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STATE OF CALIFORNIA

ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

In the matter of: DOCKET NO. 15-AFC-01

Application for Certification of the **PUENTE POWER PROJECT**

CITY OF OXNARD'S REPLY BRIEF

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INTRODUCTION

As proposed by and NRG and evaluated by staff, Puente is fundamentally rigid.

Cemented by a contract with Southern California Edison that is both technology- and site-specific, in the eyes of NRG, Puente cannot be changed. Staff take a similar view and have at various points argued that they have no power to change this project.

But Puente's unrelenting rigidity will cause real-world harm to the environment, and the people of Oxnard. Siting a large power plant in a dune area designated as endangered species habitat will significantly impact multiple special-status species, and conflicts with land use plans and state law designed to protect such areas. Placing a new critical facility so near the open ocean needlessly exposes it to increasingly intense coastal hazards, and violates City planning intended to avoid those hazards. And erecting a new polluting resource in a city already suffering from an excessive pollution burden only exacerbates the history of environmental injustice to that community.

Faced with these conflicts, NRG and staff do not propose to change Puente to reduce or eliminate its significant impacts and land use inconsistencies. Instead, they attempt to change the world to accommodate Puente. Clear land use restrictions suddenly do not mean what they say or somehow do not apply to this project. Straightforward evidence of significant environmental impacts is suddenly found lacking. These contortions lead staff and NRG to conclude, contrary to the evidence and common sense, that constructing Puente will not result in a single significant environmental impact or legal violation. But contortions cannot change the law, the record, or reality: Puente remains the wrong project in the wrong location.

ARGUMENT

I. Staff and NRG Cannot Avoid Puente's Obvious Conflicts with Applicable Land Use Regulations.

In their opening briefs both staff and NRG argue that Puente would comply with all applicable land use LORS. In reality, Puente conflicts with numerous standards in the City's General Plan, Local Coastal Program, and the Coastal Act. Unless Puente is modified or relocated to avoid these plain land use conflicts, it will result in violations of state and local law and corresponding environmental impacts.

A. Puente's Conflict with General Plan Policy SH-3.5 Must Be Considered In the Commission's LORS Analysis.

The City's General Plan Policy SH–3.5 was adopted to avoid placing large-scale energy infrastructure in natural hazard areas. The policy expressly prohibits "new electricity generating facilities of 50 megawatts or more" in "areas where the City has documented that the location of such facilities is threatened by seismic hazards, wildfire, flooding, or coastal hazards." The City's opening brief shows that Puente directly conflicts with General Plan Policy SH–3.5. Staff and NRG offer various theories to avoid Puente's direct conflict with this policy, but, as explained below, each is unavailing.

1. Policy SH-3.5 Fully Applies to the Puente Project.

Faced with Puente's indisputable inconsistency with General Plan Policy SH-3.5, NRG contends that this policy cannot be effective unless it is certified by the Coastal

¹ Ex. 3002, Exhibit A at 6.

² City Br. at 6-7; *see also* Ex. 2000 at 4.7-11.

Commission as part of the City's LCP. This argument fundamentally misunderstands how the Coastal Act's land use planning process interfaces with a General Plan's public health and welfare regulations.

While the Coastal Act sets certain minimum standards for land use planning in the coastal zone, it "does not claim to preempt" or otherwise control all local public health and welfare regulations in the coastal zone.³ Rather the Coastal Act only sets minimum standards for coastal land use planning. It does not bar agencies from adopting land use or other regulations that are more restrictive than an LCP as long as the regulations do not conflict with the LCP's base protections.⁴

Here, the City's General Plan Amendments establish health and safety regulations needed to adapt to climate change and protect the community from natural hazards. In so doing, they are consistent with state law that directs this very action. The Legislature has mandated that general plans cover numerous topics and establish regulations that go beyond simply designating a municipality's general land uses in the land use element. A general plan must also include a "safety element" for "protection of the community" from numerous hazards, including "seismically induced surface rupture . . . tsunami . . . flooding . . . wildland and urban fires. The required safety element identifies potential "[e]xisting and planned development in flood hazard zones, including structures, roads,

³ *Yost v. Thomas* (1984) 36 Cal.3d 561, 571.

 $^{^4}$ Id

⁵ See Gov. Code § 65302 (requiring that general plans include a land use element, circulation element, housing element, conservation element, an open-space element, a noise element, and, most-significantly, a safety element); Gov. Code § 65302(a) (A land use element "designates the proposed general distribution and general location and extent of the uses of the land").

⁶ Gov. Code § 65302(g)(1).

utilities, and essential public facilities."⁷ Local agencies are required to "[e]stablish a set of comprehensive goals, policies, and objectives . . . for the protection of the community from the unreasonable risks of flooding" including "[a]voiding or minimizing the risks of flooding to new development" and locating public facilities outside of flood zones.⁸

To contest General Plan Policy SH-3.5, which the City added to its safety element, NRG's relies on a 1987 Attorney General Opinion that considered whether legislative actions adopted to implement a General Plan's *land use element* require Coastal Commission certification as part of an amended local coastal program. The Opinion concluded that if local agencies prohibit entire land uses that are expressly permitted by an LCP, that prohibition should first be certified by the Coastal Commission. Despite NRG's claims to the contrary, this Opinion does not suggests that every ordinance or regulation that establishes additional limitations on uses in the coastal zone requires adoption in an LCP and certification by the Coastal Commission.

Notably here, when it adopted Policy SH-3.5, the City did not change the permitted coastal land uses in the General Plan or the certified LCP. These plans still permit energy production generally at the Mandalay Generating Station site. However, pursuant to the Legislature's direction in state planning law, the City amended the General Plan's safety element to minimize risks associated with siting new large-scale

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⁷ Gov. Code $\S 65302(g)(2)(A)(x)$.

⁸ Gov. Code § 65302(g)(2)(B)(i), (iv).

⁹ AG Opinion 87-405 at 2-3.

¹⁰ *Id.* at 7.

¹¹ See Ex. 3002.

energy infrastructure in documented hazard zones. This action is independent from the coastal land use designation process under the Coastal Act and required no action from the Coastal Commission.¹²

Moreover, courts have uniformly held that local agencies retain wide land use control in the coastal zone outside of the LCP certification process. The California Supreme Court observed that "once an LCP has been approved by the Commission, a local government has discretion to choose what action to take to implement its LCP: it can decide to be more restrictive with respect to any parcel of land, provided such restrictions do not conflict with the act." Similarly, the court in Conway v. City of Imperial Beach held that not all coastal land use regulations require Coastal Commission certification before going into effect. In Conway, city voters adopted a moratorium on new development in the coastal zone. But the court ruled that the moratorium did not require Coastal Commission certification before becoming effective. It held that the Coastal Act is clear "that acts by local governments which do not 'authorize[a new] use of a parcel of land . . . need not be construed to be 'amendments' requiring Coastal Commission certification."

It is undisputed that Policy SH-3.5 did not authorize any new use in the coastal zone—in fact, it did not alter designated land uses at all. To the extent that the AG Opinion could be read broadly as requiring *any* land use restriction that applies in the

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¹² See Pub. Res. Code § 30500(b) (amendments for "a certified local coastal program" are distinct and "shall not constitute an amendment of a general plan" under state law).

¹³ *Yost*, 36 Cal.3d at 572-573.

¹⁴ Conway v. City of Imperial Beach (1997) 52 Cal. App. 4th 78, 88.

coastal zone to require certification before becoming effective, the opinion conflicts with judicial (and the Coastal Commission's¹⁵) interpretation of the Coastal Act and deserves no weight. This is particularly true because the cases construing the identical sections of the Coastal Act that the AG Opinion addresses directly contradict such a broad reading of the act.¹⁶ In sum, the City had full authority to adopt Policy SH-3.5 (with immediate effect) without seeking certification from the Coastal Commission.

2. The Coastal Commission Recognized that Policy SH-3.5 Applies to Puente and Became Effective in 2016.

NRG also attempts to avoid Puente's direct violation of Policy SH-3.5 by arguing that the Coastal Commission's 30413(d) Report "stated that . . . Policy became effective only outside of the coastal zone." This argument baldly misrepresents the Coastal Commission's actual statements in its 30413(d) Report.

Nowhere did the Coastal Commission find, or even suggest, that it must certify Policy SH-3.5 before it would become effective in the coastal zone. To the contrary, after reviewing the City's General Plan amendment adopting Policy SH-3.5, the Coastal Commission expressly acknowledged that the "General Plan amendment *became*

¹⁵ As discussed below, giving immediate effect to the City's adoption of General Plan Policy SH-3.5 is consistent with the Coastal Commission's conclusion in this case. *See* Section I.A.2.

