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**STATE OF CALIFORNIA**  
**ENERGY RESOURCES**  
**CONSERVATION AND DEVELOPMENT COMMISSION**

In the matter of:

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

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DOCKET NO. 15-AFC-01

**CITY OF OXNARD'S OPENING  
BRIEF**

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## INTRODUCTION

For decades the City of Oxnard has borne the brunt of industrialization in Ventura County. From the Mandalay Generating station at the north to the Ormond Beach station at the south, Oxnard's coastline is defined by its power plants. In between lies the Halaco superfund site.

This legacy of industrial development has taken its toll. Oxnard is one of the poorest communities in Ventura county. CalEnviroScreen, the tool developed by the California Environmental Protection Agency to evaluate community environmental health, identifies census tracts in Oxnard as within the top 20 percent of most environmentally burdened communities in California. Census tracts in Oxnard are within the top 10 percent for residents afflicted by asthma. Eighty-five percent of Oxnard is Latino, 29 percent lives in linguistic isolation, and 46 percent of residents over 25 years old have less than a high school education. And no other community in Ventura County is as heavily burdened by environmental pollution as Oxnard.<sup>1</sup>

Despite its industrialization, Oxnard's coastline holds great promise. The California Coastal Conservancy has found the area rich in natural resources and, along with The Nature Conservancy, has developed plans to protect the wetlands at Ormond Beach and the coastal dune habitat at Mandalay. Both the Coastal Conservancy and the Coastal Commission strongly opposed approval of the project in its current location. For a city that is deficient in public parks and open space, Oxnard's beaches provide one of

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<sup>1</sup> See Ex. 2000 at 4.5-8-4.5-13; Ex. 6000 at 1-10.



the few opportunities for more open space and recreational uses. Although a state park and county park sit on opposite sides of the proposed project site, the industrial nature of the proposed project will inhibit public use of those sites and the neighboring beach.

Oxnard is focused on changing the future of its coast. Since 1982 when it adopted its first local coastal plan, Oxnard has made clear its opposition to any further industrialization of its beaches. Most relevant to the Puente project, before Southern California Edison submitted its application for approval of a contract with NRG to the California Public Utilities Commission, the City had adopted a moratorium against locating new gas-fired power plants along its coast. The moratorium's purpose was to implement existing General Plan policies, allow for the restoration of ecological and recreational uses on Oxnard's coast, and adapt the coastline to expected sea level rise and other coastal hazards. The City recently carried this land use regulation forward to its General Plan, which it amended to clarify that it is no longer appropriate to site large, non-coastal dependent power plants—like the Puente project—in hazard-prone areas of the City. The project also conflicts with numerous other policies in the City's Local Coastal Plan, land use ordinances, and General Plan.

The Puente project is not only inconsistent with City policies, it will have real and lasting environmental impacts that interfere with the City's ability to plan for its future. As documented in throughout the evidentiary process, the project will be located in an area subject to flooding hazards both from the Pacific Ocean and the Santa Clara River. Commission staff, however, ignored these risks and relied on a mapping tool that has repeatedly underestimated flood risks on the California coast. Not only do coastal and

riverine flood hazards create environmental impacts and reliability concerns, but expending public resources to maintain infrastructure in an area where the only protection is a coastal dune makes no sense in an era of increasing uncertainty regarding the impacts of sea level rise and flood risk.

The project's inconsistencies with state and local law require the Commission to override Oxnard's land use sovereignty before it may approve the Puente project. Such an action may only be taken in the rarest of circumstances, when the Commission can find that a proposed project is in the public convenience and necessity and when there are no other feasible alternatives that would serve the project's need.

Although the record is still open on this issue, it is already clear that the Puente project cannot satisfy this standard. The project is oversized and inefficient, and it will displace other less polluting sources of energy. As a result, it is inconsistent with California's goals for the reduction of greenhouse gases and its renewable portfolio standard. In every way, the Puente project is one of the worst solutions to a very specific need. Because numerous other alternatives could meet the identified local capacity requirements without creating inconsistencies with local and state requirements, the Commission cannot approve the Puente project.

## **ARGUMENT**

### **I. The Project Violates Key City Land Use Policies and Regulations.**

The Warren-Alquist Act disfavors approval of new energy facilities that are inconsistent with local ordinances and regulations ("LORS"). CEQA similarly recognizes that inconsistency with land use plans and regulations can create its own significant

impact.

Because Puente is proposed to be located within the City's coastal zone, it must comply with both the City's General Plan and its certified Local Coastal Program. However, Puente directly conflicts with numerous City land use regulations designed to protect infrastructure from natural hazards, preserve biological and recreational resources, and minimize aesthetic impacts. These conflicts simultaneously create inconsistencies with the City's LORS and significant impacts under CEQA.

In all but one case, the FSA ignores or dismisses Puente's numerous inconsistencies with the regulations that govern the project site. The result of this flawed analysis is that the FSA fails to consider how potential mitigation could avoid Puente's significant land use impacts and accompanying environmental impacts. The Commission must fully confront Puente's incompatibility with NRG's proposed site and, ultimately, recognize that approving Puente would require overriding numerous City land use regulations.

**A. Land Use Legal Standard**

CEQA requires agencies to analyze a project's consistency with all applicable local land use plans, including general plans and zoning ordinances.<sup>2</sup> Inconsistency with land use goals and policies that were enacted to protect the environment creates a significant impact under CEQA and provides evidence of other significant environmental

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<sup>2</sup> See *Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 386-87; CEQA Guidelines Appendix G, § X(b) (The CEQA "Guidelines" are found at Cal. Code Regs., tit. 14 § 15000 *et seq.*).

impacts.<sup>3</sup>

In addition to conducting CEQA's required environmental review, the Commission evaluates proposed projects for compliance with all LORS that would normally apply absent the Energy Commission's certification jurisdiction.<sup>4</sup> When evaluating LORs consistency, Commission staff must defer to an agency's determination of whether a proposed project is consistent with that agency's policies and regulations.<sup>5</sup>

Courts have long recognized that a local government's determination of whether a particular project is consistent with that agency's own planning documents receives great deference. For example, a "city's findings that [a] project is consistent with its general plan" must be upheld unless "no reasonable person could have reached the same conclusion."<sup>6</sup> The adopting agency ultimately "has broad discretion to construe its policies in light of the plan's purposes."<sup>7</sup>

#### **B. Puente Conflicts with the City's General Plan Amendments.**

In June 2016, the Oxnard City Council amended the City's 2030 General Plan to set forth the City's policy that large power plants should not be located in areas exposed to environmental hazards.<sup>8</sup> As the City Council found in its resolution adopting these General Plan Amendments, the change was consistent with the City's goals and policies

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<sup>3</sup> *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 929.

<sup>4</sup> Pub. Res. Code § 25525; Cal. Code Regs., tit. 20 § 1744(b).

<sup>5</sup> Cal. Code Regs., tit. 20 § 1714.5(b).

<sup>6</sup> *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656, 677.

<sup>7</sup> *Save Our Peninsula Com. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 142.

<sup>8</sup> Ex. 3002 (Oxnard City Council Resolution 14.925, amending the City's 2030 General Plan); Ex. 3019 at 5.

that protect Oxnard’s community “from the unreasonable risks of flooding, including, but not limited to maintaining the structural and operational integrity of essential public facilities during flooding.”<sup>9</sup>

It is especially important to avoid siting new resources in areas subject to flooding hazards, which can impede communities’ efforts to adapt to climate change and rising sea levels.<sup>10</sup> New investments in utility infrastructure pose one of the “biggest hurdles for communities to adapt” to climate change because they require the community to spend resources on other facilities (e.g. road and water services) to serve the infrastructure instead of re-planning the community to avoid hazards.<sup>11</sup>

In light of these concerns, the City Council amended the General Plan in multiple respects. First, it updated the General Plan to incorporate new sea level rise projections from the National Research Council and local coastal hazard modeling and mapping from The Nature Conservancy’s Coastal Resilience Ventura model.<sup>12</sup> It modified Policy ICS-17.1 to “[e]nsure that . . . electric generation and/or transmission facilities are built in accordance with the California Coastal Commission Sea Level Rise Policy Guidance,” as well as applicable policies and regulations from this Commission and the CPUC.<sup>13</sup> The City Council also added Policy SH–3.5 to the General Plan. That policy prohibits “new electricity generating facilities of 50 megawatts or more” in “areas where the City has

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<sup>9</sup> Ex. 3002 at 1.

<sup>10</sup> Ex. 3025 at 27.

<sup>11</sup> 02/10/2017 Transcript 344:24-345:22 (page:line).

<sup>12</sup> Ex. 3002, Exhibit A at 2-4.

<sup>13</sup> Ex. 3002, Exhibit A at 5.

documented that the location of such facilities is threatened by seismic hazards, wildfire, flooding, or coastal hazards.”<sup>14</sup>

As staff correctly concluded, Puente directly conflicts with General Plan Policy SH-3.5.<sup>15</sup> Coastal hazard mapping performed as part of the City’s LCP update process and incorporated into the City’s General Plan reveals that, under moderate sea level rise scenarios, the Puente site will be exposed to flooding and other coastal hazards within the economic life of the plant.<sup>16</sup> Analysis from the Coastal Commission and Coastal Conservancy also indicates that the site is exposed to flooding from the Santa Clara River under 100-year flood scenarios.<sup>17</sup> Consequently, Policy SH-3.5 prohibits locating Puente at the site NRG proposes.

Puente also conflicts with General Plan Policy ICS-17.1, which requires that new electrical generating facilities are built in accordance with the Coastal Commission’s Sea Level Policy Guidance.<sup>18</sup> Among other things, the Coastal Commission’s Guidance instructs agencies “to avoid siting new development within areas vulnerable to flooding, inundation, and erosion” and to “avoid the expansion or perpetuation of existing structures in at-risk locations.”<sup>19</sup> As the City’s and Coastal Conservancy’s analyses have revealed, the proposed location is at risk of flooding and other impacts.<sup>20</sup> Puente consequently does not comply with the Coastal Commission’s Guidance and is

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<sup>14</sup> Ex. 3002, Exhibit A at 6.

<sup>15</sup> Ex. 2000 at 4.7-11.

<sup>16</sup> Ex. 3000, CO-4 at 11-12; Ex. 3002, Exhibit A at 4.

<sup>17</sup> Ex. 3009 at 24-32; Ex. 3058.

<sup>18</sup> Ex. 3002, Exhibit A at 5.

<sup>19</sup> Ex. 3023 at 39, 133.

<sup>20</sup> Ex. 3000, CO-4 at 11-12; Ex. 3002, Exhibit A at 4; Ex. 3009 at 24-32; Ex. 3058.

inconsistent with Policy ICS-17.1.

Staff incorrectly overlooks Puente’s inconsistency with Policy ICS-17.1. The FSA states that Puente need not comply with Policy ICS-17.1 because the “policy is a directive of the city to itself and would not obligate a project applicant to take action.”<sup>21</sup>

This argument misunderstands general plan law and the LORS analysis that the Commission must undertake. “Under state law, the propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements.”<sup>22</sup> Thus, the City cannot approve permit applications or other projects that are inconsistent with its General Plan, including Policy ICS-17.1’s requirement that new electric generation facilities be “built in accordance” with the Coastal Commission’s Guidance. The LORS analysis requires the Commission to consider conformity with all policies that *the City* would apply in the absence of the Commission’s exclusive jurisdiction.<sup>23</sup> The Commission cannot follow the FSA’s approach and simply ignore Puente’s inconsistency with this policy.<sup>24</sup>

**C. Puente Conflicts with the General Plan Height Limits for the Public Utility/Energy Facility Land Use Designation.**

**1. Puente Exceeds the Height Overlay District’s Six-Story Height Limit.**

The City’s General Plan establishes land use designations and applicable standards

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<sup>21</sup> Ex. 2000 at 4.7-10.

<sup>22</sup> *Resource Defense Fund v. County of Santa Cruz* (1982) 133 Cal.App.3d 800, 806.

<sup>23</sup> Pub. Res. Code § 25523(d).

<sup>24</sup> The FSA further suggests that because the Coastal Commission has not certified Policy ICS-17.1 as part of the LCP, this policy does not apply to projects in the coastal zone. However, as a generally-applicable policy that applies throughout the City, Policy ICS-17.1 need not be certified by the Coastal Commission to apply to sites in the coastal zone.

for mapped land uses throughout Oxnard.<sup>25</sup> The General Plan contains specific land use designations for parcels that fall within its coastal zone. Among these designations, the Public Utility/Energy Facility designation applies to sites designated for “large electrical generating and transmission facilities” like the proposed Puente site.<sup>26</sup>

To be permitted, proposed projects must comply with the General Plan’s land use designations and standards including applicable height limits. The General Plan’s Height Overlay limits new projects to six stories.<sup>27</sup> As shown in “General Plan/Zoning Consistency” table, the Height Overlay applies to multiple designated land uses, including the Public Utility/Energy Facility designation.<sup>28</sup>

The FSA fails to acknowledge that Puente’s proposed 188-foot stack directly conflicts with the six-story height limit in the Height Overlay. Instead, the FSA incorrectly claims that the Height Overlay applies only to non-coastal land uses.<sup>29</sup> This reading was based on a “non-Coastal Zone” label listed above the land uses identified in the General Plan’s consistency table.<sup>30</sup> But as the City’s Development Services Director testified, the “non-Coastal Zone” heading in the consistency table is not controlling because the table includes the Public Utility/Energy Facility land use designation, which is *only* a coastal zone designation.<sup>31</sup> By definition, any standards that the General Plan

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<sup>25</sup> See Ex. 4020 at 3-13 through 3-40; Ex. 3020 (Oxnard 2030 General Plan Map with land use designations).

<sup>26</sup> Ex. 4020 at 3-16.

<sup>27</sup> Ex. 4020 at 3-17.

<sup>28</sup> Ex. 4020 at 3-18 through 3-19.

