

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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In The Matter of the Application of SAN DIEGO GAS
& ELECTRIC COMPANY (U 902 E) for a Certificate of Public
Convenience and Necessity for the South Orange County
Reliability Enhancement Project

Application 12-05-020

**SAN DIEGO GAS & ELECTRIC COMPANY'S OPENING COMMENTS ON
ALTERNATE PROPOSED DECISION OF COMMISSIONER PICKER**

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Pursuant to Public Utilities Commission's ("Commission") Rule of Practice and Procedure 14.3(b), San Diego Gas & Electric Company ("SDG&E") respectfully submits opening comments on Alternate Proposed Decision of Commissioner Picker ("Alternate Decision" or "APD").

I. INTRODUCTION

The Alternate Decision grants SDG&E a Certificate of Public Convenience and Necessity ("CPCN") to construct the proposed South Orange County Reliability Enhancement Project ("SOCRE Project" or "Proposed Project"), and finds Alternative J, as set forth in the Final Environmental Impact Report ("FEIR"), infeasible. SDG&E supports the Alternate Decision as well-reasoned and supported by substantial evidence. SDG&E commends the assigned Commissioner for recognizing the clear public benefit conferred by the Proposed Project. SDG&E's opening comments address some minor factual corrections, correction of the estimated cost of the SOCRE Project, clarification of NERC TPL-001-4, and some transmission planning issues..

The Alternate Decision will allow SDG&E to proceed with the SOCRE Project, and thereby significantly enhance the reliability of electric service to over 300,000 people and 12,000 businesses in South Orange County.

II. THE ESTIMATED COSTS OF THE SOCRE PROJECT

The Alternate Decision at 3-4 and 35 states that "the SOCRE Project has an estimated cost of approximately \$381 million," citing "SDG&E Rebuttal Testimony at 16." The Alternate Decision at 2, 54, Finding of Fact 61, Conclusion of Law 21, and Ordering Paragraph 3 appears to transpose this figure, stating that the SOCRE Project has an estimated cost of \$318 million and imposing a "cost cap" in that amount.

The correct estimated cost of SDG&E's SOCRE Project is \$383.6 million +/- 10% (for a range of \$345 million to \$422 million).¹ The cited testimony ("SDG&E Rebuttal Testimony at 16") does not provide any estimated

¹ Exh. SDG&E 2.2 (Supp. Testimony at 125, Table 1).

cost for the SOCRE Project.² SDG&E respectfully requests that the Alternate Decision be revised to reflect the correct estimated cost for the SOCRE Project.

III. THE ESTIMATED COSTS OF ALTERNATIVE J

The Alternate Decision at 45 states: “SDG&E estimates that Alternative J will cost \$404- \$492 million,” citing “SDG&E Rebuttal Testimony at 16.” The cited testimony does not estimate the cost of Alternative J.³

SDG&E’s estimated cost for Alternative J, based upon preliminary engineering and experience, is \$518 million to \$634 million. This estimate included a safe and reliable 230/138/12 kV substation design meeting industry standards and state water quality requirements (which requires more property than FEIR Alternative J allows), voltage control devices required to supply MVars to SCE’s system through the SCE interconnection, and rebuilding the 138/12 kV Capistrano Substation. It did not include necessary property acquisition, 138 kV transmission line upgrades and SCE interconnection reliability upgrades, which would further increase the cost of Alternative J.⁴

The Alternate Decision at 45 states: “FRONTLINES calculates the total cost for [its] alternative to be \$91 million, less than one-quarter of SDG&E’s estimate.” As SDG&E pointed out, among other things, Frontlines: relies on its witness’ guess that a 230 kV substation would cost \$66 million (versus SDG&E’s estimate of \$189-\$231 million) and a connecting transmission line \$5 million (versus SDG&E’s estimate of \$16-\$20 million) despite the facts that she is not an electrical engineer and has no experience in designing or constructing a substation or transmission lines;⁵ uses property acquisition costs not found in the record (and contrary to AT&T’s \$7 million figure just for relocation costs);⁶ fails to include a Capistrano 138/12 kV rebuild (\$135-\$165 million) or multiple required voltage support devices (\$178-\$198 million);⁷ assumes an overhead line is feasible without any evidentiary support; and relies on unit costs found in a WECC document that admits costs are different in California.⁸ SDG&E requests that this evidence be presented along with the discussion of Frontlines’ claim.

The Alternate Decision at 46 states: “A significant element of the costs of Alternative J is the potential addition of a second 230/138 transformer at Trabuco Substation. As described in FRONTLINES’ testimony, this addition to Alternative J involves the construction of a new 230kV substation which includes two high capacity (392) MVA transformers in a BAAH configuration on the 2.3 acre parcel north of the existing Trabuco distribution

² See Exh. SDG&E 3.2 (Rebuttal Testimony at 16). This minor error and others appear to have been carried over to the Alternate Decision from the Proposed Decision.

³ See Exh. SDG&E 3.2 (Rebuttal Testimony at 16). SDG&E’s Rebuttal Testimony was submitted in June 2015 before Alternative J was presented in the August 2015 Recirculated Draft Environmental Impact Report (“RDEIR”).

⁴ Exh. SDG&E 4 (2nd Supp. Testimony at 72-73), which includes details of the cost estimate.

⁵ Tr. at 1326:21-1327:13, 1333:12-18, 1340:23-1341:1, 1351:16-27 (Frontlines Ayer).

⁶ Frontlines Opening Brief at 50 n. 141; Exh. SDG&E 5, Attachment 59.

⁷ Exh. SDG&E 4 (2nd Supp. Testimony at 72 (support for each work element is found *id.* at 23-73).

⁸ Tr. at 993:3-24 (SDG&E-Iliev).

substation.” (Emphasis added). As recognized in APD at 46 Footnote 83, the FEIR Alternative J includes two transformers—it is not a “potential addition.”

APD Footnote 83 also states: “This addition also includes modifications at Talega” FEIR Alternative J does not include the modifications at Talega set forth in APD Footnote 83 or Exh. Frontlines 401C.⁹ In its Opening Testimony, SDG&E testified that the SOCRE Project would allow SDG&E to remove (not replace) two aging transformers at Talega Substation, reconfigure Bank 63 to a BAAH configuration, and not replace the Talega STATCOM when it reaches the end of its useful life, thus avoiding considerable equipment cost.¹⁰ These Talega modifications, however, are not part of the SOCRE Project, their costs (as opposed to avoided costs) have not been estimated, and the FEIR did not evaluate any environmental impacts therefrom. SDG&E requests that APD Footnote 83 be revised to indicate that Frontlines’ proposal includes Talega modifications, but the FEIR does not.

The Alternate Decision at 46 states: “In opposition to this addition to Alternative J, SDG&E argues that the Alternative J addition will require the acquisition of additional land” (Emphasis added). As noted, FEIR Alternative J requires two transformers—it is not an “addition.” Further, SDG&E testified that two transformers in a BAAH configuration are required for a safe and reliable 230 kV Trabuco switchyard. Additional land is required to build a safe and reliable 230/138/12 kV Trabuco Substation that meets industry standards and complies with state water quality regulations.¹¹

IV. CAPISTRANO SUBSTATION

The Proposed Project includes the rebuilding of the existing 138/12 kV Capistrano Substation into a 230/138/12 kV substation on SDG&E’s existing Capistrano Substation property. SDG&E must rebuild the 60+ year old Capistrano Substation to maintain reliable electric service—mere equipment replacement is not feasible. Equipment and infrastructure is failing and predicted to fail, a more reliable bus configuration is needed, and it does not meet current reliability, seismic or security standards.¹² The only evidence in the CEQA and evidentiary record is that Capistrano will be rebuilt as a 138/12 kV substation if it is not rebuilt as a 230/138/12 kV substation under the Proposed Project.¹³ No party contested this need.¹⁴

⁹ FEIR, Exh. 1 (rev. DEIR at 3-16 to 3-18) (“This alternative would not require any work at the existing Capistrano or Talega Substations.”)

¹⁰ Exh. SDG&E 1.3 (Opening Testimony at 86:15-87:19).

¹¹ Exh. SDG&E 3.2 (Rebuttal Testimony at 108:10-17, 108:30-113:28); Exh. SDG&E 4 (2nd Supp. Testimony at 44:16-70:4).

¹² Exh. SDG&E 1.3 (Opening Testimony at 68:1-83:23, 93:25-97:1); SDG&E Opening Brief at 27-28.

¹³ *E.g.*, SDG&E 2.2 (Supp. Testimony at 62-66, 87-88); SDG&E 4 (Second Supp. Testimony at 43-44); FEIR, RTC, SDG&E Comment 0347-14; SDG&E Opening Brief at 52-55.

¹⁴ SJC supports rebuilding Capistrano. Exh. SJC 300 (Shirmohammadi Testimony at 5:5-7, 7:9-11, 7:19-24, 13:3-11).

Frontlines’ “recommended alternative approach” includes “rebuild Capistrano.” Exh. Frontlines 400.1C (Ayer Testimony at 20:28-32); *accord* Tr. at 1337:6-17 (Frontlines Ayer).

SDG&E respectfully requests that the Alternate Decision include Findings of Fact on the need for the 138/12 kV Capistrano Substation to be rebuilt to provide reliable electric service.

V. TRANSMISSION PLANNING ISSUES

A. The Mandatory NERC Reliability Standards Apply to South Orange County

The Alternate Decision at 30 correctly finds that because SDG&E's South Orange County 138 kV facilities are under CAISO operational control, the CAISO Planning Standards require the CAISO to apply the NERC TPL standards to them. However, the APD at 29 n.37 also discusses Frontlines' contention that such facilities are not part of the NERC-defined Bulk Electric System ("BES") under Exclusion E3 for "local networks." Given the discussion of Frontlines' contention and to avoid future uncertainty, SDG&E requests the APD be amended to include SDG&E's (and CAISO's) explanation why Inclusion I5 applies and Exclusion E3 does not.