¹⁶ See Dept. of Alcoholic Beverage Control v. Alcoholic Beverage Control Appeals Bd. (2002) 100 Cal.App.4th 1066, 1076 ("[A]n opinion of the Attorney General . . . is not controlling legal authority. This is particularly true where, as here, there is case authority in existence interpreting the statute at issue."); Orange County Water Dist. v. Public Employment Relations Bd. (2017) 8 Cal.App.5th 52, 66 (acknowledging that "the Attorney General's opinion is not binding," and only will be considered after establishing that "there is no case authority on this issue").

¹⁷ NRG Br. at 112.

effective on July 7, 2016." ¹⁸ As part of the 30413(d) Report, however, the Coastal Commission declined to consider Puente's conflict with Policy SH-3.5 because the Coastal Commission only had authority to review Puente's consistency with the City's certified LCP and the Coastal Act, not with the City's General Plan more broadly. ¹⁹ The Coastal Commission made this position explicit in response to comments from the City:

This General Plan amendment is acknowledged on page 8 of the proposed 30413(d) report. However, as explained in Section I.B... of the report, the Commission's review of the proposed project is limited to its conformity with the Chapter 3 policies of the Coastal Act and the certified LCP. *The CEC must nevertheless consider the project's inconsistency with the City's General Plan when evaluating this project*; this concern is not, however, appropriately included in the Commission's 30413(d) Report.²⁰

NRG entirely ignores this passage and instead challenges a letter from counsel for the Coastal Commission which also confirmed that Policy SH-3.5 became effective once the City adopted it.²¹ NRG's challenge to that letter is largely irrelevant because the letter did not consider the cases that clarify that the City's General Plan amendment did not require certification from the Coastal Commission.²² Regardless, Coastal Commission counsel's conclusion was consistent with the conclusions of the Coastal Commission itself and the courts: Policy SH-3.5 did not require certification from the Coastal Commission.

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¹⁸ Ex. 3009 at 8 (emphasis added).

¹⁹ See id.

²⁰ Ex. 3009 at 9 (emphasis added).

²¹ NRG Br. 112-16.

²² See Ex. 2005; Section I.A.1.

3. In Sworn Testimony, Staff Also Admitted that Puente Conflicts with Policy SH-3.5.

The Committee should also disregard staff's new contention that there is no conflict between Puente and General Plan Policy SH-3.5 because staff believes that the Puente site is not subject to environmental hazards.²³ First, staff's sworn admission flatly contradicts this position. As stated in the FSA, staff previously concluded that:

Puente remains in conflict with the prohibition of development of electric generating facilities of 50 megawatts (MWs) or greater in areas subject to coastal and other environmental hazards contained in Policy SH-3.5.²⁴

Staff adopted this position in the FSA and did not change that testimony at the evidentiary hearings.²⁵ Staff's brief offers no rationale for why staff should not be bound to this admission under oath, and indeed there is none.

Staff attempts to skirt this prior admission by concocting a new theory that because the Commission exercises exclusive siting jurisdiction and must evaluate the project's LORS conformance, the Commission somehow "stands in the shoes of the City" and can ignore the Oxnard City Council's determination that the Puente site sits in a hazard zone. This argument not only conflicts with the plain text of the City's General Plan, but shows a fundamental misunderstanding of the Commission's LORS authority.

Policy SH-3.5 restricts new electricity generating facilities in areas "where *the City has documented* that the location of such facilities is threatened" by hazards, not

²⁴ Ex. 2000 at 4.7-12.

²³ Staff Br. at 2-4.

²⁵ Ex. 2003 at pdf pp. 31, 45 (sworn declarations of Ashley Gutierrez and Steven Kerr); 02/09/2017 Transcript 228:24-230:12.

²⁶ Staff Br. at 2-4.

some other agency.²⁷ When it adopted that policy, the City simultaneously adopted hazard mapping for its entire coastline, which confirms that the Puente site is threatened by inundation under moderate sea-level rise scenarios.²⁸

Staff cannot rewrite this policy to substitute staff's (ill-founded) hazard determination for the City's hazard mapping. The City's designation of hazard zones in its General Plan is a legislative enactment.²⁹ Just as the Commission cannot rezone property in the City, the Warren-Alquist Act does not empower the Commission to alter the City's legislatively-determined hazard areas.

Ultimately, if correct, staff's position would render the Commission's LORS analysis meaningless. If the Commission can simply rewrite enactments of other agencies however it chooses, then it could avoid any LORS conflicts during siting proceedings. In such cases, Public Resources Code section 25523(d)'s obligation to consider conflicts with other agencies' policies and regulations in power plant siting cases would serve no purpose.

B. Puente Conflicts with the General Plan's Applicable Height Limit and There Is No Basis for Granting an Exception to that Limit.

As the City stated in its opening brief, Puente conflicts with the General Plan's applicable six-story height limit for projects in areas with Public Utility/Energy Facility designations.³⁰ Staff and NRG try to avoid this height limit by contending that it cannot

²⁷ Ex. 3002, Exhibit A at 6.

²⁸ Ex. 3002, Ex. A at 4.

²⁹ See Land Waste Management v. Contra Costa County Bd. of Supervisors (1990) 222 Cal.App.3d 950, 959

³⁰ City Br. at 8-10.

apply here because this limit appears in the City's General Plan, not its Coastal Land Use Plan or Coastal Zoning Ordinance.³¹ But as stated above, the City is entitled to adopt regulations that go beyond the basic land use standards established by the certified LCP.

NRG further attempts to argue that sections of Oxnard's Coastal Zoning

Ordinance preclude the General Plan height limit from applying in the coastal zone.³² But there is no inconsistency between the General Plan height limit, which allows development to exceed the established limit at the discretion of the City Council as long as appropriate mitigation is secured, and a case-by-case consideration of coastal development permits in the EC sub-zone that governs NRG's property. In any event, if there were a conflict between the General Plan's limit and a provision in the EC sub-zone, the General Plan is the governing document and would prevail.³³

Nor do the City's policies for resolving conflicts between the General Plan and the LCP somehow erase the Height Overlay District's height limit for the Puente site. As the City's Development Services Director testified, there is no conflict between the General Plan and the LCP because the General Plan contains a height restriction and the LCP is silent on the issue.³⁴ Nothing in the LCP precludes application of height restrictions for coastal development in areas designated as Public Utility/Energy Facility. In cases where one plan expressly imposes a more-stringent standard for a property than another, the

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³¹ See Staff Br. at 8-9; NRG Br. at 116-20.

³² NRG Brief at 117-18.

³³ Lesher Communications, Inc. v. City of Walnut Creek (1990) 52 Cal.3d 531, 540. For similar reasons, NRG cannot rely on exceptions in the City's zoning code for height limits "prescribed in this code" to evade the General Plan's separate height limits. See NRG Br. at 121-22 (citing Oxnard Mun. Code § 16-303 (emphasis added).

³⁴ Ex. 3019 at 7.

City interprets its plans so that more-stringent standard applies.³⁵

Finally, while staff is correct that the General Plan allows development to exceed height restrictions in the height overlay district, staff fail to properly apply the standards for granting such an exception.³⁶ The General Plan requires mitigation that specifically reduces impacts of height in excess of the applicable height limit.³⁷ The FSA does not analyze the impact of Puente's height above six stories much less evaluate mitigation that would reduce that impact.³⁸ Consequently, there is no analysis of how much mitigation is needed to satisfy the General Plan's provision for granting height limit exceptions.

Moreover, the City does not interpret the General Plan's allowance for increased heights as permitting an ad hoc waiver of the height limit. As the City noted in its opening brief, the City Council would look to the variance standards in the Coastal Zoning Ordinance to determine whether an exception is warranted.³⁹ But due to its inconsistency with City plans and its impacts to coastal resources, Puente does not qualify for a variance under the City's ordinance. 40 Consequently, Puente is inconsistent with the General Plan's Public Utility/Energy Facility height limit.

C. Puente Is Inconsistent with the Coastal Act and City Policy's that Protect Wetlands, ESHA, and other Coastal Resources.

NRG and staff argue that Puente is consistent with land use standards designed to protect resources in the coastal zone. These arguments cannot avoid Puente's clear

³⁵ Ex. 3019 at 7.

³⁶ Staff Br. at 11.

³⁷ Ex. 4020 at 3-19.

³⁸ See Ex. 2000 at 4.14-1.

³⁹ City Br. at 10-11.

