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STATE OF CALIFORNIA

ENERGY RESOURCES

CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of: APPLICATION FOR CERTIFICATION FOR THE PUENTE POWER PROJECT	Docket No. 15-AFC-01 APPLICANT'S BRIEF ON ALL TOPICS RELATED TO THE CAISO SPECIAL STUDY

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I. INTRODUCTION

A. Procedural Background

The California Public Utilities Commission ("CPUC") has determined that the Moorpark Sub-Area of the Big Creek/Ventura local reliability area requires between 215 and 290 megawatts ("MW") of electrical capacity online by January 1, 2021 to meet long-term local capacity requirements ("LCR") need, and allow for the retirement of aging generating units consistent with the State Water Resources Control Board Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling adopted on May 4, 2010 ("OTC Policy"). The outside date under the OTC Policy for retirement of Mandalay Generating Station ("MGS") Units 1 and 2 and Ormond Beach Generating Station Units 1 and 2, all of which will be replaced by the Puente Power Project ("Project"), is December 31, 2020, although some of the existing units could be retired prior to the final compliance date.

To address the identified LCR need, the CPUC authorized Southern California Edison ("SCE") to procure sufficient resources. In response, SCE issued a Request for Offers ("RFO") in which it received offers from 30 parties that proposed over 200 projects. NRG Energy Center Oxnard LLC ("NRG" or "Applicant") submitted the 262 MW Project into SCE's Moorpark RFO. SCE ultimately selected the Project for development and entered a twenty-year resource adequacy purchase agreement ("RAPA") with Applicant. For two years, the CPUC conducted public hearings and sought stakeholder input regarding the results of the Moorpark RFO. The CPUC process culminated in May 2016, when the CPUC issued a ruling approving the Project and 12 MW of preferred resources (*i.e.*, all of the preferred resources offered in the RFO aside from a small amount of in-front-of-meter battery storage). Several parties contested the CPUC's decision, with at least one party claiming that the Project was no longer necessary to meet LCR need. The CPUC denied these challenges, concluding that no evidence warranted reconsideration of its LCR need determination.

This Committee, on behalf of the California Energy Commission ("CEC"), has also conducted a rigorous analysis of the Project. Since NRG submitted its Application for Certification ("AFC") for the Project on April 15, 2015 (TN# 204219-1 through 204219-25),

NRG, CEC Staff, numerous government entities at the federal, state, and local levels, environmental groups, intervenors, and the public have evaluated every aspect of the Project. Evidentiary hearings were held in February 2017 to take evidence on all topic areas, after which the evidentiary record was closed. The Committee then took the unusual step of re-opening the evidentiary record and requesting additional evidence from the parties on several key topics, including the Project's potential impacts on biological resources and exposure to coastal hazards. *See* Committee Orders for Additional Evidence and Briefing Following Evidentiary Hearings, March 10, 2017, TN# 216505 ("March 10 Orders"). Applicant and the other parties responded to the Committee's requests, and additional evidentiary hearings were held in July 2017 to consider the results of extensive supplemental biological surveys, additional coastal hazards analyses, evaluation of potential impacts to aviation from proposed alternatives to the Project, and issues related to the Project's eventual closure.

The record developed through July 2017 supports several key conclusions: (1) the Project will not result in any significant environmental impacts; (2) the Project complies with applicable local regional, state, and federal laws, ordinances, regulations, and standards ("LORS"); (3) the Project will result in many reliability, environmental, and economic benefits; and (4) the CEC analyzed a "reasonable range" of potential alternatives to the Project, including numerous alternative sites, generation sources, and project redesigns. Based on that record, it was clear that the CEC could make the findings necessary to certify the Project and that there was no more prudent and feasible alternative that had been identified.

B. CAISO Study

Notwithstanding the robust analysis of potential alternatives to the Project that was already established, on June 5, 2017, at the request of intervenors, representatives from the California Independent System Operator ("CAISO") staff offered to conduct a special study "to explore and study various portfolios of preferred resources that could . . . meet" the Moorpark Sub-Area's LCR need. Committee Ruling on Motion to Exclude Caldwell Testimony and Acceptance of ISO Special Study Offer, TN# 218016, at 4. The Committee accepted CAISO staff's proposal, *id.* at 5, and on August 16, 2017, CAISO staff issued its report. Moorpark Sub-

Area Local Capacity Alternative Study, TN# 220813 (the "CAISO Study"). The parties were invited to provide additional evidence in response to the CAISO Study, and an evidentiary hearing was held on September 14, 2017 for the purpose of admitting the CAISO Study and additional evidence developed in response thereto into the evidentiary record.

The CAISO Study, together with analyses conducted by Applicant, CEC Staff, intervenors, the CPUC, and other interested parties, constitutes perhaps the most robust analysis of preferred resources alternatives ever conducted as part of a CEC power plant siting proceeding. The CAISO Study identified and analyzed three possible portfolios of preferred resources, which were developed in cooperation with SCE, that could satisfy 264 MW of LCR need in the Moorpark Sub-Area. The CAISO Study did not opine, however, as to whether those portfolios could be procured in the sub-area or whether they could be deployed in time to meet the identified LCR need assuming retirement of the existing OTC generating units on or before the final OTC Policy compliance date. The CAISO Study and other evidence presented at the September 14, 2017 evidentiary hearing establishes that preferred resources are incapable of providing cost-effective reliability benefits on par with the Project. Such resources do not exist in sufficient quantities to satisfy the sub-area's LCR need, and even if adequate preferred resources capacity could be developed in the sub-area, it could not be procured and deployed in time to meet the LCR need. Thus, while informative, the CAISO Study and additional evidence presented in response thereto does not modify the prior conclusions of Applicant and CEC Staff regarding the absence of more prudent and feasible alternatives to the Project.

C. Scope of This Brief

Because the CAISO Study was completed after the evidentiary hearings related to other issues, the Committee established a separate hearing and briefing schedule pertaining to the issues addressed by the CAISO Study. Committee Orders Extending ISO Study Time, Denying City Request for Additional Time and Revised Committee Schedule, TN# 219815. The CAISO Study is a component of the CEC's analysis of potential alternatives to the Project, and the feasibility thereof. The question whether there are prudent and feasible alternatives to the

Project arises in the following four contexts, all of which are addressed in this "CAISO Brief-Applicant":

- As the lead agency pursuant to the California Environmental Quality Act ("CEQA"), the CEC must find that the Project will not result in any significant adverse effect on the environment or, if one or more significant adverse effects on the environment would occur as a result of the Project, make one of the following findings with respect to each significant effect:
    - Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment;
    - Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; or
    - Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, *make infeasible the mitigation measures or alternatives identified in the environmental impact report.*

  Cal. Pub. Res. Code § 21081(a) (emphasis added). With respect to significant effects which were subject to the last finding identified above, before it can approve the project, the agency must find that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment. *Id.* § 21081(b). This finding is referred to herein as the "CEQA Override."
- Pursuant to the Warren-Alquist Act and its enabling regulations, the CEC must make findings regarding the Project's compliance with applicable local, regional, state, and federal LORS. Cal. Pub. Res. Code § 25523(d). If the Project does not conform with all applicable LORS, the CEC still may certify the Project if the Project "is required for public convenience and necessity and . . . *there are not more prudent and feasible means of achieving public convenience and necessity*." Cal. Pub. Res. Code § 25525 (emphasis added). This finding is referred to herein as the "LORS Override."

- Pursuant to CEQA, the CEC must consider a "reasonable range" of alternatives to a project, or to the project's location, "which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." Cal. Code Regs. tit. 14, § 15126.6(a); *see also id*. § 13053.5(a).
- Pursuant to the Warren-Alquist Act, for a project located in the coastal zone, the CEC is obligated to adopt the recommendations contained in the California Coastal Commission ("CCC") 30413(d) Report unless it finds "*that the adoption of the provisions specified in the report would result in greater adverse effects on the environment or . . . would not be feasible.*" Cal. Pub. Res. Code § 25523(b) (emphasis added).

The CAISO Study addresses one category of potential alternatives to the Project—preferred resources—and this CAISO Brief-Applicant addresses in detail whether or not preferred resources are a prudent and feasible alternative to the Project. The parties also have analyzed many other types of potential alternatives to the Project, including alternative sites, alternative equipment configurations, and alternative generating technologies. These other alternatives, and the feasibility thereof, are addressed in detail in Applicant's Opening Brief on All Topics Except the CAISO Special Study, TN# 221024 ("Opening Brief-Applicant") and Applicant's Reply Brief on All Topics Except the CAISO Study, filed concurrently herewith ("Reply Brief-Applicant"). Some of the analysis contained in this CAISO Brief-Applicant pertains to all of the analyzed alternatives, and where appropriate, this CAISO Brief-Applicant cross-references to and incorporates herein discussion of the alternatives analyzed in the Opening Brief-Applicant and Reply Brief-Applicant.

D. Summary of Conclusions

As explained herein and in the Opening Brief-Applicant and Reply Brief-Applicant, the evidentiary record supports the following conclusions:

- The Project as proposed will not result in any significant adverse direct, indirect, or cumulative effects on the environment, and therefore a CEQA Override is not

required to certify the Project; however, if the CEC were to conclude that a CEQA Override is required, the record supports the findings necessary to approve a CEQA Override.

- The Project as proposed will comply with all applicable LORS, and therefore a LORS Override is not required to certify the Project; however, if the CEC were to conclude that a LORS Override is required, the record supports the findings necessary to approve a LORS Override.
- The CEQA requirement that a lead agency consider a "reasonable range" of alternatives to a project, or to the project's location, "which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project," has been more than satisfied in this case.
- Because certain of the recommendations contained in the CCC 30413(d) Report are not feasible and/or would result in greater adverse effects on the environment, the CEC my decline to incorporate those recommendations into its final decision on the Project.

II. NEITHER A CEQA OVERRIDE NOR A LORS OVERRIDE IS NECESSARY BECAUSE THE PROJECT DOES NOT RESULT IN ANY SIGNIFICANT ENVIRONMENTAL IMPACTS AND COMPLIES WITH ALL APPLICABLE LORS

The CEC need not even address whether or not the findings necessary to approve a CEQA Override or LORS Override can be made based on the evidentiary record, because neither action is required to certify the Project.

A. The record shows Project impacts are less than significant after mitigation

For projects that fall within its exclusive jurisdiction, the CEC serves as the lead agency under CEQA.[1] Cal. Pub. Res. Code § 25519(c). As such, the CEC must find that the Project will not result in any significant adverse effect on the environment or, if one or more significant

[1] The CEC's regulatory process, including the evidentiary record and associated analyses, is functionally equivalent to an Environmental Impact Report prepared pursuant to CEQA. Cal. Pub. Res. Code § 21080.5(a); Cal. Code Regs. tit. 14, § 15251(j).

adverse effects on the environment would occur as a result of the Project, make one of the following findings with respect to each significant effect:

- Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment;
- Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; or
- Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

Cal. Pub. Res. Code § 21081(a) (emphasis added). With respect to significant effects which were subject to the last finding identified above, before it can approve the project, the agency must find that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment. *Id.* § 21081(b). *See* Section IV.A *infra*; Cal. Pub. Res. Code § 21081(b).

The record demonstrates that the Project, as proposed and with implementation of the proposed Conditions of Certification ("COCs") recommended by CEC Staff in its Final Staff Assessment ("FSA"), Parts 1 and 2, Cal. Energy Comm'n, Ex. Nos. 2000 and 2001, TN# 214712 and TN# 214713, will not result in any significant adverse direct, indirect, or cumulative effects on the environment. *See* Opening Brief-Applicant at 8-11; *see also* FSA Part 1 at 1-30 ("[T]he proposed Puente Power Project would have no significant impacts to the environment.").

A detailed analysis of the Project's potential environmental impacts in key subject areas is provided in Opening Brief-Applicant at pages 11-17 (air quality/GHGs), 17-54 (biological resources), 54-77 (coastal hazards), 77-84 (land use), 84-86 (traffic and transportation). In addition, a discussion of the Project's less-than-significant environmental justice impacts is provided at pages 86-90 of Opening Brief-Applicant. Further analysis is provided in Reply

Brief-Applicant at pages 8-16 (air quality/GHGs), 16-37 (biological resources), 37-44 (coastal hazards), 44-48 (land use), 49-54 (environmental justice). These sections are incorporated by reference herein, and confirm that the Project will not result in any significant environmental impacts.

Throughout these proceedings, intervenors have raised concerns about the Project's impacts on biological resources and exposure to coastal hazards, in particular. In response to those concerns, the Committee requested that the parties provide additional information and analysis on certain key topics, including biological resources and coastal flooding. *See* March 10 Orders. CEC Staff and Applicant provided additional testimony on these topics, affirming the conclusion in the FSA that the Project would not result in any significant adverse environmental effects. *See, e.g.*, Staff's Supplemental Testimony Filed in Response to the Committee's March 10, 2017 Order for the Puente Power Project, Ex. No. 2025, TN# 218274; *see also* Biological Resources Supplemental Testimony of Carol Watson and John Hilliard, Ex. No. 2026, TN# 220168.

