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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future	Rulemaking 21-06-017 (Filed June 24, 2021)

2023 GRID NEEDS ASSESSMENT AND DISTRIBUTION DEFERRAL OPPORTUNITY REPORT OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E)

PUBLIC VERSION

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August 15, 2023

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Pursuant to the Commission's Decision on Track 3 Policy Issues, Sub-Track 1 (Growth Scenarios) and Sub-Track 3 (Distribution Investment and Deferral Process), Decision 18-02-004, San Diego Gas & Electric Company ("SDG&E") hereby submits its 2023 Grid Needs Assessment and Distribution Deferral Opportunity Report. As contemplated by the Administrative Law Judge's Ruling Addressing Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company's Claims for Confidential Treatment and Redaction of Distribution System Planning Data Ordered by Decisions 17-09-026 and 18-02-004, dated July 24, 2018, and Section 3.3 of General Order 66-D, SDG&E is concurrently filing a motion to submit under seal unredacted versions of these materials, based on customer privacy considerations, as set forth in the Declaration of Alan Dulgeroff attached to the motion.

Respectfully submitted,

<u>/s/ Roger A. Cerda</u>

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San Diego Gas & Electric Company

2023 GRID NEEDS ASSESSMENT REPORT OF SAN DIEGO GAS & ELECTRIC

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Purpose

San Diego Gas and Electric (SDG&E) hereby submits its 2023 Grids Needs Assessment (GNA) report in compliance with Ordering Paragraph (OP) 2.d of Decision (D.)18-02-004 (Decision), the Administrative Law Judge's (ALJ's) Ruling issued May 7, 2019 (May 2019 Ruling), the ALJ's Ruling issued May 11, 2020 (May 2020 Ruling), revised Attachment A provided by the ALJ on June 12, 2020 with further revisions on August 11, 2020, the Commission's February 11, 2021 Decision[1] adopting elements of the CPUC Staff's October 5, 2020 proposal to pilot two distribution deferral approaches (the Standard Offer Contract (SOC) pilot and the Partnership Pilot)[2], the ALJ's Ruling issued June 21, 2021, the ALJ's Ruling issued June 16, 2022 and the ALJ's Ruling issued May 19, 2023.

Background

On February 15, 2018, the California Public Utilities Commission (Commission or CPUC) issued D.18-02-004 on Track 3 Policy Issues, Sub-track 1 on Growth Scenarios and Sub-track 3 on the Distribution Investment Deferral Framework (DIDF). This Decision directed the Investor-Owned Utilities (IOUs or utilities) to file a GNA by June 1 of each year, and a Distribution Deferral Opportunity Report (DDOR) by September 1 of each year.[3] A subsequent May 2019 Ruling directed the IOUs to provide additional GNA/DDOR reporting requirements and moved the annual filing date for the GNA and DDOR to August 15th.[4,5]

The GNA report is intended to provide stakeholders with an overview of grid needs that arise from the IOU's distribution planning process. In particular, the GNA identifies needs that relate to the four distribution services the Commission determined Distributed Energy Resource (DER) could provide to defer planned distribution infrastructure. For the GNA, the May 2019 Ruling requires the GNA report to include forecast loading levels for all distribution circuits and substation transformer banks, regardless of whether there are projected grid deficiencies on that specific equipment. The May 2019 Ruling also requires that each IOU's GNA report include a narrative describing that IOU's process to disaggregate the system-level DER forecast values provided by the California Energy Commission down to the circuit level.

The May 2020 Ruling and the revised Attachment A, along with the June 16, 2022 ALJ Ruling, direct the IOUs to include additional distribution information in the GNA. Some of this information may be developed outside the standard distribution planning process. The May 19, 2023 ALJ Ruling also directs the IOUs to include additional information concerning the tracking of "known loads" and related metrics.

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1 Decision 21-02-006: *Decision Adopting Pilots to Test Two Frameworks for Procuring Distributed Energy Resources that Avoid or Defer Utility Capital Investments*.

2 CPUC Energy Division Staff Proposal: *Distributed Energy Resources Deferral Tariff and Request for Offer Streamlining*.

3 Decision, at OP 2.d.

4 R.14-08-013 *Order Instituting Rulemaking to Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769*, at 9.

5 Some of the additional reporting requirements are specific to the 2019 or 2020 GNA and DDOR.

Executive Summary

SDG&E's 2023 GNA for the 2023-2027 five-year distribution planning period provides an overview of thirty (30) grid needs not identified in previous years' GNAs. Mitigation for the identified grid needs resulted in conventional distribution projects with the following planned in-service years[6]: 2023: 5 projects, 2024: 15 projects, 2025: 9 projects, 2026: 1 project. See Table 5.

[6] In-service prior to the peak load period for the given year.

1. Distribution Planning Process

The distribution planning process follows the activities originally described in the Decision, which outlines the existing utility distribution planning process with new additional DER disaggregation requirements. Although the milestone dates and cycle times vary by utility, the general process is sufficient to describe the typical sequence of events and scope. Figure 1 illustrates the steps comprising the distribution planning process.

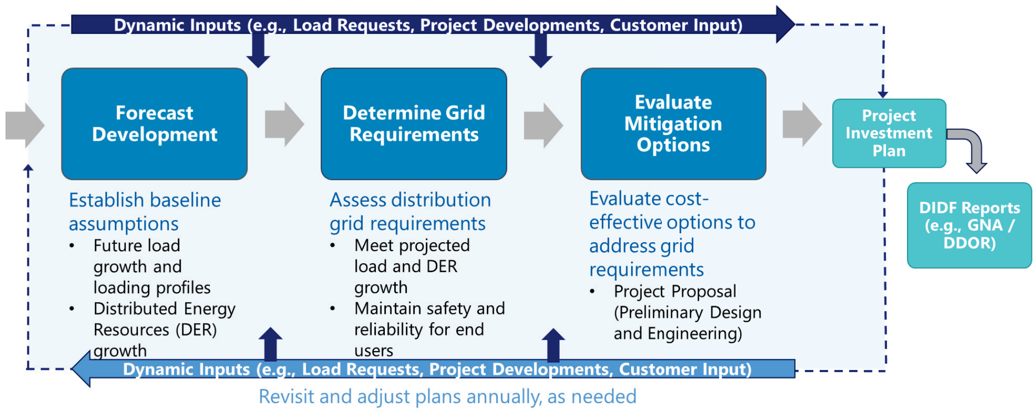

Figure 1 – Distribution Planning Process Overview

As shown above, the distribution planning process typically begins with assessing the Historical Peak Load Review for circuits and banks, to establish a reference point for future forecast projections. Concurrently, various system information is captured that is necessary to disaggregate the California Energy Commission (CEC's) system-level projections of load and DER additions to the individual circuit level. Once the actual peak loads and timestamps have been determined for circuits and substation transformer banks, the historical peak is evaluated considering factors such as anticipated new load additions, load transfers, loss of a generator, weather conditions at the time of the historical peak, etc. These factors may result in adjustments to the historical loads to produce the reference points for developing the forecasts of circuit and bank loading.

A third-party proprietary software forecast toolset, LoadSEER, from Integral Analytics, Inc., is used to incorporate the disaggregated CEC forecast load and DER additions to the circuit and bank level and to include adjustments based on the factors listed above. The initial model outputs are reviewed by distribution planning engineers to identify and correct errors, to address technical issues, and to validate the circuit-level and bank-level forecasts for overall reasonableness. Once validated, the forecast is exported to be used for the Cir-Bank Capacity report and for detailed distribution power flow modeling as needed. Power flow models are generated by extracting circuit models from Geographic Information System (GIS), incorporating data refinements and populating the model with forecast loads from LoadSEER.

Once the power flow models are finalized, distribution planning engineers identify conventional distribution projects or Non-Wires Alternatives (NWA) (such as utility-owned battery storage) that mitigate forecast circuit performance issues revealed by the power flow results (*i.e.*, distribution needs). Such mitigation is designed to resolve needs at the substation transformer bank, circuit, and line segment levels and is selected on a least-cost/best-fit basis.

Distribution needs that would result in new distribution capital infrastructure if built, are included in the DDOR as Planned Investments and, if passing defined screens, are listed in the DDOR as Candidate Deferral Opportunities. Forecast grid deficiencies identified in the GNA that do not have a corresponding project in the DDOR either have operational-based solutions (which have little to no associated capital investment), are the result of modelling refinements, and/or have committed planned investments identified in a previous DIDF cycle. Therefore, the mitigation projects included in the DDOR address a subset of those GNA grid deficiencies that are anticipated to require new capital investment.

2. SDG&E's Distribution Planning Assumptions and GNA Scope

The following sections describe the study methodology and assumptions used to forecast and identify distribution needs that are reflected in SDG&E's 2023 GNA. These assumptions pertain to load forecasts, DER growth forecasts, and distribution operational switching/load transfer criteria over the distribution planning period or planning horizon. Additionally, the technical criteria for determining distribution needs identified in the GNA is described.

2.1 SDG&E's Distribution Resources Planning Horizon

As directed by the Commission, SDG&E's distribution planning process uses a five-year planning horizon (which includes the current year's summer peak) as the study period over which to identify grid needs at the circuit and substation transformer bank level.[7] SDG&E's 2023 GNA covers the 2023-2027 five-year planning horizon. SDG&E uses only the first three years of the five-year forecast (*i.e.*, a three-year study period) when identifying needs associated with downstream line segments of a circuit.[8,9]

Line segment needs reflect the granular allocation of load and DER impacts based on a system-level forecast. Compared to needs identified for distribution circuits or substation transformer banks where forecast DER impacts are cumulative, line segment needs are inherently uncertain and highly sensitive to locational allocations and individual customer load and DER adoption. Because individual customer decisions significantly influence line segment needs, infrastructure solutions tend to be smaller and short-term in nature. Due to the high degree of forecast and modeling uncertainty associated with line segment needs that may arise beyond the third year of SDG&E's distribution planning horizon, SDG&E does not assess whether there may be line segment needs during years four and five of SDG&E's five-year planning horizon.

2.2 SDG&E's Distribution System Load Forecast Assumptions

The load growth forecast used in SDG&E's 2023 DPP begins with the CEC-approved Integrated Energy Policy Report (IEPR) Load Modifier Mid Baseline, High Transportation Electrification (TE), Mid Additional Achievable Energy Efficiency (AAEE) California Energy Demand (CED) 2021 forecast for the SDG&E

7 Decision at Section 3.4.1.1.

8 May 2019 Ruling, p. 5-6.

9 SDG&E differentiates between a circuit need and a line segment need. A circuit need generally occurs on the portion of a circuit that has larger wire size and is close to the supplying substation (*e.g.*, within one "electric" circuit-mile of the supplying substation). A line segment need generally occurs on the portion of the circuit that has a smaller wire size and is at a greater distance from the supplying substation (*e.g.*, more than one mile away from the supplying substation). A typical circuit is 4-6 miles in length.

distribution service area. SDG&E's forecast of known new loads (*e.g.*, specific requests for new electrical service) are deducted from the CEC system load growth forecast.[10] The resultant system-level *growth* is allocated by customer class (residential, industrial, and commercial) proportional to the customer class's forecast annual energy consumption. The system-level customer class *growth* is then allocated to SDG&E's distribution circuits using geospatial analysis. Expected impacts from known new loads are then added at the applicable circuits.

SDG&E uses the LoadSEER GIS geospatial forecasting program. This program uses satellite imagery and proprietary data analytics to score each acre in SDG&E's territory for the likelihood of increased load by customer class. This GIS model also uses historical land aerial imagery to help determine expansion trends that have occurred within specific areas and takes this information into account for the acre scoring analysis. After acre scores are determined, the geospatial program allocates the customer class load growth projections to each parcel and maps the load growth to circuits based on closest proximity. The output of the geospatial program is an annual SDG&E peak megawatt (MW) growth by circuit and customer class for the forecast period. This growth is then uploaded into the LoadSEER forecasting program, which uses customer-class load shapes to turn the allocated customer class growth amount into a 576-hour load shape[11] that can then be added onto the baseline (historically-based) circuit or bank load shape.

SDG&E uses a normalized and adverse 1-in-10-year (90th percentile of high loading) weather event forecast as the basis for making decisions regarding planned capital upgrades and permanent load transfers. Weather normalization is performed for each circuit by comparing the historical air temperature of a nearby weather station to historical substation peaks. A regression curve is created between substation loading and temperature values. Based on the most recent summer weather data and historical substation loading in response to weather, an adjustment is generated to calibrate the recent substation peak to a 1-in-2 weather year. LoadSEER then applies an adverse weather factor to each circuit to create the 1-in-10 weather year forecast, which is the basis for identifying distribution grid needs.

The geospatial load forecast is derived from the CEC load forecast and reviewed by SDG&E distribution planning engineers. This activity includes identifying circuits where the geospatial forecast is not supported by historic loads and local knowledge. In these instances, distribution planning engineers must reallocate load growth among nearby circuits served from the same substation and/or tightly coupled adjacent substations. Typically, a circuit with an unreasonably high load growth is reduced and the reduced load is added to nearby circuits. This effort preserves consistency with the CEC forecast and provides continuity with the geospatial methodology.

An important step to the forecast process is SDG&E distribution planning engineers' validation and adjustment of historical peak loads for distribution substation transformer banks and circuits. This process establishes a starting point for distribution loading projections that are consistent with the existing circuit configuration on a going-forward basis. The following guidelines for verifying and modifying historical loads are typically followed:

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10 Known new distribution loads are deducted from the system-wide forecast so that they can be added back in as local new load adjustments while maintaining consistency with the CEC forecast in aggregate.

11 This represents hourly loads for both a typical weekday and typical weekend day for each month.

- Bank and circuit peak loads are obtained through either historical SCADA data, monthly recorded substation metering data, or cumulative advanced metering infrastructure (AMI) data. Peak demand (in MW) for banks as well as maximum current loading (in amps) for circuits are recorded along with peak date and time.
- Recorded peak load information is compared with adjacent days' peak load information to assess whether an unusually high or low load occurred during a planned or unplanned switching condition. Distribution Operations switching log information is reviewed to confirm the timing of the switching operations that create unusual or temporary configurations and the circuits impacted.
- Peak loads on circuits coincident with temporary switched loads are adjusted because loading under temporary switching conditions is not relevant for forecasting normal peak loads and may lead to double-counting or under-counting of loads. If a peak load is recorded after a newly executed permanent load transfer, then the previous historical loads will be automatically adjusted to maintain the present circuit configuration when analyzing historic load growth on the circuit.

Historical circuit and transformer bank peak loads are adjusted, if necessary, to account for the largest distributed generation facility served by a circuit being offline during that circuit's or transformer bank's peak – also known as G-1 planning scenario. Multiple distributed generators on the same circuit may be grouped into the equivalent of a G-1 scenario if they have a reasonable risk of all being offline at the same time.

The inputs, process, and outputs for disaggregating the CEC forecast to circuits can be found in Appendix 1, which reflects work done in the Distribution Forecast Working Group (DFWG).

A detailed summary of SDG&E's substation bank and circuit peak demand forecasts that were utilized for this GNA are included in Appendix 2.

2.3 SDG&E's Distribution System DER Growth Forecast Assumptions

The growth of electric loads that are not related to new Transportation Electrification (TE), Additional Achievable Fuel Substitution (AAFS), Energy Storage (ES) and rooftop Photovoltaic (PV) are handled separately from the growth of electric loads due to DER adoption. SDG&E incorporates DER adoption into its distribution bank and circuit forecast assumptions. The starting point for developing these circuit-level DER growth forecasts is the CEC's system-wide CED forecast. The CED forecast accounts for behind-the-load meter (BTM) resources: residential PV, retail non-residential PV, self-generation resources and energy efficiency for different customer classes, electric vehicles, energy storage. This year, SDG&E completed all DER forecast disaggregation using methodologies discussed during the DFWG. A detailed summary of SDG&E's substation bank and circuit DER forecasts that were utilized for this GNA are included in Appendix 2.

The annual MW *growth* in system-level demand by DER technology type is allocated to the circuits based on methodologies specific to each DER type. Variables used to allocate incremental DER capacity geospatially include consumption by customer class, historical PV adoption by zip code, the s-curve trending model, weather zones, and many other factors specific to each type of DER.[12] SDG&E's distribution system DER growth assumptions utilize the following documents to disaggregate the 2021 IEPR Mid Baseline, High TE, Low AAEE and Low AAFS:[13]

- CED 2021 Load Modifiers - Mid Baseline Mid AAEE with CAISO with 2031
- CED 2021 Hourly Forecast - SDGE - Mid Baseline - AAEE Scenario 2 - AAFS Scenario 3
- CEDU 2021 Baseline Forecast - SDGE Mid Demand Case
- CED 2021 - AAEE Savings by Planning Area and End Use
- HEIAWG Transportation Electrification – 2030-2035

The inputs, process, and outputs for disaggregating each DER type can be found in the Appendix 3, which reflects work done in the DFWG.

2.4 SDG&E's Load Transfers and Switching Assumptions

SDG&E's 2023 GNA includes the results of SDG&E's 2023 DPP that assesses the future electric distribution grid including planned load transfers that will be performed as well as committed planned investments from previous distribution cycles. Needs that can be addressed via operational or switching-based load transfers that require minimal costs to implement are included in the GNA but do not appear in the DDOR. Planned load transfers and switching operations are typically the lowest cost options to address an identified need as they utilize existing capacity on distribution circuits.

Table 1 summarizes the 2023 GNA deficiencies that can be addressed through load transfers or phase balancing.

2023 GNA	Facility ID
Load Transfers	• 2023_0395 • 2023_0566 • 2023_0101 • 2023_0939 • 2023_0092 • 2023_0062 • 2023_0357 • 2023_0320
Phase Balancing	• 2023_0120 • 2023_0527 • 2023_0081

Table 1 – SDG&E GNA deficiencies solved via operational solutions

2.5 Grid Needs Assessment Scope

As directed in the Decision, SDG&E's 2023 GNA identifies distribution grid needs that are potentially deferrable via the four distribution services that the Commission determined DERs can provide to defer distribution infrastructure: distribution capacity, voltage support, reliability (back-tie) and resiliency

12 SDG&E's DER Growth Forecast Assumptions are subject to updating and revision in accordance with distribution planning criteria and guidance provided by the Commission.

13 Consistent with the Assigned Commissioner's Ruling on the adoption of Distributed Energy Resources Growth Scenarios issued August 9, 2017.

(microgrid).[14] For simplicity in SDG&E's 2023 GNA, the word "peak thermal" represents "distribution capacity", "back-tie" represents "reliability (back-tie)" and "microgrid" represents "resiliency (microgrid)." SDG&E's 2023 GNA identifies peak thermal, voltage, back-tie, and microgrid needs at the substation transformer bank, circuit, and line segment levels.

The May, 2019 Ruling states that "…any utility planning project – for distribution or transmission – that is not separately undergoing an analysis as part of the CAISO Transmission Planning Process (TPP) should be included in the GNA/DDOR." In this ruling the ALJ declined to specify a voltage level cutoff for the planning that is subject to the GNA/DDOR because the ALJ recognized "that there is variation across the utilities for what voltage levels are considered networked transmission subject to the CAISO's TPP tariff." The ALJ added that "the main point of delineation is whether the planning is subject to CAISO or CPUC jurisdiction."[15] SDG&E believes the ALJ is drawing a distinction between Southern California Edison's sub-transmission facilities which are jurisdictional to the CPUC, and the three Investor Owned Utilities' transmission facilities which are jurisdictional to the FERC (and operated and planned in accordance with the FERC-jurisdictional CAISO tariff). SDG&E does not have any sub-transmission facilities which are jurisdictional to the CPUC and therefore no sub-transmission upgrades to include in the GNA/DDOR.

Also, as clarified in the May 2020 Ruling, the IOUs' respective GNAs will include, as applicable, identified Pre-Application and Post-Application Projects that are (i) subject to the requirements of General Order (GO) 131-D, or which are expected to be subject to GO 131-D, and (ii) include CPUC jurisdictional distribution component(s) addressing a need associated with the four DER services that the Commission determined may defer planned distribution infrastructure. None of SDG&E's Pre-Application and Post-Application projects include distribution components that address a distribution need identified through the distribution planning process, and none can be deferred by DERs since all are associated with transmission projects that are not subject to deferral by DERs. The needs addressed by these distribution components are often associated with fire-hardening of certain transmission facilities where the co-located distribution components are relocated and may be hardened in the process. While some of the distribution components are being replaced in-kind, e.g., simply moving existing distribution under-build, others are new (e.g., new span or pole for distance). Incidental changes in material are the result of hardening and building to SDG&E's standard distribution design, material, and sizing practices (e.g., stronger wire meeting current standard).[16]

2.6 Customer Confidentiality

In order to respect and protect customer privacy, SDG&E follows aggregation and anonymization rules, the primary of which is referred to as the "15/15 rule." When publicly releasing aggregated customer usage data, the sample population must be more than 15 customers and no single customer should account for more than 15% of usage at any given time. Areas that do not meet these requirements will

[14] As adopted in D.16-12-036.
[15] May, 2019 Ruling, p. 6.
[16] Distribution upgrades designed to current distribution standards provide economies of scale and support cost-effective maintenance and operation.

be redacted, as shown in Appendix 2. The public version of SDG&E's 2023 GNA reflects the redaction of data conforming with the Ruling on Data Confidentiality.[17]

2.7 GNA Refinements

SDG&E's distribution planning process is an ongoing process. However, a snapshot is taken annually of the current forecast and published internally for a variety of business purposes as well as being used to establish our annual distribution grid needs. Subsequent to the internal release of the forecast, SDG&E continues to add or remove load from our modeling to account for system changes. During this ongoing process, some planning, forecasting, and modeling refinements may be identified that result in the removal or addition of an initially-identified grid need. Examples of these refinements include revising load additions from the forecast and incorporating recent updates to distribution facility ratings. Affected circuits and transformer banks are continually monitored for future needs.

Table 2 summarizes the GNA refinements implemented subsequent to the internal dissemination of the distribution load forecast and prior to the publication of the GNA/DDOR on August 15, 2023. For the 2023 DIDF cycle, 5 need refinements are listed in the SDG&E GNA Refinements table. All the refinements are needs added due to new load request received after the internal dissemination of the 2023 forecast.

2023 GNA	Facility ID	Refinement
GNA_2023_0006	2023_0353	Need added
GNA_2023_0009	2023_0506	Need added
GNA_2023_0020	2023_0386	Need added
GNA_2023_0025	2023_0156	Need added
GNA_2023_0026	2023_0539	Need added

Table 2 – SDG&E GNA Refinements

2.8 Near-term Needs

When needs arise for the current year, SDG&E creates immediate mitigation and initiates near-term projects to implement the necessary mitigation. Near-term needs require urgent action and the mitigation therefore does not qualify as a candidate deferral project. Accordingly, the DDOR does not address mitigation for near-term needs.

3. GNA Results

Forecast distribution needs are the combined result of the inputs described in Appendix 1 and 2. Because it is the combined inputs (*e.g.*, forecast load amount-s and types of DER additions on a circuit) that determine the need for mitigation solutions, it is generally not possible to directly attribute an identified need to any one causal variable.[18] Accordingly, SDG&E is unable to provide a listing of strictly

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[17] R.14-08-013, *Administrative Law Judge's Ruling Addressing Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company's Claims for Confidential Treatment and Redaction of Distribution System Planning Data Ordered by Decisions 17-09-026 and 18-02-004* (July 24, 2018).

[18] For example, a peak thermal overload could be a net result of "low" forecast loads and "high" projections of DER growth or "high" forecast load and "low" projections of DER growth – both contribute to the peak thermal overload.

"DER-driven needs" within the planning cycle. However, if a need arises, it will be appropriately included in the DIDF reports and process.

The GNA results are summarized below by the four distribution service types: peak thermal, voltage support, back-tie and microgrid. For each of the four service types, the GNA results are further categorized by whether the need is at the substation (bank), circuit, or line segment level. GNA results are included in Appendix 2.

Table 3 summarizes the grid needs within SDG&E's Distribution Planning Region and by service type.

	Distribution Service				Total
	Peak Thermal	Voltage	Back-Tie	Microgrid	
SDG&E	27	3	7	-	30

Table 3 – Summary of the Number of Grid Needs by Distribution Service Type

Table 4 summarizes the grid needs by service type and by equipment type (*e.g.*, substation/bank, circuit, or line segment). Multiple grid needs may be related and can be solved by a single planned investment.

	Distribution Service				Total
Equipment Type	Peak Thermal	Voltage	Back-Tie	Microgrid	
Substation Bank	4	-	-	-	4
Circuit	20	-	6	-	20
Line Segment	6	3	1	-	6
Totals	27	3	7	-	30

Table 4 – Summary of the Number of Grid Needs by Distribution Service Type and Equipment Type

Table 5 summarizes the grid needs by in anticipated upgrade date.

Anticipated Upgrade Date					Total
2023	2024	2025	2026	2027	
5	15	9	1	-	30

Table 5 – Summary of the Number of Grid Needs by anticipated upgrade date

3.1 Distribution Capacity Needs

Distribution peak thermal services provided by DERs are either load-modifying or supply-modifying. In order for DERs to defer planned distribution infrastructure, the magnitude and timing of load changes and electrical output must correspond to the magnitude and timing of the distribution need – right place, time, amount, and certainty. This can be effectuated by dispatch of controllable DERs (e.g., load modifying demand response) or, for non-controllable DERs (e.g., energy efficiency), by deploying enough capacity in advance to ensure the distribution need is met when it appears.

Table 6 summarizes the peak thermal needs.

	Impacted Facility			Total
	Substation Bank	Circuit	Line Segment	
SDG&E	4	20	3	27

Table 6 – Summary of the Number of Peak Thermal Grid Needs by Impacted Facility

Table 7 summarizes the peak thermal needs by anticipated upgrade date.

Anticipated Upgrade Date					Total
2023	2024	2025	2026	2027	
5	13	20	1	-	27

Table 7 – Summary of the Number of Peak Thermal Grid Needs by anticipated upgrade date

3.2 Voltage Support Needs

Voltage Support services are circuit level dynamic voltage management services provided by an individual resource and/or aggregated resources capable of dynamically correcting excursions outside of acceptable voltage limits.

Table 8 summarizes the voltage support needs.

	Impacted Facility			Total
	Substation Bank	Circuit	Line Segment	
SDG&E	0	0	3	3

Table 8 – Summary of the Number of Voltage Needs by Impacted Facility

Table 9 summarizes the voltage needs by anticipated upgrade date. For the reasons specified in Section 2.1 all of the voltage support needs have a need date within the next three years; there is no benefit in investigating possible voltage needs in years four and five.

Anticipated Upgrade Date					Total
2023	2024	2025	2026	2027	
-	2	1	-	-	3

Table 9 – Summary of the Number of Voltage Grid Needs by anticipated upgrade date

3.3 Reliability (Back-Tie) Needs

Back-tie services are load-modifying or supply-modifying services that provide the utility operational capacity (*e.g.*, on an adjacent circuit) to restore service to an interrupted portion of the distribution system. Specifically, this service provides peak thermal capacity to provide service to customers during abnormal conditions and configurations. Back-tie service minimizes customer impacts during planned and unplanned outages.[19]

The 2023 GNA includes back-tie grid needs for substation banks, circuits, and line segments. Table 10 summarizes the back-tie grid needs.

	Impacted Facility			Total
	Substation Bank	Circuit	Line Segment	
SDG&E	-	6	1	7

Table 10 – Summary of the Number of Back-tie-Grid Need by Impacted Facility

Table 11 summarizes the back-tie grid needs by anticipated upgrade date.

[19] 2019 Distribution Deferral Opportunity Report San Diego Gas and Electric, Appendix B.

Anticipated Upgrade Date					Total
2023	2024	2025	2026	2027	
-	4	3	-	-	7

Table 11 – Summary of the Number of Back-tie Grid Needs by anticipated upgrade date

3.4 Resiliency (Microgrid) Needs

SDG&E has not committed to implementing any new microgrids in addition to those identified in previous GNA/DDOR cycles.

4. Updates to the GNA

SDG&E's 2023 GNA conforms with data requirements identified in the Decision, the May 2019 Ruling, the May 2020 Ruling, and the Revised Attachment A. In addition, the May 2023 Ruling identifies additional information[20] to be included in the GNA, specific to "known loads" tracking. The following sections provide the additional data and narratives as required.

4.1 Data Format Changes from SDG&E's 2022 GNA

There are no changes in data formats between SDG&E's 2023 GNA and SDG&E's 2022 GNA.

4.2 Known Load Tracking Data

The ALJ's June 16, 2022 DIDF Reform order specifies as follows:

> "The IOUs need to track their known load projects in the 2022 GNA/DDOR. The data shall include a unique project identifier, impacted circuit, initial service request date, load amount, current expected in-service date or indication if service request was cancelled, if appropriate, and type/category of load and, if appropriate, the actual date service was initially provided and the amount."

Additionally, the May 2023 Ruling specifies that:

> "To accomplish this, the initial in-service date initially requested by the customer, actual load amount, and actual service date as defined in Appendices A to C in the IPE Report are important to track, as well as the annual amounts of service requested. Utilities shall jointly develop a uniform list of type of customer and customer load categories in preparation for their August 2023 GNA/DDOR filings as described above and include the data in the report."

As required by the Ruling, the Joint Utilities collaborated and created a uniform list of known load types and categories. SDG&E's 2023 Known Load Tracking Report, included as Appendix 4, reflects known loads that were included in the load forecast that SDG&E produced in the first quarter of 2023 as input for the 2023 DPP cycle,[21] along with certain refinements as described in the table below. In the 2023

[20] May 2023 Ruling, P.13.

[21] SDG&E disseminates the load forecast used in its Distribution Planning Process (DPP) to internal business units at the end of the first quarter of each year. SDG&E accounts for known loads in the process used to disaggregate the CEC's system-level forecast of loads to the circuit- and substation-level. This disaggregation process begins in

DPP cycle, SDG&E does have a few known loads where the service request involves successive load additions spanning multiple years. For purposes of this year's known load tracking report, these loads are reported as an aggregate number in the year having the initial load addition. SDG&E is continuing to enhance the tracking process for a service request involving multiple years of load additions.

Refinement	Unique Project Identifier	Reason
Removal	• 8384	Service request was energized in 2022
Additions	• 10364 • 10470 • 10599 • 10581	Customer service requests were received after date of internal forecast dissemination
Load Amount Corrections	• 9926 • 10106 • 10023 • 10105 • 9617	Internally-disseminated load forecast included erroneous loads which are corrected in the 2023 Known Load Tracking Report.

Table 12 – Summary of the known load refinements

4.3 Known Load Metrics

The May 2023 Ruling requires Utilities to provide a narrative summary report that includes metrics that are calculated based upon the Known Load Tracking Data and that describes the implications of those metrics.[22] The required known load metrics are provided below, along with a narrative summary describing the implications of each metric.

1. Total of all known loads (MW or MVA and number of known loads)
   SDG&E provides below the total MW and number of known loads for each forecast year[23] .

Forecast Year	2023	2024	2025	2026	2027
Total MW	148.90	37.07	1.75	4.05	2.79
Total Number	75	16	2	2	3

Table 13 – Total MW and Number of Known Loads

November of the year prior to the year in which the load forecast is disseminated internally and prior to the August 15th publication of each cycle's GNA/DDOR and Known Load Tracking Report. Because known load information is being updated on a continual basis, not all known loads included in each cycle's Known Load Tracking Report are included in the load forecast when it is internally disseminated.

[22] May 2023 Ruling, p.13.

[23] Known loads with in-service dates after the relevant circuit's annual peak period for a given year, are reported as occurring in the following year. For Metric 1 through 4, SDG&E used the load amounts as included in its disseminated forecast to compute the metrics. The additions, removal and corrections made to the load amounts are summarized in Table 12.

As in previous DPP cycles, the number and amount of known load additions are concentrated in the first two years of the DIDF planning horizon.

2. Total of all known loads by category and type (MW or MVA and number of known loads)
SDG&E provides below the total MW and number of known loads for each forecast year, by category and type.

Forecast Year	2023	2024	2025	2026	2027
Commercial	**114.91**	**24.17**	**1.75**	**4.05**	**2.04**
Business	114.91	20.97	1.75	4.05	1.23
Health Care	0	3.20	0	0	0.81
Industrial	**0**	**8.09**	**0**	**0**	**0**
Plant	0	8.09	0	0	0
Residential	**21.45**	**3.54**	**0**	**0**	**0.75**
Home construction	21.45	3.54	0	0	0.75
Transportation	**12.54**	**1.27**	**0**	**0**	**0**
MD/HD EV	12.54	1.27	0	0	0

Table 14 Total MW of Known Loads by Type and Category

Forecast Year	2023	2024	2025	2026	2027
Commercial	**48**	**11**	**2**	**2**	**2**
Business	48	9	2	2	1
Health Care	0	2	0	0	1
Industrial	**0**	**1**	**0**	**0**	**0**
Plant	0	1	0	0	0
Residential	**18**	**2**	**0**	**0**	**1**
Home construction	18	2	0	0	1
Transportation	**9**	**2**	**0**	**0**	**0**
MD/HD EV	9	2	0	0	0

Table 15 – Total Number of Known Loads by Type and Category

The largest share of known loads is in the Commercial category. However, the number of known loads naturally fluctuates year to year.

3. Annual Change (relative to the previous Tracking Data submitted by the utility) in total of all known loads (MW or MVA, %.[24] and number of known loads)

[24] "The % which is included in a number of these metrics would be developed by taking the percentage of the value (in this case total MW or MVA (depending upon what the IOU reports) has changed)) to the total known load amount. In other words, the % of the total MWs that were changed in the most recent submitted data compared to the previous cycle/years submitted data." *Final 2023 IPE Post DPAG Report*, p. 30, footnote 7.

Forecast Year	2023	2024	2025	2026	2027	2028
2022 Known Load Tracking (MW)	55.31	1.13	5.67	0	6.13	0.96
2023 Known Load Tracking (MW)	148.90	37.07	1.75	4.05	2.79	0
Annual Change (MW)	93.59	35.94	-3.92	4.05	-3.34	-0.96
Annual Change (%)	169%	3195%	-69%	N/A	-54%	-100%

Table 16 – Annual Change in Total MW of Known Loads

Forecast Year	2023	2024	2025	2026	2027	2028
2022 Known Load Tracking (#)	42	1	2	0	3	1
2023 Known Load Tracking (#)	75	16	2	2	3	0
Annual Change (#)	33	15	0	2	0	-1
Annual Change (%)	79%	1500%	0%	N/A	0%	-100%

Table 17 – Annual Change in Total Number of Known Loads

The number and amount of known loads tracked and reported for the 2023 DIDF cycle, has increased for the first two years compared to the same years from the previous 2022 DPP cycle.

4. Annual Change (relative to the previous Tracking Data submitted by the utility) in total of all known loads and also broken out by category and type (MW or MVA, % and number of known loads)

Forecast Year	2023	2024	2025	2026	2027	2028
Commercial						
2022 Known Load Tracking (MW)	41.54	1.13	5.67	0	6.13	0
2023 Known Load Tracking (MW)	114.91	24.17	1.75	4.05	2.04	0
Annual Change (MW)	73.37	23.05	-3.92	4.05	-4.09	0
Annual Change (%)	177%	2049%	-69%	N/A	-67%	N/A
Industrial						
2022 Known Load Tracking (MW)	0	0	0	0	0	0
2023 Known Load Tracking (MW)	0	8.09	0	0	0	0
Annual Change (MW)	0	8.09	0	0	0	0
Annual Change (%)	N/A	N/A	N/A	N/A	N/A	N/A
Residential						
2022 Known Load Tracking (MW)	13.77	0	0	0	0	0.96
2023 Known Load Tracking (MW)	21.45	3.54	0	0	0.75	0
Annual Change (MW)	7.68	3.54	0	0	0.75	-0.96
Annual Change (%)	56%	N/A	N/A	N/A	N/A	-100%
Transportation						
2022 Known Load Tracking (MW)	0	0	0	0	0	0

2023 Known Load Tracking (MW)	12.54	1.27	0	0	0	0
Annual Change (MW)	12.54	1.27	0	0	0	0
Annual Change (%)	N/A	N/A	N/A	N/A	N/A	N/A

Table 18 – Annual Change in Total MW of Known Loads by Type

Forecast Year	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Commercial						
2022 Known Load Tracking (#)	24	1	2	0	3	0
2023 Known Load Tracking (#)	48	11	2	2	2	0
Annual Change (#)	24	10	0	2	-1	0
Annual Change (%)	100%	1000%	0%	N/A	-33%	N/A
Industrial						
2022 Known Load Tracking (#)	0	0	0	0	0	0
2023 Known Load Tracking (#)	0	1	0	0	0	0
Annual Change (#)	0	1	0	0	0	0
Annual Change (%)	N/A	N/A	N/A	N/A	N/A	N/A
Residential						
2022 Known Load Tracking (#)	18	0	0	0	0	1
2023 Known Load Tracking (#)	18	2	0	0	1	0
Annual Change (#)	0	2	0	0	1	-1
Annual Change (%)	0%	N/A	N/A	N/A	N/A	-100%
Transportation						
2022 Known Load Tracking (#)	0	0	0	0	0	0
2023 Known Load Tracking (#)	9	2	0	0	0	0
Annual Change (#)	9	2	0	0	0	0
Annual Change (%)	N/A	N/A	N/A	N/A	N/A	N/A

Table 19 – Annual Change in Total Number of Known Loads by Type

The number and amount of known loads characterized as "Commercial" and "Residential" for the 2023 DIDF cycle, has increased compared to the previous 2022 DIDF cycle. Note that the "Transportation" type was not identified as a separate type in previous DIDF cycles.

5. Service Amount Deferred (MW or MVA) (MW or MVA, %)

SDG&E interprets this metric as measuring the amount of known loads reported for the 2022 DIDF cycle (the Known Load Tracking data), that have been reported for the 2023 DIDF cycle with a later in-service year.[25] SDG&E provides below the aggregate amount of known loads having a later in-service year.[26] SDG&E also provides the total amount of known loads reported

[25] SDG&E's 2022 Known Load Tracking data includes service requests where the requested service is now available. For consistency with previous cycles' reports, the load amount for these completed service requests are not removed from the metric calculation.
[26] SDG&E is not providing an annual breakdown by year for Metrics 5 through 7, given that the in-service years differ between the two DIDF planning horizons.

for the previous 2022 DPP cycle, and the corresponding percentage of known loads having a later in-service year.

Service Amounts with Later In-Service Years (MW)	22.06
Total Load Amount (MW)	125.92
Proportion	18%

Table 20 – Service Amounts with Later In-Service Years

Although some of the known loads are reported as having a later in-service year in comparison to last Known Load Tracking report, it doesn't mean the in-service years for these known loads were "deferred" because of challenges SDG&E encountered in accommodating the in-service years reported in the last Known Load Tracking report. Expected in-service years are updated for many reasons; some updates are driven by the customers' build schedule, some updates are driven by other external factors such as land acquisition, permitting or for other reasons affecting the customers' new development or business expansion plans. SDG&E questions the usefulness of this metric, and the related metrics (5 – 7), since the utility has no control over customers' personal interests and business objectives. Additionally, SDG&E has a very small sample size, which further limits the usefulness of these metrics.

6. Service Deferral Rate Total (%)

SDG&E interprets this metric as measuring the number of known loads reported for the 2022 DIDF cycle (the Known Load Tracking data), that have been reported for the 2023 DIDF cycle with a later in-service year. SDG&E provides below the aggregate number of known loads having a later in-service year. SDG&E also provides the total number of known loads reported for the previous 2022 DIDF cycle, and the corresponding percentage of known loads having a later in-service year.

The Number of Total Service Requests with Later In-Service Years	6
Number of Total Known Loads	86
Proportion	7%

Table 21 – The Number of Total Service Requests with Later In-Service Years as a Proportion of Total Known Loads

Regarding the implications of this metric, see SDG&E's discussion of the implications for Known Load metric 5.

7. Service Deferral Rate by Category and type (%)
SDG&E interprets this metric as measuring, by category, the number of known loads reported for the previous 2022 DIDF cycle (the Known Load Tracking data), that have been reported for the 2023 DIDF cycle with a later in-service year. SDG&E provides below the aggregate number, by category, [27] of known loads having a later in-service year. SDG&E also provides the total

[27] Based on SDG&E's interpretation of 2022 Ruling, only customer type was provided in the 2022 Known Load Tracking data.

number of known loads reported for the previous 2022 DIDF cycle, by category, and the corresponding percentage of known loads having a later in-service year.

Number of Known Loads with Later In-Service Years (Commercial)	5
Number of Total Known Loads (Commercial)	64
Proportion (Commercial)	8%
Number of Known Loads with Later In-Service Years (Residential)	1
Number of Total Known Loads (Residential)	22
Proportion (Residential)	5%

Table 22 – The Number of Service Requests with Later In-Service Years as a Proportion of the Total Number of Known Loads by Type

Regarding the implications of this metric, see SDG&E's discussion of the implications for Known Load metric 5.

8. Cancellation Rate Total (%)
   SDG&E interprets this metric as measuring the number of known loads included in the 2023 DIDF cycle that have been reported in this cycle's Known Load Tracking data as being cancelled. SDG&E reported 2 known loads as being cancelled out of the total of 98 reported Known Loads. Thus the cancellation rate is 2%.

   SDG&E is uncertain whether a 2% cancellation rate across all categories is typical. SDG&E notes that the calculation of this metric is sensitive to when the customer cancels its service request and when that cancellation is recorded in SDG&E's records.

9. Cancellation Rate by category and type (%)

   SDG&E interprets this metric as measuring the number of known loads, by category, reported for the current 2023 DIDF cycle that have been reported in this cycle's Known Load Tracking data as being cancelled. Both of the cancelled known loads referenced in Known Load metric 8 are commercial – business loads. No other types or categories have cancelled known loads.

   SDG&E is uncertain whether a cancellation rate of 2% is typical of the commercial – business load category. SDG&E doubts a 0% cancellation rate for other categories is typical. SDG&E notes that the calculation of this metric is sensitive to when the customer cancels its service request and when that cancellation is recorded in SDG&E's records.

10. Service Request Amount Increase Rate Total and Average Amount (%, MW or MVA)[28]

[28] Service amount changes less than 0.1 MW are not considered in the metric calculation for Metrics 10 through 13.

SDG&E interprets this metric as measuring the total and average changed load amount of known loads reported for the previous 2022 DIDF cycle (the Known Load Tracking data), that have been reported in the 2023 DIDF cycle with an increased load amount. SDG&E provides below the amount by which the service requests increased, the rate as compared to the total known load amount, the number of known loads requesting an increase in the amount of service and the average service amount increase.

Increase in Amount of Requested Service (MW)	6.54
Total Known Load Amount (MW)	125.92
Proportion	5%
Number of Known Loads Requesting an Increase in Service	5
Average Service Amount Increase (MW)	1.31

Table 23 – Service Request Amount Increase Rate and Average Increase Amount

In general, the number of increased or decreased load amounts, the increased or decreased load amounts, appear to be a small portion of the total known loads and load amounts. Further, due to the small sample size, SDG&E does not find this metric and the associated metrics (10 through 13) meaningful or useful. SDG&E is also puzzled by the usefulness of the “average service amount” calculations.

11. Service Request Amount Increase Rate by category/type and Average Amount (%, MW or MVA)

SDG&E interprets this metric as measuring the total and average changed load amount of known loads, by type, reported for the previous 2022 DIDF cycle (the Known Load Tracking data), that have been reported in the 2023 DIDF cycle with an increased load amount. SDG&E provides below the amount by which the service requests increased, rate as compared to the total known load amount, the number of known loads requesting an increase in the amount of service and the average service amount increase for each type.

Type	Residential	Commercial
Increase in Service Request Amounts (MW)	0.50	6.05
Total Known Load Amount (MW)	16.67	109.25
Service Amount Increase Rate	3%	6%
Number of Known Loads Requesting an Increase in Service	2	3
Average Service Amount Increase (MW)	0.25	2.02

Table 24 – Service Request Amount Increase Rate and Average Increase Amount by Type

Regarding the implications of this metric, see SDG&E’s discussion of the implications for Known Load metric 10.

12. Service Request Amount Decrease Rate Total and Average Amount (%, MW or MVA)

SDG&E interprets this metric as measuring the total and average changed load amount of known loads reported for the previous 2022 DIDF cycle (the Known Load Tracking data), that have been reported in the 2023 DIDF cycle with a decreased load amount. SDG&E provides below the service amount decreased, rate as compared to the total known load amount, the number of known loads with a decrease in the service amount of requested and the average service amount decreased.

Decrease in Service Request Amounts (MW)	3.16
Total Known Load Amount (MW)	125.92
Service Amount Decrease Rate	3%
Number of Known Loads with a Decrease in Service Amount	6
Average Service Amount Decrease (MW)	0.53

Table 25 – Service Request Amount Decrease Rate and Average Decrease Amount

Regarding the implications of this metric, see SDG&E's discussion of the implications for Known Load metric 10.

13. Service Request Amount Decrease Rate by category/type and Average Amount (%, MW or MVA)

SDG&E interprets this metric as measuring the total and average changed load amount of known loads, by type, reported for the previous 2022 DIDF cycle (the Known Load Tracking data), that have been reported in the 2023 DIDF cycle with a decreased load amount. SDG&E provides below the service amount decreased, rate as compared to the total known load amount, the number of known loads requesting a decrease in the amount of service and the average service amount decrease for each type.

Type	Residential	Commercial
Decrease in Service Amount Requests (MW)	0.21	2.95
Total Known Load Amount (MW)	16.67	109.25
Service Amount Decrease Rate	1	5
Number of Known Loads Requesting a Decrease in Service	1%	3%
Average Service Amount Decrease (MW)	0.21	0.59

Table 26 – Service Request Amount Decrease Rate and Average Decrease Amount by Type

Regarding the implications of this metric, see SDG&E's discussion of the implications for Known Load metric 10.

14. Service Deferral Rate (%) in first, second, third and fourth year after initial inclusion as a known load by type and category of known load

SDG&E interprets this metric as measuring, by type, the difference between (i) the in-service year of the known load that SDG&E's documentation indicates is later than the initially-requested in-service year, and (ii) the year in which SDG&E's documentation indicates the service request was initially submitted. The differences are then binned, from one (the "First Year") to four ("Fourth Year"). The total number within each year's bin would then be compared to the total across all four bins to compute the "service deferral rate."

Prior to the 2022 Known Load Tracking Report, SDG&E did not save the date at which service requests were initially included in the DPP as a known load. Further, the in-service date may have changed several times after its "initial inclusion as a known load" in the DPP and the dates of such changes are not tracked. These changes may include earlier in-service dates, later in-service dates, or even both over a period of time. For example, a known load may have been initially included in the 2021 DPP cycle with an in-service date of 2024, then adjusted to a 2022 in-service date in the 2022 DPP cycle, and further adjusted to 2023 in-service date in the 2023 DPP cycle. Even if SDG&E knows the DPP cycle in which the known load was initially included, SDG&E is unclear how to calculate this metric because the in-service date for a given service request may have been adjusted multiple times, both in the downward and upward directions, after the service request's "initial inclusion" in the DPP, and because SDG&E does not record when these adjustments were made.