⁴⁰ See id.

inconsistency with requirements of the City's LCP and the Coastal Act that protect sensitive coastal resources. These inconsistencies also provide evidence that Puente will have significant biological impacts under CEQA.⁴¹

As discussed below, both the City and the Coastal Commission have determined that Puente conflicts with these LORS. As the agencies charged with adopting and implementing these coastal land use regulations, their determinations on these issues deserve deference from this Commission.⁴²

1. Wetlands Are Present on the Puente Site.

The California Coastal Commission, the City, CEC staff, and all of the intervenors uniformly recognize that Puente would be sited on over 2 acres of coastal wetlands and would destroy that natural resource. Only NRG contests the determination that wetlands exist on the Puente site. But NRG fails to apply the appropriate wetlands identification criteria from the Coastal Act and the City's LCP. ⁴³This is a critical error—when determining whether Puente would violate Coastal Act and LCP provisions protecting wetlands, the Commission must rely on definitions in those laws to determine what areas are designated for protection.

Under both the Coastal Act and the LCP, the presence of hydrophytes suffices to qualify an area in the coastal zone as a wetland. The Coastal Commission uses a single-parameter method to determine whether wetlands are present for purposes of the Coastal

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⁴¹ See Pocket Protectors v. City of Sacramento (2004) 124 Cal.App.4th 903, 929.

⁴² Reddell v. California Coastal Com. (2009) 180 Cal.App.4th 956, 968; No Oil v. City of L.A. (1987) 196 Cal.App.3d 223, 249.

⁴³ NRG Br. at 49-52.

Act. 44 Either the "presence of hydric soils, *hydrophytic vegetation, or* wetland hydrology" will delineate a wetland under that method. 45 The LCP similarly defines wetlands as land "where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils *or to support the growth of hydrophytes.*" 46

Here, as the FSA and the Coastal Commission found, hydrophytic vegetation is present on the Puente site. ⁴⁷ The Coastal Commission also confirmed that subsequent biological surveys of the site and relisting of the slenderleaf ice plant as an upland indicator did not change this determination. According to Coastal Commission staff, the "combined high percent cover of [other] wetland indicator plants" is "very indicative of hydrophytic vegetation" and the Coastal Commission's "wetland determination continue[s] to apply."

2. ESHA Are Present on and Adjacent to the Puente Site.

Contrary to Staff and NRG's claims, ESHA have been designated and documented on the Puente site and in areas immediately surrounding that site. As the City noted in its opening brief, Map 7 in the City's LCP identifies ESHA throughout Oxnard's coastal zone. The map shows ESHA designations for much of the Mandalay Generating Station property, including over half of Puente's proposed footprint and areas immediately to the north of the project site. ⁴⁹ Additionally, the two-acre wetland discussed above also

⁴⁵ Ex. 3009 at 13.

⁴⁴ Ex. 3009 at 13.

⁴⁶ Ex. 4024. at III-13.

⁴⁷ Ex. 2000 at 4.2-13; Ex. 3009 at 13, Attachment C.

⁴⁸ Ex. 4043 at 4.

⁴⁹ Ex. 4024 at III-9.

qualifies as ESHA. The LCP includes "Wetlands" in its narrative description of ESHA in Oxnard. 50

Staff argues that the LCP's ESHA standards or other evidence of ESHA are not relevant because "only the California Coastal Commissioners themselves" may make ESHA determinations. ⁵¹ Staff rely on *Banning Ranch* for this proposition, but misread the case. *Banning Ranch* involved an application for a coastal development permit in an area where the Coastal Commission acted as the initial permitting agency because there was no certified LCP. ⁵² In contrast, the Coastal Commission has certified Oxnard's LCP. In cases like this, the Coastal Commission and the courts look first to the certified LCP to identify ESHA. ⁵³

Biological surveys confirm the LCP's ESHA determination by showing that ESHA are present on and surrounding the project site. Not only have special-status species been discovered directly adjacent to the Puente site, but special-status birds were observed foraging on the site during the 2017 biological surveys.⁵⁴ The City agrees with the Coastal Commission that presence of such special-status species qualifies these areas as ESHA under the City's LCP.⁵⁵

NRG argues that any identified sensitive habitat that falls outside of areas

⁵⁰ Ex. 4024 at IV-3.

⁵¹ Staff Br. at 14.

⁵² Banning Ranch Conservancy v. City of Newport Beach (2017) 2 Cal.5th 918, 925.

⁵³ See LT-WR, L.L.C. v. California Coastal Com., (2007) 152 Cal. App. 4th 770, 793-94.

⁵⁴ Ex. 1148 at pdf p. 211, 237-42; Ex. 4041 at 1-2; Ex. 4027 at 2-3, 5.

⁵⁵ Ex. 3009 at 17; Ex. 4043 at 2-3.

expressly designated in the City's LCP do not constitute ESHA.⁵⁶ Yet, the case NRG relies on for this proposition, *Security National Guaranty, Inc. v. California Coastal Commission*, is inapposite. There, a city's certified LCP stated that a proposed project site "provide[d] no natural habitats" and did not contain ESHA.⁵⁷ As a result, the court held that LCP did not grant the Coastal Commission authority to identify ESHA in areas that the LCP expressly stated did not contain ESHA.

In contrast, courts have held that it is appropriate to identify ESHA beyond mapped areas where an LCP permits such a determination.⁵⁸ Additionally, CEQA separately requires lead agencies to determine the location of and potential impacts to ESHA when evaluating projects in the coastal zone.⁵⁹

Here, the City's LCP does not exclude any area in the Coastal Zone from a potential ESHA determination or otherwise limit ESHA to wetlands and mapped areas. In fact, the LCP confirms that ESHA are expansively defined and not solely limited to mapped areas. The City's Coastal Zoning Ordinance requires "[a]ll development within the Oxnard Coastal Zone" to comply with ESHA protection measures and defines ESHA expansively: "Oxnard's environmentally sensitive habitat areas which include, but are not limited to: wetlands, estuaries, streams, riparian habitats, lakes and portions of open coastal waters." The City interprets this ESHA protection as applying to documented

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⁵⁶ NRG Br. at 33-34

⁵⁷ Security National Guaranty, Inc. v. California Coastal Com. (2008) 159 Cal.App.4th 402-08.

⁵⁸ See LT-WR, L.L.C., 152 Cal.App.4th at 794-96.

⁵⁹ Banning Ranch Conservancy v. City of Newport Beach (2017) 2 Cal.5th at 938.

⁶⁰ Oxnard Mun. Code § 17-31 (emphasis added)

habitat for special-status species, including foraging habitat, in addition to the wetland and dune habitat identified elsewhere in the LCP. As a result, the LCP and the evidence compel the Commission to recognize that ESHA have been documented on and surrounding the Puente site.

3. Puente Violates LCP Policy 52's Protection of Coastal Resources, Including Wetlands and ESHA.

Staff's opening brief admits that Puente violates LCP Policy 52's prohibition on siting new energy development in coastal resource areas. NRG also acknowledges coastal resources protected under Policy 52 include both wetlands and other ESHA. Here because Puente would be sited on existing wetlands and other ESHA, it directly violates Policy 52's protection of these resources.

Neither NRG nor staff address Policy 52's independent requirement to "design[] and screen[]" new development "to minimize aesthetic impacts," or that screening must "be primarily vegetative." While staff argues that Puente would include certain measures to mitigate aesthetic impacts, only one of those measures would address potential daytime impacts. Hat measure simply requires NRG to apply a "surface treatment" to Puente to decrease the contrast between the plant and the existing environment. There is no proposed redesign to minimize Puente's obvious aesthetic impacts on the coastal environment, nor are there any proposals to screen Puente from

⁶¹ Staff Br. at 5-6.

⁶² NRG Br. at 79; Ex. 3009 at 13; Ex. 3019 at 2.

⁶³ Ex. 4024 at III-42.

⁶⁴ FSA at 4.12-24 to 4.12-25.

⁶⁵ See id.

nearby visual receptors using the beach or the neighboring parks. Thus, Puente would violate Policy 52 for this reason as well.

