

# PG&E'S 2023 DISTRIBUTION GRID NEEDS ASSESSMENT



Together, Building  
a Better California

August 15, 2023

## Executive Summary

Pacific Gas and Electric Company (PG&E) hereby submits its 2023 Grid Needs Assessment (GNA) as directed by the California Public Utilities Commission's (Commission or CPUC) Decision (D.)18-02-004 and the Administrative Law Judge (ALJ) Rulings from May 7, 2019, April 13, 2020, May 11, 2020, June 21, 2021, June 16, 2022, and May 19, 2023 in Rulemakings 14-08-013 and 21-06-017. This GNA is submitted to the Commission, along with PG&E's 2023 Distribution Deferral Opportunity Report (DDOR), to comply with D.18-02-004, D.21-02-006, and R.21-06-017.<sup>1</sup>

The objective of the 2023 GNA is to provide transparency into the assumptions and results of PG&E's annual distribution planning process (DPP). The grid needs that are reported in this GNA submittal are limited to the forecast deficiencies associated with the four distribution services that DERs can provide as adopted in D.16-12-036, distribution capacity, voltage support, reliability (back-tie) and resiliency (microgrid). The grid needs identified in the 2023 distribution planning process, and reported in PG&E's 2023 GNA Report, each require some kind of mitigation or proposed solution identified.

This report is not subject to Commission approval and will be provided to the Distribution Planning Advisory Group (DPAG) for review and comment. Specifically, this report will cover the following:

- Section 1 – Distribution Resources Plan Objectives and Background
- Section 2 – PG&E's Distribution Resources Planning Methodology and Assumptions
- Section 3 – GNA Results
- Section 4 – Conclusion
- Appendices

As part of this report, PG&E has identified **573** grid needs. Within the currently identified set of grid needs, the majority are Distribution Capacity needs and are predominately located in the Central Valley Distribution Planning Region. These grid needs are included in PG&E's accompanying 2023 DDOR, which identifies candidate distribution deferral opportunities for consideration of cost-effective DER solutions to address identified distribution grid needs.

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<sup>1</sup> Per the August 11, 2023, *Email Ruling Granting PG&E Motion of Extension of Time*, PG&E will file the line section needs and planned investments portion of the GNA and DDOR, respectively, on November 30, 2023, and publish to the online data portal by December 15, 2023.

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# 1 Distribution Resources Plan Objectives and Background

On August 14, 2014, the California Public Utilities Commission (CPUC or Commission) instituted Rulemaking (R.) 14-08-013 to establish policies, procedures, and rules to guide the California investor-owned utilities (IOU) in developing their Distribution Resources Plan (DRP) proposals. This rulemaking also established new polices to evaluate the IOUs' existing and future electric distribution infrastructure and planning procedures with respect to incorporating Distributed Energy Resources (DER) into the planning and operations of their electric distribution systems.

In July 2015, each California IOU submitted their respective DRP proposals to the Commission. The Commission organized the review of the DRP filing content into three tracks: Track 1 – Tools and Methodologies; Track 2 – Field Demonstration Projects; and Track 3 – Policy Issues. Various DRP working group meetings and workshops were held to inform the Commission and stakeholders, which ultimately led to the following decisions in R.14-08-013.

In February 2018, the Commission issued Decision (D.) 18-02-004 on Track 3 Policy Issues, sub-track 1 (Growth Scenarios) and sub-track 3 (Distribution Investment and Deferral Process). This decision adopted the Distribution Investment Deferral Framework (DIDF) and directed the IOUs to file a Grid Needs Assessment (GNA) by June 1 of each year and a Distribution Deferral Opportunity Report (DDOR) by September 1 of each year.<sup>2</sup> The GNA, as adopted by D.18-02-004, limits reported grid needs to four types of forecasted circuit level system deficiencies associated with the four distribution services that DERs can provide, as adopted in D.16-12-036: capacity, voltage support, reliability (back-tie) and resiliency (microgrid).

In May 2019, the assigned Administrative Law Judge (ALJ) issued a ruling modifying the DIDF process and updating the date upon which the IOUs submit the GNA and DDOR to August 15 of each year.<sup>3</sup>

In April 2020, the assigned ALJ issued a ruling modifying the DIDF process and filings with respect to the Independent Professional Engineer (IPE) scope of work. This ruling also updated the 2020-2021 DIDF cycle schedule and defines the DIDF cycle to start on January 1 of each year and concludes July 31 the following year.

In May 2020, the assigned ALJ issued a ruling modifying the DIDF process. This ruling includes process changes to approval for the Integrated Energy Policy Report (IEPR) dataset used for forecasting, requests for certain datasets to be hosted on the DRP

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<sup>2</sup> D.18-02-004, OP 2.d.

<sup>3</sup> May 7, 2019, Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Process, p. 9

Data Portals, value stacking that may result in deferral projects that exceed the cost cap, changes to how Locational Net Benefit Analysis (LNBA) data is presented, and recommendations for potential 2021-2022 DIDF cycle reforms.

In June 2021<sup>4</sup>, the assigned ALJ issued a ruling on recommended reforms to the DIDF process and revisions to some previous reforms to align with requirements adopted by D. 21-02-006.

In November 2021, the Order Instituting Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future (R.21-06-017)<sup>5</sup> was filed to replace the 2014 Distribution Resource Plan and now stands as the OIR home for GNA and DDOR compliance.

This report fulfills the requirement associated with the GNA<sup>6</sup> and serves as an annual report that is not subject to Commission approval, as determined by D.18-02-004, “as to not subject the IOUs’ funding and investment decisions to additional scrutiny outside of the General Rate Case (GRC).”<sup>7</sup>

## 1.1 Objectives of the Distribution Grid Needs Assessment

The objective of the GNA is to provide transparency into the assumptions and results of the distribution planning process. The GNA report was developed within the context of the DIDF that yields the Candidate Deferral Opportunities shortlist, proposes grid modernization investments, and proactively hosts capacity upgrades proposed to accommodate forecast DER growth. PG&E’s GNA presents data regarding PG&E’s projected distribution grid needs over a five-year planning horizon.<sup>8</sup>

## 1.2 Regulatory Timelines Associated with the GNA

PG&E’s GNA is required to be filed by August 15 of each year, concurrent with the DDOR, and is provided to the DPAG<sup>9</sup> for advisory input.

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<sup>4</sup> June 21, 2021, Administrative Law Judge’s Ruling on recommended reforms for the Distribution Investment Deferral Framework Process.

<sup>5</sup> Nov 15<sup>th</sup>, 2021, R.21-06-017. OIR to Modernize the Electric Grid for a High Distributed Energy Resources Future.

<sup>6</sup> Per the August 11, 2023 *Email Ruling Granting PG&E Motion of Extension of Time*, PG&E will file the line section needs and planned investments portion of the GNA and DDOR, respectively, on November 30, 2023, and publish to the online data portal by December 15, 2023.

<sup>7</sup> D.18-03-023, Decision on Track 3 Policy Issues, Sub-Track 2 (Grid Modernization), p. 18.

<sup>8</sup> Needs for line segments and Volt/Volt-Ampere Reactive (Volt/Var) requirements are only identified for the time horizon for which they are forecast (a three-year period) as specified in ALJ Ruling, 2020 p. 6. PG&E applies a 10-year planning horizon for Pre-Application Project needs (although no Pre-Application Projects were identified in PG&E’s 2023 DDOR).

<sup>9</sup> As described in D.18-02-004, the DPAG is a distribution planning stakeholder group that provides advisory input on which distribution deferral opportunities should be pursued through competitive solicitation of DER non-wire’s solutions.

The regulatory timelines for the 2023/2024 DIDF cycle (Pre-DPAG, DPAG and Post DPAG activities) associated with GNA, DDOR, Competitive Solicitations, and Pilots were specified in Attachment A of the May 19 and June 13, 2023 ALJ Rulings and are summarized in Table 1.

**Table 1: DPAG Schedule for 2023-2024 DIDF Cycle**

Activity	Date
<b>DPAG 2023</b>	
<ul style="list-style-type: none"> <li>Utility GNA/DDOR filings</li> <li>Final IPE Plans circulated</li> </ul>	August 15, 2023
Utilities update DRP Data Portals with GNA/DDOR data	August 30, 2023
IPE Preliminary Analysis of GNA/DDOR data adequacy circulated	September 5, 2023
<ul style="list-style-type: none"> <li>Utilities launch Request for Offer (RFO) and Standard Offer Contract (SOC) pilot (SOC bids due no sooner than 75 days after launch or November 30, 2023)</li> <li>Utilities update Participation Pilot website with prescreened aggregator contact information</li> </ul>	September 15, 2023
DPAG meetings with each Utility Note: Utilities to provide workshop participation details and complete agendas for each meeting to the Service List at least 10 days in advance of the first meeting.	Mid to Late September 2023
Participants provide questions and comments to Utilities and IPE	September 25, 2023
Utility responses to questions	October 5, 2023
<ul style="list-style-type: none"> <li>Follow-up utility meetings via webinar (optional)</li> <li>Optional due date for line section data supplement to GNA/DDOR (October 15, 2023)</li> </ul>	Week of October 15, 2023
IPE DPAG Reports	November 8, 2023
Tier 2 Advice Letters: <ul style="list-style-type: none"> <li>(1) "First" Advice Letter for approval to launch subscription periods for Partnership Pilot. If applicable, also to seek approval to launch RFOs or SOCs for planned investments elevated to Tier One candidate deferral opportunities during the DPAG.</li> <li>(2) "Second" Advice Letter for approval not to launch RFOs or Partnership Pilots for any remaining planned investments or candidate deferral opportunities identified in the GNA/DDOR filings, by DPAG stakeholders, or by Energy Division (i.e., any not included in the "First" Advice Letter) Procurement Status:</li> <li>Utilities submit DIDF Procurement Status Report to Energy Division, IPE, and IEs (every 6 months)</li> </ul>	November 15, 2023



## 2 PG&E's Distribution Resources Planning Methodology and Assumptions

The following sections describe the study methodology and assumptions used to forecast and identify distribution grid needs as reported in PG&E's 2023 GNA. These assumptions include the assumptions on the GNA scope, distribution system forecast, the planning horizon studied, load forecast assumptions, DER growth forecast assumptions, distribution operational switching/load transfer assumptions, and the technical criterion for identifying grid needs in the GNA. This section also explains the methodology of load forecasts, identification of Substations and Feeder needs, Line Section needs, voltage needs, and reliability needs. The confidentiality requirements on the GNA data along with the tools used in the planning process are also discussed in this section.

### 2.1 Grid Needs Assessment Scope

The scope of this report is as described in D.18-02-004, with modifications to the GNA requirements according to the R.14-08-013 May 2019 ALJ Ruling<sup>10</sup> and the May 2020 ALJ Ruling.<sup>11</sup> PG&E's 2023 GNA includes substation/bank, feeder, and line section needs.<sup>12</sup> As adopted in D.18-02-004, grid needs that are reported in this GNA submittal are limited to the forecast deficiencies associated with the four distribution services that DERs can provide as adopted in D.16-12-036, which are distribution capacity, voltage support, reliability (back-tie) and resiliency (microgrid).

The following definitions for the key distribution services that DERs can provide were adopted by D.16-12-036, *Decision Addressing Competitive Solicitation Framework and Utility Regulatory Incentive Pilot*, issued December 22, 2016:

1. Distribution Capacity services are load-modifying or supply services that DERs provide via the dispatch of power output for generators or reduction in load that is capable of reliably and consistently reducing net loading on desired distribution infrastructure.
2. Voltage Support services are substation and/or feeder level dynamic voltage management services provided by an individual resource and/or aggregated resources capable of dynamically correcting excursions outside voltage limits as well as supporting conservation voltage reduction strategies in coordination with utility voltage/reactive power control systems.

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<sup>10</sup> May 7, 2019, Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Process, pp. A1-A2.

<sup>11</sup> May 11, 2020, Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework—Filing and Process Requirements, Attachment A (subsequently revised on June 12, 2020), pp. 89-98.

<sup>12</sup> Line Section needs will be provided as a supplemental filing on November 30, 2023.

3. Reliability (back-tie) services are load-modifying or supply service capable of improving local distribution reliability and/or resiliency. Specifically, this service provides a fast reconnection and availability of excess reserves to reduce demand when restoring customers during abnormal configurations; and
4. Resiliency (microgrid) services are load-modifying or supply services capable of improving local distribution reliability and/or resiliency. This service provides a fast reconnection and availability of excess reserves to reduce demand when restoring customers during abnormal configurations.

Examples of the distribution services that DERs can provide are provided in Appendix B.

## 2.2 PG&E's Distribution Resources Planning Horizon

To align with the circuit-level planning assumption requirements provided in D.18-02-004 Section 3.4.1.1, PG&E used a five-year planning horizon as the study horizon for identifying substation and feeder grid needs. PG&E's 2023 GNA applies to the established five-year planning horizon for substations and feeders, for the years 2023 through 2027. PG&E identifies line section Capacity and Volt/Var needs for a three-year planning horizon, therefore PG&E's 2023 GNA submittal, only includes needs for line sections for the years 2023 through 2025.<sup>13</sup> PG&E applies a 10-year planning horizon for Pre-Application Project needs.<sup>14</sup> PG&E does not have or expect to have any Pre-application or Post-application projects within the 10-year horizon.

## 2.3 PG&E's Distribution System Load Forecast Assumptions

PG&E's load growth forecast for the 2022-2023 Distribution Planning Process (DPP) begins with the CEC approved 2021 IEPR Scenarios. Table 2 reflects the CEC 2021 IEPR Scenarios used in the 2022-2023 DPP, shared at the 2022 Distribution Forecasting Working Group (DFWG) meeting,<sup>15</sup> and later approved by Energy Division.<sup>16</sup> The results obtained from the use of the approved IEPR forecast are reported in the appendices of this 2023 GNA report.

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<sup>13</sup> May 7, 2019, Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Process, p. 6.

<sup>14</sup> May 11, 2020, Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework – Filing and Process Requirements, Reform #7, p. 90.

<sup>15</sup> 2022 DFWG Joint Utilities Presentation, presented at Distribution Forecasting Working Group Meeting on May 16, 2022.

<sup>16</sup> June 17, 2022, Joint Utilities (SCE, SDG&E and PG&E) Letter to Energy Division seeking approval of the 2023 GNA and DDOR.

**Table 2: CEC 2021 IEPR Scenarios for 2023 GNA/DDOR<sup>17</sup>**

		2023-2024 GNA/DDOR Cycle		
		SCE	PG&E	SDG&E
	CEC-Adopted IEPR Vintage	2021 IEPR Mid	2021 IEPR Mid	2021 IEPR Mid
Forecast	Solar PV	2021 IEPR Mid - Mid	2021 IEPR Mid - Mid	2021 IEPR Mid - Mid
	Energy Storage	2021 IEPR Mid - Mid	2021 IEPR Mid - Mid	2021 IEPR Mid - Mid
	Transportation Electrification (Light Duty)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)
	Transportation Electrification (Medium and Heavy-Duty)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)
	Additional Achievable Energy Efficiency (AAEE)	2021 IEPR Mid - Low (AAEE Scenario 2)	2021 IEPR Mid - Low (AAEE Scenario 2)	2021 IEPR Mid - Low (AAEE Scenario 2)
	Additional Achievable Fuel Substitution (AAFS)	2021 IEPR Mid - Mid (AAFS Scenario 3)	2021 IEPR Mid - Mid (AAFS Scenario 3)	2021 IEPR Mid - Mid (AAFS Scenario 3)
	Load Modifying Demand Response	2021 IEPR Mid - Mid	2021 IEPR Mid - Mid	2021 IEPR Mid - Mid
	Baseline Load	2021 IEPR Mid - Mid	2021 IEPR Mid - Mid	2021 IEPR Mid - Mid

## 2.4 PG&E’s Distribution System Load Forecast Methodology

Transmission-served load growth (such as transmission-connected customers and municipal utilities served from the PG&E transmission system) and known new distribution loads are deducted from the CEC system load growth forecast.<sup>18</sup> The resultant growth is distributed out by customer class (residential, industrial, commercial, and agricultural) and is then allocated to PG&E’s distribution feeders using geospatial analysis. The forecasting program is used to run a simulation which allocates the base growth to feeders. The simulation assesses potential spatial growth on circuits and allocates balanced growth for all the forecast years. The results are a smoothed spatial growth allocation to the feeders over the entire forecast period. PG&E uses a 1-in-10-year (90<sup>th</sup> percentile of high loading) weather event forecast regression curve as the

<sup>17</sup> June 17, 2022, Joint Utilities (SCE, SDG&E and PG&E) Letter to Energy Division seeking approval of the 2023 GNA and DDOR.

<sup>18</sup> Known new distribution loads are deducted from the systemwide forecast so that they can be added back in as local new load adjustments while maintaining consistency with the CEC system-level forecast. More details on the process are provided in Appendix C: Load and DER Forecast disaggregation process.

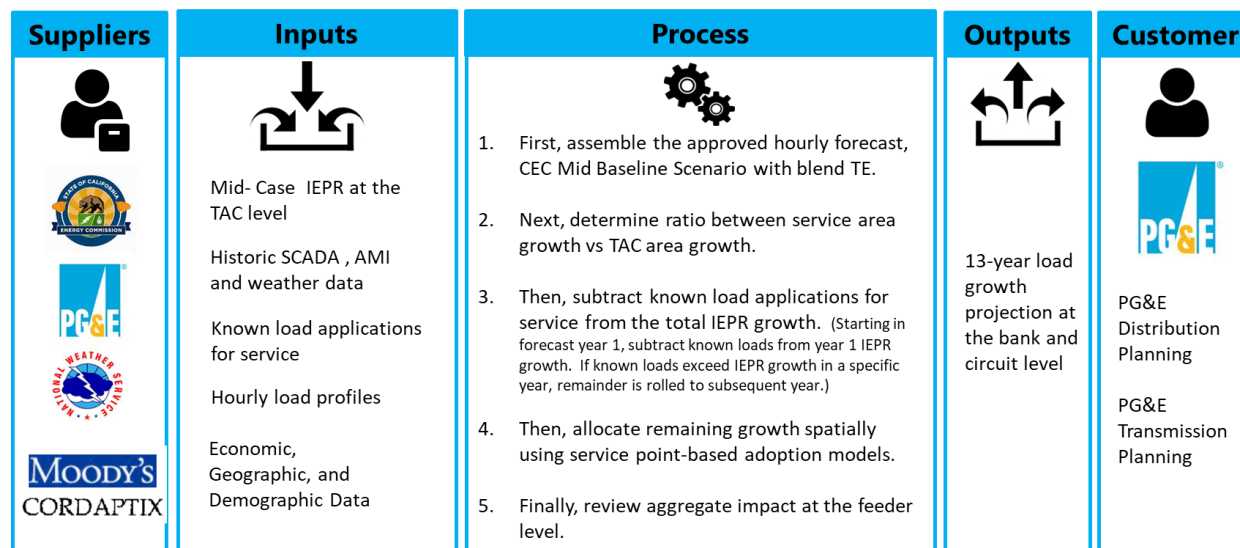
basis for making decisions regarding planned capital upgrades and permanent load transfers.

The overall load growth allocation takes the following data sources as inputs:

- From CEC and Interagency Working Group:
  - CED 2021 Hourly Forecast – PGE
  - CED 2021 Mid Baseline Forecast – LSE and BA Tables
  - PGE Territory PEV Count 2022
  - PGE Transportation Forecast 2021
- From PG&E:
  - Recorded historic SCADA and AMI data
  - Known load<sup>19</sup> from load service applications
  - Hourly Load shapes
- From other sources:
  - Economic, geographic, demographic data from Moody’s Cordaptix
  - Historic Weather data from National Weather Service
  - State annual water allocation percentages

The data was processed to create a 13-year load growth projection disaggregated at the bank and circuit level.

The overall load growth allocation process is summarized at a high level in Figure 1.<sup>20</sup>



**Figure 1: Overall Load Growth Allocation Process**

<sup>19</sup> Known Load growth refers to load applications that have been received and are thus “known” and are “load growth” because they will increase the load on the system in the next few years.

<sup>20</sup> 2023 DFWG, May 25, 2023, slide #8.

## 2.5 PG&E’s Distribution System DER Growth Forecast Assumptions

Apart from load growth, PG&E has incorporated DER adoption into its distribution bank and feeder forecast assumptions. This is accomplished for solar photovoltaics (PV), residential and non-residential energy storage charge and discharge, energy efficiency, fuel substitution, and electric vehicles (EV). The starting point for developing these feeder level DER growth forecasts is the CEC’s California Energy Demand (CED) forecast that is completed at the systemwide level.

Staying consistent with the CED forecast, the systemwide incremental megawatt (MW) capacity by DER technology type is allocated to the feeders based on allocation methodologies specific to the DER types. Variables used to allocate incremental DER capacity geospatially include consumption by customer class, amount of generation by feeder, historical PV adoption by zip code, the s-curve trending model, observed Distributed Generation (DG) penetration level, daily peak diversity factors, weather zones, and many other factors specific for each type of DER.<sup>21</sup> PG&E’s Distribution System DER Growth Assumptions are shown in Table 2. The overall process of DER growth disaggregation is shown in Figure 2.<sup>22</sup>

An overview of the processes used to disaggregate the system-level DER forecasts to feeders for each category is provided in Appendix C. A detailed summary of PG&E’s substation bank and feeder DER forecasts that were utilized for this GNA are included in Appendix D.

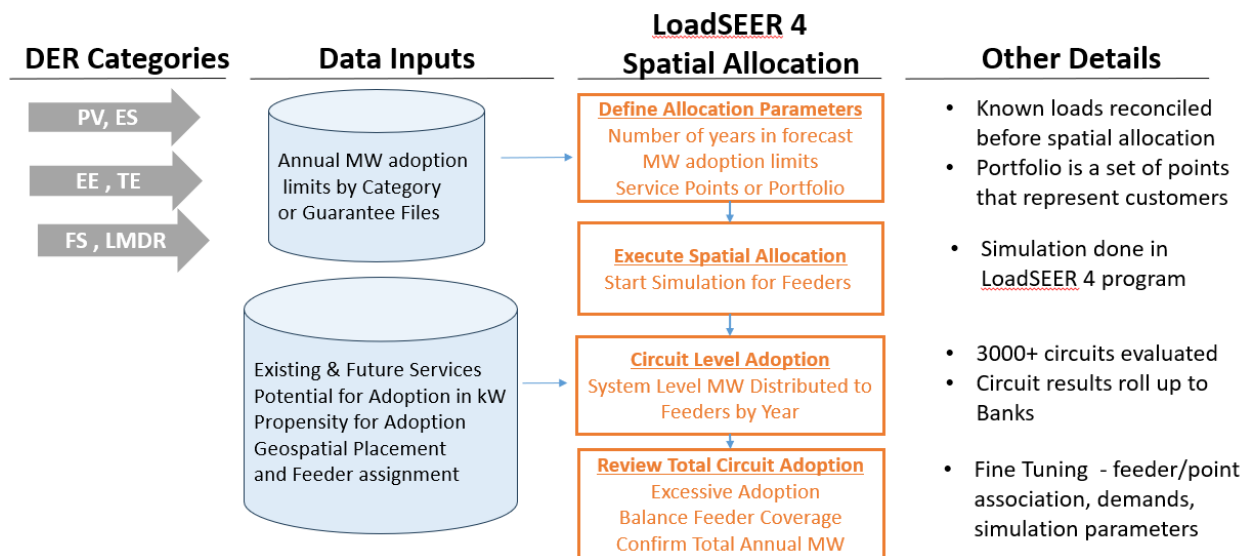


Figure 2: DER Growth Disaggregation Process

<sup>21</sup> PG&E’s DER Growth Forecast Assumptions are subject to updating and revision on an annual basis in accordance with distribution planning criteria and guidance provided by the Commission.

<sup>22</sup> May 25, 2023, 2023 DFWG Joint IOU presentation, slide #18.

## 2.6 Methodology for Substations and Feeders

PG&E uses the LoadSEER Geographical Information System (GIS) geo-spatial forecasting program, created by Integral Analytics, for modeling substation and feeder demand forecasts and identifying grid needs. This program uses satellite imagery and proprietary data analytics to score each acre in PG&E's territory for the likelihood of increased load by customer class. This GIS model also uses historical land aerial imagery to help determine expansion trends that have occurred within specific areas and takes this information into account for the acre scoring analysis. The spatial forecasting model is enhanced by utilizing an energy consumption model that is weather normalized and includes economic variables. After area scores are determined, the geospatial program then allocates the CEC customer class load growth projections to each parcel and maps the load growth to feeders based on closest proximity. The output of the geo-spatial program is an annual PG&E peak MW growth by feeder, by customer class for the next 13 years. This growth is then uploaded into the LoadSEER Forecast Integration Tool (LoadSEER FIT) forecasting program.

LoadSEER FIT uses customer-class load shapes to turn the system peak growth amount into a 576-hour<sup>23</sup> load shape that can then be applied to the feeder or bank load shape. LoadSEER FIT creates two forecasts that can be compared: (1) a geospatial forecast derived from CEC system growth; and (2) a regression forecast based on multi-variable analysis and fit with historical recorded loads. LoadSEER FIT's regression methodology performs a multivariable regression to forecast the next 13 years of peak loading on distribution substation banks and feeders. Economic variables and temperature are compared against historic bank and feeder peak loads. With this comparison, the most relevant group of economic variables is selected for each bank and feeder. If there are no variables that have a reasonable fit then a flat, or no growth, regression is applied.

The creation of both geo-spatial load forecasts and regression forecasts provide PG&E's electric distribution planning engineers with two different yet statistically valid forecasts. If the results of both forecasts are similar, they provide PG&E's electric distribution planning engineers with greater confidence in the quality of both forecasts. Otherwise, the electric distribution planning engineers are directed to select the geo-spatial forecast results derived from CEC load forecast. If the geo-spatial forecast is not supported by historic loads and local knowledge, LoadSEER has the capability of creating a forecast that is a blend of geo-spatial and regression forecasts. Whenever a blended forecast is used, justification for the blending must be recorded in LoadSEER and approved by a PG&E senior level distribution planning engineer.

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<sup>23</sup> This represents hourly loads for each month for both a typical weekday and weekend day.

After the 13-year load forecasts are created in LoadSEER FIT, the distribution planning engineers review known new loads which are anticipated based on specific local information. These new load adjustments are evaluated to determine if they are covered by existing bank or feeder growth. If the new load adjustments are smaller than the forecast growth for the year that the new service application comes online, then it is assumed the forecast load for that year already embeds the new service application, and the adjustment is disabled. If the new load adjustment exceeds the growth forecast in the year planned but does not exceed the 13-year total growth forecast, then the forecast growth is shifted forward in time to cover the new load adjustment. If a new business load is larger than the forecast 13-year growth, then the load forecast is increased to accommodate the new peak load.

As an additional step to the forecast process, PG&E's electric distribution planning engineers validate and adjust historical peak loads for distribution substation transformer banks and feeders within their local areas to establish a starting point for distribution loading projections.

The following guidelines for verifying and modifying historical loads are typically followed:

- Bank and feeder peak loads are obtained through either the Supervisory Control and Data Acquisition historian system or monthly recorded substation metering data. Peak demand (MW) for banks as well as maximum current loading (amperes) for feeders are recorded along with peak date and time.
- PG&E's electric distribution planning engineers compare recorded peak load information with adjacent days' peak load information to assess whether an unusually high or low load occurred during a planned or unplanned switching condition. Distribution Operations switching log information is reviewed to confirm the timing of the switching operations that create abnormal configurations and the feeders impacted.
- Peak loads on feeders coincident with temporary switched loads are adjusted because loading under temporary switching conditions is not relevant for forecasting normal peak loads and may lead to double counting of loads. If a peak load is recorded after a newly executed permanent load transfer, then the previous historical loads will be automatically adjusted in LoadSEER to maintain the present feeder configuration when analyzing historic load growth on the feeder.

Historical substation bank and feeder peak loads are adjusted, if necessary, to account for the largest DG facility served by a bank or feeder being offline at peak; also known as N-1 scenario planning. Multiple generators on the same feeder may be grouped into

an N-1 scenario if they have a reasonable risk of all being off-line at the same time, such as hydro facilities on the same water source.

A detailed summary of PG&E's substation bank and feeder peak demand forecasts that were utilized for this GNA are included in Appendix E.

## 2.7 Methodology for Line Sections

PG&E uses the CYME Power Engineering Software for modeling line section demand forecasts and identifying line section needs. The feeder peak demand growth is applied to the corresponding feeder line sections over a three-year period as described in Section 2.2. Only the circuit segments for which the peak needs are identified are listed, rather than all line segments in PG&E's 2023 GNA. Grid needs resulting from line section analysis, primarily Voltage Support and Distribution Capacity, will be provided as a supplemental filing on November 30, 2023.

## 2.8 Methodology for Voltage Support Needs

Voltage Support needs are identified using CYME Power Engineering Software and three-year forecast as described for capacity planning for line sections (see Section 2.6). As part of the annual distribution planning studies, PG&E forecasts voltage on all energized primary nodes for nearly every feeder for up to three years. PG&E identifies Voltage Support needs based on exceedance of Rule 2 voltage limits under normal operating conditions.<sup>24</sup> To forecast Rule 2 voltage issues, PG&E conducts power flow studies assuming a 1-in-10-year load under normal feeder operating conditions. Since these planning studies are conducted under peak loading conditions, most if not all voltage issues materialize as voltage falling under the 5% nominal voltage Rule 2 band due to excessive voltage drops from the distribution system during high loading conditions or due to incorrect device settings for the forecasted load. Since simulated voltage results are provided for nodes on the distribution primary, an assumed voltage drop on the secondary is needed to define the primary lower limit. Depending on whether a circuit is rural or urban, slightly different secondary voltage drops are assumed.

## 2.9 Methodology for Reliability (Back-tie) Needs

Reliability (back-tie) services are defined in terms of the emergency capacity deficiency after a bank or feeder loss (i.e., N-1 Scenario). When a forced or a planned outage occurs, customers will experience a loss of electrical service. If the outage occurs upstream of a sectionalizing device and there is a downstream open circuit tie, then the upstream device is opened, the downstream tie's switch is closed, and service is

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<sup>24</sup> PG&E Electric Rule No. 2, [https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC\\_RULES\\_2.pdf](https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_RULES_2.pdf)



restored to customers on the non-faulted areas of the feeder. An example is provided in Appendix B.

For PG&E's 2023 GNA, reliability (back-tie) grid needs are identified in the form of emergency bank/feeder capacity needs. Typically, an N-1 contingency study is conducted for each bank/feeder where that bank/feeder experiences an outage and the customers it normally serves need to be switched over to adjacent feeders for temporary service restoration. For a bank N-1 contingency scenario, once these customers have been restored by these temporary feeds, it is then assumed that a mobile transformer can be transported, installed in place of the failed bank, and have its capacity used to pick up the previously switched customers within the 24-hour period. These N-1 scenarios are studied under peak loading conditions. Reliability back-tie needs are then defined to provide adequate emergency capacity to handle the N-1 load for up to 24 hours.

## 2.10 PG&E's Load Transfers and Switching Assumptions

PG&E's 2023 GNA load forecast includes the impact of future planned load transfers and switching operations that do not require a capacity project. The planned load transfers and switching operations are used to balance the load between feeders and banks. Typically, planned load transfers and switching operations, which are utility industry common best practices, are the lowest cost alternatives that take advantage of available existing back-tie interconnections and capacity on adjacent distribution feeders and banks.

PG&E's 2023 GNA only includes identified grid needs that require a capacity project to either directly mitigate a need or to enable distribution switching and load transfers that mitigate the need.

## 2.11 Customer Confidentiality

In order to respect and protect customer privacy PG&E follows aggregation and anonymization rules, the primary of which is referred to as the 15/15 Rule. When releasing aggregated non-residential customer usage data, the sample population must be more than 15 customers and no single customer should account for more than 15% of usage at any given time. For residential customers, the minimum requirements are at least 100 customers within the sample. Areas that do not meet these requirements will be listed in this report as Customer Confidential or CC.<sup>25</sup>

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<sup>25</sup> Redacted data is marked "CUSTOMER CONFIDENTIAL" or "CC" or Grey Shaded where data violates the 15-15 customer privacy rule. This Rule was established in the Direct Access Proceeding via Decision (D.) 97-10-031.

## 2.12 DRP Tools

The DRP has led to the creation and use of new tools and the ongoing analysis and publication of distribution data. The scale of the data and analysis requires specific and customized tools to process and promote data quality and accuracy. Therefore, PG&E plans to make upgrades to existing planning tools, including CYME, a tool used by PG&E engineers to model power flows on the distribution grid, study scenarios, and plan grid reconfigurations or upgrades, and LoadSEER, the Company's core load forecasting tool. The functionalities include:

- Scenario Planning – Studying distribution system impacts across various forecast and planning scenarios.
- Load Forecasting Enhancements – Forecasting load more granularly, at the line section level, and performing short-term load forecasts for DER dispatch.
- Tools Integration – Eliminating manual processes by automating the integration of various distribution planning tools.
- Report Process Management – Automating the process and creation of Distribution Investment Deferral Framework (DIDF) reports.

### 3 GNA Results

The GNA results are summarized below by the four distribution service types: distribution capacity, voltage support, reliability (back-tie) and resiliency (microgrid). For each of the four service types, the GNA results are further categorized by whether the need is at the substation (bank), feeder, or line section. Complete GNA results are included in the Appendices. Additional grid needs resulting from line section analysis, primarily Voltage Support and Distribution Capacity, will be provided as a supplemental filing on November 30, 2023.<sup>26</sup>

In total, there are **573** needs included in PG&E’s 2023 GNA. Table 3 summarizes the grid needs by distribution planning regions (DPR), and by service type. PG&E’s DPRs are included in Appendix F. Most grid needs are Distribution Capacity, Reliability (Back-Tie) needs, and Resiliency (Microgrid) needs. The grid needs are predominately located in the Central Valley DPR. Table 4 summarizes the grid needs by service type and by facility type (substation bank, feeder, or line section). Multiple grid needs may be related and can be solved by a single Planned Investment. Table 5 summarizes the grid needs by Anticipated Need Date. **509** grid needs have an Anticipated Need Date within the next three years, and **64** grid needs have an Anticipated Need Date of 2026 or later.

**Table 3: Summary of Grid Needs\* by Distribution Service Type and Distribution Planning Region\***

Distribution Planning Region	Distribution Service				Total
	Distribution Capacity	Voltage Support	Reliability (Back-Tie)	Resiliency (Microgrid)	
Bay Area	107	0	2	8	<b>117</b>
Central Valley	238	0	4	1	<b>243</b>
North Coast	40	0	1	0	<b>41</b>
North Valley and Sierra	62	0	6	1	<b>69</b>
South Bay and Central Coast	91	0	6	6	<b>103</b>
<b>Totals</b>	<b>538</b>	<b>0</b>	<b>19</b>	<b>16</b>	<b>573</b>

\*Additional Grid Needs and associated Planned Investments resulting from line section analysis will be provided as a supplemental filing on November 30, 2023

<sup>26</sup> Line Section needs will be provided as a supplemental filing on November 30, 2023.

**Table 4: Summary of Grid Needs by Distribution Service Type and Facility Type\***

Facility Type	Distribution Service				Total
	Distribution Capacity	Voltage Support	Reliability (Back-Tie)	Resiliency (Microgrid)	
Substation Bank	191	0	5	3	199
Bank Group	1	0	0	0	1
Feeder	346	0	4	13	363
Distribution Line	0	0	10	0	10
Totals	538	0	19	16	573

\*Additional Grid Needs and associated Planned Investments resulting from line section analysis will be provided as a supplemental filing on November 30, 2023

**Table 5: Summary of Grid Needs by Anticipated Need Date**

Anticipated Need Date					Total
2023	2024	2025	2026	>=2027	
358	90	61	31	33	573

### 3.1 GNA Capacity Needs

Distribution Capacity services are load-modifying or supply services that DERs provide via the dispatch of power output for generators or reduction in load that is capable of reliably and consistently reducing net loading on desired distribution infrastructure.

In total, there are **538** substation, feeder, and distribution line segment capacity needs. Table 6 summarizes the capacity needs by DPR and by facility type.<sup>27</sup> The needs are predominately located in the Central Valley DPR. Table 7 summarizes the capacity needs by Anticipated Need Date. **474** capacity needs have an Anticipated Need Date within the next three years, and **64** capacity needs have an Anticipated Need Date of 2026 or later.

<sup>27</sup> The GNA Capacity Needs are reported based on the load forecast completed in April 2023. However, two grid needs (i.e., Logan Creek Bank 1 and Logan Creek 2101) have recently changed due to an existing large industrial customer dropping their need for service (after the load forecast was completed). Given this recent change, Logan Bank 1 is no longer showing a grid need and the load can now be served via a load transfer to Logan Creek 2102, with associated line section work. Therefore, the grid needs have changed from a Substation/Bank need and a Feeder need to a Distribution Line Segment Need. As this change occurred after preparation of the load forecast, the grid needs are still reflected as a Substation/Bank need and a Feeder need in Table 4, but will be updated as a Line Section Grid Need (including any associated Planned Investment) in the Supplemental November 30, 2023 filing.

**Table 6: Summary of Capacity Grid Needs by Facility Type and Distribution Planning Region\***

Distribution Planning Region	Facility Type				Total
	Substation Bank	Bank Group**	Feeder	Distribution Line	
Bay Area	33	0	74	0	<b>107</b>
Central Valley	84	1	153	0	<b>238</b>
North Coast	18	0	22	0	<b>40</b>
North Valley and Sierra	22	0	40	0	<b>62</b>
South Bay and Central Coast	34	0	57	0	<b>91</b>
<b>Totals</b>	<b>191</b>	<b>1</b>	<b>346</b>	<b>0</b>	<b>538</b>

\*Additional Grid Needs and associated Planned Investments resulting from line section analysis will be provided as a supplemental filing on November 30, 2023

\*\* Bank group are banks that operate in parallel

**Table 7: Summary of Capacity Grid Needs by Anticipated Need Date**

Anticipated Need Date					Total
2023	2024	2025	2026	>=2027	
323	90	61	31	33	<b>538</b>

There are no capacity needs driven by backflow from PV that have been identified this year. The Grid Modernization chapter of PG&E’s 2023 GRC filing<sup>28</sup> describes the upgrades PG&E is implementing to allow DERs to meet such needs. Specifically, PG&E is developing and deploying an Advanced Distribution Management System (ADMS) and an associated Distributed Energy Resource Management System (DERMS). PG&E is developing and piloting the various components required to enable monitoring and control of 3<sup>rd</sup> party DERs including the use of DERMS via 3<sup>rd</sup> party communication gateways and aggregators for telemetry and control as well as short-term load forecasting for day-ahead dispatches.

<sup>28</sup> See A.21-06-021.

### 3.2 GNA Voltage Support Needs

Voltage Support services are substation and/or feeder level dynamic voltage management services provided by an individual resource and/or aggregated resources capable of dynamically correcting excursions outside voltage limits as well as supporting conservation voltage reduction strategies in coordination with utility voltage/reactive power control systems.

Table 8 summarizes the voltage support needs by Distribution Planning Region and by facility type. Table 9 summarizes the voltage needs by Anticipated Need Date. All the voltage support needs have an Anticipated Need Date within the next three years, for the reasons specified in Section 2.7. Table 8 and Table 9 will be updated in the supplemental filing on November 30, 2023.

**Table 8: Summary of Voltage Support Grid Needs by Facility Type and Distribution Planning Region\***

Distribution Planning Region	Facility Type			Total
	Substation Bank	Feeder	Distribution Line	
Bay Area	0	0	0	<b>0</b>
Central Valley	0	0	0	<b>0</b>
North Coast	0	0	0	<b>0</b>
North Valley and Sierra	0	0	0	<b>0</b>
South Bay and Central Coast	0	0	0	<b>0</b>
Totals	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

\*Additional Grid Needs and associated Planned Investments resulting from line section analysis will be provided as a supplemental filing on November 30, 2023

**Table 9: Summary of Voltage Support Grid Needs\* by Anticipated Need Date**

Anticipated Need Date					Total
2023	2024	2025	2026	>=2027	
0	0	0	0	0	<b>0</b>

\*Additional Grid Needs and associated Planned Investments resulting from line section analysis will be provided as a supplemental filing on November 30, 2023

### 3.3 GNA Reliability (Back-Tie) Needs

Reliability (back-tie) services are load-modifying or supply service capable of improving local distribution reliability and/or resiliency. Specifically, this service provides a fast reconnection and availability of excess reserves to reduce demand when restoring customers during abnormal configurations and to minimize customer impact during planned outages.

The 2023 GNA includes back-tie capacity grid needs for banks, feeders, and line sections. In total, there are 19 substation (bank), feeder, and distribution line segment reliability back-tie needs. Table 10 summarizes the reliability (back-tie) needs by DPR and by facility type. Table 11 summarizes the reliability back-tie needs by Anticipated Need Date. Most of the reliability back-tie needs have an Anticipated Need Date of 2023.<sup>29</sup>

**Table 10: Summary of Reliability (Back-Tie) Grid Needs by Facility Type and Distribution Planning Region\***

Distribution Planning Region	Facility Type				Total
	Substation Bank	Bank Group*	Feeder	Distribution Line	
Bay Area	1	0	1	0	2
Central Valley	0	0	1	3	4
North Coast	0	0	0	1	1
North Valley and Sierra	0	0	1	5	6
South Bay and Central Coast	4	0	1	1	6
<b>Totals</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>10</b>	<b>19</b>

\*Additional Grid Needs and associated Planned Investments resulting from line section analysis will be provided as a supplemental filing on November 30, 2023

**Table 11: Summary of Reliability (Back-Tie) Grid Needs by Anticipated Need Date**

Anticipated Need Date					Total
2023	2024	2025	2026	>=2027	
19	0	0	0	0	19

<sup>29</sup> The Anticipated Need Date may not always be the same as the In-Service Date of an associated Planned Investment.

### 3.4 GNA Resiliency (Microgrid) Needs

As adopted in D.18 02-004 and detailed in the Competitive Solicitation Framework Working Group Final Report,<sup>30</sup> Resiliency (microgrid) services are load-modifying and/or supply services capable of improving local distribution reliability (provided by elements of the microgrid when operating in grid-connected mode) and/or resiliency (benefits received by the customers participating in the microgrid when it is operating in an islanded mode). This service provides a fast reconnection and availability of excess reserves to reduce demand when restoring customers during abnormal configurations. This service also provides power to islanded end use customers when central power is not supplied and reduce the duration of outages. These resiliency services can be provided by a single DER resource and/or an aggregated set of DER resources that are able to reduce the net loading on specific distribution infrastructure coincident with the identified operational need in response to a control signal from the utility. In islanded mode it is necessary for a system to match generation to load while maintaining voltage, frequency, power factor and power quality within appropriate limits, and thus requires an isochronous supply resource. This service will likely require the use of utility wires and must be closely coordinated with the utility such that the areas to be re-powered can be adequately isolated via switching from the surrounding circuit.

PG&E's 2023 GNA includes 16 Resiliency (microgrid) needs. These grid needs require DER Service Requirements with the ability to operate in an islanded mode (i.e., as a microgrid):

- There are 3 Resiliency (Microgrid) needs that are emergency bank loss deficiencies. In the event of an outage, the existing bank cannot transfer to adjacent transformers and the loads will remain unserved.
- There are 13 Resiliency (Microgrid) needs listed for feeders that have greater than 6000 customers. These feeders serve large number of customers which poses two issues: (1) large number of customers are affected when an outage occurs; (2) typical loading on adjacent circuits could hinder the ability to reconfigure the system in a manner to serve some or all of these customers during an outage. These issues negatively affect both customer outage frequency and duration. In order for a DER solution to provide a reliability benefit in the same manner as reducing customer count on a circuit, a set of customers on the circuit would need to be immediately served by other means during an outage. This can be accomplished by islanding (via a microgrid) a part of the circuit so that those customers are not affected by the outage.

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<sup>30</sup> Competitive Solicitation Framework Working Group Final Report: <https://drpwwg.org/wp-content/uploads/2016/07/2016-08-01-CSFWG-Final-Report-Joint-Competitive-Solicitation-Framework-Working-Group.pdf>



Table 12 summarizes the resiliency (microgrid) needs by DPR and by facility type. The needs are predominately located in the Bay Area, and South Bay & Central Coast DPRs.

Table 13 summarizes the resiliency needs by Anticipated Need Date.

**Table 12: Summary of Resiliency (Microgrid) Grid Needs by Facility Type and Distribution Planning Region\***

Distribution Planning Region	Facility Type				Total
	Substation Bank	Bank Group*	Feeder	Distribution Line	
Bay Area	0	0	8	0	<b>8</b>
Central Valley	1	0	0	0	<b>1</b>
North Coast	0	0	0	0	<b>0</b>
North Valley and Sierra	1	0	0	0	<b>1</b>
South Bay and Central Coast	1	0	5	0	<b>6</b>
<b>Totals</b>	<b>3</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>16</b>

\*Additional Grid Needs and associated Planned Investments resulting from line section analysis will be provided as a supplemental filing on November 30, 2023

**Table 13: Summary of Resiliency (Microgrid) Grid Needs by Anticipated Need Date**

Anticipated Need Date					Total
2023	2024	2025	2026	>=2027	
16	0	0	0	0	<b>16</b>

### 3.4.1 Other Microgrids

Additionally, as a part of PG&E’s Wildfire Mitigation Plan, Microgrid Order Instituting Rulemaking (OIR), and in other proceedings, PG&E is pursuing resiliency and reliability improvements to reduce the risk of wildfires and mitigate the customer impacts of Public Safety Power Shutoff (PSPS) through multiple programs supporting temporary and permanent DER based microgrids.

The customer-focused programs targeted specifically at PSPS impacted customers include:

#### Temporary Microgrid Programs

- Individual Critical Customer Back-up Power Systems placed either in front of or behind the meter provide temporary back-up power for critical customers.
- Temporary Distribution Microgrids are designed to support communities frequently impacted by PSPS by enabling the safe and rapid use of temporary generation to power hardened/undergrounded distribution infrastructure serving shared and critical community services. PG&E installed pre-installed

interconnection hubs to enable these temporary microgrids. While as of 2023 PG&E is no longer actively developing new incremental sites, we are focusing on the continued operation of sites developed between 2018-2022.

- Energizing Community Resource Centers with temporary generation placed at pre-determined hardened indoor facilities which are used to provide communities access to basic resources and up-to-date information in the event of long-duration outages.

### Permanent Microgrid Programs

- The Remote Grid Program provides remote retail electricity customers with electric distribution service through small, permanently islanded Standalone Power Systems (SPS) typically consisting of solar, energy storage, and fuel-powered generation. These Remote Grids include SPS and conventional distribution and service facilities to serve isolated customers in lieu of longer overhead distribution lines.
- The Distributed Generation Enabled Microgrid Services (DGEMS) Program seeking to pilot diesel-alternative generation technologies co-located at PG&E substations and possibly distribution microgrids.<sup>31</sup> On April 27, 2023, the CPUC approved the first Clean Substation Microgrid pilot project for the City of Calistoga.<sup>32</sup> This project is expected to be operational by June 1, 2024.
- The Community Microgrid Enablement Program (CMEP) helps communities design permanent, multi-customer microgrids by providing incremental technical and financial support to qualifying projects.<sup>33</sup> It particularly focuses on meeting the resilience needs of disadvantaged and vulnerable communities. CMEP will cover the cost of certain PG&E equipment necessary to enable the safe islanding of an eligible community microgrid (such as reclosers, controllers and undergrounding). The program also provides the Community Microgrid Enablement Tariff (CMET) and other agreements necessary to define the operating relationships among the parties.
- The Microgrid Incentive Program (MIP) is a Joint IOU program that targets placement of community microgrids in disadvantaged vulnerable communities (DVCs) to support populations impacted by grid outages. The MIP was approved by the CPUC on April 6, 2023.<sup>34</sup> Pacific Gas and Electric Company (PG&E), San

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<sup>31</sup> [PG&E AL 6204-E](#)

<sup>32</sup> [CPUC Resolution E-5261](#). Plan to Develop a Clean Substation Microgrid Project and Associated Procurement Contract with Energy Vault.

<sup>33</sup> CPUC Resolution E-5127. Pacific Gas and Electric Community Microgrids Enablement Program.

<sup>34</sup> <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M505/K732/505732868.PDF>. CPUC Decision 23-04-034. Decision Adopting Implementation Rules for the Microgrid Incentive Program

Diego Gas and Electric (SDG&E), and Southern California Edison Company (SCE) are each currently implementing the MIP according to the Decision, including developing the internal processes to support the program, as well as developing the MIP Handbook to be published on their respective websites in October. MIP application windows are expected to open by mid-2024.

- PG&E has also secured EPIC funding to continue project research to advance state-of-the-art microgrid architectures such as at Foresthill which is a pilot intended to evaluate the use of mobile distributed inverter-based energy resources (IBRs) as primary generation resources within PG&E-operated microgrids.

Relatedly, PG&E provides customer resiliency programs:

#### Customer Resiliency Programs

- **Portable Battery Program:** PG&E works with Community-Based Organizations to provide free portable backup battery solutions as well as mini-fridges and insulin cooler wallets for medications to select medical baseline customers facing higher wildfire or outage risks.
- **Generator and Battery Rebate Program:** PG&E provides a rebate for portable generators or batteries to targeted customers located in certain high fire threat districts or facing higher wildfire or outage risks. Customers are eligible for an increased rebate if enrolled in PG&E's California Alternate Rates for Energy (CARE) or Family Electric Rate Assistance (FERA) programs.
- **Backup Power Transfer Meter (BPTM):** PG&E installs a BPTM device for customers who reside in Tier 2 or 3 High Fire Threat Districts (HFTDs) or who are served by an Enhanced Powerline Safety Settings (EPSS) circuit. The BPTM device is a meter that is also a transfer switch that will automatically connect power to a generator when it detects the grid is offline and switch back to the utility once the grid back on.
- **Self-Generation Incentive Program (SGIP):** As an SGIP Program administrator, PG&E provides financial incentives for targeted customers to install permanent battery storage, with a focus on supporting qualified customers in HFTDs.
- **Fixed Power Solutions (FPS):** A new initiative launched in 2022, FPS supports permanent, long-term backup power solutions for customers frequently impacted by PSPS and EPSS outages. These permanent solutions can help customers mitigate outages over a longer time horizon than portable solutions.

