~in the first full calendar year after the Transmission Facilities go into service~~ and shall last for ten (10) years. After the Refund Period ends, the Applicant shall not be entitled to any further Refunds. The total Refunds received by Applicant during the Refund Period may be less than the Total Refund Amount but shall never exceed the Total Refund Amount

4. REFUND CALCULATION:

   a. PG&E will calculate Refunds, if any, for the first three calendar years of the Refund Period using the Revenue Cap Calculation ~~the Base Annual Revenue Calculation~~. The Refunds will be calculated 30 days after a full year of service using revenues associated with the full year of customer load based on actual meter data. The Refund Amount for the calendar year shall be the Revenue Cap Calculation ~~Base Annual Revenue Calculation~~ less any Refunds paid to the Applicant in prior calendar years during the Refund Period.

   b. The Applicant is responsible for notifying PG&E if new, permanent load is added during the fourth through tenth year of the Refund Period no later than December 31st of the calendar year and providing documentation of the new, permanent load. If the Applicant does not provide PG&E notice by December 31st, PG&E will not calculate or provide a Refund for that calendar year.

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c. No Refund shall be made in excess of the refundable amount. Any unrefunded amount remaining at the end of Refund Period shall become the property of PG&E. ~~The total Refunds provided during the Refund Period shall not exceed the Total Refund Amount.~~

d. ~~At the end of the Refund Period, if the total Refunds are less than the Total Refund Amount, Applicant forfeits its right to receive any additional Refunds.~~

e. ~~As a part of a Refund, the Applicant is entitled to interest accruing during the Interest Period at the Interest Rate on any Advance and/or Actual Cost Payment. The Applicant is not entitled to interest on: (1) any interest for any period of time after the Interest Period; (2) any ITCC payments or amounts provided to PG&E; and (3) any Adjusted Contribution Cost and/or Adjusted Applicant Build Cost.~~

f. Refunds are calculated without consideration of Minimum Demand Charges, if any, that are applied to and/or paid by the ~~customer~~per Section L.b over the Refund Period.

g. Applicant may also receive refundable ITCC.

5. REFUND TIMING. Refunds ~~for a calendar year~~ during the Refund Period will be made each year without interest by PG&E within one hundred and twenty (120) days after ~~the end of the calendar year~~the date the Applicant began receiving Retail Service~~of first service~~.

6. MONTHLY OWNERSHIP CHARGE. When any portion of the Total Refund Amount has not been provided as a Refund after the first calendar year of the Refund Period, for each calendar year during the Refund Period following the first calendar year the financed Cost of Ownership percentage from Electric Rule No. 2.I.3.b, as may be amended from time to time, shall be applied to the difference between the Total Refund Amount and the Refunds paid to date and paid by the Applicant as a Monthly Ownership Charge. The Monthly Ownership Charge serves to recover the cost of operating and maintaining Transmission Facilities that are not fully utilized.

a. The Monthly Ownership Charge shall be calculated annually and ~~may at PG&E's discretion~~: (1) be deducted from subsequent Refunds due to the Applicant; or (2) collected via invoice if the Refund due is less than the Monthly Ownership Charge as provided in Section D.6.b.

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b. If no Refunds are due for a calendar year or the Monthly Ownership Charge exceeds the Refund due for a calendar year, PG&E may submit an invoice to Applicant, in accordance with PG&E invoicing standards, within one hundred and twenty (120) days of the end of the calendar year. Applicant shall pay all invoiced amounts within forty-five (45) calendar days after receipt of PG&E's invoice. If the Applicant does not pay PG&E within forty-five (45) calendar days after receipt of an invoice, interest on the unpaid amount at the Interest Rate shall accrue until the unpaid amount is paid.

c. The Monthly Ownership Charge shall only be collected for the Refund Period. However, if there are unpaid Monthly Ownership Charges owed by the Applicant incurred during the Refund Period, PG&E shall be entitled to recover these unpaid amounts from Applicant after the end of the Refund Period.

7. JOINT APPLICANTS. In the circumstance of Joint Applicants as provided in Section C.6, Refunds will be distributed to the Joint Applicants in the proportion specified in their Apportionment Agreement.

8. [MIXED-FUEL NEW CONSTRUCTION PROJECT ELIGIBILITY. Pursuant to CPUC Decision 23-12-037, Mixed-Fuel New Construction projects are not eligible for Refunds.][1]

9. AUDIT OF ACTUAL CONTRIBUTION COSTS FOR PURPOSES OF REFUND. To the extent that Applicant seeks a Refund of costs for Contributions, PG&E shall have reasonable access to Applicant's accounts and records for the purposes of reviewing and/or auditing the actual cost incurred by the Applicant for the Contribution. Audit request(s) and support will be at the expense of PG&E. Audit requests shall be made in writing to Applicant and shall specify the material(s) and information requested. Audit findings will also be made available to Energy Division staff at the CPUC. The CPUC may also direct PG&E to provide an audit request for the Applicant's Contribution Costs.

10. TERMINATION OF SERVICE. If the Applicant terminates Retail Service during the Refund Period, and the Total Refund Amount has not been provided as a Refund, the Applicant automatically forfeits any remaining Refund amount.

11. SUBSEQUENT USE OF TRANSMISSION INTERCONNECTION UPGRADES AND/OR TRANSMISSION INTERCONNECTION NETWORK UPGRADES. If prior to or during the Refund Period, a Subsequent Applicant requests Retail Service under this Rule and the Subsequent Applicant's Retail Service will utilize the Transmission Interconnection Upgrades and/or Transmission Interconnection Network Upgrades paid for by Applicant and there is an outstanding Refund amount for which the Applicant is eligible, PG&E will implement the following:

a. To the extent PG&E has paid the Subsequent Applicant its Total Refund Amount

[1] ~~[Note: The applicability of this provision will be addressed in the Electric Rule 30 Application and determined by the Commission.]~~

and the Revenue Cap Calculation ~~Base Annual Revenue Calculation~~ for the Subsequent Applicant indicates an amount above the Total Refund Amount, PG&E will provide a Subsequent Use Refund to the Applicant that is the difference between a Subsequent Applicant's Revenue Cap Calculation ~~Base Annual Refund Calculation~~ and the Subsequent Applicant's Total Refund Amount if the amount is greater than zero.

b. PG&E will only perform the Subsequent Use Refund calculation after the Subsequent Applicant has received its Total Refund Amount. The Subsequent Use Refund will be calculated once and applied one-time to the Applicant's outstanding Refund amounts.

c. The total of the Subsequent Use Refund and Refund paid to Applicant shall not exceed the Total Refund Amount.

d. Applicant is not eligible for Subsequent Use Refunds after the Refund Period ends.

E. APPLICANT BUILD OPTION

1. GENERAL. ~~In PG&E's sole discretion,~~ Applicant may be eligible to assume responsibility for the design, procurement, construction, and installation of Applicant Build Facilities. Under this option, Applicant shall be responsible for:

   a. Engineering, procuring equipment for, constructing and/or installing the Applicant Build Facilities using: (1) Good Utility Practice; and (2) standards and specifications provided by PG&E;

   b. Ensuring that the designs for Applicant Build Facilities comply with all applicable federal, state, and local codes and ordinances for utility installations~~requirements of law and regulations that PG&E would be subject to for engineering, procurement, and construction of the Applicant Build Facilities~~;

   c. Ensuring that materials and equipment used in Applicant Build Facilities meet PG&E's ~~standards and specifications~~design and construction standards and specifications for materials and/or equipment;

   d. PG&E's review and oversight costs related to the Applicant Build Facilities, except as specified in Section E.9. The Applicant will be separately invoiced for PG&E's costs and is not eligible for a Refund of these review and oversight costs;

   e. Applicant may not design, procure, construct and/or install any underground facilities as a part of the Applicant Build Facilities. All underground facilities that are a part of the Transmission Facilities will be designed, procured, constructed and installed by PG&E; and,

   f. Applicant may not construct and/or install Transmission Interconnection Upgrades to existing PG&E electrical facilities.

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2. PG&E REVIEW. PG&E shall review and approve the engineering design, equipment acceptance tests, and the construction of the Applicant Build Facilities. Applicant shall promptly provide PG&E with a construction schedule when requested by PG&E and shall promptly reply to all information requests from PG&E.

3. PG&E ACCESS. PG&E shall have the right to gain unrestricted access to Applicant's work on the Applicant Build Facilities and to conduct inspections of the same.

4. REMEDYING DEFICIENCIES. Should any phase of the engineering, equipment procurement, or construction not meet the standards and specifications provided by PG&E, the Applicant shall be obliged to remedy the deficiencies at Applicant's expense. PG&E has the right to direct Applicant to stop all work should any phase of the engineering, equipment procurement, or construction not meet the standards and specifications provided by PG&E unless and until the Applicant remedies the deficiencies.

5. INDEMNITY. The Applicant shall indemnify PG&E for any claims arising from the Applicant's design, procurement, installation, and/or construction of Applicant Build Facilities.

6. TRANSFER OF OWNERSHIP. Upon completion of construction and acceptance by PG&E, ~~at PG&E's sole discretion,~~ Applicant shall transfer ownership and control of the Applicant Build Facilities to PG&E. Before the transfer of ownership, Applicant shall deliver to PG&E "as-built" drawings, information, and any other documents that are reasonably required by PG&E to assure that the Applicant Build Facilities are built to the standards and specifications required by PG&E.

7. MINIMUM CONTRACTOR QUALIFICATIONS. Applicant's contractor or subcontractor shall:

   a. Be licensed in California for the appropriate type of work (electrical and general, etc.);

   b. Employ workmen properly qualified for specific skills required (Qualified Electrical Worker, Qualified Person, etc.) as defined in State of California High Voltage Safety Orders (Title 8, Chapter 4, Subchapter 5, Group 2);

   c. Comply with applicable laws (Equal Opportunity Regulations, OSHA, EPA, etc.);

   d. ~~Be from an approved list of contractors furnished by PG&E; and,~~

   e. Have adequate insurance coverage (worker's compensation, liability, property damage)

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8. OTHER CONTRACTOR QUALIFICATIONS. An Applicant shall consider the following qualifications in retaining a contractor or subcontractor:

   a. Is technically competent;

   b. Has access to proper equipment;

   c. Demonstrates financial responsibility commensurate with the scope of the contract; and,

   d. Is able to furnish a surety bond for performance of the contract, if required.

9. AUDIT OF APPLICANT BUILD FACILITY COSTS FOR PURPOSES OF REFUND. To the extent that Applicant seeks a Refund of Adjusted Applicant Build Costs, PG&E shall have reasonable access to Applicant's accounts and records for the purposes of reviewing and auditing the reasonableness of the costs claimed by Applicant for Applicant Build Facilities. Audit request(s) and support will be at the expense of PG&E. Audit requests shall be made in writing to Applicant and shall specify the material(s) and information requested. Audit findings shall be made available to Energy Division staff at the CPUC. PG&E may use the results of audit to determine the amount of the Refund owed to Applicant for Applicant Build Facilities.

10. CONTRACTS. Each Applicant electing the Applicant Build Option ~~, subject to PG&E's sole discretion,~~ shall be required to execute a written contract(s) prior to performing work on the Applicant Build Facilities. Such contracts shall be in the form on file with the CPUC.

11. APPLICANT BUILD COSTS.

    a. Applicant shall provide PG&E a binding estimated cost of Applicant Build Facilities prior to construction.

    ~~b. After receiving the binding estimated cost for the Applicant Build Facilities, PG&E may, in its sole discretion, decide whether or not Applicant is eligible for the Applicant Build Option.~~

    b. After receiving the binding estimated cost for the Applicant Build Facilities, PG&E will accept the Applicant Build Option if the cost is less than PG&E's estimated cost for the same work, unless PG&E determines that the Applicant is unable to meet design and construction standards and requirements under the Applicant Build Option.

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12. TAX. Applicant shall include an ITCC payment to PG&E when it transfers ownership of any Applicant Build Facilities at the rate provided in PG&E's Preliminary Statement J based on the binding cost estimate described in Section E.11. ITCC will be either refundable or non-refundable as described in Section D.

F. REPORTING

1. TRANSMISSION-LEVEL CUSTOMER REPORT (REPORT). PG&E must furnish a sortable Report containing the customer-specific data identified in Attachment Afor all customers served under this Rule. The Report must be fully populated for each customer served under this Rule no more than 60 days prior to the data being provided. If PG&E is providing data that is less than complete, written notification, an explanation of the deficiencies, and when the deficiencies will be remedied shall be provided to the Commission no fewer than five business days prior to date the Report is to be issued.

   a. PG&E shall update and provide the Report to the CPUC and Cal Advocates on an annual basis, highlighting all new customers added to the Report, and any changes to the previously distributed Report.

   b. There shall be a public version and, as applicable, a confidential version of each annual Report. The public version shall be distributed to a maintained distribution list and made available on PG&E's website with any confidential data redacted.

