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Request and Justification to Deny AES' Application for a New Power Plant in Redondo Beach

Submitted by:
Building a Better Redondo
NoPowerPlant.com
Councilman Bill Brand

On behalf of the people of Redondo Beach and Hermosa Beach

8/26/2013

Request and Justification to Deny Application for New Power Plant in Redondo Beach

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1. Executive Summary

a. Summary

This request to deny AES' application to construct a proposed new power plant in Redondo Beach provides evidence of the following:

- Multiple reports and analyses support the conclusion that power from the **Redondo site is no longer required for grid reliability even without SONGS.**
- Power need projections demonstrate power is needed at the southern end of the LA Basin for voltage stability and power needs in Orange County without SONGS. The Redondo site is less effective at serving this need than alternative sites at Alamitos and Huntington Beach. **Permitting a plant in Redondo to meet this need would require the plant to run at higher capacity to overcome line loss. This represents an increase in air pollution than permitting a new plant at either of these alternate sites.**
- The Redondo power plant site is tightly surrounded by incompatible uses on all sides.
- There is no feasible method to reasonably "hide" a new plant.
- The power plant has and would continue to have significant negative and blighting impacts on those incompatible uses.
- Since 2005, the current plant has run at about 5% of capacity or less even with San Onofre offline. In fact this year, through June, the AES Redondo plant has run at less than 0.05% of capacity. AES projects the new plant will run at least 25% of capacity. **AES' own numbers show the new plant will dramatically increase particulate matter pollution in the Redondo area due to its increased run rate.** This would significantly increase the health impacts to the high density residential neighborhoods around the plant, especially in light of prevailing winds and proposed lower smokestacks.
- The new plant will expose the surrounding uses to more noise pollution because it will run more and its new Air Cooled Condenser cooling system will produce more noise.
- The significant environmental, health, and economic impacts of a new plant cannot be mitigated. The situation is exacerbated by the relatively small site and the lack of any real buffer between the plant and the surrounding incompatible uses.
- There is ample evidence that the residents surrounding this site do not want the continued and increased impacts of the power plant, particularly if the power is not absolutely critical and other sources are available.

b. Conclusions

The data provided supports the following conclusions:

- What was once an ideal site for an OTC power plant is no longer viable without significant, increased, and unreasonable impacts on the surrounding, incompatible uses.

- Alternate sites are available that would better address the projected future power needs while representing a more efficient solution producing less overall air pollution in the LA Basin from gas fired power plants.

BBR, NoPowerPlant.com and Councilman Bill Brand, on behalf of the people of Redondo Beach and Hermosa Beach, request the CEC heavily weigh the will of the residents and the significant, immitigable, and unreasonable negative impacts of a new plant at this site on the surrounding densely populated community and mandate and enforce the following mitigations:

Number	Impact	Mitigations	Paragraph Reference
1	Increased air pollution due to increased run rate and distance from projected power needs in Orange County	1. Deny application 2. Place limitations on use for Western LA Basin power needs only 3. Reduce max annual production from permit requested 72% to 60% or less.	3.c. and 6.d.
2	Plant incompatible with surrounding uses Plant's blighting influence	1. Deny application 2. Require plant be located in center of property to maximize buffer distance from surrounding residential and business uses. 3. Require landscaping, walls and other features that mask impact. 4. Require proper noise studies that take actual terrain, development, and weather conditions into account. 5. Demand stronger requirements on mitigating noise violations discovered after operations start.	4. And 5.
3	Negative impact on property values	1. Deny application 2. Require AES to show views from viewpoints that show real visual impacts 3. Force plant to be located in center of property to maximize buffer distance from surrounding residential and business uses. 4. Require landscaping, walls and other features that mask impact	5.a
4	Negative impacts on nearby business revenues	1. Deny application 2. Require AES to show views from viewpoints that show real visual impacts 3. Force plant to be located in center of property to maximize buffer distance from surrounding residential and business uses. 4. Require landscaping, walls and other features that mask impact	5.b
5	Increased air pollution	1. Deny application 2. Approve application for alternative site that is more effective for predicted power demands 3. Limit run time to only service need in Western LA Basin 4. Restrict permit to lower annual capacity 5. Require constant monitoring of stack exhaust for	6

Number	Impact	Mitigations	Paragraph Reference
		NOX, SO2, VOC, CO PM10, PM2.5, and Ammonia and require publishing on public website	
6	Air pollution proximity to densely populated neighborhoods	1. Deny application 2. Reduce allowed power production limit 3. Increase height of smoke stacks 4. Run detailed terrain and weather modeling for higher fidelity projections 5. Require constant monitoring at stack exhaust for NOX, SO2, VOC, CO PM10, PM2.5, and Ammonia and at sites east and west of PCH on SCE right of way and nearby schoolsites and publication of data on public website	6
7	Noise pollution impacts on surrounding properties	1. Deny application 2. Maximize buffer by requiring the plant to be sited in the center of the property 3. Validate noise projections with more detailed modeling once final design is determined 4. Require sound sampling devices on all property borders and publish information live on public website 5. Institute strict limitation that would revoke approval to operate if plant exceeds 50 dBA on any adjacent property boundary and public walkways surrounding the plant (or less if required by ordinance)	7