## 4 Conclusion

This report fulfills the requirement associated with the filing of PG&E's 2023 GNA annual report. An accompanying report, PG&E's 2023 DDOR report, builds upon the grid needs included herein and identifies Candidate Deferral Opportunities.

## Appendices

### Appendix A: Datasets Guide

This section is a guide on using the GNA datasets including how to interpret specific fields and values. The data package for the 2023 GNA includes:

- DER Growth Forecast Data from 2023-2027
- Demand Forecast Data from 2023-2027
- GNA Data from 2023-2027

Data for the 2023 GNA will be posted on the DRP Data Portal by August 30, 2023.<sup>35</sup> Any interested party can access the data through PG&E web maps by using the following link:

[PG&E Distribution Resource Planning Data Access Portal \(pge.com\)](https://pge.com)

#### **DER Growth Forecast Data (Attached as Appendix D)**

This data provides the DER growth forecast applied for each feeder for the entire PG&E territory and broken out by DER type. The DER growth amount shown is the expected DER contribution at the time the feeder is at peak demand (coincident peak). These forecast values do not include existing DER capacity but do show incremental DER growth starting in 2023 and continuing until 2027.

Interpreting the Fields:

- Distribution Planning Region: the distribution planning region where the feeder is located.
- Division: the distribution planning division where the feeder is located.
- Facility Name: the name of the feeder.
- Facility ID: a unique identifier linked to the Facility Name.
- Solar (MW): the largest coincidental load decrease, in MW, from photovoltaics. Negative values translate into a load decrease.
- Energy Storage NonRes Charge (MW): the largest coincidental load increase, in MW, from Non-Residential Energy Storage Charge loads. Positive values translate into a load increase.
- Energy Storage Res Charge (MW): the largest coincidental load increase, in MW, from Residential Energy Storage Charge loads. Positive values translate into a load increase.
- Energy Storage Non-Res Discharge (MW): the largest coincidental load decrease, in MW, from Non-Residential Energy Storage Discharge DERs. Negative values translate into a load decrease.

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<sup>35</sup> April 13, 2020, Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Process, pp. 11. Line Section Data will be posted by December 15, 2023.

- Energy Storage Res Discharge (MW): the largest coincidental load decrease, in MW, from Residential Energy Storage Discharge DERs. Negative values translate into a load decrease.
- Energy Efficiency (MW): the largest coincidental load reduction, in MW, from adopting Energy Efficiency. Negative values translate into load reduction.
- Fuel Substitution (MW): the largest coincidental load increase, in MW, from Fuel Substitution loads. Positive values translate into a load increase.
- Electric Vehicles (MW): the largest coincidental load increase, in MW, from Electric Vehicle loads. Positive values translate into a load increase.

### **Demand Forecast and Grid Needs Assessment Data (Appendices E – G)<sup>36</sup>**

Appendix E, Appendix F, and Appendix G all show the forecasted grid needs for substation banks, feeders, and line sections across PG&E's territory. Appendix E shows the Demand Forecast data peak loads for substation banks and feeders, over a 5-year planning horizon. This is compared against the normal operating equipment ratings to determine the bank and feeder capacity needs. Appendix F shows Reliability and Resiliency needs over a 5-year planning horizon. Appendix G<sup>37</sup> shows line section voltage and capacity needs over a 3-year planning horizon.

Interpreting the Fields:

- GNA Need ID: a unique identifier that links to DDOR ID in PG&E's accompanying DDOR.
- Distribution Planning Region: the distribution planning region where the facility is located.
- Division: the distribution planning division where the facility is located.
- Facility Name: the name of the substation, bank, feeder, or line section.
- Facility ID: a unique identifier linked to the Facility Name.
- Facility Type: the type of facility – substation, bank, feeder, or line section.
- Primary Driver: the primary driver of the grid need, if one exists.
- Distribution Service Required:<sup>38</sup> the distribution service for which the grid need can mapped to, if one exists – Capacity, Voltage, Reliability, Resiliency.
- Anticipated Need Date: the date for which the grid need is estimated to first occur, if there is one.
- Facility Loading (%):  $(\text{Peak Load}/\text{Facility Rating}) \times 100$ , for each year and for the peak (max) year.

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<sup>36</sup> Additional Line Section needs will be provided as a supplemental filing on November 30, 2023.

<sup>37</sup> Additional Line Section needs will be provided as a supplemental filing on November 30, 2023.

<sup>38</sup> PG&E will continue to monitor all distribution services, natural DER adoption, non-deferrable projects, non-capacity related projects, and emergent planned investments to determine whether to include them in future DIDF cycles.

- Deficiency: Deficiency related to capacity need or other violated criteria for each year and for the peak (max) year. For Capacity needs, the Deficiency based on Facility Rating.<sup>39</sup> For Reliability and Resiliency needs, the Deficiency is based on the Primary Driver. For Voltage needs, the Deficiency is based on Rule 2 Voltage Limit under normal operating conditions.
- Deficiency (%):  $(\text{Deficiency}/\text{Facility Rating}) \times 100$ , for each year and for the peak (max) year.
- Facility Rating: The normal operating rating of the asset for each year.
- Facility Loading: The forecast 1-in-10-year weather net peak loads under normal operating conditions, for each year.
- VPU: The forecasted voltage for each year in per-unit.
- Volt: The forecasted voltage for each year.

Banks, feeders, and line sections with redacted loads and deficiencies are marked as Customer Confidential or “CC”, due to their peak loads violating PG&E’s adoption of the 15-15 customer privacy rule. A 15-15 violation occurs if the load is comprised of 1 to 15 non-residential customers, if the load is comprised of 1 to 100 residential customers, or if a single customer contributes to more than 15% of the loading value.

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<sup>39</sup> For capacity needs where the forecasted demand is less than the facility rating (e.g., where prior forecasts had shown an overload), the Deficiency (MW) and Deficiency (%) are set to 0 and the Distribution Service Required is listed as Capacity.

## Appendix B: Examples of Grid Needs and Associated DER Services

The following examples are based on the Competitive Solicitation Framework Working Group Final Report Filed by the Joint California Investor Own Utilities (August 1, 2016).

### Example A: Distribution Capacity Services

Electric Distribution Planning analysis has identified that a distribution substation transformer is projected to overload in year 2019 during summer peak demand conditions. Specifically, after possible transfers have been completed, this distribution substation transformer is projected to serve a peak demand of 13.2 MW, which exceeds this transformer's thermal capacity rating of 11.88 MW by 11%. Hence, this transformer is projected to overload by 11% under these peak demand conditions. Furthermore, additional Distribution Planning analysis has projected that this overload may reach up to 22% by year 2020 for summer peak demand conditions. The following schematic illustrates this example.

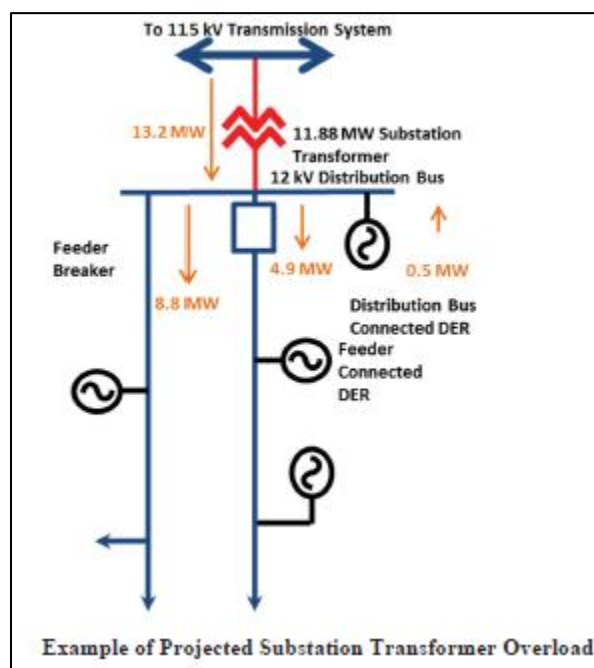


Figure 3: Example of Distribution Capacity Overload

To ensure safe and reliable electric service, additional distribution capacity is required for this transformer. This additional capacity can be achieved through a traditional “wires” solution, which in this case would be the addition of a new substation transformer, or via a DER alternative that effectively reduces this transformer’s net loading to be within its thermal rating.

### Example B: Voltage Support Service

Electric Distribution Planning utilizes modeling tools to perform power-flow studies of the distribution system simulating electric grid performance. The loading values input for each distribution feeder are based on forecast values. The 2016 results from the power flow identified a feeder with steady-state voltage below the CPUC Rule 2 limit at specific sections on a highly residential feeder. The area in question is also forecast to incur future residential development in the next several years increasing the demand and reducing the voltage further. The following schematic identifies the distribution feeder forecast to have voltage violations during peak conditions.

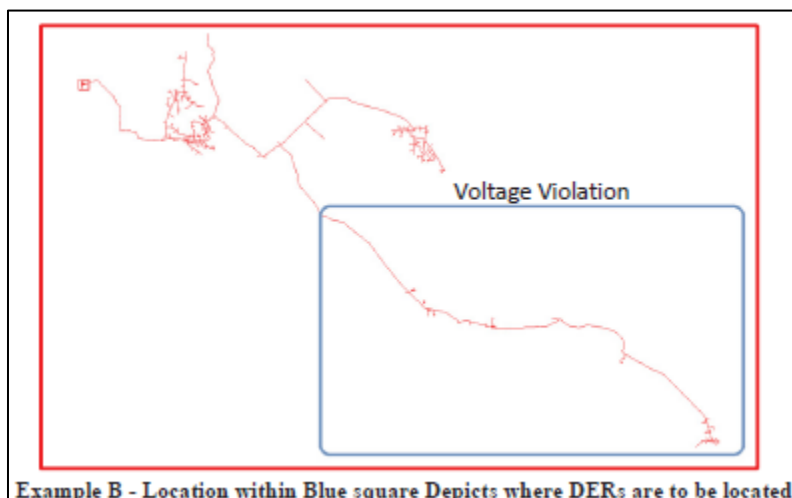


Figure 4: Example of Voltage Violation

To ensure safe and reliable electric service as well as maintaining compliance with CPUC Rule 2 voltage limits, additional reactive resources are required. A traditional “wires” solution to provide additional reactive resources is installing a switched capacitor on the feeder or installing a voltage regulator. Another alternative is interconnecting DERs to provide reactive resources effectively acting as a capacitor either when requested by the utility or provided with a required operating profile. The DER reactive resource could be from an individual resource and/or aggregated resources capable of dynamically and demonstrably providing reactive power.

### Example C: Reliability Services – Back-Tie

Electric Distribution Planning analysis has identified that a distribution feeder is projected to overload by year 2018 under emergency conditions when providing back-tie capacity support to an adjacent distribution feeder that has an experienced an outage. Specifically, the distribution feeder back-tie is not sized appropriately to transfer peak demand from the de-energized distribution feeder to an adjacent distribution feeder. The following figure illustrates this example.



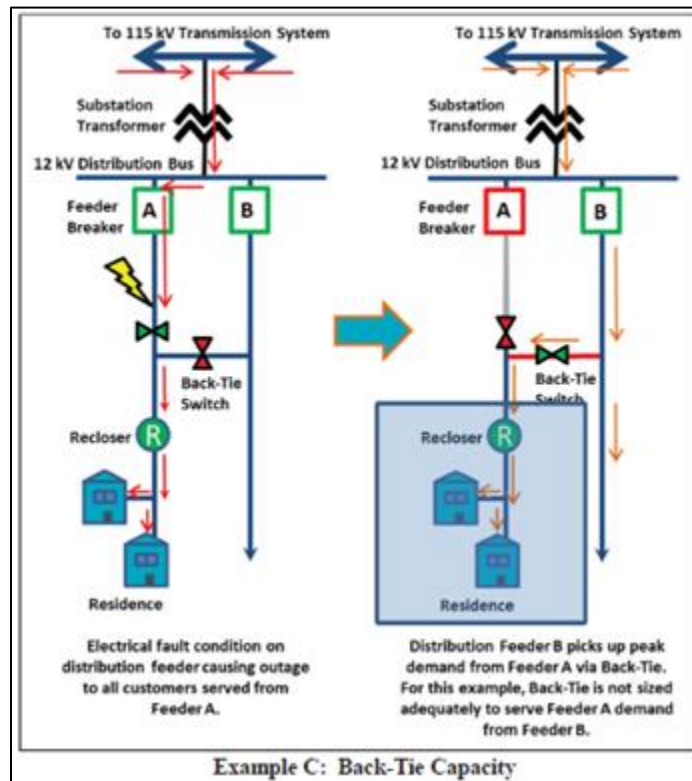


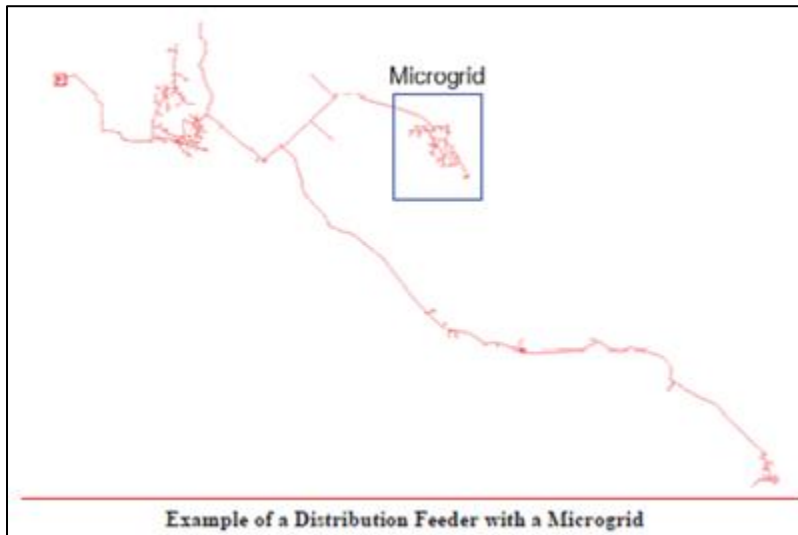
Figure 5: Example of Back-Tie

To ensure safe and reliable electric service as well as maintaining compliance with the CPUC Rule 2 voltage limits, additional DER resources may provide additional reliability via incremental back-tie capacity support following distribution feeder outage conditions. A traditional “wires” solution to provide this additional reliability service is to reinforce this back-tie with higher rated infrastructure, which could include larger size electrical line conductors and higher rated back-tie switches. Another alternative is interconnecting and operating DERs to provide resources to restore service to customers either when requested by the utility or provided when a forced outage occurs and incremental back-tie support is needed to serve electric customers from an adjacent feeder. The DER resources could be from an individual resource and/or aggregated resources capable of dynamically and demonstrably providing the electrical services to customers.

**Example D: Reliability Services – Resiliency**

Electric Distribution Planning utilizes modeling tools to perform power-flow studies of the distribution system simulating electric grid performance. The loading values inputted for each distribution feeder are based on forecast values. Under normal operating scenarios customers are provided electric service that meets Rule 2 levels of service, voltage range of 105% to 95% of nominal 120 V, with frequency typically in the range of 60 +/- 0.1 Hz. When a forced or a planned outage occurs, customers will experience a loss of electrical service. If the outage occurs upstream of a sectionalizing device and

there is a downstream open circuit tie as discussed in Reliability: Backup Capability, then the upstream device is opened, the downstream ties switch is closed and service is restored to customers on the non-faulted areas of the feeder.



**Figure 6: Example of Microgrid**

Thus, a traditional “wires” solution to provide resiliency for a defined subset of customers is to provide an alternative feed to the customers who would be impacted by an outage. Another alternative is interconnecting DERs to provide resources to restore service to customers either when requested by the utility or provided when a forced outage occurs on the feeder upstream. The DER resources could be from an individual resource and/or aggregated resources capable of dynamically and demonstrably providing the electrical services to customers. The generation resources must be capable of operating in isochronous mode and must have associated controls to match generation to load while maintaining voltage, frequency, and power factor and power quality within appropriate limits.

## Appendix C: Load and DER Forecast disaggregation process

The system level load growth forecast, and its disaggregation process is discussed in the following subsections.

### Appendix C.1 System Level Load Growth Forecast from CEC Forecast:

PG&E generates its system-level load growth forecast by following multiple steps. First, the most recent approved California Energy Commission (CEC) PG&E Transmission Access Charge (TAC) area Peak and Energy Forecast: Mid Baseline Growth Forecast is obtained from CEC. This year the “CEC 2021 Mid Baseline Forecast - LSE and BA Tables Mid Demand Case”<sup>40</sup> was used. Because the PG&E TAC contains load growth for municipal utilities served by the PG&E transmission system, the PG&E distribution system portion of the CEC annual growth forecast must be calculated, as illustrated in Table 14 below. From the mid baseline forecast, the annual percentage of PG&E Planning Area megawatts are calculated for all years. The areas included in the PG&E planning area are:

- PG&E Service Area - Greater Bay Area
- WAPA - Greater Bay Area
- PG&E Service Area - Non-Bay Area
- WAPA - Non-Bay Area
- PG&E Service Area - ZP26
- WAPA - ZP26

The calculated numbers for PG&E’s distribution system portion of the annual load growth for the years 2021 and 2035 from the CEC transmission system level forecast is shown as an example in Table 14.

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<sup>40</sup> <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report/2021-1>

**Table 14: Calculated PG&E Service Area Portion Percentage**

Balancing Authority	Agency	2021	...	2035	Average PG&E Portion (2021-2035)
<b>Greater Bay Area</b>	PG&E Service Area - Greater Bay Area	6,636	...	7,610	
	WAPA - Greater Bay Area	61	...	65	
<b>North of Path 15</b>	PG&E Service Area - Non-Bay Area	10,351	...	11,917	
	WAPA - Non-Bay Area	211	...	210	
<b>Zone Path 26</b>	PG&E Service Area - ZP26	2,037	...	2,391	
	WAPA - ZP26	17	...	16	
<b>Total MW Forecast for PG&amp;E Planning Area</b>		<b>19,312</b>	...	<b>22,209</b>	
<b>Total North of Path 26 (Total MW Forecast for PG&amp;E TAC Area)</b>		<b>20,672</b>	...	<b>24,173</b>	
<b>Portion of total MW for PG&amp;E Planning Area (%)</b>		<b>93.42%</b>	...	<b>91.87%</b>	<b>92.14%</b>

A similar calculation is done for each year, and the average of the percentage for the years 2021-2035 is calculated. The average of PG&E's portion (in percentage) of the total forecast for all forecast years is 92.14% for this forecast cycle. The growth calculated from TAC level IEPR files will be reduced by this amount to reflect the PG&E transmission load that does not serve the PG&E distribution system. The 92.14% is applied to all growth categories derived from the IEPR Hourly File.

### Appendix C.2 Load Growth Forecast Disaggregation:

The PG&E approved load growth is calculated from the file *AAEE 3 AAFS 3 hourly Mid Baseline* forecast. The baseline growth is the sum of columns *UNADJUSTED\_CONSUMPTION, PUMP\_DWR, PUMP\_MWD, CLIMATE\_CHANGE, TOU\_IMPACTS,* and *OTHER\_ADJUSTMENTS*.

*LIGHT\_EV* and *MEDIUM\_HEAVY\_EV* are excluded from the baseline load growth since EV is considered a DER and feeder allocation and disaggregation of EV growth is handled through EV propensity modeling as explained in Appendix C.5.

The annual maximum values for Baseline Consumption represent the peak for the year without EV. The year-to-year difference in maximum values yield an annual delta or Mid Baseline load growth per year for the PG&E TAC area. The calculated values for the 10 years are shown in Table 15.

**Table 15: Annual PG&E service area baseline consumption calculation**

Year	Max Mid BASELINE_CONSUMPTION minus EV (MW)	TAC Growth (MW)	PG&E SA (MW)	Commulative Growth (MW)
2021	23467			
2022	23889	422	389	
2023	24230	341	314	314
2024	24551	321	296	610
2025	24843	292	269	879
2026	25187	344	317	1196
2027	25527	340	313	1509
2028	25816	289	266	1776
2029	26115	299	275	2051
2030	26411	296	273	2324
2031	26717	306	282	2606
2032	27009	292	269	2875
2033	27297	288	265	3140
2034	27564	267	246	3386
2035	27804	240	221	3607

Once the PG&E distribution service area (SA) demand is calculated from the IEPR forecast using the portion factor above, it is then portioned into Residential, Commercial, Industrial and Agriculture classes.

The percentages by class are calculated based on the proportions calculated from the actual business applications. Table 16 shows these proportions applied to the mid-baseline growth as described in Appendix C.1.

**Table 16: Annual Class disaggregation**

Year	Residential 52% (MW)	Commercial 19% (MW)	Industrial 24% (MW)	Agricultural 5% (MW)
2021				
2022				
2023	163.38	59.70	75.41	15.71
2024	153.80	56.20	70.98	14.79
2025	139.91	51.12	64.57	13.45
2026	164.82	60.22	76.07	15.85
2027	162.90	59.52	75.19	15.66
2028	138.47	50.59	63.91	13.31
2029	143.26	52.34	66.12	13.77
2030	141.82	51.82	65.46	13.64
2031	146.61	53.57	67.67	14.10
2032	139.91	51.12	64.57	13.45
2033	137.99	50.42	63.69	13.27
2034	127.93	46.74	59.04	12.30
2035	114.99	42.02	53.07	11.06

After the load classification, the known loads adjustments are then applied. A 90% confidence factor is applied to applications in year's 2023 and 2024 to account for cancellations and overestimated demands. The net known load for the year is subtracted from the net IEPR growth for the first year. If more known loads exist than the IEPR, the difference is carried forward to the following year. The carry over continues until the IEPR forecast is larger than the known loads.

The remaining IEPR growth forecast, by customer class, is shown in Table 17. The spatial growth values are entered in LoadSEER and the simulation is ran to allocate the spatial growth to feeders based on the geospatial disaggregation. In addition, LoadSEER applies a smoothing algorithm to ensure that growth cannot turn negative in any given year for a specific feeder. This results in the geospatial load forecast, shown in Table 17, being spread over the entire period.

**Table 17: Remaining IEPR system level forecast, by customer class, after application of known load adjustments.**

Last edited 11/29/2022 12:44 PM by Mark Jimenez

Year	Total MW	DOM	COM	IND	AGR
2023	0.00	0.00	0.00	0.00	0.00
2024	0.00	0.00	0.00	0.00	0.00
2025	0.00	0.00	0.00	0.00	0.00
2026	0.00	0.00	0.00	0.00	0.00
2027	0.00	0.00	0.00	0.00	0.00
2028	0.00	0.00	0.00	0.00	0.00
2029	0.00	0.00	0.00	0.00	0.00
2030	181.20	94.20	34.40	43.50	9.10
2031	233.70	121.50	44.40	56.10	11.70
2032	227.90	118.50	43.30	54.70	11.40
2033	224.30	116.70	42.60	53.80	11.20
2034	208.70	108.50	39.70	50.10	10.40
2035	181.30	94.30	34.40	43.50	9.10

## Appendix C.3 DER Forecast Disaggregation Process

Figure 7, Figure 8, Figure 9, and Figure 10 below depict the DER forecast disaggregation process for Solar PV, Energy Storage, AAE, and AAFS, respectively.

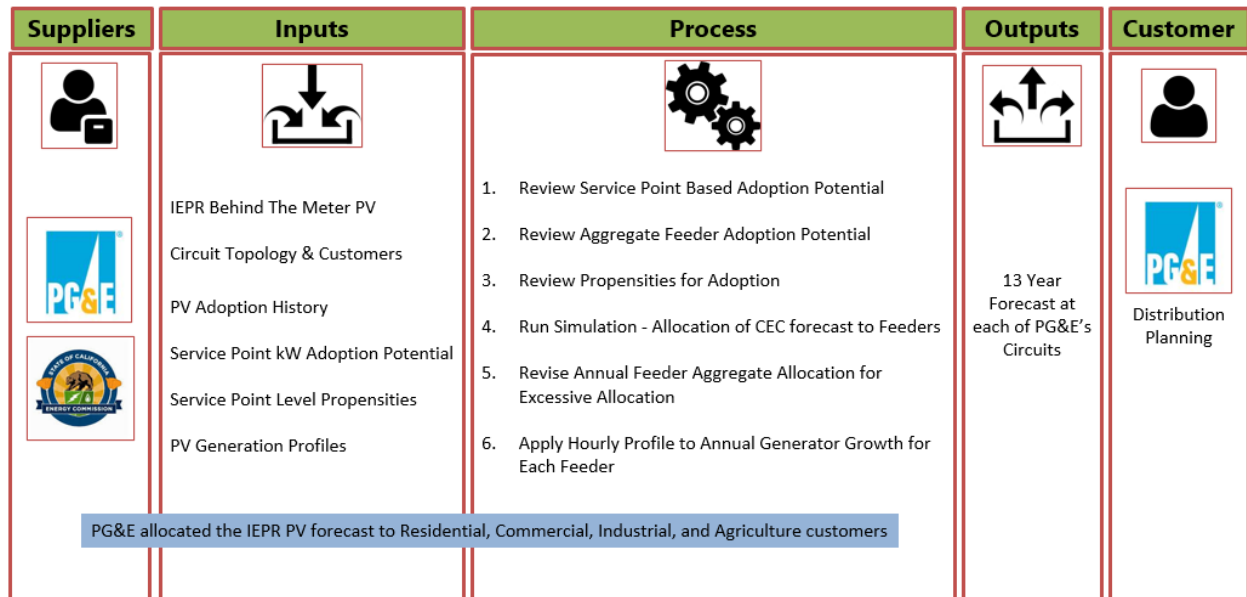


Figure 7: Solar PV Disaggregation Process

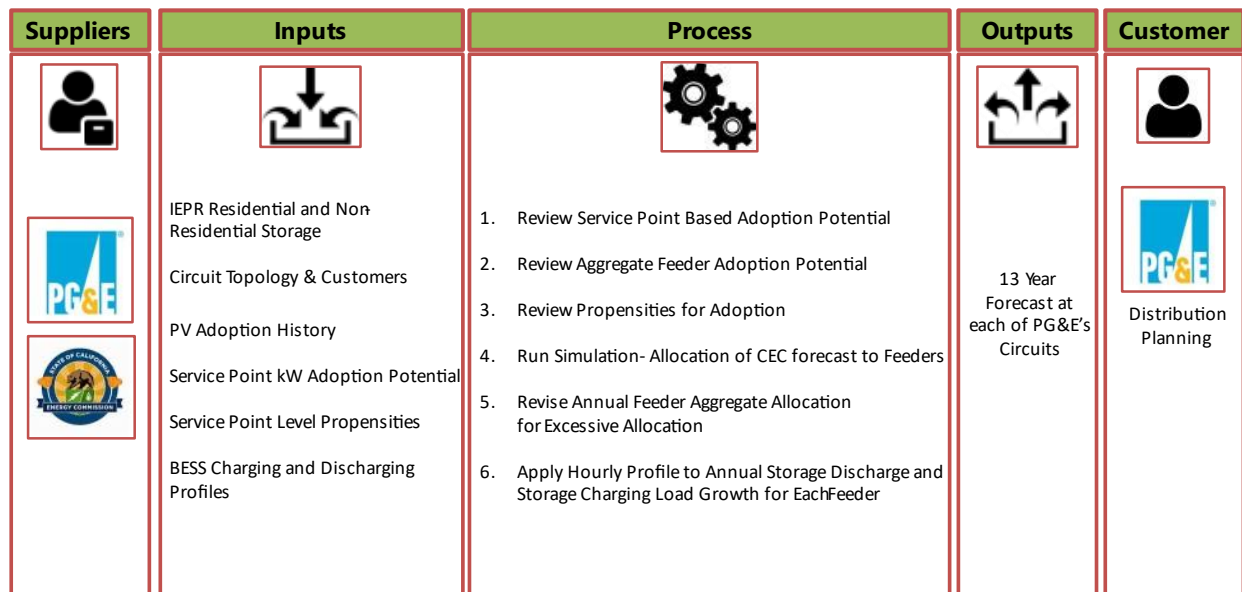


Figure 8: Residential and Non-Residential Energy Storage Charge & Discharge Disaggregation Process



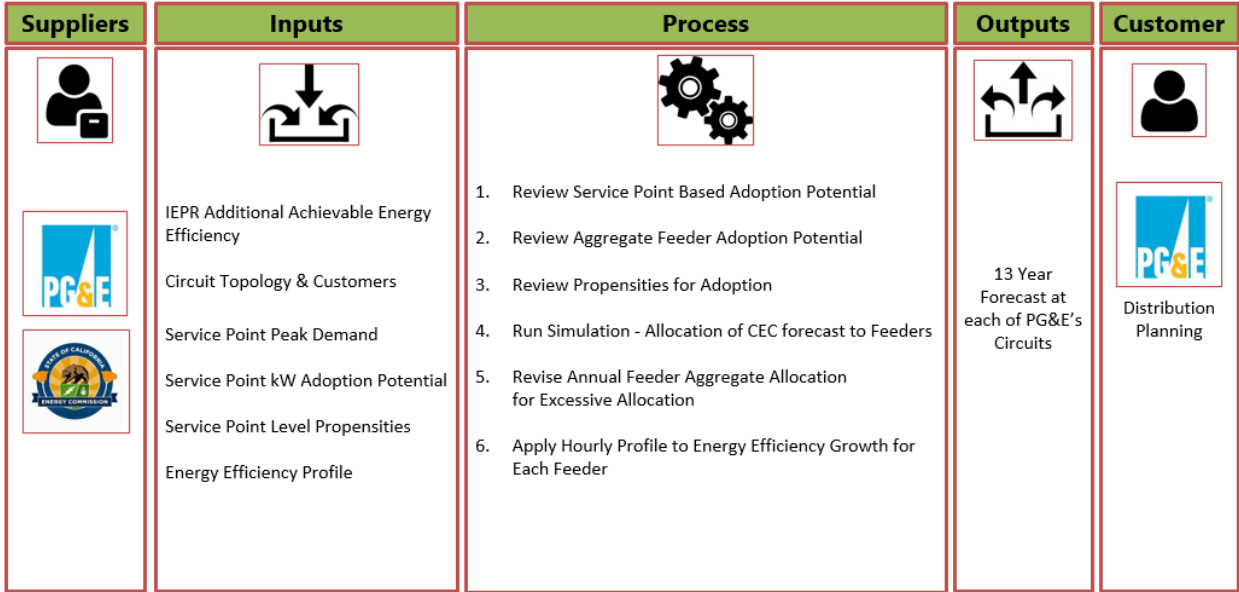


Figure 9: Additional Achievable Energy Efficiency (AEE) Forecast Disaggregation Process Overview

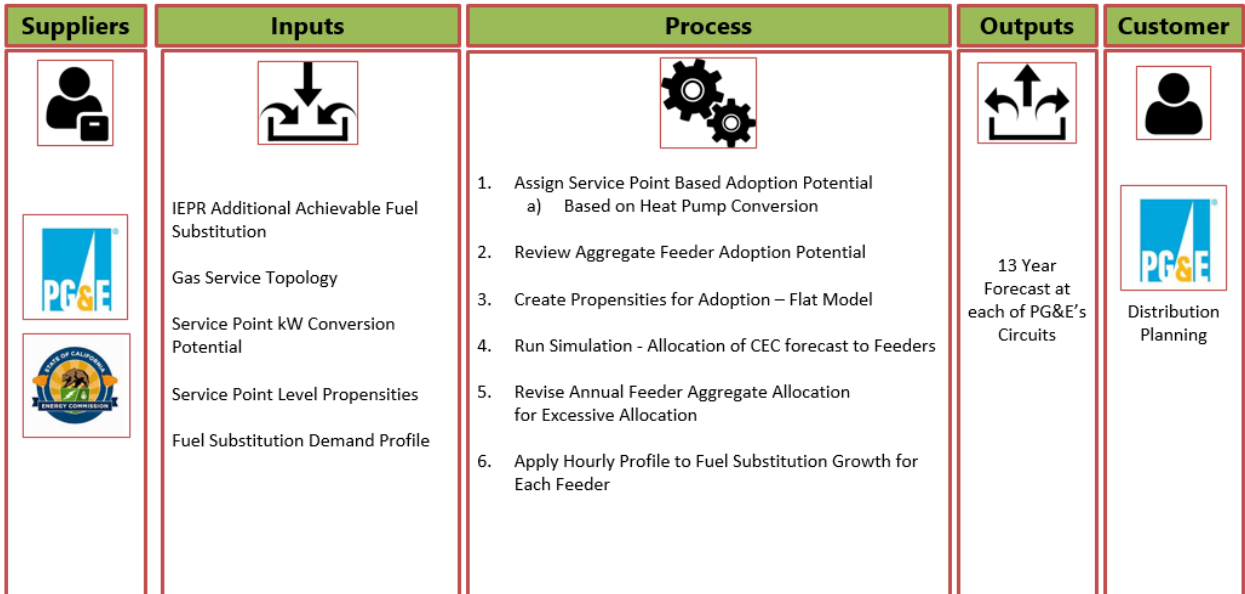


Figure 10: Additional Achievable Fuel Substitution (AAFS) Forecast Disaggregation Process Overview

## Appendix C.4 DER Growth Forecast Calculations

As explained in Appendix C.3, various IEPR hourly forecast files were used to calculate the DER growth forecast. The categories of DERs and the corresponding hourly forecast used is summarized in Table 18.

**Table 18: CEC 2021 IEPR Scenarios for 2023 GNA/DDOR (repeated)**

		2023-2024 GNA/DDOR Cycle		
		SCE	PG&E	SDG&E
	CEC-Adopted IEPR Vintage	2021 IEPR Mid	2021 IEPR Mid	2021 IEPR Mid
Forecast	Solar PV	2021 IEPR Mid – Mid	2021 IEPR Mid – Mid	2021 IEPR Mid – Mid
	Energy Storage	2021 IEPR Mid – Mid	2021 IEPR Mid – Mid	2021 IEPR Mid – Mid
	Transportation Electrification (Light Duty)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)
	Transportation Electrification (Medium and Heavy-Duty)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)	2021 IEPR High TE (2023-2029) IAWG (2030-2032)
	Additional Achievable Energy Efficiency (AAEE)	2021 IEPR Mid – Low (AAEE Scenario 2)	2021 IEPR Mid – Low (AAEE Scenario 2)	2021 IEPR Mid – Low (AAEE Scenario 2)
	Additional Achievable Fuel Substitution (AAFS)	2021 IEPR Mid – Mid (AAFS Scenario 3)	2021 IEPR Mid – Mid (AAFS Scenario 3)	2021 IEPR Mid – Mid (AAFS Scenario 3)
	Load Modifying Demand Response	2021 IEPR Mid – Mid	2021 IEPR Mid – Mid	2021 IEPR Mid – Mid
	Baseline Load	2021 IEPR Mid – Mid	2021 IEPR Mid – Mid	2021 IEPR Mid – Mid

The year-on-year difference is then calculated from the annual contribution to ascertain the respective DER growth per year for the PG&E TAC area. The previously calculated 92.14% factor is applied to the annual DER growth to calculate PG&E’s service area portion of the DER growth. The PG&E service area portion of the annual DER growth is then divided by 12 to convert to a monthly component of the DER growth in MW, which is then converted to kW and then put into a file format (called “guarantee”) for consumption by LoadSEER.

As an example, the calculations for AAEE are shown in Figure 11 and Figure 12. The same process is repeated for all the DERs shown in Table 18, with their respective hourly forecasts, scenarios and the peak annual contribution type.

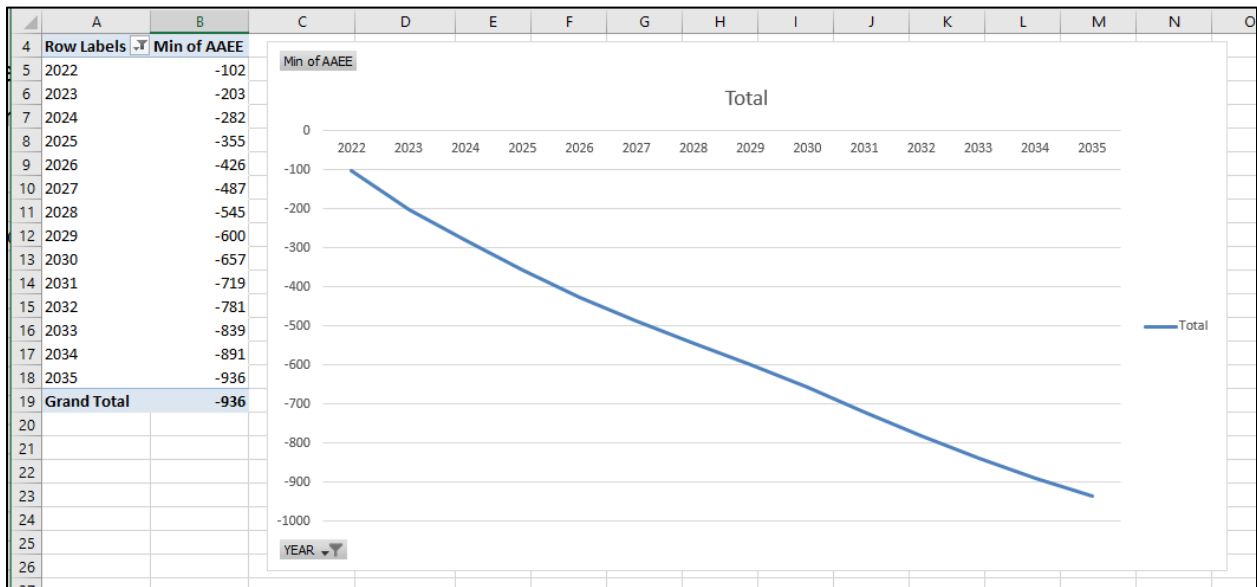


Figure 11: Contribution of AAEE to the annual peak (system level)

Row Labels	Min of AAEE	Delta TAC Growth	PGE Service %	MW/month	KW/month	ITERATION	ADOPTERS	GUARANTEEKEY	SEGMENT
2022	-102					0	7756 KW		
2023	-203	-101	-93.061	-7.755	7756	1	7756 KW		
2024	-282	-79	-72.791	-6.066	6066	2	7756 KW		
2025	-355	-73	-67.262	-5.605	5606	3	7756 KW		
2026	-426	-71	-65.419	-5.452	5452	4	7756 KW		
2027	-487	-61	-56.205	-4.684	4684	5	7756 KW		
2028	-545	-58	-53.441	-4.453	4454	6	7756 KW		
2029	-600	-55	-50.677	-4.223	4224	7	7756 KW	Load	
2030	-657	-57	-52.520	-4.377	4377	8	7756 KW	SEER	
2031	-719	-62	-57.127	-4.761	4761	9	7756 KW	guarante	
2032	-781	-62	-57.127	-4.761	4761	10	7756 KW		
2033	-839	-58	-53.441	-4.453	4454	11	7756 KW		
2034	-891	-52	-47.913	-3.993	3993	12	6066 KW		
2035	-936	-45	-41.463	-3.455	3456	13	6066 KW		
						14	6066 KW		
						15	6066 KW		
						16	6066 KW		
Total		-834	-768.4476	-64.0373	768528	17	6066 KW		
						18	6066 KW		
						19	6066 KW		
						20	6066 KW		
						21	6066 KW		
						22	6066 KW		

Figure 12: Conversion of the annual PG&E AAEE growth to LoadSEER guarantee file. The red box shows just the first 22 months.

## Appendix C.5: EV Known Load Reconciliation & Spatial Disaggregation

Figure 13 provides an overview of the EV Forecast Disaggregation Process. Figure 14 illustrates the functionality of developing PG&E's EV forecast. Input files and descriptions have been shared to indicate sources of data and development of inputs/assumptions used in the forecast development.

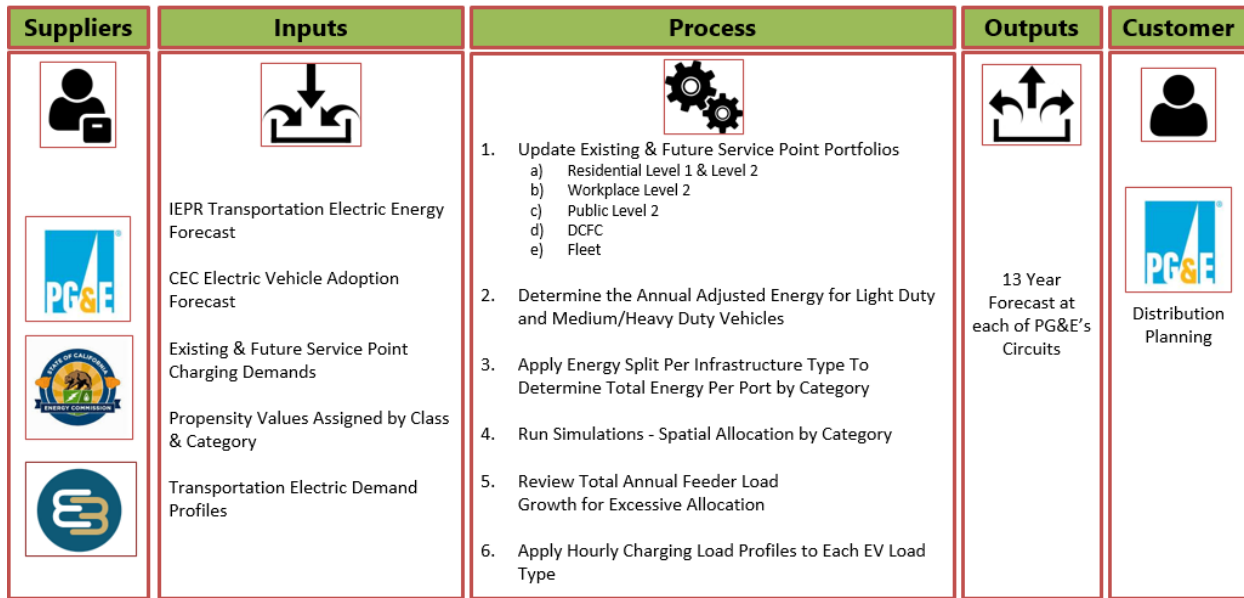


Figure 13: EV Forecast Disaggregation Process Overview

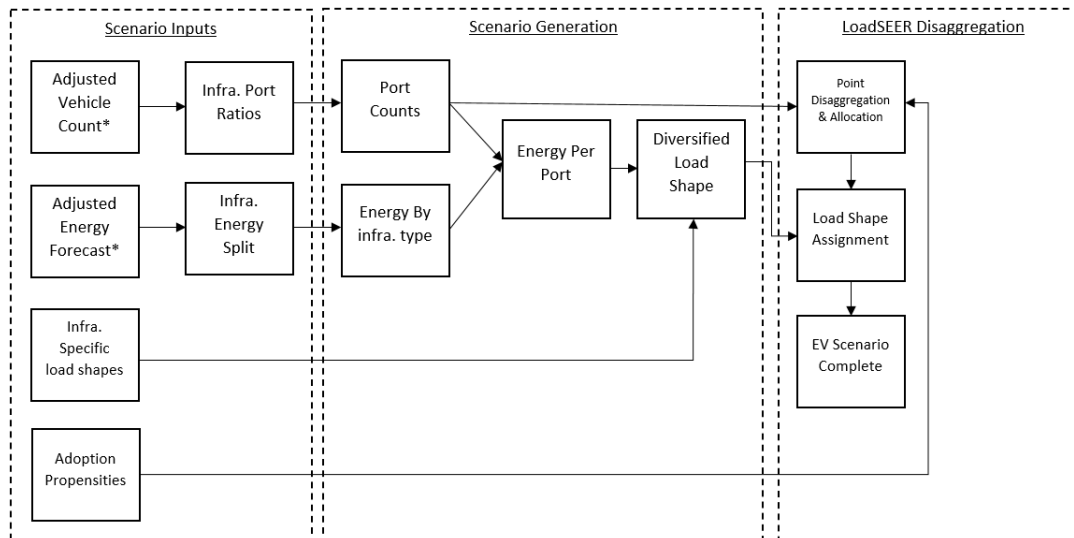
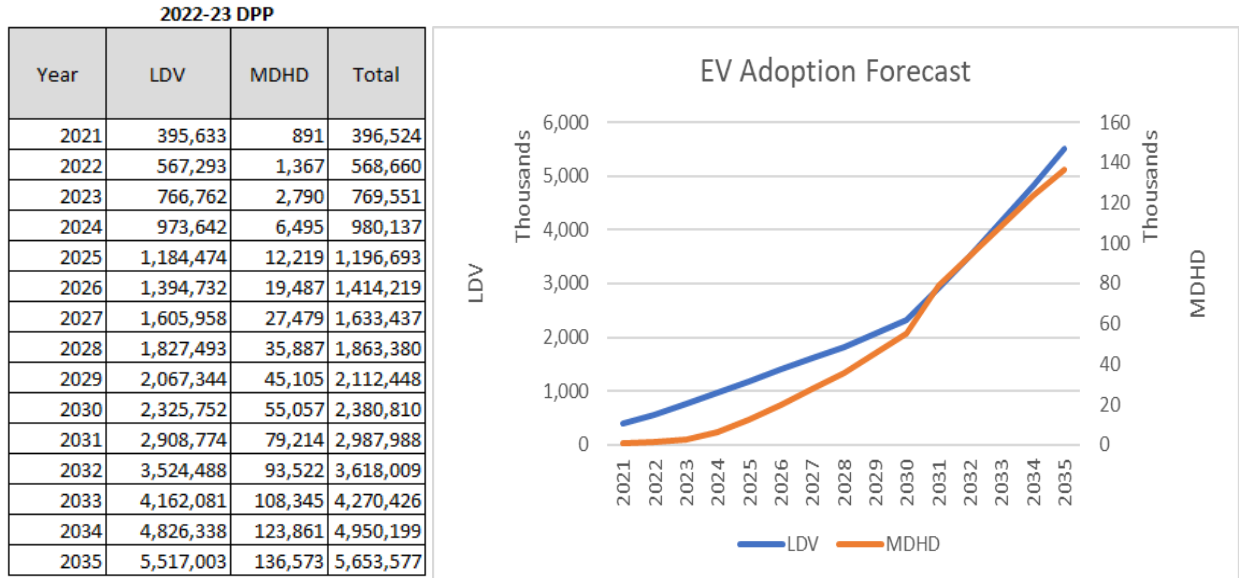


Figure 14: Geospatial EV Forecast Functionality Process Flow <sup>41</sup>

<sup>41</sup> The planning forecast approved for the DPP includes a vehicle adoption and energy forecast. Prior to generating the spatial allocation portion of the forecast, the approved vehicle and energy forecast is adjusted (reduced) to reconcile for known load applications.

### Appendix C.5.1: IEPR Vehicle Counts

The 2022/2023 DPP EV Forecast was a blend of the CEC IEPR High and HEIAWG<sup>42</sup> EV forecasts. The vehicle counts and hourly power and energy forecasts were provided by the CEC<sup>43</sup>. The unreconciled vehicle counts are shown in Figure 15 for Light Duty Vehicles (LDVs) and for Medium Duty and Heavy Duty (MDHDs) vehicles.



**Figure 15: Light Duty and MDHD Vehicles Count**

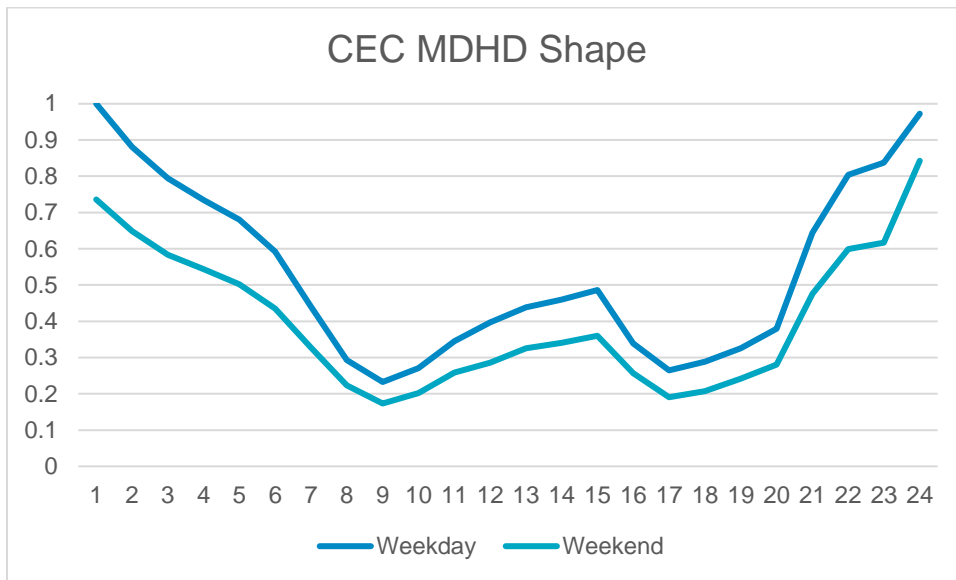
To account for known loads/applications already reflected as adjustments in the forecast, the vehicle counts were reduced to not “double-count” this load in the forecast. This method of reconciliation is detailed below in Appendix C.5.3.

<sup>42</sup> PGE Territory PEV Count 2022\_05.xlsx.

<sup>43</sup> RE\_ Data request \_ Vehicle stock results from April 7 presentation on Transportation Demand Scenarios.msg.

### Appendix C.5.2: Charging Load Shapes

The Residential workplace, and Public Level 2 charging shapes were provided by PG&E's resource forecasting team. PG&E uses normalized load shapes for Light Duty and MDHD vehicles. The Public DCFC shape was developed based on metering data from existing DCFC sites. 8760 shapes were normalized to 1 so that as total energy per infrastructure type (discussed in the following section) was applied to the shape, the diversified peak would be derived.