2. TRANSMISSION-LEVEL APPLICANT REPORT (APPLICANT REPORT). PG&E must furnish a sortable Applicant Report containing the applicant-specific data identified in Attachment B for all Applicants for Retail Service under Electric Rule 30. The Applicant Report must be fully populated for each Applicant with data extracted from PG&E's database no more than 60 days prior to the data being provided. If PG&E is providing data that is less than complete, written notification, an explanation of the deficiencies and when the deficiencies will be remedied shall be provided to the Commission no fewer than five business days prior to date the Applicant Report is to be issued.

   a. PG&E shall update and provide the Applicant Report to the CPUC and Cal Advocates on a biannual basis, highlighting all new Applicants added to the Applicant Report, and any changes to the previously distributed Applicant Report. This includes all withdrawn applications since the previous report.

   b. There shall be a public version and, as applicable, a confidential version of each biannual Applicant Report. The public version shall be distributed to a maintained distribution list and made available on PG&E's website with any confidential data redacted.

~~F.~~G. SPECIAL CONDITIONS

1. APPLICANT REQUESTED FACILITY RELOCATION OR REARRANGEMENT. Any relocation or rearrangement of PG&E's existing electrical facilities ~~solely~~ at the request

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of, or to meet the convenience of an ~~the~~ Applicant, and agreed upon~~to~~ by PG&E ~~in its sole discretion,~~ normally shall be performed by PG&E ~~at Applicant's sole expense~~. Applicant shall be responsible for the costs of all related relocation, rearrangement and removal work. Applicant is not entitled to Refunds for Applicant requested relocations or rearrangements.

2. EXISTING FACILITY REMOVAL. ~~PG&E can at its discretion abandon or remove existing electrical facilities as a part of the construction of Transmission Facilities. Costs for removal of existing facilities shall be included in the Project Specific Cost Estimates and/or Actual Costs and may be included in Refunds.~~ When, in the judgement of PG&E, the relocation, rearrangement, or removal of a service is necessary for the maintenance of adequate service or for the operating convenience of PG&E, PG&E normally will perform such work at its own expense. In all instances, PG&E shall abandon or remove its existing facilities at the option of PG&E rendered idle by the relocation or rearrangement.

3. EXCEPTIONAL CASES. When the application of this Rule appears impractical or ~~unreasonable~~ unjust to either party or to ratepayers, PG&E or Applicant may refer the matter to the CPUC for a special ruling or for special condition(s), which may be mutually agreed upon. Applications for retail service over 200 MW must obtain CPUC approval through a special ruling.

4. TERMINATION OF SERVICE. Applicant shall be responsible for the cost of removal of any and all PG&E electric facilities installed on Applicant's Premises if electrical service to Applicant's Premises is terminated.

5. TRANSMISSION NETWORK UPGRADE PRE-FUNDING LOAN. If Applicant requests to accelerate the timing of the work needed to receive Retail Service for ~~its~~Applicant's Facility, and a pre-funding loan from Applicant for the Transmission Network Upgrades would allow PG&E to perform work on the Transmission Network Upgrades in a more expedited manner than it would otherwise be able to perform the work, PG&E and Applicant may enter into a loan agreement to allow Applicant to pre-fund Transmission Network Upgrades and to receive a refund of the loan amount after the Applicant's Facility begins receiving Retail Service. The terms and conditions of the pre-funding loan and the refund of pre- funds shall be addressed in a separate agreement between Applicant and PG&E. With CPUC approval, ~~T~~the decision as to whether to agree to pre-funding for Transmission Network Upgrades ~~is at~~ may be mutually agreed upon by PG&E and Applicant ~~'s sole discretion~~. PG&E shall not pay interest on pre-funding loans. In addition to the principal loan amount, the Applicant shall be responsible for any ITCC on any portion of the pre-funding loan amount which is deemed taxable at the rate provided in PG&E's Preliminary Statement J.

6. INTERCONNECTION AT VOLTAGE ABOVE 230 kV: For Applicants requesting Retail Service at voltages above 230 kV, PG&E may~~, at its sole discretion,~~ apply the provisions of this Rule after obtaining CPUC approval. ~~However, PG&E reserves the right to modify provisions in the Rule to accommodate such requests.~~ PG&E ~~may~~ shall submit an exceptional case request under Section G~~F~~.3 for Retail Service above 230 kV voltages.

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H. ADDITIONAL TERMS OF AGREEMENTS FOR DATA CENTERS.

1. APPLICABILITY. Data Centers interconnected under this Rule, shall be subject to the following terms of agreement.

2. MINIMUM SERVICE TERM. Form agreements with Data Centers under this Rule shall be made for an initial period of not less than 15 years. After the initial term, Agreements shall remain in effect unless terminated by either party by providing written notice to the other party no later than one (1) year prior to the requested date of termination. After the initial term, either party may request a modification to the Application term length by providing written notice to the other party no later than one (1) year prior to the requested modification date. During the initial term of the Agreement, the Applicant will be responsible for paying the Minimum Demand Charge and all other charges regardless of the customer choosing to curtail, reduce, suspend, or terminate service.

3. MINIMUM DEMAND CHARGE. Beginning in the first full month following commencement of service and continuing through the remainder of the Agreement, if in any month in which the Applicant's Actual Usage is below the Expected Usage, PG&E shall submit an invoice to the Applicant for a Minimum Demand Charge as defined below, in accordance with PG&E invoicing standards. The Minimum Demand Charge serves to recover the fixed costs of Transmission Facilities that are not fully utilized.

    a. The Minimum Demand Charge shall be calculated monthly as the product of the Usage Gap (kWh) in that month, if applicable, and the customer's applicable retail rate ($/kWh).

    b. The Usage Gap shall be calculated as the difference between the customer's Actual Usage and Expected Usage. A customer's Expected Usage shall be determined as a fixed percent of the customer's Maximum Demand scaled over a load ramp period as described below, unless amended in accordance with Section I.c and I.d, where Year 1 begins following the first full month following commencement of service:

        1) 50% of Maximum Demand in Year 1

        2) 60% of Maximum Demand in Year 2

        3) 70% if Maximum Demand in Year 3

        4) 80% of Maximum Demand in Year 4

        5) 90% of Maximum Demand in Year 5 and throughout the remainder of the Applicant's operation.

    c. The customer may request a permanent reduction of its contracted Maximum Demand by providing PG&E with written notice at least three hundred sixty-five (365) calendar days prior to the requested effective date. The reduction shall take

effect on the later of: (a) the requested effective date or (b) 365 days after PG&E receives the notice. No reduction shall result in a Maximum Demand below 60% of the customer's initial Maximum Demand or below the customer's highest actual metered peak demand during the preceding twelve (12) months unless the customer demonstrates a verifiable operational change, such as facility closure, process modification, or efficiency improvement. Following a reduction in Maximum Demand, the customer may not request a subsequent increase for a minimum of twenty-four (24) months unless: (i) there is a material change in operations, and (ii) sufficient transmission capacity is available or any required upgrades are fully funded by the customer.

d. If the customer's Actual Usage averaged over a 15-minute period exceeds one hundred ten percent (110%) of its contracted Maximum Demand for three (3) consecutive months PG&E shall: a. Retroactively assess monthly Minimum Demand Charges based on the Actual Usage; and/or b. Require the customer to amend its contracted Maximum Demand.

e. The Applicant shall agree with PG&E in advance its Usage Forecast and a Maximum Demand value to be used for the initial term of the contract.

f. PG&E shall not be required to supply capacity in excess of the Applicant's Maximum Demand.

g. Data Centers served under this tariff agree to written attestation as part of its Agreement that the Applicant will follow all applicable technical operating requirements, such as not intentionally or unintentionally cycling load in a way that creates an imbalanced or unacceptable system frequency, and other requirements that will be maintained and periodically updated for the safety of the larger system. Upon detection of any activities outside of the technical requirements, PG&E has the right to disconnect.

I. DEFINITIONS FOR RULE 30: Unless provided otherwise, Capitalized terms used in this Rule shall have the meaning ascribed to such terms as provided in this section. The definitions set forth in this section shall only apply to this Rule and to the corresponding form agreement on file with the CPUC.

ACTUAL COST: PG&E's fully loaded costs, including direct, indirect, and overhead costs billed in accordance with PG&E's systems for allocating charges to customers. Direct, indirect and overhead costs include, without limitation, payroll, payroll taxes, external charges, benefits, Allowance for Funds Used During Construction, Administrative and General Costs, estimating, mapping, surveying, permitting costs, land rights acquisition, transportation, service planning, contract management, sourcing, stores and tool expense, material and supplies, public liability and property damage insurance, estimated and actual state and federal income tax, and close out costs.

ACTUAL COST PAYMENTS: As that term is defined in Section C.4.

ACTUAL USAGE: The actual metered energy consumed by the Interconnection Customer in a

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given month in MWh.

ADJUSTED APPLICANT BUILD COST: The lesser of: (1) the binding estimated cost for the Applicant Build Facilities as described in Section E.11; or (2) the actual cost paid for the Applicant Build Facilities by the Applicant, which shall be subject to audit by PG&E as provided in Section E.9.

ADJUSTED CONTRIBUTION COST: The lesser of: (1) the binding estimated cost for the Contribution as described in Section C.3; or (2) the actual cost paid for the Contribution by the Applicant, which shall be subject to audit by PG&E as provided in Section D.9.

ADJUSTED APPLICANT PAYMENT: Includes any Advance and/or Actual Cost Payments made or provided by Applicant to PG&E less the Incremental Special Facilities Cost.

ADVANCE: Cash payments made to PG&E for before work ~~that has been or~~ will be performed by PG&E on the Transmission Facilities. An Advance may not include preliminary work performed by PG&E as described in Section C.2.a.

APPLICANT: A person, entity, or agency requesting PG&E to provide Retail Service at transmission voltages from 50 kV up to and including 230 kV. ~~An Applicant may also be referred to as Interconnection Customer~~.

APPLICANT BUILD FACILITIES: Transmission Service Facilities and/or Transmission Interconnection Upgrades designed, procured, constructed, and/or installed by an Applicant consistent with the requirements in Section E. However, Applicant Build Facilities do not include, and an Applicant may not design, procure, construct, and install: (1) Transmission Interconnection Upgrades if they are located in existing PG&E electrical facilities as provided in Section E.1.f; and (2) any underground facilities as provided in Section E.1.e.

APPLICANT BUILD OPTION: The option for an Applicant to build facilities as described in Section E of this Rule.

TRANSMISSION-LEVEL APPLICANT REPORT (APPLICANT REPORT): Provided to the CPUC and Cal Advocates biannually, the Applicant Report shall be tabulated and contain up-to-date data on all Applicants for Retail Service under Electric Rule 30. The Applicant Spreadsheet is included as Attachment B.

APPORTIONMENT AGREEMENT: As that term is defined in Section C.6.

~~BASE ANNUAL~~ REVENUE CAP CALCULATION ~~or BARC~~: The amount calculated using the retail electric components of the Applicant's energy bill for the one-year period following the commencement of the Refund Period using the following formula:

$$\text{~~BARC FORMULA~~ REVENUE CAP } = \frac{\text{Net Revenue}}{\text{~~CoSF~~}} \times (1 + \text{ITCC})$$

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CAISO: See Electric Rule No. 1 ~~. The California Independent System Operator Corporation, or successor entity.~~

CONTRIBUTION: In-kind services, equipment, and/or property and land rights conveyed or provided to PG&E, at PG&E's sole discretion, excluding property and/or land rights on the Premises provided by the Applicant to PG&E under Section A.2.c.

COST-OF-SERVICE FACTOR (CoSF): The annualized utility-financed Cost of Ownership as stated in monthly format in Electric Rule No. 2 that includes taxes, return and depreciation.

CPUC: ~~California Public Utilities Commission or a successor regulatory entity~~See Electric Rule No. 1.

TRANSMISSION-LEVEL CUSTOMER REPORT (REPORT): Provided to the CPUC and Cal Advocates annually, the Report shall be tabulated and contain up-to-date data on all customers served under Electric Rule 30. The Report is included as Attachment A.

DATA CENTER: A centralized facility (a) used primarily or exclusively for electronic information services such as the management, storage, processing, and dissemination of electronic data and information through the use of computer systems, servers, networking equipment, and related components that (b) has an aggregate monthly maximum demand of greater than 25,000 kW.

EXCESS FACILITIES: Facilities that are constructed based on Applicant's Usage Forecast that are not needed to provide electrical service to Applicant's Load. Excess Facilities may occur when Applicant's Load is significantly lower than the Usage Forecast.