2. Introduction

Building a Better Redondo (BBR), a 501(c)4 public welfare organization; NoPowerPlant.com, a grass roots Political Action Committee formed by residents to oppose a new power plant in Redondo Beach; and Redondo Beach Councilman Bill Brand do jointly hereby request, on behalf of the residents of Redondo and Hermosa Beach, the CEC deny any permit application from AES to build a new power plant, modify their existing plant, or continue use of their current power plant beyond the end of its current contract at its Redondo Beach Power Generation site. This paper presents our justification for denying future power generation uses on the AES Redondo site. The people and businesses surrounding the rarely used power plant have suffered its impacts for years. This is the wrong place for a power plant. It is time to phase out this power plant. We implore the CEC to heavily weigh this request of the people of Redondo and Hermosa Beach in its deliberations.

3. Power not required from AES Redondo site

The following paragraphs demonstrate that the AES power plant can be retired permanently with no impact to local or regional grid reliability.

a. Recent run rates

The AES Redondo power plant has rarely been online in recent years. The operating annual capacity factors have fallen off dramatically since 2004 as demonstrated in a 2010 CEC report on Once-Through-Cooled (OTC) power plants. AES has admitted in their public testimony that they have been running at about 6% annual capacity factor in recent years including 2010. Even these paltry capacity factors are artificially inflated because units are often kept running when not needed (e.g. overnight) due to lengthy start up times and excessive maintenance requirements of the antiquated equipment and infrastructure.

Figure 1 shows the Redondo power plant annual capacity run rates in recent years through the end of June 2012 based on data from the CEC power plant generation database. AES Redondo run rates are far below the run rates at other OTC power plants in the West LA Basin area as evidenced in the 2010 staff report[1].

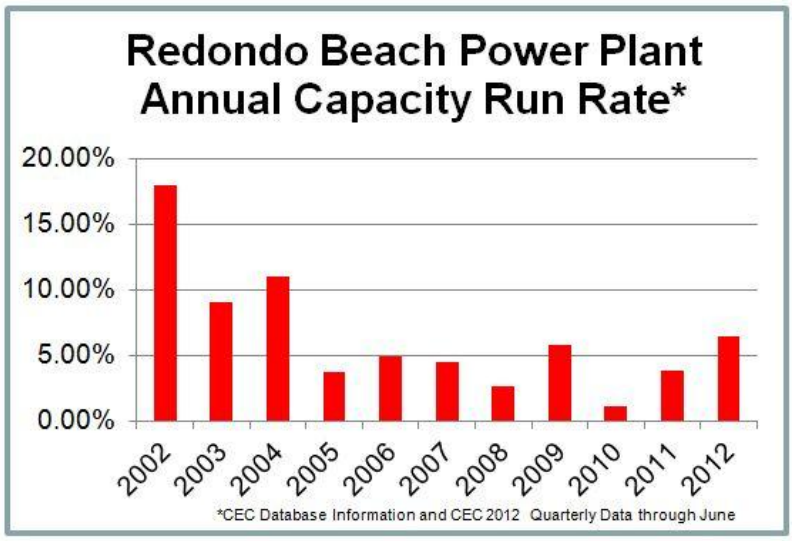

Figure 1: Redondo Beach power plant recent year run rates

According to data provided to the CEC, **the AES Redondo Beach plant has run at less than 0.05% of capacity through June of 2013.**

Clearly, looking at recent run rates alone, one can see that AES Redondo has not been critical to our grid reliability in years.

b. Recent projections, studies and analyses

CEC and CAISO representatives have publicly stated on multiple occasions (for example, at the June 22, 2012 at the Los Angeles energy meeting) that there is sufficient excess capacity in the LA Basin to retire some OTC generation capacity. These statements are further

[1] "The Role of Aging and Once-Through-Cooled Power Plants in California"; CEC Staff Report; February 2010; page B-4

bolstered by CAISO transmission reports and power generation and requirements projections which now go beyond 2020. Multiple CAISO reports demonstrate the ability to retire the Redondo Generating Station in its entirety and still meet conservative power generation capacity requirements. Some of the more recent reports are listed in Table 1.

