Campos, Alicia@Energy

From: Campos, Alicia@Energy
Sent: Tuesday, January 08, 2013 12:41 PM
To: Campos, Alicia@Energy
Subject: FW: AES Redondo Data Adequacy Assessment final.pdf - Adobe Acrobat Standard
Attachments: AES Redondo Data Adequacy Assessment final II.pdf

(Corrected Version without typos, 01/08/2013)

From: Light, Jim [mailto:jim.light@linquest.com]
Sent: Sunday, January 06, 2013 11:14 PM
To: Kelly, Patricia@Energy; Energy - Public Adviser's Office
Cc: 'Bill Brand'; jim.light1@verizon.net; Dawn Esser
Subject: AES Redondo Data Adequacy Assessment final.pdf - Adobe Acrobat Standard

Ms. Kelly,

On behalf of the People of Redondo Beach and Hermosa Beach, Building a Better Redondo, NoPowerPlant.com and Councilman Bill Brand submit the attached assessment of the adequacy of the documents filed by AES for their Redondo Beach Generating Station Project. This assessment reveals significant shortcomings in the data provided by AES. The data is not sufficient for the CEC to evaluate or the public to understand the substantial impacts of this project on the surrounding land uses and community.

We request the CEC staff and Commissioners consider this assessment in your deliberations related to the data adequacy of AES' submission. We also thank CEC staff and Commissioners for your consideration of our concerns.

Respectfully,

Jim Light, President, Building a Better Redondo
Dawn Esser, President, NoPowerPlant.com
Bill Brand, Redondo Beach Councilman

BUILDING A BETTER REDONDO

602B S Broadway
Redondo Beach, CA 90277
1 Jan 13

Dear CEC Staff and Commissioners,

The environmental impact assessment submitted by AES with their Redondo Beach application has a number of critical flaws and omissions in addition to those cited by the City of Redondo Beach. Building A Better Redondo, a non-profit dedicated to the protection and enhancement of Redondo resident quality of life, NoPowerPlant.com, a Political Action Committee of Redondo residents opposed specifically to the new power plant, and City Councilman Bill Brand submit the attached paper documenting the flaws and omissions of the AES submission.

Residents and voters of Redondo Beach and Hermosa Beach oppose a new plant at Redondo. Due to the inaction of Redondo's City Council, residents funded the legal fees and campaign costs to change Redondo's zoning to phase out the power plant. After drafting the zoning change and the initiative that would put it to a vote of the people of Redondo, over 100 residents dedicated much of their summer free time to gather signatures. We gathered nearly 9,500 signatures in just 40 days, a record in Redondo Beach. Of those, just under 7,500 were found to be valid signatures. We only needed about 6,000 signatures to qualify for the vote. To put the number of signatures in perspective, 7,500 voter signatures exceeds the highest number of votes of any of our current elected officials by over 1,000 votes.

The majority of Redondo residents oppose a new power plant. The majority of opposition to our zoning measure, Measure A, is not based on a desire for the new plant. Rather it is based on fear. AES has been threatening the City with lawsuits. It is this fear of lawsuits that is driving the inaction of our City Council and the majority of the opposition against Measure A.

As you find in our submission, through the years, the AES Redondo plant has been tightly surrounded on all four sides by incompatible uses… high and medium density housing developments, a senior housing development, health clubs, restaurants, and hotels. The blighting impact of the plant is well documented in City studies. But one need look no further than the neighboring mini-storage and top soil selling business to see this blighting impact. No other South Bay community has a "dirt farm" and mini-storage just two blocks from the beach.

With the current Redondo plant only running at 5% of capacity in recent years, a new plant will increase the impacts as it will have to run more to recoup AES' investment. AES has submitted to the City of Redondo their expectation to run at 25% to 42% of annual capacity. The People of

BUILDING A BETTER REDONDO

Redondo and Hermosa Beach request you carefully consider all the conditions and potential impacts of a new plant on our community. With three new power plants coming online in the LA Basin, AES' Huntington application already submitted, and AES' announced intent to fully rebuild the capacity of their Alamitos Plant, we request you find first that the AES submission is inadequate at this time and ultimately, that a new power plant is not needed or warranted at the Redondo location.

We appreciate your careful and thorough consideration. If you need to contact us, we can be reached through Jim Light at jim.light1@verizon.net or via phone at 310-989-3332.

Respectfully,

James A Light
President, Building a Better Redondo

Bill Brand
Redondo Beach City Council

Dawn Esser
President NoPowerPlant.com

AES Redondo Application

Data Adequacy Assessment

Submitted on Behalf of the Residents of Redondo Beach and Hermosa Beach

by

Building a Better Redondo

NoPowerPlant.com

Redondo City Councilman Bill Brand

4 Jan 13

Contents

1 Executive Summary

The submission by AES lacks substantive analysis of significant potential impacts represented by their proposed development of a new power plant. The CEC needs this data to make an informed decision. And, the public deserves to fully understand the potential impacts of the new plant.

The following areas should be re-accomplished with the details specified in this paper:

- Air Quality
- Land Use
- Noise
- Public Health
- Economic Impacts
- Visual Resources
- Alternatives

On behalf of the people of Redondo Beach and Hermosa Beach most impacted by this project, we request the CEC require AES to address the data adequacy assessment presented herein. We thank CEC Staff and Commissioner for your consideration of this assessment.