EXPECTED USAGE: The monthly energy usage expected from the customer in kWh based on a percentage of their Maximum Demand, scaled to reflect load ramp expectations, and used to calculate the Minimum Demand Charge as defined in Section H.3. The Expected Usage is 50% of the Applicant's Maximum Demand in Year 1, 60% of Applicant's Maximum Demand in Year 2, 70% of the Applicant's Maximum Demand in Year 3, 80% of the Applicant's Maximum Demand in Year 4, and 90% of the Applicant's Maximum Demand for the remainder of the contract term, calculated using an assumed 0.9 load factor.

FACILITY: Applicant's building(s) or other structure(s) to which PG&E will provide Retail Service using the Transmission Facilities. Facility may also be referred to as Data Center when Applicant seeks Retail Service for that specific facility.

GOOD UTILITY PRACTICE: Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to any one of a number of the optimum practices, methods, or acts to the

exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region, including those practices required by Federal Power Act section 215(a)(4).

INCOME TAX COMPONENT OF CONTRIBUTION or ITCC: The charge to cover PG&E's resulting estimated liability for Federal and State income tax on the taxable component of Advances, Actual Cost Payments, Contributions, or other payments made or provided by the Applicant.

~~INCREMENTAL SPECIAL FACILITIES COST: The Incremental Special Facilities Cost is: (1) the Actual Cost of Special Facilities minus the Standard Facilities Cost Estimate; and (2) the cost of any Special Facilities constructed for the sole use of the Applicant at the Applicant's request which would normally be constructed to allow for potential use by other customers. If for Item (1) the Actual Cost of Special Facilities minus the Standard Facilities Cost Estimate is a negative number, the amount for Item (1) shall be set to zero.~~

~~INTEREST PERIOD: The period of time during which interest accrues on an Advance and/or Actual Cost Payment. The Interest Period commences on the date that PG&E receives the Advance or, if there is no Advance, the date PG&E receives the first Actual Cost Payment and ends on the earlier of: (1) energization of the Transmission Facilities; or (2) the estimated in-service date in the Preliminary Engineering Study provided to the Applicant. Interest on any specific Advance and/or Actual Cost Payment starts to accrue when the Advance and/or Actual Cost Payment is received by PG&E and stops accruing at the end of the Interest Period.~~

INTEREST RATE: When interest is payable under this Rule, the interest rate shall be 1/12 of the most recent month's interest rate on commercial paper (prime, three months), published in the Federal Reserve Statistical Release, H.15. Should publication of the interest rate on commercial paper (prime, three months) be discontinued, interest will accrue at the rate of 1/12 of the most recent month's interest rate on commercial paper which most closely approximates the rate that was discontinued and which is published in the Federal Reserve Statistical Release, H.15, or successor publication.

INVOICE: "Invoice" to mean when PG&E presents an offer to the customer for the project in response to an application for a Facility submitted pursuant to the regulations of the CPUC and applicable specifications of PG&E.

JOINT APPLICANTS: As that term is defined in Section C.6.

kV: Kilovolts.

LOAD: The actual electrical usage of the Facility.

LOAD RAMP PERIOD: The time of commencement of service until the customer reaches its Maximum Demand.

MAXIMUM DEMAND: The Applicant's anticipated average maximum peak demand over a

15-minute period in kW over its 10-year Usage Forecast. The Maximum Demand is provided by the Applicant upon submission of its interconnection request and agreed upon between the Applicant and PG&E prior to interconnection. After interconnecting, the Maximum Demand may be raised to reflect the single-highest 15-minute integrated peak in kW, as registered at the Applicant's Facility during the month, but shall in no event be less than 60 percent of the greater of (a) the customer's initial Maximum Demand or (b) the customer's highest previously established monthly billing demand during the past 11 months.

MIXED-FUEL NEW CONSTRUCTION: An end-use load, or consistent with the definition of New Construction in the California Energy Commission 2022 Building Energy Efficiency Standards, a building that has never been used or occupied for any purpose, or any renovation where 50 percent or more of the exterior weight-bearing walls are removed, that uses gas and/or propane in addition to electricity.

MONTHLY OWNERSHIP CHARGE: As defined in Section D.6.

NET REVENUE: That portion the total rate revenues based on actual meter usage data that supports the Transmission Facilities. The term Net Revenues excludes items such as energy, public purpose programs, non-bypassable charges, revenue cycle services, and other revenues that do not support the Transmission Facilities costs.

PREMISES: All of the real property and apparatus employed in a single enterprise on an integral parcel of land undivided, excepting in the case of industrial, agricultural, oil field, resort enterprises, and public or quasi-public institutions, by a dedicated street, highway or public thoroughfare or a railway. Automobile parking lots constituting a part of and adjacent to a single enterprise may be separated by an alley from the remainder of the Premises served.

PROJECT SPECIFIC COST ESTIMATES. PG&E's total estimated project-specific cost based on: (1) PG&E's best estimate of the costs to install Transmission Service Facilities, Transmission Interconnection Upgrades, and/or Transmission Interconnection Network Upgrades; and (2) the Special Facilities Cost Estimate.

REFUND: A portion or all of the Total Refund Amount that may be refunded to the Applicant after the Transmission Facilities go into service based on Net Revenue.

REFUND PERIOD: The first full calendar year after the Transmission Facilities go into service and shall last for ten (10) years.

RETAIL SERVICE: Electric service to PG&E's end-use or retail customers which is of a permanent and established character and may be continuous, intermittent, or seasonal in nature.

RULE: This Electric Rule No. 30.

SPECIAL FACILITIES: As that term is defined in Section A.3.a.

~~SPECIAL FACILITIES AGREEMENT: A form agreement on file with the CPUC for the~~

ELECTRIC RULE NO. 30
RETAIL SERVICE TRANSMISSION FACILITIES

~~design, procurement, construction and installation of Special Facilities.~~

~~SPECIAL FACILITIES COST ESTIMATE. A cost estimate provided by PG&E to an Applicant estimating the cost of Special Facilities requested by the Applicant and/or that are necessary for project-specific circumstances.~~

~~SPECIAL FACILITIES MONTHLY COST OF OWNERSHIP CHARGE. The monthly charge for the cost of ownership for Special Facilities as defined in Section A.3.~~

~~STANDARD FACILITIES COST ESTIMATE. A cost estimate provided by PG&E to an Applicant requesting Special Facilities. The cost estimate shall estimate the cost of facilities that PG&E would normally install which PG&E, in its sole discretion, deems are necessary to provide Retail Service.~~

SUBSEQUENT APPLICANT: An applicant who requests Retail Service under this Rule and utilizes the Transmission Interconnection Upgrades and/or Transmission Interconnection Network Upgrades paid for by Applicant and still subject to an outstanding Refund amount.

SUBSEQUENT USE REFUND: The difference between a Subsequent Applicant's Base Annual Refund Calculation and the Supplicant Applicant's Total Refund Amount if the amount is greater than zero.

SUBSTRUCTURES: The surface and subsurface structures which are necessary to contain or support PG&E's electric facilities. This includes, but is not limited to, such things as splice boxes, pull boxes, equipment vaults and enclosures, foundations or pads for surface- mounted equipment.

TOTAL REFUND AMOUNT. The sum of the Adjusted Applicant Payment, Adjusted Applicant Build Cost, and/or the Adjusted Contribution Cost, ~~plus interest~~ as described in Section D.4.

TRANSMISSION FACILITIES: All facilities including Transmission Service Facilities, Transmission Interconnection Upgrades, Transmission Interconnection Network Upgrades, and/or Transmission Network Upgrades to furnish Retail Service to non-residential Applicants seeking Retail Service.

TRANSMISSION INTERCONNECTION UPGRADES: Electric transmission facilities required in a new or existing PG&E-owned substation, switching station, or similar facility to accomplish the physical interconnection of the Applicant's Facility and/or mitigate any adverse impacts. *See* Section C.1 for an example of these facilities.

TRANSMISSION INTERCONNECTION NETWORK UPGRADES: New electric transmission facilities which are necessary for the interconnection to a PG&E-owned substation, switching station, or similar facility to PG&E's electric transmission system to provide electric service to the Applicant's Facility and/or mitigate any adverse impacts. These upgrades may include but are not limited to protection, permitting, and relocation upgrades needed to connect the applicant. *See* Section C.1 for an example of these

facilities.

TRANSMISSION LINE: An electric line used for electric power transmission service. Electric lines ~~rated 50 kV and greater~~ are transmission lines.

TRANSMISSION NETWORK UPGRADES: Upgrades to PG&E's existing transmission facilities (≥50 kV) at or beyond the point where the Applicant Facility interconnects to the CAISO Controlled Grid necessary to interconnect one or more Applicant Facility(ies) safely and reliably to the CAISO Controlled Grid, as defined in the CAISO tariff. ~~to mitigate any adverse impact and provide Applicant with adequate electric service to the CAISO controlled grid.~~ *See* Section C.1 for an example of these facilities.

TRANSMISSION SERVICE FACILITIES: Transmission Service Facilities shall consist of: (a) transmission underground or overhead service conductors, (b) poles, towers, and structures to support overhead service conductors, (c) PG&E-owned metering equipment, and (d) other PG&E-owned equipment necessary to provide electric service to the Applicant's Facility from a PG&E-owned substation, switching station, or similar facility. *See* Section C.1 for an example of these facilities.

USAGE FORECAST: Applicant shall provide to PG&E in its application for service a forecast of expected load for the first ten (10) years that the Transmission Facilities are in service.

USAGE GAP: The difference between an Applicant's Expected Usage and Actual Usage in a given month in MWh, used to calculate the Minimum Demand Charge as defined in Section H.2.

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2. Attachment A: Table 6: Customer Spreadsheet

Table 6: Customer Spreadsheet

No.	Customer [CONFIDENTIAL]	Project Name [CONFIDENTIAL]	Customer Type	Site Location	Request Date	Requested Capacity	Facility Type 1 Built for Customer	Facility Type 1 Costs	Facility Type 2 Built for Customer	Facility Type 2 Costs	Facility Type 3 Built for Customer	Facility Type 3 Costs	Facility Type 4 Triggered by Customer	Associated Facility Type 4 Costs	Total Rate Revenue From Customer to Date	Rate Revenue From Customer in Previous Year	Amount of Prefunding Loan	Infrastructure Upgrades Associated with Prefunding Loan	Expected Capacity in Previous Year	Actual Capacity in Previous Year
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2																				
3																				
4																				
5																				
6																				
...																				

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3. Attachment A: Transmission-level Customer Report

No.	Customer [CONFIDENTIAL]	Project Name [CONFIDENTIAL]	Customer Type	Site Location	Request Date	Requested Capacity	Facility Type 1 Built for Customer	Facility Type 1 Costs	Facility Type 2 Built for Customer	Facility Type 2 Costs	Facility Type 3 Built for Customer	Facility Type 3 Costs	Facility Type 4 Triggered by Customer	Associated Facility Type 4 Costs	Total Rate Revenue From Customer to Date	Rate Revenue From Customer in Previous Year	Amount of Prefunding Loan	Infrastructure Upgrades Associated with Prefunding Loan	Expected Capacity in Previous Year	Actual Capacity in Previous Year
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3																				
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4. Attachment B : Table 7 Applicant Spreadsheet

Table 7: Applicant Spreadsheet

No.	Customer	Project Name	Status	Site Type	Current Requested Load (MW)	Application Received (Date application submitted to PG&E)	Is the customer pursuing a substantially similar request for electric service the approval of which would result in the customer materially changing this interconnection request?	Date PG&E provided engineering advance (EA) invoice to the customer, if applicable	Date customer paid EA, if applicable	Amount of initial EA, if applicable (EAs may include advances for long lead materials)	Total amount of additional payments provided by the customer to date, if any	Has PG&E Started a Preliminary Engineering Study (PES)?	Date PG&E started a PES, if applicable	Date PG&E provided a draft PES Report to Applicant, if applicable
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3														
4														
5														
6														
...														