15. Service Cancellation Rate (%) in first, second, third and fourth year after initial inclusion as a known load, by type and category of the known load

SDG&E interprets this metric as measuring, by type, the difference between (i) the year in which the service request is indicated as cancelled in SDG&E's most recent known load tracking data and (ii) the year in which SDG&E's documentation indicates the service request was initially submitted. The differences are then binned, from one (the "First Year") to four ("Fourth Year"). The total number within each year's bin is then compared to the total across all four bins to compute the "service cancellation rate."[29] In the 2023 DIDF cycle, six projects are identified as cancelled and will no longer be tracked.[30]

	First Year	Second Year	Third Year	Fourth Year
Number of Service Cancellations, Total	3	0	1	2
Service Cancellation Rate, Total	50.00%	0.00%	16.67%	33.33%
Number of Service Cancellations, Residential/Home Construction	1	0	0	0
Service Cancellation Rate, Residential/Home Construction	100.00%	0.00%	0.00%	0.00%
Number of Service Cancellations, Transportation/MD/HD EV	1	0	1	1
Service Cancellation Rate, Transportation/MD/HD EV	33.33%	0.00%	33.33%	33.33%
Number of Service Cancellations, Commercial	1	0	0	1
Service Cancellation Rate, Commercial	50.00%	0.00%	0.00%	50.00%
Number of Service Cancellations, Health Care	0	0	0	1
Service Cancellation Rate, Health Care	0.00%	0.00%	0.00%	100.00%
Number of Service Cancellations, Business	1	0	0	0
Service Cancellation Rate, Business	100.00%	0.00%	0.00%	0.00%

Table 27 – Service Cancellation Rate (%) in First, Second, Third and Fourth year after Initial Inclusion as a Known Load, by Type and Category of the Known Load

[29] SDG&E used the initial date the service request was submitted to SDG&E based on internal documentation as a guideline to estimate the initial inclusion year of the known load. SDG&E does not track this data in its current known load reporting.
[30] Four of the six known loads were cancelled prior to dissemination of the load forecast and are not included in the 2023 Known Load Tracking report. These known loads are not included in the calculation of Metric 8 and 9.

Because the timing between service request submittal dates and planned in-service dates is subject to numerous private and commercial considerations, and to ongoing communication and study processes involving the utility, SDG&E questions whether the binning of Service Cancellation Rates by its year of occurrence is useful or meaningful. Additionally, SDG&E has a very small sample size, which further limits the usefulness of the metrics.

16. Service Reduction Rate (%) in first, second, third and fourth year after initial inclusion as known load by type and category of the known load

SDG&E interprets this metric as attempting to measure, by type, the number of service requests whose requested amounts of service are reduced over time. SDG&E is unclear how to calculate this metric since the amount of a given service request may be adjusted multiple times, both in the downward and upward directions, after the service request's first year of "initial inclusion," and the specific timing of these adjustments is not tracked.

Appendix 1 – Load Disaggregation

Load Disaggregation Process

Load disaggregation, Figure 2,[31] is the process of allocating the CEC load growth to circuits. SDG&E uses LoadSEER geospatial modelling to perform this disaggregation. The method consists of six major steps:

1. **Baseline Growth**. Adjust the CEC's Mid Baseline Scenario load projections (i.e. MW) to avoid double counting specific DERs.
2. **Calculate Growth**. Calculate load growth (i.e., annual growth) from the adjusted baseline projections and apply the growth to the latest observed normalized distribution system coincident peak.
3. **Allocate Block Loads**. Allocate known load growth based on expectations or new expanded service.
4. **Allocate Geo-spatial Loads**. Allocate remaining load growth based on the geo-spatial model. The geo-spatial model is a predictive model that captures location and environmental factors influencing growth on the distribution system. The geo-spatial models are calibrated to each utility's distribution system.
5. **Local Planning Engineer Review**. Results are reviewed by local planning engineers with specialized knowledge of local areas.
6. **Circuit Level Review**. Planning engineers review and approve adjustments to the circuit level.

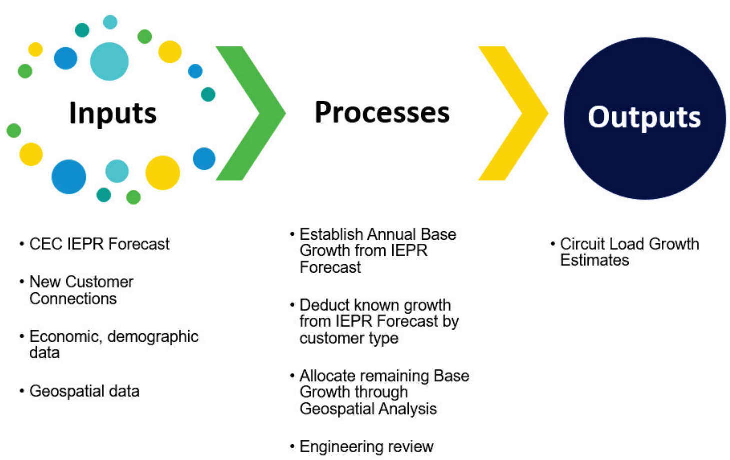

Figure 2 – Overview of Load Disaggregation

31 From DFWG meeting on May 25th, 2023.

Appendix 2 – Substation Bank and Circuit Forecast Detail Summary

GNA – Distribution Circuits, Substations, Sub-transmission Capacity Service

Refer to "SDG&E GNA TABLES 2023 – PUBLIC.xls" tab "Cir-Bank Capacity"

GNA - All Other Grid Service Needs

Refer to "SDG&E GNA TABLES 2023 – PUBLIC.xls" tab "Ruling – All Other"

Confidential information is highlighted black and redacted

Substation	Bank/Circuit	GNA_ID	Facility ID	2023									2024								
				Forecasted Demand (MW)	Facility Loading (%)	Base Demand (MW)	Residential PV (MW)	Non-Residential PV (MW)	EE (MW)	EV (MW)	AAFS (MW)	ES (MW)	Forecasted Demand (MW)	Facility Loading (%)	Base Demand (MW)	Residential PV (MW)	Non-Residential PV (MW)	EE (MW)	EV (MW)	AAFS (MW)	ES (MW)
Cabrillo	480		2023_0001	7.76	62%	0.0	0.00	0.00	-0.03	0.12	0.01	0.00	8.00	64%	0.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cabrillo	481		2023_0002	6.83	55%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00	6.97	56%	0.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cabrillo	482		2023_0003	[redacted]																	
Cabrillo	483		2023_0004																		
Clairemont	274		2023_0005	10.36	83%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	11.50	92%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Clairemont	275		2023_0006	7.78	62%	0.0	-0.01	-0.01	-0.03	-0.03	0.01	0.00	7.85	63%	0.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Clairemont	276		2023_0007	6.98	56%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00	7.17	57%	0.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Clairemont	277		2023_0008	8.13	81%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	8.31	83%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Clairemont	278		2023_0009	6.66	53%	0.0	0.00	0.00	-0.02	-0.02	0.01	0.00	6.76	54%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Clairemont	279		2023_0010	5.81	48%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	5.88	49%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eastgate	966		2023_0011	[redacted]																	
Eastgate	967		2023_0012	2.00	16%	0.0	0.00	-0.04	0.00	0.00	0.00	0.00	1.96	16%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eastgate	968		2023_0014	6.00	49%	0.0	0.00	-0.19	-0.02	-0.02	0.01	0.00	5.82	48%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eastgate	969		2023_0015	0.35	3%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.35	3%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eastgate	1152		2023_0016	5.73	46%	0.0	0.00	-0.02	-0.02	-0.02	0.00	0.00	5.70	46%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eastgate	1153		2023_0017	[redacted]																	
Elliott	382		2023_0018																		
Elliott	383		2023_0019	6.13	49%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	6.17	49%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Elliott	384		2023_0020	8.33	67%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	8.42	67%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Elliott	380		2023_0021	10.07	81%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00	10.15	81%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Elliott	381		2023_0022	10.33	83%	0.0	-0.01	0.00	-0.04	-0.04	0.01	-0.01	10.47	84%	0.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Elliott	385		2023_0023	[redacted]																	
Elliott	1266		2023_0024	5.93	48%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	6.10	49%	0.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Friars	34		2023_0025	8.07	65%	0.0	0.00	-0.05	-0.03	-0.03	0.00	0.00	8.01	64%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Friars	35		2023_0026	8.71	70%	0.0	0.00	-0.03	-0.03	-0.03	0.00	0.00	8.70	70%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Friars	36		2023_0027	[redacted]																	
Friars	37		2023_0028	5.95	48%	0.0	0.00	-0.01	-0.02	-0.02	0.00	0.00	5.96	48%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Friars	38	GNA_2023_0011	2023_0029	[redacted]																	
Friars	39		2023_0030	5.54	44%	0.0	0.00	-0.02	-0.02	-0.02	0.00	0.00	5.53	44%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Friars	1060		2023_0031	5.56	45%	0.1	-0.01	-0.02	-0.02	-0.02	0.00	0.00	5.64	45%	0.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	269		2023_0032	8.71	70%	0.0	-0.03	-0.01	-0.03	-0.03	0.00	0.00	8.86	71%	0.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	270		2023_0033	5.11	74%	0.0	0.00	0.00	-0.02	-0.02	0.01	0.00	5.17	74%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	271		2023_0034	6.35	52%	0.0	0.00	-0.04	-0.02	-0.02	0.00	0.00	6.30	51%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	528		2023_0035	[redacted]																	
Genesee	745		2023_0036																		
Genesee	746		2023_0037	6.98	57%	0.0	-0.03	-0.01	-0.02	-0.02	0.00	0.00	6.94	57%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	747		2023_0038	6.06	49%	0.0	0.00	-0.02	-0.02	-0.02	0.00	0.00	6.02	48%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	748		2023_0039	[redacted]																	
Genesee	268		2023_0040	8.79	71%	0.0	-0.02	-0.01	-0.05	-0.05	0.01	0.00	8.82	71%	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	272		2023_0041	[redacted]																	
Genesee	273		2023_0042	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	529		2023_0043	[redacted]																	
Genesee	742		2023_0044	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	743		2023_0045	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	744		2023_0046	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Genesee	749		2023_0047	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kearny West	252		2023_0048	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kearny West	253		2023_0049	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kearny West	710		2023_0050	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kearny West	711		2023_0051	[redacted]																	
Kearny West	712		2023_0052	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kearny West	713		2023_0053	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kearny West	250		2023_0054	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kearny West	254		2023_0055	[redacted]																	
Kearny West	714		2023_0056	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kearny West	715		2023_0057	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kearny West	716		2023_0058	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kearny West	1283		2023_0059	[redacted]																	
Kearny West	1284		2023_0060																		
Kettner	134		2023_0061																		
Kettner	137	GNA_2023_0024	2023_0062	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kettner	405		2023_0063	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kyocera	348		2023_0064	[redacted]																	
La Jolla	570		2023_0065	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
La Jolla	571		2023_0066	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
La Jolla	572		2023_0067	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
La Jolla	1173		2023_0068	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
La Jolla	1174		2023_0069	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Heights	773		2023_0070	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Heights	774		2023_0071	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Heights	776		2023_0072	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Heights	777		2023_0073	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Heights	770		2023_0074	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Heights	771		2023_0075	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Heights	772		2023_0076	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Heights	775		2023_0077	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Heights	1286		2023_0078	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Heights	1287		2023_0079	[redacted]																	
Mesa Heights	1288		2023_0080																		
Mesa Rim	952	GNA_2023_0022	2023_0081	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Rim	953		2023_0082	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Rim	955		2023_0083	[redacted]																	
Mesa Rim	956		2023_0084																		
Mesa Rim	961		2023_0085	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Rim	962		2023_0086	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Rim	963		2023_0087	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Rim	950		2023_0088	[redacted]																	
Mesa Rim	951		2023_0089	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mesa Rim	954		2023_0090	[redacted]																	
Mesa Rim	957		2023_0091	10.05	81%	0.0	0.00	-0.07	-0.03	-0.03	0.00	0.00	9.96	80%	0.0	0.00	-0.14	-0.06	0.01	0.00	0.00
Mesa Rim	958	GNA_2023_0023	2023_0092	[redacted]																	
Mesa Rim	959		2023_0093	8.84	71%	0.0	0.00	-0.02	-0.03	-0.03	0.00	0.00	8.80	71%	0.0	0.00	-0.04	-0.06	0.00	0.00	0.00
Mesa Rim	960		2023_0094	7.85	76%	0.0	0.00	0.00	-0.02	-0.02	0.02	0.00	7.94	76%	0.0	0.00	0.00	-0.04	0.13	0.04	-0.01
Mira Sorrento	1442		2023_0095	[redacted]																	
Mira Sorrento	1443		2023_0096																		
Mira Sorrento	1444		2023_0097	6.13	49%	0.0	0.00	-0.02	-0.01	-0.01	0.00	0.00	6.12	49%	0.0	0.00	-0.03	-0.02	0.03	0.00	0.00
Mira Sorrento	1445		2023_0098	8.66	69%	0.0	0.00	-0.04	-0.02	-0.02	0.00	0.00	8.62	69%	0.0	0.00	-0.09	-0.04	0.04	0.00	0.00
Mira Sorrento	1446		2023_0099	5.73	46%	0.0	-0.01	-0.07	-0.01	-0.01	0.01	0.00	5.68	46%	0.0	-0.02	-0.13	-0.02	0.03	0.01	0.00
Mira Sorrento	1447		2023_0100	[redacted]																	
Mira Sorrento	1448	GNA_2023_0016	2023_0101	10.46	84%	0.0	-0.06	-0.07	-0.02	-0.02	0.00	0.00	13.28	107%	0.0	-0.11	-0.14	-0.04	0.10	0.00	0.00
Mira Sorrento	1450		2023_0102	[redacted]																	
Miramar	223		2023_0103	9.77	78%	0.0	0.00	-0.13	-0.06	-0.06	0.00	0.00	9.60	77%	0.0	-0.01	-0.27	-0.11	0.03	0.01	0.00
Miramar	225		2023_0104	[redacted]																	
Miramar	227		2023_0105	6.19	50%	0.0	0.00	-0.20	-0.02	-0.02	0.00	0.00	6.00	48%	0.0	0.00	-0.40	-0.03	0.04	0.00	0.00
Miramar	228		2023_0106	8.64	70%	0.0	-0.01	0.00	-0.03	-0.03	0.00	0.00	8.70	71%	0.1	-0.01	-0.01	-0.06	0.03	0.01	-0.01
Miramar	229		2023_0107	4.97	40%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	4.99	40%	0.0	0.00	0.00	-0.03	0.04	0.00	0.00
Miramar	761		2023_0108	8.90	71%	0.0	0.00	-0.11	-0.03	-0.03	0.00	0.00	8.77	70%	0.0	0.00	-0.23	-0.05	0.01	0.01	0.00
Miramar	763		2023_0109	5.28	42%	0.0	0.00	-0.12	-0.02	-0.02	0.00	0.00	5.17	41%	0.0	0.00	-0.24	-0.03	0.01	0.00	0.00
Miramar	224		2023_0110	5.58	45%	0.0	0.00	-0.10	-0.02	-0.02	0.00	0.00	5.48	44%	0.0	0.00	-0.19	-0.03	0.01	0.01	0.00
Miramar	226		2023_0111	1.35	11%	0.0	0.00	-0.01	0.00	0.00	0.00	0.00	1.35	11%	0.0	0.00	-0.01	-0.01	0.00	0.00	0.00
Miramar	760		2023_0112	[redacted]																	
Miramar	762		2023_0113	1.33	11%	0.0	0.00	-0.01	0.00	0.00	0.00	0.00	1.33	11%	0.0	0.00	-0.02	0.00	0.00	0.00	0.00
Miramar	764		2023_0114	[redacted]																	
Mission	141		2023_0115	1.65	13%	0.0	0.00	-0.01	0.00	0.00	0.00	0.00	1.66	13%	0.0	0.00	0.00	-0.01	0.02	0.00	0.00
Mission	143		2023_0116	6.13	49%	0.0	-0.08	-0.09	-0.02	-0.02	0.00	0.00	6.02	48%	0.0	-0.16	-0.17	-0.04	0.09	0.00	0.00
Mission	145		2023_0117	8.34	67%	0.0	0.00	-0.01	-0.03	-0.03	0.00	0.00	8.33	67%	0.0	0.00	-0.01	-0.05	0.01	0.00	0.00
Mission	146		2023_0118	6.92	57%	0.0	0.00	-0.01	-0.02	-0.02	0.00	0.00	6.97	58%	0.1	0.00	-0.01	-0.04	0.04	0.01	0.00
Mission	149		2023_0119	[redacted]																	
Mission	701	GNA_2023_0008	2023_0120	11.54	93%	0.0	0.00	0.00	-0.03	-0.03	0.02	0.00	11.76	94%	0.0	0.00	0.00	-0.06	0.44	0.04	-0.01
Mission	702		2023_0121	9.97	80%	0.0	-0.01	0.00	-0.03	-0.03	0.01	-0.01	10.08	81%	0.0	-0.01	0.00	-0.06	0.23	0.01	-0.01
Mission	704		2023_0122	4.40	35%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	4.43	35%	0.0	0.00	0.00	-0.04	0.07	0.00	0.00
Mission	706		2023_0123	[redacted]																	
Mission	142		2023_0124	8.72	55%	0.0	0.00	0.00	-0.04	-0.04	0.02	0.00	8.79	55%	0.0	0.00	0.00	-0.07	0.09	0.04	-0.01
Mission	144		2023_0125	[redacted]																	
Mission	147		2023_0126																		
Mission	700		2023_0127																		
Mission	703		2023_0128	9.72	78%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00	9.85	79%	0.0	0.00	0.00	-0.07	0.30	0.01	0.00
Mission	707		2023_0129	3.90	24%	0.0	0.00	-0.01	-0.01	-0.01	0.00	0.00	3.89	24%	0.0	0.00	-0.01	-0.02	0.02	0.00	0.00
Mission	708		2023_0130	2.54	20%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00	2.61	21%	0.0	0.00	0.00	-0.02	0.14	0.00	0.00
Old Town	100		2023_0131	[redacted]																	
Old Town	60		2023_0132																		
Old Town	103		2023_0133	5.75	55%	0.8	0.00	0.00	-0.02	-0.02	0.00	0.00	5.29	51%	0.2	0.00	0.00	-0.03	0.16	0.01	0.00
Old Town	105		2023_0134	7.36	71%	0.0	0.00	-0.01	-0.01	-0.01	0.00	0.00	7.36	71%	0.0	-0.01	-0.02	-0.02	0.01	0.00	0.00
Old Town	107		2023_0135	6.10	51%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00	8.76	73%	0.1	-0.02	-0.01	-0.04	0.11	0.01	0.00
Old Town	492		2023_0136	7.67	61%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	7.83	63%	0.0	0.00	0.00	-0.05	0.36	0.01	0.00
Old Town	493		2023_0137	[redacted]																	
Old Town	494		2023_0138																		
Old Town	124		2023_0139																		
Old Town	136		2023_0140	6.08	45%	0.0	-0.01	-0.04	-0.02	-0.02	0.00	0.00	6.05	45%	0.0	-0.03	-0.08	-0.04	0.07	0.00	0.00
Old Town	490		2023_0141	4.56	37%	0.0	0.00	-0.01	-0.02	-0.02	0.00	0.00	4.56	37%	0.0	0.00	-0.02	-0.03	0.02	0.00	0.00
Old Town	491		2023_0142	3.22	31%	0.0	0.00	-0.02	-0.01	-0.01	0.00	0.00	3.20	31%	0.0	0.00	-0.03	-0.02	0.01	0.00	0.00
Pacific Beach	56		2023_0143	6.96	70%	0.0	-0.02	0.00	-0.03	-0.03	0.00	0.00	6.95	70%	0.0	-0.03	-0.01	-0.05	0.05	0.01	0.00
Pacific Beach	57		2023_0144	6.47	57%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	6.59	58%	0.0	0.00	0.00	-0.06	0.24	0.02	0.00
Pacific Beach	58		2023_0145	10.22	82%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00	10.26	82%	0.0	0.00	0.00	-0.07	0.15	0.01	-0.01
Pacific Beach	545		2023_0146	8.45	68%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	8.58	69%	0.1	0.00	0.00	-0.08	0.18	0.02	0.00
Pacific Beach	546		2023_0147	6.97	56%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	7.08	57%	0.0	0.00	0.00	-0.06	0.22	0.01	0.00
Pacific Beach	578		2023_0148	8.66	69%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	8.71	70%	0.0	0.00	0.00	-0.08	0.17	0.01	0.00
Pacific Beach	579		2023_0149	7.52	60%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00	7.53	60%	0.0	0.00	0.00	-0.05	0.03	0.00	0.00
Point Loma	53		2023_0150	0.80	6%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.82	7%	0.0	0.00	0.00	0.00	0.02	0.00	0.00
Point Loma	54		2023_0151	2.86	23%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00	2.94	24%	0.0	0.00	0.00	-0.03	0.17	0.01	-0.01
Point Loma	55		2023_0152	5.76	46%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	5.86	47%	0.0	0.00	0.00	-0.05	0.24	0.01	-0.01
Point Loma	50		2023_0153	8.54	68%	0.0	-0.06	-0.04	-0.03	-0.03	0.00	0.00	8.46	68%	0.0	-0.11	-0.08	-0.06	0.04	0.01	-0.01
Point Loma	51		2023_0154	7.17	57%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00	7.17	58%	0.0	0.00	0.00	-0.06	0.05	0.00	0.00
Point Loma	52		2023_0155	5.55	45%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	5.70	46%	0.0	0.00	0.00	-0.05	0.31	0.02	-0.01
Point Loma	496	GNA_2023_0025	2023_0156	5.70	57%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00	5.72	57%	0.0	0.00	0.00	-0.01	0.00	0.00	0.00
Point Loma	740		2023_0157	8.54	68%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00	8.61	69%	0.0	0.00	0.00	-0.06	0.20	0.01	-0.01
Point Loma	741		2023_0158	[redacted]																	
Rose Canyon	59		2023_0159	8.68	70%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	8.78	70%	0.0	0.00	0.00	-0.06	0.24	0.02	0.00
Rose Canyon	64		2023_0160	5.04	42%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	5.16	43%	0.0	0.00	0.00	-0.03	0.24	0.01	0.00
Rose Canyon	65		2023_0161	8.15	65%	0.0	0.00	0.00	-0.03	-0.03	0.02	0.00	8.43	68%	0.0	0.00	0.00	-0.05	0.54	0.03	0.00
Rose Canyon	69		2023_0162	4.41	35%	0.0	-0.05	-0.01	-0.02	-0.02	0.00	0.00	4.35	35%	0.0	-0.09	-0.03	-0.03	0.03	0.00	0.00
Rose Canyon	114		2023_0163	5.93	48%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	6.06	49%	0.1	0.00	0.00	-0.03	0.17	0.01	0.00
Rose Canyon	116		2023_0164	4.53	36%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	4.67	37%	0.1	0.00	0.00	-0.03	0.16	0.01	0.00
Rose Canyon	120		2023_0165	5.02	41%	0.0	0.00	0.00	-0.02	-0.02	0.01	0.00	5.18	42%	0.1	0.00	0.00	-0.04	0.14	0.01	0.00
Rose Canyon	1085		2023_0166	6.83	56%	0.0	0.00	0.00	-0.05	-0.05	0.01	0.00	7.29	59%	0.0	0.00	0.00	-0.08	0.96	0.02	0.00
Scripps	437		2023_0167	4.98	41%	0.0	-0.02	-0.01	-0.01	-0.01	0.00	0.00	4.97	41%	0.0	-0.01	0.00	-0.02	0.04	0.00	-0.01
Scripps	439		2023_0168	5.35	44%	0.0	0.00	-0.04	-0.01	-0.01	0.00	0.00	5.31	43%	0.0	0.00	-0.08	-0.02	0.01	0.00	0.00
Scripps	726		2023_0169	9.14	68%	0.0	-0.01	-0.01	-0.03	-0.03	0.00	0.00	9.14	68%	0.0	-0.01	-0.01	-0.06	0.05	0.01	0.00
Scripps	729		2023_0170	7.10	57%	0.0	0.00	0.00	-0.02	-0.02	0.00	-0.01	7.11	57%	0.0	-0.01	0.00	-0.03	0.06	0.01	-0.01

Substation	Bank/Circuit	GNA_ID	Facility ID	2025									2026									2027									Deficiency (MW)					Deficiency (%)				
				Forecasted Demand (MW)	Facility Loading (%)	Base Demand (MW)	Residential PV (MW)	Non-Residential PV (MW)	EE (MW)	EV (MW)	AAFS (MW)	ES (MW)	Forecasted Demand (MW)	Facility Loading (%)	Base Demand (MW)	Residential PV (MW)	Non-Residential PV (MW)	EE (MW)	EV (MW)	AAFS (MW)	ES (MW)	Forecasted Demand (MW)	Facility Loading (%)	Base Demand (MW)	Residential PV (MW)	Non-Residential PV (MW)	EE (MW)	EV (MW)	AAFS (MW)	ES (MW)	Deficiency 2023 (MW)	Deficiency 2024 (MW)	Deficiency 2025 (MW)	Deficiency 2026 (MW)	Deficiency 2027 (MW)	Deficiency 2023 (%)	Deficiency 2024 (%)	Deficiency 2025 (%)	Deficiency 2026 (%)	Deficiency 2027 (%)
Cabrillo	480		2023_0001	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Cabrillo	481		2023_0002	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Cabrillo	482		2023_0003	[redacted]																																				
Cabrillo	483		2023_0004																																					
Clairemont	274		2023_0005	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Clairemont	275		2023_0006	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Clairemont	276		2023_0007	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Clairemont	277		2023_0008	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Clairemont	278		2023_0009	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Clairemont	279		2023_0010	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Eastgate	966		2023_0011	[redacted]																																				
Eastgate	967		2023_0012	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Eastgate	968		2023_0014	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Eastgate	969		2023_0015	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Eastgate	1152		2023_0016	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Eastgate	1153		2023_0017	[redacted]																																				
Elliott	382		2023_0018																																					
Elliott	383		2023_0019	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Elliott	384		2023_0020	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Elliott	380		2023_0021	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Elliott	381		2023_0022	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Elliott	385		2023_0023	[redacted]																																				
Elliott	1266		2023_0024	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Friars	34		2023_0025	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Friars	35		2023_0026	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Friars	36		2023_0027	[redacted]																																				
Friars	37		2023_0028	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Friars	38	GNA_2023_0011	2023_0029	[redacted]																																				
Friars	39		2023_0030	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Friars	1060		2023_0031	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	269		2023_0032	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	270		2023_0033	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	271		2023_0034	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	528		2023_0035	[redacted]																																				
Genesee	745		2023_0036																																					
Genesee	746		2023_0037	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	747		2023_0038	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	748		2023_0039	[redacted]																																				
Genesee	268		2023_0040	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	272		2023_0041	[redacted]																																				
Genesee	273		2023_0042	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	529		2023_0043	[redacted]																																				
Genesee	742		2023_0044	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	743		2023_0045	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	744		2023_0046	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Genesee	749		2023_0047	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kearny West	252		2023_0048	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kearny West	253		2023_0049	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kearny West	710		2023_0050	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kearny West	711		2023_0051	[redacted]																																				
Kearny West	712		2023_0052	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kearny West	713		2023_0053	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kearny West	250		2023_0054	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kearny West	254		2023_0055	[redacted]																																				
Kearny West	714		2023_0056	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kearny West	715		2023_0057	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kearny West	716		2023_0058	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kearny West	1283		2023_0059	[redacted]																																				
Kearny West	1284		2023_0060																																					
Kettner	134		2023_0061																																					
Kettner	137	GNA_2023_0024	2023_0062	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			0.04	0.36	0.74			0%	3%	6%
Kettner	405		2023_0063	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Kyocera	348		2023_0064	[redacted]																																				
La Jolla	570		2023_0065	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
La Jolla	571		2023_0066	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
La Jolla	572		2023_0067	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
La Jolla	1173		2023_0068	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
La Jolla	1174		2023_0069	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Heights	773		2023_0070	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Heights	774		2023_0071	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Heights	776		2023_0072	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Heights	777		2023_0073	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Heights	770		2023_0074	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Heights	771		2023_0075	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Heights	772		2023_0076	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Heights	775		2023_0077	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Heights	1286		2023_0078	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Heights	1287		2023_0079	[redacted]																																				
Mesa Heights	1288		2023_0080																																					
Mesa Rim	952	GNA_2023_0022	2023_0081	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.45	0.52	0.59	0.66	0.76	4%	4%	5%	5%	6%
Mesa Rim	953		2023_0082	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Rim	955		2023_0083	[redacted]																																				
Mesa Rim	956		2023_0084																																					
Mesa Rim	961		2023_0085	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Rim	962		2023_0086	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Rim	963		2023_0087	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Rim	950		2023_0088	[redacted]																																				
Mesa Rim	951		2023_0089	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]										
Mesa Rim	954		2023_0090	[redacted]																																				
Mesa Rim	957		2023_0091	9.87	79%	0.0	0.00	-0.21	-0.08	0.01	0.01	0.00	9.80	79%	0.03	0.00	-0.29	-0.10	0.01	0.01	0.00	9.73	78%	0.05	0.00	-0.29	-0.13	0.01	0.01	-0.01										
Mesa Rim	958	GNA_2023_0023	2023_0092	[redacted]																																				
Mesa Rim	959		2023_0093	8.76	70%	0.0	0.00	-0.06	-0.08	0.00	0.00	0.00	8.73	70%	0.01	0.00	-0.08	-0.10	0.00	0.00	0.00	8.71	70%	0.03	0.00	-0.10	-0.12	0.01	0.00	0.00										
Mesa Rim	960		2023_0094	8.03	77%	0.1	0.00	0.00	-0.06	0.20	0.06	-0.01	8.15	78%	0.10	0.00	0.00	-0.08	0.56	0.05	0.00	8.33	80%	0.13	0.00	0.00	-0.09	0.72	0.06	0.00										
Mira Sorrento	1442		2023_0095	[redacted]																																				
Mira Sorrento	1443		2023_0096																																					
Mira Sorrento	1444		2023_0097	6.12	49%	0.0	0.00	-0.05	-0.03	0.05	0.00	0.00	6.12	49%	0.02	0.00	-0.07	-0.03	0.06	0.00	0.00	6.13	49%	0.03	0.00	-0.09	-0.04	0.08	0.00	0.00										
Mira Sorrento	1445		2023_0098	8.58	69%	0.0	0.00	-0.13	-0.05	0.05	0.00	0.00	8.63	69%	0.09	0.00	-0.18	-0.06	0.07	0.00	0.00	8.69	70%	0.20	0.00	-0.24	-0.08	0.09	0.01	0.00										
Mira Sorrento	1446		2023_0099	5.62	45%	0.0	-0.02	-0.20	-0.03	0.04	0.02	0.00	5.65	45%	0.12	-0.03	-0.27	-0.04	0.05	0.02	0.00	5.78	46%	0.33	-0.04	-0.35	-0.05	0.07	0.02	0.00										
Mira Sorrento	1447		2023_0100	[redacted]																																				
Mira Sorrento	1448	GNA_2023_0016	2023_0101	13.22	106%	0.0	-0.16	-0.21	-0.06	0.15	0.01	0.00	13.32	107%	0.23	-0.22	-0.28	-0.07	0.20	0.01	0.01	13.52	108%	0.53	-0.28	-0.35	-0.09	0.26	0.01	0.01		0.81	0.75	0.85	1.05		7%	6%	7%	8%
Mira Sorrento	1450		2023_0102	[redacted]																																				
Miramar	223		2023_0103	9.45	76%	0.0	-0.01	-0.40	-0.15	0.04	0.01	0.00	9.33	75%	0.07	-0.02	-0.54	-0.19	0.05	0.01	0.00	9.23	74%	0.16	-0.02	-0.71	-0.23	0.06	0.02	0.00										
Miramar	225		2023_0104	[redacted]																																				
Miramar	227		2023_0105	5.82	47%	0.0	0.00	-0.59	-0.04	0.06	0.00	0.00	5.65	45%	0.03	0.00	-0.79	-0.05	0.08	0.00	0.00	5.47	44%	0.06	0.00	-1.01	-0.07	0.10	0.00	0.00										
Miramar	228		2023_0106	8.77	72%	0.2	-0.02	-0.01	-0.08	0.05	0.01	-0.01	8.88	72%	0.31	-0.01	0.00	-0.10	0.12	0.01	-0.01	9.03	74%	0.45	-0.01	-0.01	-0.12	0.15	0.01	-0.01										
Miramar	229		2023_0107	5.01	40%	0.0	0.00	0.00	-0.05	0.06	0.01	0.00	5.03	40%	0.04	0.00	-0.01	-0.06	0.09	0.01	-0.01	5.07	41%	0.07	-0.01	-0.01	-0.07	0.11	0.01	-0.01										
Miramar	761		2023_0108	8.66	69%	0.0	0.00	-0.27	-0.06	0.01	0.01	-0.01	8.57	69%	0.03	0.00	-0.36	-0.08	0.02	0.01	-0.01	8.49	68%	0.07	0.00	-0.47	-0.10	0.02	0.02	-0.01										
Miramar	763		2023_0109	5.12	41%	0.1	0.00	-0.35	-0.04	0.02	0.00	0.00	5.08	41%	0.16	0.00	-0.47	-0.05	0.03	0.00	0.00	4.98	40%	0.19	0.00	-0.60	-0.07	0.04	0.00	0.00										
Miramar	224		2023_0110	5.41	44%	0.0	0.00	-0.29	-0.04	0.02	0.01	0.00	5.36	43%	0.09	0.00	-0.40	-0.05	0.03	0.01	0.00	5.28	43%	0.13	0.00	-0.52	-0.06	0.04	0.02	0.00										
Miramar	226		2023_0111	1.41	12%	0.1	0.00	-0.01	-0.01	0.00	0.00	0.00	1.49	12%	0.16	0.00	-0.02	-0.01	0.00	0.00	0.00	1.52	13%	0.20	0.00	-0.03	-0.01	0.00	0.00	0.00										
Miramar	760		2023_0112	[redacted]																																				
Miramar	762		2023_0113	1.37	11%	0.1	0.00	-0.03	-0.01	0.00	0.00	0.00	1.52	12%	0.24	0.00	-0.04	-0.01	0.00	0.00	0.00	1.56	13%	0.29	0.00	-0.05	-0.01	0.00	0.00	0.00										
Miramar	764		2023_0114	[redacted]																																				
Mission	141		2023_0115	1.67	13%	0.0	0.00	0.00	-0.01	0.04	0.00	0.00	1.69	14%	0.01	0.00	0.00	-0.02	0.05	0.00	0.00	1.71	14%	0.03	0.00	0.00	-0.02	0.06	0.00	0.00										
Mission	143		2023_0116	5.96	48%	0.1	-0.18	-0.19	-0.05	0.13	0.01	-0.03	5.91	47%	0.11	-0.24	-0.26	-0.07	0.17	0.01	-0.04	5.86	47%	0.17	-0.31	-0.33	-0.08	0.22	0.01	-0.05										
Mission	145		2023_0117	8.34	67%	0.0	0.00	-0.02	-0.07	0.02	0.00	0.00	8.40	67%	0.12	0.00	-0.03	-0.09	0.02	0.00	0.00	8.49	68%	0.24	0.00	-0.03	-0.11	0.03	0.00	0.00										
Mission	146		2023_0118	7.68	64%	0.8	0.00	-0.02	-0.06	0.12	0.01	0.00	8.49	70%	1.59	0.00	-0.02	-0.08	0.15	0.01	0.00	8.74	72%	1.82	-0.01	-0.03	-0.10	0.20	0.01	0.00										
Mission	149		2023_0119	[redacted]																																				
Mission	701	GNA_2023_0008	2023_0120	12.01	96%	0.1	0.00	0.00	-0.08	0.66	0.06	-0.01	12.27	98%	0.11	0.00	0.00	-0.10	0.88	0.07	-0.02	12.58	101%	0.18	0.00	0.00	-0.13	1.13	0.08	-0.02					0.11					1%
Mission	702		2023_0121	10.32	83%	0.1	0.00	0.00	-0.08	0.76	0.02	-0.02	10.62	85%	0.10	0.00	0.00	-0.10	1.54	0.02	0.00	11.06	89%	0.13	0.00	0.00	-0.12	1.97	0.02	0.00										
Mission	704		2023_0122	4.46	36%	0.0	0.00	0.00	-0.05	0.11	0.01	0.00	4.51	36%	0.03	0.00	0.00	-0.06	0.32	0.01	0.00	4.63	37%	0.04	0.00	0.00	-0.07	0.63	0.01	0.00										
Mission	706		2023_0123	[redacted]																																				
Mission	142		2023_0124	8.87	55%	0.1	0.00	0.00	-0.10	0.14	0.06	-0.01	8.97	56%	0.16	0.00	0.00	-0.13	0.19	0.07	-0.02	9.07	57%	0.22	0.00	0.00	-0.16	0.24	0.09	-0.02										
Mission	144		2023_0125	[redacted]																																				
Mission	147		2023_0126																																					
Mission	700		2023_0127																																					
Mission	703		2023_0128	10.01	80%	0.0	0.00	0.00	-0.10	0.45	0.01	0.00	10.17	82%	0.09	0.00	0.00	-0.13	0.59	0.01	0.00	10.31	83%	0.10	0.00	0.00	-0.15	0.75	0.01	0.00										
Mission	707		2023_0129	3.89	24%	0.0	0.00	-0.02	-0.02	0.03	0.00	0.00	3.92	25%	0.04	0.00	-0.02	-0.03	0.03	0.00	0.00	3.93	25%	0.05	0.00	-0.03	-0.03	0.04	0.00	0.00										
Mission	708		2023_0130	2.68	21%	0.0	0.00	0.00	-0.03	0.21	0.00	0.00	2.75	22%	0.03	0.00	0.00	-0.04	0.32	0.00	0.00	2.84	23%	0.04	0.00	0.00	-0.05	0.41	0.00	0.00										
Old Town	100		2023_0131	[redacted]																																				
Old Town	60		2023_0132																																					
Old Town	103		2023_0133	5.53	53%	0.4	0.00	0.00	-0.04	0.25	0.01	0.00	5.43	52%	0.22	0.00	0.00	-0.05	0.33	0.01	0.00	5.60	54%	0.31	0.00	0.00	-0.07	0.42	0.01	0.00										
Old Town	105		2023_0134	7.71	74%	0.4	-0.01	-0.03	-0.03	0.01	0.00	0.00	7.99	77%	0.69	-0.01	-0.04	-0.04	0.02	0.00	0.00	7.37	71%	0.09	-0.01	-0.06	-0.05	0.02	0.00	0.00										
Old Town	107		2023_0135	8.88	74%	0.2	-0.03	-0.01	-0.05	0.16	0.01	-0.01	9.04	75%	0.27	0.00	0.00	-0.06	0.49	0.02	-0.01	9.27	77%	0.38	0.00	0.00	-0.08	0.62	0.02	-0.01										
Old Town	492		2023_0136	8.39	67%	0.4	0.00	0.00	-0.06	0.54	0.02	0.00	8.75	70%	0.58	0.00	0.00	-0.08	0.72	0.02	0.00	9.15	73%	0.80	0.00	0.00	-0.10	0.92	0.03	0.00										
Old Town	493		2023_0137	[redacted]																																				
Old Town	494		2023_0138																																					
Old Town	124		2023_0139																																					
Old Town	136		2023_0140	6.03	45%	0.0	-0.03	-0.07	-0.05	0.12	0.00	0.00	6.09	45%	0.07	-0.02	-0.06	-0.07	0.15	0.01	0.00	6.21	46%	0.18	-0.03	-0.08	-0.08	0.19	0.01	0.00										
Old Town	490		2023_0141	4.55	37%	0.0	0.00	-0.03	-0.04	0.03	0.00	0.00	4.58	37%	0.05	0.00	-0.04	-0.05	0.04	0.00	0.00	4.69	38%	0.17	0.00	-0.05	-0.06	0.06	0.00	0.00										
Old Town	491		2023_0142	3.18	31%	0.0	0.00	-0.05	-0.03	0.02	0.00	0.00	3.21	31%	0.05	0.00	-0.07	-0.04	0.02	0.00	0.00	3.21	31%	0.07	0.00	-0.09	-0.05	0.03	0.00	0.00										
Pacific Beach	56		2023_0143	7.02	70%	0.1	-0.05	-0.01	-0.07	0.08	0.01	-0.01	7.11	71%	0.19	-0.01	0.00	-0.09	0.11	0.01	-0.01	7.15	72%	0.21	0.00	0.00	-0.11	0.31	0.02	-0.01										
Pacific Beach	57		2023_0144	6.75	60%	0.1	0.00	0.00	-0.08	0.52	0.02	0.00	6.95	61%	0.12	0.00	0.00	-0.10	0.69	0.03	0.00	7.14	63%	0.14	0.00	0.00	-0.12	0.88	0.03	0.00										
Pacific Beach	58		2023_0145	10.32	83%	0.0	0.00	0.00	-0.10	0.22	0.01	-0.01	10.37	83%	0.01	0.00	0.00	-0.13	0.29	0.02	-0.01	10.42	84%	0.02	0.00	0.00	-0.16	0.37	0.02	-0.01										
Pacific Beach	545		2023_0146	8.76	70%	0.2	0.00	0.00	-0.10	0.38	0.02	0.00	8.96	72%	0.24	0.00	0.00	-0.13	0.74	0.02	0.00	9.21	74%	0.32	0.00	0.00	-0.16	0.94	0.03	0.00										
Pacific Beach	546		2023_0147	7.25	58%	0.1	0.00	0.00	-0.08	0.48	0.02	0.00	7.44	60%	0.13	0.00	0.00	-0.10	0.64	0.02	0.00	7.60	61%	0.13	0.00	0.00	-0.13	0.82	0.02	0.00										
Pacific Beach	578		2023_0148	8.81	71%	0.0	0.00	0.00	-0.11	0.25	0.02	-0.01	8.91	71%	0.09	0.00	0.00	-0.14	0.34	0.02	-0.01	8.99	72%	0.11	0.00	0.00	-0.17	0.43	0.03	-0.01										
Pacific Beach	579		2023_0149	7.58	61%	0.1	-0.01	0.00	-0.07	0.05	0.00	0.00	7.63	61%	0.12	-0.01	0.00	-0.09	0.07	0.01	-0.01	7.66	61%	0.14	0.00	0.00	-0.11	0.20	0.01	0.00										
Point Loma	53		2023_0150	0.84	7%	0.0	0.00	0.00	-0.01	0.04	0.00	0.00	0.87	7%	0.04	0.00	0.00	-0.01	0.05	0.00	0.00	0.90	7%	0.05	0.00	0.00	-0.01	0.10	0.00	0.00										
Point Loma	54		2023_0151	3.03	24%	0.0	0.00	0.00	-0.04	0.26	0.01	-0.01	3.13	25%	0.04	0.00	0.00	-0.04	0.52	0.01	0.00	3.27	26%	0.05	0.00	0.00	-0.05	0.66	0.01	0.00										
Point Loma	55		2023_0152	5.97	48%	0.0	0.00	0.00	-0.07	0.36	0.02	-0.01	6.07	49%	0.01	0.00	0.00	-0.09	0.48	0.02	-0.02	6.19	50%	0.02	0.00	0.00	-0.11	0.61	0.03	-0.02										
Point Loma	50		2023_0153	8.39	67%	0.0	-0.16	-0.11	-0.08	0.06	0.01	-0.01	8.35	67%	0.07	-0.12	-0.08	-0.10	0.08	0.01	-0.01	8.35	67%	0.13	-0.15	-0.10	-0.12	0.11	0.01	-0.01										
Point Loma	51		2023_0154	7.18	58%	0.0	0.00	0.00	-0.08	0.07	0.01	0.00	10.04	80%	2.91	0.00	0.00	-0.09	0.12	0.00	0.00	10.31	83%	3.17	0.00	0.00	-0.11	0.15	0.00	0.00										
Point Loma	52		2023_0155	5.86	47%	0.0	0.00	0.00	-0.07	0.48	0.02	0.00	6.05	48%	0.07	0.00	0.00	-0.09	0.91	0.02	0.00	6.28	50%	0.07	0.00	0.00	-0.11	1.16	0.02	0.00										
Point Loma	496	GNA_2023_0025	2023_0156	5.68	57%	0.0	0.00	0.00	-0.02	0.00	0.00	0.00	5.75	58%	0.07	0.00	0.00	-0.02	0.00	0.00	0.00	6.76	68%	1.35	0.00	0.00	-0.04	0.01	0.00	0.00										
Point Loma	740		2023_0157	8.69	70%	0.0	0.00	0.00	-0.09	0.29	0.01	-0.01	8.76	70%	0.01	0.00	0.00	-0.12	0.39	0.02	-0.02	8.84	71%	0.01	0.00	0.00	-0.14	0.50	0.02	-0.02										
Point Loma	741		2023_0158	[redacted]																																				
Rose Canyon	59		2023_0159	8.89	71%	0.0	0.00	0.00	-0.08	0.35	0.04	0.00	9.01	72%	0.00	0.00	0.00	-0.10	0.67	0.04	0.00	9.17	74%	0.00	0.00	0.00	-0.12	0.84	0.05	0.00										
Rose Canyon	64		2023_0160	5.28	44%	0.0	0.00	0.00	-0.04	0.36	0.01	-0.01	5.40	45%	0.05	0.00	0.00	-0.05	0.47	0.02	-0.01	5.54	46%	0.08	0.00	0.00	-0.06	0.91	0.01	0.00										
Rose Canyon	65		2023_0161	8.73	70%	0.1	0.00	0.00	-0.07	0.80	0.05	0.00	9.02	72%	0.14	0.00	0.00	-0.10	1.05	0.06	0.00	9.42	76%	0.28	0.00	0.00	-0.12	1.32	0.07	0.00										
Rose Canyon	69		2023_0162	4.31	35%	0.0	-0.14	-0.04	-0.04	0.05	0.00	0.00	4.32	35%	0.06	-0.09	-0.02	-0.06	0.07	0.01	-0.01	4.32	35%	0.09	-0.11	-0.03	-0.07	0.09	0.01	-0.01										
Rose Canyon	114		2023_0163	6.20	50%	0.1	0.00	0.00	-0.05	0.25	0.01	0.00	6.36	51%	0.21	0.00	0.00	-0.06	0.32	0.02	0.00	6.52	52%	0.30	0.00	0.00	-0.07	0.41	0.02	0.00										
Rose Canyon	116		2023_0164	4.82	39%	0.2	0.00	0.00	-0.04	0.24	0.01	0.00	4.97	40%	0.22	0.00	0.00	-0.05	0.46	0.01	0.00	5.17	41%	0.30	0.00	0.00	-0.06	0.59	0.01	0.00										
Rose Canyon	120		2023_0165	5.37	44%	0.2	0.00	0.00	-0.05	0.21	0.02	0.00	5.54	45%	0.36	0.00	0.00	-0.07	0.28	0.03	0.00	5.74	47%	0.50	0.00	0.00	-0.08	0.35	0.03	0.00										
Rose Canyon	1085		2023_0166	7.98	65%	0.3	0.00	0.00	-0.11	1.44	0.02	0.00	8.65	71%	0.50	0.00	0.00	-0.15	1.90	0.03	0.00	9.20	75%	0.56	0.00	0.00	-0.18	2.41	0.03	0.00										
Scripps	437		2023_0167	4.99	41%	0.0	-0.01	0.00	-0.03	0.06	0.01	-0.01	5.00	41%	0.02	-0.01	-0.01	-0.04	0.09	0.01	-0.02	5.01	41%	0.02	-0.01	-0.01	-0.05	0.11	0.01	-0.02										
Scripps	439		2023_0168	5.27	43%	0.0	0.00	-0.12	-0.03	0.02	0.00	0.00	5.23	43%	0.00	0.00	-0.16	-0.04	0.02	0.00	0.00	5.18	42%	0.01	0.00	-0.20	-0.04	0.02	0.00	0.00										
Scripps	726		2023_0169	9.15	68%	0.0	-0.02	-0.02	-0.08	0.08	0.01	-0.01	9.15	68%	0.03	-0.02	-0.02	-0.10	0.11	0.02	-0.01	9.19	68%	0.07	-0.03	-0.03	-0.12	0.14	0.02	-0.01										
Scripps	729		2023_0170	7.12	57%	0.0	-0.01	0.00	-0.05	0.09	0.01	-0.02	7.15	57%	0.03	-0.02	0.00	-0.06	0.12	0.01	-0.03	7.20	58%	0.06	-0.02	0.00	-0.08	0.16	0.02	-0.03										