2 Air Quality

2.1 Building Downwash and Good Engineering Practices (GEP) Assessment and apparent modeling discrepancies

"*Section 123* [of the Clean Air Act] *defines GEP, with respect to stack heights, as "the height necessary to insure that emissions from the stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies or wakes which may be created by the source itself, nearby structures or* ***nearby terrain obstacles****.*[1]"

The AES analyses apparently ignore the terrain surrounding the AES Redondo site. The EPA standards require consideration of buildings and terrain within a 0.5 mile radius of the emission source. While few structures reach the 85 foot height of the new plant, that fails to take into account the buildings' elevation above sea level. Indeed, the EPA recognizes that terrain effects must be taken into account when evaluating stack height and assessing pollution impacts.

AES Redondo is sited in a natural amphitheater with the AES site near sea level and substantial terrain height increases from this site inland and to the south. This terrain is built out with high

[1] "Guideline for determining Good Engineering Stack Height" EPA 450/4-80-023R; June 1985, page 1

density urban development. Thus both the terrain and the development create air flow impacts that have significant affects on the dispersion of emissions.

While AES has correctly applied the EPA's equation for GEP stack height, they have neglected to take into account the EPA's requirement to assess terrain impacts and other nearby structures.

*"The GEP stack height required to minimize the **adverse effects of elevated terrain** should be determined on a case-by-case basis. ... Field studies designed to evaluate the specific situations under the variety of adverse meteorological conditions are the best source of information. Where field studies are not possible, comparable fluid model studies are acceptable."*[2]

Additionally, the results of AES' study do not stand scrutiny when looking at the conditions observed on current plant emissions today. The current power plant has 240' high smokestacks. Since the current plant does not use the exhaust of the turbine to power a second turbine, the exhaust temperatures are higher. So one would expect the stack height and exhaust temperature to more favorably disperse the emissions from the current plant than the proposed plant. One could argue that the higher exhaust velocity of the emissions from the new plant might make up for this difference. But the new emission scrubbing systems dissipate both heat and velocity. Studies show the velocity of emissions from the new wider combined cycle power plant smoke stacks dissipates very quickly. In fact, the plume velocity for a simple cycle power plant have been measured to retain higher vertical velocity longer[3]. Therefore, one can expect that emissions will not be as widely dispersed in the new plant as they are by the current plant.

Furthermore, photographic evidence from the current plant conclusively demonstrates that under a number of atmospheric conditions – normal afternoon winds and inversion conditions, the exhaust is blown down into nearby residential neighborhoods.

Photographs 1 and 2 show emissions blowing down into neighborhoods immediately east of the current power plant. The conditions at the time were sporadic rain and normal afternoon winds of 10 to 15 knots from the west.

This condition is supported by EPA reports: *"under high wind speeds, plume rise near the source is negligible…*[4]*"*

[2] "Guideline for determining Good Engineering Stack Height" EPA 450/4-80-023R; June 1985, page 8
[3] Potential for Power Plant Stack Exhaust to Disrupt Aircraft, Paper 01-189, Greystone Environmental Consultants, Inc., Joel Reisman and David LeCureux; May 2002
[4] "Guideline for determining Good Engineering Stack Height" EPA 450/4-80-023R; June 1985, page 35

Photo 1 – AES Redondo emissions being blown directly into neighborhood

Photo 2: AES Redondo emissions being blown directly into neighborhoods.

As demonstrated by photographic evidence residential neighborhoods are exposed directly to AES emissions without any substantive dispersion. This too is corroborated by the EPA" *"TVA experience has demonstrated that when stacks are less than twice the height of the main powerhouse structure, the plume may, during high velocity wind, be caught in the turbulent vortex sheath and brought to the ground level in relatively high concentrations very near the Plant[5]"*

Photo 3 shows power plant emissions during an upset condition. Here we see under relatively light afternoon winds, the emissions are blowing down into residential neighborhoods to the northeast of the plant and the lack of dispersion before impacting the neighborhood.

Photo 3: AES plant upset condition shows emissions blowing down into residential area

Photograph 4 shows AES emissions under a light wind situation. **This photo is a screen capture from a resident video showing the emissions blowing directly at her and around her while on her rooftop deck.**

In this photo the plume lofts over the nearby residential neighborhoods immediately adjacent to the power plant. But, the topographical conditions surrounding the AES site are evident here. This neighborhood is approximately ½ mile west and uphill of the power plant. As evidenced by

[5] "Guideline for determining Good Engineering Stack Height" EPA 450/4-80-023R; June 1985, page A-10

this video, under normal light wind atmospheric conditions residential neighborhoods uphill of the power plant are being directly exposed to the plume, without time for the plume to disperse to any great extent. There is an elementary school in the same neighborhood where this video was taken.

Photo 3: Screen capture from resident video shows emissions from AES Redondo being blown directly at resident on rooftop deck under light wind conditions

These results are not unexpected. According to the EPA, *"Elevated terrain can be much larger than most building structures. Atmospheric phenomena on these scales can have a great influence on the development of aerodynamic forces, beyond those found in the wake of low-lying structures."*[6]

Obviously, the conclusions on the dispersion of the plume in the AES are contradicted by photographic evidence. EPA standards demand a more detailed analysis accounting for more atmospheric conditions and for the terrain impacts to more accurately assess the exposure of nearby residential neighborhoods and schools. Additionally, the evidence presented demonstrates that the shorter smokestacks should be of significant concern to the CEC and the residents of Redondo and Hermosa. The inadequacies of the air impact analysis also render the health impacts inadequate.

[6] "Guideline for determining Good Engineering Stack Height" EPA 450/4-80-023R; June 1985, page 28

2.2 Cumulative Impacts

In 2010, Redondo residents passed Measure G, a zoning change that increases allowable harbor area development by 400,000 sq ft to a total of 1.3M sq ft of development. The City is currently working with CenterCal Properties of El Segundo, California to approve plans to revitalize the harbor area under this new zoning.