SDG&E testified that its South Orange County 138 kV system is included by Inclusion I5 of the BES definition, which includes: "Static or dynamic devices (excluding generators) dedicated to supplying or absorbing Reactive Power that are connected at 100 kV or higher, or through a dedicated transformer with a high-side voltage of 100 kV or higher"¹⁵ SDG&E explained: "The capacitor bank located at SDG&E's Capistrano Substation and the STATCOM located at Talega Substation are connected at 138 kV. The capacitor bank supplies reactive power and the STATCOM can either supply or absorb reactive power. Both devices are connected to the South Orange County 138 kV network. The 138 kV network is connected to the 230 kV network at Talega Substation. Both devices support voltage on the 138 kV and the 230 kV networks. The 138 kV network is the conduit used to allow these devices to support voltages on the 230 kV network. As such, the devices contribute to power flowing over both the 138 kV and 230 kV networks."¹⁶ A FERC Order makes plain Inclusion I5 overrides Exclusion E3.¹⁷ Frontlines's interpretation, that Inclusion I5 applies to devices, but not the transmission lines that connect the devices to the rest of the 230 kV electric grid, would render Inclusion I5 pointless, contrary to statutory construction, and ignore the definition's reference to devices that "are connected at 100 kV or higher."¹⁸ CAISO testified to the same points.¹⁹

¹⁵ Exh. SDG&E 3.2 (Rebuttal Testimony at 6, Attachment 26).

¹⁶ Exh. SDG&E 3.2 (Rebuttal Testimony at 7).

¹⁷ As stated in Exh. SDG&E 3.2 (Rebuttal Testimony at 7 n 12), FERC and NERC made plain that Exclusions E1 and E3 do not override Inclusion I5. FERC Order Approving Revised Definition, Paragraph 24, Docket No. RD14-2-000, 146 FERC ¶ 61,199 (March 20, 2014) ("NERC modified inclusion I5 by adding the phrase "unless excluded by application of Exclusion E4" at the end to clarify that exclusion E4 "would exclude elements identified for inclusion in inclusion I5." NERC states that this is consistent with Order No. 773, where the Commission stated that exclusions E1 and E3 would not override inclusion I5 because exclusions E1 and E3 exclude transmission elements only and not resources.").

¹⁸ Exh. SDG&E 3.2, Attachment 26 (NERC Glossary of Terms, BES Definition at 15).

¹⁹ Exh. CAISO 503 (Millar Rebuttal Testimony at 2-4)

In sum, SDG&E's SOC 138 kV facilities are part of the NERC-defined BES, as well as being subject to NERC reliability standards by the CAISO Planning Standards.²⁰ At the least, SDG&E's and CAISO's positions should be included in the discussion of the issue.

B. NERC TPL-001-4 Applies and Load Shedding After a Single Contingency Is Not Permitted

The Alternate Decision, Conclusion of Law 10, correctly states: "As of January 1, 2016, NERC TPL-001-4 is the enforceable, governing standard for transmission system planning performance requirements." The Alternate Decision, Conclusion of Law 11, correctly states: "NERC TPL-001-4 does not allow non-consequential load loss after a single contingency event in the long-term transmission planning horizon." However, the Alternate Decision's discussion includes some factual and legal misstatements.

APD at 27 states: "No party presented evidence on the effect of these new standards during hearings." This is not correct. Even though other NERC standards were in effect from May 2012 through January 1, 2016, SDG&E provided June 2015 testimony on TPL-001-4 (including the standard), and CAISO also addressed the change to TPL-001-4 in its October 2015 testimony.²¹ Frontlines also testified regarding TPL-001-4.²² TPL-001-4 also was discussed during evidentiary hearings and is marked as Exh. ORA 211.²³ SDG&E explained that the limited authorization to shed load in Footnote 12 of TPL-001-4 is not applicable here, and that "[t]he overlapping contingencies starting on page 51 of SDG&E's January 2015 Prepared Testimony each will be a NERC Category P6 contingency; a transmission line or transformer outage (a P1 contingency), followed by a system adjustment, followed by a second transmission line or transformer outage."²⁴

APD at 27 asserts this alleged failure to present evidence regarding TPL-001-4 deprived the Commission of "the opportunity to identify or consider potentially relevant factual issues (such as the existence of other now permissible ways of reducing load, and what qualifies as a "near-term planning project" within the meaning of the new NERC regulation) at hearings." As noted above, both SDG&E and CAISO presented TPL-001-4 in prepared written testimony before evidentiary hearings began, and were available to respond to questions about it during hearings. Moreover, Footnote 12 does not permit SDG&E to "reduce load" (i.e., interrupt electric service to customers) as a long term solution to the NERC violations in South Orange County.

Footnote 12 only allows Non-Consequential Load Loss "within the Near Term Transmission Planning

²⁰ Exh. SDG&E 3.2 (Rebuttal Testimony at 6-7 & fns. 12 & 13, Attachment 26); *accord* Exh. CAISO 503 (Millar Rebuttal Testimony at 2-4); *generally* SDG&E Opening Brief at 23, Reply Brief at 9 n.38.

²¹ Exh. SDG&E 3.2 (Rebuttal Testimony at 13-17 & Attachment 27); SDG&E Reply Brief at 11-12; Exh. CAISO 505 (Sparks Supp. Rebuttal Testimony at 4 n.3, Table 1) .

²² Exh. Frontlines 400 (Ayer Reply Testimony at 6).

²³ *E.g.*, Tr. at 96:16 to 100:15, 235:27 to 237:7 (SDG&E Jontry); Tr. at 333:7-9, 344:18-348:8 (CAISO Sparks).

²⁴ Exh. SDG&E 3.2 (Rebuttal Testimony at 15).

Horizon,” and then only under the conditions in Attachment 1 to TPL-001-4 and in no event more than 75 MW.²⁵ NERC defines “Near Term Transmission Planning Horizon” as “Year One to five,” and CAISO Planning Standards limit Footnote 12’s use to an interim measure while a long term solution is implemented.²⁶ CAISO and the Commission utilize a 10 year planning horizon for transmission projects. SOCRE is a long term solution, looking to avoid NERC violations not only in the five years since the filing of this Application (ending in 2017), but for decades to come.

Referring to Footnote 12, the Alternate Decision at 28 states: “This new language limits load-drop under single contingencies to 75 MW.” While probably just shorthand, it might suggest that California utilities may plan for up to 75 MW of load drop following single contingencies, which would be contrary to TPL-001-4, which is binding on the utilities under federal law. SDG&E suggests such statements be modified to: “TPL-001-4, Footnote 12 and CAISO Planning Standards only allow non-consequential load loss following a single contingency within the near term transmission planning horizon (years one to five) until long-term mitigation plans are in-service, and then only under the conditions in Attachment 1 to TPL-001-4 and in no event more than 75 MW.”

As noted above, the Alternate Decision, Conclusion of Law 11 correctly states: “NERC TPL-001-4 does not allow non-consequential load loss after a single contingency event in the long-term transmission planning horizon.” The SOCRE Project will be in-service for decades, and it is the long term transmission planning horizon that is applicable here. Therefore, NERC TPL-001-4 does not allow SDG&E to plan for any loss of non-consequential load after a single contingency event in South Orange County. SDG&E requests that references in the Alternate Decision that suggest load shedding up to 75 MW in South Orange County would be allowed under NERC TPL-001-4, found at APD 30, 37, Finding of Fact 39, 44-46 and Conclusion of Law 12, be revised to state, as Conclusion of Law 11 does, that “NERC TPL-001-4 does not allow non-consequential load loss after a single contingency event in the long-term transmission planning horizon applicable here.”

The Alternate Decision at 33 states: “Although NERC standards do allow for load shedding to prevent the transmission lines from exceeding Applicable Ratings, we find that the risk of 18 to 56 reliability events are far too many for the SOC area.” SDG&E agrees that the risk of these events is too great for the SOC area, particularly

²⁵ Exh. SDG&E 3.2 (Rebuttal Testimony at 14 & Attachment 27 (TPL-001-4)).

²⁶ Exh. SDG&E 3.2 (Rebuttal Test. at 14:27-29) & Attach. 13 (CAISO Planning Standards at 17-18) (“Footnote 12 of TPL-001-4 Interpretation and Applicable Timeline: The shedding of Non-Consequential load following P1, P2-1 and P3 contingencies on the Bulk Electric System of the ISO Controlled Grid is not considered appropriate in meeting the performance requirements. In the near-term planning horizon the requirements of Footnote 12 may be applied until the long-term mitigation plans are in-service. In the near-term transmission planning horizon, the non-consequential load loss will be limited to 75 MW and has to meet the conditions specified in Attachment 1 of TPL-001-4.”) (emphasis added).

when coupled with the Category D risks to Talega Substation²⁷ and the Category B NERC violations arising during maintenance outages.²⁸ However, SDG&E notes that NERC TPL-001-4, as discussed above, does not allow non-consequential load loss after a single contingency event in the long-term transmission planning horizon. If SDG&E must shed load after a single contingency event to prevent lines from exceeding Applicable Ratings, that would be a NERC violation. NERC TPL-001-4 allows SDG&E to shed load only after the second occurrence of two contingency events to avoid exceeding Applicable Ratings. SDG&E's testimony established that its South Orange County system faces both Category C (now Category P2 and P6 events) events that violate the Applicable Ratings and for which load shedding is not permitted as a mitigation measure (and thus would be a NERC violation),²⁹ and Category C events for which load shedding is permitted (and thus would not be a NERC violation).³⁰ This is confirmed by the Alternate Decision's quotation of CAISO testimony immediately following the above quotation. SDG&E requests that the above quotation be revised to remove the implication that NERC standards allow load shedding for all Category C contingencies without regard for Applicable Ratings.

