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BY ELECTRONIC COMMUNICATION

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California Public Utilities Commission  
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**Re: Support for Realization of Generation and Storage Projects via Expediting Required PG&E Interconnection and Transmission Activities**

Dear President Reynolds,

Thank you for your November 21 letter and for the Commission's leadership in accelerating the realization of California's next wave of clean energy resources. We share your urgency. In light of Executive Order N-33-25 and expiring federal tax credits, our commitment is clear: interconnect projects faster, deliver reliability at the lowest possible cost, and keep bills stable or trending down for the customers and hometowns we serve. This response details the specific actions we are taking to sustain momentum through 2026 and beyond. Our response centers on the following core themes:

- **PG&E is fully aligned with the Commission's urgency and is taking aggressive steps to accelerate interconnection and transmission delivery.**  
Across the organization, PG&E is restructuring processes, starting workstreams earlier, and rethinking traditional sequencing to reduce time from contract execution to energization.
- **Internal resourcing and funding are not the constraint—PG&E has committed the necessary staffing, governance, and financial mechanisms to support the unprecedented workload.**  
PG&E has expanded both employee and contract resources to meet a 300% increase in workload.
- **The primary risks to timely delivery are external: global supply chain constraints and customer side or jurisdictional delays.**  
Longlead equipment (especially 230–500 kV breakers), CEQA permitting, local approvals, and customer driven redesigns or site readiness remain the dominant schedule drivers.
- **PG&E is proactively mitigating risks through enterprise-level procurement strategies and strengthened engineering and construction partnerships.**



These steps aim to reduce supply-chain exposure and preserve in-service dates despite global equipment shortages.

- **PG&E is improving transparency, process efficiency, and coordination across all interconnection workstreams—and continues to support broader regulatory/process reforms.**

Ongoing initiatives include value stream mapping, dependency tracking, and collaboration with CPUC, CAISO, and GO-Biz to streamline permitting, accelerate approvals, and enhance grid readiness.

We respectfully respond to the requests included in the November letter in the sections below:

#### **Item 1: Interconnection Agreements – Report on Process and Timelines**

Review all signed PG&E interconnection agreements and transmission projects that pose dependencies to interconnection agreements. PG&E should identify what actions it can undertake to facilitate execution of all interconnection projects, especially those with signed interconnection agreements that may be impacted by the phase-out of IRA tax credits. Many of these include solar and wind projects that can start construction by July 4, 2026, or that have the potential to be put in-service by December 31, 2027.

#### **Response**

PG&E is committed to accelerating its project delivery to support interconnection of third-party generation through a leaner, more agile approach. By rethinking the standard initiation process and implementing a framework that enables concurrent starts across workgroups, the utility can recover critical time in contract schedules, achieve key milestones faster, and minimize delays attributable to internal processes. We are focused on reducing the time between Interconnection Agreement execution and commencement of the implementation phase, enabling quicker alignment and delivery. While this approach prioritizes speed to market, it introduces an increased risk of rework and potential financial impacts, as overlapping activities with the Commission's processes may require adjustments later in the project lifecycle. To ensure the projects are completed successfully and to minimize these risks, PG&E has streamlined its internal Transmission Interconnection work stream. In addition to these internal process enhancements, PG&E needs the support from the Commission early in the project lifecycle to facilitate concurrent and expeditious execution of its activities to further mitigate any risk to project timelines and resulting financial impacts.

The primary changes we have introduced already are: (1) to order long lead materials earlier so that projects do not have to wait until scope is approved; and (2) to pre-assign Project Managers before completion of project authorization so that staffing needs are addressed proactively.



The release of Cluster 14 has driven a significant surge in new PG&E project work to ready the grid for interconnection of third-party generators. Since inception of Cluster 14, PG&E has launched 35 projects for this purpose - representing a dramatic increase over prior years. To support this growth, we are staffing Project Management and Engineering roles with a mix of employees and contracted resources. In the near term, PG&E plans to engage additional contracted resources to initiate these projects while ensuring existing teams can continue advancing earlier queued projects with minimal disruption.

PG&E is accelerating the procurement process for its new project work as early as possible in the project lifecycle. Current specialized equipment lead times are significant: 70kV – 230kV breakers require approximately 156 weeks, and 500kV breakers up to 200 weeks. To mitigate these constraints, PG&E is leveraging demand forecasting to secure production slots with suppliers, maximizing available capacity year over year.

#### **Item 1a: Interconnection Agreements – Report on Process and Timelines**

a. Report to the Commission about actions taken and underway to ensure that these interconnection agreements can be fulfilled and the projects can achieve commercial operation.

#### **Response**

PG&E has prioritized capacity and generation work while continuing to support emergency projects, aiming to secure more favorable clearance windows during critical phases. Operational constraints remain the most inflexible barrier to integrating new generation assets. Historically, PG&E has delivered 8–10 major projects annually, often requiring adjustments to test resources and clearances to bring transmission projects online. With no reduction in other portfolios, PG&E is actively hiring and training across nearly every impacted area to maintain workplan commitments and ensure timely delivery, positioning these projects to achieve commercial operation as scheduled. Decongestion of the interconnection queue has also emerged as a critical priority due to the cascading impacts of non-utility delays and late-stage application withdrawals. PG&E anticipates that the procedural updates mandated under FERC Order No. 2023 will help promote viable, well-prepared projects entering the interconnection queues, fostering improved readiness and enhancing overall queue efficiency.