Confidential information is highlighted black and redacted

Substation	Bank/Circuit	GNA_ID	Facility ID	2023 Forecasted Demand (MW)	2023 Facility Loading (%)	2023 Base Demand (MW)	2023 Residential PV (MW)	2023 Non-Residential PV (MW)	2023 EE (MW)	2023 EV (MW)	2023 AAFS (MW)	2023 ES (MW)	2024 Forecasted Demand (MW)	2024 Facility Loading (%)	2024 Base Demand (MW)	2024 Residential PV (MW)	2024 Non-Residential PV (MW)	2024 EE (MW)	2024 EV (MW)	2024 AAFS (MW)	2024 ES (MW)
Scripps	432		2023_0171	6.51	53%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	6.61	54%	0.1	0.00	0.00	-0.03	0.06	0.01	-0.01
Scripps	433		2023_0172	7.00	58%	0.0	0.00	0.00	-0.02	-0.02	0.00	-0.01	7.04	58%	0.0	-0.01	0.00	-0.03	0.06	0.01	-0.01
Scripps	434		2023_0173	8.61	69%	0.0	-0.03	-0.02	-0.03	-0.03	0.00	0.00	8.60	69%	0.0	-0.05	-0.03	-0.06	0.09	0.00	-0.01
Scripps	435		2023_0174	7.53	62%	0.0	0.00	0.00	-0.03	-0.03	0.01	-0.01	7.59	62%	0.0	0.00	0.00	-0.05	0.14	0.01	-0.01
Scripps	436		2023_0175	6.46	52%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	6.47	52%	0.0	-0.01	0.00	-0.04	0.07	0.00	-0.01
Scripps	438		2023_0176	9.52	77%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00	9.68	78%	0.0	0.00	0.00	-0.08	0.31	0.01	0.00
Scripps	727		2023_0177	2.09	17%	0.0	0.00	-0.07	-0.01	-0.01	0.00	0.00	2.02	17%	0.0	0.00	-0.13	-0.01	0.01	0.00	0.00
Scripps	728		2023_0178	4.69	38%	0.0	0.00	0.00	-0.01	-0.02	0.00	0.00	4.81	39%	0.1	0.00	-0.02	-0.09	0.09	0.01	-0.01
Torrey Pines	261		2023_0179	3.66	46%	0.0	0.00	-0.04	-0.01	-0.01	0.00	0.00	3.61	46%	0.0	0.00	-0.09	-0.02	0.01	0.00	0.00
Torrey Pines	262		2023_0180	7.12	57%	0.0	0.00	-0.12	-0.03	-0.03	0.00	0.00	6.99	56%	0.0	0.00	-0.24	-0.05	0.01	0.00	0.00
Torrey Pines	263		2023_0181	[redacted]																	
Torrey Pines	265		2023_0182	[redacted]																	
Torrey Pines	266		2023_0183	8.81	71%	0.0	-0.01	-0.01	-0.03	-0.03	0.00	-0.01	8.93	72%	0.1	-0.03	-0.02	-0.06	0.19	0.01	-0.02
Torrey Pines	735		2023_0184	4.82	39%	0.0	0.00	-0.01	-0.02	-0.02	0.00	0.00	4.79	39%	0.0	0.00	-0.02	-0.04	0.00	0.00	0.00
Torrey Pines	738		2023_0185	[redacted]																	
Torrey Pines	264		2023_0186	[redacted]																	
Torrey Pines	267		2023_0187	[redacted]																	
Torrey Pines	736		2023_0188	[redacted]																	
Torrey Pines	737		2023_0189	[redacted]																	
Torrey Pines	739		2023_0190	[redacted]																	
Torrey Pines	846		2023_0191	3.55	28%	0.0	0.00	-0.01	-0.01	-0.01	0.00	0.00	3.53	28%	0.0	0.00	-0.01	-0.03	0.00	0.00	0.00
Torrey Pines	847		2023_0192	10.67	86%	0.0	0.00	-0.01	-0.01	-0.01	0.00	0.00	10.65	85%	0.0	0.00	-0.01	-0.04	0.00	0.00	0.00
Vine	135		2023_0193	2.52	20%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00	2.54	20%	0.0	0.00	0.00	-0.01	0.01	0.00	0.00
Vine	367		2023_0194	[redacted]																	
Vine	1480		2023_0195	5.03	40%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	5.06	41%	0.0	0.00	0.00	0.00	0.05	0.00	0.00
Vine	1481		2023_0196	[redacted]																	
Vine	138		2023_0197	13.12	55%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00	13.21	56%	0.0	0.00	0.00	-0.07	0.21	0.01	0.00
Vine	139		2023_0198	6.19	71%	0.1	-0.03	-0.01	-0.03	-0.03	0.00	0.00	5.43	65%	0.1	-0.03	-0.01	-0.05	0.11	0.00	-0.01
Vine	457		2023_0199	[redacted]																	
Vine	458		2023_0200	6.04	48%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	6.10	49%	0.0	0.00	0.00	-0.04	0.15	0.01	0.00
Vine	1477		2023_0201	0.00	0%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.82	7%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Vine	1479		2023_0202	1.57	13%	0.0	-0.01	0.00	0.00	0.00	0.00	0.00	1.75	14%	0.2	-0.01	0.00	-0.01	0.04	0.00	0.00
Vine	1482		2023_0203	5.33	43%	0.0	-0.02	0.00	-0.01	-0.01	0.00	-0.01	5.50	44%	0.2	-0.02	0.00	-0.05	0.07	0.01	-0.01
Vine	1483		2023_0204	9.58	77%	0.0	-0.01	0.00	-0.04	-0.04	0.01	-0.01	9.69	78%	0.1	-0.02	0.00	-0.06	0.07	0.01	-0.01
Border	533		2023_0205	8.29	66%	0.0	0.00	-0.04	-0.02	-0.02	0.00	0.00	9.97	80%	0.0	0.00	-0.07	-0.04	0.02	0.00	0.00
Border	534		2023_0206	6.63	54%	0.0	0.00	-0.06	-0.02	-0.02	0.00	0.00	6.62	53%	0.0	0.00	-0.12	-0.03	0.02	0.00	0.00
Border	535		2023_0207	9.98	80%	0.0	0.00	-0.24	-0.04	-0.04	0.01	0.00	9.75	78%	0.0	0.00	-0.47	-0.07	0.02	0.03	0.00
Border	536		2023_0208	[redacted]																	
Border	1160		2023_0209	5.80	46%	0.0	0.00	-0.08	-0.01	-0.01	0.01	0.00	5.72	46%	0.0	0.00	-0.16	-0.02	0.01	0.01	0.00
Border	1161	GNA_2023_0004	2023_0210	12.65	101%	0.0	0.00	-0.06	-0.02	-0.02	0.00	0.00	14.02	112%	0.0	0.00	-0.13	-0.04	0.03	0.01	0.00
Border	1162	GNA_2023_0030	2023_0211	9.94	80%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	12.54	101%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Coronado	81		2023_0212	9.69	97%	0.0	-0.02	0.00	-0.03	-0.03	0.01	-0.01	9.70	97%	0.0	-0.04	0.00	-0.06	0.11	0.01	-0.01
Coronado	179		2023_0213	4.74	46%	0.0	0.00	-0.01	-0.02	-0.02	0.00	-0.01	4.72	45%	0.0	0.00	-0.02	-0.04	0.03	0.00	-0.01
Coronado	372		2023_0214	0.45	2%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.46	2%	0.0	0.00	0.00	0.00	0.01	0.00	0.00
Coronado	373		2023_0215	0.55	2%	0.0	-0.01	0.00	0.00	0.00	0.00	0.00	0.60	3%	0.1	-0.01	0.00	0.00	0.01	0.00	0.00
Coronado	374		2023_0216	[redacted]																	
Coronado	375		2023_0217	[redacted]																	
Coronado	376		2023_0218	8.62	80%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	8.79	82%	0.0	0.00	0.00	-0.06	0.34	0.02	0.00
Coronado	377		2023_0219	3.96	16%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	4.01	16%	0.0	0.00	0.00	-0.03	0.13	0.01	0.00
Division	378		2023_0220	[redacted]																	
Division	48		2023_0221	[redacted]																	
Division	49		2023_0222	[redacted]																	
Grant Hill	1434		2023_0223	9.68	78%	0.0	0.00	0.00	-0.04	-0.04	0.02	0.00	9.92	80%	0.2	0.00	0.00	-0.08	0.20	0.03	0.00
Grant Hill	1435		2023_0224	9.04	73%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	9.48	76%	0.3	0.00	0.00	-0.05	0.34	0.01	-0.01
Grant Hill	1436		2023_0225	2.66	21%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00	2.90	23%	0.1	0.00	0.00	-0.02	0.21	0.00	0.00
Grant Hill	1437		2023_0226	[redacted]																	
Grant Hill	1438		2023_0227	1.37	11%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	1.42	11%	0.1	0.00	0.00	-0.01	0.06	0.00	0.00
Grant Hill	1439		2023_0228	5.07	41%	0.0	-0.04	-0.02	-0.01	-0.01	0.00	0.00	5.04	40%	0.0	-0.06	-0.02	-0.03	0.05	0.00	-0.01
Grant Hill	1440		2023_0229	[redacted]																	
Imperial Beach	156		2023_0230	6.85	55%	0.0	-0.12	-0.20	-0.03	-0.03	0.03	0.00	6.66	53%	0.1	0.00	0.00	-0.05	0.08	0.11	0.00
Imperial Beach	158		2023_0231	8.50	68%	0.0	0.00	0.00	-0.02	-0.02	0.02	0.00	8.73	70%	0.2	0.00	0.00	-0.04	0.06	0.03	0.00
Imperial Beach	159		2023_0232	8.42	68%	0.0	0.00	0.00	-0.05	-0.05	0.02	0.00	8.62	69%	0.1	0.00	0.00	-0.08	0.14	0.04	0.00
Imperial Beach	531		2023_0233	6.93	69%	0.0	-0.07	-0.08	-0.03	-0.03	0.01	0.00	6.79	68%	0.0	-0.04	-0.05	-0.06	0.03	0.01	0.00
Imperial Beach	532		2023_0234	8.37	84%	0.0	0.00	0.00	-0.04	-0.04	0.11	0.00	8.59	86%	0.0	0.00	0.00	-0.07	0.20	0.23	0.00
Imperial Beach	723		2023_0235	6.56	53%	0.0	0.00	0.00	-0.04	-0.04	0.11	0.00	6.72	54%	0.0	0.00	0.00	-0.06	0.14	0.23	-0.01
Imperial Beach	724		2023_0236	1.06	9%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	1.08	9%	0.0	0.00	0.00	0.00	0.01	0.00	0.00
Montgomery	255		2023_0237	8.37	84%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00	8.62	86%	0.2	0.00	0.00	-0.07	0.16	0.01	0.00
Montgomery	256		2023_0238	7.26	36%	0.0	-0.04	-0.08	-0.03	-0.03	0.00	0.00	7.21	36%	0.0	-0.03	-0.07	-0.06	0.03	0.00	-0.01
Montgomery	257		2023_0239	9.54	48%	0.0	-0.11	-0.12	-0.03	-0.03	0.00	-0.01	9.43	47%	0.1	-0.10	-0.11	-0.06	0.06	0.01	-0.01
Montgomery	258		2023_0240	[redacted]																	
Montgomery	718		2023_0241	[redacted]																	
Montgomery	719		2023_0242	7.86	48%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	7.89	49%	0.0	0.00	0.00	-0.07	0.10	0.01	0.00
Otay	150		2023_0243	1.58	13%	0.0	0.00	-0.01	0.00	0.00	0.00	0.00	1.57	13%	0.0	0.00	-0.02	-0.01	0.00	0.00	0.00
Otay	151		2023_0244	6.51	52%	0.0	-0.04	-0.04	-0.03	-0.03	0.01	0.00	6.58	53%	0.1	0.00	0.00	-0.06	0.08	0.02	0.00
Otay	152		2023_0245	6.97	56%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	7.05	57%	0.1	0.00	0.00	-0.06	0.08	0.01	0.00
Otay	153		2023_0246	7.17	72%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	7.24	73%	0.0	0.00	0.00	-0.05	0.11	0.01	0.00
Otay	154		2023_0247	8.01	80%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	8.06	81%	0.0	0.00	0.00	-0.07	0.12	0.02	0.00
Otay	155		2023_0248	6.89	79%	0.0	0.00	0.00	-0.02	-0.02	0.01	0.00	6.95	80%	0.0	0.00	0.00	-0.04	0.12	0.01	0.00
Otay	1180		2023_0249	3.33	24%	0.0	0.00	0.00	-0.01	-0.01	0.05	0.00	7.17	51%	0.0	0.00	0.00	-0.01	0.08	0.09	0.00
Otay Lakes	260		2023_0250	1.90	40%	0.0	0.00	-0.02	0.00	0.00	0.01	0.00	0.09	2%	0.0	0.00	0.00	-0.01	0.00	0.01	0.00
Paradise	320		2023_0251	5.90	47%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	5.98	48%	0.0	0.00	0.00	-0.04	0.21	0.01	0.00
Paradise	321		2023_0252	8.68	70%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	8.85	71%	0.1	0.00	0.00	-0.06	0.19	0.01	0.00
Paradise	322		2023_0253	10.43	84%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00	10.52	84%	0.0	0.00	0.00	-0.08	0.17	0.01	0.00
Paradise	323		2023_0254	8.98	74%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	9.08	74%	0.0	0.00	0.00	-0.08	0.25	0.02	0.00
Paradise	324		2023_0255	3.28	26%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00	3.33	27%	0.0	0.00	0.00	-0.03	0.07	0.00	0.00
Paradise	325		2023_0256	10.86	87%	0.0	0.00	0.00	-0.05	-0.05	0.01	0.00	10.93	88%	0.0	0.00	0.00	-0.08	0.15	0.01	0.00
Paradise	326		2023_0257	8.11	65%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00	8.20	66%	0.0	0.00	0.00	-0.06	0.14	0.01	0.00
Proctor Valley	1006		2023_0258	7.67	61%	0.0	-0.01	0.00	-0.01	-0.01	0.00	-0.01	7.73	62%	0.1	-0.02	0.00	-0.02	0.05	0.01	-0.01
Proctor Valley	590		2023_0259	7.56	61%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00	7.65	61%	0.1	-0.01	0.00	-0.04	0.06	0.01	-0.01
Proctor Valley	591		2023_0260	6.07	49%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00	6.26	50%	0.2	0.00	0.00	-0.05	0.05	0.01	-0.01
Proctor Valley	592		2023_0261	9.13	73%	0.0	-0.02	0.00	-0.02	-0.02	0.00	-0.01	9.20	74%	0.0	0.00	0.00	-0.03	0.24	0.01	0.00
Proctor Valley	593		2023_0262	5.91	47%	0.0	-0.03	-0.03	-0.01	-0.01	0.00	-0.01	5.86	47%	0.0	-0.06	-0.05	-0.02	0.04	0.00	-0.01
Proctor Valley	594		2023_0263	6.99	56%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	7.06	57%	0.0	0.00	0.00	-0.03	0.14	0.00	0.00
Proctor Valley	1007		2023_0264	7.02	56%	0.0	-0.04	-0.03	-0.03	-0.03	0.00	-0.01	6.96	56%	0.0	-0.08	-0.06	-0.05	0.05	0.00	-0.01
Salt Creek	840		2023_0265	7.79	62%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00	8.73	70%	0.0	-0.01	0.00	-0.04	0.08	0.01	-0.01
Salt Creek	841		2023_0266	3.36	27%	0.1	0.00	0.00	-0.01	-0.01	0.00	0.00	3.49	28%	0.2	0.00	0.00	-0.02	0.03	0.00	0.00
Salt Creek	842		2023_0267	4.41	35%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00	4.50	36%	0.0	0.00	0.00	-0.01	0.09	0.00	0.00
Salt Creek	843		2023_0268	8.30	67%	0.0	0.00	0.00	-0.03	-0.03	0.00	-0.01	8.37	67%	0.0	0.00	0.00	-0.05	0.20	0.01	-0.01
Sampson	128		2023_0269	[redacted]																	
Sampson	131		2023_0270	[redacted]																	
Sampson	132		2023_0271	7.63	61%	0.0	0.00	-0.01	-0.02	-0.02	0.00	0.00	7.64	61%	0.0	-0.01	-0.02	-0.04	0.04	0.01	-0.01
Sampson	369		2023_0272	[redacted]																	
Sampson	370		2023_0273	[redacted]																	
Sampson	371		2023_0274	[redacted]																	
Sampson	1219		2023_0275	[redacted]																	
Sampson	70		2023_0276	5.26	38%	0.0	-0.04	-0.03	-0.02	-0.02	0.01	0.00	5.25	38%	0.0	-0.04	-0.03	-0.03	0.04	0.02	0.00
Sampson	80		2023_0277	11.18	82%	0.0	0.00	0.00	-0.04	-0.04	0.03	0.00	11.28	82%	0.0	0.00	0.00	-0.07	0.18	0.06	0.00
Sampson	122		2023_0278	6.46	47%	0.0	0.00	-0.01	-0.02	-0.02	0.00	-0.01	6.47	47%	0.0	0.00	-0.02	-0.03	0.03	0.00	-0.02
Sampson	123	GNA_2023_0027	2023_0279	13.08	95%	0.0	-0.01	-0.02	-0.03	-0.03	0.01	-0.01	14.57	106%	0.1	-0.02	-0.04	-0.06	0.08	0.02	-0.01
Sampson	129		2023_0280	6.46	65%	0.0	0.00	-0.09	-0.03	-0.03	0.00	0.00	6.38	64%	0.0	0.00	-0.16	-0.05	0.00	0.00	0.00
Sampson	130		2023_0281	8.73	88%	0.0	0.00	0.00	-0.05	-0.05	0.01	0.00	8.89	89%	0.1	0.00	0.00	-0.09	0.11	0.03	0.00
Sampson	133		2023_0282	1.40	10%	0.0	0.00	0.00	0.00	0.00	0.01	0.00	1.47	11%	0.1	0.00	0.00	-0.01	0.03	0.01	0.00
San Ysidro	334		2023_0283	[redacted]																	
San Ysidro	443		2023_0284	[redacted]																	
San Ysidro	460		2023_0285	9.43	76%	0.0	0.00	0.00	-0.01	-0.01	0.11	0.00	9.66	77%	0.0	0.00	0.00	-0.01	0.21	0.22	0.00
San Ysidro	461		2023_0286	4.90	47%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	4.92	47%	0.0	0.00	0.00	-0.01	0.05	0.00	0.00
San Ysidro	462		2023_0287	6.66	53%	0.0	0.00	0.00	-0.01	-0.01	0.01	0.00	6.73	54%	0.0	0.00	0.00	-0.01	0.10	0.02	0.00
San Ysidro	463		2023_0288	9.19	74%	0.0	0.00	0.00	-0.01	-0.01	0.04	0.00	10.02	80%	0.1	0.00	0.00	-0.01	0.20	0.10	0.00
San Ysidro	1201		2023_0289	5.87	47%	0.0	0.00	-0.01	0.00	0.00	0.01	0.00	5.92	47%	0.1	0.00	-0.02	-0.01	0.01	0.02	-0.01
San Ysidro	1202		2023_0290	10.30	83%	0.0	0.00	0.00	-0.01	-0.01	0.08	0.00	7.96	64%	0.1	0.00	0.00	-0.01	0.16	0.16	0.00
Station B	99		2023_0291	3.68	43%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00	3.70	44%	0.0	0.00	-0.01	-0.01	0.05	0.00	0.00
Station B	104		2023_0292	6.51	77%	0.0	0.00	-0.01	-0.02	-0.02	0.00	0.00	6.53	77%	0.0	0.00	-0.01	-0.03	0.02	0.00	-0.01
Station B	112		2023_0293	[redacted]																	
Station B	115		2023_0294	4.54	44%	0.0	0.00	-0.01	-0.03	-0.03	0.00	0.00	4.52	43%	0.0	0.00	-0.01	-0.05	0.01	0.00	-0.01
Station B	117		2023_0295	5.28	62%	0.0	0.00	-0.01	-0.02	-0.02	0.00	0.00	5.30	63%	0.0	0.00	-0.03	-0.03	0.06	0.00	0.00
Station B	121		2023_0296	[redacted]																	
Station B	126		2023_0297	[redacted]																	
Station B	127		2023_0298	[redacted]																	
Station B	756		2023_0299	[redacted]																	
Station B	785		2023_0300	[redacted]																	
Station B	786		2023_0301	3.80	46%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	3.81	46%	0.0	0.00	0.00	0.00	0.01	0.00	0.00
Station B	102		2023_0302	3.55	21%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	7.12	42%	0.0	0.00	0.00	0.00	0.02	0.00	0.00
Station B	89		2023_0303	4.56	54%	0.0	0.00	-0.01	-0.02	-0.02	0.00	0.00	4.56	54%	0.0	0.00	-0.01	-0.04	0.04	0.01	-0.01
Station B	98		2023_0304	0.78	9%	0.0	0.00	-0.01	0.00	0.00	0.00	0.00	0.78	9%	0.0	0.00	-0.02	0.00	0.03	0.00	0.00
Station B	106		2023_0305	2.69	16%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00	2.72	16%	0.0	0.00	0.00	-0.01	0.03	0.00	0.00
Station B	108		2023_0306	[redacted]																	
Station B	109		2023_0307	[redacted]																	
Station B	110		2023_0308	[redacted]																	
Station B	111		2023_0309	[redacted]																	
Station B	113		2023_0310	5.64	33%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	5.66	33%	0.0	0.00	0.00	-0.01	0.02	0.00	0.00
Station B	118		2023_0311	[redacted]																	
Station B	119		2023_0312	1.77	21%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	1.78	21%	0.0	0.00	-0.01	-0.01	0.03	0.00	0.00
Station B	125		2023_0313	[redacted]																	
Station F	90		2023_0314	7.02	64%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	7.16	65%	0.0	0.00	0.00	-0.07	0.30	0.01	0.00
Station F	361		2023_0315	6.37	89%	0.0	-0.02	0.00	-0.03	-0.03	0.00	0.00	6.37	89%	0.0	-0.05	-0.01	-0.05	0.09	0.01	-0.01
Station F	362		2023_0316	6.88	88%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00	6.91	88%	0.0	-0.01	0.00	-0.05	0.10	0.01	-0.01
Station F	364		2023_0317	9.25	74%	0.0	-0.05	-0.02	-0.05	-0.05	0.01	0.00	9.33	75%	0.0	0.00	0.00	-0.08	0.20	0.01	0.00
Station F	365		2023_0318	[redacted]																	
Station F	368		2023_0319	10.86	87%	0.0	-0.01	0.00	-0.04	-0.04	0.01	-0.01	10.93	88%	0.0	0.00	0.00	-0.08	0.32	0.02	-0.01
Station F	140	GNA_2023_0007 & GNA_2023_0029	2023_0320	[redacted]																	
Station F	363		2023_0321	7.37	67%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00	7.37	67%	0.0	0.00	0.00	-0.06	0.06	0.00	0.00
Station F	366		2023_0322	8.36	67%	0.0	-0.03	-0.02	-0.04	-0.04	0.00	0.00	8.32	67%	0.0	-0.05	-0.03	-0.07	0.06	0.01	-0.01
Station F	1297		2023_0323	3.46	33%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	3.54	34%	0.0	0.00	0.00	-0.03	0.18	0.01	0.00
Streamview	167		2023_0324	0.74	6%	0.0	-0.01	0.00	0.00	0.00	0.00	0.00	0.75	6%	0.0	-0.01	-0.01	-0.01	0.01	0.00	0.00
Streamview	168		2023_0325	8.73	70%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	8.78	70%	0.1	-0.01	0.00	-0.06	0.05	0.01	-0.01
Streamview	169		2023_0326	3.69	63%	0.0	-0.01	0.00	-0.24	-0.24	0.00	0.00	3.51	61%	0.0	-0.01	-0.01	-0.43	0.02	0.00	0.00
Streamview	342		2023_0327	6.24	50%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00	6.26	50%	0.0	-0.01	0.00	-0.05	0.07	0.02	-0.01
Streamview	343		2023_0328	6.38	51%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00	6.39	51%	0.0	0.00	0.00	-0.06	0.02	0.01	0.00
Streamview	344		2023_0329	8.54	68%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00	8.52	68%	0.0	0.00	0.00	-0.07	0.02	0.00	0.00
Streamview	430		2023_0330	5.74	46%	0.0	-0.02	-0.02	-0.07	-0.07	0.00	0.00	5.68	46%	0.0	-0.03	-0.03	-0.12	0.05	0.01	-0.01
Streamview	431		2023_0331	6.09	49%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	6.19	50%	0.0	0.00	0.00	-0.06	0.22	0.02	0.00
Streamview	1493		2023_0332	0.00	0%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Streamview	1494		2023_0333	0.00	0%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Sunnyside	340		2023_0334	8.14	65%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00	8.23	66%	0.0	0.00	0.00	-0.06	0.14	0.01	0.00
Sunnyside	341		2023_0335	5.80	47%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00	5.86	47%	0.1	-0.01	0.00	-0.04	0.05	0.00	0.00
Sweetwater	40		2023_0336	7.60	76%	0.0	-0.01	-0.02	-0.03	-0.03	0.00	0.00	7.56	76%	0.0	-0.02	-0.05	-0.06	0.01	0.00	0.00
Sweetwater	41		2023_0337	8.35	67%	0.0	-0.04	-0.03	-0.05	-0.05	0.01	0.00	9.57	77%	0.2	-0.01	-0.01	-0.08	0.09	0.01	-0.01
Sweetwater	42		2023_0338	8.12	85%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00	8.20	86%	0.1	0.00	0.00	-0.08	0.14	0.01	0.00
Sweetwater	43		2023_0339	9.75	59%	0.0	-0.04	-0.12	-0.04	-0.04	0.00	0.00	9.65	58%	0.1	-0.08	-0.23	-0.07	0.03	0.01	-0.01

Facility ID	2025 Forecasted Demand (MW)	2025 Facility Loading (%)	2025 Base Demand (MW)	2025 Residential PV (MW)	2025 Non-Residential PV (MW)	2025 EE (MW)	2025 EV (MW)	2025 AAFS (MW)	2025 ES (MW)	2026 Forecasted Demand (MW)	2026 Facility Loading (%)	2026 Base Demand (MW)	2026 Residential PV (MW)	2026 Non-Residential PV (MW)	2026 EE (MW)	2026 EV (MW)	2026 AAFS (MW)	2026 ES (MW)
2023_0171	6.73	55%	0.2	-0.01	0.00	-0.05	0.09	0.01	-0.01	6.86	56%	0.31	-0.01	0.00	-0.06	0.12	0.01	-0.01
2023_0172	7.10	58%	0.1	-0.01	0.00	-0.04	0.09	0.01	-0.01	7.16	59%	0.13	-0.02	0.00	-0.05	0.12	0.01	-0.03
2023_0173	8.60	69%	0.0	-0.08	-0.05	-0.08	0.13	0.01	-0.02	8.65	69%	0.11	-0.11	-0.06	-0.10	0.18	0.01	-0.02
2023_0174	7.65	63%	0.0	0.00	0.00	-0.07	0.21	0.02	-0.02	7.73	64%	0.04	0.00	0.00	-0.09	0.41	0.02	-0.02
2023_0175	6.49	52%	0.0	-0.01	0.00	-0.06	0.11	0.01	-0.01	6.59	53%	0.00	0.00	0.00	-0.07	0.57	0.01	0.00
2023_0176	9.86	80%	0.1	0.00	0.00	-0.10	0.47	0.01	0.00	10.04	81%	0.13	0.00	0.00	-0.14	0.63	0.02	0.00
2023_0177	1.97	16%	0.0	0.00	-0.15	-0.01	0.01	0.00	0.00	1.95	16%	0.00	0.00	-0.10	-0.02	0.02	0.00	0.00
2023_0178	4.96	40%	0.2	0.00	-0.02	-0.02	0.13	0.01	-0.01	5.10	41%	0.33	0.00	-0.03	-0.03	0.17	0.01	-0.02
2023_0179	3.57	46%	0.0	0.00	-0.13	-0.03	0.01	0.00	0.00	3.53	45%	0.01	0.00	-0.18	-0.04	0.02	0.01	0.00
2023_0180	6.86	55%	0.0	0.00	-0.35	-0.07	0.01	0.00	0.00	6.73	54%	0.01	0.00	-0.48	-0.09	0.02	0.00	0.00
2023_0181	[redacted]																	
2023_0182	[redacted]																	
2023_0183	9.19	74%	0.2	0.00	0.00	-0.08	0.63	0.01	-0.03	9.45	76%	0.26	0.00	0.00	-0.10	0.83	0.02	-0.04
2023_0184	4.77	39%	0.0	0.00	-0.04	-0.06	0.00	0.00	0.00	4.77	39%	0.03	0.00	-0.05	-0.07	0.00	0.00	0.00
2023_0185	[redacted]																	
2023_0186	[redacted]																	
2023_0187	[redacted]																	
2023_0188	[redacted]																	
2023_0189	[redacted]																	
2023_0190	[redacted]																	
2023_0191	3.52	28%	0.0	0.00	-0.02	-0.04	0.00	0.00	0.00	3.53	28%	0.02	0.00	-0.03	-0.05	0.00	0.00	0.00
2023_0192	10.62	85%	0.0	0.00	-0.02	-0.06	0.00	0.00	0.00	10.60	85%	0.01	0.00	-0.03	-0.08	0.00	0.00	0.00
2023_0193	2.60	21%	0.1	0.00	-0.01	-0.01	0.02	0.00	0.00	2.78	22%	0.27	0.00	-0.02	-0.02	0.03	0.00	-0.01
2023_0194	[redacted]																	
2023_0195	5.08	41%	0.0	0.00	0.00	0.00	0.08	0.00	0.00	5.11	41%	0.00	0.00	0.00	0.00	0.10	0.00	0.00
2023_0196	[redacted]																	
2023_0197	13.38	57%	0.1	0.00	0.00	-0.10	0.32	0.01	0.00	13.52	58%	0.17	0.00	0.00	-0.13	0.42	0.01	0.00
2023_0198	5.53	66%	0.2	-0.04	-0.01	-0.07	0.16	0.01	-0.01	6.14	71%	0.80	-0.05	-0.01	-0.09	0.21	0.01	-0.01
2023_0199	[redacted]																	
2023_0200	6.17	49%	0.0	0.00	0.00	-0.05	0.22	0.01	-0.01	6.23	50%	0.02	0.00	0.00	-0.07	0.29	0.01	-0.01
2023_0201	0.82	7%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	2.22	18%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2023_0202	1.82	15%	0.2	-0.01	0.00	-0.01	0.05	0.00	0.00	1.87	15%	0.28	-0.02	0.00	-0.01	0.07	0.00	0.00
2023_0203	5.82	47%	0.5	0.00	0.00	-0.06	0.24	0.02	0.00	6.26	50%	0.88	0.00	0.00	-0.08	0.31	0.03	0.00
2023_0204	9.81	79%	0.2	-0.03	0.00	-0.08	0.09	0.01	-0.02	9.96	80%	0.41	-0.04	0.00	-0.13	0.12	0.02	-0.02
2023_0205	9.94	80%	0.0	0.00	-0.11	-0.06	0.03	0.01	0.00	9.92	80%	0.03	0.00	-0.14	-0.07	0.04	0.01	0.00
2023_0206	6.57	53%	0.0	0.00	-0.15	-0.03	0.02	0.00	0.00	6.53	53%	0.03	0.00	-0.20	-0.05	0.03	0.00	0.00
2023_0207	9.55	77%	0.0	0.00	-0.55	-0.09	0.03	0.04	-0.02	9.46	76%	0.10	0.00	-0.49	-0.11	0.05	0.05	-0.02
2023_0208	[redacted]																	
2023_0209	5.65	45%	0.0	0.00	-0.24	-0.03	0.02	0.02	0.00	5.67	45%	0.11	0.00	-0.32	-0.04	0.03	0.02	0.00
2023_0210	13.97	112%	0.0	0.00	-0.19	-0.05	0.05	0.01	0.00	13.99	112%	0.08	0.00	-0.25	-0.06	0.07	0.02	0.00
2023_0211	12.54	101%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	12.54	101%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2023_0212	9.72	97%	0.0	-0.06	-0.01	-0.08	0.16	0.02	-0.01	9.73	97%	0.00	-0.07	-0.01	-0.10	0.21	0.02	-0.01
2023_0213	4.71	45%	0.0	0.00	-0.03	-0.06	0.04	0.01	-0.02	4.70	45%	0.02	0.00	-0.04	-0.07	0.05	0.01	-0.02
2023_0214	0.47	2%	0.0	0.00	0.00	0.00	0.02	0.00	0.00	0.48	2%	0.01	0.00	0.00	0.00	0.02	0.00	0.00
2023_0215	0.66	3%	0.1	-0.01	0.00	-0.01	0.02	0.00	0.00	0.71	3%	0.17	-0.01	0.00	-0.01	0.02	0.00	0.00
2023_0216	[redacted]																	
2023_0217	[redacted]																	
2023_0218	8.96	83%	0.0	0.00	0.00	-0.09	0.51	0.03	0.00	9.14	85%	0.07	0.00	0.00	-0.11	0.97	0.03	0.00
2023_0219	4.07	16%	0.0	0.00	0.00	-0.05	0.19	0.01	0.00	4.13	17%	0.02	0.00	0.00	-0.06	0.25	0.01	0.00
2023_0220	[redacted]																	
2023_0221	[redacted]																	
2023_0222	[redacted]																	
2023_0223	10.44	84%	0.6	0.00	0.00	-0.11	0.31	0.05	0.00	10.85	87%	0.91	0.00	0.00	-0.14	0.41	0.06	0.00
2023_0224	10.03	80%	0.8	0.00	0.00	-0.07	0.52	0.01	0.00	10.61	85%	1.14	0.00	0.00	-0.09	1.01	0.02	0.00
2023_0225	3.20	26%	0.3	0.00	0.00	-0.03	0.32	0.01	0.00	3.48	28%	0.52	0.00	0.00	-0.03	0.42	0.01	0.00
2023_0226	[redacted]																	
2023_0227	1.49	12%	0.1	0.00	0.00	-0.01	0.09	0.00	0.00	1.54	12%	0.13	0.00	0.00	-0.01	0.12	0.00	0.00
2023_0228	5.05	40%	0.0	-0.08	-0.03	-0.04	0.08	0.00	-0.01	5.06	41%	0.08	-0.11	-0.04	-0.05	0.10	0.01	-0.01
2023_0229	[redacted]																	
2023_0230	6.80	55%	0.1	0.00	0.00	-0.07	0.11	0.16	0.00	6.96	56%	0.23	0.00	0.00	-0.09	0.16	0.20	0.00
2023_0231	9.04	72%	0.5	0.00	0.00	-0.06	0.08	0.04	0.00	9.37	75%	0.84	0.00	0.00	-0.07	0.11	0.05	0.00
2023_0232	8.85	71%	0.3	0.00	0.00	-0.12	0.21	0.06	0.00	9.07	73%	0.48	0.00	0.00	-0.15	0.28	0.08	0.00
2023_0233	6.75	68%	0.0	-0.07	-0.07	-0.08	0.04	0.02	0.00	6.74	68%	0.03	-0.04	-0.04	-0.10	0.06	0.03	-0.01
2023_0234	8.82	88%	0.1	0.00	0.00	-0.09	0.30	0.34	0.00	9.04	91%	0.11	0.00	0.00	-0.12	0.42	0.44	0.00
2023_0235	6.88	55%	0.0	0.00	0.00	-0.09	0.20	0.34	-0.01	7.02	56%	0.01	0.00	0.00	-0.12	0.28	0.44	-0.01
2023_0236	1.10	9%	0.0	0.00	0.00	0.00	0.02	0.00	0.00	1.18	9%	0.13	0.00	0.00	0.00	0.04	0.00	0.00
2023_0237	8.90	89%	0.4	0.00	0.00	-0.09	0.25	0.01	0.00	9.23	93%	0.68	0.00	0.00	-0.12	0.33	0.02	0.00
2023_0238	7.51	38%	0.4	-0.05	-0.10	-0.08	0.05	0.01	-0.01	7.61	38%	0.57	-0.07	-0.14	-0.11	0.06	0.01	-0.01
2023_0239	9.37	47%	0.1	-0.15	-0.17	-0.09	0.09	0.01	-0.01	9.57	48%	0.40	-0.21	-0.22	-0.11	0.12	0.02	-0.02
2023_0240	[redacted]																	
2023_0241	[redacted]																	
2023_0242	7.94	49%	0.0	0.00	0.00	-0.09	0.15	0.02	0.00	7.98	49%	0.03	0.00	0.00	-0.12	0.20	0.02	0.00
2023_0243	1.57	13%	0.0	0.00	-0.03	-0.01	0.00	0.00	0.00	1.57	13%	0.02	0.00	-0.04	-0.01	0.00	0.00	0.00
2023_0244	6.69	54%	0.2	0.00	0.00	-0.08	0.12	0.02	0.00	6.90	55%	0.38	0.00	0.00	-0.10	0.16	0.02	-0.01
2023_0245	7.14	57%	0.1	0.00	0.00	-0.08	0.13	0.02	0.00	7.23	58%	0.18	0.00	0.00	-0.11	0.17	0.02	0.00
2023_0246	7.32	73%	0.1	0.00	0.00	-0.07	0.17	0.02	0.00	7.40	74%	0.10	0.00	0.00	-0.10	0.23	0.02	0.00
2023_0247	8.11	81%	0.0	0.00	0.00	-0.09	0.18	0.03	0.00	8.16	82%	0.03	0.00	0.00	-0.12	0.24	0.03	0.00
2023_0248	7.01	81%	0.0	0.00	0.00	-0.06	0.18	0.02	0.00	7.07	81%	0.03	0.00	0.00	-0.08	0.25	0.02	0.00
2023_0249	7.28	52%	0.1	0.00	0.00	-0.02	0.12	0.14	0.00	7.40	53%	0.10	0.00	0.00	-0.02	0.17	0.18	0.00
2023_0250	0.05	1%	0.1	0.00	-0.01	-0.01	0.00	0.03	0.00	0.11	2%	0.13	0.00	-0.02	-0.02	0.00	0.04	0.00
2023_0251	6.09	49%	0.0	0.00	0.00	-0.05	0.32	0.01	0.00	6.21	50%	0.05	0.00	0.00	-0.07	0.43	0.01	0.00
2023_0252	9.04	72%	0.2	0.00	0.00	-0.08	0.29	0.02	0.00	9.26	74%	0.30	0.00	0.00	-0.10	0.56	0.02	0.00
2023_0253	10.65	85%	0.1	0.00	0.00	-0.11	0.25	0.01	0.00	10.75	86%	0.15	0.00	0.00	-0.14	0.34	0.01	0.00
2023_0254	9.22	76%	0.0	0.00	0.00	-0.11	0.37	0.03	0.00	9.32	76%	0.04	0.00	0.00	-0.14	0.50	0.04	0.00
2023_0255	3.40	27%	0.1	0.00	0.00	-0.03	0.11	0.01	0.00	3.47	28%	0.11	0.00	0.00	-0.05	0.15	0.01	0.00
2023_0256	11.10	89%	0.1	0.00	0.00	-0.11	0.23	0.02	0.00	11.26	90%	0.25	0.00	0.00	-0.14	0.31	0.02	0.00
2023_0257	8.29	67%	0.1	0.00	0.00	-0.08	0.21	0.01	0.00	8.39	67%	0.14	0.00	0.00	-0.11	0.28	0.01	0.00
2023_0258	7.81	63%	0.1	-0.03	0.00	-0.03	0.07	0.01	-0.02	7.87	63%	0.21	-0.03	0.00	-0.04	0.09	0.01	-0.03
2023_0259	7.76	62%	0.2	-0.02	0.00	-0.06	0.09	0.01	-0.01	7.91	63%	0.28	0.00	0.00	-0.07	0.27	0.01	-0.01
2023_0260	6.49	52%	0.4	0.00	0.00	-0.06	0.07	0.01	-0.01	6.70	54%	0.62	0.00	0.00	-0.08	0.10	0.02	-0.02
2023_0261	9.32	75%	0.0	0.00	0.00	-0.05	0.36	0.01	0.00	9.44	76%	0.03	0.00	0.00	-0.06	0.48	0.01	0.00
2023_0262	5.82	47%	0.0	-0.08	-0.08	-0.03	0.06	0.00	-0.02	5.78	46%	0.01	-0.10	-0.10	-0.04	0.08	0.00	-0.03
2023_0263	7.14	57%	0.0	0.00	0.00	-0.04	0.21	0.01	0.00	7.22	58%	0.06	0.00	0.00	-0.05	0.28	0.01	0.00
2023_0264	6.90	55%	0.0	-0.12	-0.08	-0.07	0.08	0.00	-0.02	6.94	56%	0.10	-0.15	-0.11	-0.08	0.11	0.00	-0.03
2023_0265	8.79	70%	0.1	-0.02	-0.01	-0.05	0.13	0.01	-0.01	8.84	71%	0.12	-0.03	-0.01	-0.06	0.17	0.01	-0.02
2023_0266	3.65	29%	0.3	-0.01	0.00	-0.02	0.05	0.00	-0.01	3.80	31%	0.47	0.00	0.00	-0.03	0.14	0.00	0.00
2023_0267	4.59	37%	0.1	0.00	0.00	-0.02	0.14	0.00	0.00	4.69	38%	0.15	0.00	0.00	-0.03	0.19	0.00	0.00
2023_0268	8.46	68%	0.0	0.00	0.00	-0.07	0.30	0.01	-0.02	8.57	69%	0.04	0.00	0.00	-0.09	0.40	0.02	-0.02
2023_0269	[redacted]																	
2023_0270	[redacted]																	
2023_0271	7.66	61%	0.0	-0.01	-0.03	-0.06	0.07	0.01	-0.01	7.67	62%	0.06	-0.01	-0.04	-0.07	0.09	0.02	-0.01
2023_0272	[redacted]																	
2023_0273	[redacted]																	
2023_0274	[redacted]																	
2023_0275	[redacted]																	
2023_0276	5.25	38%	0.0	-0.06	-0.04	-0.04	0.06	0.04	0.00	5.24	38%	0.03	-0.08	-0.06	-0.06	0.08	0.05	-0.01
2023_0277	11.39	83%	0.0	0.00	0.00	-0.10	0.27	0.10	0.00	11.49	84%	0.02	0.00	0.00	-0.12	0.37	0.12	0.00
2023_0278	6.48	47%	0.1	0.00	-0.03	-0.04	0.04	0.01	-0.03	6.52	48%	0.11	0.00	-0.04	-0.06	0.06	0.01	-0.03
2023_0279	16.21	118%	0.3	-0.04	-0.07	-0.08	0.11	0.02	-0.02	17.87	130%	0.56	-0.05	-0.09	-0.10	0.15	0.03	-0.03
2023_0280	6.32	63%	0.0	0.00	-0.22	-0.06	0.01	0.00	0.00	6.34	64%	0.12	0.00	-0.05	-0.08	0.01	0.00	0.00
2023_0281	9.20	92%	0.4	0.00	0.00	-0.12	0.17	0.04	0.00	9.42	94%	0.58	0.00	0.00	-0.16	0.23	0.05	0.00
2023_0282	1.57	11%	0.1	0.00	0.00	-0.01	0.05	0.02	0.00	1.67	12%	0.22	0.00	0.00	-0.01	0.06	0.02	0.00
2023_0283	[redacted]																	
2023_0284	[redacted]																	
2023_0285	9.89	79%	0.0	0.00	0.00	-0.02	0.32	0.33	0.00	10.14	81%	0.08	0.00	0.00	-0.03	0.44	0.42	0.00
2023_0286	4.95	48%	0.0	0.00	0.00	-0.01	0.08	0.00	-0.01	4.98	48%	0.01	0.00	0.00	-0.01	0.10	0.01	-0.01
2023_0287	6.79	54%	0.0	0.00	0.00	-0.02	0.15	0.03	0.00	6.86	55%	0.03	0.00	0.00	-0.02	0.21	0.03	0.00
2023_0288	10.23	82%	0.1	0.00	0.00	-0.02	0.42	0.13	0.00	10.46	84%	0.13	0.00	0.00	-0.02	0.57	0.17	0.00
2023_0289	6.03	48%	0.2	0.00	-0.03	-0.01	0.02	0.03	-0.01	6.16	49%	0.31	-0.01	-0.04	-0.01	0.02	0.04	-0.02
2023_0290	9.35	75%	0.2	0.00	0.00	-0.02	0.24	0.24	0.00	9.64	77%	0.31	0.00	0.00	-0.02	0.33	0.31	0.00
2023_0291	3.71	44%	0.0	0.00	-0.01	-0.02	0.07	0.00	0.00	3.76	44%	0.04	0.00	-0.01	-0.03	0.09	0.00	0.00
2023_0292	6.55	77%	0.1	0.00	-0.02	-0.04	0.04	0.00	-0.01	6.62	78%	0.15	0.00	-0.02	-0.06	0.05	0.00	-0.01
2023_0293	[redacted]																	
2023_0294	4.50	43%	0.0	0.00	-0.02	-0.06	0.01	0.00	-0.01	4.48	43%	0.01	0.00	-0.02	-0.08	0.02	0.00	-0.02
2023_0295	5.33	63%	0.0	0.00	-0.04	-0.04	0.09	0.00	0.00	5.56	66%	0.28	-0.01	-0.05	-0.05	0.11	0.01	0.00
2023_0296	[redacted]																	
2023_0297	[redacted]																	
2023_0298	[redacted]																	
2023_0299	[redacted]																	
2023_0300	[redacted]																	
2023_0301	3.81	46%	0.0	0.00	0.00	0.00	0.02	0.00	0.00	3.82	46%	0.00	0.00	0.00	0.00	0.03	0.00	0.00
2023_0302	7.14	42%	0.0	0.00	0.00	-0.01	0.02	0.00	0.00	7.18	42%	0.06	0.00	0.00	-0.01	0.03	0.00	0.00
2023_0303	4.56	54%	0.0	0.00	-0.02	-0.05	0.07	0.01	-0.01	4.62	54%	0.06	0.00	-0.02	-0.07	0.09	0.02	-0.02
2023_0304	0.79	9%	0.0	0.00	-0.02	-0.01	0.05	0.00	0.00	0.79	9%	0.00	0.00	-0.03	-0.01	0.06	0.00	0.00
2023_0305	2.76	16%	0.1	0.00	-0.01	-0.01	0.04	0.00	0.00	2.82	17%	0.12	0.00	-0.01	-0.02	0.06	0.00	0.00
2023_0306	[redacted]																	
2023_0307	[redacted]																	
2023_0308	[redacted]																	
2023_0309	[redacted]																	
2023_0310	5.69	34%	0.0	0.00	0.00	-0.01	0.03	0.00	0.00	5.73	34%	0.07	0.00	0.00	-0.01	0.04	0.00	0.00
2023_0311	[redacted]																	
2023_0312	1.79	21%	0.0	0.00	-0.01	-0.01	0.05	0.00	0.00	1.80	21%	0.00	0.00	-0.02	-0.01	0.07	0.00	0.00
2023_0313	[redacted]																	
2023_0314	7.35	67%	0.0	0.00	0.00	-0.09	0.66	0.02	0.00	7.64	69%	0.14	0.00	0.00	-0.12	0.88	0.02	0.00
2023_0315	6.69	92%	0.3	0.00	0.00	-0.07	0.31	0.01	-0.01	7.10	95%	0.65	0.00	0.00	-0.09	0.41	0.02	-0.01
2023_0316	7.31	91%	0.3	0.00	0.00	-0.07	0.34	0.01	-0.01	7.64	93%	0.54	0.00	0.00	-0.09	0.45	0.01	-0.01
2023_0317	5.85	47%	0.3	0.00	0.00	-0.11	0.29	0.02	0.00	6.25	50%	0.62	0.00	0.00	-0.15	0.39	0.03	0.00
2023_0318	[redacted]																	
2023_0319	11.11	89%	0.0	0.00	0.00	-0.11	0.47	0.03	-0.02	11.28	90%	0.09	0.00	0.00	-0.14	0.63	0.04	-0.03
2023_0320	[redacted]																	
2023_0321	7.44	68%	0.1	-0.01	0.00	-0.08	0.08	0.01	0.00	7.50	68%	0.13	-0.01	0.00	-0.10	0.11	0.01	-0.01
2023_0322	5.98	48%	0.1	-0.08	-0.05	-0.10	0.08	0.01	-0.01	6.04	48%	0.21	-0.11	-0.06	-0.13	0.11	0.01	-0.01
2023_0323	3.80	37%	0.2	0.00	0.00	-0.04	0.27	0.01	-0.01	4.06	39%	0.37	0.00	0.00	-0.05	0.35	0.01	-0.01
2023_0324	0.76	6%	0.0	-0.02	-0.01	-0.01	0.01	0.00	0.00	0.79	6%	0.09	-0.03	-0.01	-0.01	0.01	0.00	0.00
2023_0325	9.40	75%	0.7	-0.01	0.00	-0.09	0.08	0.02	-0.01	10.05	81%	1.32	-0.01	0.00	-0.11	0.11	0.03	-0.01
2023_0326	3.40	61%	0.1	-0.02	-0.01	-0.59	0.02	0.01	0.00	3.28	60%	0.12	-0.02	-0.02	-0.77	0.03	0.01	0.00
2023_0327	6.29	50%	0.0	-0.01	0.00	-0.07	0.10	0.02	-0.01	6.36	51%	0.09	-0.02	0.00	-0.09	0.14	0.03	-0.02
2023_0328	6.48	52%	0.1	0.00	0.00	-0.08	0.03	0.01	0.00	6.57	53%	0.23	0.00	0.00	-0.10	0.04	0.01	-0.01
2023_0329	8.51	68%	0.0	0.00	0.00	-0.09	0.03	0.01	0.00	8.50	68%	0.02	0.00	0.00	-0.12	0.04	0.01	0.00
2023_0330	5.64	45%	0.0	0.00	0.00	-0.16	0.16	0.02	-0.01	5.65	45%	0.00	0.00	0.00	-0.21	0.21	0.02	-0.01
2023_0331	6.30	51%	0.0	0.00	0.00	-0.09	0.33	0.03	0.00	6.41	51%	0.03	0.00	0.00	-0.11	0.45	0.04	0.00
2023_0332	2.41	19%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	2.41	19%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2023_0333	3.83	31%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	3.83	31%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2023_0334	8.35	67%	0.1	0.00	0.00	-0.08	0.20	0.01	0.00	8.48	68%	0.20	0.00	0.00	-0.10	0.27	0.01	0.00
2023_0335	5.93	48%	0.1	-0.01	0.00	-0.06	0.07	0.01	-0.01	6.01	48%	0.20	-0.02	0.00	-0.07	0.10	0.01	-0.01
2023_0336	7.52	75%	0.0	-0.02	-0.07	-0.08	0.01	0.01	0.00	7.51	75%	0.04	-0.01	-0.03	-0.10	0.02	0.01	-0.01
2023_0337	9.77	78%	0.4	-0.02	-0.01	-0.11	0.13	0.02	-0.01	10.04	81%	0.63	-0.02	-0.01	-0.14	0.18	0.03	-0.01
2023_0338	8.31	87%	0.1	0.00	0.00	-0.11	0.21	0.02	0.00	8.43	88%	0.19	0.00	0.00	-0.14	0.28	0.02	0.00
2023_0339	9.56	58%	0.1	-0.12	-0.34	-0.09	0.05	0.01	-0.01	9.56	57%	0.30	-0.16	-0.46	-0.12	0.06	0.01	-0.02