Puente Violates LCP Policies Designed to Protect ESHA from 4. **Indirect Impacts.**

Additionally, if NRG proposes to relocate Puente to avoid direct impacts to ESHA, it must comply with the LCP's buffer requirements. Staff admits that Policy 6 requires a buffer between new development and ESHA.⁶⁶ And NRG also admits that "CLUP Policy 6 also requires a 100-foot (or in some circumstances, 50 foot) buffer between new development and resource protection areas, including wetlands."67 Because wetlands constitute ESHA under the LCP, NRG's contention that the buffer requirement does not apply to ESHA is misplaced. Indeed, the City's Coastal Zoning Ordinance confirms that Policy 6's buffer requirement protects all ESHA:

> All development within the Oxnard Coastal Zone which is in, adjacent to, or has an effect upon, an environmentally sensitive habitat area shall comply with the provisions of this section. Refer to Policy Nos. 6, a, c, d, e, and f, and 10 a-g of the Oxnard coastal land use plan for specific standards.⁶⁸

Thus, locating Puente in any area that does not provide a sufficient buffer to coastal wetlands or other ESHA violates the express requirements of this LCP policy.

D. **Puente Violates the Coastal Act.**

The California Coastal Act mandates that "Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses

⁶⁷ NRG Br. at 80.

⁶⁶ Staff Br. at 17-19.

⁶⁸ Oxnard Muni. Code § 17-31(B) (emphasis added).

dependent on those resources shall be allowed within those areas." The Coastal Act separately requires new development to comply with the standards in a jurisdiction's coastal land use plan. ⁷⁰

Puente would violate both of these requirements. Here, as discussed above and in the City's opening brief, Puente violates the express terms of the City's coastal land use plan. Additionally, Puente will significantly impact documented ESHA including coastal wetlands and habitat for special-status species. While Puente is proposed to replace existing once-through-cooling plants, Puente itself is not coastal dependent. As such, the Coastal Act does not permit the project to be sited in the proposed location.

E. To Date, No Section 25523(d)(1) Consultation Regarding Puente's LORS Non-Compliance Has Occurred.

Puente's numerous inconsistencies with City policies and regulations require the Commission to consult with the City in an attempt to avoid the noncompliance.

Specifically, the Warren-Alquist Act mandates that:

If the commission finds that there is noncompliance with a state, local, or regional ordinance or regulation in the application, it shall consult and meet with the state, local, or regional governmental agency concerned to attempt to correct or eliminate the noncompliance.⁷¹

Thus, *the Commission* must consult with the City *after* it finds noncompliance with City LORS.

Ignoring the plain language of the Act, staff argues that staff's interactions with

⁷⁰ Pub. Res. Code § 30600.5(b).

⁶⁹ Pub. Res. Code § 30240(a).

⁷¹ Pub. Res. Code § 25523(d)(1).

the City somehow satisfy this consultation requirement.⁷² This is wrong. First, as a matter of law, consultation could not have occurred. Staff is not "the commission." Nor has the Commission made any finding in this proceeding, much less findings regarding LORS noncompliance.

Moreover, consultation cannot occur without a good-faith effort to consider and apply the City's policies as written. But, throughout this proceeding, staff has repeatedly sought to avoid or obfuscate Puente's glaring conflicts with City LORS. For instance, despite the City's adoption of its General Plan amendments last year, staff's subsequent PSA refused to evaluate Puente's readily-apparent inconsistency with those amendments. And after the FSA finally admitted that inconsistency, staff now concocts a new, unsupportable, theory to claim that Puente does not violate Policy SH-3.5.

Similarly, Puente is squarely inconsistent with LCP Policy 52's protection of wetlands and other ESHA.⁷⁴ Yet the FSA never confronted the project's inconsistency with the prohibition on impacting these resources.⁷⁵ And while staff's brief finally concedes that Puente violates Policy 52's protection of coastal resources, it then ignores this concession to "conclude" that "Puente is consistent will all applicable [LORS]."⁷⁶ Avoiding glaring LORS violations is not consultation.

Consistent with the requirements of the Warren-Alquist Act, the City is prepared

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⁷² Staff Br. at 11-13.

⁷³ See Section I.A.3.

⁷⁴ See Section I.C.3

⁷⁵ See Ex. 2000 at 4.7-18; 02/09/2017 Transcript 238:16-23.

⁷⁶ Staff Br. 5-6, 13.

to meet and consult with the Commission regarding ways to eliminate or reduce Puente's inconsistencies with City LORS.

II. There Are Feasible Alternatives to Puente.

Despite NRG's suggestion to the contrary, under CEQA, a lead agency bears the burden of providing a meaningful consideration of alternatives to a proposed project.⁷⁷ Here, the Commission cannot rely on the project objectives put forward by NRG because they preclude the full evaluation of potential project alternatives that CEQA requires. Additionally, even in the narrow range of alternatives that the FSA considered, there are feasible, environmentally-superior alternatives that preclude approving Puente.

A. NRG's Proposed Project Objectives Cannot Be Used in the Alternatives Analysis.

NRG asserts that its proposed project objectives "are consistent with CEQA" and permitted the FSA to consider an adequate range of alternatives. Nothing could be further from the truth.

On their face, NRG's project objectives are clearly designed to preclude fair evaluation of alternatives to Puente. For example, NRG's first project objective is to "Fulfill the applicant's obligations under its 20-year Resource Adequacy Purchase Agreement (RAPA) with Southern California Edison (SCE) requiring development of 262 megawatts (MWs) nominal output of newer, more flexible and efficient natural gas

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⁷⁷ Pesticide Action Network North America v. California Dept. of Pesticide Regulation (2017 Cal. App. LEXIS 803) ___Cal.App.5th___ at *33 (construing CEQA's alternatives requirements for certified regulatory programs).

generation at the site of the existing Mandalay Generating Station (MGS)."⁷⁸ Because the RAPA specifies the precise location and technology of NRG's project, only Puente could fulfill the obligations of that agreement. Similarly, NRG's second project objective requires "using a simple-cycle, natural gas-fired combustion turbine to replace the existing once-through cooled (OTC) generation. This objective also prevents a reasoned alternatives analysis by precluding consideration of alternative technologies to Puente's GE frame 7 turbine.

Recognizing this flaw, the FSA rejected NRG's "narrowly drawn project objectives." It observed that NRG's objectives "would rule out any off-site alternatives with the potential to support local capacity requirements." 82

But staff still "broadly construed" NRG's proposed project objectives in a manner that precluded reasoned consideration of alternatives to Puente including preferred resources or more efficient turbine technologies. This is evident in the FSA's alternatives analysis. As staff admitted, the FSA only evaluated two "offsite Alternatives, and the two onsite reconfigurations," each with technology identical to Puente. ⁸³ While it mentioned other potential alternatives, the FSA rejected them all without detailed analysis. Thus, by relying on NRG's project objectives, staff's analysis foreclosed adequate consideration of

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⁷⁸ Ex. 2000 at 4.2-8

⁷⁹ Ex. 1001 at 2-4 ("NRG was awarded a contract with SCE to replace MGS Units 1 and 2 with 262 MW of state-of-the-art, more flexible and efficient natural gas generation at the site of the existing MGS facility.")

⁸⁰ Ex. 2000 at 4.2-8.

⁸¹ Ex. 2000 at 4.2-7 to 4.2-8.

⁸² Ex. 2000 at 4.2-8.

^{83 02/07/2017} Transcript 221:15-18.

non-gas or reduced-gas alternatives to Puente in violation of CEQA.⁸⁴

B. NRG Does Not Show that Preferred Resources Are Infeasible or Would Not Meet Project Objectives.⁸⁵

NRG relies solely on the FSA to argue that preferred resources cannot meet project objectives and are infeasible. ⁸⁶ But as the City's opening brief observes, the FSA improperly used the CPUC's procurement authorization for Puente to dismiss the feasibility of preferred resources. ⁸⁷ Moreover, contrary to the FSA's statements, CEC staff at the evidentiary hearings testified that batteries are an example of preferred resource that could meet reliability needs in the Moorpark area. ⁸⁸ Thus, the FSA incorrectly concluded that preferred resources could not provide the same reliability benefits as Puente.

Additionally, while NRG argues that "preferred resources alone could not" meet local reliability needs, NRG fails to consider preferred resources' ability to meet Moorpark LCR need when combined with one or two smaller gas turbines. ⁸⁹ But it is critical to consider an alternative that combines preferred resources with a smaller gas plant. Even if preferred resources alone could not fully meet reliability needs, relying on more preferred resources and less gas-fired generation to meet the Moorpark LCR need

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⁸⁴ North Coast Rivers Alliance v. Kawamura (2015) 243 Cal.App.4th 647, 654 (rejecting an EIR with an "artificially narrow" project objective that foreclosed consideration of reasonable alternatives).

⁸⁵ This section responds to arguments in NRG's opening brief regarding preferred resources. The City provides additional analysis of preferred resources in the context of the CAISO study.

⁸⁶ See NRG Br. at 103-04.

⁸⁷ City Br. at 22-23.