#### **Item 1b: Interconnection Agreements – Report on Process and Timelines**

b. Report on the interconnection, and any related transmission timelines, for the current portfolio of projects in PG&E's service territory, including descriptions of key timeline milestones and metrics for success.

#### **Response**



Interconnection projects have multiple concurrent or overlapping dependencies which can have significant systemic impacts on overall timelines. Each milestone is interdependent; delays at any stage can ripple through the schedule and jeopardize commercial operation dates. Currently, approximately 80% of timeline altering events are triggered outside of PG&E's scope of control. Approximately 10% of delays are attributed to long-lead material procurement and transmission clearance windows. Based on developer-cited delay causes, PG&E believes there is an opportunity for the Commission to help alleviate common pain points early in the project lifecycle. Potential actions include advocating accelerated CEQA reviews, promoting clearer timelines for local permits, and fostering collaboration between developers and permitting authorities to reduce jurisdictional bottlenecks.

### **Key Milestones vulnerable to delays:**

- Environmental Permitting (CEQA)
  - Duration: ~24+ months.
  - Importance: Must be completed before engineering and dedicated procurement can begin.
  - Primary Delay Drivers: Customer-side delays due to complex environmental reviews and jurisdictional approvals.
- Engineering Design
  - Duration: ~6–8 months
  - Importance: Requires utility asset details for inclusion in customer permits.
  - Dependency: Cannot start until CEQA permits are secured.
- Customer Procurement & Dependencies (i.e. Local Permits)
  - Duration: 12–24 months.
  - Importance: Long-lead materials and supply shortages may impact customer construction path.
  - Primary Delay Drivers: Customer-side procurement challenges; utility lead times for major equipment.
  - Dependency: Typically performed concurrently with other activities once the Interconnection Agreement is executed.
- Construction & Testing
  - Customer Construction: 14–18 months after permits.
  - Utility Construction: Dependent on clearance windows and material availability.



- Importance: Final step before energization and commercial operation.

Total Typical Customer Timeline: ~5–6 years from initial permitting to interconnection.

See Appendix for duration analysis typical for PG&E's Transmission Interconnection projects.

### **Item 1c: Interconnection Agreements – Report on Process and Timelines**

c. Provide information, to the extent available, about process improvements that have been reached for supporting the interconnection of wholesale projects, and their transmission dependencies, seeking to connect to the PG&E system.

#### **Response**

PG&E has implemented several process improvements to support the interconnection of wholesale projects and address transmission dependencies. PG&E has implemented new procedures to enable earlier ordering of long-lead materials. To further address delays for critical equipment such as circuit breakers and transformers, PG&E launched a strategic material sourcing plan to identify key suppliers and place bulk orders for high-demand components. This initiative is designed to manage current cycle times and reduce cascading delays from suppliers, with the objective of maintaining or improving forecasted in-service dates whenever possible. In addition, PG&E remains committed to partnering with customers to identify and implement feasible alternatives that safely and reliably accelerate project schedules when possible.

PG&E keeps track of the relationship of interconnection projects to the other capital work in its system. Tracking these dependencies helps PG&E resolve issues and delays early as they arise where possible. PG&E monitors this tracking at the project, portfolio, and line of level operating reviews.

### **Item 2: Staffing and Financial Resources**

Review PG&E's staffing and financial resources required to support realization of interconnection requests.

#### **Response**

PG&E is currently looking at a 300% increase in wholesale interconnection workload over prior years. Estimates project the need for 10–12 full-time project management teams dedicated to interconnection work. To meet these staffing requirements, PG&E is taking several actions:

- **Ramp-Up Through Contract Resources:** PG&E is leveraging contract project managers and engineers as an immediate solution to handle the surge in interconnection activity.



- **Hiring and Training:** The utility is actively recruiting specialized roles in transmission planning, interconnection engineering, and project management, while also training internal staff to expand capacity. PG&E expects that new employees will require significant training to get the expertise needed to manage interconnection projects.
- **Role Specialization and Governance:** PG&E has implemented a structured approach to project management for Transmission projects, including assigning multiple site-specific project managers and defining clear roles and responsibilities under enterprise staffing standards.
- **Cross-Functional Coordination:** Teams in Project Management, Project Controls, and Engineering are being scaled to ensure timely execution of interconnection milestones and compliance with FERC and CPUC requirements.
- Creating external strategic partnerships in engineering and construction to meet the resource capacity and capability needs to deliver projects with predictability and certainty.
- Establishing cross functional project pursuit teams to significantly shorten project initiation.

These measures are designed to maintain workplan commitments and improve timely delivery of interconnection projects.

#### **Item 2a: Staffing and Financial Resources**

a. Confirm whether staffing resources are sufficient on PG&E's Transmission and Interconnection teams to support the interconnection of new wholesale generation and storage resources.

#### **Response**

PG&E has been significantly ramping up support for new interconnection work over the last 24 months to accommodate an unprecedented increase in project volume. In the immediate term, surge volume is being addressed primarily through contract resources, while longer-term efforts focus on building internal capacity. Dedicated staffing for Project Management, Project Controls, and Engineering plans to reach levels capable of sustaining this expanded workload, as existing teams are fully engaged with other critical portfolios, including Distribution, Transmission, Generation, Capacity, Emergency, and Load Interconnection projects. Mentorship by experienced Team Leads will be provided to ensure knowledge transfer and maintain high standards of execution.