<sup>29</sup> Ex. 2000 at 4.7-10.

<sup>30</sup> See Ex. 4020 at 3-19.

<sup>31</sup> 02/09/2017 Transcript 295:21-296:6; Ex. 3020.



establishes for the Public Utility/Energy Facility area apply in the coastal zone.

To the extent that the “non-Coastal Zone” label creates ambiguity within the General Plan, the City is entitled to interpret its plan to resolve that ambiguity.<sup>32</sup> Here, the City’s interpretation is reasonable because it avoids a reading that would render the General Plan’s height standards for the Public Utility/Energy Facility designation surplusage.<sup>33</sup>

The City’s interpretation also ensures that development in the Public Utility/Energy Facility areas cannot have unlimited height. That interpretation is consistent with Coastal Act section 30251, which requires new development to be sited and designed to “protect views . . . [and] be visually compatible with the character of the surrounding areas.”<sup>34</sup> Development in the coastal zone without any height limit would conflict with this section of the Coastal Act.

Consequently, as proposed, Puente would conflict with the General Plan height limits that apply to the Puente site.

**2. There Is No Evidence in the Record that Puente Would Qualify for an Exception to the Six-Story Height Limit.**

The General Plan allows new development to exceed the six-story height limit if the development is part of the City’s Urban Village specific plan or the applicant applies to the City Council for an exception.<sup>35</sup> After receiving an exception application, the City

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<sup>32</sup> *San Francisco Tomorrow v. City and County of San Francisco* (2014) 229 Cal. App. 4th 498, 513-14, 521.

<sup>33</sup> *See Dyna-Med, Inc. v. Fair Employment & Housing Com.* (1987) 43 Cal.3d 1379, 1397.

<sup>34</sup> Pub. Res. Code § 30251.

<sup>35</sup> Ex. 4020 at 3-19. The Puente site does not fall within a designated Urban Village area.

Council may permit development over the height limit, but only if the applicant mitigates the increase in height through “an impact fee and/or equivalent mitigation.”<sup>36</sup>

While the General Plan does not define the standard that the City Council would use to allow development over the height limit, the Council would most likely look to the variance procedures that apply to the particular property. Under the City’s coastal zoning, a variance may be granted if a project satisfies seven findings.<sup>37</sup> These findings include determining that granting the variance “would not be detrimental to the protection [of] . . . adjacent resources or to public health,” “would not adversely affect access to or along the shoreline, including the physical and visual qualities of access,” and would be consistent with the “Oxnard coastal land use plan.”<sup>38</sup>

Under these standards, Puente would not qualify for a variance. As discussed below, construction of the project not only creates inconsistencies with the City’s coastal land use plan, but also will also impact adjacent sensitive habitat.<sup>39</sup> Additionally, as the City’s Mayor Pro Tem and Development Services Director testified, massing industrial uses along the coast degrades the area’s visual quality and impairs the public’s access to the coast.<sup>40</sup> Approving a variance to allow the Puente’s stack to exceed the applicable

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<sup>36</sup> Ex. 4020 at 3-19.

<sup>37</sup> Oxnard Municipal Code § 17-57(C)(6)(b) (the City’s Municipal Code is available at [http://library.amlegal.com/nxt/gateway.dll/California/oxnard/oxnardcaliforniacodifiedordinances?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:oxnard\\_ca](http://library.amlegal.com/nxt/gateway.dll/California/oxnard/oxnardcaliforniacodifiedordinances?f=templates$fn=default.htm$3.0$vid=amlegal:oxnard_ca)).

<sup>38</sup> Oxnard Municipal Code § 17-57(C)(6)(b)(iv), (v), (vii).

<sup>39</sup> See Section I.D.

<sup>40</sup> Ex. 3017 at 1-2; Ex. 3019 at 7; 02/09/2017 Transcript 266:21-23.

height limit only increases the project's adverse impact on coastal access.<sup>41</sup> As a result, the City would not be able to make variance findings.

Even if the variance findings could be made, the record does not supports granting an exception to the height limit here. The FSA lacks any analysis of the marginal increase in impacts associated with a stack exceeding the six-story height limit.<sup>42</sup> Without that impact analysis, it is impossible to determine how much mitigation would be required to grant an exception to that limit.<sup>43</sup>

#### **D. Puente Conflicts with the City's LCP.**

The City's Coastal Land Use Plan, which it first adopted in 1982, functions as the City's Local Coastal Program ("LCP") for regulating land uses within Oxnard's coastal zone. In addition to mapping land uses throughout the coastal zone, the LCP contains mandatory policies that form "the heart of the City's LCP."<sup>44</sup> These LCP policies target various land uses including industrial energy development, and require development to avoid impacting environmentally sensitive habitat and wetlands. Construction of Puente at the proposed site would impact numerous biological resources and directly violate these protective provisions of the LCP.

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<sup>41</sup> LCP Policy 54 similarly requires all energy development to "be located and designed to minimize adverse effects upon public access to the beach." Ex. 4024 at III-42. Puente is inconsistent with that policy as well.

<sup>42</sup> See, e.g., Ex. 2000 at 4.14-14 to (visual resources section does not consider consistency with this height limit standard).

<sup>43</sup> See Ex. 4020 at 3-19.

<sup>44</sup> Ex. 4024 at III-1 (Oxnard Coastal Land Use Plan).

**1. Contrary to LCP Policy 52, Puente Is Located in a Coastal Resource Area.**

LCP Policy 52 prohibits new industrial and energy development from being located in “coastal resource areas, including sensitive habitats, recreational areas and archaeological sites.”<sup>45</sup> As the City and the Coastal Commission have both stated, this policy applies to multiple sensitive habitat locations, including coastal wetlands.<sup>46</sup>

Puente is proposed to be located on sensitive habitat in direct violation of LCP Policy 52. The City’s LCP shows that the Puente site sits on mapped sensitive habitat,<sup>47</sup> and the record confirms this designation. In its 30413(d) Report, the Coastal Commission found that construction of Puente would fill over 2 acres of coastal wetlands.<sup>48</sup>

Commission staff and NRG’s biologist have also acknowledged that over 2 acres of the project site satisfy the criteria for coastal wetlands.<sup>49</sup>

In addition to containing wetlands, the site also provides habitat for special status species. Globose dune beetles and the California legless lizard have been identified directly adjacent to the Puente site.<sup>50</sup> Even if these special status species were not found on the site, Coastal Commission staff recognized that they could easily venture from

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<sup>45</sup> Ex. 4024 at III-42.

<sup>46</sup> Ex. 3009 at 8, 12-13; Ex. 3019 at 2; 02/09/2017 Transcript 265:1-19.

<sup>47</sup> Ex. 4024 at III-42 (Map No. 7, designating area north of Fifth Street and west of Harbor Boulevard as sensitive habitat).

<sup>48</sup> Ex. 3009 at 13;

<sup>49</sup> Ex. 2000 at 4.2-1. While NRG disputes this determination, its biologist acknowledged the Puente site contains “hydrophytic species” (02/09/2017 Transcript 347:18-19), and that finding alone supports a wetlands determination under the Coastal Commission’s methodology (*id.* 376:17-377:2).

<sup>50</sup> Ex. 4027 at 2-3, 5.

these adjacent areas to the site itself.<sup>51</sup> Additionally, peregrine falcons and other special-status birds have been observed using the Puente site and immediately adjacent areas, and there is evidence of raptor predation on the site.<sup>52</sup> These observations further confirm that the project site contains sensitive habitat.

The FSA attempts to side-step Puente's inconsistency with Policy 52 by noting that Puente would be constructed within the historic property boundaries of Mandalay Generating Station.<sup>53</sup> But these boundaries do not alter the fact that Puente would *also* be constructed on sensitive habitat within those boundaries, which Policy 52 expressly prohibits.<sup>54</sup> As a result, the proposed project directly conflicts with Policy 52's prohibition on siting new development in coastal resource areas.<sup>55</sup>

## **2. Contrary to LCP Policy 52, Puente Is Not Designed or Screened to Minimize Aesthetic Impacts.**

Policy 52 separately requires that “[a]ll new industrial development shall be designed *and* screened to minimize aesthetic impacts.”<sup>56</sup> The required “[s]creening shall be primarily vegetative.”<sup>57</sup> This policy is particularly important here because drivers

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<sup>51</sup> Ex. 4041 at 1-2.

<sup>52</sup> Ex. 1148 at pdf p. 211, 237-42; Ex. 4043 at 2-3.

<sup>53</sup> Ex. 2000 at 4.7-18.

<sup>54</sup> The FSA's land use discussion also cross references the discussion of coastal wetlands in the Biological Resources analysis. Ex. 2000 at 4.2-12 through 4.2-14. While the Biological Resources section acknowledges the existence of the coastal wetlands, it does not separately evaluate consistency with LCP 52 or other land use policies.

<sup>55</sup> The City's coastal zoning ordinance implements policies from the Coastal Land Use Plan and similarly prohibits siting new energy facilities in coastal resource areas. *See* Oxnard Municipal Code § 17-20(A)(3) (“Energy related development shall not be located in coastal resource areas including sensitive habitats.”). Thus, approving Puente would also violate this ordinance section.

<sup>56</sup> Ex. 4024 at III-42 (*emphasis added*).

<sup>57</sup> Ex. 4024 at III-42.

along Harbor Boulevard, as well as visitors to the beach and neighboring parks, will be exposed to aesthetic impacts from this new, very large, industrial facility on the coast.<sup>58</sup>

Puente's 188-foot exhaust stack is the project's most prominent visual feature.<sup>59</sup> While the City has requested that NRG redesign the facility to shorten the stack to reduce aesthetic impacts,<sup>60</sup> neither staff nor NRG has proposed any such redesign. Consequently, Puente has not been designed to minimize these aesthetic impacts.

Moreover, NRG has made no attempt to screen views of the Puente stack (with vegetation or otherwise).<sup>61</sup> Nor has staff proposed a condition of certification to require any screening of Puente. Instead, the FSA entirely ignores Policy 52's screening requirement.<sup>62</sup> Even if screening cannot completely eliminate Puente's aesthetic impacts, it can mitigate those impacts to individuals in close proximity to the site. For this reason as well, Puente violates LCP Policy 52.

### **3. Puente Also Conflicts with LCP Policy 6.**

The City's LCP Policy 6 establishes numerous standards to protect sensitive habitat and other resources from the impacts of coastal development. Most significantly, the policy requires a 100-foot buffer between new development like Puente and resource protection areas, including sensitive habitat.<sup>63</sup>

Puente does not comply with this required buffer. The project footprint itself

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<sup>58</sup> Ex. 2000 at Figure 19.

<sup>59</sup> Ex. 2000 at 1-1.

<sup>60</sup> Ex. 3019.

<sup>61</sup> Ex. 2000 at 4.17.

<sup>62</sup> See Ex. 2000 at 4.14-14 to 4.14-15.

<sup>63</sup> Ex. 3009 at 17; Ex. 4024 at III-11.

contains wetlands and other sensitive habitat in direct violation of this buffer requirement.<sup>64</sup> Additionally, the dunes directly to the north and west of the site also contain sensitive habitat that requires protection from the project through a buffer.<sup>65</sup> Yet Puente project activities, including grading along the demolition access roads on the site's northern and western boundaries, encroach on the required buffer area.<sup>66</sup> As a result, Puente as currently proposed creates an irreconcilable conflict with LCP Policy 6.

**E. The Commission Must Acknowledge These Land Use Impacts and Consult with the City on Potential Mitigation or Alternatives.**

Aside from the Project's conflict with General Plan Policy SH-3.5, the FSA does not acknowledge the multiple land use impacts that Puente will create. The Commission cannot approve Puente until it acknowledges these inconsistencies and formulates alternatives or mitigation that could reduce or avoid the project's land use impacts. In undertaking that task, the Commission must consult with the City to ascertain whether feasible mitigation and alternatives exist.<sup>67</sup> To date, that consultation has not occurred.

**II. The Analysis of Alternatives to Puente Is Legally Defective.**

The analysis of alternatives to a proposed project lies at the "core" of an environmental analysis.<sup>68</sup> CEQA prohibits public agencies from approving projects as

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<sup>64</sup> In addition to foraging habitat for special status species, Coastal Commission staff has confirmed that the site and surrounding area contains dune ESHA. Ex. 4043 at 2; 07/27/2017 Transcript 265:9-266:7.

<sup>65</sup> Ex. 2000 at Biological Resources Figure 4 (critical habitat for Ventura Marsh Milk-vetch immediately adjacent to northern project boundary); Ex. 3009 at 17 (critical mulefat scrub ESHA within buffer area of project site); Ex. 4038 at 14-15; Ex. 4043 at 2-3.

<sup>66</sup> See Ex. 4038 at 15.

<sup>67</sup> Pub. Res. Code § 25523(d)(1).

<sup>68</sup> *Citizens of Goleta Valley v. Santa Barbara Bd. of Supervisors* (1990) 52 Cal.3d 553, 564.

proposed if a feasible alternative would substantially lessen their significant environmental effects.<sup>69</sup> As the Supreme Court has explained, “[w]ithout meaningful analysis of alternatives in the EIR, neither the courts nor the public can fulfill their proper roles in the CEQA process.”<sup>70</sup>

The current alternatives analysis falls well short of CEQA’s requirements. Staff’s analysis fails to consider feasible alternatives that would avoid significant impacts associated with locating yet-another gas power plant in Oxnard. Most notably, rapid advancement in preferred, non-combustion resource technology decreases the likelihood that a new gas plant is needed at all, much less one of Puente’s scale. Even if a new gas plant were necessary, staff’s analysis improperly dismissed the Mission Rock site, which could also avoid many of Puente’s impacts.

Within the limited range of alternatives that the FSA does consider, there are at least two inland alternative locations—the Ormond Beach Inland and 5th Street and Del Norte Avenue (“5th/Del Norte”) sites—that would offer feasible locations for a new energy infrastructure and would be environmentally superior to Puente. The existence of these additional feasible alternatives further precludes the Commission approval of Puente.

