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September 2, 2016

Mr. Joseph Street  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105

Re: Puente Power Project

Dear Mr. Street:

We are writing on behalf of NRG Energy Center Oxnard LLC (“NRG”) regarding the Puente Power Project (“Project” or “P3”), which is currently under review by the California Energy Commission (“CEC”) (Docket No. 15-AFC-01). We are in the process of reviewing the proposed “California Coastal Commission Report to California Energy Commission on Application for Certification 15-AFC-01 – NRG Puente Power Project” prepared by California Coastal Commission (“Coastal Commission”) staff and released on August 26, 2016 (“Proposed Report”).<sup>1</sup> The Proposed Report sets forth recommended findings on the Project’s conformity to relevant policies of the California Coastal Act and the City of Oxnard’s Local Coastal Program (LCP) and recommendations that, if included by the CEC as Conditions of Certification, would allow the Project to conform to the extent feasible with applicable Coastal Act and LCP policies. We appreciate that Coastal Commission staff issued the Proposed Report on a timely basis to allow for its consideration by the Coastal Commission and transmittal to the CEC in accordance with the schedule established by the CEC Committee reviewing the Project.

Based on our initial review of the Proposed Report, we believe that Coastal Commission staff has not fully considered critical information with respect to two areas in particular: i) identification of a portion of the Project site as wetlands; and ii) exposure of the Project site to flooding risk. As a result, the Proposed Report overstates the Project’s potential impacts on

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<sup>1</sup> The Proposed Report indicates that the Coastal Commission is reviewing the Project pursuant to Public Resources Code Section 30413(d). We note that the Section 30413(d) process applies only to notice of intention (“NOI”) proceedings, and that thermal natural gas-fired power plant facilities, such as the Project, are statutorily exempt from the NOI process. (Pub. Resources Code, § 25540.6(a)(1)) The focus of this letter is on the substantive analysis and recommendations in the Proposed Report, as opposed to its statutory underpinnings; however, NRG reserves the right to assert any claims that it may have based on statutory authority.

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wetlands and its exposure to flooding risks, which leads, in turn, to a recommendation that the Project be relocated to an alternative site. The purpose of this letter is to bring to staff's attention additional critical information that demonstrates that the Project, as proposed, is consistent with the Coastal Act and LCP policies in these two areas, and that the recommendation to relocate the Project is unfounded.

We note that the Proposed Report concludes that should the CEC deem alternative sites infeasible, the Project at the proposed site would be consistent to the extent feasible with relevant policies of the Coastal Act and LCP assuming implementation of certain alternative recommendations to relocating the Project. As set forth in its Alternatives Analysis prepared in the CEC proceedings (TN # 207096), NRG believes the many alternative sites that have been analyzed, including those evaluated in the Proposed Report, are infeasible. While we recognize that this is a determination that the CEC will make, as opposed to the Coastal Commission, we nevertheless bring to your attention some of the concerns related to the alternative sites evaluated in the Proposed Report, particularly in the two areas where concerns related to the proposed site have led the staff to make a recommendation to relocate the Project. Even though the Coastal Commission is not charged with completing a comprehensive alternatives analysis, we are providing information about how development of the Project at the proposed alternative sites may well lead to greater impacts, relative to development at the proposed site, in the very areas that led to consideration of alternative sites in the first place.

NRG believes that if staff and the Coastal Commission take into consideration the additional information provided herein, both will conclude that: i) the Project, as proposed, is consistent with the Coastal Act and LCP policies related to the areas of concern identified in the Proposed Report; ii) the identified alternative sites raise even greater concerns in these areas; and iii) the recommendation to relocate the Project is unfounded and should be eliminated from the final report submitted by the Coastal Commission to the CEC. None of the alternative sites analyzed by the CEC, including those highlighted in the Proposed Report, are superior to the proposed Project site, particularly with implementation of the CEC's proposed Conditions of Certification and the feasible recommendations of the Coastal Commission.

**Wetlands Determination**

NRG disagrees with the conclusion in the Staff Report that 2.03 acres of the Project site meet the criteria to be classified as a "wetland," as defined by the Coastal Act or the Coastal Commission's administrative regulations. The Project site is a portion of the Mandalay Generating Station (MGS), an industrial power generating facility that has been in existence since the 1950s. The Project site was originally slated for development of future steam-generating units; however, they were never constructed at this location. A 30-inch diameter gas line traverses the Project site, which was intended to be the gas supply for the future steam-generating units. Uses of the Project site over the past 60-plus years include the following:

- 1950s: The Project site was graded for the original MGS construction, and the 30-inch diameter gas line was installed.

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- 1970s: The existing flood protection berm along the northern boundary of the property was constructed.
- 1970s: An insulator testing facility was constructed in 1970, and was used by Southern California Edison from 1971 to 1978 to study mean time to flash-over rates on various insulators in a coastal environment.
- 1983: Approximately 7,000 cubic yards of dredged spoils from the Edison Canal were temporarily stored on the Project site.
- 1996-1997: A 10-inch diameter gas line was installed across the Project site from the gas metering station to MGS Unit 3.
- 2000: Approximately 7,000 cubic yards of dredged spoils from the Edison Canal were temporarily stored on the Project site.
- 2003-2005: Approximately 75,000 cubic yards of accumulated sediment from the Edison Canal were placed on the Project site. Site preparation included excavation and placement of liner fabric. The dredged spoils were pumped into geotextile containment tubes, and placed on the Project site to dry.
- 2011: The Project site was used for temporary storage of contaminated soil removed in connection with Southern California Edison's remediation of the on-site retention basins. (See, Project AFC, pp. 2-3 through 2-4.)

The relevant definitions of "wetland" are set forth in the Proposed Report and restated here for ease of reference. The Coastal Act defines a wetland as:

"Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens. (Pub. Resources Code § 30121)

The Coastal Commission regulations contains the following definition of a wetland:

Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year

and their location within, or adjacent to, vegetated wetlands or deep-water habitats. (14 Cal. Code Regs. § 13577)

Applying the Coastal Act definition, the subject 2.03 acres is not covered periodically by shallow water, nor will it be covered permanently. The Project site is approximately 14 feet above sea level, is protected by approximately 30-foot tall dunes seaward, and an approximately 5-foot high earthen berm northward. It is also 5 to 9 feet above any potential subsurface waters. Applying the regulatory definition, the subject 2.03 acres do not have a water table at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes.

Wetland conditions do not exist on the Project site despite the presence of certain wetland indicator species. The presence of wetland indicator plant species on the Project site is more than likely the result of stored dredge materials. Because the Edison Canal is a saltwater environment, it is likely that the dredged spoils placed on the P3 site were saturated with saltwater, and that during the time of storage, saltwater infiltrated into the site soils. Over time, this practice likely resulted in an accumulation of salt in the site soils, making them more suitable for salt tolerant plant species such as woolly seablite, slenderleaf iceplant, and pickleweed.

A jurisdictional determination/wetland delineation prepared in March 2015 confirmed that neither hydric soils nor wetland hydrology is present on the Project site. The jurisdictional determination/wetland delineation specifically described the Coastal Commission's wetland delineation criteria and applied those criteria in its evaluation of the Project site. The jurisdictional determination/wetland delineation concluded that the Project site is not a wetland in accordance with the federal or Coastal Act definitions. Please refer to the memorandum entitled Puente Power Project - Wetland Technical Studies Summary, and attached hereto as Attachment A, which summarizes previously conducted technical studies, including the above-referenced jurisdictional determination/wetland delineation, evaluating the potential for wetlands at the Project site.

The Proposed Report fails to apply sound wetland science and practice to the Project site. The Coastal Commission's determination of the presence of a "one parameter wetland" typically follows methods promulgated by the U.S. Army Corps of Engineers, which require the presence of three wetland indicators (hydrology, hydrophytes and hydric soils). For federal determinations, the corroboration provided by the required presence of both wetlands hydrology and hydric soils greatly reduces the misidentification of plants as growing in wetlands, as opposed to uplands. Under the Coastal Commission's "one parameter" test, a finding of one of these three indicators creates a rebuttable, non-conclusive, presumption that an area is a wetland. Therefore, one may demonstrate that, despite the presence of a single wetland indicator, the area is, in fact, *not* a wetland. Such a demonstration has been made with respect to the Project site.

Based on the incorrect conclusion that a wetland exists on the Project site, the Proposed Report recommends that proposed CEC Condition of Certification BIO-9 be modified to require compensatory mitigation for direct impacts to wetlands in the form of wetland restoration at a ratio of 4:1 at a nearby location. (Proposed Report, p. 14) Compensatory mitigation should not

be required at all because the Project site does not include wetlands. Further, even if the subject 2.03 acres did constitute a wetland, the recommended 4:1 mitigation ratio is not appropriate given the poor quality of the subject acreage. Wetland mitigation ratios are typically determined based on the functions and values affected versus the function that is being restored, replaced or enhanced such that a 1:1 replacement of both acreage and function is accomplished; that is, if a higher quality mitigation is provided, the mitigation ratio may be lower than if lower quality mitigation is provided. For example, using the Army Corps' recent worksheet for establishing mitigation ratios for impacts to aquatic resources,<sup>2</sup> given the highly disturbed character of the plants identified on the Project site, the high percentage of non-native species, and general lack of wetland functions, a mitigation ratio of between 1:1 and 1.5:1 would be appropriate if the mitigation provided consists of moderate to high quality wetlands, and 1.5:1 if the mitigation provided consists of low to moderate quality. Even though NRG does not believe that any mitigation is required, it is prepared to accept CEC Condition of Certification BIO-9 as proposed, and to provide compensatory mitigation at the recommended 2:1 ratio.

The Proposed Report states that in the PSA, CEC staff recommended that 2.03 acres of the Project site be classified as a wetland pursuant to Coastal Act regulations. (Proposed Report, p. 12). While this is true, the PSA also makes clear that this recommendation is based exclusively on the Coastal Commission's highly conservative "one parameter approach" to defining wetlands, and that no portion of the Project site would be deemed a wetland under any other applicable criteria or definitions. The PSA states that "[t]he Coastal Commission uses this broad approach (i.e. a one-parameter approach) in determining wetland extent as a conservative means of defining and conserving wetlands, including conserving upland habitat surrounding a wetland." (PSA, p. 4.2-26).

In fact, the PSA emphasizes that the Project site does not exhibit any wetland indicators other than hydrophytic plants, and that even if this one indicator is sufficient to bring a portion of the Project site within the Coastal Commission's definition of a wetland, it is a poor quality wetland, at best. For example, the PSA makes the following points:

- The Project site has been actively maintained to facilitate operation of existing power generation, and has experienced varied uses, including as a marine dredging spoils storage; and therefore does not support wetlands or other waters under the jurisdiction of the Corps or CDFW. (PSA, p. 4.2-11).
- No other wetland indicators [other than hydrophytic plants], such as hydric soils or wetland hydrology were documented during the applicant's wetland delineation. (PSA, p. 4.2-11).
- Woolly seablite in the Project area is interspersed with the invasive iceplant, forming thick mats. These thick mats are of diminished value to wildlife, and woolly seablite is likely present only because the Project site is artificially saline, due to historical storage of ocean-dredged sediment. (PSA, p. 4.2-23).

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<sup>2</sup> <http://www.spd.usace.army.mil/Portals/13/docs/regulatory/qmsref/ratio/12501.2-7-13.pdf>

- The wetlands on-site are degraded and contain plants suited to upland growth, and there is little to no differentiation between upland habitat surrounding the wetland, and the wetland, itself. (PSA, p. 4.2-26).
- There is no tidal influence to cause increased salinity, and water inputs are only from rainfall. (PSA, p. 4.2-26).
- The approximately 2.03-acre wetland has diminished value, form, and function. For these reasons, staff considers the wetlands to provide little beneficial value to wildlife, nor does the site on its own provide many of the positive benefits of a wetland, such as water filtration, foraging and habitat for wildlife, or water reabsorption. (PSA, p. 4.2-26).

Contrary to the assertion in the Proposed Report at page 14 that the CEC staff's assessment of the site is unsupported, the PSA references the staff's support for its assessment of the Project site, which includes the technical studies summarized in Attachment A to this letter. On the basis of its assessment of the Project site, the CEC staff concludes that compensatory mitigation at a 2:1 ratio would satisfy the Coastal Commission regulations in appropriately mitigating for development of the site, and the staff specifically rejects a ratio of 3:1 (PSA, p. 4.2-26).

Finally, the Proposed Report concludes its discussion of wetland impacts with the following statement: "Speculatively, the presence of wetland vegetation within the project area may indicate the partial re-emergence of vegetation native to this historical landscape during a recent decrease in site disturbance." (Proposed Report, p. 14). There is no evidence to support this claim, which is admittedly speculative. To the contrary, the CEC staff's PSA states "Researchers have deduced that in the early 1800s, the project site itself was sand dunes, with scattered alkali meadows in the low spots between the dunes (Bellar et al., 2011)." (PSA, pp. 4.2-5 through 4.2-6). According to the PSA, historical soil surveys of the area establish the fact that the area has never supported a wetland, nor provided the form or functions of a wetland. (PSA, p. 4.2-11).

Based on the foregoing, the Coastal Commission's determination that 2.03 acres of the Project site constitutes a wetland, which is driving the same reluctant conclusion on the part of the CEC staff, is unfounded and cannot serve as the basis for recommending that the Project be relocated to an alternative site. Further, while NRG is prepared to provide compensatory mitigation for the loss of hydrophytic plants at a ratio of 2:1, the mistaken determination that a portion of the Project site constitutes a wetland cannot be relied upon to recommend increasing the compensation ratio to anything higher than 2:1.

### **Flood, Sea Level Rise and Tsunami Hazards**

The other primary justification provided in the Proposed Report for recommending an alternative site is the perceived vulnerability of the Project site to flood, sea level rise (“SLR”) and tsunami hazards. For the reasons set forth below, the Proposed Report overstates these potential risks. In addition to extensive analysis of these issues in the CEC proceedings, as reflected in the PSA, these issues were the subject of expert testimony and briefing before the California Public Utilities Commission (“CPUC”) in connection with the CPUC’s consideration and approval of the resource adequacy purchase agreement between NRG and Southern California Edison for the Project.<sup>3</sup> Expert testimony presented in the CPUC proceedings, and relevant to the issues raised in the Proposed Report, is summarized in the Reply Brief of NRG Energy Center Oxnard LLC and NRG California South LP (“CPUC Reply Brief”) attached hereto as Attachment B.

The Mandalay Generating Station (“MGS”) site, of which the P3 site is a part, is located at an elevation of between 12 and 14 feet (NAVD88). Relative to the local tidal datums, the MGS site is approximately 7-9 feet above Mean Higher High Water (MHHW) and 11-13 feet above Mean Lower Low Water (MLLW). The P3 site is on the higher portion of the MGS site (~14 feet) and is, therefore, approximately 9 feet above MHHW. Compared to the local active tide gages (Santa Barbara and Santa Monica), the P3 site is over 5 feet higher than the highest observed water level (8.31 feet in November 1982).

#### **Flooding Risk**

Potential sources of flooding risk for the proposed Project site are the Santa Clara River (riverine flooding) if it overtopped its banks, or coastal flooding if a large storm in the Pacific Ocean overwhelmed the beach and dunes fronting the site. The entire MGS site, including the proposed P3 site, is outside the FEMA 100-year floodplain from either of these potential sources, riverine or coastal flooding.