Facility ID	2027 Forecasted Demand (MW)	2027 Facility Loading (%)	2027 Base Demand (MW)	2027 Residential PV (MW)	2027 Non-Residential PV (MW)	2027 EE (MW)	2027 EV (MW)	2027 AAFS (MW)	2027 ES (MW)	Deficiency 2023 (MW)	Deficiency 2024 (MW)	Deficiency 2025 (MW)	Deficiency 2026 (MW)	Deficiency 2027 (MW)	Deficiency 2023 (%)	Deficiency 2024 (%)	Deficiency 2025 (%)	Deficiency 2026 (%)	Deficiency 2027 (%)
2023_0171	7.01	57%	0.44	-0.01	0.00	-0.07	0.16	0.01	-0.01										
2023_0172	7.23	59%	0.20	-0.02	0.00	-0.06	0.15	0.02	-0.03										
2023_0173	8.73	70%	0.21	-0.13	-0.08	-0.12	0.22	0.01	-0.03										
2023_0174	7.89	65%	0.06	0.00	0.00	-0.11	0.78	0.02	0.00										
2023_0175	6.73	54%	0.01	0.00	0.00	-0.08	0.72	0.01	0.00										
2023_0176	10.29	83%	0.23	0.00	0.00	-0.17	0.80	0.02	0.00										
2023_0177	1.93	16%	0.01	0.00	-0.12	-0.02	0.02	0.00	0.00										
2023_0178	5.25	42%	0.44	0.00	-0.03	-0.03	0.21	0.01	-0.02										
2023_0179	3.48	45%	0.02	0.00	-0.23	-0.05	0.03	0.01	0.00										
2023_0180	6.58	53%	0.02	0.00	-0.63	-0.11	0.02	0.00	0.00										
2023_0181	[redacted]																		
2023_0182	[redacted]																		
2023_0183	9.73	78%	0.35	0.00	0.00	-0.12	1.05	0.02	-0.05										
2023_0184	5.51	45%	0.81	0.00	-0.06	-0.09	0.00	0.00	0.00										
2023_0185	[redacted]																		
2023_0186	[redacted]																		
2023_0187	[redacted]																		
2023_0188	[redacted]																		
2023_0189	[redacted]																		
2023_0190	[redacted]																		
2023_0191	3.52	28%	0.04	0.00	-0.04	-0.06	0.00	0.00	0.00										
2023_0192	10.62	85%	0.05	0.00	-0.04	-0.10	0.00	0.00	0.00										
2023_0193	2.99	24%	0.47	0.00	-0.01	-0.02	0.03	0.00	-0.01										
2023_0194	[redacted]																		
2023_0195	5.14	41%	0.00	0.00	0.00	0.00	0.13	0.00	0.00										
2023_0196	[redacted]																		
2023_0197	13.64	59%	0.20	0.00	0.00	-0.16	0.53	0.01	0.00										
2023_0198	6.44	73%	1.09	-0.06	-0.02	-0.11	0.26	0.01	-0.01										
2023_0199	[redacted]																		
2023_0200	6.30	51%	0.02	0.00	0.00	-0.09	0.37	0.01	-0.01										
2023_0201	2.22	18%	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
2023_0202	1.89	15%	0.24	0.00	0.00	-0.01	0.32	0.00	0.00										
2023_0203	6.64	53%	1.19	0.00	0.00	-0.10	0.40	0.03	0.00										
2023_0204	10.13	81%	0.59	-0.05	0.00	-0.16	0.16	0.02	-0.03										
2023_0205	9.92	80%	0.07	0.00	-0.19	-0.09	0.05	0.01	0.00										
2023_0206	6.51	52%	0.07	0.00	-0.25	-0.06	0.03	0.01	0.00										
2023_0207	9.46	76%	0.23	0.00	-0.63	-0.14	0.06	0.06	-0.02										
2023_0208	[redacted]																		
2023_0209	5.77	46%	0.29	0.00	-0.41	-0.05	0.04	0.02	0.00										
2023_0210	14.04	113%	0.20	0.00	-0.32	-0.08	0.09	0.02	0.00	0.18	1.55	1.50	1.52	1.57	1%	12%	12%	12%	13%
2023_0211	12.54	101%	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.07	0.07	0.07	0.07		1%	1%	1%	1%
2023_0212	9.78	98%	0.00	-0.09	-0.02	-0.12	0.34	0.03	-0.01										
2023_0213	4.70	45%	0.04	-0.01	-0.05	-0.09	0.07	0.01	-0.02										
2023_0214	0.50	2%	0.01	0.00	0.00	0.00	0.08	0.00	0.00										
2023_0215	0.80	4%	0.28	0.00	0.00	-0.01	0.06	0.00	0.00										
2023_0216	[redacted]																		
2023_0217	[redacted]																		
2023_0218	9.42	87%	0.11	0.00	0.00	-0.14	1.23	0.04	0.00										
2023_0219	4.22	17%	0.05	0.00	0.00	-0.07	0.31	0.02	0.00										
2023_0220	[redacted]																		
2023_0221	[redacted]																		
2023_0222	[redacted]																		
2023_0223	11.35	91%	1.31	0.00	0.00	-0.17	0.53	0.07	0.00										
2023_0224	11.27	90%	1.54	0.00	0.00	-0.11	1.29	0.02	0.00										
2023_0225	3.80	30%	0.73	0.00	0.00	-0.04	0.54	0.01	0.00										
2023_0226	[redacted]																		
2023_0227	1.61	13%	0.16	0.00	0.00	-0.01	0.16	0.00	0.00										
2023_0228	5.10	41%	0.15	-0.14	-0.06	-0.06	0.13	0.01	-0.02										
2023_0229	[redacted]																		
2023_0230	7.10	57%	0.31	0.00	0.00	-0.11	0.20	0.24	0.00										
2023_0231	9.70	78%	1.15	0.00	0.00	-0.09	0.15	0.06	0.00										
2023_0232	9.30	75%	0.65	0.00	0.00	-0.19	0.37	0.09	0.00										
2023_0233	6.74	68%	0.05	-0.05	-0.06	-0.13	0.08	0.04	-0.01										
2023_0234	9.26	93%	0.15	0.00	0.00	-0.15	0.56	0.51	0.00										
2023_0235	7.16	57%	0.01	0.00	0.00	-0.14	0.37	0.51	-0.02										
2023_0236	1.25	10%	0.18	0.00	0.00	0.00	0.05	0.00	0.00										
2023_0237	9.63	97%	1.01	0.00	0.00	-0.15	0.43	0.02	0.00										
2023_0238	7.74	39%	0.77	-0.09	-0.17	-0.13	0.08	0.01	-0.01										
2023_0239	9.61	48%	0.55	-0.26	-0.29	-0.14	0.15	0.02	-0.02										
2023_0240	[redacted]																		
2023_0241	[redacted]																		
2023_0242	8.02	49%	0.04	0.00	0.00	-0.15	0.26	0.02	0.00										
2023_0243	1.58	13%	0.04	0.00	-0.05	-0.01	0.01	0.00	0.00										
2023_0244	7.17	58%	0.62	0.00	0.00	-0.13	0.20	0.03	-0.01										
2023_0245	7.34	59%	0.26	0.00	0.00	-0.13	0.22	0.03	0.00										
2023_0246	7.50	75%	0.15	0.00	0.00	-0.12	0.30	0.03	0.00										
2023_0247	8.23	82%	0.04	0.00	0.00	-0.15	0.32	0.04	0.00										
2023_0248	7.14	82%	0.04	0.00	0.00	-0.09	0.32	0.02	0.00										
2023_0249	7.52	54%	0.14	0.00	0.00	-0.03	0.22	0.21	0.00										
2023_0250	0.15	3%	0.17	0.00	-0.02	-0.02	0.01	0.04	0.00										
2023_0251	6.35	51%	0.08	0.00	0.00	-0.09	0.55	0.01	0.00										
2023_0252	9.52	76%	0.43	0.00	0.00	-0.13	0.72	0.02	0.00										
2023_0253	10.86	87%	0.20	0.00	0.00	-0.17	0.44	0.01	0.00										
2023_0254	9.45	77%	0.04	0.00	0.00	-0.17	0.64	0.05	0.00										
2023_0255	3.52	28%	0.13	0.00	0.00	-0.06	0.19	0.01	0.00										
2023_0256	11.36	91%	0.29	0.00	0.00	-0.18	0.40	0.03	0.00										
2023_0257	8.50	68%	0.19	0.00	0.00	-0.14	0.36	0.02	0.00										
2023_0258	8.02	64%	0.37	0.00	0.00	-0.05	0.37	0.01	-0.03										
2023_0259	8.10	65%	0.41	0.00	0.00	-0.09	0.35	0.01	-0.02										
2023_0260	6.96	56%	0.87	0.00	0.00	-0.10	0.12	0.02	-0.02										
2023_0261	9.57	77%	0.04	0.00	0.00	-0.08	0.61	0.01	0.00										
2023_0262	5.76	46%	0.02	-0.13	-0.12	-0.05	0.11	0.00	-0.04										
2023_0263	7.31	59%	0.08	0.00	0.00	-0.06	0.36	0.01	0.00										
2023_0264	7.07	57%	0.26	-0.03	-0.02	-0.10	0.15	0.01	-0.03										
2023_0265	8.92	72%	0.18	-0.03	-0.01	-0.08	0.22	0.01	-0.02										
2023_0266	3.97	32%	0.60	0.00	0.00	-0.04	0.18	0.00	0.00										
2023_0267	4.91	39%	0.32	0.00	0.00	-0.03	0.24	0.01	0.00										
2023_0268	8.78	70%	0.16	0.00	0.00	-0.11	0.52	0.02	-0.03										
2023_0269	[redacted]																		
2023_0270	[redacted]																		
2023_0271	7.69	62%	0.08	-0.01	-0.04	-0.09	0.11	0.02	-0.02										
2023_0272	[redacted]																		
2023_0273	[redacted]																		
2023_0274	[redacted]																		
2023_0275	[redacted]																		
2023_0276	5.22	38%	0.03	-0.10	-0.07	-0.07	0.10	0.06	-0.01										
2023_0277	11.59	85%	0.03	0.00	0.00	-0.15	0.47	0.14	0.00										
2023_0278	6.62	48%	0.22	0.00	-0.06	-0.07	0.07	0.01	-0.04										
2023_0279	19.73	144%	0.98	-0.07	-0.12	-0.12	0.19	0.04	-0.03		0.86	2.49	4.15	6.01		6%	18%	30%	44%
2023_0280	6.40	64%	0.24	0.00	-0.07	-0.10	0.00	0.00	0.00										
2023_0281	9.66	97%	0.78	0.00	0.00	-0.19	0.30	0.06	0.00										
2023_0282	1.79	13%	0.31	0.00	0.00	-0.02	0.08	0.03	0.00										
2023_0283	[redacted]																		
2023_0284	[redacted]																		
2023_0285	10.38	83%	0.12	0.00	0.00	-0.03	0.58	0.49	0.00										
2023_0286	5.00	48%	0.02	0.00	0.00	-0.01	0.13	0.01	-0.01										
2023_0287	6.93	56%	0.04	0.00	0.00	-0.03	0.27	0.04	0.00										
2023_0288	10.74	86%	0.22	0.00	0.00	-0.03	0.75	0.20	0.00										
2023_0289	6.39	51%	0.62	-0.01	-0.11	-0.02	0.04	0.02	-0.01										
2023_0290	10.01	80%	0.52	0.00	0.00	-0.03	0.44	0.36	0.00										
2023_0291	3.79	45%	0.06	0.00	-0.02	-0.03	0.11	0.00	0.00										
2023_0292	7.00	83%	0.53	-0.01	-0.04	-0.07	0.06	0.01	-0.02										
2023_0293	[redacted]																		
2023_0294	4.48	43%	0.02	0.00	-0.03	-0.10	0.02	0.00	-0.02										
2023_0295	5.67	67%	0.39	-0.01	-0.07	-0.06	0.14	0.01	0.00										
2023_0296	[redacted]																		
2023_0297	[redacted]																		
2023_0298	[redacted]																		
2023_0299	[redacted]																		
2023_0300	[redacted]																		
2023_0301	3.82	46%	0.00	0.00	0.00	0.00	0.04	0.00	0.00										
2023_0302	7.24	43%	0.10	0.00	0.00	-0.01	0.04	0.00	0.00										
2023_0303	4.64	55%	0.08	0.00	-0.02	-0.09	0.11	0.01	-0.01										
2023_0304	0.80	9%	0.00	0.00	-0.04	-0.01	0.08	0.00	0.00										
2023_0305	2.98	18%	0.29	0.00	-0.02	-0.02	0.07	0.00	0.00										
2023_0306	[redacted]																		
2023_0307	[redacted]																		
2023_0308	[redacted]																		
2023_0309	[redacted]																		
2023_0310	5.77	34%	0.11	0.00	0.00	-0.02	0.05	0.00	-0.01										
2023_0311	[redacted]																		
2023_0312	1.81	21%	0.00	0.00	-0.02	-0.02	0.09	0.00	0.00										
2023_0313	[redacted]																		
2023_0314	7.90	72%	0.18	0.00	0.00	-0.14	1.12	0.02	0.00										
2023_0315	7.22	96%	0.68	0.00	0.00	-0.11	0.53	0.02	-0.02										
2023_0316	7.76	94%	0.56	0.00	0.00	-0.11	0.57	0.02	-0.02										
2023_0317	6.43	52%	0.72	0.00	0.00	-0.18	0.51	0.03	0.00										
2023_0318	[redacted]																		
2023_0319	11.43	92%	0.09	0.00	0.00	-0.17	0.80	0.04	-0.03										
2023_0320	[redacted]																		
2023_0321	7.53	68%	0.13	0.00	0.00	-0.12	0.31	0.01	-0.01										
2023_0322	6.01	48%	0.23	-0.13	-0.08	-0.16	0.14	0.01	-0.01										
2023_0323	4.20	40%	0.37	0.00	0.00	-0.06	0.69	0.01	0.00										
2023_0324	0.81	7%	0.12	-0.03	-0.01	-0.02	0.01	0.00	0.00										
2023_0325	10.19	82%	1.46	-0.02	-0.01	-0.14	0.14	0.03	-0.02										
2023_0326	3.13	58%	0.14	-0.03	-0.02	-0.94	0.04	0.01	-0.01										
2023_0327	6.40	51%	0.12	-0.02	-0.01	-0.11	0.17	0.04	-0.02										
2023_0328	6.60	53%	0.27	-0.01	0.00	-0.12	0.05	0.01	-0.01										
2023_0329	8.49	68%	0.02	-0.01	0.00	-0.15	0.05	0.01	0.00										
2023_0330	5.66	45%	0.00	0.00	0.00	-0.26	0.26	0.03	-0.02										
2023_0331	6.57	53%	0.02	0.00	0.00	-0.14	0.83	0.04	0.00										
2023_0332	2.41	19%	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
2023_0333	3.83	31%	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
2023_0334	8.63	69%	0.29	0.00	0.00	-0.12	0.35	0.02	0.00										
2023_0335	6.13	49%	0.29	0.00	0.00	-0.09	0.27	0.01	-0.01										
2023_0336	7.50	75%	0.07	-0.01	-0.04	-0.13	0.02	0.01	-0.01										
2023_0337	10.38	83%	0.89	0.00	0.00	-0.17	0.48	0.04	-0.02										
2023_0338	8.57	89%	0.28	0.00	0.00	-0.17	0.36	0.02	0.00										
2023_0339	9.61	58%	0.54	-0.21	-0.58	-0.14	0.08	0.01	-0.02										

Confidential information is highlighted black and redacted

Substation	Bank/Circuit	GNA_ID	Facility ID	2023 Forecasted Demand (MW)	2023 Facility Loading (%)	2023 Base Demand (MW)	2023 Residential PV (MW)	Deficiency 2023 (MW)	Deficiency 2024 (MW)	Deficiency 2025 (MW)	Deficiency 2026 (MW)	Deficiency 2027 (MW)	Deficiency 2023 (%)	Deficiency 2024 (%)	Deficiency 2025 (%)	Deficiency 2026 (%)	Deficiency 2027 (%)
Sweetwater	44		2023_0340	9.63	97%	0.0	-0.08										
Sweetwater	45		2023_0341	6.43	40%	0.0	0.00										
Sweetwater	46		2023_0342	[redacted]													
Telegraph Canyon	940		2023_0343	9.70	78%	0.0	0.00										
Telegraph Canyon	944		2023_0344	5.85	47%	0.0	0.00										
Telegraph Canyon	1221		2023_0345	10.49	84%	0.0	-0.02										
Telegraph Canyon	1222		2023_0346	3.99	32%	0.0	0.00										
Telegraph Canyon	1223		2023_0347	5.79	46%	0.0	-0.05										
Telegraph Canyon	1224		2023_0348	6.34	51%	0.0	0.00										
Telegraph Canyon	941		2023_0349	8.68	70%	0.0	0.00										
Telegraph Canyon	942		2023_0350	7.98	64%	0.0	-0.01										
Telegraph Canyon	943		2023_0351	7.93	64%	0.0	-0.01										
Telegraph Canyon	945		2023_0352	9.52	76%	0.0	-0.01										
Telegraph Canyon	1225	GNA_2023_0006	2023_0353	11.03	88%	0.0	0.00										
Telegraph Canyon	1226		2023_0354	4.32	35%	0.0	0.00										
Urban	423		2023_0355	3.45	41%	0.0	0.00										
Urban	424		2023_0356	5.23	59%	0.0	0.00										
Urban	425	GNA_2023_0028	2023_0357	[redacted]													
Urban	426		2023_0358	2.74	22%	0.0	0.00										
Urban	427		2023_0359	5.01	40%	0.0	0.00										
Urban	429		2023_0360	6.64	53%	0.0	0.00										
Urban	464		2023_0361	5.15	62%	0.0	0.00										
Urban	465		2023_0362	[redacted]													
Urban	428		2023_0363	4.57	37%	0.0	0.00										
Urban	466		2023_0364	[redacted]													
Urban	467		2023_0365	[redacted]													
Urban	468		2023_0366	3.82	45%	0.0	0.00										
Urban	469		2023_0367	[redacted]													
Urban	477		2023_0368	3.25	26%	0.0	0.00										
Wabash Canyon	1418		2023_0369	4.62	37%	0.0	0.00										
Wabash Canyon	1419		2023_0370	[redacted]													
Wabash Canyon	1420		2023_0372	[redacted]													
Alpine	355		2023_0373	4.44	36%	0.0	0.00										
Alpine	356		2023_0374	8.24	66%	0.0	0.00										
Alpine	357		2023_0375	8.92	74%	0.0	-0.01										
Alpine	358		2023_0376	8.33	69%	0.0	-0.02										
Alpine	1458		2023_0377	8.37	67%	0.0	-0.04										
Barrett	67		2023_0378	1.75	18%	0.0	0.00										
Barrett	157		2023_0379	4.42	71%	0.0	0.00										
Boulevard East	444		2023_0380	1.33	11%	0.0	0.00										
Boulevard East	445		2023_0381	2.60	24%	0.0	0.00										
Cameron	448		2023_0382	3.29	30%	0.0	0.00										
Cameron	449		2023_0383	1.73	64%	0.0	0.00										
Carlton Hills	280		2023_0384	1.88	16%	0.0	-0.03										
Carlton Hills	281	GNA_2023_0019	2023_0385	4.78	38%	0.0	-0.01										
Carlton Hills	282	GNA_2023_0020	2023_0386	9.81	87%	0.0	-0.06										
Carlton Hills	308		2023_0387	8.66	72%	0.0	-0.03										
Carlton Hills	309		2023_0389	7.70	69%	0.0	0.00										
Carlton Hills	1191		2023_0390	5.10	42%	0.0	0.00										
Carlton Hills	1192		2023_0391	1.80	15%	0.0	0.00										
Chollas West	1049		2023_0392	8.96	72%	0.0	0.00										
Chollas West	162		2023_0393	8.12	65%	0.0	-0.01										
Chollas West	165		2023_0394	6.53	65%	0.0	-0.01										
Chollas West	160	GNA_2023_0001	2023_0395	9.81	98%	0.0	0.00			0.26	0.68	0.91			3%	7%	9%
Chollas West	161		2023_0396	10.05	83%	0.0	-0.01										
Chollas West	163	GNA_2023_0002	2023_0397	10.55	92%	0.0	-0.01										
Chollas West	164		2023_0398	4.04	40%	0.0	-0.01										
Chollas West	166		2023_0399	7.90	68%	0.0	-0.01										
Chollas West	1047		2023_0400	11.45	92%	0.0	-0.07										
Chollas West	1048		2023_0401	[redacted]													
Crestwood	1215		2023_0402	0.99	8%	0.0	0.00										
Descanso	73		2023_0403	2.39	37%	0.0	0.00										
Descanso	78		2023_0404	1.08	29%	0.0	0.00										
Descanso	79		2023_0405	2.12	33%	0.0	0.00										
El Cajon	71		2023_0406	[redacted]													
El Cajon	72		2023_0407	6.41	51%	0.0	-0.02										
El Cajon	74		2023_0408	8.23	66%	0.0	-0.02										
El Cajon	77		2023_0409	9.74	78%	0.0	-0.01										
El Cajon	547		2023_0410	7.91	63%	0.0	-0.02										
El Cajon	552		2023_0411	7.98	64%	0.0	-0.01										
El Cajon	555		2023_0412	11.69	94%	0.0	0.00										
El Cajon	76		2023_0413	8.09	65%	0.0	-0.03										
El Cajon	548		2023_0414	5.72	46%	0.0	-0.01										
El Cajon	549		2023_0415	8.38	67%	0.0	-0.01										
El Cajon	550		2023_0416	6.98	56%	0.0	0.00										
El Cajon	551		2023_0417	6.17	49%	0.0	-0.02										
El Cajon	553		2023_0418	5.98	48%	0.0	-0.01										
El Cajon	554		2023_0419	5.70	46%	0.0	0.00										
Garfield	946		2023_0420	5.80	46%	0.0	0.00										
Garfield	947		2023_0421	[redacted]													
Garfield	948		2023_0422	6.67	53%	0.0	0.00										
Garfield	949		2023_0423	8.87	71%	0.0	0.00										
Glencliff	440		2023_0424	0.10	3%	0.0	0.00										
Glencliff	441		2023_0425	0.87	23%	0.0	0.00										
Glencliff	442		2023_0426	3.03	81%	0.0	0.00										
Granite	386		2023_0427	9.49	76%	0.0	-0.02										
Granite	387		2023_0428	9.27	74%	0.0	0.00										
Granite	409		2023_0429	9.26	75%	0.0	-0.07										
Granite	410		2023_0430	8.60	78%	0.0	-0.02										
Granite	413		2023_0431	3.69	61%	0.0	-0.01										
Granite	417		2023_0432	9.73	78%	0.0	-0.12										
Granite	411		2023_0433	7.25	78%	0.0	0.00										
Granite	412		2023_0434	7.30	59%	0.0	0.00										
Granite	414		2023_0435	6.99	75%	0.0	-0.01										
Granite	415		2023_0436	10.16	81%	0.0	-0.03										
Granite	416		2023_0437	9.66	79%	0.0	-0.05										
Granite	418		2023_0438	7.48	61%	0.0	-0.02										
Jamacha	92		2023_0439	9.64	77%	0.0	-0.01										
Jamacha	95		2023_0440	9.49	76%	0.0	0.00										
Jamacha	525		2023_0441	7.55	68%	0.0	-0.03										
Jamacha	75		2023_0442	[redacted]													
Jamacha	91		2023_0443	9.52	76%	0.0	-0.05										
Jamacha	93		2023_0444	9.45	76%	0.0	0.00										
Jamacha	96		2023_0445	9.25	74%	0.0	0.00										
Jamacha	524		2023_0446	8.06	73%	0.0	-0.01										
Jamacha	1090		2023_0447	6.35	58%	0.0	0.00										
Los Coches	240		2023_0448	[redacted]													
Los Coches	241		2023_0449	8.52	77%	0.0	-0.01										
Los Coches	242		2023_0450	8.34	76%	0.0	-0.03										
Los Coches	243		2023_0451	8.08	73%	0.0	-0.02										
Los Coches	244		2023_0452	8.79	80%	0.0	0.00										
Los Coches	245		2023_0453	7.52	67%	0.0	0.00										
Los Coches	246		2023_0454	7.38	59%	0.0	-0.01										
Los Coches	247		2023_0455	7.22	58%	0.0	0.00										
Los Coches	248		2023_0456	[redacted]													
Loveland	283		2023_0457	7.46	60%	0.0	0.00										
Loveland	1166		2023_0458	0.82	7%	0.0	0.00										
Murray	84		2023_0459	[redacted]													
Murray	86		2023_0460	8.21	72%	0.0	-0.03										
Murray	87		2023_0461	6.39	56%	0.0	-0.01										
Murray	397		2023_0462	6.11	49%	0.0	-0.01										
Murray	399		2023_0463	4.78	43%	0.0	-0.01										
Murray	403		2023_0464	7.37	66%	0.0	-0.01										
Murray	404		2023_0465	6.05	49%	0.0	-0.04										
Murray	407		2023_0466	0.88	7%	0.0	0.00										
Murray	83		2023_0467	7.55	67%	0.0	0.00										
Murray	85		2023_0468	4.35	35%	0.0	0.00										
Murray	88		2023_0469	7.54	60%	0.0	-0.02										
Murray	400		2023_0470	6.62	60%	0.0	-0.03										
Murray	401		2023_0471	[redacted]													
Murray	402		2023_0472	7.76	66%	0.0	-0.02										
Murray	406		2023_0473	5.57	46%	0.0	-0.02										
Santee	390		2023_0474	5.08	45%	0.0	-0.01										
Santee	392		2023_0475	7.08	63%	0.0	-0.04										
Santee	393		2023_0476	7.82	70%	0.0	0.00										
Santee	394		2023_0477	7.54	60%	0.0	-0.01										
Santee	1138		2023_0478	5.08	41%	0.0	0.00										
Santee	1140		2023_0479	[redacted]													
Santee	391		2023_0480	[redacted]													
Santee	395		2023_0481	7.21	65%	0.0	0.00										
Santee	396		2023_0482	7.38	59%	0.0	0.00										
Santee	1139		2023_0483	5.08	41%	0.0	0.00										
Spring Valley	94		2023_0484	7.84	71%	0.0	-0.01										
Spring Valley	730		2023_0485	10.85	87%	0.0	-0.01										
Spring Valley	731		2023_0486	10.40	86%	0.0	-0.01										
Spring Valley	732		2023_0487	10.11	81%	0.0	-0.01										
Spring Valley	733		2023_0488	10.32	86%	0.0	-0.05										
Spring Valley	759		2023_0489	6.22	50%	0.0	-0.01										
Batiquitos	755		2023_0490	6.92	56%	0.0	-0.02										
Batiquitos	1117		2023_0491	9.76	78%	0.0	0.00										
Batiquitos	1118		2023_0492	9.23	74%	0.0	0.00										
Batiquitos	750		2023_0493	3.47	28%	0.0	0.00										
Batiquitos	751		2023_0494	11.02	88%	0.0	0.00										
Batiquitos	752		2023_0495	8.22	66%	0.0	0.00										
Batiquitos	753	GNA_2023_0015	2023_0496	11.44	92%	0.0	-0.01										
Batiquitos	754		2023_0497	8.36	80%	0.0	0.00										
Batiquitos	757		2023_0498	1.80	17%	0.0	0.00										
Batiquitos	1116		2023_0499	5.60	45%	0.0	0.00										
Batiquitos	1119		2023_0500	8.67	70%	0.0	0.00										
Cannon	304		2023_0501	9.34	76%	0.0	0.00										
Cannon	780		2023_0502	8.18	66%	0.0	0.00										
Cannon	783		2023_0503	10.94	88%	0.0	0.00										
Cannon	1132		2023_0504	[redacted]													
Cannon	1133		2023_0505	[redacted]													
Cannon	303	GNA_2023_0009	2023_0506	11.53	92%	0.0	0.00					0.56					5%
Cannon	779		2023_0507	6.15	49%	0.0	0.00										
Cannon	781	GNA_2023_0010	2023_0508	9.48	76%	0.0	0.00										
Cannon	782		2023_0509	[redacted]													
Cannon	1130		2023_0510	[redacted]													

Confidential information is highlighted black and redacted

Substation	Bank/Circuit	GNA_ID	Facility ID	2023 Forecasted Demand (MW)	2023 Facility Loading (%)	2023 Base Demand (MW)	2023 Residential PV (MW)	2023 Non-Residential PV (MW)	2023 EE (MW)	2023 EV (MW)	2023 AAFS (MW)	2023 ES (MW)
Cannon	1131		2023_0511	[redacted]								
Del Mar	66		2023_0512	7.48	60%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Del Mar	512		2023_0513	4.58	37%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Del Mar	1081		2023_0514	8.71	70%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00
Del Mar	1082		2023_0515	5.40	54%	0.0	0.00	-0.01	0.00	0.00	0.00	0.00
Del Mar	61		2023_0516	8.74	78%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00
Del Mar	62		2023_0517	5.67	57%	0.0	-0.01	-0.01	-0.02	-0.02	0.00	0.00
Del Mar	63		2023_0518	6.80	62%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Del Mar	68		2023_0519	11.76	94%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00
Del Mar	510		2023_0520	[redacted]								
Del Mar	511		2023_0521	8.56	69%	0.0	-0.04	-0.05	-0.04	-0.04	0.00	-0.01
Encinitas	284		2023_0522	6.54	52%	0.0	0.00	0.00	-0.03	-0.03	0.00	-0.01
Encinitas	286		2023_0523	11.63	72%	0.0	0.00	0.00	-0.05	-0.05	0.01	0.00
Encinitas	287		2023_0524	10.72	86%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00
Encinitas	288		2023_0525	9.39	75%	0.0	0.00	0.00	-0.03	-0.03	0.01	-0.01
Encinitas	289		2023_0526	9.83	79%	0.0	0.00	0.00	-0.04	-0.04	0.01	-0.01
Melrose	205	GNA_2023_0021	2023_0527	11.87	95%	0.0	-0.01	-0.01	-0.05	-0.05	0.00	-0.01
Melrose	207		2023_0528	10.00	82%	0.0	-0.01	0.00	-0.04	-0.04	0.01	0.00
Melrose	208		2023_0529	5.89	47%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Melrose	504		2023_0530	8.80	71%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Melrose	506		2023_0531	5.29	64%	0.0	-0.01	-0.01	-0.02	-0.02	0.00	0.00
Melrose	509		2023_0532	5.95	48%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Melrose	206		2023_0533	9.79	78%	0.0	-0.01	0.00	-0.03	-0.03	0.00	-0.01
Melrose	209		2023_0534	9.92	80%	0.0	-0.01	0.00	-0.03	-0.03	0.00	-0.01
Melrose	505		2023_0535	6.53	54%	0.0	0.00	0.00	-0.02	-0.02	0.01	0.00
Melrose	507		2023_0536	9.08	73%	0.0	-0.01	-0.01	-0.04	-0.04	0.00	0.00
Melrose	508		2023_0537	7.05	57%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00
Melrose	821		2023_0538	7.64	61%	0.1	0.00	0.00	-0.03	-0.03	0.01	-0.01
Morro Hill	486	GNA_2023_0026	2023_0539	11.39	91%	0.0	-0.02	-0.01	0.00	0.00	0.00	-0.01
Morro Hill	487		2023_0540	[redacted]								
North City West	830		2023_0541	8.76	70%	0.0	-0.04	-0.03	-0.03	-0.03	0.00	-0.01
North City West	831		2023_0542	10.24	83%	0.0	0.00	0.00	-0.04	-0.04	0.01	-0.01
North City West	832		2023_0543	11.17	90%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
North City West	833		2023_0544	[redacted]								
North City West	834		2023_0545	7.56	61%	0.0	-0.02	-0.06	-0.03	-0.03	0.00	0.00
North City West	835		2023_0546	10.33	83%	0.1	0.00	0.00	-0.03	-0.03	0.00	0.00
North City West	836		2023_0547	8.86	71%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Oceanside	580		2023_0549	5.26	42%	0.0	-0.02	-0.01	-0.03	-0.03	0.00	0.00
Oceanside	581		2023_0550	9.14	73%	0.0	0.00	0.00	-0.05	-0.05	0.01	0.00
Oceanside	582		2023_0551	3.05	24%	0.0	0.00	0.00	-0.02	-0.02	0.01	0.00
Oceanside	1076		2023_0552	5.82	47%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00
Oceanside	1077		2023_0553	5.89	47%	0.0	-0.03	-0.05	-0.03	-0.03	0.00	0.00
Oceanside	1078		2023_0554	[redacted]								
Oceanside	1079		2023_0555									
Ocean Ranch	1406	GNA_2023_0018	2023_0556	16.60	133%	0.0	-0.05	-0.01	-0.04	-0.04	0.00	-0.01
Ocean Ranch	1407		2023_0557	7.01	56%	0.0	-0.01	-0.01	-0.02	-0.02	0.00	0.00
Ocean Ranch	1408		2023_0558	[redacted]								
Ocean Ranch	1409		2023_0559	5.17	41%	0.0	0.00	-0.01	-0.02	-0.02	0.00	0.00
Palomar Airport	583		2023_0561	5.02	42%	0.0	0.00	-0.04	-0.02	-0.02	0.00	0.00
Palomar Airport	584		2023_0562	8.96	72%	0.0	-0.04	-0.03	-0.03	-0.03	0.01	0.00
Palomar Airport	588		2023_0563	7.79	64%	0.0	0.00	-0.04	-0.02	-0.02	0.00	0.00
Palomar Airport	589		2023_0564	9.63	77%	0.0	-0.02	-0.01	-0.05	-0.05	0.01	-0.01
Palomar Airport	1269		2023_0565	7.93	64%	0.0	0.00	-0.07	-0.03	-0.03	0.00	0.00
Palomar Airport	585	GNA_2023_0014	2023_0566	10.78	86%	0.0	0.00	-0.10	-0.04	-0.04	0.00	0.00
Palomar Airport	586		2023_0567	8.11	67%	0.0	-0.02	-0.10	-0.03	-0.03	0.00	0.00
Palomar Airport	587		2023_0568	7.73	64%	0.0	0.00	-0.08	-0.03	-0.03	0.00	0.00
Pendleton	300		2023_0569	2.71	22%	0.0	-0.02	-0.04	-0.01	-0.01	0.00	0.00
Pendleton	302		2023_0570	[redacted]								
Pendleton	319		2023_0571	20.15	81%	0.0	0.00	-0.52	-0.10	-0.10	0.00	0.00
Rancho Santa Fe	305		2023_0572	4.77	44%	0.0	0.00	0.00	-0.02	-0.02	0.00	-0.01
Rancho Santa Fe	306		2023_0573	6.87	60%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Rancho Santa Fe	307		2023_0574	9.02	79%	0.0	-0.02	0.00	-0.04	-0.04	0.00	-0.01
Rancho Santa Fe	1001		2023_0575	7.43	71%	0.0	0.00	0.00	-0.03	-0.03	0.00	-0.01
San Luis Rey	194		2023_0576	4.39	40%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
San Luis Rey	213		2023_0577	7.43	67%	0.0	-0.03	-0.02	-0.04	-0.04	0.01	0.00
San Luis Rey	497		2023_0578	[redacted]								
San Luis Rey	498		2023_0579	2.52	23%	0.0	-0.02	0.00	-0.01	-0.01	0.00	0.00
San Luis Rey	901		2023_0580	8.53	77%	0.0	0.00	0.00	-0.03	-0.03	0.01	0.00
San Luis Rey	903		2023_0581	[redacted]								
San Luis Rey	904		2023_0582	3.26	26%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
San Luis Rey	905		2023_0583	[redacted]								
San Luis Rey	190		2023_0584	7.97	80%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00
San Luis Rey	191		2023_0585	2.01	46%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
San Luis Rey	192		2023_0586	[redacted]								
San Luis Rey	198		2023_0587	6.81	68%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
San Luis Rey	199		2023_0588	2.67	26%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
San Luis Rey	900		2023_0589	9.37	75%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00
San Luis Rey	902		2023_0590	8.96	72%	0.0	0.00	0.00	-0.04	-0.04	0.01	0.00
Shadowridge	850		2023_0591	5.61	45%	0.0	0.00	-0.21	-0.02	-0.02	0.00	0.00
Shadowridge	851		2023_0592	10.20	82%	0.0	-0.03	-0.02	-0.03	-0.03	0.00	0.00
Shadowridge	852		2023_0593	9.55	77%	0.0	-0.01	0.00	-0.04	-0.04	0.00	0.00
Shadowridge	854		2023_0594	6.62	53%	0.0	0.00	0.00	-0.02	-0.02	0.01	0.00
Shadowridge	855		2023_0595	8.56	69%	0.0	-0.01	0.00	-0.03	-0.03	0.01	-0.01
Shadowridge	856		2023_0596	8.25	66%	0.0	-0.10	-0.19	-0.04	-0.04	0.00	0.00
Shadowridge	859		2023_0597	10.34	83%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Shadowridge	853		2023_0598	6.67	55%	0.0	-0.01	-0.09	-0.03	-0.03	0.00	0.00
Shadowridge	857		2023_0599	6.35	51%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Shadowridge	858		2023_0600	8.06	65%	0.0	-0.01	-0.02	-0.03	-0.03	0.00	0.00
Stuart	499		2023_0601	3.84	31%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Stuart	1299		2023_0602	1.00	32%	0.0	0.00	-0.04	-0.01	-0.01	0.00	0.00
Artesian Ranch	1100		2023_0603	7.07	57%	0.1	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Artesian Ranch	1101		2023_0604	2.72	44%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Artesian Ranch	1102		2023_0605	8.77	70%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00
Artesian Ranch	1103		2023_0606	7.40	59%	0.0	-0.01	0.00	-0.01	-0.01	0.00	-0.01
Artesian Ranch	1104		2023_0607	6.97	56%	0.0	-0.01	0.00	-0.01	-0.01	0.00	-0.01
Artesian Ranch	1105		2023_0608	6.64	53%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Artesian Ranch	1106		2023_0609	7.95	64%	0.0	-0.02	0.00	-0.02	-0.02	0.00	-0.01
Ash	450		2023_0610	8.19	66%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Ash	451		2023_0611	6.33	51%	0.0	-0.03	-0.01	-0.03	-0.03	0.00	0.00
Ash	452		2023_0612	9.68	78%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Ash	453		2023_0613	8.23	66%	0.0	-0.01	0.00	-0.03	-0.03	0.00	-0.01
Ash	454		2023_0614	6.91	55%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Ash	455		2023_0615	2.71	22%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Ash	1039		2023_0616	5.22	42%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Ash	456		2023_0617	9.69	78%	0.0	-0.01	0.00	-0.03	-0.03	0.00	-0.01
Ash	488		2023_0618	6.72	55%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Ash	489		2023_0619	7.19	59%	0.0	-0.01	0.00	-0.03	-0.03	0.00	0.00
Avocado	520		2023_0620	9.38	75%	0.0	-0.01	0.00	-0.03	-0.03	0.00	-0.01
Avocado	521		2023_0621	7.63	61%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Avocado	522		2023_0622	7.27	58%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Avocado	523		2023_0623	6.33	51%	0.0	-0.04	-0.02	-0.03	-0.03	0.00	-0.01
Bernardo	538		2023_0624	[redacted]								
Bernardo	541		2023_0625									
Bernardo	542		2023_0626	6.93	56%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Bernardo	575		2023_0627	[redacted]								
Bernardo	294		2023_0628	5.02	41%	0.0	-0.02	-0.01	-0.01	-0.01	0.00	0.00
Bernardo	539		2023_0629	4.20	34%	0.0	-0.01	0.00	-0.01	-0.01	0.00	0.00
Bernardo	543		2023_0630	8.84	71%	0.0	0.00	-0.03	-0.02	-0.02	0.00	0.00
Bernardo	544		2023_0631	[redacted]								
Bernardo	574		2023_0632									
Bernardo	576		2023_0633	7.51	60%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Bernardo	577		2023_0634	[redacted]								
Bernardo	1026		2023_0635									
Bernardo	290		2023_0636	8.15	65%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Bernardo	291		2023_0637	6.61	54%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Bernardo	292		2023_0638	4.78	38%	0.0	-0.01	-0.01	-0.01	-0.01	0.00	0.00
Bernardo	293		2023_0639	6.89	55%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Bernardo	537		2023_0640	2.92	23%	0.0	0.00	-0.02	-0.01	-0.01	0.00	0.00
Bernardo	540		2023_0641	9.37	85%	0.0	-0.02	0.00	0.00	0.00	0.00	0.00
Bernardo	1025		2023_0642	[redacted]								
Borrego	170		2023_0643	4.56	71%	0.0	-0.02	-0.01	-0.01	-0.01	0.00	0.00
Borrego	171		2023_0644	5.43	84%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Borrego	172		2023_0645	4.00	62%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Chicarita	500		2023_0646	8.83	71%	0.0	0.00	0.00	-0.03	-0.03	0.00	-0.01
Chicarita	501		2023_0647	4.83	39%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Chicarita	502		2023_0648	6.25	50%	0.0	-0.01	0.00	-0.03	-0.03	0.00	-0.01
Chicarita	910		2023_0649	7.21	58%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Chicarita	911		2023_0650	[redacted]								
Chicarita	912		2023_0651	9.00	72%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Chicarita	917		2023_0652	4.36	35%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Chicarita	913		2023_0653	5.55	45%	0.0	-0.03	0.00	-0.02	-0.02	0.00	0.00
Chicarita	915		2023_0654	6.90	55%	0.0	-0.01	-0.01	-0.03	-0.03	0.00	0.00
Chicarita	916		2023_0655	3.65	29%	0.0	-0.02	-0.01	-0.02	-0.02	0.00	0.00
Creelman	235		2023_0656	7.01	56%	0.0	0.00	0.00	-0.02	-0.02	0.00	-0.01
Creelman	236		2023_0657	4.46	40%	0.0	0.00	0.00	-0.01	-0.01	0.00	-0.01
Creelman	237		2023_0658	8.49	93%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Creelman	972		2023_0659	9.45	76%	0.0	-0.01	-0.01	-0.03	-0.03	0.00	-0.01
Creelman	974		2023_0660	6.65	53%	0.0	-0.01	-0.02	-0.04	-0.04	0.00	0.00
Creelman	975		2023_0661	7.27	58%	0.0	-0.01	0.00	-0.01	-0.01	0.00	-0.01
Creelman	970		2023_0662	6.16	49%	0.0	-0.01	0.00	-0.01	-0.01	0.00	-0.01
Creelman	971		2023_0663	5.52	44%	0.0	0.00	0.00	-0.01	-0.01	0.00	-0.01
Creelman	973		2023_0664	5.37	43%	0.0	0.00	0.00	-0.01	-0.01	0.00	-0.01
Esco	513		2023_0665	7.90	63%	0.0	-0.06	-0.02	-0.03	-0.03	0.00	-0.01
Esco	514		2023_0666	5.86	47%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Esco	515		2023_0667	7.19	58%	0.0	-0.03	-0.05	-0.03	-0.03	0.00	0.00
Esco	516		2023_0668	5.58	45%	0.0	-0.02	-0.05	-0.02	-0.02	0.00	0.00
Esco	517		2023_0669	3.50	28%	0.0	-0.01	-0.05	-0.01	-0.01	0.00	0.00
Esco	518		2023_0670	8.05	65%	0.0	-0.06	-0.03	-0.03	-0.03	0.00	0.00
Esco	519		2023_0671	6.43	52%	0.0	-0.05	-0.02	-0.03	-0.03	0.00	0.00
Escondido	182		2023_0672	8.49	68%	0.0	-0.01	0.00	-0.01	-0.01	0.00	-0.01
Escondido	183		2023_0673	9.38	75%	0.0	-0.01	0.00	-0.01	-0.01	0.00	-0.01
Escondido	184		2023_0674	6.01	48%	0.0	0.00	-0.07	-0.01	-0.01	0.00	0.00
Escondido	185		2023_0675	8.29	66%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Escondido	186		2023_0676	6.90	64%	0.0	-0.01	0.00	-0.01	-0.01	0.00	-0.01
Escondido	188		2023_0677	6.26	50%	0.0	0.00	0.00	-0.08	-0.08	0.00	0.00
Escondido	1010		2023_0678	[redacted]								
Escondido	180		2023_0679	7.04	58%	0.0	-0.01	0.00	0.00	0.00	0.00	-0.01
Escondido	181		2023_0680	5.84	48%	0.0	-0.05	-0.07	0.00	0.00	0.00	0.00
Escondido	187		2023_0681	4.06	34%	0.0	-0.06	-0.04	-0.08	-0.08	0.00	0.00