#### **A. Alternatives Legal Standards**

Environmental documents must analyze a reasonable range of project

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<sup>69</sup> *Berkeley Keep Jets Over the Bay Com. v. Board of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1354 (quoting § 21002); Guidelines § 15126.6(b).

<sup>70</sup> *Laurel Heights Improvement Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 404 (“*Laurel Heights*”).



alternatives.<sup>71</sup> “[T]he purpose of an alternatives analysis is to allow the decision maker to determine whether there is an environmentally superior alternative that [will] meet most of the project’s objectives.”<sup>72</sup>

Furthermore, if it rejects any alternative, an agency must explain why the rejected alternative does not satisfy the project’s goals, does not offer substantial environmental advantages, or cannot be accomplished.<sup>73</sup> The explanation for rejecting an alternative must be “sufficient to enable meaningful public participation and criticism.”<sup>74</sup> It may not consist of unsupported conclusions or unanalyzed theories.<sup>75</sup>

#### **B. CEQA Requires Evaluation of a Broader Range of Alternatives.**

The FSA’s analysis limits itself to considering different locations for Puente and rejects detailed analysis of any alternative technology. Like the proposed project, each of the FSA’s four project alternatives involves constructing a Puente-like power plant in Oxnard. The only difference between these alternatives and the project is the power plant’s location, and two of these alternatives remain on the Mandalay Generating Station property.

This overly-narrow range of alternatives effectively ignores options that could avoid some of the most glaring impacts associated with building another gas plant in Oxnard: environmental justice impacts, inconsistency with the City’s land use policies,

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<sup>71</sup> See Pub. Res. Code § 21100(b)(4); Guidelines § 15126.6(a).

<sup>72</sup> *Watsonville Pilots Assn. v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1089; see also Guidelines § 15126.6(a) & (b).

<sup>73</sup> *Center for Biological Diversity v. County of San Bernardino* (2010) 185 Cal.App.4th 866, 883.

<sup>74</sup> *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1458.

<sup>75</sup> *Id.* at 1465.

and impacts to sensitive biological resources. It is therefore necessary to fully evaluate project alternatives that would entirely avoid siting a new power plant in Oxnard.

**1. The FSA Improperly Excludes the Mission Rock Proposal from Detailed Analysis.**

The primary project objective the FSA uses to evaluate alternatives to Puente is whether an alternative is “a dispatchable energy resource with a similar generating capacity as Puente” and located in the Moorpark subarea.<sup>76</sup> Yet Staff refused to evaluate a key project alternative that most closely meets this objective:<sup>77</sup> the proposed Mission Rock facility located in unincorporated Ventura County. The Commission is well-equipped to evaluate that project as an alternative to Puente because the Commission is currently evaluating that project owner’s application for certification (15-AFC-02). The current Mission Rock proposal includes five smaller LM6000 turbines that are “equipped with voltage support mechanisms,” which allow it to support the grid without combustion and associated emission or air pollutants.<sup>78</sup> As staff admitted, this proposal would also meet CAISO’s identified LCR need.<sup>79</sup>

In fact, the Mission Rock facility is a more efficient and reliable method of satisfying the Moorpark LCR need than Puente. That facility’s five turbines would operate on multiple small shafts that, compared to Puente’s single large shaft, reduce the risk of an outage.<sup>80</sup> These turbines operate more efficiently than Puente’s frame 7 turbine

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<sup>76</sup> 02/07/17 Transcript 214:9-16.

<sup>77</sup> 02/07/17 Transcript 226:5-16.

<sup>78</sup> 02/08/2017 Transcript 96:11-22; 02/10/2017 Transcript 372:14-23; *see also* Ex. 3051.

<sup>79</sup> 02/07/2017 Transcript 226:9-16.

<sup>80</sup> 02/08/2017 Transcript 96:3-16.

at either full or partial loads, reducing potential air quality impacts associated with turbine operations.<sup>81</sup> And Mission Rock includes clutches and batteries that also mitigate against potential voltage collapse without combustion.<sup>82</sup>

Moreover, even without the pending AFC application, the Mission Rock site could accommodate a larger turbine like Puente instead of the five smaller turbines currently proposed. The site is an “industrial-type” property that is currently used for vehicle and boat storage and is of adequate size and location to accommodate the proposed project.<sup>83</sup>

Despite Mission Rock’s superior turbine technology and the site’s ability to house a new power plant that could satisfy the identified LCR need, the FSA improperly excluded it from the alternatives analysis. The FSA assumed that the Mission Rock site was unavailable because Mission Rock’s application for certification is currently pending before the Commission.<sup>84</sup> But staff made no effort to confirm that the Mission Rock is actually unavailable to the applicant.<sup>85</sup>

CEQA forbids such an approach. An environmental analysis cannot rely on the “barest of facts” regarding a potential alternative to conclude that a potential alternative is infeasible.<sup>86</sup> Because staff did not conduct any meaningful analysis of an alternative at the Mission Rock site, it cannot conclude that project or site would not offer a feasible alternative to Puente. And, ultimately, the Commission cannot approve Puente until it

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<sup>81</sup> 02/08/2017 Transcript 96:17-19; Ex. 3047 at 8-9.

<sup>82</sup> 02/08/2017 Transcript 96:17-22.

<sup>83</sup> Ex. 2000 at 4.2-26.

<sup>84</sup> Ex. 2000 at 4.2-26.

<sup>85</sup> 02/07/2017 Transcript 228:13-16.

<sup>86</sup> *Save Round Valley Alliance*, 157 Cal.App.4th at 1465.

provides a detailed evaluation of potential alternatives at the Mission Rock site.

**2. The FSA Improperly Excluded a Preferred Resources Alternative from Detailed Analysis.<sup>87</sup>**

Similarly, the Commission must fully evaluate alternatives that utilize preferred resources to either eliminate the need for or reduce the scale of the proposed project. An alternative that relies on preferred resources could reduce or avoid many of Puente's most significant environmental impacts, including emissions of greenhouse gases and air pollutants, land use inconsistencies, destruction of sensitive habitat, and impacts to an environmental justice community.<sup>88</sup>

To determine whether preferred resources represent a viable alternative to Puente, the Commission should consider whether they can satisfy the Moorpark subarea's LCR need. While the FSA suggests that only new resources of "similar generating capacity as Puente"<sup>89</sup> meet the project's objectives, in fact, the post-2020 LCR need identified in CAISO's transmission plan is the only justification for new generation in this area. Thus, that is the most critical objective to use for evaluating potential project alternatives.<sup>90</sup>

CAISO's 2015-2016 Transmission Plan identifies a 234 MW deficiency in the Moorpark area. That deficiency decreases to 222 MW following implementation of the

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<sup>87</sup> The City recognizes that the testimony and hearings surrounding the ISO's special study will generate further evidence on the feasibility of preferred resources to act as an alternative to the proposed project. The City reserves the right to fully brief evidence and issues that arise in the context of that study, including evidence submitted regarding the study and preferred resource alternatives to Puente.

<sup>88</sup> Ex. 3047 at 4, 7-8.

<sup>89</sup> 02/07/17 Transcript 214:9-16.

<sup>90</sup> See CEQA Guidelines § 15126.6.

preferred resources that the CPUC approved in D.16-06-050.<sup>91</sup> Moreover, CAISO's modeling assumes retirement of the 130 MW Mandalay Unit 3, but NRG has stated that it intends to operate this unit "well into the future."<sup>92</sup> In the short term, Unit 3's continued operation will provide an additional 130 MW to satisfy the Moorpark LCR need.<sup>93</sup> Thus, after accounting for these resources, the area's LCR need falls to 92 MW.

The record shows that it is feasible to procure 92 MW of additional batteries before the once through cooling period's compliance deadline.<sup>94</sup> New batteries could mitigate the risk of voltage collapse in the Moorpark subarea with backup from additional demand response or solar resources.<sup>95</sup>

Recent utility procurements confirm that it is feasible to bring additional preferred resources online much faster than Puente. For instance, immediately following SCE's larger LA Basin solicitation, SCE's preferred resources pilot secured 125 MW of new preferred resources for an area of Orange County roughly equivalent in size to the Moorpark subarea.<sup>96</sup> And additional procurement following the Aliso Canyon gas leak generated 70 MW of new storage resources in just six months.<sup>97</sup>

The FSA improperly dismisses the potential for preferred resources to satisfy all or a portion of the Big Creek/Ventura LCR need. Rather, it asserts that the CPUC's approval of the Puente contract "effectively found" that preferred resources could not feasibly

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<sup>91</sup> Ex. 4000 at 7.

<sup>92</sup> Ex. 4000 at 8-9.

<sup>93</sup> See Ex. 3047 at 5.

<sup>94</sup> 02/08/2017 Transcript at 91:1-23.

<sup>95</sup> 02/08/2017 Transcript at 91:1-23.

<sup>96</sup> Ex. 4000 at 4; 02/07/2017 Transcript 255:21-256:8; 02/08/2017 Transcript 103:3-104:6.

<sup>97</sup> 02/07/2017 Transcript 256:24-257:3.

meet the identified need.<sup>98</sup> This position is untenable.

Primarily, the CPUC refused to undertake any CEQA review of Puente, finding that the Commission is the lead agency evaluating that project. The Commission cannot abdicate its responsibility to independently assess the feasibility of any project alternative. Yet that is exactly the approach that staff took. Staff admitted they determined that preferred resources were infeasible by relying on the CPUC's procurement decision and did not "consider any new information since the LTTP was issued in February '13 [to determine] the feasibility of preferred resources."<sup>99</sup>

Indeed, the CPUC did *not* evaluate alternatives to Puente and expressly rejected the notion that its decision could be construed as predetermining the outcome of this Commission's environmental review.<sup>100</sup> The CPUC determined that it need not evaluate potential environmental justice and other environmental impacts because the CEC was the CEQA lead agency and the CPUC's "Consideration of the NRG Puente Project . . . does not prejudice the CEC review."<sup>101</sup> As such, the CPUC's decision cannot be used to predetermine the feasibility of alternatives to Puente.

CEQA requires the Commission to evaluate alternatives that could meet a project's basic objectives and avoid or reduce its significant impacts.<sup>102</sup> Here, because preferred resources can meet any residual need in the Moorpark subarea and offer

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<sup>98</sup> Ex. 2000 at 4.2-14 to 4.2-15.

<sup>99</sup> 02/07/2017 Transcript 222:17-223:9.

<sup>100</sup> Ex. 7015 at 6 ("evidentiary hearings were held on May 27, 28, and 29, 2015" and the matter was fully briefed by August 5, 2015).

<sup>101</sup> Ex. 7015 at 21-22.

<sup>102</sup> See *Habitat and Watershed Caretakers v. City of Santa Cruz* (2013) 213 Cal.App.4th 1277, 1304-05.

numerous environmental benefits compared to Puente or another new gas-fired plant, the Commission must consider them in its analysis.

**3. The FSA Improperly Ignored an Alternative of a Smaller Gas Turbine.**

At 262 MW net capacity, Puente is much larger than necessary to satisfy the Moorpark area's existing need, which falls below 100 MW. In cases like this, where a reduced-size project alternative could accomplish the primary objective of the proposed project, CEQA requires a lead agency to consider a reduced project alternative.<sup>103</sup>

Even if preferred resources alone could not satisfy all of the LCR need in the Moorpark subarea, the Commission should evaluate an alternative that utilizes one or more smaller gas-fired power plants. A smaller gas-fired plant, either with or without additional preferred resource procurement, could satisfy the identified LCR need without requiring a plant of Puente's scale. At the very least, such an alternative could reduce or avoid Puente's greenhouse gas, air quality, and potential aviation impacts and promote California's renewable portfolio mandates by reducing the amount of new gas generation in California.

A reduced-project alternative would likely rely on one or more smaller LM100 or LM6000 turbines. In addition to being smaller than Puente, both turbine types come equipped with clutch technology that would allow these plants to provide reactive power to the grid and mitigate voltage collapse without combustion.<sup>104</sup> These units are also

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<sup>103</sup> See *Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1352-56.

<sup>104</sup> 07/27/2017 Transcript 56:9-25.

equipped with battery storage that further allows them to supply spinning reserve without combustion.<sup>105</sup> Consequently, the Commission should evaluate an alternative that relies on one or more smaller gas turbines to meet the identified LCR need. If necessary to satisfy that need, the Commission should consider a portfolio of preferred resources and smaller gas units.

**C. The Commission Cannot Approve Puente Because There Are Feasible Alternatives that Meet the Basic Project Objectives.**

There are at least two alternative sites—the 5th/Del Norte site and the Ormond Beach Inland site—where new energy infrastructure could meet project objectives while avoiding or reducing some of Puente’s significant impacts. That infrastructure could include new renewable energy resources or smaller gas turbines. The existence of these feasible alternative sites precludes approval of Puente.<sup>106</sup>

**1. The Ormond Beach Inland Site Is Feasible and Would Have Fewer Significant Impacts than Puente.**

The Ormond Beach Inland alternative site, located at 5980 Arcturus Avenue, Oxnard, is a roughly 14.5-acre property that recently contained industrial development and is surrounded by industrial uses.<sup>107</sup> The site is located outside of the coastal zone and near a utility corridor that contains a 220 to 230kV transmission line and a natural gas pipeline.<sup>108</sup> Developing new energy infrastructure on this site would avoid Puente’s numerous land use inconsistencies, as well as impacts from filling coastal wetlands,

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<sup>105</sup> 07/27/2017 Transcript 57:1-4.

<sup>106</sup> Pub. Res. Code § 21002.

<sup>107</sup> Ex. 2000 at 4.2-76.