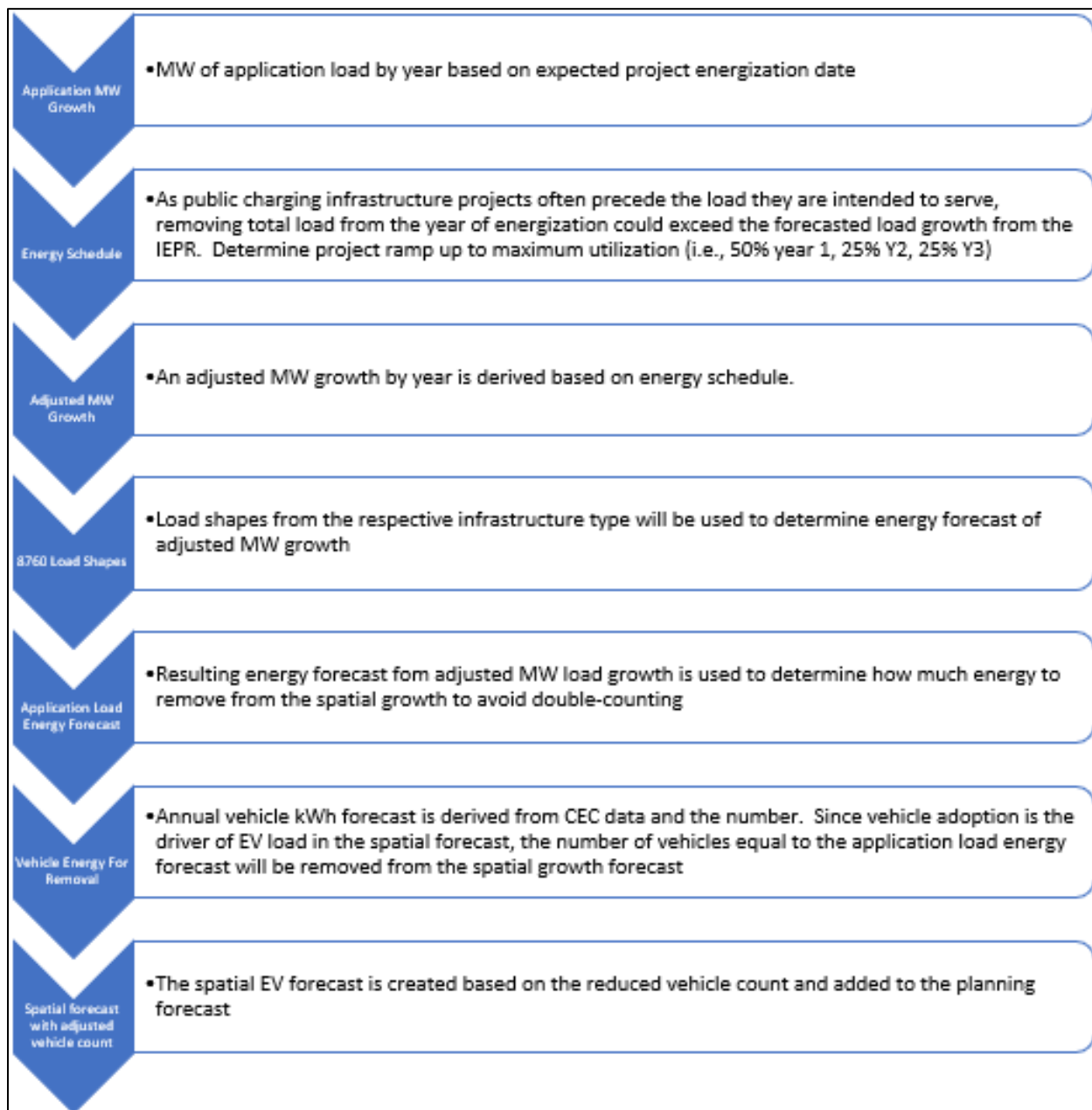


**Figure 16: CEC MDHD Load Shape**

As an example, the CEC MDHD Load shape shown in Figure 16 was used for the MDHD portion of the vehicle forecast.

### Appendix C.5.3: Known Load Reconciliation Process for EVs

Figure 17 illustrates the known load reconciliation process for EVs. The EV known loads are exported from LoadSEER. Each known load has a model year, MW peak value, and a shape. This combination of data can be used to determine the expected energy for each known load over the forecast period.



**Figure 17: Application Load Reconciliation Process for EVs**

Since charging infrastructure needs to be installed in advance and we are in the early stages of adoption, existing service requests for EV charging facilities are unlikely to

achieve maximum energy consumption immediately after installation. Facility sizing to support localized MW peak demand is still required to ensure thermal limits during peak are not exceeded. However, the total energy usage is dependent on other factors in addition to peak demand. In order to balance spatial and known load growth, known loads are estimated at 50% net energy usage in forecast year 1, 75% energy usage in forecast year 2, and 100% energy usage in forecast year 3. The cumulative aggregate of known loads by class is calculated by year. The energy derate factors are applied in the first 2 years of the forecast to account for changes in energy consumption in year 1 and year 2 of the forecast. In year 3 of the forecast, no derate is applied. This is needed because customer applications for service are reflect localized facility peak demand compared to the IEPR which is a PG&E transmission level energy forecast.

The IEPR EV energy forecast is generally derived from an estimated vehicle adoption count by year and an assumed energy consumption per vehicle. Based on the approved IEPR, the energy per vehicle value is determined. The total known load energy consumption by class can then be converted to equivalent IEPR vehicle adoption and subtracted.

The total aggregate MW of each known load class is calculated and adjusted as follows.

- 1) Determine the aggregate annual MW by class for each forecast year.
- 2) Apply a load shape to calculate the annual energy consumption.
- 3) Apply a 0.50 derate factor to year 1 MW to estimate 50% energy consumption.
- 4) Apply a 0.75 derate factor to year 2 MW to estimate 75% energy consumption.
- 5) Apply a load shape to calculate the annual total energy consumption in each year.
- 6) Convert the energy consumption for each year to an equivalent vehicle count.
- 7) Subtract the equivalent vehicle count from the IEPR vehicle adoption forecast.



#### Appendix C.5.4: Demonstration of EV Known Load Reconciliation

The quantity of known load MW adjustments are provided by year and by charging infrastructure shape type in Figure 18. Because the PG&E forecast was developed based on quantity of adopted vehicles and an average energy consumption per vehicle, the MWs of known load had to be converted to energy and subsequently and quantity of vehicles to remove from the forecast. This conversion was done by applying the peak MW to the associated charging load shape of each adjustment category.

MW Adjustments						
Year	EV 576 Fleet Rev0	EV 576 Public L2 Rev0	EV 576 Residential Rev0	EV 576 Rural Corridor DCFC Rev0	EV 576 Urban DCFC Rev0	Grand Total
2023	62.9	23.5	3.3	38.5	380.9	509.2
2024	26.3	1.8	1.7	96.4	127.0	253.2
2025	24.8	3.4	1.0	108.2	18.0	155.3
2026	14.0		1.2	33.1	35.7	84.0
2027	0.7			25.0	5.6	31.3
2028	2.2					2.2
2029						-
2030	1.2					1.2
2031					10.0	10.0
2032						-
2033						-
2034					3.7	3.7
2035						-
<b>Total</b>	<b>132.2</b>	<b>28.7</b>	<b>7.2</b>	<b>301.2</b>	<b>580.9</b>	<b>1,050.1</b>

\*Data from Adjustments\_Reconciliation\_2022\_Rev2.xlsx

Figure 18: EV Known Load Adjustments (MW)

The Energy adjustment was divided by the energy consumption per vehicle to determine the quantity of vehicles that would be removed from the spatial growth forecast, as shown in Figure 19 for LDV. The column 'Approved LDV' reflects the unreconciled vehicle adoption provided by the CEC. The column 'LDV Total Adjustment\*' reflects the quantity of vehicles we assumed to be already accounted for based on the application load adjustments already in the forecast. 10% of the fleet load was assumed to use public charging, so this is also reflected in the adjustment. The column 'Adjusted LDV' represents the annual quantity of vehicles that were used to develop the spatial growth portion of the LDV forecast.

LDV Vehicle Adjustments							
Year	EV 576 Public L2 Rev0	EV 576 Residential Rev0	EV 576 Rural Corridor DCFC Rev0	EV 576 Urban DCFC Rev0	LDV Total Adjustment*	Approved LDV	Adjusted LDV
2023	15,493	894	8,820	130,383	<b>155,590</b>	199,468	43,878
2024	24,444	1,789	35,317	239,043	<b>300,593</b>	406,348	105,756
2025	35,019	2,716	75,568	332,135	<b>445,437</b>	617,181	171,744
2026	36,734	3,387	106,597	369,174	<b>515,892</b>	827,439	311,547
2027	37,847	3,674	128,519	380,283	<b>550,323</b>	1,038,665	488,341
2028	37,847	3,833	135,178	387,351	<b>564,209</b>	1,260,200	695,990
2029	37,847	3,833	138,042	388,309	<b>568,031</b>	1,500,050	932,019
2030	37,847	3,833	138,042	388,309	<b>568,031</b>	1,758,459	1,190,428
2031	37,847	3,833	138,042	391,731	<b>571,454</b>	2,341,480	1,770,026
2032	37,847	3,833	138,042	393,443	<b>573,166</b>	2,957,194	2,384,029
2033	37,847	3,833	138,042	395,154	<b>574,877</b>	3,594,788	3,019,911
2034	37,847	3,833	138,042	396,421	<b>576,143</b>	4,259,045	3,682,902
2035	37,847	3,833	138,042	397,054	<b>576,777</b>	4,949,710	4,372,933

\*10% added for Fleet public charging assumption

**Figure 19: LDV Vehicle Adjustments**

Figure 20 shows the Adjustments for MHD Vehicles. The column ‘Approved MHDV’ reflects the un-reconciled vehicle adoption provided by the CEC. The column ‘MHD Total Adjustment\*’ reflects the quantity of vehicles we assumed to be already accounted for based on the application load adjustments already in the forecast. 10% of the fleet load was assumed to use public charging, so this is also reflected in the adjustment. The column ‘Adjusted MHDV’ represents the annual quantity of vehicles that were used to develop the spatial growth portion of the LDV forecast.

<b>MHD Vehicle Adjustments</b>				
<b>Year</b>	<b>EV 576 Fleet Rev0</b>	<b>MHD Total Adjustment*</b>	<b>Approved MHDV</b>	<b>Adjusted MHDV</b>
2023	4,593	4,134	2,790	-
2024	8,812	7,931	6,495	-
2025	13,877	12,490	12,219	-
2026	16,763	15,087	19,487	4,400
2027	18,231	16,408	27,479	11,071
2028	18,933	17,040	35,887	18,847
2029	19,042	17,138	45,105	27,967
2030	19,212	17,291	55,057	37,766
2031	19,256	17,330	79,214	61,884
2032	19,299	17,369	93,522	76,152
2033	19,299	17,369	108,345	90,976
2034	19,299	17,369	123,861	106,491
2035	19,299	17,369	136,573	119,204

\* 10% removed for Fleet public charging assumption

**Figure 20: MHD Vehicle Adjustments**

### Appendix C.5.5: Geospatial EV Forecast Process

The 2022/2023 DPP EV Forecast was a blend of the CEC IEPR High and HEIAWG<sup>44</sup> EV forecasts. The vehicle counts and hourly power and energy forecasts were provided by the CEC.<sup>45</sup> The flowchart above illustrates the functionality of developing PG&E's geospatial EV forecast. Input files and descriptions have been shared to indicate sources of data and development of inputs/assumptions used in the geospatial EV forecast development.

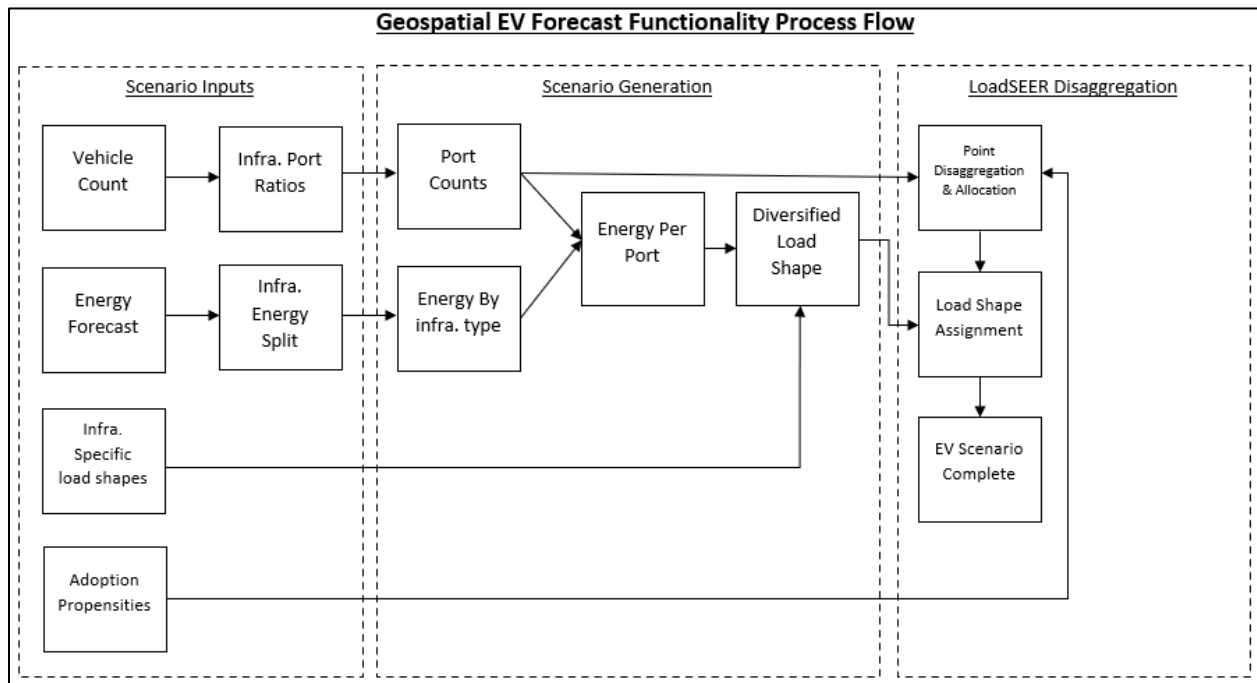


Figure 21: Geospatial EV Forecast Functionality Process Flow

<sup>44</sup> PGE Territory PEV Count 2022\_05.xlsx.

<sup>45</sup> RE\_Data request \_ Vehicle stock results from April 7 presentation on Transportation Demand Scenarios.msg.

### Appendix C.5.6: Geospatial EV Forecast (Charging Access and Network)

Figure 22 shows the input values used for Residential Charging Access. Census data on housing statistics and academic publications were used to inform residential charging access inputs. 84% of EV owners were expected to have access to residential charging infrastructure. Of all residences with EVs, 36% were assumed to utilize L1 charging, and 48% were assumed to utilize L2. Literature from UC Davis<sup>46</sup> and documentation from NREL's EVI-Pro2's Input Presentation from August 2020<sup>47</sup> informed charger access by housing type. As the forecasted EV adoption grows, these percentages are used to inform how many L1 and L2 charging ports are disaggregated across the forecast.

<b>User input 4 - Residential (Non-MUD) Charging Access</b>	
<i>The percentage of total EVs that have access to residential charging. This input is used to estimate the total number of residential charging ports in PG&amp;E territory.</i>	
<b>Input name</b>	<b>Input value</b>
Residential L1 Charging Access	36%
Residential L2 Charging Access	48%

**Figure 22: Residential (Non-MUD) Charging Access**

Figure 23 shows the input values used for the Non-Residential Charging Network. The AB 2127 Report and EVI-Pro were used to inform inputs for the non-residential charging network. The Port EV ratios were used in conjunction with the vehicle adoption forecast to determine the number of infrastructure specific charging ports to disaggregate for each year of the forecast.

<sup>46</sup> [Factors Affecting Demand for Plug-in Charging Infrastructure: An Analysis of Plug-in Electric Vehicle Commuters \(escholarship.org\)](#)

<sup>47</sup> [Electric Vehicle Infrastructure Projection Tool \(EVI-Pro\) \(nrel.gov\)](#)

### User input 5 - Non-Residential Charging Network

The ratio of total number of charging ports to the total number of EVs in PG&E territory (not just the EVs that use the corresponding charger type). This determines the total number of non-residential charging ports installed in PG&E territory.

Input name	Input value
Port: EV Ratios - Workplace L2	1/39
Port: EV Ratios - Public L2	1/65
Port: EV Ratios - Public DCFC	1/216

Figure 23: Non-Residential Charging Network

### Appendix C.5.7: EV Disaggregation in LoadSEER

LoadSEER 4 simulates the spatial distribution of EV loads. After reconciliation of the known loads, the remaining EV load by class is disaggregated to the feeders over the forecast horizon. Simulations are created to allocate DCFC, Public Level 2, and Residential Charging loads.

The total load for each simulation is capped using a “guarantee file”. The guarantee file contains the annual allocation for charging load type by year. The LoadSEER simulation allocates the load to each feeder based on the amount of potential and the propensity for adoption. Propensities and kW potential is at the point level. Each feeder has a custom set of future service points associated with it. The simulation assesses the system level potential and uses the propensities to allocate the load to each feeder by year in a sequential manner.

Once net vehicle adoption is determined, charging port allocations can be created for each year at the system level. The allocations are converted to guarantee files and the simulations can be completed. For the 2023 forecast, the feeder level spatial allocations were simulated in the LoadSEER 4 and imported into LoadSEER 3.5.

Appendix D: GNA Results – DER Growth Forecast  
Appendix included as a separate PDF.



Appendix E: GNA Results – Demand Forecast and Bank/Feeder Capacity Needs  
Appendix included as a separate PDF.

Appendix F: GNA Results – Reliability/Resiliency Needs  
Appendix included as a separate PDF.

## Appendix G: GNA Results – Line Section Capacity and Voltage Needs

Note: Line section analysis, primarily Voltage Support and Distribution Capacity, will be provided as a supplemental filing on November 30 2023, per PG&E's Motion for Extension.

## Appendix H: Distribution Planning Regions (DPR)

The PG&E distribution service area stretches from Eureka in Northern California to Bakersfield in the south, and from the Pacific Ocean in the west to the Sierra Nevada in the east. It provides service to 5.5 million electric customer accounts over 106,681 circuit miles of electric distribution lines.<sup>48</sup> PG&E has implemented a Regional Service Model to bring us closer to our customers and help address issues more efficiently and effectively at the local level. PG&E divided the distribution service area into five geographically defined Distribution Planning Regions (DPR) by grouping together communities with similar operational, risk and safety profiles to improve operations. All the DPRs are shown in Figure 24 which include: (1) North Coast; (2) North Valley and Sierra; (3) Bay Area; (4) South Bay and Central Coast; and (5) Central Valley, as shown in Figure 25 through Figure 29 respectively.



Figure 24: PG&E Distribution Planning Regions

### Region 1: North Coast

The North Coast Region includes Humboldt, Lake, Marin, Mendocino, Napa, Siskiyou, Sonoma, and Trinity Counties.

<sup>48</sup> [https://www.pge.com/en\\_US/about-pge/company-information/profile/profile.page](https://www.pge.com/en_US/about-pge/company-information/profile/profile.page)



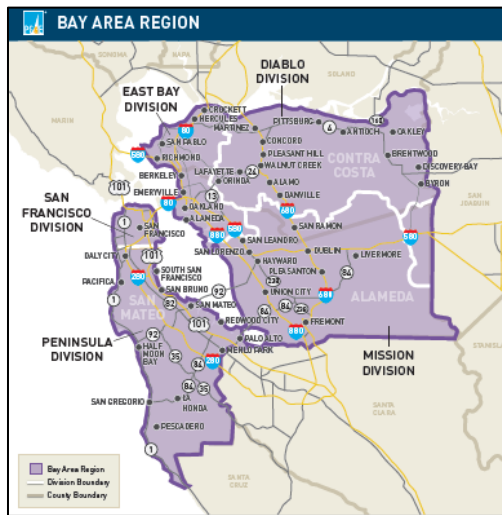


Figure 27: Bay Area Region

Region 4: South Bay and Central Coast

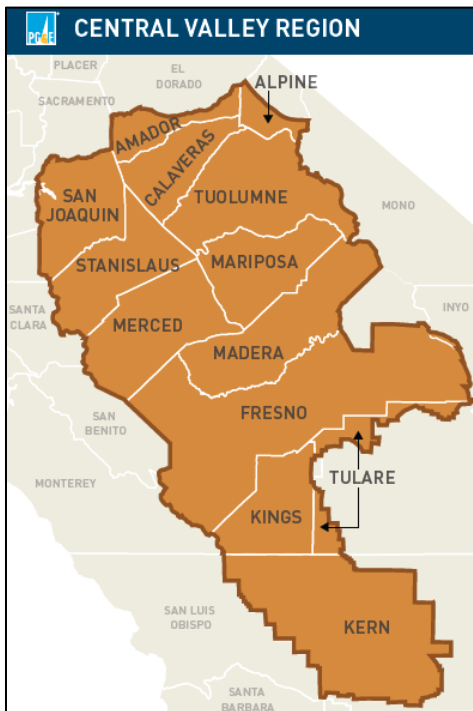
The South Bay and Central Coast Region includes Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Clara, and Santa Cruz Counties.



Figure 28: South Bay and Central Coast Region

Region 5: Central Valley

The Central Valley Region includes Alpine, Amador, Calaveras, Fresno, Kern, Kings, Madera, Mariposa, Merced, San Bernardino (Gas Only), San Joaquin, Stanislaus, Tulare, and Tuolumne Counties.



**Figure 29: Central Valley Region**



















Table with columns for Facility Information (Distribution Planning Region, Division, Facility Name, Facility ID) and performance metrics for years 2023, 2024, 2025, 2026, and 2027. Metrics include Solar (MW), Energy Storage (MWh), Energy Storage Res. Charge (MWh), Energy Storage Res. Discharge (MWh), Energy Efficiency (MW), Fuel Substitution (MW), Electric Vehicles (MW), and various other energy-related values.















POE 2023 Grid Needs Assessment (GNA)
Appendix D: GNA Results - DER Growth Forecast
Version Date: 8/15/2023
Public

Table with columns for Facility Information (Distribution, Planning Region, Division, Facility Name, Facility ID, Solar (MW), Energy Storage, Energy Storage Res. Charge (MWh), Energy Storage Res. Discharge (MWh), Energy Efficiency (MW), Fuel Substitution (MW), Electric Vehicles (MW)) and years 2023, 2024, 2025, 2026, 2027. The table lists various facilities across different planning regions and divisions, providing detailed energy and storage metrics for each year.









PAGE 2023 Grid Needs Assessment (GNA)
Appendix D: GNA Results - DER Growth Forecast
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Public

Table with columns: Distribution Planning Region, Division, Facility Name, Facility ID, and energy storage metrics for years 2023, 2024, 2025, 2026, and 2027. Each row represents a specific facility with its associated energy storage capacity and other metrics.















**PG&E 2023 Grid Needs Assessment (GNA)**  
**Appendix E: GNA Results - Bank & Feeder Capacity Needs**  
**Version Date: 8/15/2023**  
**Public**

GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023			2024			2025			2026			2027																
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)						
GNA_1822901_Capacity	South Bay and Central Coast	Central Coast	HATTON BANK 1	1822901	Bank	None	None	None	82.39%	0	0%	15.05	11.01	73.16%	0	0%	15.05	11.3	75.08%	0	0%	15.05	11.58	76.94%	0	0%	15.05	12.01	79.80%	0	0%	15.05	12.4	82.39%	0	0%	
GNA_182291101_Capacity	South Bay and Central Coast	Central Coast	HATTON 1101	182291101	Feeder	None	None	None	69.07%	0	0%	11.38	7.16	62.92%	0	0%	11.38	7.3	64.15%	0	0%	11.38	7.44	65.38%	0	0%	11.38	7.67	67.40%	0	0%	11.38	7.86	69.07%	0	0%	
GNA_182291102_Capacity	South Bay and Central Coast	Central Coast	HATTON 1102	182291102	Feeder	None	None	None	42.22%	0	0%	11.82	4.28	36.21%	0	0%	11.82	4.38	37.06%	0	0%	11.82	4.52	38.24%	0	0%	11.82	4.76	40.27%	0	0%	11.82	4.99	42.22%	0	0%	
GNA_1823701_Capacity	South Bay and Central Coast	Central Coast	LAURELES BANK 1	1823701	Bank	None	None	None	100.00%	0	0%	6.49	6.15	94.76%	0	0%	6.49	6.32	97.38%	0	0%	6.49	6.49	100.00%	0	0%	6.49	6.15	94.76%	0	0%	6.49	6.47	99.69%	0	0%	
GNA_182371111_Capacity	South Bay and Central Coast	Central Coast	LAURELES 1111	182371111	Feeder	None	None	None	35.83%	0	0%	10.16	3.1	30.51%	0	0%	10.16	3.22	31.69%	0	0%	10.16	3.33	32.78%	0	0%	10.16	3.48	34.25%	0	0%	10.16	3.64	35.83%	0	0%	
GNA_182371112_Capacity	South Bay and Central Coast	Central Coast	LAURELES 1112	182371112	Feeder	None	None	None	38.39%	0	0%	10.16	3.74	36.81%	0	0%	10.16	3.81	37.50%	0	0%	10.16	3.9	38.39%	0	0%	10.16	3.39	33.37%	0	0%	10.16	3.5	34.45%	0	0%	
GNA_1829401_Capacity	South Bay and Central Coast	Central Coast	OTTER BANK 1	1829401	Bank	None	None	None	50.28%	0	0%	8.99	3.59	39.93%	0	0%	8.99	4.08	45.38%	0	0%	8.99	4.2	46.72%	0	0%	8.99	4.36	48.50%	0	0%	8.99	4.52	50.28%	0	0%	
GNA_182941101_Capacity	South Bay and Central Coast	Central Coast	OTTER 1101	182941101	Feeder	None	None	None	26.15%	0	0%	6.5	1.2	18.46%	0	0%	6.5	1.31	20.15%	0	0%	6.5	1.42	21.85%	0	0%	6.5	1.56	24.00%	0	0%	6.5	1.7	26.15%	0	0%	
GNA_182941102_Capacity	South Bay and Central Coast	Central Coast	OTTER 1102	182941102	Feeder	Demand Growth	Capacity	2024	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_1820702_Capacity	South Bay and Central Coast	Central Coast	CAMPORA BANK 2	1820702	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC		
GNA_182071101_Capacity	South Bay and Central Coast	Central Coast	CAMPORA 1101	182071101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_1821303_Capacity	South Bay and Central Coast	Central Coast	GONZALES BANK 3	1821303	Bank	None	None	None	87.88%	0	0%	6.6	5.41	81.97%	0	0%	6.6	5.5	83.33%	0	0%	6.6	5.6	84.85%	0	0%	6.6	5.7	86.36%	0	0%	6.6	5.8	87.88%	0	0%	
GNA_182131101_Capacity	South Bay and Central Coast	Central Coast	GONZALES 1101	182131101	Feeder	None	None	None	63.16%	0	0%	8.55	5.01	58.60%	0	0%	8.55	5.1	59.65%	0	0%	8.55	5.2	60.82%	0	0%	8.55	5.3	61.99%	0	0%	8.55	5.4	63.16%	0	0%	
GNA_182131102_Capacity	South Bay and Central Coast	Central Coast	GONZALES 1102	182131102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_1821304_Capacity	South Bay and Central Coast	Central Coast	GONZALES BANK 4	1821304	Bank	Demand Growth	Capacity	2024	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_182131103_Capacity	South Bay and Central Coast	Central Coast	GONZALES 1103	182131103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_182131104_Capacity	South Bay and Central Coast	Central Coast	GONZALES 1104	182131104	Feeder	None	None	None	71.70%	0	0%	12.19	7.26	59.56%	0	0%	12.19	8.5	69.73%	0	0%	12.19	8.58	70.39%	0	0%	12.19	8.65	70.96%	0	0%	12.19	8.74	71.70%	0	0%	
GNA_1824901_Capacity	South Bay and Central Coast	Central Coast	HOLLISTER BANK 1	1824901	Bank	None	None	None	71.85%	0	0%	24.8	17.82	71.85%	0	0%	24.8	16.96	68.39%	0	0%	24.8	16.99	68.51%	0	0%	24.8	17.16	69.19%	0	0%	24.8	17.4	70.16%	0	0%	
GNA_182492101_Capacity	South Bay and Central Coast	Central Coast	HOLLISTER 2101	182492101	Feeder	None	None	None	60.24%	0	0%	18.11	10.91	60.24%	0	0%	18.11	10.27	56.71%	0	0%	18.11	10.64	57.76%	0	0%	18.11	10.64	58.75%	0	0%	18.11	10.86	59.97%	0	0%	
GNA_182492102_Capacity	South Bay and Central Coast	Central Coast	HOLLISTER 2102	182492102	Feeder	None	None	None	77.78%	0	0%	12.15	9.45	77.78%	0	0%	12.15	9.42	77.53%	0	0%	12.15	9.37	77.12%	0	0%	12.15	9.33	76.79%	0	0%	12.15	9.31	76.63%	0	0%	
GNA_1824902_Capacity	South Bay and Central Coast	Central Coast	HOLLISTER BANK 2	1824902	Bank	None	None	None	86.13%	0	0%	24.73	18.53	74.93%	0	0%	24.73	21.3	86.13%	0	0%	24.73	19.59	79.22%	0	0%	24.73	19.82	80.15%	0	0%	24.73	20.13	81.40%	0	0%	
GNA_182492103_Capacity	South Bay and Central Coast	Central Coast	HOLLISTER 2103	182492103	Feeder	Demand Growth	Capacity	2024	101.56%	0.33	2%	21.11	18.67	88.44%	0	0%	21.11	21.44	101.56%	0.33	2%	21.11	19.73	93.46%	0	0%	21.11	19.96	94.55%	0	0%	21.11	20.27	96.02%	0	0%	
GNA_1824903_Capacity	South Bay and Central Coast	Central Coast	HOLLISTER BANK 3	1824903	Bank	Demand Growth	Capacity	2023	156.05%	24.97	56%	44.55	50.11	112.84%	5.56	12%	44.55	60.6	136.03%	16.05	36%	44.55	68.13	152.93%	23.58	53%	44.55	68.81	154.46%	24.26	54%	44.55	69.52	156.05%	24.97	56%	
GNA_182492104_Capacity	South Bay and Central Coast	Central Coast	HOLLISTER 2104	182492104	Feeder	Demand Growth	Capacity	2024	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_182492105_Capacity	South Bay and Central Coast	Central Coast	HOLLISTER 2105	182492105	Feeder	None	None	None	88.73%	0	0%	21.11	14.79	70.06%	0	0%	21.11	16.91	80.10%	0	0%	21.11	18.2	86.22%	0	0%	21.11	18.43	87.30%	0	0%	21.11	18.73	88.73%	0	0%	
GNA_182492106_Capacity	South Bay and Central Coast	Central Coast	HOLLISTER 2106	182492106	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_1827401_Capacity	South Bay and Central Coast	Central Coast	SAN BENITO BANK 1	1827401	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_182742101_Capacity	South Bay and Central Coast	Central Coast	SAN BENITO 2101	182742101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_182742102_Capacity	South Bay and Central Coast	Central Coast	SAN BENITO 2102	182742102	Feeder	None	None	None	41.78%	0	0%	11.44	4.78	41.78%	0	0%	11.44	4.71	41.17%	0	0%	11.44	4.67	40.82%	0	0%	11.44	4.6	40.21%	0	0%	11.44	4.54	39.69%	0	0%	
GNA_182742104_Capacity	South Bay and Central Coast	Central Coast	SAN BENITO 2104	182742104	Feeder	None	None	None	35.49%	0	0%	11.44	2.66	23.25%	0	0%	11.44	3.99	34.88%	0	0%	11.44	4.98	43.49%	0	0%	11.44	4.01	35.05%	0	0%	11.44	4.06	35.49%	0	0%	
GNA_1829801_Capacity	South Bay and Central Coast	Central Coast	JOLON BANK 1	1829801	Bank	None	None	None	25.69%	0	0%	8.64	2.21	25.69%	0	0%	8.64	2.2	25.46%	0	0%	8.64	2.21	25.58%	0	0%	8.64	2.22	25.69%	0	0%	8.64	2.22	25.69%	0	0%	
GNA_182981102_Capacity	South Bay and Central Coast	Central Coast	JOLON 1102	182981102	Feeder	None	None	None	30.41%	0	0%	8.55	2.6	30.41%	0	0%	8.55	2.59	30.29%	0	0%	8.55	2.6	30.41%	0	0%	8.55	2.6	30.41%	0	0%	8.55	2.6	30.41%	0	0%	
GNA_1829802_Capacity	South Bay and Central Coast	Central Coast	JOLON BANK 2	1829802	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_182981103_Capacity	South Bay and Central Coast	Central Coast	JOLON 1103	182981103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_1820301_Capacity	South Bay and Central Coast	Central Coast	KING CITY BANK 1	1820301	Bank	None	None	None	89.70%	0	0%	10	8.67	86.70%	0	0%	10	8.75	87.50%	0	0%	10	8.83	88.30%	0	0%	10	8.9	89.00%	0	0%	10	8.97	89.70%	0	0%	
GNA_1820																																					



PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
Version Date: 8/15/2023  
Public

GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service			Peak Deficiency and Loading																											
							Distribution Service Required	Anticipated Need Date	Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	2023		2024		2025		2026		2027																	
									Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)									
GNA_083302_Capacity	South Bay and Central Coast	Central Coast	WATSONVILLE BANK 2	833302	Bank	None	None	None	32.34%	0	0%	8.35	1.24	14.85%	0	0%	8.35	2.7	32.34%	0	0%	8.35	2.69	32.22%	0	0%	8.35	2.7	32.34%	0	0%	8.35	2.7	32.34%	0	0%	
GNA_08330411_Capacity	South Bay and Central Coast	Central Coast	WATSONVILLE 0411	83330411	Feeder	None	None	None	32.79%	0	0%	2.44	0.79	32.38%	0	0%	2.44	0.79	32.38%	0	0%	2.44	0.79	32.38%	0	0%	2.44	0.79	32.38%	0	0%	2.44	0.79	32.38%	0	0%	
GNA_08330413_Capacity	South Bay and Central Coast	Central Coast	WATSONVILLE 0413	83330413	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_08330414_Capacity	South Bay and Central Coast	Central Coast	WATSONVILLE 0414	83330414	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_083701_Capacity	South Bay and Central Coast	De Anza	SARATOGA BANK 1	833701	Bank	None	None	None	56.62%	0	0%	57.67	29.29	50.79%	0	0%	57.67	31.39	54.43%	0	0%	57.67	32.65	56.62%	0	0%	57.67	32.61	56.20%	0	0%	57.67	32.61	56.55%	0	0%	
GNA_08371103_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1103	83371103	Feeder	None	None	None	62.02%	0	0%	12.06	7.48	62.02%	0	0%	12.06	7.39	61.28%	0	0%	12.06	7.29	60.45%	0	0%	12.06	7.25	60.12%	0	0%	12.06	7.25	60.12%	0	0%	
GNA_08371104_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1104	83371104	Feeder	Demand Growth	Capacity	2023	134.40%	3.98	34%	11.57	11.78	101.82%	0.21	2%	11.57	14.09	121.78%	2.52	22%	11.57	15.55	134.40%	3.98	34%	11.57	15.48	133.79%	3.91	34%	11.57	15.55	134.40%	3.98	34%	
GNA_08371105_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1105	83371105	Feeder	None	None	None	52.90%	0	0%	11.57	6.12	52.90%	0	0%	11.57	6.05	52.29%	0	0%	11.57	5.98	51.69%	0	0%	11.57	5.96	51.51%	0	0%	11.57	5.97	51.60%	0	0%	
GNA_08371106_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1106	83371106	Feeder	None	None	None	94.82%	0	0%	11.4	10.54	92.46%	0	0%	11.4	10.57	92.72%	0	0%	11.4	10.63	93.25%	0	0%	11.4	10.7	93.86%	0	0%	11.4	10.81	94.82%	0	0%	
GNA_083702_Capacity	South Bay and Central Coast	De Anza	SARATOGA BANK 2	833702	Bank	None	None	None	95.98%	0	0%	56.02	52.44	93.61%	0	0%	56.02	52.11	93.02%	0	0%	56.02	52.3	93.36%	0	0%	56.02	52.87	94.38%	0	0%	56.02	53.77	95.98%	0	0%	
GNA_08371107_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1107	83371107	Feeder	None	None	None	81.76%	0	0%	11.57	9.46	81.76%	0	0%	11.57	9.32	80.55%	0	0%	11.57	9.24	79.86%	0	0%	11.57	9.2	79.52%	0	0%	11.57	9.22	79.69%	0	0%	
GNA_08371108_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1108	83371108	Feeder	None	None	None	83.75%	0	0%	11.57	9.56	82.63%	0	0%	11.57	9.45	81.68%	0	0%	11.57	9.42	81.42%	0	0%	11.57	9.51	82.20%	0	0%	11.57	9.69	83.75%	0	0%	
GNA_08371109_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1109	83371109	Feeder	Demand Growth	Capacity	2023	113.40%	1.55	13%	11.57	12.4	107.17%	0.83	7%	11.57	12.38	107.00%	0.81	7%	11.57	12.52	108.21%	0.95	8%	11.57	12.81	110.72%	1.24	11%	11.57	13.12	113.40%	1.55	13%	
GNA_08371110_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1110	83371110	Feeder	Demand Growth	Capacity	2023	116.49%	2.01	16%	12.19	13.7	112.39%	1.51	12%	12.19	13.77	112.96%	1.58	13%	12.19	13.85	113.62%	1.66	14%	12.19	13.99	114.77%	1.8	15%	12.19	14.2	116.49%	2.01	16%	
GNA_08371111_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1111	83371111	Feeder	None	None	None	91.22%	0	0%	12.19	10.61	87.04%	0	0%	12.19	10.67	87.53%	0	0%	12.19	10.75	87.86%	0	0%	12.19	10.85	89.01%	0	0%	12.19	11.2	91.22%	0	0%	
GNA_083703_Capacity	South Bay and Central Coast	De Anza	SARATOGA BANK 3	833703	Bank	None	None	None	99.75%	0	0%	44.6	42.14	94.48%	0	0%	44.6	44.17	99.04%	0	0%	44.6	43.93	98.50%	0	0%	44.6	44.07	98.81%	0	0%	44.6	44.49	99.75%	0	0%	
GNA_08371112_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1112	83371112	Feeder	None	None	None	80.76%	0	0%	12.06	9.74	80.76%	0	0%	12.06	9.7	80.43%	0	0%	12.06	9.64	80.10%	0	0%	12.06	9.64	80.10%	0	0%	12.06	9.65	80.02%	0	0%	
GNA_08371113_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1113	83371113	Feeder	Demand Growth	Capacity	2024	110.12%	1.22	10%	12.06	11.69	96.93%	0	0%	12.06	12.99	107.71%	0.93	8%	12.06	12.95	107.38%	0.89	7%	12.06	13.05	108.21%	0.99	8%	12.06	13.28	110.12%	1.22	10%	
GNA_08371114_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1114	83371114	Feeder	Demand Growth	Capacity	2023	117.15%	2.09	17%	12.19	13.38	109.76%	1.19	10%	12.19	14.19	116.41%	2	16%	12.19	14.16	115.75%	1.92	16%	12.19	14.28	117.15%	2.09	17%	12.19	14.28	117.15%	2.09	17%	
GNA_08371115_Capacity	South Bay and Central Coast	De Anza	SARATOGA 1115	83371115	Feeder	None	None	None	94.91%	0	0%	12.19	11.57	94.91%	0	0%	12.19	11.36	93.19%	0	0%	12.19	11.22	92.04%	0	0%	12.19	11.18	91.71%	0	0%	12.19	11.18	91.71%	0	0%	
GNA_0836701_Capacity	South Bay and Central Coast	De Anza	WOLFE BANK 1	836701	Bank	None	None	None	100.20%	0.09	0%	44.6	34.71	77.83%	0	0%	44.6	33.89	75.99%	0	0%	44.6	34.43	77.20%	0	0%	44.6	35.52	79.64%	0	0%	44.6	44.69	100.20%	0.09	0%	
GNA_08367104_Capacity	South Bay and Central Coast	De Anza	WOLFE 1104	83671104	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC		
GNA_08367105_Capacity	South Bay and Central Coast	De Anza	WOLFE 1105	83671105	Feeder	Demand Growth	Capacity	2026	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_08367106_Capacity	South Bay and Central Coast	De Anza	WOLFE 1106	83671106	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC		
GNA_0836702_Capacity	South Bay and Central Coast	De Anza	WOLFE BANK 2	836702	Bank	Demand Growth	Capacity	2026	138.38%	11.4	8%	29.7	27.96	94.14%	0	0%	29.7	28.49	95.93%	0	0%	29.7	28.91	97.34%	0	0%	29.7	32.63	109.67%	2.93	10%	29.7	41.1	138.38%	11.4	8%	
GNA_08367107_Capacity	South Bay and Central Coast	De Anza	WOLFE 1107	83671107	Feeder	None	None	None	75.29%	0	0%	12.06	5.84	48.42%	0	0%	12.06	5.98	49.59%	0	0%	12.06	6.17	51.16%	0	0%	12.06	6.17	51.16%	0	0%	12.06	6.17	51.16%	0	0%	
GNA_08367109_Capacity	South Bay and Central Coast	De Anza	WOLFE 1109	83671109	Feeder	Demand Growth	Capacity	2026	188.42%	10.23	88%	11.57	10.23	88.42%	0	0%	11.57	10.81	93.43%	0	0%	11.57	11.15	96.37%	0	0%	11.57	12.17	105.19%	0.6	5%	11.57	21.8	188.42%	10.23	88%	
GNA_08367110_Capacity	South Bay and Central Coast	De Anza	WOLFE 1110	83671110	Feeder	None	None	None	90.67%	0	0%	11.57	10.49	90.67%	0	0%	11.57	10.4	89.89%	0	0%	11.57	10.37	89.28%	0	0%	11.57	10.42	90.06%	0	0%	11.57	10.42	90.06%	0	0%	
GNA_0836703_Capacity	South Bay and Central Coast	De Anza	WOLFE BANK 3	836703	Bank	None	None	None	38.77%	0	0%	44.6	14.83	33.25%	0	0%	44.6	15.97	35.81%	0	0%	44.6	16.29	36.52%	0	0%	44.6	16.83	37.74%	0	0%	44.6	17.29	38.77%	0	0%	
GNA_08367113_Capacity	South Bay and Central Coast	De Anza	WOLFE 1113	83671113	Feeder	None	None	None	71.63%	0	0%	12.83	7.7	60.02%	0	0%	12.83	8.07	62.90%	0	0%	12.83	8.46	65.63%	0	0%	12.83	8.86	69.06%	0	0%	12.83	9.19	71.63%	0	0%	
GNA_08367114_Capacity	South Bay and Central Coast	De Anza	WOLFE 1114	83671114	Feeder	None	None	None	79.97%	0	0%	12.83	8.78	68.43%	0	0%	12.83	9.82	76.54%	0	0%	12.83	9.93	77.40%	0	0%	12.83	10.08	78.57%	0	0%	12.83	10.26	79.97%	0	0%	
GNA_0822401_Capacity	South Bay and Central Coast	De Anza	LOS ALTOS BANK 1	822401	Bank	None	None	None	51.58%	0	0%	29.7	14.79	49.80%	0	0%	29.7	14.87	50.07%	0	0%	29.7	14.97	50.40%	0	0%	29.7	15.11	50.88%	0	0%	29.7	15.32	51.58%	0	0%	
GNA_08224103_Capacity	South Bay and Central Coast	De Anza	LOS ALTOS 1103	8224103	Feeder	None	None	None	58.74%	0	0%	3.66	2.04	55.74%	0	0%	3.66	2.06	56.28%	0	0%	3.66	2.07	56.56%	0	0%	3.66	2.11	57.65%	0	0%	3.66	2.15	58.74%	0	0%	
GNA_08224104_Capacity	South Bay and Central Coast	De Anza	LOS ALTOS 1104	8224104	Feeder	None	None	None	65.00%	0	0%	11.8	7.36	62.37%	0	0%	11.8	7.38	62.54%	0	0%	11.8	7.54	63.90%	0	0%	11.8	7.67	65.00%	0	0%	11.8	7.67	65.00%	0	0%	
GNA_08224105_Capacity	South Bay and Central Coast	De Anza	LOS ALTOS 1105	8224105	Feeder	None	None	None	53.57%	0	0%	12.19	6.5	53.32%	0	0%	12.19	6.5	53.32%	0	0%	12.19	6.49	53.24%	0	0%	12.19	6.5	53.32%	0	0%	12.19	6.53	53.57%	0	0%	
GNA_0822402_Capacity	South Bay and Central Coast	De Anza	LOS ALTOS BANK 2	822402	Bank	None	None	None	82.96%	0	0%	9.5	6	63.16%	0	0%	9.5	7.58	79.79%	0	0%	9.5	7.68	80.84%	0	0%	9.5	7.79	82.00%	0	0%	9.5	7.98	82.96%	0	0%	
GNA_08224107_Capacity	South Bay and Central Coast	De Anza	LOS ALTOS 1107	8224107	Feeder	None	None	None	94.45%	0	0%	8.47	6.13	72.37%	0	0%	8.47	7.7	90.91%	0	0%	8.47	7.8	92.09%	0	0%	8.47	7.91	93.39%	0	0%	8.47	8	94.45%	0	0%	
GNA_0822403_Capacity	South Bay and Central Coast	De Anza	LOS ALTOS BANK 3	822403	Bank	None	None	None	63.28%	0	0%																										





PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
Version Date: 8/15/2023  
Public

GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023		2024		2025		2026		2027																			
									Peak Facility Loading (%)	Peak Facility Deficiency (MW)	Peak Facility Loading (%)	Peak Facility Deficiency (MW)	Peak Facility Loading (%)	Peak Facility Deficiency (MW)	Peak Facility Loading (%)	Peak Facility Deficiency (MW)	Peak Facility Loading (%)	Peak Facility Deficiency (MW)																		
									Facility Rating (MW)	Facility Loading (MW)	Facility Rating (MW)	Facility Loading (MW)	Facility Rating (MW)	Facility Loading (MW)	Facility Rating (MW)	Facility Loading (MW)	Facility Rating (MW)	Facility Loading (MW)																		
GNA_013531102_Capacity	Bay Area	Diablo	LAKEWOOD 1102	13531102	Feeder	None	None	None	80.49%	0	0%	9.02	6.5	72.06%	0	0%	9.02	6.48	71.84%	0	0%	9.02	7.21	79.93%	0	0%	9.02	7.24	80.27%	0	0%	9.02	7.26	80.49%	0	0%
GNA_013531103_Capacity	Bay Area	Diablo	LAKEWOOD 1103	13531103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_013531104_Capacity	Bay Area	Diablo	LAKEWOOD 1104	13531104	Feeder	None	None	None	87.73%	0	0%	10.76	8.29	77.04%	0	0%	10.76	8.25	76.67%	0	0%	10.76	9.04	84.01%	0	0%	10.76	9.19	85.41%	0	0%	10.76	9.44	87.73%	0	0%
GNA_0138005_Capacity	Bay Area	Diablo	MORAGA BANK 5	138005	Bank	None	None	None	99.73%	0	0%	40.6	38.3	94.33%	0	0%	40.6	38.56	94.98%	0	0%	40.6	39.96	98.42%	0	0%	40.6	40.49	99.73%	0	0%	40.6	40.49	99.73%	0	0%
GNA_013801101_Capacity	Bay Area	Diablo	MORAGA 1101	13801101	Feeder	None	None	None	87.18%	0	0%	9.75	7.68	78.77%	0	0%	9.75	7.86	80.62%	0	0%	9.75	8.05	82.56%	0	0%	9.75	8.29	85.03%	0	0%	9.75	8.5	87.18%	0	0%
GNA_013801102_Capacity	Bay Area	Diablo	MORAGA 1102	13801102	Feeder	None	None	None	82.84%	0	0%	8.45	6.84	80.95%	0	0%	8.45	6.82	80.71%	0	0%	8.45	6.85	81.07%	0	0%	8.45	6.92	81.89%	0	0%	8.45	7	82.84%	0	0%
GNA_013801103_Capacity	Bay Area	Diablo	MORAGA 1103	13801103	Feeder	None	None	None	78.92%	0	0%	11.67	8.95	76.69%	0	0%	11.67	8.97	76.86%	0	0%	11.67	8.97	76.86%	0	0%	11.67	9.09	77.89%	0	0%	11.67	9.21	78.92%	0	0%
GNA_013801104_Capacity	Bay Area	Diablo	MORAGA 1104	13801104	Feeder	None	None	None	86.15%	0	0%	10.18	8.6	84.48%	0	0%	10.18	8.61	84.58%	0	0%	10.18	8.65	84.97%	0	0%	10.18	8.71	85.56%	0	0%	10.18	8.77	86.15%	0	0%
GNA_013801105_Capacity	Bay Area	Diablo	MORAGA 1105	13801105	Feeder	None	None	None	67.15%	0	0%	12.36	7.57	61.25%	0	0%	12.36	7.59	61.41%	0	0%	12.36	8.13	65.78%	0	0%	12.36	8.22	66.50%	0	0%	12.36	8.3	67.15%	0	0%
GNA_0141601_Capacity	Bay Area	Diablo	ROSSMOOR BANK 1	141601	Bank	None	None	None	81.78%	0	0%	44.2	36.14	81.78%	0	0%	44.2	35.97	81.38%	0	0%	44.2	35.82	81.04%	0	0%	44.2	35.78	80.95%	0	0%	44.2	35.83	81.06%	0	0%
GNA_014161101_Capacity	Bay Area	Diablo	ROSSMOOR 1101	14161101	Feeder	None	None	None	84.15%	0	0%	14.13	11.89	84.15%	0	0%	14.13	11.81	83.58%	0	0%	14.13	11.76	83.23%	0	0%	14.13	11.77	83.30%	0	0%	14.13	11.77	83.30%	0	0%
GNA_014161102_Capacity	Bay Area	Diablo	ROSSMOOR 1102	14161102	Feeder	None	None	None	61.17%	0	0%	11.33	6.93	61.17%	0	0%	11.33	6.89	60.81%	0	0%	11.33	6.84	60.37%	0	0%	11.33	6.81	60.11%	0	0%	11.33	6.83	60.28%	0	0%
GNA_014161103_Capacity	Bay Area	Diablo	ROSSMOOR 1103	14161103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_014161104_Capacity	Bay Area	Diablo	ROSSMOOR 1104	14161104	Feeder	None	None	None	73.35%	0	0%	15.12	11.09	73.35%	0	0%	15.12	11.06	73.15%	0	0%	15.12	11.01	72.82%	0	0%	15.12	11	72.75%	0	0%	15.12	11.03	72.95%	0	0%
GNA_014162_Capacity	Bay Area	Diablo	ROSSMOOR BANK 2	14162	Bank	None	None	None	92.08%	0	0%	44.2	40.7	92.08%	0	0%	44.2	40.05	90.61%	0	0%	44.2	39.62	89.64%	0	0%	44.2	39.53	89.43%	0	0%	44.2	39.6	90.05%	0	0%
GNA_014161105_Capacity	Bay Area	Diablo	ROSSMOOR 1105	14161105	Feeder	None	None	None	67.55%	0	0%	8.66	5.85	67.55%	0	0%	8.66	5.82	67.21%	0	0%	8.66	5.8	66.97%	0	0%	8.66	5.79	66.86%	0	0%	8.66	5.76	66.51%	0	0%
GNA_014161106_Capacity	Bay Area	Diablo	ROSSMOOR 1106	14161106	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC		
GNA_014161107_Capacity	Bay Area	Diablo	ROSSMOOR 1107	14161107	Feeder	None	None	None	96.76%	0	0%	9.58	9.27	96.76%	0	0%	9.58	9.14	96.41%	0	0%	9.58	9.06	94.57%	0	0%	9.58	9.01	94.05%	0	0%	9.58	9.02	94.15%	0	0%
GNA_014161108_Capacity	Bay Area	Diablo	ROSSMOOR 1108	14161108	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_014161109_Capacity	Bay Area	Diablo	ROSSMOOR 1109	14161109	Feeder	None	None	None	37.57%	0	0%	12.83	4.81	37.49%	0	0%	12.83	4.78	37.26%	0	0%	12.83	4.78	37.26%	0	0%	12.83	4.79	37.33%	0	0%	12.83	4.82	37.57%	0	0%
GNA_0146703_Capacity	Bay Area	Diablo	SOBRANTE BANK 3	146703	Bank	None	None	None	91.99%	0	0%	29.7	27.32	91.99%	0	0%	29.7	26.9	90.57%	0	0%	29.7	26.78	90.10%	0	0%	29.7	26.91	90.61%	0	0%	29.7	27.13	91.35%	0	0%
GNA_014671101_Capacity	Bay Area	Diablo	SOBRANTE 1101	14671101	Feeder	None	None	None	96.47%	0	0%	10.76	10.33	96.00%	0	0%	10.76	10.2	94.80%	0	0%	10.76	10.38	96.47%	0	0%	10.76	10.34	96.10%	0	0%	10.76	10.31	95.82%	0	0%
GNA_014671102_Capacity	Bay Area	Diablo	SOBRANTE 1102	14671102	Feeder	None	None	None	87.84%	0	0%	11.33	9.93	87.64%	0	0%	11.33	9.7	85.61%	0	0%	11.33	9.51	83.94%	0	0%	11.33	9.6	84.73%	0	0%	11.33	9.73	85.88%	0	0%
GNA_014671103_Capacity	Bay Area	Diablo	SOBRANTE 1103	14671103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC		
GNA_0135302_Capacity	Bay Area	Diablo	LAKEWOOD BANK 2	135302	Bank	None	None	None	49.63%	0	0%	74.23	35.54	47.88%	0	0%	74.23	36.55	49.24%	0	0%	74.23	36.55	49.24%	0	0%	74.23	36.68	49.41%	0	0%	74.23	36.84	49.63%	0	0%
GNA_013532223_Capacity	Bay Area	Diablo	LAKEWOOD 2223	13532223	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC		
GNA_0135601_Capacity	Bay Area	Diablo	SARANAP BANK 1	135601	Bank	None	None	None	55.95%	0	0%	2.27	1.24	54.63%	0	0%	2.27	1.24	54.63%	0	0%	2.27	1.25	55.07%	0	0%	2.27	1.26	55.51%	0	0%	2.27	1.27	55.95%	0	0%
GNA_013560401_Capacity	Bay Area	Diablo	SARANAP 0401	13560401	Feeder	None	None	None	54.74%	0	0%	2.32	1.24	53.45%	0	0%	2.32	1.25	53.88%	0	0%	2.32	1.26	54.31%	0	0%	2.32	1.27	54.74%	0	0%	2.32	1.27	54.74%	0	0%
GNA_013532224_Capacity	Bay Area	Diablo	LAKEWOOD 2224	13532224	Feeder	None	None	None	77.12%	0	0%	21.11	16.2	76.74%	0	0%	21.11	16.12	76.36%	0	0%	21.11	16.11	76.31%	0	0%	21.11	16.21	76.79%	0	0%	21.11	16.28	77.12%	0	0%
GNA_0135306_Capacity	Bay Area	Diablo	LAKEWOOD BANK 6	135306	Bank	None	None	None	97.38%	0	0%	44.6	42.97	96.35%	0	0%	44.6	42.89	96.17%	0	0%	44.6	42.91	96.21%	0	0%	44.6	43.43	97.38%	0	0%	44.6	43.43	97.38%	0	0%
GNA_013532110_Capacity	Bay Area	Diablo	LAKEWOOD 2110	13532110	Feeder	None	None	None	98.58%	0	0%	21.11	19.72	93.42%	0	0%	21.11	19.91	94.32%	0	0%	21.11	20.13	95.36%	0	0%	21.11	20.42	96.73%	0	0%	21.11	20.81	98.58%	0	0%
GNA_013532111_Capacity	Bay Area	Diablo	LAKEWOOD 2111	13532111	Feeder	None	None	None	36.80%	0	0%	21.22	7.81	36.80%	0	0%	21.22	7.78	36.66%	0	0%	21.22	7.72	36.52%	0	0%	21.22	7.74	36.48%	0	0%	21.22	7.74	36.48%	0	0%
GNA_013532112_Capacity	Bay Area	Diablo	LAKEWOOD 2112	13532112	Feeder	None	None	None	96.83%	0	0%	18.63	18.04	96.83%	0	0%	18.63	17.97	96.46%	0	0%	18.63	17.94	96.30%	0	0%	18.63	17.99	96.51%	0	0%	18.63	17.99	96.56%	0	0%
GNA_0146901_Capacity	Bay Area	Diablo	RESEARCH BANK 1	146901	Bank	None	None	None	79.96%	0	0%	44.6	35.66	79.96%	0	0%	44.6	34.84	78.12%	0	0%	44.6	34.45	77.24%	0	0%	44.6	34.45	77.24%	0	0%	44.6	35.02	78.52%	0	0%
GNA_014692101_Capacity	Bay Area	Diablo	RESEARCH 2101	14692101	Feeder	None	None	None	87.16%	0	0%	21.41	18.66	87.16%	0	0%	21.41	18.27	85.33%	0	0%	21.41	17.97	83.93%	0	0%	2									





**PG&E 2023 Grid Needs Assessment (GNA)**  
**Appendix E: GNA Results - Bank & Feeder Capacity Needs**  
**Version Date: 8/15/2023**  
**Public**

Facility Information				Distribution Service	2023														2024														2025														2026														2027													
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)																																	
GNA_012091106_Capacity	Bay Area	East Bay	OAKLAND J 1106	12091106	Feeder	None	None	None	99.87%	0	0%	7.7	7.69	99.87%	0	0%	7.7	6.89	89.48%	0	0%	7.7	6.97	90.52%	0	0%	7.7	7.15	92.86%	0	0%	7.7	7.32	95.06%	0	0%	7.7	7.32	95.06%	0	0%																																	
GNA_012091108_Capacity	Bay Area	East Bay	OAKLAND J 1108	12091108	Feeder	None	None	None	63.00%	0	0%	8.19	5.06	61.78%	0	0%	8.19	5.06	61.78%	0	0%	8.19	5.08	62.03%	0	0%	8.19	5.12	62.52%	0	0%	8.19	5.16	63.00%	0	0%	8.19	5.16	63.00%	0	0%																																	
GNA_012091110_Capacity	Bay Area	East Bay	OAKLAND J 1110	12091110	Feeder	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																															
GNA_012091111_Capacity	Bay Area	East Bay	OAKLAND J 1111	12091111	Feeder	None	None	None	68.74%	0	0%	8.19	5.63	68.74%	0	0%	8.19	5.59	68.25%	0	0%	8.19	5.59	68.25%	0	0%	8.19	5.58	68.13%	0	0%	8.19	5.59	68.25%	0	0%	8.19	5.59	68.25%	0	0%																																	
GNA_012091115_Capacity	Bay Area	East Bay	OAKLAND J 1115	12091115	Feeder	None	None	None	36.94%	0	0%	10.8	3.99	36.94%	0	0%	10.8	3.96	36.67%	0	0%	10.8	3.93	36.39%	0	0%	10.8	3.92	36.30%	0	0%	10.8	3.9	36.11%	0	0%	10.8	3.9	36.11%	0	0%																																	
GNA_012091118_Capacity	Bay Area	East Bay	OAKLAND J 1118	12091118	Feeder	None	None	None	65.08%	0	0%	8.19	5.04	61.54%	0	0%	8.19	5.08	62.03%	0	0%	8.19	5.12	62.52%	0	0%	8.19	5.22	63.74%	0	0%	8.19	5.33	65.08%	0	0%	8.19	5.33	65.08%	0	0%																																	
GNA_0139201_Capacity	Bay Area	East Bay	FRANKLIN BANK 1	139201	Bank	None	None	None	64.18%	0	0%	29.68	18.86	63.54%	0	0%	29.68	18.85	63.51%	0	0%	29.68	18.84	63.48%	0	0%	29.68	18.9	63.68%	0	0%	29.68	19.05	64.18%	0	0%	29.68	19.05	64.18%	0	0%																																	
GNA_013921101_Capacity	Bay Area	East Bay	FRANKLIN 1101	13921101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																
GNA_013921102_Capacity	Bay Area	East Bay	FRANKLIN 1102	13921102	Feeder	None	None	None	96.96%	0	0%	12.19	11.82	96.96%	0	0%	12.19	11.75	96.39%	0	0%	12.19	11.68	95.82%	0	0%	12.19	11.64	95.49%	0	0%	12.19	11.67	95.73%	0	0%	12.19	11.67	95.73%	0	0%																																	
GNA_01392202_Capacity	Bay Area	East Bay	FRANKLIN BANK 2	1392202	Bank	None	None	None	79.21%	0	0%	29.68	22.5	75.81%	0	0%	29.68	22.65	76.31%	0	0%	29.68	22.81	76.85%	0	0%	29.68	23.12	77.90%	0	0%	29.68	23.51	79.21%	0	0%	29.68	23.51	79.21%	0	0%																																	
GNA_013921103_Capacity	Bay Area	East Bay	FRANKLIN 1103	13921103	Feeder	None	None	None	87.02%	0	0%	13.17	11.19	84.97%	0	0%	13.17	11.22	85.19%	0	0%	13.17	11.23	85.27%	0	0%	13.17	11.32	85.95%	0	0%	13.17	11.46	87.02%	0	0%	13.17	11.46	87.02%	0	0%																																	
GNA_013921104_Capacity	Bay Area	East Bay	FRANKLIN 1104	13921104	Feeder	None	None	None	97.19%	0	0%	12.83	11.84	92.28%	0	0%	12.83	11.93	92.99%	0	0%	12.83	12.06	94.00%	0	0%	12.83	12.25	95.48%	0	0%	12.83	12.47	97.19%	0	0%	12.83	12.47	97.19%	0	0%																																	
GNA_0142601_Capacity	Bay Area	East Bay	POINT PINOLE BANK 1	142601	Bank	Demand Growth	Capacity	2024	117.66%	2.79	18%	15.8	15.72	99.49%	0	0%	15.8	17.59	111.33%	1.79	11%	15.8	17.75	112.34%	1.95	12%	15.8	18.1	114.56%	2.3	15%	15.8	18.59	117.66%	2.79	18%	15.8	18.59	117.66%	2.79	18%																																	
GNA_014261101_Capacity	Bay Area	East Bay	POINT PINOLE 1101	14261101	Feeder	None	None	None	80.31%	0	0%	12.19	8.63	70.80%	0	0%	12.19	8.96	73.50%	0	0%	12.19	9.14	74.98%	0	0%	12.19	9.45	77.52%	0	0%	12.19	9.79	80.31%	0	0%	12.19	9.79	80.31%	0	0%																																	
GNA_014261102_Capacity	Bay Area	East Bay	POINT PINOLE 1102	14261102	Feeder	None	None	None	81.13%	0	0%	12.19	8.17	67.02%	0	0%	12.19	9.73	79.82%	0	0%	12.19	9.73	79.82%	0	0%	12.19	9.78	80.23%	0	0%	12.19	9.89	81.13%	0	0%	12.19	9.89	81.13%	0	0%																																	
GNA_0143701_Capacity	Bay Area	East Bay	SAN PABLO BANK 1	143701	Bank	None	None	None	42.93%	0	0%	44.54	19.09	42.86%	0	0%	44.54	18.94	42.52%	0	0%	44.54	18.83	42.28%	0	0%	44.54	18.9	42.43%	0	0%	44.54	19.12	42.93%	0	0%	44.54	19.12	42.93%	0	0%																																	
GNA_014371105_Capacity	Bay Area	East Bay	SAN PABLO 1105	14371105	Feeder	None	None	None	65.96%	0	0%	12.72	7.48	58.81%	0	0%	12.72	7.6	59.75%	0	0%	12.72	7.73	60.77%	0	0%	12.72	8.03	63.13%	0	0%	12.72	8.39	65.96%	0	0%	12.72	8.39	65.96%	0	0%																																	
GNA_014371106_Capacity	Bay Area	East Bay	SAN PABLO 1106	14371106	Feeder	None	None	None	99.92%	0	0%	12.72	12.71	99.92%	0	0%	12.72	12.65	99.45%	0	0%	12.72	12.61	99.14%	0	0%	12.72	12.6	99.06%	0	0%	12.72	12.64	99.37%	0	0%	12.72	12.64	99.37%	0	0%																																	
GNA_0143401_Capacity	Bay Area	East Bay	VALLEY VIEW BANK 1	143401	Bank	None	None	None	84.47%	0	0%	11.59	8.74	75.41%	0	0%	11.59	8.93	77.05%	0	0%	11.59	9.14	78.86%	0	0%	11.59	9.43	81.36%	0	0%	11.59	9.79	84.47%	0	0%	11.59	9.79	84.47%	0	0%																																	
GNA_014341103_Capacity	Bay Area	East Bay	VALLEY VIEW 1103	14341103	Feeder	None	None	None	90.37%	0	0%	10.8	8.71	80.65%	0	0%	10.8	8.9	82.41%	0	0%	10.8	9.11	84.35%	0	0%	10.8	9.4	87.04%	0	0%	10.8	9.76	90.37%	0	0%	10.8	9.76	90.37%	0	0%																																	
GNA_0143402_Capacity	Bay Area	East Bay	VALLEY VIEW BANK 2	143402	Bank	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																
GNA_014341105_Capacity	Bay Area	East Bay	VALLEY VIEW 1105	14341105	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																
GNA_014341106_Capacity	Bay Area	East Bay	VALLEY VIEW 1106	14341106	Feeder	Demand Growth	Capacity	2027	100.94%	0.1	1%	10.67	9.99	93.63%	0	0%	10.67	9.94	93.16%	0	0%	10.67	10.14	95.03%	0	0%	10.67	10.46	98.03%	0	0%	10.67	10.77	100.94%	0.1	1%	10.67	10.77	100.94%	0.1	1%																																	
GNA_0125001_Capacity	Bay Area	East Bay	EL CERRITO G BANK 1	125001	Bank	None	None	None	49.92%	0	0%	59.38	26.72	45.00%	0	0%	59.38	27.26	45.91%	0	0%	59.38	27.8	46.82%	0	0%	59.38	28.65	48.25%	0	0%	59.38	29.64	49.92%	0	0%	59.38	29.64	49.92%	0	0%																																	
GNA_012501101_Capacity	Bay Area	East Bay	EL CERRITO G 1101	12501101	Feeder	None	None	None	81.18%	0	0%	8.13	6.02	74.05%	0	0%	8.13	6.14	75.52%	0	0%	8.13	6.27	77.12%	0	0%	8.13	6.42	78.97%	0	0%	8.13	6.6	81.18%	0	0%	8.13	6.6	81.18%	0	0%																																	
GNA_012501102_Capacity	Bay Area	East Bay	EL CERRITO G 1102	12501102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																	
GNA_012501107_Capacity	Bay Area	East Bay	EL CERRITO G 1107	12501107	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																
GNA_012501109_Capacity	Bay Area	East Bay	EL CERRITO G 1109	12501109	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																
GNA_012501111_Capacity	Bay Area	East Bay	EL CERRITO G 1111	12501111	Feeder	None	None	None	82.42%	0	0%	8.19	6.29	76.80%	0	0%	8.19	6.33	77.29%	0	0%	8.19	6.39	78.02%	0	0%	8.19	6.54	79.85%	0	0%	8.19	6.75	82.42%	0	0%	8.19	6.75	82.42%	0	0%																																	
GNA_0125202_Capacity	Bay Area	East Bay	RICHMOND Q BANK 2	125202	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																
GNA_012520402_Capacity	Bay Area	East Bay	RICHMOND Q 0402	12520402	Feeder	None	None	None	29.36%	0	0%	2.18	0.6	27.52%	0	0%	2.18	0.61	27.98%	0	0%	2.18	0.62	28.44%	0	0%	2.18	0.62	28.44%	0	0%	2.18	0.64	29.36%	0	0%	2.18	0.64	29.36%	0	0%																																	
GNA_0123301_Capacity	Bay Area	East Bay	MIRA VISTA BANK 1	123301	Bank	None	None	None	45.45%	0	0%	3.96	1.56	39.39%	0	0%	3.96	1.57	39.65%	0	0%	3.96	1.61	40.40%	0	0%	3.96	1.67	42.17%	0	0%	3.96	1.8	45.45%	0	0%	3.96	1.8	45.45%	0	0%																																	
GNA_012330401_Capacity	Bay Area	East Bay	MIRA VISTA 0401	12330401	Feeder	None	None	None	64.96%	0	0%	2.74	1.54	56.20%	0	0%	2.74	1.56	56.93%	0	0%	2.74	1.58	57.66%	0	0%	2.74	1.66	60.58%	0	0%	2.74	1.78	64.96%	0	0%	2.74	1.78	64.96%	0	0%																																	
GNA_012501112_Capacity	Bay Area	East Bay	EL CERRITO G 1112	12501112	Feeder	None	None	None	96.60%	0	0%	9.13	7.15	78.31%	0	0%	9.13	7.48	81.93%	0	0%	9.13	7.81	85.54%	0	0%	9.13	8.29	90.80%	0	0%	9.13	8.82	96.60%	0	0%	9.13	8.82	96.60%	0	0%																																	
GNA_0123302_Capacity	Bay Area	East Bay	MIRA VISTA BANK 2	123302	Bank	None	None																																																																			



PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
Version Date: 8/15/2023  
Public

Facility Information				Distribution Service		Peak Deficiency and Loading																														
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023				2024				2025				2026				2027											
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)					
GNA_253921102_Capacity	Central Valley	Fresno	MANCHESTER 1102	253921102	Feeder	None	None	None	86.87%	0	0%	12.19	10.59	86.87%	0	0%	12.19	10.54	86.46%	0	0%	12.19	10.49	86.05%	0	0%	12.19	10.45	85.73%	0	0%	12.19	10.44	85.64%	0	0%
GNA_253921105_Capacity	Central Valley	Fresno	MANCHESTER 1105	253921105	Feeder	None	None	None	100.16%	0	0%	12.36	12.15	98.30%	0	0%	12.36	12.17	98.46%	0	0%	12.36	12.2	98.71%	0	0%	12.36	12.27	99.27%	0	0%	12.36	12.38	100.16%	0.02	0%
GNA_253921106_Capacity	Central Valley	Fresno	MANCHESTER 1106	253921106	Feeder	None	None	None	90.15%	0	0%	10.46	9.43	90.15%	0	0%	10.46	9.36	89.48%	0	0%	10.46	9.33	89.20%	0	0%	10.46	9.31	89.01%	0	0%	10.46	9.3	88.91%	0	0%
GNA_253921108_Capacity	Central Valley	Fresno	MANCHESTER 1108	253921108	Feeder	None	None	None	88.57%	0	0%	11.55	10.23	88.57%	0	0%	11.55	10.14	87.79%	0	0%	11.55	10.1	87.45%	0	0%	11.55	10.16	87.97%	0	0%	11.55	10.22	88.48%	0	0%
GNA_2539203_Capacity	Central Valley	Fresno	MANCHESTER BANK 3	2539203	Bank	None	None	None	96.92%	0	0%	44.55	43.1	96.75%	0	0%	44.55	43.14	96.84%	0	0%	44.55	43.18	96.92%	0	0%	44.55	43.13	96.81%	0	0%	44.55	43.12	96.79%	0	0%
GNA_253921109_Capacity	Central Valley	Fresno	MANCHESTER 1109	253921109	Feeder	Demand Growth	Capacity	2025	100.53%	0.06	1%	11.33	11.3	99.74%	0	0%	11.33	11.34	100.09%	0.01	0%	11.33	11.39	100.53%	0.06	1%	11.33	11.31	99.82%	0	0%	11.33	11.25	99.29%	0	0%
GNA_253921110_Capacity	Central Valley	Fresno	MANCHESTER 1110	253921110	Feeder	None	None	None	99.56%	0	0%	11.33	11.06	97.62%	0	0%	11.33	11.12	98.15%	0	0%	11.33	11.17	98.59%	0	0%	11.33	11.24	99.21%	0	0%	11.33	11.28	99.56%	0	0%
GNA_253921111_Capacity	Central Valley	Fresno	MANCHESTER 1111	253921111	Feeder	Demand Growth	Capacity	2023	108.64%	0.93	9%	10.76	11.69	108.64%	0.93	9%	10.76	11.63	108.09%	0.87	8%	10.76	11.57	107.53%	0.81	8%	10.76	11.5	106.88%	0.74	7%	10.76	11.49	106.78%	0.73	7%
GNA_253921112_Capacity	Central Valley	Fresno	MANCHESTER 1112	253921112	Feeder	None	None	None	89.13%	0	0%	10.76	9.59	89.13%	0	0%	10.76	9.52	88.48%	0	0%	10.76	9.47	88.01%	0	0%	10.76	9.44	87.73%	0	0%	10.76	9.47	88.01%	0	0%
GNA_2520401_Capacity	Central Valley	Fresno	AIRWAYS BANK 1	2520401	Bank	Demand Growth	Capacity	2025	110.26%	4.57	10%	44.55	42.55	95.51%	0	0%	44.55	44.67	100.27%	0.12	0%	44.55	47.28	106.13%	2.73	6%	44.55	48.46	108.78%	3.91	9%	44.55	49.12	110.26%	4.57	10%
GNA_252041101_Capacity	Central Valley	Fresno	AIRWAYS 1101	252041101	Feeder	None	None	None	92.72%	0	0%	11.82	9.45	79.95%	0	0%	11.82	10.2	86.29%	0	0%	11.82	10.73	90.78%	0	0%	11.82	10.83	91.62%	0	0%	11.82	10.96	92.72%	0	0%
GNA_252041102_Capacity	Central Valley	Fresno	AIRWAYS 1102	252041102	Feeder	Demand Growth	Capacity	2023	131.26%	3.81	31%	12.19	13.3	109.11%	1.11	9%	12.19	14.29	117.23%	2.1	17%	12.19	15.3	125.51%	3.11	26%	12.19	15.87	130.19%	3.68	30%	12.19	16	131.26%	3.81	31%
GNA_252041103_Capacity	Central Valley	Fresno	AIRWAYS 1103	252041103	Feeder	Demand Growth	Capacity	2025	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_252041104_Capacity	Central Valley	Fresno	AIRWAYS 1104	252041104	Feeder	None	None	None	94.23%	0	0%	12.83	11.24	87.61%	0	0%	12.83	11.68	91.04%	0	0%	12.83	11.66	91.04%	0	0%	12.83	11.86	92.44%	0	0%	12.83	12.09	94.23%	0	0%
GNA_2520402_Capacity	Central Valley	Fresno	AIRWAYS BANK 2	2520402	Bank	Demand Growth	Capacity	2025	104.18%	1.86	4%	44.55	40.97	91.96%	0	0%	44.55	43.62	97.91%	0	0%	44.55	45.44	102.00%	0.89	2%	44.55	45.98	103.21%	1.43	3%	44.55	46.41	104.18%	1.86	4%
GNA_252041105_Capacity	Central Valley	Fresno	AIRWAYS 1105	252041105	Feeder	None	None	None	88.16%	0	0%	11.82	9.43	79.78%	0	0%	11.82	9.49	80.29%	0	0%	11.82	9.92	83.93%	0	0%	11.82	10.24	86.63%	0	0%	11.82	10.42	88.16%	0	0%
GNA_252041106_Capacity	Central Valley	Fresno	AIRWAYS 1106	252041106	Feeder	None	None	None	91.82%	0	0%	12.83	10.13	78.96%	0	0%	12.83	11.43	89.09%	0	0%	12.83	11.73	91.11%	0	0%	12.83	11.73	91.43%	0	0%	12.83	11.78	91.82%	0	0%
GNA_252041107_Capacity	Central Valley	Fresno	AIRWAYS 1107	252041107	Feeder	Demand Growth	Capacity	2024	112.86%	1.65	13%	12.83	12.09	94.23%	0	0%	12.83	13.22	103.04%	0.39	3%	12.83	14.27	111.22%	1.44	11%	12.83	14.36	111.93%	1.53	12%	12.83	14.48	112.86%	1.65	13%
GNA_252041108_Capacity	Central Valley	Fresno	AIRWAYS 1108	252041108	Feeder	None	None	None	82.62%	0	0%	12.83	10.6	82.62%	0	0%	12.83	10.56	82.31%	0	0%	12.83	10.48	82.00%	0	0%	12.83	10.48	81.68%	0	0%	12.83	10.44	81.37%	0	0%
GNA_2540801_Capacity	Central Valley	Fresno	CLOVIS BANK 1	2540801	Bank	None	None	None	89.78%	0	0%	44.53	38.43	86.30%	0	0%	44.53	38.64	86.77%	0	0%	44.53	39.06	87.72%	0	0%	44.53	39.51	88.73%	0	0%	44.53	39.98	89.78%	0	0%
GNA_254081101_Capacity	Central Valley	Fresno	CLOVIS 1101	254081101	Feeder	None	None	None	73.42%	0	0%	12.19	8.3	68.09%	0	0%	12.19	8.39	68.83%	0	0%	12.19	8.64	70.88%	0	0%	12.19	8.83	72.44%	0	0%	12.19	8.95	73.42%	0	0%
GNA_254081102_Capacity	Central Valley	Fresno	CLOVIS 1102	254081102	Feeder	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_254081103_Capacity	Central Valley	Fresno	CLOVIS 1103	254081103	Feeder	None	None	None	93.57%	0	0%	11.97	10.93	91.31%	0	0%	11.97	10.96	91.56%	0	0%	11.97	11.01	91.98%	0	0%	11.97	11.09	92.65%	0	0%	11.97	11.2	93.57%	0	0%
GNA_254081104_Capacity	Central Valley	Fresno	CLOVIS 1104	254081104	Feeder	None	None	None	90.83%	0	0%	11.67	10.47	89.72%	0	0%	11.67	10.46	89.63%	0	0%	11.67	10.48	89.80%	0	0%	11.67	10.52	90.15%	0	0%	11.67	10.56	90.83%	0	0%
GNA_2540802_Capacity	Central Valley	Fresno	CLOVIS BANK 2	2540802	Bank	None	None	None	99.93%	0	0%	44.55	41.96	94.19%	0	0%	44.55	42.18	94.68%	0	0%	44.55	42.91	96.32%	0	0%	44.55	43.44	97.51%	0	0%	44.55	44.52	99.93%	0	0%
GNA_254081105_Capacity	Central Valley	Fresno	CLOVIS 1105	254081105	Feeder	None	None	None	79.59%	0	0%	14.11	11.06	78.38%	0	0%	14.11	11.11	78.74%	0	0%	14.11	11.14	78.95%	0	0%	14.11	11.23	79.59%	0	0%	14.11	11.23	79.59%	0	0%
GNA_254081106_Capacity	Central Valley	Fresno	CLOVIS 1106	254081106	Feeder	None	None	None	78.82%	0	0%	11.33	8.51	75.11%	0	0%	11.33	8.6	75.90%	0	0%	11.33	8.71	76.88%	0	0%	11.33	8.82	77.85%	0	0%	11.33	8.93	78.82%	0	0%
GNA_254081107_Capacity	Central Valley	Fresno	CLOVIS 1107	254081107	Feeder	None	None	None	99.86%	0	0%	14.11	12.65	89.65%	0	0%	14.11	12.74	90.29%	0	0%	14.11	13.2	93.55%	0	0%	14.11	13.4	94.97%	0	0%	14.11	14.09	99.86%	0	0%
GNA_254081108_Capacity	Central Valley	Fresno	CLOVIS 1108	254081108	Feeder	None	None	None	98.93%	0	0%	12.19	11.57	94.91%	0	0%	12.19	11.66	95.65%	0	0%	12.19	11.76	96.47%	0	0%	12.19	11.89	97.54%	0	0%	12.19	12.06	98.93%	0	0%
GNA_2524101_Capacity	Central Valley	Fresno	COPPERMINE BANK 1	2524101	Bank	None	None	None	92.29%	0	0%	18.81	16.19	86.07%	0	0%	18.81	16.39	87.13%	0	0%	18.81	16.61	88.30%	0	0%	18.81	16.97	90.22%	0	0%	18.81	17.36	92.29%	0	0%
GNA_252411104_Capacity	Central Valley	Fresno	COPPERMINE 1104	252411104	Feeder	None	None	None	99.02%	0	0%	12.19	11.42	93.68%	0	0%	12.19	11.52	94.50%	0	0%	12.19	11.65	95.57%	0	0%	12.19	11.85	97.21%	0	0%	12.19	12.07	99.02%	0	0%
GNA_252411106_Capacity	Central Valley	Fresno	COPPERMINE 1106	252411106	Feeder	None	None	None	61.96%	0	0%	11.33	6.52	57.55%	0	0%	11.33	6.62	58.43%	0	0%	11.33	6.71	59.22%	0	0%	11.33	6.86	60.55%	0	0%	11.33	7.02	61.96%	0	0%
GNA_252411112_Capacity	Central Valley	Fresno	COPPERMINE 1112	252411112	Feeder	None	None	None	29.35%	0	0%	4.94	1.43	29.55%	0	0%	4.94	1.44	29.15%	0	0%	4.94	1.44	29.15%	0	0%	4.94	1.45	29.35%	0	0%	4.94	1.45	29.35%	0	0%
GNA_2521601_Capacity	Central Valley	Fresno	COALINGA NO 1 BANK 1	2521601	Bank	None	None	None	99.31%	0	0%	15.84	15.73	99.31%	0	0%	15.84	15.7	99.12%	0	0%	15.84	15.67	98.93%	0	0%	15.84	15.66	98.86%	0	0%	15.84	15.63	98.67%	0	0%
GNA_252161108_Capacity	Central Valley	Fresno	COALINGA NO 1 1108	252161108	Feeder	None	None	None	93.09%	0	0%	8.83	8.22	93.09%	0	0%	8.83	8.2	92.87%	0	0%	8.83	8.18	92.64%	0	0%	8.83	8.18	92.64%	0	0%	8.83	8.16	92.41%	0	0%
GNA_252161109_Capacity	Central Valley	Fresno	COALINGA NO 1 1109	252161109	Feeder	None	None	None	94.96%	0	0%	8.13	7.72	94.96%	0	0%	8.13	7.72	94.96%	0	0%	8.13	7.71	94.83%	0	0%	8.13	7.71	94.83%	0	0%	8.13	7.7	94.71%	0	0%
GNA_2521602_Capacity	Central Valley	Fresno	COALINGA NO 1 BANK 2	2521602	Bank	Demand Growth	Capacity	2025	153.56%	5.57	54%	10.4	9.58	92.12%	0	0%	10.4	9.57	92.02%	0	0%	10.4	15.96	153.46%	5.56	53%	10.4	15.9								









**PG&E 2023 Grid Needs Assessment (GNA)**  
**Appendix E: GNA Results - Bank & Feeder Capacity Needs**  
**Version Date: 8/15/2023**  
**Public**

Facility Information				Distribution Service		Peak Deficiency and Loading														2023														2024														2025														2026														2027													
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)																																																					
GNA_0427601_Capacity	North Coast	Humboldt	FORT BRAGG A BANK 1	427601	Bank	None	None	None	43.40%	0	0%	29.7	12.34	41.55%	0	0%	29.7	12.58	42.36%	0	0%	29.7	12.61	42.46%	0	0%	29.7	12.7	42.76%	0	0%	29.7	12.89	43.40%	0	0%																																																					
GNA_042761101_Capacity	North Coast	Humboldt	FORT BRAGG A 1101	42761101	Feeder	None	None	None	73.85%	0	0%	6.5	4.48	68.92%	0	0%	6.5	4.54	69.85%	0	0%	6.5	4.61	70.92%	0	0%	6.5	4.8	73.85%	0	0%	6.5	4.8	73.85%	0	0%																																																					
GNA_042761102_Capacity	North Coast	Humboldt	FORT BRAGG A 1102	42761102	Feeder	None	None	None	66.55%	0	0%	8.64	5.45	63.08%	0	0%	8.64	5.72	66.20%	0	0%	8.64	5.69	65.86%	0	0%	8.64	5.71	66.09%	0	0%	8.64	5.75	66.55%	0	0%																																																					
GNA_042761103_Capacity	North Coast	Humboldt	FORT BRAGG A 1103	42761103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																				
GNA_0427602_Capacity	North Coast	Humboldt	FORT BRAGG A BANK 2	427602	Bank	None	None	None	12.49%	0	0%	29.7	3.66	12.32%	0	0%	29.7	3.65	12.29%	0	0%	29.7	3.68	12.39%	0	0%	29.7	3.71	12.49%	0	0%	29.7	3.71	12.49%	0	0%																																																					
GNA_042761104_Capacity	North Coast	Humboldt	FORT BRAGG A 1104	42761104	Feeder	None	None	None	51.47%	0	0%	7.48	3.81	50.94%	0	0%	7.48	3.8	50.80%	0	0%	7.48	3.83	51.20%	0	0%	7.48	3.85	51.47%	0	0%	7.48	3.85	51.47%	0	0%																																																					
GNA_0428601_Capacity	North Coast	Humboldt	ANNAPOLIS BANK 1	428601	Bank	None	None	None	25.53%	0	0%	1.88	0.44	23.40%	0	0%	1.88	0.45	23.94%	0	0%	1.88	0.45	23.94%	0	0%	1.88	0.46	24.47%	0	0%	1.88	0.48	25.53%	0	0%																																																					
GNA_042861101_Capacity	North Coast	Humboldt	ANNAPOLIS 1101	42861101	Feeder	None	None	None	21.54%	0	0%	2.46	0.49	19.92%	0	0%	2.46	0.5	20.33%	0	0%	2.46	0.51	20.73%	0	0%	2.46	0.51	20.73%	0	0%	2.46	0.53	21.54%	0	0%																																																					
GNA_0428401_Capacity	North Coast	Humboldt	GUALALA BANK 1	428401	Bank	None	None	None	73.13%	0	0%	4.95	3.21	64.85%	0	0%	4.95	3.3	66.67%	0	0%	4.95	3.39	68.48%	0	0%	4.95	3.51	70.91%	0	0%	4.95	3.62	73.13%	0	0%																																																					
GNA_042841111_Capacity	North Coast	Humboldt	GUALALA 1111	42841111	Feeder	None	None	None	50.42%	0	0%	7.12	3.17	44.52%	0	0%	7.12	3.26	45.79%	0	0%	7.12	3.36	47.19%	0	0%	7.12	3.47	48.74%	0	0%	7.12	3.59	50.42%	0	0%																																																					
GNA_0428402_Capacity	North Coast	Humboldt	GUALALA BANK 2	428402	Bank	None	None	None	25.69%	0	0%	6.19	1.52	24.56%	0	0%	6.19	1.52	24.56%	0	0%	6.19	1.53	24.72%	0	0%	6.19	1.55	25.04%	0	0%	6.19	1.59	25.69%	0	0%																																																					
GNA_042841112_Capacity	North Coast	Humboldt	GUALALA 1112	42841112	Feeder	None	None	None	23.46%	0	0%	7.12	1.6	22.47%	0	0%	7.12	1.6	22.47%	0	0%	7.12	1.61	22.61%	0	0%	7.12	1.63	22.89%	0	0%	7.12	1.67	23.46%	0	0%																																																					
GNA_0433801_Capacity	North Coast	Humboldt	POINT ARENA BANK 1	433801	Bank	None	None	None	80.86%	0	0%	2.12	1.69	79.72%	0	0%	2.12	1.69	79.72%	0	0%	2.12	1.69	79.72%	0	0%	2.12	1.71	80.86%	0	0%	2.12	1.71	80.86%	0	0%																																																					
GNA_043381101_Capacity	North Coast	Humboldt	POINT ARENA 1101	43381101	Feeder	None	None	None	51.64%	0	0%	3.04	1.55	50.99%	0	0%	3.04	1.55	50.99%	0	0%	3.04	1.55	50.99%	0	0%	3.04	1.57	51.64%	0	0%	3.04	1.57	51.64%	0	0%																																																					
GNA_0431401_Capacity	North Coast	Humboldt	MIDDLETOWN BANK 1	431401	Bank	None	None	None	33.05%	0	0%	19.73	6.11	30.97%	0	0%	19.73	6.13	31.07%	0	0%	19.73	6.24	31.63%	0	0%	19.73	6.36	32.24%	0	0%	19.73	6.52	33.05%	0	0%																																																					
GNA_043141101_Capacity	North Coast	Humboldt	MIDDLETOWN 1101	43141101	Feeder	None	None	None	59.21%	0	0%	10.69	6.33	59.21%	0	0%	10.69	6.25	58.47%	0	0%	10.69	6.26	58.56%	0	0%	10.69	6.28	58.75%	0	0%	10.69	6.33	59.21%	0	0%																																																					
GNA_043141103_Capacity	North Coast	Humboldt	MIDDLETOWN 1103	43141103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																					
GNA_0431402_Capacity	North Coast	Humboldt	MIDDLETOWN BANK 2	431402	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																					
GNA_043141102_Capacity	North Coast	Humboldt	MIDDLETOWN 1102	43141102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																					
GNA_1922901_Capacity	North Coast	Humboldt	CARLOTTA BANK 1	1922901	Bank	Demand Growth	Capacity	2025	126.24%	0.74	26%	2.82	1.82	64.54%	0	0%	2.82	1.85	65.60%	0	0%	2.82	3.32	117.73%	0.5	18%	2.82	3.42	121.28%	0.6	21%	2.82	3.56	126.24%	0.74	26%																																																					
GNA_192291121_Capacity	North Coast	Humboldt	CARLOTTA 1121	192291121	Feeder	Demand Growth	Capacity	2025	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																				
GNA_1923801_Capacity	North Coast	Humboldt	EEL RIVER BANK 1	1923801	Bank	None	None	None	98.27%	0	0%	9.27	8.67	93.53%	0	0%	9.27	8.84	95.36%	0	0%	9.27	8.99	96.98%	0	0%	9.27	9.02	97.30%	0	0%	9.27	9.11	98.27%	0	0%																																																					
GNA_192381102_Capacity	North Coast	Humboldt	EEL RIVER 1102	192381102	Feeder	None	None	None	98.82%	0	0%	9.34	8.79	94.11%	0	0%	9.34	8.96	95.93%	0	0%	9.34	9.11	97.54%	0	0%	9.34	9.14	97.86%	0	0%	9.34	9.23	98.82%	0	0%																																																					
GNA_1923802_Capacity	North Coast	Humboldt	EEL RIVER BANK 2	1923802	Bank	None	None	None	21.53%	0	0%	15.84	3.38	21.34%	0	0%	15.84	3.38	21.34%	0	0%	15.84	3.37	21.28%	0	0%	15.84	3.39	21.40%	0	0%	15.84	3.41	21.53%	0	0%																																																					
GNA_192381103_Capacity	North Coast	Humboldt	EEL RIVER 1103	192381103	Feeder	None	None	None	44.62%	0	0%	8.36	3.7	44.26%	0	0%	8.36	3.69	44.14%	0	0%	8.36	3.69	44.14%	0	0%	8.36	3.71	44.26%	0	0%	8.36	3.73	44.62%	0	0%																																																					
GNA_1921501_Capacity	North Coast	Humboldt	NEWBURG BANK 1	1921501	Bank	None	None	None	83.93%	0	0%	12.32	6.7	54.38%	0	0%	12.32	8.96	72.73%	0	0%	12.32	9.15	74.27%	0	0%	12.32	9.39	76.22%	0	0%	12.32	10.34	83.93%	0	0%																																																					
GNA_192151131_Capacity	North Coast	Humboldt	NEWBURG 1131	192151131	Feeder	None	None	None	86.59%	0	0%	9.99	6.17	61.76%	0	0%	9.99	8.32	83.26%	0	0%	9.99	8.42	84.28%	0	0%	9.99	8.54	85.49%	0	0%	9.99	8.65	86.59%	0	0%																																																					
GNA_192151133_Capacity	North Coast	Humboldt	NEWBURG 1133	192151133	Feeder	None	None	None	30.46%	0	0%	6.5	0.85	13.08%	0	0%	6.5	0.94	14.46%	0	0%	6.5	1.04	16.00%	0	0%	6.5	1.14	17.54%	0	0%	6.5	1.98	30.46%	0	0%																																																					
GNA_1921502_Capacity	North Coast	Humboldt	NEWBURG BANK 2	1921502	Bank	None	None	None	99.90%	0	0%	9.88	7.92	80.16%	0	0%	9.88	8.34	84.41%	0	0%	9.88	8.94	90.49%	0	0%	9.88	9.55	96.66%	0	0%	9.88	9.87	99.90%	0	0%																																																					
GNA_192151132_Capacity	North Coast	Humboldt	NEWBURG 1132	192151132	Feeder	None	None	None	95.23%	0	0%	10.69	8.29	77.55%	0	0%	10.69	8.72	81.57%	0	0%	10.69	9.31	87.09%	0	0%	10.69	9.92	92.80%	0	0%	10.69	10.18	95.23%	0	0%																																																					
GNA_1922501_Capacity	North Coast	Humboldt	RIO DELL BANK 1	1922501	Bank	Demand Growth	Capacity	2025	146.78%	4.86	47%	10.39	8.21	79.02%	0	0%	10.39	9.38	90.28%	0	0%	10.39	14.81	142.54%	4.42	43%	10.39	15.02	144.56%	4.63	45%	10.39	15.25	146.78%	4.86	47%																																																					
GNA_192251101_Capacity	North Coast	Humboldt	RIO DELL 1101	192251101	Feeder	Demand Growth	Capacity	2024	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																				
GNA_192251102_Capacity	North Coast	Humboldt	RIO DELL 1102	192251102	Feeder	None	None	None	63.85%	0	0%	6.86	2.79	40.67%	0	0%	6.86	2.89	42.13%	0	0%	6.86	4.16	60.64%	0	0%	6.86	4.27	62.24%	0	0%	6.86	4.38	63.85%	0	0%																																																					
GNA_0426001_Capacity	North Coast	Humboldt	PHILO BANK 1	426001	Bank	None	None	None	79.74%	0	0%	4.69	3.74	79.74%	0	0%	4.69	3.68	78.46%	0	0%	4.69	3.68	78.46%	0	0%	4.69	3.58	76.33%	0	0%	4.69	3.56	75.91%	0	0%																																																					
GNA_042601101_Capacity	North Coast	Humboldt	PHILO 1101	42601101	Feeder	None	None	None	42.43%	0	0%	5.35	2.27	42.43%	0	0%	5.35	2.25	42.06%	0	0%	5.35	2.24	41.87%	0	0%	5.35	2.24	41.87%	0	0%	5.35	2.24	41.87%	0	0%																																																					
GNA_042601102_Capacity	North Coast	Humboldt	PHILO 1102	42601102	Feeder	None	None	None	56.31%	0	0%	2.93	1.65	56.31%	0	0%	2.93	1.61	54.95%	0	0%	2.93	1.56	53.24%	0	0%	2.93	1.53	52.22%	0	0%	2.93	1.53	52.24%	0	0%																																																					
GNA_0422804_Capacity	North Coast	Humboldt	POTTER VALLEY P H BANK 4	422804	Bank	None	None	None	0.00%	0	0%	1.75	0	0.00%	0	0%	1.75	0	0.00%	0	0%	1.75	0	0.00%	0	0%	1.75	0	0.00%	0	0%	1.75	0	0.00%	0	0%																																																					
GNA_042281104_Capacity	North Coast	Humboldt	POTTER VALLEY P H 1104	42281104	Feeder	None	None	None	0.00%	0	0%	1.8	0	0.00%	0	0%	1.8	0	0.00%	0	0%	1.8	0	0.00%	0	0%	1.8	0	0.00%	0	0%	1.8	0	0.00%	0	0%																																																					
GNA_0422805_Capacity	North Coast	Humboldt	POTTER VALLEY P H BANK 5	422805	Bank	Demand Growth	Capacity	2024	137.63%	1.46	38%	3.88	3.84	98.9																																																																											











PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
Version Date: 8/15/2023  
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GNA NEED ID	Facility Information			Distribution Service		2023										2024										2025										2026										2027									
	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)																			
GNA_182631107_Capacity	South Bay and Central Coast	Los Padres	SAN LUIS OBISPO 1107	182631107	Feeder	None	None	2024	93.76%	0	0%	13.15	12.32	93.69%	0	0%	13.15	12.32	93.69%	0	0%	13.15	12.32	93.69%	0	0%	13.15	12.32	93.69%	0	0%	13.15	12.32	93.69%	0	0%	13.15	12.32	93.69%	0	0%														
GNA_182631108_Capacity	South Bay and Central Coast	Los Padres	SAN LUIS OBISPO 1108	182631108	Feeder	Demand Growth	Capacity	2024	116.37%	2.1	16%	12.83	12.34	96.18%	0	0%	12.83	13.76	107.25%	0.93	7%	12.83	14.93	116.37%	2.1	16%	12.83	14.93	116.37%	2.1	16%	12.83	14.93	116.37%	2.1	16%	12.83	14.93	116.37%	2.1	16%														
GNA_1825703_Capacity	South Bay and Central Coast	Los Padres	DIVIDE BANK 3	1825703	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC														
GNA_182571101_Capacity	South Bay and Central Coast	Los Padres	DIVIDE 1101	182571101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC															
GNA_1825704_Capacity	South Bay and Central Coast	Los Padres	DIVIDE BANK 4	1825704	Bank	None	None	None	43.13%	0	0%	29.7	11.78	39.66%	0	0%	29.7	11.96	40.27%	0	0%	29.7	12.15	40.91%	0	0%	29.7	12.41	41.78%	0	0%	29.7	12.81	43.13%	0	0%	29.7	12.81	43.13%	0	0%														
GNA_182571102_Capacity	South Bay and Central Coast	Los Padres	DIVIDE 1102	182571102	Feeder	None	None	None	78.59%	0	0%	14.48	10.52	72.65%	0	0%	14.48	10.69	73.83%	0	0%	14.48	10.85	74.93%	0	0%	14.48	11.05	76.31%	0	0%	14.48	11.38	78.59%	0	0%	14.48	11.38	78.59%	0	0%														
GNA_182571103_Capacity	South Bay and Central Coast	Los Padres	DIVIDE 1103	182571103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC															
GNA_1820601_Capacity	South Bay and Central Coast	Los Padres	FAIRWAY BANK 1	1820601	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC															
GNA_182061103_Capacity	South Bay and Central Coast	Los Padres	FAIRWAY 1103	182061103	Feeder	None	None	None	86.47%	0	0%	14.41	11.7	81.19%	0	0%	14.41	12.09	83.90%	0	0%	14.41	12.22	84.80%	0	0%	14.41	12.33	85.57%	0	0%	14.41	12.46	86.47%	0	0%	14.41	12.46	86.47%	0	0%														
GNA_182061104_Capacity	South Bay and Central Coast	Los Padres	FAIRWAY 1104	182061104	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																
GNA_1820602_Capacity	South Bay and Central Coast	Los Padres	FAIRWAY BANK 2	1820602	Bank	None	None	None	92.66%	0	0%	29.7	26.09	87.85%	0	0%	29.7	27.26	91.78%	0	0%	29.7	26.97	90.81%	0	0%	29.7	27.09	91.21%	0	0%	29.7	27.52	92.66%	0	0%	29.7	27.52	92.66%	0	0%														
GNA_182061106_Capacity	South Bay and Central Coast	Los Padres	FAIRWAY 1106	182061106	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																
GNA_182061107_Capacity	South Bay and Central Coast	Los Padres	FAIRWAY 1107	182061107	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																
GNA_182061108_Capacity	South Bay and Central Coast	Los Padres	FAIRWAY 1108	182061108	Feeder	None	None	None	88.94%	0	0%	11.57	9.66	83.49%	0	0%	11.57	9.76	84.36%	0	0%	11.57	9.88	85.39%	0	0%	11.57	10.05	86.86%	0	0%	11.57	10.29	88.94%	0	0%	11.57	10.29	88.94%	0	0%														
GNA_1826702_Capacity	South Bay and Central Coast	Los Padres	SANTA MARIA BANK 2	1826702	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																
GNA_182671105_Capacity	South Bay and Central Coast	Los Padres	SANTA MARIA 1105	182671105	Feeder	None	None	None	78.81%	0	0%	14.63	11.34	77.51%	0	0%	14.63	11.36	77.65%	0	0%	14.63	11.37	77.72%	0	0%	14.63	11.43	78.13%	0	0%	14.63	11.53	78.81%	0	0%	14.63	11.53	78.81%	0	0%														
GNA_182671106_Capacity	South Bay and Central Coast	Los Padres	SANTA MARIA 1106	182671106	Feeder	None	None	None	12.06	7.58	62.85%	0	0%	12.06	8.03	66.58%	0	0%	12.06	8.13	67.50%	0	0%	12.06	8.41	69.73%	0	0%	12.06	8.61	71.56%	0	0%	12.06	8.63	71.56%	0	0%	12.06	8.63	71.56%	0	0%												
GNA_182671107_Capacity	South Bay and Central Coast	Los Padres	SANTA MARIA 1107	182671107	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																
GNA_182671108_Capacity	South Bay and Central Coast	Los Padres	SANTA MARIA 1108	182671108	Feeder	None	None	None	95.33%	0	0%	11.57	10.77	93.09%	0	0%	11.57	10.88	93.34%	0	0%	11.57	10.94	93.69%	0	0%	11.57	10.94	94.55%	0	0%	11.57	11.03	95.33%	0	0%	11.57	11.03	95.33%	0	0%														
GNA_1826703_Capacity	South Bay and Central Coast	Los Padres	SANTA MARIA BANK 3	1826703	Bank	None	None	None	65.84%	0	0%	44.55	27.62	62.00%	0	0%	44.55	28.7	64.42%	0	0%	44.55	29.12	65.36%	0	0%	44.55	29.19	65.52%	0	0%	44.55	29.33	65.84%	0	0%	44.55	29.33	65.84%	0	0%														
GNA_182671109_Capacity	South Bay and Central Coast	Los Padres	SANTA MARIA 1109	182671109	Feeder	None	None	None	44.74%	0	0%	12.83	5.67	44.19%	0	0%	12.83	5.73	44.66%	0	0%	12.83	5.73	44.58%	0	0%	12.83	5.79	44.66%	0	0%	12.83	5.74	44.74%	0	0%	12.83	5.74	44.74%	0	0%														
GNA_182671110_Capacity	South Bay and Central Coast	Los Padres	SANTA MARIA 1110	182671110	Feeder	None	None	None	89.79%	0	0%	12.83	10.2	79.50%	0	0%	12.83	11.01	85.81%	0	0%	12.83	11.33	88.31%	0	0%	12.83	11.42	89.01%	0	0%	12.83	11.52	89.79%	0	0%	12.83	11.52	89.79%	0	0%														
GNA_182671111_Capacity	South Bay and Central Coast	Los Padres	SANTA MARIA 1111	182671111	Feeder	None	None	None	85.32%	0	0%	12.06	9.67	80.18%	0	0%	12.06	9.99	82.84%	0	0%	12.06	10.24	84.58%	0	0%	12.06	10.42	84.91%	0	0%	12.06	10.29	85.32%	0	0%	12.06	10.29	85.32%	0	0%														
GNA_182671112_Capacity	South Bay and Central Coast	Los Padres	SANTA MARIA 1112	182671112	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																	
GNA_1830401_Capacity	South Bay and Central Coast	Los Padres	BUELLTON BANK 1	1830401	Bank	Demand Growth	Capacity	2023	135.00%	3.64	35%	10.4	11.1	106.73%	0.7	7%	10.4	11.92	114.62%	1.52	15%	10.4	12.59	121.06%	2.19	21%	10.4	13.16	126.54%	2.76	27%	10.4	14.04	135.00%	3.64	35%	10.4	14.04	135.00%	3.64	35%														
GNA_183041101_Capacity	South Bay and Central Coast	Los Padres	BUELLTON 1101	183041101	Feeder	Demand Growth	Capacity	2025	114.60%	1.78	15%	12.19	11.02	90.40%	0	0%	12.19	11.84	97.13%	0	0%	12.19	12.51	102.63%	0.32	3%	12.19	13.08	107.30%	0.89	7%	12.19	13.97	114.60%	1.78	15%	12.19	13.97	114.60%	1.78	15%														
GNA_1830402_Capacity	South Bay and Central Coast	Los Padres	BUELLTON BANK 2	1830402	Bank	None	None	None	70.00%	0	0%	10.4	7.28	70.00%	0	0%	10.4	7.06	67.88%	0	0%	10.4	7.13	68.56%	0	0%	10.4	7.15	68.75%	0	0%	10.4	7.2	69.23%	0	0%	10.4	7.2	69.23%	0	0%														
GNA_183041102_Capacity	South Bay and Central Coast	Los Padres	BUELLTON 1102	183041102	Feeder	None	None	None	54.88%	0	0%	12.19	6.69	54.88%	0	0%	12.19	6.49	53.24%	0	0%	12.19	6.56	53.81%	0	0%	12.19	6.63	54.39%	0	0%	12.19	6.63	54.39%	0	0%	12.19	6.63	54.39%	0	0%														
GNA_1827201_Capacity	South Bay and Central Coast	Los Padres	SANTA YNEZ BANK 1	1827201	Bank	None	None	None	94.42%	0	0%	10.4	9.23	88.75%	0	0%	10.4	9.35	89.90%	0	0%	10.4	9.48	91.15%	0	0%	10.4	9.64	92.69%	0	0%	10.4	9.82	94.42%	0	0%	10.4	9.82	94.42%	0	0%														
GNA_182721101_Capacity	South Bay and Central Coast	Los Padres	SANTA YNEZ 1101	182721101	Feeder	None	None	None	74.44%	0	0%	12.44	8.67	69.69%	0	0%	12.44	8.79	70.66%	0	0%	12.44	8.92	71.70%	0	0%	12.44	9.26	74.44%	0	0%	12.44	9.26	74.44%	0	0%	12.44	9.26	74.44%	0	0%														
GNA_1827202_Capacity	South Bay and Central Coast	Los Padres	SANTA YNEZ BANK 2	1827202	Bank	None	None	None	67.68%	0	0%	29.7	17.42	58.65%	0	0%	29.7	19.48	65.59%	0	0%	29.7	19.68	66.26%	0	0%	29.7	19.82	66.73%	0	0%	29																							



PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
Version Date: 8/15/2023  
Public

Facility Information				Distribution Service			Peak Deficiency and Loading										2023		2024		2025		2026		2027						
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)
GNA_01311116_Capacity	Bay Area	Mission	SAN LEANDRO U 1116	13111116	Feeder	None	None	None	58.16%	0	0%	9.99	5.54	55.46%	0	0%	9.99	5.54	55.46%	0	0%	9.99	5.58	55.86%	0	0%	9.99	5.68	56.86%	0	0%
GNA_0129801_Capacity	Bay Area	Mission	WARD BANK 1	129801	Bank	None	None	None	83.47%	0	0%	2.48	1.98	79.84%	0	0%	2.48	1.98	79.84%	0	0%	2.48	2.04	82.26%	0	0%	2.48	2.07	83.47%	0	0%
GNA_012980401_Capacity	Bay Area	Mission	WARD 0401	12980401	Feeder	None	None	None	68.07%	0	0%	2.85	1.84	64.56%	0	0%	2.85	1.85	64.91%	0	0%	2.85	1.87	65.61%	0	0%	2.85	1.94	68.07%	0	0%
GNA_0144203_Capacity	Bay Area	Mission	CAYETANO BANK 3	144203	Bank	None	None	None	66.13%	0	0%	44.52	21.7	48.74%	0	0%	44.52	25.76	57.86%	0	0%	44.52	25.93	58.24%	0	0%	44.52	29.44	66.13%	0	0%
GNA_014422109_Capacity	Bay Area	Mission	CAYETANO 2109	14422109	Feeder	None	None	None	82.00%	0	0%	21.11	13.5	63.95%	0	0%	21.11	16.95	80.29%	0	0%	21.11	17.02	80.63%	0	0%	21.11	17.31	82.00%	0	0%
GNA_014422111_Capacity	Bay Area	Mission	CAYETANO 2111	14422111	Feeder	None	None	None	81.19%	0	0%	21.11	13.43	63.62%	0	0%	21.11	14.08	66.70%	0	0%	21.11	14.04	66.51%	0	0%	21.11	17.09	80.96%	0	0%
GNA_0144001_Capacity	Bay Area	Mission	LAS POSITAS BANK 1	144001	Bank	None	None	None	71.24%	0	0%	44.44	29.18	65.66%	0	0%	44.44	31.3	70.43%	0	0%	44.44	31.35	70.54%	0	0%	44.44	31.66	71.24%	0	0%
GNA_014402103_Capacity	Bay Area	Mission	LAS POSITAS 2103	14402103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_014402104_Capacity	Bay Area	Mission	LAS POSITAS 2104	14402104	Feeder	None	None	None	92.13%	0	0%	21.22	19.5	91.89%	0	0%	21.22	19.49	91.85%	0	0%	21.22	19.46	91.71%	0	0%	21.22	19.55	92.13%	0	0%
GNA_0144002_Capacity	Bay Area	Mission	LAS POSITAS BANK 2	144002	Bank	None	None	None	93.30%	0	0%	72.22	64.32	89.06%	0	0%	72.22	67.38	93.30%	0	0%	72.22	66.75	92.43%	0	0%	72.22	67.13	92.95%	0	0%
GNA_014402105_Capacity	Bay Area	Mission	LAS POSITAS 2105	14402105	Feeder	None	None	None	97.29%	0	0%	21.41	16.49	77.02%	0	0%	21.41	20.74	96.87%	0	0%	21.41	20.72	96.78%	0	0%	21.41	20.63	97.29%	0	0%
GNA_014402106_Capacity	Bay Area	Mission	LAS POSITAS 2106	14402106	Feeder	None	None	None	94.58%	0	0%	21.41	20.11	93.93%	0	0%	21.41	20.12	93.97%	0	0%	21.41	20.12	93.97%	0	0%	21.41	20.16	94.16%	0	0%
GNA_014402107_Capacity	Bay Area	Mission	LAS POSITAS 2107	14402107	Feeder	None	None	None	88.70%	0	0%	21.41	18.99	88.70%	0	0%	21.41	18.78	87.72%	0	0%	21.41	18.58	86.78%	0	0%	21.41	18.39	85.89%	0	0%
GNA_014402108_Capacity	Bay Area	Mission	LAS POSITAS 2108	14402108	Feeder	None	None	None	81.72%	0	0%	21.22	16.86	79.45%	0	0%	21.22	16.84	79.36%	0	0%	21.22	16.93	79.78%	0	0%	21.22	17.34	80.77%	0	0%
GNA_0144003_Capacity	Bay Area	Mission	LAS POSITAS BANK 3	144003	Bank	None	None	None	73.94%	0	0%	44.52	30.62	68.78%	0	0%	44.52	31.7	71.20%	0	0%	44.52	31.67	71.14%	0	0%	44.52	32.92	73.94%	0	0%
GNA_014402109_Capacity	Bay Area	Mission	LAS POSITAS 2109	14402109	Feeder	None	None	None	98.93%	0	0%	21.41	19.59	91.50%	0	0%	21.41	20.39	95.24%	0	0%	21.41	20.35	95.05%	0	0%	21.41	21.08	98.46%	0	0%
GNA_014402110_Capacity	Bay Area	Mission	LAS POSITAS 2110	14402110	Feeder	None	None	None	72.43%	0	0%	21.22	14.86	70.03%	0	0%	21.22	15.19	71.58%	0	0%	21.22	15.24	71.82%	0	0%	21.22	15.37	72.43%	0	0%
GNA_0140501_Capacity	Bay Area	Mission	NORTH DUBLIN BANK 1	140501	Bank	None	None	None	94.61%	0	0%	44.52	38.7	86.93%	0	0%	44.52	39.82	89.44%	0	0%	44.52	39.84	89.49%	0	0%	44.52	42.12	94.61%	0	0%
GNA_014052101_Capacity	Bay Area	Mission	NORTH DUBLIN 2101	14052101	Feeder	None	None	None	99.07%	0	0%	21.41	18.35	85.71%	0	0%	21.41	19.49	91.03%	0	0%	21.41	19.47	90.94%	0	0%	21.41	21.07	98.41%	0	0%
GNA_014052103_Capacity	Bay Area	Mission	NORTH DUBLIN 2103	14052103	Feeder	None	None	None	95.80%	0	0%	21.41	20.1	93.88%	0	0%	21.41	20.08	93.79%	0	0%	21.41	20.08	93.79%	0	0%	21.41	20.51	95.80%	0	0%
GNA_0142303_Capacity	Bay Area	Mission	SAN RAMON BANK 3	142303	Bank	None	None	None	91.85%	0	0%	74.22	68.17	91.85%	0	0%	74.22	68.17	91.85%	0	0%	74.22	67.65	91.15%	0	0%	74.22	67.63	91.12%	0	0%
GNA_014232101_Capacity	Bay Area	Mission	SAN RAMON 2101	14232101	Feeder	None	None	None	92.94%	0	0%	21.11	19.62	92.94%	0	0%	21.11	19.35	91.66%	0	0%	21.11	19.21	91.00%	0	0%	21.11	19.28	91.33%	0	0%
GNA_014232102_Capacity	Bay Area	Mission	SAN RAMON 2102	14232102	Feeder	None	None	None	91.66%	0	0%	21.11	18.59	88.06%	0	0%	21.11	19.25	91.19%	0	0%	21.11	19.17	90.81%	0	0%	21.11	19.24	91.66%	0	0%
GNA_014232103_Capacity	Bay Area	Mission	SAN RAMON 2103	14232103	Feeder	None	None	None	80.84%	0	0%	18.63	15.06	80.84%	0	0%	18.63	15.02	80.62%	0	0%	18.63	14.99	80.46%	0	0%	18.63	14.98	80.41%	0	0%
GNA_014232104_Capacity	Bay Area	Mission	SAN RAMON 2104	14232104	Feeder	None	None	None	89.64%	0	0%	18.63	16.7	89.64%	0	0%	18.63	16.22	87.06%	0	0%	18.63	15.87	85.19%	0	0%	18.63	15.58	83.63%	0	0%
GNA_0142304_Capacity	Bay Area	Mission	SAN RAMON BANK 4	142304	Bank	None	None	None	96.13%	0	0%	74.22	64.92	87.47%	0	0%	74.22	69.12	93.13%	0	0%	74.22	68.88	92.81%	0	0%	74.22	71.16	95.88%	0	0%
GNA_014232105_Capacity	Bay Area	Mission	SAN RAMON 2105	14232105	Feeder	None	None	None	88.44%	0	0%	21.11	14.15	67.03%	0	0%	21.11	18.67	88.44%	0	0%	21.11	18.62	88.20%	0	0%	21.11	18.59	88.06%	0	0%
GNA_014232106_Capacity	Bay Area	Mission	SAN RAMON 2106	14232106	Feeder	None	None	None	97.48%	0	0%	21.41	18.89	88.23%	0	0%	21.41	18.76	87.62%	0	0%	21.41	18.64	87.06%	0	0%	21.41	20.87	97.48%	0	0%
GNA_014232107_Capacity	Bay Area	Mission	SAN RAMON 2107	14232107	Feeder	None	None	None	90.48%	0	0%	21.11	18.72	88.68%	0	0%	21.11	18.7	88.58%	0	0%	21.11	18.7	88.58%	0	0%	21.11	18.87	89.39%	0	0%
GNA_014232108_Capacity	Bay Area	Mission	SAN RAMON 2108	14232108	Feeder	None	None	None	89.53%	0	0%	18.63	16.68	89.53%	0	0%	18.63	16.64	89.32%	0	0%	18.63	16.61	89.16%	0	0%	18.63	16.68	89.53%	0	0%
GNA_0142305_Capacity	Bay Area	Mission	SAN RAMON BANK 5	142305	Bank	None	None	None	57.34%	0	0%	74.22	42.13	56.76%	0	0%	74.22	41.92	56.48%	0	0%	74.22	41.75	56.25%	0	0%	74.22	42.52	57.29%	0	0%
GNA_014232110_Capacity	Bay Area	Mission	SAN RAMON 2110	14232110	Feeder	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_014232111_Capacity	Bay Area	Mission	SAN RAMON 2111	14232111	Feeder	None	None	None	95.26%	0	0%	21.11	19.55	92.61%	0	0%	21.11	19.4	91.90%	0	0%	21.11	19.31	91.47%	0	0%	21.11	20.05	94.98%	0	0%
GNA_014232114_Capacity	Bay Area	Mission	SAN RAMON 2114	14232114	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_0142306_Capacity	Bay Area	Mission	SAN RAMON BANK 6	142306	Bank	None	None	None	87.09%	0	0%	74.22	61.36	82.67%	0	0%	74.22	63.99	86.22%	0	0%	74.22	64.14	86.42%	0	0%	74.22	64.37	86.73%	0	0%
GNA_014232116_Capacity	Bay Area	Mission	SAN RAMON 2116	14232116	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_014232117_Capacity	Bay Area	Mission	SAN RAMON 2117	14232117	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_014232118_Capacity	Bay Area	Mission	SAN RAMON 2118	14232118	Feeder	None	None	None	99.14%	0	0%	18.63	18.25	97.96%	0	0%	18.63	18.29	98.17%	0	0%	18.63	18.33	98.39%	0	0%	18.63	18.39	98.71%	0	0%
GNA_014232119_Capacity	Bay Area	Mission	SAN RAMON 2119	14232119	Feeder	None	None	None	82.95%	0	0%	21.11	16.52	78.26%	0	0%	21.11	17.46	82.71%	0	0%	21.11	17.43	82.57%	0	0%	21.11	17.47	82.76%	0	0%
GNA_0145001_Capacity	Bay Area	Mission	VINEYARD BANK 1	145001	Bank	None	None	None	71.98%	0	0%	74.22	51.95	69.99%	0	0%	74.22	53.42	71.98%	0	0%	74.22	52.86	71.22%	0	0%	74.22	51.43	69.29%	0	0%
GNA_014502104_Capacity	Bay Area	Mission	VINEYARD 2104	14502104	Feeder	None	None	None	83.31%	0	0%	18.63	13.92	74.72%	0	0%	18.63	15.12	81.16%	0	0%	18.63	15.29	81.54%	0	0%	18.63	15.35	82.39%	0	0%
GNA_014502105_Capacity	Bay Area	Mission	VINEYARD 2105	14502105	Feeder	None	None	None	96.64%	0	0%	21.11	20.4	96.64%	0	0%	21.11	20.04	94.93%	0	0%	21.11	19.81	93.84%	0	0%	21.11	18.01	85.32%	0	0%
GNA_014502106_Capacity	Bay Area	Mission	VINEYARD 2106	14502106	Feeder	None	None	None	99.19%	0	0%	18.63	17.56	94.26%	0	0%	18.63	18.48	99.19%	0	0%	18.63	18.17	97.53%	0	0%	18.63	18.03	96.40%	0	0%
GNA_0145002_Capacity	Bay Area	Mission	VINEYARD BANK 2	145002	Bank	None	None	None	97.87%	0	0%	74.22	68.82	92.72%	0	0%	74.22	67.83	91.39%	0	0%	74.22	67.23	90.58%	0	0%					

PG&E 2023 Grid Needs Assessment (GNA)  
 Appendix E: GNA Results - Bank & Feeder Capacity Needs  
 Version Date: 8/15/2023  
 Public

GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID formatted	Facility Type	Primary Driver	Distribution Service Required		Anticipated Need Date		Peak Facility Loading (MW) 2023-2027		Peak Facility Deficiency (MW) 2023-2027		Peak Facility Deficiency (%) 2023-2027		2023		2024		2025		2026		2027														
							Distribution Service Required	Anticipated Need Date	Peak Facility Loading (MW) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)			
							CC	CC	0	0	0	12.19	9.58	78.59%	0	0%	12.19	9.42	77.28%	0	0%	12.19	9.41	77.19%	0	0%	12.19	9.66	79.25%	0	0%	12.19	9.92	81.38%	0	0%			
GNA_042011105_Capacity	North Valley and Sierra	North Bay	SAN RAFAEL 1105	4201105	Feeder	None	None	None	2023	81.38%	0	0%	12.19	9.58	78.59%	0	0%	12.19	9.42	77.28%	0	0%	12.19	9.41	77.19%	0	0%	12.19	9.66	79.25%	0	0%	12.19	9.92	81.38%	0	0%		
GNA_042011109_Capacity	North Valley and Sierra	North Bay	SAN RAFAEL 1109	4201109	Feeder	None	None	None	2023	96.50%	0	0%	12.19	9.58	78.59%	0	0%	12.19	9.42	77.28%	0	0%	12.19	9.41	77.19%	0	0%	12.19	9.66	79.25%	0	0%	12.19	9.92	81.38%	0	0%		
GNA_042011110_Capacity	North Valley and Sierra	North Bay	SAN RAFAEL 1110	4201110	Feeder	None	None	None	2023	55.87%	0	0%	12.19	6.81	55.87%	0	0%	12.19	6.75	55.37%	0	0%	12.19	6.7	54.96%	0	0%	12.19	6.72	55.13%	0	0%	12.19	6.76	55.46%	0	0%		
GNA_0430201_Capacity	North Valley and Sierra	North Bay	WOODACRE BANK 1	430201	Bank	None	None	None	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_043021101_Capacity	North Valley and Sierra	North Bay	WOODACRE 1101	4302101	Feeder	None	None	None	2023	21.19%	0	0%	11.8	2.35	19.92%	0	0%	11.8	2.38	20.17%	0	0%	11.8	2.41	20.42%	0	0%	11.8	2.45	20.76%	0	0%	11.8	2.5	21.19%	0	0%		
GNA_043021102_Capacity	North Valley and Sierra	North Bay	WOODACRE 1102	4302102	Feeder	None	None	None	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_0422601_Capacity	North Valley and Sierra	North Bay	BOLINAS BANK 1	422601	Bank	None	None	None	2023	23.56%	0	0%	10.4	2.45	23.56%	0	0%	10.4	2.44	23.46%	0	0%	10.4	2.43	23.37%	0	0%	10.4	2.43	23.37%	0	0%	10.4	2.4	23.08%	0	0%		
GNA_042261101_Capacity	North Valley and Sierra	North Bay	BOLINAS 1101	4226101	Feeder	None	None	None	2023	22.73%	0	0%	10.69	2.43	22.73%	0	0%	10.69	2.42	22.64%	0	0%	10.69	2.41	22.54%	0	0%	10.69	2.4	22.45%	0	0%	10.69	2.37	22.17%	0	0%		
GNA_0422901_Capacity	North Valley and Sierra	North Bay	OLEMA BANK 1	422901	Bank	None	None	None	2023	57.32%	0	0%	5.67	3.1	54.67%	0	0%	5.67	3.12	55.03%	0	0%	5.67	3.14	55.38%	0	0%	5.67	3.18	56.08%	0	0%	5.67	3.25	57.32%	0	0%		
GNA_042291101_Capacity	North Valley and Sierra	North Bay	OLEMA 1101	4229101	Feeder	None	None	None	2023	38.25%	0	0%	8.55	3.12	36.49%	0	0%	8.55	3.14	36.73%	0	0%	8.55	3.16	36.96%	0	0%	8.55	3.2	37.43%	0	0%	8.55	3.27	38.25%	0	0%		
GNA_0424802_Capacity	North Valley and Sierra	North Bay	IGNACIO BANK 2	424802	Bank	None	None	None	2023	96.50%	0	0%	29.7	28.66	96.50%	0	0%	29.7	28.1	94.61%	0	0%	29.7	27.43	92.36%	0	0%	29.7	26.92	90.64%	0	0%	29.7	26.73	90.00%	0	0%		
GNA_042481101_Capacity	North Valley and Sierra	North Bay	IGNACIO 1101	4248101	Feeder	None	None	None	2023	71.27%	0	0%	11.8	8.41	71.27%	0	0%	11.8	8.27	70.08%	0	0%	11.8	8.1	68.64%	0	0%	11.8	8.04	68.14%	0	0%	11.8	8.05	68.22%	0	0%		
GNA_042481102_Capacity	North Valley and Sierra	North Bay	IGNACIO 1102	4248102	Feeder	None	None	None	2023	77.20%	0	0%	11.8	9.11	77.20%	0	0%	11.8	9.06	76.78%	0	0%	11.8	9.01	76.36%	0	0%	11.8	9	76.27%	0	0%	11.8	9.01	76.26%	0	0%		
GNA_042481105_Capacity	North Valley and Sierra	North Bay	IGNACIO 1105	4248105	Feeder	None	None	None	2023	88.22%	0	0%	11.8	10.41	88.22%	0	0%	11.8	10.18	86.27%	0	0%	11.8	9.89	83.81%	0	0%	11.8	9.59	81.27%	0	0%	11.8	9.42	79.83%	0	0%		
GNA_0424805_Capacity	North Valley and Sierra	North Bay	IGNACIO BANK 5	424805	Bank	None	None	None	2023	96.28%	0	0%	15.84	14.93	94.26%	0	0%	15.84	14.96	94.44%	0	0%	15.84	15.01	94.76%	0	0%	15.84	15.11	95.39%	0	0%	15.84	15.25	96.28%	0	0%		
GNA_042481103_Capacity	North Valley and Sierra	North Bay	IGNACIO 1103	4248103	Feeder	None	None	None	2023	90.48%	0	0%	12.19	10.67	87.53%	0	0%	12.19	10.72	87.94%	0	0%	12.19	10.79	88.52%	0	0%	12.19	10.9	89.42%	0	0%	12.19	11.03	90.48%	0	0%		
GNA_042481104_Capacity	North Valley and Sierra	North Bay	IGNACIO 1104	4248104	Feeder	None	None	None	2023	35.70%	0	0%	12.83	4.58	35.70%	0	0%	12.83	4.55	35.46%	0	0%	12.83	4.54	35.39%	0	0%	12.83	4.53	35.31%	0	0%	12.83	4.53	35.31%	0	0%		
GNA_0422101_Capacity	North Valley and Sierra	North Bay	NOVATO BANK 1	422101	Bank	None	None	None	2023	98.79%	0	0%	6.6	6.52	98.79%	0	0%	6.6	6.46	97.88%	0	0%	6.6	6.4	96.97%	0	0%	6.6	6.38	96.67%	0	0%	6.6	6.38	96.67%	0	0%		
GNA_042211101_Capacity	North Valley and Sierra	North Bay	NOVATO 1101	4221101	Feeder	None	None	None	2023	29.52%	0	0%	8.13	2.4	29.52%	0	0%	8.13	2.36	29.03%	0	0%	8.13	2.31	28.41%	0	0%	8.13	2.29	28.17%	0	0%	8.13	2.29	28.17%	0	0%		
GNA_042211102_Capacity	North Valley and Sierra	North Bay	NOVATO 1102	4221102	Feeder	None	None	None	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_0422102_Capacity	North Valley and Sierra	North Bay	NOVATO BANK 2	422102	Bank	Demand Growth	Capacity	2023	115.85%	2.51	16%	15.84	18.1	114.27%	2.26	14%	15.84	18.06	114.02%	2.22	14%	15.84	18.07	114.00%	2.23	14%	15.84	18.2	114.90%	2.36	15%	15.84	18.35	115.85%	2.51	16%			
GNA_042211103_Capacity	North Valley and Sierra	North Bay	NOVATO 1103	4221103	Feeder	None	None	None	2023	83.90%	0	0%	11.8	9.9	83.90%	0	0%	11.8	9.88	83.73%	0	0%	11.8	9.87	83.64%	0	0%	11.8	9.86	83.56%	0	0%	11.8	9.87	83.64%	0	0%		
GNA_042211104_Capacity	North Valley and Sierra	North Bay	NOVATO 1104	4221104	Feeder	None	None	None	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_0430301_Capacity	North Valley and Sierra	North Bay	STAFFORD BANK 1	430301	Bank	None	None	None	2023	89.58%	0	0%	12.38	11.09	89.58%	0	0%	12.38	10.92	88.21%	0	0%	12.38	10.78	87.08%	0	0%	12.38	10.75	86.83%	0	0%	12.38	10.74	86.75%	0	0%		
GNA_043201101_Capacity	North Valley and Sierra	North Bay	STAFFORD 1101	4320101	Feeder	None	None	None	2023	92.31%	0	0%	12.23	11.29	92.31%	0	0%	12.23	11.11	90.84%	0	0%	12.23	10.98	89.78%	0	0%	12.23	10.95	89.53%	0	0%	12.23	10.94	89.45%	0	0%		
GNA_0432002_Capacity	North Valley and Sierra	North Bay	STAFFORD BANK 2	432002	Bank	None	None	None	2023	76.90%	0	0%	12.38	9.52	76.90%	0	0%	12.38	9.39	75.85%	0	0%	12.38	9.28	74.96%	0	0%	12.38	9.29	75.04%	0	0%	12.38	9.39	75.85%	0	0%		
GNA_043201102_Capacity	North Valley and Sierra	North Bay	STAFFORD 1102	4320102	Feeder	None	None	None	2023	80.70%	0	0%	12.23	9.87	80.70%	0	0%	12.23	9.74	79.64%	0	0%	12.23	9.63	78.74%	0	0%	12.23	9.62	78.66%	0	0%	12.23	9.73	79.56%	0	0%		
GNA_0420301_Capacity	North Valley and Sierra	North Bay	ALTO BANK 1	420301	Bank	None	None	None	2023	96.14%	0	0%	17.63	15.45	87.63%	0	0%	17.63	15.7	89.05%	0	0%	17.63	15.94	90.41%	0	0%	17.63	16.42	93.14%	0	0%	17.63	16.95	96.14%	0	0%		
GNA_042031122_Capacity	North Valley and Sierra	North Bay	ALTO 1122	4203122	Feeder	None	None	None	2023	71.85%	0	0%	9.52	6.68	70.17%	0	0%	9.52	6.68	70.17%	0	0%	9.52	6.69	70.27%	0	0%	9.52	6.77	71.11%	0	0%	9.52	6.84	71.85%	0	0%		
GNA_042031123_Capacity	North Valley and Sierra	North Bay	ALTO 1123	4203123	Feeder	None	None	None	2023	46.32%	0	0%	9.52	3.82	40.13%	0	0%	9.52	3.95	41.49%	0	0%	9.52	4.07	42.75%	0	0%	9.52	4.23	44.32%	0	0%	9.52	4.41	46.32%	0	0%		
GNA_042031124_Capacity	North Valley and Sierra	North Bay	ALTO 1124	4203124	Feeder	None	None	None	2023	66.07%	0	0%	9.52	5.67	59.56%	0	0%	9.52	5.76	60.50%	0	0%	9.52	5.84	61.34%	0	0%	9.52	6.05	63.55%	0	0%	9.52	6.29	66.07%	0	0%		
GNA_0420303_Capacity	North Valley and Sierra	North Bay	ALTO BANK 3	420303	Bank	None	None	None	2023	73.36%	0	0%	29.69	20.51	69.08%	0	0%	29.69	20.7	69.72%	0	0%	29.69	20.86	70.26%	0	0%	29.69	21.23	71.51%	0	0%	29.69</						





PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
Version Date: 8/15/2023  
Public

GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required		Anticipated Need Date		2023										2024										2025										2026										2027									
							Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)																
																																													Capacity	Capacity														
GNA_102971101_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK 1101	102971101	Feeder	None	None	None	None	89.31%	0	0%	10.76	9.46	87.92%	0	0%	10.76	9.48	88.10%	0	0%	10.76	9.54	88.66%	0	0%	10.76	9.58	89.03%	0	0%	10.76	9.61	89.31%	0	0%																							
GNA_102971102_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK 1102	102971102	Feeder	None	None	None	None	89.96%	0	0%	10.76	9.33	86.71%	0	0%	10.76	9.41	87.45%	0	0%	10.76	9.49	88.20%	0	0%	10.76	9.57	88.94%	0	0%	10.76	9.68	89.96%	0	0%																							
GNA_102971103_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK 1103	102971103	Feeder	None	None	None	None	56.13%	0	0%	10.76	5.51	51.21%	0	0%	10.76	5.62	52.23%	0	0%	10.76	5.74	53.35%	0	0%	10.76	5.87	54.55%	0	0%	10.76	6.04	56.13%	0	0%																							
GNA_102971104_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK 1104	102971104	Feeder	None	None	None	None	40.96%	0	0%	11.67	4.6	39.42%	0	0%	11.67	4.64	39.76%	0	0%	11.67	4.65	39.85%	0	0%	11.67	4.7	40.27%	0	0%	11.67	4.78	40.96%	0	0%																							
GNA_102972_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK BANK 2	102972	Bank	None	None	None	None	77.02%	0	0%	29.59	21.63	73.10%	0	0%	29.59	21.71	73.37%	0	0%	29.59	21.86	73.88%	0	0%	29.59	22.24	75.16%	0	0%	29.59	22.79	77.02%	0	0%																							
GNA_102971105_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK 1105	102971105	Feeder	None	None	None	None	99.74%	0	0%	11.67	11.22	96.14%	0	0%	11.67	11.26	96.49%	0	0%	11.67	11.33	97.09%	0	0%	11.67	11.44	98.03%	0	0%	11.67	11.64	99.74%	0	0%																							
GNA_1026501_Capacity	North Valley and Sierra	North Valley	CHICO C BANK 1	1026501	Bank	None	None	None	None	54.04%	0	0%	1.98	1.04	52.53%	0	0%	1.98	1.04	52.53%	0	0%	1.98	1.05	53.03%	0	0%	1.98	1.06	53.54%	0	0%	1.98	1.07	54.04%	0	0%																							
GNA_102650401_Capacity	North Valley and Sierra	North Valley	CHICO C 0401	102650401	Feeder	None	None	None	None	43.59%	0	0%	2.34	1	42.74%	0	0%	2.34	0.99	42.31%	0	0%	2.34	1.01	42.74%	0	0%	2.34	1.01	43.16%	0	0%	2.34	1.02	43.59%	0	0%																							
GNA_102971107_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK 1107	102971107	Feeder	None	None	None	None	93.61%	0	0%	10.95	9.52	86.94%	0	0%	10.95	9.57	87.40%	0	0%	10.95	9.67	88.31%	0	0%	10.95	9.94	90.78%	0	0%	10.95	10.25	93.61%	0	0%																							
GNA_1029703_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK BANK 3	1029703	Bank	None	None	None	None	99.63%	0	0%	29.7	28.15	94.78%	0	0%	29.7	28.41	95.66%	0	0%	29.7	28.73	96.73%	0	0%	29.7	29.12	98.05%	0	0%	29.7	29.59	99.63%	0	0%																							
GNA_102971109_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK 1109	102971109	Feeder	None	None	None	None	94.80%	0	0%	11.67	10.26	87.92%	0	0%	11.67	10.42	89.29%	0	0%	11.67	10.59	90.75%	0	0%	11.67	10.81	92.63%	0	0%	11.67	11.04	94.80%	0	0%																							
GNA_102971110_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK 1110	102971110	Feeder	None	None	None	None	93.88%	0	0%	10.95	10.28	93.88%	0	0%	10.95	10.23	93.42%	0	0%	10.95	10.23	93.42%	0	0%	10.95	10.22	93.33%	0	0%	10.95	10.21	93.24%	0	0%																							
GNA_102971111_Capacity	North Valley and Sierra	North Valley	SYCAMORE CREEK 1111	102971111	Feeder	None	None	None	None	98.42%	0	0%	10.76	10.38	96.47%	0	0%	10.76	10.38	96.47%	0	0%	10.76	10.37	96.38%	0	0%	10.76	10.41	96.75%	0	0%	10.76	10.59	98.42%	0	0%																							
GNA_1030901_Capacity	North Valley and Sierra	North Valley	CLARK ROAD BANK 1	1030901	Bank	None	None	None	None	62.75%	0	0%	9.88	6.2	62.75%	0	0%	9.88	6.06	61.34%	0	0%	9.88	5.91	59.82%	0	0%	9.88	5.82	58.91%	0	0%	9.88	5.79	58.60%	0	0%																							
GNA_103091101_Capacity	North Valley and Sierra	North Valley	CLARK ROAD 1101	103091101	Feeder	None	None	None	None	59.06%	0	0%	8.55	5.05	59.06%	0	0%	8.55	4.9	57.31%	0	0%	8.55	4.76	55.67%	0	0%	8.55	4.69	54.85%	0	0%	8.55	4.69	54.85%	0	0%																							
GNA_1033302_Capacity	North Valley and Sierra	North Valley	CORNING BANK 2	1033302	Bank	None	None	None	None	91.17%	0	0%	22.99	20.96	91.17%	0	0%	22.99	21.03	90.12%	0	0%	22.99	21.23	90.79%	0	0%	22.99	21.38	91.29%	0	0%	22.99	21.64	92.16%	0	0%																							
GNA_103331101_Capacity	North Valley and Sierra	North Valley	CORNING 1101	103331101	Feeder	Demand Growth	Capacity	2027	101.03%	0.11	1%	10.69	10.61	99.25%	0	0%	10.69	10.57	98.88%	0	0%	10.69	10.67	99.81%	0	0%	10.69	10.72	100.28%	0.03	0%	10.69	10.8	101.03%	0.11	1%																								
GNA_103331102_Capacity	North Valley and Sierra	North Valley	CORNING 1102	103331102	Feeder	Demand Growth	Capacity	2027	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																						
GNA_1033303_Capacity	North Valley and Sierra	North Valley	CORNING BANK 3	1033303	Bank	None	None	None	None	84.28%	0	0%	29.7	24.71	83.20%	0	0%	29.7	24.75	83.33%	0	0%	29.7	24.79	83.47%	0	0%	29.7	24.89	83.80%	0	0%	29.7	25.03	84.28%	0	0%																							
GNA_103331103_Capacity	North Valley and Sierra	North Valley	CORNING 1103	103331103	Feeder	None	None	None	None	96.18%	0	0%	12.83	12.07	94.08%	0	0%	12.83	12.14	94.62%	0	0%	12.83	12.18	94.93%	0	0%	12.83	12.25	95.48%	0	0%	12.83	12.34	96.18%	0	0%																							
GNA_103331104_Capacity	North Valley and Sierra	North Valley	CORNING 1104	103331104	Feeder	None	None	None	None	88.44%	0	0%	14.97	13.12	87.64%	0	0%	14.97	13.01	86.91%	0	0%	14.97	13.05	87.17%	0	0%	14.97	13.11	87.58%	0	0%	14.97	13.24	88.44%	0	0%																							
GNA_1033901_Capacity	North Valley and Sierra	North Valley	GERBER BANK 1	1033901	Bank	None	None	None	None	98.75%	0	0%	8.82	7.67	86.96%	0	0%	8.82	7.93	89.91%	0	0%	8.82	8.18	92.74%	0	0%	8.82	8.45	95.80%	0	0%	8.82	8.71	98.75%	0	0%																							
GNA_103391101_Capacity	North Valley and Sierra	North Valley	GERBER 1101	103391101	Feeder	None	None	None	None	50.00%	0	0%	7.12	2.97	41.71%	0	0%	7.12	3.09	43.40%	0	0%	7.12	3.23	45.37%	0	0%	7.12	3.4	47.75%	0	0%	7.12	3.56	50.00%	0	0%																							
GNA_103391102_Capacity	North Valley and Sierra	North Valley	GERBER 1102	103391102	Feeder	None	None	None	None	74.16%	0	0%	7.12	4.83	67.84%	0	0%	7.12	4.95	69.52%	0	0%	7.12	5.06	71.07%	0	0%	7.12	5.18	72.75%	0	0%	7.12	5.28	74.16%	0	0%																							
GNA_1034801_Capacity	North Valley and Sierra	North Valley	LOS MOLINOS BANK 1	1034801	Bank	None	None	None	None	87.92%	0	0%	11.84	10.41	87.92%	0	0%	11.84	10.37	87.58%	0	0%	11.84	10.35	87.42%	0	0%	11.84	10.33	87.25%	0	0%	11.84	10.27	86.74%	0	0%																							
GNA_103481101_Capacity	North Valley and Sierra	North Valley	LOS MOLINOS 1101	103481101	Feeder	None	None	None	None	56.08%	0	0%	6.99	3.92	56.08%	0	0%	6.99	3.91	55.94%	0	0%	6.99	3.91	55.94%	0	0%	6.99	3.9	55.79%	0	0%	6.99	3.89	55.65%	0	0%																							
GNA_103481102_Capacity	North Valley and Sierra	North Valley	LOS MOLINOS 1102	103481102	Feeder	None	None	None	None	95.76%	0	0%	6.84	6.55	95.76%	0	0%	6.84	6.52	95.32%	0	0%	6.84	6.51	95.18%	0	0%	6.84	6.46	94.44%	0	0%	6.84	6.46	94.44%	0	0%																							
GNA_1035801_Capacity	North Valley and Sierra	North Valley	VINA BANK 1	1035801	Bank	None	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																						
GNA_103581101_Capacity	North Valley and Sierra	North Valley	VINA 1101	103581101	Feeder	None	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																							
GNA_1027801_Capacity	North Valley and Sierra	North Valley	ELK CREEK BANK 1	1027801	Bank	None	None	None	None	79.72%	0	0%	2.81	2.24	79.72%	0	0%	2.81	2.19	77.94%	0	0%	2.81	2.18	77.58%	0	0%	2.81	2.2	78.29%	0	0%	2.81	2.2	78.29%	0	0%																							
GNA_102781101_Capacity	North Valley and Sierra	North Valley	ELK CREEK 1101	102781101	Feeder	None	None	None	None	83.10%	0	0%	2.84	2.36	83.10%	0	0%	2.84	2.32	81.69%	0	0%	2.84	2.31	81.34%	0	0%	2.84	2.3	80.99%	0	0%	2.84	2.32	81.69%	0	0%																							
GNA_1033801_Capacity	North Valley and Sierra	North Valley	FRENCH GULCH BANK 1	1033801	Bank	None	None	None	None	42.86%	0	0%	1.89	0.67	35.45%	0	0%	1.89	0.7	37.04%	0	0%	1.89	0.78	41.27%	0	0%	1.89	0.8	42.33%	0	0%	1.89	0.81	42.86%	0	0%																							
GNA_103381101_Capacity	North Valley and Sierra	North Valley																																																										

PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
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GNA NEED ID	Facility Information			Peak Deficiency and Loading																											
				2023			2024			2025			2026			2027															
				Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)										
GNA_103751101_Capacity	North Valley and Sierra	North Valley	BIG BEND 1101	103751101	Feeder	None	None	None	23.02%	0	0%	3.91	0.9	23.02%	0	0%	3.91	0.9	23.02%	0	0%	3.91	0.9	23.02%	0	0%	3.91	0.9	23.02%	0	0%
GNA_103751102_Capacity	North Valley and Sierra	North Valley	BIG BEND 1102	103751102	Feeder	None	None	None	22.00%	0	0%	2.5	0.55	22.00%	0	0%	2.5	0.55	22.00%	0	0%	2.5	0.55	22.00%	0	0%	2.5	0.55	22.00%	0	0%
GNA_102911106_Capacity	North Valley and Sierra	North Valley	WYANDOTTE 1106	102911106	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_102911107_Capacity	North Valley and Sierra	North Valley	WYANDOTTE 1107	102911107	Feeder	None	None	None	73.95%	0	0%	44.6	31.45	70.76%	0	0%	44.6	31.45	70.76%	0	0%	44.6	32.44	72.06%	0	0%	44.6	32.98	73.95%	0	0%
GNA_102911109_Capacity	North Valley and Sierra	North Valley	WYANDOTTE 1109	102911109	Feeder	None	None	None	87.43%	0	0%	12.25	10.06	82.12%	0	0%	12.25	10.05	82.04%	0	0%	12.25	10.48	85.55%	0	0%	12.25	10.71	87.43%	0	0%
GNA_102911110_Capacity	North Valley and Sierra	North Valley	WYANDOTTE 1110	102911110	Feeder	None	None	None	95.95%	0	0%	12.83	11.86	92.44%	0	0%	12.83	11.92	92.91%	0	0%	12.83	12.01	93.61%	0	0%	12.83	12.31	95.95%	0	0%
GNA_1025201_Capacity	North Valley and Sierra	North Valley	OROVILLE BANK 1	1025201	Bank	None	None	None	91.66%	0	0%	12.83	11.46	89.32%	0	0%	12.83	11.47	89.40%	0	0%	12.83	11.51	89.71%	0	0%	12.83	11.76	91.66%	0	0%
GNA_102520402_Capacity	North Valley and Sierra	North Valley	OROVILLE 0402	102520402	Feeder	None	None	None	34.96%	0	0%	4.52	1.58	34.96%	0	0%	4.52	1.56	34.51%	0	0%	4.52	1.58	34.96%	0	0%	4.52	1.57	34.73%	0	0%
GNA_102520403_Capacity	North Valley and Sierra	North Valley	OROVILLE 0403	102520403	Feeder	None	None	None	75.79%	0	0%	1.9	1.44	75.79%	0	0%	1.9	1.43	75.26%	0	0%	1.9	1.44	75.79%	0	0%	1.9	1.43	75.26%	0	0%
GNA_1030301_Capacity	North Valley and Sierra	North Valley	ORO FINO BANK 1	1030301	Bank	None	None	None	47.37%	0	0%	1.9	0.88	46.32%	0	0%	1.9	0.88	46.32%	0	0%	1.9	0.89	46.84%	0	0%	1.9	0.9	47.37%	0	0%
GNA_103031101_Capacity	North Valley and Sierra	North Valley	ORO FINO 1101	103031101	Feeder	None	None	None	74.38%	0	0%	12.92	9.46	73.22%	0	0%	12.92	9.39	72.68%	0	0%	12.92	9.42	72.91%	0	0%	12.92	9.61	74.38%	0	0%
GNA_103031102_Capacity	North Valley and Sierra	North Valley	ORO FINO 1102	103031102	Feeder	None	None	None	46.59%	0	0%	10.69	4.98	46.59%	0	0%	10.69	4.91	45.93%	0	0%	10.69	4.87	45.56%	0	0%	10.69	4.8	45.09%	0	0%
GNA_1028301_Capacity	North Valley and Sierra	North Valley	PARADISE BANK 1	1028301	Bank	None	None	None	45.04%	0	0%	10.28	4.44	43.19%	0	0%	10.28	4.45	43.29%	0	0%	10.28	4.47	43.39%	0	0%	10.28	4.63	45.04%	0	0%
GNA_102831106_Capacity	North Valley and Sierra	North Valley	PARADISE 1106	102831106	Feeder	None	None	None	20.74%	0	0%	44.6	7.68	17.22%	0	0%	44.6	8.26	18.97%	0	0%	44.6	9.25	20.74%	0	0%	44.6	9.24	20.72%	0	0%
GNA_1028320_Capacity	North Valley and Sierra	North Valley	PARADISE BANK 2	1028320	Bank	None	None	None	82.44%	0	0%	12.19	8.49	69.65%	0	0%	12.19	9.47	76.05%	0	0%	12.19	10.05	82.44%	0	0%	12.19	10.04	82.42%	0	0%
GNA_102831103_Capacity	North Valley and Sierra	North Valley	PARADISE 1103	102831103	Feeder	None	None	None	47.87%	0	0%	44.6	15.67	35.13%	0	0%	44.6	18.93	42.44%	0	0%	44.6	21.35	47.87%	0	0%	44.6	21.25	47.65%	0	0%
GNA_102831104_Capacity	North Valley and Sierra	North Valley	PARADISE 1104	102831104	Feeder	None	None	None	84.00%	0	0%	12.19	8.21	67.35%	0	0%	12.19	9.22	75.64%	0	0%	12.19	10.24	84.00%	0	0%	12.19	10.21	83.84%	0	0%
GNA_102831105_Capacity	North Valley and Sierra	North Valley	PARADISE 1105	102831105	Feeder	None	None	None	78.96%	0	0%	13.21	8.31	62.91%	0	0%	13.21	9.81	74.26%	0	0%	13.21	10.38	78.58%	0	0%	13.21	10.37	78.50%	0	0%
GNA_1037302_Capacity	North Valley and Sierra	North Valley	PIT NO 3 BANK 2	1037302	Bank	None	None	None	34.78%	0	0%	12.19	2.83	23.22%	0	0%	12.19	3.53	28.96%	0	0%	12.19	4.24	34.78%	0	0%	12.19	4.2	34.45%	0	0%
GNA_103732101_Capacity	North Valley and Sierra	North Valley	PIT NO 3 2101	103732101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_1013205_Capacity	North Valley and Sierra	North Valley	PIT NO 5 BANK 5	1013205	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_101321101_Capacity	North Valley and Sierra	North Valley	PIT NO 5 1101	101321101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_1025501_Capacity	North Valley and Sierra	North Valley	EAST QUINCY BANK 1	1025501	Bank	None	None	None	55.78%	0	0%	6.06	3.38	55.78%	0	0%	6.06	3.29	54.29%	0	0%	6.06	3.2	52.81%	0	0%	6.06	3.21	52.97%	0	0%
GNA_102551101_Capacity	North Valley and Sierra	North Valley	EAST QUINCY 1101	102551101	Feeder	None	None	None	46.51%	0	0%	7.36	3.57	48.51%	0	0%	7.36	3.48	47.28%	0	0%	7.36	3.38	45.92%	0	0%	7.36	3.43	46.60%	0	0%
GNA_1030201_Capacity	North Valley and Sierra	North Valley	GANSNER BANK 1	1030201	Bank	None	None	None	27.33%	0	0%	10.5	2.87	27.33%	0	0%	10.5	2.76	26.48%	0	0%	10.5	2.72	25.90%	0	0%	10.5	2.77	26.38%	0	0%
GNA_103021101_Capacity	North Valley and Sierra	North Valley	GANSNER 1101	103021101	Feeder	None	None	None	38.24%	0	0%	7.48	2.86	38.24%	0	0%	7.48	2.76	36.90%	0	0%	7.48	2.72	36.10%	0	0%	7.48	2.76	36.90%	0	0%
GNA_1033401_Capacity	North Valley and Sierra	North Valley	DAIRYVILLE BANK 1	1033401	Bank	None	None	None	81.56%	0	0%	4.23	3.44	81.32%	0	0%	4.23	3.43	81.09%	0	0%	4.23	3.42	80.85%	0	0%	4.23	3.45	81.56%	0	0%
GNA_103341101_Capacity	North Valley and Sierra	North Valley	DAIRYVILLE 1101	103341101	Feeder	None	None	None	49.77%	0	0%	6.41	3.18	49.61%	0	0%	6.41	3.17	49.45%	0	0%	6.41	3.16	49.30%	0	0%	6.41	3.19	49.77%	0	0%
GNA_1035301_Capacity	North Valley and Sierra	North Valley	RAWSON BANK 1	1035301	Bank	None	None	None	80.73%	0	0%	14.84	11.02	74.26%	0	0%	14.84	10.97	73.92%	0	0%	14.84	11.98	80.73%	0	0%	14.84	11.96	80.59%	0	0%
GNA_103531103_Capacity	North Valley and Sierra	North Valley	RAWSON 1103	103531103	Feeder	None	None	None	97.43%	0	0%	12.83	11.54	89.95%	0	0%	12.83	11.49	89.56%	0	0%	12.83	12.5	97.43%	0	0%	12.83	12.48	97.27%	0	0%
GNA_1035401_Capacity	North Valley and Sierra	North Valley	RED BLUFF BANK 1	1035401	Bank	None	None	None	57.81%	0	0%	29.7	16.21	54.58%	0	0%	29.7	16.39	55.19%	0	0%	29.7	16.58	56.73%	0	0%	29.7	17.17	57.81%	0	0%
GNA_103541103_Capacity	North Valley and Sierra	North Valley	RED BLUFF 1103	103541103	Feeder	None	None	None	96.94%	0	0%	10.46	9.8	93.69%	0	0%	10.46	9.87	94.36%	0	0%	10.46	9.93	94.93%	0	0%	10.46	10.04	95.96%	0	0%
GNA_103541104_Capacity	North Valley and Sierra	North Valley	RED BLUFF 1104	103541104	Feeder	None	None	None	68.07%	0	0%	10.46	6.62	63.29%	0	0%	10.46	6.71	64.15%	0	0%	10.46	6.94	66.35%	0	0%	10.46	7.12	68.07%	0	0%
GNA_1035402_Capacity	North Valley and Sierra	North Valley	RED BLUFF BANK 2	1035402	Bank	None	None	None	100.10%	0.01	0%	10.4	10.3	99.04%	0	0%	10.4	10.41	100.10%	0.01	0%	10.4	9.46	99.96%	0	0%	10.4	10.21	98.17%	0	0%
GNA_103541105_Capacity	North Valley and Sierra	North Valley	RED BLUFF 1105	103541105	Feeder	None	None	None	89.56%	0	0%	11.4	10.1	88.60%	0	0%	11.4	10.21	89.56%	0	0%	11.4	9.27	81.32%	0	0%	11.4	10.19	89.39%	0	0%
GNA_1035403_Capacity	North Valley and Sierra	North Valley	RED BLUFF BANK 3	1035403	Bank	None	None	None	98.41%	0	0%	8.82	8.43	95.58%	0	0%	8.82	8.54	96.83%	0	0%	8.82	8.68	98.41%	0	0%	8.82	8.24	93.42%	0	0%
GNA_103541101_Capacity	North Valley and Sierra	North Valley	RED BLUFF 1101	103541101	Feeder	None	None	None	68.55%	0	0%	10.46	6.6	63.10%	0	0%	10.46	6.71	64.15%	0	0%	10.46	6.84	65.39%	0	0%	10.46	7	66.55%	0	0%
GNA_103541102_Capacity	North Valley and Sierra	North Valley	RED BLUFF 1102	103541102	Feeder	None	None	None	21.70%	0	0%	10.46	2.27	21.70%	0	0%	10.46	2.26	21.61%	0	0%	10.46	2.25	21.51%	0	0%	10.46	1.65	15.77%	0	0%
GNA_1035701_Capacity	North Valley and Sierra	North Valley	TYLER BANK 1	1035701	Bank	Demand Growth	Capacity	2025	259.84%	14.37	160%	8.99	8.48	94.33%	0	0%	8.99	8.58	96.44%	0	0%	8.99	23.23	258.40%	14.24	158%	8.99	23.29	259.07%	14.3	159%
GNA_103571103_Capacity	North Valley and Sierra	North Valley	TYLER 1103	103571103	Feeder	Demand Growth	Capacity	2025	10																						