Because the Project as proposed will not result in any significant direct, indirect or cumulative impacts on the environment, no CEQA Override is required to certify the Project. However, as discussed further below, because identified alternatives to the Project are not feasible, the CEC could make the findings necessary to approve a CEQA Override if it determined that such an action was required to certify the Project.

B. The Project complies with all applicable LORS

Pursuant to the Warren-Alquist Act and its enabling regulations, the CEC must make findings regarding the Project's compliance with applicable local, regional, state, and federal LORS. Cal. Pub. Res. Code § 25523(d). If the Project does not conform with all applicable LORS, the CEC still may certify the Project if the Project "is required for public convenience and necessity and . . . there are not more prudent and feasible means of achieving public convenience and necessity." *See* Section IV.B *infra*; Cal. Pub. Res. Code § 25525.

Substantial evidence in the record supports a finding by the CEC that the Project as proposed, with implementation of the COCs recommended by CEC Staff in its FSA, will comply

with all applicable LORS. *See* Opening Brief-Applicant at 107-24. As described in Opening Brief-Applicant, CEC Staff concluded that the Project as proposed would comply with all applicable LORS, with one possible exception—Policy SH-3.5 of Chapter 6 of the City of Oxnard's 2030 General Plan. *Id*. at 107; FSA Part 1 at 1-30. However, Policy SH-3.5 is not part of the City's Local Coastal Program, which governs land use matters in the coastal zone (where the Project will be located), because it has not been certified by the CCC. *See* Opening Brief-Applicant at 109-16. Without CCC certification, Policy SH-3.5 does not apply in the coastal zone and has no binding legal effect on the Project; therefore, it is not an applicable LORS. *Id.* Even if Policy SH-3.5 applied to the Project, moreover, the Project complies with it. *Id.*; Reply Brief-Applicant at 62-65.

Similarly, the 2030 General Plan's Height Overlay District ("HOD"), which intervenor City of Oxnard alleges the Project violates, does not apply to the Project, because it also does not apply in the coastal zone. Opening Brief-Applicant at 116-21. Further, even if the HOD did apply to the Project, the portions of the Project that exceed the HOD qualify for exceptions to the HOD limits. *Id*. at 121-22.

The record also confirms that the Project complies with all other applicable land use LORS, including 2030 General Plan policies, California Public Resources Code Section 25529; Chapter 3 of the Coastal Act; policies in the City's Local Coastal Program; and the Ventura County Airport Comprehensive Land Use Plan. Opening Brief-Applicant at 122-24; FSA Part 1 at 4.7-2 to 4.7-3.

Because the Project does not violate any applicable LORS, no LORS Override is required to certify the Project. However, as discussed further below, because the Project is required for public convenience and necessity, and there are not more prudent and feasible means of achieving public convenience and necessity, the CEC could make the findings necessary to approve a LORS Override if it determined that such an action was required to certify the Project.

III. THE CEC HAS ANALYZED A REASONABLE RANGE OF ALTERNATIVES, AND THE RECORD DEMONSTRATES THAT NONE OF THE ANALYZED ALTERNATIVES ARE PRUDENT AND FEASIBLE

A. The record includes an exhaustive analysis of alternatives including preferred resources

As explained in detail in the Opening Brief-Applicant and Reply Brief-Applicant, CEC Staff and Applicant considered dozens of possible alternatives to the Project—including eight alternative sites, other potential brownfield sites, alternatives suggested by the City, retrofit alternatives, and alternative technologies—and completed a full detailed analysis of five alternatives. *See* Applicant's Alternative Sites Summary, Ex. No. 1068, TN# 207096, at 1; FSA Part 1 at 1-4, 4.2-1 to 4.2-163 [Alternatives]. This robust analysis satisfies the CEC's CEQA obligation to analyze a "reasonable range" of alternatives to the Project. Opening Brief-Applicant at 90-103; Reply Brief-Applicant at 54-61; Cal. Code Regs. tit. 14, § 15126.6(a); *see also id*. § 13053.5(a).

Specifically with respect to preferred resources, the FSA included an analysis of preferred resources as an alternative to the proposed Project. *See* FSA Part 1 at 4.2-9, 4.2-11 to 4.2-15 [Alternatives]. As discussed therein, CEC Staff concluded that preferred resources can provide many of the services provided by dispatchable, natural gas-fired generation. *Id*. at 4.2-11. However, where preferred resources cannot ensure reliability because they lack necessary operating characteristics or are not available in sufficient quantities, the procurement of clean, efficient natural gas-fired generation is necessary and consistent with the state's loading order. *Id*. Because preferred resources "are not expected to be available in sufficient quantities by the early- to mid-2020s," *id.* at 4.1-141, they could not alone "feasibly and reliably be counted on to cost-effectively meet local reliability needs." *Id*. at 4.2-14 to 4.2-15. Therefore, preferred resources would not meet the Project objectives, including "[s]upport[ing] the local capacity requirements of the [CAISO] Big Creek/Ventura Capacity Reliability (LCR) area." *Id*. at 3-4.

In addition to the thorough analyses conducted by Applicant and CEC Staff, the CAISO Study included extensive additional analysis of preferred resources as a potential alternative to the Project. CAISO Study, TN# 220813. In response to the CAISO Study, many of the parties

introduced additional evidence pertaining to preferred resources as an alternative to the Project. Together, these analyses constitute perhaps the most rigorous evaluation of alternative generation sources ever completed for a CEC certification proceeding and provide the CEC with a robust evidentiary record upon which to base its decision.

B. None of the alternatives analyzed prior to completion of the CAISO Study are prudent and feasible

As discussed in Opening Brief-Applicant at 90-103 and Reply Brief-Applicant at 54-61, none of the alternatives to the Project that were analyzed prior to completion of the CAISO Study are prudent and feasible.

C. The CAISO Study and evidence introduced by the parties in response thereto demonstrate that preferred resources are not a prudent and feasible alternative to the Project

1. The CAISO Study analyzed a reasonable range of appropriately dispatchable preferred resources as potential alternatives to the Project

The CAISO Study analyzed a variety of preferred resources that might be procured and deployed in order to meet 264 MW of LCR need in the Moorpark Sub-Area. CAISO Study at 6. In consultation with SCE, the CAISO first established a 135 MW "base set of assumed incremental distributed resources," which the CAISO Study assumed would be deployed in the Moorpark Sub-Area. The base case is comprised of (1) 80 MW of demand response, (2) 25 MW of a hybrid photovoltaic solar and energy storage, and (3) 30 MW of slow-responding demand response to which enough short-duration battery energy storage has been added to allow this "slow" demand response to count towards meeting local capacity requirements. CAISO Study at 8, Table 3-1. The estimated capital costs associated with the base set was $259.1 million, or approximately 87% of the Project's costs. Expert Declaration of Brian Theaker in Response to CAISO Moorpark Sub-Area Local Capacity Alternative Study, Ex. No. 1151, TN# 220971, at 2 ("Theaker CAISO Decl."). Additional achievable energy efficiency ("AAEE") was not included in the base package, because the CEC's 2017-2027 load forecast already included 111 MW of AAEE. CAISO Study at 8 n.15; *see also* CAISO-Millar, Tr. Sept. 14, at 55:16 to 55:20 (stating that the amount of AAEE factored into the Study was consistent with CPUC and CEC guidance

regarding the current planning cycle). At that point, the CAISO "add[ed] or topp[ed] up portfolios with additional preferred resources until successful system performance was achieved." CAISO-Millar, Tr. Sept. 14, at 14:14 to 14:21.

After establishing the base case of assumed additional preferred resources, the CAISO worked with SCE to develop three portfolios of additional preferred resources that could be deployed on top of the base case, each technically capable of satisfying the sub-area's LCR need:

> ***Portfolio 1.*** Assuming the ongoing operation of the 54 MW Ellwood Generating Facility ("Ellwood"), 125 MW of energy storage with a nine-hour continuous discharge duration. Estimated capital costs were $805 million.
>
> ***Portfolio 2.*** Assuming operation of Ellwood, a 240 MVAr reactive power device. Estimated capital costs were between $309 and $359 million.
>
> ***Portfolio 3.*** Assuming the retirement of Ellwood, 240 MW of energy storage resources, 115 MW with a 5-hour continuous discharge duration, 65 MW with a nine-hour continuous discharge duration, and 60 MW with a 10-hour continuous discharge duration. Estimated capital costs were $1,116 million.

CAISO Study at 2-3, 20-23. The CAISO estimated that the capital costs associated with each of the three scenarios would be more expensive than the $299 million for the Project. *Id.* at 3.

2. The CAISO Study does not address the feasibility of procuring and deploying the preferred resource portfolios that are studied

Although the CAISO Study demonstrated that three theoretical portfolios of preferred resources could satisfy the Moorpark Sub-Area's LCR need,[2] the CAISO Study explicitly did not "address the timing or feasibility for procurement of the . . . resources." CAISO Study at 1. The CAISO Study did not evaluate whether the three portfolios actually could be procured in the Moorpark Sub-Area. CAISO Study at 1; CAISO-Millar, Tr. Sept. 14, at 46:25 to 47:6; SCE-Sekhon, Tr. Sept. 14, at 240:1 to 240:7. Nor did the Study analyze whether the procurement process and development of the contracted resources could be completed by even the outside OTC deadline of December 31, 2020. CAISO Study at 1; CAISO-Millar, Tr. Sept. 14, at 46:25 to 47:6. As discussed further below, given the length of time it takes to conduct an RFO and

[2] Portfolio 2, which relies on a single large dynamic reactive power resource in addition to the 135 MW base case preferred resource portfolio, enabled the sub-area to avoid voltage collapse for the same set of contingencies used to determine the overall sub-area LCR need, but, as noted by the CAISO, exposed the subarea to the involuntary loss of electric service to customers ("load shedding") for other sets of contingencies. *See* CAISO Study at 2, 27.

recent deployment rates of preferred resources, it is unlikely that any of the portfolios could be procured and deployed by the deadline. Theaker CAISO Decl. at 7-8, 11; *see* Section III.C.4 *infra*. So while it is useful to know that theoretical preferred resource portfolios are capable of meeting the sub-area's LCR need, the CAISO Study provides no information about the feasibility of the identified preferred resource portfolios, or of the assumed base case of 135 MW of preferred resources upon which the three identified portfolios would build.

3. Evidence provided in response to the CAISO Study demonstrates that the preferred resources analyzed are not prudent and feasible alternatives for meeting the LCR need, either individually or in combination

The evidence in the record demonstrates that it is not feasible to procure and deploy preferred resources at the levels contained in the CAISO Study's base case of 135 MW, let alone at the additional levels called for in the identified portfolios. The infeasibility is based on an insufficient base from which to draw participants for the proposed programs, technical limitations, reliability concerns, environmental impacts, and costs. The problems with each type of preferred resource called for in the base case and the identified portfolios are identified below.

a. Demand Response

Given the limited commercial and industrial electricity customer base in the Moorpark Sub-Area, demand response resources likely are not available in the sub-area at the levels assumed in the CAISO Study's base case (110 MW total). Applicant-Gleiter, Tr. Sept. 14, at 267:12 to 267:15. It is estimated that Orange County has nearly four times the commercial and industrial customer base as is present in the Moorpark Sub-Area, *id.* at 267:16 to 268:22, yet the recent Orange County Preferred Resources Pilot II RFO obtained only 125 MW of preferred resources *total*. SCE-Sekhon, Tr. Sept. 14, at 129:16 to 129:24. It is unrealistic to expect nearly the same level of procurement from Moorpark in demand response resources *alone*, given the smaller level of necessary large-scale customers compared to the Orange County area. *See id.* at 131:5 to 132:8 ("So, we really haven't seen the responsiveness that we saw in the Johanna/Santiago areas . . . through the targeted PRP in any of the solicitations that

we've had, targeting . . . resources in the broader Moorpark or even the more targeted Goleta area.").

Even assuming that a sufficient customer base exists, however, getting sufficient customers to agree to participate in a demand response program will be difficult. Applicant-Gleiter, Tr. Sept. 14, at 268:23 to 269:6. Typical participation rates for demand response programs range between 10 to 25% of an area's commercial and industrial customer base. *Id.* at 269:12 to 269:15. Early stage programs, though, fair much worse, often less than 5%. *Id.* at 269:22 to 270:10. And in the case of a RFO to satisfy LCR need in lieu of the Project, other factors would drive the participation rate to the low end of the range. Given the reliability requirements at issue, bidders would be forced to put more "skin in the game" in the form of stringent contractual provisions. SCE-Sekhon, Tr. Sept. 14, at 241:18 to 241:22. They would be rigorously screened to ensure viability, would have to agree to increased penalties in the event of nonperformance, and would need to accept contracts of greater duration. *Id.* at 237:15 to 238:1, 240:13 to 240:22, 241:18 to 241:22, 242:12 to 242:19; Applicant-Gleiter, Tr. Sept. 14, at 270:11 to 271:6, 271:20 to 272:6. Finally, until the CPUC approves a demand response contract, it may be extremely difficult for a successful bidder to acquire customers, pushing the potential deployment time further into the future. Applicant-Gleiter, Tr. Sept. 14, at 274:5 to 274:12.