^{88 02/07/2017} Transcript 224:8-10.

⁸⁹ See NRG Br. at 103-04 (emphasis added).

would reduce air emissions from electrical generation in the Moorpark subarea and would further SB 350's mandate to achieve 50-percent renewable generation by 2030.

C. The Ormond Beach Inland Site Is Superior to the Proposed Puente Site.

The FSA identified the Ormond Beach site as environmentally superior to NRG's proposed site project site. 90 Because this site is not in the coastal zone, and avoids direct impacts to wetlands and ESHA, it would avoid many of Puente's most significant environmental impacts. NRG contests this determination, and argues that multiple impacts will be greater at the Ormond Beach Inland site. In each case, NRG is wrong.

Land Use – As discussed above, Puente conflicts with the Coastal Act and multiple land use regulations adopted by the City. ⁹¹ Unlike Puente, constructing a new plant at the Ormond Beach Inland location does not have such glaring land use impacts. ⁹² The City acknowledges that the General Plan's "Light Industrial" designation governs this alternative site, but the City does not interpret this designation as precluding potential development of a power plant, particularly if it were a small 50 MW peaker. That designation permits a large variety of industrial uses including "public services," which can include new energy infrastructure. ⁹³ The City's interpretation of this requirement is

⁹⁰ Ex. 2000 at 4.2-16.

⁹¹ See Section I.

⁹² Even if unavoidable land use conflicts did exist, that would not be a basis for rejecting this alternative site. *See Save Round Valley Alliance*, 157 Cal.App.4th at 1459 ("Although the inconsistency of a land use designation is a relevant consideration in evaluating an alternative, the mere fact that an alternative would require an amendment to the general plan or a change in zoning designation is an insufficient basis for rejecting an alternative")

⁹³ Ex. 4020 at 3-16.

entitled to great deference.⁹⁴

Wetlands – Based on a "desktop analysis," NRG argues an alternative at the Ormond Beach Inland location could adversely impact potential wetlands on that site. 95 NRG relies on maps that indicate that the site contains hydric soils and argues that the presence of such soils would qualify an area as a wetland under the Coastal Commission's one-parameter wetland definition. But, as NRG admits, the Ormond Beach site is not located in the coastal zone. The Coastal Commission's wetland methodology is therefore irrelevant to a wetland determination at this site.⁹⁶

Significantly, neither staff nor NRG conducted an onsite analysis to determine whether wetlands are present at the Ormond Beach Inland site. But the record shows that it is highly unlikely that they are. As recently as 2009, industrial development covered the majority of the site. 97 It has since been graded and covered with gravel. 98 Thus, regardless of the soils present on the site, it is highly unlikely that any wetland is present there.

In marked contrast, over 2 acres of wetlands have been documented within the footprint of the Puente project. That site also contains ESHA identified by the City's LCP and biological surveys. 99 As a result, Puente's impacts to these sensitive coastal resources will be far greater than any potential impact from a small peaker at the Ormond Beach site.

⁹⁴ See San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656, 677. NRG Br. at 93-94.

⁹⁶ NRG Br. at 92.

⁹⁷ Ex. 2000 at 4.2-76.

⁹⁸ Ex. 4.2-115.

⁹⁹ See Section I.C.

Archeological and Historic Resources – NRG speculates that the need to construct transmission lines to the Ormond Beach Inland site might impact archeological resources near that site. ¹⁰⁰ However, NRG cites no evidence showing that archaeological resources actually surround this site, nor does it consider whether transmission lines could be located to avoid impacting such resources. ¹⁰¹

Moreover, contrary to NRG's suggestion, the historic Ventura County Railway does not adjoin the Ormond Beach Inland site, but instead passes to the north and west of the identified parcel. While a separate rail spur extends from the historic railway to the Ormond Beach site, no evidence indicates that this spur is part of the historic railway or that construction of an alternative at the Ormond Beach site could not avoid potential impacts to the spur or the historic railway Without such evidence and analysis, the presence of the rail spur cannot provide a basis for rejecting this alternative location.

Aviation Hazards – There is no basis for concluding that potential thermal plume hazards to aircraft are greater at the Ormond Beach Inland site than at Puente. While Navy staff submitted comments that Navy aircraft operate near this proposed site, the site is not located under regular flight paths of aircraft from NBVC Point Mugu. 104 And neither the Navy nor the FSA demonstrate that the air hazard mitigation proposed to reduce impacts for Puente could not also reduce impacts to aircraft at the Ormond Beach

¹⁰⁰ NRG Br. at 95-96.

¹⁰¹ *Id.*; Ex. 1121 (Hale Testimony at 3).

¹⁰² See Ex. 2000 at 4.2.101 to 4.2-102; Ex. 2002 at Alternatives, Figure 7.

¹⁰³ Ex. 2000 4.2-102.

¹⁰⁴ Ex. 2000 at 4.12-17 to 4.12-18.

Inland site.

In fact, Puente presents a unique aviation impact that would not occur at an inland alternative site. Director Todd McNamee testified that the Department of Airports has been attempting to restore commercial air service to Oxnard Airport, which is the only airport in the city available to commercial air carriers. 105 But development of Puente and implementation of mitigation measures designed to force pilots to avoid the site (which currently experiences aircraft overflight) would create impediments to aircraft departure paths that do not currently exist. Creating new restrictions on air travel around Oxnard Airport could force commercial air carriers to look elsewhere. 106

Environmental Justice – Finally, NRG attempts to claim that the Ormond Beach Inland site has greater potential for environmental justice impacts than the Puente site. But communities in the immediate vicinity of Puente rank in the 86-90th percentile of most environmentally burdened disadvantaged communities in the state. ¹⁰⁷ Moreover, siting Puente along Oxnard's coastline continues to impair the community's use and enjoyment of a public beach and creates a disproportionate impact that does not exist from siting a smaller plant at an inland site.

The City acknowledges, however, that there are also environmental justice communities near the Ormond Beach site. Their presence only underscores the need to consider alternative sites outside of Oxnard that could avoid impacting disadvantaged

¹⁰⁵ 02/07/2017 Transcript 197:24-198:3. ¹⁰⁶ 02/07/2017 Transcript 198:4-12.

¹⁰⁷ Ex. 6000 at 7.

communities. The FSA fails to undertake that analysis.

D. The 5th and Del Norte Street Site Is Superior to the Proposed Puente Site.

The 5th/Del Norte alternative site sits in a heavy industrial area outside of the City's coastal zone. 108 Development of an alternative at this site would avoid Puente's significant land use and biological impacts while being capable of meeting Moorpark LCR needs. Contrary to NRG's arguments, the record does not show that a new facility at the 5th/Del Norte site would have impacts greater than Puente.

Wetlands - Like the Ormond Beach site, NRG argues that mapping shows that the 5th/Del Norte site might satisfy a criterion under the Coastal Commission's wetlands methodology. Even if this methodology were appropriate outside of the coastal zone, the 5th/Del Norte site currently contains "an asphalt recycling center" and other industrial uses. 109 NRG makes no effort to show how wetlands can be onsite despite the current industrial use of the property, much less how any potential impacts at that site would be comparable to Puente's impacts on wetlands and other ESHA.

Archeological and Historic Resources – NRG argues that linear facilities running to the 5th/Del Norte Alternative site *could* impact nearby historic and archeological resources. 110 NRG's testimony on this issue does not show any impact, however. NRG's witnesses Mark Hale and Jeremy Hollins discuss an undisclosed route for linear faculties to the 5th/Del Norte site that could impact such resources, but they did not show what

 108 Ex. 2000 at 4.2-46. 109 Ex. 2000 at 4.2-46.

¹¹⁰ NRG Br. at 99-100

route these facilities would take much less that it was impossible to avoid impacts by rerouting these facilities.¹¹¹ It is highly likely that new linear facilities could be sited along existing public rights-of-way to avoid any such impacts.

Aviation Hazards – As discussed in the City's opening brief, there is no credible method for distinguishing between potential hazards at the project site and the 5th/Del Norte alternative site. The two proposed sites are roughly identical distances from the nearest airports. In light of the evidence regarding flight patterns near both proposed sites, Todd McNamee stated that the relative potential impacts between the two sites were equivalent. As the Director of Airports for Ventura County who oversees operations at both Oxnard Airport and Camarillo Airport, and as a pilot who has extensive personal knowledge of air traffic patterns at these airports, the Commission should give great weight to Director McNamee's assessment of the relative hazards between the two sites.