#### **Item 2b: Staffing and Financial Resources**

b. Identify if there are financial constraints that are limiting the ability of the PG&E to invest in the requisite substation, transmission, or interconnection equipment.



## Response

Transmission generation projects are funded through Cluster 14, with a substantial portion of the triggered scope initially covered by customer cost allocations, which are reimbursed over time through the Transmission Owner (TO) rate case once projects go in service. Similarly, distribution generation projects require up-front applicant funding commitments, which mitigates financial constraints for PG&E. As a result, there are no funding limitations impacting PG&E's ability to proceed with these investments.

### **Item 3: Efficient Procurement of Requisite Equipment**

Review PG&E's ability to procure requisite equipment for interconnection facilities and transmission lines needed for the successful interconnection of new generation and storage assets. Report on whether PG&E experiences delays procuring circuit breakers, transformers, specialized steel structures, and other equipment necessary to support interconnection and transmission upgrades.

## Response

Due to a global supply issue, PG&E experiences delays procuring circuit breakers, transformers, specialized steel structures, and other equipment necessary to support interconnection and transmission upgrades. Currently, PG&E works with five breaker suppliers; however, not all suppliers manufacture every breaker class. For 115 kV and above, there are four suppliers, and one of them is limited to 17 secured production slots per year. Cluster 14 alone requires more than 300 new breakers, averaging three per project, compared to the typical two per interconnection project. This sharp increase over prior years has created both actual and projected backlogs. Manufacturers have informed PG&E that expanded production capacity is unlikely before 2027. Much of the backlog stems from global demand pressures, as suppliers have limited factory capacity and must allocate production across diverse products for other electric utilities and generation facility customers.

To meet planned demand for critical long-lead equipment—including transformers, switchgear, HV circuit breakers, and GIS—we have proactively secured production slots by locking capacity with strategic suppliers such as [REDACTED]

[REDACTED] In parallel, we are driving dynamic sourcing strategies that align enterprise demand with OEM capacity, collaborating closely with engineering standards and internal stakeholders to diversify and grow both domestic and global supply chains. These efforts enable a flexible response to evolving needs and are supported by advanced scenario modeling, financial planning, and dashboarding tools that empower confident, data-driven decisions. Notably, the Large Load Cluster modeling tool has been completed, with full enterprise rollout planned for Q2 2026.

To accelerate execution timelines and enhance delivery certainty, we have strengthened partnerships with leading engineering and construction firms—including [REDACTED]—while deploying flexible contracting methods



that have reduced award timelines by 40% and scaled execution capacity. We are also developing the Major Projects Procurement Playbook, an extension of the Enterprise Procurement Playbook, to provide tailored standards, tools, and workflows for consistent, compliant, and value-driven procurement execution on complex, high-risk capital projects. These initiatives are complemented by enhanced supplier relationship management, expanded market intelligence, and supplier development programs to ensure reliability, responsiveness, and long-term capacity growth. Our efforts are reinforcing strategic alignment and readiness for future demand.

### **Item 3a: Efficient Procurement of Requisite Equipment**

a. Review and report on any proactive efforts PG&E has taken to procure long lead-time equipment necessary for interconnection upgrades and transmission lines to avoid generator and storage project delays.

#### **Response**

PG&E is working to advance procurement as early as possible in the project lifecycle. Current lead times are significant: approximately 40 weeks for 70 kV breakers, 58 weeks for 115 kV, 148–168 weeks for 230 kV, and up to 200 weeks for 500 kV. To mitigate these delays, PG&E uses demand forecasting to secure the maximum number of production slots available from its suppliers year over year. Additionally, PG&E is increasing orders for specific long lead time materials based on projected needs ahead of specific project assignments.

### **Item 3b: Efficient Procurement of Requisite Equipment**

b. Review and report on whether PG&E can (and does) work with developers to share project development building activities, including self-build options or self-provision of long lead-time equipment in accordance with utility specifications and utility procurement agreements, to facilitate on-time delivery of interconnection projects and dependent transmission.

#### **Response**

Historically, most 115 kV and 230 kV projects could typically secure equipment in time to meet contractual in-service dates if orders were placed within one year of project kickoff, as these projects generally require 48–56 months to reach completion. However, given current manufacturing shortages, and projected lead times, new projects requiring 230 kV and above circuit breakers that kick off in 2026 are not expected to be online until at least 2030.

Accepting breakers provided by developers poses a significant risk to the Utility due to non-transferability of the warranty from the manufacturer, lack of master service agreements, and because the breaker may be procured from an unapproved vendor or one not strictly following the Utility Standard. If PG&E receives a breaker from a developer, PG&E assumes the risk once accepting the breaker. Developers are allowed



to contact the supplier to seek acceleration of the manufacturer of the breaker or they can secure the production position on behalf of the Utility and PG&E can take that position when ordering the breaker. Developers typically supply breakers when self-building green-field switching stations. There is significant rigor around the construction of the 3<sup>rd</sup> party built switching station and during the commissioning of the facility the developer remains guarantor of all the functional operations of the equipment and facilitates repairs under any warranty conditions.