Substation	Bank/Circuit	Facility ID	Deficiency 2023 (MW)	Deficiency 2024 (MW)	Deficiency 2025 (MW)	Deficiency 2026 (MW)	Deficiency 2027 (MW)	Deficiency 2023 (%)	Deficiency 2024 (%)	Deficiency 2025 (%)	Deficiency 2026 (%)	Deficiency 2027 (%)
Melrose	205	2023_0527			0.00	0.45	1.01			0%	4%	8%
Ocean Ranch	1406	2023_0556	4.13	4.23	4.37	4.54	4.86	33%	34%	35%	36%	39%
Palomar Airport	585	2023_0566		0.50	1.45	1.42	1.80		4%	12%	11%	14%

Confidential information is highlighted black and redacted

Substation	Bank/Circuit	GNA_ID	Facility ID	2023 Forecasted Demand (MW)	2023 Facility Loading (%)	2023 Base Demand (MW)	2023 Residential PV (MW)	2023 Non-Residential PV (MW)	2023 EE (MW)	2023 EV (MW)	2023 AAFS (MW)	2023 ES (MW)
Escondido	189		2023_0682	9.12	75%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	-0.01
Felicita	471		2023_0683	6.19	50%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Felicita	472		2023_0684	5.27	42%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Felicita	473		2023_0685	8.93	72%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.01	0.00
Felicita	474		2023_0686	6.94	56%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Felicita	790		2023_0687	4.33	35%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Felicita	791		2023_0688	4.91	39%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Felicita	470		2023_0689	8.94	72%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Felicita	788		2023_0690	8.36	67%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Felicita	789		2023_0691	6.52	52%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.01	-0.01
Lilac	350		2023_0692	6.93	56%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Lilac	351		2023_0693	2.07	17%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Lilac	352		2023_0694	1.22	10%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Lilac	353		2023_0695	6.18	50%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Lilac	354		2023_0696	5.49	50%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Lilac	1021		2023_0697	3.80	31%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Lilac	1022		2023_0698	[redacted]								
Lilac	1023		2023_0699	4.78	38%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Monserate	230		2023_0700	6.80	55%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Monserate	231		2023_0701	8.70	70%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Monserate	232		2023_0702	5.02	50%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.00	0.00
Monserate	233		2023_0703	9.61	86%	0.0	-0.01	0.00	-0.03	-0.03	0.00	-0.01
Monserate	234		2023_0704	4.16	42%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Monserate	1235		2023_0705	3.75	30%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Olivenhain	1250		2023_0706	6.62	61%	0.0	-0.01	0.00	-0.02	-0.02	0.01	-0.01
Olivenhain	1251		2023_0707	[redacted]								
Olivenhain	1252		2023_0708									
Olivenhain	1253		2023_0709									
Pala	239		2023_0710	5.19	42%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Pala	249		2023_0711	7.05	64%	0.0	0.00	0.00	-0.02	-0.02	0.01	0.00
Pala	1233		2023_0712	1.33	13%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Pala	1234		2023_0713	6.69	54%	0.0	0.00	0.00	-0.01	-0.01	0.00	-0.01
Pomerado	920		2023_0714	7.85	65%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Pomerado	923		2023_0715	6.93	57%	0.0	0.00	-0.07	-0.02	-0.02	0.00	0.00
Pomerado	928		2023_0716	12.02	96%	0.0	-0.01	0.00	-0.01	-0.01	0.00	-0.01
Pomerado	921		2023_0717	7.13	59%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Pomerado	922		2023_0718	8.61	71%	0.0	-0.04	-0.02	-0.03	-0.03	0.00	-0.01
Pomerado	924		2023_0719	6.34	53%	0.0	0.00	-0.03	-0.02	-0.02	0.00	0.00
Pomerado	925		2023_0720	8.61	69%	0.0	0.00	-0.07	-0.03	-0.03	0.00	0.00
Pomerado	926		2023_0721	[redacted]								
Pomerado	927		2023_0722	8.07	65%	0.0	-0.03	-0.02	-0.01	-0.01	0.00	0.00
Poway	175		2023_0723	8.17	74%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Poway	176		2023_0724	5.71	55%	0.0	0.00	0.00	-0.01	-0.01	0.00	-0.01
Poway	177		2023_0725	7.00	56%	0.0	0.00	0.00	-0.02	-0.02	0.00	-0.01
Poway	178		2023_0726	6.33	57%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Poway	475		2023_0727	5.91	47%	0.0	0.00	0.00	-0.02	-0.02	0.00	-0.01
Poway	476		2023_0728	8.46	68%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Rancho Carmel	934		2023_0729	5.02	40%	0.0	-0.02	0.00	-0.02	-0.02	0.00	0.00
Rancho Carmel	935		2023_0730	[redacted]								
Rancho Carmel	936		2023_0731	8.08	65%	0.0	-0.03	-0.03	-0.03	-0.03	0.00	0.00
Rancho Carmel	930		2023_0732	[redacted]								
Rancho Carmel	931		2023_0733	8.07	65%	0.0	-0.04	0.00	-0.02	-0.02	0.00	-0.01
Rancho Carmel	932		2023_0734	8.69	70%	0.0	0.00	0.00	-0.03	-0.03	0.01	-0.01
Rancho Carmel	933		2023_0735	6.76	55%	0.0	-0.03	-0.01	-0.02	-0.02	0.00	0.00
Rancho Carmel	937		2023_0736	7.81	63%	0.0	-0.02	0.00	-0.03	-0.03	0.00	0.00
Rincon	214		2023_0737	3.86	35%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Rincon	215		2023_0738	2.73	22%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Rincon	216		2023_0739	[redacted]								
Rincon	217		2023_0740	7.57	61%	0.0	0.00	0.00	-0.02	-0.02	0.00	-0.01
San Marcos	296		2023_0741	10.88	87%	0.0	-0.01	0.00	-0.04	-0.04	0.00	-0.01
San Marcos	297		2023_0742	7.18	58%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
San Marcos	298		2023_0743	10.72	86%	0.0	-0.06	-0.19	-0.04	-0.04	0.00	0.00
San Marcos	595		2023_0744	10.64	85%	0.0	-0.02	-0.02	-0.04	-0.04	0.00	-0.01
San Marcos	597		2023_0745	[redacted]								
San Marcos	1094		2023_0746	9.18	74%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
San Marcos	295		2023_0747	[redacted]								
San Marcos	299		2023_0748	9.28	74%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
San Marcos	596		2023_0749	4.84	39%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
San Marcos	598		2023_0750	7.64	61%	0.0	0.00	-0.12	-0.03	-0.03	0.00	0.00
San Marcos	599		2023_0751	8.44	68%	0.0	-0.04	-0.01	-0.04	-0.04	0.00	-0.01
San Marcos	1095		2023_0752	0.00	0%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Santa Ysabel	220		2023_0753	1.04	28%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Santa Ysabel	221		2023_0754	4.23	66%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Santa Ysabel	222		2023_0755	5.38	12%	0.0	0.00	0.00	-0.02	-0.02	0.00	-0.01
Valley Center	907		2023_0756	5.01	40%	0.0	0.00	0.00	-0.01	-0.01	0.00	-0.01
Valley Center	908		2023_0759	8.12	65%	0.0	0.00	0.00	-0.02	-0.02	0.00	-0.01
Valley Center	909		2023_0760	3.44	55%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Valley Center	1030		2023_0761	[redacted]								
Warners	210		2023_0762	1.42	53%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Warners	211		2023_0763	0.63	17%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Warners	212		2023_0764	[redacted]								
Warren Canyon	327		2023_0765									
Basilone	1414		2023_0766									
Basilone	1415		2023_0767									
San Juan Capistrano	195		2023_0768	3.35	27%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
San Juan Capistrano	196		2023_0769	9.67	78%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00
San Juan Capistrano	197		2023_0770	8.17	66%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00
San Juan Capistrano	313		2023_0771	11.54	93%	0.0	-0.01	-0.01	-0.04	-0.04	0.00	-0.01
San Juan Capistrano	314		2023_0772	8.50	63%	0.0	-0.01	0.00	-0.03	-0.03	0.00	0.00
San Juan Capistrano	315		2023_0773	8.41	67%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00
San Juan Capistrano	799		2023_0774	7.62	69%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00
Japanese Mesa	568		2023_0775	[redacted]								
Japanese Mesa	569		2023_0776									
Laguna Niguel	310		2023_0777	9.32	75%	0.0	0.00	0.00	-0.05	-0.05	0.00	0.00
Laguna Niguel	793		2023_0778	5.66	45%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Laguna Niguel	796		2023_0779	9.08	73%	0.0	-0.01	0.00	-0.03	-0.03	0.00	0.00
Laguna Niguel	797		2023_0780	6.91	55%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Laguna Niguel	1071		2023_0781	7.71	63%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Laguna Niguel	1072		2023_0782	5.73	47%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Laguna Niguel	1073		2023_0783	5.91	47%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00
Laguna Niguel	1070		2023_0784	5.61	46%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Laguna Niguel	311		2023_0785	7.07	57%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Laguna Niguel	312		2023_0786	9.15	73%	0.0	0.00	0.00	-0.04	-0.04	0.00	0.00
Laguna Niguel	792		2023_0787	6.65	58%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Laguna Niguel	794		2023_0788	9.13	76%	0.0	0.00	0.00	-0.05	-0.05	0.00	0.00
Laguna Niguel	795		2023_0789	6.19	50%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Laguna Niguel	798		2023_0790	6.06	49%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Las Pulgas	193		2023_0791	[redacted]								
Las Pulgas	202		2023_0792	0.30	5%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Las Pulgas	503		2023_0793	[redacted]								
Margarita	984		2023_0794									
Margarita	986		2023_0795	7.92	63%	0.0	-0.04	-0.02	-0.02	-0.02	0.00	0.00
Margarita	987		2023_0796	7.12	57%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00
Margarita	989		2023_0797	8.21	66%	0.0	-0.03	-0.01	-0.02	-0.02	0.00	0.00
Margarita	1256		2023_0798	8.30	67%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Margarita	1258		2023_0799	5.85	47%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
Margarita	1259		2023_0800	4.47	36%	0.0	-0.01	0.00	-0.01	-0.01	0.00	0.00
Margarita	1260		2023_0801	7.29	58%	0.0	-0.03	-0.03	-0.02	-0.02	0.00	0.00
Margarita	980		2023_0802	[redacted]								
Margarita	981		2023_0803	8.09	65%	0.0	-0.04	0.00	-0.02	-0.02	0.00	0.00
Margarita	982		2023_0804	7.15	57%	0.0	-0.01	0.00	-0.02	-0.02	0.00	0.00
Margarita	983	GNA_2023_0013	2023_0805	7.44	60%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Margarita	985		2023_0806	7.90	63%	0.0	-0.03	-0.01	-0.02	-0.02	0.00	0.00
Margarita	988		2023_0807	5.90	47%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
Margarita	1257		2023_0808	7.82	63%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Pico	990		2023_0809	8.44	68%	0.0	-0.01	0.00	-0.03	-0.03	0.00	-0.01
Pico	991		2023_0810	8.15	65%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Pico	992		2023_0811	7.85	63%	0.0	-0.05	-0.05	-0.03	-0.03	0.00	0.00
Pico	993		2023_0812	8.22	66%	0.0	-0.01	0.00	-0.03	-0.03	0.00	-0.01
Pico	994		2023_0813	7.84	63%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Pico	995		2023_0814	10.73	86%	0.0	-0.03	0.00	-0.04	-0.04	0.00	-0.01
Rancho Mission Viejo	1242		2023_0815	8.31	61%	0.0	-0.01	0.00	-0.02	-0.02	0.00	-0.01
Rancho Mission Viejo	1243		2023_0816	5.19	32%	0.1	0.00	-0.01	-0.01	-0.01	0.00	0.00
Rancho Mission Viejo	1244		2023_0817	2.76	17%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Rancho Mission Viejo	1245		2023_0818	6.74	42%	0.0	-0.01	0.00	-0.01	-0.01	0.00	0.00
Rancho Mission Viejo	1247		2023_0819	0.54	4%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
San Mateo	200		2023_0821	7.27	58%	0.0	-0.03	0.00	-0.04	-0.04	0.00	-0.01
San Mateo	203		2023_0822	3.72	66%	0.0	0.00	0.00	-0.02	-0.02	0.00	0.00
San Mateo	204		2023_0823	3.54	35%	0.0	0.00	0.00	-0.01	-0.01	0.00	0.00
San Mateo	329		2023_0824	5.44	44%	0.0	0.00	-0.05	-0.03	-0.03	0.00	0.00
San Mateo	330		2023_0982	9.69	78%	0.0	-0.02	-0.01	-0.05	-0.05	0.00	0.00
San Mateo	331		2023_0983	6.58	53%	0.0	0.00	0.00	-0.03	-0.03	0.00	0.00
Trabuco	556		2023_0984	5.44	44%	0.0	-0.02	-0.03	-0.02	-0.02	0.00	0.00
Trabuco	557		2023_0985	9.54	77%	0.0	-0.04	-0.01	-0.03	-0.03	0.00	-0.01
Trabuco	560		2023_0986	4.32	35%	0.0	-0.06	-0.01	-0.02	-0.02	0.00	0.00
Trabuco	561		2023_0987	8.11	65%	0.0	-0.01	-0.01	-0.03	-0.03	0.00	0.00
Trabuco	562		2023_0988	8.22	66%	0.0	-0.02	0.00	-0.02	-0.02	0.00	0.00
Trabuco	564		2023_0989	5.79	46%	0.0	-0.02	-0.01	-0.02	-0.02	0.00	0.00
Trabuco	565		2023_0990	0.29	2%	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Trabuco	766		2023_0991	4.09	33%	0.0	-0.01	0.00	-0.01	-0.01	0.00	0.00
Trabuco	558		2023_0992	5.36	43%	0.0	-0.05	-0.03	-0.02	-0.02	0.00	0.00
Trabuco	559		2023_0993	[redacted]								
Trabuco	563		2023_0994	9.41	75%	0.0	-0.05	0.00	-0.03	-0.03	0.00	0.00
Trabuco	566		2023_0995	4.21	34%	0.0	-0.02	-0.04	-0.02	-0.02	0.00	0.00
Trabuco	567		2023_0996	4.14	33%	0.0	-0.01	-0.01	-0.02	-0.02	0.00	0.00
Trabuco	765		2023_0997	6.14	49%	0.0	-0.03	-0.01	-0.03	-0.03	0.00	0.00
Trabuco	767		2023_0998	[redacted]								
Trabuco	768		2023_0999	7.66	61%	0.0	-0.02	-0.02	-0.02	-0.02	0.00	0.00
Cabrillo	CB3031		2023_0826	[redacted]								
Clairemont	CM3031		2023_0827	42.72	72%	0.0	0.00	0.00	-0.17	0.63	0.03	-0.02
Dunhill	DH20		2023_0828	[redacted]								
Eastgate	EG3031		2023_0829									
Elliott	EL31		2023_0830									
Elliott	EL3233		2023_0831	30.31	51%	0.0	-0.02	-0.01	-0.09	0.24	0.01	-0.02
Friars	FR4142		2023_0832	49.89	84%	0.1	-0.01	-0.01	-0.16	0.17	0.01	-0.01
Genesee	GE3031		2023_0833	52.03	96%	0.0	-0.24	-0.15	-0.17	0.14	0.01	0.00
Genesee	GE3233		2023_0834	44.58	84%	0.0	-0.17	-0.16	-0.19	0.16	0.11	-0.01
Kearny West	KNY3031		2023_0835	22.31	38%	0.0	0.00	0.00	-0.04	0.07	0.01	0.00

Facility ID	2024 Forecasted Demand (MW)	2024 Facility Loading (%)	2024 Base Demand (MW)	2024 Residential PV (MW)	2024 Non-Residential PV (MW)	2024 EE (MW)	2024 EV (MW)	2024 AAFS (MW)	2024 ES (MW)	2025 Forecasted Demand (MW)	2025 Facility Loading (%)	2025 Base Demand (MW)	2025 Residential PV (MW)	2025 Non-Residential PV (MW)	2025 EE (MW)	2025 EV (MW)	2025 AAFS (MW)	2025 ES (MW)	2026 Forecasted Demand (MW)	2026 Facility Loading (%)	2026 Base Demand (MW)	2026 Residential PV (MW)	2026 Non-Residential PV (MW)	2026 EE (MW)	2026 EV (MW)	2026 AAFS (MW)	2026 ES (MW)	2027 Forecasted Demand (MW)	2027 Facility Loading (%)
2023_0682	9.17	75%	0.1	-0.01	0.00	-0.01	0.06	0.00	-0.01	9.22	76%	0.1	-0.02	0.00	-0.01	0.09	0.01	-0.02	9.31	77%	0.18	-0.02	-0.01	-0.02	0.12	0.01	-0.02	9.38	77%
2023_0683	6.33	51%	0.1	-0.01	0.00	-0.02	0.05	0.01	-0.01	6.48	52%	0.3	-0.01	0.00	-0.03	0.08	0.01	-0.02	6.64	53%	0.42	-0.02	0.00	-0.04	0.11	0.01	-0.02	6.88	55%
2023_0684	5.29	42%	0.0	-0.01	0.00	-0.03	0.03	0.01	0.00	5.32	43%	0.0	-0.01	0.00	-0.04	0.05	0.01	-0.01	5.36	43%	0.08	-0.01	0.00	-0.06	0.07	0.01	-0.01	5.45	44%
2023_0685	9.10	73%	0.2	-0.01	0.00	-0.06	0.07	0.01	-0.01	9.30	75%	0.4	-0.02	0.00	-0.08	0.10	0.02	-0.01	9.53	76%	0.58	-0.02	-0.01	-0.10	0.14	0.02	-0.02	9.78	78%
2023_0686	6.96	56%	0.0	0.00	0.00	-0.03	0.03	0.00	0.00	6.98	56%	0.0	-0.01	0.00	-0.04	0.04	0.01	0.00	7.02	56%	0.08	-0.01	0.00	-0.05	0.06	0.01	-0.01	7.05	57%
2023_0687	4.33	35%	0.0	-0.01	-0.01	-0.03	0.01	0.00	0.00	4.39	35%	0.1	-0.02	-0.01	-0.04	0.01	0.00	0.00	4.46	36%	0.18	-0.02	-0.02	-0.05	0.02	0.01	-0.01	4.48	36%
2023_0688	4.93	40%	0.0	0.00	0.00	-0.03	0.01	0.00	0.00	5.02	40%	0.1	0.00	0.00	-0.04	0.02	0.00	0.00	5.11	41%	0.21	0.00	0.00	-0.05	0.03	0.00	0.00	5.13	41%
2023_0689	9.08	73%	0.2	0.00	0.00	-0.04	0.02	0.00	0.00	9.25	74%	0.3	0.00	0.00	-0.05	0.03	0.00	0.00	9.42	76%	0.51	-0.01	0.00	-0.07	0.04	0.01	0.00	9.63	77%
2023_0690	8.43	68%	0.1	-0.01	0.00	-0.03	0.03	0.01	-0.01	8.51	68%	0.2	-0.01	0.00	-0.04	0.04	0.01	-0.01	8.57	69%	0.23	-0.01	0.00	-0.05	0.06	0.01	-0.01	8.65	69%
2023_0691	6.57	53%	0.0	-0.01	0.00	-0.02	0.04	0.01	-0.01	6.63	53%	0.1	-0.02	0.00	-0.03	0.06	0.02	-0.02	6.68	54%	0.14	-0.02	0.00	-0.04	0.08	0.02	-0.03	6.74	54%
2023_0692	7.07	57%	0.1	0.00	0.00	-0.05	0.10	0.00	-0.01	7.23	58%	0.2	0.00	0.00	-0.07	0.14	0.00	-0.01	7.37	59%	0.37	0.00	0.00	-0.09	0.19	0.00	-0.02	7.59	61%
2023_0693	2.11	17%	0.0	0.00	0.00	-0.01	0.01	0.00	0.00	2.15	17%	0.1	0.00	0.00	-0.01	0.01	0.00	0.00	2.19	18%	0.12	0.00	0.00	-0.01	0.01	0.00	0.00	2.24	18%
2023_0694	1.23	10%	0.0	0.00	0.00	0.00	0.01	0.00	0.00	1.24	10%	0.0	0.00	0.00	-0.01	0.01	0.00	0.00	1.25	10%	0.03	0.00	0.00	-0.01	0.01	0.00	0.00	1.26	10%
2023_0695	6.25	50%	0.1	-0.01	0.00	-0.02	0.02	0.00	-0.01	6.34	51%	0.2	-0.01	0.00	-0.03	0.04	0.00	-0.01	6.44	52%	0.27	-0.01	0.00	-0.04	0.05	0.00	-0.01	6.56	53%
2023_0696	5.49	50%	0.0	-0.01	0.00	-0.03	0.02	0.00	-0.01	5.56	51%	0.1	-0.01	0.00	-0.05	0.03	0.00	-0.01	5.63	51%	0.17	-0.01	-0.01	-0.06	0.04	0.00	-0.01	5.65	51%
2023_0697	3.87	31%	0.1	0.00	0.00	-0.02	0.02	0.00	-0.01	3.94	32%	0.2	-0.01	0.00	-0.02	0.03	0.00	-0.01	4.02	32%	0.23	-0.01	0.00	-0.03	0.04	0.00	-0.01	4.11	33%
2023_0698	[redacted]																												
2023_0699	4.89	39%	0.1	-0.01	0.00	-0.03	0.02	0.00	-0.01	5.01	40%	0.2	-0.01	-0.01	-0.04	0.04	0.00	-0.01	5.14	41%	0.39	-0.01	-0.01	-0.05	0.05	0.00	-0.02	5.30	43%
2023_0700	6.87	55%	0.1	-0.01	0.00	-0.03	0.04	0.00	-0.01	6.96	56%	0.2	-0.01	0.00	-0.04	0.06	0.00	-0.01	7.04	56%	0.26	-0.02	0.00	-0.06	0.07	0.01	-0.02	7.17	58%
2023_0701	8.94	72%	0.2	0.00	0.00	-0.06	0.10	0.00	0.00	9.25	74%	0.5	0.00	0.00	-0.08	0.15	0.01	0.00	9.60	77%	0.82	0.00	0.00	-0.10	0.20	0.01	0.00	10.08	81%
2023_0702	5.03	50%	0.0	-0.01	0.00	-0.02	0.02	0.00	-0.01	5.03	50%	0.0	-0.02	-0.01	-0.02	0.03	0.00	-0.01	5.04	50%	0.04	-0.03	-0.01	-0.03	0.04	0.00	-0.01	5.06	51%
2023_0703	9.77	87%	0.1	0.00	0.00	-0.06	0.20	0.00	0.00	9.98	89%	0.2	0.00	0.00	-0.08	0.31	0.00	0.00	10.20	91%	0.37	0.00	0.00	-0.10	0.41	0.01	0.00	10.52	94%
2023_0704	4.20	42%	0.0	-0.01	0.00	-0.02	0.02	0.00	-0.01	4.25	43%	0.1	-0.01	0.00	-0.02	0.03	0.00	-0.01	4.29	43%	0.14	-0.01	0.00	-0.03	0.04	0.00	-0.01	4.34	44%
2023_0705	3.80	30%	0.1	-0.01	0.00	-0.01	0.01	0.00	-0.01	3.86	31%	0.1	-0.01	0.00	-0.02	0.02	0.00	-0.01	3.92	31%	0.19	0.00	0.00	-0.03	0.09	0.00	0.00	4.02	32%
2023_0706	6.91	64%	0.3	-0.01	0.00	-0.03	0.05	0.01	-0.02	7.25	67%	0.6	-0.02	0.00	-0.04	0.08	0.02	-0.03	7.60	70%	1.06	-0.03	0.00	-0.05	0.15	0.02	-0.03	8.03	74%
2023_0707	[redacted]																												
2023_0708																													
2023_0709																													
2023_0710	5.27	42%	0.1	0.00	0.00	-0.02	0.08	0.00	0.00	5.37	43%	0.1	0.00	0.00	-0.03	0.12	0.00	0.00	5.46	44%	0.17	0.00	0.00	-0.03	0.16	0.00	0.00	5.57	45%
2023_0711	7.09	64%	0.1	0.00	0.00	-0.03	0.02	0.01	-0.01	7.13	65%	0.1	0.00	0.00	-0.04	0.02	0.02	-0.01	7.17	65%	0.14	-0.01	0.00	-0.05	0.03	0.02	-0.01	7.20	65%
2023_0712	1.40	14%	0.1	0.00	0.00	-0.02	0.01	0.00	0.00	1.49	14%	0.2	0.00	0.00	-0.02	0.02	0.00	0.00	1.57	15%	0.24	0.00	0.00	-0.03	0.02	0.00	0.00	1.66	16%
2023_0713	6.80	55%	0.1	0.00	0.00	-0.02	0.08	0.01	-0.02	6.94	56%	0.2	0.00	0.00	-0.03	0.12	0.01	-0.02	7.07	57%	0.31	0.00	0.00	-0.04	0.16	0.01	-0.03	7.21	58%
2023_0714	7.97	66%	0.1	-0.01	0.00	-0.03	0.08	0.01	-0.01	8.12	67%	0.3	-0.02	-0.01	-0.04	0.12	0.01	-0.02	8.32	69%	0.45	-0.02	-0.01	-0.05	0.16	0.01	-0.02	8.54	71%
2023_0715	6.85	57%	0.0	0.00	-0.13	-0.03	0.01	0.00	0.00	6.79	56%	0.0	0.00	-0.20	-0.05	0.02	0.00	0.00	6.72	56%	0.00	0.00	-0.26	-0.06	0.03	0.00	0.00	6.65	55%
2023_0716	12.04	97%	0.0	-0.02	0.00	-0.02	0.09	0.01	-0.01	12.07	97%	0.0	-0.04	0.00	-0.03	0.14	0.01	-0.02	12.09	97%	0.00	-0.05	0.00	-0.04	0.18	0.01	-0.02	12.14	97%
2023_0717	7.15	59%	0.0	-0.01	-0.01	-0.04	0.07	0.00	-0.01	7.17	60%	0.0	-0.01	-0.01	-0.06	0.10	0.01	-0.01	7.23	60%	0.08	-0.01	-0.02	-0.08	0.13	0.01	-0.02	7.30	61%
2023_0718	8.58	71%	0.0	-0.08	-0.05	-0.05	0.10	0.01	-0.02	8.57	71%	0.0	-0.02	-0.01	-0.07	0.15	0.01	-0.02	8.64	72%	0.09	-0.03	-0.02	-0.09	0.21	0.01	-0.03	8.73	72%
2023_0719	6.30	52%	0.0	0.00	-0.06	-0.03	0.01	0.00	0.00	6.26	52%	0.0	0.00	-0.09	-0.04	0.01	0.00	0.00	6.27	52%	0.05	0.00	-0.12	-0.05	0.01	0.00	0.00	6.25	52%
2023_0720	8.53	68%	0.0	0.00	-0.13	-0.05	0.01	0.00	0.00	8.46	68%	0.0	0.00	-0.20	-0.06	0.02	0.00	0.00	8.38	67%	0.00	0.00	-0.26	-0.08	0.03	0.00	0.00	8.31	67%
2023_0721	[redacted]																												
2023_0722	8.05	65%	0.0	-0.05	-0.03	-0.03	0.06	0.00	-0.01	8.03	64%	0.0	-0.07	-0.05	-0.03	0.09	0.01	-0.01	8.00	64%	0.00	-0.10	-0.07	-0.04	0.12	0.01	-0.02	8.01	64%
2023_0723	8.41	76%	0.2	0.00	0.00	-0.03	0.09	0.01	0.00	8.69	79%	0.4	0.00	0.00	-0.04	0.14	0.01	0.00	8.95	81%	0.67	0.00	0.00	-0.05	0.18	0.01	0.00	9.23	84%
2023_0724	5.85	56%	0.1	0.00	0.00	-0.02	0.09	0.00	-0.01	6.02	58%	0.3	0.00	0.00	-0.03	0.14	0.00	-0.02	6.18	60%	0.39	0.00	0.00	-0.04	0.18	0.00	-0.02	6.38	61%
2023_0725	7.03	56%	0.0	-0.01	0.00	-0.03	0.04	0.01	-0.01	7.07	57%	0.1	-0.01	0.00	-0.04	0.06	0.01	-0.02	7.11	57%	0.11	-0.01	-0.01	-0.06	0.08	0.01	-0.02	7.15	57%
2023_0726	6.37	58%	0.0	-0.01	0.00	-0.04	0.08	0.01	-0.01	6.43	58%	0.1	-0.02	0.00	-0.05	0.12	0.01	-0.02	6.49	59%	0.12	-0.02	-0.01	-0.07	0.16	0.01	-0.03	6.56	60%
2023_0727	5.94	48%	0.0	-0.01	0.00	-0.03	0.07	0.00	-0.01	5.97	48%	0.0	-0.01	0.00	-0.04	0.10	0.01	-0.02	6.00	48%	0.05	-0.02	0.00	-0.05	0.14	0.01	-0.02	6.05	48%
2023_0728	8.48	68%	0.0	-0.01	0.00	-0.03	0.05	0.01	-0.01	8.50	68%	0.0	-0.02	0.00	-0.04	0.08	0.01	-0.02	8.51	68%	0.05	-0.02	0.00	-0.06	0.10	0.01	-0.03	8.53	68%
2023_0729	5.01	40%	0.0	-0.03	-0.01	-0.03	0.02	0.00	-0.01	5.07	41%	0.1	-0.05	-0.01	-0.05	0.03	0.01	-0.01	5.14	41%	0.19	-0.07	-0.01	-0.06	0.05	0.01	-0.01	5.17	41%
2023_0730	[redacted]																												
2023_0731	8.04	64%	0.0	-0.05	-0.06	-0.05	0.03	0.00	-0.01	8.08	65%	0.1	-0.03	-0.04	-0.06	0.05	0.00	-0.01	8.15	65%	0.22	-0.05	-0.05	-0.08	0.07	0.00	-0.01	8.17	65%
2023_0732	[redacted]																												
2023_0733	8.04	64%	0.0	-0.07	-0.01	-0.04	0.05	0.01	-0.01	8.02	64%	0.0	-0.10	-0.01	-0.06	0.07	0.01	-0.02	8.05	65%	0.04	-0.02	0.00	-0.08	0.17	0.01	-0.02	8.10	65%
2023_0734	8.96	72%	0.0	0.00	0.00	-0.05	0.58	0.01	0.00	9.25	74%	0.0	0.00	0.00	-0.07	0.86	0.01	0.00	9.51	76%	0.06	0.00	0.00	-0.09	1.13	0.02	0.00	9.80	79%
2023_0735	6.73	55%	0.0	-0.05	-0.02	-0.04	0.06	0.00	-0.01	6.72	55%	0.0	-0.08	-0.02	-0.06	0.09	0.01	-0.01	6.70	54%	0.01	-0.10	-0.03	-0.07	0.12	0.01	-0.02	6.69	54%
2023_0736	7.77	62%	0.0	-0.05	-0.01	-0.06	0.06	0.00	-0.01	7.75	62%	0.0	-0.07	-0.01	-0.08	0.08	0.01	-0.01	7.73	62%	0.01	-0.09	-0.01	-0.11	0.11	0.01	-0.01	7.71	62%
2023_0737	3.94	36%	0.1	0.00	0.00	-0.02	0.01	0.00	-0.01	4.02	37%	0.2	-0.01	0.00	-0.03	0.02	0.00	-0.01	4.11	37%	0.27	-0.01	0.00	-0.04	0.03	0.00	-0.01	4.22	38%
2023_0738	2.77	22%	0.0	0.00	0.00	-0.01	0.02	0.00	0.00	2.83	23%	0.1	0.00	0.00	-0.01	0.02	0.00	-0.01	2.88	23%	0.15	0.00	0.00	-0.02	0.03	0.00	-0.01	2.95	24%
2023_0739	[redacted]																												
2023_0740	7.68	62%	0.1	-0.01	-0.01	-0.04	0.02	0.00	-0.01	7.83	63%	0.3	-0.01	-0.01	-0.06	0.03	0.00	-0.02	7.95	64%	0.42	-0.01	-0.01	-0.07	0.04	0.00	-0.03	8.14	65%
2023_0741	11.00	88%	0.0	0.00	0.00	-0.08	0.25	0.01	-0.02	11.14	89%	0.1	0.00	0.00	-0.10	0.37	0.02	-0.03	11.34	91%	0.19	0.00	0.00	-0.14	0.50	0.03	-0.04	11.58	93%
2023_0742	7.22	58%	0.0	-0.01	0.00	-0.04	0.08	0.00	-0.01	7.28	58%	0.1	-0.01	0.00	-0.05	0.11	0.01	-0.01	7.34	59%	0.12	-0.02	0.00	-0.07	0.15	0.01	-0.02	7.43	60%
2023_0743	10.53	84%	0.0	-0.10	-0.32	-0.07	0.06	0.00	0.00	10.36	83%	0.0	-0.14	-0.46	-0.09	0.09	0.01	0.00	10.52	84%	0.40	-0.19	-0.62	-0.12	0.11	0.01	0.00	10.54	84%
2023_0744	10.59	85%	0.0	-0.04	-0.05	-0.07	0.07	0.00	-0.02	10.56	85%	0.0	-0.06	-0.07	-0.09	0.11	0.01	-0.02	10.55	85%	0.03	-0.08	-0.09	-0.12	0.14	0.01	-0.03	10.57	85%
2023_0745	[redacted]																												
2023_0746	9.34	75%	0.2	0.00	0.00	-0.05	0.13	0.01	-0.01	9.59	77%	0.4	0.00	0.00	-0.07	0.20	0.01	-0.01	9.85	79%	0.58	0.00	0.00	-0.09	0.27	0.01	-0.02	10.14	81%
2023_0747	[redacted]																												
2023_0748	9.46	76%	0.1	0.00	0.00	-0.06	0.23	0.01	0.00	9.66	77%	0.2	0.00	0.00	-0.08	0.34	0.01	0.00	9.93	80%	0.37	0.00	0.00	-0.11	0.46	0.02	0.00	10.26	82%
2023_0749	4.92	39%	0.0	0.00	0.00	-0.02	0.16	0.01	0.00	5.01	40%	0.0	0.00	0.00	-0.03	0.24	0.01	0.00	5.11	41%	0.05	0.00	0.00	-0.03	0.32	0.01	0.00	5.30	42%
2023_0750	7.55	61%	0.0	0.00	-0.19	-0.06	0.05	0.00	0.00	7.46	60%	0.0	0.00	-0.28	-0.09	0.08	0.00	0.00	8.99	72%	0.00	0.00	-0.42	-0.11	0.10	0.00	0.00	8.88	71%
2023_0751	8.48	68%	0.1	-0.07	-0.03	-0.06	0.06	0.00	-0.02	8.55	69%	0.2	-0.11	-0.04	-0.09	0.10	0.01	-0.02	8.61	69%	0.32	-0.14	-0.05	-0.11	0.13	0.01	-0.03	8.76	70%
2023_0752	0.00	0%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
2023_0753	1.06	28%	0.0	0.00	0.00	-0.01	0.00	0.00	0.00	1.08	29%	0.0	0.00	0.00	-0.01	0.01	0.00	0.00	1.10	29%	0.07	0.00	0.00	-0.02	0.01	0.00	0.00	1.13	30%
2023_0754	4.41	68%	0.2	-0.03	0.00	-0.03	0.01	0.00	-0.01	4.63	72%	0.5	0.00	0.00	-0.04	0.02	0.00	-0.02	4.86	75%	0.70	-0.01	0.00	-0.05	0.02	0.00	-0.02	5.11	79%
2023_0755	5.56	15%	0.2	0.00	0.00	-0.03	0.02	0.00	-0.01	5.77	19%	0.4	-0.01	0.00	-0.04	0.03	0.00	-0.02	5.96	22%	0.62	-0.01	0.00	-0.05	0.04	0.00	-0.03	6.18	25%