<sup>108</sup> Ex. 2000 at 4.2-76.



impacts to sensitive habitat and special status species, and construction-related transportation impacts. While the FSA indicates that this site might not be available to NRG,<sup>109</sup> the property owner testified it would be “open to the sale of all or part of the Property for use as a power plant, subject to agreeing on acceptable terms.”<sup>110</sup>

NRG has argued that development of this site might have greater impacts to archeological resources, architectural resources, and biological resources compared to Puente.<sup>111</sup> But NRG only speculates that such impacts could occur—it has not conducted any detailed site analysis to determine if potentially significant impacts could exist, much less if the alternative could be designed to avoid or mitigate those impacts.<sup>112</sup>

## **2. The 5th/Del Norte Site Is Also Feasible and Would Have Fewer Significant Impacts than Puente.**

The FSA also evaluates the potential to develop a new power plant at the 5th/Del Norte site in Oxnard. This site is located in a heavy industrial area outside of the coastal zone and its development would avoid the significant land use and biological impacts associated with Puente.<sup>113</sup> On the whole, the FSA indicates that impacts from constructing new infrastructure at this site would be less than or similar to developing Puente.<sup>114</sup>

Similar to the Ormond Beach Inland site, the FSA suggests that development of

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<sup>109</sup> Ex. 2000 at 4.2-92.

<sup>110</sup> Ex. 3024.

<sup>111</sup> Ex. 1121 at pdf. pp 20, 28-29, 52-53.

<sup>112</sup> See Ex. 1121 at pdf. pp 20, 28-29, 52-53.

<sup>113</sup> Ex. 2000 at 4.2-46.

<sup>114</sup> Ex. 2000 at 4.2-55 to 4.2-58.

this site might not be feasible because NRG does not currently own it.<sup>115</sup> But again there is no evidence that the site's owner would refuse to sell the property to NRG or another power company. Thus, the Commission cannot conclude the NRG could not feasibly construct a new power plant at the 5th/Del Norte site.

While the FSA asserts that locating a power plant of Puente's scale at the 5th/Del Norte site would create some impacts greater than Puente, the FSA's analysis of those impacts is largely conclusory. It does not compare the alternative's purported impacts to applicable thresholds of significance.<sup>116</sup> Moreover, the FSA fails to consider the potential for locating preferred resources or smaller-gas alternatives at this site.

### **3. Potential Aviation Impacts at These Sites Are Not Greater than Puente.**

At various points in this proceeding, staff has claimed new power plants at either the Ormond Beach Inland or 5th/Del Norte site would create significant and immitigable impacts to aircraft operating near these sites. This position is flawed for numerous reasons. Primarily, staff has failed to consider entirely avoiding any potential aviation impact by siting new preferred resources at these sites. Even if a new gas plant were needed, utilizing a smaller 55 MW gas turbine at the alternative sites could reduce potential thermal plume impacts to roughly one-fifth of Puente's expected impact.<sup>117</sup> And constructing a plant of similar size to Puente, but with different turbine technology,

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<sup>115</sup> Ex. 2000 at 4.2-54 to 4.2-55.

<sup>116</sup> See, e.g., Ex. 2000 at 4.2.64 (claiming noise impacts on a planned, but unbuilt, residential community would be "greater than Puente" without providing any thresholds or analysis of the potential noise impact), 4.2-71.

<sup>117</sup> Ex. 2025 at 45,47.

would reduce potential plume impacts by half.<sup>118</sup>

Moreover, Staff's position about potential aviation impacts has constantly shifted and should receive little weight. For instance, the FSA simultaneously claims that thermal plume impacts at the 5th/Del Norte site would be "significant and unavoidable" and potentially significant but capable of mitigation.<sup>119</sup> Similarly, after considering information from Naval Base Ventura County, the FSA asserts that aviation impacts at the Ormond Beach Inland site would be less than significant and less than Puente.<sup>120</sup> But staff later revised that conclusion and stated that impacts would be "significant unmitigable based on information" from the Navy.<sup>121</sup> But the Navy did not offer any new testimony regarding potential operations near the Ormond Beach Inland site before the hearings where staff changed its position. As a result, the basis for staff's new position, including what mitigation (if any) staff considered to reduce this impact to less than significant levels appears nowhere in the record.

These shifting positions have been confounded by staff's failure to apply a consistent threshold of significance to determine potential aviation impacts at the various sites. The FSA states that 5.3 meters per second (m/s) calculated by the Spillane methodology should be the threshold velocity for determining significant plume impacts

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<sup>118</sup> Ex. 2025 at 47.

<sup>119</sup> Ex. 2000 at 4.2-35, 4.2-57, 4.2-70.

<sup>120</sup> Ex. 2000 at 4.2-110, 4.2-144.

<sup>121</sup> 07/27/2017 Transcript 26:5-18.

to aviation.<sup>122</sup> But staff has separately argued that a significant aviation impact could occur with *any* aircraft overflight of a stack, regardless of the aircraft's elevation or the plume's velocity.<sup>123</sup> The absence of a consistent threshold of significance to evaluate Puente and alternative sites entirely undermines the Commission's analysis of potential aviation impacts and precludes a reasoned comparison between the sites.

Even if staff had consistently relied on the Spillane methodology for evaluating potential thermal plume impacts, that approach contains serious flaws and is unreliable. Among other things, Dr. Andrew Gray testified that Spillane simultaneously assumes "absolute zero horizontal winds" in the atmosphere for the first quarter mile of plume elevation *and* a perfectly stable atmosphere, a condition that only occurs in a *windy* well-mixed atmosphere.<sup>124</sup> Spillane also fails to account for any friction between the rising plume and the surrounding atmosphere even though friction always occurs and can significantly degrade a rising plume.<sup>125</sup> Thus, while staff has attempted to justify the Spillane method as an appropriate "worst case" analysis,<sup>126</sup> it in fact represents conditions that cannot possibly occur.<sup>127</sup>

Using a model that corrects many of the unrealistic assumptions in staff's model

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<sup>122</sup> Ex. 2000 at 4.12-64. While staff also calculated potential plume impacts under the FAA's MITRE methodology, it has repeatedly argued against using that methodology to "evaluat[e] thermal plume impacts to aircraft." Ex. 2025 at 31, 55-56.

<sup>123</sup> 07/27/2017 Transcript 31:1-16, 63:19-64:13, 71:1-16.

<sup>124</sup> 07/27/2017 Transcript 38:1-6, 39:16-40:11.

<sup>125</sup> 07/27/2017 Transcript 40:14-24.

<sup>126</sup> 07/27/2017 Transcript 29:12.

<sup>127</sup> 07/27/2017 Transcript 37:5-8.

shows that the altitude for critical plumes is roughly half of what staff calculated.<sup>128</sup>

Moreover, there is little force behind the thermal plumes at critical-velocity altitudes so any “impact would be . . . very small.”<sup>129</sup> Thus, the potential thermal plume impacts presented by staff are significantly overstated and provide no basis for rejecting the potential for alternatives at the 5th/Del Norte or the Ormond Beach Inland sites.

But even under the unrealistic Spillane model, there is little reason to distinguish between potential aviation impacts at the Puente, Ormond Beach Inland, and 5th Del Norte sites. Notably, while staff claims aircraft overfly the alternative sites at low altitudes, the only documented low-altitude overflight is at the Puente site. That site lies “under a frequent departure path where aircraft are flying at low altitude and would cross the thermal plume from the power plant.”<sup>130</sup> Data from the PSA shows that roughly 500 aircraft overfly this site annually, and 132 of those flights occur at very low altitudes (between 0 and 1,000 feet).<sup>131</sup> This data, combined with staff’s thermal plume modeling, led the Ventura County Director of Airports to conclude that Puente’s potential thermal plume impacts could not be mitigated.<sup>132</sup>

And finally, staff’s assertion that potentially significant plume impacts can be mitigated at Puente but not at the alternative sites does not withstand scrutiny. The only mitigation proposed for Puente’s thermal plume impacts requires NRG to request that

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<sup>128</sup> 07/27/2017 Transcript 38:23-39:5.

<sup>129</sup> 07/27/2017 Transcript 42:2-43:20.

<sup>130</sup> Ex. 3048 at 2.

<sup>131</sup> Ex. 3010 at pdf p. 4, 8.

<sup>132</sup> Ex. 3048 at 1-2.

local and federal agencies notify pilots of the potential hazard and advise them against overflying the site.<sup>133</sup> But similar mitigation would be equally available to avoid aircraft overflight of the alternatives sites.<sup>134</sup> Thus, there is no basis to conclude that plume impacts be reduced to less than significant levels at Puente, but not at the alternative sites.

**D. The Commission Must Evaluate Demolition of MGS Units 1 and 2 as Part of Any Offsite Alternative.**

The FSA further undermines the Commission’s alternatives analysis by assuming that demolition of MGS Units 1 and 2 will only occur if NRG builds a new power plant at the MGS facility. The FSA then asserts that the no-project, Ormond Beach, and 5th/Del Norte offsite alternatives could have greater impacts than Puente because staff assumed that those alternatives would not result in demolition of MGS Units 1 and 2.<sup>135</sup>

This approach severely prejudices consideration of any offsite alternative and violates CEQA. Excluding potential demolition from alternatives improperly skews the Commission’s analysis in favor of NRG’s project proposal. Agencies cannot use their alternatives analyses to set up alleged alternatives that will “be readily eliminated.”<sup>136</sup> Thus, if demolition of MGS Units 1 and 2 would avoid future significant impacts (or provides other benefits), the Commission must incorporate that demolition into any alternative that it evaluates.

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<sup>133</sup> Ex. 2000 at 4.12-46 to 4.12-47 (Trans 7).

<sup>134</sup> Ex. 3048 at 2. Moreover, this mitigation measure does not satisfy CEQA’s requirements. Warnings alone are unlikely to prevent aircraft from flying over the site. Ex. 3048 at 2. And because neither the Commission nor NRG have the authority to implement these measures, the Commission’s environmental document cannot rely on them for a finding of insignificance. *Tracy First v. City of Tracy* (2009) 177 Cal.App.4th 912, 938.

<sup>135</sup> Ex. 2000 at 4.2-149, 4.2-151, and 4.2-151.

<sup>136</sup> See *Watsonville Pilots Assn.*, 183 Cal.App.4th at 1089.

Nothing prevents the Commission from approving an alternative project that involves both Unit 1 and 2 demolition and an alternative at an inland location. Even if that is not NRG's preferred project, that does not excuse the Commission from considering offsite alternatives that also involve demolition.<sup>137</sup> Nothing in the record suggests that it would be infeasible for NRG to demolish these units while constructing an alternative elsewhere.

Moreover, the Commission cannot adopt the FSA's assumption that Units 1 and 2 will remain in place absent approval of Puente. Abandoning structures on Oxnard's coast would create an illegal nonconforming use and also constitute a nuisance in violation of the City's code.<sup>138</sup> The City is empowered to require removal of these abandoned structures.<sup>139</sup> It is improper for the Commission to assume that any alternative will result in an illegal abandonment when the Commission can easily incorporate demolition of Units 1 and 2 into any offsite alternative that it evaluates.<sup>140</sup>

In sum, staff's current alternatives analysis is plagued by inadequacies that prevent it from meeting CEQA's legal requirements.

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<sup>137</sup> See *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 602-03 (alternatives may be feasible even if a lead agency cannot direct an unwilling applicant to pursue them).

<sup>138</sup> Ex. 3019 at 8; Oxnard Municipal Code § 7-151 ("Any person or entity owning . . . any real property maintained in such manner that any of the following conditions are found to exist thereon shall be guilty of creating a nuisance in violation of this code[:] (A) Buildings or structures that are abandoned").

<sup>139</sup> *IT Corp. v. Solano County Bd. of Supervisors* (1991) 1 Cal.4th 81, 89 (local agencies may require abatement "even when substantial expense is involved.").

<sup>140</sup> See Guidelines § 15126.6(b).

### **III. The Commission Cannot Make Findings Necessary to Override the Project’s Inconsistencies with the City’s Land Use Policies.<sup>141</sup>**

The Warren-Alquist Act generally prohibits the Commission from certifying a new energy facility that does not conform with applicable LORS.<sup>142</sup> The Commission may only override violations of state or local law and issue a certification for a new facility if the Commission finds both “that the facility is required for public convenience and necessity,” *and* that “there are not more prudent and feasible means of achieving public convenience and necessity.”<sup>143</sup>

Here, Puente directly conflicts with multiple City LORS that would apply absent the Commission’s jurisdiction.<sup>144</sup> These conflicts trigger the requirement for override findings before the Commission may issue a certification. But the record before the Commission does not support either of the two findings necessary to override the City’s LORS. Consequently, the Commission cannot approve the project.

*First*, Puente is not required to satisfy the public convenience and necessity. Aside from NRG’s financial goals, the sole justification for Puente is the assertion that it would satisfy an LCR need in the Moorpark subarea.<sup>145</sup> But assumptions behind that need

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<sup>141</sup> Again, the City recognizes that the testimony and hearings surrounding the ISO’s special study will generate further evidence relevant to the overrides analysis. The City reserves the right to fully brief issues and evidence that arise in the context of that study.

<sup>142</sup> Pub. Res. Code § 25525.

<sup>143</sup> Pub. Res. Code § 25525.

<sup>144</sup> *See* Section I.

<sup>145</sup> Ex. 3047 at 2-3. While the FSA also asserts that Puente will aid grid flexibility, “[e]very comprehensive study [of] Western electricity grid flexibility needs has concluded” that existing resources will meet these needs over “at least a fifteen year planning horizon.” *Id.* at 2. Moreover, new resources “anywhere within the eleven Western states, two Canadian provinces, and Baja California” can supply this flexibility. *Id.*



determination, and, ultimately, the risk that the Moorpark area will lose power, are incredibly conservative and can be met in multiple ways.

That reliability benefit pales in comparison to the project’s significant environmental and land use burdens. The project directly violates the City’s coastal land use policies,<sup>146</sup> and is an affront to coastal planning and adaptation efforts of the City and the state Coastal Conservancy.<sup>147</sup> It would destroy wetlands and sensitive habitat on the project site, and impose additional recreational and air quality impacts on Oxnard’s environmental justice community. At its core, Puente threatens to prolong a legacy of environmental injustice that has burdened Oxnard residents for decades.