In 2011, the California State Coastal Conservancy hired an independent power consultant to review all the data and assess the viability of permanent retirement of the Redondo Beach Generation Station. This review is referred to as the "JF Report" in quotes that follow. The conclusion:

> *"Examination of LCRs and existing generation capacity in the Western LA Basin sub-area shows … that* ***if the existing units at the Redondo Beach Generating Station were retired in any year after 2012, with no other retirements…, there would be enough remaining existing generation in the Western LA Basin sub-area to satisfy the projected LCR at least through year 2020****. This conclusion holds even if no new generation is added and AES-SL builds none of the new combined-cycle facilities it references in its June 16, 2011 implementation plan for the Redondo Beach Generating Station."*

This report was amended when CAISO projections for 2021 were published:

> *"…the Western LA Basin sub-area LCR … could still be met in 2021 without any generating capacity at the Redondo Beach Generating Station."*[2]

The State Coastal Conservancy went a step further and hired a second independent consultant to perform a peer review of the first consultant's report. While this assessment takes some issue with some of the statements in the initial report, it agrees with the conclusion that the AES Redondo power plant can be permanently retired.

> *"Fourth and finally, the JF report is correct to conclude that a repowered Redondo Beach power plant is not a* ***necessary*** *element of the future electrical grid after 2018 when its current contract will expire, and the TRPT and Colorado River-Devers-Valley transmission expansions will be complete."*[3]

In April 2012 the CPUC issued its determination regarding new long term power generation contracts. In that determination, the CPUC states:

> ***"The record clearly supports a conclusion that no new generation is needed by 2020, and the record does not clearly support a conclusion that new generation is needed even after 2020."*** …

[2] "Analysis of the Need for Generating Capacity at the Redondo Beach Generating Station"; Jaleh Firooz, Advanced Energy Solutions; data October 2011 and amended in December 2011 with updated findings based on newly published CA ISO 2021 projections

[3] David Marcus critique of Jaleh Firooz analysis for the State Coastal Conservancy, dated 21 Nov 11.

> *"In looking at the whole record,* ***it would be reasonable to find that there is no need for additional generation by 2020 at this time****, and accordingly it is reasonable to defer authorization to procure additional generation based on system and renewable integration need."*[4]

This determination further bolsters the assessment that power is not required from the AES Redondo power plant for grid reliability.

On February 13, 2013, the CPUC responded to requests to approve some authority for long term procurement to fulfill needs for local capacity requirements to replace once-through cooling power plants.

> *"In this decision, we authorize Southern California Edison Company (SCE) to procure between 1400 and 1800 Megawatts (MW) of electrical capacity in the West Los Angeles sub-area of the Los Angeles (LA) basin local reliability area to meet long-term local capacity requirements (LCRs) by 2021….* ***For the defined portion of the LA basin local area,*** *at least 1000 MW, but* ***no more than 1200 MW of this capacity must be procured from conventional gas-fired resources.****"*[5]

Interestingly enough, AES itself submitted calculations that showed limited need to replace OTC plants in the LA Basin. ***"AES calculates a need for approximately 2300 MW at certain OTC locations in the LA Basin local area."***[6] The AES plants at Alamitos and Huntington have a capacity for over 2,800MW and are far more effective at meeting future needs in Orange County without SONGS. In this report, both AES and the CPUC support that power is not needed from the AES Redondo power generating station.

In June 2013, the City of Redondo Beach received a report it commissioned on the assessment of need of a power plant at the Redondo Beach site and on alternate sites. This report concludes: *"The results show that there is no need for generation located at the existing Redondo Beach generating station to meet LCRs."*[7]

Table 1 clearly demonstrates that report after report corroborates that the Redondo Generating Station can be permanently retired without impact to grid reliability.

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[4] "Decision on System Track I and Rules Track III of the Long-Term Procurement Plant Proceeding and Approving Settlement, CPUC, Issued 24 April 12

[5] [5] "Decision Authorizing Long-Term Procurement for Local Capacity Requirements", CPUC, Issued 13 Feb 13, page 1

[6] "Decision Authorizing Long-Term Procurement for Local Capacity Requirements", CPUC, Issued 13 Feb 13; page 2

[7] ANALYSIS OF LOCAL CAPACITY REQUIREMENTS IN THE WESTERN LOS ANGELES (LA) BASIN SUB-AREA", Advanced Energy Solutions, June 2013, pages 7-8

Date	Agency	Report
October 2011	State Coastal Conservancy	Analysis of the Need for Generating Capacity at the Redondo Beach Generating Station
November 2011	State Coastal Conservancy	Consultant Peer Review
April 2012	CPUC	Decision on System Track I and Rules Track III of the Long-Term Procurement Plant Proceeding and Approving Settlement
June 2012	CAISO	Status Report on Analyses for Assembly Bill 1318
August 2012	CAISO	2013 Local Capacity Technical Analysis, Addendum to the Final Report and Study Results, Absence of San Onofre Nuclear Generation Station (SONGS)
February 2013	CPUC	Decision Authorizing Long-Term Procurement for Local Capacity Requirements
March 2013	CAISO	2012-2013 Transmission Plan
March 2013	CAISO	2014 Local Capacity Technical Analysis, Draft Report and Study Results
March 2013	CAISO	2018 Local Capacity Technical Analysis, Draft Report and Study Results
June 2013	City of Redondo Beach	ANALYSIS OF LOCAL CAPACITY REQUIREMENTS IN THE WESTERN LOS ANGELES (LA) BASIN SUB-AREA