C. A Transmission Planning Load Forecast Is Not Merely Predicting Peak Load

The Alternate Decision at 18-20 discusses SDG&E's load forecasts and Intervenor's contentions that such forecasts are not accurate, in large part because recorded peak loads in 2014 and 2015 have been less than SDG&E's load forecast for those years. This comparison is a factual and legal mistake, and SDG&E requests that the APD's discussion reflect the requirements for a transmission planning load forecast.

As SDG&E testified, its load forecasts are adjusted using an adverse weather factor to a "1 in 10 year" peak load.³¹ This is required by the CAISO Planning Standards:

For studies that are addressing local load serving concerns, the studies should assume a 1 in 10-year extreme weather load level. The more stringent requirement for local areas is necessary because fewer options exist during actual operation to mitigate performance concerns. In addition, due to diversity in load, there is more certainty in a regional load forecast than in the local area load forecast. Having a more stringent standard for local areas will help minimize the potential for interruption of end-use customers.³²

²⁷ Exh. SDG&E 1.3 (Opening Testimony at 40:19-42:11); Exh. SDG&E 2.2 (Supp. Testimony at 2:25-42:21).

²⁸ Exh. SDG&E 1.3 (Opening Testimony at 42:22-44:14, 65:20-67:3); Exh. SDG&E 2.2 (Supp. Testimony at 43). Exh. CAISO 502 (Sparks Testimony at 9:8-12) ("The existing system does not provide adequate windows for maintenance or planned construction activities without risking area blackout or non-consequential loss of load under four Category B contingencies. This is a violation of the NERC TPL-002 planning standard that does not allow non-consequential load service interruption under Category B contingencies.")

²⁹ Exh. SDG&E 1.3 (Opening Testimony at 44:44-55:18); Exh. SDG&E 2.2 (Supp. Testimony at 46:21-53:5).

³⁰ Exh. SDG&E 1.3 (Opening Testimony at 55:21-65:17).

³¹ Exh. SDG&E 1.3 (Op. Testimony at 36:12-17); see also Tr. at 224-25 (Jontry-SDG&E).

³² Exh. SDG&E 2.2, Attachment 13 (CAISO Planning Standards at 18).

The Commission has approved use of a 1 in 10 year forecast.³³ The obvious reason is that an extreme weather event can occur any year, even though unlikely every year, and the system should be planned to handle such an event. A transmission planning load forecast is not meant to predict the peak load in any particular year, and the fact that recorded peak loads in any year may be less than such a forecast does not indicate that such a forecast is unreliable.

D. SDG&E and CAISO Identified Future NERC Violations for Alternatives F, G and J

The Alternate Decision at 28 states: “The 2016 NERC standard does not impact the single contingency feasibility of Alternatives F, G, and J, as no single contingency (Category B, P1, P2) overloads/load shedding was found in the reliability studies of those alternatives.” This is factually incorrect.

Based on power flow analysis, SDG&E testified that Alternative F is expected to result in a NERC TPL-001-4 violation in 2025, based upon the need to deliberately shed non-consequential load following an outage of TL13833 (or TL13838) to prepare for the outage of TL13838 (or TL13833). Further, SDG&E’s power flow analyses identified many additional Category C contingencies that would require load to be shed, even though disconnecting customers under those circumstances would not violate NERC TPL-001-4.³⁴

Based on power flow analysis, SDG&E also testified that Alternative J is expected to result in NERC Category C (now Category P6) violations when Path 43 is stressed with high flows, as well as other Category C contingencies requiring load shed, even though disconnecting customers under those circumstances would not violate NERC TPL-001-4.³⁵ As SDG&E testified, a valid NERC assessment “must test numerous contingencies under various critical conditions.”³⁶

CAISO also conducted power flow analyses that identified thermal overloads under Alternative F,³⁷ under Alternative G,³⁸ and Alternative J.³⁹ For Alternative J, CAISO assumed northbound flows of 1800 MW on the SONGS Path, and CAISO testified it is “highly plausible for the flows to reach that number and perhaps beyond.”⁴⁰

³³ D.14-03-004 at 24 (“the Commission approved the use of a 1-in-10 year peak weather forecast for transmission planning and local area planning”); D.13-02-015 at 39-40 (“In our RA proceedings, we use ISO forecasts with a one-in-10-year load forecast”); Decision 04-08-046 at 32 fn. 13 (“ISO’s Grid Planning Standards require that transmission studies addressing local load serving concerns utilize a 1-in-10 year extreme weather load level”).

³⁴ Exh. SDG&E 3.2 (Rebuttal Testimony at 38:25 – 39:15)

³⁵ Exh. SDG&E 4 (2nd Supp. Testimony at 30:10-19).

³⁶ Exh. SDG&E 4 (2nd Supp. Testimony at 30:10-19).

³⁷ Exh. CAISO 502 (Sparks Testimony at 19 & Appendix A, Table B-3A Thermal Overloads in the SDG&E South Orange County area With Alternative F: 230-kV Rancho Mission Viejo Substation).

³⁸ Exh. CAISO 502 (Sparks Testimony at 20-21 & Appendix A, Table B-3B Thermal Overloads in the SDG&E South Orange County area With Alternative G: 138-kV San Luis Rey–San Mateo Line & San Luis Rey Sub Expansion).

³⁹ Exh. 505 (Sparks Supp. Rebuttal Testimony at 3-4 & Table 1 Thermal Overloads in the SDGE SOC System - Based on 2020 Off-Peak Case (1800 MW Northbound Flow via the SONGS Path)); Tr. at 405:8 – 406:9 (CAISO Sparks).

⁴⁰ Tr. at 322:21 - 323:13 (CAISO Sparks); *generally* Tr. at 322:21 – 329:19 (CAISO Sparks).

CAISO testified that its studies of Alternative J had identified additional transmission line upgrades that would be needed even if the RDEIR Alternative J were modified to include a second transformer (as the FEIR did).⁴¹

The Alternative Decision at 30 states: “Neither the 2016 NERC standard nor the BES exemption are relevant to Alternatives F, G, and J, as no single contingency (Category B, P1, P2) overloads/load shedding was found in the reliability studies of those alternatives.” This is factually incorrect as noted above. SDG&E also notes that each alternative (including Alternatives F, G, and J) must be planned to meet the requirements of the “2016 NERC standard” (TPL-001-4).

SDG&E requests that the APD note that intervenors did not conduct any power flow analyses. SJC’s witness, who could have performed power flow analysis, chose not to do so, despite admitting that all major U.S. utilities and independent system operators use power flow analysis to test the performance of proposed projects.⁴² Both ORA and Frontlines admit that power flow analysis is necessary to assess changes to the electric system, but neither performed any.⁴³ ORA’s witness, Mr. Mee, admitted that ORA does not have power flow software and is just learning how to operate it.⁴⁴ Frontlines’ witness, Ms. Ayer, did not perform any power flow analysis and does not know how to do so.⁴⁵ There is no competent testimony that Alternative F, G and J will not result in NERC violations.

The Alternate Decision, Finding of Fact 20, states: “All the Alternatives identified in the EIR would meet project Objectives 1 and 2 as defined in Section 1.3.1 of the EIR, and ensure each of the potential Category C (N-1-1) contingencies identified by the applicant and CAISO would be avoided through the 10-year planning horizon.” This is not accurate for several reasons. As an initial matter, based on its appearance in the ALJ’s Proposed Decision, the purported basis for this statement appears to be the “EIR.”⁴⁶ In fact, the FEIR states: “The exemption in the pre-2016 NERC transmission planning standard, which allowed for load loss in a radial, local area network during a single contingency was removed in TPL-001-4. However, TPL-001-4 does allow for a maximum load loss of 75 MW during single contingencies (if planned for on a five year horizon). The alternatives affected by this change in allowable load loss under TPL-001-4 is Alternative A (No Project), Alternatives B1 through B4, and Alternatives C1, C2, D, and E.”⁴⁷ While SDG&E and CAISO disagree with the FEIR’s assertion that the pre-2016 NERC reliability standards allowed non-consequential load loss under the Category C contingencies expected in

⁴¹ Tr. at 348:25 – 350:10, 405:3 – 406:12, 415:5 – 419:1 (CAISO Sparks)

⁴² Tr. at 466:2 – 468:9 (SJC-Shirmohammadi).

⁴³ Tr. at 1424:11-28, 1429:24-1430:4 (ORA-Mee); Tr. at 1353:3-21 (Frontlines-Ayer).

⁴⁴ Tr. at 1426-27, 1450,1441:15-17 (I’m thinking about this like we have this conceptual proposal”) (Mee).

⁴⁵ Tr. at 133-55 (Frontlines-Ayer).

⁴⁶ ALJ Farrar’s Proposed Decision at 16 (“The EIR concludes ...”).

⁴⁷ FEIR, Exh. 1 (rev. DEIR at 3-4 n.1). Note, further, that the FEIR says only (and wrongly) that the pre-2016 NERC standard “allowed for load loss,” not that no load loss would occur.

South Orange County,⁴⁸ clearly even the FEIR does not support the Finding of Fact 20.