Additionally, Puente would undermine the electricity grid’s broader efficiency and hamper California’s effort to decarbonize the grid. Due to the impending retirement of the California’s once-through cooling fleet, Puente will be among the state’s *least* efficient large gas plants almost from the moment it comes online.<sup>148</sup> Because Puente will receive guaranteed fix-capacity prices, however, it will threaten to displace more efficient and flexible gas plants from the market.<sup>149</sup> Thus, this plant represents a “step backwards” from achieving California’s renewable energy goals.<sup>150</sup>

After comparing these impacts to the marginal benefits to the grid, the only reasonable conclusion is that Puente is *not* required for the public convenience and

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<sup>146</sup> See Section I.D.

<sup>147</sup> Ex. 3009 at 16-17.

<sup>148</sup> Ex. 3047 at 6.

<sup>149</sup> Ex. 3047 at 7.

<sup>150</sup> Ex. 3047 at 8.

necessity.

*Second*, even if Puente were required for the public convenience and necessity, there are far more prudent and feasible means of achieving that end. As previously discussed, the Mission Rock project could provide grid support services *without* gas combustion and associated emissions of greenhouse gases and criteria pollutants.<sup>151</sup> That facility also avoids numerous impacts associated with Puente, including exposure to coastal hazards, land use inconsistencies, and impacts to sensitive biological resources and Oxnard's environmental justice community.

Additionally, renewable resources, either alone or in combination with a small 50-100 MW turbine could meet the identified LCR need. In addition to avoiding the numerous impacts discussed above, such an alternative would create a diverse array of reliability resources that would not be vulnerable to the reliability risks associated with a forced outage at a single site like Puente.<sup>152</sup>

Compared to these alternatives, Puente is both poorly equipped and unnecessarily large to mitigate the N-1-1 reliability concern. Roughly three to five percent of the time, the unit will not be available if called upon to run.<sup>153</sup> Meeting this reliability need with a single large turbine, especially one sited in an environmental hazard area, only places the larger subarea at further risk of another contingency event.<sup>154</sup> Moreover, after accounting

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<sup>151</sup> See Section II.B1.

<sup>152</sup> Transcript 02/08/2017 at 89:13-23. The City intends to provide further briefing on this issue at the conclusion of the evidentiary hearings on alternatives to Puente.

<sup>153</sup> Transcript 02/08/2017 at 89:17-23.

<sup>154</sup> Transcript 02/08/2017 at 89:24-90:9.

for continued operation of MGS Unit 3 and the 12 MW of preferred resources that the PUC recently authorized for the Moorpark subarea, there is only a 92 MW residual LCR need. As a result, Puente, at 262 MW, is roughly three times larger than necessary to actually mitigate the post-2020 LCR need.

For all of these reasons, Puente is unnecessary to achieve the public convenience and necessity, and there are far more prudent means of satisfying the Moorpark subarea's LCR need. As a result, there is no basis for overriding the project's violation of numerous City land use requirements.

#### **IV. The Puente Site Is Subject to Substantial Flood Risk.**

##### **A. Combined Flooding from the Santa Clara River and Pacific Ocean Threaten the Project Site.**

The Puente site sits in coastal dune habitat bordering the Pacific Ocean and in close proximity to the mouth of the Santa Clara River.<sup>155</sup> Although the site is currently two miles from the mouth of the River, the River has come within a mile of the Puente site in the past 10 years.<sup>156</sup> In 1969, flooding from the Santa Clara River inundated the site and caused substantial damage to the MGS facility.<sup>157</sup> The 1969 flood damaged the power grid and Units 1 and 2 were not able to generate power for several days.<sup>158</sup> Because of its location along the coast at the mouth of a river, combined conditions in

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<sup>155</sup> Ex. 2000 at 4.11-9.

<sup>156</sup> Ex. 3025 at 24.

<sup>157</sup> Ex. 2000 at 4.11-13.

<sup>158</sup> 02/10/2017 Transcript 125:6-9, 17-19.

both water bodies contribute to the flood risk at the Puente site.<sup>159</sup>

**1. Testimony from the Coastal Commission and Coastal Conservancy Demonstrate that the Puente Site Is Subject to Substantial Flood Risk Under Current Conditions.**

Both the California Coastal Commission and the California Coastal Conservancy submitted comments documenting the flood risk to the Puente site.<sup>160</sup> As noted by both entities, a flood risk analysis prepared for the State Coastal Conservancy showed that flooding from the Santa Clara River would inundate the Mandalay site at a depth of up to 4 feet for a 100-year flood event—before taking into account the impacts of sea level rise.<sup>161</sup> With sea level rise, the 100-year storm “would result in even deeper and longer duration of flooding at Mandalay.”<sup>162</sup>

Neither staff nor the applicant conducted any independent analysis of the risk of river flooding. Instead, both relied on FEMA maps, which show the project site to be in the 500-year flood zone, to conclude that the risk of flooding to the site is low.<sup>163</sup> The FEMA maps do not take into account the impact of sea level rise.<sup>164</sup> Moreover, as the Coastal Commission pointed out, the Coastal Conservancy’s study showed greater flood extents than FEMA because the Conservancy’s study used a “two-dimensional

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<sup>159</sup> Ex. 2000 at 4.11-12 (noting interaction between river flows and ocean conditions), Soil and Water Resources Figure 7 (showing FEMA combined flood hazards); Ex. 3058 at 7 (Puente site located in an area of combined flood hazards, including coastal and flood flows).

<sup>160</sup> Ex. 3009 at 24-32; Ex. 3058.

<sup>161</sup> Ex. 3009 at 27; Ex. 3058 at 2.

<sup>162</sup> Ex. 3058 at 3.

<sup>163</sup> Exhibit 1101, Section 9 at 4 (Mineart Testimony); Exhibit 2000 at 4.11-35. Although Mr. Mineart claimed to evaluate the 500-year flood risk, other than his description of his inquiry, that analysis is not in the record. 02/10.2017 Transcript at 178-180.

<sup>164</sup> Ex. 3025 at 23; Ex. 2000, Appendix SW1, Figure 4.

hydrodynamic model which more accurately represents the hydraulic effects of low-lying topography and lateral berms or levees.”<sup>165</sup> Even with their limitations, the FEMA maps show flood waters from the 100-year storm coming within a few hundred feet of the Puente site.<sup>166</sup> Because staff and the applicant relied only on the FEMA maps to assess flood risk from the Santa Clara River, the Coastal Commission and Coastal Conservancy report is the only documentation in the record of riverine flood risk based on the 100-year storm that takes into account sea level rise.

## **2. CoSMoS Does Not Accurately Account for the Combined Risk of Ocean and River Flooding.**

Although FEMA does not incorporate sea level rise into its flood maps, Commission staff has repeatedly opined that CoSMoS addresses riverine flooding as part of its coastal hazards mapping.<sup>167</sup> In fact, staff asserted that one of the compensating factors for some of the less conservative assumptions in CoSMoS<sup>168</sup> is incorporation of flows from “coastal rivers by estimating peak fluvial discharges based on sea level gradients . . . Fluvial discharges might locally impede and amplify flooding associated with coastal storms.”<sup>169</sup>

The Coastal Conservancy’s updated flood model, docketed with the Commission on June 15, 2017, demonstrates the limitations of CoSMoS in addressing the combined

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<sup>165</sup> Ex. 3009 at 27.

<sup>166</sup> Ex. 3025 at 24; Ex. 2000, Appendix SW1, Figure 7.

<sup>167</sup> Ex. 2025 at 3- 4, 14 (noting CoSMoS takes into account “*possible effects of river flows.*”) (emphasis added).

<sup>168</sup> The additional limits of the CoSMoS analysis with respect to coastal hazards is discussed in further detail in Section IV.B.2 below.

<sup>169</sup> Ex. 2025 at 13.

effects of river and coastal flooding. Following the March 28, 2017 workshop on issues related to flood risk and sea level rise, Commission staff posed a number of questions to the Coastal Conservancy regarding its study of flooding from the Santa Clara River, including questions regarding the incorporation of ocean boundary conditions that would affect flood depths.<sup>170</sup> In response to these questions, the Coastal Conservancy updated its model “to better map inundation at the generating facility as a result of the combined effect of coastal and river flooding.”<sup>171</sup>

As demonstrated by the updated Coastal Conservancy model, the Puente site is at risk from flooding from the 100-year storm under a number of different ocean conditions. Scenario 1 confirms the analysis submitted by the Coastal Commission and Coastal Conservancy before the February 2017 hearings that the Puente site is at risk of flooding from a 100-year storm when ocean levels are at mean higher high water (1.61 meters).<sup>172</sup> The height of such a storm would cause flood levels at the Puente site of up to 1.7 meters, with an average of 1 meter.<sup>173</sup> 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 Ocean (scenario 4), the Puente site would flood both from overtopping of the dunes and from the Santa Clara River overtopping its boundaries during a 100-year storm.<sup>174</sup> Finally, the Coastal Conservancy model projects that with sea level rise of 2 feet by 2050 and an extreme

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<sup>170</sup> Ex. 3063 at 2; Ex. 3064 contains a link to this same report which also enables the viewer to run the flood simulations for each of the scenarios analyzed by the Conservancy.

<sup>171</sup> 07/26/2017 Transcript 222:16-17.

<sup>172</sup> Ex. 3063 at 9.

<sup>173</sup> Ex. 3063 at 9 (discussing scenario 1).

<sup>174</sup> Ex. 3063 at 10.

ocean condition generating a water level of 5.39 meters, a 100-year storm would result in flooding at the Puente site from both the Pacific Ocean and the Santa Clara River at levels up to 2.5 meters, with an average depth of 1.8 meters.<sup>175</sup>

The Committee admitted the Coastal Conservancy report for the “limited purpose of addressing the assumptions, the inputs and the interpretation of the results [from] CoSMoS,”<sup>176</sup> and “how [the Santa Clara] River works together or not with the ocean to get the—to deliver water to the site.”<sup>177</sup> At the July 2017 hearings, USGS made it clear that the CoSMoS model did not include a comprehensive analysis of river flooding.<sup>178</sup> CoSMoS does not model the 100-year river event at all and did not consider that event in combination with any number of reasonable ocean conditions, such as a 20 or even a 5-10 year ocean storm. USGS staff also were not aware that the Mandalay site flooded in 1969 and did not consider how an event of that magnitude would interact with present or future ocean conditions.<sup>179</sup> However, USGS staff agreed that CoSMoS could be used “to simulate the joint probability of [the] 100-year river flood with a smaller [ocean] event.”<sup>180</sup> NRG’s witness, Justin Vandever, also testified it would be possible to verify the accuracy of such an assessment with existing data about the 1969 storm.<sup>181</sup> This analysis has not been conducted, and as a result, the staff’s conclusion that the site is not

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<sup>175</sup> Ex. 3063 at 10 (scenario 5).

<sup>176</sup> 07/26/2017 Transcript 49:14-18.

<sup>177</sup> 07/26/2017 Transcript 224:21-25.

<sup>178</sup> 07/26/2017 Transcript 238:22-239:2 (Dr. Hart “we’d be looking at essentially a 100-year storm with a 10-year river event versus the 100-year [storm] and the 100-year [river event].”).

<sup>179</sup> 07/26/2017 Transcript 293:7-8.

<sup>180</sup> 07/26/2017 Transcript 298:16-20.

<sup>181</sup> 07/27/2017 Transcript 300:4-8.

at risk from the impact of a 100-year flood cannot be supported.

Because CoSMoS only considered a 5-10 year storm on the Santa Clara River (notwithstanding the ability to model greater storms under a variety of ocean conditions) and because the FEMA flood maps do not model sea level rise, the Coastal Conservancy report is the only evidence of the combined effects of coastal and river flooding under current and future conditions over the next 30 years. Moreover, the Coastal Conservancy report takes into account topographical factors that make its results reliable. First, the report recorded topographic features using a 15 meter grid *and* was reinforced to include specific topographic features that would not be reflected in a 15 meter grid, such as levees, berms, roads, and dune heights.<sup>182</sup> By contrast, CoSMoS uses a less-detailed 20-40 meter grid resolution, and there is no evidence that USGS reinforced this grid with the addition of features that would not be reflected in their broader resolution model.<sup>183</sup> The Coastal Conservancy report also relied on 2016 topographic data, while CoSMoS relies on data from 2009-10, which captured the shoreline in the fall before the winter storm season began.<sup>184</sup>

### **3. Flood Levels Are Sufficient to Interfere with Project Operations.**

NRG testified that the water level at which operation of the Puente facility would be affected was 15 feet NAVD—or approximately 1.5 feet above surface level.<sup>185</sup> Staff

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<sup>182</sup> 07/26/2017 Transcript 227:15-18.

<sup>183</sup> 07/26/2017 Transcript 192:22-23.

<sup>184</sup> Ex. 3025 at 14.

<sup>185</sup> Ex. 1145, Attachment A, Slides 3-5.



relied on this assessment to determine whether flooding posed a risk to the Puente site.<sup>186</sup> Both staff and the applicant asserted that this level was a “standing” water level, but did not specify the duration of inundation that was required, even though asked to do so by the Committee.<sup>187</sup> Staff also failed to conduct any independent assessment of inundation risk to the facility, such as wave runup or overtopping.<sup>188</sup> However, NRG’s testimony indicates that water levels sufficient to inundate “the electronic instrument cabinet for gas valve control” would cause the project to stop operation.<sup>189</sup> Given the sensitivity of electrical equipment, any inundation at this level would be problematic.