PG&E 2023 Grid Needs Assessment (GNA)  
 Appendix E: GNA Results - Bank & Feeder Capacity Needs  
 Version Date: 8/15/2023  
 Public

GNA NEED ID	Facility Information				Distribution Service		Peak Deficiency and Loading																															
	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023						2024						2025						2026						2027					
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)		
GNA_103142102_Capacity	North Valley and Sierra	North Valley	LOGAN CREEK 2102	103142102	Feeder	None	None	None	88.70%	0	0%	22.22	19.71	88.70%	0	0%	22.22	19.67	88.52%	0	0%	22.22	19.64	88.39%	0	0%	22.22	19.66	88.48%	0	0%	22.22	19.67	88.52%	0	0%		
GNA_103142103_Capacity	North Valley and Sierra	North Valley	LOGAN CREEK 2103	103142103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC			
GNA_10274101_Capacity	North Valley and Sierra	North Valley	WILLOWS A BANK 1	10274101	Bank	None	None	None	97.01%	0	0%	12.38	11.88	95.96%	0	0%	12.38	11.89	96.04%	0	0%	12.38	11.91	96.20%	0	0%	12.38	11.95	96.53%	0	0%	12.38	12.01	97.01%	0	0%		
GNA_102741101_Capacity	North Valley and Sierra	North Valley	WILLOWS A 1101	102741101	Feeder	None	None	None	39.57%	0	0%	7.48	2.95	39.44%	0	0%	7.48	2.94	39.30%	0	0%	7.48	2.94	39.30%	0	0%	7.48	2.95	39.44%	0	0%	7.48	2.96	39.57%	0	0%		
GNA_102741103_Capacity	North Valley and Sierra	North Valley	WILLOWS A 1103	102741103	Feeder	None	None	None	52.57%	0	0%	10.69	5.57	52.10%	0	0%	10.69	5.57	52.10%	0	0%	10.69	5.58	52.20%	0	0%	10.69	5.6	52.39%	0	0%	10.69	5.62	52.57%	0	0%		
GNA_102741104_Capacity	North Valley and Sierra	North Valley	WILLOWS A 1104	102741104	Feeder	None	None	None	69.98%	0	0%	5.73	4.01	69.98%	0	0%	5.73	4	69.81%	0	0%	5.73	3.96	69.11%	0	0%	5.73	3.95	68.94%	0	0%	5.73	3.95	68.94%	0	0%		
GNA_0240102_Capacity	Bay Area	Peninsula	BAY MEADOWS BANK 2	240102	Bank	None	None	None	50.71%	0	0%	29.7	15.06	50.71%	0	0%	29.7	14.78	49.76%	0	0%	29.7	14.57	49.06%	0	0%	29.7	14.55	48.99%	0	0%	29.7	14.6	49.16%	0	0%		
GNA_024011107_Capacity	Bay Area	Peninsula	BAY MEADOWS 1107	24011107	Feeder	None	None	None	95.85%	0	0%	11.57	11.09	95.85%	0	0%	11.57	11.04	95.42%	0	0%	11.57	11	95.07%	0	0%	11.57	11.05	95.51%	0	0%	11.57	11.05	95.51%	0	0%		
GNA_024011108_Capacity	Bay Area	Peninsula	BAY MEADOWS 1108	24011108	Feeder	None	None	None	56.42%	0	0%	10.28	5.41	52.63%	0	0%	10.28	5.29	51.46%	0	0%	10.28	5.31	51.65%	0	0%	10.28	5.49	53.40%	0	0%	10.28	5.8	56.42%	0	0%		
GNA_02401103_Capacity	Bay Area	Peninsula	BAY MEADOWS BANK 3	240103	Bank	None	None	None	97.71%	0	0%	44.6	43.53	97.60%	0	0%	44.6	43.09	96.61%	0	0%	44.6	42.88	96.14%	0	0%	44.6	43.15	96.75%	0	0%	44.6	43.58	97.71%	0	0%		
GNA_024011102_Capacity	Bay Area	Peninsula	BAY MEADOWS 1102	24011102	Feeder	None	None	None	51.75%	0	0%	10.28	5.31	51.65%	0	0%	10.28	5.28	51.17%	0	0%	10.28	5.23	50.88%	0	0%	10.28	5.25	51.07%	0	0%	10.28	5.32	51.75%	0	0%		
GNA_024011103_Capacity	Bay Area	Peninsula	BAY MEADOWS 1103	24011103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC			
GNA_024011104_Capacity	Bay Area	Peninsula	BAY MEADOWS 1104	24011104	Feeder	None	None	None	86.34%	0	0%	11.57	9.83	84.96%	0	0%	11.57	9.69	83.75%	0	0%	11.57	9.57	82.71%	0	0%	11.57	9.79	84.62%	0	0%	11.57	9.99	86.34%	0	0%		
GNA_024011105_Capacity	Bay Area	Peninsula	BAY MEADOWS 1105	24011105	Feeder	None	None	None	94.16%	0	0%	11.65	10.67	91.59%	0	0%	11.65	10.73	92.10%	0	0%	11.65	10.79	92.62%	0	0%	11.65	10.87	93.30%	0	0%	11.65	10.97	94.16%	0	0%		
GNA_024011106_Capacity	Bay Area	Peninsula	BAY MEADOWS 1106	24011106	Feeder	None	None	None	88.33%	0	0%	10.28	8.87	86.28%	0	0%	10.28	8.81	85.70%	0	0%	10.28	8.88	86.38%	0	0%	10.28	8.88	86.38%	0	0%	10.28	9.08	88.33%	0	0%		
GNA_0240301_Capacity	Bay Area	Peninsula	BELMONT BANK 1	240301	Bank	None	None	None	95.38%	0	0%	44.6	41.11	92.17%	0	0%	44.6	40.63	91.10%	0	0%	44.6	41.55	93.16%	0	0%	44.6	42.36	94.98%	0	0%	44.6	42.54	95.38%	0	0%		
GNA_0240304_Capacity	Bay Area	Peninsula	BELMONT BANK 4	240304	Bank	None	None	None	72.54%	0	0%	12.38	7.84	63.33%	0	0%	12.38	7.88	63.65%	0	0%	12.38	7.91	63.89%	0	0%	12.38	8.89	71.81%	0	0%	12.38	8.98	72.54%	0	0%		
GNA_024030401_Capacity	Bay Area	Peninsula	BELMONT 0401	24030401	Feeder	None	None	None	98.52%	0	0%	2.71	2.67	98.52%	0	0%	2.71	2.66	98.15%	0	0%	2.71	2.65	97.79%	0	0%	2.71	2.64	97.42%	0	0%	2.71	2.63	97.05%	0	0%		
GNA_024030402_Capacity	Bay Area	Peninsula	BELMONT 0402	24030402	Feeder	None	None	None	91.70%	0	0%	2.77	1.75	63.18%	0	0%	2.77	1.77	63.90%	0	0%	2.77	1.76	64.62%	0	0%	2.77	2.45	88.45%	0	0%	2.77	2.54	91.70%	0	0%		
GNA_024030403_Capacity	Bay Area	Peninsula	BELMONT 0403	24030403	Feeder	None	None	None	63.04%	0	0%	3.03	1.56	51.49%	0	0%	3.03	1.57	51.82%	0	0%	3.03	1.58	52.15%	0	0%	3.03	1.9	62.71%	0	0%	3.03	1.91	63.04%	0	0%		
GNA_024031101_Capacity	Bay Area	Peninsula	BELMONT 1101	24031101	Feeder	None	None	None	89.45%	0	0%	10.24	8.93	87.21%	0	0%	10.24	8.95	87.40%	0	0%	10.24	8.98	87.70%	0	0%	10.24	9.05	88.38%	0	0%	10.24	9.16	89.45%	0	0%		
GNA_024031102_Capacity	Bay Area	Peninsula	BELMONT 1102	24031102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC				
GNA_024031103_Capacity	Bay Area	Peninsula	BELMONT 1103	24031103	Feeder	None	None	None	90.27%	0	0%	10.48	9.08	86.64%	0	0%	10.48	8.3	79.20%	0	0%	10.48	9.46	90.27%	0	0%	10.48	9.43	89.98%	0	0%	10.48	9.37	89.41%	0	0%		
GNA_024031104_Capacity	Bay Area	Peninsula	BELMONT 1104	24031104	Feeder	None	None	None	87.60%	0	0%	11.05	9.18	83.08%	0	0%	11.05	9.67	87.51%	0	0%	11.05	9.68	87.60%	0	0%	11.05	9.66	87.42%	0	0%	11.05	9.67	87.51%	0	0%		
GNA_0240302_Capacity	Bay Area	Peninsula	BELMONT BANK 2	240302	Bank	None	None	None	66.05%	0	0%	44.6	24.95	55.94%	0	0%	44.6	28.15	63.12%	0	0%	44.6	29.28	65.61%	0	0%	44.6	29.28	65.65%	0	0%	44.6	29.46	66.05%	0	0%		
GNA_024031105_Capacity	Bay Area	Peninsula	BELMONT 1105	24031105	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC				
GNA_024031106_Capacity	Bay Area	Peninsula	BELMONT 1106	24031106	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC			
GNA_024031107_Capacity	Bay Area	Peninsula	BELMONT 1107	24031107	Feeder	None	None	None	97.84%	0	0%	11.57	9.77	84.44%	0	0%	11.57	11.32	97.84%	0	0%	11.57	11.32	97.84%	0	0%	11.57	11.32	97.84%	0	0%	11.57	11.32	97.84%	0	0%		
GNA_024031108_Capacity	Bay Area	Peninsula	BELMONT 1108	24031108	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC			
GNA_0240303_Capacity	Bay Area	Peninsula	BELMONT BANK 3	240303	Bank	None	None	None	73.48%	0	0%	44.6	30.6	68.61%	0	0%	44.6	31.99	71.73%	0	0%	44.6	32.34	72.51%	0	0%	44.6	32.54	72.96%	0	0%	44.6	32.77	73.48%	0	0%		
GNA_024031109_Capacity	Bay Area	Peninsula	BELMONT 1109	24031109	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC			
GNA_024031110_Capacity	Bay Area	Peninsula	BELMONT 1110	24031110	Feeder	Demand Growth	Capacity	2024	108.50%	0.99	8%	11.65	11.3	97.00%	0	0%	11.65	12.59	108.07%	0.94	8%	11.65	12.51	107.38%	0.86	7%	11.65	12.56	107.81%	0.91	8%	11.65	12.64	108.50%	0.99	8%		
GNA_024031111_Capacity	Bay Area	Peninsula	BELMONT 1111	24031111	Feeder	None	None	None	58.74%	0	0%	12.19	7.16	58.74%	0	0%	12.19	7.16	58.74%	0	0%	12.19	7.16	58.74%	0	0%	12.19	7.16	58.74%	0	0%	12.19	7.15	58.65%	0	0%		
GNA_0240305_Capacity	Bay Area	Peninsula	BELMONT BANK 5	240305	Bank	None	None	None	27.14%	0	0%	12.38	3.01	24.31%	0	0%	12.38	2.99	24.15%	0	0%	12.38	3.35	27.06%	0	0%	12.38	3.36	27.14%	0	0%	12.38	3.36	27.14%	0	0%		
GNA_024030406_Capacity	Bay Area	Peninsula	BELMONT 0406	24030406	Feeder	None	None	None	90.21%	0	0%	2.35	1.77	75.32%	0	0%	2.35	1.75	74.47%	0	0%	2.35	2.1	89.36%	0	0%	2.35	2.1	89.36%	0	0%	2.35	2.12	90.21%	0	0%		
GNA_0241401_Capacity	Bay Area	Peninsula	RALSTON BANK 1	241401	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC				
GNA_024141101_Capacity	Bay Area	Peninsula	RALSTON 1101	24141101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC				
GNA_0241402_Capacity	Bay Area	Peninsula	RALSTON BANK 2	241402	Bank	None	None	None	93.15%	0	0%	5.4	5.03	93.15%	0	0%	5.4	4.93	91.30%	0	0%	5.4	4.82	89.26%	0	0%	5.4	4.77	88.33%	0	0%	5.4	4.81	89.07%	0	0%		
GNA_024141102_Capacity	Bay Area	Peninsula	RALSTON 1102	24141102	Feeder	None	None	None	85.14%	0	0%	6.26	5.33	85.14%	0	0%	6.26	5.22	83.38%	0	0%	6.26	5.12	81.79%	0	0%	6.26	5.06	80.83%	0	0%	6.26	5.09	81.31%	0	0%		
GNA_02401																																						

PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
Version Date: 8/15/2023  
Public

Facility Information				Distribution Service		Peak Deficiency and Loading																																
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023		2024		2025		2026		2027																					
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)												
GNA_0225704_Capacity	Bay Area	Peninsula	EAST GRAND BANK 4	225704	Bank	None	None	None	97.35%	0	0%	44.53	42.35	96.10%	0	0%	44.53	39.35	88.37%	0	0%	44.53	39.63	89.00%	0	0%	44.53	43.19	96.99%	0	0%	44.53	43.35	97.35%	0	0%		
GNA_02257105_Capacity	Bay Area	Peninsula	EAST GRAND 1105	2257105	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_02257106_Capacity	Bay Area	Peninsula	EAST GRAND 1106	2257106	Feeder	Demand Growth	Capacity	2023	108.95%	1.62	9%	18.11	18.4	101.60%	0.29	2%	18.11	19.73	108.95%	1.62	9%	18.11	18.91	104.42%	0.8	4%	18.11	18.94	104.58%	0.83	5%	18.11	18.95	104.64%	0.84	5%		
GNA_02257107_Capacity	Bay Area	Peninsula	EAST GRAND 1107	2257107	Feeder	None	None	None	74.20%	0	0%	12.83	9.52	74.20%	0	0%	12.83	2.93	22.84%	0	0%	12.83	2.91	22.68%	0	0%	12.83	3	23.38%	0	0%	12.83	3.09	24.08%	0	0%		
GNA_02257108_Capacity	Bay Area	Peninsula	EAST GRAND 1108	2257108	Feeder	None	None	None	96.67%	0	0%	12.83	11.51	89.71%	0	0%	12.83	11.51	89.71%	0	0%	12.83	12.63	98.44%	0	0%	12.83	12.64	98.52%	0	0%	12.83	12.66	98.67%	0	0%		
GNA_0225705_Capacity	Bay Area	Peninsula	EAST GRAND BANK 5	225705	Bank	Demand Growth	Capacity	2024	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_022571101_Capacity	Bay Area	Peninsula	EAST GRAND 1101	22571101	Feeder	Demand Growth	Capacity	2024	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_022571110_Capacity	Bay Area	Peninsula	EAST GRAND 1110	22571110	Feeder	Demand Growth	Capacity	2025	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_022571113_Capacity	Bay Area	Peninsula	EAST GRAND 1113	22571113	Feeder	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_022571114_Capacity	Bay Area	Peninsula	EAST GRAND 1114	22571114	Feeder	Demand Growth	Capacity	2024	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_0225706_Capacity	Bay Area	Peninsula	EAST GRAND BANK 6	225706	Bank	None	None	None	62.81%	0	0%	42.24	26.53	62.81%	0	0%	42.24	26.43	62.57%	0	0%	42.24	26.34	62.36%	0	0%	42.24	26.31	62.29%	0	0%	42.24	26.3	62.26%	0	0%		
GNA_02257BK2-3_Capacity	Bay Area	Peninsula	EAST GRAND BK2-3	02257BK2-3	Feeder	None	None	None	32.35%	0	0%	12.83	4.02	31.33%	0	0%	12.83	4.03	31.41%	0	0%	12.83	4.04	31.49%	0	0%	12.83	4.09	31.88%	0	0%	12.83	4.15	32.35%	0	0%		
GNA_0225723_Capacity	Bay Area	Peninsula	EAST GRAND BANK 23	225723	Bank	None	None	None	32.55%	0	0%	8.91	2.77	31.09%	0	0%	8.91	2.78	31.20%	0	0%	8.91	2.79	31.31%	0	0%	8.91	2.84	31.87%	0	0%	8.91	2.9	32.55%	0	0%		
GNA_022570401_Capacity	Bay Area	Peninsula	EAST GRAND 0401	22570401	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_022570404_Capacity	Bay Area	Peninsula	EAST GRAND 0404	22570404	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_022571103_Capacity	Bay Area	Peninsula	EAST GRAND 1103	22571103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_022571111_Capacity	Bay Area	Peninsula	EAST GRAND 1111	22571111	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_022571115_Capacity	Bay Area	Peninsula	EAST GRAND 1115	22571115	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_0226903_Capacity	Bay Area	Peninsula	MILLBRAE BANK 3	226903	Bank	Demand Growth	Capacity	2023	135.79%	10.63	36%	29.7	30.45	102.53%	0.75	3%	29.7	36.73	123.67%	7.03	24%	29.7	38.33	129.06%	8.63	29%	29.7	40.26	135.56%	10.56	36%	29.7	40.33	135.79%	10.63	36%		
GNA_022691102_Capacity	Bay Area	Peninsula	MILLBRAE 1102	22691102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_022691106_Capacity	Bay Area	Peninsula	MILLBRAE 1106	22691106	Feeder	Demand Growth	Capacity	2026	112.26%	1.14	12%	9.3	8.92	96.91%	0	0%	9.3	8.9	96.70%	0	0%	9.3	8.45	90.86%	0	0%	9.3	10.44	112.26%	1.14	12%	9.3	10.44	112.26%	1.14	12%		
GNA_022691108_Capacity	Bay Area	Peninsula	MILLBRAE 1108	22691108	Feeder	Demand Growth	Capacity	2024	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_0226904_Capacity	Bay Area	Peninsula	MILLBRAE BANK 4	226904	Bank	Demand Growth	Capacity	2025	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_022691101_Capacity	Bay Area	Peninsula	MILLBRAE 1101	22691101	Feeder	Demand Growth	Capacity	2025	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_022691104_Capacity	Bay Area	Peninsula	MILLBRAE 1104	22691104	Feeder	None	None	None	77.53%	0	0%	9.3	6.62	71.18%	0	0%	9.3	6.56	70.54%	0	0%	9.3	6.66	71.61%	0	0%	9.3	6.95	74.73%	0	0%	9.3	7.21	77.53%	0	0%		
GNA_022691107_Capacity	Bay Area	Peninsula	MILLBRAE 1107	22691107	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_0226901_Capacity	Bay Area	Peninsula	MILLBRAE BANK 1	226901	Bank	None	None	None	96.45%	0	0%	5.64	5.15	91.31%	0	0%	5.64	5.21	92.38%	0	0%	5.64	5.23	92.73%	0	0%	5.64	5.33	94.50%	0	0%	5.64	5.44	96.45%	0	0%		
GNA_022690401_Capacity	Bay Area	Peninsula	MILLBRAE 0401	22690401	Feeder	None	None	None	75.32%	0	0%	2.35	1.76	74.89%	0	0%	2.35	1.74	74.89%	0	0%	2.35	1.74	74.04%	0	0%	2.35	1.77	75.32%	0	0%	2.35	1.74	75.32%	0	0%		
GNA_022690403_Capacity	Bay Area	Peninsula	MILLBRAE 0403	22690403	Feeder	None	None	None	82.13%	0	0%	2.35	1.84	78.30%	0	0%	2.35	1.87	79.57%	0	0%	2.35	1.88	80.00%	0	0%	2.35	1.91	81.28%	0	0%	2.35	1.93	82.13%	0	0%		
GNA_022690404_Capacity	Bay Area	Peninsula	MILLBRAE 0404	22690404	Feeder	None	None	None	71.49%	0	0%	2.35	1.54	65.53%	0	0%	2.35	1.55	66.96%	0	0%	2.35	1.62	68.81%	0	0%	2.35	1.63	69.41%	0	0%	2.35	1.68	71.49%	0	0%		
GNA_0227001_Capacity	Bay Area	Peninsula	SAN BRUNO BANK 1	227001	Bank	None	None	None	68.72%	0	0%	4.7	3.02	64.26%	0	0%	4.7	3.19	67.87%	0	0%	4.7	3.18	67.66%	0	0%	4.7	3.19	67.87%	0	0%	4.7	3.23	68.72%	0	0%		
GNA_022700401_Capacity	Bay Area	Peninsula	SAN BRUNO 0401	22700401	Feeder	None	None	None	46.43%	0	0%	2.24	1.03	45.98%	0	0%	2.24	1.03	45.98%	0	0%	2.24	1.04	46.43%	0	0%	2.24	1.04	46.43%	0	0%	2.24	1.04	46.43%	0	0%		
GNA_022700402_Capacity	Bay Area	Peninsula	SAN BRUNO 0402	22700402	Feeder	None	None	None	59.56%	0	0%	1.83	0.82	44.81%	0	0%	1.83	1.09	59.56%	0	0%	1.83	1.08	59.02%	0	0%	1.83	1.09	59.56%	0	0%	1.83	1.09	59.56%	0	0%		
GNA_022700403_Capacity	Bay Area	Peninsula	SAN BRUNO 0403	22700403	Feeder	None	None	None	53.13%	0	0%	2.24	1.16	51.79%	0	0%	2.24	1.16	51.79%	0	0%	2.24	1.15	51.34%	0	0%	2.24	1.19	53.13%	0	0%	2.24	1.19	53.13%	0	0%		
GNA_0226401_Capacity	Bay Area	Peninsula	DALY CITY BANK 1	226401	Bank	None	None	None	81.64%	0	0%	44.55	33.93	76.16%	0	0%	44.55	35.23	79.06%	0	0%	44.55	35.35	79.35%	0	0%	44.55	35.77	80.29%	0	0%	44.55	36.37	81.64%	0	0%		
GNA_022641104_Capacity	Bay Area	Peninsula	DALY CITY 1104	22641104	Feeder	None	None	None	79.77%	0	0%	12.06	9.23	76.53%	0	0%	12.06	9.3																				

PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
Version Date: 8/15/2023  
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Facility Information			Distribution Service		Peak Deficiency and Loading												2023			2024			2025			2026			2027							
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)					
GNA_024024_Capacity	Bay Area	Peninsula	BELLE HAVEN BANK 4	240204	Bank	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC					
GNA_024021101_Capacity	Bay Area	Peninsula	BELLE HAVEN 1101	24021101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC					
GNA_024021102_Capacity	Bay Area	Peninsula	BELLE HAVEN 1102	24021102	Feeder	Demand Growth	Capacity	2024	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC					
GNA_0240205_Capacity	Bay Area	Peninsula	BELLE HAVEN BANK 5	240205	Bank	Demand Growth	Capacity	2027	101.04%	0.31	1%	29.7	28.37	95.52%	0	0%	29.7	28.64	96.43%	0	0%	29.7	29.14	98.11%	0	0%	29.7	29.58	99.60%	0	0%					
GNA_024021105_Capacity	Bay Area	Peninsula	BELLE HAVEN 1105	24021105	Feeder	Demand Growth	Capacity	2023	129.04%	3.54	29%	12.19	13.87	113.78%	1.68	14%	12.19	14.33	117.56%	2.14	18%	12.19	14.95	122.64%	2.76	23%	12.19	15.34	125.84%	3.15	26%	12.19	15.73	129.04%	3.54	29%
GNA_024021106_Capacity	Bay Area	Peninsula	BELLE HAVEN 1106	24021106	Feeder	None	None	None	99.59%	0	0%	12.19	12.14	99.59%	0	0%	12.19	12.1	99.26%	0	0%	12.19	12.06	98.93%	0	0%	12.19	12.05	98.85%	0	0%	12.19	12.01	98.52%	0	0%
GNA_024021107_Capacity	Bay Area	Peninsula	BELLE HAVEN 1107	24021107	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC			
GNA_0240901_Capacity	Bay Area	Peninsula	GLENWOOD BANK 1	240901	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC			
GNA_024091101_Capacity	Bay Area	Peninsula	GLENWOOD 1101	24091101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC			
GNA_0240903_Capacity	Bay Area	Peninsula	GLENWOOD BANK 3	240903	Bank	None	None	None	76.39%	0	0%	15.84	12.05	76.07%	0	0%	15.84	11.99	75.69%	0	0%	15.84	12.01	75.82%	0	0%	15.84	12.04	76.01%	0	0%	15.84	12.1	76.39%	0	0%
GNA_024091102_Capacity	Bay Area	Peninsula	GLENWOOD 1102	24091102	Feeder	None	None	None	95.00%	0	0%	12.19	11.53	94.59%	0	0%	12.19	11.46	94.01%	0	0%	12.19	11.49	94.26%	0	0%	12.19	11.52	94.50%	0	0%	12.19	11.58	95.00%	0	0%
GNA_0241601_Capacity	Bay Area	Peninsula	REDWOOD CITY BANK 1	241601	Bank	None	None	None	78.75%	0	0%	29.7	20.82	70.10%	0	0%	29.7	21.67	72.96%	0	0%	29.7	23.19	78.08%	0	0%	29.7	23.33	78.55%	0	0%	29.7	23.39	78.75%	0	0%
GNA_024161101_Capacity	Bay Area	Peninsula	REDWOOD CITY 1101	24161101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC		
GNA_024161102_Capacity	Bay Area	Peninsula	REDWOOD CITY 1102	24161102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC		
GNA_0241602_Capacity	Bay Area	Peninsula	REDWOOD CITY BK 2 (12/4 kV)	241602	Bank	None	None	None	42.26%	0	0%	15.83	6.6	41.69%	0	0%	15.83	6.61	41.76%	0	0%	15.83	6.61	41.76%	0	0%	15.83	6.66	42.07%	0	0%	15.83	6.69	42.26%	0	0%
GNA_024160402_Capacity	Bay Area	Peninsula	REDWOOD CITY 0402	24160402	Feeder	None	None	None	49.12%	0	0%	2.85	1.4	49.12%	0	0%	2.85	1.39	48.77%	0	0%	2.85	1.39	48.77%	0	0%	2.85	1.39	48.77%	0	0%	2.85	1.39	48.77%	0	0%
GNA_024160403_Capacity	Bay Area	Peninsula	REDWOOD CITY 0403	24160403	Feeder	None	None	None	75.46%	0	0%	2.73	2.03	74.73%	0	0%	2.73	2.04	75.09%	0	0%	2.73	2.05	75.09%	0	0%	2.73	2.06	75.09%	0	0%	2.73	2.06	75.46%	0	0%
GNA_024160404_Capacity	Bay Area	Peninsula	REDWOOD CITY 0404	24160404	Feeder	None	None	None	46.38%	0	0%	2.35	1.09	46.38%	0	0%	2.35	1.08	45.96%	0	0%	2.35	1.08	45.96%	0	0%	2.35	1.07	45.53%	0	0%	2.35	1.07	45.53%	0	0%
GNA_024160405_Capacity	Bay Area	Peninsula	REDWOOD CITY 0405	24160405	Feeder	None	None	None	74.07%	0	0%	2.7	1.94	71.85%	0	0%	2.7	1.94	71.85%	0	0%	2.7	1.99	72.22%	0	0%	2.7	1.99	73.70%	0	0%	2.7	2	74.07%	0	0%
GNA_0241604_Capacity	Bay Area	Peninsula	REDWOOD CITY BANK 4	241604	Bank	Demand Growth	Capacity	2023	110.53%	0.99	11%	9.4	10.11	107.55%	0.71	8%	9.4	10.19	108.40%	0.79	8%	9.4	10.27	109.26%	0.87	9%	9.4	10.33	109.89%	0.93	10%	9.4	10.39	110.53%	0.99	11%
GNA_024161103_Capacity	Bay Area	Peninsula	REDWOOD CITY 1103	24161103	Feeder	None	None	None	88.11%	0	0%	12.19	10.45	85.73%	0	0%	12.19	10.54	86.46%	0	0%	12.19	10.62	87.12%	0	0%	12.19	10.68	87.61%	0	0%	12.19	10.74	88.11%	0	0%
GNA_0241605_Capacity	Bay Area	Peninsula	REDWOOD CITY BANK 5	241605	Bank	Demand Growth	Capacity	2023	127.10%	8.05	27%	29.7	31.62	106.46%	1.92	6%	29.7	34.49	116.13%	4.79	16%	29.7	36.17	121.78%	6.47	22%	29.7	37.63	126.70%	7.93	27%	29.7	37.75	127.10%	8.05	27%
GNA_0241603_Capacity	Bay Area	Peninsula	REDWOOD CITY BANK 3 (12/4KV)	241603	Bank	None	None	None	78.15%	0	0%	12.4	9.52	76.77%	0	0%	12.4	9.54	76.94%	0	0%	12.4	9.61	77.10%	0	0%	12.4	9.61	77.50%	0	0%	12.4	9.69	78.15%	0	0%
GNA_024160406_Capacity	Bay Area	Peninsula	REDWOOD CITY 0406	24160406	Feeder	None	None	None	87.91%	0	0%	2.73	2.36	86.45%	0	0%	2.73	2.36	86.45%	0	0%	2.73	2.38	87.18%	0	0%	2.73	2.38	87.18%	0	0%	2.73	2.4	87.91%	0	0%
GNA_024160408_Capacity	Bay Area	Peninsula	REDWOOD CITY 0408	24160408	Feeder	None	None	None	59.33%	0	0%	3.27	1.89	57.80%	0	0%	3.27	1.89	57.80%	0	0%	3.27	1.91	58.41%	0	0%	3.27	1.91	58.41%	0	0%	3.27	1.94	59.33%	0	0%
GNA_024160409_Capacity	Bay Area	Peninsula	REDWOOD CITY 0409	24160409	Feeder	None	None	None	75.82%	0	0%	2.73	2.03	74.36%	0	0%	2.73	2.04	74.36%	0	0%	2.73	2.04	74.36%	0	0%	2.73	2.05	75.09%	0	0%	2.73	2.07	75.82%	0	0%
GNA_024160410_Capacity	Bay Area	Peninsula	REDWOOD CITY 0410	24160410	Feeder	None	None	None	78.72%	0	0%	2.35	1.84	78.30%	0	0%	2.35	1.84	78.30%	0	0%	2.35	1.84	78.30%	0	0%	2.35	1.85	78.72%	0	0%	2.35	1.85	78.72%	0	0%
GNA_024161104_Capacity	Bay Area	Peninsula	REDWOOD CITY 1104	24161104	Feeder	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_024161105_Capacity	Bay Area	Peninsula	REDWOOD CITY 1105	24161105	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_0241303_Capacity	Bay Area	Peninsula	MENLO BANK 3	241303	Bank	None	None	None	99.68%	0	0%	15.8	15.75	99.68%	0	0%	15.8	15.3	96.84%	0	0%	15.8	14.76	93.42%	0	0%	15.8	14.97	94.75%	0	0%	15.8	15.34	97.09%	0	0%
GNA_024131101_Capacity	Bay Area	Peninsula	MENLO 1101	24131101	Feeder	None	None	None	74.80%	0	0%	10.16	7.6	74.80%	0	0%	10.16	7.52	74.02%	0	0%	10.16	7.47	73.52%	0	0%	10.16	7.42	73.03%	0	0%	10.16	7.46	73.43%	0	0%
GNA_024131102_Capacity	Bay Area	Peninsula	MENLO 1102	24131102	Feeder	None	None	None	66.44%	0	0%	10.28	6.79	66.05%	0	0%	10.28	6.41	62.45%	0	0%	10.28	6.61	64.30%	0	0%	10.28	6.63	64.44%	0	0%	10.28	6.83	66.44%	0	0%
GNA_0241304_Capacity	Bay Area	Peninsula	MENLO BANK 4	241304	Bank	Demand Growth	Capacity	2023	104.56%	0.72	5%	15.8	16.05	101.58%	0.25	2%	15.8	16.26	102.91%	0.46	3%	15.8	16.52	104.56%	0.72	5%	15.8	14.12	89.37%	0	0%	15.8	14.5	91.77%	0	0%
GNA_024131103_Capacity	Bay Area	Peninsula	MENLO 1103	24131103	Feeder	None	None	None	69.88%	0	0%	10.16	6.27	61.71%	0	0%	10.16	6.17	60.47%	0	0%	10.16	6.17	60.47%	0	0%	10.16	6.17	60.47%	0	0%	10.16	6.17	60.47%	0	0%
GNA_024131104_Capacity	Bay Area	Peninsula	MENLO 1104	24131104	Feeder	None	None	None	98.23%	0	0%	10.16	9.98	98.23%	0	0%	10.16	9.9	97.44%	0	0%	10.16	9.99	97.34%	0	0%	10.16	7.3	71.85%	0	0%	10.16	7.42	73.03%	0	0%
GNA_0241802_Capacity	Bay Area	Peninsula	SAN CARLOS BANK 2	241802	Bank	Demand Growth	Capacity	2023	121.08%	3.33	21%	15.8	18.67	118.16%	2.87	18%																				

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Appendix E: GNA Results - Bank & Feeder Capacity Needs  
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Facility Information							Distribution Service			Peak Deficiency and Loading				2023				2024				2025				2026				2027							
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	
GNA_02410103_Capacity	Bay Area	Peninsula	HALF MOON BAY 1103	24101103	Feeder	None	None	None	58.30%	0	0%	12.83	7.05	54.95%	0	0%	12.83	7.11	55.42%	0	0%	12.83	7.17	55.88%	0	0%	12.83	7.35	57.29%	0	0%	12.83	7.48	58.30%	0	0%	
GNA_0620401_Capacity	North Valley and Sierra	Sacramento	DAVIS BANK 1	620401	Bank	None	None	None	95.71%	0	0%	44.53	42.62	96.71%	0	0%	44.53	42.32	95.04%	0	0%	44.53	42.08	94.50%	0	0%	44.53	42.39	95.19%	0	0%	44.53	42.39	95.19%	0	0%	
GNA_062041101_Capacity	North Valley and Sierra	Sacramento	DAVIS 1101	62041101	Feeder	None	None	None	79.13%	0	0%	12.36	9.62	77.83%	0	0%	12.36	9.62	77.83%	0	0%	12.36	9.63	77.91%	0	0%	12.36	9.68	78.32%	0	0%	12.36	9.78	79.13%	0	0%	
GNA_062041102_Capacity	North Valley and Sierra	Sacramento	DAVIS 1102	62041102	Feeder	None	None	None	93.11%	0	0%	12.19	11.35	93.11%	0	0%	12.19	11.27	92.45%	0	0%	12.19	11.13	91.30%	0	0%	12.19	11.07	90.81%	0	0%	12.19	11.18	91.71%	0	0%	
GNA_062041103_Capacity	North Valley and Sierra	Sacramento	DAVIS 1103	62041103	Feeder	None	None	None	92.66%	0	0%	10.76	9.91	92.10%	0	0%	10.76	9.84	91.45%	0	0%	10.76	9.83	91.36%	0	0%	10.76	9.85	91.54%	0	0%	10.76	9.97	92.66%	0	0%	
GNA_062041104_Capacity	North Valley and Sierra	Sacramento	DAVIS 1104	62041104	Feeder	None	None	None	98.01%	0	0%	11.55	11.3	97.84%	0	0%	11.55	11.25	97.40%	0	0%	11.55	11.22	97.14%	0	0%	11.55	11.26	97.49%	0	0%	11.55	11.32	98.01%	0	0%	
GNA_062042_Capacity	North Valley and Sierra	Sacramento	DAVIS BANK 2	620402	Bank	None	None	None	87.96%	0	0%	44.6	37.16	83.32%	0	0%	44.6	38.89	87.20%	0	0%	44.6	38.28	85.83%	0	0%	44.6	38.68	86.73%	0	0%	44.6	39.23	87.96%	0	0%	
GNA_062041105_Capacity	North Valley and Sierra	Sacramento	DAVIS 1105	62041105	Feeder	None	None	None	99.75%	0	0%	12.19	12.16	99.75%	0	0%	12.19	12.13	99.51%	0	0%	12.19	12.1	99.26%	0	0%	12.19	12.11	99.34%	0	0%	12.19	12.16	99.75%	0	0%	
GNA_062041106_Capacity	North Valley and Sierra	Sacramento	DAVIS 1106	62041106	Feeder	None	None	None	96.96%	0	0%	12.19	10.26	84.17%	0	0%	12.19	11.82	96.96%	0	0%	12.19	11.04	90.57%	0	0%	12.19	11.09	90.98%	0	0%	12.19	11.21	91.96%	0	0%	
GNA_062041107_Capacity	North Valley and Sierra	Sacramento	DAVIS 1107	62041107	Feeder	Demand Growth	Capacity	2027	101.38%	0.17	1%	12.36	12.11	97.98%	0	0%	12.36	12.2	98.71%	0	0%	12.36	12.27	99.27%	0	0%	12.36	12.39	100.24%	0.03	0%	12.36	12.53	101.38%	0.17	1%	
GNA_062041108_Capacity	North Valley and Sierra	Sacramento	DAVIS 1108	62041108	Feeder	None	None	None	81.72%	0	0%	12.36	9.55	77.27%	0	0%	12.36	9.61	77.75%	0	0%	12.36	9.72	78.64%	0	0%	12.36	9.91	80.18%	0	0%	12.36	10.1	81.72%	0	0%	
GNA_0620403_Capacity	North Valley and Sierra	Sacramento	DAVIS BANK 3	620403	Bank	None	None	None	97.44%	0	0%	44.6	37.7	84.53%	0	0%	44.6	41.37	92.76%	0	0%	44.6	41.81	93.74%	0	0%	44.6	42.88	96.14%	0	0%	44.6	43.46	97.44%	0	0%	
GNA_062041109_Capacity	North Valley and Sierra	Sacramento	DAVIS 1109	62041109	Feeder	None	None	None	97.29%	0	0%	12.19	11.32	92.86%	0	0%	12.19	11.44	93.85%	0	0%	12.19	11.55	94.75%	0	0%	12.19	11.66	95.65%	0	0%	12.19	11.86	97.29%	0	0%	
GNA_062041110_Capacity	North Valley and Sierra	Sacramento	DAVIS 1110	62041110	Feeder	None	None	None	79.66%	0	0%	12.19	9.3	76.29%	0	0%	12.19	9.4	77.11%	0	0%	12.19	9.5	77.93%	0	0%	12.19	9.61	78.84%	0	0%	12.19	9.71	79.66%	0	0%	
GNA_062041111_Capacity	North Valley and Sierra	Sacramento	DAVIS 1111	62041111	Feeder	None	None	None	56.69%	0	0%	10.76	5.7	52.97%	0	0%	10.76	5.77	53.62%	0	0%	10.76	5.84	54.28%	0	0%	10.76	5.96	55.39%	0	0%	10.76	6.1	56.69%	0	0%	
GNA_062041112_Capacity	North Valley and Sierra	Sacramento	DAVIS 1112	62041112	Feeder	Demand Growth	Capacity	2024	109.37%	0.98	9%	10.46	8.05	76.96%	0	0%	10.46	10.55	100.86%	0.09	1%	10.46	10.66	101.91%	0.2	2%	10.46	11.33	108.32%	0.87	8%	10.46	11.44	109.37%	0.98	9%	
GNA_0624601_Capacity	North Valley and Sierra	Sacramento	GRAND ISLAND BANK 1	624601	Bank	None	None	None	28.07%	0	0%	17.81	5	28.07%	0	0%	17.81	4.97	27.91%	0	0%	17.81	4.94	27.74%	0	0%	17.81	4.91	27.57%	0	0%	17.81	4.9	27.51%	0	0%	
GNA_062462223_Capacity	North Valley and Sierra	Sacramento	GRAND ISLAND 2223	62462223	Feeder	None	None	None	41.48%	0	0%	12.44	5.16	41.48%	0	0%	12.44	5.13	41.24%	0	0%	12.44	5.1	41.00%	0	0%	12.44	5.07	40.76%	0	0%	12.44	5.06	40.68%	0	0%	
GNA_0624602_Capacity	North Valley and Sierra	Sacramento	GRAND ISLAND BANK 2	624602	Bank	None	None	None	70.19%	0	0%	17.81	12.5	70.19%	0	0%	17.81	12.44	69.85%	0	0%	17.81	12.37	69.46%	0	0%	17.81	12.33	69.23%	0	0%	17.81	12.32	69.17%	0	0%	
GNA_062462224_Capacity	North Valley and Sierra	Sacramento	GRAND ISLAND 2224	62462224	Feeder	None	None	None	68.87%	0	0%	4.85	3.34	68.87%	0	0%	4.85	3.33	68.66%	0	0%	4.85	3.31	68.25%	0	0%	4.85	3.3	68.04%	0	0%	4.85	3.28	67.63%	0	0%	
GNA_062462225_Capacity	North Valley and Sierra	Sacramento	GRAND ISLAND 2225	62462225	Feeder	None	None	None	71.64%	0	0%	13.33	9.55	71.64%	0	0%	13.33	9.5	71.27%	0	0%	13.33	9.45	70.89%	0	0%	13.33	9.42	70.67%	0	0%	13.33	9.43	70.74%	0	0%	
GNA_0624603_Capacity	North Valley and Sierra	Sacramento	GRAND ISLAND BANK 3	624603	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_062462226_Capacity	North Valley and Sierra	Sacramento	GRAND ISLAND 2226	62462226	Feeder	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_062462227_Capacity	North Valley and Sierra	Sacramento	GRAND ISLAND 2227	62462227	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_0620201_Capacity	North Valley and Sierra	Sacramento	COLUSA BANK 1	620201	Bank	None	None	None	28.55%	0	0%	28.9	8.01	27.72%	0	0%	28.9	7.99	27.65%	0	0%	28.9	8.01	27.72%	0	0%	28.9	8.1	28.03%	0	0%	28.9	8.25	28.55%	0	0%	
GNA_062021101_Capacity	North Valley and Sierra	Sacramento	COLUSA 1101	62021101	Feeder	None	None	None	51.66%	0	0%	8.13	3.96	48.71%	0	0%	8.13	3.95	48.59%	0	0%	8.13	3.97	48.83%	0	0%	8.13	4.06	49.94%	0	0%	8.13	4.2	51.66%	0	0%	
GNA_062021103_Capacity	North Valley and Sierra	Sacramento	COLUSA 1103	62021103	Feeder	None	None	None	43.83%	0	0%	8.92	3.91	43.83%	0	0%	8.92	3.91	43.83%	0	0%	8.92	3.91	43.83%	0	0%	8.92	3.91	43.83%	0	0%	8.92	3.91	43.83%	0	0%	
GNA_0620202_Capacity	North Valley and Sierra	Sacramento	COLUSA BANK 2	620202	Bank	None	None	None	31.76%	0	0%	29.69	7.88	26.54%	0	0%	29.69	9.42	31.73%	0	0%	29.69	9.42	31.73%	0	0%	29.69	9.43	31.76%	0	0%	29.69	9.43	31.76%	0	0%	
GNA_062021104_Capacity	North Valley and Sierra	Sacramento	COLUSA 1104	62021104	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_062021105_Capacity	North Valley and Sierra	Sacramento	COLUSA 1105	62021105	Feeder	None	None	None	16.37%	0	0%	10.69	1.75	16.37%	0	0%	10.69	1.75	16.37%	0	0%	10.69	1.75	16.37%	0	0%	10.69	1.75	16.37%	0	0%	10.69	1.75	16.37%	0	0%	
GNA_0620701_Capacity	North Valley and Sierra	Sacramento	COLUSA JUNCTION BANK 1	620701	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_062071101_Capacity	North Valley and Sierra	Sacramento	COLUSA JUNCTION 1101	62071101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_0628801_Capacity	North Valley and Sierra	Sacramento	MAXWELL BANK 1	628801	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_062881102_Capacity	North Valley and Sierra	Sacramento	MAXWELL 1102	62881102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_0628802_Capacity	North Valley and Sierra	Sacramento																																			