#### **Item 4: Timely Construction of Critical Transmission Network Upgrades and Facilitate Interconnection**

Report on the status of critical transmission upgrades already identified as necessary to support future interconnections, as well as policies PG&E can implement to remove barriers to timely interconnections. It is critical that PG&E identify, track, and deliver delayed transmission projects and network upgrades that will have the highest impact on reliability, and that may prevent large amounts of generation and storage from coming online on time.

#### **Response**

PG&E currently has the following transmission upgrades identified as critically necessary to interconnect planned generation resources:

##### **At Risk or Projected to be Past Due:**

- **C12P1-NPT04 - Vaca Dixon Substation 230 kV Circuit Breakers overstress**
  - Current Status: Forecasted In-Service Date (FISD) CB442 06/04/26, FISD CB462 10/02/26, FISD CB452 01/08/27 in construction. Significant construction sequencing.
  - Impact:
    - Already the driver for curtailment to Q1463 (Online as of 12/15/13).
    - Risk to delaying backfeed for Q1270, FISD 02/28/27.
    - Risk to delaying backfeed for Q1444, FISD 06/09/27.
    - No Risk. Q1496, FISD 11/27/33 but on-hold by Interconnection Customer (IC) (Delayed by 3<sup>rd</sup> Party Transmission Agency of Northern California related scope of work).
    - No Risk. Q1702, FISD 03/30/28, trending earlier.
- **22rsmt-4 - Pole Line Switching Station**
  - Current Status: FISD 11/07/29.



- Triggered because of affected system upgrades not completed at Dos Amigos Switching Station by WAPA. This project was triggered in late 2022 as the mitigation to that capacity issue. The project is engaged in site selection and environmental planning. Several station configurations and associated land acquisitions options are being considered. There is significant permitting required. No fast-track opportunities have been identified.
- Impact:
  - Delaying backfeed of Q1728, 70kV, FISD 03/09/27.
  - Deliverability Requirement for:
    - In-Flight: Q1709 (12/03/27), Q1930 (02/18/29), Q1932 (05/18/32), Q1935 (08/20/29), Q1955 (04/18/29), Q1956 (05/30/29), Q1966 (04/18/28), Q1975 (08/29/27).
    - Online: Q1127, Q1128, Q1129, Q1135, Q1713.
- **C13P1-FPT03 - Oro Loma 70kV Reinforcement**
  - Current Status: FISD 05/23/28. Originally Deferred in 2020 with no generation interconnection agreements triggering the project. The project was kicked off again in March 2025 after being triggered by a Generation Interconnection Agreement with Q1728. Permitting from Caltrans is the primary driver with permit completion expected July 2027. No fast-track opportunities have been identified.
  - Impact:
    - Delaying backfeed of Q1728, 70kV, FISD 03/09/27.
- **C13P1-FPT03b - Mercy Springs Switching Station connection to 70 kV line**
  - Current Status: FISD 06/06/29. Project dependency on Pole Line Switching Station to complete its scope. No fast-track opportunities have been identified.
  - Impact:
    - Delaying backfeed of Q1728, 70kV, FISD 03/09/27.
- **C14P1-GGR09 & 24RSMT-GPN01 - Tesla 230 kV Bus Overstress (two circuit breakers with line relocations)**
  - Current Status: FISD 04/18/31. 230kV lines and 500kV bus expansion on PG&E property will require significant construction sequencing with existing 230kV lines being re-routed on property.



- C14P1-GGR09 Triggered by a Generation Interconnection Agreement with Q1922 in Dec 2024.
- 24RSMT-GPN01 500kV scope added late when projects assigned in Reassessment signed agreements.
- Project is conducting scoping & engineering activities.
- Impact:
  - Risk to delaying backfeed of Q1912, 230kV, FISD 4/18/31.
  - Risk to delaying backfeed of Q1922, 500kV, FISD 4/21/31.
  - Not risk to delaying backfeed of Q1920, 115kV, FISD 7/31/31.
- **POS-Q1959-NU2 - Morro Bay Substation: Control Building Replacement**
  - Current Status: ISD Planned 03/31/32.
    - Recently triggered.
    - Authorizing.
  - Impact:
    - Delaying backfeed of Q1959, 230kV, FISD 08/18/30.
- Past Due (delay is negated by customer-side delay impacts):**
  - **20rsmt-4 - Metcalf 115 kV (new transformer reactors BK1-4),**
    - Current Status: ISD Planned 02/26/27.
      - Engineering and scoping impacts.
      - Dependency on Metcalf 115kV Bus E MPAC Building project, FISD 4/19/27.
    - Impact:
      - Risk to Delaying backfeed of Q1442, 115kV (Suspended by Customer), Contract ISD 12/01/24, Previously Planned FISD 03/18/27 - now to be determined.
      - Delaying backfeed of Q1539, 500kV (Delayed by Customer – Supply Manufacturer Factory Fire), Contract ISD 8/30/25, FISD 11/22/27.
  - **Other Network Upgrades**
    - There are other dependency upgrades outside the scope of this data response. These are excluded because the signed agreements depending on the upgrades are beyond 2027. See the 2025 RPS response for the



published list of projects and their dependencies. See Late January 2026 TDF for the latest FISDs for those Network Upgrades.