Assuming even further that a customer base exists and the participation rate is adequate, there is still another concern: getting those customers to perform. As CEC Staff explained, "an energy developer cannot compel participation in a demand response program." FSA Part 1 at 4.2-140 to 4.2-141. And demand response customers are known to stop participating once "fatigued." Applicant-Theaker, Tr. Sept. 14, at 216:2 to 216:6 ("[Fatigue is] a long acknowledged concern about load reduction programs."). Demand response "fatigue" occurs when a customer, after voluntarily reducing their load as agreed on several occasions, refuses to do so. *See id.* at 216:2 to 217:1. This problem is of great concern in the event demand response is used to satisfy LCR need. *Id.*; CAISO-Millar, Tr. Sept. 14, at 286:16 to 287:2. Demand response customers, as mentioned, would already be subject to aggressive contractual provisions in regard to performance. SCE-Sekhon, Tr. Sept. 14, at 237:15 to 238:1, 240:13 to 240:22,

241:18 to 241:22, 242:12 to 242:19; Applicant-Gleiter, Tr. Sept. 14, at 270:11 to 271:6, 271:20 to 272:18. LCR resources, moreover, do not run solely on high-demand days following the contingency they were selected to address; rather, whenever necessary, the CAISO can request that a LCR resource run, such as on high-demand days or when maintenance is being conducted on transmission lines or generating sources within the sub-area. Applicant-Gleiter, Tr. Sept. 14, at 271:20 to 272:18, 337:21 to 337:24; Applicant-Theaker, Tr. Sept. 14, at 337:17 to 337:20, 337:25 to 338:7; CAISO-Millar, Tr. Sept. 14, at 69:25 to 71:2 ("And I have to admit that most of my experience with system disturbance have been at some condition other than the actual peak load . . . ."). During a five-day heat storm, for example, LCR resources may be asked to run all five days. *See* Applicant-Theaker, Tr. Sept. 14, at 337:13 to 337:16 ("If those transmission lines are out for an indefinite period of time, [LCR resources] could be called daily for an indefinite period of time."). A few days into the heat storm, some demand response customers may refuse to reduce their load as a result of fatigue. *Id.* at 216:2 to 217:1. But without those resources, local capacity may be insufficient and place the sub-area at risk of load shedding and voltage collapse. CAISO-Millar, Tr. Sept. 14, at 70:20 to 71:2, 286:16 to 287:6. Any loss in demand response performance, therefore, could have disastrous consequences.

b. Energy Storage

The costs associated with using energy storage on the capacity and duration scale needed to satisfy the Moorpark Sub-Area's LCR need would be extremely high. The CAISO Study's capital cost estimates for battery-intensive Portfolios 1 and 3 established that they were significantly greater than the capital costs associated with the Project. Although intervenors assert that the CAISO Study's battery cost estimates were inflated, other testimony suggested that intervenors' cost reduction claims were similarly exaggerated. SCE-Sekhon, Tr. Sept. 14, at 133:10 to 133:24; Applicant-Theaker, Tr. Sept. 14, at 222:17 to 222:20. The CAISO Study also did not evaluate additional costs necessary to deploy energy storage systems. The CAISO Study did not consider that extra batteries would be needed at the outset as a margin to ensure LCR need would be met. CBD-Karpa, Tr. Sept. 14, at 319:20 to 321:3 (noting that solar and storage systems are designed "with a margin of error," that batteries "degrade" over time, and

that both items "bump the installed cost number up"). Nor did the CAISO Study review battery operating and maintenance costs, including battery augmentation costs. CAISO-Millar, Tr. Sept. 14, at 15:10 to 15:12; Applicant-Theaker, Tr. Sept. 14, at 221:8 to 222:5. And since batteries' useful lives are only 15 to 20 years, any batteries procured would have to be replaced before the Project's engineering life ends. Applicant-Theaker, Tr. Sept. 14, at 221:8 to 222:5; Theaker CAISO Decl. at 9-10. The CAISO Study did not include these replacement costs. Theaker CAISO Decl. at 9-10. When viewing the record in totality, it is evident that energy storage at the required scale is an expensive endeavor. FSA Part 1 at 4.2-141. Storage simply is not feasible at roughly three times the cost of the Project.

Batteries' limited durations also restrict their utility in the event of a contingency. The N-1-1 contingency, which is used to identify LCR need in the Moorpark Sub-Area, assumes the loss of the Moorpark-Pardee 230-kV transmission lines. FSA Part 1 at 4.2-16 to 4.2-17 & n.4. If those lines are lost to an earthquake or fire, for example, it could take a prolonged period of time to replace them. Applicant-Theaker, Tr. Sept. 14, at 337:13 to 337:16; City of Oxnard-Caldwell, Tr. Feb. 8, at 83:17 to 83:22 (noting that a fire could result in a N-1-1 contingency). The CAISO Study showed, on paper, that portfolios of preferred resources, comprised of long-duration battery storage, could, when performing perfectly, be charged and discharged to prevent voltage collapse with the transmission lines that define the Moorpark Sub-Area LCR need out of service. The CAISO Study assumed that this charging and discharging occurs under perfect conditions, *i.e.*, with the local network completely intact and all other resources totally available and responsive. *See* CAISO-Millar, Tr. Sept. 14, at 33:19 to 33:25 ("Our studies assume a certain set of events based on a certain set of conditions and ***assuming that everything else in the system is operating perfectly and operates exactly the way it was planned to***." (emphasis added)).

But this level of performance is impossible and disregards the differences between operating batteries to maximize profit and to satisfy LCR need. Theaker CAISO Decl. at 7-9; Applicant-Theaker, Tr. Sept. 14, at 214:23 to 215:15. In reality, it would be extremely difficult to utilize such vast quantities of batteries in a manner coordinated to satisfy LCR need, particularly over a potentially infinite duration such as the period following the loss of major

transmission lines. Theaker CAISO Decl. at 8-9; *see* Applicant-Theaker, Tr. Sept. 14, at 337:13 to 337:16.

c. Solar-Storage Systems

Solar-storage systems reduce some of the risk associated with the limited durations of batteries, but contrary to intervenors' assertions, the base set's 25 MW of solar-storage systems will not operate perfectly and sunlight does not always correspond to periods of high demand. Applicant-Theaker, Tr. Sept. 14, at 214:11 to 215:15. The CAISO Study assumed that these systems would perform perfectly, CAISO-Miller, Tr. Sept. 14, at 33:19 to 33:25, but as discussed above, that level of performance is impossible, even when storage devices are paired with solar energy. Applicant-Theaker, Tr. Sept. 14, at 214:15 to 215:15; Theaker CAISO Decl. at 7-9. When demand peaks during cloudy conditions, solar resources are of diminished value and may be unable to satisfy LCR need or recharge batteries. Applicant-Theaker, Tr. Sept. 14, at 214:11 to 214:22. On several days during August 2017, for example, solar output was low, while demand peaked. Theaker CAISO Decl. at 8. The intermittent nature of solar resources, and the uncertainty as to whether solar-paired resources always would be able to perform at their maximum capability, make them a reliability risk in comparison to the Project. Moreover, paired systems are relatively untested; Applicant should know—it is the only developer in California who has won a solar-plus-storage contract. Applicant-Gleiter, Tr. Sept. 14, at 264:13 to 264:17.

d. Reactive Power Device (i.e., Synchronous Condenser)

Although Portfolio 2 is substantially less expensive than the other portfolios, it comes with significant reliability risks. The portfolio's reactive power device provides no real power. Applicant-Theaker, Tr. Sept. 14, at 218:25 to 219:3. Thus, while Portfolio 2 is able to satisfy the Moorpark Sub-Area's LCR need if the N-1-1 contingency (*i.e.*, the contingency used to quantify LCR need) occurs, it leaves the sub-area subject to voltage collapse, or load shedding to avoid that collapse, in the event of other transmission outages or sets of outages. Applicant-Theaker, Tr. Sept. 14, at 218:25 to 220:13; CAISO-Millar, Tr. Sept. 14, at 287:10 to 287:22 (stating that Portfolio 2 provided "virtually no margin" between the size of the reactive power device and acceptable system performance); CAISO Study at 2, 27. Even though load shedding may be

used when certain combinations of contingencies occur, both load shedding and voltage collapse are catastrophic outcomes that would damage the state's economy and endanger public safety. Applicant-Theaker, Tr. Sept. 14, at 219:12 to 220:1; *see also* Cal. Pub. Res. Code § 25001 (recognizing that "electrical energy is essential to the health, safety, and welfare of the people of this state"). Portfolio 2 actually would leave the reliability in the Moorpark Sub-Area worse off compared to existing conditions. Applicant-Theaker, Tr. Sept. 14, at 220:2 to 220:13; Theaker CAISO Decl. at 4-6.

Several intervenors have suggested the conversion of MGS Units 1 and/or 2 into synchronous condensers, a form of reactive power device, to fulfill LCR need. Yet, in addition to the reliability risks discussed in the foregoing paragraph, intervenors' suggestions raise significant concerns. There is absolutely no evidence to support intervenors' speculation that it would be cost-effective and feasible from an engineering perspective to convert MGS Units 1 and/or 2 to synchronous condensers. Applicant-Gleiter, Tr. Sept. 14, at 276:3 to 276:8, 276:18 to 276:20 (converting the condensers would take a "significant redesign" and may not be possible); CAISO-Millar, Tr. Sept. 14, at 27:18 to 28:9 ("Depending on the construction of the plant, . . . [conversion] could be feasible."); CAISO Study at 26. In fact, it is estimated that a six-month study would be required to determine whether conversion of the units was possible, in addition to the time needed to obtain permits and reconfigure the structures. Applicant-Gleiter, Tr. Sept. 14, at 276:9 to 276:11, 277:14 to 277:22. Presuming the units can be converted, preliminary NRG studies suggested that the units' reactive power would fall short of meeting the Moorpark Sub-Area's LCR need, and the converted condensers' ancillary/grid support services may be entirely unnecessary at the units' location. *Id.* at 274:17 to 275:17, 293:17 to 293:20; FSA Part 1 4.2-21 (noting that a condensers "potential to result in system or environmental benefits at a given location occurs only when there is a need for location specific ancillary/grid support services"); *id.* ("[T]he technical feasibility [of converting the units to synchronous condensers] does not address the issues relating to need, function, or economics . . . ."). Additionally, unlike the Project, which will serve the Moorpark Sub-Area for decades, the aging

units would be able to operate only a few more years before being retired. CAISO-Millar, Tr. Sept. 14, at 26:18 to 26:23 ("[Conversion] is not a long-term solution.").

Finally, converting MGS Units 1 and/or 2 to synchronous condensers would do nothing to address some of the most significant concerns raised by intervenors—that industrial uses be removed from the coastal zone and restored for recreational use and resource protection. *See, e.g.*, City of Oxnard's Opening Brief, TN# 221010, at 1-2 ("Opening Brief-City of Oxnard"). MGS Units 1 and/or 2 continued operation as synchronous condensers may not even permit removal of their existing stacks, City of Oxnard-Caldwell, Tr. Sept. 14, at 350:11 to 351:2, whereas the Project will result in the removal of the stacks and the ocean outfall. FSA Part 1 at 1-1, 1-3; Opening Brief-Applicant at 77-80.

4. It is not feasible to procure and deploy the identified preferred resources in the quantities called for in the CAISO Study to meet reliability needs

In addition to the feasibility issues identified above with each type of preferred resource analyzed in the CAISO Study, practical issues associated with procuring these resources at the levels called for in the CAISO Study make them infeasible as alternatives to the Project. The City's expert Mr. Caldwell claims that multiple RFOs can be conducted and the procured resources deployed in time to comply with the OTC compliance date. James H. Caldwell Testimony in Response to CAISO Report, Ex. No. 3090, TN# 220974, at 8-9 ("Caldwell CAISO Response") (stating that the Goleta RFO should be expanded and two other RFOs held). Mr. Caldwell overlooks practical impediments and regulatory and market risks associated with completing just one RFO, let alone three. The more likely scenario is that procurement and deployment would not go as smoothly as designed, and even minor delays or procurement failures could have significant impacts.

a. RFOs are a time-consuming process

The RFO that led to the contract for Puente spanned nearly four years. Theaker CAISO Decl. at 11; Section IV.B.2.b *infra*. Following any future RFO, the CPUC would review the results, and depending on the resources the CPUC approved, another CEC proceeding may be needed. *See* SCE-Sekhon, Tr. Sept. 14, at 241:10 to 241:22 (suggesting that a two-phase RFO,

lasting 18 to 24 months, would be necessary to satisfy LCR need in addition to the time needed to complete the RFO-approval process); Applicant-Gleiter, Tr. Sept. 14, at 272:19 to 273:4. These regulatory mechanisms are complex, time-intensive, and to a great degree, unpredictable. *See* SCE-Sekhon, Tr. Sept. 14, at 238:1 to 240:7; Theaker CAISO Decl. at 11. Any decision on the RFO also may be subject to litigation delays. And any delay at this point could lead to disastrous impacts for the environment and reliability in the Moorpark Sub-Area. SCE-Sekhon, Tr. Sept. 14, at 239:5 to 239:24; Theaker CAISO Decl. at 11.

b. Preferred resources sometimes fail to deploy as scheduled

Recent market experience demonstrates that deployment of preferred resources frequently lags substantially behind the targeted in-service date for those resources. Applicant-Gleiter, Tr. Sept. 14, at 273:14 to 273:24; SCE-Sekhon, Tr. Sept. 14, at 129:24 to 130:2; Applicant-Theaker, Tr. Feb. 8, at 20:21 to 21:11; Theaker CAISO Decl. at 7. A variety of factors can lead to developers failing to perform as agreed. SCE-Sekhon, Tr. Sept. 14, at 147:9 to 149:5.