Further, not even the October 2014 Alternatives Screening Report support Finding of Fact 20's statement that the Alternatives would "ensure each of the potential Category C (N-1-1) contingencies identified by the applicant and CAISO would be avoided through the 10-year planning horizon." (Emphasis added). The Alternatives Screening Report states: "The CPUC verified that Category C events that could require load shedding could occur within the 10-year planning horizon but also that SDG&E would remain in compliance with mandatory NERC, WECC, and CAISO standards even if load shedding was required because of these events."⁴⁹ (Emphasis added). In other words, even the CPUC's review indicated Category C events could interrupt customer service, but mistakenly concluded such load shedding would not violate the pre-2016 NERC reliability standards.

Finally, the FEIR and other CEQA documents are not admissible evidence on issues of need. The Alternate Decision at 21 correctly states: "We decline to substitute credible record evidence on forecasted demand for the CEQA team's lower need forecast. Instead, we must afford parties sufficient due process to review and challenge evidence, while also weighing the credibility of evidence." SDG&E agrees that relying on statements in the FEIR as evidence on the issue of need for a project would not be appropriate. The EIR is evidence on environmental issues, not issues of need.⁵⁰ CPUC Rule of Practice and Procedure 13.6(a) provides that "substantial rights of the parties shall be preserved," and the Commission long has held that such rights include the right to cross-examine opposing witnesses about proffered documents.⁵¹ Energy Division is not a party, it presented no witnesses in evidentiary hearings, and SDG&E's fundamental rights would be violated if FEIR statements were admissible on issues of need without SDG&E having the chance to cross-examine (or even take discovery against) Energy Division. The FEIR is evidence of the Commission's CEQA review, but it is not evidence

⁴⁸ Contrary to the FEIR's assertion, "Footnote b" under the previous NERC standards, as interpreted by FERC Orders, did not allow "load shedding" (dropping customer service) under the Category C contingencies present in South Orange County. Exh. SDG&E 2.2 (Supp. Testimony at 46-53, Attachments 14-15); Exh. SDG&E 3.2 (Rebuttal Testimony at 9-13); SDG&E Opening Brief at 24-25; SDG&E Reply Brief at 10-11.

⁴⁹ FEIR, Exh. 1 (rev. DEIR, Appendix B, Screening Report at 1-16 to 1-17) (emphasis added).

⁵⁰ March 30, 2015 Assigned Commissioner's Ruling Identifying Issues Requiring Evidentiary Hearing at 3 (identifying EIR as evidence on Issues Nos. 1-3, CEQA issues); D.16-08-017 at 13-14 n. 15 ("The EIR does not reach a conclusion as to project need and, indeed, "project need" is not a CEQA consideration.").

⁵¹ D.99-08-016, 1999 Cal. PUC LEXIS 518 at *52 (Cal. PUC 1999) ("Without opportunity to cross-examine on the tables, District is handicapped. As Rule 64 of our Rules State, while technical rules of evidence do not apply to Commission proceedings, the substantial rights of the parties are to be preserved."); D.93-09-089, 1993 Cal. PUC LEXIS 685 at *8 (Cal. App. 1993) ("There is no indication that the letter was sent to all parties, who accordingly did not get an opportunity to cross-examine Harris on the subject matter or to formally oppose its submission. Thus, it could be said that the substantial rights of the parties within the meaning of Rule 64 were not preserved in this case."); D.88-04-068, 1988 Cal. PUC LEXIS 422 at *68 (Cal. PUC 1988) ("We do not believe that the substantial rights of CUCC to cross-examine witnesses against it would be preserved by admitting this proposed exhibit.").

on whether a project is needed.⁵² SDG&E does not agree with many of the FEIR and Screening Report statements regarding NERC violations or load serving capability in South Orange County.

VI. FACTUAL CORRECTIONS AND CLARIFICATIONS

SDG&E respectfully requests that the Commission consider the following factual corrections and clarifications.

- APD at 4: “reliable customer service in the S service area” should be “reliable customer service in the South Orange County service area.”
- APD at 11: “Evidentiary hearings are only required for issues 1 and 9” should be “Evidentiary hearings are ~~only~~ required for issues 1 and 9.”
- APD at 12 states: “At the request of the parties, hearings were scheduled to begin on June 15, 2015 and conclude two days later on June 17, 2015.” Evidentiary hearings were set for July 15 and then rescheduled to July 28.⁵³ On July 16, 2015, the parties were informed that the hearings were suspended as Energy Division intended to recirculate the DEIR.⁵⁴ The hearings were then scheduled to begin in November 2015.
- APD at 12, citing SDG&E Ex. 1.1, states: “Though SDG&E provided direct written testimony on April 7, 2015, and supplemental testimony on September 7, 2015, just three days before the start of hearings, on November 6, 2015, SDG&E provided what it identified as “corrected” direct written testimony.” To the contrary, based on scheduling discussions at the November 19, 2014 PHC, SDG&E served opening direct testimony on January 15, 2015 (as shown on Exh. SDG&E 1.1), which was corrected first on April 7 and then again on September 10.⁵⁵ Following issuance of the Scoping Memo, SDG&E also filed supplemental direct testimony on April 7, which was corrected on September 10.⁵⁶ On November 5, nearly two months after SDG&E provided the corrected testimony, one business day before hearings began, and contrary to the ALJ’s instruction that all pre-trial motions must be filed by November 4,⁵⁷ Frontlines filed a motion to strike SDG&E’s corrected testimony.⁵⁸
- APD at 13 states: “In July 2014, the Commission’s Energy Division staff issued its CEQA Alternatives Screening Report.” The correct date is October 2014.⁵⁹
- APD at 14 states: “In February 2015, ... portions of the DEIR were revised with new information.” The correct date for the Recirculated DEIR is August 2015.⁶⁰

⁵² In that regard, it is akin to official notice under CPUC Rule 13.9. *E.g.*, D.15-06-037, 2015 Cal. PUC LEXIS 312 at *32 n.17 (Cal. PUC 2015) (“The fact that the Commission may take official notice of a document does not establish the truth of the matters stated in that document.”)

⁵³ ALJ Farrar March 12, 2015 and June 24, 2015 emails to all parties.

⁵⁴ ALJ Farrar July 16, 2015 email to all parties.

⁵⁵ Exh. SDG&E 1.3 (Direct Testimony, cover page).

⁵⁶ Exh. SDG&E 2.2 (Supp. Testimony, cover page). Following the RDEIR and in accordance with the schedule, SDG&E served its Second Supplemental Testimony on September 14 and corrected it on October 27, 2015. These corrections were not challenged by any party.

⁵⁷ ALJ Farrar October 14, 2015 email to all parties (“Parties shall submit any and all pre-trial motions on or before C.O.B. Wednesday November 4, 2015.”)

⁵⁸ Motion Of Forest Residents Opposing New Transmission Lines (“Frontlines”) To Strike Corrections To Portions Of San Diego Gas & Electric Company’s (“SDG&E’s”) Prepared, Supplemental, And Rebuttal Testimony.

⁵⁹ Final Environmental Impact Report (FEIR), Appendix B, cover page.

- APD at 14-15 states: “In addition, the Recirculated DEIR identified additional significant impacts on biological resources, cultural resources, and land use and planning from construction and operation of the proposed project that were not previously disclosed in the DEIR.” While this is accurate, if it is included then SDG&E requests that the APD also note that the FEIR revised the RDEIR to find that the proposed project’s impact on biological resources and land use and planning would be “less than significant.”⁶¹
- APD at 16 states: “The No Project Alternative assumes no change in existing operations, i.e., it presumes SDG&E would (and could) continue to operate the existing electrical facilities and no reliability improvements would be made.” Finding of Fact 57 makes a similar statement. These are not accurate statements of the “no project” alternative under CEQA or the FEIR “No Project Alternative.” CEQA requires an EIR to discuss “what would be reasonably expected to occur in the foreseeable future if the project were not approved.”⁶² The FEIR’s No Project Alternative recognizes that substation and transmission line work would occur,⁶³ although it improperly fails to analyze the environmental impacts of such work. The CEQA and evidentiary record also establish that the 138/12 kV Capistrano Substation will be rebuilt under all Alternatives, including the No Project Alternative.⁶⁴
- APD at 17: “SDG&E originally claimed that its 2014 forecast ...” should be “SDG&E’s 2014 load forecast.” SDG&E did not change its 2014 load forecast. The new 2015 load forecast, reflecting data through 2014, does not alter the 2014 load forecast, reflecting data through 2013.⁶⁵
- APD at 18 states: “the Screening Report finds: Recorded peak load on the South Orange County 138kV system has dropped each year since 2007.” It is correct that the Screening Report makes that statement, but it is poorly phrased as the data in the Screening Report itself shows that the peak load has not “dropped each year since 2007.”⁶⁶ It would be accurate to say that Figure 5 in the Screening Report shows “South Orange County load increased from 2002 to a high of 477 megawatts (“MW”) in 2007, dropped to a low of 403 MW in 2009 during the recent recession, and increased to 416 MW in 2013.”
- APD at 20 states “We note and are troubled by SDG&E’s recalcitrance in providing data to the Commission’s CEQA team.” SDG&E is not aware of any recalcitrance, having timely responded to all Energy Division data requests and served Energy Division with its prepared testimony, including its 2014 load forecast in January 2015 testimony and its 2015 load forecast in April 2015 testimony. SDG&E responded to an Energy Division April 6, 2016 request to update its load forecast. The FEIR does not include the update.⁶⁷
- APD at 23 n.21 refers to “Exhibit SDGE-1.3R at 29 beginning at 6.” SDG&E believes this should be “Exhibit SDGE-1.3R beginning at 29.”