If the Santa Clara River were to overtop its banks, flood waters would need to flow overland 3 to 4 miles before reaching the MGS site, and would be expected to be shallow. As shown on FEMA’s Flood Insurance Rate Map (FIRM) Community Panel Numbers, No. 06111C0885E and 06111C0905E (Effective Date of January 20, 2010), a portion of the MGS site, including a very small portion of the P3 site on which nothing is planned for development, is shown in the FEMA “Zone X – Other Flood Areas” (areas protected by levees from 1 percent annual chance flood, areas of 0.2 percent annual chance flood; areas of 1 percent chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile). For the MGS site, including the P3 site, this flood hazard zone would be best described as an area of 0.2 percent annual chance flood, which corresponds to the 500-year floodplain, or an area of 1 percent chance flood (i.e., 100-year flood event) with average depths of less than 1 foot.

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<sup>3</sup> Application of Southern California Edison Company (U338E) for Approval of the Results of Its 2013 Local Capacity Requirements Request for Offers for the Moorpark Sub-Area, Application No. 14-11-016, Filed November 26, 2014.

The FEMA maps, and a map from a recent study of the Santa Clara River provided in the Proposed Report, show flooding near the Project site from the Santa Clara River where it breaks out of its banks near its mouth. On the FEMA maps, the elevation is 10-12 feet, which is below the elevation of the flood protection berm along the north MGS property line. Furthermore, the Edison Canal would act as a drain limiting the amount of water that could flood the site from an upland source.

The other potential source of flooding, coastal flooding, is shown on the 2010 effective FEMA maps at the MGS site as a VE zone. VE zones are defined as “areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action.” Unlike the more common AE zones, which show the depth or elevation of flood water, VE zones show the elevation of wave run-up. The effective FIRM shows a VE zone with a value of 13 feet.

FEMA is in the process of updating FIRMs of Ventura County. FEMA’s Draft Work Map, which was included in the PSA as Soil & Water Figure 5 (PSA, p. 4.10-37), and is the precursor to preliminary maps, shows the VE zone has increased to 20 feet. This wave run-up level at 20 feet represents the ocean still water level (water level excluding waves) of approximately 7 to 9 feet in elevation plus the level of wave run-up on the beach, not the level of flooding. If FEMA determined that a dune would be overtopped by wave run-up (e.g., dune was lower in elevation than the VE zone), FEMA would include an estimate of the depth of flooding on the back side of the dune due to the water that overtopped the dune, typically shallow flooding of a few feet (not the elevation of the VE zone). FEMA did not include any flood zones on the back side of the dune since no overtopping was predicted. Additionally, since wave run-up is based on the beach slope, if the slope stays the same, the run-up would be the same. The dunes directly in front of the Project site are over 100 feet in width, and thus any future overtopping of shallow water, if it were to occur, would have to travel a significant distance prior to reaching the Project site. It is also overly simplistic to assume that 2 feet of SLR will result in a wave run-up level that is 2 feet closer to the top of the dune, because the dune itself could accrete and grow in size.

### **Coastal Erosion**

NRG agrees that with Coastal Commission staff that “[t]he vulnerability of the project site to flood hazards, now and in the future, will be determined in part by the status of the coastal dunes immediately west of the MGS, and by the condition of the artificial berm along the site’s northern boundary.” (Proposed Report, p. 28). As stated in the Proposed Report, “The single most important determinant of flooding risk at the site, at least in the near term, appears to be the status of the beach and fronting dunes.” (Proposed Report, p. 33). NRG also agrees with the staff conclusion that “sediment discharge from the Santa Clara River has comprised the majority of the shoreline sediment supply in the project vicinity, with sand bypassing from Ventura Harbor a secondary source.” (Proposed Report, p. 28). These facts led the CEC staff to conclude in the PSA that “[t]he site specific characteristics of the beach (e.g., wide, dune backed, relatively low exposure to southern swells, and downcoast from a

large sediment source, the Santa Clara River) support this long-term shoreline accretion [referring to an increase in the width of the beach in front of the MGS site of over 200 feet during the period 1947-2016].” (PSA, p. 4.10-58).

In fact, the PSA significantly understates the extent of historic beach accretion. Since 1947, the beach fronting the MGS site has increased in width by more than 300 feet (see AFC Figure 4.15-7, which shows the growth in width based on aerial photos). The estimated width is the distance from the outfall headwall to the water line at the time of each photo. The estimate is approximate because the water level changes with the tides and season; however, all the photos, taken at different times over the decades, are consistent in showing the continual increase in beach width. In the 1950s and 1960s, a paved road ran along the beach just above the outfall headwall. The road is currently buried about 3 to 4 feet beneath the sand (based on an exploratory excavation done in 2014). As can be seen by comparing historic photos, the dunes have expanded farther towards the beach and ocean, and the old road is now partially covered by new dunes, indicating an increase in beach volume as well as width. The dunes’ growth would appear to have been limited primarily by the outflow from the MGS outfall, rather than by erosion caused by extreme water levels or storms. This is indicated by the larger width in the dune field farther south from the outfall, where the outfall discharge impacts the beach less.

Having acknowledged the history of beach accretion fronting the MGS site, and the secondary role played by sand bypassing from the Ventura Harbor in contributing to such accretion, the Proposed Report then gives undue weight to concerns regarding possible future variability of dredging and sand bypassing. Even if Ventura Harbor dredging ceased, a bypass bar would likely form and sand transport past the harbor would eventually return to near pre-harbor construction conditions. The sand trap updrift of Ventura Harbor usually fills within a year or two, after which sand bypasses the trap and deposits in the channel and harbor requiring annual dredging to keep the harbor open. This year (2015-2016) resulted in a large amount of sediment bypassing the sand trap updrift of the Ventura Harbor and depositing sand into the Ventura Harbor inlet. The January 21, 2016 Ventura County Star newspaper reported that this past winter about 900,000 cubic yards of material was deposited at Ventura Harbor, filling the sand trap and overflowing into the inlet channel to the harbor. The newspaper reported that the harbor entrance normally has a depth of 40 feet but was down to 14 feet this year, and that the harbor entrance normally has a navigable area about 300 feet wide but was down to about 40 feet this winter. The harbor was dredged this winter, but if dredging did not occur, the harbor would likely be completely blocked within a few years. After that, most of the sediment that normally collected in the harbor and was dredged would bypass the harbor and continue south as it did before harbor construction. Thus, if dredging was completely and permanently discontinued at Ventura Harbor, which is unlikely, there would be only a short-term impact on the transport of sand.

The Proposed Report then expresses concern that wave driven erosion during a major storm event could result in significant erosion, reducing both the height and width of the protective dunes. (Proposed Report, p. 29). The Proposed Report relies heavily on the work of Dr. Revell. Dr. Revell’s model has been shown to be inaccurate and flawed as applied to the Project site. The model predicted that an El Nino-type storm event, such as the one that

occurred in January 1983, would flood the entire Project site under current conditions, but that prediction is contrary to what actually happened. The January 1983 El Nino storm and other large storm events have occurred in the past, and the resulting waves and storm surges have had no impact on the MGS site – there was no flooding and no impact to MGS operations.

Since the 1983 event, the beach fronting the MGS site has accreted and is now wider than it was in 1983. In addition, foredunes have formed and stabilized farther out towards the ocean. Thus, under “current conditions,” the Project site is not more vulnerable to coastal hazards than it was in 1983, but is actually less vulnerable. Under current conditions, the Project site is protected by a beach that is 300 feet wide, with dunes that are 20 to 30 feet high. If the same event occurred today, the waves would break onto a wider beach and would need to erode the newly formed foredunes before impacting the main dunes protecting the Project site. Given that no damage occurred in 1983, it is unlikely that any damage would occur under current conditions. (See, CPUC Reply Brief, pp. 10-13).

The Proposed Report then analyzes the potential effects of long-term sea level rise (SLR). For historical perspective, during the period of 1947-2016, SLR has been 0.004 foot per year (1.34 millimeters per year (mm/yr)), as measured at the Santa Monica gage. This amounts to about 3 inches since construction of the original MGS power plant approximately 60 years ago. Although the historical rate of SLR is less than the predicted future rate, the fact that the beach has grown in width notwithstanding SLR indicates a stable beach. We also note that for the projected SLR scenario of 24 inches by 2050 to occur, the rate of SLR would need to increase by more than tenfold over recent historical levels to 14.1 mm/yr. If the supply of sand from the north is not sufficient to keep up with SLR, the beach will contract. The existing slope of the beach averages approximately 3 percent, based on the 2013 LiDAR data. Assuming the high-scenario SLR of 24 inches by 2050, and that the beach slope remains the same, the beach would be expected to shrink by about 70 feet (24 inches/0.03/12 inches/foot) by 2050. For the FEMA VE zone calculations a beach slope of 10% was used. In this case the beach erosion is expected to be 20 feet. Over the expected 30-year life of the proposed project (2020 through 2050), the high-scenario SLR rate is considered to be extremely conservative, considering that recent historic rate of SLR is considerably less than the predicted future rate. Assuming the low or medium SLR scenarios, the estimated beach reduction would be on the order of about 20 or 45 feet, respectively. The *2013 Coastal Resilience Study* (specifically, Figure 16 in that report) shows that the sediment yield from the Santa Clara and Ventura Rivers should remain about the same as the historical yield until about 2050. Thus, the existing data indicate that loss of beach is unlikely to occur over the life of the Project, and even under the most conservatives analysis, the width of the beach fronting the MGS site would continue to be over 200 feet wide.

### **Edison Canal Flooding**

The Proposed Report expresses concern regarding the potential for flooding as a result of elevated levels of water in the Edison Canal due to a severe storm or flood event or tsunami. The Edison Canal is a 2.5-mile-long, manmade canal. The entrance to the canal is at the northern end of the Channel Islands Harbor under Channel Islands Boulevard; approximately 2 miles from the harbor entrance.

The MGS roads and parking lot near the canal are at elevation 12 feet NAVD88, or more. Most of the canal banks on the MGS property are greater than 14 feet in elevation, although they decrease to about 12 feet at the head of the canal. An extreme tidal elevation is unlikely to exceed 8 feet. The maximum observed water levels at NOAA gages at Los Angeles, Santa Barbara, Port San Luis, and Rincon Island are all less than 8 feet. The historical peak at Santa Monica is 8.3 feet NAVD88, or about 0.3 foot above the 100-year water level. Therefore, flooding from the Edison Canal due to extreme water levels is unlikely. Even assuming an increase in sea level of 24 inches by the year 2050, the extreme water levels in the canal would be about 10 feet, that is, approximately 8 feet for a 100-year (or more) return period tide, plus 2 feet of high-scenario SLR. The water level would be expected to stay within the canal, but freeboard at the head of the canal (i.e., at the MGS inlet) would be reduced by about 2 feet, or to about 4 to 5 feet.

NRG has also analyzed the potential for flooding of the Edison Canal from a tsunami. The harbor entrance is between two jetties and is protected by a parallel offshore breakwater that extends across the entire mouth of the harbor entrance. Several studies on the effects of breakwaters on tsunami run-up height have been conducted (for example, Irtem et al. [2011], Adrichem and Aranguiz [2010], and Ha et al. [2014]). The general conclusion is that breakwaters can reduce the height and extent of tsunami run-up. The amount of reduction depends on the exact configuration of the breakwater and local beaches, but a reduction is anticipated. In addition to the breakwater, parallel jetties restrict the harbor entrance width to about 400 feet. There are two small beaches (Kiddie Beach and Hobie Beach) near the harbor entrance that the United States Army Corps of Engineers (USACE) created when it constructed the harbor. These beaches were specifically designed as surge beaches to absorb the impact of tidal surges that would otherwise damage facilities or boats in the harbor.

Inside the harbor, the channel is further restricted to less than 300 feet wide by residential developments on both sides of the channel. The harbor contains more than 2,000 boat slips, which will tend to reduce the energy of a tsunami. A little more than 2 miles into the harbor, the Edison Canal starts. The channel is further narrowed at this point to approximately 100 feet wide. The MGS facility is located another 2 miles from the start of the canal. The narrow canal restricts the inflow of water upstream. The canal dimensions are approximately 10 feet deep and 40 to 100 feet wide in the vicinity of the MGS intake. The depth of water fluctuates with the tide and ranges from approximately 2.5 to 7.5 feet MLLW (or approximately 2.3 to 7.3 feet NAVD88). Freeboard in the canal is on the order of approximately 6 to 7 feet.

Attachment C to this letter is a figure from a recent simulation for a tsunami generated by an earthquake on the Ventura-Pitas Point fault, which has an estimated return period of approximately 800 to 2,500 years (Thio et al., 2015). The figure shows the maximum wave amplitude plotted from the entrance to the harbor, through the harbor, and up the canal. The amplitude initially decreases as the waves enter the harbor, but increases toward the end of the harbor where the canal starts due to the restricted flow through the canal, which causes a local buildup of the wave. The restriction of the flow in the canal causes rapid attenuation of the

waves as it propagates further north. Based on the foregoing, flooding of the Project site from the Edison Canal is unlikely.

### **Tsunami Flooding on the MGS Beach**

Studies of distant earthquakes (teletsunamis) indicate that the Project site is unlikely to be in the inundation zone. Studies of tsunamis generated by local earthquakes indicate that the site is unlikely to be in an inundation zone for “frequent” events (events with return periods of 1,000 to 1,500 years or less). Studies that used conservative assumptions indicate that the Project site might be in an inundation zone for less frequent events, e.g., 2,500-year return period; however, the predicted water level is lower than the top of the dunes. Analysis of return periods for various tsunami sources indicate return periods of between 800 and 10,000 years. In all cases, the maximum projected wave height is well below the top of the existing dunes that protect the Project site.

### **Alternative Site Locations**

As reflected in its Revised Preliminary Staff Assessment (“PSA”) (TN #211885-1), CEC staff has undertaken a robust analysis of alternative site locations for the Project, which includes multiple off-site locations, and two alternative configurations within the existing Mandalay Generating Station (“MGS”) site. The CEC staff’s analysis was informed, in part, by an alternatives analysis prepared by NRG (TN # 207096). The Proposed Report focuses on three of the alternative sites – the “Ormond Beach” site and the two alternative configurations within the MGS site.

Under the California Environmental Quality Act (“CEQA”), the CEC is tasked with completing an analysis of alternatives to the Project, including alternative sites. The Proposed Report acknowledges the CEC’s role in this regard and does not purport to contain a comprehensive alternatives analysis. However, the Proposed Report does address alternative sites based on concerns related to impacts on coastal wetlands and risk from flooding, SLR and tsunami hazards associated with the proposed Project site. As explained above, the Proposed Report overstates the impacts and risks in these two areas. Once all of the available and relevant data and analysis is taken into consideration, it is clear that Project impacts to wetlands and the risk of flooding are not significant enough to warrant recommending relocation of the Project to an alternative site. This conclusion alone eliminates the need for analysis of alternative sites in the Proposed Report.

Nevertheless, and notwithstanding the primary role of the CEC in evaluating Project alternatives, we are providing the following information regarding the feasibility issues associated with the alternative sites analyzed in the Proposed Report. Perhaps most important for purposes of the analysis in the Proposed Report, the alternative sites under consideration may pose impacts and risks that are greater than those of the proposed Project site in the very areas that led to Coastal Commission staff’s consideration of alternative sites in the first place – biological resource impacts and flooding risks.

## Ormond Beach Alternative Site

The Ormond Beach Alternative Site is adjacent to property proposed for inclusion in the Ormond Beach Wetlands Restoration Project, a joint effort of the California Coastal Conservancy, the Nature Conservancy, the Southern California Wetlands Recovery Project, the County of Ventura and the City of Oxnard, to restore the Ormond Beach wetlands and uplands habitat. A May 26, 2016 Coastal Conservancy Staff Recommendation that the Conservancy authorize disbursement of funds to prepare a restoration/public access plan and associated technical studies for the restoration of the coastal wetlands, beach, dunes, and associated uplands at Ormond Beach described the significance of this project as follows:

At over 1,000-acres, the Ormond Beach wetlands complex is the largest wetland restoration opportunity in southern California. The Conservancy, The Nature Conservancy (TNC), and the City of Oxnard (City) collectively own 645 acres at Ormond Beach. The U.S. Fish and Wildlife Service last month approved a grant to the Conservancy to acquire an additional 13 acres.

