

# PG&E'S 2021 DISTRIBUTION DEFERRAL OPPORTUNITY REPORT



Together, Building  
a Better California

August 16, 2021

# Executive Summary

Pacific Gas and Electric Company (PG&E) hereby submits its 2021 Distribution Deferral Opportunity Report (DDOR) 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, and June 21, 2021, in the Distribution Resources Plan (DRP) Order Institute Rulemaking proceeding. This DDOR is submitted to the Commission, along with PG&E's 2021 Grid Needs Assessment (GNA) Report, to comply with D.18-02-004 and D.21-02-006. Additional grid needs resulting from line section analysis, primarily Voltage Support and Distribution Capacity, will be provided as a supplemental filing on October 15, 2021 as approved via PG&E's Motion for Extension.

This 2021 DDOR builds off PG&E's 2021 GNA Report and identifies candidate distribution deferral opportunities for consideration of solicitations<sup>1</sup> for cost-effective Distributed Energy Resource (DER) solutions to address identified distribution Grid Needs.

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 – Mitigation of Grid Needs Identified in PG&E's 2021 GNA Report
- Section 3 – Planned Investments
- Section 4 – Candidate Deferral Opportunities
- Section 5 – DER Distribution Service Requirements
- Section 6 – Project Costs
- Section 7 – Prioritization Metrics
- Section 8 – Candidate Deferral Opportunities Prioritization
- Section 9 – Partnership Pilot
- Section 10 – Standard Offer Contract (SOC) Pilot
- Section 11 – Contingency Plans
- Section 12 – Recommendations and Next Steps

As part of this report, PG&E has identified 45 Candidate Deferral Opportunities (totaling approximately 300 megawatts MW), which are further categorized and prioritized into three tiers. The following table summarizes PG&E's 2021 DDOR Candidate Deferral

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<sup>1</sup> D.18-02-004 and D. 21-02-006

Opportunities including location, targeted In-Service Date, minimum grid capacity needed (i.e., deficiency), and initially recommended sourcing mechanism.

**PG&E's 2021 DDOR Candidate Deferral Opportunities Summary**

Tier	Candidate Deferral	In-Service Date	Deficiency (MW)	Sourcing Mechanism*
Tier 1	Coalinga No 1 Bank 2	5/1/2024	CC	Partnership Pilot
Tier 1	Embarcadero (SF Z) 1116	4/1/2026	0.3	Partnership Pilot
Tier 1	Embarcadero (SF Z) 1118	6/1/2025	1.3	Partnership Pilot
Tier 1	French Camp Bank 1	5/1/2024	CC	DIDF RFO
Tier 1	Lakeview 1110	5/1/2024	CC	DIDF RFO
Tier 1	Mormon Bank 2	6/1/2025	1.1	DIDF RFO
Tier 1	Newhall Bank 3	6/1/2024	CC	DIDF RFO
Tier 1	Ripon 1705	5/1/2024	5.9	DIDF RFO
Tier 1	Rocklin 1105	5/1/2025	0.7	Partnership Pilot
Tier 1	Saratoga 1102	5/1/2026	CC	DIDF RFO
Tier 1	Vierra Bank 3	5/1/2024	CC	SOC Pilot
Tier 1	Zamora 1108	5/1/2024	1.1	DIDF RFO
Tier 2	Anita 1105	6/1/2024	3.8	Partnership Pilot
Tier 2	Belle Haven Bank 4	5/1/2024	3.9	Partnership Pilot
Tier 2	Blackwell Bank 1	6/1/2025	CC	Not Recommended
Tier 2	Bonita Bank 2	5/1/2024	CC	Not Recommended
Tier 2	Gabilan Bank 2	5/1/2024	CC	Not Recommended
Tier 2	Green Valley Bank 3	5/1/2024	6.2	Not Recommended
Tier 2	Hammonds Bank 1	5/1/2024	CC	Not Recommended
Tier 2	Plainfield Bank 1	6/1/2024	4.7	Not Recommended
Tier 2	San Miguel Bank 2	6/1/2024	CC	Not Recommended
Tier 3	Airways Bank 3	5/1/2024	4.5	Not Recommended
Tier 3	Ames 1103	6/1/2025	CC	Not Recommended
Tier 3	Arbuckle Bank 2	4/1/2024	2.1	Not Recommended
Tier 3	Banta Bank 1	5/1/2024	CC	Not Recommended
Tier 3	Chualar Bank 1	5/1/2024	CC	Not Recommended
Tier 3	Edenvale 2108	1/1/2024	2.0	Not Recommended
Tier 3	Extend Edenvale 2111 to 2112	4/2/2024	CC	Not Recommended
Tier 3	Fulton Bank 5	5/1/2025	4.8	Not Recommended
Tier 3	Garberville Bank 2	6/1/2024	11.3	Not Recommended
Tier 3	Giffen Bank 2	4/1/2024	CC	Not Recommended
Tier 3	Lockeford Bank 1	5/1/2025	19.5	Not Recommended
Tier 3	Martin (SF H) 1107	1/1/2024	1.1	Not Recommended
Tier 3	Martin (SF H) 1108	1/1/2024	CC	Not Recommended
Tier 3	Mc Kee 1102	6/1/2024	6.3	Not Recommended

Tier	Candidate Deferral	In-Service Date	Deficiency (MW)	Sourcing Mechanism*
Tier 3	Molino Bank 1	6/1/2025	0.8	Not Recommended
Tier 3	Montague Bank 2	5/1/2025	7.6	Not Recommended
Tier 3	Oceano 1106	1/1/2024	1.1	Not Recommended
Tier 3	Rincon Bank 1	5/1/2024	6.1	Not Recommended
Tier 3	Rob Roy 2105	1/1/2024	4.6	Not Recommended
Tier 3	Salinas 1102	1/1/2024	CC	Not Recommended
Tier 3	Spence Bank 2	5/1/2024	CC	Not Recommended
Tier 3	Storey 1103	5/1/2024	4.3	Not Recommended
Tier 3	Willow Pass Bank 1	6/1/2024	10.2	Not Recommended
Tier 3	Wolfe 1111 & Wolfe 1112	6/1/2024	CC	Not Recommended

Note: \*Initially recommended DER Sourcing mechanisms  
DIDF RFO - Distribution Investment Deferral Third party RFO competitive solicitations  
SOC pilot - Standard Offer Contract (SOC) pilot  
Partnership Pilot

PG&E will launch a competitive solicitation via a September 15, 2021 RFO for 7 Tier 1 Candidate Deferral Opportunities, as listed below:

- French Camp Bank 1
- Lakeview 1110
- Mormon Bank 2
- Newhall Bank 3
- Ripon 1705
- Saratoga 1102
- Zamora 1108

PG&E will also launch a Standard Offer Contract (SOC) Pilot for one Candidate Deferral Opportunity on September 15, 2021. The recommended Candidate Deferral Opportunities for the Standard Offer Contract is listed below:

- Vierra Bank 3

Additionally, PG&E is recommending 6 Candidate Deferral Opportunities for the first Tranche for the Partnership Pilot. The Candidate Deferral Opportunities recommended for the Partnership Pilot will be discussed at the September 20, 2021 DPAG. On November 15, 2021, PG&E will file a Pilot Advice Letter requesting authorization to launch the subscription period with final cost caps. The recommended Candidate Deferral Opportunities for the Partnership Pilot are listed below:

- Coalinga No 1 Bank 2

- Embarcadero (SF Z) 1116
- Embarcadero (SF Z) 1118
- Rocklin 1105
- Anita 1105
- Belle Haven Bank 4

PG&E does not recommend pursuing the remaining Tier 2 and 3 Candidate Deferral Opportunities at this time due to their low likelihood of achieving a successful outcome. However, these Candidate Deferral Opportunities will be discussed at upcoming Distribution Planning Advisory Group (DPAG) Meetings.

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## 1. Distribution Resources Plan Objectives and Background

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

In July 2015, California IOUs each 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.

In February 2018 the Commission issued 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 GNA by June 1 of each year, and a DDOR by September 1 of each year.<sup>2</sup> The DDOR presents a report of the IOUs' Planned Investments that provide one or more of the four distribution services adopted by D.16-12-036: capacity, voltage support, reliability (back-tie) and resiliency (micro-grid).

In May 2019, the assigned 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 approve the Integrated Energy Policy Report (IEPR) dataset used for forecasting, requests for certain datasets to be hosted on the DRP 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 2020-2021 DIDF cycle reforms.

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<sup>2</sup> D.18-02-004 O.P. 2.d.

<sup>3</sup> May 7, 2019 Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Process, p. 9. (August 15, 2021 falls on a weekend, therefore PG&E's 2021 GNA/DDOR was filed on the following Monday, August 16, 2021).

In June 2021<sup>4</sup>, the assigned ALJ issued a ruling on recommended reforms to the DIDF process and addressed alignment with requirements adopted by Decision D. 21-02-006. Specifically, the ruling introduced eight new reforms and amended eight reforms. As a result of this ruling, the Partnership and SOC Pilots will align within the current DIDF process and are subject to DIDF reforms while pilots are active.

This report fulfills the requirements associated with the DDOR that are not subject to Commission approval, as determined by D.18-02-004.<sup>5</sup> This report will be provided to the DPAG for review and comment.

### 1.1. Objectives of the Distribution Deferral Opportunity Report

The main objective of the DDOR is to utilize the GNA to identify PG&E's candidate distribution deferral opportunities shortlist. In addition, the DDOR aims to provide transparency into the assumptions and results of the distribution resources planning process that yield the DDOR candidate shortlist and provide the associated DER attributes required to meet these opportunities.

PG&E notes that the information in this DDOR represents PG&E's best information currently available on its electric distribution system, and is subject to change, including updates based on changes in system forecast and local loads, priorities for emergent work on electric distribution facilities, and the results of PG&E's rate cases, including the 2023 General Rate Case (GRC).

### 1.2. Regulatory Timelines Associated with DDOR

PG&E's DDOR is required to be filed by August 15 of each year, concurrent with the GNA, and is provided to the DPAG<sup>6</sup> for advisory input.

The regulatory timelines associated with GNA, DDOR, Competitive Solicitations, and Pilots were specified in the June 2021 ALJ Ruling<sup>7</sup> and an abridged version of the schedule is visually depicted in Table 1. This ruling revised the DRP activities calendar to align with activities in the decision D. 21-02-006 as shown below:

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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> Additional Grid Needs and associated Planned Investments resulting from line section analysis will be provided as a supplemental filing on October 15, 2021

<sup>6</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.

<sup>7</sup> June 21, 2021, Administrative Law Judge's Ruling on recommended reforms for the Distribution Investment Deferral Framework Process, pp. 11-12.

**Table 1. Abridged Schedule for 2021-2022 DIDF Cycle**

Activity Date	Activity	Notes
August 15, 2021*	GNA/DDOR filings Final IPE Plans circulated DPAG period begins	
September 5, 2021	IPE Preliminary Analysis of GNA/DDOR Data Adequacy for all three IOUs	
September 13, 2021	Joint IOUs' DPAG Primer meeting	
September 15, 2021	Standard Offer Contract Pilot Launch Launch of RFOs for Tier One deferral candidates Partnership Pilot webpage update	Utilities update the Partnership Pilot web page to include prescreened aggregator contact information.
September 20, 2021	PG&E DPAG meeting	
September 25, 2021	Participants provide questions and comments to IOUs and IPE and copy the DRP service list	
October 5, 2021	IOU responses to questions	
Week of October 18, 2021	Follow-up IOU meetings via webinar	
November 15, 2021	IPE DPAG Report Tier 2 Advice Letter filed by IOUs to not launch RFOs for any additional deferral opportunities Tier 2 Advice Letter seeking approval to launch RFOs if projects are elevated to Tier One during the DPAG meeting Tier 2 Advice Letter filed by IOUs to launch Partnership Pilot	IPE DPAG Report delayed to November 15 only this DIDF cycle as pilots are implemented for the first time.
January 15, 2022	Launch of second round of RFOs Partnership Pilot Launch of Subscription Periods	A second round of RFOs will only be launched if approved by Advice Letter files on November 15.
February 2022	Information-Only Submittal notifying CPUC of executed contracts for RFO solicitations and SOC pilot Annual DIDF reform comments due	Changed due date for comments to allow for feedback on pilots
March 7, 2022	IPE Post DPAG Report covering all three IOUs	
March 20, 2022	Comments on IPE Post-DPAG Report due Replies to February 20 reform comments due	

**Note:** \*Where dates fall on a weekend, the activity is intended to occur on the following Monday. The calendar is not exhaustive of all dates of DPAG activities.

### 1.3. Distribution Investment Deferral Framework Process

Figure 1 illustrates the Distribution Investment Deferral Process. The process acts as a funnel to identify candidate deferral projects, based on the grid needs identified in the GNA.

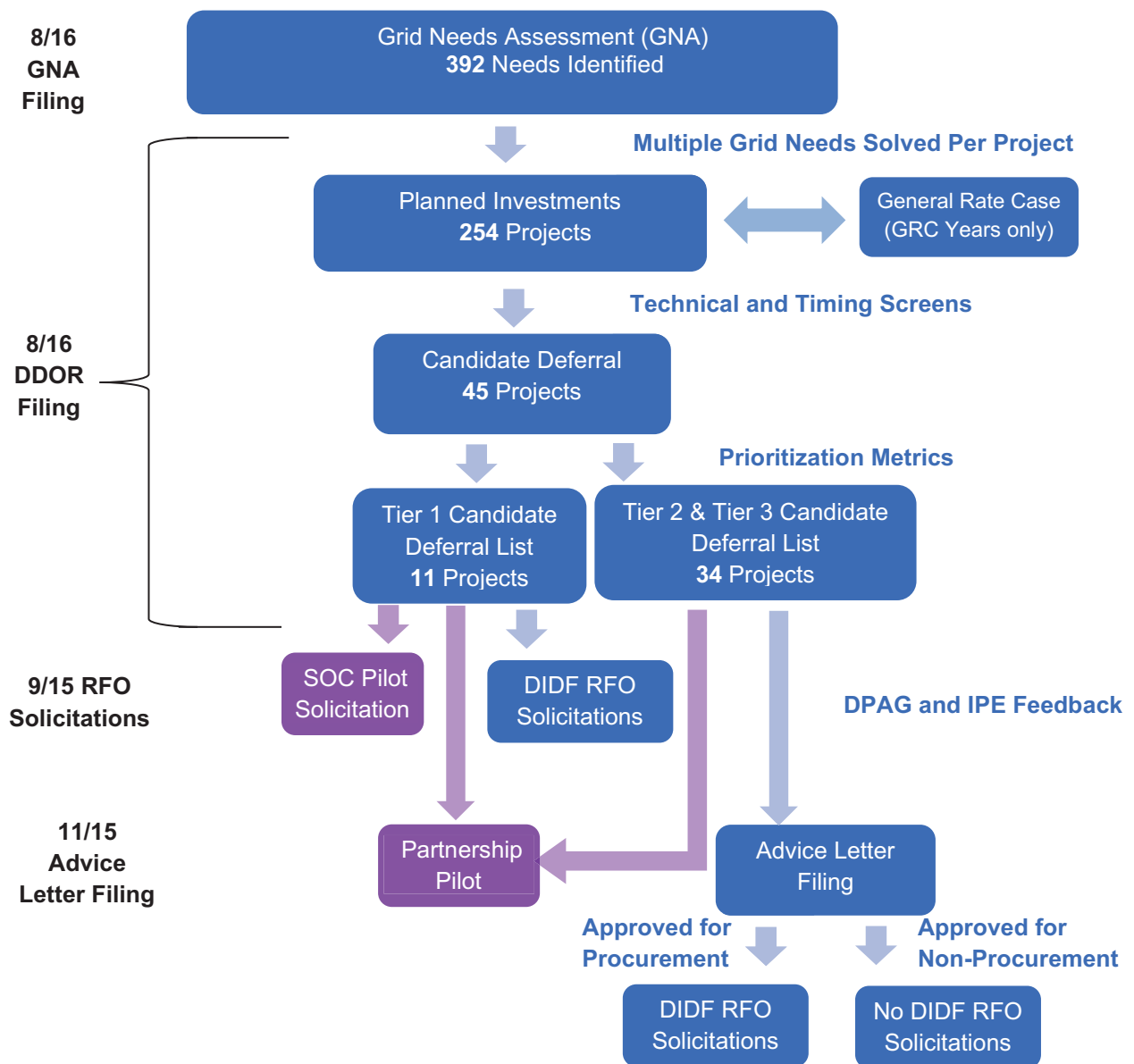


Figure 1. Illustration of Process to Identify Candidate Deferral Opportunities.

### 1.4. Summary of PG&E's 2021 GNA Report

PG&E's 2021 GNA report presents the assumptions and results of the distribution planning process that yield the grid needs to accommodate forecast DER growth. The scope of this report is as in D.18-02-004, with modifications to the GNA requirements

according to the R.14-08-013 May 2019 ALJ Ruling<sup>8</sup>, the May 2020 ALJ Ruling<sup>9</sup>, and June 2021 ALJ Ruling.<sup>10</sup> The 2021 GNA includes substation/bank, feeder, and line section needs. 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.1612036, which are distribution capacity, voltage support, reliability (back-tie) and resiliency (micro-grid).

PG&E's 2021 GNA filing identified 392 grid needs. The grid needs for the 2021 GNA included substation, feeder, and line section needs.<sup>11</sup> The GNA identified distribution capacity, reliability (back-tie), voltage, and resiliency (microgrid) needs<sup>12</sup>. PG&E's 2021 GNA load forecast includes the impact of future planned load transfers and circuit reconfigurations that do not require a capacity project. Therefore, PG&E's 2021 GNA only includes identified grid needs that cannot be mitigated via distribution switching and load transfers that do not require a capacity project.

A single Planned Investment project may mitigate multiple grid needs that are identified in the GNA. Based on the 2021 GNA, PG&E identified 254 Planned Investments. After applying the technical and timing screens, PG&E identified 45 Candidate Deferral Opportunities.

### 1.5. Customer Confidentiality and Critical Energy Infrastructure Information

To respect and protect customer privacy, PG&E follows aggregation and anonymization rules. Areas that do not meet these requirements are redacted in both the public version of the GNA Report and the public version of the DDOR report<sup>13</sup>.

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<sup>8</sup> May 7, 2019 Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Process, pp. A1-A2.

<sup>9</sup> May 11, 2020 Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Attachment A (subsequently revised on June 12, 2020), — Filing and Process Requirements, Attachment A, pp. 89-98.

<sup>10</sup> June 21, 2021, Administrative Law Judge's Ruling on recommended reforms for the Distribution Investment Deferral Framework Process.

<sup>11</sup> Additional grid needs resulting from line section analysis will be provided as a supplemental filing on October 15, 2021.

<sup>12</sup> Additional grid needs resulting from line section analysis, primarily Voltage Support and Distribution Capacity, will be provided as a supplemental filing on October 16, 2021.

<sup>13</sup> Redacted data is marked "CUSTOMER CONFIDENTIAL" or "CC" or Grey Shaded where data violates the 15-15 customer privacy rule. A 15-15 violation occurs if the load is comprised of less than 15 customers or a single customer contributes to more than 15% of the loading value.

## 2. Mitigation of Grid Needs Identified in PG&E's 2021 GNA Report

PG&E's 2021 GNA Report is the basis for the Planned Investments and Candidate Deferral Opportunities included in this report. The GNA identified 392 needs across the PG&E service territory. These grid needs are mitigated by Planned Investments. A single Planned Investment may mitigate multiple grid needs that are identified in the GNA. Figure 1 summarizes how the grid needs identified in PG&E's 2021 GNA Report are used to identify Planned Investments and Candidate Deferral Opportunities in this report.

PG&E has presented all grid needs separately for the purpose of identifying Planned Investment and Candidate Deferral projects and applying the Prioritization Metrics to determine which projects to include in the DIDF solicitations, as shown in Appendices A, B and C. For those Planned Investments and Candidate Deferral Opportunities for which grid needs were identified that could be combined (e.g., a capacity need on a bank and on an interconnected feeder), PG&E has listed the needs separately in the 2021 DDOR.<sup>14</sup>

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<sup>14</sup> May 11, 2020 Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework, Attachment A (subsequently revised on June 12, 2020), — Grid Needs and Deferral Screens, DIDF Reform #12. pp. 91.

### 3. Planned Investments

As described in PG&E's 2021 GNA, there are 392 grid needs identified in the 2021 GNA Report that are mitigated by substation, feeder, and line section Planned Investments. Appendix A shows the resulting Planned Investments.

#### 3.1. Summary of Planned Investments

In total, there are 254 substation, feeder, and distribution line section Planned Investments that mitigate the 392 grid needs, because one Planned Investment may mitigate several grid needs. Table 2 summarizes the Planned Investments by project type and by Distribution Planning Region. The Planned Investments consist of substation projects (e.g., banks), feeders, and distribution line section projects (e.g., installation of switches). The Planned Investments are located throughout the Bay Area, Central Coast, Central Valley, and Northern Distribution Planning Regions.

Table 3 summarizes the Planned Investments by Distribution Service.<sup>15</sup> The majority of Planned Investments are for Distribution Capacity. Table 4 summarizes the Planned Investments by In-Service Date. 209 Planned Investments have an In-Service Date within the next three years, and 45 Planned Investments have an In-Service Date of 2024 or later. All line section Planned Investments have In-Service Dates within the next three years, because PG&E identifies needs for line section and Voltage Support needs for a three-year period.<sup>16</sup> Table 5 and Table 6 summarize the Planned Investments by Locational Net Benefits Analysis ("LNBA") range. The methodology used in calculating the LNBA range is included in Section 6.2.

**Table 2. Summary of Planned Investments by Distribution Planning Region and by Project Type**

Distribution Planning Region	Project Type			Total
	Substation/Bank*	Feeder*	Distribution Line*	
Bay Area	5	31	12	48
Central Coast	15	24	33	72
Central Valley	19	34	37	90
Northern	7	15	22	44
Totals*	46	104	104	254

\*Additional Grid Needs and associated Planned Investments resulting from line section analysis will be provided as a supplemental filing on October 15, 2021

<sup>15</sup> Planned Investments that are meeting both a Distribution Capacity Need and a Voltage Support or Reliability (Back-Tie) or Resiliency (Micro-grid) Need are classified as Distribution Capacity for the purposes of this table.

<sup>16</sup> May 7, 2019 Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Process, p. 6.



**Table 3. Summary of Planned Investments by Distribution Service**

Distribution Service				Total
Distribution Capacity	Voltage Support *	Reliability (Back-Tie)	Resiliency	
230	0	12	12	254

\*Additional Grid Needs and associated Planned Investments resulting from line section analysis will be provided as a supplemental filing on October 15, 2021.

**Table 4. Summary of Planned Investments by In-Service Date**

In-Service Date						Total
2021	2022	2023	2024	2025	2026	
59	90	60	34	9	2	254

**Table 5. Summary of Planned Investments by LNBA Range (\$/kW-yr)**

LNBA Range (\$/kW-yr)						Total
0	\$0-\$50	\$50-\$100	\$100-\$200	\$200-500	>\$500	
0	130	44	36	29	15	254

**Table 6. Summary of Planned Investments by LNBA Range (\$/Vpu-yr)**

LNBA Range (\$/Vpu-yr)			Total
>\$3M	>\$20M	>\$30M	
1	1	1	3

### 3.2. DER Solutions Planned for IOU Ownership for Planned Investments

For PG&E's list of Planned Investments in PG&E's 2021 DDOR, PG&E has one DER solution planned for IOU ownership: DDOR028 (Renz Energy Storage).<sup>17</sup> PG&E also sought bids for IOU ownership for DDOR109 (Blackwell Bank 1) during its 2020-2021 DIDF RFO cycle, although no cost-effective bids were received. PG&E has no other IOU-owned DER solutions listed in the Planned Investment list because PG&E does not currently have any other plans to own any DER solutions that would defer any of the listed Planned Investments that meet one of the four services as adopted in D.18-02-004.<sup>18</sup> PG&E encourages bids for all forms of resource ownership (e.g., utility-owned, third-party owned, customer-owned, joint ownership) in their DIDF RFOs, allowing for bid participation and evaluation without any bias towards a specific ownership model.

<sup>17</sup> Via D.18-10-009

<sup>18</sup> Example programs where PG&E is considering the use of DERs are included in Section 4.4 of the GNA.

As stated in PG&E's Opening Comments to the 2020 DIDF Improvements Ruling,<sup>19</sup> whether a Candidate Deferral Opportunities is suitable for consideration of IOU ownership depends on the specific characteristics of the location (e.g., land, interconnection, etc.). To facilitate IOU ownership more broadly, re-examination of cost recovery and cost allocation would be necessary (see Section 12.2).

### 3.3. Planned Investments for DER-Driven Needs

Within the four distribution service types, PG&E has two Planned Investments for a DER driven Capacity need, Blackwell Bank 1 and Huron Bank 1. The Blackwell Bank 1 Planned Investment is a replacement of Blackwell Bank 1 due to backflow caused by photovoltaic (PV) generation on the distribution grid. The Huron Bank 1 Planned Investment is a replacement of Huron Bank 1 with a 30 MVA transformer due to backflow caused by PV generation on the distribution grid. The Blackwell Bank 1 Planned Investment is a non-DER solution and was evaluated as a Candidate Deferral Opportunity in PG&E's 2020 DDOR. PG&E sought bids for IOU ownership for Blackwell Bank 1 during its 2020-2021 DIDF RFO cycle, although no cost-effective bids were received. The Blackwell Bank 1 Planned Investment is also re-evaluated as a Candidate Deferral Opportunity in PG&E's 2021 DDOR. For the Huron Bank 1 Planned Investment, PG&E solicited, contracted, and received approval for a DER solution to address the DER-driven needs.<sup>20</sup> The approved contingency plan for Huron Bank 1 includes both DER solutions, if possible, and non-DER solutions.

### 3.4. Pre-Application and Post-Application Projects

There are neither Pre-Application Projects nor Post-Application Projects in PG&E's Planned Investment or Candidate Deferral Opportunities List for the 2021 DDOR. PG&E has no projects that are expected to require General Order 131-D compliance within the 10-year planning horizon and have sub-transmission or distribution components.

### 3.5. Status of Pre-Application and Post-Application Projects

PG&E currently has no Pre-Application Projects or Post-Application Projects with sub-transmission or distribution components within the 10-year forecast horizon<sup>21</sup>.

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<sup>19</sup> PG&E, Opening Comments of PG&E on Administrative Law Judge's Ruling on Possible Improvements to the 2020 Distribution Investment Deferral Framework Process, filed January 17, 2020, p. 19

<sup>20</sup> PG&E AL 5707-E

<sup>21</sup> May 11, 2020 Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework, Attachment A (subsequently revised on June 12, 2020), — Pre-Application Projects - Reform # 37

## 4. Candidate Deferral Opportunities

As illustrated in Figure 1, the application of screens to the Planned Investments list (Appendix A) results in the identification of the Candidate Deferral Opportunities.

D.18-02-004 requires the application of two screens: (1) technical screen and (2) timing screen. These two screens are further described in the following sections.

### 4.1. Technical Screen

The purpose of the Technical Screen is to identify the Distribution Services that DERs can provide to potentially defer a distribution project. The following definitions for the key distribution services that DERs can provide were adopted by D.16-12-036, 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.
- 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.
- 4) Resiliency (micro-grid) 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.

The technical screen was applied to the 2021 GNA, upon which this report is based. The needs and Planned Investments identified in PG&E's 2021 GNA and DDOR are limited to the four Distribution Services listed above. PG&E's 2021 GNA and DDOR include substation, feeder, and line section needs and Planned Investments.

### 4.2. Timing Screen

The purpose of the Timing Screen is to ensure that cost-effective DER solutions can be procured with sufficient time to fully deploy and begin commercial operation in advance of the forecast need date. For this year, PG&E is using the Competitive Solicitation Framework and a 2024 or later In-Service Date which is considered adequate time for DER developers to design, develop, market and deploy the DER solution as well as to minimize the cost of providing for a contingency plan should the DER procurement be

unsuccessful. As shown in Table 4 and Table 9, 209 out of 254 projects were filtered out of the Planned Investments list using the timing screen.

### 4.3. Summary of Candidate Deferral Opportunities

The application of the timing and technical screens results in 45 Candidate Deferral Opportunities, as shown in Appendix B. Table 7 summarizes the Candidate Deferral Opportunities by Project Type and by Distribution Planning Region. Table 8 summarizes the Candidate Deferral Opportunities by Distribution Service. The majority of the Candidate Deferral Opportunities are Substation (Bank) and Feeder projects for Distribution Capacity service. Table 9 summarizes the Candidate Deferral Opportunities by In-Service Date. Due to the application of the timing screen, all Candidate Deferral Opportunities have an In-Service Date of 2024 or later. Table 10 summarizes the Candidate Deferral Opportunities by LNBA Range. The methodology used in calculating the LNBA range is included in Section 6.2.

**Table 7. Summary of Candidate Deferral Opportunities by Project Type and Distribution Planning Region**

Distribution Planning Region	Project Type			Total
	Substation/ Bank	Feeder	Distribution Line	
Bay Area	3	0	2	5
Central Coast	7	5	4	16
Central Valley	11	4	0	15
Northern	5	4	0	9
Totals	26	13	6	45

**Table 8. Summary of Candidate Deferral Opportunities by Distribution Service**

Distribution Service				Total
Distribution Capacity	Voltage Support	Reliability (Back-Tie)	Resiliency (Micro-Grid)	
38	0	0	7	45

**Table 9. Summary of Candidate Deferral Opportunities by In-Service Date**

In-Service Date						Total
2021	2022	2023	2024	2025	2026	
0	0	0	34	9	2	45

**Table 10. Summary of Candidate Deferral Opportunities by LNBA Range**

LNBA Range (\$/kW-yr)						Total
\$0	\$0-\$50	\$50-\$100	\$100-\$200	\$200-500	>\$500	
0	19	6	8	7	5	45

## 5. DER Distribution Service Requirements

For each of the Candidate Deferral Opportunities listed in Appendix B, the DER Service Requirements were defined for each grid need. Since each Candidate Deferral Opportunity may mitigate one or more grid needs, there may be one or more sets of DER Service Requirements for a given Candidate Deferral Opportunity. All the DER Service Requirements for a given Candidate Deferral Opportunity are necessary to defer the investment.

The following annual DER Service Requirements were determined for each grid need: months required, number of calls per year, estimated hours of need, and maximum duration (hours) per call of required DER distribution service.<sup>22</sup> To determine these requirements, PG&E evaluated the forecast peak load on each facility over the span of one year, using a 576-hour load profile<sup>23</sup> to determine when the overloads occur. The basis for the DER distribution service requirements was determined from the highest overload for the period from the In-Service Date until the end of the 10-year forecast horizon.<sup>24</sup> Therefore, the distribution service requirement may be based on a later year than identified need year included in the GNA, which used a 5-year forecast as the study horizon for identifying grid needs. The need included in the Planned Investments (Appendix A) will also be based on a 10-year forecast.<sup>25</sup> Using the 576-hour load profile, PG&E calculated the months, the number of days in the year, and the timespan and duration in which the electric facility is projected to overload or require the distribution service. Load transfers associated with new capital upgrade projects are excluded to ensure consistency between projects since some of these load transfers require part of the project to be completed.

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<sup>22</sup> The DER service requirements are listed individually and are not combined for a Candidate Deferral Opportunity. PG&E will review with the DPAG Candidate Deferral Opportunities where the same operational requirements could meet several grid needs.

<sup>23</sup> The 576-hour profile is generated in LoadSEER. This is organized by Month, Hour, and Weekday vs Weekend to determine DER distribution service requirements.

<sup>24</sup> DER Service Requirements for the Tranches for the Partnership Pilots are separately described in Section 9.

<sup>25</sup> Planned Investments needs that do not make it to the Candidate Deferral list may be based on a different planning horizon (i.e., line section Capacity and Voltage needs will be based on a 3-year planning horizon, Reliability needs will be based on a 5-year planning horizon).

For the Candidate Deferral Opportunities with reliability needs, PG&E identified operational requirements that include Real Time (RT) dispatch capability (i.e., within 5 minutes<sup>26</sup>) for the DERs to defer the project. These reliability needs are driven by the need to reduce the impact of outages; therefore, the need could arise at any time during the year. For Candidate Deferral Opportunities where there is an existing back-tie with a capacity constraint, the operational requirements entail RT dispatch of capacity to enable the remaining load to be transferred to the back-tie. For Candidate Deferral Opportunities where there is no existing back-tie (and where the Planned Investment is to install a new back-tie or mainline loop), the operational requirements entail RT dispatch of capacity and the ability to balance the load in an islanded state (i.e., operate as a micro-grid).

For PG&E's 2021 DDOR, PG&E identified 8 Candidate Deferral Opportunities (Lockeford Bank 1, Montague Bank 2, Martin (SF H) 1107, Martin (SF H) 1108, Rob Roy 2105, Salinas 1102, Oceano 1106, and Edenvale 2108) that require RT dispatch and islanding capability.<sup>27</sup>

Lockeford Bank 1 project is needed in case of an emergency bank loss deficiency on Lockeford Bank 1. In the event of the loss of Lockeford Bank 1, loads above 10 MW on this bank that cannot be transferred to adjacent transformers will remain unserved until Lockeford Bank 1 is replaced. Lockeford Bank 1 was also included in PG&E's 2020 DDOR.

Similar to Lockeford Bank 1, Montague Bank 2 project is needed in case of an emergency bank loss deficiency on Montague Bank 3. In the event of the loss of Montague Bank 3, loads above 45 MVA on Montague Bank 3 that cannot be transferred to adjacent transformers will remain unserved until Montague Bank 3 is replaced. Therefore, a DER solution for either would require the ability to balance load in an islanded state (i.e., operate as a micro-grid). PG&E has thus classified the Lockeford Bank 1 and Montague Bank 2 Candidate Deferral Opportunities as Resiliency (micro-grid) projects in the 2021 DDOR, because the DER solution to defer the associated Candidate Deferral Opportunity (Montague Bank 2 and Lockeford Bank 1) would require a micro-grid.

Martin (SF H) 1107, Martin (SF H) 1108, Rob Roy 2105, Salinas 1102, Oceano 1106, and Edenvale 2108 are feeder needs that have greater than 6000 customers. These feeders serve a large number of customers which poses two issues: (1) a large number of customers are affected when an outage occurs; (2) typical loading on adjacent

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<sup>26</sup> Dispatch time may vary depending on location and availability of Supervisory Control and Data Acquisition (SCADA).

<sup>27</sup> Lockeford Bank 1 has both Distribution Capacity and Resiliency (Micro-Grid) needs and is categorized as Distribution Capacity in Table 8.



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. 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 a part of the circuit so that those customers are not affected by the outage. PG&E has thus classified the Candidate Deferral Opportunities Martin (SF H) 1107, Martin (SF H) 1108, Rob Roy 2105, Salinas 1102, Oceano 1106, and Edenvale 2108 as Resiliency (Micro-grid) projects in the 2021 DDOR.

### 5.1. Operational Requirements

Utilities use standard equipment sizes that have been identified to provide cost-effective service to its customers. Generally, these standard equipment sizes reduce engineering design, equipment maintenance and spare equipment costs. When a system deficiency is mitigated, standard equipment sizes are used, which normally provides additional capacity to the system beyond the identified need. This additional capacity provides the ability to maintain loading and voltage requirements as well as the ability to transfer load for planned and emergency situations. This ability to operate the system on an on-going basis is often called operational flexibility.

Distribution planning projects typically add capacity in increments based on a standard bank or feeder size, rather than sizing exactly to the grid need.

The identified Planned Investments also provide operational flexibility beyond meeting the identified Grid Need. For example, a transformer is available all hours, and load can be transferred to the bank from other feeders or banks as needed to provide additional operational flexibility. In contrast, the DER Service Requirements only specify the hours of the grid need.

While the DER Service Requirement would potentially defer the Planned Investment, it does not provide any margin for load forecast uncertainty and does not allow for new customer load interconnections larger than the service requirement amount. If the grid need were to increase, the DER Service Requirement would no longer be sufficient, and the project would not be deferred. In addition, new load applications for service would likely be delayed while additional DERs were contracted or capacity projects were built. Alternatively, introducing a margin for the DER Service Requirement, while increasing the likelihood of deferral, would increase the difficulty of procurement or ability to interconnect cost effectively. PG&E is not including any margin in the DER Service Requirement in this DDOR. Therefore, even if resources are procured to meet the exact DER Service Requirement, the Planned Investment may still be required if the load forecast changes and the grid need is no longer met by the procured resources. The Partnership Pilot is testing Ratable Procurement with annual Tranches, as described in

Section 9, to potentially reduce the risk that the DER Service Requirement is not sufficient to defer the Planned Investment for the term of the contract.

## 6. Project Costs

### 6.1. Unit Costs

The estimated cost accuracy of a project is based on the stage of project development. For projects in early stages of development, costs are estimated using either estimates of specific equipment and Unit Costs for work required, or historical costs from completed projects. As the project develops and scope details become defined, the estimated project costs are adjusted based upon the detailed scope of work. Differences between the Unit Costs shown in Appendix B and the costs in a GRC are generally due to:

- A GRC has a limited time window. Some projects are expected to have significant costs that occur outside of this window.
- A GRC includes escalated cost estimates. Unit Costs are usually a fixed time value and are not escalated.

Both the GRC costs and the costs listed in the DDOR report are reflective of the distribution component of project costs. Related transmission upgrade costs are not included in the GRC or the DDOR. The Unit Cost uncertainty level corresponding to the American Association of Cost Engineers (AACE) level for each Candidate Deferral Opportunity is included in the DDOR spreadsheet.<sup>28</sup> PG&E's 2021 DDOR has 5 projects where the project cost<sup>29</sup> in the DDOR differ from the GRC due to the change in project scope between the time the GRC costs are captured and the publication of the DDOR report - Bair 1106, Anita 1105<sup>30</sup>, Mission (SF X) 1129, Brentwood 2104, and Belle Haven Bank 4.

The Unit Costs applied to Prioritization Metric calculations include all deferrable (unspent) distribution costs, including regulatory and permitting costs and reflect the latest, most accurate information at the time of filing. The Unit Costs used for the calculation of the LNBA for Planned Investments that are screened out (and thus not

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<sup>28</sup> May 11, 2020, Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework, Attachment A (subsequently revised on June 12, 2020), — Cost Effectiveness Metric and Project Cost - Reform # 33, p. 94

<sup>29</sup> D.18-02-004 OP 2.h requires an explanation for any discrepancy in project costs reported in the GRC and DDOR. Since D.18-02-004 was issued, the Commission updated the GRC filing timeline, such that the GRC is filed before the GNA and DDOR results are produced. Accordingly, PG&E could not report on the discrepancy in project costs in its GRC testimony and is thus reporting these discrepancies in the DDOR only.

<sup>30</sup> Anita 1105 formerly shown as "Replace Nord Bank 2" in the GRC WP Table 17-18 (Exhibit (PG&E-4), Chapter 17, Electric Distribution Capacity, Engineering, and Planning Workpaper Table 17-18)



prioritized as Candidate Deferral Opportunities) are based on the total Unit Cost rather than the deferrable (unspent costs). As these near term Planned Investments are often well underway in their design, procurement, and construction, the remaining Deferral Value would only be a fraction of the LNBA value.

## 6.2. Locational Net Benefits Analysis (LNBA)

The LNBA values (Appendix D and Appendix E) were calculated using the Energy and Environmental Economics, Inc. ("E3") LNBA tool methodology<sup>31</sup> with the following inputs:

- Unit Cost: See section 6.1 for detailed description. Values are based on 2020 unit costs.
- Discount Rate: PG&E used a 6.77% discount rate. This discount rate is PG&E's after-tax weighted average cost of capital and reflects CPUC authorized cost of equity, cost of debt, and capital structure, as well as current tax rates.
- Revenue Requirement Multiplier: PG&E used a Present Value Revenue Requirement (PVRR) multiplier of 143.64% for replacement of station equipment (substation and bank projects); 150.01% for replacement of poles, towers and fixtures; and 146.11% for replacement of overhead conductors and devices (primary feeder). PG&E used a PVRR multiplier (with Operations and Maintenance (O&M) of 185.84% for new station equipment (substation and bank projects); 309.82% for new poles, towers and fixtures; and 308.40% for new overhead conductors and devices (primary feeder) that includes Operations and Maintenance (O&M) costs.
- Inflation: PG&E used a 2.5% inflation rate.
- O&M Factor: PG&E used an O&M factor of 2.13% for new station equipment (substation and bank projects); 8.18% for new poles, towers and fixtures; and 8.18% for new overhead conductors and devices (primary feeder). The O&M factor is used in the calculation of the PVRR. The PVRR (with O&M) includes this O&M factor and is used in calculating LNBA value for new projects.
- Book Life: PG&E used a service life of 46 years for station equipment (substation and bank projects); 44 years for poles, towers and fixtures; and 46 years for new overhead conductors and devices (primary feeder).
- Deferral Time: PG&E used a deferral time frame from the In-Service Date of the Planned Investment until the end of the 10-year forecast horizon,<sup>32</sup> except for line sections, in which case the largest forecast need identified over the

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<sup>31</sup> E3 LNBA Tool V2.11; <https://e3.sharefile.com/share/view/sb2965cf362c48399>

<sup>32</sup> May 11, 2020, Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework, Attachment A (subsequently revised on June 12, 2020), — Common Comparable Datasets - Reform # 5, p. 90

forecast horizon of 3 years was used (i.e., peak MW shortfall within the 3-year forecast). The Partnership Pilot deferral time frame for each Tranche is one year, as described in Section 9.3.

- Capacity (MW) of Deferral: PG&E calculated the Capacity (MW) need by taking the difference between the forecasted demand (MW) and the facility rating. A sum of the individual grid needs are used to calculate the LNBA value, assuming each grid need was independent.<sup>33</sup>
- Voltage Service of Deferral: PG&E used the worst-case voltage addressed by any single voltage correction project. A nominal voltage was assumed for each line section.

The approach described here is a preliminary methodology subject to change as LNBA is refined and as the DER requirements for this distribution service are refined with experience. The LNBA values in PG&E's 2021 DDOR include only the Deferral Value from the LNBA tool. To derive the LNBA value, the Deferral Value output from the E3 tool was divided by the number of years of deferral (equivalent to the Deferral Time above) and the magnitude of need (MW, VPU).

### 6.3. Distribution Capital Per Customer Metric

Given that PG&E's 2020 GRC was approved, the Distribution Capital per Customer metric<sup>34</sup> is based on the total imputed authorized GRC capital amount in PG&E's most recent GRC filing year (2020) divided by the number of electric meters as a definition of number of customers. The metric only includes distribution capital costs and does not include expense, transmission, or generation. The total GRC distribution capital imputed authorized amount (excluding expense, transmission, and generation) in the 2020 GRC for the year 2020 was \$2,626,000,000. The total number of electric meters in service in 2017 was 5,587,598.

$$\text{Distribution Capital per Customer} = \frac{\$2,626,000,000}{5,587,598} = \$470/\text{customer}$$

Therefore, the Distribution Capital per Customer Metric is \$470 per customer.

### 6.4. Payments Made to DER Projects

In accordance with Order D.18-02-004 paragraph 2.dd, PG&E is to provide itemized data payments made to DER projects versus the estimated traditional spending such deferral projects were able to avoid. To date, PG&E has not made any such payments, and so has no data to report in the 2021 DDOR.

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<sup>33</sup> For capacity projects not driven by a thermal capacity overload (e.g., new feeder projects), PG&E used the ratio of the need (e.g., amperage or customer counts) times the capacity of the asset.

<sup>34</sup> D.18-02-004 O.P. 2.ff.

## 6.5. Value Stacking Opportunities

The potential value stacking opportunities for each candidate deferral include participation in CAISO wholesale energy markets, the provision of Resource Adequacy, provision of ancillary services, management of customer bills (e.g. the reduction of customer demand charges, customer load shifting), and other revenue streams.<sup>35</sup> As PG&E is only procuring the deferral service, each candidate deferral opportunity provides an opportunity for the DER developer to participate in CAISO markets and value stack other revenue streams. The revenue streams will depend on the DER solution (e.g., Behind the Meter storage, In-Front of the Meter storage, Demand Response, etc.). PG&E does not have plans to spend capital for wholesale markets at the specific locations for these candidate deferral opportunities, so there is no additional investment deferral associated with the DER solutions at these locations.

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<sup>35</sup> May 11, 2020 Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework, Attachment A (subsequently revised on June 12, 2020), — Considerations of Value Stacking, DIDF Reform #26. pp.93.

## 7. Prioritization Metrics

In D.18-02-004, three metrics were adopted to characterize and help prioritize projects on the Candidate Deferral Opportunities shortlist. These metrics are: (a) Cost-Effectiveness, (b) Forecast Certainty, and (c) Market Assessment.

A Prioritization Metrics Workbook Template was developed jointly by the IOUs and was approved by Energy Division on May 18, 2021.<sup>36</sup> The template consists of five quantitative sub-metrics, which are normalized and summed to create an overall score, and four sub-metrics used to flag candidate deferral opportunities that are unlikely to be successful for DER sourcing. The metrics and sub-metrics are described below.

### 7.1. Cost Effectiveness Metrics

Cost Effectiveness metrics are intended to provide a relative indication of how likely DER resources can cost effectively defer a Planned Investment. There are three sub-metrics:

- Location Net Benefit Analysis (LNBA) [\$/ (MW-yr)] is calculated using the Commission approved LNBA methodology, based on the peak capacity needs during the deferral period, and used to create a quantitative Cost Effectiveness Metric score.
- Location Net Benefit Analysis (LNBA) [\$/ (MWh-yr)] is calculated using the Commission approved LNBA methodology, based on the maximum annual energy needs during the deferral period, and used to create a quantitative Cost Effectiveness Metric score.
- Unit Cost of Traditional Mitigation [\$] is the cost of the traditional mitigation project designed to meet the maximum grid needs for each project (Section 6.1). Candidate Deferral Opportunities with Unit Costs less than \$1,000,000 are flagged.

The expected DER Service Requirements are used to calculate the MWh of deferral. Lessons learned from prior DIDF RFOs indicate that baseload requirements may be difficult to obtain cost-effectively from DERs. The Independent Evaluator reported, “it may be best for PG&E to target circuit needs for future DRP RFOs that do not have a baseload need” due to high costs of DER solutions to meet baseload needs.<sup>37</sup> For informational purposes, the LNBA/MWh-day<sup>38</sup> value for each Candidate Deferral project

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<sup>36</sup> May 11, 2020 Administrative Law Judge’s Ruling Modifying the Distribution Investment Deferral Framework, Attachment A (subsequently revised on June 12, 2020), — Prioritization Metrics, DIDF Reform #20. pp.92.

<sup>37</sup> Public Independent Evaluator Report, Advice Letter 5259-E, Sedway Consulting, Inc., p. 7, March 26, 2018.

<sup>38</sup> Calculated based on the MWh-day on the peak day only. This value is not equivalent to the Deferral Value per MWh-day of energy production.

is included in PG&E's 2021 workbooks. The MWh-day value is the maximum energy need on the day the peak demand was forecasted.

## 7.2. Forecast Certainty Metric

The Forecast Certainty Metric is intended to give a relative indication of the certainty of the forecasted grid need. The Forecast Certainty Metric<sup>39</sup> consists of the following sub-metrics:

- A Grid Need Certainty rating from the questionnaire filled out by distribution engineers, used to create a quantitative Forecast Certainty Metric score.
- Year of Need (e.g., 2022 versus 2024) identifies the first year of the grid deficiency. Candidate Deferral Opportunities with a Year of Need of 2025 or later are flagged. The operational year (In-Service Date) is provided for reference only.

The questionnaire filled out by distribution engineers (Appendix F and Appendix G) includes questions on several factors that have significant influence on grid need certainty, based on lessons learned from prior DIDF cycles. For example, the age and condition of existing equipment at the facility, the potential for High Speed Electric Vehicle charging, and the dependence of area capacity on the specific location. The planners may consider the status of development milestones for large commercial, industrial, and agricultural customers seeking new service or expansion of service. PG&E's distribution planners may also consider whether load forecast is particularly uncertain due to agriculture pumping load, which is dependent on water availability and temperature/weather patterns.

## 7.3. Market Assessment Metric

The Market Assessment Metric is intended to give a relative indication of how likely DER resources can be sourced that will successfully meet the DER Service Requirements. The Market Assessment Metric consists of the following sub-metrics:

- Duration (Hours) of needs, with shorter duration needs receiving a higher quantitative score, is used to create a quantitative Market Assessment Metric score.
- Capacity Need (MW) per Circuit, where opportunities with less capacity needed per circuit where the DER can meet the need receive a higher quantitative score, are used to create a quantitative Market Assessment Metric score.
- Operational Requirement, where Real Time operational requirements are flagged.

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<sup>39</sup> The Forecast Certainty metric is not applied to the prioritization ranking for Pre-Application projects. PG&E does not have any Pre-Application projects in its 2021 DDOR.

- Number of Grid Needs, where a Candidate Deferral Opportunity that has more than 3 grid needs is flagged. Lessons Learned from prior RFOs have indicated it can be difficult to source DERs from multiple locations to meet a single Candidate Deferral Opportunity.




PG&E has learned from prior pilots that baseload (i.e., longer duration) requirements may be difficult to obtain cost-effectively from DERs. The Independent Evaluator reported “it may be best for PG&E to target circuit needs for future DRP RFOs that do not have a baseload need,” due to high costs of DER solutions to meet baseload needs.<sup>40</sup>

In addition, a key learning from PG&E’s DRP Demonstration Project C was that long duration needs with frequent calls (similar to baseload resources) are difficult to source. Operational requirements that require real time dispatch are less likely to be sourced via DERs versus operational requirements that only require day ahead dispatch.

#### 7.4. Tiering of Candidate Deferral Opportunities

For ease of summarizing prioritization metric results, the Joint IOUs have developed a 3-tier system, where each tier represents the Joint IOUs’ proposed priority ranking of those Candidate Deferral Opportunities likelihood of success for DER sourcing via RFO. The following table summarizes the Joint IOUs’ proposed 3-tier system.

**Table 11. PG&E’s 3-Tier Prioritization System**

Tier	Color Designation	Definition
1		Relatively High Ranking
2		Relatively Moderate Ranking
3		Relatively Low Ranking

All rankings are is relative. For example, a higher tiered project does not indicate that the project will be cost effective, have a certain forecast, or have a robust market.<sup>41</sup> It only indicates the ranking of the Candidate Deferral Opportunity relative to other Candidate Deferral Opportunities.

The Joint Prioritization Metrics Workbook Template (Appendix C) places Candidate Deferral Opportunities into three tiers based on a step-by-step process, as illustrated in Figure 2. First, the five quantitative sub-metrics are normalized (based on the maximum

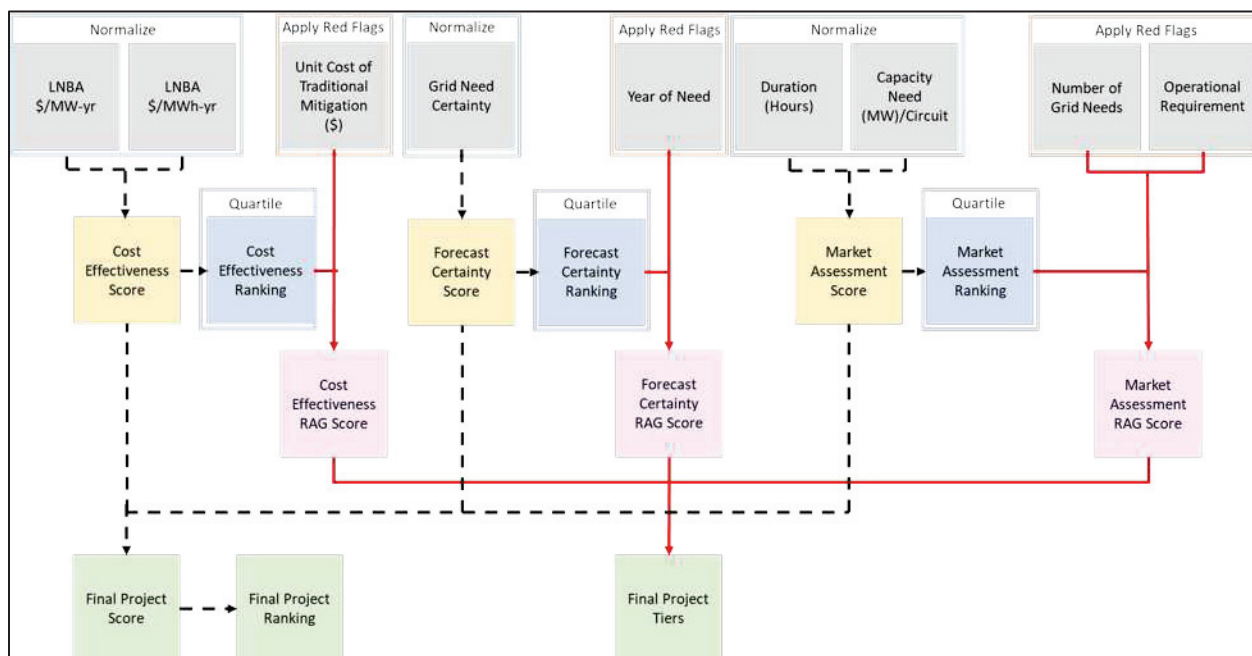
<sup>40</sup> Public Independent Evaluator Report, Advice Letter 5259-E, Sedway Consulting, Inc., p. 7, March 26, 2018.

