
Appendix 1-B
SCE Engineering Analysis Report

Project Name: SoCal Gas - Avocado Site
Project Address / Location: 34.304258, -119.311794

ENGINEERING ANALYSIS REPORT

Prepared by

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BACKGROUND

SoCal Gas submitted a request to analyze capacity for the proposed project and necessary upgrades (if any) required to serve the requested 5515 kVA of load by 7/1/2034. The project is located at 34.304258, -119.311794 in the city of Ventura.

The customer provided electrical load projections shown in Table 1:

Table 1- Proposed Total Load Ramp – 5515 kVA

SOURCE DESCRIPTION					CONNECTED		RUNNING	
Tag	Description	Type	Voltage	Phase	Amps Connected	KVA Connected	Amps Running	KVA Running
SG-1000	Total Station Load	MV SWGR	4160	3	876.3	6313.8	765.4	5515.1

Customer requested energization date(s) are shown in Table 2.

Table 2 - Energization Phases

Load Type	Requested Load Amount	Energization Date
SG-1000 (Total Station Load)	5.515 MVA	7/1/2034

The project site is located approximately 7.69 miles from Casitas Substation.

At the time of this report the closest and most suitable circuit to the requested site is Grandad 16 kV Circuit.



SUMMARY

Engineering analysis has determined SCE can fully accommodate 5515 kVA of the total requested amount on Grandad 16 kV Circuit for SoCal Gas - Avocado Site as of the date of this report. Although upgrades are necessary for SCE to safely accommodate this request, they are not expected to delay the customer's requested energization date. However, if the necessary upgrades are delayed, the energization date for SoCal Gas - Avocado Site may also be postponed.

This report does not guarantee any noted available capacity for SoCal Gas - Avocado Site. SCE Engineering will **re-study** this request upon SoCalGas submitting an approved and complete full design package¹ to the SCE Planning Department. Customers are encouraged to submit a complete full design package¹ as soon as possible to minimize the risk of other customer requests reducing any noted available capacity.

If the request(s) stated above submit their full design package¹ before SoCal Gas - Avocado Site, an upgrade may be required and timeframe is dependent on the upgrade needed.

SCE will gladly schedule an optional results meeting to discuss any concerns or questions the customer may have about this report.

¹ The details of what a complete full design package includes can be provided by contacting SCE's Planning Department. Generally, the full design package includes, but is not limited to, a Customer Project Information Sheet (CPIS), Single Line Diagram (SLD), Detailed Load Scheduled outlining connected and demand load values, Plot Plan, CAD File, and Design Option Letter.

STUDY ASSUMPTIONS

SCE studies the impact to the system accounting for existing and forecasted load², system capacity limitations, and based on the load requested as shown in Table 1 provided by the customer in their study request. Capacity limitations include, but are not limited to, substation transformer ratings, conductor thermal ratings, system protection requirements, and system voltage requirements.

ANALYSIS

Distribution Analysis:

The most suitable distribution circuit in the area is the Grandad 16kV Circuit out of Casitas Substation and is approximately 7.69 miles from the requested site.

At the time of this report, the Distribution System is expected to have sufficient capacity to serve the requested 5515 kVA for SoCal Gas - Avocado Site. Upgrades will be required to safely accommodate the requested capacity of 5515 kVA, and these upgrades are not expected to delay the requested energization date. However, if the necessary upgrades are delayed, the energization date for SoCal Gas - Avocado Site may also be postponed.

Upgrades:

- Install ~3,500' of new conductor and/or cable to customer site
- (1) platform-mounted voltage regulator
- (1) switch
- (1) capacitor

Subtransmission/Transmission Analysis:

At the time of this report, the subtransmission systems are expected to have sufficient capacity to serve the requested 5515 kVA for SoCal Gas - Avocado Site. Upgrades will be required to safely accommodate the requested capacity of 5515 kVA, and these upgrades are not expected to delay the requested energization date. However, if the necessary upgrades are delayed, the energization date for SoCal Gas - Avocado Site may also be postponed.

Upgrades:

- Install (1) 220/66 kV transformer bank

This report does not guarantee any noted available capacity for SoCal Gas - Avocado Site. SCE Engineering will re-study this request upon SoCalGas submitting an approved and complete full design package¹ to the SCE Planning Department.

Note: Details about any Rule 15 Line Extensions are not included in this study. Customers are encouraged to work with SCE's Local Planning Department on Rule 15 Line Extension requirements and any associated costs.

² Forecasted load in this study only includes load requests with approved full design package submittals

DISCLAIMERS, DISCLOSURE OF STUDY ASSUMPTIONS

- This study assumes that the developer's distribution infrastructure will be in place by the requested energization date
- Any delays in the project by the developer could delay SCE's ability to meet the requested energization date
- The thermal rating of any conductor, connector, apparatus, and/or substation shall not exceed 100% of its rated capacity or loading limit
- Circuit voltage profiles shall be maintained to comply with SCE's CPUC Jurisdictional Rule 2 tariff requirements
- Operational flexibility and reliability of the Distribution System shall be maintained at all times
- For all interconnection scope the customer will need to work with SCE's Local Planning Department, and in doing so will get the most accurate information on timeline and potential financial responsibilities. Details pertaining to cost are not included in this report as its intent is to provide the customer with SCE's method of service and approximate timelines for energization.
- The results outlined in this report are based on available information at the time of analysis which may change at any time after the analysis is performed
- The proposed manner of service in this report is subject to change based on final design and may be required to comply with SCE's distribution design standards.
- Changes to customer load values, schedules, or other requests may require restudies which may cause delays to ongoing SCE engineering, planning and construction activities and ultimately impact the customer energize date.
- This report does not include costs for which the customer may be responsible for. In addition to costs for the proposed scope, additional costs associated with environmental studies may be required for the licensing or permitting of the proposed SCE facilities.
- This study does not evaluate right-of-way or easements which may be needed to provide service to the project. This study assumes that all easements and rights-of-way required for the construction of Distribution Upgrades and/or Facilities will be secured in a timely manner to accommodate the requested in-service date.
- This report does not consider potential milestone setbacks that could result from the local jurisdiction requiring underground construction of distribution facilities. SCE encourages the Customer to consult with the local jurisdiction to identify existing underground ordinance to reduce the risk of complication associated with said ordinance.
- Applicable to projects requesting primary service: This study does not include analysis related to coordination of system protection equipment. A coordination study may be required during final engineering. The coordination study may identify additional requirements such as installing new protection equipment, reprogramming and/or relocating existing protection equipment. The additional scope of work may impact the Customer's requested in-service date.
- This report does not reference the applicable tariff(s) that may apply to this installation. As line routes and further construction details are defined, SCE will evaluate each individual project and identify the appropriate tariff. The choice of tariffs will better define the Customer's responsibilities as well as each party's potential financial responsibilities. Service requests must follow SCE's new service requirements and PUC approved tariff provisions.
- When applicable, SCE discounts customer connected load amount using diversification factors that align with SCE's planning protocols.