Per City studies the harbor area is currently underperforming. The intent of this revitalization is to increase revenue in the harbor area. This will equate to substantially more traffic than currently exists in the harbor area. Also, it is likely construction of the new power plant will be going on in parallel with the new harbor development.

AES air quality analysis does not assess the cumulative impacts of the harbor area zoning change and its potential traffic increases or the impacts of concurrent construction.

While the air quality analysis looks at pollution at 72.7% annual capacity, even lower run rates represent a substantial increase in pollutants over the current plant. As the report shows, the current AES plant produces about 3.3 tons of particulate pollution per year. In a letter to the Redondo Beach City Council, AES states it is reasonable to expect the new plant to run at 25% to 42% of annual capacity. Even at these run rates, the particulate pollution generated by the plant would increase to 17.1 tons per year to 28.7 tons per year. So the new plant represents a significant increase in air pollution over the current plant.

Table 1 shows the AES emissions based on the probable run rates AES submitted to the City Council and their CEC application submission. In most pollutants, the level of exposure increases substantially from that reported in recent years (since 2005).

	New Plant			Current Plant
Pollutant	25% Annual Capacity (tons)	42% Annual Capacity (tons)	Application Limit (tons)	Average Annual Reported (tons)
NOX	8.7	14.7	25.4	15.1
SO2	2.2	3.7	6.4	1.3
VOC	22.5	37.8	65.4	11.7
CO	47.7	80.1	138.7	289.0
PM10	17.1	28.7	49.7	3.3
PM2.5	17.1	28.7	49.7	3.3

Table 1: AES new plant emissions compared to reported emissions from the current plant.

Residents will be exposed to the increased traffic from the harbor development as well as the increased pollution from the new AES plant operation. To add insult to injury, AES has

indicated it intends to use the rest of their property for undefined mixed use development which will add yet another cumulative impact. The impacts of this development were not included in the environmental study of the Measure G rezoning.

CEQA requires an evaluation of cumulative impacts. Section 15130(b) details:

> *The following elements are necessary to an adequate discussion of significant cumulative impacts:*
>
> *(1) Either:*
>
> *(A) A list of **past, present, and probable future projects** producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or*
>
> *(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.*

The proposed harbor revitalization combined with AES announced intent of developing the rest of their property certainly constitute "probable future projects" and both are likely to add to significant cumulative impacts.

Clearly, in this case, the required CEQA cumulative impacts analysis should include both the harbor rezoning AND the potential development on the remainder of the AES property. Neither of these cumulative impacts is included in the AES submission.

3 Biological Resources

The Burrowing Owl has been observed in the Southern California Edison Right of Way just east of the AES site. It is likely some of the unused terrain around the power plant may also house this "species of special concern". Additionally, the protracted development of the power plant much closer to the SCE right of way where the Burrowing Owl has been spotted could disturb any owls at this location.

4 Land Use

4.1 Resident opposition to a new power plant

In 1997, Redondo Mayor Greg Hill announced his intent to rid Redondo of the power plant. That intent culminated in the 2002 plan called Heart of the City. This was advertised by the City as a plan that would reestablish our waterfront and eliminate the power plant over time. The plan was opposed by the people of Redondo once it was revealed that the zoning allowed up to 2998

condos on top of the 650,000 sq ft of additional commercial development. The density was just too much, but the public continued to show its support to rid our city of the power plant.

In 2004 the City produced a study that showed the negative impacts of the power plant on city revenues, property values and nearby business revenues. The study called the power plant "the major blighting influence" in the harbor area and highlighted the power plant was incompatible with the uses that had grown right up to the power plant's property line on all sides. City staff proposed rezoning the site to phase out the power plant for "unspecified future uses". However, the City Council rejected this rezoning because the public did not trust the intent of those "unspecified future uses".

In parallel, the City conducted visioning sessions for the public addressing the future uses of our harbor area. Two visions emerge, a mixed use vision and a predominately park version. Neither vision included a power plant. These visions were put to a non-binding vote in 2005 and the park vision won overwhelmingly.

In 2008 the City passed zoning changes that made any new power plant a "conditional use" subject to City Council approval and added parks as a permitted use of the AES property. These proposed changes were added to Redondo zoning ordinances by a vote of the people in 2010. The addition of park zoning to the power plant site was predominately advertised in the ballot title, by the City Council, and by the supporters of this zoning. To this day, many voters believe they voted to change this site to parkland. The zoning ordinance specifically states that any new power plant or modification cannot have any adverse impact on surrounding land uses and neighborhoods:

> *"(b) Criteria.* ***Application for a Conditional Use Permit for a public utility facility, as required by the provisions of subsection (c), shall be subject to the following development criteria*** *in addition to all other applicable land use and development standards in this chapter:*
>
> *….*
>
> *(3)* ***The proposed use shall have no adverse effect upon any abutting property, the neighborhood, or the City, and the proposed use shall protect the public health, safety, convenience, interest, and general welfare.*** *In order to insure this provision and to comply with the purposes and intent of this chapter and the General Plan, any development standards or conditions may be imposed to create orderly and proper uses, as determined by the Planning Commission/Harbor Commission or City Council….."*

The proposed plant does not meet these criteria and thus does not comply with current Redondo Beach zoning.