In any event, the Coastal Conservancy’s initial and updated model show that the water levels under every storm scenario would exceed this level. Even the most likely scenario—a 100-year storm under current conditions, with an ocean level of mean higher high water—would result in flood levels that average 1 meter.<sup>190</sup>

Not only did the staff assessment fail to conduct any independent assessment of flood risk, staff also declined to recommend mitigation measures proposed by the Coastal Commission to address this risk. Specifically, the Commission recommended that the “earthen berm” along the northern boundary of the site be modified to protect against water levels equivalent to the 500-year event plus 24 inches of sea level rise.<sup>191</sup> Even though the applicant indicated a willingness to accept this condition, staff found that

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<sup>186</sup> 07/26/2017 Transcript 214:9-14.

<sup>187</sup> Ex. 1145, Attachment A, Slide 2-3; 07/26/2017 Transcript 267:4-8

<sup>188</sup> 07/26/2017 Transcript 267:14-18.

<sup>189</sup> Ex. 1145, Attachment A, Slide 6.

<sup>190</sup> Ex. 3063 at 9.

<sup>191</sup> Ex. 3009 at 38; *see also* Ex. 2000 at 4.11-71.

these changes to the berm would require additional environmental review, and therefore did not recommend them.<sup>192</sup> The Commission cannot simply impose such a condition now because this environmental review has not been completed.<sup>193</sup> As a result, the site remains unprotected from flood risk.

**B. Coastal Hazards and Future Sea Level Rise Threaten the Project Site.**

The Puente project would sit among coastal dunes that serve as the only protection from coastal hazards, including coastal storms, tsunamis, and sea level rise. Because it sits in a coastal dune system, coastal hazards and sea level rise pose a risk to the project's reliability and the environment.<sup>194</sup> Various models are available to assess these hazards, including Coastal Resilience, FEMA, and CoSMoS. These models employ different approaches to coastal flood risk and rely on different assumptions regarding dune erosion, storm conditions, and hazardous water levels. However, all of the models demonstrate that the dune fronting the Puente project would be its only protection from coastal hazards. The proposed site presently sits less than a foot above the CoSMoS estimated water level and is approximately 6 feet *below* the FEMA Base Flood elevation in the Preliminary FIRM maps.<sup>195</sup> Therefore, understanding the integrity of the dune system and the way that future storms will impact the dunes is critical to assessing coastal hazards at the site.

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<sup>192</sup> Ex. 2000 at 4.11-72

<sup>193</sup> See CEQA Guidelines § 15126.4(a)(1)(D); *Save Our Peninsula Com.*, 87 Cal.App.4th at 130.

<sup>194</sup> As discussed in more detail in Section IV.E below, impacts of sea level rise and coastal hazards do raise environmental impacts that must be analyzed under CEQA.

<sup>195</sup> Ex. 3068 at 24.

**1. The Coastal Resilience Model and the Coastal Conservancy Report Demonstrate Flood Risk at the Site by 2050.**

The Nature Conservancy and Ventura County funded the development of the Coastal Resilience Ventura model to assess coastal hazards in Ventura County.<sup>196</sup> Dr. David Revell, who prepared the City’s assessment of coastal hazards, is a coastal geomorphologist with extensive experience studying coastal processes in the Santa Barbara littoral cell—the section of open California coast that includes the proposed Puente site.<sup>197</sup> His doctorate focused on “climate change, shoreline evolution, storm response, and coastal monitoring in Santa Barbara and Ventura Counties,” and he wrote his dissertation on sediment supply and beach evolution in the Santa Barbara littoral cell.<sup>198</sup> Dr. Revell has performed multiple coastal erosion and sea level rise studies in this area, including evaluations for the City of Goleta and models of climate change and erosion impacts along Ventura County’s coast.<sup>199</sup>

Dr. Revell’s evaluation of existing and increasing coastal hazards at the Puente site relied on mapping from the recently-completed Coastal Resilience Ventura report.<sup>200</sup> His evaluation revealed that during an El Nino-type storm event, the Puente site could be impacted by multiple coastal hazards—wave impacts, erosion, and coastal flooding—under existing conditions.<sup>201</sup> During such events, portions of Puente’s proposed site would be flooded, as would almost the entire footprint of Edison’s transmission

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<sup>196</sup> Ex. 3009 at 22.

<sup>197</sup> Ex. 3000, Attachment 1 (PUC Exhibit C03) at 1.

<sup>198</sup> Ex. 3025, Attachment 1 at 1.

<sup>199</sup> Ex. 3025, Attachment 1 at 1.

<sup>200</sup> Ex. 3000, Attachment 2 at 2.

<sup>201</sup> Ex. 3000, Attachment 2 at 10.

substation (identified by yellow figure).<sup>202</sup>

Consistent with state guidance, Dr. Revell analyzed risks to the site under a range of future sea levels. Even assuming a low sea-level rise scenario, the Puente site's exposure to coastal hazards would progressively worsen under modeled 2030, 2060, and 2100 conditions.<sup>203</sup> By 2060, the majority of the Puente site could be flooded under the lowest sea level rise projections.<sup>204</sup> Edison's entire transmission substation site could be flooded under that scenario as well.<sup>205</sup>

Multiple agencies throughout Ventura and Santa Barbara County, including the City of Oxnard, the City of Carpinteria, and the Counties of Santa Barbara and Ventura, rely on Coastal Resilience to plan for threats from coastal hazards and sea level rise.<sup>206</sup> The Coastal Conservancy's analysis of flood risk also supports the Coastal Resilience results and shows that the Puente site would be flooded by the Pacific Ocean from dune overtopping, even before it is flooded by the Santa Clara River.<sup>207</sup> The Coastal Conservancy's report also calls into question CoSMoS's projection of flood extents caused by ocean flows that come in through the dunes just north of the Puente site, but stop at the site's border.<sup>208</sup> As shown in the CoSMoS mapping, waters would inundate dunes that are 19-20 feet in height immediately adjacent to Puente, but do not flow into

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<sup>202</sup> Ex. 3000, Attachment 2 at 10.

<sup>203</sup> Ex. 3000, Attachment 2 at 12-14.

<sup>204</sup> Ex. 3000, Attachment 2 at 13.

<sup>205</sup> Ex. 3000, Attachment 2 at 13.

<sup>206</sup> 07/26/2017 Transcript 156:25-157:5.

<sup>207</sup> Ex. 3063 at 9-10 (scenarios 3 and 5).

<sup>208</sup> Ex. 3072, slide 18.

the Puente site.<sup>209</sup> The Coastal Conservancy's report also reflects this flooding through the dunes just north of Puente, but shows that the water would flow into the Puente site—even before it was inundated by the Santa Clara River.<sup>210</sup> The Coastal Conservancy's model—with its more detailed scale and reliance on current topographic data—demonstrates the limitations of CoSMoS at this site.<sup>211</sup>

However, Commission staff rejected the use of the Coastal Resilience model as a worst case scenario and failed to even acknowledge the Coastal Conservancy's findings with respect to ocean flooding.

## **2. Reliance on CoSMoS Is Not Sufficient to Demonstrate that the Site Is Not Subject to Flood Risk.**

In rejecting Coastal Resilience, staff elected to rely entirely on CoSMoS 3.0 to evaluate coastal hazards and risks from sea level rise.<sup>212</sup> CoSMoS does not project any flooding of the Puente site either under current conditions or with sea level rise in the future.<sup>213</sup> CoSMoS also shows lesser flood extents, with 40 inches of sea level rise, than the preliminary FEMA maps, which do not account for sea level rise at all.<sup>214</sup>

CoSMoS is a statistically-based climate model that downscales global climate conditions to a local scale.<sup>215</sup> CoSMoS does not validate its results against local historical storm events, but instead compiles a statistical storm event based on global ocean

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<sup>209</sup> Ex. 3072, slide 18.

<sup>210</sup> Ex. 3063 at 9-10 (scenarios 3 and 5).

<sup>211</sup> 07/26/2017 Transcript 227:15-18 (discussing resolution of model); 246:1-3 (reliance on 2016 topographic data).

<sup>212</sup> Ex. 2025 at 1.

<sup>213</sup> Ex. 2025 at 12.

<sup>214</sup> 02/10/2017 Transcript 302:24-303:4.

<sup>215</sup> Ex. 2025 at 3.

conditions.<sup>216</sup> When the FSA was published, much of the data to validate the CoSMoS assumptions about tides, storm surge, and wave propagation were not publically available.<sup>217</sup> Since that time, USGS has released data validating its assumptions regarding ocean conditions based on information, such as buoy data and wave levels; USGS also published its website for projecting future flood risks ([www.ourcoastourfuture.org](http://www.ourcoastourfuture.org)).<sup>218</sup> However, there are no explicit erosion maps for CoSMoS, no documentation of how erosion influences future flood risk, and the mapping tool does not even mention the word erosion. Given that there have been multiple calculations of wave runup to 20 feet—which exceeds the elevation of the project site by 6 feet<sup>219</sup>—an explicit understanding of erosion impacts to the sand dune is critical to evaluating the ability of the dune to protect the site.

CoSMoS takes a fundamentally different approach to assessing flood risk from sea level rise and coastal hazards. CoSMoS estimates flood risk based on a projected dynamic water level that is sustained for one to two minutes.<sup>220</sup> However, FEMA federal guidelines assess flood risk based on wave runup.<sup>221</sup> Coastal Resilience also assesses flood risk based on wave runup and subsequent flooding of hydraulically connected areas that are lower in elevation than wave runup heights.<sup>222</sup> The Coastal Resilience approach

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<sup>216</sup> Ex. 3025 at 20.

<sup>217</sup> Ex. 3025 at 20-21.

<sup>218</sup> Ex. 1143 at 9, 14-18.

<sup>219</sup> Ex. 3068 (preliminary FEMA water level is 20 feet); Ex. 2030 (slides 25, 26 showing run up into the dunes fronting the Puente site).

<sup>220</sup> 07/26/2017 Transcript 96:10-19, 190:2.

<sup>221</sup> Ex. 2025 at 9.

<sup>222</sup> Ex. 3061 at 8; Ex. 3025 at 22-23.

conforms to the FEMA flood risk guidelines. CoSMoS does not.<sup>223</sup> When assessing dune erosion, CoSMoS also models only the erosion caused by a single 100-year storm.<sup>224</sup> It does not take into account erosion from multiple storms that could occur, particularly during an El Nino year.<sup>225</sup>

### **3. CoSMoS Does Not Accurately Project Flood Risk from Documented Flood Events.**

While sophisticated in its approach to characterizing ocean conditions, evidence of actual coastal flooding at several locations in close proximity to the Puente site demonstrates that there are serious shortcomings in how CoSMoS maps these results against the shoreline to show actual flood risk.<sup>226</sup> Most striking are the discrepancies between what CoSMoS predicts will flood at Pierpont Bay and Oxnard Shores and the flood extents shown by photos of recent flood events. For example, at Oxnard Shores, CoSMoS projections of a 100-year storm and no sea level rise show water levels that would barely submerge the seaward edge of the beach.<sup>227</sup> Actual photos of a high tide and large wave event from December 11, 2015 show standing water throughout the streets of the Oxnard Shores development.<sup>228</sup> Oxnard Shores is one-half mile from the Puente site and sits on a beach that is approximately 300 feet wide.<sup>229</sup> Oxnard Shores is also built in

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<sup>223</sup> Ex. 3025 at 23.

<sup>224</sup> Ex. 2025 at 13.

<sup>225</sup> Ex. 3068 at 25.

<sup>226</sup> Ex. 3068 at 6-21.

<sup>227</sup> Ex. 3068 at 6.

<sup>228</sup> Ex. 3068 9-11.

<sup>229</sup> 07/26/2017 Transcript 170:9-15; Ex. 3068 at 9.

line with the sand dunes that front the Puente site.<sup>230</sup> Staff also acknowledged in the FSA that Oxnard Shores was damaged by high waves and storm surge during the 1982/83 and 1997/98 storms.<sup>231</sup> Yet, if one were to rely on CoSMoS to assess flood hazard, one would assume there would be no problem because water would not even come close to causing damage at Oxnard Shores.<sup>232</sup>

A similar discrepancy between CoSMoS projections and actual flooding can be seen at Pierpont Beach, just two miles north of the Puente site.<sup>233</sup> Again, CoSMoS projects that in a 100-year storm, dynamic water levels do not even come close to flooding adjacent development.<sup>234</sup> However, photos and video from the December 2015 storm show water rushing over seawalls and flooding the streets.<sup>235</sup> USGS admitted, “The Pierpont flooding evidence is quite striking . . . this shows a true discrepancy among the spot models. And at that particular site, it would say that more investigation and collaboration would be necessary.”<sup>236</sup>

Finally, in front of the Puente site itself, photos of the December 2015 storm show water levels reaching up to Mandalay Beach Road, which at that location is a sand

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<sup>230</sup> 07/26/2017 Transcript 170:9-15; Ex. 1042, Figure 2.

<sup>231</sup> Ex. 2000 at 4.11-50-4.11-51; *see also* Ex. 3072, Slide 16 (Oxnard Shores).

<sup>232</sup> Although USGS could not verify that photos presented by Dr. Revell showed flooding from the ocean, Dr. Revell testified that the photos were taken about 1 ½ hours after high tide and showed standing water that was caused by that tide. 07/26/2017 Transcript 178:1-10. Moreover, the FSA’s acknowledgment of flooding at Oxnard Shores provides further evidence of the failure of CoSMoS to predict flooding in the vicinity of the site.

<sup>233</sup> Ex. 3068 at 12-16.

<sup>234</sup> Ex. 3068 at 12.

<sup>235</sup> Ex. 3068 at 15-16; Ex. 3066 (video).