Indeed, like the Ormond Beach Inland site, the main distinction between the two sites is that while approval of Puente would interfere with the Department of Airports' efforts to restore commercial service to Oxnard Airport, no similar impact would occur at the 5th/Del Norte site because Camarillo Airport is not authorized for commercial uses.

In sum, contrary to NRG's assertions, both the 5th/Del Norte and Ormond Beach Inland sites could be feasible locations to construct new energy facilities that satisfy the identified LCR need while being superior to Puente.

¹¹¹ Ex. 1121 (Hale Testimony at 2-3, Hollins Testimony at 3-4).

¹¹² Ex. 3048 at 2.

¹¹³ 07/26/2017 Transcript 426:17-26.

¹¹⁴ Ev 4048 at 1

III. Any Assessment of Flooding Should Reflect the Inherent Uncertainty In Predicting the Effects of Climate Change.

Determining the risk of flooding from coastal hazards involves forecasting a future that is increasingly uncertain. Storm events of recent years have demonstrated the difficulty of predicting weather conditions in real time, let alone 30 to 50 years in the future. With climate change, storms of "unprecedented" nature will occur more frequently and at some point will become the norm. As a result, it is particularly important to understand how the various models at issue in this proceeding make assumptions about future conditions and how well they reflect current conditions. A model that underestimates flooding under current conditions is not likely to provide an accurate projection of future conditions. ¹¹⁵

A. CoSMoS Does Not Adequately Model Dune Erosion In Front of the Project Site.

Most fundamentally, the project site's sole protection from coastal inundation is a sand dune. As a result, it is critical to understand how the models account for dune erosion in order to understand how well they reflect future risk. Three factors raise significant concerns about the ability of CoSMoS to accurately project the stability of the dunes in front of the project site.

First, where a site is currently undeveloped—such as Puente—CoSMoS assumes that the dune system continues to migrate landward with sea level rise. As USGS

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¹¹⁵ Both Coastal Resilience and CoSMoS are community level planning models. As stated by USGS at the July 26 hearing, CoSMoS is "meant for community planning. We encourage the use of multiple lines of evidence . . . and to include site specific." 07/26/2017 Transcript 152:25-153:2.

explained at the July hearings, for an undeveloped site with sea level rise, "dunes migrate inland, and they also migrate up." ¹¹⁶ By contrast, where a site is developed, CoSMoS assumes that development will not allow the dunes to retreat. Instead, the dunes disappear "because there's hard structures [behind the dunes]. So there's a so-called squeeze. So the dunes go up against the structures and that erodes away . . . [so] they don't offer protection."117

Although the Puente site would be developed, CoSMoS assumed it was undeveloped when it mapped dune migration. 118 But with development of Puente, CoSMoS should have assumed that the dunes in front of the site would erode and disappear. This failure of CoSMoS to accurately account for the impacts of developing the Puente site substantially undermines USGS's conclusion that the site is not at risk from flooding.

Second and separately, when assessing dune erosion CoSMoS only models the erosion caused by a single 100-year storm. 119 It does not take into account erosion from multiple storms that could occur over a short timeframe—or even an entire storm season, particularly during an El Nino year. 120 With climate change, storms will become more intense and more frequent, ¹²¹ and as a result, this assumption will underestimate the impacts of dune erosion.

¹¹⁶ 07/26/2017 Transcript 180:17-21; 07/27/2017 Transcript 7:22-8:1.

¹¹⁷ 07/27/2017 Transcript 7:2-9.

¹¹⁸ 07/27/2017 Transcript 8:11-14.

¹¹⁹ Ex. 2025 at 13.

^{120 07/26/2017} Transcript 136:21-24 (CoSMoS does not evaluate hazards of consecutive storms in a row); Ex. 3068 at 25.

¹²¹ 02/10/2017 Transcript 238:5-9, 16-19.

Third, data about dune erosion extents modeled by CoSMoS are not available. 122 So, for example, it is impossible to know how much dune erosion will occur with the single 100-year storm under this model. This information is critical to understanding how well the dune in front of Puente can function as protection in the future. If a single, 100-year storm were to cause substantial dune erosion, the weakened dune system might not withstand a second storm or a third.

CoSMoS makes a number of assumptions that affect how it models sea level rise. It relies on 2009 LIDAR data to establish the shoreline even though that data reflects the widest recorded beach width and evidence demonstrates that the beach has narrowed since that time. While a single 100-year storm on a wide summer beach might not cause enough erosion to completely erode the dune, that storm could significantly erode the dune in the winter when the beach is narrowest and storms occur most-frequently. Similarly, CoSMoS assumes a 100-year coastal storm would coincide with a spring tide—essentially a full moon tide. Without some information about the extent of dune erosion, it is impossible know how much more severe erosion would occur if the 100-year storm coincides with a king tide, and higher water levels.

In both of its illustrations of wave runup at the project site, USGS noted that water levels come very close to overtopping the dunes. ¹²⁵ Therefore, understanding how

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¹²² 07/27/2017 Transcript 147:23-148:1.

¹²³ 02/10/2017 Transcript 239:21-22; 07/26/2017 Transcript 213:16-18 (CEC staff acknowledging that present day topography would show a "starting point closer to the dunes."). ¹²⁴ Ex. 2025, p. 13, n. 13.

^{125 07/26/2017} Transcript 107:9-15 (discussing slide 21).

CoSMoS explicitly models dune erosion is essential to understanding whether the dune system could withstand multiple storms, storms that hit at higher tides, or on a winter beach—or all three at the same time.

B. Coastal Resilience Relies On a Conservative Approach to Modeling Dune Erosion that Takes Into Account Future Uncertainty.

While CoSMoS makes a number of assumptions regarding coastal erosion that make its modelling of sea level rise risk less conservative, Coastal Resilience uses a more conservative approach to modeling dune erosion. As the City explained in its opening brief, one of the reasons Coastal Resilience models a storm that would erode the dunes entirely is to compensate for the uncertainty that surrounds modeling the intensity and frequency of storms of the future. Both CEC staff and NRG's own consultant recognized why one might do so. As Mr. Mineart acknowledged at the February hearings, the method used by Coastal Resilience is relied on by other models. Mr. Mineart also recognized that, although the method is conservative, "in terms of planning purposes, it works because . . . if it's possible for the dune to erode, maybe you don't want to build a house on it." CEC staff also recognized that the assumption in Coastal Resilience "accounts for the possible occurrence of a cluster of large storms that does not allow time for full recovery."

¹²⁶ See City Br. at 44-46.

¹²⁷ 02/10/2017 Transcript 226:13-14, 227:23-24 (recognizing the method establishes the upper limit of erosion.)

¹²⁸ 02/10/2017 Transcript 226:23-227:1.

¹²⁹ Ex. 2000 at 4.11-131; FEMA technical guidelines also confirm that "[m]ajor storms along the Pacific Coast, regardless of the wave generation area, typically persist for 3 to 4 days." Ex. 3062 D.4.1-5.

Contrary to NRG's claims, Coastal Resilience is a well-validated model. It "has been verified by local public works departments, and has continued to be updated by new applications in adjacent counties and cities. Those enhancements and improvements have occurred in 2014, 2015, 2016, and 2017." Although Coastal Resilience may be characterized as "conservative" or a "worst case" assumption, if recent events teach us anything, it is that the worst case, unprecedented, (more than) conservative scenario is within the range of events that actually occur today.

At issue here is not just the reliability of the Puente project, but its consistency with the City's efforts to plan for sea level rise, which are embodied in its General Plan policies and updates to its Local Coastal Plan. If Puente is permitted, the City will live with the burdens of continuing to provide and maintain infrastructure and public services to the Puente project. 131 The City is entitled to rely on a conservative approach to assessing sea level rise risks—especially one that conforms to state guidelines for assessing this risk. And, given the uncertainty associated with predicting how climate change will affect weather patterns, storms, and sea levels, the City's approach is more than reasonable.

C. **CoSMoS Does Not Accurately Predict Documented Flood Events.**

Beyond the assumptions that go into the modeling, in practice Coastal Resilience

¹³⁰ 07/26/2017 Transcript 157: 19-24; Ex. 3025 (Coastal Resilience Ventura Technical Report). ¹³¹Ironically, at the same time it is seeking approval of the Puente project and City utilities to serve it, NRG has also filed for bankruptcy and obtained an order requiring the City to continue to provide services while only providing adequate assurance of payment of roughly half the monthly cost of these services. Order Approving the Debtor's Proposed Adequate Assurance of Payment for Future Utility Services, et al., entered in Bankruptcy Court for the Southern District of Houston Division Case No. 17-33695.

has been much more reliable at predicting flooding from recent storm events than either CoSMoS or FEMA. In its brief, NRG attempts to avoid the obvious failure of CoSMoS to predict flooding by spinning the facts in a manner that is belied by record. First, NRG mischaracterizes Dr. Revell's testimony regarding the extent to which CoSMoS correctly predicts existing flood conditions. Dr. Revell clarified that, when he refers to whether the "beach gets wet," he means is the "beach is completely submerged at some point." Using this simple test, CoSMoS should have shown flooding in areas where documentary evidence from recent storms shows the areas flooded. These areas include Oxnard Shores just one-mile south of the Puente site and Pierpont Beach just 2 miles to the north:

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¹³² 07/26/2017 Transcript 261: 11-12.