Confidential information is highlighted black and redacted

Substation	Bank/Circuit	GNA_ID	Facility ID	2023 Forecasted Demand (MW)	2023 Facility Loading (%)	2023 Base Demand (MW)	2023 Residential PV (MW)	2023 Non-Residential PV (MW)	2023 EE (MW)	2023 EV (MW)	2023 AAFS (MW)	2023 ES (MW)	2024 Forecasted Demand (MW)	2024 Facility Loading (%)	2024 Base Demand (MW)	2024 Residential PV (MW)
Kearny West	KNY3234		2023_0836	45.51	76%	0.0	-0.01	-0.02	-0.13	0.08	0.01	-0.02	45.45	76%	0.0	-0.01
Kettner	KE31		2023_0837	15.85	59%	0.0	-0.05	-0.03	-0.06	0.18	0.01	-0.01	16.53	62%	0.6	-0.09
Kyocera	KA30		2023_0838	[redacted]												
La Jolla	LJ3031		2023_0839	25.69	43%	0.0	-0.04	-0.03	-0.12	0.13	0.04	-0.01	26.01	43%	0.3	-0.09
Mesa Heights	MSH31		2023_0840	15.02	60%	0.0	0.00	-0.27	-0.05	0.06	0.00	0.00	15.26	61%	0.0	0.00
Mesa Heights	MSH3233		2023_0841	41.40	76%	0.0	-0.13	-0.31	-0.12	0.13	0.01	0.00	41.60	77%	0.0	-0.26
Mesa Rim	MRM3031		2023_0842	41.20	70%	0.0	-0.12	-0.34	-0.12	0.07	0.02	0.00	41.28	70%	0.1	-0.12
Mesa Rim	MRM3233		2023_0843	[redacted]												
Mira Sorrento	MTO3132		2023_0844	56.68	96%	0.0	-0.06	-0.25	-0.14	0.09	0.01	0.00	59.30	101%	0.0	-0.12
Miramar	MR3031		2023_0845	[redacted]												
Miramar	MR32		2023_0846	10.34	79%	0.0	-0.06	-0.08	-0.03	0.01	0.00	0.00	10.21	79%	0.0	-0.11
Mission	MS3033		2023_0847	46.79	79%	0.0	-0.13	-0.06	-0.16	0.35	0.03	-0.02	49.49	84%	0.2	-0.26
Mission	MS3132		2023_0848	36.89	65%	0.0	-0.04	-0.01	-0.15	0.24	0.03	-0.01	40.28	71%	0.1	-0.16
Old Town	OT3031	GNA_2023_0012	2023_0849	56.33	94%	1.5	-0.03	-0.01	-0.17	0.31	0.02	-0.02	58.90	98%	1.3	-0.06
Old Town	OT32		2023_0850	18.78	82%	0.0	-0.01	-0.08	-0.08	0.09	0.00	0.00	18.74	81%	0.0	-0.03
Pacific Beach	PB3031		2023_0851	53.54	91%	0.0	0.00	0.00	-0.25	0.64	0.03	0.00	54.13	92%	0.1	0.00
Point Loma	PTL3031		2023_0852	36.59	61%	0.0	0.00	0.00	-0.14	0.38	0.02	-0.01	36.95	62%	0.1	0.00
Point Loma	PTL32		2023_0853	8.37	28%	0.0	0.00	0.00	-0.05	0.22	0.01	-0.01	8.56	29%	0.0	0.00
Point Loma Navy Mete	PLNM3031		2023_0854	15.38	26%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	15.38	26%	0.0	0.00
Point Loma Sewage	PLS10		2023_0855	[redacted]												
Rose Canyon	RN3132		2023_0856	43.22	73%	0.0	0.00	0.00	-0.20	1.03	0.06	0.00	44.43	75%	0.3	0.00
Scripps	SS30		2023_0857	21.48	77%	0.0	-0.03	-0.02	-0.07	0.11	0.01	-0.01	21.48	77%	0.0	-0.06
Scripps	SS3132		2023_0858	44.03	74%	0.0	-0.02	-0.01	-0.17	0.29	0.02	-0.03	44.45	75%	0.3	-0.05
Torrey Pines	TP3031		2023_0859	46.01	81%	0.0	-0.01	-0.02	-0.16	0.11	0.01	-0.01	46.04	81%	0.1	-0.03
Torrey Pines	TP3233		2023_0860	34.58	58%	0.0	0.00	-0.05	-0.09	0.00	0.00	0.00	34.48	58%	0.0	0.00
Vine	VN31		2023_0861	[redacted]												
Vine	VN3233		2023_0862	43.55	77%	0.1	-0.09	-0.07	-0.17	0.22	0.02	-0.03	44.00	78%	0.6	-0.17
Border	BD3132	GNA_2023_0003	2023_0863	[redacted]												
Coronado	CR3132		2023_0864	38.48	69%	0.0	-0.02	-0.01	-0.15	0.25	0.03	-0.02	38.94	70%	0.4	-0.04
Division	DI3132		2023_0865	[redacted]												
Grant Hill	GHL4142		2023_0866	23.77	56%	0.0	-0.49	-0.15	-0.10	0.39	0.02	0.00	23.98	57%	0.5	-0.95
Imperial Beach	IB3032		2023_0867	45.96	79%	0.0	-0.06	-0.05	-0.18	0.18	0.23	-0.02	46.68	80%	0.6	-0.12
Montgomery	MG3031		2023_0868	38.66	65%	0.0	-0.20	-0.21	-0.16	0.10	0.02	-0.01	38.46	64%	0.2	-0.39
National City	NC21		2023_0869	1.05	15%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	1.05	15%	0.0	0.00
Otay	OY3233		2023_0872	37.97	69%	0.0	0.00	0.00	-0.17	0.28	0.08	0.00	42.14	76%	0.2	0.00
Otay Lakes	OL30		2023_0873	[redacted]												
Paradise	PD3132		2023_0874	53.41	89%	0.0	0.00	0.00	-0.24	0.56	0.03	0.00	54.04	91%	0.2	0.00
Proctor Valley	PV4142		2023_0875	46.91	79%	0.0	-0.06	-0.01	-0.13	0.24	0.01	-0.03	47.46	80%	0.5	0.00
Salt Creek	SLT3132		2023_0876	21.94	37%	0.1	-0.02	-0.01	-0.07	0.12	0.01	-0.01	23.08	38%	0.3	-0.04
Sampson	S3031		2023_0877	[redacted]												
Sampson	S3233		2023_0878	45.60	76%	0.0	-0.10	-0.14	-0.17	0.14	0.06	-0.02	47.30	79%	0.5	-0.03
San Ysidro	SYO3132		2023_0879	49.53	89%	0.0	0.00	0.00	-0.05	0.45	0.28	0.00	48.75	88%	0.5	0.00
Station B	B3031		2023_0880	[redacted]												
Station B	B3233		2023_0881	31.51	55%	0.0	0.00	-0.03	-0.07	0.11	0.01	-0.02	42.89	74%	0.2	-0.01
Station F	F30	GNA_2023_0005	2023_0882	28.82	96%	0.0	-0.09	-0.03	-0.12	0.15	0.01	-0.01	31.78	106%	0.0	-0.17
Station F	F3132		2023_0883	50.87	93%	0.0	-0.21	-0.05	-0.22	0.34	0.03	-0.02	51.39	94%	0.1	0.00
Streamview	SR3031		2023_0884	[redacted]												
Streamview	SR32		2023_0885	0.00	0%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.0	0.00
Sunnyside	SU32		2023_0886	13.32	44%	0.0	0.00	0.00	-0.05	0.12	0.01	-0.01	13.50	45%	0.1	0.00
Sweetwater	SW3132		2023_0887	48.82	83%	0.0	0.00	0.00	-0.24	0.30	0.02	0.00	50.39	86%	0.3	0.00
Telegraph Canyon	TC4041		2023_0889	35.95	60%	0.0	-0.04	-0.01	-0.11	0.16	0.01	-0.02	36.22	60%	0.1	0.00
Telegraph Canyon	TC4243		2023_0890	45.43	76%	0.0	0.00	0.00	-0.16	0.46	0.02	0.00	45.82	77%	0.1	0.00
Urban	UB31		2023_0891	17.94	60%	0.1	-0.01	-0.05	-0.07	0.07	0.01	0.00	18.07	60%	0.3	-0.01
Urban	UB3233		2023_0892	40.53	68%	0.0	-0.01	-0.04	-0.19	0.12	0.01	-0.02	40.72	68%	0.3	-0.01
Wabash Canyon	WAC32		2023_0893	13.82	46%	0.0	-0.01	0.00	-0.05	0.01	0.00	0.00	14.19	47%	0.4	-0.01
Alpine	AL3032		2023_0894	33.72	57%	0.0	-0.03	0.00	-0.10	0.06	0.01	-0.07	33.87	58%	0.3	-0.05
Barrett	BAR31		2023_0895	5.34	43%	0.0	0.00	0.00	-0.02	0.03	0.00	-0.01	5.44	44%	0.1	-0.01
Boulevard East	BUE40		2023_0896	3.14	10%	0.0	0.00	0.00	-0.02	0.00	0.00	0.00	3.34	11%	0.2	0.00
Cameron	CN30		2023_0897	4.80	64%	0.0	0.00	0.00	-0.02	0.01	0.00	-0.01	5.00	67%	0.2	-0.01
Carlton Hills	CH4143		2023_0898	37.17	74%	0.0	-0.04	-0.03	-0.07	0.13	0.01	-0.02	44.45	89%	0.3	-0.09
Chollas West	CSW31		2023_0899	21.26	71%	0.0	-0.02	-0.01	-0.08	0.07	0.01	-0.01	21.37	71%	0.1	-0.03
Chollas West	CSW3233		2023_0900	49.55	83%	0.1	-0.95	-0.17	-0.14	0.14	0.02	0.01	49.00	82%	0.5	-1.86
Crestwood	CW30		2023_0901	0.93	10%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.95	10%	0.0	0.00
Descanso	DE30		2023_0902	4.37	58%	0.0	0.00	0.00	-0.02	0.01	0.00	-0.01	4.50	60%	0.1	-0.01
El Cajon	EC3031		2023_0903	51.15	85%	0.0	-0.02	-0.03	-0.14	0.11	0.01	-0.01	51.51	86%	0.4	-0.04
El Cajon	EC3233		2023_0904	41.92	70%	0.0	-0.08	-0.06	-0.14	0.11	0.01	-0.01	45.26	76%	0.3	-0.16
Garfield	GA30		2023_0905	20.09	67%	0.0	-0.01	0.00	-0.07	0.05	0.01	0.00	20.09	67%	0.0	-0.02
Glencliff	GC30		2023_0906	3.51	47%	0.0	0.00	0.00	-0.02	0.01	0.00	-0.01	3.55	47%	0.1	-0.01
Granite	GR3031		2023_0907	44.98	79%	0.0	-0.65	-0.27	-0.15	1.60	0.01	-0.02	45.07	79%	0.3	-0.78
Granite	GR3233		2023_0908	42.64	71%	0.0	-0.13	-0.04	-0.15	0.09	0.01	-0.02	42.62	71%	0.2	-0.25
Jamacha	JM30		2023_0909	24.47	82%	0.0	-0.02	-0.01	-0.08	0.06	0.01	-0.01	24.52	82%	0.1	-0.03
Jamacha	JM3132		2023_0910	41.88	71%	0.0	-0.02	-0.01	-0.12	0.12	0.01	-0.04	42.10	71%	0.3	-0.04
Los Coches	LCS31		2023_0911	20.96	70%	0.0	-0.01	-0.01	-0.08	0.06	0.00	-0.01	21.21	71%	0.3	-0.02
Los Coches	LCS3233		2023_0912	34.97	58%	0.1	-0.02	0.00	-0.11	0.05	0.01	-0.02	35.10	59%	0.2	-0.03
Loveland	LL30		2023_0913	[redacted]												
Murray	MY3031		2023_0914	45.05	77%	0.0	-0.12	-0.05	-0.06	0.13	0.02	-0.01	45.18	77%	0.2	-0.23
Murray	MY3233		2023_0915	45.23	76%	0.0	-0.14	-0.03	-0.06	0.15	0.01	-0.01	45.25	76%	0.1	-0.28
Santee	SN4041		2023_0916	32.83	57%	0.1	-0.02	-0.01	-0.12	0.08	0.01	-0.01	33.05	57%	0.3	-0.03
Santee	SN43		2023_0917	20.00	67%	0.0	-0.01	0.00	-0.06	0.05	0.00	-0.01	20.22	67%	0.2	-0.02
Spring Valley	SV3031		2023_0918	50.94	85%	0.0	-0.05	-0.01	-0.18	0.18	0.02	-0.02	51.39	86%	0.5	-0.09
Batiquitos	BQ41		2023_0919	24.61	82%	0.0	0.00	0.00	-0.08	0.34	0.01	0.00	25.05	83%	0.2	0.00
Batiquitos	BQ4243		2023_0920	56.20	94%	0.1	-0.06	-0.04	-0.18	0.37	0.02	-0.04	56.54	95%	0.3	-0.13
Cannon	CAN4041		2023_0921	[redacted]												
Cannon	CAN4243		2023_0922													
Del Mar	DM31		2023_0923	23.24	77%	0.0	0.00	0.00	-0.10	0.47	0.01	0.00	23.70	79%	0.1	0.00
Del Mar	DM3233		2023_0924	41.82	80%	0.0	0.00	0.00	-0.19	1.05	0.02	0.00	42.81	81%	0.1	0.00
Encinitas	EN20		2023_0925	3.74	60%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	3.74	60%	0.0	0.00
Encinitas	EN3031		2023_0927	44.08	79%	0.0	0.00	0.00	-0.19	1.12	0.04	-0.05	45.17	81%	0.2	0.00
Melrose	ME3031		2023_0929	43.03	77%	0.0	-0.04	-0.02	-0.19	0.20	0.02	-0.02	43.58	78%	0.6	-0.07
Melrose	ME3233		2023_0930	46.72	81%	0.1	-0.03	-0.02	-0.19	0.20	0.02	-0.02	47.23	82%	0.6	-0.07
Morro Hill	MH30		2023_0931	10.43	83%	0.0	-0.02	-0.01	0.00	0.05	0.00	-0.01	10.57	85%	0.1	-0.03
North City West	NCW3031		2023_0932	49.92	83%	0.1	0.00	0.00	-0.15	1.11	0.02	0.00	51.60	86%	0.6	0.00
Ocean Ranch	OR3132		2023_0933	34.32	57%	0.0	-0.09	-0.08	-0.09	0.10	0.01	-0.02	34.38	57%	0.2	-0.05
Oceanside	OS3031		2023_0935	40.21	67%	0.0	0.00	0.00	-0.21	0.38	0.03	0.00	41.08	69%	0.6	0.00
Palomar Airport	PAR4041		2023_0936	36.54	61%	0.0	-0.17	-0.21	-0.15	0.09	0.01	-0.01	36.22	61%	0.1	-0.35
Palomar Airport	PAR42	GNA_2023_0017	2023_0939	27.41	91%	0.0	-0.02	-0.30	-0.10	0.02	0.01	0.00	29.41	98%	0.0	-0.04
Pendleton	PN3031		2023_0940	22.02	37%	0.0	-0.03	-0.63	-0.18	0.02	0.00	0.00	21.36	36%	0.0	-0.05
Rancho Santa Fe	SF20		2023_0941	0.00	0%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	0.0	0.00
Rancho Santa Fe	SF3132		2023_0942	26.29	44%	0.0	0.00	0.00	-0.12	0.09	0.01	-0.04	26.46	44%	0.2	0.00
San Luis Rey	SA3334		2023_0943	35.33	61%	0.0	0.00	0.00	-0.16	0.39	0.04	-0.02	35.69	61%	0.1	0.00
San Luis Rey	SA3536		2023_0944	40.42	74%	0.0	0.00	0.00	-0.21	0.47	0.03	0.00	40.93	75%	0.2	0.00
Shadowridge	SH4041		2023_0945	48.90	82%	0.0	-0.03	-0.03	-0.19	0.22	0.02	-0.02	49.20	82%	0.3	-0.06
Shadowridge	SH42		2023_0946	19.27	64%	0.0	-0.03	-0.05	-0.08	0.08	0.01	-0.01	19.24	64%	0.0	-0.05
Stuart	STU30		2023_0947	4.34	78%	0.0	0.00	0.00	-0.02	0.01	0.00	0.00	4.38	79%	0.0	0.00
Artesian Ranch	ARR3132		2023_0948	42.00	71%	0.2	-0.09	0.00	-0.10	0.30	0.01	-0.04	42.72	72%	0.8	-0.18
Ash	AS3031		2023_0949	43.91	76%	0.0	-0.03	-0.01	-0.14	0.12	0.02	-0.03	44.36	77%	0.5	-0.06
Ash	AS32		2023_0950	21.52	72%	0.0	-0.01	-0.01	-0.08	0.08	0.01	-0.01	21.58	72%	0.1	-0.03
Avocado	AV3133		2023_0951	26.80	45%	0.0	-0.03	-0.01	-0.10	0.10	0.01	-0.03	27.31	46%	0.5	-0.05
Bernardo	BE3032		2023_0952	41.87	71%	0.0	-0.25	-0.13	-0.10	0.10	0.01	-0.02	41.65	71%	0.0	-0.32
Bernardo	BE3133		2023_0953	37.49	63%	0.0	-0.16	-0.03	-0.08	0.20	0.01	-0.02	37.59	63%	0.2	-0.30
Bernardo	BE34		2023_0954	9.63	32%	0.0	0.00	0.00	-0.07	0.03	0.00	0.00	9.62	32%	0.0	-0.01
Borrego	BR3031		2023_0955	16.85	70%	0.0	-0.31	-0.09	-0.01	0.02	0.00	0.00	16.86	70%	0.4	-0.60
Chicarita	CC4041		2023_0956	42.23	74%	0.0	-0.05	-0.01	-0.16	0.40	0.02	-0.03	45.24	79%	0.1	-0.09
Chicarita	CC42		2023_0957	14.21	47%	0.0	-0.06	-0.02	-0.06	0.08	0.00	-0.01	14.18	47%	0.0	-0.12
Creelman	CRE3031		2023_0959	39.32	67%	0.0	-0.03	-0.01	-0.13	0.11	0.00	-0.04	39.65	67%	0.4	-0.06
Creelman	CRE32		2023_0960	14.76	49%	0.0	-0.01	0.00	-0.03	0.04	0.00	-0.02	15.01	50%	0.3	0.00
Esco	ESCO10		2023_0961	3.29	84%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	3.29	84%	0.0	0.00
Esco	ESCO3132		2023_0962	43.19	72%	0.0	-0.32	-0.24	-0.16	0.10	0.01	-0.02	42.73	71%	0.1	-0.63
Escondido	ES3031		2023_0963	[redacted]												
Escondido	ES32		2023_0965													
Felicita	FE3031		2023_0966	33.01	55%	0.0	-0.02	0.00	-0.11	0.11	0.02	-0.01	33.38	56%	0.4	-0.03
Felicita	FE32		2023_0967	21.45	71%	0.0	-0.01	0.00	-0.05	0.04	0.01	-0.01	21.72	72%	0.3	-0.02
Lilac	LI3132		2023_0968	25.93	44%	0.0	-0.01	-0.01	-0.09	0.07	0.00	-0.02	26.34	44%	0.5	-0.03
Monserate	MN3031		2023_0971	34.34	58%	0.0	-0.03	-0.01	-0.11	0.12	0.01	-0.03	34.84	58%	0.5	-0.05
Olivenhain	OV30		2023_0972	6.77	23%	0.0	-0.01	0.00	-0.02	0.03	0.01	-0.01	7.06	24%	0.3	-0.01
Pala	PA30		2023_0973	17.14	57%	0.0	-0.01	0.00	-0.05	0.05	0.01	-0.02	17.39	58%	0.3	-0.02
Pomerado	POM31		2023_0974	22.85	76%	0.0	-0.02	-0.01	-0.04	0.09	0.01	-0.01	22.99	77%	0.1	-0.04
Pomerado	POM3233		2023_0975	43.19	73%	0.0	-0.19	-0.20	-0.11	0.12	0.01	-0.02	42.85	72%	0.0	-0.37
Poway	POW3132		2023_0976	37.58	64%	0.0	-0.03	-0.01	-0.10	0.13	0.02	-0.04	38.03	65%	0.5	-0.05
Rancho Carmel	RCL31		2023_0977	16.53	55%	0.0	-0.09	-0.06	-0.05	0.04	0.00	-0.01	16.46	55%	0.0	-0.12
Rancho Carmel	RCL3233		2023_0978	32.96	55%	0.0	-0.15	-0.03	-0.14	0.19	0.01	-0.02	32.87	55%	0.0	-0.30
Rincon	RIN3031		2023_0979	18.58	80%	0.0	-0.01	0.00	-0.05	0.03	0.00	-0.01	18.80	81%	0.3	-0.01
San Marcos	SM3031		2023_0980	52.04	88%	0.0	-0.03	-0.02	-0.19	0.26	0.02	-0.04	52.34	89%	0.3	-0.06
San Marcos	SM3233		2023_0981	36.73	62%	0.0	-0.04	-0.03	-0.12	0.16	0.01	-0.03	36.96	62%	0.2	-0.08
Santa Ysabel	STY31		2023_0999	8.67	69%	0.0	-0.01	0.00	-0.04	0.02	0.00	-0.01	9.06	73%	0.4	-0.01
Valley Center	VC31		2023_1000	21.29	71%	0.0	0.00	0.00	-0.05	0.11	0.00	-0.02	21.64	72%	0.3	0.00
Warners	WR30		2023_1001	[redacted]												
Warren Canyon	WC2030		2023_1002	1.05	7%	0.0	0.00	0.00	0.00	0.00	0.00	0.00	1.05	7%	0.0	0.00
Basilone	BAS31		2023_1004	[redacted]												
Japanese Mesa	JA3031		2023_1005													
Laguna Niguel	LNL4041		2023_1006	45.49	76%	0.0	0.00	0.00	-0.22	0.83	0.00	0.00	46.16	77%	0.1	0.00
Laguna Niguel	LNL4243		2023_1007	43.12	72%	0.0	0.00	0.00	-0.19	0.66	0.00	-0.02	43.62	73%	0.1	0.00
Las Pulgas	LP32		2023_1008	[redacted]												
Margarita	MAR4041		2023_1009	45.47	76%	0.0	-0.08	0.00	-0.11	0.26	0.00	-0.03	45.54	76%	0.0	-0.15
Margarita	MAR4243		2023_1010	45.76	77%	0.0	-0.35	0.00	-0.13	0.28	0.00	-0.03	45.58	76%	0.0	-0.66
Pico	PI4142		2023_1011	47.75	80%	0.1	-0.05	-0.01	-0.16	0.37	0.00	-0.04	47.99	80%	0.2	-0.10
Rancho Mission Viejo	RMV4142		2023_1012	29.81	50%	0.2	-0.10	-0.03	-0.03	0.24	0.00	-0.02	30.14	50%	0.4	-0.19
San Juan Capistrano	SJC4041		2023_1013	52.44	88%	0.0	-0.07	0.00	-0.16	0.25	0.00	-0.03	52.50	88%	0.1	-0.14
San Mateo	SMO4041		2023_1014	32.24	75%	0.0	-0.03	-0.01	-0.17	0.28	0.00	-0.02	32.66	76%	0.1	0.00
Trabuco	TB4041		2023_1015	41.34	70%	0.0	-0.14	-0.06	-0.14	0.23	0.00	-0.02	41.31	70%	0.1	-0.27
Trabuco	TB4243		2023_1016	44.16	75%	0.0	-0.13	-0.07	-0.15	0.18	0.00	-0.01	44.07	75%	0.1	-0.24

Confidential information is highlighted black and redacted

GNA_ID	Facility ID	Substation	Bank or Circuit ID	Distribution Service Identified	Primary Driver of Grid Need	Anticipated Upgrade Date	Facility Type	Equipment Rating	Equipment Units	Deficiency 2023(MW, Vpu)	Deficiency 2024(MW, Vpu)	Deficiency 2025(MW, Vpu)	Deficiency 2026(MW, Vpu)	Deficiency 2027(MW, Vpu)	Deficiency 2023 (%)	Deficiency 2024 (%)	Deficiency 2025 (%)	Deficiency 2026 (%)	Deficiency 2027 (%)
GNA_2023_0001	2023_0395	Chollas West	160	Thermal	Demand Growth	6/1/2024	Distribution Line	9.98	MW	0.00	0.00	0.26	0.68	0.91	0%	0%	3%	7%	9%
GNA_2023_0002	2023_0397	Chollas West	163	Voltage	Low Voltage	6/1/2024	Distribution Segment	0.96	Vpu	0.05	0.05	0.05	0.05	0.05	0.0%	0.0%	0.0%	0.0%	0.0%
GNA_2023_0003	2023_0863	Border	BD3132	Thermal	Demand Growth	3/1/2025	Substation Bus	59.30	MW	[redacted]									
GNA_2023_0004	2023_0210	Border	1161	Thermal, Backtie	Demand Growth	6/1/2024	Distribution Line	12.47	MW	0.18	1.55	1.50	1.52	1.57	1.4%	12.4%	12.0%	12.2%	12.6%
GNA_2023_0005	2023_0882	Station F	F30	Thermal	Demand Growth	6/1/2024	Substation Bus	30.00	MW	0.00	1.78	0.69	2.02	4.49	0.0%	5.9%	2.3%	6.7%	15.0%
GNA_2023_0006	2023_0353	Telegraph Canyon	1225	Thermal, Backtie	Specific Load	6/1/2025	Distribution Line	12.47	MW	0.00	0.00	0.87	1.14	1.50	0.0%	0.0%	7.0%	9.0%	12.0%
GNA_2023_0007	2023_0320	Station F	140	Thermal	Specific Load	6/1/2024	Distribution Segment	9.98	MW	[redacted]									
GNA_2023_0008	2023_0120	MISSION	701	Thermal	Demand Growth	6/1/2024	Distribution Line	12.47	MW	0.00	0.00	0.00		0.11	0%	0%	0%	0%	1%
GNA_2023_0009	2023_0506	Cannon	303	Thermal	Specific Load	6/1/2025	Distribution line	12.47	MW	0.00	0.40	1.66	1.95	2.50	0.0%	3.0%	13.0%	15.0%	20.0%
GNA_2023_0010	2023_0508	Cannon	781	Voltage	Low Voltage	6/1/2025	Distribution Segment	0.96	Vpu	0.00	0.00	0.05	0.05	0.05	0.0%	0.0%	0.0%	0.0%	0.0%
GNA_2023_0011	2023_0029	Friars	38	Thermal	Demand Growth	6/1/2026	Distribution Line	12.47	MW	[redacted]									
GNA_2023_0012	2023_0849	Old Town	OT3031	Thermal	Demand Growth	6/1/2025	Substation Bus	60.00	MW	0.00	0.00	0.32	0.00	1.74	0.0%	0.0%	0.5%	0.0%	2.9%
GNA_2023_0013	2023_0805	Margarita	983	Voltage	Low Voltage	6/1/2024	Distribution Segment	0.96	Vpu	0.00	0.05	0.05	0.05	0.05	0.0%	0.0%	0.0%	0.0%	0.0%
GNA_2023_0014	2023_0566	Palomar Airport	585	Thermal	Demand Growth	9/1/2023	Distribution Line	12.47	MW	[redacted]									
GNA_2023_0015	2023_0496	Batiquitos	753	Thermal	Demand Growth	6/1/2024	Distribution Segment	10.39	MW	1.20	1.20	1.30	1.30	1.40	11.0%	12.0%	12.0%	13.0%	14.0%
GNA_2023_0016	2023_0101	Mira Sorrento	1448	Thermal	Specific Load	6/1/2024	Distribution Line	12.47	MW	0.00	0.81	0.75	0.85	1.05	0%	7%	6%	7%	8%
GNA_2023_0017	2023_0939	Palomar Airport	PAR42	Thermal	Demand Growth	9/1/2023	Substation Bus	30.00	MW	0.00	0.00	0.18	0.05	0.36	0%	0%	1%	0%	1%
GNA_2023_0018	2023_0556	Ocean Ranch	1406	Thermal, Backtie	Specific Load	6/1/2024	Distribution Line	12.47	MW	4.13	4.23	4.37	4.54	4.86	33.1%	33.9%	35.0%	36.4%	38.9%
GNA_2023_0019	2023_0385	Carlton Hills	281	Thermal, Backtie	Specific Load	6/1/2024	Distribution Segment	11.22	MW	0.00	0.80	0.80	0.80	0.80	0.0%	7.0%	7.0%	7.0%	7.0%
GNA_2023_0020	2023_0386	Carlton Hills	282	Thermal, Backtie	Specific Load	6/1/2025	Distribution Line	12.47	MW	0.00	1.80	5.00	5.00	5.20	0.0%	14.0%	40.0%	40.0%	43.0%
GNA_2023_0021	2023_0527	Melrose	205	Thermal	Demand Growth	6/1/2024	Distribution Line	12.47	MW	0.00	0.00	0.00	0.45	1.01	0%	0%	0%	4%	8%
GNA_2023_0022	2023_0081	Mesa Rim	952	Thermal	Demand Growth	7/1/2023	Distribution Line	12.47	MW	0.45	0.52	0.59	0.66	0.76	4%	4%	5%	5%	6%
GNA_2023_0023	2023_0092	Mesa Rim	958	Thermal	Demand Growth	9/1/2023	Distribution Line	12.47	MW	0.16	0.12	0.08	0.05	0.01	1%	1%	1%	0%	0%
GNA_2023_0024	2023_0062	Kettner	137	Thermal	Demand Growth	6/1/2025	Distribution Line	12.47	MW	0.00	0.00	0.04	0.36	0.74	0%	0%	0%	3%	6%
GNA_2023_0025	2023_0156	Point Loma	496	Thermal	Specific Load	11/1/2024	Distribution Line	9.98	MW	0.00	0.00	0.50	0.50	0.50	0.0%	0.0%	5.0%	5.0%	5.0%
GNA_2023_0026	2023_0539	Morro Hill	486	Thermal	Specific Load	10/1/2024	Distribution line	12.47	MW	0.00	0.00	2.50	3.30	3.30	0.0%	0.0%	21.0%	27.0%	27.0%
GNA_2023_0027	2023_0279	Sampson	123	Thermal, Backtie	Specific Load	1/1/2024	Distribution Line	13.72	MW	0.00	0.86	2.49	4.15	6.01	0.0%	6.2%	18.2%	30.3%	43.8%
GNA_2023_0028	2023_0357	Urban	425	Thermal	Demand Growth	9/1/2023	Distribution Line	8.48	MW	[redacted]									
GNA_2023_0029	2023_0320	Station F	140	Thermal	Demand Growth	6/1/2025	Distribution Line	12.47	MW	0.00	0.00	0.34	1.37	3.90	0.0%	0.0%	2.7%	11.0%	31.3%
GNA_2023_0030	2023_0211	Border	1162	Thermal, Backtie	Demand Growth	3/1/2025	Distribution Line	12.47	MW	0.00	0.20	0.20	0.20	0.20	0.0%	2.0%	2.0%	2.0%	2.0%

Appendix 3 – DER Disaggregation Process

General Process

Most of the information within Appendix 3 originates from the DFWG including the Progress Report R.14-08-013 filed on July 2nd, 2018. The working group was tasked to develop the appropriate assumptions and methods used to disaggregate various DER types. Upon completion, a final progress report was written summarizing the various methodology each utility would implement. Figure 3[32] is an overview of activities using various disaggregation methods and variables depending on each DER type. For the subsequent flowcharts, the software tool LoadSEER is considered proprietary software and is briefly described in section 2.2. Nexant's SPIDER™ (Spatial Penetration & Integration of Distributed Energy Resources) model is also considered to be proprietary and is used in the forecasts of Photovoltaics (PV), Electric Vehicles (EV) and for calculating the load shape for Energy Storage (ES).

DER disaggregation begins with the CEC's IEPR forecast for each DER and then distributes the DER forecast to the circuit level. This section discusses the SDG&E's disaggregation methods for the following five DERs: Additional Achievable Energy efficiency (AAEE), Additional Achievable Fuel Substitution (AAFS), Photovoltaics (PV), Energy Storage (ES), Electric Vehicles (EV).

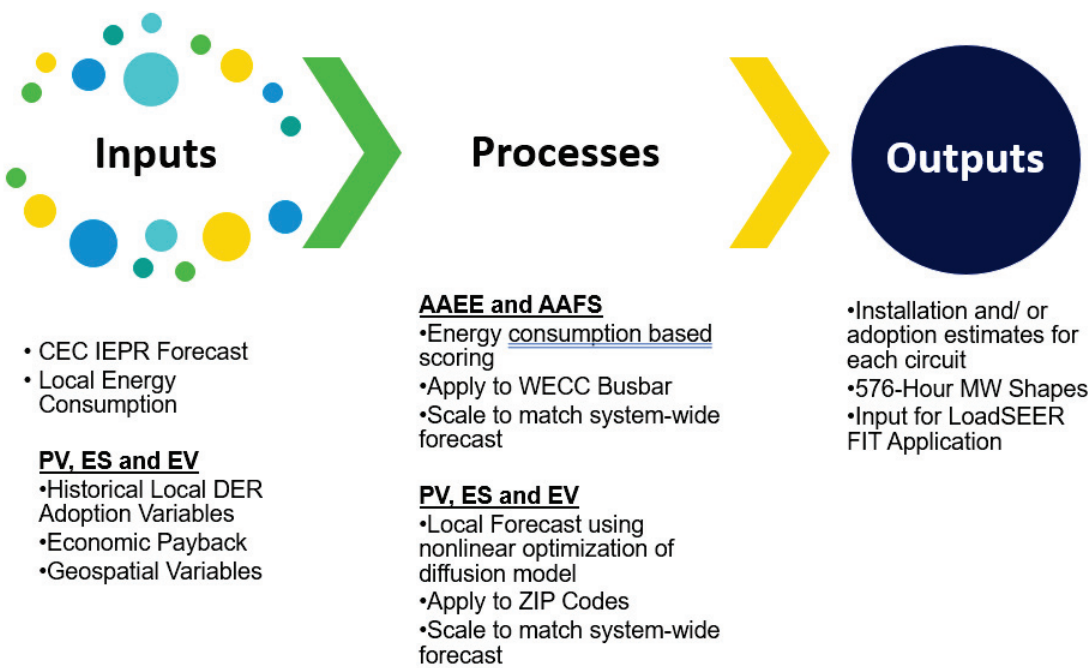

Figure 3 – Overview of DER disaggregation

[32] From DFWG meeting on May 25th, 2023.

Additional Achievable Energy Efficiency (AAEE)

SDG&E's consultant bases its AAEE allocations on a Proportional Allocation Method. This method consists of (1) using the CEC service territory or busbar forecasts, and (2) allocating to circuits based on energy sector after calibrating for data errors. Figure 4 [33]describes Energy Efficiency dissagragation.

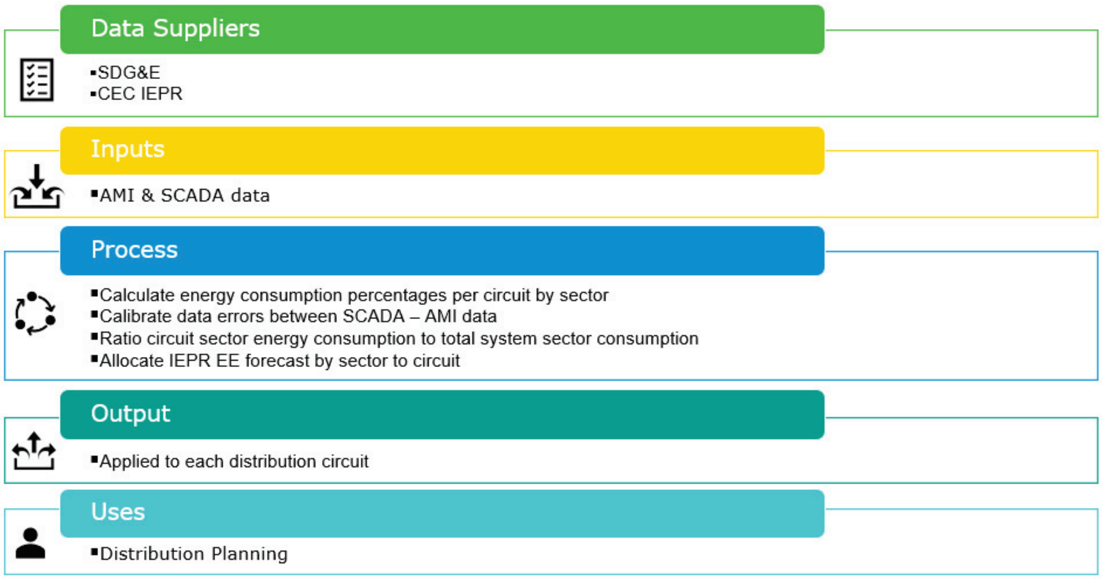

Figure 4 – Energy Efficiency disaggregation

Additional Achievable Fuel Substitution (AAFS)

SDG&E's consultant bases its AAFS allocations on a Proportional Allocation Method. This method consists of (1) Assume that electrification opportunities are proportional to gas consumption, and (2) Allocate IEPR AAFS forecast to ZIP codes directly proportional to current gas consumption. Figure 5 [34]describes dissagragation.

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[33] From DFWG meeting on May 25th, 2023.
[34] From DFWG meeting on May 25th, 2023.

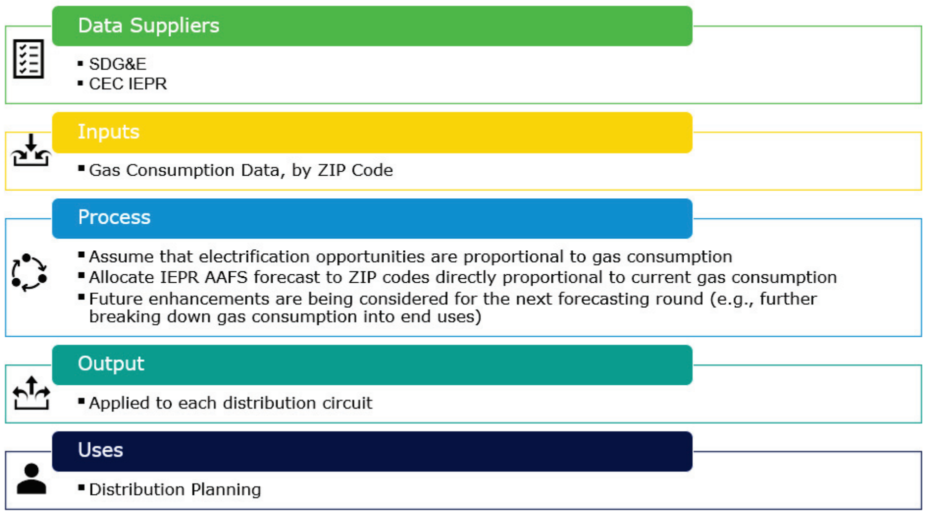

Figure 5 – Additional Achievable Fuel Substitution disaggregation

Residential and Non-Residential Photovoltaics

SDG&E's consultant is refining adoption models for locational disaggregation of PV. Adoption models are S-curve models that capture how customers adopt a technology through time. The classic S-curve model is the Bass Diffusion model. Within a Bass Diffusion model, three parameters (P, Q, and M) are optimized to explain monthly adoption patterns. In dynamic models the values of these parameters may change through time in response to economic conditions, customer behavior, and market activities. These parameters are listed below and represent the key uncertainties in the model.

P: This parameter is for innovation and represents the behavior of early adopters for a technology as well as advertising effects. The value of this parameter may be modelled in a variety of ways.

Q: This parameter is for imitation and represents word-of-mouth adoption and the influence of pervious adopters. As with the P parameter, this value may be modelled in a variety of ways.

M: This parameter is the market potential for the technology. Market potential captures the impacts of policy, policy changes, economics, tax laws, customer attitudes, and technology evolution. As with the P and Q parameters, there are a variety of ways to model this parameter.

Figure 6 shows how an S-curve models captures cumulative adoption (left) based on incremental

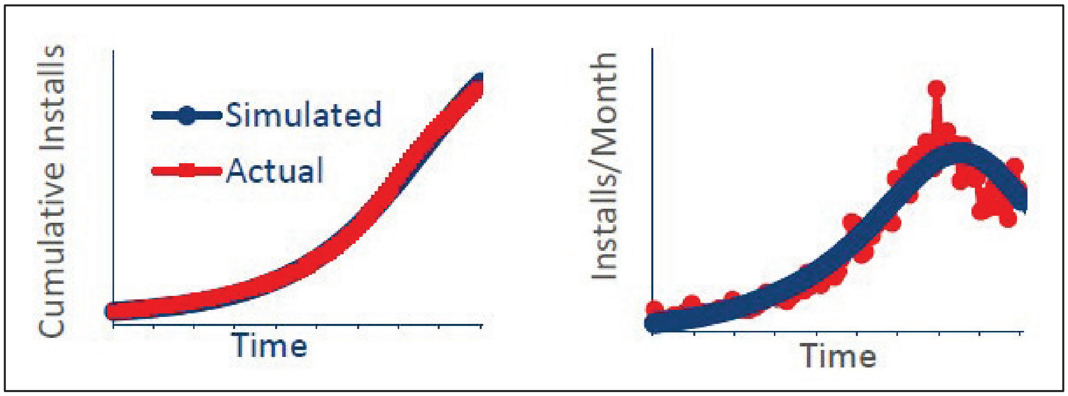

Figure 6 – S-Curve Model

adoption (right). Actual adoption data are shown in red and the model results are shown in blue.

By using S-curve models, SDG&E's consultant can generate bottom-up forecasts of PV adoption with parameters estimated at the ZIP code level. The bottom-up forecast is used for disaggregation. Figure 7 [35]describes the PV disaggregation.

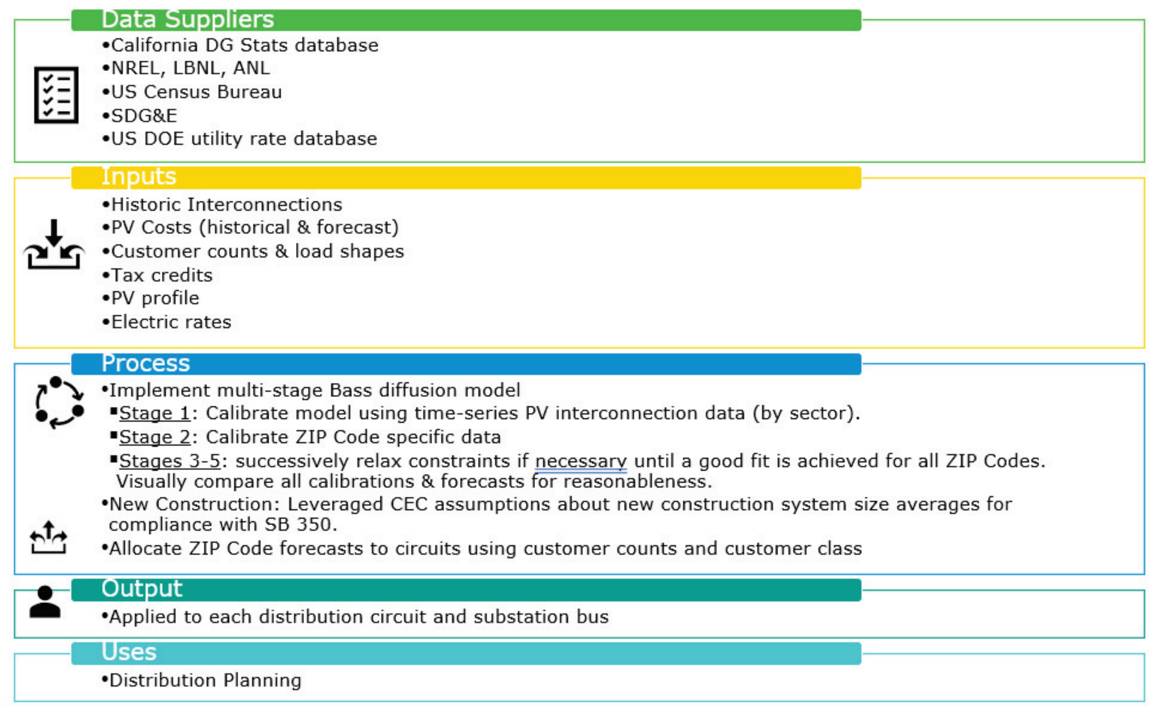

Figure 7 – Photovoltaic disaggregation

PV Data Sources

[35] From DFWG meeting on May 25th, 2023.

A variety of publicly available data sources combined with select SDG&E-specific data were leveraged in the PV forecasting and allocation process. Table 28 summarizes the key data sources used in the PV allocation process.

Model Input	Source(s)
Historical Solar PV Adoption	California DG Stats Database [36]
Hourly Customer Load Shapes	SDG&E
Hourly PV Generation	Solar Irradiance, by climate zone, from SDG&E; PV output from NREL's System Advisor Model[37]
Historical PV Costs	CA DG Stats[38] and LBNL Tracking the Sun report[39]
Forecast PV Cost Reduction Percentage	NREL [40]
Average PV System Sizes	California DG Stats Database
Electric Rates (TOU)	SDG&E (TOU-DR1 for residential, AL-TOU Secondary <500kW for non-residential), NREL US Utility Rate Database (historical)[41]
Premise Counts	SDG&E (current), California Energy Commission (forecast growth by utility)
Suitable Rooftop Area (Commercial)	NREL LIDAR Study and Database Viewer[42, 43]
Tax Credits	DSIRE Database[44]

Table 28 – Key Data Sources for PV disaggregation

Energy Storage

SDG&E's consultant generated energy storage adoption forecasts using a ZIP-code-level Bass Diffusion method calibrated to historical energy storage interconnection data. To capture correlations between PV adoption and solar-paired energy storage adoption, the energy storage forecasts made use of the PV adoption forecasts. This approach considered the different customer economics and suitable building stocks for solar-paired versus stand-alone energy storage.

SDG&E's consultant then applied load shapes calculated using an energy storage dispatch optimization module. This module contains a mixed-integer program capable of simulating the optimal dispatch of a stand-alone or solar-paired-with battery storage system for any input customer load profile, system size (PV and/or storage), electric rate structure and PV generation shape.

The model's energy storage forecasts provided a basis for allocating the energy storage forecasts among ZIP codes, permitting further allocation to circuits. Figure 8[45] describes the ES disaggregation.

[36] https://www.californiadgstats.ca.gov/downloads/
[37] https://sam.nrel.gov/
[38] https://www.californiadgstats.ca.gov/downloads/
[39] https://emp.lbl.gov/tracking-the-sun
[40] https://data.openei.org/files/4129/2021-ATB-Data_Master_Mac_new.xlsm
[41] https://openei.org/apps/USURDB/
[42] https://maps.nrel.gov/nsrdb-viewer
[43] https://www.nrel.gov/docs/fy16osti/65298.pdf
[44] https://programs.dsireusa.org/system/program/detail/1235
[45] From DFWG meeting on May 25th, 2023

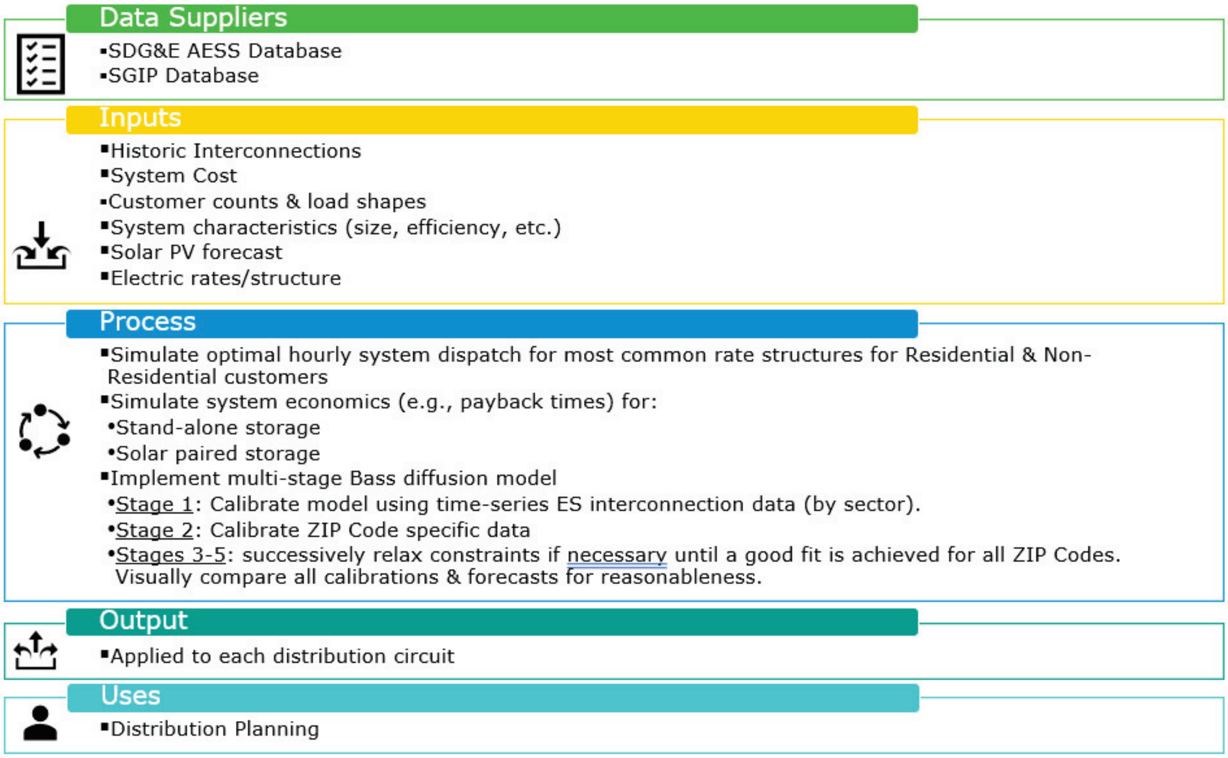

Figure 8 – Energy Storage disaggregation

ES Data Sources

Key data sources used in the Energy Storage allocation process are illustrated in Table 29.

Model Input	Source(s)
Historical Battery Storage Adoption	SDG&E Advanced Energy Storage Systems database
Hourly Customer Load Shapes	SDG&E
Historical Battery Costs	Self-Generation Incentive Program database[46]
Forecast Battery Cost Reduction Percentage	Greentech Media[47]
Historical State Incentive Rates	Self-Generation Incentive Program database
Average Battery System Sizes	SDG&E Advanced Energy Storage Systems database
Electric Rates	SDG&E (current TOU-DR1 for residential, AL-TOU Secondary <500kW for non-residential), NREL US Utility Rate Database (historical)[48]

Table 29 – Key Data Sources for Energy Storage Disaggregation

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[46] https://www.selfgenca.com/documents/reports/statewide_projects.
[47] https://www.utilitydive.com/news/not-so-fast-battery-prices-will-continue-to-decrease-but-at-a-slower-pace/518776/
[48] https://openei.org/apps/USURDB/

Electric Vehicles

SDG&E's consultant based the light duty EV allocations on a Bass diffusion model at the ZIP code level while calibrating to available time-series DMV and statewide sales data. The model included a consumer choice model, where different vehicle types (e.g., conventional, electric, plug-in electric hybrid) competed for market share based on their relative consumer appeal. Vehicle capital costs, incentives, fuel and maintenance costs, and vehicle range impacted consumer appeal. The model is used to disaggregate the EV forecast based on customer information to the ZIP code level, which is then allocated to circuits. Figure 9 [49]describes the EV disaggregation.