This outcome presents both *ex ante* and *ex post* problems. On the front end, any preferred resources RFO designed to satisfy LCR need would have to procure substantial surplus preferred resources to ensure that enough capacity is online to meet that need notwithstanding resource nonperformance. SCE-Sekhon, Tr. Sept. 14, at 129:22 to 130:2, 149:21 to 150:2, 235:21 to 236:2. As discussed in the following paragraph, however, there likely are not enough preferred resources in the Moorpark Sub-Area to satisfy LCR need, let alone to meet that need plus account for resource failure. Additionally, more stringent contractual provisions will be necessary to guarantee the need is met by the procured resources, thereby discouraging participation in the RFO. *Id.* at 237:15 to 238:1, 239:1 to 239:9, 240:13 to 240:22, 241:18 to 241:22, 242:12 to 242:19; Applicant-Gleiter, Tr. Sept. 14, at 270:17 to 270:22, 271:20 to 272:6. Following completion of the RFO, resource nonperformance also would escalate the very risk that the Project is designed to alleviate—voltage collapse or load shedding as a result of depleted LCR capacity. *See* CAISO-Millar, Tr. Sept. 14, at 286:16 to 287:2.

c. Recent RFOs demonstrate that it is unlikely that the CAISO Study's 135 MW base case, let alone 215 to 290 MW of additional preferred resources, could be procured.

The RFO that led to the Puente contract was an "all-source" RFO that sought preferred resources in addition to gas fired generation. Applicant-Beatty, Tr. Feb. 8, at 14:2 to 14:7. SCE conducted "extensive outreach" in Moorpark to solicit preferred resources bidders. SCE-Sekhon, Tr. Sept. 14, at 131:7 to 131:14. Aside from a small amount of in-front-of-meter storage, SCE accepted all of the preferred resources offered, totaling only 12 MW of capacity. SCE-Sekhon, Tr. Sept. 14, at 115:20 to 115:24; Applicant's Rebuttal Testimony, Ex. No. 1121, TN# 215553, Joint Expert Declaration of Mr. Brian Theaker and Sean Beatty, at 3-4 ("Applicant's Rebuttal Test. – Theaker & Beatty Decl.").

As evidence that SCE could have procured more than 12 MW of preferred resources in its previous Moorpark RFO, or could procure more in a future RFO, intervenors point to recent RFOs that resulted in the utility obtaining greater capacity. *See, e.g.*, City of Oxnard-Caldwell, Tr. Feb. 8, at 103:22 to 104:15. There is nothing in the record, however, that suggests that the result of other RFOs, conducted in other areas of SCE's service territory, are indicative of the preferred resources available in the Moorpark Sub-Area.

The record, in fact, shows that recent RFOs are distinguishable from any future Moorpark RFO to replace the Project. The CAISO Study's 135 MW base case would constitute the largest preferred resources procurement completed during the last several years. That none of the recent RFOs acquired more than 125 MW of capacity from preferred resources, roughly half of the sub-area's LCR need, suggests that procurement of 135 MW is not possible. *See* SCE-Sekhon, Tr. Sept. 14, at 129:16 to 130:2, 131:23 to 132:8; City of Oxnard-Caldwell, Tr. Feb. 8, at 103:18 to 103:21 (stating that the Preferred Resource Pilots I RFO procured only 8 to 12 MW of preferred resources). Actual procurement, moreover, would have to exceed the LCR need substantially to ensure that developer nonperformance did not render LCR need unsatisfied. SCE-Sekhon, Tr. Sept. 14, at 235:21 to 236:2. Unlike recent RFOs, a Moorpark RFO would be designed to meet LCR need, increasing the demands placed on bidders and thus decreasing the number of bids submitted. *Id.* at 126:16 to 126:25, 138:14 to 138:23, 235:5 to 236:14, 239:1

to 239:9, 242:12 to 242:19. Aside from speculation and conjecture, intervenors offer no evidence in support of their claim that another RFO in the Moorpark Sub-Area will procure sufficient quantities of preferred resources to satisfy the base set or the entire LCR need in the limited time prior to the OTC deadline and LCR need arising. SCE-Sekhon, Tr. Sept. 14, at 131:10 to 131:14 (noting that during the initial Moorpark RFO, SCE "did extensive outreach for . . . preferred resources" and "got very low response"), 131:23 to 132:8 ("[W]e really haven't seen the responsiveness that we saw in the Johanna/Santiago areas . . . in any of the solicitations that we've had . . . in the broader Moorpark or even the more targeted Goleta area.").

Given the low odds of a Moorpark RFO acquiring adequate amounts of preferred resources capacity, intervenors propose fulfilling the remaining LCR need with existing natural gas-fired facilities, like MGS Unit 3 and Ellwood, or with synchronous condensers. Caldwell CAISO Response at 9. But as discussed in other portions of this brief, even if those resources could be retained or deployed they would present significant disadvantages in comparison to the Project.

***d. The Aliso Canyon Energy Storage RFO was* sui generis**

Based on the results of the Aliso Canyon Energy Storage RFO, intervenors proclaim that preferred resources can be deployed in eight months or less. *See, e.g.*. City of Oxnard-Caldwell, Tr. Feb. 8, at 105:15 to 105:21. But SCE representative Mr. Randir Sekhon went to great lengths to differentiate the Aliso Canyon RFO from more-typical circumstances. Unlike any new RFO for Moorpark, the Aliso Canyon RFO was not designed to address LCR need. SCE-Sekhon, Tr. Sept. 14, at 138:14 to 138:23, 236:2 to 236:14, 239:1 to 239:9, 242:12 to 242:19 (indicating that additional requirements would be necessary in a RFO for LCR need). Although SCE was able to procure and deploy approximately 70 MW of preferred resources in roughly 8 months, SCE exerted "heavy effort" to reach that procurement level in such a short time. *Id.* at 244:25 to 245:4. Mr. Sekhon attributed SCE's relative success to its "developers who had existing sites, who had existing interconnection, [who] were able to utilize those existing interconnections and sites to deploy the storage." *Id.* at 245:4 to 246:2; *id.* at 240:24 to 241:14 ("[W]e used existing interconnections for even the third-party sites . . . on the utility on sites we used SCE's own

substation, so we avoided the interconnection issue under a steady process. So that mitigates a lot of the siting, the permitting, the land issues."). But a Moorpark RFO would not benefit from such unique circumstances, and even if it did, it is complete speculation to believe that sufficient resources could deploy in time to satisfy LCR need.

e. Contractual terms will drive away bidders

As discussed earlier, unlike other recent RFOs, which were not intended to procure LCR capacity, a RFO for LCR need in the Moorpark Sub-Area would require more of bidders. SCE-Sekhon, Tr. Sept. 14, at 138:14 to 138:23, 235:5 to 236:11, 237:24 to 238:8, 239:1 to 239:9, 240:13 to 240:15, 242:12 to 242:19 ("[T]here would be a requirement for higher performance for bidders . . . ."). Increased diligence, nonperformance penalties, contract duration, and expectations to answer the call when asked to provide electricity, all would work to increase the risks associated with each bid. *Id.* at 237:15 to 238:1, 239:1 to 239:9, 240:13 to 240:22, 241:18 to 241:22, 242:12 to 242:19; Applicant-Gleiter, Tr. Sept. 14, at 270:17 to 270:22, 271:20 to 272:6. The pricing associated with the submitted bids will increase as a result. SCE-Sekhon, Tr. Sept. 14, at 241:23 to 242:5.

f. The integrity of the RFO process would be diminished

If additional RFOs are conducted at this stage of the proceeding, the integrity of the earlier RFO will be greatly harmed. *See* SCE-Sekhon, Tr. Sept. 14, at 242:7 to 242:11. Utilities, resource developers, and the public all expect some level of finality upon completion of electricity procurement. *Id.* at 238:9 to 238:25. Of course, those parties understand that regulatory approvals must be obtained before a project may proceed. But regulatory review should not be conducted in a manner that completely disregards the results of prior efforts to comply with applicable standards, procedures, and requirements. Refusing to certify the Project and instead redo the Moorpark RFO would produce this very result, increasing the uncertainty associated with what should be a predictable regulatory process. *Id.* This uncertainty would chill participation in future RFOs and increase the pricing associated with bids.

g. Costs to ratepayers may increase

As is evident from the foregoing, a RFO (or several RFOs) in lieu of the Project would involve increased costs to bidding developers due to stringent contractual terms and magnified deal risk. These costs will likely cause bid prices to rise as well. *See* SCE-Sekhon, Tr. Sept. 14, at 133:10 to 133:20 (stating that financing risk and contingencies, along with other factors, can cause bid prices to increase), 241:23 to 242:6 ("[A RFO for LCR need in Moorpark] creates higher cost pressures, especially when you're looking at such a large procurement and trying to compress that large procurement into a very short window, leads to a higher level of uncertainty and potential higher costs for customers."). If possible, utilities will pass these higher costs onto ratepayers.

5. CAISO Study portfolios that rely on the continued operation of the Ellwood facility are not feasible

CAISO Study portfolios 1 and 2 both assume the continued operation of Ellwood. But Ellwood's current contract expires in 2018, and on September 28, 2017, the CPUC rejected a new long-term contract for the facility. Theaker CAISO Decl. at 5; Section IV.B.4.b *infra*. Without a contract, Ellwood is unlikely to operate in the future. Applicant-Theaker, Tr. Sept. 14, at 217:1 to 217:19; Theaker CAISO Decl. at 5.

6. Intervenors' criticisms of the CAISO Study are largely invalid, and even if they were valid, they would not change any conclusions related to the infeasibility of the preferred resources alternative

Intervenors' chief complaint with the CAISO Study concerns the Study's cost estimates. As a general matter, intervenors' claims are misplaced. The Committee did not request cost estimates from the CAISO, and the Study "was not attempting to determine the lowest cost combination of preferred resources to meet [LCR] need." CAISO-Millar, Tr. Sept. 14, at 14:2 to 14:4. Rather, the CAISO provided "high-level capital costs . . . drawn from publicly available material" merely as a "starting point for the cost considerations." *Id.* at 15:1 to 15:9, 46:25 to 47:6, 47:9 to 47:13 ("[T]he question we were trying to answer was whether . . . preferred resources were [technically] feasible. [We were] not trying to conduct an actual procurement

exercise."). Intervenors' contentions regarding inaccuracies in the CAISO's "high-level" estimates, therefore, ignore the CAISO-proclaimed limits of the Study.

Intervenors' specific cost arguments are equally unavailing. Intervenors present what they perceive to be two main flaws with the CAISO Study's cost analysis. *First*, intervenors assert that the capital cost estimates were outdated. *See, e.g.*, Caldwell CAISO Response at 4; Matt Owens Testimony re CAISO Study, Ex. No. 4046, TN# 220975, at 4. But CAISO representatives relied on data "that was already being used by either the [CEC] or the [CPUC] relatively recently." CAISO-Millar, Tr. Sept. 14, at 44:7 to 44:17; *see also* SCE-Sekhon, Tr. Sept. 14, at 133:10 to 133:24 (noting that "price declines" have not been as "significant" in recent years as intervenors assert).

Second, intervenors contend that the CAISO Study's cost analysis should have considered the "multiple value streams" that preferred resources can capture. This argument suffers from a number of flaws. For one, each resource analyzed, including the Project itself, has value streams and revenues that were not factored into the CAISO Study's cost estimates. Applicant-Theaker, Tr. Sept. 14, at 222:17 to 223:6. Some value streams of which intervenors complain, moreover, are hypothetical. *Id.* at 222:17 to 222:20, 223:7 to 224:12, 231:8 to 231:12. And intervenors disregard entirely other costs that the CAISO Study did not analyze that would make preferred resources less attractive. The CAISO Study, for example, did not consider (1) the potential "meaningful impact" from lifecycle costs, such as battery augmentation costs; (2) the need to replace batteries every 15 to 20 years; and (3) that surplus batteries and solar panels would have to be purchased at the outset to ensure that LCR need was actually met. *Id.* at 221:24 to 225:5; CAISO-Millar, Tr. Sept. 14, at 15:10 to 15:12; CBD-Karpa, Tr. Sept. 14, at 319:20 to 321:3 (noting that solar and storage systems are designed "with a margin of error," that batteries "degrade" over time, and that both items "bump the installed cost number up"); Theaker CAISO Decl. at 9-10.

Mr. Caldwell also claimed that increased levels of AAEE resources were present in the Moorpark Sub-Area than that assumed in the Study. But the Study presumed that AAEE

resources existed in the sub-area consistent with CPUC and CEC direction for the current planning cycle. CAISO-Millar, Tr. Sept. 14, at 55:16 to 55:20.