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Facility Information					Distribution Service				Peak Deficiency and Loading																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023																		2024																		2025																		2026																		2027																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
GNA_06213110_Capacity	North Valley and Sierra	Sacramento	SUISUN 110	6213110	Feeder	None	None	None	34.39%	0	0%	10.76	3.3	30.67%	0	0%	10.76	3.41	31.69%	0	0%	10.76	3.52	32.71%	0	0%	10.76	3.61	33.55%	0	0%	10.76	3.7	34.39%	0	0%	10.76	3.8	35.23%	0	0%	10.76	3.9	36.07%	0	0%	10.76	4.0	36.91%	0	0%	10.76	4.1	37.75%	0	0%	10.76	4.2	38.59%	0	0%	10.76	4.3	39.43%	0	0%	10.76	4.4	40.27%	0	0%	10.76	4.5	41.11%	0	0%	10.76	4.6	41.95%	0	0%	10.76	4.7	42.79%	0	0%	10.76	4.8	43.63%	0	0%	10.76	4.9	44.47%	0	0%	10.76	5.0	45.31%	0	0%	10.76	5.1	46.15%	0	0%	10.76	5.2	46.99%	0	0%	10.76	5.3	47.83%	0	0%	10.76	5.4	48.67%	0	0%	10.76	5.5	49.51%	0	0%	10.76	5.6	50.35%	0	0%	10.76	5.7	51.19%	0	0%	10.76	5.8	52.03%	0	0%	10.76	5.9	52.87%	0	0%	10.76	6.0	53.71%	0	0%	10.76	6.1	54.55%	0	0%	10.76	6.2	55.39%	0	0%	10.76	6.3	56.23%	0	0%	10.76	6.4	57.07%	0	0%	10.76	6.5	57.91%	0	0%	10.76	6.6	58.75%	0	0%	10.76	6.7	59.59%	0	0%	10.76	6.8	60.43%	0	0%	10.76	6.9	61.27%	0	0%	10.76	7.0	62.11%	0	0%	10.76	7.1	62.95%	0	0%	10.76	7.2	63.79%	0	0%	10.76	7.3	64.63%	0	0%	10.76	7.4	65.47%	0	0%	10.76	7.5	66.31%	0	0%	10.76	7.6	67.15%	0	0%	10.76	7.7	67.99%	0	0%	10.76	7.8	68.83%	0	0%	10.76	7.9	69.67%	0	0%	10.76	8.0	70.51%	0	0%	10.76	8.1	71.35%	0	0%	10.76	8.2	72.19%	0	0%	10.76	8.3	73.03%	0	0%	10.76	8.4	73.87%	0	0%	10.76	8.5	74.71%	0	0%	10.76	8.6	75.55%	0	0%	10.76	8.7	76.39%	0	0%	10.76	8.8	77.23%	0	0%	10.76	8.9	78.07%	0	0%	10.76	9.0	78.91%	0	0%	10.76	9.1	79.75%	0	0%	10.76	9.2	80.59%	0	0%	10.76	9.3	81.43%	0	0%	10.76	9.4	82.27%	0	0%	10.76	9.5	83.11%	0	0%	10.76	9.6	83.95%	0	0%	10.76	9.7	84.79%	0	0%	10.76	9.8	85.63%	0	0%	10.76	9.9	86.47%	0	0%	10.76	10.0	87.31%	0	0%	10.76	10.1	88.15%	0	0%	10.76	10.2	88.99%	0	0%	10.76	10.3	89.83%	0	0%	10.76	10.4	90.67%	0	0%	10.76	10.5	91.51%	0	0%	10.76	10.6	92.35%	0	0%	10.76	10.7	93.19%	0	0%	10.76	10.8	94.03%	0	0%	10.76	10.9	94.87%	0	0%	10.76	11.0	95.71%	0	0%	10.76	11.1	96.55%	0	0%	10.76	11.2	97.39%	0	0%	10.76	11.3	98.23%	0	0%	10.76	11.4	99.07%	0	0%	10.76	11.5	99.91%	0	0%	10.76	11.6	100.75%	0	0%	10.76	11.7	101.59%	0	0%	10.76	11.8	102.43%	0	0%	10.76	11.9	103.27%	0	0%	10.76	12.0	104.11%	0	0%	10.76	12.1	104.95%	0	0%	10.76	12.2	105.79%	0	0%	10.76	12.3	106.63%	0	0%	10.76	12.4	107.47%	0	0%	10.76	12.5	108.31%	0	0%	10.76	12.6	109.15%	0	0%	10.76	12.7	110.0%	0	0%	10.76	12.8	110.84%	0	0%	10.76	12.9	111.68%	0	0%	10.76	13.0	112.52%	0	0%	10.76	13.1	113.36%	0	0%	10.76	13.2	114.2%	0	0%	10.76	13.3	115.04%	0	0%	10.76	13.4	115.88%	0	0%	10.76	13.5	116.72%	0	0%	10.76	13.6	117.56%	0	0%	10.76	13.7	118.4%	0	0%	10.76	13.8	119.24%	0	0%	10.76	13.9	120.08%	0	0%	10.76	14.0	120.92%	0	0%	10.76	14.1	121.76%	0	0%	10.76	14.2	122.6%	0	0%	10.76	14.3	123.44%	0	0%	10.76	14.4	124.28%	0	0%	10.76	14.5	125.12%	0	0%	10.76	14.6	125.96%	0	0%	10.76	14.7	126.8%	0	0%	10.76	14.8	127.64%	0	0%	10.76	14.9	128.48%	0	0%	10.76	15.0	129.32%	0	0%	10.76	15.1	130.16%	0	0%	10.76	15.2	131.0%	0	0%	10.76	15.3	131.84%	0	0%	10.76	15.4	132.68%	0	0%	10.76	15.5	133.52%	0	0%	10.76	15.6	134.36%	0	0%	10.76	15.7	135.2%	0	0%	10.76	15.8	136.04%	0	0%	10.76	15.9	136.88%	0	0%	10.76	16.0	137.72%	0	0%	10.76	16.1	138.56%	0	0%	10.76	16.2	139.4%	0	0%	10.76	16.3	140.24%	0	0%	10.76	16.4	141.08%	0	0%	10.76	16.5	141.92%	0	0%	10.76	16.6	142.76%	0	0%	10.76	16.7	143.6%	0	0%	10.76	16.8	144.44%	0	0%	10.76	16.9	145.28%	0	0%	10.76	17.0	146.12%	0	0%	10.76	17.1	146.96%	0	0%	10.76	17.2	147.8%	0	0%	10.76	17.3	148.64%	0	0%	10.76	17.4	149.48%	0	0%	10.76	17.5	150.32%	0	0%	10.76	17.6	151.16%	0	0%	10.76	17.7	152.0%	0	0%	10.76	17.8	152.84%	0	0%	10.76	17.9	153.68%	0	0%	10.76	18.0	154.52%	0	0%	10.76	18.1	155.36%	0	0%	10.76	18.2	156.2%	0	0%	10.76	18.3	157.04%	0	0%	10.76	18.4	157.88%	0	0%	10.76	18.5	158.72%	0	0%	10.76	18.6	159.56%	0	0%	10.76	18.7	160.4%	0	0%	10.76	18.8	161.24%	0	0%	10.76	18.9	162.08%	0	0%	10.76	19.0	162.92%	0	0%	10.76	19.1	163.76%	0	0%	10.76	19.2	164.6%	0	0%	10.76	19.3	165.44%	0	0%	10.76	19.4	166.28%	0	0%	10.76	19.5	167.12%	0	0%	10.76	19.6	167.96%	0	0%	10.76	19.7	168.8%	0	0%	10.76	19.8	169.64%	0	0%	10.76	19.9	170.48%	0	0%	10.76	20.0	171.32%	0	0%	10.76	20.1	172.16%	0	0%	10.76	20.2	173.0%	0	0%	10.76	20.3	173.84%	0	0%	10.76	20.4	174.68%	0	0%	10.76	20.5	175.52%	0	0%	10.76	20.6	176.36%	0	0%	10.76	20.7	177.2%	0	0%	10.76	20.8	178.04%	0	0%	10.76	20.9	178.88%	0	0%	10.76	21.0	179.72%	0	0%	10.76	21.1	180.56%	0	0%	10.76	21.2	181.4%	0	0%	10.76	21.3	182.24%	0	0%	10.76	21.4	183.08%	0	0%	10.76	21.5	183.92%	0	0%	10.76	21.6	184.76%	0	0%	10.76	21.7	185.6%	0	0%	10.76	21.8	186.44%	0	0%	10.76	21.9	187.28%	0	0%	10.76	22.0	188.12%	0	0%	10.76	22.1	188.96%	0	0%	10.76	22.2	189.8%	0	0%	10.76	22.3	190.64%	0	0%	10.76	22.4	191.48%	0	0%	10.76	22.5	192.32%	0	0%	10.76	22.6	193.16%	0	0%	10.76	22.7	194.0%	0	0%	10.76	22.8	194.84%	0	0%	10.76	22.9	195.68%	0	0%	10.76	23.0	196.52%	0	0%	10.76	23.1	197.36%	0	0%	10.76	23.2	198.2%	0	0%	10.76	23.3	199.04%	0	0%	10.76	23.4	199.88%	0	0%	10.76	23.5	200.72%	0	0%	10.76	23.6	201.56%	0	0%	10.76	23.7	202.4%	0	0%	10.76	23.8	203.24%	0	0%	10.76	23.9	204.08%	0	0%	10.76	24.0	204.92%	0	0%	10.76	24.1	205.76%	0	0%	10.76	24.2	206.6%	0	0%	10.76	24.3	207.44%	0	0%	10.76	24.4	208.28%	0	0%	10.76	24.5	209.12%	0	0%	10.76	24.6	210.0%	0	0%	10.76	24.7	210.84%	0	0%	10.76	24.8	211.68%	0	0%	10.76	24.9	212.52%	0	0%	10.76	25.0	213.36%	0	0%	10.76	25.1	214.2%	0	0%	10.76	25.2	215.04%	0	0%	10.76	25.3	215.88%	0	0%	10.76	25.4	216.72%	0	0%	10.76	25.5	217.56%	0	0%	10.76	25.6	218.4%	0	0%	10.76	25.7	219.24%	0	0%	10.76	25.8	220.08%	0	0%	10.76	25.9	220.92%	0	0%	10.76	26.0	221.76%	0	0%	10.76	26.1	222.6%	0	0%	10.76	26.2	223.44%	0	0%	10.76	26.3	224.28%	0	0%	10.76	26.4	225.12%	0	0%	10.76	26.5	225.96%	0	0%	10.76	26.6	226.8%	0	0%	10.76	26.7	227.64%	0	0%	10.76	26.8	228.48%	0	0%	10.76	26.9	229.32%	0	0%	10.76	27.0	230.16%	0	0%	10.76	27.1	231.0%	0	0%	10.76	27.2	231.84%	0	0%	10.76	27.3	232.68%	0	0%	10.76	27.4	233.52%	0	0%	10.76	27.5	234.36%	0	0%	10.76	27.6	235.2%	0	0%	10.76	27.7	236.04%	0	0%	10.76	27.8	236.88%	0	0%	10.76	27.9	237.72%	0	0%	10.76	28.0	238.56%	0	0%	10.76	28.1	239.4%	0	0%	10.76	28.2	240.24%	0	0%	10.76	28.3	241.08%	0	0%	10.76	28.4	241.92%	0	0%	10.76	28.5	242.76%	0	0%	10.76	28.6	243.6%	0	0%	10.76	28.7	244.44%	0	0%	10.76	28.8	245.28%	0	0%	10.76	28.9	246.12%	0	0%	10.76	29.0	246.96%	0	0%	10.76	29.1	247.8%	0	0%	10.76	29.2	248.64%	0	0%	10.76	29.3	249.48%	0	0%	10.76	29.4	250.32%	0	0%	10.76	29.5	251.16%	0	0%	10.76	29.6	252.0%	0	0%	10.76	29.7	252.84%	0	0%	10.76	29.8	253.68%	0	0%	10.76	29.9	254.52%	0	0%	10.76	30.0	255.36%	0	0%	10.76	30.1	256.2%	0	0%	10.76	30.2	257.04%	0	0%	10.76	30.3	257.88%	0	0%	10.76	30.4	258.72%	0	0%	10.76	30.5	259.56%	0	0%	10.76	30.6	260.4%	0	0%	10.76	30.7	261.24%	0	0%	10.76	30.8	262.08%	0	0%	10.76	30.9	262.92%	0	0%	10.76	31.0	263.76%





PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
Version Date: 8/15/2023  
Public

Facility Information				Distribution Service		Peak Deficiency and Loading																																																				
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023										2024										2025										2026										2027									
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)																	
GNA_0221002_Capacity	Bay Area	San Francisco	SF H BANK 2 (MARTIN)	221002	Bank	None	None	None	44.82%	0	0%	44.6	16.25	36.43%	0	0%	44.6	17.49	39.22%	0	0%	44.6	18.63	41.77%	0	0%	44.6	19.22	43.09%	0	0%	44.6	19.99	44.82%	0	0%																						
GNA_0221003_Capacity	Bay Area	San Francisco	SF H BANK 3 (MARTIN)	221003	Bank	None	None	None	23.86%	0	0%	9.89	2.23	22.55%	0	0%	9.89	2.2	22.24%	0	0%	9.89	2.21	22.35%	0	0%	9.89	2.26	22.85%	0	0%	9.89	2.36	23.86%	0	0%																						
GNA_022100402_Capacity	Bay Area	San Francisco	MARTIN (SF H) 0402	22100402	Feeder	None	None	None	51.85%	0	0%	2.97	1.4	47.14%	0	0%	2.97	1.38	46.46%	0	0%	2.97	1.4	47.14%	0	0%	2.97	1.46	49.16%	0	0%	2.97	1.54	51.85%	0	0%																						
GNA_022100404_Capacity	Bay Area	San Francisco	MARTIN (SF H) 0404	22100404	Feeder	None	None	None	31.62%	0	0%	2.53	0.78	30.83%	0	0%	2.53	0.79	31.23%	0	0%	2.53	0.8	31.62%	0	0%	2.53	0.8	31.62%	0	0%	2.53	0.8	31.62%	0	0%																						
GNA_022101105_Capacity	Bay Area	San Francisco	MARTIN (SF H) 1105	22101105	Feeder	None	None	None	99.24%	0	0%	10.52	9.11	86.60%	0	0%	10.52	9.68	92.02%	0	0%	10.52	9.86	93.73%	0	0%	10.52	10.12	96.20%	0	0%	10.52	10.44	99.24%	0	0%																						
GNA_022101108_Capacity	Bay Area	San Francisco	MARTIN (SF H) 1108	22101108	Feeder	None	None	None	78.65%	0	0%	11.57	7.05	60.93%	0	0%	11.57	7.83	67.68%	0	0%	11.57	8.66	74.85%	0	0%	11.57	8.83	76.32%	0	0%	11.57	9.1	78.65%	0	0%																						
GNA_0226701_Capacity	Bay Area	San Francisco	SILVER BANK 1	226701	Bank	None	None	None	61.84%	0	0%	2.28	1.33	58.33%	0	0%	2.28	1.33	58.33%	0	0%	2.28	1.35	59.21%	0	0%	2.28	1.38	60.53%	0	0%	2.28	1.41	61.84%	0	0%																						
GNA_022670401_Capacity	Bay Area	San Francisco	SILVER 0401	22670401	Feeder	None	None	None	51.29%	0	0%	2.71	1.31	48.34%	0	0%	2.71	1.32	48.71%	0	0%	2.71	1.34	49.45%	0	0%	2.71	1.36	50.18%	0	0%	2.71	1.39	51.29%	0	0%																						
GNA_0221004_Capacity	Bay Area	San Francisco	SF H BANK 4 (MARTIN)	221004	Bank	None	None	None	80.87%	0	0%	44.6	12.78	28.65%	0	0%	44.6	14.51	32.53%	0	0%	44.6	15.54	34.89%	0	0%	44.6	16.65	37.66%	0	0%	44.6	17.94	40.34%	0	0%																						
GNA_022101109_Capacity	Bay Area	San Francisco	MARTIN (SF H) 1109	22101109	Feeder	None	None	None	53.89%	0	0%	9.39	4.98	53.04%	0	0%	9.39	5.06	53.89%	0	0%	9.39	4.65	49.52%	0	0%	9.39	4.81	51.22%	0	0%	9.39	5.05	53.78%	0	0%																						
GNA_0222741_Capacity	Bay Area	San Francisco	SF M BANK 41	222741	Bank	None	None	None	25.89%	0	0%	15.84	3.58	22.60%	0	0%	15.84	3.64	22.98%	0	0%	15.84	3.71	23.42%	0	0%	15.84	3.87	24.43%	0	0%	15.84	4.07	25.89%	0	0%																						
GNA_02227401_Capacity	Bay Area	San Francisco	SF M 0401 (M1)	2227401	Feeder	None	None	None	74.85%	0	0%	2.17	1.48	68.20%	0	0%	2.17	1.49	68.66%	0	0%	2.17	1.5	69.12%	0	0%	2.17	1.55	71.43%	0	0%	2.17	1.62	74.85%	0	0%																						
GNA_02227402_Capacity	Bay Area	San Francisco	SF M 0402 (M2)	2227402	Feeder	None	None	None	47.84%	0	0%	2.54	1.08	42.52%	0	0%	2.54	1.1	43.31%	0	0%	2.54	1.12	44.09%	0	0%	2.54	1.16	45.67%	0	0%	2.54	1.21	47.84%	0	0%																						
GNA_02227403_Capacity	Bay Area	San Francisco	SF M 0403 (M3)	2227403	Feeder	None	None	None	53.70%	0	0%	2.7	1.2	44.44%	0	0%	2.7	1.23	45.56%	0	0%	2.7	1.26	46.67%	0	0%	2.7	1.35	50.00%	0	0%	2.7	1.45	53.70%	0	0%																						
GNA_0222742_Capacity	Bay Area	San Francisco	SF M BANK 42	222742	Bank	None	None	None	30.62%	0	0%	15.84	4.36	27.53%	0	0%	15.84	4.44	28.03%	0	0%	15.84	4.5	28.41%	0	0%	15.84	4.64	29.29%	0	0%	15.84	4.85	30.62%	0	0%																						
GNA_02227404_Capacity	Bay Area	San Francisco	SF M 0404 (M4)	2227404	Feeder	None	None	None	56.67%	0	0%	2.7	1.35	50.00%	0	0%	2.7	1.39	51.48%	0	0%	2.7	1.41	52.22%	0	0%	2.7	1.46	54.07%	0	0%	2.7	1.53	56.67%	0	0%																						
GNA_02227405_Capacity	Bay Area	San Francisco	SF M 0405 (M5)	2227405	Feeder	None	None	None	59.06%	0	0%	2.54	1.33	52.36%	0	0%	2.54	1.35	53.15%	0	0%	2.54	1.39	54.72%	0	0%	2.54	1.44	56.69%	0	0%	2.54	1.5	59.06%	0	0%																						
GNA_02227406_Capacity	Bay Area	San Francisco	SF M 0406 (M6)	2227406	Feeder	None	None	None	72.22%	0	0%	2.7	1.8	66.67%	0	0%	2.7	1.82	67.41%	0	0%	2.7	1.84	68.15%	0	0%	2.7	1.88	69.63%	0	0%	2.7	1.95	72.22%	0	0%																						
GNA_0221009_Capacity	Bay Area	San Francisco	SF H BANK 9 (MARTIN)	221009	Bank	None	None	None	80.22%	0	0%	44.6	32.41	72.67%	0	0%	44.6	33.06	74.13%	0	0%	44.6	33.71	75.58%	0	0%	44.6	34.64	77.67%	0	0%	44.6	35.78	80.22%	0	0%																						
GNA_022261101_Capacity	Bay Area	San Francisco	SF L 1101	22261101	Feeder	None	None	None	60.10%	0	0%	8.42	4.24	50.36%	0	0%	8.42	4.34	51.54%	0	0%	8.42	4.46	52.97%	0	0%	8.42	4.75	56.41%	0	0%	8.42	5.06	60.10%	0	0%																						
GNA_0225001_Capacity	Bay Area	San Francisco	TARAVAL BANK 1	225001	Bank	None	None	None	37.72%	0	0%	2.28	0.75	32.89%	0	0%	2.28	0.76	33.33%	0	0%	2.28	0.78	34.21%	0	0%	2.28	0.82	35.96%	0	0%	2.28	0.86	37.72%	0	0%																						
GNA_022500401_Capacity	Bay Area	San Francisco	TARAVAL 0401	2250401	Feeder	None	None	None	35.42%	0	0%	2.4	0.74	30.83%	0	0%	2.4	0.75	31.25%	0	0%	2.4	0.77	32.08%	0	0%	2.4	0.82	34.17%	0	0%	2.4	0.85	35.42%	0	0%																						
GNA_0225002_Capacity	Bay Area	San Francisco	TARAVAL BANK 2	225002	Bank	None	None	None	64.14%	0	0%	1.98	1.12	56.57%	0	0%	1.98	1.13	57.07%	0	0%	1.98	1.15	58.08%	0	0%	1.98	1.2	60.61%	0	0%	1.98	1.27	64.14%	0	0%																						
GNA_022500402_Capacity	Bay Area	San Francisco	TARAVAL 0402	2250402	Feeder	None	None	None	60.29%	0	0%	2.09	1.11	53.11%	0	0%	2.09	1.12	53.59%	0	0%	2.09	1.14	54.55%	0	0%	2.09	1.19	56.94%	0	0%	2.09	1.26	60.29%	0	0%																						
GNA_0225003_Capacity	Bay Area	San Francisco	TARAVAL BANK 3	225003	Bank	None	None	None	68.15%	0	0%	2.48	1.43	57.66%	0	0%	2.48	1.46	58.87%	0	0%	2.48	1.49	60.08%	0	0%	2.48	1.58	63.71%	0	0%	2.48	1.69	68.15%	0	0%																						
GNA_022500403_Capacity	Bay Area	San Francisco	TARAVAL 0403	2250403	Feeder	None	None	None	63.74%	0	0%	2.62	1.42	54.20%	0	0%	2.62	1.45	55.34%	0	0%	2.62	1.48	56.49%	0	0%	2.62	1.57	59.92%	0	0%	2.62	1.67	63.74%	0	0%																						
GNA_022261102_Capacity	Bay Area	San Francisco	SF L 1102	22261102	Feeder	Demand Growth	Capacity	2026	106.30%	0.6	6%	9.52	9.18	96.43%	0	0%	9.52	9.32	97.90%	0	0%	9.52	9.43	99.05%	0	0%	9.52	9.74	102.31%	0.22	2%	9.52	10.12	106.30%	0.6	6%																						
GNA_0225501_Capacity	Bay Area	San Francisco	21ST AVENUE BANK 1	225501	Bank	None	None	None	61.84%	0	0%	2.28	1.25	54.82%	0	0%	2.28	1.28	56.14%	0	0%	2.28	1.33	58.33%	0	0%	2.28	1.41	61.84%	0	0%	2.28	1.41	61.84%	0	0%																						
GNA_022550401_Capacity	Bay Area	San Francisco	21ST AVENUE 0401	22550401	Feeder	None	None	None	58.75%	0	0%	2.4	1.24	51.67%	0	0%	2.4	1.27	52.92%	0	0%	2.4	1.29	53.75%	0	0%	2.4	1.33	55.42%	0	0%	2.4	1.41	58.75%	0	0%																						
GNA_0225503_Capacity	Bay Area	San Francisco	21ST AVENUE BANK 3	225503	Bank	None	None	None	58.77%	0	0%	2.28	1.19	52.19%	0	0%	2.28	1.23	53.95%	0	0%	2.28	1.24	54.39%	0	0%	2.28	1.29	56.58%	0	0%	2.28	1.34	58.77%	0	0%																						
GNA_022550403_Capacity	Bay Area	San Francisco	21ST AVENUE 0403	22550403	Feeder	None	None	None	55.42%	0	0%	2.4	1.19	49.58%	0	0%	2.4	1.22	50.83%	0	0%	2.4	1.23	51.25%	0	0%	2.4	1.28	53.33%	0	0%	2.4	1.33	55.42%	0	0%																						
GNA_0225101_Capacity	Bay Area	San Francisco	NORIEGA BANK 1	225101	Bank	None	None	None	32.02%	0	0%	2.28	0.64	28.07%	0	0%	2.28	0.65	28.51%	0	0%	2.28	0.69	30.26%	0	0%	2.28	0.73	32.02%	0	0%	2.28	0.77	34.05%	0	0%																						
GNA_022510401_Capacity	Bay Area	San Francisco	NORIEGA 0401	22510401	Feeder	None	None	None	26.57%	0	0%	2.71	0.63	23.25%	0	0%	2.71	0.64	23.62%	0	0%	2.71	0.65	23.99%	0	0%	2.71	0.68	25.09%	0	0%	2.71	0.72	26.57%	0	0%																						
GNA_022261103_Capacity	Bay Area	San Francisco	SF L 1103	22261103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																							
GNA_0225801_Capacity	Bay Area	San Francisco	OCEAN BANK 1	225801	Bank	None	None	None	78.51%	0	0%	2.28	1.57	68.86%	0	0%	2.28	1.6	70.18%	0	0%	2.28	1.63	71.49%	0	0%	2.28	1.69	74.12%	0	0%	2.28	1.79	78.51%	0	0%																						
GNA_022580401_Capacity	Bay Area	San Francisco	OCEAN 0401	22580401	Feeder	None	None	None	71.77%	0	0%	2.48	1.55	62.50%	0	0%	2.48	1.59	64.11%	0	0%	2.48	1.62	65.32%	0	0%	2.48	1.68	67.74%	0	0%	2.48	1.78	71.77%	0	0%																						
GNA_0225802_Capacity	Bay Area	San Francisco	OCEAN BANK 2	225802	Bank	None	None	None	67.98%	0	0%	2.28	1.34	58.77%	0	0%	2.28	1.39	60.96%	0	0%	2.28	1.42	62.28%	0	0%	2.28	1.48	64.91%	0	0%	2.28	1.55	67.98%	0	0%																						
GNA_022580402_Capacity	Bay Area	San Francisco	OCEAN 0402	22580402	Feeder	None	None	None	54.80%	0	0%	2.81	1.33	47.33%	0	0%	2.81	1.37	48.75%	0	0%	2.81	1.41	50.18%	0	0%	2.81	1.47	52.31%	0	0%																											







GNA NEED ID	Facility Information			Distribution Service														Peak Deficiency and Loading																		
	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023							2024							2025							2026						
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)					
GNA_083432105_Capacity	South Bay and Central Coast	San Jose	HICKS 2105	83432105	Feeder	None	None	None	84.37%	0	0%	21.11	17.16	81.29%	0	0%	21.11	17.07	80.86%	0	0%	21.11	17.14	81.19%	0	0%	21.11	17.47	82.76%	0	0%	21.11	17.81	84.37%	0	0%
GNA_0834305_Capacity	South Bay and Central Coast	San Jose	HICKS BANK 5	834305	Bank	None	None	None	38.57%	0	0%	59.37	22.55	37.98%	0	0%	59.37	22.59	38.05%	0	0%	59.37	22.73	38.29%	0	0%	59.37	22.9	38.57%	0	0%	59.37	22.9	38.57%	0	0%
GNA_083432111_Capacity	South Bay and Central Coast	San Jose	HICKS 2111	83432111	Feeder	None	None	None	95.26%	0	0%	21.11	19.76	93.60%	0	0%	21.11	19.79	93.75%	0	0%	21.11	19.82	93.89%	0	0%	21.11	19.94	94.46%	0	0%	21.11	20.11	95.26%	0	0%
GNA_0839103_Capacity	South Bay and Central Coast	San Jose	PIERCY BANK 3	839103	Bank	None	None	None	95.53%	0	0%	44.54	40.99	92.03%	0	0%	44.54	41.19	92.48%	0	0%	44.54	41.42	93.00%	0	0%	44.54	41.89	94.05%	0	0%	44.54	42.55	95.53%	0	0%
GNA_083912109_Capacity	South Bay and Central Coast	San Jose	PIERCY 2109	83912109	Feeder	None	None	None	83.84%	0	0%	22.22	17.78	80.02%	0	0%	22.22	17.88	80.47%	0	0%	22.22	17.98	80.92%	0	0%	22.22	18.25	82.13%	0	0%	22.22	18.63	83.84%	0	0%
GNA_083912110_Capacity	South Bay and Central Coast	San Jose	PIERCY 2110	83912110	Feeder	None	None	None	64.99%	0	0%	22.22	13.97	62.87%	0	0%	22.22	13.99	62.96%	0	0%	22.22	14.03	63.14%	0	0%	22.22	14.2	63.91%	0	0%	22.22	14.44	64.99%	0	0%
GNA_083912111_Capacity	South Bay and Central Coast	San Jose	PIERCY 2111	83912111	Feeder	None	None	None	80.06%	0	0%	22.22	17.4	78.31%	0	0%	22.22	17.45	78.53%	0	0%	22.22	17.57	79.07%	0	0%	22.22	17.67	79.52%	0	0%	22.22	17.79	80.06%	0	0%
GNA_0829601_Capacity	South Bay and Central Coast	San Jose	SANTA TERESA BANK 1	829601	Bank	None	None	None	92.76%	0	0%	44.6	29.96	47.00%	0	0%	44.6	29.14	65.34%	0	0%	44.6	41.37	92.76%	0	0%	44.6	8.19	18.36%	0	0%	44.6	9.67	21.68%	0	0%
GNA_082962101_Capacity	South Bay and Central Coast	San Jose	SANTA TERESA 2101	82962101	Feeder	Demand Growth	Capacity	2025	114.58%	3.24	15%	22.22	16.73	75.29%	0	0%	22.22	20.14	90.64%	0	0%	22.22	25.46	114.58%	3.24	15%	22.22	8.13	36.59%	0	0%	22.22	8.13	36.59%	0	0%
GNA_082962102_Capacity	South Bay and Central Coast	San Jose	SANTA TERESA 2102	82962102	Feeder	None	None	None	67.87%	0	0%	22.22	2.96	13.32%	0	0%	22.22	6.03	36.14%	0	0%	22.22	15.08	67.87%	0	0%	22.22	-0.72	-3.24%	0	0%	22.22	0.76	3.42%	0	0%
GNA_0823101_Capacity	South Bay and Central Coast	San Jose	ALMADEN BANK 1	823101	Bank	None	None	None	74.95%	0	0%	29.7	21.97	73.97%	0	0%	29.7	21.81	73.43%	0	0%	29.7	21.77	73.30%	0	0%	29.7	22	74.07%	0	0%	29.7	22.26	74.95%	0	0%
GNA_082311101_Capacity	South Bay and Central Coast	San Jose	ALMADEN 1101	82311101	Feeder	None	None	None	82.58%	0	0%	12.34	9.97	80.79%	0	0%	12.34	9.9	80.23%	0	0%	12.34	9.92	80.39%	0	0%	12.34	10.05	81.44%	0	0%	12.34	10.19	82.58%	0	0%
GNA_082311102_Capacity	South Bay and Central Coast	San Jose	ALMADEN 1102	82311102	Feeder	Demand Growth	Capacity	2023	103.21%	0.38	3%	11.82	12.13	102.62%	0.31	3%	11.82	12.04	101.86%	0.22	2%	11.82	11.99	101.44%	0.17	1%	11.82	12.08	102.20%	0.26	2%	11.82	12.25	103.21%	0.38	3%
GNA_0823103_Capacity	South Bay and Central Coast	San Jose	ALMADEN BANK 3	823103	Bank	None	None	None	76.26%	0	0%	29.7	22.23	74.85%	0	0%	29.7	22.1	74.41%	0	0%	29.7	22.42	74.51%	0	0%	29.7	22.42	75.49%	0	0%	29.7	22.65	76.26%	0	0%
GNA_082311110_Capacity	South Bay and Central Coast	San Jose	ALMADEN 1110	82311110	Feeder	None	None	None	57.67%	0	0%	12.19	6.71	55.05%	0	0%	12.19	6.7	54.96%	0	0%	12.19	6.73	55.29%	0	0%	12.19	6.87	56.36%	0	0%	12.19	7.03	57.67%	0	0%
GNA_082311111_Capacity	South Bay and Central Coast	San Jose	ALMADEN 1111	82311111	Feeder	Demand Growth	Capacity	2023	113.04%	1.59	13%	12.19	13.78	113.04%	1.59	13%	12.19	13.56	111.24%	1.37	11%	12.19	13.56	111.24%	1.37	11%	12.19	13.71	112.47%	1.52	12%	12.19	13.78	113.04%	1.59	13%
GNA_0829201_Capacity	South Bay and Central Coast	San Jose	EL PATIO BANK 1	829201	Bank	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_082921101_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1101	82921101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_082921102_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1102	82921102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_082921103_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1103	82921103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_082921104_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1104	82921104	Feeder	None	None	None	77.11%	0	0%	12.19	9.4	77.11%	0	0%	12.19	9.26	75.96%	0	0%	12.19	9.12	74.82%	0	0%	12.19	9.07	74.41%	0	0%	12.19	9.1	74.65%	0	0%
GNA_082921105_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1105	82921105	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_0829202_Capacity	South Bay and Central Coast	San Jose	EL PATIO BANK 2	829202	Bank	None	None	None	82.94%	0	0%	44.6	35.42	79.42%	0	0%	44.6	36.74	82.38%	0	0%	44.6	36.66	82.20%	0	0%	44.6	36.75	82.40%	0	0%	44.6	36.99	82.94%	0	0%
GNA_082921107_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1107	82921107	Feeder	Demand Growth	Capacity	2023	109.49%	1.12	9%	11.8	12.71	107.71%	0.91	8%	11.8	12.72	107.80%	0.92	8%	11.8	12.73	107.88%	0.93	8%	11.8	12.79	108.39%	0.99	8%	11.8	12.92	109.49%	1.12	9%
GNA_082921108_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1108	82921108	Feeder	None	None	None	97.13%	0	0%	12.19	10.45	85.73%	0	0%	12.19	11.82	96.96%	0	0%	12.19	11.8	96.80%	0	0%	12.19	11.81	96.88%	0	0%	12.19	11.84	97.13%	0	0%
GNA_082921109_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1109	82921109	Feeder	None	None	None	89.05%	0	0%	12.06	10.47	86.82%	0	0%	12.06	10.45	86.65%	0	0%	12.06	10.45	86.65%	0	0%	12.06	10.47	87.65%	0	0%	12.06	10.74	89.05%	0	0%
GNA_0829203_Capacity	South Bay and Central Coast	San Jose	EL PATIO BANK 3	829203	Bank	None	None	None	75.29%	0	0%	44.6	28.6	64.13%	0	0%	44.6	31.49	70.61%	0	0%	44.6	33.4	74.89%	0	0%	44.6	33.48	75.07%	0	0%	44.6	33.58	75.29%	0	0%
GNA_082921111_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1111	82921111	Feeder	None	None	None	16.11%	0	0%	10.8	1.74	16.11%	0	0%	10.8	1.72	15.93%	0	0%	10.8	1.71	15.74%	0	0%	10.8	1.7	15.74%	0	0%	10.8	1.7	15.74%	0	0%
GNA_082921112_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1112	82921112	Feeder	None	None	None	97.87%	0	0%	12.19	10.11	82.94%	0	0%	12.19	11.38	93.36%	0	0%	12.19	11.51	94.42%	0	0%	12.19	11.72	96.14%	0	0%	12.19	11.93	97.87%	0	0%
GNA_082921113_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1113	82921113	Feeder	None	None	None	97.95%	0	0%	12.19	11.94	97.95%	0	0%	12.19	11.88	97.46%	0	0%	12.19	11.81	96.88%	0	0%	12.19	11.79	96.72%	0	0%	12.19	11.78	96.64%	0	0%
GNA_082921114_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1114 (previously 1115)	82921114	Feeder	None	None	None	89.80%	0	0%	11.57	6.87	89.80%	0	0%	11.57	8.44	72.95%	0	0%	11.57	10.39	89.80%	0	0%	11.57	10.38	89.71%	0	0%	11.57	10.36	89.54%	0	0%
GNA_0829204_Capacity	South Bay and Central Coast	San Jose	EL PATIO BANK 4	829204	Bank	None	None	None	76.87%	0	0%	44.53	33.17	74.49%	0	0%	44.53	34.05	76.47%	0	0%	44.53	34.1	76.58%	0	0%	44.53	34.23	76.87%	0	0%	44.53	34.23	76.87%	0	0%
GNA_082921116_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1116 (previously 1110)	82921116	Feeder	None	None	None	92.83%	0	0%	11.57	9.59	82.89%	0	0%	11.57	10.6	91.62%	0	0%	11.57	10.61	91.70%	0	0%	11.57	10.68	92.31%	0	0%	11.57	10.74	92.83%	0	0%
GNA_082921117_Capacity	South Bay and Central Coast	San Jose	EL PATIO 1117 (previously 1114)	82921117	Feeder	None	None	None	66.03%	0	0%	11.57	7																							

PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
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Facility Information				Peak Deficiency and Loading																																
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023														2024													
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)										
GNA_152481106_Capacity	North Valley and Sierra	Sierra	BRUNSWICK 1106	152481106	Feeder	None	None	None	93.92%	0	0%	15.14	14.22	93.92%	0	0%	15.14	14.08	93.00%	0	0%	15.14	13.96	92.21%	0	0%	15.14	13.85	91.48%	0	0%	15.14	13.82	91.28%	0	0%
GNA_152481107_Capacity	North Valley and Sierra	Sierra	BRUNSWICK 1107	152481107	Feeder	None	None	None	51.19%	0	0%	15.14	7.75	51.19%	0	0%	15.14	7.7	50.86%	0	0%	15.14	7.68	50.73%	0	0%	15.14	7.64	50.46%	0	0%	15.14	7.67	50.66%	0	0%
GNA_1524803_Capacity	North Valley and Sierra	Sierra	BRUNSWICK BANK 3	1524803	Bank	None	None	None	35.42%	0	0%	29.7	10.52	35.42%	0	0%	29.7	10.35	34.85%	0	0%	29.7	10.18	34.28%	0	0%	29.7	9.98	33.60%	0	0%	29.7	9.91	33.37%	0	0%
GNA_152481110_Capacity	North Valley and Sierra	Sierra	BRUNSWICK 1110	152481110	Feeder	None	None	None	74.52%	0	0%	14.13	10.53	74.52%	0	0%	14.13	10.37	73.39%	0	0%	14.13	10.2	72.19%	0	0%	14.13	9.99	70.70%	0	0%	14.13	9.92	70.21%	0	0%
GNA_1520302_Capacity	North Valley and Sierra	Sierra	GRASS VALLEY BANK 2	1520302	Bank	None	None	None	84.69%	0	0%	17.63	14.93	84.69%	0	0%	17.63	14.81	84.00%	0	0%	17.63	14.75	83.66%	0	0%	17.63	14.73	83.55%	0	0%	17.63	14.78	83.83%	0	0%
GNA_152031101_Capacity	North Valley and Sierra	Sierra	GRASS VALLEY 1101	152031101	Feeder	None	None	None	43.15%	0	0%	12.19	5.26	43.15%	0	0%	12.19	5.24	42.99%	0	0%	12.19	5.22	42.90%	0	0%	12.19	5.22	42.82%	0	0%	12.19	5.23	42.90%	0	0%
GNA_152031102_Capacity	North Valley and Sierra	Sierra	GRASS VALLEY 1102	152031102	Feeder	None	None	None	37.41%	0	0%	12.19	4.56	37.41%	0	0%	12.19	4.51	37.00%	0	0%	12.19	4.49	36.83%	0	0%	12.19	4.47	36.67%	0	0%	12.19	4.46	36.59%	0	0%
GNA_152031103_Capacity	North Valley and Sierra	Sierra	GRASS VALLEY 1103	152031103	Feeder	None	None	None	53.06%	0	0%	10.46	5.55	53.06%	0	0%	10.46	5.5	52.58%	0	0%	10.46	5.47	52.29%	0	0%	10.46	5.47	52.29%	0	0%	10.46	5.51	52.68%	0	0%
GNA_1526901_Capacity	North Valley and Sierra	Sierra	HIGGINS BANK 1	1526901	Bank	None	None	None	54.86%	0	0%	44.55	24.44	54.86%	0	0%	44.55	24.23	54.39%	0	0%	44.55	24.05	53.96%	0	0%	44.55	23.99	53.85%	0	0%	44.55	24.06	54.01%	0	0%
GNA_152691103_Capacity	North Valley and Sierra	Sierra	HIGGINS 1103	152691103	Feeder	None	None	None	77.34%	0	0%	15.14	11.71	77.34%	0	0%	15.14	11.62	76.75%	0	0%	15.14	11.54	76.22%	0	0%	15.14	11.52	76.09%	0	0%	15.14	11.52	76.09%	0	0%
GNA_152691104_Capacity	North Valley and Sierra	Sierra	HIGGINS 1104	152691104	Feeder	None	None	None	77.94%	0	0%	15.14	11.8	77.94%	0	0%	15.14	11.68	77.15%	0	0%	15.14	11.59	76.55%	0	0%	15.14	11.54	76.22%	0	0%	15.14	11.61	76.68%	0	0%
GNA_1526902_Capacity	North Valley and Sierra	Sierra	HIGGINS BANK 2	1526902	Bank	None	None	None	44.07%	0	0%	15.84	6.98	44.07%	0	0%	15.84	6.92	43.69%	0	0%	15.84	6.88	43.43%	0	0%	15.84	6.84	43.18%	0	0%	15.84	6.83	43.12%	0	0%
GNA_152691107_Capacity	North Valley and Sierra	Sierra	HIGGINS 1107	152691107	Feeder	None	None	None	53.50%	0	0%	14.13	7.56	53.50%	0	0%	14.13	7.5	53.08%	0	0%	14.13	7.42	52.80%	0	0%	14.13	7.42	52.51%	0	0%	14.13	7.41	52.44%	0	0%
GNA_1526903_Capacity	North Valley and Sierra	Sierra	HIGGINS BANK 3	1526903	Bank	None	None	None	55.62%	0	0%	15.84	8.76	55.30%	0	0%	15.84	8.64	54.73%	0	0%	15.84	8.65	54.61%	0	0%	15.84	8.7	54.92%	0	0%	15.84	8.81	55.62%	0	0%
GNA_152691109_Capacity	North Valley and Sierra	Sierra	HIGGINS 1109	152691109	Feeder	None	None	None	39.38%	0	0%	12.19	4.74	38.88%	0	0%	12.19	4.74	38.88%	0	0%	12.19	4.74	38.88%	0	0%	12.19	4.76	39.05%	0	0%	12.19	4.8	39.38%	0	0%
GNA_152691110_Capacity	North Valley and Sierra	Sierra	HIGGINS 1110	152691110	Feeder	None	None	None	47.91%	0	0%	12.19	5.84	47.91%	0	0%	12.19	5.79	47.50%	0	0%	12.19	5.75	47.17%	0	0%	12.19	5.76	47.25%	0	0%	12.19	5.81	47.66%	0	0%
GNA_1536101_Capacity	North Valley and Sierra	Sierra	CLARKSVILLE BANK 1	1536101	Bank	None	None	None	73.54%	0	0%	44.6	32.54	72.96%	0	0%	44.6	32.47	72.83%	0	0%	44.6	32.47	72.80%	0	0%	44.6	32.54	72.96%	0	0%	44.6	32.76	73.45%	0	0%
GNA_153612103_Capacity	North Valley and Sierra	Sierra	CLARKSVILLE 2103	153612103	Feeder	None	None	None	76.15%	0	0%	23.56	17.6	74.70%	0	0%	23.56	17.64	74.87%	0	0%	23.56	17.7	75.13%	0	0%	23.56	17.79	75.51%	0	0%	23.56	17.94	76.15%	0	0%
GNA_153612104_Capacity	North Valley and Sierra	Sierra	CLARKSVILLE 2104	153612104	Feeder	None	None	None	91.36%	0	0%	21.41	19.56	91.36%	0	0%	21.41	19.46	90.89%	0	0%	21.41	19.39	90.47%	0	0%	21.41	19.37	90.47%	0	0%	21.41	19.44	90.80%	0	0%
GNA_1536102_Capacity	North Valley and Sierra	Sierra	CLARKSVILLE BANK 2	1536102	Bank	None	None	None	85.47%	0	0%	44.6	37.31	83.65%	0	0%	44.6	37.2	83.41%	0	0%	44.6	37.14	83.27%	0	0%	44.6	37.45	83.97%	0	0%	44.6	38.12	85.47%	0	0%
GNA_153612105_Capacity	North Valley and Sierra	Sierra	CLARKSVILLE 2105	153612105	Feeder	None	None	None	97.15%	0	0%	21.41	20.07	93.74%	0	0%	21.41	20.19	94.30%	0	0%	21.41	20.29	94.77%	0	0%	21.41	20.52	95.84%	0	0%	21.41	20.8	97.15%	0	0%
GNA_153612106_Capacity	North Valley and Sierra	Sierra	CLARKSVILLE 2106	153612106	Feeder	None	None	None	92.70%	0	0%	21.11	18.93	89.67%	0	0%	21.11	18.95	89.77%	0	0%	21.11	19.02	90.10%	0	0%	21.11	19.23	91.09%	0	0%	21.11	19.57	92.70%	0	0%
GNA_1536103_Capacity	North Valley and Sierra	Sierra	CLARKSVILLE BANK 3	1536103	Bank	None	None	None	97.78%	0	0%	44.6	42.83	96.03%	0	0%	44.6	42.85	96.08%	0	0%	44.6	43.22	96.28%	0	0%	44.6	43.22	96.91%	0	0%	44.6	43.61	97.78%	0	0%
GNA_153612109_Capacity	North Valley and Sierra	Sierra	CLARKSVILLE 2109	153612109	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_153612110_Capacity	North Valley and Sierra	Sierra	CLARKSVILLE 2110	153612110	Feeder	None	None	None	97.75%	0	0%	23.56	22.65	96.14%	0	0%	23.56	22.63	96.05%	0	0%	23.56	22.64	96.10%	0	0%	23.56	22.82	96.86%	0	0%	23.56	23.03	97.75%	0	0%
GNA_1536501_Capacity	North Valley and Sierra	Sierra	SHINGLE SPRINGS BANK 1	1536501	Bank	None	None	None	81.00%	0	0%	15.84	12.83	81.00%	0	0%	15.84	12.75	80.49%	0	0%	15.84	12.69	80.11%	0	0%	15.84	12.73	80.37%	0	0%	15.84	12.81	80.87%	0	0%
GNA_153651103_Capacity	North Valley and Sierra	Sierra	SHINGLE SPRINGS 1103	153651103	Feeder	None	None	None	67.84%	0	0%	10.76	7.3	67.84%	0	0%	10.76	7.27	67.57%	0	0%	10.76	7.24	67.29%	0	0%	10.76	7.23	67.19%	0	0%	10.76	7.25	67.38%	0	0%
GNA_153651104_Capacity	North Valley and Sierra	Sierra	SHINGLE SPRINGS 1104	153651104	Feeder	None	None	None	44.71%	0	0%	12.19	5.38	44.13%	0	0%	12.19	5.37	44.05%	0	0%	12.19	5.4	44.30%	0	0%	12.19	5.45	44.71%	0	0%	12.19	5.45	44.71%	0	0%
GNA_1536502_Capacity	North Valley and Sierra	Sierra	SHINGLE SPRINGS BANK 2	1536502	Bank	None	None	None	96.02%	0	0%	15.84	15.02	94.82%	0	0%	15.84	15	94.70%	0	0%	15.84	15.02	94.82%	0	0%	15.84	15.1	95.33%	0	0%	15.84	15.21	96.02%	0	0%
GNA_153652105_Capacity	North Valley and Sierra	Sierra	SHINGLE SPRINGS 2105	153652105	Feeder	None	None	None	76.82%	0	0%	19.63	14.89	75.85%	0	0%	19.63	14.87	75.75%	0	0%	19.63	14.89	75.85%	0	0%	19.63	14.96	76.21%	0	0%	19.63	15.08	76.82%	0	0%
GNA_1536503_Capacity	North Valley and Sierra	Sierra	SHINGLE SPRINGS BANK 3	1536503	Bank	None	None	None	95.18%	0	0%	44.6	42.45	95.18%	0	0%	44.6	42.2	94.62%	0	0%	44.6	41.96	94.08%	0	0%	44.6	41.93	94.01%	0	0%	44.6	41.92	93.99%	0	0%
GNA_153652108_Capacity	North Valley and Sierra	Sierra	SHINGLE SPRINGS 2108	153652108	Feeder	None	None	None	71.32%	0	0%	19.63	14	71.32%	0	0%	19.63	13.91	70.86%	0	0%	19.63	13.83	70.45%	0	0%	19.63	13.84	70.50%	0	0%	19.63	13.84	70.50%	0	0%
GNA_153652109_Capacity	North Valley and Sierra	Sierra	SHINGLE SPRINGS 2109	153652109	Feeder	None	None	None	71.57%	0	0%	21.67	15.51	71.57%	0	0%	21.67	15.37	70.93%	0	0%	21.67	15.25	70.37%	0	0%	21.67	15.23	70.28%	0	0%	21.67	15.24	70.33%	0	0%
GNA_153652110_Capacity	North Valley and Sierra	Sierra	SHINGLE SPRINGS 2110	153652110	Feeder	None																														