Date PG&E provided a final PES Report to Applicant, if applicable	Date Applicant signed PES Report, if applicable	After receiving the final PES Report, has the Applicant committed to proceed with the Application?	Date PG&E started a detailed interconnection study, if applicable	Date PG&E completed a detailed interconnection study, if applicable	Date PG&E submitted a PES or similar report to the CAISO, if applicable	Date PG&E provided draft interconnection agreement(s) to the customer, if applicable (agreement for construction scope)	Date customer signed the interconnection agreement(s), if applicable (agreement for construction scope)	Has PG&E determined an exceptional case filing is necessary?	Estimated project construction start date, if applicable	Estimated project energization date, if applicable

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5. Attachment B: Transmission-level Applicant Report

No.	Customer	Project Name	Status	Site Type	Current Requested Load (MW)	Application Received (Date application submitted to PG&E)	Is the customer pursuing a substantially similar request for electric service the approval of which would result in the customer materially changing this interconnection request?	Date PG&E provided engineering advance (EA) invoice to the customer, if applicable	Date customer paid EA, if applicable	Amount of initial EA, if applicable (EAs may include advances for long lead materials)	Total amount of additional payments provided by the customer to date, if any	Has PG&E Started a Preliminary Engineering Study (PES)?	Date PG&E started a PES, if applicable	Date PG&E provided a draft PES Report to Applicant, if applicable	Date PG&E provided a final PES Report to Applicant, if applicable	Date Applicant signed PES Report, if applicable	After receiving the final PES Report, has the Applicant committed to proceed with the Application?	Date PG&E started a detailed interconnection study, if applicable	Date PG&E completed a detailed interconnection study, if applicable	Date PG&E submitted a PES or similar report to the CAISO, if applicable	Date PG&E provided draft interconnection agreement(s) to the customer, if applicable (agreement for construction scope)	Date customer signed the interconnection agreement(s), if applicable (agreement for construction scope)	Has PG&E determined an exceptional case filing is necessary?	Estimated project construction start date, if applicable	Estimated project energization date, if applicable
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Table 1: PG&E's Deviations from Approved Tariff Rules in Proposed Rule 30

Table 1: PG&E's Deviations from Approved Tariff Rules in Proposed Rule 30

Proposed Rule 30 Language	Language in Existing Rules	Cal Advocates Recommended Language in Redlined Proposed Rule 30
Section A.1.a (Design) at A-1: "At PG&E's sole discretion, Applicants may be eligible for the Applicant Build Option in Section E."	Rule 15 – Section A.1.a (Design) at 1: "Applicants may elect to use the Applicant Design Option provisions of this Rule to design that portion of the Distribution Line Extension normally designed by PG&E."	Section A.1.a (Design) at 1: "~~At PG&E's sole discretion,~~ Applicants may be eligible for the Applicant Build Option in Section E of this Rule to design that portion of the Transmission Facilities normally designed by PG&E."
Section A.1.c (Ownership) at A-1-A-2: "The Transmission Facilities installed under the provisions of this Rule shall be owned, operated, and maintained by PG&E except for Substructures and enclosures that are on, under, within, or a part of a building of structure owned by Applicant."	Rule 16 – Section A.4 (Ownership of Facilities) at 3: "Service Facilities installed under the provisions of this rule shall be owned, operated, and maintained by PG&E if they are (a) located in the street, road or Franchise Area of PG&E, (b) installed by PG&E under section XX below on Applicant's Premises for the purpose of the delivery of electric energy to Applicant, or (c) installed by Applicant under the provisions of this rule, and conveyed to PG&E."	Section A (Ownership of Facilities) at 1-2: "The Transmission Facilities installed under the provisions of this Rule shall be owned, operated, and maintained by PG&E if they are (a) located in the street, road, or Franchise Area of PG&E, (b) installed by PG&E under section XX below on Applicant's Premises for the purpose of the delivery of electric energy to Applicant, or (c) installed by Applicant under the provisions of this rule, and conveyed to PG&E, except for Substructures and enclosures that are on, under, within, or a part of a building of structure owned by Applicant."
Temporary Service is not mentioned in Proposed Rule 30.	Rule 15 – Section A.6 (Temporary Service) at 6: "Facilities installed for temporary service or for	Section A (Temporary Service) at 3: "Transmission Facilities installed for temporary

Proposed Rule 30 Language	Language in Existing Rules	Cal Advocates Recommended Language in Redlined Proposed Rule 30
	operations of speculative character or questionable permanency shall be made in accordance with the fundamental installation and ownership provisions of this rule, except that all charges and refunds shall be made under the provisions of Rule 13 Temporary Service."	service or for operations of speculative character or questionable permanency shall be made in accordance with the fundamental installation and ownership provisions of this rule, except that all charges and refunds shall be made under the provisions of Rule 13 — Temporary Service."
Section A.2.a (Rights of Way) at A-2: "1)Along public streets, alleys, roads, highways and other publicly dedicated ways and places which PG&E has the legal right to occupy; and 2)on public lands and private property across which rights of way and permits satisfactory to PG&E may be obtained."	Rule 15 – Section A.2 (Rights of Way) at 3: "1) along public streets, alleys, roads, highways and other publicly dedicated ways and places which PG&E has the legal right to occupy (franchise areas), and 2) on public lands and private property across which rights of way and permits satisfactory to PG&E may be obtained without cost to or condemnation by PG&E."	Section A (Rights of Way) at 3: "1) along public streets, alleys, roads, highways and other publicly dedicated ways and places which PG&E has the legal right to occupy (franchise areas), and 2) on public lands and private property across which rights of way and permits satisfactory to PG&E may be obtained without cost to or condemnation by PG&E."
Section A.3.a-f (Special Facilities) at A-2-A-3: "SPECIAL FACILITIES. PG&E normally installs only those standard facilities which PG&E deems, in its sole discretion, are necessary to provide Retail Service. Applicant may request Special Facilities and/or	Rule 15 – Section A.5 (Special or Added Facilities) at 6: "SPECIAL OR ADDED FACILITIES: Any special or added facilities PG&E agrees to install at the request of Applicant will be installed at Applicant's expense in accordance with Rule 2— Description of Service."	Section A (Special or Added Facilities) at 4: "SPECIAL OR ADDED FACILITIES. Any special or added facilities PG&E agrees to install at the request of Applicant will be installed at Applicant's expense in accordance with Rule 2— Description of Service. Any other

Proposed Rule 30 Language	Language in Existing Rules	Cal Advocates Recommended Language in Redlined Proposed Rule 30
Special Facilities may be required in order to provide Retail Service to Applicant's Facility…."[1]		facilities PG&E installs at the request of Applicant, will be installed at Applicant's expense in accordance with the applicable Rule for those facilities." ~~PG&E normally installs only those standard facilities which PG&E deems, in its sole discretion, are necessary to provide Retail Service. Applicant may request Special Facilities and/or Special Facilities may be required in order to provide Retail Service to Applicant's Facility…."~~
Section D.3 (Refund Period) at A-9: "The Refund Period shall start in the first full calendar year after the Transmission Facilities go into service and shall last for ten (10) years."	Rule 15 – Section E.3 (Refund Period) at 13: "The total refundable amount is subject to refund for a period of ten (10) years after the Distribution Line Extension is first ready for service."	Section X.X (Refund Period) at X: "The Refund Period shall start from the date PG&E is first ready to serve (i.e. the in service date) ~~in~~ the ~~first full calendar year after the~~ Transmission Facilities ~~go into service~~ and shall last for ten (10) years."
Section D.4.c-D.4.d (Refund Calculation) at A-9: "The total Refunds provided during the Refund Period shall not exceed the Total Refund Amount. At the end of the Refund Period, if the total Refunds	Rule 15 – Section E.6 (Maximum Refund) at 14: "No refund shall be made in excess of the refundable amount nor after a period of ten (10) years from the date PG&E is first ready to serve. Any unrefunded	Section D.4.c (Refund Calculation) at 14: "No refund shall be made in excess of the refundable amount nor after a period of ten (10) years from the date PG&E is first ready to serve. Any unrefunded

[1] Due to the length of this section in Proposed Rule 30 only a portion is quoted.

Proposed Rule 30 Language	Language in Existing Rules	Cal Advocates Recommended Language in Redlined Proposed Rule 30
are less than the Total Refund Amount, Applicant forfeits its right to receive any additional Refunds."	amount remaining at the end of the ten (10)-year period shall become property of PG&E."	amount remaining at the end of the ten (10)-year period shall become property of PG&E.~~The total Refunds provided during the Refund Period shall not exceed the Total Refund Amount. At the end of the Refund Period, if the total Refunds are less than the Total Refund Amount, Applicant forfeits its right to receive any additional Refunds.~~"
Section D.5 (Refund Timing) at A-9: "Refunds for a calendar year during the Refund Period will be made by PG&E within one hundred and twenty (120) days after the end of the calendar year."	Rule 15 – Section E.5 (Refund Timing) at 14: "Refunds will be made without interest within ninety (90) days after the date of first service to new permanent loads"	Section D.5 (Refund Timing) at 15: "Refunds ~~for a calendar year during the Refund Period~~ will be made without interest ~~by PG&E~~ within one hundred and twenty (120) days after the date of first service to new permanent loads ~~end of the calendar year~~."
Section E.1.b (Applicant Build Option) at A-11: "Ensuring that the Applicant Build Facilities comply with all requirements of law and regulations that PG&E would be subject to for engineering, procurement, and construction of the Applicant Build Facilities"	Rule 15 – Section F.1.b (Applicant Design Option) at 15: "Applicant designs shall conform to all applicable federal, state and local codes and ordinances for utility installations (such as, but not limited to the California Business and Professions Code)."	Section E.1.b (Applicant Build Option) at 18: "Ensuring that the Design for Applicant Build Facilities comply with all applicable federal, state, and local codes and ordinances for utility installations ~~requirements of law and regulations that PG&E would be subject to for engineering, procurement, and construction of the Applicant Build Facilities~~"

Proposed Rule 30 Language	Language in Existing Rules	Cal Advocates Recommended Language in Redlined Proposed Rule 30
Section E.7.d (Minimum Contractor Qualifications) at A-12-A-13: "Applicant's contractor or subcontractor shall: ... Be from an approved list of contractors furnished by PG&E"	Rule 15 – Section G.2 (Minimum Contractor Qualifications) at 8: This provision does not appear in Rule 15 section on Minimum Contractor Qualifications.	This provision should be removed from Proposed Rule 30 because PG&E has not explained why this change from precedent is required.
Section F.1 (Applicant Requested Facility Relocation or Rearrangement) at A-14: "Any relocation or rearrangement of PG&E's existing electrical facilities solely at the request of the Applicant and agreed to by PG&E in its sole discretion, shall be performed by PG&E at Applicant's sole expense. Applicant is not entitled to Refunds for Applicant requested relocations or rearrangements."	Rule 15 – Section I.1 (Facility Relocation or Rearrangement) at 20: "Any relocation or rearrangement of PG&E's existing facilities, at the request of, or to meet the convenience of an Applicant or customer, and agreed upon by PG&E, normally shall be performed by PG&E... In all instances, PG&E shall abandon or remove its existing facilities, at the option of PG&E. Applicant or customer shall be responsible for the costs of all related relocation, rearrangement, and removal work."	Section H.1 (Applicant Facility Relocation or Rearrangement) at 23: "Any relocation or rearrangement of PG&E's existing electrical facilities ~~solely~~ at the request of, or to meet the convenience of an ~~the~~ Applicant and agreed ~~to~~ upon by PG&E ~~in its sole discretion~~, normally shall be performed by PG&E ~~at~~ Applicant's shall be responsible for the costs of all related relocation, rearrangement, and removal work. ~~sole expense~~. Applicant is not entitled to Refunds for Applicant requested relocations or rearrangements."
Section F.2 (Existing Facility Removal) at A-14: "PG&E can at its discretion abandon or remove existing electrical facilities as a part of the construction of Transmission Facilities. Costs for removal of existing facilities shall be included in the Project	Rule 16 – Section F.2 (Service Relocation or Rearrangement) at 21: "PG&E CONVENIENCE: When, in the judgement of PG&E, the relocation or rearrangement of a service, including PG&E-owned transformers, is necessary for the maintenance of	Section H.2 (Existing Facility Removal) at 23: "When, in the judgement of PG&E, the relocation, rearrangement, or removal of a service is necessary for the maintenance of adequate service or for the operating convenience of PG&E, PG&E normally

Proposed Rule 30 Language	Language in Existing Rules	Cal Advocates Recommended Language in Redlined Proposed Rule 30
Specific Cost Estimates and/org Actual Costs and may be included in Refunds."	adequate service or for the operating convenience of PG&E, PG&E normally will perform such work at its own expense except as provided Sections F.2.b. and F.5."	will perform such work at its own expense. In all instances, PG&E shall abandon or remove its existing facilities at the option of PG&E rendered idle by the relocation or rearrangement. ~~PG&E can at its discretion abandon or remove existing electrical facilities as a part of the construction of Transmission Facilities. Costs for removal of existing facilities shall be included in the Project Specific Cost Estimates and/org Actual Costs and may be included in Refunds~~"
Section F.3 (Exceptional Cases) at A-14: "When the application of this Rule appears impractical or unreasonable to either party or to ratepayers, PG&E may refer the matter to the Commission for a special ruling or for special conditions."	Rule 15 – Section I.3 (Exceptional Cases) at 20: "When the application of this rule appears impractical or unjust to either party, or ratepayers, PG&E or Applicant may refer the matter to the Commission for a special ruling or for approval of special conditions which may be mutually agreed upon."	Section H.3 (Exceptional Cases) at 23: "When the application of this Rule appears impractical or ~~unreasonable~~ unjust to either party or to ratepayers, PG&E or Applicant may refer the matter to the Commission for a special ruling or for approval of special conditions which may be mutually agreed upon. Applications over 200 MW must obtain CPUC approval through a special ruling."
Section G (Definitions for Rule 30) at A-15: "CAISO:	Rule 1 – Definitions at 18: "INDEPENDENT	Section J (Definitions for Rule 30) at 26: "CAISO:

Proposed Rule 30 Language	Language in Existing Rules	Cal Advocates Recommended Language in Redlined Proposed Rule 30
The California Independent System Operatory Corporation, or successor entity."	SYSTEM OPERATOR (ISO): The California Independent System Operator Corporation, a state-chartered, non-profit corporation that controls the transmission facilities of all participating transmission owners and dispatches certain generating units and loads. The ISO is responsible for the operation and control of the statewide transmission grid."	See Electric Rule No. 1~~The California Independent System Operatory Corporation, or successor entity~~."
Section G (Definitions for Rule 30) at A-16: "CPUC: California Public Utilities Commission or a successor regulatory entity."	Rule 1 – Definitions at 9: "CPUC (CALIFORNIA PUBLIC UTILITIES COMMISSION): The Public Utilities Commission of the State of California."	Section J (Definitions for Rule 30) at 28: "COMMISSION~~PUC~~: See Electric Rule No. 1 ~~California Public Utilities Commission or a successor regulator entity~~"
Section G (Definitions for Rule 30) at A-16: "Any of the practices, methods and acts engaged in or approved by... Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region."	CAISO Fifth Replacement Electronic Tariff Appendix A: "Any of the practices, methods, and acts engaged in or approved by... Good Utility Practice is not intended to be limited to any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region, including those practices required by	Section J (Definitions for Rule 30) at 29 "Any of the practices, methods and acts engaged in or approved by... Good Utility Practice is not intended to be limited to any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region, including those practices

Proposed Rule 30 Language	Language in Existing Rules	Cal Advocates Recommended Language in Redlined Proposed Rule 30
	Federal Power Act section 215(a)(4).”	required by Federal Power Act section 215(a)(4).”

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Table 2: PG&E's Deviations from Claims in Supplemental Testimony in Proposed Rule 30

Table 2: PG&E's Deviations from Claims in Supplemental Testimony in Proposed Rule 30

Proposed Rule 30 Language	Language in Supplemental Testimony	Cal Advocates Recommended Language in Redlined Proposed Rule 30
Proposed Rule 30 – Section C.3 (Optional Contributions) at A-6-A-7: "Applicant may, at PG&E's sole discretion, provide in-kind services, equipment, and/or land and property rights to PG&E for purposes of installing the Transmission Facilities... After receiving the binding estimated cost, PG&E may, in its sole discretion, decide whether or not to accept some or all of the Applicant's proposed Contribution."	Supplemental Testimony at 16: "PG&E can review the binding cost estimate and may reject a Contribution if it is too expensive or the binding cost estimate exceeds the cost that PG&E would pay for the same equipment, property rights, or in-kind services."	Section C.3.b (Optional Contributions) at 10: "Applicant may~~, at PG&E's sole discretion,~~ provide in-kind services, equipment, and/or land and property rights to PG&E for purposes of installing the Transmission Facilities... After receiving the binding estimated cost, PG&E ~~may, in its sole discretion, decide whether or not to~~ will accept some or all of the Applicant's proposed Contribution if it provides a lesser cost than what PG&E would pay for the same equipment, property rights, or in-kind services unless reasonable circumstances exist to reject the Contribution."
Proposed Rule 30 – Section E.11.b (Applicant Build Costs) at A-13: "After receiving the binding estimated cost for the Applicant Build Facilities, PG&E may, in its sole discretion, decide whether or not Applicant is eligible for the Applicant Build Option."	Supplemental Testimony at 26: "Mechanisms to Lower Overall Costs: Electric Rule 30 allows a transmission level customer to provide Contributions and build certain facilities which can lower overall costs for Transmission Facilities that will ultimately be included in rates."	Section E.11.b (Applicant Build Costs) at 21: "After receiving the binding estimated cost for the Applicant Build Facilities, PG&E ~~may, in its sole discretion,~~ will accept ~~decide whether or not Applicant is eligible for~~ the Applicant Build Option if the cost is less than PG&E's estimated cost for the same work, unless extenuating circumstances

		outlined by PG&E should not allow the design and construction standards and requirements to be met under the Applicant Build Option.”

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Table 3: Unreasonable “discretion” in Proposed Rule 30

Table 3: Unreasonable "discretion" in Proposed Rule 30

Proposed Rule 30 Language	Cal Advocates Recommended Language in Redlined Proposed Rule 30
Applicability at A-1: "This Rule is applicable to Transmission Facilities… A determination of the voltage at which an Applicant shall receive Retail Service for a Facility shall be made by PG&E in its sole discretion. If PG&E determines, in its sole discretion, that an Applicant shall receive Retail Service at a Facility at less than 50 kV, Applicant shall not be eligible to receive service under this Rule."	Applicability at 1: "This Rule is applicable to Transmission Facilities… A determination of the voltage at which an Applicant shall receive Retail Service for a Facility shall be made in accordance with this Rule and, under circumstances specified in this Rule, with CPUC approval. ~~by PG&E in its sole discretion~~. If~~PG&E determines, in its sole discretion, that~~ an Applicant shall receive Retail Service at a Facility at less than 50 kV, Applicant shall not be eligible to receive service under this Rule."
Section A.2.c (Land Rights on Applicant's Premises) at A-3 to A-4: "Applicant shall provide without cost to PG&E all land and/or permanent rights of way or easements, satisfactory to PG&E on Applicant's Premises that PG&E deems necessary, in PG&E's sole discretion, in order to provide Retail Service to the Facility."	Section A (Land Rights on Applicant's Premises) at 4: "Applicant shall provide without cost to PG&E all land and/or permanent rights of way or easements, ~~satisfactory to PG&E~~ on Applicant's Premises that PG&E and Applicant deems necessary~~, in PG&E's sole discretion,~~ in order to provide Retail Service to the Facility."
Section B.3 (Applicant Build Option) at A-4: "Subject to PG&E's sole discretion, Applicant may be eligible to design, procure, construct, and install, in accordance with PG&E's standards and specifications and using qualified contractors, Applicant Build Facilities."	Section B.3 (Applicant Build Option) at 6: "~~Subject to PG&E's sole discretion~~ Applicant may ~~be~~ elect ~~eligible~~ to design, procure, construct, and install, in accordance with PG&E's standards and specifications and using qualified contractors, Applicant Build Facilities."
Section C.2 (Required Advance) at A-6: "The Advance is based on the Project Specific Cost Estimate provided to the Applicant by PG&E."[1]	Section C.2 (Required Advance) at 8: "The Advance is based on the Project Specific Cost Estimate provided ~~to the Applicant~~ by PG&E and mutually agreed upon by Applicant."

[1] While this section does not specifically use the language "in its sole discretion," PG&E is the sole party that determines what the advance amount is and how much applicant is required to provide.

Proposed Rule 30 – Section C.4.a (Actual Cost Payments) at A-7: "When PG&E's Actual Costs for work on the Transmission Service Facilities, Transmission Interconnection Upgrades, and/or Transmission Interconnection Network Upgrades exceed the Advance, PG&E may submit an invoice to Applicant... PG&E may, in its sole discretion, determine the timing for providing invoices but not more than once each month."	Section C.4 (Actual Cost Payments) at 10: "When PG&E's Actual Costs for work on the Transmission Service Facilities, Transmission Interconnection Upgrades, and/or Transmission Interconnection Network Upgrades exceed the Advance, PG&E ~~may~~ will submit an invoice to Applicant... PG&E and Applicant will ~~may, in its sole discretion,~~ determine and mutually agree upon the timing for providing invoices but not more than once each month."
Section D.6.a (Monthly Ownership Charge) at A-10: "The Monthly Ownership Charge shall be calculated annually and may at PG&E's discretion: (1) be deducted from subsequent Refunds due to the Applicant; or (2) collected via invoice as provided in Section D.6.b."	Section D.6.a (Monthly Ownership Charge) at 16: "The Monthly Ownership Charge shall be calculated annually ~~and may at PG&E's discretion~~: (1) be deducted from subsequent Refunds due to the Applicant; or (2) collected via invoice if the Refund due is less than the Monthly Ownership Charge as provided in Section D.6.b."
Section E.6 (Transfer of Ownership) at A-12: "Upon completion of construction and acceptance by PG&E, at PG&E's sole discretion, Applicant shall transfer ownership and control of the Applicant Build Facilities to PG&E."	Section E.6 (Transfer of Ownership) at 20: "Upon completion of construction and acceptance by PG&E~~, at PG&E's sole discretion,~~ Applicant shall transfer ownership and control of the Applicant Build Facilities to PG&E."
Section E.10 (Contracts) at A-13: "Each Applicant electing the Applicant Build Option, subject to PG&E's sole discretion, shall be required to execute a written contract(s) prior to performing work on the Applicant Build Facilities."	Section E.10 (Contracts) at 21: "Each Applicant electing the Applicant Build Option, ~~subject to PG&E's sole discretion~~, shall be required to execute a written contract(s) prior to performing work on the Applicant Build Facilities."
Section F.5 (Transmission Network Upgrade Pre-Funding Loan) at A-14: "If Applicant requests to accelerate the timing of the work needed…The decision as to whether to agree to pre-funding for Transmission Network Upgrades is at PG&E's sole discretion."	Section H.5 (Transmission Network Upgrade Pre-Funding Loan) at 23: "If Applicant Requests to accelerate the timing of the work needed... With CPUC approval, t~~T~~he decision as to whether to agree to pre-funding for Transmission Network Upgrades is at ~~PG&E's sole discretion~~ may be mutually agreed upon by PG&E and Applicant "
Section G (Definitions) at A-18: "STANDARD FACILITIES COST ESTIMATE. A cost estimate provided by PG&E to an Applicant requesting Special	Section J (Definitions) at 32: "STANDARD FACILITIES COST ESTIMATE. A cost estimate provided by PG&E to an Applicant requesting Special Facilities. The cost

Facilities. The cost estimate shall estimate the cost of facilities that PG&E would normally install which PG&E, in its sole discretion, deems are necessary to provide Retail Service."	estimate shall estimate the cost of facilities that PG&E would normally install which PG&E, ~~in its sole discretion~~, deems are necessary to provide Retail Service."

B-5

Table 4: Unreasonable “discretion” in Proposed Rule 30 Form Agreement

Table 4: Unreasonable "discretion" in Proposed Rule 30 Form Agreement

Form Agreement Section	Unreasonable "discretion" in Form Agreement
Form Agreement, Attachment B, Section 2, at C-6	"Pursuant to Electric Rule 30.A.3, Applicant has requested, and PG&E in its sole discretion has agreed, to the installation of Special Facilities to provide Retail Service to the Facility. Special Facilities are addressed in more detail in Attachment C."
Form Agreement, Attachment D, Section 1 at C-13	"Pursuant to Electric Rule 30.C.3, Applicant has agreed to provide, and PG&E in its sole discretion has agreed to accept, the following Contribution (in kind services, equipment, and/or land and property rights to PG&E for purposes of installing the Transmission Facilities)"
Form Agreement, Attachment D, Section 3 at C-13	"Pursuant to Electric Rule 30.A.2.c and C.3.c, Applicant shall provide without cost to PG&E all land and/or permanent rights of way or easements, satisfactory to PG&E, on Applicant's Premises that PG&E deems necessary, in PG&E's sole discretion, in order to provide Retail Service to the Facility."
Form Agreement E, Section 2.9 at C-16	"The Specifications may be updated by PG&E, in PG&E's sole discretion, as the Applicant Project proceeds through planning, design, engineering, and construction."
Form Agreement, Attachment E, Section 3.3 at C-16	"After receiving the binding estimated cost for the Applicant Build Facilities, PG&E may, in its sole discretion, decide whether or not Applicant is eligible for the Applicant Build Option."
Form Agreement, Attachment F, Section 2.2 at C-35	"PG&E reserves the right to reallocate material or labor resources to the construction or maintenance projects which it deems, in good faith and in its sole discretion, necessary for serving the needs of all of its customers"
Form Agreement, Attachment F, Section 2.3 at C-35	"PG&E shall have the right, in the event it is unable to obtain sufficient supplies, materials,