Once AES submitted its plan to the State Water Resources Control Board in April 2011[7] announcing their intent to build a new plant, residents were appalled. When the City Council failed to take action under AES' repeated threats of a lawsuit against the city, residents contributed funds to Building a Better Redondo to draft a zoning initiative to rezone the AES site to phase out all power plant uses after the end of AES' current power production contract. A new group of residents formed to specifically oppose a new power plant. They formed a Political Action Committee (PAC) called "NoPowerPlant.com". Over 100 residents dedicated their summer free time to gather petition signatures. In just 40 days, NoPowerPlant.com submitted the petitions with nearly 9,500 signatures. Subsequently, the County registrar validated just under 7,500 signatures as valid Redondo voters. About 6,000 voter signatures were required to qualify for the ballot. Measure A, as the zoning change has been named, will appear on the ballot in March 2013.

Clearly, the whole record demonstrates that the residents of Redondo have long been opposed to a new power plant in our town. AES' submission does not accurately capture the long term and building opposition to a new power plant.

The CEC should consider the AES application in light of this strong community mandate or wait for the results of the March election.

4.2 Surrounding land uses

While AES discusses the surrounding land uses, it does not adequately reflect the extent of the situation. The AES plant is incompatible and tightly surrounded on all sides by other uses as shown in Figure 1.

The first power plant was constructed just northeast of the current location in 1897 and a series of plants have been retired and rebuilt since. The current plant was built on a filled in salt water marsh surrounded by industrial uses. This salt water marsh is an historic State Landmark, No. 373. The northern part of the current plant was constructed in the late 1940s and has since retired and lays dormant. In the early 60's the harbor and its initial commercial uses were added to the west of the site. From 1960 through 2000, Redondo and Hermosa experienced substantial population growth. Due to funding from the federal Housing and Urban Development Department, Redondo's waterfront changed to high density housing. Condominium development was prevalent and spread into the harbor area and east and north of the power plant site. More recently, Redondo Beach zoning changes have rezoned commercial property just east of the power plant to medium density residential condo development and added 400,000 sq ft of commercial zoning to the harbor area west and south of the power plant site.

[7] "Implementation Plant Statewide Policy Use of Coastal and Extuarine Waters Power Plant Cooling, AES Redondo Beach Generating Station", AES Southland, LLC April1, 2011, updated June 2011.

Figure 1: The AES site is closely surrounded on all sides by incompatible uses. This is no place for a power plant.

To the north is high density residential development in Hermosa Beach. Hermosa' population density is over 13,000 people per square mile making it one of the most densely populated Cities on the California Coast.

Immediately to the east, the AES property is abutted by the Redondo Tech Center office building and a commercial site that has been approved for a new commercial project. Across the street are medium density residential neighborhoods of Redondo Beach. Redondo's population density is just under 11,000 people per square mile.

Immediately to the south are the Salvation Army senior housing center and a hotel. Beyond that are another hotel and gym and the highest density residential development in Redondo Beach.

To the west are two high density residential developments, boat liveaboards in King Harbor, restaurants, gyms, the coastal bike path, Seaside Lagoon (a unique saltwater recreational facility), a newly approved hotel development, and four marinas. The harbor represents some of the lowest cost housing in Redondo Beach.

Clearly, the site is inappropriate for large industrial development. Industrial uses are incompatible with the surrounding uses; and, the extremely tight proximity of these land uses renders the impacts beyond mitigation.