<sup>41</sup> For example, green Candidate Deferral Opportunities are expected to be more cost effective than red Candidate Deferral Opportunities, but it does not indicate the Candidate Deferral Opportunity will be cost effective. Similarly, all the opportunities have some degree of forecast uncertainty.



and minimum values for each sub-metric). The normalized values for each sub-metric are summed to create a score for each Prioritization Metric.<sup>42</sup> Each of the three Prioritization Metric scores are separated into quartiles. The top quartile of Prioritization Metric scores is assigned a “1”, the middle two quartiles assigned a “0”, and the bottom quartile assigned a “-1”. If one of the sub-metrics is flagged for a given Prioritization Metric, that Prioritization Metric is automatically assigned a “-1”. The total score for each Candidate Deferral Opportunity is then summed across the three Prioritization Metrics. Those with a total score greater than zero are initially placed in Tier 1; those with a total score of zero are placed into Tier 2; and those with a total sum less than zero are placed into Tier 3. As the total score is summed across the Prioritization Metrics, a Candidate Deferral Opportunity can be assigned a “-1” for one of the Prioritization Metrics (e.g., Forecast Certainty) and still be placed into Tier 1. However, if any of the sub-metrics are flagged, the Candidate Deferral Opportunity will be placed into Tier 3 automatically.

The following figure visualizes the tiering of Candidate Deferral Opportunities.



**Figure 2. Prioritization Metrics, Final Scoring and Tiering**

<sup>42</sup> The Forecast Certainty Metric is based on one sub-metric, and thus is weighted by a factor of two (the other Prioritization Metrics have two quantitative sub-metrics summed with equal weighting).

## 8. Candidate Deferral Opportunity Prioritization

A Prioritization Metrics Workbook Template was developed jointly by the IOUs and was approved by Energy Division on May 18, 2021.<sup>43</sup> Prioritization metrics in the workbook were applied to tier the Candidate Deferral Opportunities as described in Section 7.

### 8.1. Prioritization of Candidate Deferral Opportunities

PG&E's prioritization of its identified Candidate Deferral Opportunities (Appendix C) is summarized in Table 12. Figure 3 and Figure 4 show the location of the Candidate Deferral Opportunities. Using PG&E's tier prioritization system, PG&E has identified approximately 300 MW of Candidate Deferral Opportunities for this DDOR, as follows:

1. Tier 1: Identified 12 Candidate Deferral Opportunities
2. Tier 2: Identified 9 Candidate Deferral Opportunities
3. Tier 3: Identified 24 Candidate Deferral Opportunities

**Table 12. Preliminary Prioritization Metrics and Rankings of Candidate Deferral Opportunities**

Tier	DDOR ID	Candidate Deferral	In-Service Date	Deficiency (MW)	Cost Effectiveness	Forecast Certainty	Market Assessment
Tier 1	DDOR082	Coalinga No 1 Bank 2	5/1/2024	CC	1	-1	1
Tier 1	DDOR111	Embarcadero (SF Z) 1116	4/1/2026	0.3	1	0	1
Tier 1	DDOR110	Embarcadero (SF Z) 1118	6/1/2025	1.3	0	1	0
Tier 1	DDOR086	French Camp Bank 1	5/1/2024	CC	1	0	0
Tier 1	DDOR090	Lakeview 1110	5/1/2024	CC	1	0	1
Tier 1	DDOR115	Mormon Bank 2	6/1/2025	1.1	1	0	1
Tier 1	DDOR095	Newhall Bank 3	6/1/2024	CC	1	0	1
Tier 1	DDOR085	Ripon 1705	5/1/2024	5.9	0	1	0
Tier 1	DDOR101	Rocklin 1105	5/1/2025	0.7	1	-1	1
Tier 1	DDOR112	Saratoga 1102	5/1/2026	CC	1	0	1
Tier 1	DDOR087	Vierra Bank 3	5/1/2024	CC	1	0	1
Tier 1	DDOR084	Zamora 1108	5/1/2024	1.1	1	1	1
Tier 2	DDOR100	Anita 1105	6/1/2024	3.8	0	0	0
Tier 2	DDOR083	Belle Haven Bank 4	5/1/2024	3.9	0	0	0
Tier 2	DDOR109	Blackwell Bank 1	6/1/2025	CC	0	0	0
Tier 2	DDOR089	Bonita Bank 2	5/1/2024	CC	0	0	0
Tier 2	DDOR079	Gabilan Bank 2	5/1/2024	CC	0	0	0

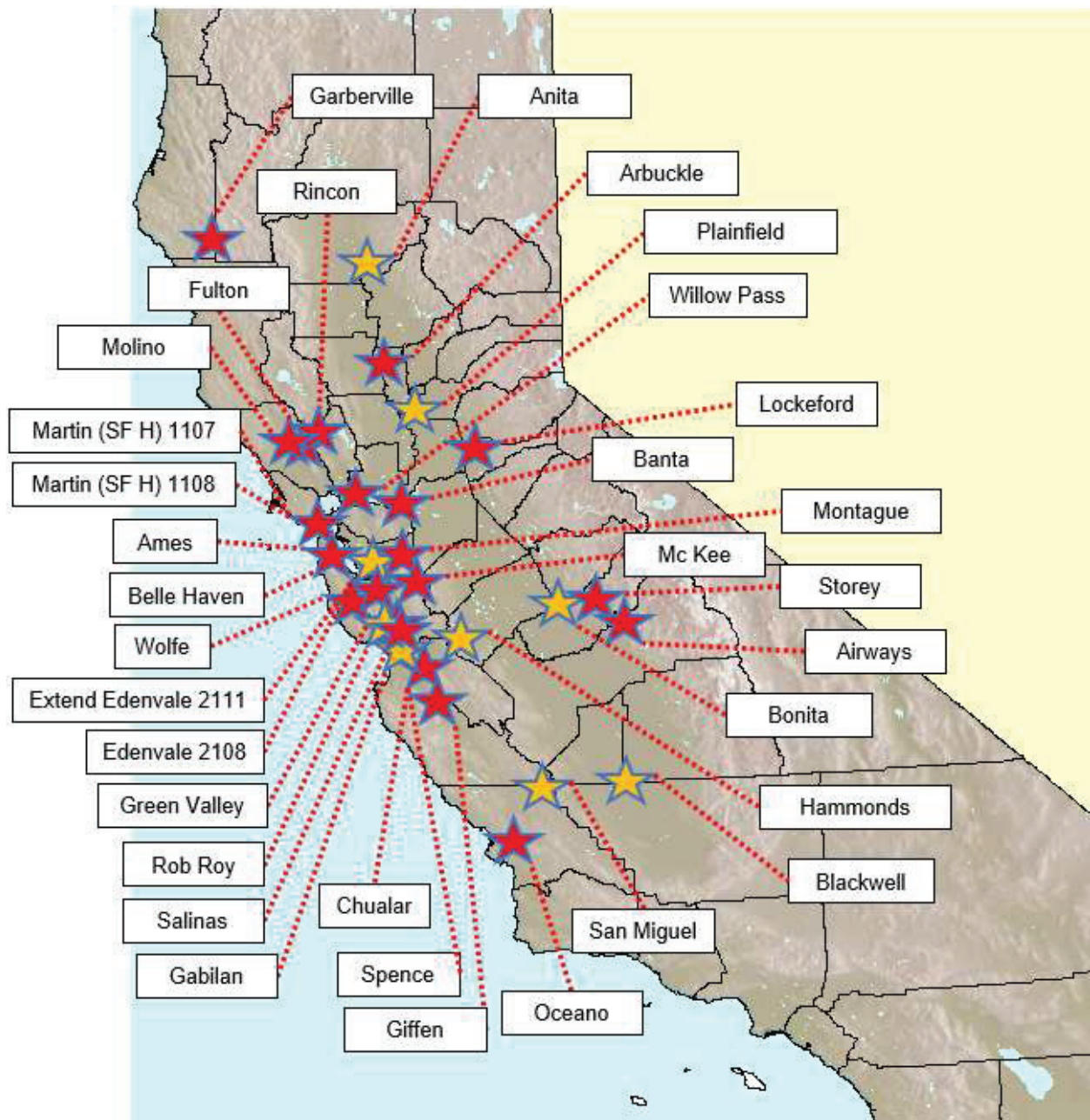
<sup>43</sup> May 11, 2020 Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework, Attachment A (subsequently revised on June 12, 2020), — Prioritization Metrics, DIFD Reform #20. pp.92.



Tier	DDOR ID	Candidate Deferral	In-Service Date	Deficiency (MW)	Cost Effectiveness	Forecast Certainty	Market Assessment
Tier 2	DDOR080	Green Valley Bank 3	5/1/2024	6.2	0	0	0
Tier 2	DDOR088	Hammonds Bank 1	5/1/2024	CC	0	0	0
Tier 2	DDOR097	Plainfield Bank 1	6/1/2024	4.7	0	0	0
Tier 2	DDOR092	San Miguel Bank 2	6/1/2024	CC	0	0	0
Tier 3	DDOR081	Airways Bank 3	5/1/2024	4.5	0	0	FLAG
Tier 3	DDOR108	Ames 1103	6/1/2025	CC	-1	0	0
Tier 3	DDOR076	Arbuckle Bank 2	4/1/2024	2.1	0	-1	0
Tier 3	DDOR113	Banta Bank 1	5/1/2024	CC	-1	-1	-1
Tier 3	DDOR091	Chualar Bank 1	5/1/2024	CC	-1	0	-1
Tier 3	DDOR131	Edenvale 2108	1/1/2024	2.0	FLAG	1	FLAG
Tier 3	DDOR118	Extend Edenvale 2111 to 2112	4/2/2024	CC	FLAG	1	-1
Tier 3	DDOR104	Fulton Bank 5	5/1/2025	4.8	0	-1	FLAG
Tier 3	DDOR094	Garberville Bank 2	6/1/2024	11.3	1	-1	-1
Tier 3	DDOR075	Giffen Bank 2	4/1/2024	CC	0	0	-1
Tier 3	DDOR105	Lockeford Bank 1	5/1/2025	19.5	0	-1	FLAG
Tier 3	DDOR129	Martin (SF H) 1107	1/1/2024	1.1	FLAG	1	FLAG
Tier 3	DDOR130	Martin (SF H) 1108	1/1/2024	CC	FLAG	1	FLAG
Tier 3	DDOR098	Mc Kee 1102	6/1/2024	6.3	0	1	FLAG
Tier 3	DDOR106	Molino Bank 1	6/1/2025	0.8	FLAG	-1	1
Tier 3	DDOR102	Montague Bank 2	5/1/2025	7.6	0	0	FLAG
Tier 3	DDOR128	Oceano 1106	1/1/2024	1.1	FLAG	1	FLAG
Tier 3	DDOR103	Rincon Bank 1	5/1/2024	6.1	0	-1	0
Tier 3	DDOR126	Rob Roy 2105	1/1/2024	4.6	FLAG	1	FLAG
Tier 3	DDOR127	Salinas 1102	1/1/2024	CC	FLAG	1	FLAG
Tier 3	DDOR078	Spence Bank 2	5/1/2024	CC	-1	-1	FLAG
Tier 3	DDOR077	Storey 1103	5/1/2024	4.3	0	0	FLAG
Tier 3	DDOR093	Willow Pass Bank 1	6/1/2024	10.2	0	-1	-1
Tier 3	DDOR096	Wolfe 1111 & Wolfe 1112	6/1/2024	CC	-1	0	FLAG



Figure 3. Location of PG&E's 2021 Tier 1 Candidate Deferral Opportunities



**Figure 4: Location of PG&E's Tier 2 and Tier 3 Candidate Deferral Opportunities**

## 8.2. Sourcing Mechanism for Candidate Deferral Opportunities

PG&E's recommended sourcing mechanism for its identified Candidate Deferral Opportunities are summarized in Table 13:

1. Request for Offers (RFO) on September 15, 2021: 7 Candidate Deferral Opportunities.
2. Partnership Pilot: 6 Candidate Deferral Opportunities as described in Section 9. The additional selection criteria used for the Partnership Pilot are described in Section 9.1.

3. Standard Offer Contract (SOC) Pilot: 1 Candidate Deferral Opportunities. The additional selection criteria used for the SOC Pilot are described in Section 10.1.
4. Not recommended for sourcing: 31 Candidate Deferral Opportunities. These Candidate Deferral Opportunities will be discussed at the DPAG meetings for consideration for a second round of RFOs.

**Table 13. Recommended Sourcing Mechanism for Candidate Deferral Opportunities**

Tier	DDOR ID	Candidate Deferral	In-Service Date	Deficiency (MW)	Sourcing Mechanism*
Tier 1	DDOR082	Coalinga No 1 Bank 2	5/1/2024	CC	Partnership Pilot
Tier 1	DDOR111	Embarcadero (SF Z) 1116	4/1/2026	0.3	Partnership Pilot
Tier 1	DDOR110	Embarcadero (SF Z) 1118	6/1/2025	1.3	Partnership Pilot
Tier 1	DDOR086	French Camp Bank 1	5/1/2024	CC	DIDF RFO
Tier 1	DDOR090	Lakeview 1110	5/1/2024	CC	DIDF RFO
Tier 1	DDOR115	Mormon Bank 2	6/1/2025	1.1	DIDF RFO
Tier 1	DDOR095	Newhall Bank 3	6/1/2024	CC	DIDF RFO
Tier 1	DDOR085	Ripon 1705	5/1/2024	5.9	DIDF RFO
Tier 1	DDOR101	Rocklin 1105	5/1/2025	0.7	Partnership Pilot
Tier 1	DDOR112	Saratoga 1102	5/1/2026	CC	DIDF RFO
Tier 1	DDOR087	Vierra Bank 3	5/1/2024	CC	SOC Pilot
Tier 1	DDOR084	Zamora 1108	5/1/2024	1.1	DIDF RFO
Tier 2	DDOR100	Anita 1105	6/1/2024	3.8	Partnership Pilot
Tier 2	DDOR083	Belle Haven Bank 4	5/1/2024	3.9	Partnership Pilot
Tier 2	DDOR109	Blackwell Bank 1	6/1/2025	CC	Not Recommended
Tier 2	DDOR089	Bonita Bank 2	5/1/2024	CC	Not Recommended
Tier 2	DDOR079	Gabilan Bank 2	5/1/2024	CC	Not Recommended
Tier 2	DDOR080	Green Valley Bank 3	5/1/2024	6.2	Not Recommended
Tier 2	DDOR088	Hammonds Bank 1	5/1/2024	CC	Not Recommended
Tier 2	DDOR097	Plainfield Bank 1	6/1/2024	4.7	Not Recommended
Tier 2	DDOR092	San Miguel Bank 2	6/1/2024	CC	Not Recommended
Tier 3	DDOR081	Airways Bank 3	5/1/2024	4.5	Not Recommended
Tier 3	DDOR108	Ames 1103	6/1/2025	CC	Not Recommended
Tier 3	DDOR076	Arbuckle Bank 2	4/1/2024	2.1	Not Recommended
Tier 3	DDOR113	Banta Bank 1	5/1/2024	CC	Not Recommended
Tier 3	DDOR091	Chualar Bank 1	5/1/2024	CC	Not Recommended
Tier 3	DDOR131	Edenvale 2108	1/1/2024	2.0	Not Recommended
Tier 3	DDOR118	Extend Edenvale 2111 to 2112	4/2/2024	CC	Not Recommended
Tier 3	DDOR104	Fulton Bank 5	5/1/2025	4.8	Not Recommended
Tier 3	DDOR094	Garberville Bank 2	6/1/2024	11.3	Not Recommended

Tier	DDOR ID	Candidate Deferral	In-Service Date	Deficiency (MW)	Sourcing Mechanism*
Tier 3	DDOR075	Giffen Bank 2	4/1/2024	CC	Not Recommended
Tier 3	DDOR105	Lockeford Bank 1	5/1/2025	19.5	Not Recommended
Tier 3	DDOR129	Martin (SF H) 1107	1/1/2024	1.1	Not Recommended
Tier 3	DDOR130	Martin (SF H) 1108	1/1/2024	CC	Not Recommended
Tier 3	DDOR098	Mc Kee 1102	6/1/2024	6.3	Not Recommended
Tier 3	DDOR106	Molino Bank 1	6/1/2025	0.8	Not Recommended
Tier 3	DDOR102	Montague Bank 2	5/1/2025	7.6	Not Recommended
Tier 3	DDOR128	Oceano 1106	1/1/2024	1.1	Not Recommended
Tier 3	DDOR103	Rincon Bank 1	5/1/2024	6.1	Not Recommended
Tier 3	DDOR126	Rob Roy 2105	1/1/2024	4.6	Not Recommended
Tier 3	DDOR127	Salinas 1102	1/1/2024	CC	Not Recommended
Tier 3	DDOR078	Spence Bank 2	5/1/2024	CC	Not Recommended
Tier 3	DDOR077	Storey 1103	5/1/2024	4.3	Not Recommended
Tier 3	DDOR093	Willow Pass Bank 1	6/1/2024	10.2	Not Recommended
Tier 3	DDOR096	Wolfe 1111 & Wolfe 1112	6/1/2024	CC	Not Recommended

Note:     \*Initially recommended DER Sourcing mechanisms  
DIDF RFO - Distribution Investment Deferral Third party RFO competitive solicitations  
SOC pilot - Standard Offer Contract (SOC) pilot  
Partnership Pilot



## 9. Partnership Pilot

CPUC issued D.21-02-006 which adopts Energy Division's Staff Proposals with minor modifications and required the California Investor Owned Utilities (IOUs) to pilot two frameworks for procuring DERs to avoid or defer utility distribution investments.<sup>44</sup> One of the pilots is called the Partnership Pilot which is a five-year DER distribution deferral tariff pilot. On June 3, 2021, the IOUs submitted Joint Advice Letter 6218-E, et al. on Evaluation Criteria.<sup>45</sup> On June 28, 2021, PG&E received a Disposition Letter approving Advice Letter 6193-E, which established prescreening application criteria.<sup>46</sup> On April 30, 2021 PG&E launched a website<sup>47</sup> for the Pilot.<sup>48</sup>

### 9.1. Selection of Candidate Deferral Opportunities for the Partnership Pilot

PG&E is recommending 6 Candidate Deferral Opportunities for the Partnership Pilot. The Candidate Deferral Opportunities recommended for the Partnership Pilot are:

- Embarcadero (SF Z) 1116
- Embarcadero (SF Z) 1118
- Coalinga No 1 Bank 2
- Rocklin 1105
- Anita 1105
- Belle Haven Bank 4

The Candidate Deferral Opportunities recommended for the Partnership Pilot will be discussed at the September 20, 2021 DPAG. On November 15, 2021, PG&E will file a Pilot Advice Letter requesting authorization to launch the subscription period with final cost caps.

The selection of the Candidate Deferral Opportunities for the Partnership Pilot is based on the Prioritization Metrics shown in Section 8, as well as examination of the following criteria:

1. At least one Tier 1 deferral opportunity and two Tier 2 or Tier 3 deferral opportunities must be selected.<sup>49</sup>

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<sup>44</sup> D.21-02-006, p. 2.

<sup>45</sup> D.21-02-006, OP 6.

<sup>46</sup> D.21-02-006, OP 7.

<sup>47</sup> [https://www.pge.com/en\\_US/for-our-business-partners/energy-supply/electric-rfo/wholesale-electric-power-procurement/didf-partnership-pilot.page](https://www.pge.com/en_US/for-our-business-partners/energy-supply/electric-rfo/wholesale-electric-power-procurement/didf-partnership-pilot.page).

<sup>48</sup> D.21-02-006, OP 8.

<sup>49</sup> D.21-02-006, p. 23.

2. Candidate Deferral Opportunities that could demonstrate Ratable Procurement (e.g., opportunities with low to moderate capacity needs that have incremental procurement goals).
3. Candidate Deferral Opportunities where Ratable Procurement could potentially address the challenge of changing distribution system needs and risk of over and under procurement.
4. Candidate Deferral Opportunities with grid needs occurring within two to five years of Pilot launch.<sup>50</sup>
5. At least one deferral opportunity with a grid need forecast 4 to 5 years out to ensure the subscription period was sufficiently long in duration to test payments.<sup>51</sup>
6. Clusters of deferral opportunities and planned investments.<sup>52</sup>
7. Planned investments that service Disadvantaged Communities (DACs).<sup>53</sup>

Four of the Candidate Deferral Opportunities recommended for the Partnership Pilot (Embarcadero 1116, Embarcadero 1118, Anita 1105, and Belle Haven Bank 5) will provide a means to test the use of Ratable Procurement for forecasted incremental needs. The other two Candidate Deferral Opportunities recommended for the Partnership Pilot (Coalinga No 1 Bank 2 and Rocklin 1105) will test the use of Ratable Procurement to address the challenge of forecast uncertainty.<sup>54</sup> Coalinga No 1 Bank 2 and Rocklin 1105 both have low scores under the Forecast Certainty Prioritization Metric (Appendix C), and PG&E recommends using the Partnership Pilot to test whether the use of Ratable Procurement, with annual Tranches updated annually via the distribution planning process, will facilitate the procurement of DERs for Candidate Deferral Opportunities with high forecast uncertainty.

## 9.2. Procurement Goals

Procurement Goals are the amount of capacity needed to defer the Planned Investment for no less than one year.<sup>55</sup> The parameters contained in the GNA and DDOR are preliminary and will be reviewed during the DPAG review process and updated for inclusion in the November 15 advice letters.<sup>56</sup> Procurement Goals may be updated

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<sup>50</sup> D.21-02-006, Attachment A (Staff Proposal) p. 45.

<sup>51</sup> D.21-02-006, p. 23.

<sup>52</sup> D.21-02-006, Attachment A (Staff Proposal), p. 45.

<sup>53</sup> D.21-02-006, Attachment A (Staff Proposal), p. 45.

<sup>54</sup> D.21-02-006, p. 6.

<sup>55</sup> D.21-02-006, OP 3.

<sup>56</sup> D.21-02-006, OP 3.

annually during the DPAG process until the entire grid need is met or the contingency date occurs, whichever happens sooner.<sup>57</sup>

Tables 14 through 19 depict the Procurement Goals, Acceptance Trigger, and Procurement Caps by Tranche for each Candidate Deferral Opportunity, expressed in Megawatts (MW). The Procurement Goals are based on a forecasted grid need that utilizes future load forecasts to estimate capacity deficiencies. The Acceptance Trigger is defined as the minimum amount of capacity required to execute contracts within the Partnership Pilot framework for a given Tranche (90% of the Procurement Goal). The Procurement Cap is defined as the maximum allowable amount of capacity for Deployment and Reservation payments for each Tranche (120% of the Procurement Goal). Payments are discussed in greater detail within Section 9.4. The number of Tranches and the Procurement Goals (and corresponding Acceptance Triggers, and Procurement Caps), for all tranches are subject to change through annual distribution planning activities and may be updated annually during the DPAG process.<sup>58</sup>

**Table 14. Partnership Pilot Procurement Goal Summary for Embarcadero (SF Z) 1116**

Embarcadero (SF Z) 1116			
Tranche #	Acceptance Trigger (MW)	Targeted Procurement Goal (MW)	Procurement Cap (MW)
1	0.10	0.11	0.13
2*	0.14	0.16	0.19
3*	0.18	0.20	0.24
4*	0.22	0.25	0.30
5*	0.26	0.29	0.35

\*Procurement Goals for Tranches subsequent to Tranche 1 will be updated annually via our distributional planning process.<sup>59</sup>

<sup>57</sup> D.21-02-006, OP 3.

<sup>58</sup> D.21-02-006, OP 3.

<sup>59</sup> D.21-02-006, OP 3.



**Table 15. Partnership Pilot Procurement Goal Summary for Embarcadero (SF Z) 1118**

Embarcadero (SF Z) 1118			
Tranche #	Acceptance Trigger (MW)	Targeted Procurement Goal (MW)	Procurement Cap (MW)
1	0.34	0.38	0.45
2*	0.70	0.78	0.94
3*	1.06	1.18	1.41
4*	1.10	1.22	1.46
5*	1.13	1.26	1.51

\*Procurement Goals for Tranches subsequent to Tranche 1 will be updated annually via our distributional planning process.<sup>60</sup>

**Table 16. Partnership Pilot Procurement Goal Summary for Coalinga No 1 Bank 2**

Coalinga No 1 Bank 2			
Tranche #	Acceptance Trigger (MW)	Targeted Procurement Goal (MW)	Procurement Cap (MW)
1	CC	CC	CC
2*	CC	CC	CC
3*	CC	CC	CC
4*	CC	CC	CC
5*	CC	CC	CC

\*Procurement Goals for Tranches subsequent to Tranche 1 will be updated annually via our distributional planning process.<sup>61</sup>

**Table 17. Partnership Pilot Procurement Goal Summary for Rocklin 1105**

Rocklin 1105			
Tranche #	Acceptance Trigger (MW)	Targeted Procurement Goal (MW)	Procurement Cap (MW)
1	0.30	0.34	0.40
2*	0.25	0.28	0.34
3*	0.20	0.22	0.27
4*	0.18	0.20	0.24
5*	0.08	0.09	0.11

\*Procurement Goals for Tranches subsequent to Tranche 1 will be updated annually via our distributional planning process.<sup>62</sup>

<sup>60</sup> D.21-02-006, OP 3.

<sup>61</sup> D.21-02-006, OP 3.

<sup>62</sup> D.21-02-006, OP 3.

**Table 18. Partnership Pilot Procurement Goal Summary for Anita 1105**

Anita 1105			
Tranche #	Acceptance Trigger (MW)	Targeted Procurement Goal (MW)	Procurement Cap (MW)
1	1.20	1.33	1.60
2*	1.24	1.38	1.65
3*	1.27	1.41	1.70
4*	1.30	1.45	1.74
5*	1.34	1.49	1.79

\*Procurement Goals for Tranches subsequent to Tranche 1 will be updated annually via our distributional planning process.<sup>63</sup>

**Table 19. Partnership Pilot Procurement Goal Summary for Belle Haven Bank 4**

Belle Haven Bank 4			
Tranche #	Acceptance Trigger (MW)	Targeted Procurement Goal (MW)	Procurement Cap (MW)
1	2.89	3.21	3.86
2*	3.29	3.66	4.39
3*	3.35	3.72	4.46
4*	3.40	3.77	4.53
5*	3.45	3.83	4.59

\*Procurement Goals for Tranches subsequent to Tranche 1 will be updated annually via our distributional planning process.<sup>64</sup>

As the pilot has not yet resulted in the procurement of any tranches, there is no monthly procurement tranche update or overall procurement progress at this time.<sup>65</sup> Upon launch, the Partnership Pilot website will provide monthly procurement updates for active and closed tranches.

### 9.3. Subscription Period and Contingency Dates

Tables 20 through 25 display milestones for the Subscription Period, which includes the Subscription Launch Date, Reservation Deadline, Subscription Duration, Contingency Dates and In-Service Dates for each Tranche for the Candidate Deferral Opportunities recommended for the Partnership Pilot.<sup>66</sup> All dates shown are tentative and based on the following:

- Subscription Launch Date: The date at which parties are eligible to submit reservations. The Subscription Launch Date for Tranche 1 will be 30 days after

<sup>63</sup> D.21-02-006, OP 3.

<sup>64</sup> D.21-02-006, OP 3.

<sup>65</sup> D.21-02-006, OP 4.iii.

<sup>66</sup> One Tranche has been defined for Coalinga and Rocklin as described in Section 9.2

the approval of the November 15, 2021 Advice Letter filing.<sup>67</sup> The Subscription Launch Date for later Tranches is the same as the Contingency Date from the preceding Tranche; however, the Subscription Launch date for later Tranches may be earlier if the Acceptance Trigger for the prior Tranche is achieved prior to the Contingency Date.

- The Reservation Deadline is reliant on the Contingency Date of each Candidate Deferral Opportunity. The Reservation Deadline is 60 days prior to the Contingency Date to ensure there is adequate time to: 1) review the reservation, 2) request additional information or clarify project details, and 3) award and execute a contract.
- The Subscription Duration represents the total number of days from the Subscription Launch Date to the Reservation Deadline.
- The Contingency Date<sup>68</sup> is specific to the Candidate Deferral Opportunity and is based on the distribution planning process, which includes engineering and design, materials procurement, and construction. See Section 11 for further detail on Contingency Plans.

Reservations from aggregators will be accepted from the Subscription Launch Date until either the Procurement Cap is reached, or the Contingency Date occurs, whichever occurs first.<sup>69</sup> Reservations will be reviewed and verified on a first come first serve basis. Aggregators will file offer reservations for either a portion or for all the needed capacity.<sup>70</sup> Once the Acceptance Trigger is achieved from one or multiple reservation offers, contracts are executable. The contract term for the first tranche is one year in duration, beginning on the In-Service Date.

**Table 20. Partnership Pilot Subscription Summary for Embarcadero (SF Z) 1116**

Embarcadero (SF Z) 1116					
Tranche #	Subscription Launch	Reservation Deadline	Subscription Duration (Days)	Contingency Date	In-Service Date
1	1/15/2022	4/1/2023	441	6/1/2023	6/1/2025
2	6/1/2023	4/2/2024	306	6/1/2024	6/1/2026
3	6/1/2024	4/2/2025	305	6/1/2025	6/1/2027
4	6/1/2025	4/2/2026	305	6/1/2026	6/1/2028
5	6/1/2026	4/2/2027	305	6/1/2027	6/1/2029

<sup>67</sup> D.21-02-006, Attachment A (Staff Proposal), pp. 45-46.

<sup>68</sup> D.21-02-006, Attachment A (Staff Proposal), p. 45.

<sup>69</sup> D.21-02-006, OP 3.

<sup>70</sup> D.21-02-006, p. 22.

**Table 21. Partnership Pilot Subscription Summary for Embarcadero (SF Z) 1118**

Embarcadero (SF Z) 1118					
Tranche #	Subscription Launch	Reservation Deadline	Subscription Duration (Days)	Contingency Date	In-Service Date
1	1/15/2022	4/2/2024	808	6/1/2024	4/1/2026
2	6/1/2024	4/1/2025	304	6/1/2025	4/1/2027
3	6/1/2025	4/1/2026	304	6/1/2026	4/1/2028
4	6/1/2026	4/1/2027	304	6/1/2027	4/1/2029
5	6/1/2027	4/1/2028	305	6/1/2028	4/1/2030

**Table 22. Partnership Pilot Subscription Summary for Coalinga No 1 Bank 2**

Coalinga No 1 Bank 2					
Tranche #	Subscription Launch	Reservation Deadline	Subscription Duration (Days)	Contingency Date	In-Service Date
1	1/15/2022	2/1/2022	17	4/1/2022	6/1/2024
2	4/1/2022	11/3/2022	216	1/1/2023	6/1/2025
3	1/1/2023	11/3/2023	306	1/1/2024	6/1/2026
4	1/1/2024	11/3/2024	307	1/1/2025	6/1/2027
5	1/1/2025	11/3/2025	306	1/1/2026	6/1/2028

**Table 23. Partnership Pilot Subscription Summary for Rocklin 1105**

Rocklin 1105					
Tranche #	Subscription Launch	Reservation Deadline	Subscription Duration (Days)	Contingency Date	In-Service Date
1	1/15/2022	3/1/2023	410	5/1/2023	5/1/2025
2	5/1/2023	3/1/2024	305	5/1/2024	5/1/2026
3	5/1/2024	3/1/2025	304	5/1/2025	5/1/2027
4	5/1/2025	3/1/2026	304	5/1/2026	5/1/2028
5	5/1/2026	3/1/2027	304	5/1/2027	5/1/2029

**Table 24. Partnership Pilot Subscription Summary for Anita 1105**

Anita 1105					
Tranche #	Subscription Launch	Reservation Deadline	Subscription Duration (Days)	Contingency Date	In-Service Date
1	1/15/2022	4/1/2022	76	6/1/2022	6/1/2024
2	6/1/2022	4/2/2023	305	6/1/2023	6/1/2025
3	6/1/2023	4/2/2024	306	6/1/2024	6/1/2026
4	6/1/2024	4/2/2025	305	6/1/2025	6/2/2027
5	6/1/2025	4/2/2026	305	6/1/2026	6/1/2028

**Table 25. Partnership Pilot Subscription Summary for Belle Haven Bank 4**

Belle Haven Bank 4					
Tranche #	Subscription Launch	Reservation Deadline	Subscription Duration (Days)	Contingency Date	In-Service Date
1	1/15/2022	2/1/2022	17	4/1/2022	5/1/2024
2	4/1/2022	11/2/2022	215	1/1/2023	5/1/2025
3	1/1/2023	11/2/2023	305	1/1/2024	5/1/2026
4	1/1/2024	11/2/2024	306	1/1/2025	5/1/2027
5	1/1/2025	11/2/2025	305	1/1/2026	5/1/2028

For the three Tranches with shorter Subscription Durations (i.e., Tranche 1 for Belle Haven Bank 4, Anita 1105, and Coalinga No 1 Bank 2), Aggregators may wish to prepare for the Subscription Period prior to Subscription Launch (e.g., starting upon approval of the November 15 Advice Letter). PG&E recommends that the DPAG discuss whether PG&E should extend the Reservation Deadline beyond the contingency date as a means to lengthen the Subscription Duration for these three Tranches with shorter Subscription Durations. If the reservation deadline is extended beyond the contingency date the design and engineering of the wire's solution would continue in parallel to the Subscription Period.

#### 9.4. Proposed Partnership Pilot Budget

The proposed Pilot Budgets supports a three-tiered payment structure with the following allocations:

- Deployment Payment: 20 percent of the Tariff Budget.
- Capacity Reservation Payment tier – 30 percent of the Tariff Budget; and
- Performance Payment tier – 50 percent of the Tariff Budget.<sup>71</sup>

Tables 26 through 31 show the Deferral Value, Deployment Budget, Reservation Budget, Performance Budget, and Tranche Budget for each of the Candidate Deferral Opportunities recommended for the Partnership Pilot, across tranches. The Total Budget for each Candidate Deferral Opportunity is the summation of the Tranche Budgets. A Simple Pricing Method has been applied to the Partnership Pilot, whereby the Tariff Budget is set at 85 percent of the cost cap.<sup>72</sup> The cost cap for each tranche is equal to the Deferral Value for the Candidate Deferral Opportunity for the term of the contract (one year).<sup>73</sup> The term of the contracts are subject to change in sequential tranches and may vary by opportunity. A change to the term would directly impact the calculation of the Deferral Value of a tranche and the Total Deferral Value of the Opportunity. The Total Deferral Value is defined as the summation of the Deferral Value

<sup>71</sup> D.21-02-006, OP 2.g.

<sup>72</sup> D.21-02-006, OP 2.d.

<sup>73</sup> D.21-02-006, p. 40.

for each tranche. All values are expressed in \$1,000s and have been discounted to the year of the In-Service Date for each tranche. The budget tables below are preliminary and will be finalized through the November 15 advice filing.

**Table 26. Partnership Pilot Budget Summary (\$1,000s) for Embarcadero (SF Z) 1116**

Embarcadero (SF Z) 1116 (DDOR111)					
Tranche #	Deferral Value	Deployment Budget	Reservation Budget	Performance Budget	Tranche Budget
1	\$190	\$32	\$49	\$81	<b>\$162</b>
2	\$195	\$33	\$50	\$83	<b>\$166</b>
3	\$200	\$34	\$51	\$85	<b>\$170</b>
4	\$205	\$35	\$52	\$87	<b>\$174</b>
5	\$210	\$36	\$54	\$89	<b>\$179</b>
<b>TOTAL</b>	<b>\$1,001</b>	<b>\$170</b>	<b>\$255</b>	<b>\$425</b>	<b>\$850</b>

**Table 27. Partnership Pilot Budget Summary (\$1,000s) for Embarcadero (SF Z) 1118**

Embarcadero (SF Z) 1118					
Tranche #	Deferral Value	Deployment Budget	Reservation Budget	Performance Budget	Tranche Budget
1	\$186	\$32	\$48	\$79	<b>\$159</b>
2	\$191	\$32	\$49	\$81	<b>\$162</b>
3	\$196	\$33	\$50	\$83	<b>\$167</b>
4	\$201	\$34	\$51	\$85	<b>\$171</b>
5	\$206	\$35	\$52	\$87	<b>\$175</b>
<b>TOTAL</b>	<b>\$980</b>	<b>\$167</b>	<b>\$250</b>	<b>\$417</b>	<b>\$833</b>

**Table 28. Partnership Pilot Budget Summary (\$1,000s) for Coalinga No 1 Bank 2**

Coalinga No 1 Bank 2					
Tranche #	Deferral Value	Deployment Budget	Reservation Budget	Performance Budget	Tranche Budget
1	\$106	\$18	\$27	\$45	<b>\$90</b>
2	\$109	\$18	\$28	\$46	<b>\$92</b>
3	\$111	\$19	\$28	\$47	<b>\$95</b>
4	\$114	\$19	\$29	\$48	<b>\$97</b>
5	\$117	\$20	\$30	\$50	<b>\$99</b>
<b>TOTAL</b>	<b>\$557</b>	<b>\$95</b>	<b>\$142</b>	<b>\$237</b>	<b>\$473</b>

**Table 29. Partnership Pilot Budget Summary (\$1,000s) for Rocklin 1105**

Rocklin 1105					
Tranche #	Deferral Value	Deployment Budget	Reservation Budget	Performance Budget	Tranche Budget
1	\$472	\$80	\$120	\$201	<b>\$401</b>
2	\$484	\$82	\$123	\$206	<b>\$411</b>
3	\$496	\$84	\$126	\$211	<b>\$421</b>
4	\$508	\$86	\$130	\$216	<b>\$432</b>
5	\$521	\$89	\$133	\$221	<b>\$443</b>
<b>TOTAL</b>	<b>\$2,480</b>	<b>\$422</b>	<b>\$632</b>	<b>\$1,054</b>	<b>\$2,108</b>

**Table 30. Partnership Pilot Budget Summary (\$1,000s) for Anita 1105**

Anita 1105					
Tranche #	Deferral Value	Deployment Budget	Reservation Budget	Performance Budget	Tranche Budget
1	\$390	\$66	\$100	\$166	<b>\$332</b>
2	\$400	\$68	\$102	\$170	<b>\$340</b>
3	\$410	\$70	\$105	\$174	<b>\$349</b>
4	\$420	\$71	\$107	\$179	<b>\$357</b>
5	\$431	\$73	\$110	\$183	<b>\$366</b>
<b>TOTAL</b>	<b>\$2,052</b>	<b>\$349</b>	<b>\$523</b>	<b>\$872</b>	<b>\$1,744</b>

**Table 31. Partnership Pilot Budget Summary (\$1,000s) for Belle Haven Bank 4**

Belle Haven Bank 4					
Tranche #	Deferral Value	Deployment Budget	Reservation Budget	Performance Budget	Tranche Budget
1	\$543	\$92	\$138	\$231	<b>\$461</b>
2	\$556	\$95	\$142	\$236	<b>\$473</b>
3	\$570	\$97	\$145	\$242	<b>\$485</b>
4	\$585	\$99	\$149	\$248	<b>\$497</b>
5	\$599	\$102	\$153	\$255	<b>\$509</b>
<b>TOTAL</b>	<b>\$2,853</b>	<b>\$485</b>	<b>\$728</b>	<b>\$1,213</b>	<b>\$2,425</b>



## 10. Standard Offer Contract (SOC) Pilot

CPUC issued D.21-02-006 which adopts Energy Division's Staff Proposals with minor modifications and required the California Investor Owned Utilities (IOUs) to pilot two frameworks for procuring DERs to avoid or defer utility distribution investments.<sup>74</sup> One of the pilots is called the SOC Pilot, which is a framework for DER solicitations whereby a Standard Offer Contract, based on the existing Technology-Neutral Pro Forma (TNPF), would be used to decrease the transactional costs and risks present in the current RFO process. This three-year Pilot is intended for larger scale providers of In-Front-of-Meter distributed energy resources<sup>75</sup> and overlaps with the current GNA, DDOR, and DIDF RFO process. On June 3, 2021, the IOUs submitted Joint Advice Letter 6128-E, et al. on Evaluation Criteria.<sup>76</sup> On June 28, 2021, PG&E received a Disposition Letter approving Advice Letter 6193-E for TNPF.<sup>77</sup> On April 12, 2021, IOUs hosted a meeting to discuss further needed changes to the TNPF.<sup>78</sup> Upon releasing the SOC RFO on September 15, 2021, PG&E will publish cost caps and solicitation details based on the simple auction pricing method.

### 10.1. Selection of Candidate Deferral Opportunities for the SOC Pilot

The selection of the Candidate Deferral Opportunities for the SOC Pilot is based on the Prioritization Metrics shown in Section 8, as well as examination of the following criteria:

- At least one Tier 1 Candidate Deferral Opportunity selected.
- A single Grid Need location to defer the Candidate Deferral Opportunity, in order to facilitate a single Point of Interconnection for an In-Front-of-the-Meter (IFOM) DER solution.
- Indications that there is sufficient capacity at the location of the Grid Need for a DER to charge from the grid, so that IFOM DERs (including energy storage) may be able to charge from the location of need. PG&E notes that this assessment is only indicative, and the DER solution would still need to pursue the interconnection process.
- Earlier In-Service Dates to test the impact of the SOC pilot on the ability of DERs to meet the In-Service Date (see Section 12.2).
- Candidate Deferral Opportunities with larger Grid Needs (MW), as those needs may be most appropriate for Utility-Scale IFOM DER solutions.

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<sup>74</sup> D.21-02-006, p. 2.

<sup>75</sup> D.21-02-006, p. 57.

<sup>76</sup> D.21-02-006, OP 6.

<sup>77</sup> D.21-02-006, OP 7.

<sup>78</sup> D.21-02-006, OP 13.

Based on these selection criteria, PG&E plans to launch solicitations for the SOC Pilot on September 15, 2021 for one Candidate Deferral Opportunity, Vierra Bank 3.

## 11. Contingency Plans

Electric distribution systems can change dynamically in terms of local area demand in response to agricultural water allocation and temperature sensitivity, economic drivers, and the unpredictability of large new customer load additions. When one of these drivers causes the load or near term forecast to exceed the local system capability, PG&E manages the load until capacity upgrades can be installed using field switching where possible, temporary re-rates on various pieces of equipment, and/or installation of temporary and mobile equipment.

Generally, these are the same contingency planning steps PG&E will use for contracted DER solutions that are not able to successfully mitigate the grid needs for the identified Candidate Deferral Opportunities. Specifically, PG&E has considered three different project stages where a DER solution can fail in being able to provide successful distribution services:

- **DER Solicitation stage:** If no cost-effective or combination of cost-effective bids meet the grid need, or if there is a change in forecasted grid need date (e.g., accelerating the need for a solution sooner than originally planned), the contingency plan option is to either consider the deferral opportunity again in next year's DDOR<sup>79</sup> or proceed with the planned "wires" project if the start date for the project is prior to next year's distribution resources planning process.
- **DER Implementation stage:** If the contracted DER solution fails to meet its implementation milestones and is not expected to achieve operations by the identified grid need date, or if there is a change in forecasted grid need date (e.g., accelerating the need for a solution sooner than originally planned), the contingency plan options available during this stage depends upon when during the DER implementation stage it becomes known the DER solution will be not be available to meet the identified grid need date. If it is early in the implementation stage, it may be possible for another cost-effective or combination of cost-effective bids for DERs to be considered.<sup>80</sup> If that is not the case, the contingency is to implement the planned wires project if possible. If it is later in the DER implementation stage, depending upon the loading and system conditions, a stop-gap wires solution including the various steps described above will be implemented.

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<sup>79</sup> Where third-party DER procurement is unsuccessful, PG&E will consider full or partial IOU-ownership of a DER solution.

<sup>80</sup> Where third-party DER procurement is unsuccessful, PG&E will consider full or partial IOU-ownership of a DER solution.

- **Commercial Operation stage:** If the contracted DER resource fails to meet performance requirements or simply fails while in service, PG&E will handle this situation in the same manner as with any other failed equipment. The immediate emergency response includes distribution operations personnel implementing load transfers based on current loading profiles, installation of mobile generation, and/or a plan to interrupt power for local customers as a last resort. The contingency plan beyond the initial 24 hours would consider area loading, expected duration of the DER resource failure, potential transfers that may be available because of recent distribution infrastructure additions or improvements, re-rating of distribution facilities,<sup>81</sup> including substation banks, and installation of temporary facilities such as a mobile transformer bank.<sup>82</sup>

It is important to note that new customer load applications for demand in the 2-5 MW range are not uncommon. PG&E cannot predict with absolute certainty where or when large new customer load will happen. For example, a high-speed Electric Vehicle charging facility may result in a load application request between 5-10MW at a specific location. If an updated demand forecast is higher than what the DER solution can provide, PG&E would deploy the same contingency strategies identified previously in this section. PG&E also coordinates with customers in providing new service based on the size and timing of the load ramp up schedule.

For the Partnership Pilot, the Contingency Date for each Candidate Deferral Opportunity selected is described and included in Section 9.3.

As part of the ongoing evaluation and reform of the DIDF process, PG&E reports on the contingency spending for the most recent DIDF solicitations.<sup>83</sup> As of August 1, 2020, the contingency spend on Candidate Deferral Opportunities that PG&E received authorization to solicit is as follows:

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<sup>81</sup> The use of emergency ratings is unlikely to be a viable contingency plan for Candidate Deferral Opportunities with long duration needs due to the duration of the need exceeding the duration of the emergency rating.

<sup>82</sup> Where third-party DER procurement is unsuccessful, PG&E will consider full or partial IOU-ownership of a DER solution.

<sup>83</sup> May 7, 2019, Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Process, p. 13.

**Table 32. Contingency Spend (as of August 1, 2020) on Candidate Deferral Opportunities from PG&E's 2020-2021 DIDF Cycle**

CANDIDATE DEFERRAL OPPORTUNITY	CONTINGENCY SPEND
Willow Pass Bank 1	\$ 161,872
San Miguel Bank 2	\$ 0
Calistoga Bank 1	\$ 0
Ripon 1705	\$ 0
Blackwell Bank 1	\$ 0
Belle Haven Bank 4	\$ 0
San Luis Obispo 1106	\$ 47,215
Zamora 1108	\$ 0

## 12. Recommendations and Next Steps

PG&E will launch a competitive solicitation via a September 15, 2021 RFO for 7 Tier 1 Candidate Deferral Opportunities, as listed below:

- French Camp Bank 1
- Lakeview 1110
- Mormon Bank 2
- Newhall Bank 3
- Ripon 1705
- Saratoga 1102
- Zamora 1108

PG&E will also launch a Standard Offer Contract (SOC) Pilot for one Candidate Deferral Opportunity on September 15, 2021. The recommended Candidate Deferral Opportunities for the Standard Offer Contract is listed below:

- Vierra Bank 3

Additionally, PG&E is recommending 6 Candidate Deferral Opportunities for the first Tranche for the Partnership Pilot. The Candidate Deferral Opportunities recommended for the Partnership Pilot will be discussed at the September 20, 2021 DPAG. On November 15, 2021, PG&E will file a Pilot Advice Letter requesting authorization to launch the subscription period with final cost caps. The recommended Candidate Deferral Opportunities for the Partnership Pilot are listed below:

- Coalinga No 1 Bank 2
- Embarcadero (SF Z) 1116
- Embarcadero (SF Z) 1118
- Rocklin 1105
- Anita 1105
- Belle Haven Bank 4

PG&E does not recommend pursuing the remaining Tier 2 and 3 Candidate Deferral Opportunities at this time due to their low likelihood of achieving a successful outcome. However, these Candidate Deferral Opportunities will be discussed at upcoming Distribution Planning Advisory Group (DPAG) Meetings

### 12.1. Proposed Work Plan for the Distribution Planning Advisory Group

In accordance with D.18-02-004 ordering paragraphs 2.t, 2.u, and 2.v and the May 7, 2019, April 13, 2020, May 11, 2020 and June 2021 ALJ Rulings Modifying the DIDF Process, PG&E will proceed with the work plan below for the DPAG meetings:

- Sept 5: The IPE circulates preliminary analysis of PG&E's GNA and DDOR
- Sept 13: Joint IOUs to host DPAG Primer Webinar

- Sept 15: Launch RFO for DER solicitations from 3<sup>rd</sup> party and Standard Offer Contract pilot
- Sept 20: PG&E to host DPAG meeting via Webinar
- Sept 25: Participants provide questions and comments to IOUs and IPE
- Nov 15: File Tier 2 Advice Letters seeking approval to launch RFOs for projects elevated to Tier One during the DPAG meeting, not launch RFOs for any additional deferral opportunities, and to launch Partnership Pilot

## 12.2. Future DIDF Reform

To consider future reforms to the DIDF process, PG&E provides the following recommendations for future DIDF reform:<sup>84</sup>

1. Overall, PG&E views the DIDF as successfully providing information about PG&E's distribution planning process and identifying opportunities for deferral by DERs.
2. PG&E recommends that efforts continue towards streamlining the regulatory schedule for the DIDF process, so that more time can be allowed between when the Candidate Deferral Opportunities are finalized and the In-Service Dates for Candidate Deferral Opportunities. Lessons learned from prior DIDF cycles have indicated that DER developers already have difficulty meeting the In-Service Dates for Candidate Deferral Opportunities. The Standard Offer Contract (SOC) pilot and the DIDF RFO schedule implemented in D.21-02-006 are examples of streamlined regulatory schedules that may allow more time for DER developers to meet their In-Service Dates.
3. PG&E continues to recommend that line sections be excluded from future DIDF cycles. Assessing line section needs and documenting the line section Planned Investments requires extensive effort, while few, if any, are likely to be viable Candidate Deferral Opportunities due to the near-term identification of the need, the uncertainty of the long term forecast for line sections, the relatively smaller amount of customers for which to potentially market DERs, and the relatively smaller cost of the traditional mitigation. If the line section data is still required, PG&E recommends that the IOUs be allowed to file it as a supplement to the GNA and DDOR by October 15<sup>th</sup> of each year. This would allow stakeholders to focus on the Candidate Deferral Opportunities and streamline the GNA, DDOR, and DPAG process.
4. PG&E's 2021 GNA and DDOR filings include a grid need ID, facility ID, and project ID numbering system. All project ID numbers are unique and directly link to specific projects in PG&E's GRC when such projects are specifically included in the GRC. PG&E's recently filed its 2023 GRC application in July 2021. Differences between the DDOR and GRC are described in Section 6.1.

<sup>84</sup> May 7, 2019, Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Process, p. 16.