Table 1: Government agency reports supporting conclusion that power from AES Redondo is not critical to grid reliability

c. Location on grid sub-optimal

According to the Marcus report cited previously, the AES Redondo site is not ideally located on/connected to the grid to address likely outages and requirements for additional power. This was corroborated by a briefing made at the recent joint meeting of the CEC, CPUC, CAISO and SCAQMD in Los Angeles on 22 June 2012. The briefing was on the current status of the analysis for Assembly Bill 1318 on long term local capacity requirements for the LA Basin Area. The study states that the power plants at Alamitos and Huntington Beach are *"most effective"* to address grid reliability.[8] The Redondo power plant's suboptimal grid connectivity is further evidenced by AES Redondo's continued low run rates since the SONGS outage and the requirement to reactivate two retired units at the AES Huntington Beach power plant.

Redondo's June 2013 report concludes:

> *"…**in the absence of SONGS, generation at Huntington Beach is more effective than generation at Redondo Beach** in mitigating the overload that establishes LCRs for the Western LA Basin sub-area. Therefore, **fewer megawatts of new conventional***

[8] "Status Report on Analyses for Assembly Bill 1318", CAISO, 22 Jun 12, Slide 5 notes

> ***generation can be added at Huntington Beach than at the Redondo Beach*** *location to satisfy the Western LA Basin sub-area LCRs. The addition of fewer megawatts of new conventional generation* ***will tend to reduce air emission, land use and visual impacts along the Western LA Basin sub-area coastline.****"*[9]

Thus **not only is power from the Redondo Beach plant not required, its location is suboptimal**, even if it were rebuilt, to address the most likely contingencies.

d. AES Redondo power generation needs summary and conclusions

CAISO reports, CPUC findings and multiple independent power consultant analyses corroborate one another and drive the same conclusion: power is no longer needed from the AES Redondo power plant; and the plant can be permanently retired without impact to grid reliability. Furthermore, multiple sources corroborate the assessment that AES Redondo is not located on the grid optimally to address the most likely contingency needs.

A preponderance of data supports the conclusion that the **Redondo Beach power plant can be retired permanently** without risk to grid reliability, even with SONGS permanently retired; and that, in fact, **other sites represent better alternatives in that they reduce power generation need and represent less air pollution in the LA Basin from natural gas fired power plants.** When the impacts of the plant are taken into consideration along with this conclusion, the only reasonable action by the CEC would be to deny any new power plant at the Redondo site.

4. AES Redondo site closely surrounded by incompatible uses

a. History of development of site

The current power plant was first sited at this location in 1946 on property that contained a large salt lake. The salt lake had been surrounded by industrial uses and at the time, wetlands were seen more as an eyesore and waste of space than a valuable environmental resource. With the post war housing boom driving the need for more power, Southern California Edison chose this site due to its location in an industrial zone, the siting of a former power plant just to the north, and the availability of ocean water for cooling. The first four units were running by the end of 1949. Two more units were added in 1956.

After the initial plant was built on the site, funding became available to create a new small boat harbor to the west of the plant site. In the 1960's King Harbor was built and completed. This is the first incompatible use that was introduced in close proximity to the power plant site. Concurrently, the plant expanded in the mid to late 60's to add Units 7 and 8.

[9] "ANALYSIS OF LOCAL CAPACITY REQUIREMENTS IN THE WESTERN LOS ANGELES (LA) BASIN SUB-AREA", Advanced Energy Solutions, June 2013, page 6

Between 1970 and 2002, the surrounding properties gradually changed from industrial uses into residential and commercial uses, driven by a huge housing boom in the cities of Redondo Beach and Hermosa Beach. In 1993, Salvation Army built their current senior center on the power plant's south eastern property line.

In 1998, AES Corporation purchased the plant from SCE with a contract to produce power on an as needed basis through 2018. After purchasing the plant, AES began working with the City to downsize the size of the power plant and add high density residential uses to the site. By 2002 this culminated in a city plan that called for the eventual phase out of the power plant and conversion of the entire site to commercial and residential uses. This plan was defeated by strong public opposition due to the high density condominiums and their impacts.

From 2000 to 2012, commercial and residential uses continued to expand into the harbor/power plant area. In 2002, construction of the 220,000 square foot Information Technology Center was completed right on AES' eastern property line. This is a professional office facility. A strip of commercial properties on the east side of Catalina Avenue was rezoned for medium density residential condominiums in 2005. With density bonuses this area can now be built out at more than 30 units per acre. The first condo development has been completed and another is currently in work.

In 2005, a public advisory vote was held in Redondo Beach to determine the future uses of the power plant site – neither option included a power plant. The "Heart Park" alternative was chosen. In 2010, the City passed a rezoning of the entire pier and harbor area. The new zoning allows for an increase of up to 400,000 square feet of development for a total of about 1.3 million square feet of development. This new zoning also added "parks" as a permitted use on the AES power plant site.