#### **Item 4a: Timely Construction of Critical Transmission Network Upgrades and Facilitate Interconnection**

a. Identify and focus on critical transmission upgrades: CPUC staff's 2025 Senate Bill 1174 transmission system assessment is in progress and has found that nearly 8.5 GW of PG&E's expected new generation and storage resources are dependent on PG&E transmission projects and network upgrades that have been delayed. For example, delays to Vaca Dixon Substation 230 kV circuit breaker upgrades are expected to prevent two resources (450 MW) from meeting their in-service dates and are putting another two resources (900 MW) at risk of delay. It is critical that PG&E identify and focus on the transmission projects and network upgrades that will have the highest impact on reliability and that are preventing large amounts of generation and storage from coming online on time.

#### **Response**

Although the Vaca Dixon upgrade has experienced delays, many dependent projects are also facing separate challenges such as CEQA permitting issues, extended lead times for 500 kV circuit breakers, and material shortages. It is important to distinguish true dependency-driven delays from independent factors impacting generation project timeline feasibility. While some generation resources rely on critical network upgrades that have encountered setbacks, most projects are not currently delayed solely due to these dependencies. PG&E actively tracks these projects and reports progress through the CAISO Transmission Development Forum, while monitoring dependencies and mitigating risks. At present, approximately 2.75 GW across seven queues are projected to miss contractual in-service dates due to seven network upgrades. Of this total, 200 MW are delayed by CEQA permitting tied to the CEC process, and another 750 MW are past their contractual in-service dates due to the coexistence of a network upgrade dependency and an unrelated two-year material setback initiated by a fire at a major equipment supplier. One additional project remains curtailed until Vaca Dixon is completed, though it continues generating at its original facility capacity. With 1.8GW at risk due to Network Upgrades dependencies alone, PG&E project teams are coordinating construction sequencing strategies to enable generators to come online sooner wherever possible.

#### **Item 4b: Timely Construction of Critical Transmission Network Upgrades and Facilitate Interconnection**

b. Identify whether there are policies that can facilitate generation through sharing utility owned easements in order to help prevent unnecessary project delays due to extended negotiations for greenfield easements from local cities, counties and landowners for the interconnection tie lines between the new generation and substation.



## Response

PG&E's current policy is for all generator tie-lines—defined as Interconnection Customer's Interconnection Facilities (ICIF)—to be designed, constructed, owned, and maintained (meaning fully funded) by the interconnection customer up to the Point of Change of Ownership. PUC §851, GO 95 crossings often require significant coordination, and when exclusive utility easements exist, generation projects may need to evaluate alternative routes into substations. While eminent domain might be permissible if PG&E were to construct gen-tie lines, PG&E does not currently have an operational basis to justify owning or constructing these facilities on behalf of an interconnection customer. Such an approach could introduce conflicts with established compliance requirements and easement-sharing provisions currently in effect. PG&E also cannot exercise eminent domain on behalf of a customer for customer-owned facilities. Attempting to do so could potentially undermine regulatory compliance and shift liabilities inappropriately onto ratepayers.

## Item 5: Ongoing Processes to Provide Transparency, Cost Savings, and Efficiency for New Transmission and Interconnection

Continue to participate in information and process reform efforts and report to the CPUC whether there are any steps that can be taken to improve these forums to support transparency, cost savings, and efficiency of the interconnection process.

## Response

PG&E will continue to actively participate in information-sharing and process reform efforts and will report to the CPUC on opportunities to enhance transparency, cost efficiency, and interconnection timelines. We encourage collaboration with both the CPUC and the Governor's Office of Business and Economic Development (GoBiz) to advance key reforms, including:

- Streamlining environmental reviews through bulk-area permitting.
- Accelerating approval of Permit to Construct (PTC) and Certificate of Public Convenience and Necessity (CPCN) applications.
- Accelerating approval of California Environmental Quality Act (CEQA) permit applications.
- Supporting policies that incentivize domestic manufacturing in California, which would increase supply and reduce costs passed through to rates.
- PG&E has conducted an end-to-end Value Stream Mapping analysis of the interconnection process and has found and is implementing opportunities to improve on its process including project initiation, supply chain management, engineering process, and project dependency monitoring.



Additionally, PG&E sees value in exploring standards reform and greater system-wide standardization, which could simplify design requirements, reduce complexity, and improve overall efficiency.

### **Item 6: List of Projects in PG&E's Interconnection Queue**

The data listed below reflect a snapshot of LSE-submitted data on projects and developments for current procurement efforts, with a focus on projects expected to reach commercial operation in the near-term. Project ordering does not connote priority in development. Because this list is based on data provided by LSEs, some project information and other projects currently in development may be missing. CPUC and the Tracking Energy Development (TED) Task Force request that PG&E increase their focus on these projects, as well as others PG&E know to be in-development in its service territory, and look for opportunities to accelerate the in-service dates of projects when appropriate:

#### **Response**

PG&E has evaluated the list of projects for potential fast-track opportunities and determined that all identified projects are already prioritized within our work plans. These responses include the projects specifically referenced in this data request. The following information reflects the best available data at this time and is subject to change based on ongoing customer collaboration.