Ormond Beach is considered by many wetland experts to be the most important wetland restoration opportunity in southern California. Restoration of the wetlands is a high priority of the Southern California Wetlands Recovery Project. Although large areas of the wetlands have been drained, filled and degraded over the past century, this is one of the few places in coastal southern California with an intact dune-transition zone-marsh system, allowing restoration of an intact wetland ecosystem and providing a buffer against sea level rise and the impacts of climate change. The largely agricultural surroundings provide an opportunity unique in most of coastal southern California to expand the current protected areas and to restore the approximate extent of the historic wetland area.

The Ormond Beach Alternative Site analyzed in the Proposed Report is adjacent to more than 500 acres of land proposed for inclusion in the Ormond Beach Restoration Project. The alternative site is on the north side of McWane Boulevard, and the lands proposed for acquisition and inclusion in the Ormond Beach Restoration Project are across the street and south of McWane Boulevard. (See, <http://archive.vcstar.com/news/local/oxnard/ormond-beach-wetlands-preservation-effort-looks-for-boost-from-grant-2f5c6f1e-7ed0-1e6c-e053-0100007-374326751.html>). Since one of the primary drivers for the Proposed Report's consideration of alternative sites is concern regarding the Project's potential impacts to biological resources (coastal wetlands), consideration of an alternative site in such a potentially biologically sensitive area seems misplaced. This is particularly true in light of the discussion above regarding whether or not a portion of the proposed Project site is a wetland.

Furthermore, while the Ormond Beach Alternative Site is not in the coastal zone, it could be susceptible to flooding, sea level rise and tsunami hazards due to its proximity to the coast,

less extensive dunes relative to the proposed Project site, and its relatively low elevation. The tops of the dunes along the beach in the southern portion of Oxnard are much lower than the dunes fronting the proposed Project site; therefore, this site would be expected to be more susceptible to sea-level rise and tsunami-related impacts than the Project site. Thus, the suggested alternative site may be more at risk from the very hazards that led to the analysis of alternatives to the proposed Project site in the first place. Again, this may be particularly true when the actual risks associated with the proposed Project site are properly analyzed and put into context.

In addition to its adjacency to lands slated for inclusion in the Ormond Beach Restoration Project, and its potential susceptibility to flooding, the Ormond Beach Alternative Site presents the following additional feasibility constraints that are not fully reflected in the Proposed Report:

- Potentially significant impacts associated with construction of new linear infrastructure, such as gas pipelines, water supply pipelines and transmission lines, that are not required in connection with the proposed Project site.
- Connection to the nearest natural-gas trunk line of sufficient capacity would require an approximately 2,100-foot pipeline, which would require constructing the buried pipeline under Edison Drive and the transmission line that parallels Edison Drive.
- Connection with the City's recycled water supply would require an approximately 4,200-foot linear to the AWPF at West Hueneme Road and South J Street and/or the potable water pipeline that borders the site along Arcturus Avenue and E. McWane Boulevard.
- The nearest 220-kV electrical interconnection is approximately 1,000 feet from the alternative site.
- Impacts associated with ground disturbance during construction (e.g., soil erosion, dust, etc.) would be substantially more for this alternative site than for the Project.
- Construction phase traffic impacts would also increase, due to the installation of offsite linears along McWane Boulevard and Edison Drive.
- Potential visual impacts would be more than for the Project due to the new offsite transmission lines and development of a power-generating facility, with its associated infrastructure, on a site that is generally surrounded by low commercial and industrial structures and farmland.

For all of the above reasons, the Ormond Beach Alternative Site is not practically or environmentally superior to the proposed Project site.

## **MGS Site Reconfiguration #1 and #2**

As acknowledged in the Proposed Report, the MGS Site Reconfiguration Alternatives are at lower elevations than the proposed Project site, and, therefore, at greater risk of flooding hazards than the Project as proposed. Presumably then, these alternative sites were evaluated because of their ability to avoid impacts to areas determined to be wetlands. The discussion above with respect to wetlands establishes that no portion of the Project site constitutes a wetland under even the Coastal Commission's conservative approach, and that NRG is nevertheless willing to provide compensatory mitigation at a ratio of 2:1. Thus, there is no basis for increasing the risk of Project flooding by relocating the Project to a lower elevation area of the MGS site.

In addition to the increased risk of flooding, the Proposed Report does not appear to take into consideration the following feasibility issues associated with the MGS Site Reconfiguration Alternatives.

### *MGS Site Reconfiguration #1*

- This proposed P3 power block location would require the relocation of the existing gas metering station and main 30-inch gas line for the existing MGS Units 1, 2, and 3. This would also cause interruption of the existing units operation during the relocation of the metering station and main gas line.
- The existing MGS leach field would have to be relocated.
- The P3 combustion turbine generator unit would need to be rotated 180° from what is proposed in the PSA (i.e., inlet filter facing the road), and the unit would need to move approximately 75 feet west, in order to provide the required space for the tempering air fans and ducting.
- This proposed location would likely require significant additional noise mitigation compared to the proposed site to avoid offsite noise impacts.
- This proposed location would create significantly greater visual impact by moving the power block approximately 425 feet closer to the roadway.
- This location reduces access for P3 constructability, which would adversely impact the P3 project construction schedule.
- The proposed relocation of the stack would require the Project air modeling and air permit application to be revised, which could significantly impact the permitting schedule.

- In this reconfiguration, the northern portion of the power block would be placed directly on the existing earthen dike, which would need to be rebuilt to provide flood protection.

*MGS Site Reconfiguration #2*

- This proposed P3 power block location would require the shutdown of MGS Units 1 and 2 prior to the construction of the P3 for removal of the existing circulating water piping that partially underlies the proposed site.
- The proposed relocation area for the existing warehouse building is the current location of the existing plant gas metering station and leach field. The relocation of these facilities would have significant impacts on the existing units' operations and P3 construction schedule.
- This proposed P3 power block location would interfere with the planned demolition of existing MGS Units 1 and 2. The demolition execution plan would have to be revised from explosive to mechanical demolition, significantly increasing the cost.
- This proposed P3 power block location will have a significant impact on the planned construction corridor for the P3 project electrical and water lines.
- The proposed relocation of the stack would require the Project air modeling and air permit application to be revised, which could significantly impact the permitting schedule.
- The proposed P3 power block location will restrict or eliminate a major access area for the construction and assembly of the P3 combustion turbine generator unit.
- The proposed P3 power block location will restrict access to maintain the GSU, Unit Aux transformer, and GT electrical equipment.
- The suggested reconfiguration would interfere with the existing MGS Units 1 and 2 transmission line interconnection to the SCE switchyard. As proposed in the PSA, the P3 selective catalytic reduction unit would be in direct conflict with the existing transmission line.
- The suggested reconfiguration does not satisfy P3's objective to reuse existing MGS infrastructure, such as the existing warehouse.

LATHAM & WATKINS<sup>LLP</sup>

### Conclusion

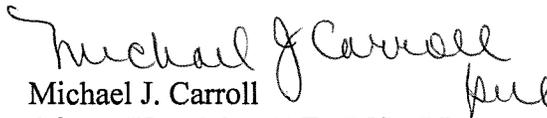
When all of the relevant information regarding whether or not a portion of the proposed Project site meets the definition of a wetland, and the Project's potential exposure to flooding, sea level rise and tsunami hazards, is taken into consideration, the extent of the impacts and risk associated with the Project as proposed do not warrant a recommendation to relocate the Project to an alternative site. Furthermore, all of the alternative sites analyzed in the PSA present their own set of environmental and feasibility issues. In fact, if the impacts and risks of the proposed Project are accurately characterized, developing the Project at the alternative site locations analyzed in the Proposed Report may well lead to greater impacts and risks, relative to the proposed Project site, in the very areas that the Coastal Commission staff has expressed concerns.

Based on the information and analysis contained herein, NRG urges the Coastal Commission staff to modify the Proposed Report, and the recommendations contained therein, as follows:

- Reverse the determination that a portion of the Project site meets the definition of a wetland;
- Reassess the level of risk to the proposed Project site from flooding, sea level rise and tsunami; and
- Eliminate the recommendation to relocate the Project to an alternative site.

Thank you for your consideration of these comments. We look forward to continuing discussions with you as this matter proceeds.

Best regards,

  
Michael J. Carroll  
OF LATHAM & WATKINS LLP

Attachments

cc: Mark Delaplaine

# ATTACHMENT A

## Memorandum

To	Joseph Street, California Coastal Commission	Page	1 of 2
Subject	Puente Power Project - Wetland Technical Studies Summary		
From	Julie Love		
Date	August 31, 2016		

This memorandum serves to summarize previously conducted technical studies evaluating the potential for wetlands at the Puente Power Project (P3) as documented in the Application for Certification.

### Local Habitats

P3 will encompass approximately 3 acres within the fenced boundaries of the existing MGS, near the northern edge of the facility. The site itself has been graded and subjected to various human uses in the past, and the vegetation is significantly disturbed. Dominant plants include many invasive weeds, including freeway iceplant (*Carpobrotus edulis*), slenderleaf ice plant (*Mesembryanthemum nodiflorum*), and Russian thistle (*Salsola tragus*); and horticultural species such as lollipop tree (*Myoporum laetum*). Remnant coastal dune scrub habitats occur in the southern portion of the site, supporting native species including coyote brush (*Baccharis pilularis*) and woolly seablite (*Suaeda taxifolia*). However, even this area is disturbed, and invasive species are prevalent. Soils in the P3 site appear to have been artificially compacted, and infiltration may be impaired. The presence of woolly seablite, a facultative wetland plant commonly found in salt marshes, supports this notion, because unimpacted soils in the vicinity are generally sandy and well-drained, and would not naturally retain water in the upper soil layers as required by this species.

### Wetlands and Other Waters of the United States

During the botanical survey conducted in March 2015, a wetland delineation was performed within the P3 site. The investigation revealed that wetland hydrology and hydric soils were absent, but that the disturbed vegetation on the site exhibits a predominance of salt-tolerant hydrophytes. Because all three wetland parameters (hydrophytic vegetation, wetland hydrology, and hydric soils) were not present, the site does not constitute a wetland as defined by U.S. Army Corps of Engineers (USACE) regulations.

The California Coastal Act provides protection for wetlands within California's Coastal Zone, and defines wetlands as "...lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens." The Coastal Commission has issued regulations and guidance directing that the delineation of coastal wetlands should employ the

three-parameter approach used by the USACE, but that a positive wetland determination can be made based on the presence of any one parameter, rather than requiring all three parameters to be present. Although the P3 site exhibits a predominance of hydrophytic vegetation, this vegetation is the result of chronic disturbance and human intervention, and is not indicative of wetland conditions.

As shown on data sheets in Attachment 1, the P3 site contains three hydrophytes among its dominant plant species: woolly seablite, slenderleaf ice plant, and pickleweed (*Sarcocornia pacifica*). However, many obligate upland species are also abundant on the site, including coyote brush, freeway ice plant, Russian thistle, and others. It is uncommon for wetland species and obligate upland plant species to co- occur this extensively in natural settings, and the presence of hydrophytes on the P3 site is probably the result of past human uses. As described above, the P3 site was graded and used for storage of dredged spoils from the Edison Canal for a period of several years. Because the Edison Canal is a saltwater environment, it is presumable that the dredged spoils placed on the P3 site were saturated with saltwater, and that during the time of storage, saltwater infiltrated into the site soils. Over time, this practice likely resulted in an accumulation of salt in the site soils, making them more suitable for salt- tolerant plant species such as woolly seablite, slenderleaf ice plant, and pickleweed. This hypothesis is supported by the fact that none of the surrounding areas in the MGS facility, which exhibit disturbed conditions similar to the proposed P3 site but which were not used for storage of dredged material, support these salt-tolerant hydrophytes. Although it is not known, it is possible that the stored spoils may have contained propagules of these species and facilitated their introduction onto the site.

Due to the highly disturbed and anthropogenically influenced nature of the onsite vegetation, this parameter is not a reliable indicator of the site's wetland status. As directed by the USACE's Arid West Regional Supplement to the Wetland Delineation Manual, in cases where one parameter is naturally problematic or significantly disturbed, the other two parameters should be relied upon in greater detail for making the wetland determination. The site did not exhibit wetland hydrology or hydric soils, suggesting that despite the presence of hydrophytic vegetation under disturbed conditions, the site does not qualify as a wetland. This notion is further supported by a direct comparison with wetland definition in the Coastal Act statute: the site is not covered periodically or permanently by shallow water, and is not similar to a marsh or swamp. The site contains no hydrologic features, receives no hydrologic inputs other than direct rainfall, and is not connected to freshwater or tidal habitats. Indicators of wetland hydrology, which should have been evident if the site ponded water for considerable periods of time, were found to be absent. Considering this information, the P3 site is not a wetland as defined by the Coastal Act.

### **Attachments**

Attachment 1 – USACE Wetland Determination Data Forms

**ATTACMENT 1**  
**WETLAND DETERMINATION DATA**  
**FORMS**

**WETLAND DETERMINATION DATA FORM - Arid West Region**

Project/Site:	Mandalay Puente Power Site	City/County:	Oxnard/Ventura	Sampling Date:	3/12/2015 and 4/02/15
Applicant/Owner:	NRG Energy	State:	CA	Sampling Point:	1
Investigator(s):	Julie Love and Elihu Gevitz	Section, Township, Range:			
Landform (hillslope, terrace, etc.):	Flat	Local Relief (concave, convex, none):	None	Slope (%):	0-1%
Subregion (LRR):	C	Lat: 34.2080839	Long: -119.2512036	Datum:	NAD 83 UTM Zone 1
Soil Map Unit Name:	NWJ Classification:				
Are climatic/hydrological conditions on the site typical for this time of the year?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Are Vegetation, <input type="checkbox"/> Soil, <input checked="" type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed?	Are "Normal Circumstances" Present? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Are Vegetation, <input type="checkbox"/> Soil, <input checked="" type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic?	(If needed, explain answers in remarks)				

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Hydric Soil Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks:	Typical conditions but drought. Vegetation sampled 3/12/15. Soil and hydrology sampled 4/2/15. Historically disturbed w/ vehicles & equipment. Flooded in 2005 with water from dredge spoils from Mandalay canal that covered site. Water gradually left tubes. Tubes were on site for 2-3 years.		

**VEGETATION**

Tree Stratum	Plot size: 30ft radius	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. N/A					Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)			
2.					Total Number of Dominant Species Across All Strata: <u>5</u> (B)			
3.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)			
4.								
Total Cover:								
Sapling/Shrub Stratum	Plot size: 20ft radius				Prevalence Index worksheet:			
1. Baccharis pilularis		5	Y	UPL	Total % Cover of: Multiplied by:			
2. Suaeda taxifolia		20	Y	FACW	OBL species	45	x1 =	45
3.					FACW species	20	x2 =	40
4.					FAC species	23	x3 =	69
5.					FACU species	2	x4 =	8
Total Cover:		25			UPL species	25	x5 =	125
					Column Totals:	115	(A)	287 (B)
					Prevalence Index = B/A = <u>2.495652174</u>			
Herb Stratum	Plot size: 10ft radius				Hydrophytic Vegetation Indicators:			
1. Salicornia pacifica (NWJ: Sarcocornia pacifica)		45	Y	OBL	<input checked="" type="checkbox"/> Dominance Test is >50%			
2. Carpobrotus edulis		20	Y	UPL	<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>			
3. Mesembryanthemum nodiflorum		23	Y	FAC	<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)			
4. Salsola tragus (dead/alive)		2	N	FACU	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
5.					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.			
6.								
7.								
8.								
Total Cover:		90						
Woody Vine Stratum	Plot size: 10ft radius				Hydrophytic Vegetation Present?			
1. N/A					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
2.								
Total Cover:								
% Bare Ground in Herb Stratum:	10	% Cover of Biotic Crust:	0					

Remarks:  
Suaeda taxifolia/Mesembryanthemum nodiflorum community.