<sup>236</sup> 07/26/2017 Transcript 177:11-16.



road.<sup>237</sup> Dr. Revell presented uncontested testimony that the December 2015 event was likely a 20 to-25 year event.<sup>238</sup> However, CoSMoS does not show water levels that even approach the dunes.<sup>239</sup>

It is unclear why CoSMoS flood extents for a 100-year storm fail to predict actual flooding from much smaller storms. However, Coastal Resilience accurately reflects observed flood conditions.<sup>240</sup> Commission staff asserted that CoSMoS projects sustained water levels rather than wave runup.<sup>241</sup> Setting aside the fact wave runup is the FEMA standard for assessing flood risk, the evidence indicates that water levels at Oxnard Shores, Pierpont Beach, and in front of the project site, were not simply wave runup. At other times, staff and USGS cited topographic complexities that might account for discrepancies between CoSMoS mapped flood events and actual conditions.<sup>242</sup> Finally, USGS admitted that the CoSMoS results have not been validated against historic storms in the vicinity of the Puente site.<sup>243</sup> As stated by Dr. O’Neill, USGS does not “have data for that particular site to see what the 100-year event is at that site. So I can’t really speak to how it relates to the historical period.” For example, USGS was not aware that the site had flooded in 1969.<sup>244</sup> Whatever the cause, the CoSMoS mapping tool—which just went public in May 2017 and which was relied upon by Commission staff to dismiss flood

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<sup>237</sup> Ex. 3072, slide 17; Ex. 3060.

<sup>238</sup> 07/26/2017 Transcript 170:18-19.

<sup>239</sup> Ex. 3072, Slide 17; 07/26/2017 Transcript 170:14-171:9 (slide shows CoSMoS 20-year event.)

<sup>240</sup> Ex. 3068 at 8, 11, 14, 17, 19, 21.

<sup>241</sup> 07/26/2017 Transcript 218:21-24.

<sup>242</sup> 07/26/2017 Transcript 176:2-6.

<sup>243</sup> 07/26/2017 Transcript 115:7-19, 127:16-18.

<sup>244</sup> 07/26/2017 Transcript 138:17-19.

hazards at the Puente site—does not reliably map flood risk.

#### **4. The CoSMoS Assumptions Regarding Undeveloped Land Undermine Its Assessment of Flood Risk at the Puente Site.**

In addition to discrepancies between how CoSMoS maps current flood extents and observed flooding, CoSMoS makes a key assumption about dune erosion that limits its ability to project future flood hazards at the Puente site. Specifically, 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 explained at the July hearings, for an undeveloped site with sea level rise, “dunes migrate inland, and they also migrate up.”<sup>245</sup> By contrast, where a site is developed, CoSMoS assumes that development will “hold the line” and the dune will not be allowed to retreat. Instead, USGS testified, the dunes disappear: “because there’s hard structures. 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.”<sup>246</sup>

This assumption has a critical impact on how CoSMoS assesses risks from sea level rise. CoSMoS assumes that the Puente site is not developed and therefore the dunes can move landward.<sup>247</sup> Thus, when it assesses coastal hazards in the future, the dune system is allowed to move back and up; it does not erode away. *However, the Puente site will be developed if the project is approved.* Therefore, the dune system would erode and

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<sup>245</sup> 07/26/2017 Transcript 180:17-21; 07/27/2017 Transcript 7:22-8:1.

<sup>246</sup> 07/27/2017 Transcript 7:2-9.

<sup>247</sup> 07/27/2017 Transcript 8:11-14.

“not offer protection.”<sup>248</sup> Because CoSMoS assumes the Puente site is undeveloped, it fails to accurately predict flood risk associated with sea level rise at the site.

CoSMoS’s assumption that the dune system on a site that is currently undeveloped will migrate landward with sea level rise also applies to its wave runup analysis.<sup>249</sup> At the July evidentiary hearings, USGS showed its projection of wave runup for a 100-year storm with 50 centimeters of sea level rise near the Puente site. During the storm, “the profile is eroded . . . and it comes very close,” but does not overtop the dune.<sup>250</sup> Similarly, USGS concluded that “because the profiles are evolved over time with the long-term change here, it’s also that runup is just at the peak of the dunes, but it doesn’t overtop here, as well.”<sup>251</sup> In short, USGS finds that wave runup from a single 100-year storm comes close to overtopping the dunes that front the Puente site. However, because CoSMoS assumes that the Puente site is not developed and that dune migrates landward and upward, it fails to capture the effect that would occur if the site were developed and, in the words of USGS, the dunes “erode[] away.”<sup>252</sup>

In rejecting Coastal Resilience as a worst case scenario, staff pointed to its modeling of storm-induced coastal erosion with a “storm of unlimited duration.”<sup>253</sup> Under this scenario, where a storm is of sufficient intensity and generates wave heights that are above the toe of a dune structure, Coastal Resilience assumes that the dune can be eroded

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<sup>248</sup> 07/27/2017 Transcript 8:9.

<sup>249</sup> 07/27/2017 Transcript 10:11-21.

<sup>250</sup> 07/26/2017 Transcript 107:9-15 (discussing slide 21).

<sup>251</sup> 07/26/2017 Transcript 109:21-110:2 (discussing slide 26).

<sup>252</sup> 07/27/2017 Transcript 8:7.

<sup>253</sup> 07/26/2017 Transcript 219-21-220:5.

entirely.<sup>254</sup> Dr. Revell agreed this is a conservative assumption, but it is one designed to account for multiple uncertainties in predicting impacts from sea level rise. Among these uncertainties are the number and intensity of storms that will occur in the future, the gaps between storms, and the extent to which various ocean conditions (such as high or king tides) and extreme storms will coincide.<sup>255</sup> Estimating each of these is extremely complicated and subject to considerable uncertainty; underestimating any one element would understate the true risks of sea level rise.<sup>256</sup> For example, while a single storm might not last long enough to erode a dune, several back-to-back storms could. Coastal Resilience attempts to account for some of this uncertainty.<sup>257</sup> Coastal Resilience, like FEMA and CoSMoS 3.0, also relies on topographic data from autumn 2009.<sup>258</sup> This data, which reflects a highly accreted, summer beach condition, would tend to understate coastal hazards.<sup>259</sup> Coastal Resilience follows FEMA Guidelines for assessing flood hazards, but unlike FEMA, also includes sea level rise and erosion. Thus, while Coastal Resilience includes some conservative assumptions, it also conforms to accepted guidance and is not a worst case scenario.

CoSMoS, by contrast, only models the effect of one 100-year storm and, because of its assumptions about how dune migration occurs on undeveloped land, likely underestimates dune erosion that would occur if the Puente site is developed.

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<sup>254</sup> Ex. 3061 at 26.

<sup>255</sup> Ex. 3068 at 26-27.

<sup>256</sup> Ex. 3068 at 26.

<sup>257</sup> Ex. 3068 at 26.

<sup>258</sup> Ex. 3054 at 8.

<sup>259</sup> Ex. 3054 at 8.

Compounding this error is the absence of any documentation regarding the extent of dune erosion or retreat assumed in CoSMoS. At the July hearings, USGS confirmed that the dune erosion data are not publically available.<sup>260</sup> As a result, it is impossible to assess whether the extent of dune erosion assumed by CoSMoS is reasonable.

**C. The Applicant’s Assessment of Flood Risk Does Not Demonstrate the Site Is Protected from Coastal Hazards.**

NRG supported staff’s reliance on CoSMoS to find no flood risk to the Puente site.<sup>261</sup> NRG also relied on the testimony of Phillip Mineart, a civil engineer who’s experience is related primarily to addressing the dynamics of inland harbors and bays—not the open ocean where Puente would be located.<sup>262</sup> Mr. Mineart testified that because the beach fronting the Puente site has accreted since the Mandalay Generating Station was built, it was safe to assume that the site is not vulnerable to the effects of sea level rise.<sup>263</sup> Finally, Mr. Mineart attempted to address wave runup at the site through the use of an average beach slope.<sup>264</sup>

Mr. Mineart’s assessments, based on general statements about beach accretion and average beach slopes do not demonstrate that the site is protected from coastal hazards. The beach fronting the project site has varied in width over the past 50 years and has generally accreted over the long-run.<sup>265</sup> However, the beach is subject to substantial variability, with variations of up to 450 feet in changes between 1987 and 2007 in no

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<sup>260</sup> 07/26/2017 Transcript 147:23-148:1.

<sup>261</sup> Ex. 1150, paragraphs 38-39.

<sup>262</sup> Ex. 1101, Section 9, attachment A.

<sup>263</sup> Ex. 1101, Section 9 at 5.

<sup>264</sup> Ex. 1145, Appendix A.

<sup>265</sup> Ex. 3025 at 9.

particular order.<sup>266</sup> Numerous factors affect beach width at the Puente site, including seasonal variations, floods, drought, coastal storms, and dredging of both Ventura Harbor and Channel Islands Harbor.<sup>267</sup> Undated aerial photos, such as those relied upon by Mr. Mineart, do not capture the variability in beach width that can occur and affect the site's vulnerability to coastal storms. Similarly, as explained by Dr. Revell, Mr. Mineart's analysis of wave runup relies on a single relatively flat beach slope from a single day and does not reflect the large range of beach slopes actually observed in front of the project site.<sup>268</sup> Had he considered this full range of slopes, wave runup at the site with 2 feet of sea level rise can reach as high as 38 feet—well above the height of the dunes fronting the site—and 24 feet above the project site.<sup>269</sup>

**D. A Site Specific Assessment Is Required.**

The discrepancy in model results demands a site specific analysis to understand risks at the Puente site. Although all of the models incorporate information about local topography, none of the models is a site specific assessment of flood hazard that incorporates such factors as documented beach variability in front of the project site, the range of observed beach slopes, a range of sea level rise estimates, the stability of the dune system, and dune erosion from multiple storm events. USGS admitted that estimating “the future probability of risk of overtopping has not been robustly assessed,

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<sup>266</sup> Ex. 3025 at 9.

<sup>267</sup> Ex. 3009 at 25, 30.

<sup>268</sup> Ex. 3061 at 27.

<sup>269</sup> Ex. 3025 at 10 (variability in beach slopes), 11 (runup without sea level rise based on observed beach slopes), 15 (runup with sea level rise).

and to do so would require a separate and quite rigorous investigation.”<sup>270</sup> That investigation has not been completed.<sup>271</sup>

Such a site specific assessment is particularly important here because the City—like jurisdictions throughout Ventura and Santa Barbara County—relies on Coastal Resilience to assess coastal hazards. Based on the mapping of Coastal Resilience, the City has determined the site is not appropriate for development of energy facilities because of flood risk.<sup>272</sup> If the Commission intends to override the City’s land use authority, it must do more than rely on another model—especially one that has not accurately predicted observed flooding in other areas of Oxnard and Ventura County. The risk of any shortcomings in the CoSMoS model will be borne not just in terms of reliability of the grid, but also by the City which must continue to provide infrastructure, public services, and emergency services to the Puente site.

The failure to require a site specific analysis and the sole focus on coastal flood hazards through 2050 ignores the City’s efforts to plan for sea level rise in the future. All of the flood hazard models show that this area of the Oxnard coast will be subject to flooding in the future.<sup>273</sup> Even if the Puente site were a small island in the midst of a flood,<sup>274</sup> it makes no sense continue to invest public resources in infrastructure that

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<sup>270</sup> 07/26/2017 Transcript 116:3-8.

<sup>271</sup> 07/26/2017 Transcript 117:3-5.

<sup>272</sup> See Section I.B.

<sup>273</sup> Ex. 3072, slide 18; Ex. 3061 at 22.

<sup>274</sup> USGS projects that the Puente site itself will not be flooded although areas around it would. However, because CoSMoS assumes the site is not developed, the dune system remains intact and therefore capable of protecting the site. If it had assumed that Puente is developed, the dunes would have eroded and the site should be flooded.

cannot be maintained over the long run. This infrastructure includes not just the facility itself, but gas lines, roads, water and wastewater utilities, and public safety service.<sup>275</sup> Utilities are the largest and most complicated roadblock in coastal resilience planning.<sup>276</sup> With the decommissioning of the OTC facilities, the opportunity exists now to make decisions that direct public resources and infrastructure to areas that are less vulnerable and ultimately make more sense. By focusing only on hazards through 2050, the Commission will ignore the City's efforts to plan for sea level rise and waste the opportunity to make decisions with future hazards in mind.

**E. The Flood Hazard Must be Addressed as an Environmental Impact and a Threat to the Project's Reliability.**

Contrary to the assertion in the FSA, CEQA does apply to the impacts associated with flooding of the Puente site.<sup>277</sup> The California Supreme Court established that CEQA requires an analysis of existing environmental hazards where a project could exacerbate those hazards.<sup>278</sup> For example, here, flooding of the Puente site could cause damage to the facility which in turn will cause environmental damage, such as the rupturing of gas lines or the release of hazardous materials.<sup>279</sup> CEQA also requires an analysis of a project's inconsistency with local plans, such as Oxnard's general plan policies prohibiting

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<sup>275</sup> 02/10/2017 Transcript 344:24-345:22; Ex. 3025 at 27.

<sup>276</sup> Ex. 3025 at 27.

<sup>277</sup> Ex. 2000 at 4.11-33.

<sup>278</sup> *Cal. Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 388.

<sup>279</sup> Ex. 2000 at 4.6-7 to 4.6-12. The project's GHG emissions will also contribute to global warming, which in turn will exacerbate sea level rise and resulting flood risks.



development in areas subject to environmental hazards.<sup>280</sup> But, because it determined there was no flood risk to the project site, the FSA failed to address the environmental impacts that such a flood might cause.

Staff's consideration of flood risks to the project falls short of CEQA's requirements. It improperly relies on modelling with clear deficiencies and does not come close to providing a worst-case assessment of potential impacts.<sup>281</sup> That error is compounded by the fact that key assumptions and calculations in that model have not been provided to the parties or the public.<sup>282</sup>

The FSA's analysis of risks from flood is also deficient from a reliability perspective. The FSA goes to great lengths to demonstrate that the Puente project is not a critical facility and therefore does not require analysis over the longer time frame generally applicable to critical infrastructure.<sup>283</sup> The City agrees that Puente itself is not necessary. However, the PUC has identified a local capacity requirement that must be met, and the PUC and NRG propose to do this with the Puente project. Therefore, while Puente itself is not critical, by the PUC's terms, the need itself is. Ironically, CAISO notes that the LCR need is designed to address contingencies such as an earthquake that

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<sup>280</sup> See Section I.B.