In 2011, the City approved a lease for a new hotel in the harbor across the street from the power plant. The City also approved the construction of a new commercial building east of the power plant. That project is currently underway.

In 2012, the City consolidated harbor and pier leaseholds and released an RFQ for a developer to redevelop the entire southern end of King Harbor, the International Boardwalk and much of the pier. The City is currently in negotiations with CenterCal Properties to invest approximately $300 to redevelop the property adjacent to the AES property..

In aggregate this history shows we can expect continued increase in development on the properties that immediately surround the power plant property.

b. Current incompatible uses surrounding site

Figure 2 shows the AES property as currently configured and the current and approved surrounding uses. As the figure shows**, the AES property has become tightly surrounded on all sides by incompatible uses**.

FIGURE 2: Current AES Plant and surrounding uses

To the west, King Harbor includes two high density apartment complexes, restaurants, a health club, two public parks, and four small boat marinas that include live-aboard residents. In all, the harbor houses about 385 permanent residents. A new boutique hotel has been approved for construction in the harbor as well.

To the north, the AES property is bordered by high density apartment and condo complexes in Hermosa Beach.

To the east, the AES property is bordered by the Tech Center offices and a newly approved commercial building. Across Catalina Avenue is a medium density residential neighborhood.

Immediately to the south are two hotels (Best Western and Crowne Plaza) and a Salvation Army Senior Living Facility. South of the Crowne Plaza hotel are multiple high density condo facilities.

None of these uses is compatible with the power plant. The incompatible use issue is exacerbated by the fact that the AES property is not large enough to provide any meaningful

buffer between the new plant and the surrounding incompatible uses. Figure 3 highlights the tight proximity of the AES property to neighboring residential uses on all sides.

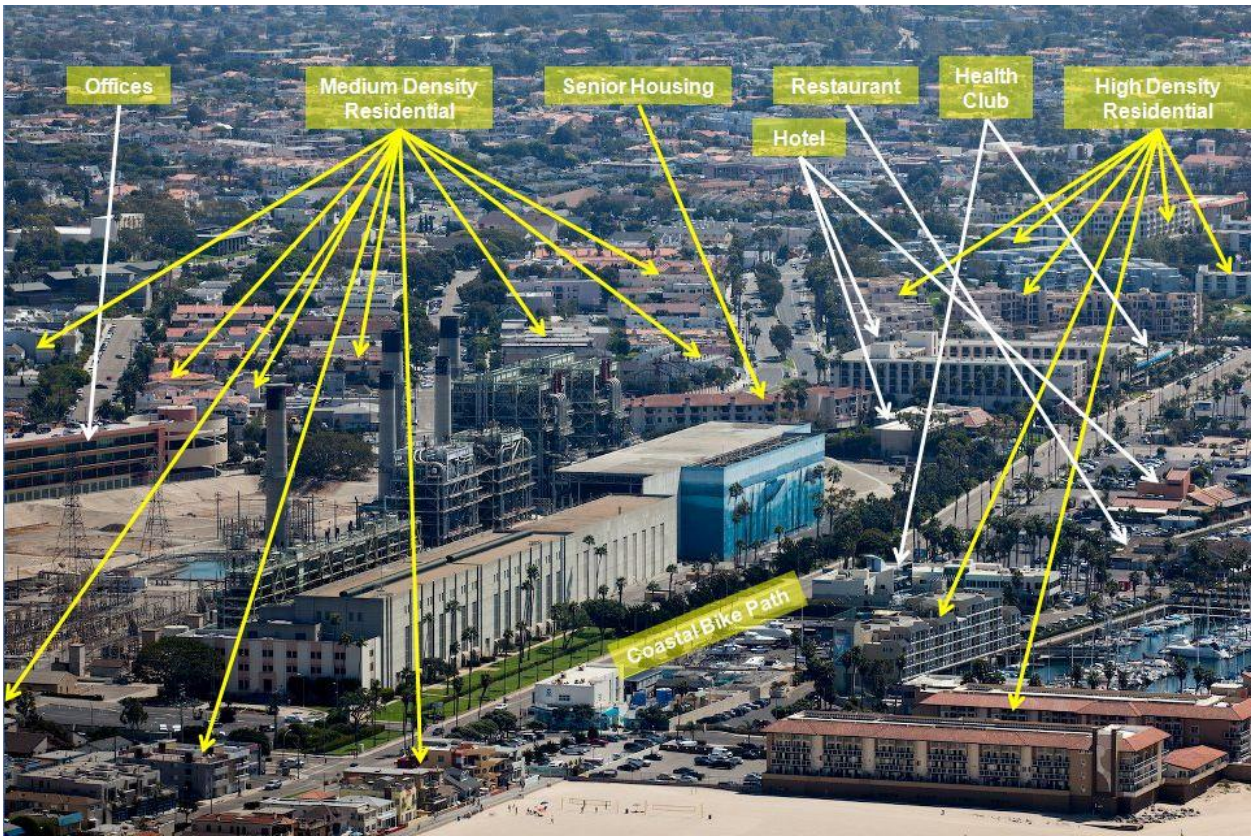

FIGURE 3: An oblique view puts the tight proximity of the power plant property to residential uses in perspective.