**SOIL**

Sampling Point:

1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 3/2	100	N/A				SaLo	very gritty

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix. <sup>2</sup>Location: PL=Pore Lining, RC=Root Channel, M=Matrix

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input checked="" type="checkbox"/> Other (Explain in Remarks)
--	--	---	---

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	--

Remarks:  
Soils may be influenced by prior stock piling/storage of estuarine spoils and water that were deposited on the site in 2005 and remained there for 2-3 years. May not be significant anymore? Naturally problematic sandy soil. Shovel refusal at 16 inches due to big rock. Rocks throughout. Maybe asphalt?

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) (Nonriverine) <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizopheres along Living Roots (C3) <input type="checkbox"/> Presence Of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      Depth (inches): _____ Water Table Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      Depth (inches): _____ Saturation Present? (Includes capillary fringe) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      Depth (inches): _____	Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
FAC Neutral = 2:2. Conditions are same for 3/12/15 and 4/12/15.

**WETLAND DETERMINATION DATA FORM - Arid West Region**

Project/Site:	Mandalay Puente Power Site	City/County:	Oxnard/Ventura	Sampling Date:	3/12/2015 and 4/02/15
Applicant/Owner:	NRG Energy	State:	CA	Sampling Point:	2
Investigator(s):	Julie Love and Elihu Gevirtz		Section, Township, Range:		
Landform (hillslope, terrace, etc.):	Flat	Local Relief (concave, convex, none):	None	Slope (%):	0-1%
Subregion (LRR):	C	Lat: 34.2080103	Long: -119.2515025	Datum:	NAD 83 UTM Zone 1
Soil Map Unit Name:	NW1 Classification:				
Are climatic/hydrological conditions on the site typical for this time of the year?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Are Vegetation, <input type="checkbox"/> Soil, <input checked="" type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed?	Are "Normal Circumstances" Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Are Vegetation, <input type="checkbox"/> Soil, <input checked="" type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic?	(If needed, explain answers in remarks)				
<b>SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.</b>					
Hydrophytic Vegetation Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hydric Soil Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Wetland Hydrology Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Remarks: Typical conditions but drought. Vegetation sampled 3/12/15. Soil and hydrology sampled 4/2/15. Site previously disturbed w/ vehicles & equipment. Flooded in 2005 with water from dredge spoils from Mandalay canal in geo tubes. Tubes were on site for 2-3 years.					

**VEGETATION**

Tree Stratum	Plot size: 30ft radius	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:		
1. N/A					Number of Dominant Species That Are OBL, FACW, or FAC: <u>2 (A)</u>		
2.					Total Number of Dominant Species Across All Strata: <u>2 (B)</u>		
3.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100% (A/B)</u>		
4.							
Total Cover:							
Sapling/Shrub Stratum	Plot size: 20ft radius				Prevalence Index worksheet:		
1. Suaeda taxifolia		65	Y	FACW	Total % Cover of:		Multiplied by:
2.					OBL species	3	x1 = 3
3.					FACW species	65	x2 = 130
4.					FAC species	17	x3 = 51
5.					FACU species	3	x4 = 12
Total Cover:		25			UPL species	5	x5 = 25
					Column Totals:	93 (A)	221 (B)
					Prevalence Index = B/A = <u>2.376344086</u>		
Herb Stratum	Plot size: 10ft radius				Hydrophytic Vegetation Indicators:		
1. Salicornia pacifica (NW1: Sarcocornia pacifica)		3	N	OBL	<input checked="" type="checkbox"/> Dominance Test is >50%		
2. Carpobrotus edulis		5	N	UPL	<input checked="" type="checkbox"/> Prevalence Index is $\leq 3.0^1$		
3. Mesembryanthemum nodiflorum		15	Y	FAC	<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)		
4. Salsola tragus (dead/alive)		1	N	FACU	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
5. Solanum douglasii		1	N	FAC			
6. Atriplex semibaccata		2	N	FAC			
7. Medicago polymorpha		<1	N	FACU			
8.							
Total Cover:		28					
Woody Vine Stratum	Plot size: 10ft radius				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.		
1. N/A							
2.							
Total Cover:							
% Bare Ground in Herb Stratum: 5		% Cover of Biotic Crust: 0		Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks: Suaeda taxifolia/Mesembryanthemum nodiflorum community.							



# ATTACHMENT B

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Application of Southern California Edison  
Company (U338E) for Approval of the  
Results of Its 2013 Local Capacity  
Requirements Request for Offers for the  
Moorpark Sub-Area.

Application 14-11-016  
(Filed November 26, 2014)

**REPLY BRIEF OF  
NRG ENERGY CENTER OXNARD LLC  
AND NRG CALIFORNIA SOUTH LP**

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August 5, 2015

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**REPLY BRIEF OF  
NRG ENERGY CENTER OXNARD LLC  
AND NRG CALIFORNIA SOUTH LP**

NRG Energy Center Oxnard LLC (“NECO”) and NRG California South LP (“NRG South”) (together, “NRG”) submit their reply brief pursuant to Rule 13.11 of the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), and the schedule in the Assigned Commissioner’s Scoping Memo and Ruling dated March 13, 2015. This reply brief responds to the opening briefs filed by the Office of Ratepayer Advocates (“ORA”), the City of Oxnard (“City”), Sierra Club, California Environmental Justice Alliance (“CEJA”), Center for Biological Diversity (“CBD”) and World Business Academy (“WBA”).

**I. INTRODUCTION**

ORA, Sierra Club and WBA oppose approval of the tolling agreement with NRG South for the existing 54 megawatt (“MW”) Ellwood Generating Station (“Ellwood”), which will be refurbished (without any change in size or capacity) to achieve a remaining 30-year design life (“Ellwood Refurbishment Contract”). The Ellwood Refurbishment Contract was selected as a mutually inclusive offer with a tolling agreement for a new 0.5 MW energy storage facility to be built at the Ellwood site (“Ellwood Storage Contract”). As explained below, procurement of the bundled Ellwood Refurbishment Contract and Ellwood Storage Contract is consistent with the Commission’s procurement rules and the procurement authority of Southern California Edison Company (“SCE”). Approval of these contracts adds energy storage (which will be incremental

capacity) at the Ellwood site, and lengthens Ellwood's useful life and enhances its operations, all as allowed under the Commission's procurement rules. Selection of the Ellwood Refurbishment Contract is also consistent with the Commission's prior decision approving an application by Pacific Gas and Electric Company ("PG&E") for approval of the results of its new generation request for offers ("RFO"), which procured contracts for new, incremental capacity and contracts for existing capacity that did not count toward PG&E's new generation procurement authorization.

The City, Sierra Club, CEJA, CBD and WBA oppose approval of the resource adequacy purchase agreement with NECO for the 262 MW simple cycle peaking facility known as the Puente Power Project ("Puente") (the "Puente Contract"). Puente will be built on a portion of the site of the existing Mandalay Generating Station ("Mandalay") in Oxnard, which is a plant that uses once-through cooling ("OTC") technology and is scheduled to retire. The City and Sierra Club rely on a modeling exercise prepared by the City's retained consultant, Dr. Revell, to assert that locating Puente at the Mandalay site will be "unreliable." As explained below, the modeling results have been discredited in the record and shown to be unreliable. The assertions of the City and Sierra Club do not support a finding regarding Puente's future reliability. The City also attempts to discredit the testimony of NECO's expert witness, Mr. Mineart, but the City's arguments misrepresent the record and are not credible.

The City also wrongly argues that procurement of the Puente Contract does not ensure reliability in the Moorpark sub-area because Puente is not in Goleta. The City fails to understand that Decision 13-02-015 authorized procurement for the Moorpark sub-area to address reliability issues arising largely due to the retirement of almost 2,000 MW of OTC capacity. All of this existing OTC capacity is located in Oxnard. The Puente Contract provides the opportunity to replace the almost 2,000 MW of aging OTC capacity with 262 MW of new fast-start peaking

capacity that repurposes and reuses existing gas and transmission infrastructure at the Mandalay site. This is an ideal local reliability solution.

The City and Sierra Club urge the Commission to delay approval of the Puente Contract until after the California Energy Commission (“CEC”) renders its licensing decision for the Puente Application for Certification (“AFC”), but they have not shown how the CEC’s decision would help “illuminate” issues, “assist” review, or allow the Commission to “better evaluate” the Puente Contract. The Puente Contract is final and has been executed by SCE and NECO. Delay serves no valid purpose. In the Puente Contract, NECO agreed to assume the risk of an unfavorable CEC licensing decision. The Commission should approve the Puente Contract without delay, and thereby allow NECO to undertake its obligation to obtain CEC approval for Puente in accordance with its contractual commitment. This result would be consistent with the Commission’s prior decisions approving contracts for new generation.

The City wrongly asserts that Commission approval of the Puente Contract will prejudice the CEC’s ability to consider a full range of alternatives and potential mitigation for Puente. This is not true. The City’s relies entirely on the “Alternatives” section of the AFC for Puente, which was prepared by NECO’s permitting team and submitted to the CEC. Regardless of what is written in the AFC, it is obvious that an applicant cannot dictate what the CEC will consider or require as part of its review of the Puente AFC. The City’s argument is contrary to all reason and common sense. NECO’s statements in the AFC are also consistent with CEQA, which does not require consideration of alternatives that cannot achieve a project’s fundamental purpose.

The City further errs in asserting that Commission approval of the fixed price in the Puente Contract somehow limits the CEC’s authority to require changes in the Puente project that might substantially increase its costs. This is wrong. The Puente Contract specifies a fixed resource adequacy payment with no mechanism for increasing that price during the contract term. Under the Puente Contract, NECO will be responsible for paying for and implementing

any mitigation required by the CEC. Commission approval of the Puente Contract does not, and could not, limit the CEC's authority to consider and require mitigation that is shown to be necessary to mitigate significant environmental impacts or ensure reliability.

The City also wrongly argues that the Commission must act as the lead agency under the California Environmental Quality Act ("CEQA") and conduct an environmental review of Puente. It is well established that Commission approval of a utility power purchase agreement is not a "project" for purposes of CEQA and does not trigger a requirement for environmental review under CEQA.

In a new twist on an old, wrong argument, the City alleges that the Commission must act as the lead agency under CEQA for Puente because approval of the Puente Contract would foreclose alternatives or mitigation measures that would ordinarily be part of CEQA review of Puente. This is also wrong. The City again distorts the statements in the Alternatives section of the Puente AFC. NECO does not have the power to dictate or constrain the CEC's authority to consider project alternatives or require mitigation. The City also misrepresents the testimony of NECO's witness, Ms. Gleiter, by alleging that Ms. Gleiter testified that Commission approval of the Puente Contract "makes it far more likely that the CEC will approve" the Puente AFC. In actuality, when Ms. Gleiter was asked to confirm this during cross-examination, she replied: "No, that is definitely not true."<sup>1</sup> Contrary to the City's arguments, Commission approval of the Puente Contract does not, and could not, commit the CEC to approve the Puente AFC or limit the scope of the CEC's environmental review of Puente.

The City also alleges that Puente provides more capacity than needed, but the City's position is contrary to the record. The CAISO's testimony shows that the selected contracts actually are only a portion of the resources needed to meet reliability needs in the Moorpark

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<sup>1</sup> Reporter's Transcript, Volume 2 (NRG/Gleiter), p. 340 lines 16-21.

sub-area. SCE's testimony also explains that the Puente Contract was necessary to meet the minimum procurement level of 215 MW that the Commission required in Decision 13-02-015.

CEJA argues that SCE's evaluation of offers in the RFO failed to comply with Commission decisions requiring consideration of environmental justice impacts, but its argument misinterprets the Commission's guidance on the use of qualitative considerations in an RFO. In directing utilities to consider certain qualitative bid evaluation metrics, the Commission did not specify that utilities must give disproportionate consideration to environmental justice factors over other qualitative considerations such as the preference for using brownfield sites rather than greenfield sites. The Commission also did not specify that qualitative considerations would override the utilities' quantitative analysis of which resources are the lowest cost and best fit for the utility's need. SCE has shown that the Puente Contract was the most cost-effective gas-fired offer, and it also satisfies the Commission's preference for locating new capacity at brownfield sites instead of greenfield sites. Siting Puente at the existing Mandalay site also provides environmental benefits because it provides the opportunity to replace almost 2,000 MW of aging OTC capacity with 262 MW of new fast-start peaking capacity. Construction of Puente thus would result in a net environmental benefit to the local community.

CEJA also incorrectly argues that SCE's selections of the Puente Contract and the Puente Refurbishment Contract were inappropriately based on a "qualitative" assessment regarding the risk of resource shortages due to the possible retirement of existing non-OTC units owned by NRG South. This claim is contrary to the record, which shows that SCE selected the winning contracts for the Moorpark sub-area based primarily on its quantitative analysis of net market value. Additional qualitative factors may have supported its selection, but the Puente Contract won due to its net market value. SCE's testimony also shows that the Ellwood Refurbishment Contract offered a low cost solution to improve reliability in the Goleta service area. The Independent Evaluator performed an independent, parallel evaluation of the offers and confirmed

that the contracts' economics and their general terms and conditions represented the best resources available from a competitive solicitation.

Sierra Club, the City and WBA unreasonably urge the Commission to reject the RFO results, and to require SCE to start over and conduct another RFO to procure a greater quantity of preferred resources. SCE explained that it selected every preferred resources offer for the Moorpark sub-area other than energy storage, and still had to select a large gas-fired generation offer to meet the minimum procurement authorization of 215 MW. Given that SCE has just completed an exhaustive RFO process, it is not reasonable to expect that the results of a second RFO would produce materially greater amounts of preferred resources. WBA's witness also confirmed that the resources advocated by WBA were not bid into the RFO and are "speculative numbers." It would not be prudent to risk local reliability based on speculation about alternative resources.

## **II. DISCUSSION**

### **A. The Ellwood Refurbishment Contract Does Not Violate Commission Rules Or SCE's Procurement Authority.**

ORA and Sierra Club oppose approval of the Ellwood Refurbishment Contract based on their view that SCE lacks authority to procure capacity from a refurbished existing plant in the LCR RFO.<sup>2</sup> Sierra Club argues that SCE violated procurement rules adopted on page 28 of Decision 14-02-040, but review of that decision shows that SCE's procurement of the bundled Ellwood Refurbishment Contract and Ellwood Storage Contract is consistent with the Commission's procurement rules. In Decision 14-02-040, the Commission stated:

While current rules do not specifically prohibit the combination of RFOs for existing or new facilities, we hereby clarify that upgraded and repowered plants are allowed to bid in new generation RFOs. We clarify the rules so as to oversee the

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<sup>2</sup> ORA Opening Brief, pp. 5-7; Sierra Club Opening Brief, pp. 5-7.

administration of RFOs that fill defined reliability needs in the most cost effective way.