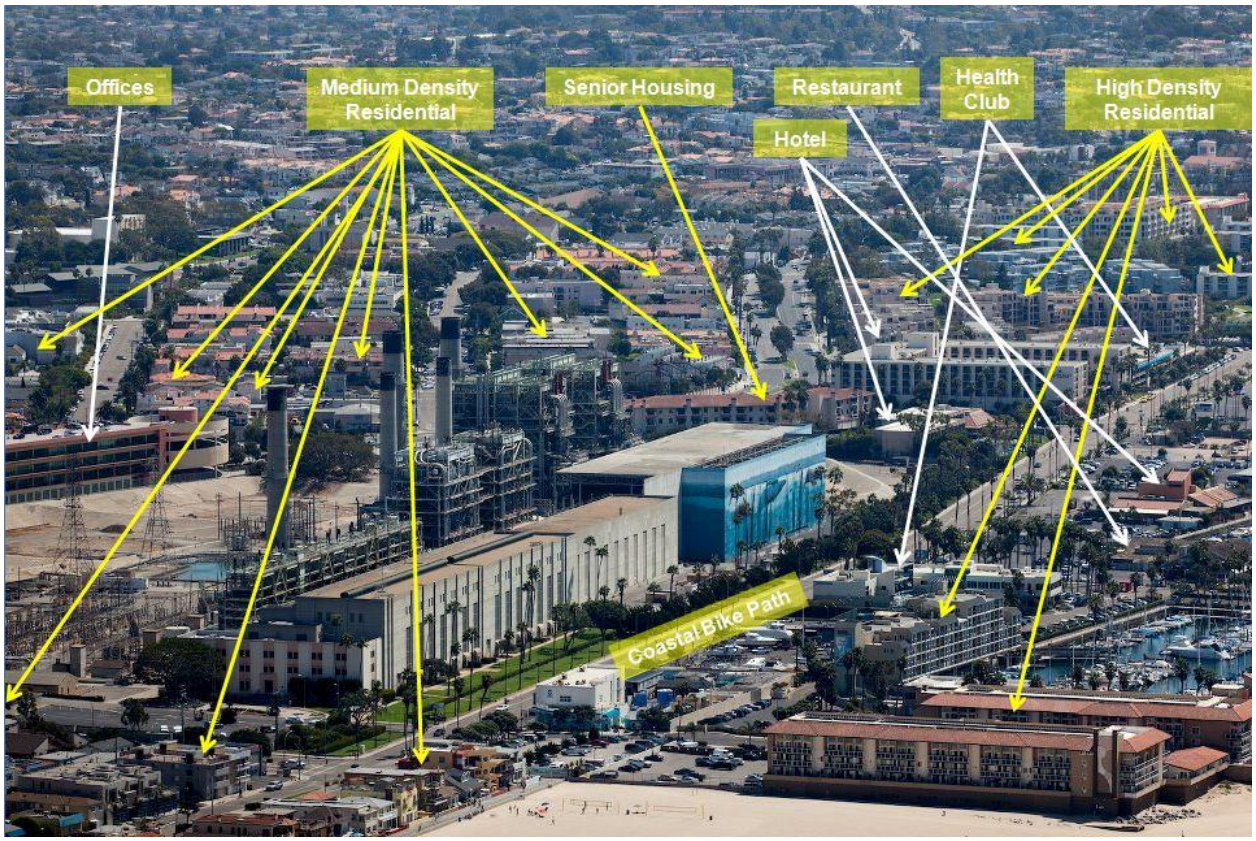

Figure 2: Oblique view of AES site shows how any 85 foot facility would dominate the surrounding uses.

Figure 2 gives a better perspective of the site and its close proximity to incompatible uses. There is no denying that an 80 foot high power plant anywhere on this site will have a dominant and unavoidable negative impact on all the surrounding uses. While AES tells the public the plant will be hidden from most views, the site and proximity make this impossible.

Figure 3 demonstrates that AES' current plan moves the new plant closer to high density residential neighborhoods and offices, further exacerbating the impacts from conditions today. The new positioning eliminates any buffer between residential neighborhood and office uses. This was likely done by AES to allow the maximum land availability for conversion to undefined "mixed use" development as AES has advertised in its public marketing. Mitigation of power plant impacts should be the first priority over reuse of the unused AES property, especially since the power plant is incompatible with land uses on all sides of its property line. Clearly, centering the power plant on the property is most appropriate. While this may impact AES' desired construction schedule due to impacts on the current plant, it represents the best long term operational solution.

Figure 3: Proposed AES location is closer to residential neighborhoods and offices

Figure 4 shows the broader perspective of the incompatibility of a new power plant with surrounding uses. Approximately 26,000 people live within 6000 feet of the plant. This is a densely populated area surrounded by schools and highly used recreational resources on all sides. The power plant is especially incompatible with these uses.

Figure 4: AES proximity to schools, parks, athletic fields and recreational resources

Power generation at this site represents substantial immitigable impacts on the health, welfare, and environment of the surrounding uses and community. While the AES site was ideally located in unwanted wetlands (at the time) and industrial development when originally sited, the development of the harbor and encroachment of incompatible uses render the site inappropriate for future power generation uses. No power plant at this site would comply with current zoning conditional use permitting requirements. Furthermore a new plant would be a non-conforming use should Measure A zoning be approved by the voters in March of this year. Land use conflicts and incompatibilities should reasonably drive the denial of the AES application. At the very least, the CEC should delay any deliberation until after the March vote.

5 Noise

5.1 Missed Redondo noise ordinance

The Redondo Beach noise regulation includes a requirement for steady state noises such as the turbines and air cooled condenser motors and fans that is neither assessed nor discussed in AES' submission.

Redondo Municipal Code 4-24.301(e) requires:

> *"Correction for character of sound. In the event the alleged offensive noise contains a steady audible tone, such as a whine, screech, or hum, or is a repetitive noise, such as hammering or riveting, the standard limits set forth in this section shall be reduced by five (5) dB."*

AES should be required to address this requirement in their noise assessment.

5.2 Inadequate noise modeling and protections

It is apparent from reading AES' submission, that AES has not done any modeling of the noise from their proposed plant. It appears they have merely done some rudimentary calculations based on equipment specifications and distances to other land uses.

The AES site is located in a natural amphitheater with substantial horizontal and vertical hardening by urban development. The view shown in Figure 8 demonstrates this natural amphitheater topography. The mini-storage, Tech Center, Senior Center and hotels represent substantial reflective surfaces in close proximity on three sides of the new plant, but hardened urban development continues on all sides of the power plant and especially on the uphill slopes to the west and south of the power plant site. This means a significant amount of the noise energy emitted by the plant will be reflected in complex patterns. These conditions create the strong potential for additive standing waves of peak sound energy areas and resonance for certain urban spaces.

AES forewarns of the potential impacts: "*audible tones are possible - …combustion turbine inlets, transformers, pump motors, and fan gearboxes have been known to produce significant tones.*" But they do not analyze it. AES attempts to downplay this shortcoming in its submission by stating: "*Prior to the start of construction, the Project Owner's engineering contractor will determine the necessary acoustical design treatments….*" But in the end, AES' only commitment is to "*take all **feasible** measures to reduce the noise **at its source***." Note that AES never defines "feasible" nor do they commit to being financially responsible for noise abatement at the receptor site such as multiple pane windows and sound deadening insulation. Nonetheless, the geographic terrain and urban development combined with noise produced by the power plant equipment demand a more substantive analysis. AES' submission is clearly inadequate. They could easily model the noise generators and surrounding development and terrain to determine the "hot spots" and propose mitigations at this point.

The elementary calculations submitted by AES do not adequately represent or assure the public and the CEC of the real impacts of the noise from the plant. A more detailed noise analysis is called for.