#### **Transmission:**

There are thirty (30) PG&E transmission projects in-flight and three (03) projects online on the reference list provided by the CPUC.

Three (03) Projects are In-Service:

1. Q1397, 230kV. FISD 02/07/24.
2. Q1454, 115kV. FISD 10/05/25.
3. Q1135, 230kV. FISD 12/01/23.

Fourteen (14) Projects are expected to come online before 12/31/2026:

1. Q779, 230kV. FISD 03/31/27 expected after active MMA is completed. Status: Customer delays.
2. Q1143, 115kV. FISD 01/02/26. Status: Customer design changes have impacted their schedule. In construction.
3. Q1260, 230kV. FISD 07/13/27. Status: IFC complete. Construction Start in 2026. MMA5 impacts customer's Inverter/Pad-Mount Transformer and Main Transformer Changes.



- Dependency on 20rsmt-6 - 20RSMTRAS-02 RAS to open Bitterwater Sw Sta-Wheeler Ridge #2 230 kV Line for loss of Midway-Bitterwater 230 kV line and overload on the Midway-Wheeler Ridge #1 230 kV line with FISD 07/13/27.

4. Q1349, 230kV. FISD 03/06/26. Status: On schedule. In construction.
5. Q1378, 70kV. FISD 03/10/26. Status: Customer gen-tie BOR easements issue delaying schedule.
6. Q1389, 230kV. FISD 06/22/26. Status: Customer permitting behind schedule. Delaying their Construction Start.
7. Q1391, 230kV. FISD 05/01/26. Status: On schedule.
8. Q1455, 60kV. FISD 07/27/26. Status: Utility waiting on customer POCO pole completion.
9. Q1456, 230kV. FISD 08/14/26. Status: Critical path tied to clearance windows. Weather impact and shared scope with other work at Los Banos substation.
10. Q1479, 500kV. FISD 06/03/26. Status: On schedule.
11. Q1499, 70kV, FISD 06/25/26. Status: Circuit breaker fabrication issue being resolved by PG&E supplier. t-line material delays could impact schedule.
12. Q1557, 115kV. FISD 03/13/26. Status: Customer permitting.
13. Q1593, 230kV. FISD 05/01/26. Status: Minor schedule modifications.
14. Q1718, 70kV. FISD 04/10/26. Status: On schedule. Depends on Q1378 commissioning dates.

Seven (07) Projects are expected to come online before 12/31/2027:

1. Q1270, 230kV. FISD 03/26/27. Status: Gen-tie line crossings/easements.
2. Q1382, 230kV. FISD 05/24/27. Status: Customer permitting.
3. Q1444, 115kV. FISD 06/09/27. Status: Customer permitting.
4. Q1552, 115kV. FISD 09/01/27. Status: Gen-tie Route Impacts through PG&E Substation. Easements, Mitigations, Design.
5. Q1709, 70kV. FISD 12/03/27. Status: Gen-tie/POCO location and easements issues on PG&E property.
6. Q268, Q606, FISD 05/15/27. Status: New Project Initiation on-going.
7. Q54, 70kV. FISD 07/08/27. Status: New Project Initiation on-going.

Three (03) Projects are Expected to come online after 12/31/2027 but may have possible acceleration that would need to be explored:



1. Q1596, Current impact: 500kV Circuit Breaker Lead times. Can possibly fast track with long lead material certainty and construction sequencing.
2. Q1702, Current impact: 500kV Circuit Breaker Lead times. Can possibly fast track with long lead material certainty and construction sequencing.
3. Q1690, Current impact: 115kV. Circuit Breaker Lead times. Construction sequencing early and highly depends on the customer being capable of completing their schedule by 12/31/27.

Six (06) Projects are expected to come online after 12/31/2027 that cannot be fast tracked due to network upgrades, supply chain issues, new project status, or 3<sup>rd</sup> party delays already impacting schedule:

1. Q1106, 230kV. FISD 12/19/29. Status: Customer submitted Stop Work Letter 12/31/25.
2. Q1728, 70kV. FISD 03/09/27. Status: Customer Initial Design Re-issued - impacting schedule.
  - o Delayed backfeed due to dependency on C13P1-FPT03b - Mercy Springs Switching Station connection to 70 kV line FISD 06/06/29.
3. Q1900, 115kV. FISD 01/13/30. Status: Circuit breaker Lead times. Currently Initiating new project.
4. Q1921, 115kV. FISD 09/30/30. Status: New Switching Station. Large scope. Not likely to crash schedule.
5. Q1958, 230kV. FISD 08/28/29. Status: Circuit breaker Lead times. Can only fast track by taking over a CB with same specification from another in-flight project.
6. Q1959, 230kV. FISD 08/18/30. Status: New Project. Not likely to crash schedule.

**Distribution:**

There are six (06) PG&E retail distribution projects.

There are eight (08) PG&E wholesale distribution projects.

Three (03) Projects are In-Service.

Fourteen (14) Projects are expected to come online before 12/31/2027.

No projects from the list provided by the CPUC are expected to come online after 12/31/2027 that cannot be fast tracked.

Thank you for your leadership and partnership in this critical effort.



Sincerely,

A handwritten signature in black ink that reads "Patti Poppe".