5. Regarding equipment necessary to integrate DERs with the grid that could feasibly be owned by a third party, telemetry equipment owned by third parties could potentially replace required IOU owned reclosers or mini-RTUs for large DER installations 1MW and greater. PG&E is currently evaluating the technical feasibility of this option, with the goal of reducing customers' utility related costs to under \$20k. Equipment required at a site-level includes customer sited gateways for protocol translation and telecommunication equipment like modems. Based on current market forecasts, potentially hundreds of pieces of such equipment may be required over the next ten years. While there are benefits in potential reduced initial costs and customer ownership, there are serious concerns around cybersecurity, ongoing maintenance, and life cycle costs for customers that are still being evaluated.
6. The encouragement of IOU ownership of DERs to defer traditional wires investments should continue. However, recovery of costs under the Energy Resource Recovery Account (ERRA) discourages PG&E procurement of services beyond the distribution Deferral Value. The recovery of costs via ERRA for all services (other than the Deferral Value) creates fairness and equity concerns, because the procurement of the DER services is fundamentally being done to address grid needs, not to address a bundled customer need. Instead, all costs should be recorded in a non-by passable procurement account (e.g., the Distributed Energy Resources Distribution Deferral Account (DERDDA)) in a manner analogous to the cost recovery approved for the Llagas DER project. In contrast to cost recovery via ERRA, this would allow DERs to realize the value from all distribution customers rather than just bundled customers. Without such a modification, PG&E's solicitations for IOU ownership would be constrained to the consideration of the Deferral Value of the DER solution offered. Furthermore, IOU ownership of DERs to defer traditional wires investments should be encouraged and facilitated directly (Section 3.2), rather than just through the DIDF solicitation process.
7. PG&E continues to recommend that LNBA calculations only be required for the Candidate Deferral Opportunities (rather than for all Planned Investments), as the purpose of this information is to evaluate the feasibility of DER deferral and it is a significant undertaking to provide this information for all Planned Investments. Furthermore, as explained in Section 6.2, the LNBA values for Planned Investments that are not Candidate Deferral Opportunities are not indicative of the Deferral Value. The unit costs used for these Planned Investments are based on the total unit cost rather the deferrable (unspent costs). Therefore, the LNBA value for these Planned Investments is not representative of the Deferral Value and thus serves no purpose.



# Appendix A: Planned Investments

PDF attached separately

Appendix B: Candidate Deferral Opportunities

PDF attached separately

Appendix C: Prioritization Metric Workbook

Workbook PDF attached separately

Appendix D: LNBA Workbooks for Candidate Deferral Opportunities

Workbook PDF attached separately

# Appendix E: LNBA Workbooks for Planned Investments

Workbook PDF attached separately

Appendix F: Forecast Uncertainty Questionnaire

Workbook PDF attached separately

Appendix G: DDOR Forecast Questionnaire Results

Workbook PDF attached separately



PG&E 2021 Distribution Deferral Opportunity Report (DDOR)

Appendix A: Planned Investments

Version Date: 06/16/21

Public

Customer Count																						
DDOR ID	Previous DDOR?	Distribution Planning Region	Division	Project Type	Project Name	Project Description	In-service Date	Project Cost (\$)	Deferrable (Y/N)	LNBA Value (\$/kW-yr)	LNBA Value (\$/Vp-yr)	GNA Need ID	GNA Facility Name	Distribution Service Required	Grid Need	Grid Need Unit	Residential	Commercial	Industrial	Agricultural	Other	Total
DDOR001	Yes	Central Coast	De Anza	Feeder	Vasona 1106	Vasona Sub - Install New Feeder (1106)	12/1/2021	\$ 4,098	N	\$109	-	GNA_820202_Capacity	LOS GATOS BANK 2	Capacity	2.49	MW	2968	256	62	4	57	3347
DDOR001	Yes	Central Coast	De Anza	Feeder	Vasona 1106	Vasona Sub - Install New Feeder (1106)	12/1/2021	\$ 4,098	N	\$109	-	GNA_820201_Capacity	LOS GATOS BANK 1	Capacity	2.02	MW	2947	477	118	5	70	3617
DDOR002	Yes	Central Coast	San Jose	Bank	Santa Teresa Sub - new bank	Install distribution bank at Santa Teresa sub	11/1/2021	\$ 15,426	N	\$37	-	GNA_829504_Capacity	EDENVALE BANK 4	Capacity	CC	MW	5255	184	102	0	16	5557
DDOR002	Yes	Central Coast	San Jose	Bank	Santa Teresa Sub - new bank	Install distribution bank at Santa Teresa sub	11/1/2021	\$ 15,426	N	\$37	-	GNA_8295107_Capacity	EDENVALE 2107	Capacity	6.40	MW	300	129	80	0	10	519
DDOR002	Yes	Central Coast	San Jose	Bank	Santa Teresa Sub - new bank	Install distribution bank at Santa Teresa sub	11/1/2021	\$ 15,426	N	\$37	-	GNA_8295111_Capacity	EDENVALE 2111	Capacity	CC	MW	0	2	1	0	1	4
DDOR002	Yes	Central Coast	San Jose	Bank	Santa Teresa Sub - new bank	Install distribution bank at Santa Teresa sub	11/1/2021	\$ 15,426	N	\$37	-	GNA_8295112_Capacity	EDENVALE 2112	Capacity	CC	MW	812	18	30	0	4	864
DDOR003	Yes	Bay Area	North Bay	Feeder	Highway 1107	Add new feeder breaker on Highway Bank 1	7/2/2021	\$ 1,908	N	\$22	-	GNA_42651102_Capacity	HIGHWAY 1102	Capacity	2.10	MW	1093	297	210	7	20	1627
DDOR003	Yes	Bay Area	North Bay	Feeder	Highway 1107	Add new feeder breaker on Highway Bank 1	7/2/2021	\$ 1,908	N	\$22	-	GNA_42651105_Capacity	HIGHWAY 1105	Capacity	CC	MW	508	27	23	0	3	561
DDOR003	Yes	Bay Area	North Bay	Feeder	Highway 1107	Add new feeder breaker on Highway Bank 1	7/2/2021	\$ 1,908	N	\$22	-	GNA_42301101_Capacity	TULUCAY 1101	Capacity	CC	MW	44	203	234	14	20	515
DDOR003	Yes	Bay Area	Diablo	Feeder	Brentwood 2104	Brentwood 2104 Feeder on Brentwood Bank 1	5/1/2022	\$ 5,635	N	\$67	-	GNA_14592112_Capacity	BRENTWOOD 2112	Capacity	3.05	MW	4054	375	65	121	114	4739
DDOR004	Yes	Bay Area	Diablo	Feeder	Brentwood 2104	Brentwood 2104 Feeder on Brentwood Bank 1	5/1/2022	\$ 5,635	N	\$67	-	GNA_014592112_Reliability / Other	BRENTWOOD 2112	Reliability	7.05	MW	4054	375	65	121	114	4739
DDOR005	Yes	Northern	Humboldt	Feeder	Hopland 1101	Replace Hopland 1101 Disconnects	9/1/2021	\$ 50	N	\$5	-	GNA_42251101_Capacity	HOPLAND 1101	Capacity	CC	MW	930	201	38	127	43	1339
DDOR006	Yes	Northern	Sacramento	Feeder	Deepwater 1110 & 1111	Install Deepwater 1110 & 1111	12/1/2022	\$ 6,325	N	\$169	-	GNA_63131110_Capacity	WEST SACRAMENTO 1110	Capacity	3.91	MW	2436	180	86	0	216	2918
DDOR006	Yes	Northern	Sacramento	Feeder	Deepwater 1110 & 1111	Install Deepwater 1110 & 1111	12/1/2022	\$ 6,325	N	\$169	-	GNA_63131106_Capacity	WEST SACRAMENTO 1106	Capacity	CC	MW	106	126	37	8	24	301
DDOR007	Yes	Central Coast	San Jose	Feeder	Almaden 1112	Build feeder from existing breaker - Almaden 1112	12/1/2021	\$ 3,839	N	\$235	-	GNA_834302_Capacity	HICKS BANK 2	Capacity	0.01	MW	11097	572	261	0	30	11960
DDOR007	Yes	Central Coast	San Jose	Feeder	Almaden 1112	Build feeder from existing breaker - Almaden 1112	12/1/2021	\$ 3,839	N	\$235	-	GNA_82311110_Capacity	ALMADEN 1102	Capacity	1.02	MW	3176	192	48	0	9	3425
DDOR007	Yes	Central Coast	San Jose	Feeder	Almaden 1112	Build feeder from existing breaker - Almaden 1112	12/1/2021	\$ 3,839	N	\$235	-	GNA_83431110_Capacity	HICKS 1110	Capacity	0.94	MW	1631	100	88	0	6	1825
DDOR008	Yes	Central Valley	Stockton	Feeder	Weber 1111	Install Weber 1111	12/1/2021	\$ 3,891	N	\$93	-	GNA_163481101_Capacity	WEBER 1101	Capacity	CC	MW	197	18	22	0	2	239
DDOR008	Yes	Central Valley	Stockton	Feeder	Weber 1111	Install Weber 1111	12/1/2021	\$ 3,891	N	\$93	-	GNA_163481102_Capacity	WEBER 1102	Capacity	2.95	MW	500	79	57	49	11	696
DDOR008	Yes	Central Valley	Stockton	Feeder	Weber 1111	Install Weber 1111	12/1/2021	\$ 3,891	N	\$93	-	GNA_163481103_Capacity	WEBER 1103	Capacity	CC	MW	8	13	27	0	2	50
DDOR009	Yes	Bay Area	Diablo	Feeder	Rossmore 1109	Install Rossmore 1109 feeder for Emergency support to Moraga Bank 5	12/1/2021	\$ 16,888	N	\$153	-	GNA_0138005_Reliability / Other	MORAGA BANK 5	Reliability	13.40	MW	10030	814	156	5	57	11062
DDOR010	Yes	Central Valley	Fresno	Feeder	Dinuba 1103	Install Dinuba 1103	6/1/2023	\$ 1,487	N	\$57	-	GNA_254091105_Capacity	DINUBA 1105	Capacity	1.00	MW	2151	253	45	263	53	2765
DDOR010	Yes	Central Valley	Fresno	Feeder	Dinuba 1103	Install Dinuba 1103	6/1/2023	\$ 1,487	N	\$57	-	GNA_254091104_Capacity	DINUBA 1104	Capacity	1.11	MW	974	88	20	428	79	1589
DDOR010	Yes	Central Valley	Fresno	Feeder	Dinuba 1103	Install Dinuba 1103	6/1/2023	\$ 1,487	N	\$57	-	GNA_254091102_Capacity	DINUBA 1102	Capacity	0.97	MW	1986	209	82	62	33	2372
DDOR011	Yes	Central Valley	Fresno	Feeder	Rainbow 1103	Install Rainbow 1103	12/1/2021	\$ 1,049	N	\$24	-	GNA_254441105_Capacity	RAINBOW 1105	Capacity	CC	MW	1012	70	20	42	30	1174
DDOR011	Yes	Central Valley	Fresno	Feeder	Rainbow 1103	Install Rainbow 1103	12/1/2021	\$ 1,049	N	\$24	-	GNA_2523501_Capacity	SANGER BANK 1	Capacity	2.58	MW	4642	303	31	705	151	5832
DDOR012	Yes	Central Coast	Mission	Feeder	Newark 2111	Install New Feeder Newark 2111	8/15/2021	\$ 3,180	N	\$23	-	GNA_122221_Capacity	NEWARK BANK 21	Capacity	CC	MW	6990	1005	552	1	47	8595
DDOR012	Yes	Central Coast	Mission	Feeder	Newark 2111	Install New Feeder Newark 2111	8/15/2021	\$ 3,180	N	\$23	-	GNA_12222109_Capacity	NEWARK 2109	Capacity	CC	MW	0	1	5	0	0	6
DDOR013	Yes	Central Coast	Peninsula	Feeder	East Grand 1116 & East Grand 1117	Install East Grand 1116 & East Grand 1117 Feeder in Existing Switchgear Cell	12/1/2021	\$ 3,236	N	\$22	-	GNA_22571109_Capacity	EAST GRAND 1109	Capacity	9.55	MW	361	95	80	1	5	542
DDOR013	Yes	Central Coast	Peninsula	Feeder	East Grand 1116 & East Grand 1117	Install East Grand 1116 & East Grand 1117 Feeder in Existing Switchgear Cell	12/1/2021	\$ 3,236	N	\$22	-	GNA_22571113_Capacity	EAST GRAND 1113	Capacity	CC	MW	0	4	11	1	0	16
DDOR013	Yes	Central Coast	Peninsula	Feeder	East Grand 1116 & East Grand 1117	Install East Grand 1116 & East Grand 1117 Feeder in Existing Switchgear Cell	12/1/2021	\$ 3,236	N	\$22	-	GNA_225701_Capacity	EAST GRAND BANK 1	Capacity	0.94	MW	7339	438	174	9	13	7973
DDOR014	Yes	Bay Area	San Francisco	Line Section	Mission X1113 Circuit Reinforcement	2021 Circuit Reinforce X-1113 to Permanent Transfer X-1125 to X-1113	12/1/2021	\$ 4,375	N	\$520	-	GNA_22011125_Capacity	MISSION (SF X) 1125	Capacity	CC	MW	1549	281	186	7	4	2027
DDOR015	Yes	Bay Area	San Francisco	Feeder	Potrero A1108 Recable inside Sub	Recable A-1118 Circuit Outlet	1/25/2022	\$ 2,925	N	\$12	-	GNA_22031118_Capacity	POTRERO (SF A) 1118	Capacity	CC	MW	2426	115	37	0	8	2586
DDOR015	Yes	Bay Area	San Francisco	Feeder	Potrero A1108 Recable inside Sub	Recable A-1118 Circuit Outlet	1/25/2022	\$ 2,925	N	\$12	-	GNA_22031108_Capacity	POTRERO (SF A) 1108	Capacity	CC	MW	3027	245	186	0	10	3468
DDOR016	Yes	Bay Area	San Francisco	Feeder	Mission X 1120 Recable inside Sub	2021 Re-conductor X-1120	12/1/2021	\$ 3,725	N	\$149	-	GNA_22011120_Capacity	MISSION (SF X) 1120	Capacity	CC	MW	1520	701	75	0	5	2301
DDOR017	Yes	Central Coast	Mission	Bank	Replace Jarvis Bank #2	Replace existing Jarvis Bank 2, a 30MVA bank with a 45MVA bank and install Jarvis 1107	12/31/2021	\$ 10,854	N	\$53	-	GNA_135002_Capacity	JARVIS BANK 2	Capacity	2.62	MW	10073	417	133	2	43	10688
DDOR017	Yes	Central Coast	Mission	Bank	Replace Jarvis Bank #2	Replace existing Jarvis Bank 2, a 30MVA bank with a 45MVA bank and install Jarvis 1107	12/31/2021	\$ 10,854	N	\$53	-	GNA_13501112_Capacity	JARVIS 1112	Capacity	CC	MW	6707	242	51	2	25	7027
DDOR017	Yes	Central Coast	Mission	Bank	Replace Jarvis Bank #2	Replace existing Jarvis Bank 2, a 30MVA bank with a 45MVA bank and install Jarvis 1107	12/31/2021	\$ 10,854	N	\$53	-	GNA_013501112_Resiliency (micro-grid)	JARVIS 1112	Resiliency	CC	MW	6707	242	51	2	25	7027
DDOR017	Yes	Central Coast	Mission	Bank	Replace Jarvis Bank #2	Replace existing Jarvis Bank 2, a 30MVA bank with a 45MVA bank and install Jarvis 1107	12/31/2021	\$ 10,854	N	\$53	-	GNA_13501105_Capacity	JARVIS 1105	Capacity	0.72	MW	5737	164	43	1	21	5966
DDOR017	Yes	Central Coast	Mission	Bank	Replace Jarvis Bank #2	Replace existing Jarvis Bank 2, a 30MVA bank with a 45MVA bank and install Jarvis 1107	12/31/2021	\$ 10,854	N	\$53	-	GNA_013501105_Resiliency (micro-grid)	JARVIS 1105	Resiliency	0.21	MW	5737	164	43	1	21	5966
DDOR017	Yes	Central Coast	Mission	Bank	Replace Jarvis Bank #2	Replace existing Jarvis Bank 2, a 30MVA bank with a 45MVA bank and install Jarvis 1107	12/31/2021	\$ 10,854	N	\$53	-	GNA_14471102_Capacity	DUMBARTON SUB 1102	Capacity	CC	MW	764	22	13	0	1	800
DDOR017	Yes	Central Coast	Mission	Bank	Replace Jarvis Bank #2	Replace existing Jarvis Bank 2, a 30MVA bank with a 45MVA bank and install Jarvis 1107	12/31/2021	\$ 10,854	N	\$53	-	GNA_13501111_Capacity	JARVIS 1111	Capacity	0.42	MW	5471	348	53	0	28	5900
DDOR017	Yes	Central Coast	Mission	Bank	Replace Jarvis Bank #2	Replace existing Jarvis Bank 2, a 30MVA bank with a 45MVA bank and install Jarvis 1107	12/31/2021	\$ 10,854	N	\$53	-	GNA_013501111_Resiliency (micro-grid)	JARVIS 1111	Resiliency	0.87	MW	5471	348	53	0	28	5900
DDOR017	Yes	Central Coast	Mission	Bank	Replace Jarvis Bank #2	Replace existing Jarvis Bank 2, a 30MVA bank with a 45MVA bank and install Jarvis 1107	12/31/2021	\$ 10,854	N	\$53	-	GNA_144701_Capacity	DUMBARTON BANK 1	Capacity	4.09	MW	10356	473	146	0	26	11001
DDOR018	Yes	Central Valley	Stockton	Feeder	Lammers 1108 & 1104	Install Lammers 1104 (Bk 1) and Lammers 1108 (Bk 2) breakers. Extend Lammers 1104 feeder to relieve Lammers 1101.	4/1/2022	\$ 3,231	N	\$54	-	GNA_162771101_Capacity	LAMMERS 1101	Capacity	CC	MW	23	22	32	7	4	88
DDOR018	Yes	Central Valley	Stockton	Feeder	Lammers 1108 & 1104	Install Lammers 1104 (Bk 1) and Lammers 1108 (Bk 2) breakers. Extend Lammers 1104 feeder to relieve Lammers 1101.	4/1/2022	\$ 3,231	N	\$54	-	GNA_162771106_Capacity	LAMMERS 1106	Capacity	1.62	MW	2161	84	16	3	1	2265
DDOR019	Yes	Bay Area	San Francisco	Feeder	Potrero A1113	Potrero A1113 Recable inside Sub	12/1/2021	\$ 5,925	N	\$95	-	GNA_22031113_Capacity	POTRERO (SF A) 1113	Capacity	CC	MW	1564	428	159	4	3	2158
DDOR020	Yes	Bay Area	San Francisco	Feeder	Potrero A1119	Potrero A1119 Recable inside Sub	12/1/2021	\$ 2,925	N	\$101	-	GNA_22031119_Capacity	POTRERO (SF A) 1119	Capacity	CC	MW	1158	239	113	2	4	1516
DDOR021	No	Bay Area	San Francisco	Feeder	Mission X 1101	Mission X 1101 Recable inside Sub	12/1/2021	\$ 3,225	N	\$17	-	GNA_22011102_Capacity	MISSION (SF X) 1102	Capacity	CC	MW	1058	79	58	0	3	1198
DDOR023	Yes	Central Coast	Central Coast	Bank	Dolan Bank	Dolan Sub Install New Bank	10/1/2021	\$ 11,299	N	\$86	-	GNA_1823801_Capacity	DOLAN ROAD BANK 1	Capacity	CC	MW	2419	347	49	223	7	3045

PG&E 2021 Distribution Deferral Opportunity Report (DDOR)

Appendix A: Planned Investments

Version Date: 08/16/21

Public

Customer Count																						
DDOR ID	Previous DDOR?	Distribution Planning Region	Division	Project Type	Project Name	Project Description	In-service Date	Project Cost (\$k)	Deferrable (Y/N)	LNBA Value (\$/kW-yr)	LNBA Value (\$/Vpu-yr)	GNA Need ID	GNA Facility Name	Distribution Service Required	Grid Need	Grid Need Unit	Residential	Commercial	Industrial	Agricultural	Other	Total
DDOR023	Yes	Central Coast	Central Coast	Bank	Dolan Bank	Dolan Sub Install New Bank	10/1/2021	\$ 11,299	N	\$86	-	GNA_1823501_Capacity	CASTROVILLE BANK 1	Capacity	CC	MW	1905	389	142	182	18	2636
DDOR024	Yes	Central Valley	Fresno	Bank	Tulare Lake Bank 1	Replace Tulare Lake Bank 1 with a 30MVA bank	12/1/2021	\$ 7,093	N	\$72	-	GNA_2529501_Capacity	TULARE LAKE BANK 1	Capacity	CC	MW	400	79	42	87	2	610
DDOR025	Yes	Central Valley	Stockton	Feeder	Valley Springs 1102	New Valley Springs 1102 Feeder	12/31/2021	\$ 1,873	N	\$43	-	GNA_162301101_Reliability / Other	VALLEY SPRINGS NEW 1101 (2020)	Reliability	5.17	MW	1574	263	71	9	7	1924
DDOR026	Yes	Central Valley	Stockton	Feeder	Weber 1115	Weber 1115 new feeder from existing switchgear	12/31/2021	\$ 2,000	N	\$159	-	GNA_163481113_Capacity	WEBER 1113	Capacity	CC	MW	0	22	63	0	5	90
DDOR027	Yes	Central Valley	Yosemite	Feeder	El Nido 1106	Feeder on El Nido Bank 1	12/31/2021	\$ 8,283	N	\$391	-	GNA_2535401_Capacity	SANTA RITA BANK 1	Capacity	2.38	MW	408	107	14	413	72	1014
DDOR027	Yes	Central Valley	Yosemite	Feeder	El Nido 1106	Feeder on El Nido Bank 1	12/31/2021	\$ 8,283	N	\$391	-	GNA_252451104_Capacity	EL NIDO 1104	Capacity	0.16	MW	129	37	6	266	45	483
DDOR028	No	Central Coast	San Jose	Bank	Renz Energy Storage	Renz Energy Storage (Lagos)	4/1/2022	\$ 27,274	N	\$207	-	GNA_831803_Capacity	LAGAS BANK 3	Capacity	9.59	MW	8785	956	380	113	95	10329
DDOR029	Yes	Central Valley	Yosemite	Feeder	Darbyland 1110	New Darbyland 1110 Feeder on Bank 2	4/1/2022	\$ 3,643	N	\$252	-	GNA_252421109_Capacity	DARBYLAND 1109	Capacity	CC	MW	68	31	1	197	38	335
DDOR030	Yes	Central Valley	Fresno	Bank	Calfax Bank 2	Calfax - Install New Bank Bank 2	5/1/2022	\$ 10,010	N	\$28	-	GNA_2534401_Capacity	CALIFAX BANK 1	Capacity	2.24	MW	62	56	2	189	30	338
DDOR030	Yes	Central Valley	Fresno	Bank	Calfax Bank 2	Calfax - Install New Bank Bank 2	5/1/2022	\$ 10,010	N	\$28	-	GNA_2523801_Capacity	COALINGA NO 2 BANK 1	Capacity	CC	MW	132	156	46	104	80	518
DDOR030	Yes	Central Valley	Fresno	Bank	Calfax Bank 2	Calfax - Install New Bank Bank 2	5/1/2022	\$ 10,010	N	\$28	-	GNA_252381107_Capacity	COALINGA NO 2 1107	Capacity	CC	MW	17	46	27	45	14	149
DDOR031	Yes	Central Valley	Kern	Feeder	Tejon 1107	New Tejon 1107 Feeder	5/1/2022	\$ 4,071	N	\$104	-	GNA_2529301_Capacity	TEJON BANK 1	Capacity	1.95	MW	525	196	134	112	62	1029
DDOR031	Yes	Central Valley	Kern	Feeder	Tejon 1107	New Tejon 1107 Feeder	5/1/2022	\$ 4,071	N	\$104	-	GNA_252931102_Capacity	TEJON 1102	Capacity	2.76	MW	494	149	115	21	32	811
DDOR032	Yes	Central Coast	Mission	Bank	Replace Dumbarton Bank 2	Replace existing Dumbarton Bank 2, a 30MVA bank with a 45MVA bank	5/1/2022	\$ 5,022	N	\$133	-	GNA_144702_Capacity	DUMBARTON BANK 2	Capacity	2.12	MW	12643	620	196	2	29	13490
DDOR033	No	Bay Area	North Bay	Feeder	Napa 1104	Install new outlet at Napa 1104 (existing breaker)	5/1/2023	\$ 350	N	\$15	-	GNA_424601_Capacity	BASALT BANK 1	Capacity	CC	MW	1472	44	18	1	7	1542
DDOR033	No	Bay Area	North Bay	Feeder	Napa 1104	Install new outlet at Napa 1104 (existing breaker)	5/1/2023	\$ 350	N	\$15	-	GNA_42461106_Capacity	BASALT 1106	Capacity	1.37	MW	2951	233	54	145	37	3420
DDOR034	Yes	Central Coast	Peninsula	Feeder	Bar 1101	Install new Bar 1101 circuit	5/1/2022	\$ 25	N	\$0.36	-	GNA_24261105_Capacity	BAR 1105	Capacity	CC	MW	0	68	37	1	3	109
DDOR035	Yes	Northern	Sonoma	Bank	Rincon Bank 1	Rincon - Replace Bank 1, 1101, 1102	5/1/2022	\$ 7,214	N	\$65.59	-	GNA_433201_Capacity	RINCON BANK 1 (TCAP'd)	Capacity	6.18	MW	7591	381	64	17	22	8075
DDOR036	Yes	Central Valley	Yosemite	Bank	Santa Nella Bank 1	Santa Nella - Replace Bank #1 and install 2-12 kV feeders	5/1/2022	\$ 8,361	N	\$47	-	GNA_2540501_Capacity	SANTA NELLA BANK 1	Capacity	CC	MW	101	47	30	50	22	250
DDOR036	Yes	Central Valley	Yosemite	Bank	Santa Nella Bank 1	Santa Nella - Replace Bank #1 and install 2-12 kV feeders	5/1/2022	\$ 8,361	N	\$47	-	GNA_2540502_Capacity	SANTA NELLA BANK 2	Capacity	CC	MW	725	81	37	134	40	1017
DDOR036	Yes	Central Valley	Yosemite	Bank	Santa Nella Bank 1	Santa Nella - Replace Bank #1 and install 2-12 kV feeders	5/1/2022	\$ 8,361	N	\$47	-	GNA_254051104_Capacity	SANTA NELLA 1104	Capacity	CC	MW	725	81	37	134	40	1017
DDOR036	Yes	Central Valley	Yosemite	Bank	Santa Nella Bank 1	Santa Nella - Replace Bank #1 and install 2-12 kV feeders	5/1/2022	\$ 8,361	N	\$47	-	GNA_254051101_Capacity	SANTA NELLA 1101	Capacity	1.10	MW	101	47	30	50	22	250
DDOR036	Yes	Central Valley	Yosemite	Bank	Santa Nella Bank 1	Santa Nella - Replace Bank #1 and install 2-12 kV feeders	5/1/2022	\$ 8,361	N	\$47	-	GNA_254311106_Capacity	ORTIGA 1106	Capacity	0.92	MW	1153	79	26	175	47	1480
DDOR037	No	Central Valley	Stockton	Bank	Carbosa Bank 2	Carbosa - Replace Bank 2	5/1/2022	\$ 10,400	N	\$121	-	GNA_1630901_Capacity	CARBONA BANK 1	Capacity	2.36	MW	3921	300	61	224	83	4569
DDOR037	No	Central Valley	Stockton	Bank	Carbosa Bank 2	Carbosa - Replace Bank 2	5/1/2022	\$ 10,400	N	\$121	-	GNA_1630902_Capacity	CARBONA BANK 2	Capacity	CC	MW	2136	149	91	57	11	2444
DDOR037	No	Central Valley	Stockton	Bank	Carbosa Bank 2	Carbosa - Replace Bank 2	5/1/2022	\$ 10,400	N	\$121	-	GNA_163091101_Capacity	CARBONA 1101	Capacity	CC	MW	830	111	23	41	54	1059
DDOR037	No	Central Valley	Stockton	Bank	Carbosa Bank 2	Carbosa - Replace Bank 2	5/1/2022	\$ 10,400	N	\$121	-	GNA_162881110_Capacity	TRACY 1110	Capacity	CC	MW	81	156	91	10	3	341
DDOR037	No	Central Valley	Stockton	Bank	Carbosa Bank 2	Carbosa - Replace Bank 2	5/1/2022	\$ 10,400	N	\$121	-	GNA_162881109_Capacity	TRACY 1109	Capacity	0.28	MW	2223	85	26	6	7	2347
DDOR038	No	Central Coast	Mission	Feeder	Jarvis 1102	Jarvis Sub-Install Jarvis 1102 Feeder	6/1/2022	\$ 4,170	N	\$696	-	GNA_13501105_Capacity	JARVIS 1105	Capacity	0.72	MW	5737	164	43	1	21	5966
DDOR039	Yes	Bay Area	North Bay	Bank	Pueblo Bank 3	Install Pueblo Bank 3, new feeder and move Pueblo 2102 to new bank 3	6/1/2022	\$ 8,832	N	\$18	-	GNA_432901_Capacity	PUEBLO BANK 1	Capacity	9.77	MW	8087	566	151	444	136	9384
DDOR039	Yes	Bay Area	North Bay	Bank	Pueblo Bank 3	Install Pueblo Bank 3, new feeder and move Pueblo 2102 to new bank 3	6/1/2022	\$ 8,832	N	\$18	-	GNA_432901_Reliability / Other	PUEBLO BANK 1	Reliability	14.90	MW	8087	566	151	444	136	9384
DDOR039	Yes	Bay Area	North Bay	Bank	Pueblo Bank 3	Install Pueblo Bank 3, new feeder and move Pueblo 2102 to new bank 3	6/1/2022	\$ 8,832	N	\$18	-	GNA_432902_Capacity	PUEBLO BANK 2	Capacity	2.22	MW	7690	736	188	198	114	8926
DDOR039	Yes	Bay Area	North Bay	Bank	Pueblo Bank 3	Install Pueblo Bank 3, new feeder and move Pueblo 2102 to new bank 3	6/1/2022	\$ 8,832	N	\$18	-	GNA_43292102_Capacity	PUEBLO 2102	Capacity	0.21	MW	1596	269	100	307	71	2333
DDOR039	Yes	Bay Area	North Bay	Bank	Pueblo Bank 3	Install Pueblo Bank 3, new feeder and move Pueblo 2102 to new bank 3	6/1/2022	\$ 8,832	N	\$18	-	GNA_43292103_Capacity	PUEBLO 2103	Capacity	8.20	MW	3598	167	24	137	59	3985
DDOR040	Yes	Bay Area	San Francisco	Feeder	Mission (SF X) 1129	Mission (SF X) 1129 Install New Feeder	6/1/2022	\$ 21,689	N	\$246	-	GNA_22031115_Capacity	POTRERO (SF A) 1115	Capacity	6.74	MW	466	186	67	1	7	727
DDOR040	Yes	Bay Area	San Francisco	Feeder	Mission (SF X) 1129	Mission (SF X) 1129 Install New Feeder	6/1/2022	\$ 21,689	N	\$246	-	GNA_220301_Capacity	POTRERO A BANK 1	Capacity	3.85	MW	22881	2031	601	8	64	25585
DDOR041	Yes	Bay Area	San Francisco	Feeder	Potrero: Install New Feeder A 1120	Install A1120 for EV Charging	6/1/2022	\$ 11,066	N	\$100	-	GNA_22031108_Capacity	POTRERO (SF A) 1108	Capacity	CC	MW	3027	245	186	0	10	3468
DDOR042	No	Bay Area	San Francisco	Feeder	Martin (SF H) 1117	Install New Feeder Martin (SF H) 1117	6/1/2022	\$ 9,662	N	\$74	-	GNA_22101101_Capacity	MARTIN (SF H) 1101	Capacity	CC	MW	956	92	24	0	4	1076
DDOR042	No	Bay Area	San Francisco	Feeder	Martin (SF H) 1117	Install New Feeder Martin (SF H) 1117	6/1/2022	\$ 9,662	N	\$74	-	GNA_221001_Capacity	SF H BANK 1 (MARTIN)	Capacity	7.96	MW	19670	1617	370	18	63	21738
DDOR043	Yes	Central Valley	Fresno	Bank	Huron Bank 1	Huron Sub - Replace Bank 1	12/1/2022	\$ 6,445	N	\$227	-	GNA_2531601_Capacity, RF	HURON BANK 1	Capacity	-1.56	MW	1621	189	55	100	29	1994
DDOR045	No	Central Valley	Stockton	Feeder	Weber 1106	Install Weber 1106 on existing breaker	2/1/2023	\$ 4,000	N	\$62	-	GNA_163481110_Capacity	WEBER 1110	Capacity	7.75	MW	175	75	51	1	5	307
DDOR046	No	Bay Area	Diablo	Feeder	Lone Tree 2106	Install Lone Tree 2106 Feeder	4/1/2023	\$ 3,655	N	\$22	-	GNA_13232102_Capacity	LONE TREE 2102	Capacity	7.80	MW	3235	162	16	10	12	3435
DDOR046	No	Bay Area	Diablo	Feeder	Lone Tree 2106	Install Lone Tree 2106 Feeder	4/1/2023	\$ 3,655	N	\$22	-	GNA_13652112_Capacity	CONTRA COSTA 2112	Capacity	1.24	MW	3110	116	25	0	2	3253
DDOR046	No	Bay Area	Diablo	Feeder	Lone Tree 2106	Install Lone Tree 2106 Feeder	4/1/2023	\$ 3,655	N	\$22	-	GNA_13232101_Capacity	LONE TREE 2101	Capacity	1.56	MW	2939	161	134	2	45	3281
DDOR046	No	Bay Area	Diablo	Feeder	Lone Tree 2106	Install Lone Tree 2106 Feeder	4/1/2023	\$ 3,655	N	\$22	-	GNA_132301_Capacity	LONE TREE BANK 1	Capacity	9.21	MW	6174	323	150	12	57	6716
DDOR047	No	Central Valley	Stockton	Feeder	Extend Lammers 1108	Extend Lammers 1108 (Bk Z) feeder from 1108 breaker	4/1/2023	\$ 3,231	N	\$69	-	GNA_162771101_Capacity	LAMMERS 1101	Capacity	CC	MW	23	22	32	7	4	86
DDOR048	Yes	Bay Area	North Bay	Feeder	San Rafael 1111	Install San Rafael 1111 Feeder	4/1/2023	\$ 6,370	N	\$322	-	GNA_4330902_Capacity	GREENBRAE BANK 2	Capacity	2.34	MW	4238	399	125	0	21	4783
DDOR049	No	Central Valley	Kern	Bank	San Bernard Bank 2	San Bernard - Install Bank 2	4/1/2023	\$ 8,600	N	\$107	-	GNA_2531901_Capacity	SAN BERNARD BANK 1	Capacity	CC	MW	20	33	13	145	31	242
DDOR049	No	Central Valley	Kern	Bank	San Bernard Bank 2	San Bernard - Install Bank 2	4/1/2023	\$ 8,600	N	\$107	-	GNA_253191102_Capacity	SAN BERNARD 1102	Capacity	CC	MW	5	8	2	29	5	48
DDOR049	No	Central Valley	Kern	Bank	San Bernard Bank 2	San Bernard - Install Bank 2	4/1/2023	\$ 8,600	N	\$107	-	GNA_2538001_Capacity	ARVIN BANK 1	Capacity	2.66	MW	418	56	12	147	34	667
DDOR050	Yes	Central Coast	Central Coast	Feeder	Camp Evers 2107	Camp Evers 2107 new feeder, Greater than 6000 out on Camp Evers 2106	5/1/2023	\$ 2,190	N	\$227	-	GNA_893622106_Resiliency (micro-grid)	CAMP EVERS 2106	Resiliency	1.14	MW	5829	540	87	5	57	6518
DDOR051	No	Central Coast	Peninsula	Feeder	Bar 1106	Install Bar 1106 Feeder	5/1/2023	\$ 7,620	N	\$97	-	GNA_241605_Capacity	REDWOOD CITY BANK 5	Capacity	5.33	MW	3090	614	226	2	17	3949
DDOR051	No	Central Coast	Peninsula	Feeder	Bar 1106	Install Bar 1106 Feeder	5/1/2023	\$ 7,620	N	\$61	-	GNA_24161104_Capacity	REDWOOD CITY 1104	Capacity	9.30	MW	1953	197	98	1	6	2255
DDOR052	Yes	Central Coast	Central Coast	Bank	Monterey Bank 1	Monterey Sub Install 21kV Bank: Replace Monterey Bank 1 (602kV) with a 6021 kV bank	5/1/2023	\$ 22,657	N	\$278	-	GNA_182222104_Resiliency (micro-grid)	DEL MONTE 2104	Resiliency	1.59	MW	5432	916	259	14	56	6677
DDOR052	Yes	Central Coast	Central Coast	Bank	Monterey Bank 1	Monterey Sub Install 21kV Bank: Replace Monterey Bank 1 (602kV) with a 6021 kV bank	5/1/2023	\$ 22,657	N	\$278	-	GNA_182222105_Resiliency (micro-grid)	DEL MONTE 2105	Resiliency	4.20	MW	9063	1226	267	0	17	10573
DDOR053	Yes	Central Coast	Los Padres	Feeder	San Luis Obispo 1106	New feeder on San Luis Obispo Bank 6	5/1/2023	\$ 3,450	N													

PG&E 2021 Distribution Deferral Opportunity Report (DDOR)

Appendix A: Planned Investments

Version Date: 08/16/21

Public

Customer Count																						
DOOR ID	Previous DOOR?	Distribution Planning Region	Division	Project Type	Project Name	Project Description	In-service Date	Project Cost (\$)	Deferrable (Y/N)	LNBA Value (\$/kW-yr)	LNBA Value (\$/Vpu-yr)	GNA Need ID	GNA Facility Name	Distribution Service Required	Grid Need	Grid Need Unit	Residential	Commercial	Industrial	Agricultural	Other	Total
DOOR055	No	Bay Area	North Bay	Feeder	Tulucay 1102	Install Tulucay 1102	5/1/2023	\$ 4,400	N	\$65	-	GNA_42301101_Capacity	TULUCAY 1101	Capacity	CC	MW	44	203	234	14	20	515
DOOR056	No	Central Valley	Yosemite	Bank	Ortega New Bank & Feeder	Ortega - Install New Bank & Feeder	5/1/2023	\$ 12,800	N	\$137	-	GNA_252091104_Capacity	CANAL 1104	Capacity	CC	MW	379	135	0	19	2136	
DOOR056	No	Central Valley	Yosemite	Bank	Ortega New Bank & Feeder	Ortega - Install New Bank & Feeder	5/1/2023	\$ 12,800	N	\$137	-	GNA_2520901_Capacity	CANAL BANK 1	Capacity	2.70	MW	5417	632	239	175	86	6549
DOOR056	No	Central Valley	Yosemite	Bank	Ortega New Bank & Feeder	Ortega - Install New Bank & Feeder	5/1/2023	\$ 12,800	N	\$137	-	GNA_2520902_Capacity	CANAL BANK 2	Capacity	0.58	MW	6328	287	113	109	63	6900
DOOR056	No	Central Valley	Yosemite	Bank	Ortega New Bank & Feeder	Ortega - Install New Bank & Feeder	5/1/2023	\$ 12,800	N	\$137	-	GNA_2543101_Capacity	ORTIGA BANK 1	Capacity	2.24	MW	2582	205	54	217	75	3133
DOOR057	Yes	Central Valley	Kern	Feeder	Semitropic Recondutor	Semitropic - Recondutor existing circuit	5/1/2023	\$ 2,300	N	\$19	-	GNA_2520903_Capacity	SEMITROPIC BANK 3	Capacity	CC	MW	1829	131	44	381	134	2519
DOOR057	Yes	Central Valley	Kern	Feeder	Semitropic Recondutor	Semitropic - Recondutor existing circuit	5/1/2023	\$ 2,300	N	\$19	-	GNA_252091108_Capacity	SEMITROPIC 1108	Capacity	CC	MW	0	0	0	2	0	2
DOOR057	Yes	Central Valley	Kern	Feeder	Semitropic Recondutor	Semitropic - Recondutor existing circuit	5/1/2023	\$ 2,300	N	\$19	-	GNA_252091102_Capacity	WASCO 1102	Capacity	2.12	MW	1321	164	51	4	4	1544
DOOR058	No	Central Valley	Kern	Bank	Wheeler Ridge Bank 1	Replace Wheeler Ridge Bank 1 - Bus Connection	5/1/2023	\$ 2,500	N	\$353	-	GNA_2534801_Capacity	WHEELER RIDGE BANK 1	Capacity	CC	MW	135	97	19	315	52	618
DOOR059	No	Central Valley	Fresno	Feeder	Figarden 2114	Install Figarden 2114 Feeder	5/1/2023	\$ 2,400	N	\$117	-	GNA_254552102_Capacity	FIGARDEN 2102	Capacity	2.42	MW	2616	384	128	0	4	3132
DOOR060	Yes	Central Valley	Stockton	Feeder	New Vierra 1704 feeder	Install 1-174V feeder - Vierra Bank 2	5/1/2023	\$ 1,900	N	\$9	-	GNA_1627001_Capacity	VIERRA BANK 1	Capacity	8.47	MW	4010	341	278	10	30	4669
DOOR060	Yes	Central Valley	Stockton	Feeder	New Vierra 1704 feeder	Install 1-174V feeder - Vierra Bank 2	5/1/2023	\$ 1,900	N	\$9	-	GNA_162701701_Capacity	VIERRA 1701	Capacity	7.68	MW	696	98	50	4	5	1053
DOOR060	Yes	Central Valley	Stockton	Feeder	New Vierra 1704 feeder	Install 1-174V feeder - Vierra Bank 2	5/1/2023	\$ 1,900	N	\$9	-	GNA_162701706_Capacity	VIERRA 1706	Capacity	CC	MW	468	83	136	0	2	689
DOOR060	Yes	Central Valley	Stockton	Feeder	New Vierra 1704 feeder	Install 1-174V feeder - Vierra Bank 2	5/1/2023	\$ 1,900	N	\$9	-	GNA_162611701_Capacity	MANTECA 1701	Capacity	0.90	MW	3304	129	38	1	7	3479
DOOR061	Yes	Northem	Sierra	Feeder	Bogue 1108	Install Bogue 1108	6/1/2023	\$ 2,596	N	\$111	-	GNA_153781105_Capacity	BOGUE 1105	Capacity	0.73	MW	2755	76	19	12	8	2870
DOOR061	Yes	Northem	Sierra	Feeder	Bogue 1108	Install Bogue 1108	6/1/2023	\$ 2,596	N	\$111	-	GNA_153781105_Reliability / Other	BOGUE 1105	Reliability	2.02	MW	2755	76	19	12	8	2870
DOOR062	No	Bay Area	East Bay	Feeder	Edes Install Edes 1102 Feeder	Edes Install Edes 1102 Feeder	6/1/2023	\$ 2,420	N	\$30	-	GNA_13681112_Capacity	EDES 1112	Capacity	CC	MW	2907	130	28	0	21	3086
DOOR062	No	Bay Area	East Bay	Feeder	Edes Install Edes 1102 Feeder	Edes Install Edes 1102 Feeder	6/1/2023	\$ 2,420	N	\$30	-	GNA_136803_Capacity	EDES BANK 3	Capacity	8.77	MW	5847	665	327	8	56	6903
DOOR063	No	Bay Area	East Bay	Feeder	San Pablo 1104	San Pablo Install San Pablo 1104 feeder	6/1/2023	\$ 2,420	N	\$212	-	GNA_142601_Capacity	POINT PINOLE BANK 1	Capacity	1.34	MW	5906	211	81	0	21	6219
DOOR064	No	Central Coast	Central Coast	Bank	Hollister New Feeder	Hollister - Install New Feeder on Bank 2	6/1/2023	\$ 2,300	N	\$5	-	GNA_182492104_Capacity	HOLLISTER 2104	Capacity	CC	MW	1296	478	136	197	79	2186
DOOR064	No	Central Coast	Central Coast	Bank	Hollister New Feeder	Hollister - Install New Feeder on Bank 2	6/1/2023	\$ 2,300	N	\$5	-	GNA_1824903_Capacity	HOLLISTER BANK 3	Capacity	21.30	MW	8251	1284	263	400	183	10381
DOOR065	Yes	Central Coast	De Anza	Bank	Mountain View Bank 1	Mountain View - Replace Bk 1	6/1/2023	\$ 6,478	N	\$38	-	GNA_832001_Capacity	MOUNTAIN VIEW BANK 1	Capacity	7.48	MW	19611	716	228	0	18	11573
DOOR065	Yes	Central Coast	De Anza	Bank	Mountain View Bank 1	Mountain View - Replace Bk 1	6/1/2023	\$ 6,478	N	\$38	-	GNA_832003_Capacity	MOUNTAIN VIEW BANK 3	Capacity	1.94	MW	8378	582	259	0	24	9243
DOOR066	Yes	Central Coast	De Anza	Feeder	Vascona Sub - Install New Feeder (1109) - Line work only	Vascona Sub - Install New Feeder (1109) - Line work only	6/1/2023	\$ 1,650	N	\$47	-	GNA_83371104_Capacity	SARATOGA 1104	Capacity	CC	MW	1673	48	5	1	11	1738
DOOR067	No	Northem	Humboldt	Bank	Rio Dell Substation	Rio Dell Sub - Install Bank and Stepdown	6/1/2023	\$ 15,700	N	\$154	-	GNA_1922501_Capacity	RIO DELL BANK 1	Capacity	3.62	MW	2089	262	51	70	15	2487
DOOR067	No	Northem	Humboldt	Bank	Rio Dell Substation	Rio Dell Sub - Install Bank and Stepdown	6/1/2023	\$ 15,700	N	\$154	-	GNA_192251101_Capacity	RIO DELL 1101	Capacity	CC	MW	937	85	16	34	3	1075
DOOR068	No	Central Coast	Peninsula	Feeder	Smith Lane 1103	Install Smith Lane 1103 at Bank 1	6/1/2023	\$ 3,750	N	\$57	-	GNA_22691108_Capacity	MILLBRAE 1108	Capacity	CC	MW	3490	284	88	3	14	3879
DOOR070	Yes	Central Coast	San Jose	Feeder	Morgan Hill 2103	Morgan Hill Install New 2103 Circuit	6/1/2023	\$ 2,650	N	\$48	-	GNA_832403_Capacity	MORGAN HILL BANK 3	Capacity	6.50	MW	6919	1034	387	180	146	10666
DOOR071	No	Bay Area	San Francisco	Feeder	Recable Potrero A1117	Potrero A1117 Recable inside Sub	8/1/2023	\$ 10,355	N	\$4,095	-	GNA_22031117_Capacity	POTRERO (SF A) 1117	Capacity	CC	MW	5678	341	51	0	8	6078
DOOR072	No	Bay Area	San Francisco	Feeder	Recable Mission X 1107	Mission X 1107 Recable inside Sub	8/1/2023	\$ 1,950	N	\$31	-	GNA_22011107_Capacity	MISSION (SF X) 1107	Capacity	CC	MW	838	45	29	2	3	917
DOOR072	No	Bay Area	San Francisco	Feeder	Recable Mission X 1107	Mission X 1107 Recable inside Sub	8/1/2023	\$ 1,950	N	\$31	-	GNA_22871115_Capacity	EMBARCADERO (SF Z) 1115	Capacity	CC	MW	2625	271	100	3	4	3003
DOOR073	Yes	Central Valley	Fresno	Feeder	Alpaugh 1102	Install Alpaugh 1102	10/1/2023	\$ 3,299	N	\$59	-	GNA_252171112_Capacity	CORCORAN 1112	Capacity	CC	MW	225	15	0	55	3	298
DOOR073	Yes	Central Valley	Fresno	Feeder	Alpaugh 1102	Install Alpaugh 1102	10/1/2023	\$ 3,299	N	\$59	-	GNA_252171108_Capacity	CORCORAN 1108	Capacity	1.04	MW	2608	244	45	63	38	3296
DOOR073	Yes	Central Valley	Fresno	Feeder	Alpaugh 1102	Install Alpaugh 1102	10/1/2023	\$ 3,299	N	\$59	-	GNA_2521703_Capacity	CORCORAN BANK 3	Capacity	CC	MW	460	78	9	252	7	806
DOOR074	No	Bay Area	San Francisco	Feeder	Larkin (SF Y) 1142	Install new feeder Y-1142 in vacant bay	6/1/2023	\$ 912	N	\$45	-	GNA_22011104_Capacity	MISSION (SF X) 1104	Capacity	CC	MW	1168	271	81	0	2	1522
DOOR075	Yes	Central Valley	Fresno	Bank	Giffen Bank 2	Giffen Sub - Install Bank 2	4/1/2024	\$ 11,900	Y	\$62	-	GNA_2531501_Capacity	GIFFEN BANK 1	Capacity	CC	MW	181	71	4	152	29	437
DOOR075	Yes	Central Valley	Fresno	Bank	Giffen Bank 2	Giffen Sub - Install Bank 2	4/1/2024	\$ 11,900	Y	\$62	-	GNA_253151102_Capacity	GIFFEN 1102	Capacity	CC	MW	41	28	2	68	14	153
DOOR076	Yes	Northem	Sacramento	Bank	Arducke or Dunnigan Sub - Replace Bank 1 and Install New Feeder	Arducke or Dunnigan Sub - Replace Bank 1 and Install New Feeder	4/1/2024	\$ 9,570	Y	\$244	-	GNA_631801_Capacity	DUNNIGAN BANK 1	Capacity	1.87	MW	522	79	27	78	193	899
DOOR076	Yes	Northem	Sacramento	Bank	Arducke Bank 2	Arducke or Dunnigan Sub - Replace Bank 1 and Install New Feeder	4/1/2024	\$ 9,570	Y	\$244	-	GNA_620802_Capacity	ARDUCKE BANK 2	Capacity	0.25	MW	1005	95	14	193	184	1491
DOOR077	Yes	Central Valley	Yosemite	Feeder	Storey 1103	Install 1-12 kV feeder - Storey 1103 on Bank 1 and replace bank	5/1/2024	\$ 2,400	Y	\$31	-	GNA_254611108_Capacity	STOREY 1108	Capacity	2.32	MW	1047	108	17	152	40	1364
DOOR077	Yes	Central Valley	Yosemite	Feeder	Storey 1103	Install 1-12 kV feeder - Storey 1103 on Bank 1 and replace bank	5/1/2024	\$ 2,400	Y	\$31	-	GNA_254611105_Capacity	STOREY 1105	Capacity	0.81	MW	2807	95	32	2	4	2940
DOOR077	Yes	Central Valley	Yosemite	Feeder	Storey 1103	Install 1-12 kV feeder - Storey 1103 on Bank 1 and replace bank	5/1/2024	\$ 2,400	Y	\$31	-	GNA_254611105_Capacity	STOREY 1105	Capacity	1.15	MW	2252	158	105	15	32	2562
DOOR077	Yes	Central Valley	Yosemite	Feeder	Storey 1103	Install 1-12 kV feeder - Storey 1103 on Bank 1 and replace bank	5/1/2024	\$ 2,400	Y	-	\$3,153,212	GNA_1_Voltage	STOREY 1104	Voltage	0.04	VPU	698	172	79	119	12	1080
DOOR078	Yes	Central Coast	Central Coast	Bank	Spence Bank 2	Spence - Replace Bank 2	5/1/2024	\$ 9,967	Y	\$17	-	GNA_1822002_Capacity	SPENCE BANK 2	Capacity	11.44	MW	225	137	24	196	24	606
DOOR078	Yes	Central Coast	Central Coast	Bank	Spence Bank 2	Spence - Replace Bank 2	5/1/2024	\$ 9,967	Y	\$17	-	GNA_182201103_Capacity	SPENCE 1103	Capacity	CC	MW	35	10	0	52	6	103
DOOR078	Yes	Central Coast	Central Coast	Bank	Spence Bank 2	Spence - Replace Bank 2	5/1/2024	\$ 9,967	Y	\$17	-	GNA_182201104_Capacity	SPENCE 1104 (OLD 1122)	Capacity	4.03	MW	193	106	18	146	18	481
DOOR078	Yes	Central Coast	Central Coast	Bank	Spence Bank 2	Spence - Replace Bank 2	5/1/2024	\$ 9,967	Y	\$17	-	GNA_182201102_Capacity	SPENCE 1102 (OLD 1123)	Capacity	CC	MW	96	29	9	141	9	284
DOOR079	No	Central Coast	Central Coast	Bank	Gabilan Bank 2	Gabilan - Install Bank 2	5/1/2024	\$ 6,500	Y	\$53	-	GNA_1823301_Capacity	GABILAN BANK 1	Capacity	4.97	MW	5410	281	58	140	44	5933
DOOR079	No	Central Coast	Central Coast	Bank	Gabilan Bank 2	Gabilan - Install Bank 2	5/1/2024	\$ 6,500	Y	\$53	-	GNA_182331101_Capacity	GABILAN 1101	Capacity	CC	MW	2512	174	27	128	35	2876
DOOR080	No	Central Coast	Central Coast	Bank	Green Valley Bank 3	Green Valley - Replace Bank 3	5/1/2024	\$ 6,500	Y	\$56	-	GNA_831903_Capacity	GREEN VALLEY BANK 3	Capacity	6.21	MW	8214	877	181	436	124	9832
DOOR081	No	Central Valley	Fresno	Bank	Always Bank 3	Always - Install Bank 3 and Always 1109	5/1/2024	\$ 11,900	Y	\$184	-	GNA_252041107_Capacity	ARIWAYS 1107	Capacity	2.47	MW	2139	97				