5.3 Cumulative Impacts

The AES analysis does not analyze the cumulative impacts of noise. To the east of the project site are two approved developments, one residential and one commercial including a car wash. To the southwest of the project site, the City has engaged a contractor to redevelop the harbor area to new development standards that allow an additional 400,000 sq ft of commercial development and its subsequent traffic increase. Additionally, AES has publicly stated it intends to develop the rest of their property with unspecified mixed use. **A cumulative impact assessment should include the analysis of these impacts in addition to those of the new plant.**

5.4 Mitigation Measures

CEQA requires the assessment of enforceable mitigation measures. In this case, there is a high potential for significant impacts that have not been adequately modeled or analyzed though the tools exist to assess the potential significant impacts. The AES analysis defers the analysis and definition of both significant impacts and mitigations. Without the analysis of significant impacts, it is impossible to assess potential mitigations. This is inappropriate **as both the impacts and the mitigation can and should be assessed now**. Even if the assessment were impossible now (which is not the case), the noise assessment should define specified future assessment method and timing, the means for public review and comment on the future assessment and mitigations. The current submissions should also include a binding and enforceable commitment to the resolution of any substantial noise impacts. The AES document does none of these. Rather it provides vague, non-committal, unenforceable statements of intent.

The lack of any real analysis of cumulative impacts combined with the elementary treatment of the noise assessment from power plant equipment should raise a red flag to

the CEC and to the public. With the extremely close proximity of land uses with which a power plant is incompatible, a much more robust analysis of noise impacts is required.

6 Public Health

The inadequacy of the air pollution analysis renders the health assessment inadequate as any change in air pollution modeling would result in changes to the public health impacts**. In fact, the close proximity of the power plant to such a high density population in the direction of the prevailing winds should drive the requirement for a more detailed, independent health impacts assessment.**

7 Socioeconomic Impacts

A 2004 City of Redondo Beach study concluded that the AES power plant is the "major blighting influence" in the harbor area. The study shows that both business and residential property value growth around the power plant was impacted by 40% when compared to the rest of the city over the same 9 year period. Likewise, the study shows that business revenues grew at just 1/10th the rate of businesses elsewhere in the City over the same 9 year period of the study. The study concludes that the AES power plant is major contributing factor to this underperformance[8]. The City and County used this report to deem the area west of Harbor Drive as "blighted".

AES does not address this negative economic impact on the community. Nor does it state how the new plant might mitigate those impacts. The Socioeconomic impact is inadequate.

8 Visual Resources

AES' assessment of the new plant's visual impacts is clearly inadequate, in fact it is deceptive. AES carefully chose its Key Observation Points (KOPs) to artificially decrease the apparent visual impacts of the new plant. The KOP's do not represent the plant's biggest impacts and do not allow residents to assess changes in visual impact from the current plant.

KOP1 – Moonstone Park is a very small park consisting of a grass yard hardly used by Redondo residents. Its greatest use is a launch point for the outrigger canoes and live-a-boards walking their dogs illegally. It is as deep in the harbor as most of the public can get, but because of its small size, lack of amenities, and the guard gate that creates the appearance one must pay to park, the park is underutilized.
KOP2 – takes the view from Seaside Lagoon – while this is a heavily used park, the views are oriented toward the harbor, not back toward the power plant, as the north and west sides have buildings for access and refreshments that block the views inland anyway.
KOP5 – is a small unknown and unused park in Hermosa Beach. The view angle chosen barely includes the new plant which would block views inland more than the current plant.

[8] "Report to City Council, Catalina Redevelopment Project, The Davis Company, July 2003.

Figure 5: AES chosen perspective "conveniently" uses palm trees to obscure new plant site

Figure 6: Masking effect of trees disappears 50 yards to the north of AES perspective

These view perspectives are not representative of how most of the public view the power plant site. But even within these perspectives, AES carefully chose perspectives that artificially

obscure the new plant. Figure 5 shows an actual photo from Moonstone Park at nearly the same perspective as the AES submission. Note that the angle chosen by AES cleverly lines up palm trees to artificially mask the new plant location. You can also note in this picture how stark this park really is, one of the reasons it is used so little.

Figure 6 shows the same view from the parking lot for the same park, less than 50 yards away from the perspective shown by AES. Now the trees line up differently and would not mask the view of the new plant.

But more important than the "convenient" perspectives chosen by AES, the assessment avoids more impacted views that would be experienced by far more people far more frequently. Figure 7 shows the KOP's used by AES in their submission and those that are more representative of the real impacts of the plant on views.

Figure 7: AES avoided the most impactful and frequent points of view shown in yellow.

A – represents the view of most people coming from inland to the harbor/beach areas down 190th Street, the largest east-west arterial through Redondo Beach. It is also representative of residential views from the hill overlooking the power plant.

B- represents views from the residential development toward the harbor.

C- represents the biggest clear view of the power plant for a driver on Catalina

D- represents the views of the residents of the Salvation Army Senior Center

E- represents the views of the hotel visitors in the harbor area

F – represents the views from top attracting restaurants in the area

G- represents the view of the visitors to the approved Shade hotel with rooftop dining

H – represents the view from the coastal jogging and bike path that follows Harbor Drive

Figure 8 demonstrates the view from recommended view point A. This perspective is experienced by Redondo visitors coming from inland using South Redondo's most heavily used East West arterial, 190th Street. Similar views are experienced by residents in neighborhoods uphill from the plant.

Figure 8, AES neglects showing the view impact of the new plant from this heavily traveled gateway to Redondo Beach, 190th Street

The CEC should require AES to submit more representative view perspectives so that visual impacts can be more accurately evaluated by the CEC and public.

9 Power Plant Site Alternatives

First, the siting proposed optimizes AES' selfish desire to use the rest of its property to generate more revenue through unspecified "mixed use" development. This siting unnecessarily impacts the land uses closest to the eastern property line. **From a pure impact reduction perspective, one would reasonably expect alternate plant locations to be evaluated.** But there is zero discussion of this alternative.