⁶⁰ Recirculated Draft Environmental Impact Report (RDEIR), cover page.

⁶¹ FEIR, Exh. 1 (rev. DEIR at 5-3, Table 5-1); FEIR, Exh. 1 (rev. DEIR at 4.4-48 to 50, 4.10-39 to 42).

⁶² CEQA Guidelines § 15126.6(e)(2), 14 Cal. Code Regs. § 15126.6(e)(2).

⁶³ FEIR, Exh. 1 (rev. DEIR at 3-4 to 3-5).

⁶⁴ Exh. SDG&E 1.3 (Op. Testimony at 68-83); generally SDG&E Opening Brief at 27-28, 52-55. SJC supports rebuilding Capistrano. Exh. SJC 300 (Shirmohammadi Testimony at 5:5-7, 7:9-11, 7:19-24, 13:3-11). Frontlines’ “recommended alternative approach” includes “rebuild Capistrano.” Exh. Frontlines 400.1C (Ayer Testimony at 20:28-32); *accord* Tr. at 1337:6-17 (Frontlines Ayer).

⁶⁵ Exh. SDG&E 2.2 (Supp. Testimony at 54:20 – 56:16); Exh. SDG&E 1.3 (Op. Testimony at 36:1 – 38:16).

⁶⁶ FEIR, Exh. 1 (rev. DEIR, App. B, Alternatives Screening Report at 1-7, 1-18 Figure 5).

⁶⁷ FEIR, Exh. 1 (rev. DEIR at 1-6 to 1-7).

- APD at 25 n.27 refers to “NERC Reliability Standard TPL-003-0b.” SDG&E suggests that the APD be revised to add “NERC TPL-001-4 changed the nomenclature of the relevant contingencies, but not their substance.”⁶⁸
- APD at 34: “will run on the opposite side of” should be “will run on the opposite sideses of.”⁶⁹
- APD at 36 states: “Also, though it identified only the September 8, 2011 event in response to ORA’s data request, in testimony SDG&E asserted that on July 18, 2013 an event occurred ...” SDG&E requests that this sentence be amended as follows: “Also, though it identified only the September 8, 2011 event in its May 31, 2013 response to ORA’s data request, in testimony SDG&E asserted that on July 18, 2013 an event occurred ...”⁷⁰
- APD at 36 discusses a July 18, 2013 outage event and ORA’s point that the cause of the event, “miscommunication,” is not a justification for the SOCRE project. SDG&E requests that the APD also reflect SDG&E’s evidence that, if the SOCRE Project were in place, it “would have prevented loss of all the load in South Orange County.”⁷¹ The SOCRE Project is not intended to prevent every equipment outage (an unattainable goal in any electric system), but rather plan the system to avoid customer outages in such events and thereby provide reliable service.
- APD at 37: “CAISO goes on to argue that SDG&E cannot expand the Talega Substation without shutting down its service (depending on the status of the construction and the nature of the forced outage) because it is the sole transmission source to the SOC system.” SDG&E suggests that this sentence be revised as follows: “CAISO goes on to argue that SDG&E cannot expand the Talega Substation without shutting down its service (depending on the status of the construction and the nature of the forced outage), which is not acceptable because it is the sole transmission source to the SOC system.”
- APD at 39-40 discusses CAISO’s reliability concerns with Alternative F. SDG&E requests that the APD also note SDG&E’s evidence that SDG&E’s Rancho Mission Viejo Substation does not have space to add a safe and reliable 230 kV switchyard, and that expansion would be difficult and costly due to immediately adjacent water and sewer mains, which would need to be relocated, and nearby biological open space.⁷²
- APD at 42 n.65 states: “Each point is discussed in detail in Exh. SDG&E 4 (Second Supp. Testimony at 23-75), but cannot be here due to the ALJ’s 40 page brief limit.” SDG&E suggests it be revised to “Each point is discussed in detail in Exh. SDG&E 4 (Second Supp. Testimony at 23-75).”
- APD at 43 n. 69 states: “FRONTLINES’s rebuttal testimony clearly identifies “opening the Trabuco-Santiago circuit” as a remedy to eliminate flow out of South Orange County to SCE (aka “loop” flow) [Exhibit 401 page 6 at 20]. This FRONTLINES testimony was never refuted in the record by either SD&GE or CAISO via exhibits or during cross-examination of the FRONTLINES witness.” This carefully phrased sentence is misleading. Frontlines served its “rebuttal testimony” the same day that SDG&E’s Second Rebuttal Testimony was due, rather than in response to SDG&E’s Second Supplemental Testimony, and thus deprived SDG&E of the opportunity to prepare written testimony responding to Frontlines’ claim.⁷³ Further, Frontlines’ claim was

⁶⁸ Exh. SDG&E 3.2 (Rebuttal Testimony at 13-14) (discussing the change from Categories A, B and C to Category P0 to P7).

⁶⁹ Exh. SDG&E 3.2 (Rebuttal Testimony at 30:6-12)

⁷⁰ Exh. ORA 205 (cover page states date of the data request responses).

⁷¹ Tr. at 92:21-28 (SDG&EJontry).

⁷² Exh. SDG&E 3.2 (Rebuttal Testimony at 4:15 – 47:37).

⁷³ See SDG&E’s Motion To Strike Frontlines Supplemental Rebuttal Testimony of Jacqueline Ayer or, In The Alternative, Portions Thereof; Tr. at 3:13-22:11, 1229-1303:22. The ALJ denied SDG&E’s Motion, but the timing explains why Frontlines’

rebutted by CAISO's witness during hearings, who testified: "we did identify a large number of other concerns/problems with the implementation of an SPS to open the Trabuco-Santiago line as a solution to the transformer overload because it introduces a large number of other problems."⁷⁴ Of course, when the 230 kV "transformer connection" is open, SDG&E's SOC system would return to its current state despite an over \$400 million investment, and the expanded Trabuco Substation could not serve the South Orange County 138 kV network in the event of a Talega 230 kV or 138 kV outage—thus not serving as the second source of power for over 300,000 residents and 12,000 businesses. SDG&E requests that the APD discussion reflect this evidence.

- APD at 48 states: "As discussed above, only the proposed project and Alternative J can meet the project objectives." Alternative J does not meet SDG&E's project objective to comply with NERC reliability standards, discussed *supra* at 8-9, to rebuild the 138/12 kV Capistrano Substation, or to provide a redundant second source that can serve South Orange County load in the event of an outage of Talega Substation. Even with two transformers, Alternative J would be unable to serve more than 469 MW of load due to the ratings of transmission lines connecting to Trabuco, would be unreliable due to a single 230 kV connection, and the FEIR substation design includes 13 equipment failures that would drop all South Orange County load if Talega were out of service.⁷⁵ Alternative J also requires upgrades to SDG&E's SOC 138 kV system to redistribute the power to the distribution substations within South Orange County.⁷⁶
- APD at 49 states: "SDG&E submits that it is not feasible to construct or operate a safe and reliable 230/138/12kV Trabuco Substation on the space provided for in the RDEIR." SDG&E suggests that this sentence be revised to state: "SDG&E submits that it is not feasible to construct or operate a safe and reliable 230/138/12kV Trabuco Substation on the space provided for in the RDEIR (which is the same space allowed by the FEIR)." SDG&E also requests that the APD note that even Energy Division's consulting engineer concedes Alternative J cannot be built on AT&T's "parking lot." Following criticism in RDEIR comments,⁷⁷ ZGlobal changed the RDEIR "Conceptual Site Plan" in an February 2016 report, which revised the Trabuco Alternative to include two 230 kV transformers in a BAAH configuration. ZGlobal's Figure 1a clearly shows construction where the AT&T building is located, not just the AT&T "parking lot."⁷⁸ Yet the FEIR continues to limit Alternative J to the AT&T parking lot, use the unrevised "Conceptual Site Plan, and assess environmental impacts as if the AT&T building remains."⁷⁹

claim was not rebutted in SDG&E's or CAISO's written testimony. Despite agreeing that power flow analyses are necessary before implementing changes to the electric grid, Frontlines did not perform any power flow analyses to demonstrate that its proposed "disconnect" would not violate NERC reliability standards or harm the functioning of the electric grid. Tr. at 1354:13-1357:20 (Frontlines Ayer).

⁷⁴ Tr. at 340:1-7 (CAISO Sparks); *accord*, e.g., Tr. at 337:17- 33822 (CAISO Sparks).

⁷⁵ Exh. SDG&E 4 (2nd Supp. Testimony at 33:9-35:30).

⁷⁶ Exh. SDG&E 4 (2nd Supp. Testimony at 33-41); Exh. SDG&E 5 (2nd Rebuttal Test. at 15, 33-34, 49).

⁷⁷ FEIR, RTC, SDG&E Comments 346-6, 347-23, 347-26 to 347-31.

⁷⁸ FEIR, App. R (ZGlobal Report at 4-5 & Fig. 1a) ("The applicant would construct a 230-kV breaker and ½ scheme switchyard to loop-in the SONGS-Santiago 230 kV transmission line and include two 230/138-kV transformers with capacity to support the SOC load. Refer to Figure 1a for the Trabuco Alternative"). Conceptual Site Plan. This plan does not depict a full breaker and ½ bus scheme, however, it does provide the conceptual view of integrating a 230 kV bus and breaker yard as an extension to the existing Trabuco substation.") The ZGlobal Report means that there is no substantial evidence in the CEQA record that Alternative J is even potentially feasible.