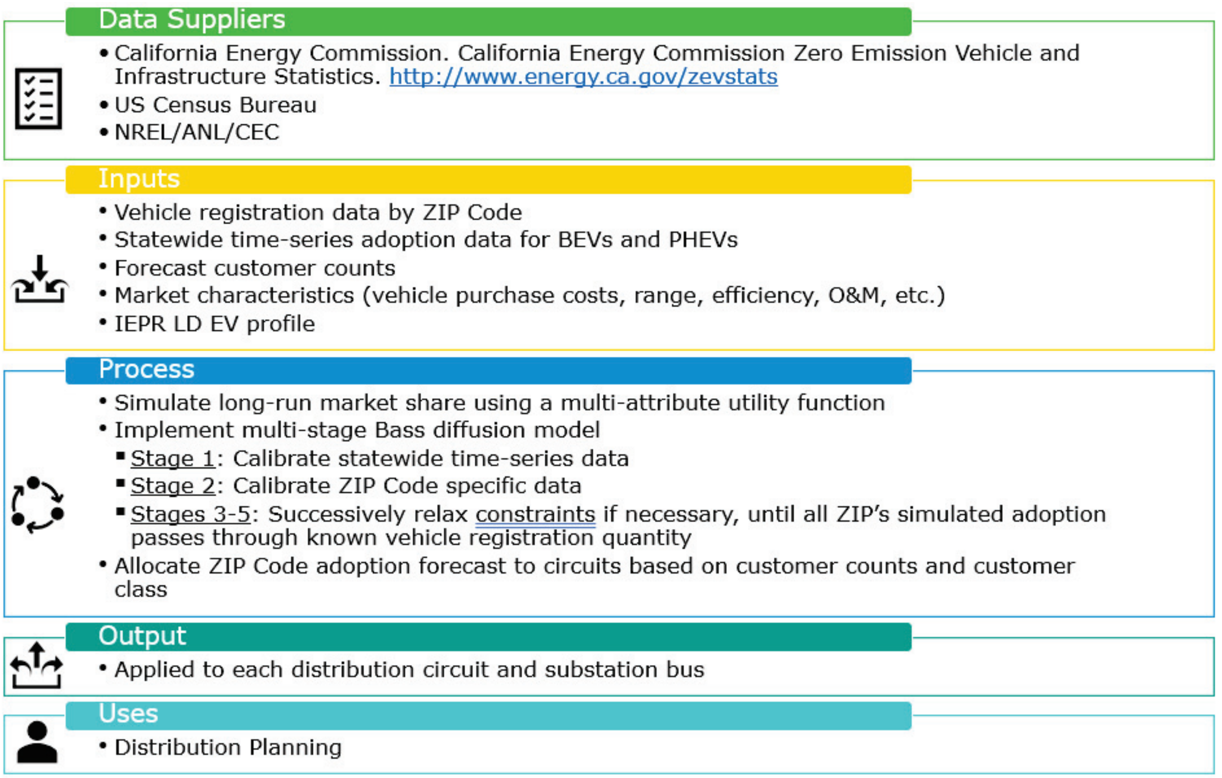

Figure 9 – Light Duty Electric Vehicle disaggregation

SDG&E's consultant based the medium/heavy duty vehicle allocations on the stock of existing medium and heavy duty vehicles obtained from the California Department of Motor Vehicles (DMV).[50] Vehicle stock was available at the ZIP Code level of aggregation. ZIP Code level forecasts were then allocated to individual circuits based on customer counts.

[49] From DFWG meeting on May 25th, 2023.

[50] https://data.ca.gov/dataset/vehicle-fuel-type-count-by-zip-code

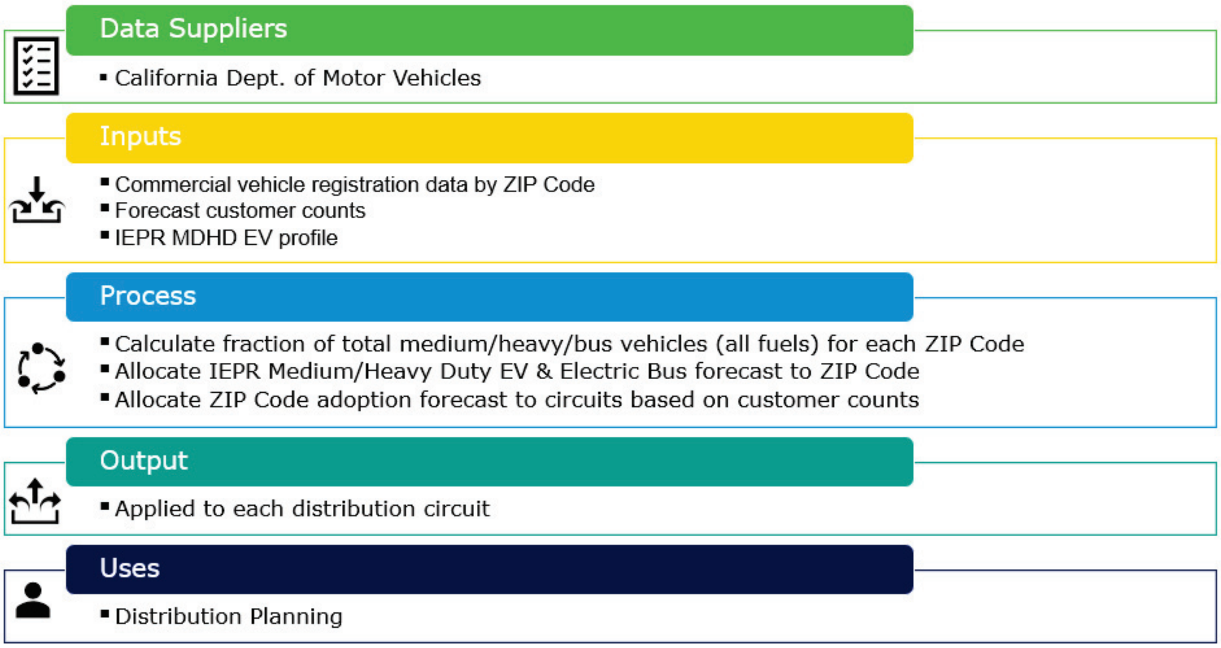

Figure 10 – MDHD Electric Vehicle disaggregation

EV Data Sources

Key data sources used in the EV allocation process are illustrated in Table 30.

Model Input	Source(s)
Historical Time-Series EV Sales (State-wide)	California Energy Commission
Average Vehicles/Customer	Calculated from above DMV data and current customer counts from SDG&E
Customer Counts	SDG&E (current), California Energy Commission (forecast growth by utility)
Fuel Costs	Energy Information Administration (historical)[51], California Energy Commission (forecast change)
Vehicle Cost, Range, Efficiency, Maintenance Cost	NREL[52], ANL[53], EIA[54], CEC[55]
Vehicle Incentives	Clean Vehicle Rebate Project[56]
Tax Credits	Internal Revenue Service[57]

Table 30 – Key Data sources for Electric Vehicles disaggregation

51 https://www.eia.gov/electricity/data/state/avgprice_annual.xlsx
52 https://www.nrel.gov/docs/fy18osti/70455.pdf
53 https://www.anl.gov/es/vision-model-download
54 https://www.eia.gov/outlooks/aeo/data/browser/
55 https://efiling.energy.ca.gov/getdocument.aspx?tn=221893
56 https://cleanvehiclerebate.org/eng
57 https://www.irs.gov/businesses/plug-in-electric-vehicle-credit-irc-30-and-irc-30d

Disaggregation Methods

Disaggregation methods used for each DER vary based on the availability of data, the maturity of the DER technology, resource constraints, and practical considerations. Each of these characteristics impacts the level of rigor applied to the disaggregation method. For example, for a DER with limited market adoption data, analysts are limited to simple disaggregation methods. However, f a DER with plentiful time series data on adoption location and customer characteristics, more complex methods can be utilized.

- **Proportional Allocation.** A proportional allocation method disaggregates the DER forecast to circuits based on utility data for the circuit (load, energy, or number of customers). Based on these data, a fraction is computed for each circuit as the ratio of the data value for that circuit divided by the total across all circuits. For example, the ratio may be calculated as the amount of energy on a circuit divided by the total energy across all circuits and may be based on either historic or forecast load data. Another approach is to use adoption of one technology to drive adoption patterns for another technology. Refinements and complexity are introduced by including sector or rate class data (e.g., residential and non-residential) to compute the ratios.
- **Propensity Models.** Propensity models base the disaggregation on customer characteristics that are used to compute a propensity score. Based on the score, a fraction is computed for each area as the ratio of the score for that area divided by the sum of the scores across all areas. The scores are typically computed using statistical methods (e.g., regression, machine learning) with cross section data that identify key variables that are correlated with customer adoption and estimate scoring weights or parameters for these variables. For example, the propensity models could be estimated using ZIP code data, in which case the models relate historical adoptions to customer characteristics in each ZIP code.
- **Adoption Models.** This approach uses a bottom-up adoption forecast based on observed adoption patterns and estimated adoption model parameters. Generally, these models are based on time-series data that capture changes in adoption through time. These models are S-Curve models (e.g., Bass Diffusion Models) and they forecast technology adoption considering the characteristics of early adopters, factors that drive market potential, and adoption rates applied to the remaining potential. Figure 11 shows a generalized S-Curve model which forecasts cumulative (red) and incremental (blue) adoptions through time. The bottom-up adoption forecasts for all areas are used to compute a set of fractions that are then used to allocate DER impacts.

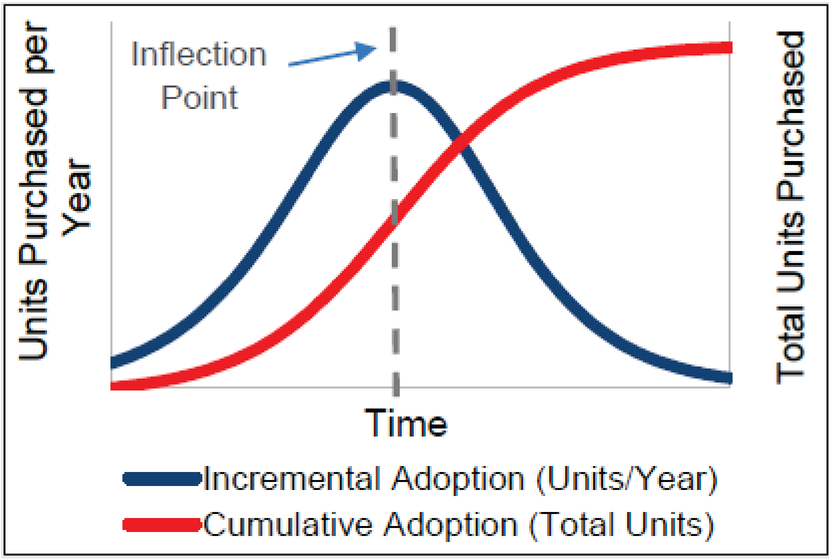

Figure 11 – Generalized S-Curve Model

Appendix 4 – 2023 Known Load Tracking Data

Refer to “SDG&E KNOWN LOAD TRACKING 2023 – PUBLIC.xls” tab “2023 Known Load Tracking”

Confidential Information Highlighted black and redacted

Unique Project Identifier	Impacted Circuit	Type	Category	Initial In Service Date[1]	Current Expected In-service Date[2]	Actual In-Service Date[3]	Load Amount[4]	Actual Load amount[5]
9396	706	Commercial	Business	[redacted]	Energized	[redacted]	[redacted]	[redacted]
9805	34	Transportation	MD/HD EV	12/1/22	8/25/23		1.52	1.52
9929	102	Commercial	Business	12/1/22	8/25/23		2.45	2.45
8774	105	Commercial	Business	1/15/23	2/1/24		6.41	6.41
10063	108	Commercial	Business	[redacted]	Energized	[redacted]	[redacted]	[redacted]
9876	111	Commercial	Business	[redacted]	Energized	[redacted]	[redacted]	[redacted]
10265	123	Commercial	Business	8/18/23	8/18/23		6.41	6.41
9536	113	Residential	Home construction	2/15/22	8/7/23		3.43	3.43
9082	130	Commercial	Business	12/31/20	8/5/23		1.12	1.12
9361	135	Transportation	MD/HD EV	10/1/22	11/30/23		1.04	1.04
9279	157	Transportation	MD/HD EV	6/1/21	Energized	7/31/23	0.98	0.98
9637	425	Residential	Home construction	[redacted]	Energized	[redacted]	[redacted]	[redacted]
9824	467	Commercial	Business	[redacted]	Energized	[redacted]	[redacted]	[redacted]
9899	493	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
10034	533	Commercial	Business	8/8/22	Energized	5/22/23	1.54	1.54
10093	534	Commercial	Business	10/12/22	Energized	10/24/22	1.64	1.64
10015	536	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
9712	536	Transportation	MD/HD EV	[redacted]	[redacted]		[redacted]	[redacted]
10052	540	Commercial	Business	12/31/23	4/26/24		1.12	1.12
10053	540	Commercial	Business	12/31/23	4/26/24		1.75	1.75
9402	543	Commercial	Business	8/2/21	Energized	2/6/23	1.48	1.48
9933	585	Commercial	Business	6/15/22	Energized	12/9/22	2.20	2.20
9627	586	Transportation	MD/HD EV	12/31/22	11/30/23		1.39	1.39
10205	595	Residential	Home construction	6/23/23	9/22/23		1.46	1.46
9716	706	Transportation	MD/HD EV	[redacted]	[redacted]		[redacted]	[redacted]
10160	738	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
9517	743	Commercial	Business	5/5/22	Energized	10/3/22	0.89	0.89
9657	771	Residential	Home construction	10/15/23	8/25/23		1.14	1.14
9914	785	Commercial	Business	[redacted]	Energized	[redacted]	[redacted]	[redacted]
9928	785	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
9564	786	Residential	Home construction	3/17/22	10/16/23		2.72	2.72
9964	832	Commercial	Business	6/1/23	9/13/23		0.85	0.85
10139	953	Commercial	Business	3/1/24	1/1/26		2.70	2.70
9118	955	Residential	Home construction	[redacted]	Energized	[redacted]	[redacted]	[redacted]
9145	995	Transportation	MD/HD EV	4/30/20	Energized	7/3/23	1.41	1.41
9184	1049	Commercial	Business	6/1/21	Energized	12/13/22	1.02	1.02
9347	1079	Residential	Home construction	[redacted]	[redacted]		[redacted]	[redacted]
8325	1153	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
10135	1443	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
9874	1445	Commercial	Business	1/4/22	Energized	12/27/22	1.68	1.68
9508	1446	Commercial	Business	2/2/22	Energized	10/18/22	1.14	1.14
9846	1448	Commercial	Business	2/1/23	8/28/23		1.48	1.48
9847	1448	Commercial	Business	12/1/22	12/31/23		2.54	2.54
10057	1448	Commercial	Business	2/1/24	8/29/23		1.04	1.04
9339	1483	Residential	Home construction	7/10/21	Energized	11/4/22	1.50	1.50
9926	41	Residential	Home construction	4/1/23	1/24/24		0.89	1.79
10000	428	Commercial	Business	12/1/22	10/25/23		1.12	1.12
9927	104	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
10109	107	Commercial	Business	7/11/23	10/25/23		1.27	1.27
10121	299	Residential	Home construction	6/29/23	1/30/24		1.16	1.16
9882	385	Residential	Home construction	[redacted]	[redacted]		[redacted]	[redacted]
10030	425	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
10175	425	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
9982	535	Commercial	Business	7/1/23	11/18/23		0.83	0.83
10231	536	Transportation	MD/HD EV	[redacted]	[redacted]		[redacted]	[redacted]
8952	718	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
10133	748	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
9698	903	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
8983	911	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
10207	955	Residential	Home construction	[redacted]	[redacted]		[redacted]	[redacted]
10106	955	Residential	Home construction	[redacted]	[redacted]		[redacted]	[redacted]
10023	956	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
9985	1161	Commercial	Business	6/30/22	11/9/23		1.39	1.39
10064	1161	Commercial	Business	6/1/23	6/1/24		1.31	1.31
10226	1202	Residential	Home construction	7/1/24	7/5/24		2.79	2.79
10148	1219	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
10170	1406	Commercial	Business	12/31/22	6/29/24		6.80	6.80
10245	107	Residential	Home construction	3/15/24	3/15/24		1.54	1.54
10056	137	Commercial	Business	9/17/22	10/25/23		1.16	1.16
9743	144	Commercial	Health Care	[redacted]	[redacted]		[redacted]	[redacted]
9786	281	Industrial	Plant	7/1/24	7/31/24		8.09	8.09
10019	362	Commercial	Business	8/1/22	10/26/23		0.85	0.85
10050	534	Commercial	Business	3/13/23	7/17/24		1.14	1.14
9742	700	Commercial	Health Care	[redacted]	[redacted]		[redacted]	[redacted]
8861	761	Residential	Home construction	6/1/21	10/25/23		1.75	1.75
9963	832	Transportation	MD/HD EV	6/1/23	11/16/23		1.33	1.33
10227	951	Commercial	Business	10/20/23	10/20/23		2.20	2.20
9936	1448	Commercial	Business	7/6/22	4/1/24		2.20	2.20
9900	493	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
10364	1225	Commercial	Business	6/1/24	6/1/24		0.00	1.37
10470	303	Transportation	MD/HD EV	6/1/24	9/1/24		0.00	2.18
9617	282	Commercial	Business	2/1/25	8/1/24		2.54	7.01
10599	486	Commercial	Business	12/1/24	2/27/24		0.00	2.58
9868	493	Residential	Home construction	[redacted]	[redacted]		[redacted]	[redacted]
10195	773	Residential	Home construction	7/19/23	6/15/25		0.96	0.96
9603	140	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
10120	369	Commercial	Business	[redacted]	[redacted]		[redacted]	[redacted]
9869	493	Residential	Home construction	[redacted]	[redacted]		[redacted]	[redacted]
10581	496	Commercial	Business	6/15/25	7/14/25		0.00	5.20
10105	955	Residential	Home construction	[redacted]	[redacted]		[redacted]	[redacted]
10209	955	Residential	Home construction	[redacted]	[redacted]		[redacted]	[redacted]
10214	185	Commercial	Business	12/31/25	12/31/25		2.45	2.45
10128	598	Commercial	Business	12/31/25	12/31/25		1.60	1.60
9602	140	Commercial	Health Care	[redacted]	[redacted]		[redacted]	[redacted]
10176	110	Commercial	Business	[redacted]	Cancelled		[redacted]	[redacted]
10116	274	Transportation	MD/HD EV	10/1/23	Cancelled		1.27	1.27
9286	926	Commercial	Business	[redacted]	Energized	[redacted]	[redacted]	[redacted]
9654	851	Commercial	Business	1/18/22	Energized	9/8/22	1.89	1.89

1. Initial In Service Date reflects the requested in-service date at the time of the initial request for service.

2. Current Expected In-service date reflects the customer's most recently requested in-service date as of either (i) when SDG&E internally disseminates the load forecast for the current DPP cycle, or (ii) August 1st if the customer updates its requested in-service date. It could also reflect a different in-service date based on SDG&E's expectation of when the requested service will be available.

3. Actual In-service Date reflects the date the requested service was available.

4. Load Amount reflects the magnitude of the new service that SDG&E plans to provide as of when SDG&E internally disseminates the load forecast for the current DPP cycle.

5. Actual Load Amount reflects the magnitude of the new service that SDG&E plans to provide as of when SDG&E internally disseminates the load forecast for the current DPP cycle, as may be refined for the reasons listed in Table 12 of the SDG&E GNA Report 2023 – Public.

2023 Distribution Deferral Opportunity Report of San Diego Gas & Electric Company

2023 DISTRIBUTION DEFERRAL OPPORTUNITY REPORT OF SAN DIEGO GAS & ELECTRIC

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1. Purpose

San Diego Gas and Electric (SDG&E) hereby submits its 2023 Distribution Deferral Opportunity Report (DDOR) in compliance with Ordering Paragraph (OP) 2.d of Decision (D.) 18-02-004 (Decision), the Administrative Law Judge's Ruling issued May 7, 2019 (May 2019 Ruling), the Administrative Law Judge's Ruling issued May 11, 2020 (May 2020 Ruling), revised Attachment A submitted by the ALJ on June 12, 2020 and further revised on August 11, 2020, and the ALJ's Ruling issued June 21, 2021, the ALJ's Ruling issued June 16, 2022 and the ALJ's Ruling issued May 19, 2023.

2. Background

On February 15, 2018, the California Public Utilities Commission (Commission or CPUC) issued the Decision on Track 3 Policy Issues, Sub-track 1 on Growth Scenarios and Sub-track 3 on Distribution Investment Deferral Framework. This Decision directed the Investor-Owned Utilities (IOUs or utilities) to file a Grid Needs Assessment (GNA) by June 1 of each year and a Distribution Deferral Opportunity Report (DDOR) by September 1 of each year (included with this Report as Appendix A).[1] The May 2019 Ruling directed the IOUs to provide additional GNA/DDOR reporting requirements and moved the annual filing date for the GNA and DDOR to August 15.[2,3]

The DDOR is intended to provide stakeholders with an overview of each IOU's new planned investment(s) to address needs identified in the GNA and serves as the basis for discussions with the Distribution Planning Advisory Group (DPAG). Those discussions are intended to help identify and prioritize candidate projects that can be deferred by cost-effective Distributed Energy Resources (DER) procured via the Commission-approved Competitive Solicitation Framework (CSF), the Standard Offer Contract Pilot and the Partnership Pilot.

3. Executive summary

SDG&E's 2023 DDOR is for the 2023–2027 five-year distribution planning period and provides an overview of nineteen (19) planned investments associated with the thirty (30) verified needs identified in the 2023 GNA. As a result of applying the initial screening criteria to identify preliminary candidate deferral opportunities (*i.e.*, technical and timing screens), SDG&E identified one potential candidate project for deferral by cost-effective DER in SDG&E's 2023 DIDF cycle. SDG&E will review the results of this initial screening with the DPAG. For any candidate deferral projects, SDG&E will also discuss with the DPAG the second round of screening criteria Economic/Financial and Forecast Certainty, and then finalize the candidate deferral list, as applicable.

The final candidate deferral list, if applicable, will be prioritized for viability based on the adopted characterization metrics: Cost Effectiveness, Forecast Certainty, and Market Assessment. To initiate the processes to procure cost-effective DER solutions, SDG&E will (i) announce the commencement of the 2023-2024 Request For Offer (RFO) solicitation process on the SDG&E website (the RFO solicitation process is expected to be initiated on about September 15, 2023), (ii) file a Tier 2 Advice Letter on

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1 Decision, at OP 2.d.

2 R.14-08-013 *Order Instituting Rulemaking to Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769*, at 9.

November 15, 2023 requesting Commission approval to launch the third cycle of the Partnership Pilot (the third cycle of the Partnership Pilot is expected to be launched on January 16, 2024).[4]

3.1 Confidentiality of Data

This public version of SDG&E's 2023 DDOR reflects the redaction of data conforming with the "15/15 rule" criteria.[5] Within Appendix A, SDG&E redacts DDOR project data for three (3) planned investment projects located on circuits that are determined to be subject to the 15/15 confidentiality rule.

3.2 Data Access Portal

In compliance with Commission directives, SDG&E is filing its 2023 DDOR on August 15, 2023.[6] Corresponding with the filing of this DDOR report, applicable data from the DDOR report can be downloaded via a link within the DRP data access portal.[7] The data access portal will include a common layer that identifies both DDOR and Locational Net Benefit Analysis (LNBA) data for the locations described in this DDOR. Applicable 2023 DDOR and LNBA data is available within this common layer, which "pops-up" atop the circuit models in the DRP data access portal. As required by May 2020 Ruling, SDG&E is including in the DRP data access portal a sortable layer that shows planned transmission projects whose primary drivers are comparable to the four distribution services identified by the Commission for deferral by DERs.[8] All non-confidential data can be viewed and downloaded via Application Programing Interface (API) capabilities upon the next planned monthly data portal update[9].

4. Discussion

As part of SDG&E's distribution capacity planning process and as identified in SDG&E's 2023 GNA, SDG&E predominantly identified 30 new needs that involve only distribution peak thermal capacity and 27 new needs that involve both distribution peak thermal capacity and back-tie capacity. For purposes of SDG&E's 2023 DDOR, SDG&E uses the word "peak thermal" to represent "distribution capacity", "back-tie" to represent "reliability (back-tie)" and "microgrid" to represent "resiliency (microgrid)." As part of developing the DDOR, SDG&E analyzed each of these needs to determine appropriate mitigation projects.

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[4] The first window during which prospective aggregators may request SDG&E approval to participate in the second and third cycles of the Partnership Pilot was open from July 15, 2022 through August 14, 2022. The second window opened from December 15, 2022 through January 14, 2023. The first window during which prospective aggregators may request SDG&E approval to participate in the third and fourth cycles of the Partnership Pilot was open from July 15, 2023 through August 14, 2023. The second window will be open from December 15, 2023 through January 14, 2024.

[5] R.14-08-013, *Administrative Law Judge's Ruling Addressing Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company's Claims for Confidential Treatment and Redaction of Distribution System Planning Data Ordered by Decisions 17-09-026 and 18-02-004* (July 24, 2018).

[6] *Decision and Administrative Law Judge's Ruling Modifying the Distribution Investment Deferral Framework Process* (filed 5/07/19).

[7] SDG&E's Interactive Map & Integration Capacity Analysis is available at: https://www.sdge.com/more-information/customer-generation/enhanced-integration-capacity-analysis-ica.

[8] Peak thermal, reliability ("back-tie"), voltage support and resiliency ("microgrids").

[9] As mentioned in SDG&E's Advice Letter 3420-E filed August 12, 2019, within SDG&E's modified plan to implement a DRP data access portal, SDG&E strives to implement updates to the data access portal by the first week of each month.

The below tables show a high-level overview of the 19 new capital planned investments corresponding with the 19 needs identified in the 2023 GNA.

Table 1 summarizes the Planned Investments by project type within SDG&E's Distribution Planning Region. The Planned Investments consist of substation banks, circuits, and distribution line segment projects. A summarizing matrix is shown in Appendix A.

	Project Type			Total
	Substation Bank	Circuit	Line Segment	
SDG&E	2	4	13	19

Table 1 - Summary of the Number of Planned Investments by Project Type

Table 2 summarizes the Planned Investments by Distribution Service. The majority of Planned Investments are for distribution peak thermal needs. Note that the total needs may exceed the total number of projects in the event projects address multiple needs.

Distribution Service				Total
Peak Thermal	Voltage	Back-Tie	Microgrid	
16	3	7	-	19

Table 2 - Summary of the Number of Planned Investments by Distribution Service

Table 3 summarizes the Planned Investments by in-service date.

In-Service Date					Total
2023	2024	2025	2026	2027	
0	11	7	1	0	19

Table 3 - Summary of the Number of Planned Investments by In-Service Date

Table 4 summarizes the Planned Investments by LNBA range using methodology described in Section 4.5.

LNBA Range ($/kW-yr)			Total
$0-100	$100-500	>$500	
7	7	2	16
LNBA Range ($/Vpu-yr)			**Total**
$0-$100,000	**$100,000-$500,000**	**>$500,000**	
0	2	1	3
LNBA Range ($/KWh-yr)			**Total**
$0-100	**$100-500**	**>$500**	
0	0	0	0

Table 4 - Summary of the Number of Planned Investments by LNBA Range

4.1 DDOR Planned Investment Determination

DDOR project determination began by thoroughly reviewing needs identified in the GNA and developing the optimal solutions to address those needs. This assessment began by reviewing circuit characteristics, such as phase imbalance, timing of need, available circuit ties, nearby circuits with available capacity, reactive power flow, and the relative ease with which new infrastructure could be built. SDG&E's distribution planning engineers analyze these aspects, among others, to determine a least cost, best fit and just-in-time solution to mitigate the problem.

Typically, the least cost solution to resolve identified needs is to utilize existing equipment, which can also allow for rapid implementation. These solutions include phase balancing, where load is measured and moved between the three phases to balance the utilization of the existing conductors. The practice of phase balancing is an operations function, performed on a near-term basis, and is therefore not eligible as a deferrable service. As such, forecast needs solved by phase balancing are not shown on the DDOR report. A similar solution to a need is to transfer load using existing switches or equipment. These projects are also operational in nature and have little to no associated capital investment. Because of the immediacy and low costs involved, these project types are considered to be of a *de minimis* nature and are not shown in the DDOR.

If needs cannot be appropriately mitigated using existing equipment, the option of installing new equipment, including the possibility of adding utility-owned DERs, is explored. New or reconductored cable or conductor, for example, can enable a load transfer or increase the capacity of the otherwise constrained asset. These projects are usually higher in cost than utilizing existing equipment due to the cost of purchasing and installing the new equipment.

Often the costliest option is to install a new circuit or substation transformer, which provides additional capacity to a larger area. These projects are often pursued in areas with significant growth and/or constraints. SDG&E's experience to date is that the option of adding utility-owned DERs to mitigate a need identified in the GNA is not cost-effective.

4.2 Locational Net Benefits Analysis (LNBA)

The LNBA values were calculated using the methodology approved by the Commission and incorporated in the public version of the LNBA tool created by Energy and Environmental Economics, Inc. (E3).[10]

4.2.1 LNBA Data Sources

In the development of the LNBA tool, generic financial variables are used to approximate the deferral value for projects identified by the three utilities. Many of the factors used by SDG&E for calculating the deferral value of DDOR projects are consistent with values already present within the LNBA tool. SDG&E updates two utility-specific variables: the Operations and Maintenance (O&M) Factor and the Book Life.

Input	UG Feeder	OH Feeder	Source
Discount Rate	7%	7%	Standard Assumption

[10] E3 LNBA Tool V2.11; https://e3.sharefile.com/share/view/sb2965cf362c48399.

			in E3 LNBA Calculator
Revenue Requirement Multiplier	1.5	1.5	Standard Assumption in E3 LNBA Calculator
Equipment Inflation	2.0%	2.0%	Standard Assumption in E3 LNBA Calculator
O&M Inflation	2.0%	2.0%	Standard Assumption in E3 LNBA Calculator
O&M Factor	1.9%	7.4%	SDG&E Rule 2
Book Life	30	30	Book life to match SDG&E GRC

Table 5 - LNBA Data Sources

4.2.2 LNBA Deferral Timeframe

One variable used when calculating the LNBA value is the deferral period. Deferral timeframes would typically depend on the type of forecast deficiency and planning horizon to calculate LNBA values. The May 2020 Ruling requires SDG&E to calculate LNBA values that assume a 10-year deferral timeframe (*i.e.*, 2023 through 2032 for this DIDF cycle).

2032 is the tenth year of this DIDF cycle; 2023 being the first year. If the need for any particular project is not identified in every year through the tenth year, then that project's largest identified need within the 10-year timeframe will be used for purposes of calculating LNBA values for the remaining years. LNBA values begin in the first year of identified need and extend through the 10-year timeframe. For example, for a need and associated project with an in-service date in year four, but no identified need beyond year five, the LNBA calculation would begin in year four and extend the year five need through year ten (2032 for this DIDF cycle). The planning horizons for different project types are shown in Table 6.

Project Type	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Pre- and Post-Application projects, banks, circuits, & line segments	X									
		X								
			X							
Pre- and Post-Application projects, banks, circuits				X						
					X					
Pre- and Post-Application Projects						X				
							X			
								X		
									X	
										X

Table 6 - Deferral Timeframes

X – Indicates potential first year of project need
Blue cells indicate the deferral period

4.2.3 LNBA Deficiency Need

Another variable used when calculating the LNBA value is the magnitude of the grid need deficiency. The magnitude of the grid need deficiency is deemed to be the largest forecast deficiency within the appropriate planning horizon. SDG&E uses a forecast planning horizon that is based on i) a three-year period, ii) a fixed five-year period, or iii) a fixed ten-year period, as discussed below.

i. *Fixed three-year horizon*

As explained in SDG&E's 2023 GNA, SDG&E assesses the need for line segment upgrades only during the first three years of the five-year planning horizon. The three-year period during which line segment upgrade needs may be identified is therefore 2023, 2024, and 2025.

Line segment needs reflect the granular allocation of DER impacts based on a system-level forecast of DER additions. Compared to needs identified for distribution circuits or substation transformer banks, where forecast DER impacts are cumulative, line segment needs are inherently uncertain and highly sensitive to individual customer decisions regarding actual DER adoption. Because individual customer adoption of DERs significantly influences line segment needs, infrastructure solutions tend to be short-term in nature. Due to the high level of forecast uncertainty associated with line segment needs that may arise beyond the third year of SDG&E's distribution planning horizon, SDG&E does not assess whether there may be line segment needs during years four and five of SDG&E's five-year planning horizon.

ii. *Fixed five-year horizon*

Distribution planning engineers identify solutions within the 5-year distribution planning horizon for newly identified bank and circuit issues. Bank and circuit issues are given a fixed five-year deficiency timeframe. This method was used in the 2018, 2019, 2020, 2021 and 2022 DIDF cycles.

iii. *Fixed ten-year horizon*

The May 2020 Ruling Reform 7 directed the IOUs to use a 10-year horizon for Pre- and Post-Application projects to identify deficiencies for cost-effective deferral opportunities via DERs.[11] SDG&E interprets this direction as requiring that the deferral period for all identified needs ends in the tenth year of the planning horizon, or year 2032.

The following illustrates the study timeframe for the different types of investments:

- Planned Investments (line segments): three-year study horizon
- Planned Investments (bank & circuit): five-year study horizon.
- Planned Investment (Pre- and Post-Application projects[12]): 10-year study horizon

Project Type	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032

[11] May 2020 Ruling, Attachment A.

[12] Pre- and Post-Application projects as defined in the August 15, *2023 Grid Needs Assessment Report of San Diego Gas & Electric*.

Planned Investments (line segments)										
Planned Investments (banks & circuits)										
Pre/Post Application Projects										

Table 7 - Planned Investment Study Timeframe

Blue cell indicates the study horizon

4.3 Key Operational Requirements

SDG&E's distribution system is planned and designed to support safe and reliable operation, including in emergencies. The needs addressed and services provided by the planned investments that are listed in the DDOR may include distribution peak thermal, back-tie, voltage support, or microgrid services, or a combination of these. The back-tie service supports unplanned (e.g., car-pole contact) and planned outages (e.g., maintenance), by providing the capacity for switching (e.g., to maintain or restore service) on a typically limited basis. Details of the back-tie service can be found in the 2019 DDOR Appendix B.[13] Further operational requirements for these services, including dispatch, can be found in the Technology Neutral Pro Forma (TNPF) contract and its various derivatives, which govern DER providers' provision of distribution deferral services.[14]

4.4 Determining Candidate Deferral Opportunities

Preliminary candidate deferral opportunities are those projects that pass the technical and timing screens from the DDOR Planned Investment list. As shown in SDG&E's 2023 GNA filing, there was one thermal need that require new capital investment in 2026. As explained further in Section 4.6, given there is only one candidate deferral opportunity and the importance of testing the partnership pilot, SDG&E has deemed this planned upgrade Tier 1.

Table 8 summarizes the Candidate Deferral Opportunities by Project Type.

	Project Type			**Total**
	Substation Bank	**Circuit**	**Line Segment**	
SDG&E	0	0	1	1

[13] *2019 Distribution Deferral Opportunity Report San Diego Gas and Electric*, Appendix B.

[14] SDG&E has considered SCE's day-ahead dispatch requirement as required by reform #47 in the revised Attachment A submitted by the ALJ on June 12, 2020. SDG&E's specific dispatch requirements will be set forth in the contracts under which DER providers provide distribution services to SDG&E. These contracts are a product of the Competitive Solicitation Framework (CSF) and will be used with various modifications in the Request For Offer (RFO) solicitation process, the Standard Offer Contract pilot and the Partnership Pilot.

Table 8 - Summary of Candidate Deferral Opportunities by Project Type

Table 9 summarizes the Candidate Deferral Opportunities by Distribution Services.

Distribution Service				Total
Peak Thermal	Voltage	Back-Tie	Microgrid	
1	0	0	0	1

Table 9 - Summary of the Number of Candidate Deferral Opportunities by Distribution Service

Table 10 summarizes the Candidate Deferral Opportunities by In-Service Date.

In-Service Date					Total
2023	2024	2025	2026	2027	
0	0	0	1	0	1

Table 10 - Summary of the Number of Candidate Deferral Opportunities by In-Service Date

Table 11 Summarizes the Candidate Deferral Opportunities by LNBA Range using methodology described in Section 4.4.

LNBA Range ($/kW-yr)			Total
$0-100	$100-500	>$500	
1	0	0	1
LNBA Range ($/Vpu-yr)			Total
$0-$100,000	$100,000-$500,000	>$500,000	
0	0	0	0
LNBA Range ($/KWh-yr)			Total
$0-100	$100-500	>$500	
0	0	0	0

Table 11 - Summary of the Number of Candidate Deferral Opportunities by LNBA Range

4.4.1 Candidate Deferral Opportunities – First Screening

The application of screens to the Planned Investments list (Appendix A) results in the identification of the Candidate Deferral Opportunities. The Decision requires the application of two screens: a technical screen and a timing screen. These screens are described in the following sections.

4.4.2 Technical Screen

The purpose of the Technical Screen is to identify the distribution services DERs can provide to potentially defer a distribution project, and whether there are any technical deferral limitations associated with certain planned distribution projects. The definitions for the key distribution services that DERs can provide were adopted by Decision 16-12-036, *Decision Addressing Competitive Solicitation Framework and Utility Regulatory Incentive Pilot*, issued December 22, 2016.[15]

4.4.3 Timing Screen

The purpose of the Timing Screen is to ensure cost-effective DER solutions can be procured with sufficient time to fully deploy and begin commercial operation in advance of the forecast need date. Three years (by Year Four) is the earliest year considered adequate to successfully procure, contract, design, develop, market, and deploy DER solutions for these services. This was established in the DIDF stakeholder process.[16]

4.5 Candidate Deferral Opportunities - Second Screening

Once the Candidate Deferral Opportunities list is published in the DDOR Report, the DPAG will advise and assist in applying the remaining two deferral screens (*i.e.*, Economic/Financial and Forecast Certainty) to help finalize the Candidate Deferral Opportunities list. Projects that are removed from the DDOR Candidate Deferral Opportunities list will remain in the DDOR Planned Investment list but will not be considered for DER solicitation.

4.6 DPAG Candidate Deferral Opportunities Prioritization

After initial screens have identified planned distribution projects that are feasible for deferral, the DPAG will advise on the prioritization of the Candidate Deferral Opportunities list to support the determination of which planned distribution projects should be considered for competitive solicitation. These candidate deferral opportunities will be prioritized based on the categories of Cost Effectiveness, Forecast Certainty, and Market Assessment. Pursuant to DIDF Reform #20 of the May 2020 Ruling, the IOUs collaborated on the development of a *Joint Prioritization Metric Workbook Template.* This template, including several minor modifications, will be used for the 2023 DIDF cycle. The prioritization workbook is designed to prioritize projects relatively suitable for deferral. As required by DIDF Reform #22 of the May 2020 Ruling, the current version of the *Joint Prioritization Metric Workbook Template* is attached as Appendix B with all cells unlocked. SDG&E interprets the May 19, 2023 Ruling as requiring an additional spreadsheet be provided with the DDOR that reflects the result of removing from the planned Joint Prioritization Metric Workbook, those planned distribution upgrades that are "not likely candidates to be recommended for deferral."[17] Based on the referenced IPE DPAG Report, SDG&E believes planned distribution upgrades (i) that are associated with a transmission project subject to GO 131-D permitting requirements (also referred to as "pre-" and "post-application" distribution upgrades), or (ii) for which the process of procuring DER services to defer a planned distribution upgrade have

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15 *See*, D. 16-12-036, *Decision Addressing Competitive Solicitation Framework and Utility Regulatory Incentive Pilot* (December 22, 2016), at Ordering Paragraph 2. The Commission adopted four key distribution services that DER can provide: distribution capacity, voltage support, reliability (back-tie), and resiliency (microgrid).

16 Track 3 Sub-track 3: Distribution Investment Deferral Framework Workshop, December 12, 2016.

17 "…this ruling requires an additional spreadsheet that removes projects otherwise planned for procurement or identified for utility ownership….In its November 14, 2022 IPE 2022 DPAG Report, the IPE describes the prioritization process used where the Candidate Deferral Opportunity metrics are normalized and ranked relative to each other. Including the projects that are not likely candidates to be recommended for deferral decreases the chances for the other listed projects to be selected…" May 19, 2023 ALJ Ruling, p. 14.

already been initiated, would be removed.[18] The second table in Appendix A, which is also provided to the Commission as a separate spreadsheet, reflects the result of applying the Joint Prioritization Metric Workbook to only those planned distribution upgrades that SDG&E believes are potentially deferrable by DERs and for which no effort to procure DER services to defer the upgrade have been initiated. Accordingly, SDG&E believes this table satisfies the requirement for an "additional spreadsheet."

When there are one or two candidate deferral opportunities, the utility will exercise its judgement in assigning those projects to Tier 1, Tier 2 and/or Tier 3. The utility will review those assignments with the DPAG and explain the basis for those assignments. The Commission-adopted staff proposal requires that at least one Tier 1 candidate deferral project be offered for the Partnership Pilot.[19]

4.6.1 Cost Effectiveness

The cost-effectiveness metric is intended to provide a relative indication of how likely DER resources can cost-effectively defer a planned investment.

- LNBA Value: The deferral value of distribution investment
- Unit Cost of Traditional Mitigation ($): Cost of the traditional mitigation project designed to meet the maximum capacity need for each project.

Criteria	**Higher Ranking**	**Lower Ranking**
LNBA value	High LNBA value	Low LNBA value
Unit Cost of Traditional Mitigation ($)	High project costs	Low project costs

Table 12 - Cost Effectiveness Metric

4.6.2 Forecast Certainty

The forecast certainty metric is intended to give a relative indication of the certainty of forecast grid needs.

- Grid Need Certainty: The IOU-specific, maximum grid need certainty score of all the assets associated with a project.

[18] "We observe in the list of CDOs that in this cycle there were several Pre and Post Application projects and two projects that were involved with ongoing SCE procurement processes and for all intents and purposes these projects are not likely candidates to be recommended for procurement. There is the potential for such projects to affect the outcome of the prioritization. For example, to use an extreme case if there were 4 such projects and they all ended up in Quartile 1 for CE and there can only be 4 Quartile 1 projects (because there are 16 CDOs) that would mean that no other project could receive a Green CE score. This would reduce the likely of having projects in Tier 1." (*Independent Professional Engineer, SCE 2022 DPAG Report*, November 11, 2022, p. 30.)

[19] The staff proposal for the Partnership Pilot states that "the IOUs would be required to propose at least one Tier 1 opportunity" (p. 40). The staff proposal for the Standard Offer Contract pilot states that the "IOUs would be required to launch at least one Tier 1 candidate deferral opportunity" (p. 52). The staff proposal also states that "…IOUs…pilot the [Partnership Pilot with] …one Tier 1.…All other Tier 1 opportunities should be…for…RFO or the SOC". (p. 11) Note that the ALJ's May 19, 2023 Ruling ended the SOC pilot effective upon completion of cycle 2. SDG&E did not enter into any DER procurement contracts in either cycle 1 or cycle 2 of the SOC pilot so, for SDG&E, the SOC pilot has ended.

- Weather factor adjustment: Significant weather events can have a large effect on load. There is more forecast certainty in areas with less weather sensitivity.
- Customer-Specific Development: The project need is a result of general or specific ("known loads") customer growth.
- Historical Load: Forecast load with historical measurements or anticipated growth.

- Year of Need: The earliest starting year among all assets associated with a project.

Criteria	Higher Ranking	Lower Ranking
Weather factor adjustment	Average weather factor applied compared to overall system	Above-average weather factor applied compared to overall system
Customer-specific development	Numerous customer requests for new load	Fewer customer requests for new load
Historical load	Forecast peak with minimal variation from recent years' peak	Forecast peak with significant variation from recent years' peak
Year of Need	2026 needs	2027 needs

Table 13 - Forecast Certainty Metric

4.6.3 Market Assessment

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 distribution service requirements.

- Duration: 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)/Circuit: The max capacity need per number of circuits to which DERs can connect and meet the grid need.
- Operational Requirement: The operational requirement of the need.
- Number of Grid Needs: The number of grid needs that the project mitigates.

Criteria	Higher Ranking	Lower Ranking
Duration	Shorter durations	Longer durations
Capacity Need (MW)/Circuit:	Less thermal needs per circuit	Larger thermal needs per circuit
Operational Requirement	Day ahead dispatch	Real time or Islanded dispatch requirements
Number of Grid Needs	Smaller number of grid needs	Larger number of grid needs

Table 14 - Market Assessment Metric

4.7 Review of Project and/or Contingency Costs for Prior DIDF Solicited Projects

SDG&E does not currently have any planned distribution projects undergoing solicitation for distribution services from the prior DIDF cycle(s). Therefore, no traditional project costs or contingency costs have been identified for prior deferral projects.

5. Regulatory timelines and expected milestones in the DIDF process

Pursuant to the Administrative Law Judge's Ruling dated June 13, 2023, the schedule below reflects the dates and milestones pertaining to the 2023-2024 DIDF cycle.