Second, the most obvious missing assessment is the plant retirement alternative. AES makes a simple statement with no substantiation that retirement of a power plant "such as" the Redondo Beach power plant without adequate replacement would create reliability concerns. With a rebuilt El Segundo power plant set to come online next summer, AES' application to rebuild Huntington at 900MW capacity, and their submission to the State Water Resources Control Board of their intent to rebuild the Alamitos plant at full capacity, all other OTC plants in the LA Basin have started the process of rebuilding. None of these plants are so closely surrounded by dense population and incompatible uses as the AES Redondo site. Furthermore new power generation is being added through the Walnut Creek and Sentinel plants that are due to come online next summer. Certainly an analysis of the need for power from the Redondo site is called for in this case.

It is also important to note that recent CAISO evaluations of transmission and grid reliability with and without SONGS deem Alamitos and Huntington plants as critical. In fact, AES Huntington was recently deemed "Reliability – Must Run". AES Redondo's location on the grid is not optimal to address the most likely potential transmission and generation contingencies. AES Redondo is the strongest candidate for retirement of any OTC plant in the LA Basin**. Its incompatibility and negative economic, ecological, and health impacts on extremely close proximity neighboring land uses indicate the analysis of this "no plant" alternative should be the default position.**

AES does no evaluation of the "no power plant in Redondo" alternative, which is a very viable, least impactful, and most desirable alternative. If their Redondo facility is permanently retired, there is the very real possibility that the entire power transmission corridor that stretches 5-miles inland through a dense urban environment could be retired as well, opening up this area to other, more desirable and less impactful uses. Appendix A includes three letters from the California Public Utilities Commission, the CAISO and Southern California Edison answering a request from State Senator, Ted Lieu, 28th District, inquiring about the process to determine if the power corridor could be removed if AES Redondo is permanently retired. This study should be completed to properly analyze the 'no project" alternative.

The AES evaluation of alternatives totally misses the most obvious alternative and should be deemed inadequate. The "no plant" alternative is the most desirable outcome should power from this site not be deemed absolutely required. At the very least, AES should assess the alternative of centering their plant on the property to provide the maximum

possible buffer from the surrounding uses. The CEC should deem this submission inadequate.

10 Summary

The submission by AES lacks substantive analysis of significant potential impacts represented by their proposed development of a new power plant. The CEC needs this data to make an informed decision. And the public deserves to fully understand the potential impacts of the new plant.

The following areas should be re-accomplished with the details specified in this paper:

- Air Quality
- Land Use
- Noise
- Public Health
- Economic Impacts
- Visual Resources
- Alternatives

Further analysis may be desired on the Biological Resources, but this input was speculative based on the Burrowing Owl sightings on the SCE Right of Way.

Additionally, with the Measure A Power Plant Phase Out ballot measure on the March 2013 ballot, the CEC should delay deliberations until the voters' will is decided.

On behalf of the people of Redondo Beach and Hermosa Beach, we request the CEC require AES to address the data adequacy assessment presented herein. Furthermore, we ask the CEC to delay deliberations until after the March 5, 2013 election. Already 7,500 voters have signed the petition for the zoning the phases out the power plant. The March election will offer conclusive evidence of the will of the voters of Redondo Beach.

We thank CEC Staff and Commissioner for your consideration of this assessment.

11 Referenced letters to and from Senator Ted Lieu

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California State Senate

SENATOR
TED W. LIEU
TWENTY-EIGHTH SENATE DISTRICT

CHAIR
LABOR AND INDUSTRIAL RELATIONS

MEMBER
APPROPRIATIONS
ELECTIONS AND CONSTITUTIONAL AMENDMENTS
INSURANCE
VETERANS AFFAIRS

November 6, 2012

Paul Clanon
Director
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102

Ronald L. Litzinger
President
Southern California Edison
PO Box 800
Rosemead, CA 91770

Stephen Berberich
President and Chief Executive Officer
California Independent System Operator
PO Box 639014
Folsom, CA 95763

Via US Mail and Fax

Dear Mr. Clanon, Mr. Beberich and Mr. Litzinger:

As the Senator representing the 28th District, I am writing regarding AES Redondo which is located in my district and will soon be applying for an Approval for Construction and license to operate a new power plant at their facility.

There is already significant opposition in Redondo Beach and the surrounding community to siting a new power plant at this site. The opportunity to retire some or all of the high voltage transmission lines that serve this facility is of paramount importance. I understand that significant engineering analysis will have to be performed to determine the continued need, or lack of need, of this power corridor if the AES Redondo facility is permanently retired. Furthermore, alternative designs and configurations could come out of such a study.

The purpose of this letter is to respectfully request that your agencies provide information regarding the process by which this study would be undertaken. The future of the AES Redondo power plant, as well as this transmission corridor that serves it, is of high importance to me and many of my constituents.

I look forward to your response and collaboration on answering this critical question, with an eye on how this corridor can be minimized or eliminated, rather than why we have to continue impacting this area in such a substantial way. Thank you for your consideration. If you have any questions regarding this letter, please contact me at (310) 318-6994.

Sincerely,

Ted W. Lieu

TED W. LIEU
Senator, 28th District

cc: Councilmember Bill Brand, City of Redondo Beach

California ISO
Shaping a Renewed Future

California Independent System Operator Corporation

Keith E. Casey, Ph.D.
VP, Market and Infrastructure Development

December 3, 2012

The Honorable Ted W. Lieu
California State Senate – 28th District
State Capitol, Room 4090
Sacramento, CA 95814

Dear Senator Lieu:

I am writing in response to your letter of November 6, 2012 to Steve Berberich regarding analysis of the need for the high voltage lines that serve the AES Redondo Beach Generating Station (RBGS) if the facility is permanently retired. Specifically, you requested that we "provide information regarding the process by which this study would be undertaken".