Patti Poppe  
Chief Executive Officer  
PG&E Corporation

Attachments:

- Appendix 1 – Typical Lead-Time Driven Process
- Declaration of Confidentiality

CC:

Matthew Baker, CPUC Commissioner, [matthew.baker@cpuc.ca.gov](mailto:matthew.baker@cpuc.ca.gov)

Karen Douglas, CPUC Commissioner, [karen.douglas@cpuc.ca.gov](mailto:karen.douglas@cpuc.ca.gov)

Darcie L. Houck, CPUC Commissioner, [darcie.houck@cpuc.ca.gov](mailto:darcie.houck@cpuc.ca.gov)

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[Deedee.myers@gobiz.ca.gov](mailto:Deedee.myers@gobiz.ca.gov)

## Appendix A

Typical Interconnection Projects (1 Bay at PG&E substation, 0.1 mi Gentie)		Responsible	Duration	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Year 7										
				2025		2026		2027		2028		2029		2030		2031										
				J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
Agreement Negotiated and Executed	Utility, CAISO, Customer	3-6 Months			◆	◆																				
Initiation	Utility	4-6 Months			◆		◆																			
Utility's assigning of resources	Utility	2-3 Months				◆	◆																			
Schedule/Kickoff with Customer	Utility, Customer	1-2 Weeks					◆																			
Long Lead Materials on Order 500kV	Utility	46 Months						◆ 200w (500kV)														◆				
Long Lead Materials on Order 230kV	Utility	39 Months						◆ 168w (230kV)													◆					
Long Lead Materials on Order 115kV	Utility	13 Months						◆ 58w (115kV)			◆															
Long Lead Materials on Order 70kV	Utility	10 Months						◆ 40w (70kV)		◆																
CEQA Process	Customer	24 Months	◆ 24 months							◆																
Environmental Permitting CEQA Coordination	Utility, Customer	24 Months					◆		◆																	
Coordinate Location of Gentie Route/POCO Pole	Utility, Customer	2-3 Months				◆	◆	◆																		
Utility's Scoping and Initial design	Utility	3-6 Months					◆	◆																		
Utility's design	Utility	4-6 Months					◆	◆																		
Customer's design	Customer	12 months						◆																		
Customer's Local Permits	Customer	7-12 Months							◆																	
Clearance Windows	CAISO, Utility																									
<b>70kV and 115kV Projects</b>																										
Customer Gentie construction	Customer	8 Months															◆	◆	◆							
Customer's Telco Coordination & Construction	Telco at Gensite	7-12 Months														◆	◆	◆	◆							
Utility Substation Construction	Utility	6 Months														◆ Early Start	◆ Plan Start	◆								
Utility Gentie Construction	Utility	1-3 Months														◆	◆	◆								
Utility Telecom Construction	Utility	3-4 Months														◆	◆	◆								
Customer Provided Test Reports and G-5 Docs	Customer	2 Months														◆	◆	◆								
Schedule/Conduct Pre-Parallel Inspections	Utility, Customer	15-20 Days															◆	◆	◆							
Utility End to End Testing	Utility, Customer	5 Days															◆	◆	◆							
In-Service Date (backfeed Customer)	Utility, Customer	1-2 Days															◆	◆	◆							
Customer Generator & Witness Testing	Utility, Customer	30-45 Days															◆	◆	◆							
Commercial Operational Date	Customer	1 Days															◆	◆	◆							
<b>230kV Projects Construction Phase</b>																										
Customer Gentie construction	Customer	8 Months															◆	◆	◆							
Customer's Telco Coordination & Construction	Telco at Gensite	7-12 Months														◆	◆	◆								
Utility Substation Construction	Utility	6 Months														◆ Early Start	◆ Plan Start	◆								
Utility Gentie Construction	Utility	1-3 Months														◆	◆	◆								
Utility Telecom Construction	Utility	3-4 Months														◆	◆	◆								
Customer Provided Test Reports and G-5 Docs	Customer	2 Months															◆	◆	◆							
Schedule/Conduct Pre-Parallel Inspections	Utility, Customer	15-20 Days															◆	◆	◆							
Utility End to End Testing	Utility, Customer	5 Days															◆	◆	◆							
In-Service Date (backfeed Customer)	Utility, Customer	1-2 Days															◆	◆	◆							
Customer Generator & Witness Testing	Utility, Customer	30-45 Days															◆	◆	◆							
Commercial Operational Date	Customer	1 Days															◆	◆	◆							
<b>500kV Projects Construction Phase</b>																	◆	◆	◆							
Customer Gentie construction	Customer	8 Months															◆	◆	◆							
Customer's Telco Coordination & Construction	Telco at Gensite	7-12 Months															◆	◆	◆							
Utility Substation Construction	Utility	6 Months															◆ Early Start	◆ Plan Start	◆							
Utility Gentie Construction	Utility	1-3 Months															◆	◆	◆							
Utility Telecom Construction	Utility	3-4 Months															◆	◆	◆							
Customer Provided Test Reports and G-5 Docs	Customer	2 Months															◆	◆	◆							
Schedule/Conduct Pre-Parallel Inspections	Utility, Customer	15-20 Days															◆	◆	◆							
Utility End to End Testing	Utility, Customer	5 Days															◆	◆	◆							
In-Service Date (backfeed Customer)	Utility, Customer	1-2 Days															◆	◆	◆							
Customer Generator & Witness Testing	Utility, Customer	30-45 Days															◆	◆	◆							
Commercial Operational Date	Customer	1 Days															◆	◆	◆							