Activity	**Date**
Pre-Screening Period for Partnership Pilot	July 15, 2023 to August 15, 2023
GNA and DDOR filing	August 15, 2023
Launch RFO solicitation	September 15, 2023
DPAG meeting	Mid to Late September 2023
IPE DPAG Report	November 8, 2023
Tier 2 Advice Letter for approval to launch subscription periods for Partnership Pilot. If applicable, also to seek approval to launch RFOs for planned investments elevated to Tier One candidate deferral opportunities .	November 15, 2023
Tier 2 Advice Letter for approval not to launch RFOs or Partnership Pilots for remaining planned investments or candidate deferral opportunities identified	November 15, 2023
DIDF Procurement Status Report	November 15, 2023
Launch Partnership Pilot subscription period	January 15, 2024 (or within 30 days of DIDF Advice Letter approval if approval is after December 15, 2023)
Launch second round of RFO solicitation (if needed pursuant to the DIDF Advice Letter outcomes)	January 15, 2024
Procurement Review Group presentation for RFO	January 2024
Close Partnership Pilot subscription period	Earlier of when 120% of need is met or contingency date reached.
Information-Only submittal notification of executed contracts for 2023 RFO solicitations	February 15, 2024
Information-Only submittal notification of executed contracts for 2024 RFO solicitations	Within 6 months of approval to launch RFO
Annual Partnership Pilot Evaluation Report	March 15, 2024
IE DIDF RFO Report	March 15, 2024
IPE Post-DPAG Report	March 15, 2024
IPE Post-DPAG Report for 2024 RFO solicitations	Within 60 days of RFO contract execution or RFO completion without contracts
IE Annual Partnership Pilot Evaluation Report	March 25, 2024
Annual DIDF and Pilot reform comments	April 1, 2024
Annual DIDF and Pilot reform reply comments	April 15, 2024
DIDF and Pilot Reform Ruling	May 2024

Table 15 – DPAG Schedule for 2023/2024 DIDF Cycle

Appendix A – August 15, 2023 DDOR

DDOR - Planned Investments

Refer to "SDG&E DDOR 2023 – PUBLIC. xlsx tab "Planned Investments "

DDOR – Candidate Deferrals

Refer to "SDG&E DDOR 2023 – PUBLIC. xlsx tab "Candidate Deferrals "

Confidential information is highlighted in black and redacted

Confidential information is highlighted in black and redacted

GNA ID	DDOR ID	Facility ID	Substation	Bank / Circuit	Description	Equipment Involved	Additional Information	In-Service Date	Deficiency Need	Deficiency %	Equipment Units	Distribution Service	DER Service Eligible	Estimated LNBA Range ($/KW-year)	Estimated LNBA ($/Vpu-yr)	Estimated LNBA ($/Kwh-yr)	Customer Count (Residential)	Customer Count (Commercial)	Customer Count (Industrial)	Indicative AACE Level	Prior DDOR project
GNA_2023_0003	DDOR_2023_0001	2023_0863	Border	BD3132	New Substation Bank	Substation Bank		3/1/2025	[redacted]	[redacted]	MW	Thermal	No	[redacted]			6	1494	112	5	N
GNA_2023_0004	DDOR_2023_0002	2023_0210	Border	1161	Transfer with new equipment	Switch, Capacitor, UG Cable		6/1/2024	0.18	1.4%	MW	Thermal, Backtie	No	$161.13			0	186	23	5	N
GNA_2023_0006	DDOR_2023_0003	2023_0353	Telegraph Canyon	1225	Transfer with new equipment	UG Cable, Capacitor		6/1/2025	0.87	7.0%	MW	Thermal, Backtie	No	$196.93			4864	144	0	5	N
GNA_2023_0007	DDOR_2023_0004	2023_0320	Station F	140	Transfer with new equipment	Switch		6/1/2024	[redacted]	[redacted]	MW	Thermal	No	[redacted]			4075	248	0	5	N
GNA_2023_0012	DDOR_2023_0005	2023_0849	Old Town	OT3031	New Substation Bank	Substation Bank, Circuit Breaker, UG Cable		6/1/2025	0.32	0.5%	MW	Thermal	No	$629.24			14203	1663	0	5	N
GNA_2023_0011	DDOR_2023_0006	2023_0029	Friars	38	Transfer with new equipment	Capacitor		6/1/2026	[redacted]	[redacted]	MW	Thermal	Yes	[redacted]			2360	129	15	5	N
GNA_2023_0002	DDOR_2023_0007	2023_0397	Chollas West	163	New Capacitor	Capacitor		6/1/2024	0.05	0.0%	Vpu	Voltage	No		$408.10		3870	155	0	5	N
GNA_2023_0020	DDOR_2023_0008	2023_0386	Carlton Hills	282	New Circuit	Circuit Breaker, UG Cable, Switch		6/1/2025	1.80	14.0%	MW	Thermal, Backtie	No	$163.69			1245	651	0	5	N
GNA_2023_0018	DDOR_2023_0009	2023_0556	Ocean Ranch	1406	New Circuit	Circuit Breaker, UG Cable, Switch		6/1/2024	4.13	33.1%	MW	Thermal, Backtie	No	$22.42			4097	234	2	5	N
GNA_2023_0015	DDOR_2023_0010	2023_0496	Batiquitos	753	Transfer with new equipment	UG Cable, Capacitor		6/1/2024	1.20	11.0%	MW	Thermal	No	$176.34			1944	351	19	5	N
GNA_2023_0005	DDOR_2023_0011	2023_0882	Station F	F30	Transfer with new equipment	Capacitor		6/1/2024	1.78	5.9%	MW	Thermal	No	$14.51			12141	1037	193	5	N
GNA_2023_0019	DDOR_2023_0012	2023_0385	Carlton Hills	281	New Circuit	Circuit Breaker, UG Cable, Switch		6/1/2024	0.80	7.0%	MW	Thermal, Backtie	No	$241.70			1191	22	0	5	N
GNA_2023_0009	DDOR_2023_0013	2023_0506	Cannon	303	Reconductor	UG Cable		6/1/2025	0.40	3.0%	MW	Thermal	No	$85.76			5586	214	30	5	N
GNA_2023_0013	DDOR_2023_0014	2023_0805	Margarita	983	New Capacitor	Capacitor		6/1/2024	0.05	0.0%	Vpu	Voltage	No		$1,030.78		1414	83	0	5	N
GNA_2023_0026	DDOR_2023_0015	2023_0539	Morro Hill	486	Transfer with new equipment	Switch		10/1/2024	2.50	21.0%	MW	Thermal	No	$5.51			3988	211	0	5	N
GNA_2023_0027	DDOR_2023_0016	2023_0279	Sampson	123	Transfer with new equipment	UG Cable		1/1/2024	0.86	6.2%	MW	Thermal, Backtie	No	$51.69			3483	183	18	5	N
GNA_2023_0010	DDOR_2023_0017	2023_0508	Cannon	781	New Capacitor	Capacitor		6/1/2025	0.05	0.0%	Vpu	Voltage	No		$338.71		3973	670	0	5	N
GNA_2023_0025	DDOR_2023_0018	2023_0156	Point Loma	496	Reconductor	Conductor		11/1/2024	0.50	5.0%	MW	Thermal	No	$290.44			33	5	0	5	N
GNA_2023_0030	DDOR_2023_0019	2023_0211	Border	1162	New Circuit	Circuit Breaker, UG Cable, Switch		3/1/2025	0.20	2.0%	MW	Thermal	No	$9,537.41			1	71	0	5	N
Data below is taken directly from prior DDOR filings																					
GNA_2022_0001	DDOR_2022_0001	2022_0335	Sweetwater	41	Reconductor	Conductor		6/1/2024	0.24	2.3%	MW	Thermal		$117.41	-	-	4260	624	1	5	Y
GNA_2022_0002	DDOR_2022_0002	2022_0853	Mira Sorrento	MTO3132	New Bank/New Circuit	Substation transformer bank, Trenching, Conductor, Sectionalizing		6/1/2024	[redacted]	[redacted]	MVA	Thermal, Backtie		[redacted]	-	-	1034	827	10	5	Y
GNA_2022_0003	DDOR_2022_0003	2022_0869	Vine	VN31	New Bank/New Circuit	Substation transformer bank, Trenching, Conductor, Sectionalizing		6/1/2024	[redacted]	[redacted]	MVA	Thermal, Backtie		[redacted]	-	-	995	70	1	5	Y
GNA_2022_0004	DDOR_2022_0004	2022_0948	Ash	AS3031	New Capacitor	Capacitor		6/1/2023	0.10	0.2%	MVA	Thermal		$25.97	-	-	2353	243	0	5	Y
GNA_2022_0005	DDOR_2022_0005	2022_0995	Chollas West	163	Reconductor	Conductor		6/1/2023	0.16	6.0%	MW	Thermal		$209.21	-	-	1072	30	0	5	Y
GNA_2022_0006	DDOR_2022_0006	2022_0996	Granite	386	Reconductor	Conductor		6/1/2023	0.04	1.0%	MW	Thermal		$1,062.66	-	-	591	28	0	5	Y
GNA_2022_0008	DDOR_2022_0007	2022_0998	Shadowridge	859	Capacitor Relocation	Capacitor		6/1/2023	0.00	0.1%	Vpu	Voltage		-	$8,675.12	-	147	10	0	5	Y
GNA_2022_0009	DDOR_2022_0008	2022_0999	Monserate	233	New Voltage Regulator	Voltage Regulator		6/1/2023	0.04	3.8%	Vpu	Voltage		-	$542.39	-	323	36	287	5	Y
GNA_2022_0010	DDOR_2022_0009	2022_1000	Paradise	323	New Capacitor, Transformer	Capacitor, Transformer		6/1/2023	0.02	2.0%	Vpu	Voltage		-	$546.30	-	626	90	16	5	Y
GNA_2022_0011	DDOR_2022_0010	2022_1001	Paradise	326	New Capcitor, Reconductor	Capacitor, Conductor		6/1/2023	0.01	0.6%	Vpu	Voltage		-	$7,140.64	-	1539	107	1	5	Y
GNA_2022_0014	DDOR_2022_0011	2022_1004	Station F	365	Reconductor	Conductor		6/1/2023	[redacted]	[redacted]	MW	Thermal		[redacted]	-	-	1806	85	10	5	Y
GNA_2022_0015	DDOR_2022_0012	2022_1005	Sampson	369	New Conductor	Conductor		3/1/2023	[redacted]	[redacted]	MW	Thermal		[redacted]	-	-	0	0	1	5	Y
GNA_2022_0016	DDOR_2022_0013	2022_1006	Old Town	493	New Bank/New Circuit	Substation transformer bank, Trenching, Conductor, Sectionalizing		6/1/2024	[redacted]	[redacted]	MW	Thermal		[redacted]	-	-	589	118	1	5	Y
GNA_2022_0017	DDOR_2022_0014	2022_1007	Boulevard	445	Microgrid	Battery storage		8/1/2023	50500	100%	kwh	Resiliency (Microgrid)		-	-	-	787	165	1	1	Y
GNA_2022_0018	DDOR_2022_0015	2022_1008	Claremont	278	Microgrid	Battery storage		8/1/2023	29000	100%	kwh	Resiliency (Microgrid)		-	-	-	3772	80	25	1	Y
GNA_2022_0019	DDOR_2022_0016	2022_1009	Elliot	1266	Microgrid	Battery storage		8/1/2023	50500	100%	kwh	Resiliency (Microgrid)		-	-	-	1879	81	5	1	Y
GNA_2022_0020	DDOR_2022_0017	2022_1010	Paradise	320	Microgrid	Battery storage		8/1/2023	50500	100%	kwh	Resiliency (Microgrid)		-	-	-	3199	67	7	1	Y
GNA_2021_0001	DDOR_2021_0001	2021_0209	Border	536	New Circuit	Trenching, Conductor, Sectionalizing		6/1/2022	[redacted]	[redacted]	MW	Thermal, Backtie		[redacted]			4	82	6	5	Y
GNA_2021_0002	DDOR_2021_0002	2021_0279	San Ysidro	1202	Transfer with new equipment	Sectionalizing, Capacitors		6/1/2025	0.86	7%	MW	Thermal	Yes	$32.94			2373	454	0	5	Y
GNA_2021_0005	DDOR_2021_0003	2021_0533	North City West	832	New Circuit	Trenching, Cable, Capacitor, Sectionalizing		6/1/2025	0.05	0.42%	MW	Thermal, Backtie	Yes	$622.71			2925	266	0	5	Y
GNA_2021_0008	DDOR_2021_0004	2021_0982	Spring Valley	730	Reconductor	Conductor		6/1/2022	1.21	32%	MW	Thermal		$55.65			1314	19	0	5	Y
GNA_2021_0010	DDOR_2021_0005	2021_0984	Alpine	356	Reconductor	Conductor		6/1/2022	[redacted]	[redacted]	MW	Thermal		[redacted]			2	0	0	5	Y
GNA_2021_0011	DDOR_2021_0006	2021_0985	Jamacha	92	Reconductor	Conductor		6/1/2022	0.85	8%	MW	Thermal, Backtie		$3.34			2493	305	0	5	Y
GNA_2021_0012	DDOR_2021_0007	2021_0986	Santee	396	New Voltage Regulator	Voltage Regulator		6/1/2022	0.00	0.04%	Vpu	Voltage			$75,519.04		409	9	0	5	Y
GNA_2021_0013	DDOR_2021_0008	2021_0987	Ash	450	Reconductor	Conductor		6/1/2022	0.21	2%	MW	Thermal, Backtie		$194.92			2479	110	0	5	Y
GNA_2021_0014	DDOR_2021_0009	2021_0988	San Marcos	1094	Reconductor	Cable		6/1/2022	0.27	3%	MW	Thermal, Backtie		$7.22			1986	140	0	5	Y
GNA_2021_0015	DDOR_2021_0010	2021_0989	Clairemont	277	Reconductor	Conductor		6/1/2022	0.04	1%	MW	Thermal		$548.02			2557	58	14	5	Y
GNA_2021_0016	DDOR_2021_0011	2021_0990	Scripps	437	Reconductor	Cable		6/1/2022	0.35	13%	MW	Thermal		$30.00			528	9	0	5	Y
GNA_2021_0017	DDOR_2021_0012	2021_0991	Mission	701	Reconductor	Conductor		6/1/2022	0.02	1%	MW	Thermal		$29.75			482	4	1	5	Y
GNA_2020_0001	DDOR_2020_0001	2020_0042	GENESEE	272	New Circuit	Trenching, cable, capacitor, sectionalizing		6/1/2021	[redacted]	[redacted]	Amps	Thermal, Backtie		[redacted]	-	-	1299	159	2	5	Y
GNA_2020_0002	DDOR_2020_0001	2020_0047	GENESEE	744	New Circuit	Trenching, cable, capacitor, sectionalizing		6/1/2021	12	2%	Amps	Thermal, Backtie		$75.36	-	-	0	7	0	5	Y
GNA_2020_0003	DDOR_2020_0002	2020_0198	VINE	139	Transfer with new equipment	Cable, Sectionalizing		6/1/2021	43	7%	Amps	Thermal		$15.77	-	-	2006	520	2	5	Y
GNA_2020_0004	DDOR_2020_0003	2020_0403	EL CAJON	555	Transfer with new equipment	Sectionalizing, Capacitor		6/1/2021	73	12%	Amps	Thermal, Backtie		$20.93	-	-	2	227	3	5	Y
GNA_2020_0006	DDOR_2020_0001	2020_0831	GENESEE	GE3233	New Circuit	Trenching, cable, capacitor, sectionalizing		6/1/2021	5.06	8.7%	MW	Thermal, Backtie		$75.36	-	-	7313	971	17	5	Y
GNA_2020_0009	DDOR_2020_0004	2020_0920	NORTH CITY WEST	NCW3031	Transfer with new equipment	Cable		6/1/2021	2.3	4%	MW	Thermal		$10.31	-	-	17014	1765	9	5	Y
GNA_2020_0010	DDOR_2020_0005	2020_0978	ESCONDIDO	186	New Capacitor	Capacitor		6/1/2021	[redacted]	[redacted]	Vpu	Voltage		-	[redacted]	-	393	12	0	5	Y
GNA_2020_0011	DDOR_2020_0006	2020_0979	FELICITA	470	Reconductor	Conductor		6/1/2021	7	6%	Amps	Thermal, Backtie		$736.05	-	-	87	96	0	5	Y
GNA_2020_0012	DDOR_2020_0007	2020_0978	ELLIOT	382	Reconductor	Cable		6/1/2021	25	5%	Amps	Thermal, Backtie		$2.02	-	-	507	97	2	5	Y
GNA_2020_0013	DDOR_2020_0008	2020_0979	OLD TOWN	493	Reconductor	Conductor, cable		6/1/2021	50	10%	Amps	Thermal, Backtie		$104.55	-	-	605	132	1	5	Y
GNA_2020_0015	DDOR_2020_0009	2020_0983	ALPINE	356	Reconductor	Conductor		6/1/2021	1	1%	Amps	Thermal, Backtie		$1,784.54	-	-	389	39	0	5	Y
GNA_2020_0016	DDOR_2020_0010	2020_0984	CHOLLAS WEST	162	Reconductor	Conductor		6/1/2021	18	10%	Amps	Thermal, Backtie		$102.87	-	-	400	73	0	5	Y
GNA_2020_0017	DDOR_2020_0011	2020_0985	JAMACHA	93	Reconductor	Cable		6/1/2021	2	1%	Amps	Thermal		$67.85	-	-	644	54	0	5	Y
GNA_2020_0018	DDOR_2020_0012	2020_0986	MURRAY	401	Reconductor	Cable, Sectionalizing		6/1/2021	12	2%	Amps	Thermal, Backtie		$112.72	-	-	1396	12	0	5	Y
GNA_2020_0019	DDOR_2020_0013	2020_0987	SANTEE	1139	Reconductor	Cable		6/1/2021	10	8%	Amps	Thermal, Backtie		$1.61	-	-	95	47	0	5	Y
GNA_2020_0020	DDOR_2020_0014	2020_0988	DEL MAR	1081	New Capacitor	Capacitor		6/1/2021	-	1%	Vpu	Voltage		-	$1,246.21	-	493	63	0	5	Y
GNA_2020_0021	DDOR_2020_0015	2020_0989	CAMERON	448	Microgrid	Solar, Battery Storage		7/1/2021	2000	100%	kwh	Resiliency (Microgrid)		-	-	$574.00	288	62	0	5	Y
GNA_2020_0022	DDOR_2020_0016	2020_0990	SANTA YSABEL	221	Microgrid	Solar, Battery Storage		5/1/2021	[redacted]	[redacted]	kwh	Resiliency (Microgrid)		-	-	[redacted]	218	2	0	5	Y
GNA_2020_0023	DDOR_2020_0017	2020_0991	SANTA YSABEL	221	Microgrid	Solar, Battery Storage		5/1/2021	[redacted]	[redacted]	kwh	Resiliency (Microgrid)		-	-	[redacted]	119	0	0	5	Y
GNA_2020_0024	DDOR_2020_0018	2020_0992	CREELMAN	972	Microgrid	Battery storage		9/30/2020	[redacted]	[redacted]	kwh	Resiliency (Microgrid)		-	-	[redacted]	0	2	0	5	Y
GNA_2020_0025	DDOR_2020_0019	2020_0993	BORREGO	BR3031	Microgrid	Hydrogen storage, battery storage		6/1/2022	17000	-	kwh	Resiliency (Microgrid)		-	-	$111.00	2385	465	1	5	Y
		2019_0134	Old Town	C105	New Circuit	Trenching, cable, capacitor, sectionalizing		6/1/2021	85	17%	Amps	Thermal, Backtie		$0-$100							Y
		2019_0216	Coronado	C376	New Circuit	Trenching, cable, sectionalizing		6/1/2020	71	23%	Amps	Thermal, Backtie		$100-$500							Y
		2019_0303	Station B	C110	Transfer with new equipment	Trenching, cable, capacitor		12/1/2020	[redacted]	[redacted]	Amps	Thermal		$0-$100							Y
		2019_0376	Carlton Hills	C280	New Circuit	Trenching, cable, sectionalizing		6/1/2020	71	12%	Amps	Thermal, Backtie		$100-$500							Y
		2019_0464	Santee	C392	Reconductor	Cable		6/1/2020	22	4%	Amps	Thermal, Backtie		$0-$100							Y
		2019_0521	Melrose	C209	Transfer with new equipment	Cable		6/1/2020	24	4%	Amps	Thermal, Backtie		$0-$100							Y
		2019_0554	Pendleton	C300	New Capacitor	Capacitor		6/1/2020	1	1%	Amps	Thermal		$0-$100							Y
		2019_0976	Del Mar	C68	New Capacitor	Capacitor		6/1/2020	15	3%	Amps	Thermal		$0-$100							Y
		2019_0977	San Ysidro	C463	Reconductor	Conductor, Capacitor		6/1/2020	[redacted]	[redacted]	Amps	Thermal		$100-$500							Y
		2019_0978	Cannon	C303	Reconductor	Conductor, Capacitor		6/1/2020	26	5%	Amps	Thermal, Backtie		$100-$500							Y
2018_0002			Batiquitos	C757	Transfer with new equipment	Cable		6/1/2019	164	32.8%	Amps	Thermal, Backtie		$0-$100							Y
2018_0006			Chollas West	C166	New Circuit	Trenching, cable, sectionalizing		6/1/2019	11	2.0%	Amps	Thermal, Backtie		>$500							Y
2018_0007			Escondido	C183	Transfer with new equipment	Fuse Cabinet, cable		6/1/2019	2	0.3%	Amps	Thermal, Backtie		$0-$100							Y
2018_0008			Jamacha	B30	New Transformer	Substation transformer bank	Cost estimates pending	6/1/2020	1.38	4.6%	MW	Thermal, Backtie		TBD							Y
2018_0009			Melrose	C209	Transfer with new equipment	Conductor, cable		6/1/2019	56	9.3%	Amps	Thermal, Backtie		$0-$100							Y
2018_0011			San Marcos	C1094	Transfer with new equipment	Sectionalizing, cable		6/1/2019	94	15.7%	Amps	Thermal, Backtie		$0-$100							Y
2018_0018			Creelman	C237	Reconductor	Conductor		6/1/2019	19	10.6%	Amps	Thermal, Backtie		$100-$500							Y
2018_0020			El Cajon	C77	Reconductor	Conductor		6/1/2019	25	19.2%	Amps	Thermal, Backtie		$0-$100							Y
2018_0022			Granite	C414	Reconductor	Conductor		6/1/2019	28	15.6%	Amps	Thermal, Backtie		$0-$100							Y
2018_0024			Melrose	C505	Reconductor	Conductor		6/1/2019	28	21.5%	Amps	Thermal, Backtie		$100-$500							Y
2018_0026			Mission	C702	Reconductor	Conductor		6/1/2019	12	9.2%	Amps	Thermal, Backtie		$0-$100							Y
2018_0027			Murray	C83	Reconductor	Cable		6/1/2019	12	6.9%	Amps	Thermal, Backtie		$0-$100							Y
2018_0030			Rancho Santa Fe	C1001	Reconductor	Conductor		6/1/2019	34	26.2%	Amps	Thermal, Backtie		$0-$100							Y
2018_0031			Santee	C393	Reconductor	Cable		6/1/2019	3	2.3%	Amps	Thermal, Backtie		$100-$500							Y
2018_0035			Spring Valley	C733	Reconductor	Conductor		6/1/2019	13	13.5%	Amps	Thermal, Backtie		$0-$100							Y
2018_0036			Spring Valley	C759	Reconductor	Conductor		6/1/2019	23	17.7%	Amps	Thermal, Backtie		$0-$100							Y
2018_0038			Del Mar	C68	Transfer with new equipment	Sectionalizing, cable		6/1/2022	2	0.33%	Amps	Thermal, Backtie	Yes	$0-$100							Y

Confidential information is highlighted in black and redacted

GNA ID	DDOR ID	Facility ID	Tier	Substation/Subtransmission line	Circuit	Operating Date	Unit Cost of Traditional Mitigation ($1000s)	LNBA Value ($/kW-Yr)	Contingency Plan	Distribution Service Required	Capacity (MW)	Energy Need (MWh/Day)	Hour of Day	Duration	Time of Year	Yearly Frequency	Year
GNA_2023_0011	DDOR_2023_0006	2023_0029	1	Friars	38	6/1/2026	$460	[redacted]									2023
										Thermal							2024
										Thermal							2025
										Thermal							2026
										Thermal	[redacted]	[redacted]	17-22	6	June - October	36	2027
										Thermal	[redacted]	[redacted]	17-23	7	June - October	56	2028
										Thermal	[redacted]	[redacted]	17-23	7	June - October	60	2029
										Thermal	[redacted]	[redacted]	16-24	9	June - October	92	2030
										Thermal	[redacted]	[redacted]	16-24	9	June - October	120	2031
										Thermal	[redacted]	[redacted]	15-24	10	June - October	168	2032

Appendix B – August 15, 2023 Prioritization Metrics Workbook

DDOR – LNBA Data

Refer to "SDG&E DDOR PRIORITIZATION METRICS TABLE 2023 – PUBLIC.xlsx" tabs "LNBA General Inputs", "LNBA Project Inputs", and "LNBA Backend Results"

DDOR – Prioritization Metrics Data

Refer to "SDG&E DDOR PRIORITIZATION METRICS TABLE 2023 – PUBLIC.xlsx" tabs "Introduction" and "Prioritization Metrics Template".

Glossary

Note:

1) This worksheet is only applicable where the utility has three or more candidate deferral projects, and

2) in the event the utility has one or two candidate deferral projects, the utility will a) develop a recommendation as to the tiering of the projects along with the rationale, and b) review this recommendation with the DPAG.

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 DIDF (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.
	Operational Requirement	The operational requirement of the need.
	Number of Grid Needs	The number of grid needs that the project mitigates.
Step 1: Normalize Raw Data	**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 ($)	
	Grid Need Certainty	The "Grid Need Certainty" value is normalized between 0 and 1 based on the range of the "Grid Need Certainty" values of all the candidate deferral projects.
	Year of Need	
	Duration (Hours)	The "Duration (Hours)" value is normalized between 0 and 1, based on the range of the "Duration (Hours)" values of all the candidate deferral projects. The shorter the duration, the higher the normalized Duration value.
	Capacity Need (MW)/Circuit	The "Capacity Need (MW)/Circuit " value is normalized between 0 and 1 based on the range of the "Capacity Need (MW)/Circuit" values among all the candidate deferral projects. The smaller the capacity needs per circuit, the higher chance for a feasible DER solution, the higher the normalized Capacity Needs/Circuit value,
	Operational Requirement	
	Number of Grid Needs	
Step 2: Apply Red Flags	**LNBA ($/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.
	Approval Status	Per Reform 37 of the 2020 May Ruling, information about the approval status of Pre-Application and Post-Application projects in the GNA/DDOR.

First load forecast year	2023
Discount Rate (%/yr)	7.00%
Cost Year Basis	2023

Input	Cost		
		Primary UG Feeder	Primary OH Feeder
Revenue Requirement Multiplier		1.50	1.50
Equipment Inflation		2.0%	2.0%
O&M Inflation		2.0%	2.0%
O&M Factor		1.9%	7.4%
Book Life		30	30
RECC		0.061	0.061
Discount rate net or project inflation (5/yr)		4.9%	4.9%

Confidential Information Highlighted in black and redacted

Index	Project ID / Name	Capital Cost (2023 $000) Primary OH Feeder	Primary UG Feeder	Project Info DER Installation Year		Cumulative MW,MWh, Vpu, Reduction Needed for Deferral 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Max
1	Border BD3132	$ -	$ 6,200.00	2025		[redacted]										[redacted]
2	Border 1161	$ 15.00	$ 1,906.00	2024		0.18	1.55	1.50	1.52	1.57						1.57
3	Telegraph Canyon 1225	$ -	$ 2,261.00	2025		0.00	0.00	0.87	1.14	1.50						1.50
4	Station F 140	$ 110.00	$ -	2024		[redacted]										[redacted]
5	Old Town OT3031	$ -	$ 8,400.00	2025		0.00	0.00	0.32	0.00	1.74						1.74
6	Friars 38	$ -	$ 460.00	2026		[redacted]										
7	Chollas West 163	$ 231.00	$ -	2024		0.05	0.05	0.05	0.05	0.05						0.05
8	Carlton Hills 282	$ -	$ 6,515.00	2025		0.00	1.80	5.00	5.00	5.20						5.20
9	Ocean Ranch 1406	$ -	$ 757.00	2024		4.13	4.23	4.37	4.54	4.86						4.86
10	Batiquitos 753	$ -	$ 1,062.00	2024		1.20	1.20	1.30	1.30	1.40						1.40
11	Station F F30	$ -	$ 490.00	2024		0.00	1.78	0.69	2.02	4.49						4.49
12	Carlton Hills 281	$ 2,189.00	$ 1,893.00	2024		0.00	0.80	0.80	0.80	0.80						0.80
13	Cannon 303	$ -	$ 1,641.00	2025		0.00	0.40	1.66	1.95	2.50						2.50
14	Margarita 983	$ -	$ 388.00	2024		0.00	0.05	0.05	0.05	0.05						0.05
15	Morro Hill 486	$ 206.00	$ 90.00	2024		0.00	0.00	2.50	3.30	3.30						3.30
16	Sampson 123	$ -	$ 2,340.00	2024		0.00	0.86	2.49	4.15	6.01						6.01
17	Cannon 781	$ 196.00	$ -	2025		0.00	0.00	0.05	0.05	0.05						0.05
18	Point Loma 496	$ 1,644.00	$ -	2024		0.00	0.00	0.50	0.50	0.50						0.50
19	Border 1162	$ -	$ 14,600.00	2025		0.00	0.20	0.20	0.20	0.20						0.20

Confidential information is highlighted in black and redacted

Index	Project ID / Name	Project Cost	Revenue Requirement Multiplier	Equipment Inflation	O&M Inflation	O&M Factor	Book Life	RECC	Discount rate net or project inflation (5/yr)	Incremental O&M Cost	Discount Rate (%/yr)	Project eligible for deferral?	DER Install Year	Cost year basis	Analysis Year
1	Border BD3132	$ 6,200.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 458.80	7.0%	TRUE	2025	2023	2023
2	Border 1161	$ 1,906.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 141.04	7.0%	TRUE	2024	2023	2023
3	Telegraph Canyon 1225	$ 2,261.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 167.31	7.0%	TRUE	2025	2023	2023
4	Station F 140	$ 110.00	150.0%	2.0%	2.0%	1.9%	30	0.061	4.9%	$ 2.09	7.0%	TRUE	2024	2023	2023
5	Old Town OT3031	$ 8,400.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 621.60	7.0%	TRUE	2025	2023	2023
6	Friars 38	$ 460.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 34.04	7.0%	TRUE	2026	2023	2023
7	Chollas West 163	$ 231.00	150.0%	2.0%	2.0%	1.9%	30	0.061	4.9%	$ 4.39	7.0%	TRUE	2024	2023	2023
8	Carlton Hills 282	$ 6,515.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 482.11	7.0%	TRUE	2025	2023	2023
9	Ocean Ranch 1406	$ 757.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 56.02	7.0%	TRUE	2024	2023	2023
10	Batiquitos 753	$ 1,062.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 78.59	7.0%	TRUE	2024	2023	2023
11	Station F F30	$ 490.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 36.26	7.0%	TRUE	2024	2023	2023
12	Carlton Hills 281	$ 2,189.00	150.0%	2.0%	2.0%	1.9%	30	0.061	4.9%	$ 41.59	7.0%	TRUE	2024	2023	2023
13	Cannon 303	$ 1,641.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 121.43	7.0%	TRUE	2025	2023	2023
14	Margarita 983	$ 388.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 28.71	7.0%	TRUE	2024	2023	2023
15	Morro Hill 486	$ 206.00	150.0%	2.0%	2.0%	1.9%	30	0.061	4.9%	$ 3.91	7.0%	TRUE	2024	2023	2023
16	Sampson 123	$ 2,340.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 173.16	7.0%	TRUE	2024	2023	2023
17	Cannon 781	$ 196.00	150.0%	2.0%	2.0%	1.9%	30	0.061	4.9%	$ 3.72	7.0%	TRUE	2025	2023	2023
18	Point Loma 496	$ 1,644.00	150.0%	2.0%	2.0%	1.9%	30	0.061	4.9%	$ 31.24	7.0%	TRUE	2024	2023	2023
19	Border 1162	$ 14,600.00	150.0%	2.0%	2.0%	7.4%	30	0.061	4.9%	$ 1,080.40	7.0%	TRUE	2025	2023	2023

Index	#1 Rate: Discount rate net or project inflation (%/yr)	for #2 Nper: Number of no deficiency years after the DER Install yr	Revenue Requirement Cost in Nominal Dollars in Analysis Yr $'s	#3 PMT: Revenue Requirement Cost in Nominal Dollars in Analysis Yr $'s * RECC	#4 FV 0	#5 Type 1	1 2023	2 2024	3 2025	4 2026	5 2027	6 2028	7 2029	8 2030	9 2031	10 2032
1	4.9%	2.00	$ 9,300.0	$ 570.28	0	1	$ -	$ -	$ 518.2	$ 1,012.2	$ 1,483.2	$ 1,932.1	$ 2,360.0	$ 2,768.0	$ 3,156.9	$ 3,527.6
2	4.9%	1.00	$ 2,859.0	$ 175.31	0	1	$ -	$ 167.1	$ 326.4	$ 478.3	$ 623.1	$ 761.1	$ 892.6	$ 1,018.1	$ 1,137.6	$ 1,251.6
3	4.9%	2.00	$ 3,391.5	$ 207.97	0	1	$ -	$ -	$ 189.0	$ 369.1	$ 540.9	$ 704.6	$ 860.6	$ 1,009.4	$ 1,151.2	$ 1,286.4
4	4.9%	1.00	$ 165.0	$ 10.12	0	1	$ -	$ 9.6	$ 18.8	$ 27.6	$ 36.0	$ 43.9	$ 51.5	$ 58.8	$ 65.7	$ 72.2
5	4.9%	2.00	$ 12,600.0	$ 772.64	0	1	$ -	$ -	$ 702.1	$ 1,371.4	$ 2,009.4	$ 2,617.7	$ 3,197.5	$ 3,750.2	$ 4,277.0	$ 4,779.3
6	4.9%	3.00	$ 690.0	$ 42.31	0	1	$ -	$ -	$ -	$ 36.7	$ 71.6	$ 104.9	$ 136.6	$ 166.9	$ 195.8	$ 223.3
7	4.9%	1.00	$ 346.5	$ 21.25	0	1	$ -	$ 20.3	$ 39.6	$ 58.0	$ 75.5	$ 92.2	$ 108.2	$ 123.4	$ 137.9	$ 151.7
8	4.9%	2.00	$ 9,772.5	$ 599.25	0	1	$ -	$ -	$ 544.6	$ 1,063.7	$ 1,558.5	$ 2,030.2	$ 2,479.9	$ 2,908.6	$ 3,317.2	$ 3,706.8
9	4.9%	1.00	$ 1,135.5	$ 69.63	0	1	$ -	$ 66.4	$ 129.6	$ 190.0	$ 247.5	$ 302.3	$ 354.5	$ 404.3	$ 451.8	$ 497.1
10	4.9%	1.00	$ 1,593.0	$ 97.68	0	1	$ -	$ 93.1	$ 181.9	$ 266.5	$ 347.2	$ 424.1	$ 497.4	$ 567.2	$ 633.9	$ 697.4
11	4.9%	1.00	$ 735.0	$ 45.07	0	1	$ -	$ 43.0	$ 83.9	$ 123.0	$ 160.2	$ 195.7	$ 229.5	$ 261.7	$ 292.5	$ 321.8
12	4.9%	1.00	$ 3,283.5	$ 201.35	0	1	$ -	$ 191.9	$ 374.9	$ 549.3	$ 715.6	$ 874.1	$ 1,025.2	$ 1,169.2	$ 1,306.5	$ 1,437.4
13	4.9%	2.00	$ 2,461.5	$ 150.94	0	1	$ -	$ -	$ 137.2	$ 267.9	$ 392.6	$ 511.4	$ 624.6	$ 732.6	$ 835.5	$ 933.7
14	4.9%	1.00	$ 582.0	$ 35.69	0	1	$ -	$ 34.0	$ 66.5	$ 97.4	$ 126.8	$ 154.9	$ 181.7	$ 207.2	$ 231.6	$ 254.8
15	4.9%	1.00	$ 309.0	$ 18.95	0	1	$ -	$ 18.1	$ 35.3	$ 51.7	$ 67.3	$ 82.3	$ 96.5	$ 110.0	$ 123.0	$ 135.3
16	4.9%	1.00	$ 3,510.0	$ 215.23	0	1	$ -	$ 205.2	$ 400.8	$ 587.2	$ 765.0	$ 934.4	$ 1,095.9	$ 1,249.9	$ 1,396.6	$ 1,536.5
17	4.9%	2.00	$ 294.0	$ 18.03	0	1	$ -	$ -	$ 16.4	$ 32.0	$ 46.9	$ 61.1	$ 74.6	$ 87.5	$ 99.8	$ 111.5
18	4.9%	1.00	$ 2,466.0	$ 151.22	0	1	$ -	$ 144.1	$ 281.6	$ 412.6	$ 537.4	$ 656.5	$ 769.9	$ 878.1	$ 981.2	$ 1,079.5
19	4.9%	2.00	$ 21,900.0	$ 1,342.92	0	1	$ -	$ -	$ 1,220.3	$ 2,383.7	$ 3,492.6	$ 4,549.8	$ 5,557.5	$ 6,518.1	$ 7,433.9	$ 8,306.9

Index	O&M Inflation Rate (%/yr)	#1 Rate: Discount rate net of O&M inflation	for #2 Nper: Number of no deficiency years after the DER Install yr	#3 PMT	#4 FV 0	#5 Type 1	1 2023	2 2024	3 2025	4 2026	5 2027	6 2028	7 2029	8 2030	9 2031	10 2032
1	2.0%	4.9%	2	$ 458.80	0	1	$ -	$ -	$ 433.77	$ 847.26	$ 1,241.44	$ 1,617.20	$ 1,975.39	$ 2,316.85	$ 2,642.35	$ 2,952.65
2	2.0%	4.9%	1	$ 141.04	0	1	$ -	$ 137.14	$ 267.88	$ 392.50	$ 511.30	$ 624.55	$ 732.51	$ 835.42	$ 933.53	$ 1,027.05
3	2.0%	4.9%	2	$ 167.31	0	1	$ -	$ -	$ 158.19	$ 308.98	$ 452.73	$ 589.75	$ 720.38	$ 844.90	$ 963.61	$ 1,076.76
4	2.0%	4.9%	1	$ 2.09	0	1	$ -	$ 2.03	$ 3.97	$ 5.82	$ 7.58	$ 9.25	$ 10.85	$ 12.38	$ 13.83	$ 15.22
5	2.0%	4.9%	2	$ 621.60	0	1	$ -	$ -	$ 587.68	$ 1,147.91	$ 1,681.95	$ 2,191.04	$ 2,676.34	$ 3,138.96	$ 3,579.96	$ 4,000.36
6	2.0%	4.9%	3	$ 34.04	0	1	$ -	$ -	$ -	$ 31.29	$ 61.12	$ 89.56	$ 116.67	$ 142.51	$ 167.14	$ 190.62
7	2.0%	4.9%	1	$ 4.39	0	1	$ -	$ 4.27	$ 8.34	$ 12.21	$ 15.91	$ 19.43	$ 22.79	$ 26.00	$ 29.05	$ 31.96
8	2.0%	4.9%	2	$ 482.11	0	1	$ -	$ -	$ 455.81	$ 890.31	$ 1,304.51	$ 1,699.36	$ 2,075.76	$ 2,434.56	$ 2,776.60	$ 3,102.66
9	2.0%	4.9%	1	$ 56.02	0	1	$ -	$ 54.47	$ 106.39	$ 155.89	$ 203.07	$ 248.05	$ 290.93	$ 331.80	$ 370.77	$ 407.91
10	2.0%	4.9%	1	$ 78.59	0	1	$ -	$ 76.41	$ 149.26	$ 218.70	$ 284.89	$ 347.99	$ 408.15	$ 465.49	$ 520.15	$ 572.26
11	2.0%	4.9%	1	$ 36.26	0	1	$ -	$ 35.26	$ 68.87	$ 100.91	$ 131.45	$ 160.56	$ 188.32	$ 214.77	$ 239.99	$ 264.04
12	2.0%	4.9%	1	$ 41.59	0	1	$ -	$ 40.44	$ 78.99	$ 115.74	$ 150.77	$ 184.17	$ 216.00	$ 246.35	$ 275.28	$ 302.85
13	2.0%	4.9%	2	$ 121.43	0	1	$ -	$ -	$ 114.81	$ 224.25	$ 328.58	$ 428.04	$ 522.84	$ 613.22	$ 699.37	$ 781.50
14	2.0%	4.9%	1	$ 28.71	0	1	$ -	$ 27.92	$ 54.53	$ 79.90	$ 104.08	$ 127.14	$ 149.12	$ 170.06	$ 190.04	$ 209.07
15	2.0%	4.9%	1	$ 3.91	0	1	$ -	$ 3.81	$ 7.43	$ 10.89	$ 14.19	$ 17.33	$ 20.33	$ 23.18	$ 25.91	$ 28.50
16	2.0%	4.9%	1	$ 173.16	0	1	$ -	$ 168.37	$ 328.87	$ 481.87	$ 627.73	$ 766.76	$ 899.30	$ 1,025.65	$ 1,146.09	$ 1,260.91
17	2.0%	4.9%	2	$ 3.72	0	1	$ -	$ -	$ 3.52	$ 6.88	$ 10.08	$ 13.13	$ 16.03	$ 18.81	$ 21.45	$ 23.97
18	2.0%	4.9%	1	$ 31.24	0	1	$ -	$ 30.37	$ 59.32	$ 86.92	$ 113.23	$ 138.31	$ 162.22	$ 185.01	$ 206.74	$ 227.45
19	2.0%	4.9%	2	$ 1,080.40	0	1	$ -	$ -	$ 1,021.45	$ 1,995.17	$ 2,923.39	$ 3,808.23	$ 4,651.73	$ 5,455.81	$ 6,222.32	$ 6,953.01

Index	1 2023	2 2024	3 2025	4 2026	5 2027	6 2028	7 2029	8 2030	9 2031	10 2032	Total 10 Year Deferral Value ($1000s)	Max 10 Year Need (MW, MW value h, Vpu)	10 Year LNBA		
1	$ -	$ -	$ 952.0	$ 1,859.5	$ 2,724.6	$ 3,549.2	$ 4,335.4	$ 5,084.8	$ 5,799.2	$ 6,480.2	$ 6,480.2	[redacted]		$100-$500	
2	$ -	$ 304.3	$ 594.3	$ 870.8	$ 1,134.4	$ 1,385.6	$ 1,625.2	$ 1,853.5	$ 2,071.1	$ 2,278.6	$ 2,278.6	1.57	$ 141.13	$100-$500	
3	$ -	$ -	$ 347.2	$ 678.1	$ 993.6	$ 1,294.3	$ 1,581.0	$ 1,854.3	$ 2,114.8	$ 2,363.2	$ 2,363.2	1.50	$ 176.93	$100-$500	
4	$ -	$ 11.7	$ 22.8	$ 33.4	$ 43.5	$ 53.2	$ 62.4	$ 71.1	$ 79.5	$ 87.4	$ 87.4	[redacted]		$0-$100	
5	$ -	$ -	$ 1,289.8	$ 2,519.3	$ 3,691.4	$ 4,808.7	$ 5,873.8	$ 6,889.1	$ 7,857.0	$ 8,779.6	$ 8,779.6	1.74	$ 629.24	>$500	
6	$ -	$ -	$ -	$ 67.9	$ 132.7	$ 194.5	$ 253.3	$ 309.4	$ 362.9	$ 413.9	$ 413.9	[redacted]		$0-$100	
7	$ -	$ 24.5	$ 47.9	$ 70.2	$ 91.4	$ 111.7	$ 131.0	$ 149.4	$ 166.9	$ 183.6	$ 183.6	0.05	$ 408.10	$100-$500	Vpu
8	$ -	$ -	$ 1,000.4	$ 1,954.0	$ 2,863.0	$ 3,729.6	$ 4,555.7	$ 5,343.2	$ 6,093.8	$ 6,809.5	$ 6,809.5	5.20	$ 163.69	$100-$500	
9	$ -	$ 120.8	$ 236.0	$ 345.9	$ 450.5	$ 550.3	$ 645.5	$ 736.1	$ 822.6	$ 905.0	$ 905.0	4.49	$ 22.41	$0-$100	
10	$ -	$ 169.5	$ 331.1	$ 485.2	$ 632.1	$ 772.1	$ 905.5	$ 1,032.7	$ 1,154.0	$ 1,269.6	$ 1,269.6	0.80	$ 176.34	$100-$500	
11	$ -	$ 78.2	$ 152.8	$ 223.9	$ 291.6	$ 356.2	$ 417.8	$ 476.5	$ 532.5	$ 585.8	$ 585.8	4.48	$ 14.51	$0-$100	
12	$ -	$ 232.4	$ 453.9	$ 665.1	$ 866.4	$ 1,058.4	$ 1,241.2	$ 1,415.6	$ 1,581.8	$ 1,740.3	$ 1,740.3	0.80	$ 241.70	$100-$500	
13	$ -	$ -	$ 252.0	$ 492.2	$ 721.1	$ 939.4	$ 1,147.5	$ 1,345.8	$ 1,534.9	$ 1,715.2	$ 1,715.2	2.50	$ 85.76	$0-$100	
14	$ -	$ 61.9	$ 121.0	$ 177.3	$ 230.9	$ 282.1	$ 330.8	$ 377.3	$ 421.6	$ 463.9	$ 463.9	0.05	$ 1,030.78	>$500	Vpu
15	$ -	$ 21.8	$ 42.7	$ 62.6	$ 81.5	$ 99.6	$ 116.8	$ 133.2	$ 148.8	$ 163.8	$ 163.8	3.30	$ 5.51	$0-$100	
16	$ -	$ 373.5	$ 729.6	$ 1,069.1	$ 1,392.7	$ 1,701.1	$ 1,995.2	$ 2,275.5	$ 2,542.7	$ 2,797.5	$ 2,797.5	6.05	$ 51.69	$0-$100	
17	$ -	$ -	$ 19.9	$ 38.9	$ 57.0	$ 74.2	$ 90.6	$ 106.3	$ 121.2	$ 135.5	$ 135.5	0.05	$ 338.71	$100-$500	Vpu
18	$ -	$ 174.5	$ 340.9	$ 499.5	$ 650.7	$ 794.8	$ 932.2	$ 1,063.1	$ 1,188.0	$ 1,307.0	$ 1,307.0	0.50	$ 290.44	$100-$500	
19	$ -	$ -	$ 2,241.8	$ 4,378.8	$ 6,416.0	$ 8,358.0	$ 10,209.2	$ 11,973.9	$ 13,656.2	$ 15,259.9	$ 15,259.9	0.20	$ 5,537.41	>$500	

Prioritization Metrics Template

Template Inputs

Confidential information is highlighted in black and redacted

Confidential information is highlighted in black and redacted

	Cost Effectiveness			Forecast Certainty		Market Assessment			
	LNBA ($/MW-yr)	LNBA ($/MWh-yr)	Unit Cost of Traditional Mitigation ($)	Grid Need Certainty	Year of Need	Duration (Hours)	Capacity Need (MW)/Circuit	Operational Requirement	Number of Grid Needs
DIDF Baseline Year					2023				
Max value for normalization	[redacted]			6.00		6.00	[redacted]		
Min value for normalization	[redacted]			6.00		3.00	[redacted]		
Flag threshold			460,000.00		3			RT I	5
Top quartile threshold	#NUM!			#NUM!		#NUM!			
Bottom quartile threshold	#NUM!			#NUM!		#NUM!			

Metrics Legend	RAG Score	
Red Value	-1	
Amber Value	0	
Green Value	1	
Tier 1	Less Than	0
Tier 2	Equal To	0
Tier 3	Greater Than	0

		Raw Data														
Project ID	Project Description	LNBA ($/MW-yr)	LNBA ($/MWh-yr)	LNBA ($/MWh-day) (Info only)	Unit Cost of Traditional Mitigation ($)	Grid Need Certainty	Operating Date (Info Only)	Year of Need	Year of Need Indicator	Duration (Hours)	Capacity Need (MW)	Circuits	Capacity Need (MW)/Circuit	Operational Requirement	Number of Grid Needs
Project 1	Friars 38	[redacted]			$460,000.00	6	2026	2026	3	6	[redacted]	1	[redacted]	DA	1

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	Step 1: Normalize Raw Data								
Project ID	LNBA ($/MW-yr)	LNBA ($/MWh-yr)	Unit Cost of Traditional Mitigation ($)	Grid Need Certainty	Year of Need	Duration (Hours)	Capacity Need (MW)/Circuit	Operational Requirement	Number of Grid Needs
Project 1	0.00	0.00		1.00		0.00	0.00		

	Step 2: Apply Flags								
Project ID	LNBA ($/MW-yr)	LNBA ($/MWh-yr)	Unit Cost of Traditional Mitigation ($)	Grid Need Certainty	Year of Need	Duration (Hours)	Capacity Need (MW)/Circuit	Operational Requirement	Number of Grid Needs
Project 1									

	Step 3: Determine Quantitative Metric Scores			Step 4: Rank Quantitative Metric Scores			Step 5: Assign RAG Scores				Step 6: Determine Final Score and Ranking			
Project ID	Cost Effectiveness	Scaled Forecast Certainty	Market Assessment	Cost Effectiveness	Scaled Forecast Certainty	Market Assessment	Cost Effectiveness	Scaled Forecast Certainty	Market Assessment	Final RAG Score	Final Score	Final Ranking	Final Tiering	Approval Status
Project 1	0.00	2	0.00	1	1	1	#NUM!	#NUM!	#NUM!	#NUM!	2.00	1	#NUM!	