The AES Redondo site is about 50 acres. By comparison, the NRG El Segundo power plant occupies 135 acres and is isolated from residential and commercial development. The AES Alamitos plant is on 120 acres of a 230 acre industrial area. The AES Huntington Beach plant is on 83 acres of a 106 acre parcel with a large buffer on all sides and no development to the west. The AES Redondo site is unique in both its small size and how tightly it is surrounded on all sides by incompatible uses and medium to high density residential development.

FIGURE 4: AES plan for new plant moves plant closer to incompatible uses

Figure 4 shows AES' plan as presented to the Redondo Beach City Council.[10] AES mailers and website tout the smaller footprint of the power plant. In order to free up land**, the new plan pushes the new plant to the eastern property line** - significantly closer to offices, commercial and medium and high density residential uses. **This move virtually eliminates all buffer space between the new plant and incompatible uses to the east.** AES is actively working with developers to add mixed-use development on the freed up portion of their property, moving incompatible uses **closer on all sides** of the new power plant[11]. At the same time, AES is proposing to lower the stacks of its new plant from 220 feet to between 140 feet and 120 feet which will **decrease the dispersion of the air pollution that will be emitted into this densely populated area.** The proposed placement of the new plant, the proposed new mixed-use development on the AES property, and shorter smokestacks further exacerbates the impacts on incompatible uses.

c. Population density in site vicinity

According to the 2010 census, Hermosa Beach has a population density of over 13, 000 people per square mile. Redondo Beach is nearing 11,000 people per square mile. According to the California Coastal Conservancy, this is the most densely populated area on the coast. Figure 5 provides a good perspective on the density of the neighborhoods closely surrounding the Redondo power plant with virtually no buffer. The proposed new mixed-use

[10] "AES Redondo Redevelopment" ; AES Brief to City Council; 8 November 2011; Delivered by Jennifer Didlo, Project Manager and Eric Pendergraft, AES Southland President. Video can be viewed at www.redondo.org on the City Council agenda page for the meeting on 8 November 2011.
[11] AES and Developer testimony at 10 July 2012 City Council Meeting. Also, AES mailer to residents.

development and movement of the plant to the eastern property line aggravates the situation by virtually eliminating the minimal buffer that currently exists.

Figure 5: Seven schools, three athletic field complexes, ten parks, and over 32,000 residents in densely packed neighborhoods are within 1.25 miles of the AES Redondo power plant.

d. Incompatible Uses Conclusion

Incompatible uses have indisputably crept right up to the AES property line on all sides through the years. What was once an ideal location for a power plant is now one of the worst possible locations for a new power plant. **We have not found a power plant in the LA basin that is so tightly surrounded on all sides by clearly incompatible uses. With the projects currently approved and with the harbor revitalization on the horizon, this situation will only get worse over time.** The CEC should not allow a new power plant to be built on this site based on its incompatibility with uses on all sides of its property line and the inability to provide any reasonable buffer on this extremely small property.

5. City studies demonstrate power plant's blighting influence on surrounding properties

A 2004 staff report[12] to the Redondo Beach City Council included a consultant's analysis of the impacts of the power plant on the harbor area. **The report concludes that the power plant is the "*major blighting influence*" on the harbor area:**

> *"**The power generating plant is the major blighting** influence in this area due to the size of the site, the visual impact of the use on the surrounding area, and the undesirable environmental impacts of the use that effect the public health, safety, and welfare".*[13]

It deems that the power plant is incompatible with surrounding uses and advocates its phase out.[14] Figure 4 demonstrates the negative view impacts of the power plant.

Figure 4: The visual blighting impact of the power plant on the harbor area is evident from this picture of the gateway to the harbor. Although the new plant will be smaller, there is no way to hide it on this site.

[12] (PC) 04-40 Staff Report, Redondo Beach Planning Department; Amendments to the General Plan, Harbor/Civic Center Specific Plan, Coastal Land Use Plan and Zoning Ordinance for the Coastal Zone; dated 20 May 2004
[13] Ibid
[14] Ibid.

a. Property value impacts

The consultant evaluated property values and property value growth of properties in the power plant vicinity and those elsewhere in the city of Redondo.

> *"The AES Plant, the transmission lines and the character of Catalina Avenue represent major visual blighting influences in the City of Redondo Beach and impact residential values in the immediately adjacent areas."* [15]

Over the same period of time the properties in the vicinity of the power plant were impacted by 40% compared to those elsewhere in the city. Business property values were impacted similarly[16] The impacts for condo unit value growth are shown in Figure 5.