Form Agreement Section	Unreasonable "discretion" in Form Agreement
	or labor for all of its construction requirements, to allocate materials and labor to construction projects which it deems, in its sole discretion, most important to serve the needs of its customers."
Form Agreement, Attachment F, Section 13.3 at C-41	"Upon termination of this Agreement under this Section 13, PG&E shall, in its sole discretion, be entitled to remove and shall have a reasonable time in which to remove any portion of the Transmission Facilities located on the Applicant's Premises."
Form Agreement, Attachment F, Section 14.3 at C-41	"Upon termination of this Agreement under this Section 14, PG&E shall, in its sole discretion, be entitled to remove and shall have a reasonable time in which to remove any portion of the Transmission Facilities located on the Applicant's Premises."
Form Agreement, Attachment F, Section 15.3 at C-42	"Upon termination of this Agreement under this Section 15, PG&E shall, in its sole discretion, be entitled to remove and shall have a reasonable time in which to remove any portion of the Transmission Facilities located on the Applicant's Premises."
Form Agreement, Attachment G (Definitions) at C-49	"Specification: The document attached hereto as Appendix A, comprising technical and operating specifications for Applicant Work. The Specifications may be updated by PG&E, in PG&E's sole discretion, as the Project proceeds through planning, design, engineering, and construction (sic)"

B-6

Table 5: Changes Required in Form Agreement to align with Cal Advocates' Redlined Proposed Rule 30

Table 5: Changes Required in Form Agreement to align with Cal Advocates' Redlined Proposed Rule 30

Cal Advocates Rule 30 proposed redline change	Corresponding Form Agreement section that would be impacted by Cal Advocates' proposed changes and needs modification
Modifying Special Facility language to reference Electric Rule 2 At AtchA-2-AtchA-3, Section A.3.a through f.	Add reference to Electric Rule 2 to "References in this Agreement to provisions in Electric Rule 30 shall be to the version of Electric Rule 30 in effect on the Effective Date." And "This Agreement includes and incorporates herein by reference Electric Rule 30 and the following attachments." At AtchB-1.
Modifying Special Facility language to reference Electric Rule 2 At AtchA-2-AtchA-3, Section A.3.a through f.	Remove reference to Attachment C – Description of Special Facilities and Costs At AtchB-1.
Modifying Special Facility language to reference Electric Rule 2 At AtchA-2-AtchA-3, Section A.3.a through f.	Remove reference to Attachment C, and add reference to Electric Rule 2 At AtchB-4 (Attachment B, Section 2)
Modifying Special Facility language to reference Electric Rule 2 At AtchA-2-AtchA-3, Section A.3.a through f.	Remove Attachment C At AtchB-6—AtchB-8
Modifying Required Advance language At AtchA-6, Section C.2a through b.	Language will need to be modified to reflect that there may be multiple Advance deadlines which are due before PG&E incur costs. At AtchB-4 (Attachment B, Section 3)
Modifying Optional Contribution language, Section 3 and 3.b At AtchA-6—AtchA-7, Section 3, 3.b	Remove "in its sole discretion" language At AtchB-9 (Attachment D, Section 1)
Modifying Termination of Service, Section C.7 At AtchA-8, Section C.7	Revise language to add "pursuant to Electric Rule 30.C.7" and add early termination fee At AtchB-34 (Attachment F, Section 13)

Cal Advocates Rule 30 proposed redline change	Corresponding Form Agreement section that would be impacted by Cal Advocates' proposed changes and needs modification
* Adding Monthly Rate For Data Centers (final location in Rule 30 TBD) (*as of 5/30) At Atch A-8, Section C.7;	Recommend noting in testimony that the form agreement may updates to reflect requirements for data centers.
Adding Section G (Terms of Agreement for Data Centers Facilities)	Recommend noting in testimony that the form agreement may updates to reflect requirements for data centers.

APPENDIX C

SUPPORTING ATTACHMENTS

Note: due to the size of the exhibits, it will be a separate document

APPENDIX D

Cal Advocates' 10 year bill analysis

LIST OF ATTACHMENTS FOR APPENDIX D

APPENDIX	DOCUMENT DESCRIPTION	CONFIDENTIAL DESIGNATION
D	1. Cal Advocates' 10 year bill analysis 2. PG&E Response to Cal Advocates Data Request No. 07, Question 01	No

D-1

1. Cal Advocates' 10 year bill analysis

Customer 1: PG&E Customer A Example (Supplemental Testimony)

Table 1: 10-year Ratepayer Bill Savings Analysis												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Incremental Load (MW)	0	19	25	56	63	75	75	75	75	75	75	
Incremental Sales (Gwh)	0	141	186	417	469	558	558	558	558	558	558	
B-20T Rate (c/kwh) (effective Oct 1, 2024)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues (million)	$ -	$ 10.33	$ 13.59	$ 30.44	$ 34.24	$ 40.77	$ 40.77	$ 40.77	$ 40.77	$ 40.77	$ 40.77	
Less: Incemental reveue requirements/yr (million)	$ (4.84)	$ 7.57	$ 8.52	$ 8.90	$ 9.46	$ 10.22	$ 11.07	$ 10.95	$ 10.64	$ 10.24	$ 9.93	
Net Margin (million)	$ 4.84	$ 2.76	$ 5.06	$ 21.54	$ 24.78	$ 30.55	$ 29.70	$ 29.81	$ 30.12	$ 30.53	$ 30.84	
Ratepayer bill reduction per month	$ 0.05	$ 0.03	$ 0.05	$ 0.22	$ 0.25	$ 0.31	$ 0.30	$ 0.30	$ 0.30	$ 0.31	$ 0.31	
Ratepaye bill reduction per year	**$ 0.58**	**$ 0.33**	**$ 0.61**	**$ 2.58**	**$ 2.97**	**$ 3.67**	**$ 3.56**	**$ 3.58**	**$ 3.61**	**$ 3.66**	**$ 3.70**	**$ 28.86**

Table 2: Refunds Issued												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Refunds Issued	$ -	$ 3,364,483	$ 2,956,812	$ 8,167,723	$ 9,569,382	$ 11,839,253	$ 12,194,431	$ 1,907,916	$ -	$ -	$ -	$ 50,000,000

Customer 2: Cal Advocates Data Request No. 07, Q1.C

Table 1: 10-year Ratepayer Bill Savings Analysis												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Incremental Load (MW)	0	22.797	29.7	67.203	75.6	90	90	90	90	90	90	
Incremental Sales (Gwh)	0	170	221	500	563	670	670	670	670	670	670	
B-20T Rate (c/kwh) (effective Oct 1, 2024)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues (million)	$ -	$ 12.39	$ 16.14	$ 36.53	$ 41.09	$ 48.92	$ 48.92	$ 48.92	$ 48.92	$ 48.92	$ 48.92	
Less: Incemental reveue requirements/yr (million)	$ (5.62)	$ 15.33	$ 16.94	$ 17.21	$ 17.66	$ 18.40	$ 19.24	$ 18.63	$ 18.11	$ 17.50	$ 16.88	
Net Margin (million)	$ 5.62	$ (2.94)	$ (0.79)	$ 19.32	$ 23.43	$ 30.52	$ 29.68	$ 30.29	$ 30.81	$ 31.42	$ 32.04	
Ratepayer bill reduction per month	$ 0.06	$ (0.03)	$ (0.01)	$ 0.19	$ 0.23	$ 0.31	$ 0.30	$ 0.30	$ 0.31	$ 0.31	$ 0.32	
Ratepaye bill reduction per year	**$ 0.67**	**$ (0.35)**	**$ (0.10)**	**$ 2.32**	**$ 2.81**	**$ 3.66**	**$ 3.56**	**$ 3.64**	**$ 3.70**	**$ 3.77**	**$ 3.84**	**$ 27.53**

Table 2: Refunds Issued												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Refunds Issued	$ -	$ 3,991,871	$ 3,527,226	$ 9,829,757	$ 11,512,106	$ 14,236,817	$ 14,402,223	$ -	$ -	$ -	$ -	$ 57,500,000

Customer 3: Cal Advocates Data Request No. 07, Q1.E

Table 1: 10-year Ratepayer Bill Savings Analysis												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Incremental Load (MW)	0	22.797	29.7	67.203	75.6	90	90	90	90	90	90	
Incremental Sales (Gwh)	0	170	221	500	563	670	670	670	670	670	670	
B-20T Rate (c/kwh) (effective Oct 1, 2024)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues (million)	$ -	$ 12.39	$ 16.14	$ 36.53	$ 41.09	$ 48.92	$ 48.92	$ 48.92	$ 48.92	$ 48.92	$ 48.92	
Less: Incemental reveue requirements/yr (million)	$ (5.13)	$ 3.11	$ 3.99	$ 4.66	$ 5.52	$ 6.67	$ 7.33	$ 7.13	$ 6.92	$ 6.71	$ 6.41	
Net Margin (million)	$ 5.13	$ 9.28	$ 12.16	$ 31.87	$ 35.58	$ 42.25	$ 41.59	$ 41.80	$ 42.00	$ 42.21	$ 42.51	
Ratepayer bill reduction per month	$ 0.05	$ 0.09	$ 0.12	$ 0.32	$ 0.36	$ 0.42	$ 0.42	$ 0.42	$ 0.42	$ 0.42	$ 0.43	
Ratepaye bill reduction per year	**$ 0.62**	**$ 1.11**	**$ 1.46**	**$ 3.82**	**$ 4.27**	**$ 5.07**	**$ 4.99**	**$ 5.02**	**$ 5.04**	**$ 5.06**	**$ 5.10**	**$ 41.57**

Table 2: Refunds Issued												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Refunds Issued	$ -	$ 3,991,871	$ 3,677,226	$ 9,984,257	$11,671,241	$ 14,400,726	$ 8,774,679	$ -	$ -	$ -	$ -	$ 52,500,000

Customer 4: PG&E Customer B Example (Supplemental Testimony)

Table 1: 10-year Ratepayer Bill Savings Analysis												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Incremental Load (MW)	0	5	10	15	20	30	30	30	30	30	30	
Incremental Sales (Gwh)	0	37	74	112	149	223	223	223	223	223	223	
B-20T Rate (c/kwh) (effective Oct 1, 2024)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues (million)	$ -	$ 2.72	$ 5.44	$ 8.15	$ 10.87	$ 16.31	$ 16.31	$ 16.31	$ 16.31	$ 16.31	$ 16.31	
Less: Incemental reveue requirements/yr (million)	$ (4.84)	$ 7.28	$ 8.04	$ 7.84	$ 7.62	$ 7.60	$ 7.68	$ 7.66	$ 10.64	$ 7.82	$ 7.99	
Net Margin (million)	$ 4.84	$ (4.56)	$ (2.60)	$ 0.32	$ 3.25	$ 8.70	$ 8.63	$ 8.64	$ 5.66	$ 8.49	$ 8.32	
Ratepayer bill reduction per month	$ 0.05	$ (0.05)	$ (0.03)	$ 0.00	$ 0.03	$ 0.09	$ 0.09	$ 0.09	$ 0.06	$ 0.08	$ 0.08	
Ratepaye bill reduction per year	**$ 0.58**	**$ (0.55)**	**$ (0.31)**	**$ 0.04**	**$ 0.39**	**$ 1.04**	**$ 1.04**	**$ 1.04**	**$ 0.68**	**$ 1.02**	**$ 1.00**	**$ 5.96**

Table 2: Refunds Issued												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Refunds Issued	$ -	$ 1,051,228	$ 408,927	$ 1,247,358	$ 2,110,941	$ 3,826,594	$ 3,941,391	$ 4,059,633	$ 4,181,422	$ 4,306,865	$ 4,436,071	$ 29,570,430

Customer 5: Cal Advocates Data Request No. 07, Q1.E

Table 1: 10-year Ratepayer Bill Savings Analysis												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Incremental Load (MW)	0	6	12	18	24	36	36	36	36	36	36	
Incremental Sales (Gwh)	0	45	89	134	179	268	268	268	268	268	268	
B-20T Rate (c/kwh) (effective Oct 1, 2024)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues (million)	$ -	$ 3.26	$ 6.52	$ 9.78	$ 13.05	$ 19.57	$ 19.57	$ 19.57	$ 19.57	$ 19.57	$ 19.57	
Less: Incemental reveue requirements/yr (million)	$ (5.13)	$ 2.91	$ 3.41	$ 3.30	$ 3.29	$ 3.57	$ 3.75	$ 4.03	$ 6.92	$ 4.68	$ 4.96	
Net Margin (million)	$ 5.13	$ 0.35	$ 3.12	$ 6.48	$ 9.76	$ 16.00	$ 15.82	$ 15.54	$ 12.65	$ 14.89	$ 14.61	
Ratepayer bill reduction per month	$ 0.05	$ 0.00	$ 0.03	$ 0.06	$ 0.10	$ 0.16	$ 0.16	$ 0.16	$ 0.13	$ 0.15	$ 0.15	
Ratepaye bill reduction per year	**$ 0.62**	**$ 0.04**	**$ 0.37**	**$ 0.78**	**$ 1.17**	**$ 1.92**	**$ 1.90**	**$ 1.86**	**$ 1.52**	**$ 1.79**	**$ 1.75**	**$ 13.72**