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Customer Count																						
DDOR ID	Previous DDOR?	Distribution Planning Region	Division	Project Type	Project Name	Project Description	In-service Date	Project Cost (\$k)	Deferrable (Y/N)	LNBA Value (\$/kW-yr)	LNBA Value (\$/Vpu-yr)	GNA Need ID	GNA Facility Name	Distribution Service Required	Grid Need	Grid Need Unit	Residential	Commercial	Industrial	Agricultural	Other	Total
DDOR087	No	Central Valley	Stockton	Feeder	Vienna Bank 3	Vienna - Install new bank and 2 new feeders	5/1/2024	\$ 11,900	Y	\$640	-	GNA_1626106_Capacity	MANTECA BANK 6	Capacity	CC	MW	4881	372	110	73	31	5467
DDOR088	No	Central Valley	Yosemite	Bank	Hammonds Bank 1	Hammonds - Replace Bank 1	5/1/2024	\$ 6,500	Y	\$40	-	GNA_2534001_Capacity	HAMMONDS BANK 1	Capacity	3.82	MW	58	58	4	250	57	427
DDOR088	No	Central Valley	Yosemite	Bank	Hammonds Bank 1	Hammonds - Replace Bank 1	5/1/2024	\$ 6,500	Y	\$40	-	GNA_253401104_Capacity	HAMMONDS 1104	Capacity	CC	MW	8	10	0	53	10	81
DDOR089	No	Central Valley	Yosemite	Bank	Bonita Bank 2	Bonita - Install new bank and feeder	5/1/2024	\$ 11,900	Y	\$188	-	GNA_2533901_Capacity	BONITA BANK 1	Capacity	CC	MW	1002	91	16	432	119	1680
DDOR089	No	Central Valley	Yosemite	Bank	Bonita Bank 2	Bonita - Install new bank and feeder	5/1/2024	\$ 11,900	Y	\$188	-	GNA_253391102_Capacity	BONITA 1102	Capacity	CC	MW	650	27	6	60	15	758
DDOR089	No	Central Valley	Yosemite	Bank	Bonita Bank 2	Bonita - Install new bank and feeder	5/1/2024	\$ 11,900	Y	\$188	-	GNA_25461106_Capacity	STOREY 1106	Capacity	0.81	MW	2807	95	32	2	4	2940
DDOR090	No	Central Valley	Kern	Feeder	Lakeview 1110	Install Lakeview 1110 feeder	5/1/2024	\$ 4,496	Y	\$536	-	GNA_25341106_Capacity	LAKEVIEW 1106 (old 1103)	Capacity	CC	MW	14	24	15	67	29	149
DDOR091	No	Central Coast	Central Coast	Bank	Chualar Bank 1	Chualar Substation - Install new bank	5/1/2024	\$ 6,500	Y	\$19	-	GNA_182201102_Capacity	SPENCE 1102 (OLD 1123)	Capacity	CC	MW	96	29	9	141	9	284
DDOR091	No	Central Coast	Central Coast	Bank	Chualar Bank 1	Chualar Substation - Install new bank	5/1/2024	\$ 6,500	Y	\$19	-	GNA_1822001_Capacity	SPENCE BANK 1	Capacity	10.83	MW	131	39	9	193	15	387
DDOR092	Yes	Central Coast	Los Padres	Bank	San Miguel Bank 2	San Miguel Sub - Install 30 MVA Bank	6/1/2024	\$ 9,366	Y	\$217	-	GNA_1826001_Capacity	SAN MIGUEL BANK 1	Capacity	2.58	MW	1766	258	47	243	49	2363
DDOR092	Yes	Central Coast	Los Padres	Bank	San Miguel Bank 2	San Miguel Sub - Install 30 MVA Bank	6/1/2024	\$ 9,366	Y	\$217	-	GNA_182661104_Capacity	SAN MIGUEL 1104	Capacity	CC	MW	1	1	1	0	0	3
DDOR093	Yes	Bay Area	Diablo	Bank	Willow Pass Bank 1	Willow Pass - Replace Bank 1	6/1/2024	\$ 12,498	Y	\$66	-	GNA_139103_Capacity	WILLOW PASS BANK 3	Capacity	10.19	MW	5602	170	32	1	26	5831
DDOR094	No	Northem	Humboldt	Bank	Garberville Bank 2	Garberville - Install Bank and Stepdown, extend feeder	6/1/2024	\$ 53,907	Y	\$331	-	GNA_19220101_Capacity	GARBERVILLE BANK 1	Capacity	7.47	MW	2611	784	97	58	85	3635
DDOR094	No	Northem	Humboldt	Bank	Garberville Bank 2	Garberville - Install Bank and Stepdown, extend feeder	6/1/2024	\$ 53,907	Y	\$331	-	GNA_192221102_Capacity	GARBERVILLE 1102	Capacity	3.84	MW	1355	369	46	30	43	1843
DDOR094	No	Northem	Humboldt	Bank	Garberville Bank 2	Garberville - Install Bank and Stepdown, extend feeder	6/1/2024	\$ 53,907	Y	-	\$21,889,417	GNA_3_Voltage	GARBERVILLE 1102	Voltage	0.17	VPU	155	369	46	24	14	1808
DDOR095	No	Central Valley	Yosemite	Bank	Newhall Bank 3	Newhall - Replace Bank 3 and install new feeder	6/1/2024	\$ 6,500	Y	\$218	-	GNA_254603_Capacity	NEWHALL BANK 3	Capacity	0.79	MW	7	16	1	137	29	190
DDOR095	No	Central Valley	Yosemite	Bank	Newhall Bank 3	Newhall - Replace Bank 3 and install new feeder	6/1/2024	\$ 6,500	Y	\$218	-	GNA_254661109_Capacity	NEWHALL 1109	Capacity	CC	MW	7	16	1	137	29	190
DDOR096	Yes	Central Coast	De Anza	Feeder	Wolfe 1111 & Wolfe 1112	Wolfe Install 2 New Circuits: 1111 and 1112 for Valico	6/1/2024	\$ 8,788	Y	\$21	-	GNA_83671105_Capacity	WOLFE 1105	Capacity	CC	MW	1943	137	130	0	4	2214
DDOR096	Yes	Central Coast	De Anza	Feeder	Wolfe 1111 & Wolfe 1112	Wolfe Install 2 New Circuits: 1111 and 1112 for Valico	6/1/2024	\$ 8,788	Y	\$21	-	GNA_836701_Capacity	WOLFE BANK 1	Capacity	13.67	MW	5688	332	204	0	16	6240
DDOR096	Yes	Central Coast	De Anza	Feeder	Wolfe 1111 & Wolfe 1112	Wolfe Install 2 New Circuits: 1111 and 1112 for Valico	6/1/2024	\$ 8,788	Y	\$21	-	GNA_833703_Capacity	SARATOGA BANK 3	Capacity	0.80	MW	14307	818	307	1	32	15465
DDOR096	Yes	Central Coast	De Anza	Feeder	Wolfe 1111 & Wolfe 1112	Wolfe Install 2 New Circuits: 1111 and 1112 for Valico	6/1/2024	\$ 8,788	Y	\$21	-	GNA_8337114_Capacity	SARATOGA 1114	Capacity	2.62	MW	5544	160	49	0	11	5764
DDOR096	Yes	Central Coast	De Anza	Feeder	Wolfe 1111 & Wolfe 1112	Wolfe Install 2 New Circuits: 1111 and 1112 for Valico	6/1/2024	\$ 8,788	Y	\$21	-	GNA_8337111_Capacity	SARATOGA 1111	Capacity	1.96	MW	5701	139	36	0	13	5899
DDOR096	Yes	Central Coast	De Anza	Feeder	Wolfe 1111 & Wolfe 1112	Wolfe Install 2 New Circuits: 1111 and 1112 for Valico	6/1/2024	\$ 8,788	Y	\$21	-	GNA_8337110_Capacity	SARATOGA 1110	Capacity	CC	MW	4631	237	115	0	10	4963
DDOR096	Yes	Central Coast	De Anza	Feeder	Wolfe 1111 & Wolfe 1112	Wolfe Install 2 New Circuits: 1111 and 1112 for Valico	6/1/2024	\$ 8,788	Y	\$21	-	GNA_8337113_Capacity	SARATOGA 1113	Capacity	0.34	MW	4370	137	42	0	9	4558
DDOR097	No	Northem	Sacramento	Bank	Plainfield Bank 1	Replace Plainfield Bank 1 with a 30 MVA and add new feeder	6/1/2024	\$ 11,940	Y	\$135	-	GNA_63441106_Capacity	PLAINFIELD 1106	Capacity	4.74	MW	3230	71	7	34	21	3363
DDOR098	No	Central Coast	San Jose	Feeder	Mc Kee 1102	Mc Kee Sub - Install new 1102 feeder, move 1105 to Bank 2	6/1/2024	\$ 2,450	Y	\$44	-	GNA_835301_Capacity	MC KEE BANK 1	Capacity	1.81	MW	11079	533	172	1	26	11811
DDOR098	No	Central Coast	San Jose	Feeder	Mc Kee 1102	Mc Kee Sub - Install new 1102 feeder, move 1105 to Bank 2	6/1/2024	\$ 2,450	Y	\$44	-	GNA_83531110_Capacity	MC KEE 1110	Capacity	1.20	MW	5594	103	20	1	10	5728
DDOR098	No	Central Coast	San Jose	Feeder	Mc Kee 1102	Mc Kee Sub - Install new 1102 feeder, move 1105 to Bank 2	6/1/2024	\$ 2,450	Y	\$44	-	GNA_83531108_Capacity	MC KEE 1108	Capacity	1.56	MW	3939	230	68	2	15	4254
DDOR098	No	Central Coast	San Jose	Feeder	Mc Kee 1102	Mc Kee Sub - Install new 1102 feeder, move 1105 to Bank 2	6/1/2024	\$ 2,450	Y	\$44	-	GNA_83531107_Capacity	MC KEE 1107	Capacity	1.77	MW	3861	141	26	5	24	4047
DDOR100	No	Northem	North Valley	Feeder	Anita 1105	Install new feeder Anita 1105	6/1/2024	\$ 2,500	Y	\$76	-	GNA_1030702_Capacity	NORD BANK 2	Capacity	2.20	MW	3554	249	73	28	4	3608
DDOR100	No	Northem	North Valley	Feeder	Anita 1105	Install new feeder Anita 1105	6/1/2024	\$ 2,500	Y	\$76	-	GNA_1030701_Capacity	NORD BANK 1	Capacity	1.23	MW	3443	451	118	222	24	4258
DDOR100	No	Northem	North Valley	Feeder	Anita 1105	Install new feeder Anita 1105	6/1/2024	\$ 2,500	Y	\$76	-	GNA_1028401_Capacity	ANITA BANK 1	Capacity	0.36	MW	674	50	4	204	22	954
DDOR101	No	Northem	Sierra	Feeder	Rodkin 1105	Install Rodkin 1105	5/1/2025	\$ 1,400	Y	\$104	-	GNA_1525802_Capacity	DEL MAR BANK 2	Capacity	0.72	MW	5330	265	202	0	18	5815
DDOR102	No	Central Coast	San Jose	Bank	Montague Bank 2	Montague Bank 2 - Replace for Operational Capacity	5/1/2025	\$ 6,500	Y	\$45	-	GNA_838903_Resiliency (micro-grid)	MONTAGUE BANK 3	Resiliency	7.60	MW	2593	202	190	0	9	2994
DDOR103	No	Northem	Sonoma	Feeder	Rincon Bank 1	Rincon - Install Feeder 1105	5/1/2024	\$ 6,500	Y	\$124	-	GNA_433022_Capacity	RINCON BANK 2	Capacity	6.06	MW	4044	266	76	19	27	4432
DDOR104	No	Northem	Sonoma	Bank	Fulton Bank 5	Fulton - Replace Bank 5	5/1/2025	\$ 6,500	Y	\$71	-	GNA_425606_Capacity	FULTON BANK 6	Capacity	0.26	MW	5470	1003	314	104	121	7012
DDOR104	No	Northem	Sonoma	Bank	Fulton Bank 5	Fulton - Replace Bank 5	5/1/2025	\$ 6,500	Y	\$71	-	GNA_42561107_Capacity	FULTON 1107	Capacity	1.49	MW	2376	521	119	13	99	3128
DDOR104	No	Northem	Sonoma	Bank	Fulton Bank 5	Fulton - Replace Bank 5	5/1/2025	\$ 6,500	Y	\$71	-	GNA_42561102_Capacity	FULTON 1102	Capacity	0.83	MW	1575	285	133	89	40	2122
DDOR104	No	Northem	Sonoma	Bank	Fulton Bank 5	Fulton - Replace Bank 5	5/1/2025	\$ 6,500	Y	\$71	-	GNA_425605_Capacity	FULTON BANK 5	Capacity	2.22	MW	4501	472	221	109	46	5349
DDOR105	Yes	Central Valley	Stockton	Bank	Lockeford Bank 1	Lockeford - Install Bank 1 for greater than 10 MW Emergency Deficiency	5/1/2025	\$ 10,885	Y	\$38	-	GNA_1636804_Capacity	LOCKEFORD BANK 4	Capacity	4.28	MW	2949	440	60	1024	143	4616
DDOR105	Yes	Central Valley	Stockton	Bank	Lockeford Bank 1	Lockeford - Install Bank 1 for greater than 10 MW Emergency Deficiency	5/1/2025	\$ 10,885	Y	\$38	-	GNA_1621102_Capacity	LODI BANK 2	Capacity	0.37	MW	2623	373	57	455	71	3779
DDOR105	Yes	Central Valley	Stockton	Bank	Lockeford Bank 1	Lockeford - Install Bank 1 for greater than 10 MW Emergency Deficiency	5/1/2025	\$ 10,885	Y	\$38	-	GNA_1636804_Resiliency (micro-grid)	LOCKEFORD BANK 4	Resiliency	14.80	MW	2949	440	60	1024	143	4616
DDOR106	No	Northem	Sonoma	Bank	Molino Bank 1	Molino Bank 1 replace bus with switchgear	6/1/2025	\$ 400	Y	\$25	-	GNA_425702_Capacity	MOLINO BANK 2	Capacity	0.15	MW	9850	1344	294	294	83	11845
DDOR106	No	Northem	Sonoma	Bank	Molino Bank 1	Molino Bank 1 replace bus with switchgear	6/1/2025	\$ 400	Y	\$25	-	GNA_42571102_Capacity	MOLINO 1102	Capacity	0.69	MW	3671	386	74	143	30	4106
DDOR108	No	Central Coast	De Anza	Feeder	Ames 1103	Ames Sub - Install new 1103 circuit	6/1/2025	\$ 2,400	Y	\$19	-	GNA_83631109_Capacity	WHISMAN 1109	Capacity	CC	MW	2	9	7	0	0	18
DDOR108	No	Central Coast	De Anza	Feeder	Ames 1103	Ames Sub - Install new 1103 circuit	6/1/2025	\$ 2,400	Y	\$19	-	GNA_83631110_Capacity	WHISMAN 1110	Capacity	CC	MW	699	64	29	0	4	796
DDOR108	No	Central Coast	De Anza	Feeder	Ames 1103	Ames Sub - Install new 1103 circuit	6/1/2025	\$ 2,400	Y	\$19	-	GNA_836303_Capacity	WHISMAN BANK 3	Capacity	7.22	MW	1048	133	52	0	7	1240
DDOR109	Yes	Central Valley	Kern	Bank	Blackwell Bank 1	Blackwell - Replace Bank 1 for PV reverse flow bank loading	6/1/2025	\$ 6,489	Y	\$116	-	GNA_2546801_Capacity_RF	BLACKWELL BANK 1	Capacity	CC	MW	43	42	15	61	3	164
DDOR110	Yes	Bay Area	San Francisco	Bank	Embarcadero (SF Z) 1118	Embarcadero Z, 21118 Recable inside Sub	6/1/2025	\$ 2,501	Y	\$101	-	GNA_22871118_Capacity	EMBARCADERO (SF Z) 1118	Capacity	1.30	MW	1998	211	97	11	2	2219
DDOR111	Yes	Bay Area	San Francisco	Bank	Embarcadero (SF Z) 1116	Embarcadero Z, 21116 Recable Inside Substation	4/1/2026	\$ 2,501	Y	\$446	-	GNA_22871116_Capacity	EMBARCADERO (SF Z) 1116	Capacity</								

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Appendix A: Planned Investments

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Customer Count																						
DOOR ID	Previous DDOR?	Distribution Planning Region	Division	Project Type	Project Name	Project Description	In-service Date	Project Cost (\$)	Deferrable (Y/N)	LNBA Value (\$/kW-yr)	LNBA Value (\$/Vpu-yr)	GNA Need ID	GNA Facility Name	Distribution Service Required	Grid Need	Grid Need Unit	Residential	Commercial	Industrial	Agricultural	Other	Total
DDOR124	Yes	Bay Area	East Bay	Feeder	Extend Oakland J 1116	Extend mainline and add switches to facilitate transfer of 957 customers from Oakland J 1116 to Oakland J 1104	12/1/2022	\$ 1,100	N	\$15	-	GNA_012091116_Resiliency (micro-grid)	OAKLAND J 1116	Resiliency	2.57	MW	7136	415	84	0	30	7665
DDOR124	Yes	Bay Area	East Bay	Feeder	Extend Oakland J 1116	Extend mainline and add switches to facilitate transfer of 957 customers from Oakland J 1116 to Oakland J 1104	12/1/2022	\$ 1,100	N	\$15	-	GNA_12091116_Capacity	OAKLAND J 1116	Capacity	1.55	MW	7136	415	84	0	30	7665
DDOR125	Yes	Bay Area	East Bay	Line Section	Oakland X1115	Reinforce Oakland X1107 to facilitate transfer of 1850 customers from Oakland X1115 to Oakland X1107	12/1/2022	\$ 426	N	\$19	-	GNA_012541115_Resiliency (micro-grid)	OAKLAND X 1115	Resiliency	1.23	MW	5007	194	26	0	24	5251
DDOR126	Yes	Central Coast	Central Coast	Line Section	Rob Roy 2105	Install 3000 ft of 715 Al and one SCADA switch and one recloser	10/1/2024	\$ 500	Y	\$12	-	GNA_083692105_Resiliency (micro-grid)	ROB ROY 2105	Resiliency	4.59	MW	8041	667	108	36	24	8876
DDOR127	Yes	Central Coast	Central Coast	Line Section	Salinas 1102	Replace SW3845 with a Nova Recloser and booster (B24) with a regulator for voltage and transfer load customers from Salinas 1102 to Salinas 1109	10/1/2024	\$ 250	Y	\$11	-	GNA_182011102_Resiliency (micro-grid)	SALINAS 1102	Resiliency	CC	MW	6592	195	78	8	5	6878
DDOR128	Yes	Central Coast	Los Padres	Line Section	Oceano 1106	Near SW 10168, upgrade 104I and 24I to 600A! Install SCADA for FLISR	10/1/2024	\$ 425	Y	\$21	-	GNA_182601106_Resiliency (micro-grid)	OCEANO 1106	Resiliency	1.07	MW	4898	654	74	44	20	5690
DDOR129	Yes	Bay Area	San Francisco	Line Section	Martin (SF H) 1107	Replace 250' underground 3-104I with 3-400A! from ug sw 15886 to riser outout 2615, and replace outout 2615 with Part 57.	10/1/2024	\$ 150	Y	\$7	-	GNA_022101107_Resiliency (micro-grid)	MARTIN (SF H) 1107	Resiliency	1.09	MW	6681	395	37	5	5	7123
DDOR130	Yes	Bay Area	San Francisco	Line Section	Martin (SF H) 1108	Replace outout 6469 and bypass switch 3579 (combo) on P1102 with Nova Recloser package and replace switch 1075 (H106) with Nova Recloser package	10/1/2024	\$ 180	Y	\$9	-	GNA_022101108_Resiliency (micro-grid)	MARTIN (SF H) 1108	Resiliency	CC	MW	6438	308	38	1	13	6798
DDOR131	Yes	Central Coast	San Jose	Line Section	Edenvale 2108	Install SCADA MSO Switch on existing riser pole with SBD-43461	10/1/2024	\$ 95	Y	\$5	-	GNA_082962108_Resiliency (micro-grid)	EDENVALE 2108	Resiliency	1.99	MW	6424	164	68	0	10	6666
DDOR132	Yes	Central Valley	Yosemite	Line Section	El Nido 1106	Reconductor, install switches, regulators, line recloser's, 1 Capacitor Bank	12/30/2021	\$ 7,562	N	\$109	-	GNA_2524501_Capacity	EL NIDO BANK 1	Capacity	3.96	MW	180	60	8	471	98	817
DDOR133	Yes	Central Valley	Yosemite	Line Section	El Capitan 1102	Install 3 USB Switches, 2 UG switches, 1 Regulator	9/1/2021	\$ 420	N	\$35	-	GNA_253881102_Capacity	EL CAPITAN 1102	Capacity	CC	MW	607	61	16	4	7	695
DDOR133	Yes	Central Valley	Yosemite	Line Section	El Capitan 1102	Install 3 USB Switches, 2 UG switches, 1 Regulator	9/1/2021	\$ 420	N	\$35	-	GNA_2538802_Capacity	EL CAPITAN BANK 2	Capacity	CC	MW	4776	444	117	10	26	5373
DDOR134	No	Central Coast	San Jose	Line Section	Cutover from San Jose A-0410 to San Jose A-1111	Cutover from San Jose A-0410 to San Jose A-1111	6/1/2023	\$ 150	N	\$24	-	GNA_82250410_Capacity	SAN JOSE A 0410	Capacity	0.35	MW	890	53	2	0	3	948
DDOR135	Yes	Central Valley	Yosemite	Line Section	Cassidy 2108	Cassidy 2107/2108 Cutover III	10/1/2022	\$ 5,571	N	\$44	-	GNA_2551022_Capacity	BORDEN BANK 2	Capacity	3.04	MW	3135	257	69	487	112	4060
DDOR135	Yes	Central Valley	Yosemite	Line Section	Cassidy 2108	Cassidy 2107/2108 Cutover III	10/1/2022	\$ 5,571	N	\$44	-	GNA_25472107_Capacity	CASSIDY 2107	Capacity	1.98	MW	1490	176	30	85	35	1816
DDOR135	Yes	Central Valley	Yosemite	Line Section	Cassidy 2108	Cassidy 2107/2108 Cutover III	10/1/2022	\$ 5,571	N	\$44	-	GNA_25472108_Capacity	CASSIDY 2108	Capacity	2.07	MW	1646	231	57	75	94	2103
DDOR136	No	Central Valley	Stockton	Feeder	Valley Springs 1102	Install 500 ft 1100AL, 200 ft 715 AL, 1 USB Switch, 1 Regulator	5/1/2022	\$ 1,525	N	\$55	-	GNA_162991102_Capacity	CORRAL 1102	Capacity	2.79	MW	2310	119	23	19	28	2499
DDOR136	No	Central Valley	Stockton	Feeder	Valley Springs 1102	Install 500 ft 1100AL, 200 ft 715 AL, 1 USB Switch, 1 Regulator	5/1/2022	\$ 1,525	N	\$55	-	GNA_1629902_Capacity	CORRAL BANK 2	Capacity	0.58	MW	2310	119	23	19	28	2499
DDOR137	No	Bay Area	Diablo	Line Section	Extend Contra Costa 2105	Install adequate switching and circuit protection devices to perform load transfers	5/1/2022	\$ 465	N	\$7	-	GNA_13652103_Capacity	CONTRA COSTA 2103	Capacity	1.62	MW	3252	587	79	0	24	3942
DDOR137	No	Bay Area	Diablo	Line Section	Extend Contra Costa 2105	Install adequate switching and circuit protection devices to perform load transfers	5/1/2022	\$ 465	N	\$7	-	GNA_13652116_Capacity	CONTRA COSTA 2116 (Previously CONTRA COSTA 2205)	Capacity	5.95	MW	4898	346	97	0	16	5357
DDOR138	Yes	Central Valley	Fresno	Line Section	Kingsburg 1113 and 1111	Reconductor, install new 715AL cable and replace line reclosers, remove a booster and install Overhead Switches and replace Regulator.	6/1/2021	\$ 7,650	N	\$268	-	GNA_252421111_Capacity	KINGSBURG 1111 (old 1114)	Capacity	1.46	MW	1004	143	17	463	79	1706
DDOR138	Yes	Central Valley	Fresno	Line Section	Kingsburg 1113 and 1111	Reconductor, install new 715AL cable and replace line reclosers, remove a booster and install Overhead Switches and replace Regulator.	6/1/2021	\$ 7,650	N	\$268	-	GNA_252421113_Capacity	KINGSBURG 1113	Capacity	CC	MW	292	50	19	252	28	641
DDOR139	No	Central Valley	Kern	Line Section	FAMOSO 1103 - LERDO 1107	Reconductor, install new cable, install switch, SCADA recloser and fuses.	5/1/2021	\$ 2,572	N	\$70	-	GNA_252461103_Capacity	FAMOSO 1103	Capacity	CC	MW	34	50	6	91	13	194
DDOR139	No	Central Valley	Kern	Line Section	FAMOSO 1103 - LERDO 1107	Reconductor, install new cable, install switch, SCADA recloser and fuses.	5/1/2021	\$ 2,572	N	\$70	-	GNA_2524601_Capacity	FAMOSO BANK 1	Capacity	3.66	MW	81	113	28	363	87	672
DDOR140	No	Central Coast	De Anza	Line Section	Loyola 401 circuit and a section of Loyola 403 circuit	Cut over Loyola 401 circuit and a section of Loyola 403 circuit	6/1/2023	\$ 5,270	N	\$41	-	GNA_82160401_Capacity	LOYOLA 0401	Capacity	CC	MW	4	1	0	0	0	5
DDOR140	No	Central Coast	De Anza	Line Section	Loyola 401 circuit and a section of Loyola 403 circuit	Cut over Loyola 401 circuit and a section of Loyola 403 circuit	6/1/2023	\$ 5,270	N	\$41	-	GNA_82160403_Capacity	LOYOLA 0403	Capacity	0.42	MW	1896	47	5	0	4	1952
DDOR140	No	Central Coast	De Anza	Line Section	Loyola 401 circuit and a section of Loyola 403 circuit	Cut over Loyola 401 circuit and a section of Loyola 403 circuit	6/1/2023	\$ 5,270	N	\$41	-	GNA_82161102_Capacity	LOYOLA 1102	Capacity	0.78	MW	1994	101	26	3	19	2143
DDOR140	No	Central Coast	De Anza	Line Section	Loyola 401 circuit and a section of Loyola 403 circuit	Cut over Loyola 401 circuit and a section of Loyola 403 circuit	6/1/2023	\$ 5,270	N	\$41	-	GNA_821601_Capacity	LOYOLA BANK 1	Capacity	1.54	MW	1900	48	5	0	4	1957
DDOR140	No	Central Coast	De Anza	Line Section	Loyola 401 circuit and a section of Loyola 403 circuit	Cut over Loyola 401 circuit and a section of Loyola 403 circuit	6/1/2023	\$ 5,270	N	\$41	-	GNA_821602_Capacity	LOYOLA BANK 2	Capacity	3.86	MW	3664	222	39	3	36	3664
DDOR141	Yes	Central Valley	Fresno	Line Section	Reconductor California Ave 1102	Install a riser and approx 100ft of 1100Al in new trench.	6/1/2021	\$ 704	N	\$6	-	GNA_254251106_Capacity	MALAGA 1106	Capacity	CC	MW	286	148	86	11	25	556
DDOR141	Yes	Central Valley	Fresno	Line Section	Reconductor California Ave 1102	Install a riser and approx 100ft of 1100Al in new trench.	6/1/2021	\$ 704	N	\$6	-	GNA_2542502_Capacity	MALAGA BANK 2	Capacity	CC	MW	749	366	185	77	60	1437
DDOR141	Yes	Central Valley	Fresno	Line Section	Reconductor California Ave 1102	Install a riser and approx 100ft of 1100Al in new trench.	6/1/2021	\$ 704	N	\$6	-	GNA_252381111_Capacity	CALIFORNIA AVE 1111	Capacity	CC	MW	3	57	52	1	7	120
DDOR142	Yes	Northern	Humboldt	Line Section	Upper Lake 1101	Install 2 SCADA regulators, Remove 3 cap banks, Install 1 Switch.	6/1/2023	\$ 390	N	\$133	-	GNA_428701_Capacity	UPPER LAKE BANK 1	Capacity	0.31	MW	770	142	21	62	44	1069
DDOR143	Yes	Central Valley	Kern	Line Section	Stockdale 2112	Replace switch and line reclosers	6/1/2022	\$ 410	N	\$10	-	GNA_253422101_Capacity	PANAMA 2101	Capacity	0.41	MW	4340	215	41	45	27	4668
DDOR143	Yes	Central Valley	Kern	Line Section	Stockdale 2112	Replace switch and line reclosers	6/1/2022	\$ 410	N	\$10	-	GNA_2534201_Capacity	PANAMA BANK 1	Capacity	1.96	MW	9966	420	101	81	50	10618
DDOR144	No	Northern	Sacramento	Line Section	Vacadixion 1101	Replace 3 switches	6/1/2022	\$ 90	N	\$1	-	GNA_63591105_Capacity	VACA DIXON 1105	Capacity	CC	MW	860	68	12	12	17	969
DDOR144	No	Northern	Sacramento	Line Section	Vacadixion 1101	Replace 3 switches	6/1/2022	\$ 90	N	\$1	-	GNA_635908_Capacity	VACA DIXON BANK 8	Capacity	CC	MW	2609	192	53	19	21	3194
DDOR145	No	Central Coast	De Anza	Line Section	Britton 1107 to 1112 - Offload	Replace S21 with Nova LR but in meantime, bypass S21	5/1/2022	\$ 100	N	\$2	-	GNA_83611107_Capacity	BRITTON 1107	Capacity	CC	MW	3124	122	48	1	10	3305
DDOR145	No	Central Coast	De Anza	Line Section	Britton 1107 to 1112 - Offload	Replace S21 with Nova LR but in meantime, bypass S21	5/1/2022	\$ 100	N	\$2	-	GNA_836102_Capacity	BRITTON BANK 2	Capacity	1.70	MW	9748	530	328	1	23	10630
DDOR146	Yes	Central Valley	Kern	Line Section	Ganso Bank 1	Reconducting, install 2 SCADA Reclosers, 1-300A reg, 2 caps, 6 OH Switches and 2 fuses.	6/1/2022	\$ 2,611	N	\$34	-	GNA_254541104_Capacity	GANSO 1104	Capacity	CC	MW	50	25	3	150	38	266
DDOR146	Yes	Central Valley	Kern	Line Section	Ganso Bank 1	Reconducting, install 2 SCADA Reclosers, 1-300A regulator, 2 caps, 6 Overhead Switches and 2 fuses.	6/1/2022	\$ 2,611	N	\$34	-	GNA_2545401_Capacity	GANSO BANK 1	Capacity	2.80	MW	80	50	10	249	75	464
DDOR147	Yes	Northern	North Valley	Line Section	Jacinto 1101	Install 150 close delta regulator	5/1/2022	\$ 150	N	\$9	-	GNA_102851101_Capacity	JACINTO 1101	Capacity	1.27	MW	143	78	11	178	24	434
DDOR147	Yes	Northern	North Valley	Line Section	Jacinto 1101	Install 150 close delta regulator	5/1/2022	\$ 150	N	\$9	-	GNA_1028501_Capacity	JACINTO BANK 1	Capacity	0.79	MW	483	188	17	400	49	1137
DDOR148	Yes	Central Coast	San Jose	Line Section	Extend Llagas 2102	Extend Llagas 2102 to pick up load from Llagas 2103 to correct the overload on Llagas 2103 and Llagas Bank 2	6/1/2022	\$ 914	N	\$11	-	GNA_83182103_Capacity	LLAGAS 2103	Capacity	3.35	MW	5190	378	154	20	29	5771
DDOR148	Yes	Central Coast	San Jose	Line Section	Extend Llagas 2102	Extend Llagas 2102 to pick up load from Llagas 2103 to correct the overload on Llagas 2103 and Llagas Bank 2	6/1/2022	\$ 914	N	\$11	-	GNA_831802_Capacity	LLAGAS BANK 2	Capacity	1.55	MW	5358	436	175	90	43	6102
DDOR149	No	Northern	Sonoma	Feeder	Monroe - New Feeder	Install new feeder at Monroe, transfer Santa Rosa 1105	5/1/2023	\$ 4,000	N	\$36	-	GNA_421511105_Capacity	SANTA ROSA A 1105	Capacity	CC	MW	1518	329	84	4	7	1942
DDOR149	No	Northern	Sonoma	Feeder	Monroe - New Feeder	Install new feeder at Monroe, transfer Santa Rosa 1105	5/1/2023	\$ 4,000	N	\$36	-	GNA_42151110_Capacity	SANTA ROSA A 1110	Capacity	1.10	MW	4371	186	15	1	3	4576
DDOR149	No	Northern</																				



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Appendix A: Planned Investments

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Customer Count																						
DDOR ID	Previous DDOR?	Distribution Planning Region	Division	Project Type	Project Name	Project Description	In-service Date	Project Cost (\$k)	Deferrable (Y/N)	LNBA Value (\$/kW-yr)	LNBA Value (\$/Vpu-yr)	GNA Need ID	GNA Facility Name	Distribution Service Required	Grid Need	Grid Need Unit	Residential	Commercial	Industrial	Agricultural	Other	Total
DDOR150	Yes	Central Coast	De Anza	Line Section	Stelling 1105	Reconductor and extend Stelling 1105 to pick up Stelling 1111 & 1110.	6/30/2023	\$ 3,756	N	\$60	-	GNA_83481111_Capacity	STELLING 1111	Capacity	2.86	MW	2392	146	29	4	11	2582
DDOR150	Yes	Central Coast	De Anza	Line Section	Stelling 1105	Reconductor and extend Stelling 1105 to pick up Stelling 1111 & 1110.	6/30/2023	\$ 3,756	N	\$60	-	GNA_834803_Capacity	STELLING BANK 3	Capacity	2.04	MW	8780	503	119	8	29	9439
DDOR151	Yes	Central Valley	Fresno	Line Section	Wahitoke 1107 Back Tie	Install 1100 ft of cable	6/1/2022	\$ 412	N	\$25	-	GNA_254531107_Capacity	WAHTOKE 1107	Capacity	0.27	MW	1781	96	17	62	22	1978
DDOR151	Yes	Central Valley	Fresno	Line Section	Wahitoke 1107 Back Tie	Install 1100 ft of cable	6/1/2022	\$ 412	N	\$25	-	GNA_2545302_Capacity	WAHTOKE BANK 2	Capacity	1.71	MW	4980	649	92	588	132	6441
DDOR152	Yes	Central Valley	Stockton	Feeder	Weber - New Feeder	Construct a new 12kV distribution feeder at Weber Substation	6/1/2021	\$ 3,105	N	\$587	-	GNA_163081102_Capacity	ROUGH AND READY ISLA 1102	Capacity	0.65	MW	1520	180	75	100	27	1902
DDOR154	Yes	Central Coast	Los Padres	Feeder	Alascadero 1103 to Alascadero 1102	Reconductor, install switch and line recloser.	6/1/2022	\$ 656	N	\$33	-	GNA_182541103_Capacity	ATASCADERO 1103	Capacity	2.41	MW	3286	232	14	59	30	3621
DDOR155	No	Central Coast	Peninsula	Line Section	Glenwood 1101	Install autotransformer	12/30/2021	\$ 1,150	N	\$66	-	GNA_240202_Capacity	BELLE HAVEN BANK 2	Capacity	CC	MW	5423	194	46	0	11	5674
DDOR156	Yes	Northem	Humboldt	Feeder	Calpella 1101	Reconductor 21,500 ft	6/1/2021	\$ 4,858	N	\$101	-	GNA_434101_Capacity	CALPELLA BANK 1	Capacity	CC	MW	2000	194	36	34	36	2300
DDOR157	Yes	Central Valley	Yosemite	Line Section	CANAL 1103	Reconductor Canal 1103	6/1/2021	\$ 1,603	N	\$176	-	GNA_252091103_Capacity	CANAL 1103	Capacity	1.12	MW	2934	91	21	87	36	3169
DDOR158	No	Northem	Humboldt	Line Section	Clear Lake 1101	Reconductor 13,359 ft and install 5 new circuit devices.	6/1/2022	\$ 4,568	N	\$160	-	GNA_421401_Capacity	CLEAR LAKE BANK 1	Capacity	CC	MW	1681	304	36	276	50	2347
DDOR159	No	Northem	Humboldt	Line Section	Konocti 1102	Reconductor approximately 1,900 ft	5/1/2021	\$ 456	N	\$16	-	GNA_421401_Capacity	CLEAR LAKE BANK 1	Capacity	CC	MW	1681	304	36	276	50	2347
DDOR160	No	Northem	North Valley	Line Section	Reconductor Coming 1101 feeder outlet	Reconductor Coming 1101	5/1/2022	\$ 56	N	\$2	-	GNA_103331101_Capacity	CORNING 1101	Capacity	1.76	MW	1929	174	23	147	57	2330
DDOR161	Yes	Northem	North Valley	Line Section	Corning 1103	Reconductor ~3600 ft	6/1/2021	\$ 790	N	\$78	-	GNA_1033302_Capacity	CORNING BANK 2	Capacity	0.59	MW	3352	334	48	360	125	4219
DDOR162	Yes	Northem	Sacramento	Line Section	Davis 1111	Reconductor ~ 4000 ft	6/1/2022	\$ 1,690	N	\$57	-	GNA_62041111_Capacity	DAVIS 1111	Capacity	CC	MW	2731	173	44	0	7	2955
DDOR163	No	Central Coast	Mission	Line Section	Dumbarton 1102	Extend new UG cable from outside Dumbarton substation and tie into Dumbarton 1110.	8/1/2021	\$ 1,276	N	\$143	-	GNA_14471110_Capacity	DUMBARTON SUB 1110	Capacity	1.09	MW	1017	28	41	3	4	1093
DDOR164	No	Northem	Sonoma	Line Section	Dunbar 1101 & 1103	Install a new cable and conduit, reconductor new OH conductor, and install 2 OH switches.	6/1/2021	\$ 124	N	\$5	-	GNA_43071101_Capacity	DUNBAR 1101	Capacity	2.99	MW	2956	212	39	72	44	3323
DDOR165	Yes	Central Coast	Peninsula	Line Section	East Grand 1106	Install SCADA UG switch in a new #7 box inside East Grand Substation and re-route cable/conduit as needed.	5/1/2021	\$ 130	N	\$2	-	GNA_022571106_Reliability / Other	EAST GRAND 1106	Reliability	CC	MW	0	87	63	0	2	152
DDOR165	No	Central Coast	Peninsula	Line Section	East Grand 1106	Install SCADA UG switch in a new #7 box inside East Grand Substation and re-route cable/conduit as needed.	5/1/2021	\$ 130	N	\$2	-	GNA_22571106_Capacity	EAST GRAND 1106	Capacity	CC	MW	0	87	63	0	2	152
DDOR166	Yes	Central Coast	San Jose	Line Section	Edenvale 2105	Extend Edenvale 2105 to Edenvale 2110 to off-load Edenvale 2110 and 2107 for new load	6/1/2021	\$ 989	N	\$16	-	GNA_829502_Capacity	EDENVALE BANK 2	Capacity	7.59	MW	8908	418	177	0	28	9531
DDOR167	No	Central Coast	San Jose	Line Section	El Patio 1107 overload	Move El Patio 1101 Bank 1 load to El Patio 1111 Bank 3 and vice versa and use the capacity on El Patio Bank 3 to correct an overload on El Patio 1107	6/1/2022	\$ 190	N	\$7	-	GNA_82921107_Capacity	EL PATIO 1107	Capacity	1.48	MW	4050	220	98	1	6	4375
DDOR168	No	Northem	North Valley	Line Section	Esquon Bank 1	Replace line recloser and switch	4/1/2022	\$ 220	N	\$8	-	GNA_1021701_Capacity	ESQUON BANK 1	Capacity	1.55	MW	174	79	11	297	39	600
DDOR169	Yes	Northem	North Valley	Line Section	Butte 1104	Replace the line recloser, disconnect and bypass switch on Butte 1104.	5/1/2022	\$ 180	N	\$7	-	GNA_1021701_Capacity	ESQUON BANK 1	Capacity	1.55	MW	174	79	11	297	39	600
DDOR170	No	Central Coast	Central Coast	Feeder	Fort Ord 2107	Reconductor overhead conductor.	6/1/2021	\$ 3,699	N	\$63	-	GNA_182402107_Capacity	FORT ORD 2107	Capacity	CC	MW	3033	325	68	47	22	3495
DDOR171	Yes	Northem	Sacramento	Feeder	Grand Island 2226	Reconductor 6,000 feet on Grand Island 2226.	6/1/2021	\$ 1,530	N	\$21	-	GNA_62462226_Capacity	GRAND ISLAND 2226	Capacity	4.17	MW	3788	199	36	31	58	4112
DDOR172	Yes	Central Valley	Fresno	Feeder	Guemsey 1103	Reconductor Guemsey 1103.	5/1/2021	\$ 467	N	\$11	-	GNA_252661102_Capacity	GUERNSEY 1102	Capacity	2.44	MW	101	24	3	164	26	318
DDOR173	Yes	Central Valley	Stockton	Line Section	Hardylin 1103	Reconductor 7108 ft on Hardylin 1103	6/1/2022	\$ 1,186	N	\$949	-	GNA_183741103_Capacity	HERDLYN 1103	Capacity	0.07	MW	167	82	6	232	21	508
DDOR174	No	Bay Area	Dakota	Feeder	Costa Costa 2114	Recable Costa Costa 2114 outlet	6/1/2022	\$ 891	N	\$52	-	GNA_14452105_Capacity	KIRKER 2105	Capacity	0.88	MW	4198	104	34	0	14	4280
DDOR175	Yes	Central Valley	Fresno	Feeder	Rainbow Substation - New Feeder	Construct a new 12kV distribution feeder at Rainbow Substation. Sanger 1114 Reconductor 1,600 ft.	6/1/2021	\$ 2,120	N	\$286	-	GNA_254251103_Capacity	MALAGA 1103	Capacity	0.91	MW	1963	72	37	51	18	2141
DDOR176	Yes	Central Coast	Peninsula	Line Section	Menlo 0403	Replace cable, replace overhead mainline swt, install SCADA regulator bank and SCADA capacitor.	6/1/2022															

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Appendix A: Planned Investments

Version Date: 06/16/21

Public

Customer Count																						
DDOR ID	Previous DDOR?	Distribution Planning Region	Division	Project Type	Project Name	Project Description	In-service Date	Project Cost (\$k)	Deferrable (Y/N)	LNBA Value (\$/kW-yr)	LNBA Value (\$/Vpu-yr)	GNA Need ID	GNA Facility Name	Distribution Service Required	Grid Need	Grid Need Unit	Residential	Commercial	Industrial	Agricultural	Other	Total
DOOR203	No	Central Coast	Central Coast	Line Section	Salinas 1104	Reconductor along Central Ave near Hartnell College on Salinas 1104.	5/1/2022	\$ 880	N	\$40	-	GNA_1824601_Capacity	BORONDA BANK 1	Capacity	1.27	MW	628	148	23	28	5	832
DOOR204	No	Central Valley	Fresno	Feeder	Camden 1102 to Camden 1104	Install New Overhead switch	6/1/2022	\$ 30	N	\$4	-	GNA_252301102_Capacity	CAMDEN 1102	Capacity	0.81	MW	1292	127	23	257	60	1759
DOOR205	No	Central Valley	Fresno	Feeder	Caruthers 1106	Install new Caruthers 1106 feeder at Caruthers Bank 2	6/1/2022	\$ 2,190	N	\$1,145	-	GNA_252371105_Capacity	CARTHURERS 1105	Capacity	CC	MW	72	11	1	155	44	283
DOOR206	No	Central Valley	Stockton	Line Section	Colony Bank 2	Reconductor project required for transfer	5/1/2023	\$ 1,000	N	\$71	-	GNA_1622302_Capacity	COLONY BANK 2	Capacity	0.79	MW	742	89	10	230	35	1086
DOOR207	No	Northern	Sonoma	Feeder	Rincon 1103 and Dunbar 1101 circuit tie	Install double circuit between 4039 and 1263 in non high threat area or install new UG line	5/1/2022	\$ 200	N	\$9	-	GNA_430702_Capacity	DUNBAR BANK 2	Capacity	2.60	MW	2656	212	39	72	44	3323
DOOR208	No	Central Coast	San Jose	Line Section	Edenvale 2109 to Edenvale 2108	Install underground SCADA switch to restore FLISR scheme	6/20/2021	\$ 130	N	\$3	-	GNA_82952109_Capacity	EDENVALE 2109	Capacity	2.40	MW	5537	223	69	0	12	5841
DOOR209	No	Bay Area	East Bay	Feeder	EDES 1111 Circuit Reinforcement	Replace 1000AL with 1100CU	6/1/2022	\$ 572	N	\$15	-	GNA_13681111_Capacity	EDES 1111	Capacity	CC	MW	399	115	70	2	8	594
DOOR210	No	Bay Area	East Bay	Feeder	EDES 1113 Circuit Reinforcement	Replace 1000AL with 1100CU	6/1/2022	\$ 390	N	\$47	-	GNA_13681113_Capacity	EDES 1113	Capacity	CC	MW	0	77	75	2	5	159
DOOR211	No	Central Coast	Petaluma	Line Section	Emerald Lake 402	Install SCADA regulator bank	6/1/2022	\$ 190	N	\$23	-	GNA_24080401_Capacity	EMERALD LAKE 0401	Capacity	0.58	MW	505	31	9	0	8	553
DOOR212	No	Northern	Sacramento	Feeder	Jameson 1105	Rearrange the corner near SW 3511 to connect load to Cordelia 1112	12/31/2021	\$ 100	N	\$3	-	GNA_63801105_Capacity	JAMESON 1105	Capacity	2.13	MW	1973	326	124	158	69	2650
DOOR213	Yes	Central Valley	Fresno	Line Section	Kernan 1102	Install new overhead switch	6/1/2022	\$ 30	N	\$3	-	GNA_2527001_Capacity	KEARNEY BANK 1	Capacity	CC	MW	2652	266	25	655	117	3715
DOOR214	No	Central Valley	Kern	Feeder	Kern Oil 1103	Transfer to Kern Oil 1114 by installing cableband two disconnects	5/1/2023	\$ 198	N	\$27	-	GNA_252721103_Capacity	KERN OIL 1103	Capacity	CC	MW	1598	64	13	1	5	1681
DOOR215	Yes	Central Valley	Kern	Feeder	Kern Oil 1108 Reconductor	Reconductor to transfer load	5/1/2023	\$ 411	N	\$22	-	GNA_252721110_Capacity	KERN OIL 1110	Capacity	1.03	MW	2472	168	27	0	6	2673
DOOR216	Yes	Central Valley	Kern	Feeder	Kern Oil 1116	Reconductor, install switch, cap bank, VAR and SCADA, and upgrade junctions	5/1/2023	\$ 64	N	\$10	-	GNA_252721116_Capacity	KERN OIL 1116	Capacity	0.35	MW	696	191	146	1	12	1046
DOOR217	Yes	Central Valley	Fresno	Feeder	Kingsburg 1116 Transfer	Reconductor for Kingsburg 1116 Transfer	5/2/2022	\$ 230	N	\$7	-	GNA_252241116_Reliability / Other	KINGSBURG 1116	Reliability	1.30	MW	1356	77	14	494	93	2034
DOOR217	Yes	Central Valley	Fresno	Feeder	Kingsburg 1116 Transfer	Reconductor for Kingsburg 1116 Transfer	5/2/2022	\$ 230	N	\$7	-	GNA_252241116_Capacity	KINGSBURG 1116	Capacity	0.49	MW	1356	77	14	494	93	2034
DOOR218	No	Central Coast	San Jose	Line Section	Extend Milpitas 1104	Extend Milpitas 1104. Offload Milpitas 2110 to Milpitas 1104. Creates capacity on Milpitas 2110 to offload Milpitas 1108.	6/1/2023	\$ 3,500	N	\$307	-	GNA_82831108_Capacity	MILPITAS 1108	Capacity	1.34	MW	1790	65	19	0	5	1879
DOOR219	No	Central Valley	Stockton	Line Section	Mormon 1102	Install 1 USB Switch	6/1/2022	\$ 30	N	\$5	-	GNA_163211102_Capacity	MORMON 1102	Capacity	0.75	MW	707	87	14	277	31	1116
DOOR220	No	Bay Area	North Bay	Feeder	North Tower 1108 to Bahia 1104.	Install new cable, and install a switch on North Tower 1108 for load transfer from North Tower 1108 to Bahia 1104	12/30/2021	\$ 440	N	\$43	-	GNA_42041108_Capacity	NORTH TOWER 1108 (formerly 1101)	Capacity	CC	MW	4154	135	26	0	6	4321
DOOR221	No	Bay Area	East Bay	Feeder	Oakland J 1114 Circuit Extension	Extend J114 to allow load transfer between J114 and J110	6/1/2022	\$ 1,620	N	\$61	-	GNA_12091110_Capacity	OAKLAND J 1110	Capacity	CC	MW	0	42	33	7	1	83
DOOR222	No	Bay Area	East Bay	Feeder	Oakland D1101 Circuit Extension	Extend D1101 to allow load transfer between L1103 and D1101	6/1/2022	\$ 608	N	\$34	-	GNA_121111103_Capacity	OAKLAND L 1103	Capacity	CC	MW	2153	179	94	0	10	2436
DOOR223	No	Bay Area	East Bay	Feeder	Oakland D1107 Circuit Extension	Extend D1107 to allow load transfer between L1105 and D1107	6/1/2022	\$ 1,082	N	\$126	-	GNA_121111105_Capacity	OAKLAND L 1105	Capacity	CC	MW	2614	250	97	0	18	2979
DOOR224	No	Central Valley	Yosemite	Line Section	Oro Loma 1106 Reconductor	Reconductor, install 1 Regulator.	6/1/2022	\$ 3,002	N	\$246	-	GNA_253571106_Capacity	ORO LOMA 1106	Capacity	CC	MW	83	54	6	227	46	416
DOOR225	No	Central Valley	Yosemite	Line Section	Hammonds 1104 Reconductor	Reconductor -13,500 ft.	4/1/2022	\$ 2,516	N	\$117	-	GNA_253671102_Capacity	PANOCHE 1102	Capacity	CC	MW	7	14	0	56	23	100
DOOR226	No	Central Coast	Los Padres	Feeder	Paso 1104 to Paso 1107	Reconductor, install new line regulator, and transfer load from Paso 1107 to new San Miguel Feeder 1102	5/3/2023	\$ 1,000	N	\$466	-	GNA_182611104_Capacity	PASO ROBLES 1104	Capacity	0.12	MW	2367	376	112	82	52	2989
DOOR227	Yes	Northern	Sierra	Feeder	Pleasant Grove 2109	Reconductor Pleasant Grove 2109	4/29/2022	\$ 250	N	\$8	-	GNA_152421209_Capacity	PLEASANT GROVE 2109	Capacity	1.85	MW	3259	89	113	1	18	3480
DOOR228	No	Central Valley	Fresno	Feeder	Reedley 1105 to Reedley 1101	Install switch	5/1/2022	\$ 190	N	\$5	-	GNA_252341106_Capacity	REEDLEY 1106	Capacity	2.29	MW	388	86	16	805	103	1888
DOOR229	Yes	Central Valley	Kern	Feeder	Rio Bravo 1104	Build new tie, install switches and cap banks.	6/1/2022	\$ 602	N	\$7	-	GNA_252861104_Capacity	RIO BRAVO 1104	Capacity	CC	MW	0	5	15	1	5	26
DOOR230	No	Central Valley	Fresno	Feeder	Schindler 1114	Reconductor and install a regulator.	6/1/2022	\$ 390	N	\$10	-	GNA_										