The California Independent System Operator (ISO) conducts an annual transmission planning process (TPP) in which studies are conducted to demonstrate how the ISO is planning for infrastructure needs while meeting North American Electric Reliability Corporation, Western Electric Coordinating Council, and ISO planning standards. The annual transmission plan produced through this process, which includes extensive stakeholder review and approval by the ISO Board of Governors, serves as the formal roadmap for infrastructure requirements for the ISO Balancing Area Authority.

The scope of the studies is defined in the Unified Planning Assumptions and Study Plan drafted in January and finalized in April of each year. The assumptions are created in a process that involves transmission owners, neighboring Balancing Area Authorities, regional and sub-regional planning groups, state agencies and other market participants. The final plan is a look at the transmission system needs for the next ten years.

At this time the future of generation at the RBGS as well as other generating facilities in the LA Basin is uncertain. Until the ISO is informed of the retirement and/or repowering of generation at these locations, analysis of the need for the transmission facilities at this facility is premature. Two on-going issues that will significantly inform this analysis are 1) better certainty on the long-term fate of the San Onofre Nuclear Generation Station (SONGS) and 2) resolution of utility procurement plans for replacing some of the LA basin generation that are subject to complying with once-through-cooling regulations. Unfortunately, neither of these issues is likely to be sufficiently resolved for the next ISO transmission planning cycle that begins in January 2013.

As such information becomes more certain, including the future plans for the RBGS, the ISO will incorporate this into its Unified Planning Assumptions and Study Plan and undertake a complete analysis of the infrastructure needs in the LA basin – including the need for the high voltage transmission lines that serve the RBGS. Due to the interconnected nature of the electric system, it is not possible to reasonably study the impacts in isolation considering only one particular change.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Keith E. Casey, Ph.D.
Vice President, Market & Infrastructure Development

cc: Steve Berberich, President and CEO, California Independent System Operator
Paul Clanon, Executive Director, California Public Utilities Commission
Ronald Litzinger, President, Southern California Edison
Bill Brand, Redondo Beach City Council Member

STATE OF CALIFORNIA Edmund G. Brown Jr., Governor

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

December 6, 2012

Senator Ted W. Lieu
State of Capitol, Room 4090
Sacramento, CA 95814

Re: AES Redondo Beach Power Plant and Related Transmission Lines

Dear Senator Lieu:

I am writing in response to your letter of November 6, 2012, regarding the transmission lines serving the Redondo Beach power plant. The long term need for these transmission lines cannot be determined at this time, but current action will provide insight for future studies.

The California Public Utilities Commission's Long Term Procurement Plan proceeding, Rulemaking 12-03-014, examines the need for new resources considering a wide range of changes that are occurring to the statewide electric system. Phase One of this proceeding specifically looked at the need for new, or repowered generation resources in the Los Angeles Basin, considering the possible retirement in 2020 of several plants using once-through-cooling technology. The Los Angeles Basin is a transmission constrained area that requires local generation to ensure electric reliability. We expect a decision in the first quarter of 2013 that may authorize the construction of new, or repowered resources, if a need is identified. It is also important to note that the operational status of San Onofre Nuclear Generation Station (SONGS) is uncertain at this time. The long term status of SONGS could become a critical factor in the need to authorize the need for new or repowered resources.

If new, or repowered, resources are authorized, Southern California Edison Company will be required to go through a Commission authorized procurement process to select the best resources at the lowest price. At the earliest, we would expect any replacement resources to obtain Commission approval in early 2014. If/when that occurs, sufficient information may be available to perform transmission engineering studies to determine whether the existing transmission lines serving the Redondo Beach Power Plant and the surrounding community can be removed without jeopardizing electric reliability.

The California Electric Transmission system is regulated by the Federal Electric Regulatory Commission. Southern California Edison Company owns the transmission system in the Redondo Beach area and it is operated by the California Independent System Operator, (CAISO). CAISO is the appropriate organization to perform transmission engineering studies to determine if a transmission line can be removed. However, such studies would only commence after issues related to existing generation and future generation (repowering at existing site or retiring existing site and developing other site(s) are resolved. The CAISO's annual transmission planning process takes into consideration information on generation planning each year

I hope this information is helpful. If you have further questions, please contact Robert Strauss of my staff at 415-703-5289.

Sincerely,

Paul Clanon

Paul Clanon

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SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Ron Litzinger
President

December 6, 2012

The Honorable Ted Lieu
California State Senate
State Capitol, Room 4061
Sacramento, CA 95814

Dear Senator Lieu:

I am responding to your November 6, 2012 letter to the California Independent System Operator (CAISO), California Public Utilities Commission and SCE regarding the process for studying the continued need for certain transmission lines if the AES Redondo generating facility is permanently retired.

The CAISO is the organization responsible for planning related to high voltage transmission lines, including assessment of need, which is the subject of your inquiry. They have established an open and transparent annual transmission planning process and manage its operation. I understand that the CAISO has prepared a response to your letter that discusses the transmission planning process and its function. I trust the CAISO's response addresses your informational needs regarding the scope of the planning process. As a transmission owner and electric service provider, SCE participates in the CAISO planning process and cooperates with the CAISO in its assessment of the future transmission infrastructure needs in the Los Angeles basin.

If you have any further questions on this subject, please feel free to contact Gaddi Vasquez, SCE's Senior Vice President of Public Affairs, at (916) 441-3966.

Sincerely,

P.O. Box 800
2244 Walnut Grove Ave.
Rosemead, CA 91770