7. Variations on the CAISO portfolios suggested by intervenors are inferior to the Project

Intervenors have posited variations on the portfolios analyzed in the CAISO Study as a means of alleviating the risk that the required amount of preferred resources cannot be procured or procured on a timely basis. Most of these variations involve continued operation of existing generating units, including Ellwood, and/or MGS Units 1, 2 and/or 3. From an environmental perspective, such proposals are greatly inferior to the Project. They involve continued operation of aging, inefficient, and higher emitting generation sources to satisfy LCR need until a sufficient quantity of preferred resources exists in the Moorpark Sub-Area—a potentially indefinite period. In the interim, those generating units will emit increased levels of air pollutants and GHGs in comparison to the Project. Section IV.B.4.b *infra*. With respect to MGS Units 1 and 2, state agencies may be forced to extend the OTC compliance deadline, perpetuating marine impacts intended to be curtailed or eliminated via the OTC Policy. SCE-Sekhon, Tr. Sept. 14, at 242:20 to 243:13. Rather than being removed, the stacks of MGS Units 1 and 2 may remain on the shoreline, prolonging the disturbed visual conditions on the Mandalay shoreline. City of Oxnard-Caldwell, Tr. Sept. 14, at 350:11 to 351:2.

IV. IF THE CEC WERE TO CONCLUDE THAT A CEQA OVERRIDE OR A LORS OVERRIDE WAS REQUIRED TO CERTIFY THE PROJECT, THE RECORD SUPPORTS THE FINDINGS NECESSARY TO APPROVE SUCH AN ACTION

A. CEQA Override

1. Required Findings

The record demonstrates that the Project, as proposed and with implementation of the proposed COCs recommended by CEC Staff in the FSA, will not result in any significant adverse direct, indirect, or cumulative effects on the environment. *See* Opening-Brief Applicant at 8-11; *see also* FSA Part 1 at 1-30 ("[T]he proposed Puente Power Project would have no significant impacts to the environment."). However, if the CEC were to disagree with this conclusion and find that the Project as proposed does result in a significant unmitigated impact

on the environment, it could nevertheless certify the Project based on a finding that there are no feasible alternatives to the Project and that the specific overriding economic, legal, social, technological, or other benefits of the Project outweigh its significant effects on the environment. Cal. Pub. Res. Code § 21081(a)-(b). The record clearly supports such a finding. The absence of feasible alternatives to the Project is addressed above and in Opening Brief-Applicant and Reply Brief-Applicant. The benefits of the Project that would support a CEQA Override are discussed below.

2. The Project satisfies the LCR need in the Moorpark Sub-Area

The primary benefit of the Project, and that for which it was designed and offered to SCE through the Moorpark RFO, is to satisfy the LCR need in the Moorpark Sub-Area. Extensive evidence in the record is undisputed that the Project would provide this intended benefit. *See* Sections III.C.3, III.C.4 *supra*; Section IV.B.2 *infra.*

The City asserts that the Project will not be able to provide electricity 3 to 5% of the time. Opening Brief-City of Oxnard at 35. But testimony established that the Project will be reliable 98 to 99.5% of the time. Applicant-Gleiter, Tr. Sept. 14, at 308:18 to 308:23. Even if the facility is not able to operate at its full-rated capacity, the Project's output will be reduced, not eliminated entirely, thereby allowing it to serve customer load and fulfill LCR need. *Id.* at 310:11 to 310:20.

3. The Project provides numerous additional benefits in addition to satisfying the LCR need in the Moorpark Sub-Area

a. Reuses existing infrastructure

One major benefit from the Project is that it will rely on existing infrastructure. *See* Carlsbad Final Decision at 9-3 to 9-5. The Project will be located entirely within the boundary of the MGS facility. Applicant's Opening Testimony, Ex. No. 1101, TN# 215441, Expert Declaration of Mr. Tim Murphy Regarding Land Use and Agriculture, at 3 ("Applicant's Opening Test., – Murphy Decl."). As a result, the Project will use available services already in place at the facility, including electrical transmission facilities and natural gas, potable water, storm water, and process wastewater services. FSA Part 1 at 3-8 to 3-9, 4.7-9; 2030 General

Plan: Goals & Policies, City of Oxnard, Cal., October 11, 2011, at 3-25, 3-35 (including policies that "[e]ncourage industrial activities to locate where municipal services are available" and that promote the "efficient use of existing industrial and commercial development areas so as to preserve agricultural land and minimize adverse environmental impacts").

b. Improves visual, recreation, and biological resources

Project also will reduce visual contrast and promote the beach in the area near the MGS facility. 2030 General Plan: Goals & Policies, City of Oxnard, Cal., October 11, 2011, at 5-4 (encouraging developments that "[r]eserve, preserve, and promote" areas particularly suited for open space and recreational uses). With the removal of MGS Units 1 and 2, visual contrast will be "[s]ubstantially reduce[d]." FSA Part 1 at 4.7-11. And the Project will result in the demolition of the existing ocean outfall structure. Applicant's Opening Test. – Murphy Decl. at 3. Removal of the outfall will further restore and enhance the beach fronting the MGS facility, improve biological and visual conditions on the beach, and provide additional public access to an area suited for open space and recreational uses. *Id.*; FSA Part 1 at 4.2-30 [Biological Resources], 4.7-9, 4.7-11, 4.7-14, 4.7-19 to 4.7-21, 4.14-11.

c. Ensures compliance with the OTC Policy

To comply with the state's OTC Policy, MGS Units 1 and 2 and Ormond Beach Units 1 and 2 are expected to cease operations no later than December 31, 2020. As recent events have demonstrated, however, if state regulators are not certain that a sub-area's LCR needs will be met, they may extend the OTC Policy compliance dates rather than risk voltage collapse. CAISO-Millar, Tr. Sept. 14, at 34:19 to 35:25. The Project is the only resource capable of both (1) satisfying the Moorpark Sub-Area's LCR need and (2) being operational in time to meet LCR need and the OTC deadline. *See* Sections III.C.3, III.C.4 *supra*; Carlsbad Final Decision at 9-3 to 9-4.

d. Increases efficiency, decreases emissions and ocean discharges

The Project, additionally, is expected to be an improvement over the existing units at the MGS facility. The Project is "a modern, rapid response, fast-ramping, simple-cycle facility," FSA Part 1 at 3-2, and its increased efficiency will have beneficial effects for the environment.

See Carlsbad Final Decision at 9-3 to 9-5. Because of its increased efficiency, the Project also will reduce the emission of carbon dioxide per megawatt hour compared to the existing units at the MGS facility and decrease overall electricity system GHG emissions and fuel use. FSA Part 1 at 3-3, 4.1-2, 4.1-26, 4.1-148; *see* Carlsbad Final Decision at 9-4. And unlike the existing facility, the Project will not discharge wastewater or excess storm water into the ocean; rather, the Project will dispose of these waters via the Edison Canal. Applicant's Opening Testimony, Ex. No. 1101, TN# 215441, Expert Declaration of Ms. Anne Connell, at 30; FSA Part 1 at 4.1-19 to 4.11-20, 4.11-29.

e. Further reduces the effects of GHG emissions

Although the Project itself is not a source of renewable energy, it facilitates the integration of renewables into the generation system. *See* Carlsbad Final Decision at 9-4. Because of the intermittent nature of renewable energy sources, natural gas power plants "must now be able to suddenly and sharply increase and decrease output twice a day or more." FSA Part 1 at 3-2, 4.1-143. The Project, a modern, rapid response, fast-ramping facility, provides these services, thereby allowing the development of more variable, renewable resources. *Id.*

f. Creates jobs and economic benefits

Finally, the Project will benefit the local and regional economy, both directly and indirectly. *See* Carlsbad Final Decision at 9-5; Applicant's Opening Testimony, Ex. No. 1101, TN# 215441, Expert Declaration of Mr. Nik Carlson, at 6. Over its 21-month construction timeframe, the Project will create jobs for an average and peak workforce of 48 and 90 individuals, respectively, and provide a $16 million payroll. FSA Part 1 at 4.10-25; AFC Section 4.10, Socioeconomics, Ex. No. 1016, TN# 204219-17, at 4.10-7 to 4.10-8. Because most of the construction workforce will reside in Ventura and Los Angeles counties, many of these funds, as well as approximately $64.6 million in local expenditures needed to acquire construction materials and supplies, will be spent within the region. FSA Part 1 at 4.10-25; AFC Section 4.10, Socioeconomics at 4.10-8. The Project, moreover, will increase tax revenues substantially. It is estimated that the City of Oxnard and Ventura County will receive over $1 million, while Los Angeles County will receive over $3 million, in sales taxes from local

construction expenditures, while annual property taxes for the Project site are expected to increase approximately $2.8 million. FSA Part 1 at 4.10-25 to 4.10-26.

4. CEQA Override Conclusion

Based on the foregoing, if the CEC should determine that a CEQA Override is required to certify the Project due to the presence of a significant environmental impact as a result of the Project, the record indicates that the there are no feasible alternatives to the Project, and its many "economic, legal, social, [and] technological" advantages, including its reliability benefits, outweigh any significant impact that may result from the Project. Cal. Pub. Res. Code § 21081(a)-(b). Thus, the CEC can make the findings necessary to approve the CEQA Override.

B. LORS Override

1. Required Findings

Substantial evidence in the record supports a finding by the CEC that the Project as proposed, with implementation of the COCs recommended by CEC Staff in its FSA, will comply with all applicable LORS. *See* Opening Brief-Applicant at 107-24. However, if the CEC were to disagree with this conclusion and find that the Project as proposed does not comply with applicable LORS, the CEC could nevertheless certify the Project based on findings that the Project is required for public convenience and necessity and that there are not more prudent and feasible means of achieving such public convenience and necessity. Cal. Pub. Res. Code § 25525. "This determination must be made based on the totality of the evidence of record and consider environmental impacts, consumer benefits, and electric system reliability. In essence, the lack of conformity of a project with LORS is to be balanced against its benefits." Los Esteros Critical Energy Facility II Phase 2 ("Los Esteros") (03-AFC-2), Final Decision, 365 (Oct. 19, 2006). The record clearly supports these findings.

2. The Project is required for public convenience and necessity

a. Application of well-established precedent to the facts of this case demonstrates that the Project is required for public convenience and necessity

The Project is required for public convenience and necessity as provided in California Public Resources Code Section 25525 and interpreted in multiple CEC decisions. Since the

phrase "public convenience and necessity" is not defined and has not been interpreted in a judicial decision, the CEC has relied on judicial decisions interpreting identical language in California Public Utilities Code Section 1001 to ascertain the phrase's meaning. Geysers Unit 16 ("Geysers") (79-AFC-5), Final Decision, 104 (Sept. 30, 1981); *see also* Los Esteros Final Decision at 367-68. "Public convenience and necessity" has a broad and flexible meaning. Metcalf Energy Center ("Metcalf") (99-AFC-3), Final Decision, 464 (Sept. 24, 2001); Los Esteros Final Decision at 367-68. "Necessity" in this context, therefore, does not mean an indispensable requisite; instead, "*any improvement which is highly important to the public convenience and desirable for public welfare may be regarded as necessary*." Metcalf Final Decision at 464; Los Esteros Final Decision at 367.

In past decisions in which the CEC has assessed whether a project is required for public convenience and necessity, the CEC first evaluates whether the Project is reasonably related to the goals and policies of its enabling legislation, the Warren-Alquist Act. Metcalf Final Decision at 464; Los Esteros Final Decision at 367. The Act acknowledges "that electrical energy is essential to the health, safety, and welfare of the people of [California] and to the state economy, and that it is the responsibility of state government to ensure that a reliable supply of electrical energy is maintained at a level consistent with the need for such energy." Cal. Pub. Res. Code § 25001; Metcalf Final Decision at 464; Los Esteros Final Decision at 367-68. In addition, the Act "recognizes the interconnected nature of the electrical grid and the interdependence of the people and the economy in one sector of the state upon the people and the economy in the balance of the state." Metcalf Final Decision at 465; Los Esteros Final Decision at 367-68 ("[T]he [Act] declares that it is the responsibility of state government to ensure that the state is provided with an adequate and reliable supply of electrical energy."). Thus, the CEC must review a proposed project's effects from both a local and statewide perspective. Metcalf Final Decision at 465; Los Esteros Final Decision at 368. The CEC then analyzes all of a proposed project's benefits.

The CEC employed this approach in the Metcalf case. There, the CEC began by ascertaining "whether th[e] project [was] reasonably related to the goals and policies" of the

Warren-Alquist Act by evaluating the proposed project from a local and statewide perspective. Metcalf Final Decision at 464-65. In concluding that the project was related to the Act, the CEC initially focused on the project's local impacts, considering several factors: (1) the proposed project would generate electrical energy; (2) the electricity would be consumed locally; (3) the local area used more electricity than was generated locally, and thus increased generation was needed to address demand and reliability concerns; and (4) local industries were "heavily dependent upon a reliable and adequate supply of electrical energy." *Id.* The CEC then determined that the project also served the entire state. The CEC noted recent governmental action emphasizing the need for increased supplies of energy and the essential role of energy "to the functioning of contemporary society." *Id.* Since the project was consistent with those principles, the CEC found that the project was required for public convenience and necessity. *Id.* The CEC reached a similar decision using this same framework in the Los Esteros case. Los Esteros Final Decision at 367-68.