DDOR ID	Previous DDOR?	Distribution Planning Region	Division	Project Type	Project Name	Project Description	In-service Date	Project Cost (\$M)	Deferrable (Y/N)	LNBA Value (\$/kW-yr)	LNBA Value (\$/Vpu-yr)	GNA Need ID	GNA Facility Name	Distribution Service Required	Grid Need	Grid Need Unit	Customer Count					
																	Residential	Commercial	Industrial	Agricultural	Other	Total
DDOR265	No	Central Coast	Los Padres	Line Section	Atascadero 1101 to Templeton 2111	Install a new FLISR zone upstream of SCADA SW S10.	7/29/2022	\$ 80	N	\$12	-	GNA_1825401_Capacity	ATASCADERO BANK 1	Capacity	0.83	MW	11166	1179	163	125	87	12720
DDOR266	No	Central Coast	Los Padres	Line Section	Mesa 1104	37294' Overhead reconductoring	6/1/2021	\$ 2,206	N	\$33	-	GNA_182671109_Capacity	SANTA MARIA 1109	Capacity	CC	MW	1051	167	37	147	27	1429
DDOR267	No	Central Coast	Los Padres	Line Section	Santa Maria 1111 Reinforcement	Reconductor existing (2008) outlet underground cable and (29508') overhead primary conductor, (1,7008') trench and install underground cable, install line devices for protection, voltage support and power factor correction	12/30/2022	\$ 1,690	N	\$32	-	GNA_182811102_Capacity	SISQUOC 1102	Capacity	2.96	MW	265	76	21	189	29	580
DDOR268	No	Bay Area	San Francisco	Line Section	Potrero A-1106	Reconductor 5,740 ft	6/1/2022	\$ 1,837	N	\$255	-	GNA_22031104_Capacity	POTRERO (SF A) 1104	Capacity	CC	MW	1437	57	45	1	12	1552

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Appendix B: Candidate Deferral Opportunities

Version Date 08/16/21

Public

															Expected Performance and Operational Requirements										Customer Count						
DOOR ID	Previous DOOR?	Distribution Planning Region	Division	Project Type	Project Name	Project Description	In-Service Date	AAEE Class	Unit Cost of Mitigation (\$)	Estimated LNB Value (\$/MW-yr)	Estimated LNB Value (\$/MW-yr)	Estimated LNB Value (\$/MW-yr)	Estimated LNB Value (\$/MW-yr)	GNA ID	GNA Facility Name		Distribution Service Required	Real Time (RT) or Day Ahead (DA)	Grid Need	Grid Need Unit	Month	Calls/Year	Hours	Duration (hours)	Residential	Commercial	Industrial	Agricultural	Other	Total	
															Capacity	DA															
DOOR075	Yes	Central Valley	Fresno	Bank	Giffen Bank 2	Giffen Sub - Install Bank 2	4/1/2024	5	\$11,900	\$62	\$11	\$17,993	--	GNA_2531501_Capacity	GIFFEN BANK 1	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	CC	161	71	4	152	29	437
DOOR075	Yes	Central Valley	Fresno	Bank	Giffen Bank 2	Giffen Sub - Install Bank 2	4/1/2024	5	\$11,900	\$62	\$11	\$17,993	--	GNA_25315102_Capacity	GIFFEN BANK 1	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	CC	161	71	4	152	29	437
DOOR076	Yes	Northern	Sacramento	Bank	Arbuckle Bank 2	Arbuckle or Dungen Sub - Replace Bank 1 and Install New Feeder	4/1/2024	5	\$9,570	\$244	\$254	\$261,568	--	GNA_838101_Capacity	DUNGEN BANK 1	Capacity	DA	1.87	MMW	6-10	153	12AM-12AM	7	522	79	27	78	193	899		
DOOR076	Yes	Northern	Sacramento	Bank	Arbuckle Bank 2	Arbuckle or Dungen Sub - Replace Bank 1 and Install New Feeder	4/1/2024	5	\$9,570	\$244	\$254	\$261,568	--	GNA_820802_Capacity	ARBUCLE BANK 2	Capacity	DA	0.25	MMW	6-9	44	12PM-1PM	3	1005	95	14	193	184	1491		
DOOR077	Yes	Central Valley	Yosemite	Feeder	Storey 103	Install 1-12 KV Feeder - Storey 1103 on Bank 1 and replace bank	5/1/2024	5	\$2,400	\$31	\$60	\$38,264	--	GNA_25481109_Capacity	STOREY 109	Capacity	DA	0.81	MMW	6-8	100	4PM-11PM	7	1047	108	17	152	40	1364		
DOOR077	Yes	Central Valley	Yosemite	Feeder	Storey 103	Install 1-12 KV Feeder - Storey 1103 on Bank 1 and replace bank	5/1/2024	5	\$2,400	\$31	\$60	\$38,264	--	GNA_25481108_Capacity	STOREY 108	Capacity	DA	0.61	MMW	7-8	53	2PM-9PM	4	2807	95	32	2	4	2940		
DOOR077	Yes	Central Valley	Yosemite	Feeder	Storey 103	Install 1-12 KV Feeder - Storey 1103 on Bank 1 and replace bank	5/1/2024	5	\$2,400	\$31	\$60	\$38,264	--	GNA_25481105_Capacity	STOREY 105	Capacity	DA	1.15	MMW	6-8	84	4PM-9PM	4	2252	158	105	15	32	2562		
DOOR077	Yes	Central Valley	Yosemite	Feeder	Storey 103	Install 1-12 KV Feeder - Storey 1103 on Bank 1 and replace bank	5/1/2024	5	\$2,400	--	--	\$3,113,212	--	GNA_1_Voltage	STOREY 104	Voltage	DA	0.04	VPV	1-12	365	12AM-12AM	24	698	172	79	119	12	1080		
DOOR078	Yes	Central Coast	Central Coast	Bank	Spence Bank 2	Spence - Replace Bank 2	5/1/2024	5	\$9,967	\$17	\$5	\$11,548	--	GNA_1822002_Capacity	SPENCE BANK 2	Capacity	DA	11.44	MMW	2-11	103	7AM-12AM	17	225	137	24	196	24	606		
DOOR078	Yes	Central Coast	Central Coast	Bank	Spence Bank 2	Spence - Replace Bank 2	5/1/2024	5	\$9,967	\$17	\$5	\$11,548	--	GNA_18220103_Capacity	SPENCE 103	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	25	10	0	52	6	103	
DOOR078	Yes	Central Coast	Central Coast	Bank	Spence Bank 2	Spence - Replace Bank 2	5/1/2024	5	\$9,967	\$17	\$5	\$11,548	--	GNA_18220104_Capacity	SPENCE 104 (OLD 1122)	Capacity	DA	4.03	MMW	4-10	214	7AM-9PM	4	193	166	18	146	18	481		
DOOR078	Yes	Central Coast	Central Coast	Bank	Spence Bank 2	Spence - Replace Bank 2	5/1/2024	5	\$9,967	\$17	\$5	\$11,548	--	GNA_18220102_Capacity	SPENCE 102 (OLD 1123)	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	96	29	9	141	9	284	
DOOR079	No	Central Coast	Central Coast	Bank	Gabilan Bank 2	Gabilan - Install Bank 2	5/1/2024	5	\$6,500	\$53	\$22	\$54,495	--	GNA_1823001_Capacity	GABILAN BANK 1	Capacity	DA	4.97	MMW	1-12	347	8AM-11AM	6	5410	281	58	140	44	5933		
DOOR079	No	Central Coast	Central Coast	Bank	Gabilan Bank 2	Gabilan - Install Bank 2	5/1/2024	5	\$6,500	\$53	\$22	\$54,495	--	GNA_1823101_Capacity	GABILAN 1101	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	2912	174	27	128	35	2876	
DOOR080	No	Central Coast	Central Coast	Bank	Green Valley Bank 3	Green Valley - Replace Bank 3	5/1/2024	5	\$6,500	\$56	\$21	\$30,343	--	GNA_81903_Capacity	GREEN VALLEY BANK 3	Capacity	DA	6.21	MMW	4-10	206	8 AM - 9 PM	13	8214	877	181	436	124	9832		
DOOR081	No	Central Valley	Fresno	Bank	Always Bank 3	Always - Install Bank 3 and Always 1109	5/1/2024	5	\$11,900	\$184	\$522	\$337,038	--	GNA_2504107_Capacity	AIRWAYS 107	Capacity	DA	2.47	MMW	6-9	101	5 PM-10 PM	5	2139	97	10	77	29	2352		
DOOR081	No	Central Valley	Fresno	Bank	Always Bank 3	Always - Install Bank 3 and Always 1109	5/1/2024	5	\$11,900	--	--	\$36,500,473	--	GNA_2_Voltage	AIRWAYS 1107	Voltage	DA	0.02	VPV	1-12	365	12AM-12AM	24	1485	77	7	45	5	1619		
DOOR081	No	Central Valley	Fresno	Bank	Always Bank 3	Always - Install Bank 3 and Always 1109	5/1/2024	5	\$11,900	\$184	\$464	\$337,038	--	GNA_250402_Capacity	AIRWAYS BANK 2	Capacity	DA	0.84	MMW	6-8	52	6 PM-8 PM	2	7308	268	49	91	76	7732		
DOOR081	No	Central Valley	Fresno	Bank	Always Bank 3	Always - Install Bank 3 and Always 1109	5/1/2024	5	\$11,900	\$184	\$464	\$337,038	--	GNA_25041102_Capacity	AIRWAYS 1102	Capacity	DA	0.76	MMW	7-8	53	6 PM-9 PM	3	2969	89	10	22	31	3121		
DOOR081	No	Central Valley	Fresno	Bank	Always Bank 3	Always - Install Bank 3 and Always 1109	5/1/2024	5	\$11,900	\$184	\$464	\$337,038	--	GNA_25241104_Capacity	COPPERMINE 1104	Capacity	DA	0.43	MMW	6-8	72	7 PM-9 PM	2	2191	128	5	115	87	2526		
DOOR082	No	Central Valley	Fresno	Bank	Coalinga No 1 Bank 2	Coalinga No 1 - Replace Bank 2	5/1/2024	5	\$6,500	\$899	\$2,688	\$1,233,155	--	GNA_2521602_Capacity	COALINGA NO 1 BANK 2	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	1543	211	34	8	15	1811	
DOOR083	Yes	Central Coast	Petaluma	Bank	Belle Haven Bank 4	Belle Haven - Replace Bank 4 w/ 30MVA and inst BH 1109 Fdr	5/1/2024	5	\$14,700	\$201	\$103	\$117,155	--	GNA_240023_Capacity	BELLE HAVEN BANK 3	Capacity	DA	3.94	MMW	4-10	163	8 AM-9 PM	12	893	174	145	0	6	1218		
DOOR084	Yes	Northern	Sacramento	Feeder	Zamora 1108	Install Zamora 1108	5/1/2024	5	\$1,900	\$196	\$1,594	\$653,758	--	GNA_827201_Capacity	KNIGHTS LANDING BANK 1	Capacity	DA	1.01	MMW	6-7	61	7 PM-10 PM	2	896	222	26	229	7	1180		
DOOR084	Yes	Northern	Sacramento	Feeder	Zamora 1108	Install Zamora 1108	5/1/2024	5	\$1,900	\$196	\$1,594	\$653,758	--	GNA_831901_Capacity	ZAMORA BANK 1	Capacity	DA	0.11	MMW	6-7	44	8 AM-9 PM	3	238	74	9	225	7	553		
DOOR085	Yes	Central Valley	Stockton	Feeder	Ripon 1705	Install 1-17KV Feeder - Ripon Bank 1	5/1/2024	5	\$1,900	\$37	\$66	\$50,775	--	GNA_16380104_Capacity	RIPON 1704	Capacity	DA	3.84	MMW	6-8	122	3 PM-10 PM	7	3269	176	119	15	19	3598		
DOOR085	Yes	Central Valley	Stockton	Feeder	Ripon 1705	Install 1-17KV Feeder - Ripon Bank 1	5/1/2024	5	\$1,900	\$37	\$66	\$50,775	--	GNA_1626107_Capacity	MANTECA BANK 7	Capacity	DA	1.09	MMW	7-8	52	3 PM-10 PM	3	5739	254	86	1	17	6097		
DOOR085	Yes	Central Valley	Stockton	Feeder	Ripon 1705	Install 1-17KV Feeder - Ripon Bank 1	5/1/2024	5	\$1,900	\$37	\$66	\$50,775	--	GNA_1638002_Capacity	RIPON BANK 2	Capacity	DA	1.31	MMW	6-8	73	8 PM- 8 PM	2	5622	424	210	59	40	6395		
DOOR086	No	Central Valley	Stockton	Bank	French Camp Bank 1	French Camp - Replace Bank 1 and install new feeder	5/1/2024	5	\$6,500	\$244	\$348	\$213,410	--	GNA_1632001_Capacity	FRENCH CAMP BANK 1	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	1115	169	45	269	45	1719	
DOOR087	No	Central Valley	Stockton	Feeder	Verna Bank 3	Verna - Install new bank and 2 new feeders	5/1/2024	5	\$11,900	\$640	\$2,255	\$1,120,871	--	GNA_1626106_Capacity	MANTECA BANK 6	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	4881	372	110	73	31	5467	
DOOR088	No	Central Valley	Yosemite	Bank	Hammonds Bank 1	Hammonds - Replace Bank 1	5/1/2024	5	\$6,500	\$40	\$33	\$23,357	--	GNA_2534001_Capacity	HAMMONDS BANK 1	Capacity	DA	3.82	MMW	6-7	61	12 AM-12 AM	9	58	58	4	250	57	427		
DOOR088	No	Central Valley	Yosemite	Bank	Hammonds Bank 1	Hammonds - Replace Bank 1	5/1/2024	5	\$6,500	\$40	\$33	\$23,357	--	GNA_25340104_Capacity	HAMMONDS 104	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	8	10	0	53	10	81	
DOOR089	No	Central Valley	Yosemite	Bank	Bonita Bank 2	Bonita - Install new bank and feeder	5/1/2024	5	\$11,900	\$188	\$188	\$150,576	--	GNA_2535001_Capacity	BONITA BANK 1	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	81	16	432	119	60	1660	
DOOR089	No	Central Valley	Yosemite	Bank	Bonita Bank 2	Bonita - Install new bank and feeder	5/1/2024	5	\$11,900	\$188	\$188	\$150,576	--	GNA_25350102_Capacity	BONITA 102	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	690	27	6	60	15	768	
DOOR089	No	Central Valley	Yosemite	Bank	Bonita Bank 2	Bonita - Install new bank and feeder	5/1/2024	5	\$11,900	\$188	\$188	\$150,576	--	GNA_25461106_Capacity	STOREY 106	Capacity	DA	0.81	MMW	7-8	53	2 PM- 6 PM	4	2807	95	32	2	4	2940		
DOOR090	No	Central Valley	Kern	Feeder	Lakeview 1110	Install Lakeview 1110 feeder	5/1/2024	5	\$4,498	\$535	\$1,876	\$1,247,475	--	GNA_25341106_Capacity	LAKEVIEW 1108 (old 1103)	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	14	24	15	67	29	149	
DOOR091	No	Central Valley	Central Coast	Bank	Chualar Bank 1	Chualar Substation - Install new bank	5/1/2024	5	\$6,500	\$19	\$9	\$21,000	--	GNA_18220102_Capacity	SPENCE 102 (OLD 1123)	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	96	29	9	141	9	284	
DOOR091	No	Central Valley	Central Coast	Bank	Chualar Bank 1	Chualar Substation - Install new bank	5/1/2024	5	\$6,500	\$19	\$9	\$21,000	--	GNA_18220101_Capacity	SPENCE BANK 1	Capacity	DA	0.15	MMW	3-12	297	8 AM-4 PM	4	131	38	9	130	15	307		
DOOR092	Yes	Central Coast	Los Padres	Bank	San Miguel Bank 2	San Miguel Sub - Install 30 MVA Bank	6/1/2024	5	\$9,365	\$216	\$223	\$185,831	--	GNA_1826901_Capacity	SAN MIGUEL BANK 1	Capacity	DA	2.58	MMW	6-9	122	10 AM-10 PM	9	1766	258	47	243	49	2383		
DOOR092	Yes	Central Coast	Los Padres	Bank	San Miguel Bank 2	San Miguel Sub - Install 30 MVA Bank	6/1/2024	5	\$9,365	\$216	\$223	\$185,831	--	GNA_18268104_Capacity	SAN MIGUEL 104	Capacity	DA	CC	MMW	CC	CC	CC	CC	CC	1	1	1	0	0	3	
DOOR093	Yes	Bay Area	Dublin	Bank	Willow Pass Bank 1	Willow Pass - Replace Bank 1	6/1/2024	5	\$12,498	\$66	\$49	\$41																			

DDOR ID	Previous DDOR?	Distribution Planning Region	Division	Project Type	Project Name	Project Description	In-Service Date	AACE Class	Unit Cost of Traditional Mitigation (\$/k)	Estimated LNBA Value (\$/kW-yr)	Estimated LNBA Value (\$/MW-yr)	Estimated LNBA Value (\$/MW-yr)	Estimated LNBA Value (\$/V-yr)	Expected Performance and Operational Requirements												Customer Count					
														GNA ID	GNA Facility Name	Distribution Service Required	Real Time (RT) or Day Ahead (DA)	Grid Need	Grid Need Unit	Month	Calls/Year	Hours	Duration (Hours)	Residential	Commercial	Industrial	Agricultural	Other	Total		
DDOR115	No	Central Valley	Stockton	Bank	Mormon Bank 2	Install new 30MVA bank at Mormon Substation, install new feeder Mormon 110kV, move to Linden CPA.	6/1/2025	5	\$16,680	\$1,069	\$7,508	\$1,877.885	--	GNA_1631303_Capacity	EAST STOCKTON BANK 3	Capacity	DA	0.31	MW	8-9	45	12 PM - 7 PM	2	2925	369	150	6	25	3475		
DDOR118	No	Central Coast	San Jose	Feeder	Extend Edenvale 2111 To 2112	Install 3,000' of 110DAL in existing 6" conduit @ \$315/ft.	4/2/2024	5	\$945	\$9	\$2	\$3,495	--	GNA_82952112_Capacity	EDENVALE 2112	Capacity	DA	CC	MW	CC	CC	CC	CC	812	18	30	0	4	864		
DDOR126	Yes	Central Coast	Central Coast	Line Section	Rob Roy 2105	Install 3000 ft of 715 A and one SCADA switch and one recloser	1/1/2024	5	\$500	\$13	\$133	\$3,721	--	GNA_83892105_Reliability / Other	ROB ROY 2105	Resiliency	RT	4.59	MW	1-12	4	12AM-12AM	24	8041	667	106	36	24	8876		
DDOR127	Yes	Central Coast	Central Coast	Line Section	Salinas 1102	Replace SW3845 with a Nova Recloser and booster (B24) with a regulator for voltage and transfer load customers from Salinas 1102 to Salinas 1109.	1/1/2024	5	\$250	\$11	\$228	\$3,186	--	GNA_182011102_Reliability / Other	SALINAS 1102	Resiliency	RT	CC	MW	CC	CC	CC	CC	6592	195	78	8	5	6876		
DDOR128	Yes	Central Coast	Los Padres	Line Section	Oceano 1106	Near SW 10166, upgrade 10kV and 2N to 600A. Install SCADA for FLISR	1/1/2024	5	\$425	\$22	\$459	\$6,428	--	GNA_182601106_Reliability / Other	OCEANO 1106	Resiliency	RT	1.07	MW	1-12	2	12AM-12AM	24	4898	654	74	44	20	5690		
DDOR129	Yes	Bay Area	San Francisco	Line Section	Martin (SF H) 1107	Replace 250' underground 3-1/0Al with 3-600Al from up sw 15686 to riser cutout 2615, and replace cutout 2615 with Part 57.	1/1/2024	5	\$150	\$8	\$159	\$2,227	--	GNA_22101107_Reliability / Other	MARTIN (SF H) 1107	Resiliency	RT	1.09	MW	1-12	2	12AM-12AM	24	6881	395	37	5	5	7123		
DDOR130	Yes	Bay Area	San Francisco	Line Section	Martin (SF H) 1108	Replace cutout 8489 and bypass switch 3579 (combo) with Nova Recloser package and replace switch 1075 (H1108) with Nova Recloser package.	1/1/2024	5	\$180	\$9	\$191	\$2,672	--	GNA_22101108_Reliability / Other	MARTIN (SF H) 1108	Resiliency	RT	CC	MW	CC	CC	CC	CC	6438	308	38	1	13	6798		
DDOR131	Yes	Central Coast	San Jose	Line Section	Edenvale 2108	Install SCADA MSO Switch on existing riser pole with SBD-43461	1/1/2024	5	\$95	\$6	\$116	\$1,631	--	GNA_82952108_Reliability / Other	EDENVALE 2108	Resiliency	RT	1.99	MW	1-12	2	12AM-12AM	24	6424	164	68	0	10	6666		

PG&E 2021 Distribution Deferral Opportunity Report (DDOR)

Appendix C: Prioritization Metrics (Tiers)

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Tier	DDOR ID	Candidate Deferral	In-Service Date	Deficiency (MW)	Cost Effectiveness	Forecast Certainty	Market Assessment
Tier 1	DDOR082	Coalinga No 1 Bank 2	05/01/2024	CC	1	-1	1
Tier 1	DDOR111	Embarcadero (SF Z) 1116	04/01/2026	0.3	1	0	1
Tier 1	DDOR110	Embarcadero (SF Z) 1118	06/01/2025	1.3	0	1	0
Tier 1	DDOR086	French Camp Bank 1	05/01/2024	CC	1	0	0
Tier 1	DDOR090	Lakeview 1110	05/01/2024	CC	1	0	1
Tier 1	DDOR115	Mormon Bank 2	06/01/2025	1.1	1	0	1
Tier 1	DDOR095	Newhall Bank 3	06/01/2024	CC	1	0	1
Tier 1	DDOR085	Ripon 1705	05/01/2024	5.9	0	1	0
Tier 1	DDOR101	Rocklin 1105	05/01/2025	0.7	1	-1	1
Tier 1	DDOR112	Saratoga 1102	05/01/2026	CC	1	0	1
Tier 1	DDOR087	Vierra Bank 3	05/01/2024	CC	1	0	1
Tier 1	DDOR084	Zamora 1108	05/01/2024	1.1	1	1	1
Tier 2	DDOR100	Anita 1105	06/01/2024	3.8	0	0	0
Tier 2	DDOR083	Belle Haven Bank 4	05/01/2024	3.9	0	0	0
Tier 2	DDOR109	Blackwell Bank 1	06/01/2025	CC	0	0	0
Tier 2	DDOR089	Bonita Bank 2	05/01/2024	CC	0	0	0
Tier 2	DDOR079	Gabilan Bank 2	05/01/2024	CC	0	0	0
Tier 2	DDOR080	Green Valley Bank 3	05/01/2024	6.2	0	0	0
Tier 2	DDOR088	Hammonds Bank 1	05/01/2024	CC	0	0	0
Tier 2	DDOR097	Plainfield Bank 1	06/01/2024	4.7	0	0	0
Tier 2	DDOR092	San Miguel Bank 2	06/01/2024	CC	0	0	0
Tier 3	DDOR081	Airways Bank 3	05/01/2024	4.5	0	0	FLAG
Tier 3	DDOR108	Ames 1103	06/01/2025	CC	-1	0	0
Tier 3	DDOR076	Arbuckle Bank 2	04/01/2024	2.1	0	-1	0
Tier 3	DDOR113	Banta Bank 1	05/01/2024	CC	-1	-1	-1
Tier 3	DDOR091	Chualar Bank 1	05/01/2024	CC	-1	0	-1
Tier 3	DDOR131	Edenvale 2108	10/01/2024	2.0	FLAG	1	FLAG
Tier 3	DDOR118	Extend Edenvale 2111 to 2112	04/02/2024	CC	FLAG	1	-1
Tier 3	DDOR104	Fulton Bank 5	05/01/2025	4.8	0	-1	FLAG
Tier 3	DDOR094	Garberville Bank 2	06/01/2024	11.3	1	-1	-1
Tier 3	DDOR075	Giffen Bank 2	04/01/2024	CC	0	0	-1
Tier 3	DDOR105	Lockeford Bank 1	05/01/2025	19.5	0	-1	FLAG
Tier 3	DDOR129	Martin (SF H) 1107	10/01/2024	1.1	FLAG	1	FLAG
Tier 3	DDOR130	Martin (SF H) 1108	10/01/2024	CC	FLAG	1	FLAG
Tier 3	DDOR098	Mc Kee 1102	06/01/2024	6.3	0	1	FLAG
Tier 3	DDOR106	Molino Bank 1	06/01/2025	0.8	FLAG	-1	1
Tier 3	DDOR102	Montague Bank 2	05/01/2025	7.6	0	0	FLAG
Tier 3	DDOR128	Oceano 1106	10/01/2024	1.1	FLAG	1	FLAG
Tier 3	DDOR103	Rincon Bank 1	05/01/2024	6.1	0	-1	0
Tier 3	DDOR126	Rob Roy 2105	10/01/2024	4.6	FLAG	1	FLAG
Tier 3	DDOR127	Salinas 1102	10/01/2024	CC	FLAG	1	FLAG
Tier 3	DDOR078	Spence Bank 2	05/01/2024	CC	-1	-1	FLAG
Tier 3	DDOR077	Storey 1103	05/01/2024	4.3	0	0	FLAG
Tier 3	DDOR093	Willow Pass Bank 1	06/01/2024	10.2	0	-1	-1
Tier 3	DDOR096	Wolfe 1111 & Wolfe 1112	06/01/2024	CC	-1	0	FLAG

## Glossary

Step	Column Name	Description
Raw Data	Project ID	The project identifier.
	Project Description	A brief description of the project scope.
	LNBA (\$/MW-yr)	Calculated using the Commission approved LNBA methodology, based on the peak capacity need during the deferral period.
	LNBA (\$/MWh-yr)	Calculated using the Commission approved LNBA methodology, based on the maximum annual energy need during the deferral period.
	LNBA (\$/MWh-day) (Info Only)	Calculated using the Commission approved LNBA methodology, based on the maximum peak day energy need during the deferral period.
	Unit Cost of Traditional Mitigation (\$)	Cost of the traditional mitigation project designed to meet the maximum capacity need for each project.
	Grid Need Certainty	The IOU-specific, maximum grid need certainty score of all the assets associated with a project. (e.g. for SCE this is the Location of Certainty matrix score of the project's load growth drivers weighted by the size of the load growth).
	Operating Date (Info Only)	The expected operating date of a candidate deferral project.
	Year of Need	The earliest starting year among all assets associated with a project.
	Year of Need Indicator	Year of need indicator based on the possible range of all the years of need for this cycle of DDF (i.e. between 2020 and 2029).
	Duration (Hours)	The maximum number of hours that DER is needed in a peak day, during the deferral period, to meet the need that the project mitigates.
	Capacity Need (MW)	The maximum capacity need mitigated by the project during the deferral period.
	Circuits	The number of circuits that DER can be interconnected to which will meet the need that the project mitigates.
	Capacity Need (MW)/Circuit	The max capacity need per number of circuits to which DERs can connect and meet the grid need.
Step 1: Normalize Raw Data	Operational Requirement	The operational requirement of the need.
	Number of Grid Needs	The number of grid needs that the project mitigates.
	LNBA (\$/MW-yr)	The "LNBA (\$/MW-yr)" value is normalized between 0 and 1, based on the range of the "LNBA (\$/MW-yr)" values of all the candidate deferral projects.
	LNBA (\$/MWh-yr)	The "LNBA (\$/MWh-yr)" value is normalized between 0 and 1, based on the range of the "LNBA (\$/MWh-yr)" values of all the candidate deferral projects.
	Unit Cost of Traditional Mitigation (\$)	
	Grid Need Certainty	The "Grid Need Certainty" value is normalized between 0 and 1 based on the range of the "Grid Need Certainty" values of all the candidate deferral projects.
	Year of Need	
	Duration (Hours)	The "Duration (Hours)" value is normalized between 0 and 1, based on the range of the "Duration (Hours)" values of all the candidate deferral projects. The shorter the duration, the higher the normalized Duration value.
	Capacity Need (MW)/Circuit	The "Capacity Need (MW)/Circuit" value is normalized between 0 and 1 based on the range of the "Capacity Need (MW)/Circuit" values among all the candidate deferral projects. The smaller the capacity needs per circuit, the higher chance for a feasible DER solution, the higher the normalized Capacity Needs/Circuit value.
	Operational Requirement	
Step 2: Apply Red Flags	Number of Grid Needs	
	LNBA (\$/MW-yr)	
	LNBA (\$/MWh-yr)	
	Unit Cost of Traditional Mitigation (\$)	If the "Unit Cost of Traditional Mitigation (\$)" for a project is below the respective threshold, it will be Red Flagged and relegated to Tier 3.
	Grid Need Certainty	
	Year of Need	If the "Year of Need" for a project is above the respective threshold, it will be Red Flagged and relegated to Tier 3.
	Duration (Hours)	
	Capacity Need (MW)/Circuit	
	Operational Requirement	If the "Operational Requirement" for a project is not Day Ahead, it will be Red Flagged and relegated to Tier 3.
	Number of Grid Needs	If the "Number of Grid Needs" is above the respective threshold, it will be Red Flagged and relegated to Tier 3.
Step 3: Determine Quantitative Metric Scores	Cost Effectiveness	The sum of normalized "LNBA/MW-yr" and normalized "LNBA/MWh-yr" values.
	Scaled Forecast Certainty	The normalized "Grid Need Certainty" score scaled up to match the range of the other metrics.
	Market Assessment	The sum of normalized "Duration (Hours)" and normalized "Capacity Need (MW)/Circuit" values.
Step 4: Rank Quantitative Metric Scores	Cost Effectiveness	Cost Effectiveness scores in descending order (i.e. the highest score ranks 1)
	Scaled Forecast Certainty	Forecast Certainty scores in descending order (i.e. the highest score ranks 1)
	Market Assessment	Market Assessment scores in descending order (i.e. the highest score ranks 1)
Step 5: Assign RAG Scores	Cost Effectiveness	The Red Amber Green (RAG) score of the Cost Effectiveness rankings. Projects ranked in the Bottom Quartile are assigned a RAG score of -1, projects ranked in the Top Quartile are assigned a RAG score of +1, all other projects are assigned a RAG score of 0.
	Scaled Forecast Certainty	The RAG score of the Forecast Certainty rankings. Projects ranked in the Bottom Quartile are assigned a RAG score of -1, projects ranked in the Top Quartile are assigned a RAG score of +1, all other projects are assigned a RAG score of 0.
	Market Assessment	The RAG score of the Market Assessment rankings. Projects ranked in the Bottom Quartile are assigned a RAG score of -1, projects ranked in the Top Quartile are assigned a RAG score of +1, all other projects are assigned a RAG score of 0.
	Final RAG Score	The sum of the RAG scores across the three metrics. Projects with Red Flags are automatically binned into Tier 3.
Step 6: Determine Final Score and Ranking	Final Score	The sum of the Cost Effectiveness, Forecast Certainty, and Market Assessment scores.
	Final Ranking	Final Score in descending order (i.e. the highest score ranks 1).
	Final Tiering	The tiered recommendation. Red Flagged projects and projects with a <0 RAG score are in Tier 3, projects with a >0 RAG score are in Tier 1, and projects with a RAG score = 0 are in Tier 2.

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**PG&E 2021 Distribution Deferral Opportunity Report (DDOR)**  
**Appendix C: Prioritization Metrics (Candidate Deferral Inputs)**  
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**Public**

Project Name	DDOR ID	In-Service Date	Real Time (RT) or Day Ahead (DA)	Min of Year of Need	Max of Duration (Hours)	Sum of Grid Need (MW)	Sum of Circuits (that DER can connect to)	Count of GNA ID
Airways Bank 3	DDOR081	05/01/2024	DA	2021	24	4.5	7	5
Ames 1103	DDOR108	06/01/2025	DA	2025	CC	CC	6	3
Anita 1105	DDOR100	06/01/2024	DA	2021	7	3.8	6	3
Arbuckle Bank 2	DDOR076	04/01/2024	DA	2021	7	2.1	2	2
Banta Bank 1	DDOR113	05/01/2024	DA	2022	CC	CC	5	2
Belle Haven Bank 4	DDOR083	05/01/2024	DA	2021	12	3.9	2	1
Blackwell Bank 1	DDOR109	06/01/2025	DA	2021	CC	CC	2	1
Bonita Bank 2	DDOR089	05/01/2024	DA	2021	CC	CC	5	3
Chualar Bank 1	DDOR091	05/01/2024	DA	2021	CC	CC	3	2
Coalinga No 1 Bank 2	DDOR082	05/01/2024	DA	2024	CC	CC	2	1
Edenvale 2108	DDOR131	10/01/2024	RT	2021	24	2.0	1	1
Embarcadero (SF Z) 1116	DDOR111	04/01/2026	DA	2024	5	0.3	1	1
Embarcadero (SF Z) 1118	DDOR110	06/01/2025	DA	2025	9	1.3	1	1
Extend Edenvale 2111 to 2112	DDOR118	04/02/2024	DA	2024	CC	CC	1	1
French Camp Bank 1	DDOR086	05/01/2024	DA	2022	CC	CC	2	1
Fulton Bank 5	DDOR104	05/01/2025	DA	2021	6	4.8	8	4
Gabilan Bank 2	DDOR079	05/01/2024	DA	2021	CC	CC	3	2
Garberville Bank 2	DDOR094	06/01/2024	DA	2021	24	11.3	4	3
Giffen Bank 2	DDOR075	04/01/2024	DA	2021	CC	CC	3	2
Green Valley Bank 3	DDOR080	05/01/2024	DA	2021	13	6.2	2	1
Hammonds Bank 1	DDOR088	05/01/2024	DA	2022	CC	CC	4	2
Lakeview 1110	DDOR090	05/01/2024	DA	2024	CC	CC	1	1
Lockeford Bank 1	DDOR105	05/01/2025	DA + RT	2021	48	19.5	6	3
Martin (SF H) 1107	DDOR129	10/01/2024	RT	2021	24	1.1	1	1
Martin (SF H) 1108	DDOR130	10/01/2024	RT	2021	CC	CC	1	1
Mc Kee 1102	DDOR098	06/01/2024	DA	2021	7	6.3	6	4
Molino Bank 1	DDOR106	06/01/2025	DA	2023	3	0.8	4	2
Montague Bank 2	DDOR102	05/01/2025	RT	2021	11	7.6	3	1
Mormon Bank 2	DDOR115	06/01/2025	DA	2021	4	1.1	3	2
Newhall Bank 3	DDOR095	06/01/2024	DA	2021	CC	CC	2	2
Oceano 1106	DDOR128	10/01/2024	RT	2021	24	1.1	1	1
Plainfield Bank 1	DDOR097	06/01/2024	DA	2021	7	4.7	1	1
Rincon Bank 1	DDOR103	05/01/2024	DA	2021	9	6.1	2	1
Ripon 1705	DDOR085	05/01/2024	DA	2021	7	5.9	5	3
Rob Roy 2105	DDOR126	10/01/2024	RT	2021	24	4.6	1	1
Rocklin 1105	DDOR101	05/01/2025	DA	2022	2	0.7	2	1
Salinas 1102	DDOR127	10/01/2024	RT	2021	CC	CC	1	1
San Miguel Bank 2	DDOR092	06/01/2024	DA	2021	CC	CC	5	2
Saratoga 1102	DDOR112	05/01/2026	DA	2021	CC	CC	1	1
Spence Bank 2	DDOR078	05/01/2024	DA	2021	CC	CC	6	4
Storey 1103	DDOR077	05/01/2024	DA	2021	24	4.3	4	4
Vierra Bank 3	DDOR087	05/01/2024	DA	2021	CC	CC	2	1
Willow Pass Bank 1	DDOR093	06/01/2024	DA	2021	11	10.2	2	1
Wolfe 1111 & Wolfe 1112	DDOR096	06/01/2024	DA	2021	CC	CC	13	7
Zamora 1108	DDOR084	05/01/2024	DA	2021	3	1.1	4	2

**PG&E 2021 Distribution Deferral Opportunity Report (DDOR)**

**Appendix C: Prioritization Metrics (LNBA Inputs)**

**Version Date: 8/16/2021**

**Public**

Project Name	DDOR ID	Estimated LNBA Value (\$/kW-yr)	Estimated LNBA Value (\$/MWh-yr)	Estimated LNBA Value (\$/MWh-day)	Project Cost (\$k)
Airways Bank 3	DDOR081	184	522	337,038	11,900
Ames 1103	DDOR108	19	14	12,230	2,400
Anita 1105	DDOR100	76	177	95,720	2,500
Arbuckle Bank 2	DDOR076	244	254	261,568	9,570
Banta Bank 1	DDOR113	31	5	11,377	10,354
Belle Haven Bank 4	DDOR083	201	103	117,155	14,700
Blackwell Bank 1	DDOR109	116	59	69,767	6,489
Bonita Bank 2	DDOR089	188	186	150,576	11,900
Chualar Bank 1	DDOR091	19	9	21,030	6,500
Coalinga No 1 Bank 2	DDOR082	699	2,688	1,223,155	6,500
Edenvale 2108	DDOR131	6	116	1,631	95
Embarcadero (SF Z) 1116	DDOR111	446	4251	446,355	2,501
Embarcadero (SF Z) 1118	DDOR110	101	43	67,339	2,501
Extend Edenvale 2111 to 2112	DDOR118	9	2	3,495	945
French Camp Bank 1	DDOR086	244	346	213,410	6,500
Fulton Bank 5	DDOR104	71	352	98,490	6,500
Gabilan Bank 2	DDOR079	53	22	54,495	6,500
Garberville Bank 2	DDOR094	331	48	121,816	53,907
Giffen Bank 2	DDOR075	62	11	17,993	11,900
Green Valley Bank 3	DDOR080	56	21	30,343	6,500
Hammonds Bank 1	DDOR088	40	33	23,357	6,500
Lakeview 1110	DDOR090	535	1,876	1,247,479	4,496
Lockeford Bank 1	DDOR105	38	74	6,146	10,885
Martin (SF H) 1107	DDOR129	8	159	2,227	150
Martin (SF H) 1108	DDOR130	9	191	2,672	180
Mc Kee 1102	DDOR098	44	93	54,010	2,450
Molino Bank 1	DDOR106	25	47	53,188	400
Montague Bank 2	DDOR102	45	22	24,578	6,500
Mormon Bank 2	DDOR115	1069	7,508	1,877,885	16,680
Newhall Bank 3	DDOR095	219	1708	613,616	6,500
Oceano 1106	DDOR128	22	459	6,428	425
Plainfield Bank 1	DDOR097	135	158	135,163	11,940
Rincon Bank 1	DDOR103	124	75	96,355	6,500
Ripon 1705	DDOR085	37	66	50,775	1,900
Rob Roy 2105	DDOR126	13	133	3,721	500
Rocklin 1105	DDOR101	104	1333	311,947	1,400
Salinas 1102	DDOR127	11	228	3,186	250
San Miguel Bank 2	DDOR092	216	223	185,831	9,366
Saratoga 1102	DDOR112	519	1427	649,211	5,092
Spence Bank 2	DDOR078	17	5	11,548	9,967
Storey 1103	DDOR077	31	60	38,264	2,400
Vierra Bank 3	DDOR087	640	2,255	1,120,871	11,900
Willow Pass Bank 1	DDOR093	66	49	41,852	12,498
Wolfe 1111 & Wolfe 1112	DDOR096	21	4	7,849	8,788
Zamora 1108	DDOR084	196	1,594	653,758	1,900



**PG&E 2021 Distribution Deferral Opportunity Report (DDOR)**  
**Appendix C: Prioritization Metrics (Grid Need Certainty)**  
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Project Name	Grid Need Certainty Score
Airways Bank 3	-19
Ames 1103	-20
Anita 1105	-27
Banta Bank 1	-29
Belle Haven Bank 4	-25
Blackwell Bank 1	-23
Bonita Bank 2	-21
Chualar Bank 1	-25
Coalinga No 1 Bank 2	-33
Arbuckle Bank 2	-30
Embarcadero (SF Z) 1116	-19
Embarcadero (SF Z) 1118	-17
Extend Edenvale 2111 to 2112	-15
French Camp Bank 1	-27
Fulton Bank 5	-36
Gabilan Bank 2	-22
Garberville Bank 2	-37
Giffen Bank 2	-24
Green Valley Bank 3	-27
Hammonds Bank 1	-25
Lakeview 1110	-21
Rob Roy 2105	-13
Oceano 1106	-15
Lockeford Bank 1	-29
Mc Kee 1102	-15
Molino Bank 1	-33
Montague Bank 2	-25
Mormon Bank 2	-22
Newhall Bank 3	-22
Plainfield Bank 1	-25
Martin (SF H) 1108	-15
Salinas 1102	-12
Martin (SF H) 1107	-15
Rincon Bank 1	-40
Ripon 1705	-16
Rocklin 1105	-28
San Miguel Bank 2	-23
Saratoga 1102	-19
Edenvale 2108	-15
Spence Bank 2	-31
Storey 1103	-20
Vierra Bank 3	-25
Willow Pass Bank 1	-29
Wolfe 1111 & Wolfe 1112	-19
Zamora 1108	-16

Worksheet/Tab	Purpose
General Input	Data includes equipment revenue requirement multipliers and O&M costs as a percentage of direct costs. Generic discount rate and default inflation rate information. 2021 updates include 1.43% property tax factor, 6.77% Discount Factor (2020 Cost of Capital Decision)
LNBA Results-CandidateDeferrals	Results of the LNBA values are presented here. For example: Value of Deferral Benefits (\$000s) in Install Year (Capital Benefit in Install Year, O&M Deferral Benefit in Install Year) and Load Forecast year. Normalized Deferral Benefit (\$/kW*yr)
Project Specific Inputs	Utility Inputs: Project specific information such as cost and need for projects .

**PG&E 2021 Distribution Deferral Opportunity Report (DDOR)**  
**Appendix D: LNBA - Candidate Deferral Opportunities - General Inputs**  
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First load forecast year	8/1/2021	
After Tax Weighted Cost of Capital (ATWACC)	6.77%	
Cost Year Basis*	8/1/2021	
End of Deferral year	8/1/2031	10 year added to first load forecast year

Legend

	Input
	Reference value
	Calculated

Input	2020 Cost			
	General	Substation Bank	Primary Feeder	Poles and towers
Revenue Requirement Multiplier (Fixed Costs)	144.87%	143.6%	146.1%	150.01%
Revenue Requirement Multiplier With O&M	247.12%	185.8%	308.4%	309.8%
Equipment Inflation	2.5%	2.5%	2.5%	2.5%
O&M Inflation	2.5%	2.5%	2.5%	2.5%
O&M Factor	5.15%	2.13%	8.18%	8.18%
O&M Old Eqpt	0.0%	0.0%	0.0%	0.0%
Book Life	46	46	46	44
RECC	0.04759	0.04722	0.04722	0.0480
Discount rate net or project inflation (5/yr)	4.17%	4.17%	4.17%	4.17%

(\*) 2021 updates include 1.43% property tax factor, 6.77% Discount Factor (2020 Cost of Capital Decision). Multipliers continue to use May 1, 2021 depreciation rates and O&M factors from 2020 tool.

**\*\*For projects with hybrid (Bank and Feeder) needs use the General during detailed analysis**

2020 Multiplier Details									
2020	Rate	Ratio	WACC	TR	ATWACC		Station Equipment	Poles, Towers, & Fixtures	OH Conductors & Devices
Bond Interest	4.17	0.48	2.00		1.44	SalVal	-40	-150	-90
Equity	10.25	0.52	5.33		5.33	ServLife	46	44	46
Adopted			7.33	0.2798	6.77	PVRR (Fixed)	143.64	150.01	146.11
						PVRR W/O&M	185.84	309.82	308.40
						O&M factor	2.13%	8.18%	8.18%

Description	PVRR	PVRR	PVRR
Return on Investment	56.37%	29.66%	43.83%
Book Depreciation	47.93%	85.60%	65.05%
Federal and State Income Taxes	15.20%	10.69%	13.08%
Property Tax	13.89%	13.89%	13.89%
Insurance	10.25%	10.18%	10.25%
Subtotal of Fixed Charges	143.64%	150.01%	146.11%
M&O	42.19%	159.80%	162.30%
<b>Total</b>	<b>185.84%</b>	<b>309.82%</b>	<b>308.40%</b>

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PG&E 2021 Distribution Deferral Opportunity Report (DDOR)  
Appendix D: LNBA - Candidate Deferral Opportunities - Project Specific Inputs  
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Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	DER Installation Year
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR075_GNA_2531501_Capacity	GNA_2531501_Capacity	DDOR075	Giffen Bank 2	Bank		\$11,900	N/A	New	4/1/2024	CC	CC	7	Capacity	CC	MW	4/1/2024
DDOR075_GNA_253151102_Capacity	GNA_253151102_Capacity	DDOR075	Giffen Bank 2	Bank		\$11,900	N/A	New	4/1/2024	CC	CC	7	Capacity	CC	MW	4/1/2024
DDOR076_GNA_638101_Capacity	GNA_638101_Capacity	DDOR076	Arbuckle Bank 2	Bank		\$9,570	N/A	Existing	4/1/2024	2003	13	7	Capacity	1.87	MW	4/1/2024
DDOR076_GNA_620802_Capacity	GNA_620802_Capacity	DDOR076	Arbuckle Bank 2	Bank		\$9,570	N/A	Existing	4/1/2024	33	1	7	Capacity	0.25	MW	4/1/2024
DDOR077_GNA_254611109_Capacity	GNA_254611109_Capacity	DDOR077	Storey 1103	Feeder		N/A	\$2,400	Existing	5/1/2024	1621	16	7	Capacity	2.32	MW	5/1/2024
DDOR077_GNA_254611106_Capacity	GNA_254611106_Capacity	DDOR077	Storey 1103	Feeder		N/A	\$2,400	Existing	5/1/2024	171	3	7	Capacity	0.81	MW	5/1/2024
DDOR077_GNA_254611105_Capacity	GNA_254611105_Capacity	DDOR077	Storey 1103	Feeder		N/A	\$2,400	Existing	5/1/2024	386	5	7	Capacity	1.15	MW	5/1/2024
DDOR077_GNA_1_Voltage	GNA_1_Voltage	DDOR077	Storey 1103	Feeder		N/A	\$2,400	Existing	5/1/2024	370	1	7	Voltage	0.04	VPU	5/1/2024
DDOR078_GNA_1822002_Capacity	GNA_1822002_Capacity	DDOR078	Spence Bank 2	Bank		\$9,967	N/A	Existing	5/1/2024	58919	194	7	Capacity	11.44	MW	5/1/2024
DDOR078_GNA_182201103_Capacity	GNA_182201103_Capacity	DDOR078	Spence Bank 2	Bank		\$9,967	N/A	Existing	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR078_GNA_182201104_Capacity	GNA_182201104_Capacity	DDOR078	Spence Bank 2	Bank		\$9,967	N/A	Existing	5/1/2024	3449	16	7	Capacity	4.03	MW	5/1/2024
DDOR078_GNA_182201102_Capacity	GNA_182201102_Capacity	DDOR078	Spence Bank 2	Bank		\$9,967	N/A	Existing	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR079_GNA_1823301_Capacity	GNA_1823301_Capacity	DDOR079	Gabilan Bank 2	Bank		\$6,500	N/A	New	5/1/2024	10350	30	7	Capacity	4.97	MW	5/1/2024
DDOR079_GNA_182331101_Capacity	GNA_182331101_Capacity	DDOR079	Gabilan Bank 2	Bank		\$6,500	N/A	New	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR080_GNA_831903_Capacity	GNA_831903_Capacity	DDOR080	Green Valley Bank 3	Bank		\$6,500	N/A	Existing	5/1/2024	16625	81	7	Capacity	6.21	MW	5/1/2024
DDOR081_GNA_252041107_Capacity	GNA_252041107_Capacity	DDOR081	Airways Bank 3	Bank		\$11,900	N/A	New	5/1/2024	1249	12	7	Capacity	2.47	MW	5/1/2024
DDOR081_GNA_2_Voltage	GNA_2520402_Capacity	DDOR081	Airways Bank 3	Bank		\$11,900	N/A	New	5/1/2024	155	2	7	Capacity	0.84	MW	5/1/2024
DDOR081_GNA_252041102_Capacity	GNA_252041102_Capacity	DDOR081	Airways Bank 3	Bank		\$11,900	N/A	New	5/1/2024	121	2	7	Capacity	0.76	MW	5/1/2024
DDOR081_GNA_252041102_Capacity	GNA_252411104_Capacity	DDOR081	Airways Bank 3	Bank		\$11,900	N/A	New	5/1/2024	62	1	7	Capacity	0.43	MW	5/1/2024
DDOR081_GNA_252411104_Capacity	GNA_2_Voltage	DDOR081	Airways Bank 3	Bank		\$11,900	N/A	New	5/1/2024	199	1	7	Voltage	0.02	VPU	5/1/2024
DDOR082_GNA_2521602_Capacity	GNA_2521602_Capacity	DDOR082	Coalinga No 1 Bank 2	Bank		\$6,500	N/A	Existing	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR083_GNA_240203_Capacity	GNA_240203_Capacity	DDOR083	Belle Haven Bank 4	Bank		\$14,700	N/A	Existing	5/1/2024	7705	47	7	Capacity	3.94	MW	5/1/2024
DDOR084_GNA_627201_Capacity	GNA_627201_Capacity	DDOR084	Zamora 1108	Feeder		N/A	\$1,900	New	5/1/2024	123	2	7	Capacity	1.01	MW	5/1/2024
DDOR084_GNA_631901_Capacity	GNA_631901_Capacity	DDOR084	Zamora 1108	Feeder		N/A	\$1,900	New	5/1/2024	15	0	7	Capacity	0.11	MW	5/1/2024
DDOR085_GNA_163801704_Capacity	GNA_163801704_Capacity	DDOR085	Ripon 1705	Feeder		N/A	\$1,900	New	5/1/2024	2973	24	7	Capacity	3.48	MW	5/1/2024
DDOR085_GNA_1626107_Capacity	GNA_1626107_Capacity	DDOR085	Ripon 1705	Feeder		N/A	\$1,900	New	5/1/2024	170	3	7	Capacity	1.09	MW	5/1/2024
DDOR085_GNA_1638002_Capacity	GNA_1638002_Capacity	DDOR085	Ripon 1705	Feeder		N/A	\$1,900	New	5/1/2024	192	3	7	Capacity	1.31	MW	5/1/2024
DDOR086_GNA_1632901_Capacity	GNA_1632901_Capacity	DDOR086	French Camp Bank 1	Bank		\$6,500	N/A	Existing	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR087_GNA_1626106_Capacity	GNA_1626106_Capacity	DDOR087	Vierra Bank 3	Feeder		N/A	\$11,900	New	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR088_GNA_2534001_Capacity	GNA_2534001_Capacity	DDOR088	Hammonds Bank 1	Bank		\$6,500	N/A	Existing	5/1/2024	2098	34	7	Capacity	3.82	MW	5/1/2024
DDOR088_GNA_253401104_Capacity	GNA_253401104_Capacity	DDOR088	Hammonds Bank 1	Bank		\$6,500	N/A	Existing	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR089_GNA_2553901_Capacity	GNA_2553901_Capacity	DDOR089	Bonita Bank 2	Bank		\$11,900	N/A	New	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR089_GNA_255391102_Capacity	GNA_255391102_Capacity	DDOR089	Bonita Bank 2	Bank		\$11,900	N/A	New	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR089_GNA_254611106_Capacity	GNA_254611106_Capacity	DDOR089	Bonita Bank 2	Bank		\$11,900	N/A	New	5/1/2024	171	3	7	Capacity	0.81	MW	5/1/2024
DDOR090_GNA_253411106_Capacity	GNA_253411106_Capacity	DDOR090	Lakeview 1110	Feeder		N/A	\$4,496	New	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR091_GNA_182201102_Capacity	GNA_182201102_Capacity	DDOR091	Chualar Bank 1	Bank		\$6,500	N/A	New	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR091_GNA_1822001_Capacity	GNA_1822001_Capacity	DDOR091	Chualar Bank 1	Bank		\$6,500	N/A	New	5/1/2024	12861	43	7	Capacity	10.83	MW	5/1/2024
DDOR092_GNA_1826601_Capacity	GNA_1826601_Capacity	DDOR092	San Miguel Bank 2	Bank		\$9,366	N/A	New	6/1/2024	2831	23	7	Capacity	2.58	MW	6/1/2024
DDOR092_GNA_182661104_Capacity	GNA_182661104_Capacity	DDOR092	San Miguel Bank 2	Bank		\$9,366	N/A	New	6/1/2024	CC	CC	7	Capacity	CC	MW	6/1/2024
DDOR093_GNA_139103_Capacity	GNA_139103_Capacity	DDOR093	Willow Pass Bank 1	Bank		\$12,498	N/A	Existing	6/1/2024	13678	112	7	Capacity	10.19	MW	6/1/2024
DDOR094_GNA_1922201_Capacity	GNA_1922201_Capacity	DDOR094	Garberville Bank 2	Bank		\$53,907	N/A	New	6/1/2024	51807	142	7	Capacity	7.47	MW	6/1/2024
DDOR094_GNA_192221102_Capacity	GNA_192221102_Capacity	DDOR094	Garberville Bank 2	Bank		\$53,907	N/A	New	6/1/2024	26645	73	7	Capacity	3.84	MW	6/1/2024
DDOR094_GNA_3_Voltage	GNA_3_Voltage	DDOR094	Garberville Bank 2	Bank		\$53,907	N/A	New	6/1/2024	1490	4	7	Voltage	0.17	VPU	6/1/2024
DDOR095_GNA_2544603_Capacity	GNA_2544603_Capacity	DDOR095	Newhall Bank 3	Bank		\$6,500	N/A	Existing	6/1/2024	104	2	7	Capacity	0.79	MW	6/1/2024
DDOR095_GNA_254461109_Capacity	GNA_254461109_Capacity	DDOR095	Newhall Bank 3	Bank		\$6,500	N/A	Existing	6/1/2024	CC	CC	7	Capacity	CC	MW	6/1/2024
DDOR096_GNA_83671105_Capacity	GNA_83671105_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024	CC	CC	7	Capacity	CC	MW	6/1/2024
DDOR096_GNA_836701_Capacity	GNA_836701_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024	36371	191	7	Capacity	13.67	MW	6/1/2024
DDOR096_GNA_833703_Capacity	GNA_833703_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024	27	2	7	Capacity	0.80	MW	6/1/2024
DDOR096_GNA_83371114_Capacity	GNA_83371114_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024	3690	21	7	Capacity	2.62	MW	6/1/2024
DDOR096_GNA_83371111_Capacity	GNA_83371111_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024	1174	12	7	Capacity	1.96	MW	6/1/2024
DDOR096_GNA_83371110_Capacity	GNA_83371110_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024	CC	CC	7	Capacity	CC	MW	6/1/2024
DDOR096_GNA_83371113_Capacity	GNA_83371113_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024	32	1	7	Capacity	0.34	MW	6/1/2024