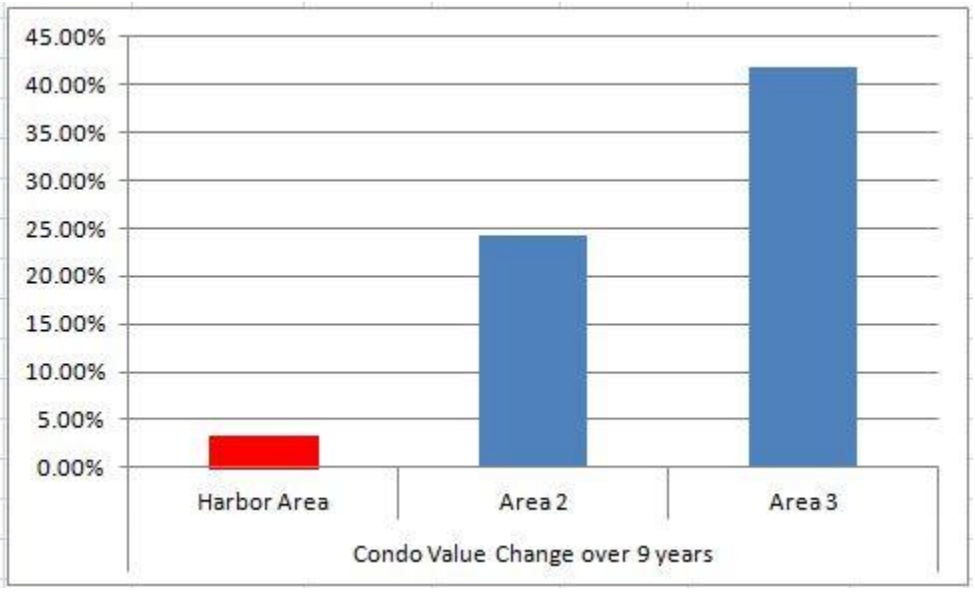

Figure 5: The blighting impact of the power plant is evident in a comparison of the 9 year change in condo unit value in the area of the power plant when compared to areas elsewhere in Redondo.[17]

b. Business revenue impacts

The consultant evaluated business revenue growth for the harbor area versus business revenue growth elsewhere in Redondo Beach. As shown in Figure 6, **harbor business revenue growth was less than 1/10th that of businesses elsewhere in the city over the same period of time.**[18]

[15] Ibid
[16] Ibid
[17] Ibid
[18] Ibid

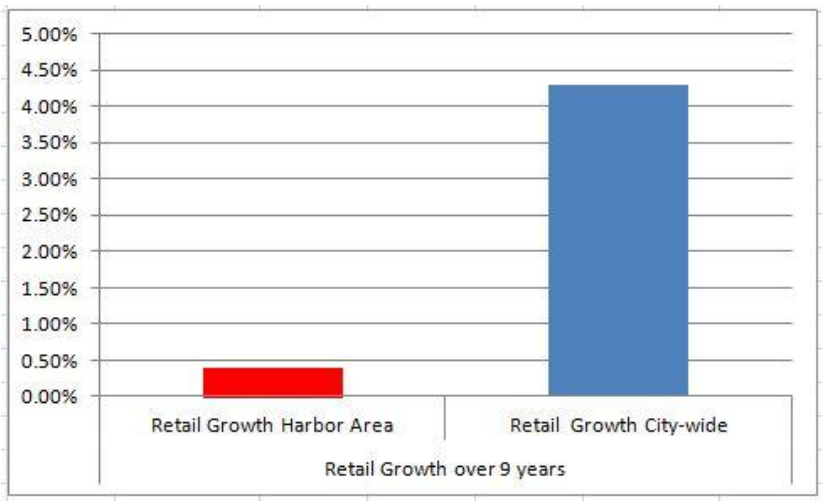

Figure 6: Impact of the power plant location on surrounding businesses is evident when harbor area retail business growth is compared to City-wide statistics.[19]

c. Smaller plant, smaller impacts?

AES has used deceptive graphics to try to mask the visual impacts of their new plant. AES' report to Redondo's City Council, their resident mailer, and their submission to the CEC all contain very well chosen perspectives that mask the true visual impact of the new plant. **These views in general are not those that would most impact the public's views**. For example, Figure 7 shows one of the deceptive perspectives used by AES in their application to the CEC.

Figure 7: New Redondo plant perspective. Convenient palm clumping circled. [20]

The perspective of Figure 7 is from Moonstone Park, a little used patch of grass as deep in the harbor as the public can get, to artificially lower the perceived height of the new plant and conveniently exploit an angle where palm trees lining an intersection align perfectly to form a visual barrier.

[19] Ibid
[20] RBEP 5.13 Visual Resources.

Figure 8 shows the perspective from a point 75 yards away from the perspective chosen by AES. It is obvious that with the lost alignment of the palm trees, the new plant would be very visible.