⁷⁹ FEIR, Exh. 1 (rev. DEIR at 3-16 to 18, Fig. 3-5);

- APD at 50-51 states: “The FEIR determines that Alternative J would have ‘fewer impacts on air quality than the proposed project; however, impacts on air would remain significant.’” The FEIR’s evaluation of air emissions under Alternative J does not include the rebuilding of the 138/12 kV Capistrano Substation. The only evidence in the CEQA and evidentiary record is that Capistrano will be rebuilt as a 138/12 kV substation if it is not rebuilt as a 230/138/12 kV substation under the Proposed Project.⁸⁰ No party contested the need to rebuild Capistrano Substation.⁸¹ Therefore, SDG&E requests that the APD note that the FEIR’s analysis of air emissions under Alternative J does not include air emissions from rebuilding the 138/12 kV Capistrano Substation, which is reasonably anticipated to occur if Alternative J is selected.⁸²
- APD at Findings of Fact 24-27 presents statements from the CEQA Alternatives Screening Report (set forth at APD at 18). As set forth supra at 10-11, the FEIR and other CEQA documents are not admissible evidence on issues of need. The statements are not consistent with SDG&E’s testimony in this proceeding: “Under [certain optimistic pre-contingency] conditions, SDG&E’s transmission system in South Orange County can support 410 MW of load without violating the Applicable Rating of a transmission element in the event of a NERC Category B or C contingency. South Orange County peak load already exceeds 410 MW.”⁸³ SDG&E requests that such statements be removed as Findings of Fact.
- APD at Finding of Fact 10: correct the hearings start date to November 9, 2015.

VII. CONCLUSIONS OF LAW

SDG&E respectfully requests that the Alternate Decision expressly include Conclusions of Law on issues within the scope of the proceedings, including the public convenience and necessity, feasibility of alternatives, compliance with the Commission’s policy of electric and magnetic fields (“EMF”), and compliance with the Commission’s rules and regulations and other applicable standards governing safe and reliable operations.⁸⁴

SDG&E also respectfully requests that the Alternative Decision find certain mitigation measures infeasible as written and revise them to be feasible. SDG&E submitted un rebutted testimony that such measures were infeasible as written.⁸⁵ Although the FEIR made certain revisions, other issues were not addressed. In particular, Mitigation Measure AES-1 could be interpreted to not permit SDG&E to begin work until the City of San Juan Capistrano’s Architectural Review Board (“ARB”) approves the design for the rebuilt Capistrano Substation. SJC

⁸⁰ Exh. SDG&E 2.2 (Supp. Testimony at 54:20 – 56:16); Exh. SDG&E 1.3 (Op. Testimony at 36:1 – 38:16); SDG&E Opening Brief at 52-55.

⁸¹ SJC supports rebuilding Capistrano. Exh. SJC 300 (Shirmohammadi Testimony at 5:5-7, 7:9-11, 7:19-24, 13:3-11). Frontlines’ “recommended alternative approach” includes “rebuild Capistrano.” Exh. Frontlines 400.1C (Ayer Testimony at 20:28-32).

⁸² Under CEQA, the FEIR must include “sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project,” and “the significant effects of the alternative shall be discussed.” CEQA Guidelines § 15126.6(d), (e)(2), (f); generally *In re Bay-Delta Proceedings*, 43 Cal.4th 1143, 1175 (2008) (CEQA’s “informational purpose”). The FEIR fully evaluates the environmental impacts of the SOCRE Project. If the Commission finds Alternative J infeasible, the FEIR’s understatement of Alternative J’s environmental impacts is moot.

⁸³ Exh. SDG&E 2.2 (Supp. Testimony at 56:22-29).

⁸⁴ Exh. SDG&E 2.2 (Supp. Testimony at 132-149). No party contended otherwise.

⁸⁵ Exh. SDG&E 2.2 (Supp Testimony at 118-123).

SUBJECT INDEX OF RECOMMENDED CHANGES

Rule 14.3(b)

1. Typographical/Factual Corrections

- As set forth in these Comments at 1, correct factual error in the APD at 2, 3-4, 35, 54 and Finding of Fact 61, Conclusion of Law 21, and Ordering Paragraph 3 regarding SDG&E's estimated cost of the Proposed Project.
- As set forth in these Comments at 2, correct factual error in the APD at 45 regarding SDG&E's estimated cost of Alternative J.
- As set forth in these Comments at 3, correct factual error in APD at 46 stating that SDG&E opposed two transformers at Trabuco under Alternative J.
- As set forth in these Comments at 4-5, correct factual error in the APD at 27 regarding whether the parties presented evidence about TPL-001-4.
- As set forth in these Comments at 5, correct factual error in the APD at 27 regarding whether the parties' alleged failure to present evidence regarding NERC TPL-001-4 deprived the CPUC from considering related issues.
- As set forth in these Comments at 5-6, correct factual error in the APD at 28, 30, 37, Finding of Fact 39, 44-46 and Conclusion of Law 12 that suggests NERC TPL-001-4 permits up to 75 MW load drop following a single contingency.
- As set forth in these Comments at 6, correct factual error in APD at 33 in stating that "NERC standards do allow for load shedding to prevent the transmission lines from exceeding Applicable Ratings."
- As set forth in these Comments at 7, correct factual error in APD at 28 stating that no single contingency overloads were found under Alternatives F, G and J.
- As set forth in these Comments at 9, correct factual error in APD at Finding of Fact 20 asserting all alternatives would avoid Category C (N-1-1) violations during 10-year planning period.
- As set forth in these Comments at 10, correct typographical error in APD at 4.
- As set forth in these Comments at 10, correct typographical error in APD at 11.
- As set forth in these Comments at 11, correct factual errors in APD at 12 regarding original scheduled date for evidentiary hearings.
- As set forth in these Comments at 11, correct factual errors in APD at 12 regarding when SDG&E submitted its testimony and corrections to it.
- As set forth in these Comments at 11, correct factual error in APD at 13 on Alternative Screening Report date.
- As set forth in these Comments at 11, correct factual error in APD at 14 on RDEIR date.
- As set forth in these Comments at 11, correct factual confusion in APD at 14-15 by either deleting discussion of RDEIR findings of "significant impact" or presenting FEIR conclusions reversing such findings.

- As set forth in these Comments at 11, correct factual error in APD at 16 and Finding of Fact 57 in describing FEIR No Project Alternative.
 - As set forth in these Comments at 12, correct factual error in APD at 17 describing SDG&E's 2014 load forecast.
 - As set forth in these Comments at 12, correct factual error in APD at 18 in describing recorded peak loads in South Orange County since 2007.
 - As set forth in these Comments at 12, correct factual error in APD at 20 regarding SDG&E's alleged recalcitrance.
 - As set forth in these Comments at 12, correct typographical error in APD at 23 n.21.
 - As set forth in these Comments at 12, clarify change from TPL-003-0b to TPL-001-4 in APD at 25 n. 27.
 - As set forth in these Comments at 12, correct typographical error in APD at 34.
 - As set forth in these Comments at 12, correct factual misimpression in APD at 36 by stating the date of SDG&E's response.
 - As set forth in these Comments at 12, correct factual misimpression in APD at 36 by explaining the SOCRE Project would address the consequences of the event.
 - As set forth in these Comments at 13, correct typographical error in APD at 37.
 - As set forth in these Comments at 13, correct typographical error in APD at 42 n. 65.
 - As set forth in these Comments at 13, correct factual error in APD at 43 n. 69 regarding SDG&E's and CAISO's alleged non-response to Frontlines' claim.
 - As set forth in these Comments at 14, clarify factual statement in APD at 49 by stating that Alternative J allows the same 230 kV substation space under the RDEIR and the FEIR.
 - As set forth in these Comments at 14, correct factual error in APD at Finding of Fact 10 on the hearings start date to November 9, 2015.
2. Correct Proposed Project Cost
- As set forth in these Comments at 1, correct factual error in the APD at 2, 3-4, 35, 54 and Finding of Fact 61, Conclusion of Law 21, and Ordering Paragraph 3 regarding SDG&E's estimated cost of the Proposed Project.
3. Clarify Discussion of Alternative J and its Costs
- As set forth in these Comments at 2, correct factual error in the APD at 45 regarding SDG&E's estimated cost of Alternative J.
 - As set forth in these Comments at 2, in the PD at 45 present SDG&E's evidence regarding Frontlines' cost estimate for Alternative J.
 - As set forth in these Comments at 2-3, correct factual errors in the APD at 46 that suggest two transformers would be an "addition" to Alternative J rather than part of Alternative J.
 - As set forth in these Comments at 3, correct factual error in APD at 46 n. 83 that suggests modifications at Talega Substation are part of Alternative J.
 - As set forth in these Comments at 14, in the APD at 49 note that FEIR, Appendix R, ZGlobal February 2016 Memo at 4-5 and Figure 1a indicates that a Trabuco 230 kV

switchyard with two transformers in a BAAH configuration requires demolition of the AT&T building.

- As set forth in these Comments at 8-9 and 14, clarify discussion in PD at 48 regarding Alternative J meeting project objectives to include SDG&E and CAISO evidence that Alternative J will result in NERC violations, will not provide redundancy, does not have a reliable design and will require upgrades to SDG&E's 138 kV system.
- As set forth in these Comments at 13-14, in the APD at 43 include SDG&E's and CAISO's evidence regarding Frontlines' claim that Trabuco can be "opened up" to avoid loop flow.

4. Capistrano Substation

- As set forth in these Comments at 3 and 15, add discussion in the APD regarding the need to rebuild the 138/12 kV Capistrano Substation.
- As set forth in these Comments at 15, in the APD at 50-51, discuss evidence that FEIR analysis of alternatives does not include the reasonably anticipated action of SDG&E rebuilding the 138/12 kV Capistrano Substation.