#### Assumptions

- The above illustration indicates the standard process for interconnecting today at PG&E under the CAISO transmission Tariff once an interconnection contract is signed. The illustration breaks down connections from 70kV to 115kV and adds-in changes impacted by Lead-times for the 230kV and the 500kV interconnection construction phases. 500kV interconnections take more time to commission at the utility over lower voltages and Utility substation and line construction activity durations are approximated as timelines vary by point of interconnection.
- The schedules assume a contract executed in October 2025.
- Critical Milestone links exist between customer CEQA permit completion and Utility Construction start. Construction within the Utility property can be done before issuance of the CEQA though it increases the risk to the Utility in event the Customer seeks to withdraw their project from the CAISO Queue.
- The customer schedule is critical and without Gen-site, Telco, and Gen-tie readiness, the Utility will be required to stand-down and delay completion of work until the customer is ready for termination, test, and commissioning.
- Above 115kV, Long Lead materials are the critical path of success followed by customer CEQA, customer design, and customer construction start.
- Each phase indicates a possible early start of construction activities. These events show the potential to start earlier when the customer dependencies and long lead dependencies align.

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

**DECLARATION SUPPORTING CONFIDENTIAL DESIGNATION  
ON BEHALF OF  
PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)**

1. I, Nadim Virani, am a/the Director of Electric Generation Interconnection of Pacific Gas and Electric Company (“PG&E”), a California corporation. Bryon Winget, the Vice President of Electric System Planning of PG&E, delegated authority to me to sign this declaration. My business office is located at:

Pacific Gas and Electric Company  
300 Lakeside Dr.  
Oakland, CA 94612

2. PG&E will produce the information identified in Paragraph 3 of this Declaration to the California Public Utilities Commission (“CPUC”) or departments within or contractors retained by the CPUC in response to a CPUC audit, data request, proceeding, or other CPUC request.

Name or Docket No. of CPUC Proceeding (if applicable): n/a

3. Title and description of document(s):

PGE\_Response\_to\_CPUC\_Letter\_Dated\_November\_21\_2025\_CONF

4. These documents contain confidential information that, based on my information and belief, has not been publicly disclosed. These documents have been marked as confidential, and the basis for confidential treatment and where the confidential information is located on the documents are identified on the following chart with further detail provided in Appendix A, which is incorporated into this declaration:

Check	Basis for Confidential Treatment	Where Confidential Information is Located on the Documents
<input type="checkbox"/>	Customer-specific data, which may include demand, loads, names, addresses, and billing data.  (Protected under Pub. Util. Code § 8380; Civ. Code §§ 1798 <i>et seq.</i> ; CPUC Decisions (D.) 14-05-016)	



Personal information that identifies or describes an individual (including employees), which may include home address or phone number; SSN, driver's license, or passport numbers; education; financial matters; medical or employment history (not including PG&E job titles); and statements attributed to the individual.

(Protected under Civ. Code §§ 1798 *et seq.*; Gov. Code § 7927.400; 42 U.S.C. § 1320d-6; General Order (G.O.) 77-M; see also CPUC D. 04-08-055, 06-12-029)



Physical facility, cyber-security sensitive, or critical infrastructure data, including without limitation critical energy infrastructure information (CEII) as defined by the regulations of the Federal Energy Regulatory Commission at 18 C.F.R. § 388.113 and/or General Order 66-D (“The subject information: (1) is not customarily in the public domain by providing a declaration in compliance with Section 3.2(c) stating that the subject information is not related to the location of a physical structure that is visible with the naked eye or is available publicly online or in print; **and** (2) the subject information either: could allow a bad actor to attack, compromise or incapacitate physically or electronically a facility providing critical utility service; or discusses vulnerabilities of a facility providing critical utility service”).

(Protected under Gov. Code § 7927.705, 7929.205; 6 U.S.C. § 671; 6 CFR § 29.2)



Proprietary and trade secret information or other intellectual property and protected market sensitive/competitive data.

All grayed out data within the document

(Protected under Civ. Code §§ 3426 *et seq.*; Gov. Code §§ 7927.300, 7927.705, 7929.420, 7927.605, 7930.205; Evid. Code §1060; CPUC D.11-01-036)



Corporate financial records.

(Protected under Gov. Code §§ 7927.705, 7927.605)



Third-Party information subject to non-disclosure or confidentiality agreements or obligations.

All grayed out data within the document

(Protected under Gov. Code § 7927.705; see, e.g., CPUC D.11-01-036)



Other categories where disclosure would be against the public interest.

(Gov. Code § 7922.000)

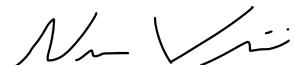
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5. The importance of maintaining the confidentiality of this information outweighs any public interest in disclosure of this information. This information should be exempt from the public disclosure requirements under the Public Records Act and should be withheld from disclosure.
6. I declare under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.
7. Executed on this 15 day of January, 2026 at Oakland, California.



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Nadim Virani  
Director, Electric Grid Interconnection  
Pacific Gas and Electric Company

## PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

## ATTACHMENT TO DECLARATION

1/15/26