Applying the framework established by past precedent here, there is no question that the Project is reasonably related to the goals and policies of the Warren-Alquist Act. The Project will generate electricity for use in the local Moorpark Sub-Area to meet a need that has been identified by the CPUC after a multi-year, extensive, public planning process. *See* Sections IV.B.2.b, IV.B.4.d *infra*. The Project RAPA confirms that the Project is needed. *See* Carlsbad Energy Center Project ("Carlsbad") (07-AFC-06), Final Decision, 9-5 (June 20, 2012) ("As a practical matter . . ., assurance [of a Project's need] comes in the form of a power purchase agreement . . . ."). Past precedent establishes that the CEC is not constrained by a narrow consideration of public convenience and necessity, but also may consider broader goals supported by the project. Los Esteros Final Decision at 368. As detailed above, the Project supports a number of statewide goals, including facilitating the retirement of OTC plants to benefit the marine environment, supporting the integration of renewables, and maintaining reliability. *See* Section IV.A.3 *supra*.

b. Intervenors' assertions that the Project is not needed are without merit and do not alter the conclusion based on application of precedent

Applicant opposes any assertion by intervenors that the CEC is obligated to reopen fully the basic question of the need for the Project even if California Public Resources Code Section 25525 is triggered. The CEC does not generally consider whether a project is needed, but, in cases where it "must consider whether to override instances of LORS inconsistency or significant unmitigated CEQA impacts, need is one of the factors to be considered." Carlsbad Final Decision at 9-5 ("[Need] informs both the LORS override question . . . and the CEQA balancing of 'specific overriding . . . benefits of the project' against its significant effects on the environment."). However, the CEC recognizes that a power plant project will not move forward as a practical matter unless it obtains a power purchase agreement that is approved by the CPUC. *Id*. An approved power purchase agreement provides "assurance" that the project is needed. *Id.*

Consistent with past precedent, the CEC is not obligated to consider the "public convenience and necessity" of the Project in a vacuum; rather, it can and should consider a variety of factors, including the CPUC's determination of need to procure resources in the Moorpark Sub-Area and the approval of the Project RAPA. To ignore the CPUC's approvals would be novel and bad public policy and inconsistent with the multi-year, carefully-crafted and thoroughly vetted process undertaken by the CPUC. Intervenors, like numerous other stakeholders and members of the public, had adequate opportunity to participate in the CPUC proceedings—and in fact vigorously did so—and the period for challenging the fundamental question of project need has passed. *See* SCE-Sekhon, Tr. Sept. 14, at 238:4 to 238:25.

The Project ensures that LCR need is met in the Moorpark Sub-Area. The Moorpark Sub-Area, located in the Big Creek/Ventura local reliability area, is a transmission-constrained portion of the high-voltage transmission system of SCE. Exhibit PUC Decision Authorizing Long-Term Procurement for Local Capacity Requirements, Ex. No. 7002, TN# 215440-3, at 2 ("D.13-02-015"). LCR need for the Moorpark Sub-Area quantifies the minimum amount of generation that must exist and be available to the CAISO in the sub-area to ensure that the sub-area's transmission system complies with all North American Electric Reliability Corporation,

Western Electricity Coordinating Council, and CAISO planning and operating reliability standards. FSA Part 1 at 4.2-10; D.13-02-015, at 2. LCR need within a sub-area is defined by a particular contingency (*i.e.*, the loss of a transmission line or generating unit) or combination of contingencies. For the Moorpark Sub-Area, LCR need is established by determining the amount of generation necessary to satisfy demand following the loss of Moorpark-Pardee 230 kV lines. FSA Part 1 at 4.2-16 to 4.2-17 & n.4.

The Project is necessary to satisfy LCR need in the Moorpark Sub-Area, and its operation will prevent voltage collapse under high-demand conditions in the event the Moorpark-Pardee 230 kV lines are lost. Applicant-Theaker, Tr. Feb. 8, at 19:11 to 19:19; *see* Carlsbad Final Decision at 9-6. As a result of the impending retirement of approximately 4,900 MW of capacity from OTC power plants throughout southern California, the CPUC in 2013, during its multi-year Long-Term Procurement Plan (LTPP) proceeding, required SCE to procure around 2,000 MW to satisfy LCR needs in the region. D.13-02-015, at 2, 6; Applicant-Beatty, Tr. Feb. 8, at 10:5 to 11:6. To meet the Moorpark Sub-Area LCR need, the CPUC directed SCE to obtain between 215 and 290 MW of generation in the sub-area. Applicant-Theaker, Tr. Feb. 8, at 11:7 to 11:13; D.13-02-015, at 2. The CPUC recognized that "a significant amount of this procurement level be met through conventional gas fired resources in order to ensure LCR needs will be met." D.13-02-015, at 123; Applicant's Rebuttal Test. – Theaker & Beatty Decl. at 3. The CPUC also acknowledged that having in-area generation with characteristics similar to the existing MGS units provides "operational benefits" and minimizes "technical issues." D.13-02-015, at 72.

In determining that SCE should procure 215 to 290 MW of generation, the CPUC analyzed submissions from numerous stakeholders, including the CAISO, regulated utilities, Office of Ratepayer Advocates, and environmental organizations and industry groups. Applicant-Theaker, Tr. Feb. 8, at 13:5 to 13:10 ("The [CPUC] took a lot of input from a lot of parties . . . ."); D.13-02-015, at 68-73 (discussing the varying opinions from several participating stakeholders). The CPUC specifically noted that the CAISO had estimated that 430 MW of LCR need existed in the Moorpark Sub-Area. Applicant-Theaker, Tr. Feb. 8, at 13:11 to 13:24; D.13-02-015, at 72. The CPUC concluded, however, that the CAISO had overstated LCR need,

because it had not sufficiently accounted for transmission alternatives or preferred resources. Applicant-Theaker, Tr. Feb. 8, at 13:11 to 13:24; D.13-02-015, at 71-72. Instead of accepting the CAISO's recommendation, the CPUC found that a minimum of 215 MW was necessary, as the two retiring MGS units had a net-qualifying capacity equal to that amount. Applicant-Theaker, Tr. Feb. 8, at 13:11 to 13:24; D.13-02-015, at 73. The CPUC then accepted the recommendation of the Utility Reform Network that SCE should not be allowed to procure more than two-thirds of the CAISO projection, roughly 290 MW. D.13-02-015, at 72-73; *see also* Applicant-Theaker, Tr. Feb. 8, at 13:11 to 13:24.

Following the CPUC's directive, SCE initiated a RFO to identify resources in the Moorpark Sub-Area to satisfy LCR need. In the RFO, SCE solicited and received bids from various resource types. In all, SCE received over 200 offers from 30 bidders. Applicant-Beatty, Tr. Feb. 8, at 14:9 to 14:10; Applicant's Rebuttal Test. – Theaker & Beatty Decl. at 3-4. Following the RFO, SCE selected all of the preferred resources that were in the final offers, with the exception of some in-front-of-meter energy storage. Applicant-Beatty, Tr. Feb. 8, at 14:11 to 14:14; Applicant's Rebuttal Test. – Theaker & Beatty Decl. at 2-5. Even after accepting all preferred resource bids, however, SCE still needed over 200 MW of additional capacity to satisfy CPUC's mandate. Applicant-Beatty, Tr. Feb. 8, at 14:9 to 14:21; Applicant's Rebuttal Test. – Theaker & Beatty Decl. at 3-4; Exhibit – PUC Decision Approving, in part, Results of CPUC Local Capacity Requirements, Ex. No. 7015, TN# 215446-5, at 2 ("D.16-05-050"). Thus, SCE also selected the Project RAPA. SCE then sought the CPUC's approval for the RFO's results.

In May 2016, the CPUC approved the Project RAPA and other contracts SCE selected as part of its Moorpark RFO. D.16-05-050, at 2. In deciding whether to accept the RFO, the CPUC analyzed testimony from Sedway Consulting, Inc., the Independent Evaluator that reviewed the RFO, and the CAISO, and made its own findings as well. Sedway found that SCE publicized the RFO well and that the solicitation was "robust, as evidenced by the substantial response that [SCE] received from the bidding community." D.16-05-050, at 25; *see* SCE-Sekhon, Tr. Sept. 14, at 131:7 to 131:14 (stating that SCE conducted "extensive outreach"). Sedway concluded that the Project RAPA's "economic and general terms and conditions represent the

best resource available from the RFO." D.16-05-050, at 24; Applicant's Rebuttal Test. – Theaker & Beatty Decl. at 4-5. The CAISO also determined that SCE's RFO was consistent with the CPUC's requirements and "met identified capacity needs." D.16-05-050, at 26; Applicant-Beatty, Tr. Feb. 8, at 14:2 to 14:24. The CPUC concurred with the findings of Sedway and the CAISO, ruling that SCE had complied with its directives from D.13-02-015, that the Project RAPA's terms and conditions "represent[ed] the best resource available," and that the Project was "necessary to meet the identified local reliability need in the Moorpark sub-area." D.16-05-050, at 37; *see* Applicant-Beatty, Tr. Feb. 8, at 14:17 to 14:21.

Both the CPUC and the CAISO have continued to agree that the Project is needed to meet the LCR need of the Moorpark Sub-Area. In December 2016, the CPUC denied challenges to D.16-05-050 from intervenors, all of which are now parties to this proceeding. *See* Exhibit - Order Modifying Decision, Ex. No. 7001, TN# 215440-2, at 1-2 ("D.16-12-030"); Applicant-Beatty, Tr. Feb. 8, at 15:5 to 16:11, 18:2 to 18:10. In response to CBD's argument that the Project was no longer necessary to meet LCR need, the CPUC stated that no evidence warranted reconsideration of its LCR need determination. D.16-12-030, at 25-27. And in its board-approved 2015-2016 Transmission Plan and 2016-2017 Transmission Plan, the CAISO maintained that "[t]he CPUC-approved long-term local capacity procurement for the Moorpark Sub-Area is needed to provide adequate resources to satisfy reliability requirements for the area." 2016-2017 Transmission Plan, Board Approved, Cal. ISO, at 134 (Mar. 17, 2017); 2015-2016 Transmission Plan, Board Approved, Cal. ISO, Appendix D, at 5 (Mar. 28, 2016).

Despite the findings of the CPUC and the CAISO, the intervenors persist in arguing that the Project is unnecessary to satisfy the Moorpark Sub-Area's LCR need. As the CPUC has stated, need determinations cannot be reconsidered constantly, for if they were, procurement of additional generation resources would never take place. D.16-12-030, at 26. To prevent this result, the CPUC will revisit need determinations only when significant errors have occurred. *Id.*; *see* FSA Part 1 at 4.1-146 (noting that "capacity need is evaluated over a ten-year planning horizon due to the length of time it takes to authorize the financing of, select, permit, and construct new power plants"). The CPUC approach promotes certainty, which is essential given

the substantial investments developers and utilities must make in constructing massive infrastructure projects and the indispensable nature of electricity to the general public. *See* Section III.C.4.f *supra* (discussing the integrity required of regulatory processes). These underpinnings formed the basis of the CPUC's December 2016 decision to deny intervenors' challenges to its need determination. *See* D.16-12-030, at 25-27. Intervenors seek to contravene this approach and to reopen the Project's need determination yet again. Their arguments in support of doing so are unpersuasive.

Intervenors' contention that LCR need in the Moorpark Sub-Area is less than 100 MW is incorrect. Intervenors' experts cite to the CAISO's 2015-2016 Transmission Plan, which supposedly assumed that MGS Unit 3 would retire and found that the Moorpark Sub-Area had a 234 MW LCR need. Testimony of Jim Caldwell, Ex. No. 3047, TN# 215439, at 4 ("Caldwell Opening Test."); *see* CBD-Powers, Tr. Feb. 7, at 235:13 to 235:25. Relying on the CAISO's report, intervenors' experts assert that the actual deficiency is somewhere between 15 and 90 MW, because large amounts of energy storage are available and Applicant has stated publicly that MGS Unit 3, which can produce 130 MW of capacity, will remain operational. Caldwell Opening Test. at 4; EDC-Vespa, Tr. Feb. 7, at 257:20 to 258:16; CBD-Powers, Tr. Feb. 7, at 235:19 to 235:25.

These claims lack merit. The CAISO concluded—in the very document on which intervenors' experts rely—that "*with CPUC approval of SCE submitted procurement selection for local capacity in the Moorpark sub-area, it is expected that there is no [LCR] deficiency*." 2015-2016 Transmission Plan, Board Approved, Cal. ISO, Appendix D, at 5 (Mar. 28, 2016) (cited in Mr. Caldwell's Opening Testimony). As discussed above, energy storage is not a feasible alternative to the Project, and Mr. Caldwell concedes that the *CPUC* assumed MGS Unit 3 would remain operational when making its LCR need determination. Section III.C.3.b *supra*; Testimony of Jim Caldwell, Ex. No. 3047, TN# 215439, at 3-4 (stating that the CPUC "implicitly assumed that Mandalay 3 . . . was operational"); Applicant-Theaker, Tr. Feb. 8, at 21:12 to 22:3. MGS Unit 3 does not currently have a contract to provide electricity. Without a contract, MGS Unit 3 will likely be retired in the near future and will not be used by a utility to

satisfy LCR need for their transmission systems. Section IV.B.4.b *infra*; Carlsbad Final Decision at 9-5.