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Appendix E: GNA Results - Bank & Feeder Capacity Needs  
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GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023		2024		2025		2026		2027																			
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)										
GNA_152802_Capacity	North Valley and Sierra	Sierra	HARTER BANK 2	152802	Bank	None	None	None	94.81%	0	0%	29.7	25.34	85.32%	0	0%	29.7	25.96	87.41%	0	0%	29.7	26.2	88.22%	0	0%	29.7	27.78	93.54%	0	0%	29.7	28.16	94.81%	0	0%
GNA_15281105_Capacity	North Valley and Sierra	Sierra	HARTER 1105	15281105	Feeder	None	None	None	88.26%	0	0%	11.67	9.5	81.41%	0	0%	11.67	9.9	84.83%	0	0%	11.67	10.01	85.78%	0	0%	11.67	10.15	86.98%	0	0%	11.67	10.3	88.26%	0	0%
GNA_15281106_Capacity	North Valley and Sierra	Sierra	HARTER 1106	15281106	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_15281107_Capacity	North Valley and Sierra	Sierra	HARTER 1107	15281107	Feeder	None	None	None	71.47%	0	0%	13.6	8.18	60.15%	0	0%	13.6	8.29	60.96%	0	0%	13.6	8.29	60.96%	0	0%	13.6	9.64	70.88%	0	0%	13.6	9.72	71.47%	0	0%
GNA_1537701_Capacity	North Valley and Sierra	Sierra	LIVE OAK BANK 1	1537701	Bank	None	None	None	97.69%	0	0%	10.4	9.16	88.08%	0	0%	10.4	9.28	89.23%	0	0%	10.4	9.27	89.13%	0	0%	10.4	9.59	92.21%	0	0%	10.4	10.16	97.69%	0	0%
GNA_153771101_Capacity	North Valley and Sierra	Sierra	LIVE OAK 1101	153771101	Feeder	None	None	None	54.31%	0	0%	12.19	5.72	46.92%	0	0%	12.19	5.84	47.91%	0	0%	12.19	5.82	47.74%	0	0%	12.19	6.1	50.04%	0	0%	12.19	6.62	54.31%	0	0%
GNA_153771102_Capacity	North Valley and Sierra	Sierra	LIVE OAK 1102	153771102	Feeder	None	None	None	33.39%	0	0%	12.19	4.07	33.39%	0	0%	12.19	4.05	33.22%	0	0%	12.19	4.04	33.14%	0	0%	12.19	4.03	33.06%	0	0%	12.19	4.01	32.90%	0	0%
GNA_1537702_Capacity	North Valley and Sierra	Sierra	LIVE OAK BANK 2	1537702	Bank	None	None	None	73.67%	0	0%	15.8	11.25	71.20%	0	0%	15.8	11.32	71.65%	0	0%	15.8	11.42	72.28%	0	0%	15.8	11.52	72.91%	0	0%	15.8	11.64	73.67%	0	0%
GNA_153771104_Capacity	North Valley and Sierra	Sierra	LIVE OAK 1104	153771104	Feeder	None	None	None	89.87%	0	0%	12.83	11.15	86.91%	0	0%	12.83	11.22	87.45%	0	0%	12.83	11.31	88.15%	0	0%	12.83	11.41	88.93%	0	0%	12.83	11.53	89.87%	0	0%
GNA_1537501_Capacity	North Valley and Sierra	Sierra	PEASE BANK 1	1537501	Bank	None	None	None	93.37%	0	0%	10.4	9.33	89.71%	0	0%	10.4	9.38	90.19%	0	0%	10.4	9.45	90.87%	0	0%	10.4	9.56	91.92%	0	0%	10.4	9.71	93.37%	0	0%
GNA_153751101_Capacity	North Valley and Sierra	Sierra	PEASE 1101	153751101	Feeder	None	None	None	74.85%	0	0%	11.33	8.11	71.58%	0	0%	11.33	8.17	72.11%	0	0%	11.33	8.24	72.73%	0	0%	11.33	8.33	73.52%	0	0%	11.33	8.48	74.85%	0	0%
GNA_153751102_Capacity	North Valley and Sierra	Sierra	PEASE 1102	153751102	Feeder	None	None	None	9.35%	0	0%	12.83	1.18	9.20%	0	0%	12.83	1.18	9.20%	0	0%	12.83	1.18	9.20%	0	0%	12.83	1.2	9.35%	0	0%	12.83	1.2	9.35%	0	0%
GNA_1537503_Capacity	North Valley and Sierra	Sierra	PEASE BANK 3	1537503	Bank	None	None	None	90.95%	0	0%	26.4	23.52	89.09%	0	0%	26.4	23.58	89.32%	0	0%	26.4	23.66	89.62%	0	0%	26.4	23.82	90.23%	0	0%	26.4	24.01	90.95%	0	0%
GNA_153751103_Capacity	North Valley and Sierra	Sierra	PEASE 1103	153751103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_153751104_Capacity	North Valley and Sierra	Sierra	PEASE 1104	153751104	Feeder	None	None	None	93.76%	0	0%	12.83	11.57	90.18%	0	0%	12.83	11.65	90.80%	0	0%	12.83	11.73	91.43%	0	0%	12.83	11.87	92.52%	0	0%	12.83	12.03	93.76%	0	0%
GNA_1537504_Capacity	North Valley and Sierra	Sierra	PEASE BANK 4	1537504	Bank	None	None	None	97.02%	0	0%	12.4	11.41	92.02%	0	0%	12.4	11.51	92.82%	0	0%	12.4	11.64	93.87%	0	0%	12.4	11.83	95.40%	0	0%	12.4	12.03	97.02%	0	0%
GNA_153751105_Capacity	North Valley and Sierra	Sierra	PEASE 1105	153751105	Feeder	None	None	None	86.04%	0	0%	13.9	11.34	81.58%	0	0%	13.9	11.44	82.30%	0	0%	13.9	11.57	83.24%	0	0%	13.9	11.76	84.60%	0	0%	13.9	11.96	86.04%	0	0%
GNA_1537101_Capacity	North Valley and Sierra	Sierra	TUDOR BANK 1	1537101	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_153711101_Capacity	North Valley and Sierra	Sierra	TUDOR 1101	153711101	Feeder	None	None	None	35.22%	0	0%	4.94	1.74	35.22%	0	0%	4.94	1.74	35.22%	0	0%	4.94	1.74	35.22%	0	0%	4.94	1.73	35.02%	0	0%	4.94	1.73	35.02%	0	0%
GNA_153711102_Capacity	North Valley and Sierra	Sierra	TUDOR 1102	153711102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_1529201_Capacity	North Valley and Sierra	Sierra	BROWNS VALLEY BANK 1	1529201	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_152921101_Capacity	North Valley and Sierra	Sierra	BROWNS VALLEY 1101	152921101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_1537401_Capacity	North Valley and Sierra	Sierra	DOBBS BANK 1	1537401	Bank	None	None	None	84.40%	0	0%	2.82	2.31	81.91%	0	0%	2.82	2.34	82.98%	0	0%	2.82	2.38	84.40%	0	0%	2.82	2.37	84.04%	0	0%	2.82	2.33	82.62%	0	0%
GNA_153741101_Capacity	North Valley and Sierra	Sierra	DOBBS 1101	153741101	Feeder	None	None	None	42.80%	0	0%	5.35	2.22	41.50%	0	0%	5.35	2.25	42.06%	0	0%	5.35	2.29	42.80%	0	0%	5.35	2.28	42.62%	0	0%	5.35	2.24	41.87%	0	0%
GNA_1537901_Capacity	North Valley and Sierra	Sierra	SMARTVILLE BANK 1	1537901	Bank	None	None	None	10.32%	0	0%	11.73	1.2	10.23%	0	0%	11.73	1.2	10.23%	0	0%	11.73	1.2	10.23%	0	0%	11.73	1.21	10.23%	0	0%	11.73	1.21	10.32%	0	0%
GNA_153791101_Capacity	North Valley and Sierra	Sierra	SMARTVILLE 1101	153791101	Feeder	None	None	None	33.74%	0	0%	4.06	1.36	33.50%	0	0%	4.06	1.36	33.50%	0	0%	4.06	1.36	33.50%	0	0%	4.06	1.37	33.74%	0	0%	4.06	1.37	33.74%	0	0%
GNA_0431801_Capacity	North Coast	Sonoma	BELLEVUE BANK 1	0431801	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_043182103_Capacity	North Coast	Sonoma	BELLEVUE 2103	043182103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_0431802_Capacity	North Coast	Sonoma	BELLEVUE BANK 2	0431802	Bank	None	None	None	69.75%	0	0%	15.8	11.02	69.75%	0	0%	15.8	10.93	69.18%	0	0%	15.8	10.83	68.54%	0	0%	15.8	10.77	68.16%	0	0%	15.8	10.81	68.42%	0	0%
GNA_043181102_Capacity	North Coast	Sonoma	BELLEVUE 1102	043181102	Feeder	None	None	None	96.14%	0	0%	12.19	11.72	96.14%	0	0%	12.19	11.63	95.41%	0	0%	12.19	11.54	94.67%	0	0%	12.19	11.47	94.09%	0	0%	12.19	11.51	94.42%	0	0%
GNA_0431803_Capacity	North Coast	Sonoma	BELLEVUE BANK 3	0431803	Bank	None	None	None	77.28%	0	0%	37.1	25.3	68.19%	0	0%	37.1	25.44	68.57%	0	0%	37.1	25.56	68.89%	0	0%	37.1	28.27	76.20%	0	0%	37.1	28.67	77.28%	0	0%
GNA_043181104_Capacity	North Coast	Sonoma	BELLEVUE 1104	043181104	Feeder	Demand Growth	Capacity	2026	112.63%	1.54	13%	12.19	10.77	88.35%	0	0%	12.19	10.86	89.09%	0	0%	12.19	10.96	89.91%	0	0%	12.19	13.53	112.63%	1.54	13%	12.19	13.73	112.63%	1.54	13%
GNA_0431804_Capacity	North Coast	Sonoma	BELLEVUE BANK 4	0431804	Bank	None	None	None	37.00%	0	0%	29.7	10.59	35.66%	0	0%	29.7	10.58	35.62%	0	0%	29.7	10.76	36.23%	0	0%	29.7	10.99	37.00%	0	0%	29.7	10.99	37.00%	0	0%
GNA_043182101_Capacity	North Coast	Sonoma	BELLEVUE 2101	043182101	Feeder	None	None	None	1.61%	0	0%	18.63	0.27	1.45%	0	0%	18.63	0.27	1.45%	0	0%	18.63	0.28	1.50%	0	0%	18.63	0.28	1.50%	0	0%	18.63	0.3	1.61%	0	0%
GNA_043182105_Capacity	North Coast	Sonoma	BELLEVUE 2105	043182105	Feeder	None	None	None	57.13%	0	0%	23.56	13.44	57.06%	0	0%	23.56	13.39	56.83%	0	0%	23.56	13.3	56.45%	0	0%	23.56	13.34	56.62%	0	0%	23.56	13.46	57.13%		

**PG&E 2023 Grid Needs Assessment (GNA)**  
**Appendix E: GNA Results - Bank & Feeder Capacity Needs**  
**Version Date: 8/15/2023**  
**Public**

GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	2023										2024										2025										2026										2027									
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)																	
GNA_043002_Capacity	North Coast	Sonoma	MONROE BANK 2	433002	Bank	None	None	None	81.90%	0	0%	41.22	32.81	79.60%	0	0%	41.22	33.49	81.25%	0	0%	41.22	33.4	81.03%	0	0%	41.22	33.51	81.30%	0	0%	41.22	33.76	81.90%	0	0%																						
GNA_04301104_Capacity	North Coast	Sonoma	MONROE 1104	43301104	Feeder	None	None	None	92.10%	0	0%	10.76	9.91	92.10%	0	0%	10.76	9.83	91.36%	0	0%	10.76	9.77	90.80%	0	0%	10.76	9.71	90.24%	0	0%	10.76	9.68	89.96%	0	0%																						
GNA_04301105_Capacity	North Coast	Sonoma	MONROE 1105	43301105	Feeder	Demand Growth	Capacity	2023	103.59%	0.46	4%	12.83	13.29	103.59%	0.46	4%	12.83	13.18	102.73%	0.35	3%	12.83	13.06	101.79%	0.23	2%	12.83	13.07	101.87%	0.24	2%	12.83	13.2	102.88%	0.37	3%																						
GNA_04301106_Capacity	North Coast	Sonoma	MONROE 1106	43301106	Feeder	Demand Growth	Capacity	2023	122.89%	2.79	23%	12.19	13.84	113.54%	1.65	14%	12.19	14.66	120.26%	2.47	20%	12.19	14.7	120.59%	2.51	21%	12.19	14.82	121.58%	2.63	22%	12.19	14.98	122.89%	2.79	23%																						
GNA_0430303_Capacity	North Coast	Sonoma	MONROE BANK 3	433003	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																						
GNA_04302107_Capacity	North Coast	Sonoma	MONROE 2107	43302107	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																						
GNA_043201_Capacity	North Coast	Sonoma	RINCON BANK 1	433201	Bank	None	None	None	48.04%	0	0%	44.53	21.18	47.56%	0	0%	44.53	21.08	47.34%	0	0%	44.53	20.97	47.09%	0	0%	44.53	21.13	47.45%	0	0%	44.53	21.39	48.04%	0	0%																						
GNA_04321101_Capacity	North Coast	Sonoma	RINCON 1101	43321101	Feeder	None	None	None	93.77%	0	0%	12.19	11.28	92.53%	0	0%	12.19	11.24	92.21%	0	0%	12.19	11.21	91.96%	0	0%	12.19	11.3	92.70%	0	0%	12.19	11.43	93.77%	0	0%																						
GNA_04321102_Capacity	North Coast	Sonoma	RINCON 1102	43321102	Feeder	None	None	None	88.11%	0	0%	12.19	10.51	86.22%	0	0%	12.19	10.45	85.73%	0	0%	12.19	10.43	85.56%	0	0%	12.19	10.56	86.63%	0	0%	12.19	10.74	88.11%	0	0%																						
GNA_043202_Capacity	North Coast	Sonoma	RINCON BANK 2	433202	Bank	Demand Growth	Capacity	2023	134.68%	5.48	35%	15.8	20.22	127.97%	4.42	28%	15.8	20.33	128.67%	4.53	29%	15.8	20.57	130.19%	4.77	30%	15.8	20.87	132.05%	5.07	32%	15.8	21.28	134.68%	5.48	35%																						
GNA_04321103_Capacity	North Coast	Sonoma	RINCON 1103	43321103	Feeder	None	None	None	74.57%	0	0%	12.19	8.33	68.33%	0	0%	12.19	8.48	69.57%	0	0%	12.19	8.66	71.04%	0	0%	12.19	8.86	72.68%	0	0%	12.19	9.09	74.57%	0	0%																						
GNA_04321104_Capacity	North Coast	Sonoma	RINCON 1104	43321104	Feeder	None	None	None	83.43%	0	0%	12.19	9.74	79.50%	0	0%	12.19	9.78	80.23%	0	0%	12.19	9.84	80.72%	0	0%	12.19	9.96	81.71%	0	0%	12.19	10.17	83.43%	0	0%																						
GNA_0421501_Capacity	North Coast	Sonoma	SANTA ROSA A BANK 1	421501	Bank	Demand Growth	Capacity	2023	136.03%	15.57	36%	43.21	44.99	104.12%	1.78	4%	43.21	53.86	124.65%	10.65	25%	43.21	58.78	136.03%	15.57	36%	43.21	58.39	135.13%	15.18	35%	43.21	58.5	135.39%	15.29	35%																						
GNA_04215101_Capacity	North Coast	Sonoma	SANTA ROSA A 1101	4215101	Feeder	None	None	None	63.57%	0	0%	10.76	6.84	63.57%	0	0%	10.76	6.84	63.57%	0	0%	10.76	6.82	63.38%	0	0%	10.76	6.8	63.20%	0	0%	10.76	6.82	63.38%	0	0%																						
GNA_04215102_Capacity	North Coast	Sonoma	SANTA ROSA A 1102	4215102	Feeder	Demand Growth	Capacity	2023	150.04%	6.29	50%	12.57	14.02	111.54%	1.45	12%	12.57	15.92	126.65%	3.35	27%	12.57	18.8	149.56%	6.23	50%	12.57	18.8	149.56%	6.23	50%	12.57	18.86	150.04%	6.29	50%																						
GNA_04215103_Capacity	North Coast	Sonoma	SANTA ROSA A 1103	4215103	Feeder	Demand Growth	Capacity	2023	196.23%	11.73	96%	12.19	14.12	115.83%	1.93	16%	12.19	21.71	178.10%	9.52	78%	12.19	23.92	196.23%	11.73	96%	12.19	23.85	195.65%	11.66	96%	12.19	23.73	194.67%	11.54	95%																						
GNA_04215104_Capacity	North Coast	Sonoma	SANTA ROSA A 1104	4215104	Feeder	None	None	None	98.05%	0	0%	10.76	10.55	98.05%	0	0%	10.76	10.28	95.54%	0	0%	10.76	10.14	94.24%	0	0%	10.76	10.3	97.68%	0	0%	10.76	10.51	97.68%	0	0%																						
GNA_0421502_Capacity	North Coast	Sonoma	SANTA ROSA A BANK 2	421502	Bank	None	None	None	90.50%	0	0%	43.21	37.99	87.92%	0	0%	43.21	38.58	89.28%	0	0%	43.21	39.02	90.30%	0	0%	43.21	39.23	90.79%	0	0%	43.21	39.28	90.90%	0	0%																						
GNA_04215105_Capacity	North Coast	Sonoma	SANTA ROSA A 1105	4215105	Feeder	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																					
GNA_04215106_Capacity	North Coast	Sonoma	SANTA ROSA A 1106	4215106	Feeder	None	None	None	92.49%	0	0%	9.45	8.74	92.49%	0	0%	9.45	8.59	90.90%	0	0%	9.45	8.46	89.52%	0	0%	9.45	8.34	88.25%	0	0%	9.45	8.31	87.94%	0	0%																						
GNA_04215107_Capacity	North Coast	Sonoma	SANTA ROSA A 1107	4215107	Feeder	None	None	None	51.35%	0	0%	12.19	6.26	51.35%	0	0%	12.19	6.22	51.03%	0	0%	12.19	6.19	50.78%	0	0%	12.19	6.21	50.94%	0	0%	12.19	6.22	51.03%	0	0%																						
GNA_04215108_Capacity	North Coast	Sonoma	SANTA ROSA A 1108	4215108	Feeder	Demand Growth	Capacity	2023	126.94%	2.95	27%	10.95	12.3	112.33%	1.35	12%	10.95	12.63	115.34%	1.68	15%	10.95	13.29	121.37%	2.34	21%	10.95	13.74	125.48%	2.79	25%	10.95	13.9	126.94%	2.95	27%																						
GNA_0421503_Capacity	North Coast	Sonoma	SANTA ROSA A BANK 3	421503	Bank	None	None	None	79.35%	0	0%	44.55	33.78	75.82%	0	0%	44.55	34.07	76.48%	0	0%	44.55	34.21	76.79%	0	0%	44.55	34.67	77.82%	0	0%	44.55	35.35	79.35%	0	0%																						
GNA_04215109_Capacity	North Coast	Sonoma	SANTA ROSA A 1109	4215109	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																							
GNA_04215110_Capacity	North Coast	Sonoma	SANTA ROSA A 1110	4215110	Feeder	Demand Growth	Capacity	2023	105.45%	0.57	5%	10.46	10.65	101.82%	0.19	2%	10.46	10.61	101.43%	0.15	1%	10.46	10.62	101.53%	0.16	2%	10.46	10.77	102.96%	0.31	3%	10.46	11.03	105.45%	0.57	5%																						
GNA_04215111_Capacity	North Coast	Sonoma	SANTA ROSA A 1111	4215111	Feeder	None	None	None	92.53%	0	0%	12.19	10.21	83.76%	0	0%	12.19	10.61	87.04%	0	0%	12.19	10.75	88.19%	0	0%	12.19	10.98	90.07%	0	0%	12.19	11.28	92.53%	0	0%																						
GNA_04215112_Capacity	North Coast	Sonoma	SANTA ROSA A 1112	4215112	Feeder	None	None	None	95.45%	0	0%	10.78	10.29	95.45%	0	0%	10.78	10.22	94.62%	0	0%	10.78	10.12	93.88%	0	0%	10.78	10.05	93.23%	0	0%	10.78	10.03	93.04%	0	0%																						
GNA_0420901_Capacity	North Coast	Sonoma	MIRABEL BANK 1	0420901	Bank	None	None	None	89.90%	0	0%	10.4	9.35	89.90%	0	0%	10.4	9.27	89.13%	0	0%	10.4	9.24	88.85%	0	0%	10.4	9.25	88.94%	0	0%	10.4	9.27	89.13%	0	0%																						
GNA_04209101_Capacity	North Coast	Sonoma	MIRABEL 1101	04209101	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																							
GNA_04209102_Capacity	North Coast	Sonoma	MIRABEL 1102	04209102	Feeder	None	None	None	54.86%	0	0%	10.39	5.66	54.86%	0	0%	10.39	5.65	54.38%	0	0%	10.39	5.66	54.48%	0	0%	10.39	5.68	54.67%	0	0%	10.39	5.7	54.86%	0	0%																						
GNA_0425701_Capacity	North Coast	Sonoma	MOLINO BANK 1	0425701	Bank	None	None	None	88.45%	0	0%	12.38	9.78	79.00%	0	0%	12.38	10.69	86.35%	0	0%	12.38	10.72	86.59%	0	0%	12.38	10.83	87.48%	0	0%	12.38	10.95	88.45%	0	0%																						
GNA_04257101_Capacity	North Coast	Sonoma	MOLINO 1101	04257101	Feeder	None	None	None	89.66%	0	0%	12.19	9.76	80.07%	0	0%	12.19	10.67	87.53%	0	0%	12.19	10.7	87.78%	0	0%	12.19	10.81	88.66%	0	0%	12.19	10.93	89.66%	0	0%																						
GNA_0425702_Capacity	North Coast	Sonoma	MOLINO BANK 2	0425702	Bank	Demand Growth	Capacity	2026	102.59%	0.77	3%	29.7	28.84	97.10%	0	0%	29.7	29.58	99.60%	0	0%	29.7	29.84	100.47%	0.14	0%	29.7	30.13	101.45%	0.43	1%	29.7	30.47	102.59%	0.77	3%																						







**PG&E 2023 Grid Needs Assessment (GNA)**  
**Appendix E: GNA Results - Bank & Feeder Capacity Needs**  
**Version Date: 8/15/2023**  
**Public**

Facility Information				Distribution Service		Peak Deficiency and Loading															2023															2024															2025															2026															2027														
GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)																																																											
GNA_25431105_Capacity	Central Valley	Yosemite	ORTIGA 1105	25431105	Feeder	Demand Growth	Capacity	2023	113.08%	1.41	13%	10.78	11.43	106.03%	0.65	6%	10.78	11.75	109.00%	0.97	9%	10.78	11.9	110.39%	1.12	10%	10.78	12.03	111.60%	1.25	12%	10.78	12.19	113.08%	1.41	13%																																																											
GNA_25431106_Capacity	Central Valley	Yosemite	ORTIGA 1106	25431106	Feeder	Demand Growth	Capacity	2023	120.46%	2.14	20%	10.46	12.17	116.35%	1.71	16%	10.46	12.26	117.21%	1.8	17%	10.46	12.35	118.07%	1.89	18%	10.46	12.48	119.31%	2.02	19%	10.46	12.6	120.46%	2.14	20%																																																											
GNA_2540501_Capacity	Central Valley	Yosemite	SANTA NELLA BANK 1	2540501	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_254051101_Capacity	Central Valley	Yosemite	SANTA NELLA 1101	254051101	Feeder	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																									
GNA_2540502_Capacity	Central Valley	Yosemite	SANTA NELLA BANK 2	2540502	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_254051104_Capacity	Central Valley	Yosemite	SANTA NELLA 1104	254051104	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_2546403_Capacity	Central Valley	Yosemite	WRIGHT BANK 3	2546403	Bank	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																									
GNA_254641110_Capacity	Central Valley	Yosemite	WRIGHT 1110	254641110	Feeder	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																									
GNA_2541001_Capacity	Central Valley	Yosemite	CHOWCHILLA BANK 1	2541001	Bank	Demand Growth	Capacity	2026	101.53%	0.68	2%	44.55	44.24	99.30%	0	0%	44.55	44.38	99.62%	0	0%	44.55	44.58	100.07%	0.03	0%	44.55	44.87	100.72%	0.32	1%	44.55	45.23	101.53%	0.68	2%																																																											
GNA_254101101_Capacity	Central Valley	Yosemite	CHOWCHILLA 1101	254101101	Feeder	None	None	None	99.47%	0	0%	13.19	12.53	95.00%	0	0%	13.19	12.88	97.65%	0	0%	13.19	12.92	97.95%	0	0%	13.19	13.02	98.71%	0	0%	13.19	13.12	99.47%	0	0%																																																											
GNA_254101102_Capacity	Central Valley	Yosemite	CHOWCHILLA 1102	254101102	Feeder	None	None	None	85.27%	0	0%	12.83	10.46	81.53%	0	0%	12.83	10.53	82.07%	0	0%	12.83	10.63	82.85%	0	0%	12.83	10.75	83.79%	0	0%	12.83	10.94	85.27%	0	0%																																																											
GNA_254101103_Capacity	Central Valley	Yosemite	CHOWCHILLA 1103	254101103	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_254101104_Capacity	Central Valley	Yosemite	CHOWCHILLA 1104	254101104	Feeder	Demand Growth	Capacity	2024	109.28%	1.19	9%	12.83	12.64	98.52%	0	0%	12.83	14	109.12%	1.17	9%	12.83	13.98	108.96%	1.15	9%	12.83	14	109.12%	1.17	9%	12.83	14.02	109.28%	1.19	9%																																																											
GNA_2541002_Capacity	Central Valley	Yosemite	CHOWCHILLA BANK 2	2541002	Bank	None	None	None	90.21%	0	0%	15.84	14.11	89.08%	0	0%	15.84	14.17	89.46%	0	0%	15.84	14.25	89.96%	0	0%	15.84	14.29	90.21%	0	0%	15.84	14.29	90.21%	0	0%																																																											
GNA_254101105_Capacity	Central Valley	Yosemite	CHOWCHILLA 1105	254101105	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_254101106_Capacity	Central Valley	Yosemite	CHOWCHILLA 1106	254101106	Feeder	None	None	None	81.38%	0	0%	12.19	9.57	78.51%	0	0%	12.19	9.66	79.25%	0	0%	12.19	9.73	79.82%	0	0%	12.19	9.82	80.56%	0	0%	12.19	9.92	81.38%	0	0%																																																											
GNA_2524201_Capacity	Central Valley	Yosemite	DAIRYLAND BANK 1	2524201	Bank	None	None	None	95.29%	0	0%	29.7	28.3	95.29%	0	0%	29.7	28.25	95.12%	0	0%	29.7	28.19	94.98%	0	0%	29.7	28.19	94.92%	0	0%	29.7	28.17	94.85%	0	0%																																																											
GNA_252421102_Capacity	Central Valley	Yosemite	DAIRYLAND 1102	252421102	Feeder	None	None	None	88.10%	0	0%	13.19	11.62	88.10%	0	0%	13.19	11.62	88.10%	0	0%	13.19	11.62	88.10%	0	0%	13.19	11.62	88.10%	0	0%	13.19	11.62	88.10%	0	0%																																																											
GNA_252421105_Capacity	Central Valley	Yosemite	DAIRYLAND 1105	252421105	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_252421109_Capacity	Central Valley	Yosemite	DAIRYLAND 1109	252421109	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_2524202_Capacity	Central Valley	Yosemite	DAIRYLAND BANK 2	2524202	Bank	Demand Growth	Capacity	2023	103.91%	1.16	4%	29.7	30.76	103.57%	1.06	4%	29.7	30.86	103.91%	1.16	4%	29.7	30.78	103.64%	1.08	4%	29.7	30.72	103.43%	1.02	3%	29.7	30.65	103.20%	0.95	3%																																																											
GNA_252421110_Capacity	Central Valley	Yosemite	DAIRYLAND NEW 1110	252421110	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_252421111_Capacity	Central Valley	Yosemite	DAIRYLAND 1111	252421111	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_252421112_Capacity	Central Valley	Yosemite	DAIRYLAND 1112	252421112	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_252421113_Capacity	Central Valley	Yosemite	DAIRYLAND 1113	252421113	Feeder	Demand Growth	Capacity	2023	102.26%	0.3	2%	13.26	13.56	102.26%	0.3	2%	13.26	13.56	102.26%	0.3	2%	13.26	13.56	102.26%	0.3	2%	13.26	13.56	102.26%	0.3	2%	13.26	13.56	102.26%	0.3	2%																																																											
GNA_2524501_Capacity	Central Valley	Yosemite	EL NIDO BANK 1	2524501	Bank	None	None	None	72.52%	0	0%	29.69	21.53	72.52%	0	0%	29.69	21.53	72.52%	0	0%	29.69	21.53	72.52%	0	0%	29.69	21.53	72.52%	0	0%	29.69	21.53	72.52%	0	0%																																																											
GNA_252451102_Capacity	Central Valley	Yosemite	EL NIDO 1102	252451102	Feeder	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																									
GNA_252451104_Capacity	Central Valley	Yosemite	EL NIDO 1104	252451104	Feeder	Demand Growth	Capacity	2023	119.22%	2.01	19%	10.46	12.47	119.22%	2.01	19%	10.46	12.47	119.22%	2.01	19%	10.46	12.47	119.22%	2.01	19%	10.46	12.47	119.22%	2.01	19%	10.46	12.47	119.22%	2.01	19%																																																											
GNA_252451106_Capacity	Central Valley	Yosemite	EL NIDO NEW 1106	252451106	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_2524502_Capacity	Central Valley	Yosemite	EL NIDO BANK 2	2524502	Bank	Demand Growth	Capacity	2023	101.14%	0.18	1%	15.84	15.97	100.82%	0.13	1%	15.84	16.02	101.14%	0.18	1%	15.84	15.94	100.63%	0.1	1%	15.84	15.89	100.32%	0.05	0%	15.84	15.86	100.13%	0.02	0%																																																											
GNA_252451101_Capacity	Central Valley	Yosemite	EL NIDO 1101	252451101	Feeder	None	None	None	77.55%	0	0%	10.11	7.74	76.56%	0	0%	10.11	7.84	77.55%	0	0%	10.11	7.83	77.45%	0	0%	10.11	7.81	77.25%	0	0%	10.11	7.81	77.25%	0	0%																																																											
GNA_252451103_Capacity	Central Valley	Yosemite	EL NIDO 1103	252451103	Feeder	None	None	None	89.20%	0	0%	10.46	9.33	89.20%	0	0%	10.46	9.26	88.53%	0	0%	10.46	9.24	88.34%	0	0%	10.46	9.24	88.24%	0	0%	10.46	9.23	88.14%	0	0%																																																											
GNA_2553601_Capacity	Central Valley	Yosemite	LE GRAND BANK 1	2553601	Bank	None	None	None	69.72%	0	0%	44.55	31.06	69.72%	0	0%	44.55	31.01	69.61%	0	0%	44.55	30.96	69.47%	0	0%	44.55	30.92	69.45%	0	0%	44.55	30.92	69.45%	0	0%																																																											
GNA_255361104_Capacity	Central Valley	Yosemite	LE GRAND 1104	255361104	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC																																																										
GNA_255361112_Capacity	Central Valley	Yosemite	LE GRAND 1112 (old 1106)	255361112	Feeder	None	None	None	79.61%	0	0%	10.69	8.51	79.61%	0	0%																																																																															



PG&E 2023 Grid Needs Assessment (GNA)  
Appendix E: GNA Results - Bank & Feeder Capacity Needs  
Version Date: 8/15/2023  
Public

GNA NEED ID	Distribution Planning Regions	Division	Facility Name	Facility ID Formatted	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	Peak Facility Loading (%) 2023-2027		2023		2024		2025		2026		2027																			
									Peak Facility Loading (%) 2023-2027	Peak Facility Deficiency (MW) 2023-2027	Peak Facility Deficiency (%) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Facility Loading (%)	Deficiency (MW)	Deficiency (%)												
GNA_255391102_Capacity	Central Valley	Yosemite	BONITA 1102	255391102	Feeder	Demand Growth	Capacity	2024	142.41%	4.08	42%	9.62	6.61	68.71%	0	0%	9.62	11.64	121.00%	2.02	21%	9.62	13.62	141.58%	4	42%	9.62	13.65	141.89%	4.03	42%	9.62	13.7	142.41%	4.08	42%		
GNA_255391103_Capacity	Central Valley	Yosemite	BONITA 1103	255391103	Feeder	None	None	None	75.99%	0	0%	9.62	7.31	75.99%	0	0%	9.62	7.29	75.78%	0	0%	9.62	7.28	75.68%	0	0%	9.62	7.28	75.68%	0	0%	9.62	7.28	75.68%	0	0%		
GNA_2551202_Capacity	Central Valley	Yosemite	BORDEN BANK 2	2551202	Bank	Demand Growth	Capacity	2024	106.46%	1.92	6%	29.7	29.38	98.92%	0	0%	29.7	30.76	103.57%	1.06	4%	29.7	31.27	105.29%	1.57	5%	29.7	31.43	105.82%	1.73	6%	29.7	31.62	106.46%	1.92	6%		
GNA_255121101_Capacity	Central Valley	Yosemite	BORDEN 1101	255121101	Feeder	Demand Growth	Capacity	2023	106.03%	0.8	6%	13.26	13.95	105.20%	0.69	5%	13.26	13.95	105.20%	0.69	5%	13.26	14	105.58%	0.74	6%	13.26	14.06	106.03%	0.8	6%	13.26	14.06	106.03%	0.8	6%		
GNA_255121102_Capacity	Central Valley	Yosemite	BORDEN 1102	255121102	Feeder	None	None	None	77.15%	0	0%	13.26	8.24	62.14%	0	0%	13.26	9.5	71.64%	0	0%	13.26	10	75.41%	0	0%	13.26	10.1	76.17%	0	0%	13.26	10.23	77.15%	0	0%		
GNA_255121103_Capacity	Central Valley	Yosemite	BORDEN 1103	255121103	Feeder	None	None	None	89.29%	0	0%	13.26	11.74	88.54%	0	0%	13.26	11.84	89.29%	0	0%	13.26	11.83	89.22%	0	0%	13.26	11.83	89.22%	0	0%	13.26	11.83	89.22%	0	0%		
GNA_2539801_Capacity	Central Valley	Yosemite	EL PECO BANK 1	2539801	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_253981102_Capacity	Central Valley	Yosemite	EL PECO 1102	253981102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_2539802_Capacity	Central Valley	Yosemite	EL PECO BANK 2	2539802	Bank	None	None	None	100.38%	0.06	0%	15.85	15.91	100.38%	0.06	0%	15.85	15.88	100.19%	0.03	0%	15.85	15.85	100.00%	0	0%	15.85	15.84	99.94%	0	0%	15.85	15.82	99.81%	0	0%		
GNA_253981105_Capacity	Central Valley	Yosemite	EL PECO 1105	253981105	Feeder	None	None	None	98.13%	0	0%	12.83	12.59	98.13%	0	0%	12.83	12.57	97.97%	0	0%	12.83	12.56	97.90%	0	0%	12.83	12.55	97.82%	0	0%	12.83	12.52	97.58%	0	0%		
GNA_253981106_Capacity	Central Valley	Yosemite	EL PECO 1106	253981106	Feeder	None	None	None	44.26%	0	0%	10.46	4.63	44.26%	0	0%	10.46	4.62	44.17%	0	0%	10.46	4.6	43.98%	0	0%	10.46	4.61	44.07%	0	0%	10.46	4.61	44.07%	0	0%		
GNA_2527601_Capacity	Central Valley	Yosemite	MADERA BANK 1	2527601	Bank	Demand Growth	Capacity	2023	114.53%	4	15%	26.8	29.67	110.71%	2.87	11%	26.8	30.77	114.81%	3.97	15%	26.8	30.76	114.78%	3.96	15%	26.8	30.78	114.85%	3.98	15%	26.8	30.8	114.93%	4	15%		
GNA_252761112_Capacity	Central Valley	Yosemite	MADERA 1112	252761112	Feeder	Demand Growth	Capacity	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_252761114_Capacity	Central Valley	Yosemite	MADERA 1114	252761114	Feeder	None	None	None	95.98%	0	0%	10.46	10.04	95.98%	0	0%	10.46	10.01	95.70%	0	0%	10.46	9.95	95.12%	0	0%	10.46	9.89	94.55%	0	0%	10.46	9.85	94.17%	0	0%		
GNA_252761116_Capacity	Central Valley	Yosemite	MADERA 1116	252761116	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_2527602_Capacity	Central Valley	Yosemite	MADERA BANK 2	2527602	Bank	Demand Growth	Capacity	2026	121.77%	4.3	22%	19.75	19.29	97.67%	0	0%	19.75	18.64	94.38%	0	0%	19.75	19.5	98.73%	0	0%	19.75	21.26	107.65%	1.51	8%	19.75	24.05	121.77%	4.3	22%		
GNA_252761104_Capacity	Central Valley	Yosemite	MADERA 1104	252761104	Feeder	None	None	None	72.19%	0	0%	12.19	8.8	72.19%	0	0%	12.19	8.68	71.21%	0	0%	12.19	8.6	70.55%	0	0%	12.19	8.6	70.55%	0	0%	12.19	8.62	70.71%	0	0%		
GNA_252761106_Capacity	Central Valley	Yosemite	MADERA 1106	252761106	Feeder	Demand Growth	Capacity	2026	133.68%	3.93	34%	11.67	10.3	88.26%	0	0%	11.67	9.73	83.38%	0	0%	11.67	10.83	92.80%	0	0%	11.67	12.88	110.37%	1.21	10%	11.67	15.6	133.68%	3.93	34%		
GNA_2527603_Capacity	Central Valley	Yosemite	MADERA BANK 3	2527603	Bank	None	None	None	69.70%	0	0%	29.7	20.58	69.29%	0	0%	29.7	20.51	69.06%	0	0%	29.7	20.43	68.79%	0	0%	29.7	20.49	68.99%	0	0%	29.7	20.7	69.70%	0	0%		
GNA_252761118_Capacity	Central Valley	Yosemite	MADERA 1118	252761118	Feeder	None	None	None	89.54%	0	0%	13.19	11.81	89.54%	0	0%	13.19	11.7	88.70%	0	0%	13.19	11.6	87.95%	0	0%	13.19	11.52	87.34%	0	0%	13.19	11.54	87.49%	0	0%		
GNA_252761119_Capacity	Central Valley	Yosemite	MADERA 1119	252761119	Feeder	None	None	None	98.94%	0	0%	13.19	12.68	96.13%	0	0%	13.19	12.77	96.82%	0	0%	13.19	12.85	97.42%	0	0%	13.19	12.94	98.10%	0	0%	13.19	13.05	98.94%	0	0%		
GNA_2546101_Capacity	Central Valley	Yosemite	STOREY BANK 1	2546101	Bank	Demand Growth	Capacity	2027	102.26%	1.01	2%	44.6	40.91	91.73%	0	0%	44.6	42.52	95.34%	0	0%	44.6	43.31	97.11%	0	0%	44.6	44.3	99.33%	0	0%	44.6	45.61	102.26%	1.01	2%		
GNA_254611104_Capacity	Central Valley	Yosemite	STOREY 1104	254611104	Feeder	Demand Growth	Capacity	2023	120.96%	3.02	21%	14.41	15.92	110.48%	1.51	10%	14.41	16.65	115.54%	2.24	16%	14.41	17.15	119.01%	2.74	19%	14.41	17.29	119.99%	2.88	20%	14.41	17.43	120.96%	3.02	21%		
GNA_254611105_Capacity	Central Valley	Yosemite	STOREY 1105	254611105	Feeder	Demand Growth	Capacity	2023	123.60%	3.21	24%	13.6	14.11	103.75%	0.51	4%	13.6	14.57	107.13%	0.97	7%	13.6	14.58	107.21%	0.98	7%	13.6	15.44	113.53%	1.84	14%	13.6	16.81	123.60%	3.21	24%		
GNA_254611106_Capacity	Central Valley	Yosemite	STOREY 1106	254611106	Feeder	Demand Growth	Capacity	2023	104.92%	0.6	5%	12.19	12.65	103.77%	0.46	4%	12.19	12.7	104.18%	0.51	4%	12.19	12.75	104.59%	0.56	5%	12.19	12.79	104.92%	0.6	5%	12.19	12.76	104.68%	0.57	5%		
GNA_254611107_Capacity	Central Valley	Yosemite	STOREY BANK 2	254611107	Bank	Demand Growth	Capacity	2023	121.08%	9.38	21%	44.5	53.88	121.08%	9.38	21%	44.5	53.64	120.54%	9.14	21%	44.5	53.43	120.07%	8.93	20%	44.5	53.3	119.78%	8.8	20%	44.5	53.3	119.78%	8.8	20%		
GNA_254611108_Capacity	Central Valley	Yosemite	STOREY 1107	254611108	Feeder	Demand Growth	Capacity	2023	114.19%	1.73	14%	12.19	13.92	114.19%	1.73	14%	12.19	13.9	114.03%	1.71	14%	12.19	13.87	113.78%	1.68	14%	12.19	13.84	113.54%	1.65	14%	12.19	13.83	113.45%	1.64	13%		
GNA_254611108_Capacity	Central Valley	Yosemite	STOREY 1108	254611108	Feeder	Demand Growth	Capacity	2023	103.63%	0.48	4%	13.21	13.47	101.97%	0.26	2%	13.21	13.51	102.27%	0.3	2%	13.21	13.55	102.57%	0.34	3%	13.21	13.62	103.10%	0.41	3%	13.21	13.69	103.63%	0.48	4%		
GNA_254611109_Capacity	Central Valley	Yosemite	STOREY 1109	254611109	Feeder	Demand Growth	Capacity	2023	115.37%	2.03	15%	13.21	15.21	115.14%	2	15%	13.21	15.19	114.99%	1.98	15%	13.21	15.18	114.91%	1.97	15%	13.21	15.2	115.06%	1.99	15%	13.21	15.24	115.37%	2.03	15%		
GNA_254611111_Capacity	Central Valley	Yosemite	STOREY 1111	254611111	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_1626701_Capacity	Central Valley	Yosemite	WESTLEY BANK 1	1626701	Bank	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_162671101_Capacity	Central Valley	Yosemite	WESTLEY 1101	162671101	Feeder	None	None	None	94.36%	0	0%	10.46	9.87	94.36%	0	0%	10.46	9.86	94.26%	0	0%	10.46	9.86	94.26%	0	0%	10.46	9.86	94.26%	0	0%	10.46	9.86	94.26%	0	0%		
GNA_162671102_Capacity	Central Valley	Yosemite	WESTLEY 1102	162671102	Feeder	None	None	None	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_1626702_Capacity	Central Valley	Yosemite	WESTLEY BANK 2	1626702	Bank	None	None	None	79.																													



PG&E 2023 Grid Needs Assessment (GNA)  
Appendix F: GNA Results - Reliability & Resiliency Needs  
Version Date: 8/15/2023  
Public

Facility Information					Distribution Service				2023				2024				2025				2026				2027					
GNA NEED ID	Distribution Planning Region	Division	Facility Name	Facility ID	Facility Type	Primary Driver	Distribution Service Required	Anticipated Need Date	Peak Facility Deficiency (MW) 2023-2027	Facility Rating (MW)	Facility Loading (MW)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Deficiency (MW)	Deficiency (%)	Facility Rating (MW)	Facility Loading (MW)	Deficiency (MW)	Deficiency (%)	
GNA_012091116_Resiliency	Bay Area	East Bay	OAKLAND J 1116	12091116	Feeder	> 6000 cust	Resiliency	2023	2.51	10.16	11.08	2.41	28%	10.16	11.15	2.42	28%	10.16	11.22	2.44	28%	10.16	11.36	2.47	28%	10.16	11.56	2.51	28%	
GNA_012541115_Resiliency	Bay Area	East Bay	OAKLAND X 1115	12541115	Feeder	> 6000 cust	Resiliency	2023	1.28	11.87	6.11	1.19	24%	11.87	6.16	1.20	24%	11.87	6.24	1.22	24%	11.87	6.4	1.25	24%	11.87	6.55	1.28	24%	
GNA_022101108_Resiliency	Bay Area	San Francisco	MARTIN (SF H) 1108	22101108	Feeder	> 6000 cust	Resiliency	2023	1.13	11.57	7.05	0.88	14%	11.57	7.83	0.97	14%	11.57	8.66	1.08	14%	11.57	8.83	1.10	14%	11.57	9.1	1.13	14%	
GNA_022011113_Resiliency	Bay Area	San Francisco	MISSION (SF X) 1113	22011113	Feeder	> 6000 cust	Resiliency	2023	1.67	6.84	7.74	1.26	20%	6.84	9.41	1.54	20%	6.84	9.63	1.57	20%	6.84	9.89	1.61	20%	6.84	10.24	1.67	20%	
GNA_083622106_Resiliency	South Bay and Central Coast	Central Coast	CAMP EVERS 2106	83622106	Feeder	> 6000 cust	Resiliency	2023	0.26	20.67	13.6	0.26	2%	20.67	13.59	0.26	2%	20.67	13.6	0.26	2%	20.67	13.63	0.26	2%	20.67	13.67	0.26	2%	
GNA_182222105_Resiliency	South Bay and Central Coast	Central Coast	DEL MONTE 2105	182222105	Feeder	> 6000 cust	Resiliency	2023	6.72	22.22	14.29	6.18	76%	22.22	14.47	6.26	76%	22.22	14.69	6.35	76%	22.22	15.08	6.52	76%	22.22	15.55	6.72	76%	
GNA_083692105_Resiliency	South Bay and Central Coast	Central Coast	ROB ROY 2105	83692105	Feeder	> 6000 cust	Resiliency	2023	0.19	22.04	6.97	0.18	3%	22.04	7.08	0.18	3%	22.04	7.13	0.18	3%	22.04	7.35	0.19	3%	22.04	7.65	0.19	3%	
GNA_182011102_Resiliency	South Bay and Central Coast	Central Coast	SALINAS 1102	182011102	Feeder	> 6000 cust	Resiliency	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_013501105_Resiliency	Bay Area	Mission	JARVIS 1105	13501105	Feeder	> 6000 cust	Resiliency	2023	0.38	11.57	11.4	0.36	3%	11.57	11.52	0.36	3%	11.57	11.64	0.37	3%	11.57	11.83	0.37	3%	11.57	12.05	0.38	3%	
GNA_013501111_Resiliency	Bay Area	Mission	JARVIS 1111	13501111	Feeder	> 6000 cust	Resiliency	2023	0.83	13.15	12.72	0.80	7%	13.15	12.89	0.81	7%	13.15	12.92	0.81	7%	13.15	13.05	0.82	7%	13.15	13.25	0.83	7%	
GNA_013501112_Resiliency	Bay Area	Mission	JARVIS 1112	13501112	Feeder	> 6000 cust	Resiliency	2023	1.71	11.57	10.89	1.64	18%	11.57	10.93	1.64	18%	11.57	10.98	1.65	18%	11.57	11.11	1.67	18%	11.57	11.34	1.71	18%	
GNA_013111107_Resiliency	Bay Area	Mission	SAN LEANDRO U 1107	13111107	Feeder	> 6000 cust	Resiliency	2023	0.47	12.19	8.5	0.46	6%	12.19	8.52	0.46	6%	12.19	8.54	0.46	6%	12.19	8.58	0.46	6%	12.19	8.64	0.47	6%	
GNA_082952108_Resiliency	South Bay and Central Coast	San Jose	EDENVALE 2108	82952108	Feeder	> 6000 cust	Resiliency	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_022571106_Resiliency	Bay Area	Peninsula	EAST GRAND 1106	22571106	Feeder	> 600A	Reliability	2023	6.90	18.11	18.4	5.57	43%	18.11	19.73	6.90	54%	18.11	18.91	6.08	47%	18.11	18.94	6.11	48%	18.11	18.95	6.12	48%	
GNA_083871105_Resiliency	South Bay and Central Coast	San Jose	FMC 1105	83871105	Feeder	> 600A	Reliability	2023	5.89	21.38	18.72	5.89	46%	21.38	18.56	5.73	45%	21.38	18.45	5.62	44%	21.38	18.47	5.64	44%	21.38	18.54	5.71	45%	
GNA_254762102_Resiliency	Central Valley	Kern	ROSEDALE 2102	254762102	Feeder	> 600A	Reliability	2023	0.16	21.38	12.99	0.16	1%	21.38	12.9	0.07	1%	21.38	12.77	-0.06	0%	21.38	12.62	-0.21	-2%	21.38	12.47	-0.36	-3%	
GNA_153781105_Resiliency	North Valley and Sierra	Sierra	BOGUE 1105	153781105	Feeder	> 600A	Reliability	2023	2.74	14.26	14.98	2.15	17%	14.26	15.07	2.24	17%	14.26	15.18	2.35	18%	14.26	15.33	2.50	19%	14.26	15.57	2.74	21%	
GNA_0138005_Resiliency	Bay Area	Diablo	MORAGA BANK 5	138005	Bank	Emergency Bank Loss	Reliability	2023	13.40	40.6	38.3	13.40	33%	40.6	38.56	13.40	33%	40.6	39.36	13.40	33%	40.6	39.96	13.40	33%	40.6	40.49	13.40	33%	
GNA_042481101_Resiliency	North Valley and Sierra	North Bay	IGNACIO 1101	42481101	Line section	Mainline Loop	Reliability	2023	2.90	11.8	8.41	2.90	26%	11.8	8.27	2.90	26%	11.8	8.1	2.90	26%	11.8	8.04	2.90	27%	11.8	8.05	2.90	26%	
GNA_182671112_Resiliency	South Bay and Central Coast	Los Padres	SANTA MARIA 1112	182671112	Line section	Mainline Loop	Reliability	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_255002101_Resiliency	Central Valley	Fresno	AVENAL 2101	255002101	Line section	Mainline Loop	Reliability	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
GNA_252241116_Resiliency	Central Valley	Fresno	KINGSBURG 1116	252241116	Line section	Mainline Loop	Reliability	2023	1.30	11.55	11.92	1.30	10%	11.55	11.99	1.30	10%	11.55	12.07	1.30	10%	11.55	12.18	1.30	10%	11.55	12.28	1.30	10%	
GNA_163722108_Resiliency	Central Valley	Stockton	MOSHER 2108	163722108	Line section	Mainline Loop	Reliability	2023	4.90	21.11	16.11	4.90	23%	21.11	16.12	4.90	23%	21.11	16.14	4.90	23%	21.11	16.21	4.90	23%	21.11	16.35	4.90	23%	
GNA_062041102_Resiliency	North Valley and Sierra	Sacramento	DAVIS 1102	62041102	Line section	Mainline Loop	Reliability	2023	2.10	12.19	11.35	2.10	16%	12.19	11.27	2.10	16%	12.19	11.13	2.10	16%	12.19	11.07	2.10	16%	12.19	11.18	2.10	16%	
GNA_063172101_Resiliency	North Valley and Sierra	Sacramento	MADISON 2101	63172101	Line section	Mainline Loop	Reliability	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_063642106_Resiliency	North Valley and Sierra	Sacramento	PEABODY 2106	63642106	Line section	Mainline Loop	Reliability	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_042151111_Resiliency	North Coast	Sonoma	SANTA ROSA A 1111	42151111	Line section	Mainline Loop	Reliability	2023	0.70	12.19	10.21	0.70	6%	12.19	10.61	0.70	6%	12.19	10.75	0.70	6%	12.19	10.98	0.70	6%	12.19	11.28	0.70	6%	
GNA_1636804_Resiliency	Central Valley	Stockton	LOCKEFORD BANK 4	1636804	Bank	Emergency Bank Loss	Resiliency	2023	14.80	29.7	28.48	14.80	50%	29.7	29.16	14.80	50%	29.7	29.21	14.80	50%	29.7	29.37	14.80	50%	29.7	29.55	14.80	50%	
GNA_153761102_Resiliency	North Valley and Sierra	Sierra	CATLETT 1102	153761102	Line section	Back-Tie	Reliability	2023	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	
GNA_0838903_Resiliency	South Bay and Central Coast	San Jose	MONTAGUE BANK 3	838903	Bank	Emergency Bank Loss	Resiliency	2023	8.74	44.6	41.29	8.74	20%	44.6	45.49	8.74	20%	44.6	47.32	8.74	20%	44.6	47.32	8.74	20%	44.6	47.32	8.74	20%	
GNA_0432901_Resiliency	North Valley and Sierra	North Bay	PUEBLO BANK 1	432901	Bank	Emergency Bank Loss	Resiliency	2023	14.90	44.5	51.89	14.90	33%	44.5	53.94	14.90	33%	44.5	54.11	14.90	33%	44.5	54.6	14.90	33%	44.5	55.28	14.90	33%	
GNA_1825601_Resiliency	South Bay and Central Coast	Los Padres	Cholame Sub DA	1825601	Substation	T-line clearance	Reliability	2023	4.72	12.32	7.05	4.72	38%	12.32	6.96	4.69	38%	12.32	6.96	4.65	38%	12.32	6.97	4.62	37%	12.32	6.99	4.57	37%	
GNA_1825601_Resiliency	South Bay and Central Coast	Los Padres	Cholame Sub RT	1825601	Substation	T-line emergency	Reliability	2023	4.72	12.32	7.05	4.72	38%	12.32	6.96	4.69	38%	12.32	6.96	4.65	38%	12.32	6.97	4.62	37%	12.32	6.99	4.57	37%	
GNA_182561101_Resiliency	South Bay and Central Coast	Los Padres	Cholame Between X14 and R96	182561101	Substation	Emergency line loss	Reliability	2023	4.86	8.13	7.2	4.86	60%	8.13	7.12	4.82	59%	8.13	7.11	4.79	59%	8.13	7.12	4.75	58%	8.13	7.14	4.71	58%	
GNA_183052109_Resiliency	South Bay and Central Coast	Los Padres	L/S R78 - Templeton 2109	183052109	Substation	Emergency line loss	Reliability	2023	18.62	21.41	16.3	18.02	86%	21.41	17.71	18.23	87%	21.41	17.81	18.54	87%	21.41	18.05	18.54	88%	21.41	18.31	18.62	87%	