Figure 2E. Oxnard Shores Flooding December 11, 2015 high tide (5.8') large wave event. Mandalay Beach Road looking north toward 5th Street. Photo taken by Chris Williamson



Figure 3E. Pierpont Beach December 11, 2015. Photo taken by Brian Brennan.

These photos demonstrate the type of "no kidding" flooding¹³³ that CoSMoS purports but fails to predict. Incredibly, under CoSMoS, the beach in front of these sites not only remains dry, but water levels barely cover the seaward edge of the beach during a 100-year storm.

In some cases, CoSMoS's mapping of dynamic water levels in the ocean may not capture wave runup and subsequent flooding of lower lying areas. ¹³⁴ In other words, CoSMoS maps extreme ocean conditions at the shoreline, but may not reflect flooding. Although CEC staff seemed satisfied that the CoSMoS's approach to flood mapping is sufficient, wave overtopping and subsequent flooding can clearly cause water to accumulate in ways that damage existing development. ¹³⁵ In fact, a technical report prepared by NRG's own consultant, Justin Vandever, recommended the use of a total water level (which includes wave runup) to estimate risk from sea level rise. ¹³⁶ Moreover, even taking into account differences in mapping methodology, CoSMoS does not show dynamic water levels in the ocean reaching observed flood extents and water levels during storms. This is the case at Goleta Beach¹³⁷ and in front of the project site. ¹³⁸

With respect to flooding in front of the project site itself, the documentary record is slim. USGS and staff testified that they did not validate CoSMoS against historic storm

¹³³ 07/26/2017 Transcript 190:7.

¹³⁴ 07/26/2017 Transcript 96:10-19, 190:2; Ex. 2000 at 4.11-131 (explaining that CoSMoS maps landward extent of "wave setup" as the "'flood elevation."").

¹³⁵ Ex. 3068, 9-10, 15-16; Ex. 3072, Slides 10, 12.

¹³⁶ Ex. 3053.

¹³⁷ Ex. 3068 at 20-22.

¹³⁸ Ex. 3072, slide 15.

records.¹³⁹ NRG did not present any documentary evidence regarding the project site during storm conditions. However, photographs taken by Dr. Williamson and his sworn testimony demonstrate that water levels during the December 2015 storm reached the toe of the dunes in front of the project site. Under though the CoSMoS 20-year storm scenario, however, dynamic water levels do not even come close to the dunes.¹⁴⁰

NRG argues, based on the speculation of Phillip Mineart, that the pictures fronting the project site do not show what they show. For example, NRG claims that water levels that reach the foot of the dunes in front of the project site could only reach the "southern crescent" in front of the site. However, Mr. Mineart testified at the February hearing that he was "guessing" and could not be sure where the picture was taken or what it depicted in terms of water levels. Pr. Williamson, who took the photographs, did testify as to these issues. As Dr. Williamson testified, the photographs were taken by him during the December 2015 storm event and they show water levels coming to Mandalay Beach Road—an abandoned road where it fronts the project site and, as NRG notes, extends down to Oxnard Shores. Moreover, contrary to NRG's assertion that the water levels reflect calm water in the southern crescent, Dr. Williamson documented wave heights of 22 feet and substantial foam, tree trunks in the surf, and continuous

¹³⁹ 07/26/2017 Transcript 115:7-19, 127:16-18.

¹⁴⁰ Ex. 3072, slide 15.

¹⁴¹ NRG Br. at 67.

¹⁴² 02/10/2017 Transcript 223:17-19; 262:15-19.

¹⁴³ Exhibit 3060.

¹⁴⁴ Exhibit 3060 at 1, ¶2.

ocean water from the ocean to the toe of the dunes.¹⁴⁵ None of this is reflected in the CoSMoS projection of a 20-year storm at the project site.¹⁴⁶ All parties had an opportunity to question Dr. Williamson about his photographs at the July hearings, but they declined to do so.¹⁴⁷

NRG argues Coastal Resilience should be disregarded because it shows the MGS site flooding under an El Nino type storm when the site did not flood in 1983. We do not know the extent to which water during that storm may or may not have intruded into the site because there is no documentary evidence of the site's condition during that storm. However, assuming the site did not flood, the Coastal Resilience model is explicit about how and why it models dune erosion as it does. Importantly, Coastal Resilience is designed to reflect an uncertain future—one that did not exist in 1983 and which has already overtaken us.

D. The Coastal Conservancy's Report Also Projects Coastal Flooding At the Project Site.

NRG also discounts the importance of the Coastal Conservancy's report with respect to coastal flooding. In evaluating the potential for coastal and riverine flooding to affect the project site, the Coastal Conservancy found that, with sea level rise of 2 feet by 2050 and a coastal storm generating a dynamic water level of 3.9 meters at the Pacific

¹⁴⁶ 07/26/2017 Transcript 170:17-171:9.

¹⁴⁵ Exhibit 3060 at 4, 9-10.

¹⁴⁷ 07/26/2017 Transcript 63:10-16. At that time the hearing officer indicated that testimony regarding the importance of the photos would be helpful to place them in context. Dr. Williamson's declaration includes testimony about the photos and Dr. Revell also testified as to their importance. 07/26/2017 Transcript 170:17-171:9.

¹⁴⁸ NRG Br. at 60.

Ocean (scenario 4), the Puente site would flood both from overtopping of the dunes even before it is affected by riverine flooding. Similarly, the Coastal Conservancy model projects that, with sea level rise of 2 feet by 2050 and an extreme ocean condition generating a water level of 5.39 meters, water from the ocean would flood the site. These projections are based on water overtopping the dunes just north of the Puente site, which the Coastal Commission noted are just 17 feet high. CoSMoS also indicates that water would flood through the area north of the Puente site, but it shows water coming just to the boundary of the site. Because the Coastal Conservancy's model uses a more detailed scale and relies on current topographic data, it provides a more realistic assessment of potential for flooding at this site than CoSMoS.

E. The Coastal Conservancy's Report Demonstrates the Risk to the Project Site from Riverine Flooding under a Number of Ocean Conditions That Are Not Captured by CoSMoS.

The Coastal Conservancy's modeling regarding combined river and coastal flooding also demonstrates the limits of CoSMoS in evaluating this combined risk. As noted by FEMA, "[b]ecause Pacific storms often result in large rainfalls, coastal and riverine flooding can combine to increase flood hazards near river mouths." The Coastal Conservancy report documents these risks and the ways they were under-

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¹⁴⁹ Ex. 3063 at 10.

¹⁵⁰ Ex. 3063 at 10 (scenario 5).

¹⁵¹ Ex. 3063 at 10; 07/26/2017 232:17-25.

¹⁵² Ex. 3009 at 25.

¹⁵³ Ex. 3072, slide 18.

¹⁵⁴ 07/26/2017 Transcript 227:15-18 (discussing resolution of model); 246:1-3 (reliance on 2016 topographic data).

¹⁵⁵ Ex. 3062, p. D.4.1-6.

estimated by CoSMoS. In response, NRG's mischaracterizes the Coastal Conservancy's report by implying it only evaluates an extreme scenario that is unlikely to occur—a 100-year river flood combined with a 100-year ocean storm. ¹⁵⁶Although that report does include such a scenario, it also models much more moderate storm scenarios, including a 100-year river flood and an ocean condition of mean higher high water. ¹⁵⁷ Even under this very moderate ocean condition, the Puente site is at risk from river flooding at levels averaging 1 meter from a 100-year storm. ¹⁵⁸ NRG's touts CoSMoS's treatment of ocean conditions as more sophisticated, ¹⁵⁹ but in its Scenario 1, the Coastal Conservancy's model makes a reasonable assumption about a common ocean condition—mean higher high water. In that Scenario, the Coastal Conservancy report projects flooding based on existing conditions; it does not look at future sea level rise. When looking at future ocean conditions, moreover, the Coastal Conservancy report relied on ocean boundary conditions that are consistent with CoSMoS and FEMA. ¹⁶⁰

Moreover, NRG is simply wrong when it claims that the Coastal Conservancy report does not take into account the berm on the northern end of the project site that was built after the 1969 flood. Mr. Campbell testified that the model not only includes a detailed 15 meter mesh, it was also manually reinforced to reflect topographic features such as "levees" and "berms" that might not otherwise be reflected in a 15 meter grid

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¹⁵⁶ NRG Br. at 65.