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Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	DER Installation Year
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR097_GNA_63441106_Capacity	GNA_63441106_Capacity	DDOR097	Plainfield Bank 1	Bank		\$11,940	N/A	Existing	6/1/2024	4046	33	7	Capacity	4.74	MW	6/1/2024
DDOR098_GNA_835301_Capacity	GNA_835301_Capacity	DDOR098	Mc Kee 1102	Feeder		N/A	\$2,450	New	6/1/2024	217	7	7	Capacity	1.81	MW	6/1/2024
DDOR098_GNA_83531110_Capacity	GNA_83531110_Capacity	DDOR098	Mc Kee 1102	Feeder		N/A	\$2,450	New	6/1/2024	228	6	7	Capacity	1.20	MW	6/1/2024
DDOR098_GNA_83531108_Capacity	GNA_83531108_Capacity	DDOR098	Mc Kee 1102	Feeder		N/A	\$2,450	New	6/1/2024	1335	11	7	Capacity	1.56	MW	6/1/2024
DDOR098_GNA_83531107_Capacity	GNA_83531107_Capacity	DDOR098	Mc Kee 1102	Feeder		N/A	\$2,450	New	6/1/2024	1240	12	7	Capacity	1.77	MW	6/1/2024
DDOR100_GNA_1030702_Capacity	GNA_1030702_Capacity	DDOR100	Anita 1105	Feeder		N/A	\$2,500	New	6/1/2024	1279	15	7	Capacity	2.20	MW	6/1/2024
DDOR100_GNA_1030701_Capacity	GNA_1030701_Capacity	DDOR100	Anita 1105	Feeder		N/A	\$2,500	New	6/1/2024	345	5	7	Capacity	1.23	MW	6/1/2024
DDOR100_GNA_1028401_Capacity	GNA_1028401_Capacity	DDOR100	Anita 1105	Feeder		N/A	\$2,500	New	6/1/2024	6	1	7	Capacity	0.36	MW	6/1/2024
DDOR101_GNA_1525802_Capacity	GNA_1525802_Capacity	DDOR101	Rocklin 1105	Feeder		N/A	\$1,400	Existing	5/1/2025	56	1	6	Capacity	0.72	MW	5/1/2025
DDOR102_GNA_838903_Reliability / Other	GNA_838903_Reliability / Other	DDOR102	Montague Bank 2	Bank		\$6,500	N/A	Existing	5/1/2025	15382	84	6	Resiliency	7.60	MW	5/1/2025
DDOR103_GNA_433202_Capacity	GNA_433202_Capacity	DDOR103	Rincon Bank 1	Feeder		N/A	\$6,500	New	5/1/2024	10040	55	7	Capacity	6.06	MW	5/1/2024
DDOR104_GNA_425606_Capacity	GNA_425606_Capacity	DDOR104	Fulton Bank 5	Bank		\$6,500	N/A	Existing	5/1/2025	23	1	6	Capacity	0.26	MW	5/1/2025
DDOR104_GNA_42561107_Capacity	GNA_42561107_Capacity	DDOR104	Fulton Bank 5	Bank		\$6,500	N/A	Existing	5/1/2025	457	9	6	Capacity	1.49	MW	5/1/2025
DDOR104_GNA_42561102_Capacity	GNA_42561102_Capacity	DDOR104	Fulton Bank 5	Bank		\$6,500	N/A	Existing	5/1/2025	109	2	6	Capacity	0.83	MW	5/1/2025
DDOR104_GNA_425605_Capacity	GNA_425605_Capacity	DDOR104	Fulton Bank 5	Bank		\$6,500	N/A	Existing	5/1/2025	383	9	6	Capacity	2.22	MW	5/1/2025
DDOR105_GNA_1636804_Reliability / Other	GNA_1636804_Reliability / Other	DDOR105	Lockeford Bank 1	Bank		\$10,885	N/A	New	5/1/2025	8525	710	6	Resiliency	14.80	MW	5/1/2025
DDOR105_GNA_1636804_Capacity	GNA_1636804_Capacity	DDOR105	Lockeford Bank 1	Bank		\$10,885	N/A	New	5/1/2025	1361	13	6	Capacity	4.28	MW	5/1/2025
DDOR105_GNA_1621102_Capacity	GNA_1621102_Capacity	DDOR105	Lockeford Bank 1	Bank		\$10,885	N/A	New	5/1/2025	91	1	6	Capacity	0.37	MW	5/1/2025
DDOR106_GNA_425702_Capacity	GNA_425702_Capacity	DDOR106	Molino Bank 1	Bank		\$400	N/A	Existing	6/1/2025	47	0	6	Capacity	0.15	MW	6/1/2025
DDOR106_GNA_42571102_Capacity	GNA_42571102_Capacity	DDOR106	Molino Bank 1	Bank		\$400	N/A	Existing	6/1/2025	403	2	6	Capacity	0.69	MW	6/1/2025
DDOR108_GNA_83631109_Capacity	GNA_83631109_Capacity	DDOR108	Ames 1103	Feeder		N/A	\$2,400	New	6/1/2025	CC	CC	6	Capacity	CC	MW	6/1/2025
DDOR108_GNA_83631110_Capacity	GNA_83631110_Capacity	DDOR108	Ames 1103	Feeder		N/A	\$2,400	New	6/1/2025	CC	CC	6	Capacity	CC	MW	6/1/2025
DDOR108_GNA_836303_Capacity	GNA_836303_Capacity	DDOR108	Ames 1103	Feeder		N/A	\$2,400	New	6/1/2025	8581	65	6	Capacity	7.22	MW	6/1/2025
DDOR109_GNA_2546801_Capacity_RF	GNA_2546801_Capacity_RF	DDOR109	Blackwell Bank 1	Bank		\$6,489	N/A	Existing	6/1/2025	CC	CC	6	Capacity	CC	MW	6/1/2025
DDOR110_GNA_22871118_Capacity	GNA_22871118_Capacity	DDOR110	Embarcadero (Sf Z) 1118	Bank		\$2,501	N/A	Existing	6/1/2025	3054	12	6	Capacity	1.30	MW	6/1/2025
DDOR111_GNA_22871116_Capacity	GNA_22871116_Capacity	DDOR111	Embarcadero (Sf Z) 1116	Bank		\$2,501	N/A	Existing	4/1/2026	30	1	5	Capacity	0.29	MW	4/1/2026
DDOR112_GNA_83371106_Capacity	GNA_83371106_Capacity	DDOR112	Saratoga 1102	Feeder		N/A	\$5,092	New	5/1/2026	CC	CC	5	Capacity	CC	MW	5/1/2026
DDOR113_GNA_1628801_Capacity	GNA_1628801_Capacity	DDOR113	Banta Bank 1	Bank		\$10,354	N/A	Existing	5/1/2024	9104	67	7	Capacity	6.74	MW	5/1/2024
DDOR113_GNA_162881102_Capacity	GNA_162881102_Capacity	DDOR113	Banta Bank 1	Bank		\$10,354	N/A	Existing	5/1/2024	CC	CC	7	Capacity	CC	MW	5/1/2024
DDOR115_GNA_163211102_Capacity	GNA_163211102_Capacity	DDOR115	Mormon Bank 2	Bank		\$16,680	N/A	New	6/1/2025	123	3	6	Capacity	0.75	MW	6/1/2025
DDOR115_GNA_1631303_Capacity	GNA_1631303_Capacity	DDOR115	Mormon Bank 2	Bank		\$16,680	N/A	New	6/1/2025	28	1	6	Capacity	0.31	MW	6/1/2025
DDOR118_GNA_82952112_Capacity	GNA_82952112_Capacity	DDOR118	Extend Edenvale 2111 To 2112	Feeder		N/A	\$945	Existing	4/2/2024	CC	CC	7	Capacity	CC	MW	4/2/2024
DDOR126_GNA_083692105_Resiliency (micro-grid)	GNA_083692105_Resiliency (micro-grid)	DDOR126	Rob Roy 2105	Line Section		N/A	\$500	New	10/1/2024	441	110	7	Resiliency	4.59	MW	10/1/2024
DDOR127_GNA_182011102_Resiliency (micro-grid)	GNA_182011102_Resiliency (micro-grid)	DDOR127	Salinas 1102	Line Section		N/A	\$250	Existing	10/1/2024	CC	CC	7	Resiliency	CC	MW	10/1/2024
DDOR128_GNA_182601106_Resiliency (micro-grid)	GNA_182601106_Resiliency (micro-grid)	DDOR128	Oceano 1106	Line Section		N/A	\$425	Existing	10/1/2024	51	26	7	Resiliency	1.07	MW	10/1/2024
DDOR129_GNA_022101107_Resiliency (micro-grid)	GNA_022101107_Resiliency (micro-grid)	DDOR129	Martin (Sf H) 1107	Line Section		N/A	\$150	Existing	10/1/2024	52	26	7	Resiliency	1.09	MW	10/1/2024
DDOR130_GNA_022101108_Resiliency (micro-grid)	GNA_022101108_Resiliency (micro-grid)	DDOR130	Martin (Sf H) 1108	Line Section		N/A	\$180	Existing	10/1/2024	CC	CC	7	Resiliency	CC	MW	10/1/2024
DDOR131_GNA_082952108_Resiliency (micro-grid)	GNA_082952108_Resiliency (micro-grid)	DDOR131	Edenvale 2108	Line Section		N/A	\$95	New	10/1/2024	96	48	7	Resiliency	1.99	MW	10/1/2024

**PG&E 2021 Distribution Deferral Opportunity Report (DDOR)**  
**Appendix E: LNBA - Planned Investments - Worksheet Overview**  
**Version Date: 8/16/2021**  
**Public**

Worksheet/Tab	Purpose
General Input	Data includes equipment revenue requirement multipliers and O&M costs as a percentage of direct costs. Generic discount rate and default inflation rate information. 2021 updates include 1.43% property tax factor, 6.77% Discount Factor (2020 Cost of Capital Decision)
LNBA Results-PlannedInvestments	Results of the LNBA values are presented here. For example: Value of Deferral Benefits (\$000s) in Install Year (Capital Benefit in Install Year, O&M Deferral Benefit in Install Year) and Load Forecast year. Normalized Deferral Benefit (\$/kW*yr)
Project Specific Inputs	Utility Inputs: Project specific information such as cost and need for projects .

PG&E 2021 Distribution Deferral Opportunity Report (DDOR)  
Appendix E: LNBA - Planned Investments - General Inputs  
Version Date: 8/16/2021  
Public

First load forecast year	8/1/2021	
After Tax Weighted Cost of Capital (ATWACC)	6.77%	
Cost Year Basis*	8/1/2021	
End of Deferral year	8/1/2031	10 year added to first load forecast year

Legend	
	Input
	Reference value
	Calculated

Input	2020 Cost			
	General	Substation Bank	Primary Feeder	Poles and towers
Revenue Requirement Multiplier (Fixed Costs)	144.87%	143.6%	146.1%	150.0%
Revenue Requirement Multiplier With O&M	247.12%	185.8%	308.4%	309.8%
Equipment Inflation	2.5%	2.5%	2.5%	2.5%
O&M Inflation	2.5%	2.5%	2.5%	2.5%
O&M Factor	5.15%	2.13%	8.18%	8.18%
O&M Old Eqpt	0.0%	0.0%	0.0%	0.0%
Book Life	46	46	46	44
RECC	0.04759	0.04722	0.04722	0.0480
Discount rate net or project inflation (5/yr)	4.17%	4.17%	4.17%	4.17%

(\*) 2021 updates include 1.43% property tax factor, 6.77% Discount Factor (2020 Cost of Capital Decision). Multipliers continue to use May 1, 2021 depreciation rates and O&M factors from 2020 tool.

\*\*For projects with hybrid (Bank and Feeder) needs use the General during detailed analysis

2020 Multiplier Details									
2020	Rate	Ratio	WACC	TR	ATWACC		Station Equipment	Poles, Towers, & Fixtures	OH Conductors & Devices
Bond Interest	4.17	0.48	2.00		1.44	SalVal	-40	-150	-90
Equity	10.25	0.52	5.33		5.33	ServLife	46	44	46
Adopted				7.33	0.2798	6.77	PVRR (Fixed)	143.64	150.01
							PVRR W/O&M	185.84	309.82
							O&M factor	2.13%	8.18%
Description							PVRR	PVRR	PVRR
Return on Investment							56.37%	29.66%	43.83%
Book Depreciation							47.93%	85.60%	65.05%
Federal and State Income Taxes							15.20%	10.69%	13.08%
Property Tax							13.89%	13.89%	13.89%
Insurance							10.25%	10.18%	10.25%
Subtotal of Fixed Charges							143.64%	150.01%	146.11%
M&O							42.19%	159.80%	162.30%
Total							185.84%	309.82%	308.40%



Version Date: 8/16/2021	LNBA ID	DDOR ID	Project Name	Project Type	New or Existing Equipment	Project Cost (\$)	Distribution Service Required	Revenue Requirement	Debt Ratio (%)	Customer Impact	LNBA Status	Book Life	DER Asset Year	Cost per kWh	Analysis Year	Years To Next Review	Real Economic Carrying Cost (RECC)	Discount rate net of project inflation (%)	Revenue Requirement (RR) net of RECC	RR - RECC	Value of Deferral (Value of Deferral minus Net Cost) - C&M	Value of Deferral (Value of Deferral minus Net Cost) - C&M	Max Need (MW/yr/MVA)	Units	Max Need per DDOR (MW/yr/MVA)	Units	Number of Deferrals per project	Estimated LNBA Value (\$/yr)	Estimated LNBA Value (\$/yr)	LNBA Value Range (\$/yr)	LNBA Value Range (\$/yr)	Notes (FMS - Reduct)			
DDOR001_GNA_40202_Capacity	GNA_40202_Capacity	DDOR001	Yoncos 1108	Feeder	New	\$4,498	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	12743	602	5042	4933	2.8	MW	4.5	MW	2	\$109	-	\$109	-	FALSE			
DDOR001_GNA_40201_Capacity	GNA_40201_Capacity	DDOR001	Yoncos 1108	Feeder	New	\$4,498	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	12743	602	5042	4933	2.8	MW	4.5	MW	2	\$109	-	\$109	-	FALSE			
DDOR002_GNA_20554_Capacity	GNA_20554_Capacity	DDOR002	Santa Teresa Sub - new bank	Bank	New	\$15,420	Capacity	16.8%	6.77%	2.5%	2.5%	46	11/10/21	8/10/21	8/10/21	10	0.0022	4.17%	28846	1802	28846	1802	11208	8.4	MW	30.2	MW	4	\$37	-	\$37	-	FALSE		
DDOR002_GNA_4020107_Capacity	GNA_4020107_Capacity	DDOR002	Santa Teresa Sub - new bank	Bank	New	\$15,420	Capacity	16.8%	6.77%	2.5%	2.5%	46	11/10/21	8/10/21	8/10/21	10	0.0022	4.17%	28846	1802	28846	1802	11208	8.4	MW	30.2	MW	4	\$37	-	\$37	-	FALSE		
DDOR002_GNA_4020111_Capacity	GNA_4020111_Capacity	DDOR002	Santa Teresa Sub - new bank	Bank	New	\$15,420	Capacity	16.8%	6.77%	2.5%	2.5%	46	11/10/21	8/10/21	8/10/21	10	0.0022	4.17%	28846	1802	28846	1802	11208	8.4	MW	30.2	MW	4	\$37	-	\$37	-	FALSE		
DDOR003_GNA_4020105_Capacity	GNA_4020105_Capacity	DDOR003	Highway 1107	Feeder	New	\$1,908	Capacity	308.4%	6.77%	2.5%	2.5%	46	7/20/21	8/10/21	8/10/21	10	0.0022	4.17%	5872	277	5872	277	2333	2339	2.1	MW	10.5	MW	3	\$25	-	\$25	-	FALSE	
DDOR003_GNA_4020106_Capacity	GNA_4020106_Capacity	DDOR003	Highway 1107	Feeder	New	\$1,908	Capacity	308.4%	6.77%	2.5%	2.5%	46	7/20/21	8/10/21	8/10/21	10	0.0022	4.17%	5872	277	5872	277	2333	2339	2.1	MW	10.5	MW	3	\$25	-	\$25	-	FALSE	
DDOR003_GNA_4230101_Capacity	GNA_4230101_Capacity	DDOR003	Highway 1107	Feeder	New	\$1,908	Capacity	308.4%	6.77%	2.5%	2.5%	46	7/20/21	8/10/21	8/10/21	10	0.0022	4.17%	5872	277	5872	277	2333	2339	2.1	MW	10.5	MW	3	\$25	-	\$25	-	FALSE	
DDOR004_GNA_14050112_Reliability_Other	GNA_14050112_Reliability_Other	DDOR004	Blackwood 2104	Feeder	New	\$6,630	Reliability	308.4%	6.77%	2.5%	2.5%	46	9/10/21	8/10/21	8/10/21	10	0.0022	4.17%	17702	836	8426	8106	3.1	MW	10.1	MW	2	\$67	-	\$67	-	FALSE			
DDOR005_GNA_4020110_Capacity	GNA_4020110_Capacity	DDOR005	Highway 1107	Feeder	Existing	\$0	Capacity	146.1%	6.77%	2.5%	2.5%	46	9/10/21	8/10/21	8/10/21	10	0.0022	4.17%	7375	336	7375	336	311	311	0.3	MW	1.0	MW	1	\$5	-	\$5	-	FALSE	
DDOR006_GNA_40110110_Capacity	GNA_40110110_Capacity	DDOR006	Disaster 110.8 & 111.1	Feeder	New	\$6,320	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	20559	962	20559	962	4326	4326	2.8	MW	4.4	MW	2	\$189	-	\$189	-	FALSE	
DDOR007_GNA_40110110_Capacity	GNA_40110110_Capacity	DDOR007	Disaster 110.8 & 111.1	Feeder	New	\$6,320	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	20559	962	20559	962	4326	4326	2.8	MW	4.4	MW	2	\$189	-	\$189	-	FALSE	
DDOR007_GNA_40110110_Capacity	GNA_40110110_Capacity	DDOR007	Disaster 110.8 & 111.1	Feeder	New	\$6,320	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	20559	962	20559	962	4326	4326	2.8	MW	4.4	MW	2	\$189	-	\$189	-	FALSE	
DDOR007_GNA_40110110_Capacity	GNA_40110110_Capacity	DDOR007	Disaster 110.8 & 111.1	Feeder	New	\$6,320	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	20559	962	20559	962	4326	4326	2.8	MW	4.4	MW	2	\$189	-	\$189	-	FALSE	
DDOR007_GNA_40110110_Capacity	GNA_40110110_Capacity	DDOR007	Disaster 110.8 & 111.1	Feeder	New	\$6,320	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	20559	962	20559	962	4326	4326	2.8	MW	4.4	MW	2	\$189	-	\$189	-	FALSE	
DDOR007_GNA_40110110_Capacity	GNA_40110110_Capacity	DDOR007	Disaster 110.8 & 111.1	Feeder	New	\$6,320	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	20559	962	20559	962	4326	4326	2.8	MW	4.4	MW	2	\$189	-	\$189	-	FALSE	
DDOR007_GNA_40110110_Capacity	GNA_40110110_Capacity	DDOR007	Disaster 110.8 & 111.1	Feeder	New	\$6,320	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	20559	962	20559	962	4326	4326	2.8	MW	4.4	MW	2	\$189	-	\$189	-	FALSE	
DDOR008_GNA_10401102_Capacity	GNA_10401102_Capacity	DDOR008	Water 1111	Feeder	New	\$3,891	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	12099	571	12099	571	4307	4307	0.9	MW	1.0	MW	1	\$53	-	\$53	-	FALSE	
DDOR008_GNA_10401102_Capacity	GNA_10401102_Capacity	DDOR008	Water 1111	Feeder	New	\$3,891	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	12099	571	12099	571	4307	4307	0.9	MW	1.0	MW	1	\$53	-	\$53	-	FALSE	
DDOR008_GNA_10401102_Capacity	GNA_10401102_Capacity	DDOR008	Water 1111	Feeder	New	\$3,891	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	12099	571	12099	571	4307	4307	0.9	MW	1.0	MW	1	\$53	-	\$53	-	FALSE	
DDOR009_GNA_210005_Reliability_Other	GNA_210005_Reliability_Other	DDOR009	Reynolds 1103	Feeder	New	\$1,988	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	52635	2448	52635	2448	13.4	MW	13.4	MW	1	\$133	-	\$133	-	FALSE			
DDOR010_GNA_20401103_Capacity	GNA_20401103_Capacity	DDOR010	Dinuba 1103	Feeder	New	\$1,487	Capacity	308.4%	6.77%	2.5%	2.5%	46	6/10/21	8/10/21	8/10/21	10	0.0022	4.17%	4798	227	4798	227	1578	1480	1.1	MW	3.1	MW	3	\$57	-	\$57	-	FALSE	
DDOR010_GNA_20401103_Capacity	GNA_20401103_Capacity	DDOR010	Dinuba 1103	Feeder	New	\$1,487	Capacity	308.4%	6.77%	2.5%	2.5%	46	6/10/21	8/10/21	8/10/21	10	0.0022	4.17%	4798	227	4798	227	1578	1480	1.1	MW	3.1	MW	3	\$57	-	\$57	-	FALSE	
DDOR010_GNA_20401103_Capacity	GNA_20401103_Capacity	DDOR010	Dinuba 1103	Feeder	New	\$1,487	Capacity	308.4%	6.77%	2.5%	2.5%	46	6/10/21	8/10/21	8/10/21	10	0.0022	4.17%	4798	227	4798	227	1578	1480	1.1	MW	3.1	MW	3	\$57	-	\$57	-	FALSE	
DDOR010_GNA_20401103_Capacity	GNA_20401103_Capacity	DDOR010	Dinuba 1103	Feeder	New	\$1,487	Capacity	308.4%	6.77%	2.5%	2.5%	46	6/10/21	8/10/21	8/10/21	10	0.0022	4.17%	4798	227	4798	227	1578	1480	1.1	MW	3.1	MW	3	\$57	-	\$57	-	FALSE	
DDOR011_GNA_20401103_Capacity	GNA_20401103_Capacity	DDOR011	Rainbow 1103	Feeder	New	\$1,040	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	3862	184	3862	184	154	154	0.3	MW	0.3	MW	2	\$24	-	\$24	-	FALSE	
DDOR011_GNA_202011_Capacity	GNA_202011_Capacity	DDOR011	Newark 2111	Feeder	New	\$1,160	Capacity	308.4%	6.77%	2.5%	2.5%	46	6/10/21	8/10/21	8/10/21	10	0.0022	4.17%	3862	184	3862	184	154	154	0.3	MW	0.3	MW	2	\$24	-	\$24	-	FALSE	
DDOR012_GNA_122210_Capacity	GNA_122210_Capacity	DDOR012	Newark 2111	Feeder	New	\$1,160	Capacity	308.4%	6.77%	2.5%	2.5%	46	6/10/21	8/10/21	8/10/21	10	0.0022	4.17%	3862	184	3862	184	154	154	0.3	MW	0.3	MW	2	\$24	-	\$24	-	FALSE	
DDOR012_GNA_122210_Capacity	GNA_122210_Capacity	DDOR012	Newark 2111	Feeder	New	\$1,160	Capacity	308.4%	6.77%	2.5%	2.5%	46	6/10/21	8/10/21	8/10/21	10	0.0022	4.17%	3862	184	3862	184	154	154	0.3	MW	0.3	MW	2	\$24	-	\$24	-	FALSE	
DDOR013_GNA_202110_Capacity	GNA_202110_Capacity	DDOR013	East Grand 1116 & East Grand 1117	Feeder	New	\$3,238	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	10863	475	10863	475	3881	3881	0.8	MW	3.1	MW	3	\$22	-	\$22	-	FALSE	
DDOR013_GNA_202110_Capacity	GNA_202110_Capacity	DDOR013	East Grand 1116 & East Grand 1117	Feeder	New	\$3,238	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	10863	475	10863	475	3881	3881	0.8	MW	3.1	MW	3	\$22	-	\$22	-	FALSE	
DDOR013_GNA_202110_Capacity	GNA_202110_Capacity	DDOR013	East Grand 1116 & East Grand 1117	Feeder	New	\$3,238	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	10863	475	10863	475	3881	3881	0.8	MW	3.1	MW	3	\$22	-	\$22	-	FALSE	
DDOR013_GNA_202110_Capacity	GNA_202110_Capacity	DDOR013	East Grand 1116 & East Grand 1117	Feeder	New	\$3,238	Capacity	308.4%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	10863	475	10863	475	3881	3881	0.8	MW	3.1	MW	3	\$22	-	\$22	-	FALSE	
DDOR014_GNA_202110_Capacity	GNA_202110_Capacity	DDOR014	Line Section	Feeder	Existing	\$4,379	Capacity	146.1%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	4445	204	4445	204	354	354	0.3	MW	0.3	MW	2	\$12	-	\$12	-	FALSE	
DDOR015_GNA_202110_Capacity	GNA_202110_Capacity	DDOR015	Potomac A1108 Rebuild inside Sub	Feeder	Existing	\$5,825	Capacity	146.1%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	4305	204	4305	204	354	354	0.3	MW	0.3	MW	2	\$12	-	\$12	-	FALSE	
DDOR015_GNA_202110_Capacity	GNA_202110_Capacity	DDOR015	Potomac A1108 Rebuild inside Sub	Feeder	Existing	\$5,825	Capacity	146.1%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	4305	204	4305	204	354	354	0.3	MW	0.3	MW	2	\$12	-	\$12	-	FALSE	
DDOR015_GNA_202110_Capacity	GNA_202110_Capacity	DDOR015	Potomac A1108 Rebuild inside Sub	Feeder	Existing	\$5,825	Capacity	146.1%	6.77%	2.5%	2.5%	46	12/10/21	8/10/21	8/10/21	10	0.0022	4.17%	4305	204	4305	204	354	354	0.3	MW	0.3	MW	2	\$12					

Version Date: 8/16/2021	QNA ID	DOOR ID	Project Name	Project Type	New or Existing Equipment	Project Cost (\$)	Distribution Service Required	Revenue Requirement Multiplier	Base Rate (%)	Component Rate (%)	QNA ID	Book Title	DER Input	Cost per Year	Analysis Year	Years To Next Period	Real Economic Carrying Cost (RECC)	Discount rate net of post-inflation (%)	Revenue Requirement (RR) Net of RECC	RR - RECC	Value of Deferral Penalty (DDP) to be added to Net Cost = C&B	Value of Deferral Benefit (VDB) to be subtracted from Net Cost = C&B	Max Need (MW/yr/MVA)	Units	Max Need per DOOR (MW/yr/MVA)	Units	Number of Units selected by project	Estimated LNBPA Value (\$/yr)	Estimated LNBPA Value (\$/yr)	LNBPA Value Range (\$/yr)	LNBPA Value Range (\$/yr)	Initial (T0) - End (T1)	
DOOR051_QNA_24185_Capacity	QNA_24185_Capacity	DOOR051	Bar 1105	Feeder	New	\$7,620	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	24388	1159	8070	7187	6.3	MW	14.6	MW	2	\$61	-	\$50-\$100	FALSE	FALSE	
DOOR051_QNA_241811_Capacity	QNA_241811_Capacity	DOOR051	Bar 1105	Feeder	New	\$7,620	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	24388	1159	8070	7187	9.3	MW	14.6	MW	2	\$61	-	\$50-\$100	FALSE	FALSE	
DOOR052_QNA_1622204_Redispatch (Inter-grd)	QNA_1622204_Redispatch (Inter-grd)	DOOR052	Montrose Bank 1	Bank	New	\$2,657	Redispatch	165.8%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	4361	2076	14685	12865	0.6	MW	5.8	MW	2	\$278	-	\$200-\$300	FALSE	FALSE	
DOOR052_QNA_1622205_Redispatch (Inter-grd)	QNA_1622205_Redispatch (Inter-grd)	DOOR052	Montrose Bank 1	Bank	New	\$2,657	Redispatch	165.8%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	4361	2076	14685	12865	4.2	MW	5.8	MW	2	\$278	-	\$200-\$300	FALSE	FALSE	
DOOR053_QNA_1629260_Capacity	QNA_1629260_Capacity	DOOR053	San Luis Obispo 1105	Feeder	New	\$5,450	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	11109	525	3554	3259	2.7	MW	4.5	MW	3	\$91	-	\$50-\$100	FALSE	FALSE	
DOOR053_QNA_1629118_Capacity	QNA_1629118_Capacity	DOOR053	San Luis Obispo 1105	Feeder	New	\$5,450	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	11109	525	3554	3259	1.3	MW	4.5	MW	3	\$91	-	\$50-\$100	FALSE	FALSE	
DOOR053_QNA_1629117_Capacity	QNA_1629117_Capacity	DOOR053	San Luis Obispo 1105	Feeder	New	\$5,450	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	11109	525	3554	3259	0.5	MW	4.5	MW	3	\$91	-	\$50-\$100	FALSE	FALSE	
DOOR054_QNA_42701_Capacity	QNA_42701_Capacity	DOOR054	Castroville Bank 1	Bank	Existing	\$7,350	Capacity	143.6%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	11023	520	3525	3220	3.2	MW	5.8	MW	2	\$70	-	\$50-\$100	FALSE	FALSE	
DOOR054_QNA_4271102_Capacity	QNA_4271102_Capacity	DOOR054	Castroville Bank 1	Bank	Existing	\$7,350	Capacity	143.6%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	11023	520	3525	3220	2.5	MW	5.8	MW	2	\$70	-	\$50-\$100	FALSE	FALSE	
DOOR055_QNA_4250102_Capacity	QNA_4250102_Capacity	DOOR055	Tuleville 1102	Feeder	Existing	\$4,400	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	14988	689	CC	CC	CC	CC	MW	CC	MW	4	\$65	-	\$50-\$100	TRUE	TRUE
DOOR056_QNA_252091104_Capacity	QNA_252091104_Capacity	DOOR056	Offize New Bank & Feeder	Bank	New	\$12,800	Capacity	165.8%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	24388	1173	CC	CC	CC	CC	MW	CC	MW	4	\$137	-	\$100-\$200	FALSE	FALSE
DOOR056_QNA_2520911_Capacity	QNA_2520911_Capacity	DOOR056	Offize New Bank & Feeder	Bank	New	\$12,800	Capacity	165.8%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	24388	1173	8188	7288	2.7	MW	6.8	MW	4	\$137	-	\$100-\$200	FALSE	FALSE	
DOOR056_QNA_2520902_Capacity	QNA_2520902_Capacity	DOOR056	Offize New Bank & Feeder	Bank	New	\$12,800	Capacity	165.8%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	24388	1173	8188	7288	1.8	MW	6.8	MW	4	\$137	-	\$100-\$200	FALSE	FALSE	
DOOR056_QNA_2541011_Capacity	QNA_2541011_Capacity	DOOR056	Offize New Bank & Feeder	Bank	New	\$12,800	Capacity	165.8%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	24388	1173	8188	7288	2.2	MW	6.8	MW	4	\$137	-	\$100-\$200	FALSE	FALSE	
DOOR057_QNA_2520903_Capacity	QNA_2520903_Capacity	DOOR057	Serrano Reconfigurator	Feeder	Existing	\$2,300	Capacity	146.1%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	3059	166	CC	CC	CC	CC	MW	CC	MW	3	\$19	-	\$50-\$100	FALSE	FALSE
DOOR057_QNA_25209118_Capacity	QNA_25209118_Capacity	DOOR057	Serrano Reconfigurator	Feeder	Existing	\$2,300	Capacity	146.1%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	3059	166	CC	CC	CC	CC	MW	CC	MW	3	\$19	-	\$50-\$100	FALSE	FALSE
DOOR057_QNA_252091102_Capacity	QNA_252091102_Capacity	DOOR057	Serrano Reconfigurator	Feeder	Existing	\$2,300	Capacity	146.1%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	3059	166	1154	1029	2.1	MW	6.8	MW	3	\$19	-	\$50-\$100	FALSE	FALSE	
DOOR058_QNA_2540401_Capacity	QNA_2540401_Capacity	DOOR058	Wheeler Ridge Bank 1	Bank	Existing	\$2,300	Capacity	143.6%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	3249	177	CC	CC	CC	CC	MW	CC	MW	1	\$383	-	\$200-\$300	TRUE	TRUE
DOOR058_QNA_254041102_Capacity	QNA_254041102_Capacity	DOOR058	Wheeler Ridge Bank 1	Bank	Existing	\$2,300	Capacity	143.6%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	3249	177	CC	CC	CC	CC	MW	CC	MW	1	\$383	-	\$200-\$300	TRUE	TRUE
DOOR058_QNA_1627001_Capacity	QNA_1627001_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	CC	CC	CC	CC	MW	CC	MW	4	\$9	-	\$50-\$100	FALSE	FALSE
DOOR058_QNA_16270101_Capacity	QNA_16270101_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	2072	1798	7.7	MW	26.1	MW	4	\$9	-	\$50-\$100	FALSE	FALSE	
DOOR058_QNA_16270102_Capacity	QNA_16270102_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	CC	CC	CC	CC	MW	CC	MW	4	\$9	-	\$50-\$100	FALSE	FALSE
DOOR058_QNA_16270101_Capacity	QNA_16270101_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	2072	1798	7.7	MW	26.1	MW	4	\$9	-	\$50-\$100	FALSE	FALSE	
DOOR058_QNA_16270102_Capacity	QNA_16270102_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	CC	CC	CC	CC	MW	CC	MW	4	\$9	-	\$50-\$100	FALSE	FALSE
DOOR058_QNA_16270101_Capacity	QNA_16270101_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	2072	1798	7.7	MW	26.1	MW	4	\$9	-	\$50-\$100	FALSE	FALSE	
DOOR058_QNA_16270102_Capacity	QNA_16270102_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	CC	CC	CC	CC	MW	CC	MW	4	\$9	-	\$50-\$100	FALSE	FALSE
DOOR058_QNA_16270101_Capacity	QNA_16270101_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	2072	1798	7.7	MW	26.1	MW	4	\$9	-	\$50-\$100	FALSE	FALSE	
DOOR058_QNA_16270102_Capacity	QNA_16270102_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	CC	CC	CC	CC	MW	CC	MW	4	\$9	-	\$50-\$100	FALSE	FALSE
DOOR058_QNA_16270101_Capacity	QNA_16270101_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	2072	1798	7.7	MW	26.1	MW	4	\$9	-	\$50-\$100	FALSE	FALSE	
DOOR058_QNA_16270102_Capacity	QNA_16270102_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	CC	CC	CC	CC	MW	CC	MW	4	\$9	-	\$50-\$100	FALSE	FALSE
DOOR058_QNA_16270101_Capacity	QNA_16270101_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	2072	1798	7.7	MW	26.1	MW	4	\$9	-	\$50-\$100	FALSE	FALSE	
DOOR058_QNA_16270102_Capacity	QNA_16270102_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	CC	CC	CC	CC	MW	CC	MW	4	\$9	-	\$50-\$100	FALSE	FALSE
DOOR058_QNA_16270101_Capacity	QNA_16270101_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	2072	1798	7.7	MW	26.1	MW	4	\$9	-	\$50-\$100	FALSE	FALSE	
DOOR058_QNA_16270102_Capacity	QNA_16270102_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	CC	CC	CC	CC	MW	CC	MW	4	\$9	-	\$50-\$100	FALSE	FALSE
DOOR058_QNA_16270101_Capacity	QNA_16270101_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	2072	1798	7.7	MW	26.1	MW	4	\$9	-	\$50-\$100	FALSE	FALSE	
DOOR058_QNA_16270102_Capacity	QNA_16270102_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	CC	CC	CC	CC	MW	CC	MW	4	\$9	-	\$50-\$100	FALSE	FALSE
DOOR058_QNA_16270101_Capacity	QNA_16270101_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	2072	1798	7.7	MW	26.1	MW	4	\$9	-	\$50-\$100	FALSE	FALSE	
DOOR058_QNA_16270102_Capacity	QNA_16270102_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020	8/1/2021	8/1/2021	8	0.0022	4.17%	6118	289	CC	CC	CC	CC	MW	CC	MW	4	\$9	-	\$50-\$100	FALSE	FALSE
DOOR058_QNA_16270101_Capacity	QNA_16270101_Capacity	DOOR058	New Viana 1704 feeder	Feeder	New	\$1,900	Capacity	308.4%	6.77%	2.5%	2.5%	46	9/1/2020																				

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PG&E 2021 Distribution Deferred Opportunity Report (DOOR)  
Appendix E: LNBPA Planned Investments - Results  
Version Date: 8/16/2021  
Public

Version Date: 8/16/2021	OMA ID	DOOR ID	Project Name	Project Type	New or Replaced Equipment	Project Cost (\$)	Distribution Service Required	Revenue Requirement	Rate Demand	Customer Demand (%)	Customer Demand (\$/yr)	OMA Status	Book Title	DER Asset	Cost per Year	Analysis Year	Years To Next Review	Real Economic Carrying Cost (\$/yr)	Discount rate net of project inflation (%)	Revenue Requirement (\$/yr)	R/R RECC	Value of Deferral (Benefit to Ratepayers based on Net Cost) - C&M	Value of Deferral Benefit (Benefit to Ratepayers based on Net Cost) - C&M	Max Need (MW/yr/MVA)	Units	Max Need per DOOR (MW/yr/MVA)	Units	Number of Units needed by project	Estimated LNBPA Value (\$/yr)	Estimated LNBPA Value (\$/yr)	LNBPA Value Range (\$/yr)	LNBPA Value Range (\$/yr)	Notes (FMS) - C&M	
DOOR116, OMA 421401, Capacity	OMA 421401, Capacity	DOOR116	Clear Lake 1101	Line Section	Existing	\$4,868	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2022	8/10/2021	8/10/2021	9	0.00222	4.17%	8812	322	CC	CC	CC	CC	MM	CC	MM	1	\$180	-	\$100-\$200	TRUE		
DOOR119, OMA 421401, Capacity	OMA 421401, Capacity	DOOR119	Koronec 1102	Line Section	Existing	\$459	Capacity	146.1%	6.77%	2.5%	2.5%	46	9/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	862	31	CC	CC	CC	CC	MM	CC	MM	1	\$16	-	\$0-\$50	TRUE		
DOOR165, OMA 103321101, Capacity	OMA 103321101, Capacity	DOOR165	Reynolds Creek 1101 Under outlet	Line Section	Existing	\$86	Capacity	146.1%	6.77%	2.5%	2.5%	46	9/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	43	4	CC	CC	CC	CC	MM	CC	MM	1	\$2	-	\$0-\$50	FALSE		
DOOR161, OMA 1033303, Capacity	OMA 1033303, Capacity	DOOR161	Corning 1103	Line Section	Existing	\$736	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	10	0.00222	4.17%	1149	54	465	480	0.6	MM	0.6	MM	0.6	MM	1	\$78	-	\$50-\$100	FALSE	
DOOR162, OMA 1024111, Capacity	OMA 1024111, Capacity	DOOR162	Davis 1111	Line Section	Existing	\$1,896	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	2550	119	CC	CC	CC	CC	MM	CC	MM	1	\$67	-	\$50-\$100	TRUE		
DOOR163, OMA 10417110, Capacity	OMA 10417110, Capacity	DOOR163	Dumbarton 1102	Line Section	New	\$1,276	Capacity	306.4%	6.77%	2.5%	2.5%	46	9/10/2021	8/10/2021	8/10/2021	10	0.00222	4.17%	3555	166	1057	1157	1.1	MM	1.1	MM	1	\$140	-	\$100-\$200	FALSE			
DOOR164, OMA 1027110, Capacity	OMA 1027110, Capacity	DOOR164	Durbin 1101 & 1103	Line Section	New	\$124	Capacity	306.4%	6.77%	2.5%	2.5%	46	9/10/2021	8/10/2021	8/10/2021	10	0.00222	4.17%	361	16	161	162	3.0	MM	3.0	MM	1	\$5	-	\$0-\$50	FALSE			
DOOR165, OMA 102571106, Reliability / Other	OMA 102571106, Reliability / Other	DOOR165	East Grand 1106	Line Section	New	\$130	Reliability	306.4%	6.77%	2.5%	2.5%	46	9/10/2021	8/10/2021	8/10/2021	10	0.00222	4.17%	388	19	CC	CC	CC	CC	MM	CC	MM	2	\$2	-	\$0-\$50	TRUE		
DOOR166, OMA 10271106, Capacity	OMA 10271106, Capacity	DOOR166	East Grand 1106	Line Section	New	\$130	Capacity	306.4%	6.77%	2.5%	2.5%	46	9/10/2021	8/10/2021	8/10/2021	10	0.00222	4.17%	388	19	CC	CC	CC	CC	MM	CC	MM	2	\$2	-	\$0-\$50	TRUE		
DOOR166, OMA 102602, Capacity	OMA 102602, Capacity	DOOR166	Elevado 2105	Line Section	New	\$889	Capacity	306.4%	6.77%	2.5%	2.5%	46	9/10/2021	8/10/2021	8/10/2021	10	0.00222	4.17%	308	143	CC	CC	CC	CC	MM	CC	MM	2	\$16	-	\$0-\$50	FALSE		
DOOR167, OMA 10261107, Capacity	OMA 10261107, Capacity	DOOR167	El Paso 1107 overhead	Line Section	Existing	\$160	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	283	13	103	87	1.5	MM	1.5	MM	1	\$7	-	\$0-\$50	FALSE			
DOOR168, OMA 10271107, Capacity	OMA 10271107, Capacity	DOOR168	Esplan 1106	Line Section	Existing	\$220	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	327	15	119	114	1.6	MM	1.6	MM	1	\$8	-	\$0-\$50	FALSE			
DOOR169, OMA 10271107, Capacity	OMA 10271107, Capacity	DOOR169	Esplan 1106	Line Section	Existing	\$180	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	288	13	87	83	1.6	MM	1.6	MM	1	\$7	-	\$0-\$50	FALSE			
DOOR170, OMA 10242107, Capacity	OMA 10242107, Capacity	DOOR170	East Ord 2107	Feeder	New	\$3,689	Capacity	306.4%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	10	0.00222	4.17%	11361	536	CC	CC	CC	CC	MM	CC	MM	1	\$63	-	\$50-\$100	TRUE		
DOOR171, OMA 1042220, Capacity	OMA 1042220, Capacity	DOOR171	Grand Island 2208	Feeder	Existing	\$1,530	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	10	0.00222	4.17%	2229	109	881	886	4.2	MM	4.2	MM	1	\$21	-	\$0-\$50	FALSE			
DOOR172, OMA 102681102, Capacity	OMA 102681102, Capacity	DOOR172	Guernsey 1103	Feeder	Existing	\$487	Capacity	146.1%	6.77%	2.5%	2.5%	46	9/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	439	32	248	273	2.4	MM	2.4	MM	1	\$11	-	\$0-\$50	FALSE			
DOOR173, OMA 102411103, Capacity	OMA 102411103, Capacity	DOOR173	Hardy1103	Line Section	Existing	\$1,166	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	1739	82	631	588	0.1	MM	0.1	MM	1	\$42	-	\$0-\$50	FALSE			
DOOR174, OMA 1043105, Capacity	OMA 1043105, Capacity	DOOR174	Coma Costa 2114	Line Section	Feeder	\$801	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	1194	56	435	410	0.9	MM	0.9	MM	1	\$69	-	\$50-\$100	FALSE			
DOOR175, OMA 10451110, Capacity	OMA 10451110, Capacity	DOOR175	Rancho Indulgencia - New Feeder	Feeder	New	\$2,129	Capacity	306.4%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	6611	307	2293	2603	0.9	MM	0.9	MM	1	\$28	-	\$200-\$500	FALSE			
DOOR176, OMA 1013403, Capacity	OMA 1013403, Capacity	DOOR176	Mario 403	Line Section	Existing	\$375	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	559	26	203	162	0.4	MM	0.4	MM	1	\$61	-	\$50-\$100	FALSE			
DOOR177, OMA 102681114, Capacity	OMA 102681114, Capacity	DOOR177	Mescal 1114	Line Section	New	\$633	Capacity	306.4%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	1657	77	448	656	2.1	MM	2.1	MM	1	\$31	-	\$0-\$50	FALSE			
DOOR178, OMA 102602, Capacity	OMA 102602, Capacity	DOOR178	Enroll Milena 1105	Line Section	New	\$1,568	Capacity	306.4%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	6266	297	CC	CC	CC	CC	MM	CC	MM	1	\$38	-	\$0-\$50	TRUE		
DOOR179, OMA 10261110, Capacity	OMA 10261110, Capacity	DOOR179	Reynolds Mount 1110	Feeder	Existing	\$84	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	125	6	CC	CC	CC	CC	MM	CC	MM	1	\$1	-	\$0-\$50	TRUE		
DOOR180, OMA 10222110, Capacity	OMA 10222110, Capacity	DOOR180	Dixon Landing 2105	Feeder	New	\$1,199	Capacity	306.4%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	3556	173	CC	CC	CC	CC	MM	CC	MM	1	\$36	-	\$0-\$50	FALSE		
DOOR181, OMA 10446111, Capacity	OMA 10446111, Capacity	DOOR181	Nashville 1111	Feeder	Existing	\$1,457	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	2296	99	CC	CC	CC	CC	MM	CC	MM	1	\$6	-	\$0-\$50	FALSE		
DOOR182, OMA 1042102, Capacity	OMA 1042102, Capacity	DOOR182	Enroll Northwood 2109	Line Section	New	\$760	Capacity	306.4%	6.77%	2.5%	2.5%	46	9/10/2021	8/10/2021	8/10/2021	10	0.00222	4.17%	2205	110	CC	CC	CC	CC	MM	CC	MM	1	\$58	-	\$50-\$100	TRUE		
DOOR183, OMA 102210, Capacity	OMA 102210, Capacity	DOOR183	Los Galinos A 1106 line work	Line Section	Existing	\$556	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	885	41	342	346	2.8	MM	2.8	MM	1	\$12	-	\$0-\$50	FALSE			
DOOR184, OMA 10261110, Capacity	OMA 10261110, Capacity	DOOR184	Marysville 1105	Line Section	New	\$558	Capacity	306.4%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	1682	78	467	468	0.2	MM	0.2	MM	1	\$4	-	\$0-\$50	FALSE			
DOOR185, OMA 102311118, Capacity	OMA 102311118, Capacity	DOOR185	On Line 1118	Line Section	Existing	\$7,888	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	11057	522	CC	CC	CC	CC	MM	CC	MM	1	\$64	-	\$50-\$100	TRUE		
DOOR186, OMA 102611103, Capacity	OMA 102611103, Capacity	DOOR186	Panache 1103	Line Section	Existing	\$850	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	1188	56	CC	CC	CC	CC	MM	CC	MM	1	\$287	-	\$200-\$500	TRUE		
DOOR187, OMA 10261110, Capacity	OMA 10261110, Capacity	DOOR187	Paso Robles 1103	Line Section	Existing	\$1,248	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	1525	72	603	510	1.2	MM	1.2	MM	1	\$61	-	\$50-\$100	FALSE			
DOOR188, OMA 10136, Capacity	OMA 10136, Capacity	DOOR188	Cavendish 458	Line Section	Existing	\$1,814	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	278	273	108	102	0.2	MM	0.2	MM	1	\$111	-	\$0-\$50	FALSE			
DOOR189, OMA 10261110, Capacity	OMA 10261110, Capacity	DOOR189	Santa Rosa 1107 & 1110 reconfigures	Line Section	Existing	\$754	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	1024	48	409	410	0.3	MM	0.3	MM	1	\$4	-	\$0-\$50	FALSE			
DOOR190, OMA 10261110, Capacity	OMA 10261110, Capacity	DOOR190	Santa Rosa 1108	Line Section	Existing	\$168	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	245	12	96	85	2.0	MM	2.0	MM	1	\$5	-	\$0-\$50	FALSE			
DOOR191, OMA 10231111, Reliability / Other	OMA 10231111, Reliability / Other	DOOR191	Santa Rosa 1111	Feeder	Existing	\$112	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	439	23	179	162	2.1	MM	2.1	MM	1	\$7	-	\$0-\$50	FALSE			
DOOR192, OMA 10231111, Reliability / Other	OMA 10231111, Reliability / Other	DOOR192	Santa Rosa 1111	Feeder	Existing	\$112	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	433	21	179	162	2.1	MM	2.1	MM	1	\$7	-	\$0-\$50	FALSE			
DOOR193, OMA 10231111, Reliability / Other	OMA 10231111, Reliability / Other	DOOR193	Santa Rosa 1111	Feeder	Existing	\$112	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	433	21	179	162	2.1	MM	2.1	MM	1	\$7	-	\$0-\$50	FALSE			
DOOR194, OMA 10261110, Capacity	OMA 10261110, Capacity	DOOR194	Scholar 1112	Line Section	Existing	\$480	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	669	32	CC	CC	CC	CC	MM	CC	MM	1	\$10	-	\$0-\$50	TRUE		
DOOR195, OMA 10421110, Capacity	OMA 10421110, Capacity	DOOR195	Shadblow 2111	Line Section	Existing	\$1,615	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/10/2021	8/10/2021	8/10/2021	9	0.00222	4.17%	2415	111	29	CC	CC	CC	CC	MM	CC	MM	1	\$4	-	\$0-\$50	FALSE	
DOOR196, OMA 104601, Capacity	OMA 104601, Capacity	DOOR196	Tupman Bank 1 Offbeat	Line Section	Existing	\$																												