Table 2: Refunds Issued												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Refunds Issued	$ -	$ 1,216,461	$ 669,349	$ 1,680,825	$ 2,722,644	$ 4,787,113	$ 4,930,727	$ 5,078,648	$5,231,008	$5,387,938	$5,549,576	$ 37,254,289

Customer 6: Cal Advocates Data Request No. 07, Q1.D

Table 1: 10-year Ratepayer Bill Savings Analysis												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Incremental Load (MW)	0	6	12	18	24	36	36	36	36	36	36	
Incremental Sales (Gwh)	0	45	89	134	179	268	268	268	268	268	268	
B-20T Rate (c/kwh) (effective Oct 1, 2024)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues (million)	$ -	$ 3.26	$ 6.52	$ 9.78	$ 13.05	$ 19.57	$ 19.57	$ 19.57	$ 19.57	$ 19.57	$ 19.57	
Less: Incemental reveue requirements/yr (million)	$ (5.62)	$ 15.14	$ 16.36	$ 15.86	$ 15.43	$ 15.21	$ 15.08	$ 15.04	$ 18.11	$ 14.88	$ 14.85	
Net Margin (million)	$ 5.62	$ (11.88)	$ (9.83)	$ (6.07)	$ (2.39)	$ 4.36	$ 4.49	$ 4.52	$ 1.46	$ 4.69	$ 4.72	
Ratepayer bill reduction per month	$ 0.06	$ (0.12)	$ (0.10)	$ (0.06)	$ (0.02)	$ 0.04	$ 0.04	$ 0.05	$ 0.01	$ 0.05	$ 0.05	
Ratepaye bill reduction per year	**$ 0.67**	**$ (1.43)**	**$ (1.18)**	**$ (0.73)**	**$ (0.29)**	**$ 0.52**	**$ 0.54**	**$ 0.54**	**$ 0.18**	**$ 0.56**	**$ 0.57**	**$ (0.04)**

Table 2: Refunds Issued												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Refunds Issued	$ -	$ 1,216,461	$ 519,349	$ 1,526,325	$ 2,563,509	$ 4,623,204	$ 4,761,900	$ 4,904,757	$5,051,900	$ 5,203,457	$5,359,561	$ 35,730,423

Customer 7: Cal Advocates Data Request No. 07, Q1.A

Table 1: 10-year Ratepayer Bill Savings Analysis												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Incremental Load (MW)	0	19	25	56	0	0	0	0	0	0	0	
Incremental Sales (Gwh)	0	141	186	417	0	0	0	0	0	0	0	
B-20T Rate (c/kwh) (effective Oct 1, 2024)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues (million)	$ -	$ 10.33	$ 13.59	$ 30.44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Less: Incemental reveue requirements/yr (million)	$ (4.84)	$ 7.57	$ 8.52	$ 8.90	$ 8.50	$ 8.19	$ 7.88	$ 7.47	$ 10.64	$ 6.85	$ 6.44	
Net Margin (million)	$ 4.84	$ 2.76	$ 5.06	$ 21.54	$ (8.50)	$ (8.19)	$ (7.88)	$ (7.47)	$ (10.64)	$ (6.85)	$ (6.44)	
Ratepayer bill reduction per month	$ 0.05	$ 0.03	$ 0.05	$ 0.22	$ (0.08)	$ (0.08)	$ (0.08)	$ (0.07)	$ (0.11)	$ (0.07)	$ (0.06)	
Ratepaye bill reduction per year	**$ 0.58**	**$ 0.33**	**$ 0.61**	**$ 2.58**	**$ (1.02)**	**$ (0.98)**	**$ (0.95)**	**$ (0.90)**	**$ (1.28)**	**$ (0.82)**	**$ (0.77)**	**$ (2.61)**

Table 2: Refunds Issued												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Refunds Issued	$ -	$ 3,364,483	$ 2,956,812	$ 8,167,723	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,489,018

Customer 8: Cal Advocates Data Request No. 07, Q1.B

Table 1: 10-year Ratepayer Bill Savings Analysis												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Incremental Load (MW)	0	50	75	75	0	0	0	0	0	0	0	
Incremental Sales (Gwh)	0	372	558	558	0	0	0	0	0	0	0	
B-20T Rate (c/kwh) (effective Oct 1, 2024)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues (million)	$ -	$ 27.18	$ 40.77	$ 40.77	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Less: Incemental reveue requirements/yr (million)	$ (4.84)	$ 8.05	$ 9.88	$ 10.55	$ 10.24	$ 9.83	$ 9.52	$ 9.11	$ 10.64	$ 8.49	$ 8.18	
Net Margin (million)	$ 4.84	$ 19.13	$ 30.89	$ 30.22	$ (10.24)	$ (9.83)	$ (9.52)	$ (9.11)	$ (10.64)	$ (8.49)	$ (8.18)	
Ratepayer bill reduction per month	$ 0.05	$ 0.19	$ 0.31	$ 0.30	$ (0.10)	$ (0.10)	$ (0.10)	$ (0.09)	$ (0.11)	$ (0.08)	$ (0.08)	
Ratepaye bill reduction per year	**$ 0.58**	**$ 2.30**	**$ 3.71**	**$ 3.63**	**$ (1.23)**	**$ (1.18)**	**$ (1.14)**	**$ (1.09)**	**$ (1.28)**	**$ (1.02)**	**$ (0.98)**	**$ 2.29**

Table 2: Refunds Issued												
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**10-Year Total**
Refunds Issued	$ -	$ 8,486,689	$ 11,372,102	$ 11,713,265	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 31,572,056

D-1

2. PG&E Response to Cal Advocates Data Request No. 07, Question 01

PACIFIC GAS AND ELECTRIC COMPANY
Electric Rule 30 - Transmission-Level Interconnections
Application 24-11-007
Data Response

PG&E Data Request No.:	CalAdvocates_007-Q001
PG&E File Name:	ElectricRule30-Transmission-LevelInterconnections_DR_CalAdvocates_007-Q001
Request Date:	April 16, 2025
Requester DR No.:	007
Requesting Party:	Public Advocates Office
Requester:	Rachel Dersch/ David Peck/ Emil Rodriguez
Date Sent:	May 13, 2025
PG&E Witness(es):	Ben Moffat – Engineering, Planning and Strategy Sienna Rogers – Finance

QUESTION 001

For each of the following scenarios, please estimate the annual bill impacts using the same format PG&E provides in its testimony, the total refunds issued over the 10-year period, and the refunds issued each year within that period (See Table 2). This bill impact format is reproduced as "Table 1" below.[1] For scenarios where no specific load ramp is specified, please develop one.

Table 1: Bill Impact Format

Example Customer A (PG&E Testimony)						
Bill impact using all facility types						
	Yr 0	**Yr 1**	**Yr 2**	**…**	**Yr10**	**10-Year Total**
Incremental Load (MW)	0	19	25	…	75	
Incremental Sales (Gwh)	0	141	186	…	558	
Current B-20T Rate (c/kwh)[1]	7.3	7.3	7.3	…	7.3	
Estimated Incremental Revenues	$ -	$ 10	$ 14	…	$ 41	
Less: Incremental revenue requirements/yr	$ (5)	$ 10	$ 11	…	$ 10	
Net Margin (million)	$ 5	$ 1	$ 3	…	$ 31	
Customer bill reduction per month[2]	$ 0.05	$ 0.01	$ 0.03	…	$ 0.31	
Customer bill reduction per year	**$ 0.58**	**$ 0.09**	**$ 0.32**	**…**	**$ 3.70**	**$ 27.42**

1 Format pulled from PG&E's workpapers provided in response to DR 02, Q06, "Bill Analysis" tab.

Table 2: Refunds Issued

	Year 1	Year 2	Year 3	Year 4	…	Year 10	Total
Refunds Issued	$$$	$$$	$$$	$$$	…	$$$	$$$

a. Customer A[2] but load drops to 0 after Year 3.

	Year 1	Year 2	Year 3	Year 4	…	Year 10
Load (MW)	19	25	56	0	…	0

a. Although PG&E is providing a response to Cal Advocates' hypothetical scenario, this scenario is highly implausible. PG&E notes that in this scenario, the customer would have invested $50 million in electrical infrastructure costs alone. The customer would likely have incurred hundreds of millions of dollars in costs for its facility. It is unlikely in this scenario that: (1) the customer would shut down in three years after this type of investment; and (2) no other entity would have purchased the facility and thus continued to use the electrical transmission system. PG&E is not aware of any situation in which an entity has invested tens or hundreds of millions of dollars in a data center or similar facility and shut down the facility entirely after three years. Moreover, this scenario does not factor in: (1) the potential benefits of the newly constructed transmission facilities even if the customer's load dropped to zero; and (2) potential use by other customers.

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Incremental Load	0	19	25	56	0	0	0	0	0	0	0	
Incremental Sales	0	141	186	417	0	0	0	0	0	0	0	
	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues	$ -	$10.33	$13.59	$30.44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Less: Incremental Revenue Requirement/yr	($4.84)	$9.60	$10.95	$12.39	$11.98	$11.57	$11.26	$10.95	$10.64	$10.24	$9.93	
Net Margin ($M)	$4.84	$0.73	$2.64	$18.05	($11.98)	($11.57)	($11.26)	($10.95)	($10.64)	($10.24)	($9.93)	

D-0013

2 As portrayed on page 3-7 of PG&E's testimony dated 11/21/2024 and corrected in PG&E response to DR 02, Q06.

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Customer Bill Reduction per Month	$0.05	$0.01	$0.03	$0.18	($0.12)	($0.12)	($0.11)	($0.11)	($0.11)	($0.10)	($0.10)	
Customer Bill Reduction per Year	**$0.58**	**$0.09**	**$0.32**	**$2.17**	**($1.44)**	**($1.39)**	**($1.35)**	**($1.31)**	**($1.28)**	**($1.23)**	**($1.19)**	**($6.04)**

Table 2 Refunds Issued [(1)]

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Refunds Issued	$24,594,173	$6,484,863	$18,920,964	$0	$0	$0	$0	$0	$0	$0	$50,000,000

(1) Accumulated interest expense not reflected in refund amounts in Table 2

D-0014

b. Customer load fully ramps to 75 MW by Year 2, then drops to 0 MW after Year 3. $50 million refundable and $50 million nonrefundable interconnection cost (i.e., facility 4).

	Year 1	Year 2	Year 3	Year 4	…	Year 10
Load (MW)	50	75	75	0	…	0

b. Although PG&E is providing a response to Cal Advocates' hypothetical scenario, this scenario is highly implausible. PG&E notes that in this scenario, the customer would have invested $50 million in electrical infrastructure costs alone. The customer would likely have incurred tens or hundreds of millions of dollars in costs for its facility. It is unlikely in this scenario that: (1) the customer would shut down in three years after this type of investment; and (2) no other entity would have purchased the facility and thus continued to use the electrical transmission system. PG&E is not aware of any situation in which an entity has invested tens or hundreds of millions of dollars in a data center or similar facility and shut down the facility entirely after three years. Moreover, this scenario does not factor in: (1) the potential benefits of the newly constructed transmission facilities even if the customer's load dropped to zero; and (2) potential use by other customers.

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Incremental Load	0	50	75	75	0	0	0	0	0	0	0	
Incremental Sales	0	372	558	558	0	0	0	0	0	0	0	
	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues	$0.00	$27.18	$40.77	$40.77	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Less: Incremental Revenue Requirement/yr	($4.84)	$12.02	$12.78	$12.39	$11.98	$11.57	$11.26	$10.95	$10.64	$10.24	$9.93	
Net Margin ($M)	$4.84	$15.16	$27.98	$28.38	($11.98)	($11.57)	($11.26)	($10.95)	($10.64)	($10.24)	($9.93)	
Customer Bill Reduction per Month	$0.05	$0.15	$0.28	$0.28	($0.12)	($0.12)	($0.11)	($0.11)	($0.11)	($0.10)	($0.10)	
Customer Bill Reduction per Year	**$0.58**	**$1.82**	**$3.36**	**$3.41**	**($1.44)**	**($1.39)**	**($1.35)**	**($1.31)**	**($1.28)**	**($1.23)**	**($1.19)**	**($0.03)**

D-0015

Table 2 Refunds Issued [1]

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Refunds Issued	$50,000,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$50,000,000

(1) Accumulated interest expense not reflected in refund amounts in Table 2

D-0016

c. Project 1 facilities costs as provided in response to DR02, Question 05 which includes refundable and nonrefundable costs of $57.5 million and $113 million respectively. Please employ the following load ramp scenario. Years 5 through 10 should equal 100% of forecast project load. When responding to this scenario, please also provide the project load rating (MW)[3] for this project.