Allowing for the incremental capacity of existing plants or repowered plants to participate in long-term RFOs appropriately acknowledges the varied technological capabilities and improvements possible with today's generation stock, and may alleviate some need to build additional capacity. **In addition, it may be possible for an existing power plant to add capabilities (e.g., energy storage, more optimal ramp rate, or start up times) that would enhance the operation of the plant and increase its value to the system.**

In discussing this issue, first we need to define the term "incremental capacity." We will take SCE's recommendation that the definition should be "capacity incremental to what was assumed in the underlying needs assessment." In other words, these are net additions. **We agree with SDG&E that an existing facility may provide value to IOU ratepayers if it has a useful life extending beyond its current contract or is able to lengthen its useful life by upgrading or repowering various facility components.** The following terms are defined herein:

- **Upgraded plants:** Upgrades are defined as expanding the generation capacity at, **or enhancing the operation of, a generation facility**, so long as such incremental MW and/or enhanced operating characteristics can provide the necessary attributes that the Commission has authorized the utility to procure. **An upgraded plant or a plant with incremental capacity additions would be a plant where the main generating equipment is retained and continues to operate.**
- **Repowered plants:** Repowers are defined as capital investments that extend the useful life of a generation facility, after the planned retirement date. A repowered facility is a facility where the main generating equipment (such as the turbine) is changed out for new equipment.<sup>3</sup>

Procurement of the bundled Ellwood Refurbishment Contract and Ellwood Storage Contract is consistent with these rules. First, as quoted above, the Commission recognized that the rules do not "prohibit the combination of RFOs for existing or new facilities." Sierra Club

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<sup>3</sup> Decision 14-02-040, pp. 28-29 (emphasis added).

tries to read such a prohibition into the rules, but none actually exists. Second, the combination of the Ellwood Refurbishment Contract and the Ellwood Storage Contract adds energy storage, which will be incremental capacity and a “net addition” at the existing Ellwood site. This is specifically allowed under the rules cited above. Third, refurbishing the Ellwood plant will “lengthen its useful life” and “enhances the operation of” the existing Ellwood plant, and provides the necessary attributes that SCE is authorized to procure. This is specifically allowed under the definition of an upgraded plant.

Sierra Club also misses the point that when a plant is repowered or upgraded to add incremental capacity, the utility would be expected to contract for all of the plant’s available capacity, not just the portion that is incremental. Thus, while only the incremental capacity or “net addition” counts toward the amount of capacity that the utility is authorized to procure from new generation, it is reasonable to expect the utility to contract for all of the available capacity in order to meet reliability needs and obtain the best value from the upgrade. Certainly it would make no sense to buy only incremental capacity without also taking advantage of the existing capacity that was assumed to continue operating in the underlying need determination. To continue operating, an expanded plant also would need to have an off-taker for all of the plant’s capacity, not just the portion that is incremental.

The Commission has previously approved contracts with existing plants that were procured through a utility’s long-term RFO for new generation. In Decision 10-07-045, the Commission approved three contracts procured by PG&E through its 2008 long-term RFO. Of the three approved contracts, only one was for a new generating facility. The other two approved contracts were (1) a tolling agreement for the existing 674 MW Contra Costa Generating Station, and (2) a power purchase agreement for the existing 129 MW Midway Sunset Project. The Commission approved both contracts as part of its approval of PG&E’s RFO results, and neither

contract involved upgrades or incremental capacity.<sup>4</sup> This precedent supports approval of the Ellwood Refurbishment Contract in this proceeding. As stated above, in Decision 14-02-040 the Commission noted that current rules do not prohibit the combination of RFOs for existing or new facilities, and did not adopt such a prohibition.

This precedent also shows that ORA's arguments are unfounded. ORA argues that the Ellwood Refurbishment Contract exceeds SCE's procurement authority and "subverts" the long-term procurement process.<sup>5</sup> As explained above, the procurement rules do not prohibit SCE from entering into agreements that accomplish the dual purpose of adding incremental storage capacity at Ellwood and lengthening its useful life. The Commission also previously approved the results of PG&E's long-term RFO process, which included two contracts for existing generation. ORA also acknowledges that SCE could contract with Ellwood through "bilateral contracts."<sup>6</sup> If SCE had executed the Ellwood Refurbishment Contract through a bilateral negotiation, SCE would file an application to obtain Commission approval. ORA has not shown why a separate bilateral negotiation and application process for the Ellwood Refurbishment Contract would be preferable to considering it here. It was logical and prudent to procure the Ellwood Refurbishment Contract in the RFO for the Moorpark sub-area, and it is most efficient to consider the Ellwood Refurbishment Contract in this proceeding given its role in addressing unique reliability concerns in a portion of the Moorpark sub-area.

ORA also mistakenly suggests that the Ellwood Refurbishment Contract has a "premium capacity price" similar to new capacity.<sup>7</sup> This is not true. SCE has explained that the Ellwood Refurbishment Contract offers a low cost option for enhancing long-term reliability in the Goleta

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<sup>4</sup> Decision 10-07-045, pp. 36-40.

<sup>5</sup> ORA Opening Brief, pp. 6-9.

<sup>6</sup> ORA Opening Brief, p. 8.

<sup>7</sup> ORA Opening Brief, p. 8.

service area.<sup>8</sup> The Independent Evaluator also performed an independent, parallel evaluation of the offers and concluded that all of the selected contracts, which include the Ellwood Refurbishment Project, merit Commission approval “because the contracts’ economics and their general terms and conditions represented the best resources available from a competitive solicitation.”<sup>9</sup>

Finally, ORA’s argument that the 54 MW Ellwood Refurbishment Contract must count toward the 215 to 290 MW of incremental procurement authorized in Decision 13-02-015 makes no sense.<sup>10</sup> The 54 MW is existing, not incremental, capacity and SCE has been very clear on that point. The CAISO’s studies also assumed that Ellwood would continue operating. Treating Ellwood as incremental capacity would falsely inflate the amount of incremental capacity to be added to the system.

**B. The City Has Not Shown That Puente Will Be “Unreliable.”**

The City relies solely on the modeling exercise presented by its retained consultant, Dr. Revell, to allege that locating Puente at the Mandalay site would be “unreliable.”<sup>11</sup> NRG’s opening brief explained that the predictions of Dr. Revell’s model have been shown to be inaccurate and flawed as applied to the Puente site. The model predicted that an El Nino-type storm event such as the one that occurred in January 1983 would flood the entire Puente site under current conditions, but that prediction is contrary to what actually happened. The January 1983 El Nino storm and other large storm events have occurred in the past, and the resulting waves and storm surges have had no impact to the Puente site – there was no flooding

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<sup>8</sup> Exhibit SCE-7 (Cushnie), p. 6 lines 15-17.

<sup>9</sup> Exhibit SCE-2, Appendix D (Independent Evaluator Report), p. 39.

<sup>10</sup> ORA Opening Brief, p. 6.

<sup>11</sup> City of Oxnard Opening Brief, pp. 6-7 and Exhibit A. Sierra Club makes the same assertions, but relies solely on the reports provided by the City’s consultants. Sierra Club Opening Brief, pp. 2-4.

and no impact to Mandalay's operations.<sup>12</sup> Since the 1983 event, the beach fronting the Puente site has accreted and is now wider than it was in 1983.<sup>13</sup> In addition, as can be seen in the historic photos included with Mr. Mineart's testimony, foredunes have formed and stabilized farther out towards the ocean.<sup>14</sup> Thus, under "current conditions," the Puente site is not more vulnerable to coastal hazards than it was in 1983, but is actually less vulnerable. Under current conditions, the Puente site is protected by a big sandy beach that is 300 feet wide, with dunes that are 20 to 30 feet high.<sup>15</sup> If the same event occurred today, the waves would break onto a wider beach and would need to erode the newly formed foredunes before impacting the main dunes protecting the Puente site. Given that no damage occurred in 1983, it is unlikely that any damage would occur under current conditions.

Under cross-examination, Dr. Revell admitted that he did not consider what actually happened (or did not happen) at Mandalay during the 1983 storm event that he modeled.<sup>16</sup> Dr. Revell also admitted that he did not validate his model to actual events at the Mandalay site (which would have shown him that the model's predictions are wrong), and he did not try to calibrate the model with data regarding historical events to improve its accuracy.<sup>17</sup> Dr. Revell also stated that he does not intend to re-evaluate the model's accuracy now that he has the benefit of knowing Mandalay's site experience.<sup>18</sup> Dr. Revell also admitted that he is aware that the

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<sup>12</sup> Exhibit NRG-2 (Mineart), Appendix B, p. 2; Reporter's Transcript (NRG/Mineart), Vol. 2, p. 382 line 24 through p. 383 line 3.

<sup>13</sup> Exhibit NRG-2 (Mineart), Appendix B, p. 5 and Attachment 1.

<sup>14</sup> Exhibit NRG-2 (Mineart), Appendix B, Attachment 1.

<sup>15</sup> Exhibit NRG-2 (Mineart), Appendix B, p. 4; Reporter's Transcript (NRG/Mineart), Vol. 2, p. 386 lines 22-24.

<sup>16</sup> Reporter's Transcript, Vol. 3 (City of Oxnard/Revell), p. 515 lines 20-25 and p. 517 lines 17-21.

<sup>17</sup> Reporter's Transcript, Vol. 3 (City of Oxnard/Revell), p. 527 line 12 through p. 528 line 1.

<sup>18</sup> Reporter's Transcript, Vol. 3 (City of Oxnard/Revell), p. 616 lines 11-25 ("And so it's possible, but I'm not currently – you know, it's not currently in the works.").

beach has grown.<sup>19</sup> Despite these flaws in Dr. Revell's analysis, the City repeats its alarmist predictions and sticks to its story that Puente "faces significant coastal hazards."<sup>20</sup> As shown above, the City's assertions are not credible and do not support a finding regarding Puente's future reliability.

The City also misleadingly suggests that by 2060 sea level rise will overtake the coast and flood "the majority of the Puente site" "under the lowest sea level rise projections."<sup>21</sup> The City fails to note that this dire prediction also relies on Dr. Revell's modeling of an extreme storm event similar to the January 1983 storm, but occurring in 2060 in combination with projected sea level rise. As explained above, the model's inaccuracy in predicting impacts from a storm that actually occurred in 1983 with no impact to the Puente site shows that the model cannot be trusted to predict what could happen from a recurrence of the same storm in 2060. Dr. Revell's modeled results also assumed that coastal erosion would occur due to wave impacts and sea level rise, but this contradicts evidence showing that the beach has not eroded and instead has grown steadily.<sup>22</sup> As Mr. Mineart explained, the likelihood of damage to the Puente site due to wave run up and storm surge flooding during an extreme storm event in 2050 "is remote," because for this to occur the beach would need to erode most of the way back to the dunes, a distance of over 300 feet.<sup>23</sup> Thus, for the City's prediction to be accurate, not only would the beach need to stop growing, it also would need to shrink substantially – by over 300 feet – to

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<sup>19</sup> Reporter's Transcript, Vol. 3 (City of Oxnard/Revell), p. 595 lines 17-21.

<sup>20</sup> City of Oxnard Opening Brief, pp. 6-7 and Exhibit A.

<sup>21</sup> City of Oxnard Opening Brief, p. 7.

<sup>22</sup> Exhibit NRG-2 (Mineart), Appendix B, p. 5 (showing that the beach has widened by approximately 200 feet since 1947 and is currently approximately 300 feet wide); Reporter's Transcript, Volume 2 (NRG/Mineart), p. 408 lines 22-25 ("You could see from the photos it has grown from '47 up to 2012 where our photos cover you can see that the beach has grown fairly regularly.").

<sup>23</sup> Exhibit NRG-2 (Mineart), Appendix B, p.4.

reduce the level of protection historically provided by the beach. The City has not shown that this is probable.

The City also relies on Dr. Revell's theory, which has been discredited, that sediment supply to the beach fronting the Puente site is likely to decrease and leave the Puente site more exposed to coastal hazards and the impacts of sea level rise in the future.<sup>24</sup> Recognizing that Dr. Revell admitted that the beach has grown,<sup>25</sup> the City now warns that the beach "can't grow much wider," and insists that the "long-term trend for beach conditions indicates diminished sediment supply and more erosion."<sup>26</sup> Dr. Revell's statement that the beach "can't grow much wider" is unsupported – he made this assertion by looking at a photograph of the current beach without any explanation.<sup>27</sup> As explained above, the record shows that the beach in front of the Puente site has grown steadily over time. There is no evidence demonstrating that the beach "can't grow much wider." Dr. Revell's theory that sediment supply will diminish and lead to more erosion is also contrary to evidence showing that sediment supply is not likely to decrease significantly during Puente's operating life. Sediment yield from the Santa Clara River is a significant source of sediment for the beach fronting the Puente site, and is not predicted to decline significantly during Puente's useful life.<sup>28</sup> Dr. Revell's unsupported statements to the contrary are unreliable.

The City attempts to discredit the testimony of NECO's expert witness, Mr. Mineart, but the City's arguments misrepresent the record and are not credible. First, NECO did not present

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<sup>24</sup> City of Oxnard Opening Brief, p. 7.

<sup>25</sup> Reporter's Transcript, Volume 3 (City of Oxnard/Revell), p. 595 lines 17-21.

<sup>26</sup> City of Oxnard Opening Brief, p. 7.

<sup>27</sup> Reporter's Transcript, Volume 3 (City of Oxnard/Revell), p. 601 lines 4-27.

<sup>28</sup> Reporter's Transcript, Volume 2 (NRG/Mineart), p. 409 line 17 through p. 410 line 10; Exhibit CO-4 ("Coastal Resilience Ventura: Technical Report of Coastal Hazards Mapping"), Figure 16 (fourth to last page of document) (showing substantial increases in sediment yield from the Santa Clara River, with decreases below historic levels not occurring until after almost 2050, the end of Puente's useful life).

expert testimony in order “to cast doubt” on long-term threats to Puente as the City alleges.<sup>29</sup> The City falsely suggests that NECO is trying to hide risks. In fact, NECO undertook an analysis of coastal hazards to inform its own investment decision. NECO made a contractual commitment to spend hundreds of millions of dollars to build a new plant at the Mandalay site, and bears the full risk under the Puente Contract if the plant cannot operate reliably due to coastal hazards.<sup>30</sup> The results of NECO’s analysis show that coastal hazards do not prevent Puente from providing a reliable source of resource adequacy capacity.<sup>31</sup> NECO has millions of dollars on the line if its analysis is wrong. As the only party bearing that investment risk, NECO has zero incentive “to cast doubt” on threats to the plant.

Second, the City wrongly asserts that Mr. Mineart’s analysis is “unreliable,” and attacks his experience and credentials.<sup>32</sup> Mr. Mineart is a registered professional engineer with more than 30 years of experience in the fields of hydrologic, hydraulic and hydrodynamic analysis, erosion and sediment transport modeling, risks assessments, climate change and sea level rise, and surface and groundwater fate and transport modeling.<sup>33</sup> His resume describes his extensive experience assessing risks to infrastructure projects from wave impacts and flooding hazards, including due to projected sea level rise.<sup>34</sup> Compared to Dr. Revell’s resume, Mr. Mineart has far greater experience conducting project-specific and site-specific risk assessments for infrastructure projects. Dr. Revell also admitted that he did not factor site-specific

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<sup>29</sup> City of Oxnard Opening Brief, p. 7.

<sup>30</sup> Exhibit NRG-1 (Gleiter), pp. 8-9.

<sup>31</sup> Exhibit NRG-2 (Mineart), Appendix B, p. 6 (“The combined effects of [sea level rise (“SLR”)], potential erosion of the berm, wave events, and storm surge run-up that could occur during the life of the project through planning horizon 2050 are not expected to adversely impact the project. The potential anticipated elevation of SLR, in combination with any of these natural phenomena or weather-induced events, would be well below the beach dunes in proximity to the west boundary of the project site.”).