Version Date: 8/16/2021	QNA ID	DDOR ID	Project Name	Project Type	New or Existing Equipment	Project Cost (\$)	Distribution Service Required	Revenue Requirement Multiplier	Discount Rate (%)	Equipment Inflation	QAM Inflation	Book Life	DER Install Year	Cost per kWh	Analysis Year	Years (1% Year Penetration)	Real Economic Carrying Cost (RECC)	Discount rate net of project inflation (ppt)	Revenue Requirement (RR) Install Yr 2+	RR * RECC	Value of Deferral Benefits (DBs) by Install Year (Costs + QAM)	Value of Deferral Benefits (DBs) by Install Yr 2021	Max Need (MW/Yr/M VAR)	Units	Max Need per DDOR (MW/Yr/MVAR)	Units	Number of Needs solved by project	Estimated LNBA Value (\$/Yr-yr)	Estimated LNBA Value (\$/Yr-yr)	LNBA Value Range (\$/Yr-yr)	LNBA Value Range (\$/Yr-yr)	Result (TRUE = Positive)
DDOR254_QNA_15942155_Capacity	QNA_15942155_Capacity	DDOR254	PEARBODY 2109	Line Section	Existing	\$238	Capacity	146.1%	6.77%	2.5%	2.5%	46	8/1/2022	8/1/2021	8/1/2021	9	0.04722	4.17%	337	16	CC	CC	CC	MW	CC	MW	2	\$9	-	\$0-\$90		TRUE
DDOR255_QNA_153761102_Reliability / Other	QNA_153761102_Reliability / Other	DDOR255	Cablest - Reconnector Back-Tie	Line Section	Existing	\$4,480	Reliability	146.1%	6.77%	2.5%	2.5%	46	11/1/2022	8/1/2021	8/1/2021	9	0.04722	4.17%	6721	317	2439	2247	6.0	MW	6.0	MW	1	\$42	-	\$0-\$50		FALSE
DDOR257_QNA_16281105_Capacity	QNA_16281105_Capacity	DDOR257	Woodland 1105	Line Section	Existing	\$126	Capacity	146.1%	6.77%	2.5%	2.5%	46	9/1/2021	8/1/2021	8/1/2021	8	0.04722	4.17%	191	9	63	56	0.8	MW	0.8	MW	1	\$12	-	\$0-\$50		FALSE
DDOR258_QNA_16288105_Capacity	QNA_16288105_Capacity	DDOR258	Tracy 1108	Line Section	New	\$1,488	Capacity	308.4%	6.77%	2.5%	2.5%	46	4/1/2022	8/1/2021	8/1/2021	9	0.04722	4.17%	4802	217	1670	1889	2.3	MW	2.3	MW	1	\$78	-	\$50-\$100		FALSE
DDOR259_QNA_16289101_Capacity	QNA_16289101_Capacity	DDOR259	Corral 1101	Line Section	New	\$2,518	Capacity	308.4%	6.77%	2.5%	2.5%	46	5/15/2022	8/1/2021	8/1/2021	9	0.04722	4.17%	7916	374	CC	CC	CC	MW	CC	MW	1	\$71	-	\$50-\$100		TRUE
DDOR260_QNA_16242105_Capacity	QNA_16242105_Capacity	DDOR260	Morgan Hill 2109	Line Section	New	\$50	Capacity	308.4%	6.77%	2.5%	2.5%	46	5/20/2022	8/1/2021	8/1/2021	9	0.04722	4.17%	51	1	11	11	1.0	MW	1.0	MW	1	\$1	-	\$0-\$50		FALSE
DDOR262_QNA_16191105_Capacity	QNA_16191105_Capacity	DDOR262	SRM1106 Reconnector Outfit	Line Section	Existing	\$2,305	Capacity	146.1%	6.77%	2.5%	2.5%	46	3/1/2021	8/1/2021	8/1/2021	8	0.04722	4.17%	3882	168	1102	980	4.6	MW	4.6	MW	1	\$27	-	\$0-\$50		FALSE
DDOR263_QNA_16291101_Capacity	QNA_16291101_Capacity	DDOR263	Oakland J 1101 & Oakland J 1104	Line Section	Existing	\$1,709	Capacity	146.1%	6.77%	2.5%	2.5%	46	5/1/2021	8/1/2021	8/1/2021	8	0.04722	4.17%	2893	122	CC	CC	CC	MW	CC	MW	1	\$63	-	\$50-\$100		TRUE
DDOR264_QNA_16291104_Capacity	QNA_16291104_Capacity	DDOR264	Oakland J 1101 & Oakland J 1104	Line Section	Existing	\$1,709	Capacity	146.1%	6.77%	2.5%	2.5%	46	5/1/2021	8/1/2021	8/1/2021	8	0.04722	4.17%	2893	122	CC	CC	CC	MW	CC	MW	1	\$68	-	\$0-\$50		TRUE
DDOR266_QNA_1625401_Capacity	QNA_1625401_Capacity	DDOR266	Alcatraz 1101 to Templeton 2111	Line Section	New	\$80	Capacity	308.4%	6.77%	2.5%	2.5%	46	7/29/2022	8/1/2021	8/1/2021	9	0.04722	4.17%	253	12	92	86	0.8	MW	0.8	MW	1	\$12	-	\$0-\$50		FALSE
DDOR268_QNA_16271109_Capacity	QNA_16271109_Capacity	DDOR268	Mass 1104	Line Section	Existing	\$2,206	Capacity	146.1%	6.77%	2.5%	2.5%	46	6/1/2021	8/1/2021	8/1/2021	10	0.04722	4.17%	3210	162	CC	CC	CC	MW	CC	MW	1	\$33	-	\$0-\$50		TRUE
DDOR267_QNA_16271102_Capacity	QNA_16271102_Capacity	DDOR267	Santa Maria 1111 Reinforcement	Line Section	Existing	\$1,899	Capacity	146.1%	6.77%	2.5%	2.5%	46	12/30/2022	8/1/2021	8/1/2021	9	0.04722	4.17%	2597	121	BAB	BAB	3.0	MW	3.0	MW	1	\$32	-	\$0-\$50		FALSE
DDOR268_QNA_20311104_Capacity	QNA_20311104_Capacity	DDOR268	Petersen A 1108	Line Section	Existing	\$1,837	Capacity	146.1%	6.77%	2.5%	2.5%	46	8/1/2021	8/1/2021	8/1/2021	9	0.04722	4.17%	2746	129	CC	CC	CC	MW	CC	MW	1	\$29	-	\$200-\$500		TRUE



Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	Redact?
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR001_GNA_820202_Capacity	GNA_820202_Capacity	DDOR001	Vasona 1106	Feeder		N/A	\$4,098	New	12/1/2021			10	Capacity	2.5	MW	FALSE
DDOR001_GNA_820201_Capacity	GNA_820201_Capacity	DDOR001	Vasona 1106	Feeder		N/A	\$4,098	New	12/1/2021			10	Capacity	2.0	MW	FALSE
DDOR002_GNA_829504_Capacity	GNA_829504_Capacity	DDOR002	Santa Teresa Sub - new bank	Bank		\$15,426	N/A	New	11/1/2021			10	Capacity	CC	MW	TRUE
DDOR002_GNA_82952107_Capacity	GNA_82952107_Capacity	DDOR002	Santa Teresa Sub - new bank	Bank		\$15,426	N/A	New	11/1/2021			10	Capacity	8.4	MW	FALSE
DDOR002_GNA_82952111_Capacity	GNA_82952111_Capacity	DDOR002	Santa Teresa Sub - new bank	Bank		\$15,426	N/A	New	11/1/2021			10	Capacity	CC	MW	TRUE
DDOR002_GNA_82952112_Capacity	GNA_82952112_Capacity	DDOR002	Santa Teresa Sub - new bank	Bank		\$15,426	N/A	New	11/1/2021			10	Capacity	CC	MW	TRUE
DDOR003_GNA_42651102_Capacity	GNA_42651102_Capacity	DDOR003	Highway 1107	Feeder		N/A	\$1,908	New	7/2/2021			10	Capacity	2.1	MW	FALSE
DDOR003_GNA_42651105_Capacity	GNA_42651105_Capacity	DDOR003	Highway 1107	Feeder		N/A	\$1,908	New	7/2/2021			10	Capacity	CC	MW	TRUE
DDOR003_GNA_42301101_Capacity	GNA_42301101_Capacity	DDOR003	Highway 1107	Feeder		N/A	\$1,908	New	7/2/2021			10	Capacity	CC	MW	TRUE
DDOR004_GNA_14592112_Capacity	GNA_14592112_Capacity	DDOR004	Brentwood 2104	Feeder		N/A	\$5,635	New	5/1/2022			9	Capacity	3.1	MW	FALSE
DDOR004_GNA_014592112_Reliability / Other	GNA_014592112_Reliability / Other	DDOR004	Brentwood 2104	Feeder		N/A	\$5,635	New	5/1/2022			9	Reliability	7.1	MW	FALSE
DDOR005_GNA_42251101_Capacity	GNA_42251101_Capacity	DDOR005	Hopland 1101	Feeder		N/A	\$50	Existing	9/1/2021			10	Capacity	CC	MW	TRUE
DDOR006_GNA_63131110_Capacity	GNA_63131110_Capacity	DDOR006	Deepwater 1110 & 1111	Feeder		N/A	\$6,325	New	12/1/2022			9	Capacity	3.9	MW	FALSE
DDOR006_GNA_63131106_Capacity	GNA_63131106_Capacity	DDOR006	Deepwater 1110 & 1111	Feeder		N/A	\$6,325	New	12/1/2022			9	Capacity	CC	MW	TRUE
DDOR007_GNA_834302_Capacity	GNA_834302_Capacity	DDOR007	Almaden 1112	Feeder		N/A	\$3,839	New	12/1/2021			10	Capacity	0.01	MW	FALSE
DDOR007_GNA_82311102_Capacity	GNA_82311102_Capacity	DDOR007	Almaden 1112	Feeder		N/A	\$3,839	New	12/1/2021			10	Capacity	1.0	MW	FALSE
DDOR007_GNA_83431110_Capacity	GNA_83431110_Capacity	DDOR007	Almaden 1112	Feeder		N/A	\$3,839	New	12/1/2021			10	Capacity	0.9	MW	FALSE
DDOR008_GNA_163481101_Capacity	GNA_163481101_Capacity	DDOR008	Weber 1111	Feeder		N/A	\$3,891	New	12/1/2021			10	Capacity	CC	MW	TRUE
DDOR008_GNA_163481102_Capacity	GNA_163481102_Capacity	DDOR008	Weber 1111	Feeder		N/A	\$3,891	New	12/1/2021			10	Capacity	3.0	MW	FALSE
DDOR008_GNA_163481103_Capacity	GNA_163481103_Capacity	DDOR008	Weber 1111	Feeder		N/A	\$3,891	New	12/1/2021			10	Capacity	CC	MW	TRUE
DDOR009_GNA_0138005_Reliability / Other	GNA_0138005_Reliability / Other	DDOR009	Rossmoor 1109	Feeder		N/A	\$16,988	New	12/1/2021			10	Reliability	13.4	MW	FALSE
DDOR010_GNA_254091105_Capacity	GNA_254091105_Capacity	DDOR010	Dinuba 1103	Feeder		N/A	\$1,467	New	6/1/2023			8	Capacity	1.0	MW	FALSE
DDOR010_GNA_254091104_Capacity	GNA_254091104_Capacity	DDOR010	Dinuba 1103	Feeder		N/A	\$1,467	New	6/1/2023			8	Capacity	1.1	MW	FALSE
DDOR010_GNA_254091102_Capacity	GNA_254091102_Capacity	DDOR010	Dinuba 1103	Feeder		N/A	\$1,467	New	6/1/2023			8	Capacity	1.0	MW	FALSE
DDOR011_GNA_254441105_Capacity	GNA_254441105_Capacity	DDOR011	Rainbow 1103	Feeder		N/A	\$1,049	New	12/1/2021			10	Capacity	CC	MW	TRUE
DDOR011_GNA_2523501_Capacity	GNA_2523501_Capacity	DDOR011	Rainbow 1103	Feeder		N/A	\$1,049	New	12/1/2021			10	Capacity	2.6	MW	FALSE
DDOR012_GNA_122221_Capacity	GNA_122221_Capacity	DDOR012	Newark 2111	Feeder		N/A	\$3,180	New	8/15/2021			10	Capacity	CC	MW	TRUE
DDOR012_GNA_12222109_Capacity	GNA_12222109_Capacity	DDOR012	Newark 2111	Feeder		N/A	\$3,180	New	8/15/2021			10	Capacity	CC	MW	TRUE
DDOR013_GNA_22571109_Capacity	GNA_22571109_Capacity	DDOR013	East Grand 1116 & East Grand 1117	Feeder		N/A	\$3,236	New	12/1/2021			10	Capacity	9.6	MW	FALSE
DDOR013_GNA_22571113_Capacity	GNA_22571113_Capacity	DDOR013	East Grand 1116 & East Grand 1117	Feeder		N/A	\$3,236	New	12/1/2021			10	Capacity	CC	MW	TRUE
DDOR013_GNA_225701_Capacity	GNA_225701_Capacity	DDOR013	East Grand 1116 & East Grand 1117	Feeder		N/A	\$3,236	New	12/1/2021			10	Capacity	0.9	MW	FALSE
DDOR014_GNA_22011125_Capacity	GNA_22011125_Capacity	DDOR014	Mission X1113 Circuit Reinforcement	Line Section		N/A	\$4,375	Existing	12/1/2021			10	Capacity	CC	MW	TRUE
DDOR015_GNA_22031118_Capacity	GNA_22031118_Capacity	DDOR015	Potrero A1108 Recable inside Sub	Feeder		N/A	\$2,925	Existing	1/25/2022			9	Capacity	CC	MW	TRUE
DDOR015_GNA_22031108_Capacity	GNA_22031108_Capacity	DDOR015	Potrero A1108 Recable inside Sub	Feeder		N/A	\$2,925	Existing	1/25/2022			9	Capacity	CC	MW	TRUE
DDOR016_GNA_22011120_Capacity	GNA_22011120_Capacity	DDOR016	Mission X 1120 Recable inside Sub	Feeder		N/A	\$3,725	Existing	12/1/2021			10	Capacity	CC	MW	TRUE
DDOR017_GNA_135002_Capacity	GNA_135002_Capacity	DDOR017	Replace Jarvis Bank #2	Bank		\$10,854	N/A	Existing	12/31/2021			10	Capacity	2.6	MW	FALSE
DDOR017_GNA_13501112_Capacity	GNA_13501112_Capacity	DDOR017	Replace Jarvis Bank #2	Bank		\$10,854	N/A	Existing	12/31/2021			10	Capacity	CC	MW	TRUE
DDOR017_GNA_013501112_Resiliency (micro-grid)	GNA_013501112_Resiliency (micro-grid)	DDOR017	Replace Jarvis Bank #2	Bank		\$10,854	N/A	Existing	12/31/2021			10	Resiliency	CC	MW	TRUE
DDOR017_GNA_13501105_Capacity	GNA_13501105_Capacity	DDOR017	Replace Jarvis Bank #2	Bank		\$10,854	N/A	Existing	12/31/2021			10	Capacity	0.7	MW	FALSE
DDOR017_GNA_013501105_Resiliency (micro-grid)	GNA_013501105_Resiliency (micro-grid)	DDOR017	Replace Jarvis Bank #2	Bank		\$10,854	N/A	Existing	12/31/2021			10	Resiliency	0.2	MW	FALSE

Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	Redact?
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR017_GNA_14471102_Capacity	GNA_14471102_Capacity	DDOR017	Replace Jarvis Bank #2	Bank		\$10,854	N/A	Existing	12/31/2021			10	Capacity	CC	MW	TRUE
DDOR017_GNA_13501111_Capacity	GNA_13501111_Capacity	DDOR017	Replace Jarvis Bank #2	Bank		\$10,854	N/A	Existing	12/31/2021			10	Capacity	0.4	MW	FALSE
DDOR017_GNA_013501111_Resiliency (micro-grid)	GNA_013501111_Resiliency (micro-grid)	DDOR017	Replace Jarvis Bank #2	Bank		\$10,854	N/A	Existing	12/31/2021			10	Resiliency	0.9	MW	FALSE
DDOR017_GNA_144701_Capacity	GNA_144701_Capacity	DDOR017	Replace Jarvis Bank #2	Bank		\$10,854	N/A	Existing	12/31/2021			10	Capacity	4.1	MW	FALSE
DDOR018_GNA_162771101_Capacity	GNA_162771101_Capacity	DDOR018	Lammers 1108 & 1104	Feeder		N/A	\$3,231	New	4/1/2022			9	Capacity	CC	MW	TRUE
DDOR018_GNA_162771106_Capacity	GNA_162771106_Capacity	DDOR018	Lammers 1108 & 1104	Feeder		N/A	\$3,231	New	4/1/2022			9	Capacity	1.6	MW	FALSE
DDOR019_GNA_22031113_Capacity	GNA_22031113_Capacity	DDOR019	Potrero A1113	Feeder		N/A	\$5,925	Existing	12/1/2021			10	Capacity	CC	MW	TRUE
DDOR020_GNA_22031119_Capacity	GNA_22031119_Capacity	DDOR020	Potrero A1119	Feeder		N/A	\$2,925	Existing	12/1/2021			10	Capacity	CC	MW	TRUE
DDOR021_GNA_22011102_Capacity	GNA_22011102_Capacity	DDOR021	Mission X 1101	Feeder		N/A	\$3,225	Existing	12/1/2021			10	Capacity	CC	MW	TRUE
DDOR023_GNA_1823801_Capacity	GNA_1823801_Capacity	DDOR023	Dolan Bank	Bank		\$11,299	N/A	New	10/1/2021			10	Capacity	CC	MW	TRUE
DDOR023_GNA_1823501_Capacity	GNA_1823501_Capacity	DDOR023	Dolan Bank	Bank		\$11,299	N/A	New	10/1/2021			10	Capacity	CC	MW	TRUE
DDOR024_GNA_2528501_Capacity	GNA_2528501_Capacity	DDOR024	Tulare Lake Bank 1	Bank		\$7,093	N/A	Existing	12/1/2021			10	Capacity	CC	MW	TRUE
DDOR025_GNA_162301101_Reliability / Other	GNA_162301101_Reliability / Other	DDOR025	Valley Springs 1102	Feeder		N/A	\$1,873	New	12/31/2021			10	Reliability	5.2	MW	FALSE
DDOR026_GNA_163481113_Capacity	GNA_163481113_Capacity	DDOR026	Weber 1115	Feeder		N/A	\$2,000	New	12/31/2021			10	Capacity	CC	MW	TRUE
DDOR027_GNA_2535401_Capacity	GNA_2535401_Capacity	DDOR027	El Nido 1106	Feeder		N/A	\$8,283	New	12/31/2021			10	Capacity	2.4	MW	FALSE
DDOR027_GNA_252451104_Capacity	GNA_252451104_Capacity	DDOR027	El Nido 1106	Feeder		N/A	\$8,283	New	12/31/2021			10	Capacity	0.2	MW	FALSE
DDOR028_GNA_831803_Capacity	GNA_831803_Capacity	DDOR028	Renz Energy Storage	Bank		\$27,274	N/A	New	4/1/2022			9	Capacity	9.6	MW	FALSE
DDOR029_GNA_252421109_Capacity	GNA_252421109_Capacity	DDOR029	Dairyland 1110	Feeder		N/A	\$3,643	New	4/1/2022			9	Capacity	CC	MW	TRUE
DDOR030_GNA_2534401_Capacity	GNA_2534401_Capacity	DDOR030	Calflax Bank 2	Bank		\$10,010	N/A	Existing	5/1/2022			9	Capacity	2.2	MW	FALSE
DDOR030_GNA_2523801_Capacity	GNA_2523801_Capacity	DDOR030	Calflax Bank 2	Bank		\$10,010	N/A	Existing	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR030_GNA_252381107_Capacity	GNA_252381107_Capacity	DDOR030	Calflax Bank 2	Bank		\$10,010	N/A	Existing	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR031_GNA_2529301_Capacity	GNA_2529301_Capacity	DDOR031	Tejon 1107	Feeder		N/A	\$4,071	New	5/1/2022			9	Capacity	2.0	MW	FALSE
DDOR031_GNA_252931102_Capacity	GNA_252931102_Capacity	DDOR031	Tejon 1107	Feeder		N/A	\$4,071	New	5/1/2022			9	Capacity	2.8	MW	FALSE
DDOR032_GNA_144702_Capacity	GNA_144702_Capacity	DDOR032	Replace Dumbarton Bank 2	Bank		\$5,022	N/A	Existing	5/1/2022			9	Capacity	2.1	MW	FALSE
DDOR033_GNA_424601_Capacity	GNA_424601_Capacity	DDOR033	Napa 1104	Feeder		N/A	\$350	New	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR033_GNA_42461106_Capacity	GNA_42461106_Capacity	DDOR033	Napa 1104	Feeder		N/A	\$350	New	5/1/2023			8	Capacity	1.4	MW	FALSE
DDOR034_GNA_24261105_Capacity	GNA_24261105_Capacity	DDOR034	Bair 1101	Feeder		N/A	\$25	New	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR035_GNA_433201_Capacity	GNA_433201_Capacity	DDOR035	Rincon Bank 1	Bank		\$7,214	N/A	Existing	5/1/2022			9	Capacity	6.2	MW	FALSE
DDOR036_GNA_2540501_Capacity	GNA_2540501_Capacity	DDOR036	Santa Nella Bank 1	Bank		\$8,361	N/A	Existing	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR036_GNA_2540502_Capacity	GNA_2540502_Capacity	DDOR036	Santa Nella Bank 1	Bank		\$8,361	N/A	Existing	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR036_GNA_254051104_Capacity	GNA_254051104_Capacity	DDOR036	Santa Nella Bank 1	Bank		\$8,361	N/A	Existing	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR036_GNA_254051101_Capacity	GNA_254051101_Capacity	DDOR036	Santa Nella Bank 1	Bank		\$8,361	N/A	Existing	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR036_GNA_254311106_Capacity	GNA_254311106_Capacity	DDOR036	Santa Nella Bank 1	Bank		\$8,361	N/A	Existing	5/1/2022			9	Capacity	0.9	MW	FALSE
DDOR037_GNA_1630901_Capacity	GNA_1630901_Capacity	DDOR037	Carbona Bank 2	Bank		\$10,400	N/A	Existing	5/1/2022			9	Capacity	2.4	MW	FALSE
DDOR037_GNA_1630902_Capacity	GNA_1630902_Capacity	DDOR037	Carbona Bank 2	Bank		\$10,400	N/A	Existing	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR037_GNA_163091101_Capacity	GNA_163091101_Capacity	DDOR037	Carbona Bank 2	Bank		\$10,400	N/A	Existing	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR037_GNA_162881110_Capacity	GNA_162881110_Capacity	DDOR037	Carbona Bank 2	Bank		\$10,400	N/A	Existing	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR037_GNA_162881109_Capacity	GNA_162881109_Capacity	DDOR037	Carbona Bank 2	Bank		\$10,400	N/A	Existing	5/1/2022			9	Capacity	0.3	MW	FALSE
DDOR038_GNA_13501105_Capacity	GNA_13501105_Capacity	DDOR038	Jarvis 1102	Feeder		N/A	\$4,170	New	6/1/2022			9	Capacity	0.7	MW	FALSE
DDOR039_GNA_432901_Capacity	GNA_432901_Capacity	DDOR039	Pueblo Bank 3	Bank		\$8,832	N/A	New	6/1/2022			9	Capacity	9.8	MW	FALSE
DDOR039_GNA_432901_Reliability / Other	GNA_432901_Reliability / Other	DDOR039	Pueblo Bank 3	Bank		\$8,832	N/A	New	6/1/2022			9	Reliability	14.9	MW	FALSE
DDOR039_GNA_432902_Capacity	GNA_432902_Capacity	DDOR039	Pueblo Bank 3	Bank		\$8,832	N/A	New	6/1/2022			9	Capacity	2.2	MW	FALSE
DDOR039_GNA_43292102_Capacity	GNA_43292102_Capacity	DDOR039	Pueblo Bank 3	Bank		\$8,832	N/A	New	6/1/2022			9	Capacity	0.2	MW	FALSE
DDOR039_GNA_43292103_Capacity	GNA_43292103_Capacity	DDOR039	Pueblo Bank 3	Bank		\$8,832	N/A	New	6/1/2022			9	Capacity	8.2	MW	FALSE
DDOR040_GNA_22031115_Capacity	GNA_22031115_Capacity	DDOR040	Mission (SF X) 1129	Feeder		N/A	\$21,689	New	6/1/2022			9	Capacity	6.7	MW	FALSE
DDOR040_GNA_220301_Capacity	GNA_220301_Capacity	DDOR040	Mission (SF X) 1129	Feeder		N/A	\$21,689	New	6/1/2022			9	Capacity	3.9	MW	FALSE
DDOR041_GNA_22031108_Capacity	GNA_22031108_Capacity	DDOR041	Potrero: Install New Feeder A 1120	Feeder		N/A	\$11,066	New	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR042_GNA_22101101_Capacity	GNA_22101101_Capacity	DDOR042	Martin (SF H) 1117	Feeder		N/A	\$9,862	New	6/1/2022			9	Capacity	CC	MW	TRUE

Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	Redact?
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR042_GNA_221001_Capacity	GNA_221001_Capacity	DDOR042	Martin (SF H) 1117	Feeder		N/A	\$9,662	New	6/1/2022			9	Capacity	8.0	MW	FALSE
DDOR043_GNA_2531601_Capacity_RF	GNA_2531601_Capacity_RF	DDOR043	Huron Bank 1	Bank		\$6,445	N/A	Existing	12/1/2022			9	Capacity	-1.6	MW	FALSE
DDOR045_GNA_163481110_Capacity	GNA_163481110_Capacity	DDOR045	Weber 1106	Feeder		N/A	\$4,000	New	2/1/2023			8	Capacity	7.8	MW	FALSE
DDOR046_GNA_13232102_Capacity	GNA_13232102_Capacity	DDOR046	Lone Tree 2106	Feeder		N/A	\$3,655	New	4/1/2023			8	Capacity	7.8	MW	FALSE
DDOR046_GNA_13652112_Capacity	GNA_13652112_Capacity	DDOR046	Lone Tree 2106	Feeder		N/A	\$3,655	New	4/1/2023			8	Capacity	1.2	MW	FALSE
DDOR046_GNA_13232101_Capacity	GNA_13232101_Capacity	DDOR046	Lone Tree 2106	Feeder		N/A	\$3,655	New	4/1/2023			8	Capacity	1.6	MW	FALSE
DDOR046_GNA_132301_Capacity	GNA_132301_Capacity	DDOR046	Lone Tree 2106	Feeder		N/A	\$3,655	New	4/1/2023			8	Capacity	9.2	MW	FALSE
DDOR047_GNA_162771101_Capacity	GNA_162771101_Capacity	DDOR047	Extend Lammers 1108	Feeder		N/A	\$3,231	New	4/1/2023			8	Capacity	CC	MW	TRUE
DDOR048_GNA_430902_Capacity	GNA_430902_Capacity	DDOR048	San Rafael 1111	Feeder		N/A	\$6,370	New	4/1/2023			8	Capacity	2.3	MW	FALSE
DDOR049_GNA_2531901_Capacity	GNA_2531901_Capacity	DDOR049	San Bernard Bank 2	Bank		\$8,600	N/A	New	4/1/2023			8	Capacity	CC	MW	TRUE
DDOR049_GNA_253191102_Capacity	GNA_253191102_Capacity	DDOR049	San Bernard Bank 2	Bank		\$8,600	N/A	New	4/1/2023			8	Capacity	CC	MW	TRUE
DDOR049_GNA_2538001_Capacity	GNA_2538001_Capacity	DDOR049	San Bernard Bank 2	Bank		\$8,600	N/A	New	4/1/2023			8	Capacity	2.7	MW	FALSE
DDOR050_GNA_083622106_Resiliency (micro-grid)	GNA_083622106_Resiliency (micro-grid)	DDOR050	Camp Evers 2107	Feeder		N/A	\$2,190	New	5/1/2023			8	Resiliency	1.1	MW	FALSE
DDOR051_GNA_241605_Capacity	GNA_241605_Capacity	DDOR051	Bair 1106	Feeder		N/A	\$7,620	New	5/1/2023			8	Capacity	5.3	MW	FALSE
DDOR051_GNA_24161104_Capacity	GNA_24161104_Capacity	DDOR051	Bair 1106	Feeder		N/A	\$7,620	New	5/1/2023			8	Capacity	9.3	MW	FALSE
DDOR052_GNA_182222104_Resiliency (micro-grid)	GNA_182222104_Resiliency (micro-grid)	DDOR052	Monterey Bank 1	Bank		\$22,657	N/A	New	5/1/2023			8	Resiliency	1.6	MW	FALSE
DDOR052_GNA_182222105_Resiliency (micro-grid)	GNA_182222105_Resiliency (micro-grid)	DDOR052	Monterey Bank 1	Bank		\$22,657	N/A	New	5/1/2023			8	Resiliency	4.2	MW	FALSE
DDOR053_GNA_1829501_Capacity	GNA_1829501_Capacity	DDOR053	San Luis Obispo 1106	Feeder		N/A	\$3,450	New	5/1/2023			8	Capacity	2.7	MW	FALSE
DDOR053_GNA_182631108_Capacity	GNA_182631108_Capacity	DDOR053	San Luis Obispo 1106	Feeder		N/A	\$3,450	New	5/1/2023			8	Capacity	1.3	MW	FALSE
DDOR053_GNA_182631107_Capacity	GNA_182631107_Capacity	DDOR053	San Luis Obispo 1106	Feeder		N/A	\$3,450	New	5/1/2023			8	Capacity	0.5	MW	FALSE
DDOR054_GNA_427101_Capacity	GNA_427101_Capacity	DDOR054	Calistoga Bank 1	Bank		\$7,350	N/A	Existing	5/1/2023			8	Capacity	3.2	MW	FALSE
DDOR054_GNA_42711102_Capacity	GNA_42711102_Capacity	DDOR054	Calistoga Bank 1	Bank		\$7,350	N/A	Existing	5/1/2023			8	Capacity	2.5	MW	FALSE
DDOR055_GNA_42301101_Capacity	GNA_42301101_Capacity	DDOR055	Tulucay 1102	Feeder		N/A	\$4,400	New	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR056_GNA_252091104_Capacity	GNA_252091104_Capacity	DDOR056	Ortega New Bank & Feeder	Bank		\$12,800	N/A	New	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR056_GNA_2520901_Capacity	GNA_2520901_Capacity	DDOR056	Ortega New Bank & Feeder	Bank		\$12,800	N/A	New	5/1/2023			8	Capacity	2.7	MW	FALSE
DDOR056_GNA_2520902_Capacity	GNA_2520902_Capacity	DDOR056	Ortega New Bank & Feeder	Bank		\$12,800	N/A	New	5/1/2023			8	Capacity	0.6	MW	FALSE
DDOR056_GNA_2543101_Capacity	GNA_2543101_Capacity	DDOR056	Ortega New Bank & Feeder	Bank		\$12,800	N/A	New	5/1/2023			8	Capacity	2.2	MW	FALSE
DDOR057_GNA_2529003_Capacity	GNA_2529003_Capacity	DDOR057	Semitropic Reconductor	Feeder		N/A	\$2,300	Existing	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR057_GNA_252901108_Capacity	GNA_252901108_Capacity	DDOR057	Semitropic Reconductor	Feeder		N/A	\$2,300	Existing	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR057_GNA_252961102_Capacity	GNA_252961102_Capacity	DDOR057	Semitropic Reconductor	Feeder		N/A	\$2,300	Existing	5/1/2023			8	Capacity	2.1	MW	FALSE
DDOR058_GNA_2534801_Capacity	GNA_2534801_Capacity	DDOR058	Wheeler Ridge Bank 1	Bank		\$2,500	N/A	Existing	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR059_GNA_254552102_Capacity	GNA_254552102_Capacity	DDOR059	Figarden 2114	Feeder		N/A	\$2,400	New	5/1/2023			8	Capacity	2.4	MW	FALSE
DDOR060_GNA_1627001_Capacity	GNA_1627001_Capacity	DDOR060	New Vierra 1704 feeder	Feeder		N/A	\$1,900	New	5/1/2023			8	Capacity	CC	MW	FALSE
DDOR060_GNA_162701701_Capacity	GNA_162701701_Capacity	DDOR060	New Vierra 1704 feeder	Feeder		N/A	\$1,900	New	5/1/2023			8	Capacity	7.7	MW	FALSE
DDOR060_GNA_162701706_Capacity	GNA_162701706_Capacity	DDOR060	New Vierra 1704 feeder	Feeder		N/A	\$1,900	New	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR060_GNA_162611701_Capacity	GNA_162611701_Capacity	DDOR060	New Vierra 1704 feeder	Feeder		N/A	\$1,900	New	5/1/2023			8	Capacity	0.9	MW	FALSE
DDOR061_GNA_153781105_Capacity	GNA_153781105_Capacity	DDOR061	Bogue 1108	Feeder		N/A	\$2,596	New	6/1/2023			8	Capacity	0.7	MW	FALSE
DDOR061_GNA_153781105_Reliability / Other	GNA_153781105_Reliability / Other	DDOR061	Bogue 1108	Feeder		N/A	\$2,596	New	6/1/2023			8	Reliability	2.0	MW	FALSE
DDOR062_GNA_13681112_Capacity	GNA_13681112_Capacity	DDOR062	Edes 1102	Feeder		N/A	\$2,420	New	6/1/2023			8	Capacity	CC	MW	TRUE
DDOR062_GNA_136803_Capacity	GNA_136803_Capacity	DDOR062	Edes 1102	Feeder		N/A	\$2,420	New	6/1/2023			8	Capacity	8.8	MW	FALSE
DDOR063_GNA_142601_Capacity	GNA_142601_Capacity	DDOR063	San Pablo 1104	Feeder		N/A	\$2,420	New	6/1/2023			8	Capacity	1.3	MW	FALSE



Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	Redact?
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR064_GNA_182492104_Capacity	GNA_182492104_Capacity	DDOR064	Hollister New Feeder	Bank		\$2,300	N/A	New	6/1/2023			8	Capacity	CC	MW	TRUE
DDOR064_GNA_1824903_Capacity	GNA_1824903_Capacity	DDOR064	Hollister New Feeder	Bank		\$2,300	N/A	New	6/1/2023			8	Capacity	21.3	MW	FALSE
DDOR065_GNA_820301_Capacity	GNA_820301_Capacity	DDOR065	Mountain View Bank 1	Bank		\$6,478	N/A	Existing	6/1/2023			8	Capacity	7.5	MW	FALSE
DDOR065_GNA_820303_Capacity	GNA_820303_Capacity	DDOR065	Mountain View Bank 1	Bank		\$6,478	N/A	Existing	6/1/2023			8	Capacity	1.9	MW	FALSE
DDOR066_GNA_83371104_Capacity	GNA_83371104_Capacity	DDOR066	Vasona 1109	Feeder		N/A	\$1,650	New	6/1/2023			8	Capacity	CC	MW	TRUE
DDOR067_GNA_1922501_Capacity	GNA_1922501_Capacity	DDOR067	Rio Dell Substation	Bank		\$15,700	N/A	New	6/1/2023			8	Capacity	3.6	MW	FALSE
DDOR067_GNA_192251101_Capacity	GNA_192251101_Capacity	DDOR067	Rio Dell Substation	Bank		\$15,700	N/A	New	6/1/2023			8	Capacity	CC	MW	TRUE
DDOR068_GNA_22691108_Capacity	GNA_22691108_Capacity	DDOR068	Sneath Lane 1103	Feeder		N/A	\$3,750	New	6/1/2023			8	Capacity	CC	MW	TRUE
DDOR070_GNA_832403_Capacity	GNA_832403_Capacity	DDOR070	Morgan Hill 2103	Feeder		N/A	\$2,650	New	6/1/2023			8	Capacity	6.5	MW	FALSE
DDOR071_GNA_22031117_Capacity	GNA_22031117_Capacity	DDOR071	Recable Potrero A1117	Feeder		N/A	\$10,355	Existing	8/1/2023			8	Capacity	CC	MW	TRUE
DDOR072_GNA_22011107_Capacity	GNA_22011107_Capacity	DDOR072	Recable Mission X 1107	Feeder		N/A	\$1,950	Existing	8/1/2023			8	Capacity	CC	MW	TRUE
DDOR072_GNA_22871115_Capacity	GNA_22871115_Capacity	DDOR072	Recable Mission X 1107	Feeder		N/A	\$1,950	Existing	8/1/2023			8	Capacity	CC	MW	TRUE
DDOR073_GNA_252171112_Capacity	GNA_252171112_Capacity	DDOR073	Alpaugh 1102	Feeder		N/A	\$3,299	New	10/1/2023			8	Capacity	CC	MW	TRUE
DDOR073_GNA_252171108_Capacity	GNA_252171108_Capacity	DDOR073	Alpaugh 1102	Feeder		N/A	\$3,299	New	10/1/2023			8	Capacity	1.0	MW	FALSE
DDOR073_GNA_2521703_Capacity	GNA_2521703_Capacity	DDOR073	Alpaugh 1102	Feeder		N/A	\$3,299	New	10/1/2023			8	Capacity	CC	MW	TRUE
DDOR074_GNA_22011104_Capacity	GNA_22011104_Capacity	DDOR074	Larkin (SF Y) 1142	Feeder		N/A	\$912	New	6/1/2023			8	Capacity	CC	MW	TRUE
DDOR075_GNA_2531501_Capacity	GNA_2531501_Capacity	DDOR075	Giffen Bank 2	Bank		\$11,900	N/A	New	4/1/2024			7	Capacity	CC	MW	TRUE
DDOR075_GNA_253151102_Capacity	GNA_253151102_Capacity	DDOR075	Giffen Bank 2	Bank		\$11,900	N/A	New	4/1/2024			7	Capacity	CC	MW	TRUE
DDOR076_GNA_638101_Capacity	GNA_638101_Capacity	DDOR076	Arbuckle Bank 2	Bank		\$9,570	N/A	Existing	4/1/2024			7	Capacity	1.9	MW	FALSE
DDOR076_GNA_620802_Capacity	GNA_620802_Capacity	DDOR076	Arbuckle Bank 2	Bank		\$9,570	N/A	Existing	4/1/2024			7	Capacity	0.3	MW	FALSE
DDOR077_GNA_254611109_Capacity	GNA_254611109_Capacity	DDOR077	Storey 1103	Feeder		N/A	\$2,400	Existing	5/1/2024			7	Capacity	2.3	MW	FALSE
DDOR077_GNA_254611106_Capacity	GNA_254611106_Capacity	DDOR077	Storey 1103	Feeder		N/A	\$2,400	Existing	5/1/2024			7	Capacity	0.8	MW	FALSE
DDOR077_GNA_254611105_Capacity	GNA_254611105_Capacity	DDOR077	Storey 1103	Feeder		N/A	\$2,400	Existing	5/1/2024			7	Capacity	1.2	MW	FALSE
DDOR077_GNA_1_Voltage	GNA_1_Voltage	DDOR077	Storey 1103	Feeder		N/A	\$2,400	Existing	5/1/2024			7	Voltage	CC	VPU	FALSE
DDOR078_GNA_1822002_Capacity	GNA_1822002_Capacity	DDOR078	Spence Bank 2	Bank		\$9,967	N/A	Existing	5/1/2024			7	Capacity	11.4	MW	FALSE
DDOR078_GNA_182201103_Capacity	GNA_182201103_Capacity	DDOR078	Spence Bank 2	Bank		\$9,967	N/A	Existing	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR078_GNA_182201104_Capacity	GNA_182201104_Capacity	DDOR078	Spence Bank 2	Bank		\$9,967	N/A	Existing	5/1/2024			7	Capacity	4.0	MW	FALSE
DDOR078_GNA_182201102_Capacity	GNA_182201102_Capacity	DDOR078	Spence Bank 2	Bank		\$9,967	N/A	Existing	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR079_GNA_1823301_Capacity	GNA_1823301_Capacity	DDOR079	Gabilan Bank 2	Bank		\$6,500	N/A	New	5/1/2024			7	Capacity	5.0	MW	FALSE
DDOR079_GNA_182331101_Capacity	GNA_182331101_Capacity	DDOR079	Gabilan Bank 2	Bank		\$6,500	N/A	New	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR080_GNA_831903_Capacity	GNA_831903_Capacity	DDOR080	Green Valley Bank 3	Bank		\$6,500	N/A	Existing	5/1/2024			7	Capacity	6.2	MW	FALSE
DDOR081_GNA_252041107_Capacity	GNA_252041107_Capacity	DDOR081	Airways Bank 3	Bank		\$11,900	N/A	New	5/1/2024			7	Capacity	2.5	MW	FALSE
DDOR081_GNA_2520402_Capacity	GNA_2520402_Capacity	DDOR081	Airways Bank 3	Bank		\$11,900	N/A	New	5/1/2024			7	Capacity	0.8	MW	FALSE
DDOR081_GNA_252041102_Capacity	GNA_252041102_Capacity	DDOR081	Airways Bank 3	Bank		\$11,900	N/A	New	5/1/2024			7	Capacity	0.8	MW	FALSE
DDOR081_GNA_252411104_Capacity	GNA_252411104_Capacity	DDOR081	Airways Bank 3	Bank		\$11,900	N/A	New	5/1/2024			7	Capacity	0.4	MW	FALSE
DDOR081_GNA_2_Voltage	GNA_2_Voltage	DDOR081	Airways Bank 3	Bank		\$11,900	N/A	New	5/1/2024			7	Voltage	CC	VPU	FALSE
DDOR082_GNA_2521602_Capacity	GNA_2521602_Capacity	DDOR082	Coalinga No 1 Bank 2	Bank		\$6,500	N/A	Existing	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR083_GNA_240203_Capacity	GNA_240203_Capacity	DDOR083	Belle Haven Bank 4	Bank		\$14,700	N/A	Existing	5/1/2024			7	Capacity	3.9	MW	FALSE
DDOR084_GNA_627201_Capacity	GNA_627201_Capacity	DDOR084	Zamora 1108	Feeder		N/A	\$1,900	New	5/1/2024			7	Capacity	CC	MW	FALSE
DDOR084_GNA_631901_Capacity	GNA_631901_Capacity	DDOR084	Zamora 1108	Feeder		N/A	\$1,900	New	5/1/2024			7	Capacity	CC	MW	FALSE
DDOR085_GNA_163801704_Capacity	GNA_163801704_Capacity	DDOR085	Ripon 1705	Feeder		N/A	\$1,900	New	5/1/2024			7	Capacity	3.5	MW	FALSE
DDOR085_GNA_1626107_Capacity	GNA_1626107_Capacity	DDOR085	Ripon 1705	Feeder		N/A	\$1,900	New	5/1/2024			7	Capacity	CC	MW	FALSE
DDOR085_GNA_1638002_Capacity	GNA_1638002_Capacity	DDOR085	Ripon 1705	Feeder		N/A	\$1,900	New	5/1/2024			7	Capacity	CC	MW	FALSE
DDOR086_GNA_1632901_Capacity	GNA_1632901_Capacity	DDOR086	French Camp Bank 1	Bank		\$6,500	N/A	Existing	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR087_GNA_1626106_Capacity	GNA_1626106_Capacity	DDOR087	Vierra Bank 3	Feeder		N/A	\$11,900	New	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR088_GNA_2534001_Capacity	GNA_2534001_Capacity	DDOR088	Hammonds Bank 1	Bank		\$6,500	N/A	Existing	5/1/2024			7	Capacity	3.8	MW	FALSE

Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	Redact?
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR088_GNA_253401104_Capacity	GNA_253401104_Capacity	DDOR088	Hammonds Bank 1	Bank		\$6,500	N/A	Existing	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR089_GNA_2553901_Capacity	GNA_2553901_Capacity	DDOR089	Bonita Bank 2	Bank		\$11,900	N/A	New	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR089_GNA_255391102_Capacity	GNA_255391102_Capacity	DDOR089	Bonita Bank 2	Bank		\$11,900	N/A	New	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR089_GNA_254611106_Capacity	GNA_254611106_Capacity	DDOR089	Bonita Bank 2	Bank		\$11,900	N/A	New	5/1/2024			7	Capacity	0.8	MW	FALSE
DDOR090_GNA_253411106_Capacity	GNA_253411106_Capacity	DDOR090	Lakeview 1110	Feeder		N/A	\$4,496	New	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR091_GNA_182201102_Capacity	GNA_182201102_Capacity	DDOR091	Chualar Bank 1	Bank		\$6,500	N/A	New	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR091_GNA_1822001_Capacity	GNA_1822001_Capacity	DDOR091	Chualar Bank 1	Bank		\$6,500	N/A	New	5/1/2024			7	Capacity	10.8	MW	FALSE
DDOR092_GNA_1826601_Capacity	GNA_1826601_Capacity	DDOR092	San Miguel Bank 2	Bank		\$9,366	N/A	New	6/1/2024			7	Capacity	2.6	MW	FALSE
DDOR092_GNA_182661104_Capacity	GNA_182661104_Capacity	DDOR092	San Miguel Bank 2	Bank		\$9,366	N/A	New	6/1/2024			7	Capacity	CC	MW	TRUE
DDOR093_GNA_139103_Capacity	GNA_139103_Capacity	DDOR093	Willow Pass Bank 1	Bank		\$12,498	N/A	Existing	6/1/2024			7	Capacity	10.2	MW	FALSE
DDOR094_GNA_1922201_Capacity	GNA_1922201_Capacity	DDOR094	Garberville Bank 2	Bank		\$53,907	N/A	New	6/1/2024			7	Capacity	7.5	MW	FALSE
DDOR094_GNA_192221102_Capacity	GNA_192221102_Capacity	DDOR094	Garberville Bank 2	Bank		\$53,907	N/A	New	6/1/2024			7	Capacity	3.8	MW	FALSE
DDOR094_GNA_3_Voltage	GNA_3_Voltage	DDOR094	Garberville Bank 2	Bank		\$53,907	N/A	New	6/1/2024			7	Voltage	CC	VPU	FALSE
DDOR095_GNA_2544603_Capacity	GNA_2544603_Capacity	DDOR095	Newhall Bank 3	Bank		\$6,500	N/A	Existing	6/1/2024			7	Capacity	0.8	MW	FALSE
DDOR095_GNA_254461109_Capacity	GNA_254461109_Capacity	DDOR095	Newhall Bank 3	Bank		\$6,500	N/A	Existing	6/1/2024			7	Capacity	CC	MW	TRUE
DDOR096_GNA_83671105_Capacity	GNA_83671105_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024			7	Capacity	CC	MW	TRUE
DDOR096_GNA_836701_Capacity	GNA_836701_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024			7	Capacity	13.7	MW	FALSE
DDOR096_GNA_833703_Capacity	GNA_833703_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024			7	Capacity	0.8	MW	FALSE
DDOR096_GNA_83371114_Capacity	GNA_83371114_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024			7	Capacity	2.6	MW	FALSE
DDOR096_GNA_83371111_Capacity	GNA_83371111_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024			7	Capacity	2.0	MW	FALSE
DDOR096_GNA_83371110_Capacity	GNA_83371110_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024			7	Capacity	CC	MW	TRUE
DDOR096_GNA_83371113_Capacity	GNA_83371113_Capacity	DDOR096	Wolfe 1111 & Wolfe 1112	Feeder		N/A	\$8,788	New	6/1/2024			7	Capacity	0.3	MW	FALSE
DDOR097_GNA_63441106_Capacity	GNA_63441106_Capacity	DDOR097	Plainfield Bank 1	Bank		\$11,940	N/A	Existing	6/1/2024			7	Capacity	4.7	MW	FALSE
DDOR098_GNA_835301_Capacity	GNA_835301_Capacity	DDOR098	Mc Kee 1102	Feeder		N/A	\$2,450	New	6/1/2024			7	Capacity	1.8	MW	FALSE
DDOR098_GNA_83531110_Capacity	GNA_83531110_Capacity	DDOR098	Mc Kee 1102	Feeder		N/A	\$2,450	New	6/1/2024			7	Capacity	1.2	MW	FALSE
DDOR098_GNA_83531108_Capacity	GNA_83531108_Capacity	DDOR098	Mc Kee 1102	Feeder		N/A	\$2,450	New	6/1/2024			7	Capacity	1.6	MW	FALSE
DDOR098_GNA_83531107_Capacity	GNA_83531107_Capacity	DDOR098	Mc Kee 1102	Feeder		N/A	\$2,450	New	6/1/2024			7	Capacity	1.8	MW	FALSE
DDOR100_GNA_1030702_Capacity	GNA_1030702_Capacity	DDOR100	Anita 1105	Feeder		N/A	\$2,500	New	6/1/2024			7	Capacity	2.2	MW	FALSE
DDOR100_GNA_1030701_Capacity	GNA_1030701_Capacity	DDOR100	Anita 1105	Feeder		N/A	\$2,500	New	6/1/2024			7	Capacity	1.2	MW	FALSE
DDOR100_GNA_1028401_Capacity	GNA_1028401_Capacity	DDOR100	Anita 1105	Feeder		N/A	\$2,500	New	6/1/2024			7	Capacity	0.4	MW	FALSE
DDOR101_GNA_1525802_Capacity	GNA_1525802_Capacity	DDOR101	Rocklin 1105	Feeder		N/A	\$1,400	Existing	5/1/2025			6	Capacity	0.7	MW	FALSE
DDOR102_GNA_838903_Resiliency (micro-grid)	GNA_838903_Resiliency (micro-grid)	DDOR102	Montague Bank 2	Bank		\$6,500	N/A	Existing	5/1/2025			6	Resiliency	7.6	MW	FALSE
DDOR103_GNA_433202_Capacity	GNA_433202_Capacity	DDOR103	Rincon Bank 1	Feeder		N/A	\$6,500	New	5/1/2024			7	Capacity	6.1	MW	FALSE
DDOR104_GNA_425606_Capacity	GNA_425606_Capacity	DDOR104	Fulton Bank 5	Bank		\$6,500	N/A	Existing	5/1/2025			6	Capacity	0.3	MW	FALSE
DDOR104_GNA_42561107_Capacity	GNA_42561107_Capacity	DDOR104	Fulton Bank 5	Bank		\$6,500	N/A	Existing	5/1/2025			6	Capacity	1.5	MW	FALSE
DDOR104_GNA_42561102_Capacity	GNA_42561102_Capacity	DDOR104	Fulton Bank 5	Bank		\$6,500	N/A	Existing	5/1/2025			6	Capacity	0.8	MW	FALSE
DDOR104_GNA_425605_Capacity	GNA_425605_Capacity	DDOR104	Fulton Bank 5	Bank		\$6,500	N/A	Existing	5/1/2025			6	Capacity	2.2	MW	FALSE
DDOR105_GNA_1636804_Capacity	GNA_1636804_Capacity	DDOR105	Lockeford Bank 1	Bank		\$10,885	N/A	New	5/1/2025			6	Capacity	4.3	MW	FALSE
DDOR105_GNA_1621102_Capacity	GNA_1621102_Capacity	DDOR105	Lockeford Bank 1	Bank		\$10,885	N/A	New	5/1/2025			6	Capacity	0.4	MW	FALSE
DDOR105_GNA_1636804_Resiliency (micro-grid)	GNA_1636804_Resiliency (micro-grid)	DDOR105	Lockeford Bank 1	Bank		\$10,885	N/A	New	5/1/2025			6	Resiliency	14.8	MW	FALSE
DDOR106_GNA_425702_Capacity	GNA_425702_Capacity	DDOR106	Molino Bank 1	Bank		\$400	N/A	Existing	6/1/2025			6	Capacity	0.2	MW	FALSE
DDOR106_GNA_42571102_Capacity	GNA_42571102_Capacity	DDOR106	Molino Bank 1	Bank		\$400	N/A	Existing	6/1/2025			6	Capacity	0.7	MW	FALSE
DDOR108_GNA_83631109_Capacity	GNA_83631109_Capacity	DDOR108	Ames 1103	Feeder		N/A	\$2,400	New	6/1/2025			6	Capacity	CC	MW	TRUE
DDOR108_GNA_83631110_Capacity	GNA_83631110_Capacity	DDOR108	Ames 1103	Feeder		N/A	\$2,400	New	6/1/2025			6	Capacity	CC	MW	TRUE
DDOR108_GNA_836303_Capacity	GNA_836303_Capacity	DDOR108	Ames 1103	Feeder		N/A	\$2,400	New	6/1/2025			6	Capacity	7.2	MW	FALSE
DDOR109_GNA_2546801_Capacity_RF	GNA_2546801_Capacity_RF	DDOR109	Blackwell Bank 1	Bank		\$6,489	N/A	Existing	6/1/2025			6	Capacity	CC	MW	TRUE
DDOR110_GNA_22871118_Capacity	GNA_22871118_Capacity	DDOR110	Embarcadero (SF 2) 1118	Bank		\$2,501	N/A	Existing	6/1/2025			6	Capacity	1.3	MW	FALSE

Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	Redact?
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR111_GNA_22871116_Capacity	GNA_22871116_Capacity	DDOR111	Embarcadero (SF Z) 1116	Bank		\$2,501	N/A	Existing	4/1/2026			5	Capacity	0.3	MW	FALSE
DDOR112_GNA_83371106_Capacity	GNA_83371106_Capacity	DDOR112	Saratoga 1102	Feeder		N/A	\$5,092	New	5/1/2026			5	Capacity	CC	MW	TRUE
DDOR113_GNA_1628801_Capacity	GNA_1628801_Capacity	DDOR113	Banta Bank 1	Bank		\$10,354	N/A	Existing	5/1/2024			7	Capacity	6.7	MW	FALSE
DDOR113_GNA_162881102_Capacity	GNA_162881102_Capacity	DDOR113	Banta Bank 1	Bank		\$10,354	N/A	Existing	5/1/2024			7	Capacity	CC	MW	TRUE
DDOR114_GNA_82261116_Capacity	GNA_82261116_Capacity	DDOR114	FMC 1106	Feeder		N/A	\$6,200	New	6/1/2023			8	Capacity	CC	MW	TRUE
DDOR115_GNA_163211102_Capacity	GNA_163211102_Capacity	DDOR115	Mormon Bank 2	Bank		\$16,680	N/A	New	6/1/2025			6	Capacity	0.8	MW	FALSE
DDOR115_GNA_1631303_Capacity	GNA_1631303_Capacity	DDOR115	Mormon Bank 2	Bank		\$16,680	N/A	New	6/1/2025			6	Capacity	0.3	MW	FALSE
DDOR117_GNA_252051112_Capacity	GNA_252051112_Capacity	DDOR117	Ashlan 1112 to Ashlan 1113	Line Section		N/A	\$50	New	5/1/2023			8	Capacity	0.5	MW	FALSE
DDOR118_GNA_82952112_Capacity	GNA_82952112_Capacity	DDOR118	Extend Edmenvale 2111 to 2112	Line Section		N/A	\$945	New	4/2/2024			7	Capacity	CC	MW	TRUE
DDOR119_GNA_2547701_Capacity	GNA_2547701_Capacity	DDOR119	Jacobs Corner 1101 to Guernsey 1106	Line Section		N/A	\$100	Existing	3/31/2023			8	Capacity	CC	MW	TRUE
DDOR121_GNA_254641110_Capacity	GNA_254641110_Capacity	DDOR121	Transfer Canal outlets from Bank 2 to Bank 1, 1101 and 1103	Line Section		N/A	\$200	New	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR122_GNA_141001_Capacity	GNA_141001_Capacity	DDOR122	Alhambra 1101 and Alhambra 1102 cutover job	Line Section		N/A	\$5,281	Existing	6/1/2022			9	Capacity	1.8	MW	FALSE
DDOR123_GNA_42281105_Capacity	GNA_42281105_Capacity	DDOR123	Potter Valley 1105	Line Section		N/A	\$1,822	Existing	5/31/2023			8	Capacity	CC	MW	TRUE
DDOR123_GNA_422805_Capacity	GNA_422805_Capacity	DDOR123	Potter Valley 1105	Line Section		N/A	\$1,822	Existing	5/31/2023			8	Capacity	CC	MW	TRUE
DDOR124_GNA_012091116_Resiliency (micro-grid)	GNA_012091116_Resiliency (micro-grid)	DDOR124	Extend Oakland J 1116	Feeder		N/A	\$1,100	Existing	12/1/2022			9	Resiliency	2.6	MW	FALSE
DDOR124_GNA_12091116_Capacity	GNA_12091116_Capacity	DDOR124	Extend Oakland J 1116	Feeder		N/A	\$1,100	Existing	12/1/2022			9	Capacity	1.6	MW	FALSE
DDOR125_GNA_012541115_Resiliency (micro-grid)	GNA_012541115_Resiliency (micro-grid)	DDOR125	Oakland X1115	Line Section		N/A	\$426	Existing	12/1/2022			9	Resiliency	1.2	MW	FALSE
DDOR126_GNA_083692105_Resiliency (micro-grid)	GNA_083692105_Resiliency (micro-grid)	DDOR126	Rob Roy 2105	Line Section		N/A	\$500	New	10/1/2024			7	Resiliency	4.6	MW	FALSE
DDOR127_GNA_182011102_Resiliency (micro-grid)	GNA_182011102_Resiliency (micro-grid)	DDOR127	Salinas 1102	Line Section		N/A	\$250	Existing	10/1/2024			7	Resiliency	CC	MW	TRUE
DDOR128_GNA_182601106_Resiliency (micro-grid)	GNA_182601106_Resiliency (micro-grid)	DDOR128	Ocasno 1106	Line Section		N/A	\$425	Existing	10/1/2024			7	Resiliency	1.1	MW	FALSE
DDOR129_GNA_022101107_Resiliency (micro-grid)	GNA_022101107_Resiliency (micro-grid)	DDOR129	Martin (SF H) 1107	Line Section		N/A	\$150	Existing	10/1/2024			7	Resiliency	1.1	MW	FALSE
DDOR130_GNA_022101108_Resiliency (micro-grid)	GNA_022101108_Resiliency (micro-grid)	DDOR130	Martin (SF H) 1108	Line Section		N/A	\$180	Existing	10/1/2024			7	Resiliency	CC	MW	TRUE
DDOR131_GNA_082952108_Resiliency (micro-grid)	GNA_082952108_Resiliency (micro-grid)	DDOR131	Edmenvale 2108	Line Section		N/A	\$95	New	10/1/2024			7	Resiliency	2.0	MW	FALSE
DDOR132_GNA_2524501_Capacity	GNA_2524501_Capacity	DDOR132	El Nido 1106	Line Section		N/A	\$7,562	Existing	12/30/2021			10	Capacity	4.0	MW	FALSE
DDOR133_GNA_253881102_Capacity	GNA_253881102_Capacity	DDOR133	El Capitan 1102	Line Section		N/A	\$420	New	9/1/2021			10	Capacity	CC	MW	TRUE
DDOR133_GNA_2538802_Capacity	GNA_2538802_Capacity	DDOR133	El Capitan 1102	Line Section		N/A	\$420	New	9/1/2021			10	Capacity	CC	MW	TRUE
DDOR134_GNA_82250410_Capacity	GNA_82250410_Capacity	DDOR134	San Jose A-0410	Line Section		N/A	\$150	Existing	6/1/2023			8	Capacity	0.4	MW	FALSE
DDOR135_GNA_2551202_Capacity	GNA_2551202_Capacity	DDOR135	Cassidy 2108	Line Section		N/A	\$5,571	Existing	10/1/2022			9	Capacity	3.0	MW	FALSE
DDOR135_GNA_254272107_Capacity	GNA_254272107_Capacity	DDOR135	Cassidy 2108	Line Section		N/A	\$5,571	Existing	10/1/2022			9	Capacity	2.0	MW	FALSE
DDOR135_GNA_254272108_Capacity	GNA_254272108_Capacity	DDOR135	Cassidy 2108	Line Section		N/A	\$5,571	Existing	10/1/2022			9	Capacity	2.1	MW	FALSE
DDOR136_GNA_162991102_Capacity	GNA_162991102_Capacity	DDOR136	Valley Springs 1102	Feeder		N/A	\$1,525	New	5/1/2022			9	Capacity	2.8	MW	FALSE
DDOR136_GNA_1629902_Capacity	GNA_1629902_Capacity	DDOR136	Valley Springs 1102	Feeder		N/A	\$1,525	New	5/1/2022			9	Capacity	0.6	MW	FALSE
DDOR137_GNA_13652103_Capacity	GNA_13652103_Capacity	DDOR137	Extend Contra Costa 2105	Line Section		N/A	\$465	New	5/1/2022			9	Capacity	1.6	MW	FALSE
DDOR137_GNA_13652116_Capacity	GNA_13652116_Capacity	DDOR137	Extend Contra Costa 2105	Line Section		N/A	\$465	New	5/1/2022			9	Capacity	6.0	MW	FALSE
DDOR138_GNA_252241111_Capacity	GNA_252241111_Capacity	DDOR138	Kingsburg 1113 and 1111	Line Section		N/A	\$7,650	Existing	6/1/2021			10	Capacity	1.5	MW	FALSE
DDOR138_GNA_252241113_Capacity	GNA_252241113_Capacity	DDOR138	Kingsburg 1113 and 1111	Line Section		N/A	\$7,650	Existing	6/1/2021			10	Capacity	CC	MW	TRUE
DDOR139_GNA_252461103_Capacity	GNA_252461103_Capacity	DDOR139	FAMOSO 1103 - LERDO 1107	Line Section		N/A	\$2,572	New	5/1/2021			10	Capacity	CC	MW	TRUE
DDOR139_GNA_2524601_Capacity	GNA_2524601_Capacity	DDOR139	FAMOSO 1103 - LERDO 1107	Line Section		N/A	\$2,572	New	5/1/2021			10	Capacity	3.7	MW	FALSE
DDOR140_GNA_82160401_Capacity	GNA_82160401_Capacity	DDOR140	Loyola 401 4kV to 12kV cut over	Line Section		N/A	\$5,270	Existing	6/1/2023			8	Capacity	CC	MW	TRUE

Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	Redact?
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR140_GNA_82160403_Capacity	GNA_82160403_Capacity	DDOR140	Loyola 401 4kV to 12kV cut over	Line Section		N/A	\$5,270	Existing	6/1/2023			8	Capacity	0.4	MW	FALSE
DDOR140_GNA_82161102_Capacity	GNA_82161102_Capacity	DDOR140	Loyola 401 4kV to 12kV cut over	Line Section		N/A	\$5,270	Existing	6/1/2023			8	Capacity	0.8	MW	FALSE
DDOR140_GNA_821601_Capacity	GNA_821601_Capacity	DDOR140	Loyola 401 4kV to 12kV cut over	Line Section		N/A	\$5,270	Existing	6/1/2023			8	Capacity	1.5	MW	FALSE
DDOR140_GNA_821602_Capacity	GNA_821602_Capacity	DDOR140	Loyola 401 4kV to 12kV cut over	Line Section		N/A	\$5,270	Existing	6/1/2023			8	Capacity	3.9	MW	FALSE
DDOR141_GNA_254251106_Capacity	GNA_254251106_Capacity	DDOR141	Reconductor California Ave 1102	Line Section		N/A	\$704	Existing	6/1/2021			10	Capacity	CC	MW	TRUE
DDOR141_GNA_2542502_Capacity	GNA_2542502_Capacity	DDOR141	Reconductor California Ave 1102	Line Section		N/A	\$704	Existing	6/1/2021			10	Capacity	CC	MW	TRUE
DDOR141_GNA_252281111_Capacity	GNA_252281111_Capacity	DDOR141	Reconductor California Ave 1102	Line Section		N/A	\$704	Existing	6/1/2021			10	Capacity	CC	MW	TRUE
DDOR142_GNA_428701_Capacity	GNA_428701_Capacity	DDOR142	Upper Lake 1101	Line Section		N/A	\$350	New	6/1/2023			8	Capacity	0.3	MW	FALSE
DDOR143_GNA_253422101_Capacity	GNA_253422101_Capacity	DDOR143	Stockdale 2112	Line Section		N/A	\$410	Existing	6/1/2022			9	Capacity	0.4	MW	FALSE
DDOR143_GNA_2534201_Capacity	GNA_2534201_Capacity	DDOR143	Stockdale 2112	Line Section		N/A	\$410	Existing	6/1/2022			9	Capacity	2.0	MW	FALSE
DDOR144_GNA_63591105_Capacity	GNA_63591105_Capacity	DDOR144	Vacadixon 1101	Line Section		N/A	\$90	Existing	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR144_GNA_635908_Capacity	GNA_635908_Capacity	DDOR144	Vacadixon 1101	Line Section		N/A	\$90	Existing	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR145_GNA_83611107_Capacity	GNA_83611107_Capacity	DDOR145	Britton 1107 to 1112 - Offload	Line Section		N/A	\$100	Existing	5/1/2022			9	Capacity	CC	MW	TRUE
DDOR145_GNA_836102_Capacity	GNA_836102_Capacity	DDOR145	Britton 1107 to 1112 - Offload	Line Section		N/A	\$100	Existing	5/1/2022			9	Capacity	1.7	MW	FALSE
DDOR146_GNA_254541104_Capacity	GNA_254541104_Capacity	DDOR146	Ganso Bank 1	Line Section		N/A	\$2,611	Existing	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR146_GNA_2545401_Capacity	GNA_2545401_Capacity	DDOR146	Ganso Bank 1	Line Section		N/A	\$2,611	Existing	6/1/2022			9	Capacity	2.8	MW	FALSE
DDOR147_GNA_102851101_Capacity	GNA_102851101_Capacity	DDOR147	Jacinto 1101	Line Section		N/A	\$150	New	5/1/2022			9	Capacity	1.3	MW	FALSE
DDOR147_GNA_1028501_Capacity	GNA_1028501_Capacity	DDOR147	Jacinto 1101	Line Section		N/A	\$150	New	5/1/2022			9	Capacity	0.8	MW	FALSE
DDOR148_GNA_83182103_Capacity	GNA_83182103_Capacity	DDOR148	Extend Llagas 2102	Line Section		N/A	\$914	Existing	6/1/2022			9	Capacity	3.4	MW	FALSE
DDOR148_GNA_831802_Capacity	GNA_831802_Capacity	DDOR148	Extend Llagas 2102	Line Section		N/A	\$914	Existing	6/1/2022			9	Capacity	1.6	MW	FALSE
DDOR149_GNA_42151105_Capacity	GNA_42151105_Capacity	DDOR149	Monroe - New Feeder	Feeder		N/A	\$4,000	New	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR149_GNA_42151110_Capacity	GNA_42151110_Capacity	DDOR149	Monroe - New Feeder	Feeder		N/A	\$4,000	New	5/1/2023			8	Capacity	1.1	MW	FALSE
DDOR149_GNA_421501_Capacity	GNA_421501_Capacity	DDOR149	Monroe - New Feeder	Feeder		N/A	\$4,000	New	5/1/2023			8	Capacity	9.6	MW	FALSE
DDOR150_GNA_83481108_Capacity	GNA_83481108_Capacity	DDOR150	Stelling 1105	Line Section		N/A	\$3,756	New	6/30/2023			8	Capacity	0.7	MW	FALSE
DDOR150_GNA_83481110_Capacity	GNA_83481110_Capacity	DDOR150	Stelling 1105	Line Section		N/A	\$3,756	New	6/30/2023			8	Capacity	1.7	MW	FALSE
DDOR150_GNA_83481111_Capacity	GNA_83481111_Capacity	DDOR150	Stelling 1105	Line Section		N/A	\$3,756	New	6/30/2023			8	Capacity	2.9	MW	FALSE
DDOR150_GNA_834803_Capacity	GNA_834803_Capacity	DDOR150	Stelling 1105	Line Section		N/A	\$3,756	New	6/30/2023			8	Capacity	2.0	MW	FALSE
DDOR151_GNA_254531107_Capacity	GNA_254531107_Capacity	DDOR151	Wahtoke 1107 Back Tie	Line Section		N/A	\$412	New	6/1/2022			9	Capacity	0.3	MW	FALSE
DDOR151_GNA_2545302_Capacity	GNA_2545302_Capacity	DDOR151	Wahtoke 1107 Back Tie	Line Section		N/A	\$412	New	6/1/2022			9	Capacity	1.7	MW	FALSE
DDOR152_GNA_163081102_Capacity	GNA_163081102_Capacity	DDOR152	Weber - New Feeder	Feeder		N/A	\$3,105	New	6/1/2021			10	Capacity	0.7	MW	FALSE
DDOR154_GNA_182541103_Capacity	GNA_182541103_Capacity	DDOR154	Atascadero 1103 to Atascadero 1102	Feeder		N/A	\$656	New	6/1/2022			9	Capacity	2.4	MW	FALSE
DDOR155_GNA_240202_Capacity	GNA_240202_Capacity	DDOR155	Glenwood 1101	Line Section		N/A	\$1,150	New	12/30/2021			10	Capacity	CC	MW	TRUE
DDOR156_GNA_434101_Capacity	GNA_434101_Capacity	DDOR156	Calpella1101	Feeder		N/A	\$4,858	Existing	6/1/2021			10	Capacity	CC	MW	TRUE
DDOR157_GNA_252091103_Capacity	GNA_252091103_Capacity	DDOR157	CANAL 1103	Line Section		N/A	\$1,603	New	6/1/2021			10	Capacity	1.1	MW	FALSE
DDOR158_GNA_421401_Capacity	GNA_421401_Capacity	DDOR158	Clear Lake 1101	Line Section		N/A	\$4,568	Existing	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR159_GNA_421401_Capacity	GNA_421401_Capacity	DDOR159	Konodi 1102	Line Section		N/A	\$456	Existing	5/1/2021			10	Capacity	CC	MW	TRUE
DDOR160_GNA_103331101_Capacity	GNA_103331101_Capacity	DDOR160	Reconductor Corning 1101 feeder outlet	Line Section		N/A	\$56	Existing	5/1/2022			9	Capacity	1.8	MW	FALSE
DDOR161_GNA_1033302_Capacity	GNA_1033302_Capacity	DDOR161	Corning 1103	Line Section		N/A	\$790	Existing	6/1/2021			10	Capacity	0.6	MW	FALSE
DDOR162_GNA_62041111_Capacity	GNA_62041111_Capacity	DDOR162	Davis 1111	Line Section		N/A	\$1,690	Existing	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR163_GNA_14471110_Capacity	GNA_14471110_Capacity	DDOR163	Dumbarton 1102	Line Section		N/A	\$1,276	New	8/1/2021			10	Capacity	1.1	MW	FALSE
DDOR164_GNA_43071101_Capacity	GNA_43071101_Capacity	DDOR164	Dunbar 1101 & 1103	Line Section		N/A	\$124	New	6/1/2021			10	Capacity	3.0	MW	FALSE

Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	Redact?
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR165_GNA_022571106_Reliability / Other	GNA_022571106_Reliability / Other	DDOR165	East Grand 1106	Line Section		N/A	\$130	New	5/1/2021			10	Reliability	CC	MW	TRUE
DDOR165_GNA_22571106_Capacity	GNA_22571106_Capacity	DDOR165	East Grand 1106	Line Section		N/A	\$130	New	5/1/2021			10	Capacity	CC	MW	TRUE
DDOR166_GNA_829502_Capacity	GNA_829502_Capacity	DDOR166	Edenvale 2105	Line Section		N/A	\$989	New	6/1/2021			10	Capacity	CC	MW	FALSE
DDOR167_GNA_82921107_Capacity	GNA_82921107_Capacity	DDOR167	El Patio 1107 overload	Line Section		N/A	\$190	Existing	6/1/2022			9	Capacity	1.5	MW	FALSE
DDOR168_GNA_1021701_Capacity	GNA_1021701_Capacity	DDOR168	Esquon Bank 1	Line Section		N/A	\$220	Existing	4/1/2022			9	Capacity	1.6	MW	FALSE
DDOR169_GNA_1021701_Capacity	GNA_1021701_Capacity	DDOR169	Butte 1104	Line Section		N/A	\$180	Existing	5/1/2022			9	Capacity	1.6	MW	FALSE
DDOR170_GNA_182402107_Capacity	GNA_182402107_Capacity	DDOR170	Fort Ord 2107	Feeder		N/A	\$3,699	New	6/1/2021			10	Capacity	CC	MW	TRUE
DDOR171_GNA_62462226_Capacity	GNA_62462226_Capacity	DDOR171	Grand Island 2226	Feeder		N/A	\$1,530	Existing	6/1/2021			10	Capacity	4.2	MW	FALSE
DDOR172_GNA_252661102_Capacity	GNA_252661102_Capacity	DDOR172	Guernsey 1103	Feeder		N/A	\$467	Existing	5/1/2021			10	Capacity	2.4	MW	FALSE
DDOR173_GNA_163741103_Capacity	GNA_163741103_Capacity	DDOR173	Hardlyn1103	Line Section		N/A	\$1,166	Existing	6/1/2022			9	Capacity	0.1	MW	FALSE
DDOR174_GNA_14452105_Capacity	GNA_14452105_Capacity	DDOR174	Contra Costa 2114	Feeder		N/A	\$801	Existing	6/1/2022			9	Capacity	0.9	MW	FALSE
DDOR175_GNA_254251103_Capacity	GNA_254251103_Capacity	DDOR175	Rainbow Substation - New Feeder	Feeder		N/A	\$2,120	New	6/1/2021			10	Capacity	0.9	MW	FALSE
DDOR176_GNA_24130403_Capacity	GNA_24130403_Capacity	DDOR176	Merlo 403	Line Section		N/A	\$375	Existing	6/1/2022			9	Capacity	0.4	MW	FALSE
DDOR177_GNA_252801114_Capacity	GNA_252801114_Capacity	DDOR177	Merced 1114	Line Section		N/A	\$533	New	6/1/2021			10	Capacity	2.1	MW	FALSE
DDOR178_GNA_226903_Capacity	GNA_226903_Capacity	DDOR178	Extend Milbrae 1105	Line Section		N/A	\$1,998	New	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR179_GNA_13761110_Capacity	GNA_13761110_Capacity	DDOR179	Recable Mount Eden 1110	Feeder		N/A	\$84	Existing	4/15/2022			9	Capacity	CC	MW	TRUE
DDOR180_GNA_12222104_Capacity	GNA_12222104_Capacity	DDOR180	Dixon Landing 2105	Feeder		N/A	\$1,190	New	6/1/2021			10	Capacity	CC	MW	TRUE
DDOR181_GNA_254461111_Capacity	GNA_254461111_Capacity	DDOR181	Newhall 1111	Line Section		N/A	\$1,417	Existing	3/31/2022			9	Capacity	CC	MW	TRUE
DDOR182_GNA_82462109_Capacity	GNA_82462109_Capacity	DDOR182	Extend Nortech 2109	Line Section		N/A	\$760	New	5/1/2021			10	Capacity	CC	MW	TRUE
DDOR183_GNA_422102_Capacity	GNA_422102_Capacity	DDOR183	Las Gallinas A 1106 line work	Line Section		N/A	\$596	Existing	5/1/2021			10	Capacity	2.8	MW	FALSE
DDOR184_GNA_152901103_Capacity	GNA_152901103_Capacity	DDOR184	Marysville 1105	Line Section		N/A	\$508	New	6/1/2021			10	Capacity	1.2	MW	FALSE
DDOR185_GNA_255371118_Capacity	GNA_255371118_Capacity	DDOR185	Oro Loma 1118	Line Section		N/A	\$7,568	Existing	8/1/2021			10	Capacity	CC	MW	TRUE
DDOR186_GNA_253671103_Capacity	GNA_253671103_Capacity	DDOR186	Panocha 1103	Line Section		N/A	\$800	Existing	4/1/2022			9	Capacity	CC	MW	TRUE
DDOR187_GNA_1826101_Capacity	GNA_1826101_Capacity	DDOR187	Paso Robles 1103	Line Section		N/A	\$1,048	Existing	6/1/2021			10	Capacity	1.2	MW	FALSE
DDOR189_GNA_241904_Capacity	GNA_241904_Capacity	DDOR189	Carolands 404	Line Section		N/A	\$3,874	Existing	6/1/2022			9	Capacity	0.2	MW	FALSE
DDOR191_GNA_42151102_Capacity	GNA_42151102_Capacity	DDOR191	Santa Rosa 1107 & 1110 reconfigure	Line Section		N/A	\$704	Existing	6/1/2021			10	Capacity	9.3	MW	FALSE
DDOR192_GNA_42151108_Capacity	GNA_42151108_Capacity	DDOR192	Santa Rosa 1108	Feeder		N/A	\$166	Existing	6/1/2022			9	Capacity	2.0	MW	FALSE
DDOR193_GNA_042151111_Reliability / Other	GNA_042151111_Reliability / Other	DDOR193	Santa Rosa 1111	Feeder		N/A	\$312	Existing	5/1/2021			10	Reliability	0.7	MW	FALSE
DDOR193_GNA_42151111_Capacity	GNA_42151111_Capacity	DDOR193	Santa Rosa 1111	Feeder		N/A	\$312	Existing	5/1/2021			10	Capacity	2.1	MW	FALSE
DDOR194_GNA_252891112_Capacity	GNA_252891112_Capacity	DDOR194	Schindler 1112	Line Section		N/A	\$460	Existing	6/1/2021			10	Capacity	2.6	MW	FALSE
DDOR195_GNA_254072112_Capacity	GNA_254072112_Capacity	DDOR195	Stockdale 2112	Line Section		N/A	\$410	Existing	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR196_GNA_2545601_Capacity	GNA_2545601_Capacity	DDOR196	Tupman Bank 1 Offload	Line Section		N/A	\$152	Existing	11/1/2021			10	Capacity	CC	MW	TRUE
DDOR197_GNA_163481102_Capacity	GNA_163481102_Capacity	DDOR197	Weber 1102 Outlet	Line Section		N/A	\$1,892	Existing	7/1/2022			9	Capacity	3.0	MW	FALSE
DDOR198_GNA_182541101_Capacity	GNA_182541101_Capacity	DDOR198	Atascadero 1101 to Templeton 2111	Line Section		N/A	\$80	New	6/1/2022			9	Capacity	0.4	MW	FALSE
DDOR199_GNA_1635701_Capacity	GNA_1635701_Capacity	DDOR199	Avena 1701 to Riverbank 1713	Line Section		N/A	\$150	New	5/1/2023			8	Capacity	0.4	MW	FALSE
DDOR200_GNA_43251101_Capacity	GNA_43251101_Capacity	DDOR200	Bahia 1101	Feeder		N/A	\$40	Existing	12/30/2022			9	Capacity	CC	MW	FALSE
DDOR201_GNA_253571115_Capacity	GNA_253571115_Capacity	DDOR201	Barton 1115	Line Section		N/A	\$39	Existing	6/1/2022			9	Capacity	0.8	MW	FALSE
DDOR202_GNA_240401_Capacity	GNA_240401_Capacity	DDOR202	Beresford 401	Feeder		N/A	\$1,000	Existing	4/1/2023			8	Capacity	0.9	MW	FALSE
DDOR203_GNA_1824601_Capacity	GNA_1824601_Capacity	DDOR203	Salinas 1104	Line Section		N/A	\$880	Existing	5/1/2022			9	Capacity	1.3	MW	FALSE
DDOR204_GNA_252301102_Capacity	GNA_252301102_Capacity	DDOR204	Camden 1102 to Camden 1104	Feeder		N/A	\$30	New	6/1/2022			9	Capacity	0.8	MW	FALSE
DDOR205_GNA_252371105_Capacity	GNA_252371105_Capacity	DDOR205	Caruthers 1106	Feeder		N/A	\$2,190	New	6/1/2022			9	Capacity	0.2	MW	FALSE
DDOR206_GNA_1622302_Capacity	GNA_1622302_Capacity	DDOR206	Colony Bank 2	Line Section		N/A	\$1,000	Existing	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR207_GNA_430702_Capacity	GNA_430702_Capacity	DDOR207	Rincon 1103 and Dunbar 1101 circuit ties	Feeder		N/A	\$200	New	5/1/2022			9	Capacity	2.6	MW	FALSE
DDOR208_GNA_82952109_Capacity	GNA_82952109_Capacity	DDOR208	Edenvale 2109 to Edenvale 2108	Line Section		N/A	\$130	Existing	6/20/2021			10	Capacity	2.4	MW	FALSE

Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	Redact?
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR209_GNA_13681111_Capacity	GNA_13681111_Capacity	DDOR209	EDES 1111 Circuit Reinforcement	Feeder		N/A	\$572	Existing	6/1/2022			9	Capacity	2.2	MW	FALSE
DDOR210_GNA_13681113_Capacity	GNA_13681113_Capacity	DDOR210	EDES 1113 Circuit Reinforcement	Feeder		N/A	\$390	Existing	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR211_GNA_24080401_Capacity	GNA_24080401_Capacity	DDOR211	Emerald Lake 402	Line Section		N/A	\$150	New	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR212_GNA_63801105_Capacity	GNA_63801105_Capacity	DDOR212	Jameson 1105	Feeder		N/A	\$100	Existing	12/31/2021			10	Capacity	2.1	MW	FALSE
DDOR213_GNA_2527001_Capacity	GNA_2527001_Capacity	DDOR213	Kerman 1102	Line Section		N/A	\$30	New	6/1/2022			9	Capacity	1.4	MW	FALSE
DDOR214_GNA_252721103_Capacity	GNA_252721103_Capacity	DDOR214	Kern Oil 1103	Feeder		N/A	\$198	New	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR215_GNA_252721110_Capacity	GNA_252721110_Capacity	DDOR215	Kern Oil 1108 Reconductor	Feeder		N/A	\$411	Existing	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR216_GNA_252721116_Capacity	GNA_252721116_Capacity	DDOR216	Kern Oil 1116	Feeder		N/A	\$64	Existing	5/1/2023			8	Capacity	0.4	MW	FALSE
DDOR217_GNA_252241116_Reliability / Other	GNA_252241116_Reliability / Other	DDOR217	Kingsburg 1116 Transfer	Feeder		N/A	\$230	Existing	5/2/2022			9	Reliability	1.3	MW	FALSE
DDOR217_GNA_252241116_Capacity	GNA_252241116_Capacity	DDOR217	Kingsburg 1116 Transfer	Feeder		N/A	\$230	Existing	5/2/2022			9	Capacity	0.5	MW	FALSE
DDOR218_GNA_82831108_Capacity	GNA_82831108_Capacity	DDOR218	Extend Milpitas 1104	Line Section		N/A	\$3,500	New	6/1/2023			8	Capacity	1.3	MW	FALSE
DDOR219_GNA_163211102_Capacity	GNA_163211102_Capacity	DDOR219	Mormon 1102	Line Section		N/A	\$30	New	6/1/2022			9	Capacity	0.8	MW	FALSE
DDOR220_GNA_42041108_Capacity	GNA_42041108_Capacity	DDOR220	North Tower 1108 to Bahia 1104	Feeder		N/A	\$440	New	12/30/2021			10	Capacity	1.2	MW	FALSE
DDOR221_GNA_12091110_Capacity	GNA_12091110_Capacity	DDOR221	Oakland J 1114 Circuit Extension	Feeder		N/A	\$1,920	New	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR222_GNA_12111103_Capacity	GNA_12111103_Capacity	DDOR222	Oakland D1101 Circuit Extension	Feeder		N/A	\$606	New	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR223_GNA_12111105_Capacity	GNA_12111105_Capacity	DDOR223	Oakland D1107 Circuit Extension	Feeder		N/A	\$1,082	New	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR224_GNA_255371106_Capacity	GNA_255371106_Capacity	DDOR224	Oro Loma 1106 Reconductor	Line Section		N/A	\$3,002	Existing	4/1/2022			9	Capacity	CC	MW	TRUE
DDOR225_GNA_253671102_Capacity	GNA_253671102_Capacity	DDOR225	Hammonds 1104 Reconductor	Line Section		N/A	\$2,516	Existing	4/1/2022			9	Capacity	CC	MW	TRUE
DDOR226_GNA_182611104_Capacity	GNA_182611104_Capacity	DDOR226	Paso 1104 to Paso 1107	Feeder		N/A	\$1,000	Existing	5/3/2023			8	Capacity	CC	MW	TRUE
DDOR227_GNA_152442109_Capacity	GNA_152442109_Capacity	DDOR227	Pleasant Grove 2109	Feeder		N/A	\$250	Existing	4/29/2022			9	Capacity	1.9	MW	FALSE
DDOR228_GNA_252341106_Capacity	GNA_252341106_Capacity	DDOR228	Reedley 1106 to Reedley 1101	Feeder		N/A	\$100	New	5/10/2022			9	Capacity	2.3	MW	FALSE
DDOR229_GNA_252861104_Capacity	GNA_252861104_Capacity	DDOR229	Rio Bravo 1104	Feeder		N/A	\$602	Existing	6/1/2022			9	Capacity	4.8	MW	FALSE
DDOR230_GNA_252891114_Capacity	GNA_252891114_Capacity	DDOR230	Schindler 1114	Feeder		N/A	\$390	Existing	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR231_GNA_252062112_Capacity	GNA_252062112_Capacity	DDOR231	Shepherd 2112 to Shepherd 2110	Feeder		N/A	\$1,200	New	4/2/2023			8	Capacity	1.1	MW	FALSE
DDOR232_GNA_83701101_Capacity	GNA_83701101_Capacity	DDOR232	Extend Stone 1105	Line Section		N/A	\$2,488	New	5/1/2023			8	Capacity	1.2	MW	FALSE
DDOR233_GNA_83392108_Capacity	GNA_83392108_Capacity	DDOR233	Swift 2109	Line Section		N/A	\$100	New	5/1/2023			8	Capacity	3.3	MW	FALSE
DDOR234_GNA_162881106_Capacity	GNA_162881106_Capacity	DDOR234	Tracy 1106 to Herdlyn 1103	Line Section		N/A	\$150	Existing	4/25/2022			9	Capacity	0.3	MW	FALSE
DDOR235_GNA_254401102_Capacity	GNA_254401102_Capacity	DDOR235	Tulare Lake 1108	Line Section		N/A	\$5,325	New	10/1/2021			10	Capacity	0.3	MW	FALSE
DDOR236_GNA_253731110_Capacity	GNA_253731110_Capacity	DDOR236	West Fresno 1110	Feeder		N/A	\$169	Existing	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR237_GNA_253481101_Capacity	GNA_253481101_Capacity	DDOR237	Wheeler Ridge 1103 and Wheeler Ridge 1101	Line Section		N/A	\$1,678	New	3/1/2023			8	Capacity	CC	MW	TRUE
DDOR238_GNA_62031111_Capacity	GNA_62031111_Capacity	DDOR238	Woodland 1111	Line Section		N/A	\$87	Existing	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR239_GNA_103251101_Capacity	GNA_103251101_Capacity	DDOR239	RPLS PT57 IW 900A USB SW	Line Section		N/A	\$50	Existing	4/1/2022			9	Capacity	CC	MW	TRUE
DDOR240_GNA_022011113_Resiliency (micro-grid)	GNA_022011113_Resiliency (micro-grid)	DDOR240	San Francisco X 1113	Feeder		N/A	\$1,400	Existing	10/1/2023			8	Resiliency	0.9	MW	FALSE
DDOR241_GNA_014452103_Resiliency (micro-grid)	GNA_014452103_Resiliency (micro-grid)	DDOR241	Kirker 2103	Feeder		N/A	\$864	Existing	10/1/2022			9	Resiliency	3.3	MW	FALSE
DDOR241_GNA_014452103_Reliability / Other	GNA_014452103_Reliability / Other	DDOR241	Kirker 2103	Feeder		N/A	\$864	Existing	7/14/1905			126	Reliability	4.0	MW	FALSE
DDOR242_GNA_42011108_Capacity	GNA_42011108_Capacity	DDOR242	San Rafael 1108	Line Section		N/A	\$1,686	Existing	10/1/2022			9	Capacity	0.4	MW	FALSE
DDOR242_GNA_042011108_Resiliency (micro-grid)	GNA_042011108_Resiliency (micro-grid)	DDOR242	San Rafael 1108	Line Section		N/A	\$1,686	Existing	10/1/2022			9	Resiliency	0.5	MW	FALSE
DDOR243_GNA_083871101_Reliability / Other	GNA_083871101_Reliability / Other	DDOR243	FMC 1102	Feeder		N/A	\$1,700	New	6/1/2023			8	Reliability	CC	MW	TRUE

Unique ID	GNA ID	DDOR ID	Project Name	Project Type	Capital Cost (2020 \$)				Need Year/In Service Date	Grid Need Energy (MWh/yr)	Peak Day Energy (MWh)	Deferral Years	Distribution Service Required	MW Need/Vpu Need	Units	Redact?
					General	Substation Equipment (\$000)	Primary Feeder/Line section (\$000)	New or Existing Equipment								
DDOR244_GNA_254762102_Reliability / Other	GNA_254762102_Reliability / Other	DDOR244	ROSEDALE 2102	Line Section		N/A	\$400	Existing	1/1/2022			9	Reliability	0.03	MW	FALSE
DDOR247_GNA_042481101_Reliability / Other	GNA_042481101_Reliability / Other	DDOR247	IGNACIO 1101	Line Section		N/A	\$420	Existing	7/13/1905			126	Reliability	2.9	MW	FALSE
DDOR248_GNA_182671112_Reliability / Other	GNA_182671112_Reliability / Other	DDOR248	SANTA MARIA 1112	Line Section		N/A	\$72	New	7/14/1905			126	Reliability	CC	MW	TRUE
DDOR249_GNA_255002101_Reliability / Other	GNA_255002101_Reliability / Other	DDOR249	AVENAL 2101	Line Section		N/A	\$65	New	1/1/2022			9	Reliability	CC	MW	TRUE
DDOR250_GNA_013111107_Resiliency (micro-grid)	GNA_013111107_Resiliency (micro-grid)	DDOR250	SAN LEANDRO U 1107	Line Section		N/A	\$200	New	1/1/2021			10	Resiliency	0.6	MW	FALSE
DDOR251_GNA_163722108_Reliability / Other	GNA_163722108_Reliability / Other	DDOR251	MOSHER 2108	Line Section		N/A	\$850	New	1/1/2021			10	Reliability	11.5	MW	FALSE
DDOR252_GNA_062041102_Reliability / Other	GNA_062041102_Reliability / Other	DDOR252	DAVIS 1102	Line Section		N/A	\$200	New	7/14/1905			126	Reliability	2.1	MW	FALSE
DDOR253_GNA_063172101_Reliability / Other	GNA_063172101_Reliability / Other	DDOR253	MADISON 2101	Line Section		N/A	\$105	New	1/1/2022			9	Reliability	CC	MW	TRUE
DDOR254_GNA_063642106_Reliability / Other	GNA_063642106_Reliability / Other	DDOR254	PEABODY 2106	Line Section		N/A	\$226	Existing	6/1/2022			9	Reliability	CC	MW	TRUE
DDOR254_GNA_63642106_Capacity	GNA_63642106_Capacity	DDOR254	PEABODY 2106	Line Section		N/A	\$226	Existing	6/1/2022			9	Capacity	CC	MW	TRUE
DDOR255_GNA_153761102_Reliability / Other	GNA_153761102_Reliability / Other	DDOR255	Catlett - Reconnector Back-Tie	Line Section		N/A	\$4,460	Existing	11/1/2022			9	Reliability	6.0	MW	FALSE
DDOR257_GNA_62031105_Capacity	GNA_62031105_Capacity	DDOR257	Woodland 1105	Line Section		N/A	\$125	Existing	5/1/2023			8	Capacity	0.6	MW	FALSE
DDOR258_GNA_162881105_Capacity	GNA_162881105_Capacity	DDOR258	Tracy 1108	Line Section		N/A	\$1,468	New	4/1/2022			9	Capacity	2.3	MW	FALSE
DDOR259_GNA_162991101_Capacity	GNA_162991101_Capacity	DDOR259	Corral 1101	Line Section		N/A	\$2,518	New	5/15/2022			9	Capacity	CC	MW	TRUE
DDOR260_GNA_83242109_Capacity	GNA_83242109_Capacity	DDOR260	Morgan Hill 2109	Line Section		N/A	\$10	New	5/31/2022			9	Capacity	1.0	MW	FALSE
DDOR262_GNA_42151103_Capacity	GNA_42151103_Capacity	DDOR262	SRA1106 Reconnector Outlet	Line Section		N/A	\$2,205	Existing	3/1/2023			8	Capacity	4.6	MW	FALSE
DDOR263_GNA_12091101_Capacity	GNA_12091101_Capacity	DDOR263	Oakland J 1101 & Oakland J 1104	Line Section		N/A	\$1,700	Existing	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR264_GNA_12091104_Capacity	GNA_12091104_Capacity	DDOR264	Oakland J 1101 & Oakland J 1104	Line Section		N/A	\$1,700	Existing	5/1/2023			8	Capacity	CC	MW	TRUE
DDOR265_GNA_1825401_Capacity	GNA_1825401_Capacity	DDOR265	Atascadero 1101 to Templeton 2111	Line Section		N/A	\$80	New	7/29/2022			9	Capacity	0.8	MW	FALSE
DDOR266_GNA_182671109_Capacity	GNA_182671109_Capacity	DDOR266	Mesa 1104	Line Section		N/A	\$2,206	Existing	6/1/2021			10	Capacity	CC	MW	TRUE
DDOR267_GNA_182811102_Capacity	GNA_182811102_Capacity	DDOR267	Santa Maria 1111 Reinforcement	Line Section		N/A	\$1,690	Existing	12/30/2022			9	Capacity	3.0	MW	FALSE
DDOR268_GNA_22031104_Capacity	GNA_22031104_Capacity	DDOR268	Portrero A-1106	Line Section		N/A	\$1,837	Existing	6/1/2022			9	Capacity	CC	MW	TRUE

# Forecast Uncertainty Questionnaire

PG&E 2021 Distribution Deferral Opportunity Report (DDOR)  
Appendix F: Forecast Questionnaire Results (Certainty Score)  
Version Date 08/16/2021

...

\* Required

1. Project Name (Project Description) \*

Select your answer

2. If bank is being replaced by capacity project, what is risk of asset failure based on condition? \*

- ☐ High  
☐ Med  
☐ Low  
☐ None

3. What is the likelihood that the area served by asset will connect new EV charging stations? \*

- ☐ High  
☐ Med  
☐ Low  
☐ None

4. What is the likelihood that the area served by asset will connect new cannabis cultivation? \*

- ☐ High  
☐ Med  
☐ Low  
☐ None

5. What is the likelihood that the area served by asset will connect new agricultural pumps? \*

- ☐ High  
☐ Med  
☐ Low  
☐ None

6. What is the likelihood that the area served by asset will connect high tech growth including campuses and data centers? \*

- ☐ High  
☐ Med  
☐ Low  
☐ None

7. How strongly does load correlate to State and Federal water allocation each year? \*

- ☐ High  
☐ Med  
☐ Low  
☐ None

8. How strongly does load correlate to temperature? \*

- ☐ High  
☐ Med  
☐ Low  
☐ None

9. What kind of operational benefit does the project provide? \*

- ☐ New Substation  
☐ New Substation Transformer  
☐ Replaced Substation Transformer  
☐ New Circuit Breaker  
☐ Line Work Creates Tie  
☐ None

10. What is the impact on this area based on Covid Adjustments? \*

- ☐ High  
☐ Med  
☐ Low  
☐ None

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Project Name	If bank is being replaced by capacity project, what is risk of asset failure based on condition?	What is the likelihood that the area served by asset will connect new EV charging stations?	What is the likelihood that the area served by asset will connect new cannabis cultivation?	What is the likelihood that the area served by asset will connect new agricultural pumps?	What is the likelihood that the area served by asset will connect high tech growth including campuses and data centers?	How strongly does load correlate to State and Federal water allocation each year?	How strongly does load correlate to temperature?	What is the impact on this area based on Covid Adjustments?	What kind of operational benefit does the project provide? OP Flex 1 - New Substation	What kind of operational benefit does the project provide? OP Flex 2 - New Substation Transformer	What kind of operational benefit does the project provide? OP Flex 3 - Replaced Substation Transformer	What kind of operational benefit does the project provide? OP Flex 4 - New Circuit Breaker	What kind of operational benefit does the project provide? OP Flex 5 - Line Work Creates Tie	If bank is being replaced by capacity project, what is risk of asset failure based on condition?	What is the likelihood that the area served by asset will connect new EV charging stations?	What is the likelihood that the area served by asset will connect new cannabis cultivation?	What is the likelihood that the area served by asset will connect new agricultural pumps?	What is the likelihood that the area served by asset will connect high tech growth including campuses and data centers?	How strongly is load inversely proportional to State and Federal water allocation?	How strongly does load correlate to temperature?	What is the impact on this area based on Covid adjustments?	What kind of operational benefit does the project provide?	SCORE
Airways Bank 3	None	Low	None	Low	Low	None	High	None	New Substation Transformer		New Circuit Breaker	Line Work Creates Tie	0	2	2	0	2	0	5	0	8	-19	
Ames 1103	None	High	Low	Low	High	None	Low	None			New Circuit Breaker	Line Work Creates Tie	0	5	2	2	5	0	2	0	4	-20	
Anita 1105	None	Med	Med	High	Low	High	Med	Low			New Circuit Breaker		0	3	3	5	2	5	3	2	4	-27	
Banta Bank 1	High	High	None	High	None	None	Med	None		Replaced Substation Transformer	New Circuit Breaker	Line Work Creates Tie	10	5	0	0	0	0	3	0	6	-20	
Belle Haven Bank 4	Med	High	None	None	High	None	Med	None		Replaced Substation Transformer			6	5	0	0	5	0	3	0	6	-25	
Blackwell Bank 1	Low	Low	Low	High	None	Med	None	None			Replaced Substation Transformer		2	2	2	2	5	0	3	2	0	6	-23
Bonita Bank 2	None	Low	Low	High	None	None	Med	None	New Substation Transformer		New Circuit Breaker	Line Work Creates Tie	0	3	2	5	0	0	3	0	8	-21	
Chualar Bank 1	None	Med	High	Med	Low	None	Low	None	New Substation	New Substation Transformer		New Circuit Breaker	Line Work Creates Tie	0	3	5	3	2	0	2	0	10	-25
Coalmine No. 3 Bank 2	High	Low	High	High	None	Low	Med	None		Replaced Substation Transformer			10	2	5	5	5	0	2	3	0	6	-33
Arbuckle Bank 2	High	High	Low	High	None	None	Low	None		Replaced Substation Transformer	New Circuit Breaker	Line Work Creates Tie	10	5	2	5	0	0	2	0	6	-30	
Embarcadero (SF 2) 1116	None	High	None	None	High	None	Low	High					0	5	0	0	5	0	2	5	2	-19	
Embarcadero (SF 2) 1118	None	High	None	None	High	None	None	High					0	5	0	0	5	0	5	2	2	-17	
Extrem Edenvale 2111 to 2112	None	Med	None	None	High	None	High	None					0	3	0	0	3	0	5	0	8	-15	
French Camp Bank 1	Med	Med	Low	High	None	Low	High	None	New Substation Transformer			New Circuit Breaker	Line Work Creates Tie	6	3	2	5	0	5	0	6	-27	
Fulton Bank 5	Med	High	High	Low	High	None	High	None		Replaced Substation Transformer	New Circuit Breaker		6	5	5	2	5	2	5	0	6	-36	
Gabilan Bank 2	None	Low	High	Med	Low	None	Low	None	New Substation Transformer		New Circuit Breaker	Line Work Creates Tie	0	2	5	3	2	0	2	0	8	-22	
Garberville Bank 2	High	High	High	Low	Low	None	High	None	New Substation Transformer		New Circuit Breaker	Line Work Creates Tie	10	5	5	5	2	0	5	0	8	-37	
Giffen Bank 2	None	Low	Low	High	None	High	Low	None	New Substation Transformer		New Circuit Breaker	Line Work Creates Tie	0	2	2	5	0	5	2	0	8	-24	
Green Valley Bank 3	Med	Med	High	Med	Low	None	Low	None		Replaced Substation Transformer			6	3	5	3	2	0	2	0	6	-27	
Hammonds Bank 1	Low	Low	Low	High	Low	Med	Low	None		Replaced Substation Transformer			3	2	2	3	2	0	3	2	0	6	-26
Lakeview 1110	None	High	Low	High	None	Low	None	Low			New Circuit Breaker	Line Work Creates Tie	0	5	2	5	0	3	2	0	4	-21	
Rob Roy 2105	None	Med	Med	Med	None	None	Low	None					0	3	3	3	0	0	2	0	2	13	-13
Oceanic 1106	None	High	Low	Low	Low	None	Low	None					0	5	2	2	0	0	2	0	2	15	-15
Lockeford Bank 1	High	Med	Low	High	None	None	Med	None		Replaced Substation Transformer	New Circuit Breaker	Line Work Creates Tie	10	3	2	5	0	0	3	0	6	-20	
Mc Key 1102	None	Low	Low	None	Low	None	High	None		Replaced Substation Transformer	New Circuit Breaker	Line Work Creates Tie	0	2	2	0	2	0	5	0	4	-15	
Mollino Bank 1	Med	Med	High	Med	Med	Low	High	None		Replaced Substation Transformer	New Circuit Breaker		6	3	2	0	5	0	5	0	6	-33	
Montecito Bank 2	Med	Med	Low	None	High	None	Med	None		Replaced Substation Transformer	New Circuit Breaker	Line Work Creates Tie	6	3	2	0	5	0	3	0	6	-25	
Mormon Bank 2	Low	Med	Low	Med	None	None	Med	None	New Substation Transformer		New Circuit Breaker		3	3	2	3	0	0	3	0	8	-22	
Newhall Bank 3	Low	Low	None	High	None	Med	None	None		Replaced Substation Transformer	New Circuit Breaker		3	2	0	5	0	3	3	0	6	-22	
Plainfield Bank 1	Low	Med	Med	High	None	Med	Low	None		Replaced Substation Transformer	New Circuit Breaker	Line Work Creates Tie	3	3	3	5	0	3	2	0	6	-25	
Martin (SF H) 1108	None	High	Low	Low	None	Low	Low	Low					0	5	2	0	2	0	2	0	2	15	-15
Salinas 1102	None	Low	Low	Low	Low	None	Low	None					0	2	2	2	2	0	2	0	2	12	-12
Martin (SF H) 1107	None	High	Low	None	Low	None	Low	Low					0	5	2	0	2	0	2	0	2	2	-15
Rincon Bank 1	High	High	Med	Low	High	Low	High	None	New Substation Transformer		New Circuit Breaker	Line Work Creates Tie	10	5	3	2	5	2	5	0	8	-40	
Rigon 1205	None	Low	Low	Low	None	None	Med	None			New Circuit Breaker	Line Work Creates Tie	0	2	2	5	0	0	3	0	4	-16	
Rocklin 1105	None	High	Med	Low	Med	Low	High	None	New Substation Transformer		New Circuit Breaker		0	5	3	2	3	2	5	0	8	-28	
San Miguel Bank 2	None	Med	Low	Med	Low	None	High	None	New Substation Transformer		New Circuit Breaker	Line Work Creates Tie	0	3	2	3	2	0	5	0	8	-21	
Sartoga 1102	None	High	Low	None	Med	None	High	None			New Circuit Breaker	Line Work Creates Tie	0	5	2	0	3	0	5	0	4	-10	
Edenvale 2108	None	Med	None	None	High	None	High	None					0	3	0	0	5	0	5	0	2	-15	
Spence Bank 2	High	Med	High	Med	Low	None	Low	None		Replaced Substation Transformer	New Circuit Breaker	Line Work Creates Tie	10	3	5	3	2	0	6	0	6	-31	
Storey 1103	None	Med	Low	High	None	None	Low	None	New Substation Transformer		New Circuit Breaker	Line Work Creates Tie	0	3	2	5	0	0	2	0	8	-20	
Vieria Bank 3	None	Med	Med	Med	Med	None	High	None	New Substation Transformer		New Circuit Breaker	Line Work Creates Tie	0	3	3	3	3	0	5	0	8	-25	
Willow Pass Bank 1	Med	High	Low	Low	Med	None	High	None		Replaced Substation Transformer			6	5	2	2	3	0	5	0	6	-20	
Wolfe 1111 & Wolfe 1112	None	High	Low	None	High	None	Med	None			New Circuit Breaker	Line Work Creates Tie	0	5	2	5	3	0	3	0	4	-19	
Zamora 1108	None	Med	Low	High	None	None	Low	None			New Circuit Breaker	Line Work Creates Tie	0	3	2	5	0	0	2	0	4	-16	