¹⁵⁷ Ex. 3063, p. 9 (Scenario 1).

¹⁵⁸ Ex. 3060, p. 9 (Scenario 1).

¹⁵⁹ NRG Br. at 66.

¹⁶⁰ Ex. 3063, Appendix A, p. 2 (levels based on FEMA); 07/26/2017 Transcript 225:22-24.

¹⁶¹ See NRG Br. at 66.

resolution.¹⁶² In any event, that berm is not a certified flood control levee and therefore, as a matter of law, cannot be relied on to find the project site is protected from future floods.¹⁶³

F. NRG's Assessment of Flood Risk At the Project Site Is Not Credible.

NRG relies on the testimony of Phillip Mineart to support its claim that the project site is not at risk from flooding. However, Mr. Mineart does not have any significant experience assessing impacts from flood risk along the open ocean, nor does he have any expertise in coastal geomorphology. He is therefore not qualified to testify about phenomena such as dune erosion. ¹⁶⁴ His testimony bears out his lack of experience in these matters. For example, Mr. Mineart admitted he had incorrectly applied the method for beach change with sea level rise. ¹⁶⁵ Although he acknowledged this failing in his February testimony, in his subsequent assessment of the potential for dune erosion he eliminates the foreshore of the beach when determining its slope, which is not consistent with the accepted approach for evaluating wave runup and dune erosion. ¹⁶⁶ Mr. Mineart's calculation of future storm risk is also flawed and based only on looking backward at past storms to predict the frequency of future events. ¹⁶⁷ However, assessing risk from climate change cannot be done simply by looking backward. Mr. Mineart himself testified that

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 $^{^{162}}$ 07/26/2017 Transcript 227:15-18; Ex. 3060, Figure 1 (showing dike features incorporated into the model)

¹⁶³ Ex. 3062 at D. 4.7-14 (A levee must be certified under the National Flood Insurance Protection regulations (44 CFR Part 65.01) before it should be considered in flood mapping.) ¹⁶⁴ 02/10/2017 Transcript 209:22-212:24.

¹⁶⁵ 02/10/2017 Transcript, 229:8-10 (acknowledging error in calculation of beach slope).

¹⁶⁶ Mineart, appendix A, p. A-1-A-2; 07/26/2017 Transcript 196:24-197:1.

¹⁶⁷ Mineart, appendix A, p. A-3-A-4.

storms in the future will be more frequent and more intense. 168

Finally, NRG continues to confuse beach accretion and dune erosion. Although the beach is wider than it was when the MGS was first built, several factors have contributed to that accretion—including the outfall, which acts as a jetty that traps sand in front of the project site. 169 Moreover, even when a beach has accreted, seasonal changes and erosion due to storms increase the vulnerability of the dune system to erosion. Mr. Mineart's approach of simply eyeballing aerial photographs of the beach in front of the project site cannot account for this variation. Dune erosion can occur whenever wave heights are high enough to reach the toe of the dunes fronting the sites. ¹⁷⁰ Even when one only looks backward, there have been 130 wave events in the past fifty years with a total water level that reach or exceed the toe of the dunes.¹⁷¹ While NRG's consultant relied on his qualitative assessment of aerial photographs to opine about dune formation and erosion, Dr. Revell relied on LiDAR data collected through an aerial drone in December 2016 to document dune erosion in front of the project site. 172

Finally, NRG relies on the ancient dune system as protection against the sea. No doubt the dunes have been there for millennia. However, NRG plans to build in the

¹⁶⁸ 02/10/2017 Transcript 238:1-9. In fact, Hurricane Harvey appears to have been the third 500year storm in Houston in the last 3 years.

https://www.washingtonpost.com/news/wonk/wp/2017/08/29/houston-is-experiencing-its-third-500-year-flood-in-3-years-how-is-that-possible/?utm_term=.abc946218f61;l; see also https://www.nytimes.com/interactive/2017/08/28/climate/500-year-flood-hurricane-harveyhouston.html?mcubz=3& r=0.

¹⁶⁹ Ex. 2006, p. 17.

¹⁷⁰ 07/26/2017 Transcript 160:23-161:7.

¹⁷¹ Ex. 3068 at 27.

¹⁷² Ex. 3025 at 6, Figure 3.

dunes. As USGS notes, when hard structures are built in the dunes, with sea level rise, the "dunes erode away . . . they don't offer protection."¹⁷³ In a time of rising seas and intensifying storms, relying on a dune to protect public infrastructure costing hundreds of millions of dollars makes no sense.

IV. Analysis and Mitigation of Puente's Air Quality Impacts Does Not Comply with CEQA.

As the City noted in its opening brief, the FSA's Air Quality impact analysis contains two primary flaws. First, the FSA only evaluates mitigation for a plant operating at 11-percent capacity while Puente will be permitted to operate up to 24-percent capacity. Additionally, the identified mitigation measures largely consist of emission reduction credits that will result in Puente worsening air quality compared to existing baseline conditions. 174

Primarily, NRG argues that Puente will comply with VCAPCD permitting rules, suggesting that any compliance with those rules satisfies CEQA's requirements for considering air quality impacts. ¹⁷⁵ But VCAPCD's rules are distinct from and do not guarantee compliance with CEQA's information disclosure and mitigation requirements. Significantly, VCAPCD declined to conduct any CEQA analysis of the project's potential air quality impacts during the determination of compliance process and instead deferred

¹⁷³ 07/27/2017 Transcript 7:2-9.

¹⁷⁴ City Br. at 63-65.

¹⁷⁵ The City does not concede, however, that Puente does comply with VCAPCD rules. Numerous inadequacies that the City and others identified in VCAPCD's PDOC were not corrected in the FDOC. *See* Ex. 2020.

CEQA analysis to the CEC. 176

Here, the FSA fails to fully mitigate Puente's permitted level of operation at a 24-percent capacity. NRG (and the FSA) attempt to disguise this failing with operation data from the existing MGS Units 1 and 2 to argue that NRG's preferred 11-percent capacity for mitigation reflects a conservative assumption compared to historic operations of those units. As a simple matter of law, however, CEQA requires that the Commission evaluate and mitigate the impacts of emissions from operations at full permit levels. 178

Nor do historic operations of existing boiler units serve as guides for future operations of Puente's gas turbine. First, NRG's own application promotes Puente as having fast-start capabilities that would aid integration of renewable resources into the grid.¹⁷⁹ The existing outdated boilers are ill-suited to serve such a function.

Moreover, when SCE contracted for Puente, it was attempting to procure new resources to make up for the expected loss of 1,946 MW (NQC) of generation from the retiring OTC units at Mandalay and Ormond Beach. Even assuming these facilities only operate at 4% capacity in a given year, Puente, at only 262 MW NQC, would need to operate at 30% capacity to generate an identical amount of power.

Finally, NRG sole defense for using emission reduction credits as mitigation is

¹⁷⁷ NRG Br. at 12 (citing Ex. 2000 at 4.1-49)

¹⁷⁶ See Ex. 2008 at pdf p. 35.

¹⁷⁸ San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal.App.4th 645, 655-56.

¹⁷⁹ Ex. 1000.

¹⁸⁰ Ex. 7001 at 8-9.

that VCAPCD allows such credits, which encourage early reductions of emissions. 181 While that might be true, these reductions occurred decades before NRG proposed the Puente project and are accounted for in the FSA's air quality baseline. 182 CEQA requires the Commission to evaluate and mitigate the Project's significant air quality impacts that will occur above baseline conditions. 183 But by relying on decades-old emission reduction credits for "mitigation," mitigation of the Puente's significant air quality impacts will not actually occur.

CONCLUSION

For all of these reasons as well as those stated in the City's separate briefs in this proceeding, the Commission should reject NRG's application for certification of the Puente Power Project.

DATED: Septemer 29, 2017 SHUTE, MIHALY & WEINBERGER LLP

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¹⁸¹ NRG Br. at 13.

NRG B1. at 13.

182 See Ex. 2000 at 4.1-17 (using years 2012-2014 to determine baseline conditions).

183 Pub. Res. Code § 21002.1(a); CEQA Guidelines § 15125(a).