<sup>32</sup> City of Oxnard Opening Brief, p.

<sup>33</sup> Exhibit NRG-2 (Mineart), Appendix A.

<sup>34</sup> Exhibit NRG-2 (Mineart), Appendix A.

considerations such as the operating experience at Mandalay into his analysis. Mr. Mineart's site-specific analysis is more appropriate to assess potential risks to Puente than the general Ventura County coastline analyses commissioned by the City.

Third, the City argues that Mr. Mineart's analysis was "improperly truncated," but Mr. Mineart correctly considered potential impacts during Puente's planned operating life, which is expected to last approximately 30 years between 2020 and 2050.<sup>35</sup> The City states that a 30-year useful life is contrary to the Coastal Commission's guidance recommending that sea level rise planning use a 100-year lifespan for critical infrastructure, including "power plants and energy transmission infrastructure."<sup>36</sup> The CEC disagrees with the Coastal Commission's blanket characterization of power plants as "critical infrastructure," and the resulting recommendation that all power plants "warrant special considerations such as applying a 500-year event design standard, assuming the highest sea-level rise projections, and protection from the worst-case future impacts."<sup>37</sup> The CEC explained that CEC staff analyzes information specific to each proposed project and site location, and expressed concern that "the public and intervening parties may believe that the Guidance recommends special considerations to all power plants without question."<sup>38</sup> The CEC therefore asked the Coastal Commission to remove "power plants" from the critical infrastructure category "to avoid a default assumption that all power plants are critical."<sup>39</sup> Applying these comments, the Coastal Commission modified the final recommended policy guidance so that "critical infrastructure" now only includes "some power plants and

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<sup>35</sup> NRG-2 (Mineart), Appendix B, p. 3.

<sup>36</sup> City of Oxnard Opening Brief, p. 8.

<sup>37</sup> CEC Comments on Public Review Draft, California Coastal Commission Sea-Level Rise Policy Guidance, July 20, 2015, attached to this reply brief as Appendix A.

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

energy transmission infrastructure.”<sup>40</sup> Given that the CEC has exclusive jurisdiction to evaluate the threat to Puente’s reliability from coastal hazards and sea level rise, the CEC will decide the applicable considerations to apply to Puente in light of its useful life and site-specific conditions.

Fourth, the City falsely asserts that Mr. Mineart “simply assumed that beach accretion would keep up with sea level rise.”<sup>41</sup> This misrepresents Mr. Mineart’s analysis. Mr. Mineart’s analysis assumed that beach accretion *would not* keep up with sea level rise. Despite the fact that accretion “has been occurring along the stretch of beach adjacent to the project site,” Mr. Mineart applied a worst-case assumption that the beach would not keep up with sea level rise and would erode “about 130 feet from its current location by year 2060.”<sup>42</sup> However, even applying this “worst-case scenario and assuming that historical accretion will not continue, the beach would be approximately the same width in 2050 as it was in 1947.”<sup>43</sup> Thus, even if beach accretion does not keep up with sea level rise, the existing accreted beach is wide enough to accommodate the worst-case erosion scenario without jeopardizing the Puente site.

Fifth, the City faults Mr. Mineart for assuming 130 feet of *beach* erosion rather than 130 feet of *dune* erosion, citing the Coastal Resilience Ventura report, but the City has not shown how 130 feet of *dune* erosion in front of the Puente site is plausible given that the existing dunes are fronted by a 300-foot wide beach. Mr. Mineart explained during hearings that “they have such a huge protective beach right now,” and “[t]he beach is 300-feet wide.”<sup>44</sup> He also explained that “the beach is big enough that the dunes are not going to take a constant full force of wave

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<sup>40</sup> California Coastal Commission Sea Level Rise Policy Guidance, Recommended Final Draft – July 31, 2015, p. 80 (insert to draft shown in bold underlined text), available at: [http://documents.coastal.ca.gov/assets/slr/guidance/July2015\\_Full\\_RecFinal.pdf](http://documents.coastal.ca.gov/assets/slr/guidance/July2015_Full_RecFinal.pdf).

<sup>41</sup> City of Oxnard Opening Brief, p. 9.

<sup>42</sup> Exhibit NRG-2 (Mineart), Appendix B, p. 5.

<sup>43</sup> Exhibit NRG-2 (Mineart), Appendix B, p. 5.

<sup>44</sup> Reporter’s Transcript, Volume 2 (NRG/Mineart), p. 386, lines 22-24.

action.”<sup>45</sup> Mr. Mineart also explained that “we know the dunes have been stable,” and “[t]here’s no evidence of erosion,” and “[t]here’s no evidence that waves have ever impacted the dunes historically.”<sup>46</sup> Mr. Mineart’s site-specific analysis of the beach in front of the Puente site shows that the dune erosion predicted in the Coastal Resilience Ventura report is not accurate as applied to this particular site.

Sixth, the City incorrectly asserts that the 1984 aerial photograph attached to Mr. Mineart’s testimony “shows significant erosion of the dune in front of the Mandalay site from just one large storm event from over 30 years ago.”<sup>47</sup> Dr. Revell’s “observation” from the 1984 photograph is contrary to Mr. Mineart’s testimony as cited above, and also contradicts reports from the Mandalay plant staff, who confirmed that the 1983 storm event had no impact to the Mandalay site.<sup>48</sup> Significant dune erosion in front of the Mandalay site would have been reported by staff, and likely would have taken years to repair itself.

Dr. Revell’s assertion that the 1984 photograph shows substantial erosion is not substantiated. Dr. Revell said that “vegetation has been substantially denuded or eroded in front of the site” in the 1984 photograph, but this is not evidence of dune erosion. The amount of visible vegetation varies in the aerial photographs. The most credible explanation for these differences is the relative resolution of the photographs. Scattered vegetation on the dunes cannot be seen as easily in the low resolution photographs as in the high resolution photographs. The 1984 photograph has a low resolution compared with, for example, the photograph from 1959, which more clearly shows vegetation and the road that used to be visible between the

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<sup>45</sup> Reporter’s Transcript, Volume 2 (NRG/Mineart), p. 387, lines 25-28.

<sup>46</sup> Reporter’s Transcript, Volume 2 (NRG/Mineart), p. 381, lines 17-21.

<sup>47</sup> City of Oxnard Opening Brief, p. 10.

<sup>48</sup> Exhibit NRG-2 (Mineart), Appendix B, p. 2 (“A review of large storm events that have caused damage at Oxnard Shores (1960, ’63, ’65, ’71, ’78, ’83, ’88, ’95 and ’97-98) indicated no impact to the project site with the exception of the need to repair rip-rap at the MGS outfall in 1983).

Puente site and the beach. As shown in the photographs from 1977, 1994, 2005, 2009, 2010 and 2012, that road has been covered with accumulated sand,<sup>49</sup> and the accumulated sand also could explain why vegetation is sometimes less visible in the photographs. Dr. Revell's willingness to testify to "significant erosion of the dune" based solely on the low resolution 1984 aerial photograph is not credible.

Finally, the City asserts that the Puente site is exposed to flooding from a tsunami triggered by an underwater landslide known as the "Goleta 2 Landslide," even under current conditions.<sup>50</sup> The City's analysis is based on modeling assumptions and mapping that assumed hydraulic connections between the tsunami wave and the Puente site.<sup>51</sup> The City's analysis for current conditions is contrary to the Tsunami Inundation Map for Emergency Planning developed by the California Emergency Management Agency, which shows that the Puente site is not currently in the tsunami inundation zone, including for a tsunami triggered by a Goleta 2 Landslide.<sup>52</sup> As Mr. Mineart testified, accretion of the beach in front of the Puente site so far has kept up with sea level rise.<sup>53</sup> Thus, the evidence does not suggest that the tsunami inundation map is wrong today. The City's claim to the contrary again casts doubt on the City's modeling prediction for future years.

In addition, NRG's opening brief explained that the Goleta 2 Landslide has an expected return rate of once every 15,000 years, which means it has a 0.2 percent chance of occurring during Puente's useful life.<sup>54</sup> Given this extremely low probability of occurrence, it is not

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<sup>49</sup> Exhibit NRG-2 (Mineart), Appendix B, Attachment 2.

<sup>50</sup> City of Oxnard Opening Brief, p. 11.

<sup>51</sup> Exhibit CO-2 (Cannon), Attachment 2, pp. 5-6.

<sup>52</sup> Exhibit NRG-2 (Mineart), Appendix B, Attachment 2; Exhibit NRG-4 ("Tsunami Inundation Map for Emergency Planning), Table 1: Tsunami sources modeled for Ventura County coastline (showing Goleta Landslide #1 and Goleta Landslide #2 in the list of Local Sources).

<sup>53</sup> Reporter's Transcript, Volume 2 (NRG/Mineart), p. 376 line 28 through p. 377 line 4 (explaining that the beach "has been growing even though the sea has been rising").

<sup>54</sup> NRG Opening Brief, p. 28.

reasonable to reject the Puente project based on a Goleta 2 Landslide. Even the City's witness Mr. Cannon acknowledged that "it's going to be up to the coastal engineer and the client that he's working for"<sup>55</sup> to decide how to plan for a Goleta 2 Landslide.

**C. Contrary To The City's Arguments, Puente Is Ideally Located To Meet Local Reliability Needs In The Moorpark Sub-Area.**

The City argues that procurement of the Puente Contract does not ensure reliability in the Moorpark sub-area because Puente is not in Goleta.<sup>56</sup> The City's argument is wrong. Puente is ideally located at the site of one of the existing OTC plants. The Commission previously found that replacing the OTC units with new generation at the same site would be "certain" to meet reliability needs. In Decision 13-02-015, the Commission found that: "Gas-fired resources at the current OTC sites are certain to meet the ISO's criteria for meeting LCR needs"; and "Other resources can also meet or reduce LCR needs, but may not be effective in doing so."<sup>57</sup> The Commission also found that "[t]he most likely locations for to meet LCR needs in the Moorpark sub-area are the sites of the current OTC plants."<sup>58</sup> The CAISO's testimony confirms that procurement of the Puente Contract meets local reliability needs and enhances the safe and reliable operation of SCE's electrical system.<sup>59</sup>

The City also misconstrues the reliability issue identified for the Goleta service area. Reliability in Goleta was not the only driver for LCR procurement for the Moorpark sub-area. As confirmed in Decision 13-02-015, the Commission authorized procurement for the Moorpark sub-area to address reliability issues arising largely due to the assumed retirement of almost 2,000 MW of OTC capacity. All of the relevant OTC capacity is currently located in Oxnard, at

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<sup>55</sup> Reporter's Transcript, Volume 3 (City of Oxnard/Cannon), p. 634 lines 10-17.

<sup>56</sup> City of Oxnard Opening Brief, p. 13.

<sup>57</sup> Decision 13-02-015, Finding of Fact 26.

<sup>58</sup> *Id.*, Finding of Fact 39.

<sup>59</sup> Exhibit CAISO-1 (Sparks), p. 4 lines 8-13; Exhibit CAISO-3 (Millar), pp. 4-5.

Mandalay and the Ormond Beach Generating Station. The Puente Contract offers an opportunity to replace almost 2,000 MW of aging OTC capacity with 262 MW of new fast-start peaking capacity that repurposes and reuses existing gas and transmission infrastructure. This is an ideal local reliability solution for the Moorpark sub-area.

**D. Parties Have Not Shown That CEC Approval Is Necessary For The Commission's Evaluation Of The Puente Contract.**

The City and Sierra Club argue that the Commission should delay approval of the Puente Contract until after the CEC approves the Puente AFC, based on assertions that CEC approval somehow would “illuminate” issues, “assist” review, and allow the Commission to “better evaluate” the Puente Contract.<sup>60</sup> These vague arguments do not explain how delay would help the Commission evaluate the reasonableness of the Puente Contract. The Puente Contract is final and has been executed by SCE and NECO. Delay would not change the terms of the Puente Contract. In reality, the only result of delay would be to delay the full effectiveness of the Puente Contract, and miss the deadline for Commission approval that is specified therein. This would expose NECO to the risk of termination, which likely is what the City and Sierra Club are attempting to achieve with their push for delay.

Even if the termination trigger in the Puente Contract were extended until after the CEC process is complete, delay still serves no valid purpose. As one scenario, assume the CEC approves construction of Puente as proposed in the AFC. If this occurs, there would be nothing further for the Commission to consider, and no reason for additional review of the Puente Contract. There would be no valid basis for revisiting the CEC's approval of construction at the Puente site, given the CEC's exclusive authority to make that decision.

As a second scenario, assume the CEC rejects the Puente AFC. If the Commission approves the Puente Contract now to make it fully effective, then the CEC's rejection of the AFC

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<sup>60</sup> City of Oxnard Opening Brief, pp. 13-14; Sierra Club Opening Brief, p. 5.

would result in termination of the Puente Contract and NECO would owe a termination payment to SCE equal to its development security.<sup>61</sup> If Commission approval were delayed, however, NECO would not owe a termination payment because the Puente Contract would not have become fully effective when CEC rejection occurs.<sup>62</sup> This shows that delay in Commission approval actually would be to ratepayers' detriment, because it would delay achievement of the condition that causes the Puente Contract to become fully effective and binding on the parties. In either case, however, if the CEC rejects the AFC, there would be nothing further for the Commission to consider, and no reason for additional review of the Puente Contract.

As a third scenario, assume the CEC approves construction of Puente but requires additional mitigation not proposed in the AFC, such as potential requirements for monitoring the dunes. Under the Puente Contract, NECO bears all responsibility and costs associated with constructing, operating and maintaining Puente to supply resource adequacy capacity in accordance with the Puente Contract. NECO therefore will be responsible for paying for and implementing any mitigation required by the CEC. The City is very confused in this regard, because it seems to believe that the fixed price in the Puente Contract somehow limits the CEC's authority.<sup>63</sup> This is not correct. The Puente Contract specifies a fixed resource adequacy payment with no mechanism for increasing that price during the contract term. In the third scenario, NECO would pay for any increased costs associated with required mitigation and ratepayers would be insulated from those additional costs. Thus, in the third scenario, there would be nothing further for the Commission to consider, and no reason for additional review of the Puente Contract.

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<sup>61</sup> Exhibit NRG-1 (Gleiter), p. 8 lines 14-19.

<sup>62</sup> Exhibit NRG-1 (Gleiter), p. 8 lines 5-10.

<sup>63</sup> City of Oxnard Opening Brief, pp. 16-17.

As a fourth scenario, assume the CEC approves construction of Puente, but finds that another site is environmentally superior. Parties who oppose Puente make much of this possibility, but consideration of the factors supporting reuse of a brownfield site and an existing power plant site with gas and transmission infrastructure already in place shows that this is not a likely outcome of the alternatives analysis. The CEC has explained the purpose of its alternatives analysis as follows:

The California Environmental Quality Act (CEQA) Guidelines and the Energy Commission's regulations require an evaluation of the comparative merits of a range of feasible site and facility alternatives that achieve the basic objectives of the proposed project but would avoid or substantially lessen potentially significant environmental impacts. (Cal. Code Regs., tit. 14, §§ 15126.6(c) and (e); see also, tit. 20, § 1765.)