5. Clarify Discussion of Transmission Planning Issues

- As set forth in these Comments at 4, in the PD at 29 n. 37 present SDG&E's and CAISO's evidence that SDG&E's SOC 138 kV system is part of the NERC-defined Bulk Electrical System.
- As set forth in these Comments at 5-7, clarify the discussion in the APD at 27-28 regarding presentation of evidence about NERC TPL-001-4, and its proper interpretation.
- As set forth in these Comments at 5-6, correct factual error in the APD at 28, 30, 37, Finding of Fact 39, 44-46 and Conclusion of Law 12 that suggests NERC TPL-001-4 permits up to 75 MW load drop following a single contingency.
- As set forth in these Comments at 6, correct factual error in APD at 33 in stating that "NERC standards do allow for load shedding to prevent the transmission lines from exceeding Applicable Ratings."
- As set forth in these Comments at 7-8, in the APD at 18-20 discuss that transmission planning load forecasts are not intended to predict actual load in any year, but are required to be adjusted to a 1 in 10 year adverse weather event under CAISO Planning Standards and prior CPUC Decisions.
- As set forth in these Comments at 8-9, in the APD at 28, 30 and Finding of Fact 20 discuss SDG&E and CAISO evidence that all Alternatives, including Alternatives F, G and J, are expected to result in NERC violations.
- As set forth in these Comments at 8-9, in the APD at 28-30, discuss evidence that load flow modeling is a fundamental transmission planning tool to ensure system reliability, and that Intervenor did not perform any load flow analyses.
- As set forth in these Comments at 15, remove APD Findings of Fact 24-27 as based on statements in a CEQA document not admissible on issues of need, and replace with record evidence.

6. Discussion of Alternative F

- As set forth in these Comments at 13, in the APD at 39-40, discuss SDG&E's evidence that Alternative F is not feasible due to lack of space to construct a safe and reliable 230 kV substation.

7. Conclusions of Law on Additional Issues in Scoping Memo

- As set forth in these Comments at 15, add Conclusions of Law to address public convenience and necessity, feasibility of alternatives, compliance with the Commission's policy of electric and magnetic fields ("EMF"), and compliance with the Commission's rules and regulations and other applicable standards governing safe and reliable operations.
- As set forth in these Comments at 15-16, add a Conclusion of Law to address revisions to certain Mitigation Measures.

APPENDIX OF SDG&E PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW
(Additions to Proposed Decision Text Shown Underlined and Deletions shown in Strikeout)

Findings of Fact

1. The SDG&E South Orange County service area is located at the northern end of SDG&E's service territory ~~and has more than 129,000 electric customers.~~ SDG&E serves over 300,000 people (112,794 residential electric meters) and about 12,000 businesses (large commercial and industrial) in rapidly growing areas of South Orange County.
2. The SOC service area represents approximately 10% of SDG&E's total customer load.
3. In its 2010 - 2011 transmission planning process the CAISO identified a reliability need in the SOC area.
4. In accordance with the applicable CAISO tariff, SDG&E submitted a potential solution to the CAISO's reliability concern during the 2010 Request Window.
5. On May 18, 2012 SDG&E filed its Application for a CPCN for the SOCRE Project.
6. As proposed, the SOCRE Project has an estimated cost of approximately ~~\$384 million~~ \$383.6 million +/- 10% (for a range of \$345 million to \$422 million).
7. Protests to SDG&E's Application were filed on June 20, 21, and 22, 2015 by DRA, SJC, and FRONTLINES, respectively.
8. A PHC was held on November 19, 2014.
9. A Scoping Memo issued in this proceeding on February 23, 2015.
10. The scheduled hearings began on November 9 ~~June 15, 2015.~~
11. The CPUC is the Lead Agency as defined by CEQA.
12. The CPUC prepared a DEIR for the SOCRE Project and circulated the DEIR for public comment for a 45-day period (beginning February 23, 2015, and ending April 10, 2015) as required by CEQA.
13. In ~~July of~~ October 2014, the Commission's Energy Division staff issued its California Environmental Quality Act Alternatives Screening Report.
14. The environmentally superior alternative is the No Project Alternative.
15. The EIR identifies Alternative J as the environmentally superior alternative other than the No Project Alternative.
16. Portions of the DEIR were revised with new information, and the revised chapters and sections were recirculated in August 2015 in a manner consistent with the provisions of Section 15088.5 of the CEQA Guidelines.

17. The EIR examines the environmental impacts of the proposed project and a number of alternatives, including the No Project Alternative; it identifies their significant and unavoidable environmental impacts and the mitigation measures that will avoid or substantially lessen them, where possible, and identifies the environmentally superior alternative as required by CEQA.

18. The alternatives screening process identified and reviewed the following 11 potential alternatives to the SOCRE Project:

- a. Alternative A – No Project.
- b. Alternative B1 – Reconductor Laguna Niguel–Talega 138kV Line.
- c. Alternative B2 – Use of Existing Transmission Lines (Additional Talega–Capistrano 138kV Line).
- d. Alternative B3 – Phased Construction of Alternatives B1 and B2.
- e. Alternative B4 – Rebuild South Orange County 138kV System.
- f. Alternative C1 – SCE 230kV Loop-in to Capistrano Substation.
- g. Alternative C2 – SCE 230kV Loop-in to Capistrano Substation Routing.
- h. Alternative D – SCE 230kV Loop In to Reduced-Footprint Substation at Landfill.
- i. Alternative E – New 230kV Talega–Capistrano Line Operated at 138kV.
- j. Alternative F – 230kV Rancho Mission Viejo Substation.
- k. Alternative G – New 138kV San Luis Rey–San Mateo Line and San Luis Rey Substation Expansion.

19. On April 25, 2016 the final EIR issued.

~~20. All the Alternatives identified in the EIR would meet project Objectives 1 and 2 as defined in Section 1.3.1 of the EIR, and ensure each of the potential Category C (N-1-1) contingencies identified by the applicant and CAISO would be avoided through the 10-year planning horizon.~~

2024. EIR Alternatives A, B.1, B.2, B.3, and B.4 would not redistribute the power flow of the applicant's SOC 138kV system as required by EIR Objective 3.

2122. The EIR identifies the significant adverse impacts of the proposed project, as well as a reasonable range of alternatives to a proposed project that feasibly attain most of the basic project objectives but avoids or substantially lessens any of the significant effects of the project.

22. SDG&E's Capistrano Substation was built in 1954; SDG&E must upgrade its current bus configuration to a more reliable configuration, replace deteriorating infrastructure and equipment near the end of its useful life, meet current seismic, safety and security standards, and allow 12 kV ties with neighboring substations that increase the reliability of the overall system.

23. Recorded peak load on the South Orange County 138-kV system increased from 2002 to a high of 477 megawatts ("MW") in 2007, dropped to a low of 403 MW in 2009 during the recent recession, and increased to 415 MW in 2014 and 2015.

24. CAISO Planning Standards provide: “For studies that are addressing local load serving concerns, the studies should assume a 1 in 10-year extreme weather load level. The more stringent requirement for local areas is necessary because fewer options exist during actual operation to mitigate performance concerns. In addition, due to diversity in load, there is more certainty in a regional load forecast than in the local area load forecast. Having a more stringent standard for local areas will help minimize the potential for interruption of end-use customers.”

25. SDG&E’s 2014 non-coincident load forecast, adjusted to a 1 in 10 year adverse weather event, forecast a peak South Orange County load of 481.1 in 2023. SDG&E’s 2015 non-coincident load forecast, adjusted to a 1 in 10 year adverse weather event, forecast a peak South Orange County load of 500.2 in 2024.

~~23. SDG&E originally claimed that its 2014 forecast showed SOC reaching 490 MW beyond 2023.~~

~~24. Recorded peak load on the SOC 138kV system has dropped each year since 2007.~~

~~25. The existing system is capable of handling 400 to 499 MW of power during normal conditions and 500 MW or more during temporary peak load conditions.~~

~~26. The rated capacity of the 138kV system is approximately 580 MW.~~

~~27. The applicant’s current power flow data do not indicate that system loads may exceed 500 MW until after 2024.~~

~~2628. The applicant does not forecast that any of the 138/12kV substations within its SOC 138kV system would exceed their operating capacity through 2024.~~

~~2729. The CAISO approved the SOCRE Project in 2011 assuming a 2020 Peak load of 525 MW~~

~~2830. The 2015 Peak load in SOC was only 415 MW.~~

~~2934. The CAISO updated its Net Peak Load forecast for SOC since approving SOCRE in 2011.~~

3032. CAISO’s “1 in 10 coincident peak” load for 2025 is 506.2 MW while SDG&E’s 1 in 10 non-coincident peak load for 2024 (a year earlier) is 500.2 MW. CAISO assumes “load reduction” of 52.8 MW, of which 41.78 MW is Additional Achievable Energy Efficiency (AAEE). The CAISO now predicts a 446 MW peak load in 2024 and a 453 Peak Load in 2025.

3133. SDG&E does not adjust its distribution load forecasts for localized AAEE because it is not possible to predict where AAEE effects will be concentrated; it is not appropriate to assume they will be concentrated in a local area such as South Orange County. SDG&E’s January 2015 load forecast assumed a 2023 peak SOC load of 481 MW which is higher than the CAISO’s most recent forecast.

3234. SDG&E’s January 2015 forecast was revised upward to project a 3% higher 2023 peak SOC load of 494 MW, while the CAISO forecast was revised downward.

33. CAISO performed power flow analyses using its load forecast, which found expected violations of mandatory NERC reliability standards within the 10-year planning period. SDG&E performed power flow analyses using its load forecast, which found expected violations of mandatory NERC reliability standards within the 10-year planning period.