	Year 1	Year 2	Year 3	Year 4	Year 5	…	Year 10
Load (MW)	25.33% Forecast Load	33% Forecast Load	74.67% Forecast Load	84% Forecast Load	100% Forecast Load	…	100% Forecast Load

c. PG&E notes that Cal Advocates selected a Project scenario for this subpart that is heavily weighted to Facility Type 4 (network upgrades). PG&E's response to Cal Advocates Set #2, Question 5 includes five other projects as well. PG&E also notes that Cal Advocates question does not consider the benefits to existing customers from transmission network upgrades (Facility Type 4) that may result in the ability to interconnect additional new transmission level customers that could produce additional incremental revenues that lower existing customer bills. Network upgrades may not be required for these additional new transmission level customers because they would already have been built in this scenario. Finally, as the Federal Energy Regulatory Commission has explained, "even if a customer can be said to have caused the addition of a grid facility, the addition represents a system expansion used by and benefitting all users due to the integrated nature of the grid." (*See Public Service Company,* 62 FERC ¶ 61,013 (1993) at 61,061.)

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Incremental Load	0	23	30	67	76	90	90	90	90	90	90	
Incremental Sales	0	170	221	500	563	670	670	670	670	670	670	
	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues	$0.00	$12.39	$16.14	$36.53	$41.09	$48.92	$48.92	$48.92	$48.92	$48.92	$48.92	
Less: Incremental Revenue Requirement/yr	($5.62)	$17.85	$19.75	$21.08	$20.47	$19.76	$19.24	$18.63	$18.11	$17.50	$16.88	
Net Margin ($M)	$5.62	($5.46)	($3.60)	$15.44	$20.62	$29.16	$29.68	$30.29	$30.81	$31.42	$32.04	

D-0017

3 I.e., Usage Forecast.

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Customer Bill Reduction per Month	$0.06	($0.05)	($0.04)	$0.15	$0.21	$0.29	$0.30	$0.30	$0.31	$0.31	$0.32	
Customer Bill Reduction per Year	**$0.67**	**($0.66)**	**($0.43)**	**$1.85**	**$2.47**	**$3.50**	**$3.56**	**$3.64**	**$3.70**	**$3.77**	**$3.84**	**$25.92**

Table 2 Refunds Issued [(1)]

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Refunds Issued	$29,180,340	$7,488,128	$20,831,532	$0	$0	$0	$0	$0	$0	$0	$57,500,000

(1) Accumulated interest expense not reflected in refund amounts in Table 2

D-0018

d. Project 1 facilities costs as provided in response to DR02, Question 05 which includes refundable and nonrefundable costs of $57.5 million and $113 million respectively. Please employ the following load ramp scenario where 40% of forecast load is attained in year 5 and remaining at that level through year 10.

	Year 1	Year 2	Year 3	Year 4	Year 5	…	Year 10
Load (MW)	6.67% Forecast Load	13.33% Forecast Load	20.00% Forecast Load	26.67% Forecast Load	40% Forecast Load	…	40% Forecast Load

d. PG&E notes that Cal Advocates selected a Project scenario for this subpart that is heavily weighted to Facility Type 4 (network upgrades). PG&E's response to Cal Advocates Set #2, Question 5 includes five other projects as well. PG&E also notes that Cal Advocates question does not consider the benefits to existing customers from transmission network upgrades (Facility Type 4) that may result in the ability to interconnect additional new transmission level customers that could produce additional incremental revenues that lower existing customer bills. Network upgrades may not be required for these additional new transmission level customers because they would already have been built in this scenario. Finally, as the Federal Energy Regulatory Commission has explained, "even if a customer can be said to have caused the addition of a grid facility, the addition represents a system expansion used by and benefitting all users due to the integrated nature of the grid." (*See Public Service Company,* 62 FERC ¶ 61,013 (1993) at 61,061.)

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Incremental Load	0	6	12	18	24	36	36	36	36	36	36	
Incremental Sales	0	45	89	134	179	268	268	268	268	268	268	
	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues	$0.00	$3.26	$6.52	$9.78	$13.05	$19.57	$19.57	$19.57	$19.57	$19.57	$19.57	

D-0019

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Less: Incremental Revenue Requirement/yr	($5.62)	$15.82	$17.61	$17.50	$17.47	$18.11	$17.60	$16.98	$16.37	$15.85	$15.23	
Net Margin ($M)	$5.62	($12.56)	($11.09)	($7.72)	($4.42)	$1.46	$1.97	$2.59	$3.20	$3.72	$4.33	
Customer Bill Reduction per Month	$0.06	($0.13)	($0.11)	($0.08)	($0.04)	$0.01	$0.02	$0.03	$0.03	$0.04	$0.04	
Customer Bill Reduction per Year	**$0.67**	**($1.51)**	**($1.33)**	**($0.93)**	**($0.53)**	**$0.17**	**$0.24**	**$0.31**	**$0.38**	**$0.45**	**$0.52**	**($1.55)**

Table 2 Refunds Issued [(1)]

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Refunds Issued	$8,895,880	$5,781,668	$5,965,988	$6,144,968	$13,569,108	$0	$0	$0	$0	$0	$40,357,612

(1) Accumulated interest expense not reflected in refund amounts in Table 2

D-0020

e. Project 3 facilities costs as provided in response to DR02, Question 05 which includes refundable and nonrefundable costs of $52.5 million and $12.5 million respectively. Please employ the following load ramp scenario. Years 5 through 10 should equal 100% of forecast project load. When responding to this scenario, please also provide the project load rating (MW)[4] for this project.

	Year 1	Year 2	Year 3	Year 4	Year 5	…	Year 10
Load (MW)	25.33% Forecast Load	33% Forecast Load	74.67% Forecast Load	84% Forecast Load	100% Forecast Load	…	100% Forecast Load

e.

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Incremental Load	0	23	30	67	76	90	90	90	90	90	90	
Incremental Sales	0	170	221	500	563	670	670	670	670	670	670	
	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues	$0.00	$12.39	$16.14	$36.53	$41.09	$48.92	$48.92	$48.92	$48.92	$48.92	$48.92	
Less: Incremental Revenue Requirement/yr	($5.13)	$5.63	$6.79	$8.05	$7.74	$7.54	$7.33	$7.13	$6.92	$6.71	$6.41	
Net Margin ($M)	$5.13	$6.77	$9.35	$28.48	$33.35	$41.38	$41.59	$41.80	$42.00	$42.21	$42.51	
Customer Bill Reduction per Month	$0.05	$0.07	$0.09	$0.28	$0.33	$0.41	$0.42	$0.42	$0.42	$0.42	$0.43	
Customer Bill Reduction per Year	**$0.62**	**$0.81**	**$1.12**	**$3.42**	**$4.00**	**$4.97**	**$4.99**	**$5.02**	**$5.04**	**$5.06**	**$5.10**	**$40.15**

D-0021

4 I.e., Usage Forecast

Table 2 Refunds Issued [1]

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Refunds Issued	$29,318,016	$7,683,947	$15,498,038	$0	$0	$0	$0	$0	$0	$0	$52,500,000

(1) Accumulated interest expense not reflected in refund amounts in Table 2

D-0022

f. Project 3 facilities costs as provided in response to DR02, Question 05 which includes refundable and nonrefundable costs of $52.5 million and $12.5 million respectively. Please employ the following load ramp scenario where 40% of forecast load is attained in year 5 and remaining at that level through year 10.

	Year 1	Year 2	Year 3	Year 4	Year 5	…	Year 10
Load (MW)	6.67% Forecast Load	13.33% Forecast Load	20.00% Forecast Load	26.67% Forecast Load	40% Forecast Load	…	40% Forecast Load

f.

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Incremental Load	0	6	12	18	24	36	36	36	36	36	36	
Incremental Sales	0	45	90	135	180	269	269	269	269	269	269	
	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues	$0.00	$3.28	$6.55	$9.83	$13.11	$19.67	$19.67	$19.67	$19.67	$19.67	$19.67	
Less: Incremental Revenue Requirement/yr	($5.13)	$3.59	$4.66	$4.95	$5.32	$6.47	$6.27	$6.06	$5.76	$5.55	$5.34	
Net Margin ($M)	$5.13	($0.31)	$1.89	$4.88	$7.79	$13.19	$13.40	$13.61	$13.91	$14.12	$14.32	
Customer Bill Reduction per Month	$0.05	($0.00)	$0.02	$0.05	$0.08	$0.13	$0.13	$0.14	$0.14	$0.14	$0.14	
Customer Bill Reduction per Year	**$0.62**	**($0.04)**	**$0.23**	**$0.59**	**$0.93**	**$1.58**	**$1.61**	**$1.63**	**$1.67**	**$1.69**	**$1.72**	**$12.23**

D-0023

Table 2 Refunds Issued [1]

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Refunds Issued	$8,932,133	$5,968,954	$6,158,948	$6,343,716	$13,810,018	$0	$0	$0	$0	$0	$41,213,769

(1) Accumulated interest expense not reflected in refund amounts in Table 2

D-0024

g. Facilities costs (type 1-3) are provided in January 10 response to an Energy Division data request, Question 15a titled Data Center San Jose Example 1 which includes refundable costs of $92.3 million. If network upgrades were also part of the project, provide a description and cost. Please employ the load ramp scenario provided in the example.

	Year 1	Year 2	Year 3	Year 4	Year 5	…	Year 10
Load (MW)	54	99	99	99	99	…	99

g. The customer provided in January 10 response to an Energy Division data request, Question 15a titled Data Center San Jose Example 1 which includes refundable costs of $92.3 million, does not yet have estimated non-refundable network upgrade costs. For this analysis, because network upgrade project costs are not yet available, PG&E utilized the $50 million estimate of network upgrades utilized in our Rule 30 supplemental testimony examples.

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Incremental Load	0	54	99	99	99	99	99	99	99	99	99	
Incremental Sales	0	37	74	112	149	223	223	223	223	223	223	
	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues	$0.00	$2.72	$5.43	$8.15	$10.87	$16.31	$16.31	$16.31	$16.31	$16.31	$16.31	
Less: Incremental Revenue Requirement/yr	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Net Margin ($M)	$0.00	$2.72	$5.43	$8.15	$10.87	$16.31	$16.31	$16.31	$16.31	$16.31	$16.31	
Customer Bill Reduction per Month	$0.00	$0.03	$0.05	$0.08	$0.11	$0.16	$0.16	$0.16	$0.16	$0.16	$0.16	
Customer Bill Reduction per Year	**$0.00**	**$0.33**	**$0.65**	**$0.98**	**$1.30**	**$1.96**	**$1.96**	**$1.96**	**$1.96**	**$1.96**	**$1.96**	**$15.00**

D-0025

Table 2 Refunds Issued [1]

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Refunds Issued	$66,868,562	$25,421,438	$0	$0	$0	$0	$0	$0	$0	$0	$92,290,000

(1) Accumulated interest expense not reflected in refund amounts in Table 2

D-0026

h. Facilities costs (type 1-3) are provided in January 10 response to an Energy Division data request, Question 15a titled Data Center San Jose Example 2 which includes refundable costs of $33.3 million. If network upgrades were also part of the project, provide a description and cost. Please employ the load ramp scenario provided in the example.

	Year 1	Year 2	Year 3	Year 4	Year 5	…	Year 10
Load (MW)	99	99	99	99	99	…	99

h. The customer provided in January 10, 2025 response to an Energy Division data request, Question 15a titled Data Center San Jose Example 1, includes refundable costs of $92.3 million does not yet have estimated non-refundable transmission network upgrade costs. For this analysis, because network upgrade project costs are not yet available, PG&E utilized the $50 million estimate of transmission network upgrades utilized in our Electric Rule 30 supplemental testimony examples.

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Incremental Load	0	99	99	99	99	99	99	99	99	99	99	
Incremental Sales	0	737	737	737	737	737	737	737	737	737	737	
	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	
Estimated Incremental Revenues	$0.00	$53.81	$53.81	$53.81	$53.81	$53.81	$53.81	$53.81	$53.81	$53.81	$53.81	
Less: Incremental Revenue Requirement/yr	($3.20)	$10.05	$10.64	$10.34	$9.93	$9.63	$9.42	$9.11	$8.80	$8.59	$8.29	
Net Margin ($M)	$3.20	$43.76	$43.18	$43.47	$43.88	$44.18	$44.39	$44.70	$45.01	$45.22	$45.52	
Customer Bill Reduction per Month	$0.03	$0.44	$0.43	$0.43	$0.44	$0.44	$0.44	$0.45	$0.45	$0.45	$0.46	

D-0027

Table 1 Bill Impact

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Customer Bill Reduction per Year	**$0.38**	**$5.25**	**$5.18**	**$5.22**	**$5.27**	**$5.30**	**$5.33**	**$5.36**	**$5.40**	**$5.43**	**$5.46**	**$53.58**

Table 2 Refunds Issued [(1)]

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Refunds Issued	$33,230,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$33,230,000

(1) Accumulated interest expense not reflected in refund amounts in Table 2

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