Intervenors also assert that there is an overabundance of electricity on the California grid. *See, e.g.*, Exhibit – Los Angeles Times Article, Ex. No. 7032, TN# 215785. Sufficient capacity on the grid as a whole, however, does not address the problem of insufficient capacity in local, transmission-constrained areas like the Moorpark Sub-Area. Applicant-Theaker, Tr. Feb. 8, at 24:12 to 24:19. Having adequate supplies of local capacity in these areas is paramount, because a generating unit's location in the network relative to where a contingency occurs correlates to the unit's ability to respond effectively to the contingency. *Id.* at 11:16 to 11:24.

It is apparent based on the foregoing arguments that the intervenors are discounting the risks that may arise following the loss of the Moorpark-Pardee 230 kV lines if there are insufficient local generation sources in the Moorpark Sub-Area to satisfy LCR needs. In such circumstances, a controlled interruption of service to customer load ("load shedding") or uncontrolled loss of load ("blackout") within the sub-area could result. Applicant-Theaker, Tr. Feb. 8, at 12:18 to 13:2, 72:17 to 72:20. Without adequate local generation, power beyond that which the transmission lines are rated to carry could flow onto the remaining lines, thereby surpassing the current-carrying capabilities of the conductors in those lines. CAISO could react by shutting off load in the sub-area; or certain transmission lines could suffer a fault, causing protective relays to remove the lines from service automatically. *See id.* at 11:14 to 13:2. Voltage collapse could occur, as a result, or to prevent the possibility of voltage collapse, the CAISO could intentionally shed load in the sub-area. Applicant-Beatty, Tr. Feb. 8, at 71:2 to 73:18. These calamities present potentially tragic outcomes. Applicant-Theaker, Tr. Sept. 14, at 219:9 to 220:13.

The Project addresses reliability concerns by maintaining reliable electric service and meeting the Moorpark Sub-Area's LCR need. *See* Metcalf Final Decision at 465. The Project ensures reliability in the Moorpark Sub-Area by providing both real and reactive power. Applicant-Theaker, Tr. Feb. 8, at 12:7 to 12:17. Real power maintains flows into the sub-area below the lines' ratings and reduces the amount of reactive power that shoe import lines

consume; reactive power maintains acceptable voltage on the sub-area's transmission system. *Id.* Without the Project, the Moorpark Sub-Area has inadequate quantities of in-area generation to avoid the blackouts stemming from the loss of the Moorpark-Pardee 230 kV lines. Applicant's Rebuttal Test. – Theaker & Beatty Decl. at 6-7.

In addition to satisfying LCR need in the Moorpark Sub-Area, the Project also promotes electrical reliability within the state and integration for the development of renewable energy sources. *See* Metcalf Final Decision at 465; FSA Part 1 at 3-9. The Project will be used to provide electricity when it is most needed, during peak demand periods. *See* FSA Part 1 at 4.1-142. This function of the Project is vitally important: As the Warren-Alquist Act recognizes, a blackout in one part of the state may cause a chain reaction of reliability and economic problems throughout the state due to the interdependent nature of the state's economy and people. *See* Metcalf Final Decision at 465. And although the Project is not itself a source of renewable energy, it "facilitates the integration of renewable energy into the electricity system by providing [262] MW of backup generation to even out fluctuations in renewable generation due to factors such as changes in wind velocity and solar shading by passing clouds." *See* Carlsbad Final Decision at 9-4; FSA Part 1 at 3-2 to 3-3, 4.1-142 ("Natural gas-fired generation is one of the few technologies that can provide significant quantities of new, cost-effective dispatchable capacity to meet ramping needs caused by high penetration of variable energy resources.").

Based on the foregoing, it is evident that the Project is needed and relates to the Warren-Alquist Act's goals and policies. The Project will provide electricity to the transmission-constrained Moorpark Sub-Area. Without the Project, the sub-area is at risk of load shedding or voltage collapse, both of which would have disastrous consequences for the region.

3. The Project offers many additional benefits, further indicating that it is required for public convenience and necessity

In addition to satisfying LCR need, the Project provides many other "improvement[s] which [are] highly important to the public convenience and desirable for public welfare." Metcalf Final Decision at 464. See Section IV.A.3 above for a discussion of the additional benefits associated with the Project.

4. There are not more prudent and feasible means of achieving such public convenience and necessity

CEC precedent establishes that only the existence of a *more* prudent and feasible means—that is, an alternative that is better at serving the public convenience and necessity than the proposed project—prevents the CEC from overriding a project's noncompliance with applicable LORS. Cal. Pub. Res. Code § 25255; Metcalf Final Decision at 466 & n.161. There is "no clear or meaningful distinction between the words 'prudent' and 'feasible'" in California Public Resources Code Section 25255. Metcalf Final Decision at 466. To determine whether such an alternative exists, the CEC instead balances relevant factors, including comparisons of the environmental impacts, consumer benefits, and electric system reliability associated with the proposed project and the alternatives, "while giving substantial but not overwhelming weight to avoiding LORS noncompliance." *Id.*; *see also* Cal. Pub. Res. Code § 25255; Cal. Code Regs. tit. 20, § 1745.5(a)(3). The CEC also has considered the time needed to deploy the proposed project versus alternatives and whether a suitable construction site exists for the Project or alternative facilities. Metcalf Final Decision at 468 (indicating that in Metcalf, timing was a "critical consideration"); Geysers Final Decision at 105. Reviewing these factors in this case, it is apparent that there are no (1) alternative generation sources or (2) alternative locations for the Project that constitute more prudent and feasible means of achieving similar public convenience and necessity as the Project.

a. No alternative generation source constitutes a more prudent and feasible alternative

Following a robust analysis of alternative generation sources, the record demonstrates that the Project is more prudent and feasible than any alternative generation source (*i.e.*, the alternatives are incapable of serving the public convenience and necessity in a manner as suitable as the Project does). Applicant, CEC Staff, the CAISO, and intervenors have each analyzed numerous alternative generation sources, including MGS Unit 3, the Ellwood peaker, and preferred resources such as demand response, solar panels, and energy storage batteries. Although the CAISO concluded that combinations of preferred resources are technically capable of satisfying Moorpark's LCR need, each of the foregoing generation sources involves

substantial reliability and environmental risks that are not associated with the Project. Section III.C.3 *supra*. Additionally, the procurement process necessary to develop these generation sources would take significant time and resources, and it is unlikely that any of the alternatives could be online in time to replace the retiring OTC facilities. Section III.C.4 *supra*. Finally, these generation sources will result in greater costs than the Project, eliminating much of the economic benefit that will be derived from the Project. Sections III.C.1, III.C.6 *supra*. Thus, none of the alternative generation sources, alone or in combination, are better than the Project at serving public convenience and necessity. *See* Cal. Pub. Res. Code § 25255; Metcalf Final Decision at 466 & n.161. These alternatives, therefore, do not prevent the CEC from making an override finding should it determine that one is necessary.

b. MGS Unit 3 and the Ellwood peaker are not more prudent and feasible than the Project

MGS Unit 3 and the Ellwood peaker are substantially less prudent and feasible when compared to the Project. Any perceived benefits associated with the ongoing operation of these units are far surpassed by several crucial disadvantages in regard to their efficiency, environmental impact, and electricity reliability.

First, both facilities are old and inefficient. MGS Unit 3 and Ellwood were commissioned in 1970 and 1974, respectively. FSA Part 1 at 3-5; CPUC Proposed Decision of ALJ DeAngelis Mailed 4-7-17 – A.14-11-016, (Rev. 3), TN# 221189, at 6 ("Ellwood Proposed Decision"). In fact, Applicant's expert referred to MGS Unit 3 as a "dinosaur," while the City's expert Mr. Caldwell dubbed the facility "old girl;" designations equally applicable to the Ellwood peaker. Applicant-Rubenstein, Tr. Feb. 9, at 154:18 to 154:21; City of Oxnard-Caldwell, Tr. Feb. 8, at 99:24 to 99:25; *see* Applicant-Theaker, Tr. Sept. 14, at 217:22 to 218:6 (noting that MGS Unit 3, at nearly 50 years old, was approaching "the end of its engineering lifetime").

The plants' antiquated design and components make them markedly inefficient in comparison to the Project. The heat rates of MGS Unit 3 and Ellwood are substantially higher than that of the Project. FSA Part 1 at 4.1-153, GHG Table 4. The facilities' air pollutant

emissions are of even greater concern. In comparison to the Project, MGS Unit 3 will emit nearly 46, 10, 5, and 3 times as many pounds per hour of NO_x, CO, volatile organic compounds, and PM_{10}, respectively. FSA Part 1 at 4.1-28; Applicant-Rubenstein, Tr. Feb. 9, at 133:13 to 133:25. Likewise, the Project will release notably less GHGs. FSA Part at 4.1-153 (noting that the Project will produce 0.484 metric tons of CO_2 per megawatt hour, while Ellwood will emit 0.735 and MGS Unit 3 1.818). And because the Project is fast-ramping, it counts towards flexible resource adequacy requirements and "further contribute[s] to GHG emission reductions by increasing the amount of renewable energy that can be integrated into the electricity system." *Id.* at 4.1-150 to 4.1-152.

Second, the emission restrictions of MGS Unit 3 and the Ellwood peaker significantly limit their use, eviscerating the reliability benefit with which the CPUC is concerned. Both facilities have extremely aggressive emissions restrictions. MGS Unit 3 is permitted to operate approximately 83 hours per year, while Ellwood's air permit allows it to operate 380 hours (16 full days) per year. FSA Part 1 at 4.1-28; Ellwood Proposed Decision at 14. As the CPUC has acknowledged, the facilities' minimal annually-permitted operating hours may be insufficient to address the contingency for which the Project has been procured. *See id.* at 13-14 ("The restrictions on Ellwood's operation raises questions about whether it would even be available to operate in the event of [a contingency]."). In contrast, the Project is permitted for a maximum of 2,150 hours per year (nearly 90 days) at full-load operation. FSA Part 1 at 4.1-26. Although it is expected to operate only around 964 hours per year, the Project's less stringent emissions restrictions provide increased levels of LCR reliability in comparison to MGS Unit 3 and Ellwood.

Third, neither facility is capable of satisfying reliability needs in the Moorpark Sub-Area. MGS Unit 3 will provide only 130 MW of capacity, FSA Part 1 at 3-5; Ellwood will offer even less, only 54 MW. Ellwood Proposed Decision at 2. Yet, between 215 and 290 MW of capacity is needed to meet Moorpark's LCR need. Applicant-Theaker, Tr. Feb. 8, at 11:7 to 11:13; D.13-02-015, at 2. Thus, unlike the Project, which will provide 262 MW of capacity, neither plant alone nor both plants together will fulfill that need, and additional resource procurement will be

necessary if MGS Unit 3 or Ellwood is used in lieu of the Project. As discussed in Section III.C.4, however, further procurement at this stage in the proceeding could take several years and result in disastrous effects on the Moorpark Sub-Area's reliability and the environment.

Fourth, MGS Unit 3 and Ellwood have not been contracted for long-term deployment. MGS Unit 3 currently has no contractual obligation to operate. Applicant-Theaker, Tr. Sept. 14, at 217:7 to 218:16; Applicant-Theaker, Tr. Feb. 8, at 25:20 to 26:13 ("[T]he notion that a resource the size of Mandalay 3 would continue to operate without a contract indefinitely is not a good assumption."). Ellwood currently operates under a short-term contract expected to terminate in May 2018. Ellwood Proposed Decision at 6 & n.15. In November 2014, SCE submitted an application for approval of a 10-year tolling agreement for Ellwood and a refurbishment that would "extend the life of the plant by an additional 30 years, to 2048." *Id.* at 2, 6. But on September 28, 2017, the CPUC rejected the application. Without a long-term contract in place, it is impossible to verify that the plants "will be able to generate sufficient revenue from sales of . . . electricity to cover [their] costs." Carlsbad Final Decision at 9-5; Applicant-Theaker, Tr. Sept. 14, at 217:7 to 218:16. Given that the CPUC has approved the Project's 20-year RAPA, the Project is better than both MGS Unit 3 and Ellwood in this regard as well. Applicant's Rebuttal Test. – Theaker & Beatty Decl. at 4; *id.* at Ex. A, 4.

Finally, the plants suffer from additional detriments. If either facility is used in lieu of the Project, all of the economic benefits derived from the Project will be lost. *See* Section IV.A.3.f *supra*; Opening Brief-Applicant at 124-25.

It is evident based on the foregoing that neither MGS Unit 3 nor the Ellwood peaker constitute more prudent and feasible means of achieving the public convenience and necessity that the Project will produce. Those facilities, instead, will emit more air pollutants, while providing less reliability benefits. This Committee should discard them from consideration.

c. Preferred resources are not more prudent and feasible than the Project

Preferred resources are not a more prudent and feasible means of achieving the same level of public convenience and necessity as the Project. Rather, the record demonstrates that while preferred resources may be technically feasible, they remain unproven and speculative options, both when considered separately and in combination. As discussed in Section III.B.1.b, each of the preferred resources considered in this proceeding suffers from one or more of the following problems: (1) they are cost prohibitive; (2) inadequate quantities are present in the Moorpark Sub-Area; (3) they are unable to serve reliability needs to the level of the Project; or (4) unrealistic assumptions in the CAISO Study demonstrate their feasibility.