The range of alternatives, including the "No Project" alternative, is governed by the "rule of reason" and need not include those alternatives whose effects cannot be reasonably ascertained and whose implementation is remote and speculative. (Cal. Code Regs., tit. 14, § 15126.6(f).) Rather, the analysis is necessarily limited to alternatives that the "lead agency determines could feasibly attain most of the basic objectives of the project." (Id.)<sup>64</sup>

Under these tests, the CEC considers the "comparative merits" of a reasonable range of feasible alternative sites and technologies that would achieve the basic objectives of the project, but would "avoid or substantially less potentially significant environmental impacts." Puente avoids many impacts that would occur if the plant were built at a greenfield site or a site that lacks existing gas and electric transmission infrastructure. The CEC will conduct the required alternatives analysis, but it seems unlikely that other sites would be environmentally preferable given that the Puente site has been used continuously for power generation since the 1950s.

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<sup>64</sup> California Energy Commission Final Decision on the Carlsbad Energy Center Project, June 2012, CEC-800-2011-004-CMF, p. 3-1.

Nevertheless, even if the CEC were to find that the Puente site cannot be approved due to the existence of feasible environmentally superior alternative sites that would avoid or substantially lessen potentially significant environmental impacts and also achieve the project's objectives, this outcome would not necessarily lead to further consideration of the Puente Contract in the form presented in this proceeding. If NECO does not have the ability to acquire and use the alternative site, then the fourth scenario would lead to termination of the Puente Contract just like a CEC decision rejecting the AFC. On the other hand, if NECO could obtain site control, it would be necessary to make changes to existing transmission interconnection arrangements for Puente and the Puente Contract in order to move Puente to the other site. In that situation, additional Commission review of the Puente Contract in its current form would not be relevant, and a modified contract would be submitted for review if agreed to by the parties. Thus, even under the improbable scenario in which an alternative site were shown to be environmentally superior to the Puente site, there would be no reason for additional review of the executed Puente Contract.

NECO urges the Commission to see through the rhetoric of parties who pretend to want additional "illumination" from the CEC process. In the Puente Contract, NECO agreed to assume the risk of an unfavorable CEC licensing decision. The Commission should approve the Puente Contract without delay, and allow NECO to undertake its obligation to obtain CEC approval for Puente in accordance with its contractual commitment. This outcome would be consistent with the Commission's prior decisions approving contracts for new generation.

**E. Approval Of the Puente Contract Will Not Impair The CEC's Environmental Review Or Constrain The CEC's Authority To Evaluate Alternatives.**

The City argues that Commission approval of the Puente Contract will "prejudice the CEC's ability to consider a full range of alternatives and potential mitigation for the Puente

Project.”<sup>65</sup> This is not true. The City’s relies entirely on the “Alternatives” section of the AFC for Puente, which was prepared by NECO’s permitting team and submitted to the CEC. Regardless of what is written in the AFC, it is obvious that an applicant does not have the ability to dictate what the CEC can and cannot consider or require as part of its review of the Puente AFC. The City’s argument is contrary to all reason and common sense.

The City also misrepresents NECO’s statements in the Puente AFC. The language quoted by the City reflects NECO’s position regarding the relative importance of the stated project objectives for Puente. The Alternatives section of the AFC describes a range of reasonable alternatives to Puente as proposed, including: the “No Project” alternative required by CEQA; alternative generation technologies and configurations; alternative sources of water supply; alternative waste handling systems; and alternative emission control technologies.<sup>66</sup> The Alternatives section lists the project objectives, which include the objective to fulfill NECO’s obligations under the Puente Contract, along with seven other project objectives.<sup>67</sup> The Alternatives section then recites the applicable CEQA requirements for considering a reasonable range of alternatives, noting that “there is no ironclad rule governing the nature or scope of alternatives to be discussed other than the rule of reason.”<sup>68</sup> In the next paragraph, which is the one the City cites, NECO presents its view that the project objective of meeting NECO’s obligations under the Puente Contract is particularly important. That paragraph explains that the objective of meeting NECO’s contractual commitment to build Puente with the technology and at the location specified in the Puente Contract “must be kept in mind when determining what

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<sup>65</sup> City of Oxnard Opening Brief, p. 15. CEJA makes a similar argument. CEJA Opening Brief, pp. 22-25.

<sup>66</sup> Exhibit CO-3, p. 5-1.

<sup>67</sup> Exhibit CO-3, p. 5-1.

<sup>68</sup> Exhibit CO-3, p. 5-2.

constitutes a range of reasonable alternatives, as well as which alternatives might be considered feasible.”<sup>69</sup>

NECO’s statements in the Puente Alternatives discussion are entirely consistent with CEQA’s requirements for consideration of alternatives. Under CEQA, alternatives must be able to attain most of the basic objectives of the project.<sup>70</sup> CEQA does not require consideration of alternatives that “cannot achieve the project’s underlying fundamental purpose.”<sup>71</sup> An agency therefore may structure its alternatives analysis based on a reasonable definition of the project’s underlying purpose, and need not study alternatives that cannot achieve that fundamental goal.<sup>72</sup> There is no rule requiring a CEQA analysis to explore offsite project alternatives in every case.<sup>73</sup> An agency may determine that no feasible locations exist either because basic project objectives cannot be achieved at another site, or because there are no sites meeting the criteria for feasible alternative site.<sup>74</sup> NECO’s position is also consistent with California Public Resources Code Section 25540.6(b), which specifies that an evaluation of alternative sites is not required when a natural gas-fired thermal power plant is proposed for development at an existing industrial site such as Mandalay.

Ultimately, CEC Staff and the CEC AFC Committee for Puente will determine what constitutes a range of reasonable alternatives, and which alternatives should be considered in light of the project objectives. It is a legal certainty that NECO does not have the power to dictate or limit the scope of that review. The City’s arguments to the contrary are without merit.

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<sup>69</sup> Exhibit CO-3, p. 5-2.

<sup>70</sup> Title 14, California Code of Regulations, Section 15126.6(a).

<sup>71</sup> *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings*, 43 Cal.4<sup>th</sup> 1143, 1165 (2008).

<sup>72</sup> *Id.*, p. 1166.

<sup>73</sup> *California Native Plant Society v. City of Santa Cruz*, 177 Cal. App. 4<sup>th</sup> 957, 991 (2009).

<sup>74</sup> *See City of Long Beach v. Los Angeles Unified School District*, 176 Cal. App. 4<sup>th</sup> 889, 921 (2009).

The City further errs in asserting that Commission approval of the fixed price in the Puente Contract somehow limits the CEC's authority "to require changes in the Puente project that might substantially increase its costs."<sup>75</sup> This assertion is wrong. As explained above, NECO will be responsible for paying for and implementing any mitigation required by the CEC. Commission approval of the Puente Contract does not, and could not, limit the CEC's authority to consider and require mitigation that is shown to be necessary to mitigate significant environmental impacts or ensure reliability.

**F. The City's Argument That The Commission Must Conduct A CEQA Review Of Puente Misrepresents NECO's Testimony And CEQA.**

The City argues that the Commission must act as the lead agency under CEQA and conduct an environmental review of Puente.<sup>76</sup> CBD also argues that CEQA requires environmental review in this proceeding,<sup>77</sup> and CEJA argues that the Commission is a "responsible agency" and must wait for the CEQA lead agency to complete its environmental review before approving the Puente Contract.<sup>78</sup> This is wrong. It is well established that Commission approval of a utility power purchase agreement is not a "project" for purposes of CEQA and does not trigger a requirement for environmental review under CEQA. In its recent decision approving a power purchase agreement executed by San Diego Gas and Electric Company for a new gas-fired power plant, the Commission rejected CBD's argument that CEQA review was required, and explained:

To the contrary, CEQA Guidelines, long-standing case law, and Commission precedent all make clear that Commission review of purchase power contracts does not trigger CEQA. A contract for purchase power by a regulated entity is not a "project" pursuant to CEQA. CEQA defines a "project" as "[a]ctivities involving the

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<sup>75</sup> City of Oxnard Opening Brief, pp. 16-17.

<sup>76</sup> City of Oxnard Opening Brief, p. 17.

<sup>77</sup> CBD Opening Brief, pp. 16-17.

<sup>78</sup> CEJA Opening Brief, p. 22.

issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.” (Public Resources Code § 21065.) Commission approval of a purchase power contract does not confer a lease, permit, license, certificate, or any other entitlement on the seller. Rather, it is an assurance that the utility will recover through its rates the costs that it incurs under the contract. It is well-settled that “[s]uch a ratemaking order is not ‘project’ under CEQA. All Commission orders concluding that CEQA does not apply to a ratemaking proceeding have been upheld. (E.g., *Samuel C. Palmer, III v. Public Utilities Commission SF# 23980*, writ denied 5/10/79.)” (D.86-10-044 at 16-17, 1986 Cal. PUC LEXIS 642, 16-17 (Cal. PUC 1986).)

Likewise, the Commission is not a “responsible agency” under CEQA when it approves purchase power contracts. A “responsible agency” is defined as a public agency other than the lead agency which has discretionary approval power over the project. (Public Resources Code § 21069.) While the Commission has considerable discretion over whether to approve a purchase power contract, it does not have power to approve or deny the underlying generation project. The project underlying the purchase power contract could proceed regardless of the Commission's decision. (Id. at 16-18.)<sup>79</sup>

In a new twist on an old, wrong argument, the City alleges that the Commission must act as the lead agency under CEQA for Puente because approval of the Puente Contract would foreclose alternatives or mitigation measures that would ordinarily be part of CEQA review of Puente.<sup>80</sup> This is not true. As explained above, the City distorts the statements in the Alternatives section of the Puente AFC. NECO does not have the power to dictate or constrain the CEC’s authority to consider project alternatives or require mitigation.

The City also asserts that NECO’s witness, Ms. Gleiter, testified that “contract approval will provide significant financial momentum to the Puente project,” and “makes it far more likely that the CEC will approve its project.”<sup>81</sup> The City misrepresents Ms. Gleiter’s testimony. When asked to confirm that “NRG has determined that PUC approval here makes it more likely

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<sup>79</sup> Decision 15-05-051, pp. 29-30 (footnotes omitted).

<sup>80</sup> City of Oxnard Opening Brief, pp. 17-18.

<sup>81</sup> City of Oxnard Opening Brief, p. 18.

that it will receive approval of this project from the CEC”, Ms. Gleiter responded: “No, that is definitely not true.”<sup>82</sup>

Instead, Ms. Gleiter testified that Commission approval of the Puente Contract allows NECO to “scale expenses at risk.”<sup>83</sup> As has been made clear in this proceeding, NECO is assuming substantial risk by agreeing to permit and build Puente to supply resource adequacy capacity pursuant to the Puente Contract. Numerous milestones in the project development process must be achieved successfully in order for NECO to meet this contractual commitment. Commission approval of the Puente Contract is one significant milestone because, as Ms. Gleiter explained, the Puente Contract provides the revenue stream that supports the investment. CEC approval of the Puente AFC is another obvious key milestone. Mr. Gleiter’s testimony explained how a project developer views these milestones together. As long as both milestones remain unmet, the total risk of success or failure is heightened, making the significant project development and permitting expenditures more “at risk.” Meeting one key milestone such as approval of the Puente Contract makes a developer more comfortable about continuing to spend millions of dollars to meet the next key milestone of obtaining CEC approval. There are other milestones in this risk assessment, including project financing and construction hurdles. But the risk assessment described by Ms. Gleiter is a purely internal risk assessment by NECO and its parent company. NECO’s assessment of its own financial risk does not, and indeed could not, limit the CEC’s authority to decide whether or not to approve the Puente AFC, or constrain the CEC’s independent review of the Puente AFC. The City’s argument to the contrary is wrong.

In addition, the CEQA case law cited by the City does not apply here. In *Save Tara v. City of West Hollywood*, the Court addressed “the question of whether and under what circumstances an agency’s agreement allowing private development, conditioned on future

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<sup>82</sup> Reporter’s Transcript, Volume 2 (NRG/Gleiter), p. 340 lines 16-21.

<sup>83</sup> Exhibit NRG-1 (Gleiter), p. 7 lines 23-25.

compliance with CEQA, constitutes approval of the project within the meaning of sections 21100 and 21151” of CEQA.<sup>84</sup> That case involved an agreement entered into by the City of West Hollywood conveying to a developer an option to purchase certain city-owned real estate for use to construct a housing development, with an additional commitment by the city (not conditioned on CEQA compliance) to contribute toward development costs. The city’s obligation to convey the property was conditioned on all applicable requirements of CEQA having been satisfied. The petitioners sought a decision holding that the city was required to prepare an environmental impact report for the housing development project *before* it agreed to convey the property to the developer. The Court held that: “A CEQA compliance condition can be a legitimate ingredient in a preliminary public-private agreement for exploration of a proposed project, but if the agreement, viewed in light of all the surrounding circumstances, commits the public agency as a practical matter to the project, the simple insertion of a CEQA compliance condition will not save the agreement from being considered an approval requiring prior environmental review.”<sup>85</sup>

The holding in *Save Tara* does not apply in this proceeding. The Commission is not conveying any property to NECO, or agreeing to explore or move forward with a public-private partnership with NECO. The Commission also is not granting approval for construction of Puente to proceed. Commission approval of the Puente Contract also does not, and could not, commit the CEC to approve the Puente AFC or limit the scope of the CEC’s environmental review of the Puente project. Although the City and other parties have insisted on using this proceeding to object to Puente on environmental grounds, the only action that the applicant has requested with respect to Puente is for the Commission to approve the Puente Contract as reasonable and authorize rate recovery. Consistent with the Commission’s long-standing and recently affirmed precedent on utility power purchase agreements, approval of the Puente

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<sup>84</sup> *Save Tara v. City of West Hollywood*, 45 Cal. 4<sup>th</sup> 116, 121 (2008).

<sup>85</sup> *Id.*, p. 132.

Contract is not a “project” for purposes of CEQA. NECO’s testimony about how it views its financial risks does not change this well settled legal conclusion.

Finally, even if the Commission’s approval of the Puente Contract were technically a “project,” which it is not for the reasons discussed above, CEQA provides an exemption for actions undertaken by public agencies relating to any thermal power plant that will be licensed by the CEC. Pursuant to California Public Resources Code Section 21080(b)(6), CEQA does not apply to:

Actions undertaken by a public agency relating to any thermal powerplant site or facility, including the expenditure, obligation, or encumbrance of funds by a public agency for planning, engineering, or design purposes, or for the conditional sale or purchase of equipment, fuel, water (except groundwater), steam, or power for a thermal powerplant, if the powerplant site and related facility will be the subject of an environmental impact report, negative declaration, or other document, prepared pursuant to a regulatory program certified pursuant to Section 21080.5, which will be prepared by the State Energy Resources Conservation and Development Commission, by the Public Utilities Commission, or by the city or county in which the powerplant and related facility would be located if the environmental impact report, negative declaration, or document includes the environmental impact, if any, of the action described in this paragraph.<sup>86</sup>

The CEC is the “State Energy Resources Conservation and Development Commission” referenced in the statute, and its thermal power plant siting and environmental review process is a certified regulatory program pursuant to California Public Resources Code Section 21080.5. The CEC’s certified regulatory program entails a full environmental review of potential project impacts and imposes requirements necessary to ensure that all potential environmental impacts are mitigated to below significant levels. This further demonstrates that the City’s CEQA argument is baseless.

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<sup>86</sup> See also CEQA Guidelines, 14 Cal. Code Regs. Section 15271.