34. Under certain system conditions, SDG&E's transmission system in South Orange County can support 410 MW of load without violating the Applicable Rating of a transmission element in the event of a NERC Category B or C contingency.

35. The need for upgrades to the SOC 138kV system are driven both by forecast load growth and the applicability of NERC TPL-001-4.

36. There is uncertainty regarding projected load growth in the SOC 138kV system

37. The SOC 138kV facilities are under CAISO operational control.

38. CAISO has demonstrated that the NERC TPL-001-4 reliability standard must be applied to the SOC 138kV system.

39. The NERC TPL-001-4 limitation of load loss to a maximum of 75 MW under certain conditions, and only in the near-term (years one to five) planning horizon, only has a significant impact on project alternatives that risk a significant (>75 MW) loss of load under a single contingency in the near term planning horizon. NERC TPL-001-4 does not allow non-consequential load loss after a single contingency event in the long-term transmission planning horizon. The Proposed Project addresses the long term planning horizon.

40. The No Project alternative to the SOC 138kV would result in a violation of NERC TPL-001-4 across the various load forecasts offered into evidence.

41. The SOCRE Project would allow the SOC 13kV system to comply with NERC TPL-001-4.

42. The No Project Alternative does not satisfy the new NERC reliability standards.

43. The SOCRE Project will mitigate outage risks to the entire SOC posed by the maintenance scenarios posited by SDGE.

44. The No Project Alternative carries the risk of a significant (>75 MW) loss of load under a single contingency in the near term planning horizon and beyond, thus necessitating mitigation to meet the NERC TPL 0001-4 standard.

45. Alternatives B.1, B.2, B.3 and B.4 carry the risk of a significant (>75 MW) loss of load under a single contingency in the near term planning horizon and beyond.

46. Alternatives C.1, C.2, and D carry the risk of a significant (>75 MW) loss of load under a single contingency.

47. No party specifically supports option E.

48. To meet NERC and CAISO planning standards, in addition to the Alternative F improvements, Alternative F would need to be modified to upgrade the 138kV line between Talega and Laguna Niguel.

49. To meet NERC and CAISO transmission planning standards, Alternative G would need to have the 138kV lines between Talega and Laguna Niguel and between Talega and Pico upgraded.

50. SDG&E's power flow analyses show that Alternative J can cause the risk of loop flow.

51. CAISO found that Alternative J can cause overloads on the proposed transformer at Trabuco Substation.
52. CAISO found that the installation of a Special Protection System proposed to mitigate loop flow for the Alternative J project would not meet the CAISO Transmission Planning Standard.
53. Alternative J does not meet the CAISO Transmission Planning Standard
54. A project that does not meet the CAISO Transmission Planning Standard cannot be relied upon by CAISO to meet NERC standards.
55. Alternatives A through J all either do not meet the NERC TPL-001-4 or do not meet CAISO Transmission Planning Standards.
56. Alternatives A through J cannot be relied upon to bring the South Orange County 138kV system into compliance with NERC TPL 001-4 standard.
57. The No Project Alternative represents the status quo, though the final EIR has identified some of the reasonably expected actions that would result from its selection. ~~and, consequently, would result in no environmental impacts over existing baseline conditions.~~
58. The final EIR identifies the environmentally superior alternative other than the No Project Alternative as Alternative J.
59. The final EIR recognizes that overriding considerations, which in this case are the need to bring the SOC 138kV into compliance with NERC TPL 001-4, justify pursuing an alternative to the No Project option.
60. The Applicant's SOCRE project is the only option proposed that would meet both NERC and CAISO standards.
61. The Applicant's estimated project cost of ~~\$383.6318~~ million is reasonable
62. Setting a project cost based on the Applicant's estimated project costs is reasonable.

Conclusions of Law

1. Issues that are within the scope of this proceeding include:
 - a. Is there is a public convenience and necessity for the benefits that the SOCRE Project might offer, but not whether this particular project is needed to achieve those benefits.
 - b. Is there a genuine risk of uncontrolled outages for the entire South Orange County load, and if so, is the SOCRE Project necessary to reduce this risk in an appreciable way or are there alternative ways to reduce this risk?
 - c. Is there a genuine risk of a controlled interruption of a portion of the South Orange County load, and if so, is the SOCRE Project necessary to reduce this risk in an appreciable way or are there alternative ways to reduce this risk?
 - d. Is the SOCRE Project necessary to comply with mandatory North America Electric Reliability Corporation (NERC), Western Electricity Coordinating Council (WECC), and California

Independent System Operator (CAISO) transmission and operations standards or are there other ways to comply with the standards above?

- e. What is the projected load growth over the next 10 years in the SOCRE Project area?
 - f. Is the SOCRE Project necessary to accommodate the projected load growth in the project area over the next ten years, or are there alternative ways to accommodate this load growth?
2. The maximum cost of the SOCRE Project, if approved, is an issue that is within the scope of this proceeding.
 3. The EIR was completed in compliance with CEQA.
 4. We have reviewed and considered the information contained in the final EIR and the final EIR, as modified in this Decision, reflects our independent judgment.
 5. The EIR identifies the significant adverse impacts of the proposed project, as well as a reasonable range of alternatives that feasibly attains most of the basic project objectives but avoids or substantially lessens any of the significant effects of the project.
 6. The applicant for a CPCN has the burden of affirmatively establishing the reasonableness of all aspects of its application.
 7. The CAISO Planning Standards require the CAISO to apply NERC TPL standards to facilities with voltages less than 100kV or otherwise not covered under the NERC BES definition that have been turned over to the CAISO operational control.
 8. The SOC 138kV facilities are classified as part of the BES pursuant to Inclusion I5 and because the facilities are under CAISO operational control.
 9. The SOC 138kV facilities are subject to the NERC TPL standards.
 10. As of January 1, 2016, NERC TPL-001-4 is the enforceable, governing standard for transmission system planning performance requirements.
 11. NERC TPL-001-4 does not allow non-consequential load loss after a single contingency event in the long-term transmission planning horizon. The SOCRE Project addresses concerns for the long-term planning horizon.
 12. NERC TPL-001-4 limits load-drop under single contingencies to 75 MW in the near term (years one to five) of the transmission planning horizon, under the conditions set forth therein.
 13. Pub. Util. Code § 1001 places an ongoing responsibility on this Commission to evaluate the public convenience and necessity of proposed transmission projects, and therefore we independently assess the proceeding record to determine whether projects or alternatives are appropriate on the basis of reliability, safety, and economics.
 14. The No Project Alternative does not appear to be consistent with the 2016 TPL-001-4, NERC reliability standard.

15. Alternatives B.1, B.2, B.3 and B.4 do not appear to be consistent with the 2016 TPL-001-4, NERC reliability standard.

16. Alternatives C.1, C.2, and D do not appear to be consistent with the 2016 TPL-001-4, NERC reliability standard.

17. Alternative F does not appear to meet the NERC and CAISO transmission planning standards.

18. Alternative G does not does appear to meet the NERC and CAISO transmission planning standards.

19. Alternative J's does not appear to meet the CAISO transmission planning standard.

20. Public convenience and necessity requires a transmission project to address the following reliability concerns in SDG&E's South Orange County ("SOC") system: (a) Talega Substation provides essentially all power to SDG&E's SOC 138 kV network and loss of Talega's 230 kV or 138 kV service would interrupt electrical service to over 300,000 SOC residents and over 12,000 businesses, causing significant economic, safety and public welfare impacts; (b) absent a project, SDG&E's system will violate mandatory NERC reliability criteria and CAISO planning standards; (c) absent a project, some or all of South Orange County would lose electric service after a single equipment failure under many NERC Category C (now Category P2 and P6) events, after two equipment failures under NERC Category C events, or equipment failures during Talega and other SOC substation maintenance events, and (d) SDG&E's over 60-year old Capistrano Substation must be rebuilt to provide reliable electric service.

21. SDG&E's SOCRE Project would mitigate each of the identified reliability concerns in South Orange County, and therefore serves the public convenience and necessity. The Alternatives do not.

22. The Alternatives are not "feasible" under CEQA because they are not "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." Pub. Resources Code Section 21061.1; CEQA Guidelines Section 15364.

23. Certain Mitigation Measures in the FEIR are infeasible and should be revised. MM AES-1: Architectural Review of San Juan Capistrano Substation should be revised to require SDG&E to consult with ARB and obtain CPUC approval of its plans. Mitigation Measure AQ-1 should be revised to remove the requirement to "track actual daily emissions" as credits are purchased ahead of time. Mitigation Measure CUL-4 should require Indian tribes' expression of interest be timely. Mitigation Measure BR-4 should rely on SDG&E's NCCP/HCP, which already requires restoration of impacted areas. Mitigation Measure TR-3 should be revised as advance notice of planned flight paths should apply only to low-altitude helicopter activities.

24. The safety, reliability, and economic benefits of the SOCRE Project present overriding considerations that merit approval of the SOCRE Project, notwithstanding the unavoidable adverse environmental effects of the SOCRE Project, including the temporary impacts on air quality during construction and, if the old utility structure is found eligible for listing on the NRHP in the future, the demolition of such structure.

25. SDG&E's SOCRE Project is designed in compliance with the Commission's policies governing the mitigation of EMF effects using low-cost and no-cost measures.

26. SDG&E's Proposed Project is designed in accordance with Commission rules and regulations and other applicable standards governing safe and reliable operations.

2720. A CPCN should be issued approving SDG&E's proposed project, as it is the only configuration that provides the requisite level of reliability

2824. A project cost cap equal to the project's estimated cost of \$383.6348 million should be set.