<sup>281</sup> See *Berkeley Keep Jets*, 91 Cal.App.4th at 1367 (finding an agency violated CEQA where it failed to consider a more accurate method for measuring toxic air contaminants that commenters and a state agency recommended).

<sup>282</sup> See *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 88 (environmental review is inadequate where data necessary to support an agency's conclusion is missing); *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831, 118 Cal.App.3d at 831 ("the public and decision-makers, for whom the EIR is prepared, should also have before them the basis for [expert] opinion so as to enable them to make an independent, reasoned judgment").

<sup>283</sup> Ex. 2000 at 4.11-113 to 4.11-116.

would damage the power lines serving the Moorpark subarea.<sup>284</sup> Puente, however, would be located in an earthquake and tsunami zone—in addition to a site subject to flood hazards.<sup>285</sup> As a result, the very contingency Puente is designed to address could in fact cause Puente to become inoperable.

**V. The Project Will Significantly Impact Oxnard’s Environmental Justice Community.**

The residents of Oxnard have long shouldered a disproportionate pollution burden from the region’s fossil fuel power plants and other industrial uses. In addition to the three gas-fired generating stations (with a total of six generating units) currently located on Oxnard’s coast, the City faces the ongoing legacy of three now-shuttered landfills and the Halaco Superfund site.<sup>286</sup> For decades, these polluting facilities have negatively impacted the health and welfare of the City’s predominantly minority and low-income residents. It is therefore undisputed that Oxnard contains an environmental justice community.<sup>287</sup> More bluntly, the City has become a “sacrifice zone” for the region’s industrial uses.<sup>288</sup>

To determine whether a new environmental justice impact would affect this already-burdened community, the FSA purportedly considers whether Puente would create “impacts on the environmental justice population living within a six-mile radius of the project site” and whether such impacts would “disproportionately affect an

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<sup>284</sup> TN 220813 at 27.

<sup>285</sup> Ex. 2000 at 1-8.

<sup>286</sup> Ex. 3017 at 2.

<sup>287</sup> See Ex. 2000 at 4.5-10.

<sup>288</sup> 02/09/2017 Transcript 7:11.

environmental justice population.”<sup>289</sup> But after reciting this standard, the FSA fails to apply it. Instead, the FSA simply claims that the project would not create any new significant and unmitigated impacts, and uses that position to justify its determination that Puente would not disproportionately impact Oxnard’s environmental justice community.<sup>290</sup> The FSA does not separately consider whether Puente’s impacts, regardless of their significance level, would disproportionately affect an environmental justice community. As a result, the FSA contains no meaningful comparison between Oxnard and non-environmental justice communities to determine whether locating another power plant in Oxnard would disproportionately impact the City’s most vulnerable residents.

Even if the FSA were correct to limit its analysis to the project’s significant and unmitigated impacts, Puente *will* create such impacts for Oxnard’s environmental justice community. First, Puente’s numerous land use impacts fall uniquely on Oxnard residents. The City land use policies that Puente would violate are meant to protect sensitive species and recreational uses along Oxnard’s coast and avoid the burden of stranded or abandoned industrial structures in areas prone to natural hazards.

Staff gave little more than cursory attention to the disproportionate effect that these land use impacts will have on City residents. Instead, the FSA argues that no environmental justice population lives or works directly adjacent to the Puente site, and, therefore, land use impacts would not disproportionately impact a vulnerable

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<sup>289</sup> Ex. 2000 at 4.5-1.

<sup>290</sup> Ex. 2000 at 4.5-13 to 4.5-17.

population.<sup>291</sup> But land use standards designed to protect coastal biodiversity and recreational opportunities benefit all of Oxnard’s residents, regardless of how close to the power plant they live or work. Puente’s significant land use impacts would thus disproportionately impact environmental justice communities throughout Oxnard.

Similarly, Puente will create disproportionate recreational impacts that exacerbate the history of inequitable power plant siting on the City’s coast. CEQA requires agencies to evaluate a project’s impacts to recreational opportunities.<sup>292</sup> Here, while the FSA purports to consider Puente’s aesthetic impacts, it omits any discussion of a new plant’s potential to needlessly exacerbate impacts to recreational opportunities in Oxnard.

As the City’s witnesses have testified, largescale industrial uses along the coast impair residents’ use of that area for recreation. Carmen Ramirez, the City’s Mayor Pro Tem and a longtime Oxnard resident, has experienced firsthand how industrial uses on the coast deprive the City’s residents of recreational opportunities. As she testified, “[m]any residents of the city never go to their own beaches because of [their] industrial character. Or, they do not realize that these are public spaces or that there is even access to the shore.”<sup>293</sup> Consequently, the “the presence of the NRG power plants at Mandalay [creates] a physical and psychological impediment to public enjoyment of the beach.”<sup>294</sup> This impediment results in Oxnard residents avoiding the area of the power plants and prevents them from enjoying the City’s coastline in “the way that other cities enjoy their

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<sup>291</sup> Ex. 2000 at 4.5-14; 02/09/2017 Transcript at 252:14-18.

<sup>292</sup> See CEQA Guidelines, Exhibit G § XV.

<sup>293</sup> Ex. 3017 at 2.

<sup>294</sup> Ex. 3017 at 1.

beaches to the north and the south of” Oxnard.<sup>295</sup>

The City’s Development Services Director similarly testified that Oxnard’s beaches are a valued natural resource, but that largescale industry along the coast prevents many residents from enjoying that resource.<sup>296</sup> “It’s the actual massing of the [power plant] itself, not just the portion that happens out on the beach that discourages residents from [using] that area.”<sup>297</sup>

The FSA makes no attempt to grapple with the project’s foreseeable and disproportionate recreational impacts on Oxnard’s residents. It ignores the fact that decommissioning MGS Units 1 and 2 provides an opportunity for residents to finally enjoy their beach as residents of surrounding communities do, and to take a step away from the history of environmental injustice that burdens Oxnard. Puente directly threatens that opportunity. Instead of allowing the City to move past this history of environmental injustice, Puente would guarantee disproportionate impacts for decades to come.<sup>298</sup>

Finally, as discussed below, the Project will yield significant air quality impacts that have not been mitigated. Those impacts will fall also disproportionately on disadvantaged residents of Oxnard and neighboring communities.<sup>299</sup> For all of these reasons, there is absolutely no basis for the FSA’s conclusion that Puente will not disproportionately impact environmental justice communities.

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<sup>295</sup> 02/09/2017 Transcript 7:6-8, 8:16-9:8.

<sup>296</sup> Ex. 3019 at 7.

<sup>297</sup> 02/09/2017 Transcript 266:21-23.

<sup>298</sup> Ex. 3019 at 7.

<sup>299</sup> See Section VI.

## **VI. The Project Will Create Significant Air Quality Impacts that Have Not Been Mitigated.**

The FSA acknowledges that Puente will create significant air quality impacts. However, the FSA failed to identify adequate mitigation to reduce these impacts to less-than-significant levels. As a result, these impacts remain significant and the FSA's air quality analysis is legally deficient.

Most significantly, the FSA shows that PM10 emissions from Puente could create violations of California's ambient air quality standards.<sup>300</sup> The FSA's impact analysis is based on a 24-percent annual capacity factor, which is the proposed permitted level of Puente operations.<sup>301</sup> In shocking contrast, however, the FSA only uses an 11-percent capacity factor to determine how much mitigation would be required to reduce Puente's air quality impacts to less-than-significant levels.<sup>302</sup> Thus, the FSA recommends less than half of the mitigation necessary to reduce the project's significant impacts.

The FSA attempts to justify this approach by reviewing operating capacity of nearby gas-fired power plants to argue that this 11-percent capacity factor represents the project's "worst case" emissions. This approach is illegal. When evaluating a project's potential impacts, CEQA requires agencies to evaluate the entirety of the proposed action, not some assumed lesser amount.<sup>303</sup> Here, regardless of the FSA's assumptions

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<sup>300</sup> See, e.g., Ex. 2000 at 4.5-34.

<sup>301</sup> Ex. 2000 at 4.1-26.

<sup>302</sup> Ex. 2000 at 4.1-75.

<sup>303</sup> See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 655-56 (EIR required to evaluate impacts of peak permitted mine operations); see also *City of Redlands v. County of San Bernardino* (2002) 96 Cal.App.4th 398, 409 (evaluation of impacts (footnote continued on next page))

about future levels of Puente operations, CEQA requires the Commission to mitigate impacts from all of Puente's permitted operations.

The FSA attempts to obfuscate this deficient mitigation by arguing that the 11-percent capacity factor is only used for determining "CEQA Mitigation" and is "not intended as an impacts [sic] analysis."<sup>304</sup> This excuse is nonsensical. If staff uses a 24-percent capacity factor to determine potential project impacts, any proposed mitigation must use the same capacity factor. Otherwise, Puente's operations could cause significant air quality impacts even after proposed mitigation is fully implemented.

Ultimately, despite staff's "worst case" assertion, nothing limits Puente's operations to 11-percent capacity, nor is NRG incapable of acquiring additional mitigation to reduce air quality impacts. At the hearings, staff admitted that additional mitigation could be obtained to further reduce air quality impacts.<sup>305</sup> If Puente's operations will truly never exceed 11-percent capacity, the Commission should adopt a condition of certification limiting operations to that level to avoid the possibility of any unmitigated air quality impacts. Tellingly, neither staff nor the applicant have agreed to such a condition.

The FSA's mitigation of air quality impacts is deficient in other respects as well. It improperly relies on emission reduction credits to mitigate the project's foreseeable NOx

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(footnote continued from previous page)  
from a general plan amendment "must necessarily include a consideration of the larger project, i.e., the future development permitted by the amendment").

<sup>304</sup> Ex. 2000 at 4.1-50.

<sup>305</sup> 02/07/2017 Transcript 119:11-19.

impacts.<sup>306</sup> But this mitigation is illusory because the credits will not actually offset any new emissions from Puente. Instead, these credits represent emission reductions that occurred in the air basin between 1992 and 1996.<sup>307</sup> As a result, the baseline used to evaluate the project's significant impacts already reflects these decades-old reductions.<sup>308</sup> They cannot mitigate the *new* air quality impacts associated with Puente. NRG cannot reach back in time and claim credit for emission reductions that occurred long before NRG even conceived of this project.

## **VII. The Proposed Conditions for Facility Closure Are Inadequate.**

Puente threatens to mar Oxnard's coastline and burden its residents with another pollution source for decades to come. But the FSA has assumed that Puente will cease operations by 2050, and in its evaluation of coastal hazards, limited its analysis of potential impacts to that timeframe.<sup>309</sup>

However, there is no condition of certification that would require Puente to close by 2050.<sup>310</sup> Rather, staff's proposed closure condition merely requires the applicant to submit a "Final Closure Plan and Cost Estimate" to the Commission "[n]o less than 1 year [before] initiating a permanent facility closure."<sup>311</sup> Thus, as long as Puente is

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<sup>306</sup> Ex. 2000 at 4.1-51.

<sup>307</sup> See Ex. 2013.

<sup>308</sup> Pub. Res. Code § 21002.1(a) (environmental review must "identify significant effects on *the environment* . . . [and] indicate the manner in which those significant effects can be mitigated or avoided") (emphasis added); CEQA Guidelines § 15125(a) (The environmental baseline represents "the physical environmental conditions in the vicinity of the project, as they exist . . . at the time the environmental analysis is commenced.").

<sup>309</sup> See Ex. 2000 at 4.11-49.

<sup>310</sup> 07/26/2017 Transcript 326:14-18.

<sup>311</sup> Ex. 2006 at 55-56.



operating, it is left to the owner's discretion to determine if and when it will remove the power plant.

This closure condition is completely inadequate. As currently drafted, it simply requires the site owner to “*submit*” a closure plan to the Commission.<sup>312</sup> But the owner has no obligation to close the facility and remediate the site until *after* the Commission (1) approves the closure plan, and (2) the owner initiates closure activities.<sup>313</sup> If these events do not occur, the current condition does not require the site owner to actually implement the closure plan. At a bare minimum, once Puente ceases operations, the condition must require the owner to close Puente, implement the closure plan, and fully remediate the site both above and below grade.

Moreover, if it approves Puente, the Commission must require closure and site remediation no later than 2050. The FSA's environmental analysis cannot stop at 2050 without such a condition. In light of the decades of environmental injustice against Oxnard's residents, the growing threat of sea level rise and flooding hazards, and Puente's numerous operational environmental impacts, the Commission should not allow the plant to operate indefinitely.

And finally, any adopted conditions of certification should require Puente's owner to obtain a surety bond that would fully finance Puente's removal and the remediation of the project site upon closure. As the hearing officer observed, without a surety bond, there is no guarantee that the site owner will meet any closure and remediation

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<sup>312</sup> Ex. 2006 at 55.

<sup>313</sup> Ex. 2006 at 58.

conditions.<sup>314</sup> Requiring a surety bond is especially critical here because the Puente project and Mandalay site are currently intertwined with GenOn Energy, Inc. and NRG California South's Chapter 11 bankruptcy petition.<sup>315</sup> Without a bond to guarantee funding for Puente's removal after operations cease, there is a significant risk that Puente's owner will abandon the plant and leave the City and its residents to deal with the cleanup.

### CONCLUSION

For all of these reasons, the Commission should reject NRG's application for certification of the Puente Power Project.

DATED: September 1, 2017

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<sup>314</sup> 07/26/2017 Transcript 324:17-25.

<sup>315</sup> See Joint Chapter 11 Plan and Reorganization of GenOn Energy, Inc. and Its Debtor Affiliates, U.S. Bankruptcy Court for the Southern District of Texas, at 5 (available at <http://document.epiq11.com//document/getdocumentbycode/?docId=3148768&projectCode=GEI>).