**G. The City’s Challenge To Puente’s Size Is Contrary To The Record.**

The City argues that the size of the Puente Contract is “unjustifiable” based on the City’s interpretation of the CAISO’s studies.<sup>87</sup> The City’s argument is contrary to the testimony of the CAISO’s witness, who cautioned that the resources for which SCE seeks approval in this proceeding “are only a portion of those necessary to meet reliability needs in the Moorpark sub-area.”<sup>88</sup> SCE’s testimony also explains that in order to meet the minimum procurement level of 215 MW that the Commission required in Decision 13-02-015, it was necessary to select a large gas-fired project, and Puente was the most cost effective gas-fired generation offer.<sup>89</sup>

**H. CEJA Misinterprets The Commission’s Guidance On Qualitative Considerations In An RFO.**

CEJA argues that SCE’s evaluation of offers in the RFO failed to comply with Commission decisions requiring consideration of environmental justice impacts.<sup>90</sup> CEJA’s argument misinterprets the Commission’s guidance on the use of qualitative considerations in an RFO. CEJA relies on Decision 07-12-052, where the Commission stated that “[t]he evaluation criteria used in competitive solicitations must be clear, transparent, and available to potential bidders early enough in the procurement process to permit potential bidders to tailor their projects to fit the utility’s actual needs.”<sup>91</sup> The Commission then stated that: “We discuss below certain bid evaluation metrics that we urge the utilities, in conjunction with Independent Evaluators, Procurement Review Groups and Energy Division, to consider when developing the RFO bid documents and process.”<sup>92</sup> The Commission found that utilities should consider

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<sup>87</sup> City of Oxnard Opening Brief, pp. 20-21.

<sup>88</sup> Exhibit CAISO-1 (Sparks), p. 3 line 22 through p. 4 line 1.

<sup>89</sup> Exhibit SCE-7 (Cushnie), p. 1 line 12 through p. 2 line 1; Exhibit SCE-1 (Singh), p. 45 line 18 through p. 46 lines 2, 9-10.

<sup>90</sup> CEJA Opening Brief, pp. 5-10.

<sup>91</sup> Decision 07-12-052, p. 155.

<sup>92</sup> *Id.*

capacity and energy benefits, resource diversity, portfolio fit, local reliability/resource adequacy, congestion costs, credit and collateral, debt equivalence, potential treatment under financial accounting rules, and transmission costs/savings, as well as “disproportionate resource sitings in low income and minority communities, and environmental impacts/benefits (including Greenfield vs. Brownfield development).”<sup>93</sup>

In suggesting that utilities should consider these bid evaluation metrics, the Commission did not specify that utilities must give disproportionate consideration to environmental justice factors over other qualitative considerations such as the preference for using brownfield sites rather than greenfield sites. The Commission also did not specify that qualitative considerations would override the utilities’ quantitative analysis of which resources are the lowest cost and best fit for the utility’s need. Utilities have flexibility to apply relevant qualitative considerations in their RFO resource evaluations, as long as they demonstrate how resource selections were made and justify their selected contracts.

SCE complied with those requirements in this proceeding. SCE’s testimony and the Independent Evaluator’s report show that SCE selected the winning contracts for the Moorpark sub-area based primarily on its quantitative analysis of net market value – namely, the value of a resource’s energy, ancillary services, and capacity benefits, minus fixed and variable offer-related costs.<sup>94</sup> SCE also assessed non-quantifiable characteristics of each offer. SCE’s selection process revealed that the Puente Contract was the most cost-effective gas-fired offer, and it also satisfies the Commission’s preference for locating new capacity at brownfield sites instead of greenfield sites.

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<sup>93</sup> *Id.*, pp. 156-157.

<sup>94</sup> Exhibit SCE-1 (Singh), pp. 30-49; Exhibit SCE-2, Appendix D (Independent Evaluator Report), p. 5.

Siting Puente at the existing Mandalay site also provides environmental benefits because it accommodates the potential retirement of almost 2,000 MW of aging OTC capacity with 262 MW of new fast-start peaking capacity. The OTC units in Oxnard require between 12 and 18 hours to start up, which means that they have emissions during the entire lengthy start up period, in addition to the time they operate to meet electricity needs.<sup>95</sup> In addition to being significantly smaller than the existing OTC capacity, Puente will be able to start and be at its full capacity in only 10 minutes, avoiding the significant start up emissions of the existing OTC units.<sup>96</sup> Moreover, unlike the existing OTC units, Puente will be able to be shut down at night and restarted the next day, further reducing emissions compared to the existing OTC units. Construction of Puente thus will result in a net environmental benefit to the local community.

CEJA also argues that SCE failed to favor renewable energy projects in environmental justice communities,<sup>97</sup> but the record shows that SCE selected every renewable offer available in the RFO for the Moorpark sub-area.<sup>98</sup>

**I. CEJA Misinterprets The Record, Which Shows That SCE Selected Contracts Based On Its Least Cost Best Fit Quantitative Analysis.**

CEJA argues that SCE's selections of the Puente Contract and the Puente Refurbishment Contract were inappropriately based on "qualitative" assessments regarding the risk of resource shortages due to the possible retirement of existing non-OTC peaking resources owned by NRG South.<sup>99</sup> This claim is contrary to the record. As stated above, SCE's testimony and the Independent Evaluator's report show that SCE selected the winning contracts for the Moorpark sub-area based primarily on its quantitative analysis of net market value – namely, the value of a

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<sup>95</sup> Reporter's Transcript, Volume 2 (NRG/Gleiter), p. 351 lines 3-12.

<sup>96</sup> Exhibit NRG-1 (Gleiter), p. 2 lines 24-28.

<sup>97</sup> CEJA Opening Brief, p. 10.

<sup>98</sup> Exhibit SCE-7 (Bryson), p. 14 lines 2-3.

<sup>99</sup> CEJA Opening Brief, pp. 11-20.

resource's energy, ancillary services, and capacity benefits, minus fixed and variable offer-related costs.<sup>100</sup> SCE's selection process revealed that the Puente Contract was the most cost-effective gas-fired offer, and it also satisfies the Commission's preference for locating new capacity at brownfield sites instead of greenfield sites. Additional qualitative factors may have supported this selection, but the Puente Contract won due to its net market value.

SCE's testimony also shows that the Ellwood Refurbishment Contract offered a low cost solution to improve reliability in the Goleta service area, and SCE added the 0.5 MW Ellwood Storage Contract and a 1 MW rooftop solar project in Goleta to help address unique reliability concerns in Goleta. SCE's testimony explains that the set of selected contracts were "the best combination of offers" and "allowed SCE to select cost-competitive Preferred Resources offers."<sup>101</sup> The Independent Evaluator performed an independent, parallel evaluation of the offers and concluded that all of the selected contracts merit Commission approval "because the contracts' economics and their general terms and conditions represented the best resources available from a competitive solicitation."<sup>102</sup>

**J. Parties Have Not Shown That Another RFO Would Produce Materially Greater Amounts Of Preferred Resources.**

Sierra Club, the City and WBA unreasonably urge the Commission to reject the RFO results and require SCE to start over by conducting another RFO for preferred resources.<sup>103</sup> SCE explained that it selected every preferred resources final offer for the Moorpark sub-area other than energy storage, and had to select a large gas-fired generation offer to meet the minimum

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<sup>100</sup> Exhibit SCE-1 (Singh), pp. 30-49; Exhibit SCE-2, Appendix D (Independent Evaluator Report), p. 5.

<sup>101</sup> Exhibit SCE-1 (Singh), p. 46 lines 7-9.

<sup>102</sup> Exhibit SCE-2, Appendix D (Independent Evaluator Report), p. 39.

<sup>103</sup> Sierra Club Opening Brief, p. 5; City of Oxnard Opening Brief, pp. 25-26; WBA Opening Brief, p. 3.

procurement authorization of 215 MW.<sup>104</sup> Given that SCE just completed an exhaustive RFO process, it is not reasonable to expect that the results of a second RFO would produce materially greater amounts of preferred resources. Parties have not shown that a second RFO would yield a materially different result than the RFO that SCE just completed.

WBA argues that SCE should select alternative resources to meet local reliability needs in the Moorpark sub-area, but the resources described in WBA's testimony were not even bid into the RFO.<sup>105</sup> WBA's witness also admitted that the resources identified in WBA's testimony are "speculative numbers."<sup>106</sup> It would not be prudent to risk local reliability based on speculation about alternative resources.

### III. CONCLUSION

For the reasons explained in NRG's opening brief and reinforced above, the Commission should approve all 11 contracts selected and executed by SCE for the Moorpark sub-area, including the Puente Contract, the Ellwood Refurbishment Contract, and the Ellwood Storage Contract. The Commission should approve all of these contracts without delay or condition.

August 5, 2015

Respectfully submitted,

/s/ Lisa A. Cottle

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<sup>104</sup> Exhibit SCE-7 (Cushnie), p. 1 line 20 through p. 2 line 1.

<sup>105</sup> Reporter's Transcript, Volume 1 (WBA/Perry), p. 161 line 18 through p. 163 line 5 and p. 165 lines 16-20.

<sup>106</sup> Reporter's Transcript, Volume 1 (WBA/Perry), p. 166 line 9.

## DOCKETED

**Docket Number:** 15-AFC-01

**Project Title:** Puente Power Project

**TN #:** 205429

**Document Title:** Letter Re: Comments on Public Review Draft, California Coastal Commission Sea-Level Rise Policy Guidance, dated July 20, 2015

**Description:** N/A

**Filer:** Alicia Campos

**Organization:** California Energy Commission

**Submitter Role:** Commission Staff

**Submission Date:** 7/20/2015 1:30:15 PM

**Docketed Date:** 7/20/2015

**CALIFORNIA ENERGY COMMISSION**1516 Ninth Street  
Sacramento, California 95814Main website: [www.energy.ca.gov](http://www.energy.ca.gov)

July 20, 2015

California Coastal Commission  
c/o Sea-Level Rise Working Group  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105**RE: Comments on Public Review Draft, California Coastal Commission Sea-Level Rise Policy Guidance**

Dear Sea-Level Rise Working Group,

The California Energy Commission appreciates the opportunity to comment on the Public Review Draft of the revised Sea-Level Rise Policy Guidance, dated May 27, 2015. The Guidance was reviewed by several divisions within the agency, and was of particular interest to staff of the Siting, Transmission, and Environmental Protection Division. During the licensing process of thermal power plants 50 megawatts or greater, Energy Commission staff provide an independent assessment of the proposed energy facility and ancillary facilities. As directed by Governor Executive Order S-13-08 for state agencies to plan for sea-level rise and climate impacts, staff include sea-level rise estimates in their assessment of a proposed project.

We support the Coastal Commission's effort to provide an overview of the best available science on sea level rise for California and recommended methodology for addressing it in Coastal Commission planning and regulatory actions. Our only concern is the document's reference to power plants. The Guidance specifically identifies power plants as critical infrastructure (page 80), therefore warranting special considerations such as applying a 500-year event design standard, assuming the highest sea-level rise projections, and protection from the worst-case future impacts (page 138).

Staff analyzes information specific to each proposed project and site location. We are concerned that by presenting all power plants as critical infrastructure, the public and intervening parties may believe that the Guidance recommends special considerations to all power plants without question. While the Energy Commission has exclusive jurisdiction over thermal power plants of 50 megawatts or greater, preempting the jurisdiction of all other state and local agencies, we do not wish to appear to be acting in conflict with the Guidance.

We recommend that "power plants" be removed from the third bullet on page 80 to avoid a default assumption that all power plants and ancillary facilities are critical. Alternatively, adding a statement or footnote to page 80 or 81, such as the following, may clarify how the Guidance document applies to power plants:

"The lists of critical infrastructure can vary widely from community to community. For planning purposes, a jurisdiction should determine criticality based on the relative importance of its various assets for the delivery of vital services, the protection of special populations, and other important functions."

Also, Appendix F on page 283, under Public Works Facilities, please make the following edit:

- (a) All production, storage, transmission, and recovery facilities for water, sewerage, telephone, and other similar utilities owned or operated by any public agency or by any utility subject to the jurisdiction of the Public Utilities Commission, ~~except~~ ~~for~~ except for energy facilities 50 megawatts or greater [which are regulated by the ~~Public Utilities~~ **California Energy** Commission].

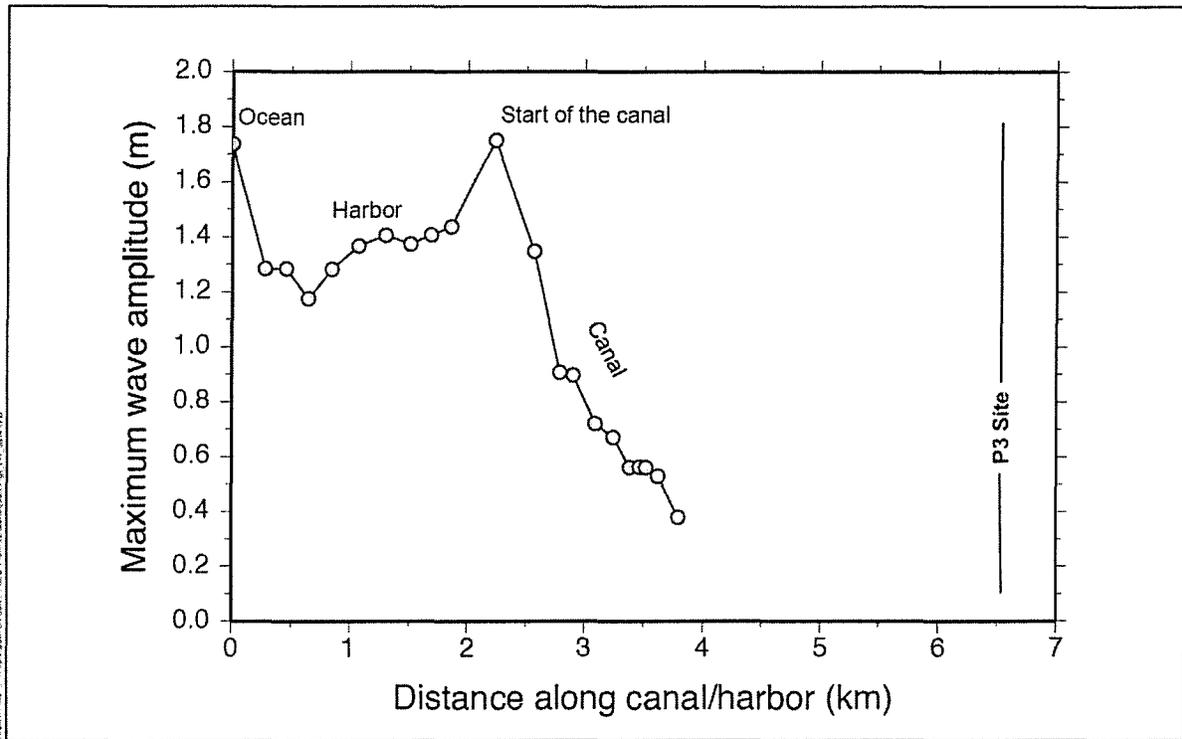
Thank you again for the opportunity to provide comments. Please note that this letter contains comments from Energy Commission staff as it pertains to their assessment of new and replacement power plants in the coastal zone. If you have any questions, please contact Matthew Layton at [matthew.layton@energy.ca.gov](mailto:matthew.layton@energy.ca.gov) or (916) 654-3868.

Sincerely,

Originally Signed By  
Roger E. Johnson, Deputy Director  
Siting, Transmission, and  
Environmental Protection Division

cc: Robert Oglesby  
Matthew Layton  
Marylou Taylor

# ATTACHMENT C



Source: Based on Figure 59-1 (TN# 226533) and Threl et al., 2015.

**Maximum Tsunami Wave Amplitude Dissipation**

(from earthquakes on the Ventura-Pitas Point fault and adjacent structures, 2015, annual meeting of the Southern California Earthquake Center, Palm Springs. Available online at: [http://scecinfo.usc.edu/core/cis/2015am/view\\_abstract.php](http://scecinfo.usc.edu/core/cis/2015am/view_abstract.php).)