In addition to the risks specific to the various categories of preferred resources, nothing in the record suggests that a combination of preferred resources could be procured and deployed by the OTC deadline of December 31, 2020. To the contrary, the evidence establishes that those tasks cannot be completed by the deadline. Thus, any attempt to procure preferred resources in lieu of the Project is likely to result in one or more inferior outcomes: (1) antiquated, inefficient fossil fuel sources continue to operate to serve LCR need, emitting air pollutants and GHGs at a rate substantially greater than that of the Project; (2) the outfall, turbine structures, and the stacks of MGS Units 1 and 2 remain on the Oxnard shoreline, impacting beach and visual resources in the area; or (3) LCR need not being met, exposing the region to load shedding or voltage collapse, both of which may result in avoidable but significant ham to the region's economy and risks to public safety. Section III.C.4 *supra*.

The foregoing discussion establishes that preferred resources are not a more prudent and feasible alternative than the Project. At this stage in their development, such resources simply do not provide reliability benefits on par with the Project. Although the future of preferred resources appears promising, relying on the unproven adoption of large quantities of such resources today will leave the Moorpark Sub-Area exposed to unnecessary risks.

d. Past analyses of preferred resources establish that they do not amount to a more prudent and feasible alternative than the Project

When completing its RFO for the Moorpark Sub-Area, SCE had to comply with the state's loading order, which sets forth the state's policy of using preferred resources rather than fossil-fuel generation sources. FSA Part 1 at 4.2-9 [Alternatives]. The loading order provides that new electricity needs must first be met with energy efficiency and demand response, then with renewable energy and distributed generation, and finally with efficient, utility-scale natural gas generation. FSA Part 1 at 4.2-11 [Alternatives]. The CPUC and Sedway Consulting, Inc. concluded that SCE's RFO satisfied the terms of the loading order, because SCE had conducted a "robust" solicitation and selected all final bids for preferred resources, with the exception of some in-front-of-meter energy storage. *See* Section IV.B.2 *supra*.

But even after SCE accepted all of the final bids for preferred resources in its Moorpark Sub-Area RFO, it had obtained only 12 MW of preferred resource capacity. As a result, even after intentionally decreasing its LCR need determination for the Moorpark Sub-Area to reflect increased availability of preferred resources, D.13-02-015, at 71-72; FSA Part 1 at 4.1-146, the CPUC found that "there were insufficient cost-effective preferred resource bids in the Moorpark sub-area to meet the identified [LCR] need. Therefore the Puente Project contract is necessary to meet" that need. D.16-12-030, at 30 (modifying Finding of Fact 13 in D.16-05-050). The CBD challenged the CPUC's decision in an application for rehearing, but the CPUC denied CBD's application, reinforcing its earlier conclusion that SCE had complied with the loading order, because SCE "received nowhere near enough cost-effective preferred resource offers to meet the minimum required capacity need." *Id.* at 17.

CEC Staff agreed with the CPUC's rulings. CEC Staff concluded that preferred resources "are not expected to be available in sufficient quantities by the early- to mid-2020s to obviate the need for dispatchable, flexible, natural gas-fired generation." FSA Part 1 at 4.1-141. Natural gas-fired generation, according to CEC Staff, is necessary "as part of the set of resources that will maintain local reliability" in transmission-constrained regions of southern California. *Id.* at 4.1-142.

e. The CAISO Study does not change the conclusion that preferred resources do not represent a more prudent and feasible alternative than the Project

As discussed previously, the CAISO Study does not alter the results of previous analyses of preferred resources. Rather, the Study merely opined as to whether combinations of preferred resources could be used to meet LCR need in the Moorpark Sub-Area. Although the Study answered that question affirmatively, it did not answer other critically pertinent questions, such as: whether sufficient quantities of preferred resources existed in the sub-area, whether such resources could be procured and deployed on time, and whether such resources could be at least cost to ratepayers. Practical realities, moreover, demonstrate that preferred resources offer less reliability benefits compared to the Project and that they could not be procured and deployed in time to meet LCR need. Sections III.C.3, III.C.4 *supra*.

f. None of the alternative sites constitute a more prudent and feasible alternative to the Project

As discussed in detail in Opening Brief-Applicant and Reply Brief-Applicant, the record demonstrates that there are no alternative sites that constitute a more prudent and feasible alternative to the Project. Opening Brief-Applicant at 90-101; Reply Brief-Applicant at 54-61. Each of the alternative sites that were considered or recommended for consideration during this proceeding either would fail to achieve project objectives to the same degree as the proposed Project at the MGS property, or would not reduce the Project's potential environmental impacts. Opening Brief-Applicant at 90-101; Reply Brief-Applicant at 54-61.

Applicant evaluated eight alternative sites, six of which were suggested by the City, while the FSA analyzed five alternatives in detail, including a No-Project Alternative, two alternative sites, and two conceptual site reconfigurations. *See* Applicant's Alternative Sites Summary, Ex. No. 1068, TN# 207096, at 1 ("Applicant's Alternative Sites Summary"); FSA Part 1 at 1-4, 4.2-1 to 4.2-163; Opening Brief-Applicant at 90-103. In addition to the detailed analyses of five alternatives, CEC Staff also considered other potential brownfield sites and other alternative sites suggested by the City of Oxnard. FSA Part 1 at 4.2-11 to 4.2-15, 4.2-21 to 4.2-33. None of the alternatives analyzed by Applicant and CEC Staff would meet the project

objectives to the same extent as the Project, and others would fail to reduce or avoid any potentially significant impacts of the proposed Project. *See* Applicant's Alternative Sites Summary at 8-14, Table 2, 43-44; FSA Part 1 at 4.2-3, 4.2-148 to 4.2-157.

Special attention was given to two alternative sites, the Del Norte/Fifth Street Off-Site Alternative ("Del Norte Site") and the Ormond Beach Area Off-Site Alternative ("Ormond Beach Site"). As discussed in Opening Brief-Applicant, however, these two off-site alternatives each have environmental issues that make them environmentally inferior to the proposed Project location, including significant and unavoidable impacts on aviation. Opening Brief-Applicant at 92-101; *see also* Reply Brief-Applicant at 55-57. Because alternative sites would fail to reduce or avoid any potentially significant impacts of the proposed Project—and could have serious environmental impacts of their own—the alternative sites are not more prudent and feasible than the proposed Project location. *See* Applicant's Alternative Sites Summary at 8-14, Table 2, 43-44; FSA Part 1 at 4.2-3, 4.2-148 to 4.2-157.[3]

5. The CEC consulted with the City of Oxnard to attempt to correct or eliminate any alleged LORS noncompliance

In the event the CEC determines that a Project is not in compliance with a LORS, "it shall consult and meet with the . . . governmental agency concerned to attempt to correct or eliminate the noncompliance." Cal. Pub. Res. Code § 25523(d)(1); *see also* Cal. Code Regs. tit. 20, § 1742(d) (requiring staff, in its assessment of the project, to describe its efforts with the appropriate governmental agency to correct or eliminate LORS noncompliance). Consistent with its duties pursuant to the Warren-Alquist Act, the CEC consulted with the City throughout this proceeding in hopes of remedying the Project's alleged noncompliance with LORS.

Contrary to the City's allegations, the CEC has satisfied its statutory consultation obligation. The City claims that the CEC failed to consult with it to resolve the Project's conflicts with land use LORS, particularly 2030 General Plan Policy SH-3.5. Opening Brief-

[3] The City's claims that the proposed Mission Rock facility is a more prudent and feasible alternative than the Project are meritless. Nothing in the record indicates that the proposed site for the facility can accommodate a power plant, let alone that the finished plant is superior to the Project. *See* Reply Brief-Applicant at 59.

City of Oxnard at 16. As a threshold matter, the record does not support the City's assertions that the Project conflicts with any LORS, including Policy SH-3.5 or another land use LORS, and thus CEC Staff had no duty to consult with the City. Opening Brief-Applicant at 77-83, 107-24; Reply Brief-Applicant at 44-54, 61-68; Staff's Opening Brief, TN# 220999, 1-13 ("Puente is consistent with all applicable [LORS]."); Cal. Pub. Res. Code § 25523(d)(1) (requiring consultation only in the event of LORS *noncompliance*). In any event, even if the Project is not in compliance with a land use LORS, evidence establishes that the CEC adequately consulted with the City on multiple occasions. As detailed in CEC Staff's opening brief, CEC Staff discussed the Project's alleged noncompliance with land use LORS, specifically Policy SH-3.5, during public workshops held on July 21, 2016, and January 10, 2017, in addition to various other meetings or communications between CEC Staff and the City. Staff's Opening Brief, TN# 220999, at 11-13. S*ee generally* Land Use FSA Workshop Presentation, TN# 215471; Presentation – Preliminary Staff Assessment Land Use, TN# 212741-5; FSA Workshop Recording 1-10-17, TN# 215559, at 11:00 to 45:15 (serving as an example of a discussion between CEC Staff and other parties, including the City, regarding land use LORS noncompliance); Revised Preliminary Staff Assessment Part 1, TN# 211885-1, at 4.6-1 n.1. Through these conversations, CEC Staff fulfilled Section 25523(d)'s consultation requirement.

Further record evidence supports a conclusion that CEC Staff complied with Section 25523(d). *First*, nearly three years into this proceeding, the City cannot point to any evidence demonstrating that it requested consultation from CEC Staff that was denied. The City, CEC Staff, and other parties have discussed the Project on countless occasions, both in public and private. If the City thought that consultation was lacking, it is unclear why such a criticism was not made prior to January 24, 2017. Statement of the City of Oxnard Regarding Consultation Under Public Resources Code Section 25523(d)(1), Ex. No. 3055, TN# 215545-1.

Second, that the City has not recommended a modification to the Project to achieve LORS compliance indicates that any consultation between CEC Staff and the City would be futile. In the Los Esteros case, the CEC similarly concluded that consultation was satisfactory because the City opposed the project and was unwilling to consider a zoning change. *See* Los

Esteros Final Decision at 3-4. Similarly, here, there is little doubt that the City opposes the Project. Policy SH-3.5, in fact, was designed specifically to prohibit the Project's completion. Although the City failed to write the policy in a manner that achieved that result, *see* Opening Brief-Applicant at 109-16; Reply Brief-Applicant at 62-65, it is an indication that the City had and has no intention of allowing the Project to be built on the MGS property. Given the City's opposition, it is doubtful that additional consultation would have changed the outcome

6. LORS Override Conclusion

Based on the foregoing, if the CEC should determine that a LORS Override is required to certify the Project, the record indicates that the Project is required for public convenience and necessity and that there are not more prudent and feasible means of achieving such public convenience and necessity. Cal. Pub. Res. Code § 25525.

V. GIVEN THE LACK OF FEASIBLE ALTERNATIVES, THE CEC MAY DECLINE TO INCORPORATE CERTAIN OF THE RECOMMENDATIONS OF THE CALIFORNIA COASTAL COMMISSION

The Warren-Alquist Act requires that for a project located in the coastal zone, the CEC adopt the recommendations contained in the CCC's 30413(d) Report unless it finds "that the adoption of the provisions specified in the report would result in greater adverse effects on the environment or . . . would not be feasible." Cal. Pub. Res. Code § 25523(b). Here, the 30413(d) Report recommends relocating the Project to an inland site due to coastal hazards and biological resources, and recommends alternative measures for addressing these concerns in the event that it is not feasible to relocate the Project to an inland location. CCC 30413(d) Report, Ex. No. 3009, TN# 213667, at 14, 37. Evidence demonstrates that the Project will not be at significant risk of coastal hazards and will not result in a significant environmental impact to biological resources. Opening Brief-Applicant at 17-77; Reply Brief-Applicant at 16-44. Furthermore, because all of the analyzed alternatives, including alternative inland sites, are environmentally inferior and infeasible, the CEC may disregard the CCC's recommendations to relocate the Project. Section III *supra*; Opening Brief-Applicant at 90-103; Reply Brief-Applicant at 54-61.

VI. CONCLUSION

The unprecedented evidentiary record is unequivocal: the Project as proposed satisfies all applicable requirements, and the CEC can make all findings necessary to certify the Project. The Project will not cause any significant environmental impact and complies with all LORS, and therefore it is not necessary for the CEC to adopt a CEQA Override or a LORS Override. However, should the CEC deem either or both of these actions to be necessary or appropriate, the record supports making both a CEQA Override and LORS Override in this case. The Project is needed to satisfy LCR need in the Moorpark Sub-Area and provides numerous additional benefits. A robust alternatives analysis, including the CAISO Study that is the focus of this CAISO Brief-Applicant, demonstrates that there are no more prudent and feasible means of meeting the LCR needs of the Moorpark Sub-Area. Based on this record, substantial evidence supports only one conclusion: the CEC must certify the Project.

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Respectfully submitted,

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