Figure 8: 75 yards north of the perspective AES used in Figure 5. The same palm trees (circled) no longer align to provide a visual barrier. The palms would not hide the new plant.

Most people will not view the power plant site from this deep in the harbor. Figure 9 shows a more reasonable perspective of what most harbor visitors would see. This is essentially the same general location as the AES perspective, but is from an existing restaurant entrance. The new plant would be clearly visible from the normal harbor users' perspective. For comparison the concrete portion of the current plant is about 90 feet high and AES states their new plant would be 80 feet high.

Figure 9: A more reasonable perspective for most harbor visitors and users. No hiding a new power plant from this perspective.

AES' submitted assessment avoids more impacted views that would be experienced by far more people far more frequently. Figure 10 shows the perspectives or "KOP's" used by AES in their submission (in black text) and those that are more representative of the real impacts of the plant on views (in yellow).

Figure 10: 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 11 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 11, 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.

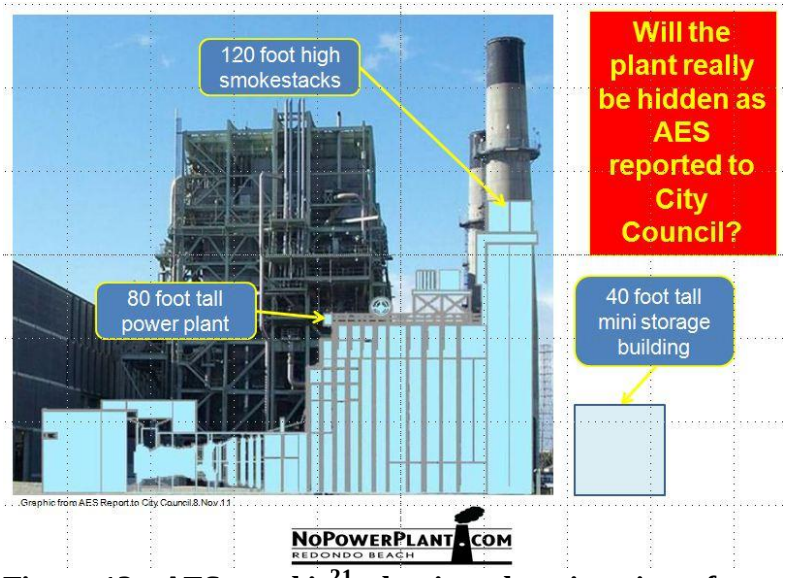

Figure 12: AES graphic[21] showing elevation view of new plant. We added a 40 foot tall building to demonstrate that the plant cannot be hidden by surrounding development as claimed by AES.

[21] Ibid.

In their briefing to City Council, AES used a graphic to show how small the new plant will be.[22] In Figure 12, we have placed a 40 foot tall building next to their graphic to demonstrate that AES' claims on the new plant being hidden from most views are just not credible.

Figure 13 demonstrates that there is no way to hide an 80 foot tall plant on this small site. While AES has tried to mislead residents with their graphics and perspectives showing very specific angles where palm trees align to form a small visual barrier, it is clear, that from the vast majority of perspectives the new plant will be plainly visible. The blighting conditions discussed later will not be remedied by the new location of the plant, the smaller size of the plant, or the proposed façade around the plant as the current blight developed despite the existing Harbor Drive facades which are about 85 to 90 feet feet high.

Figure 13: This photograph looking east clearly shows that there is no way to hide an 80 foot tall plant on this small property. For reference, the "whaling wall" is about 85 feet tall. Pushing the plant east will not offer any appreciable masking of the plant.

[22] "AES Redondo Redevelopment" ; AES Brief to City Council; 8 November 2011; Delivered by Jennifer Didlo, Project Manager and Eric Pendergraft, AES Southland President. Video can be viewed at www.redondo.org on the City Council agenda page for the meeting on 8 November 2011.

AES has realized that the Redondo Beach residents are not as dumb as they thought. We have seen through their deceitful views. Faced with growing opposition, AES attempts to "put lipstick on the pig" by building a façade around the new plant and moving the "Whaling Wall" to west side of their new development. While you can cover it, you cannot hide an 80 foot tall building on this site. And no dressing up will recover the impact to views and the impact of surrounding uses.

d. Underutilized land due to power plant

Figure 14 shows the current conditions of land uses next to the power plant. These properties are just two blocks from the waterfront yet the uses; a dirt selling business, mini storage and a warehouse converted to an artist study; do not represent commercial development typically found this close to the waterfront. The warehouse and property that make up the "Cannery Row" study are in shoddy condition as evidenced by the photo and the property to the east of "Cannery Row" is used to park construction equipment. The relocation of the new plant to the eastern property boundary makes any real improvement to the value of these properties unlikely.

Figure 14: Properties just two blocks from the water front are underutilized due to the power plant's proximity.

Across the street from "Cannery Row" are medium density condominiums, as shown in Figure 15. Clearly, the blighted uses of these properties are primarily impacted by the proximity to the power plant. The proposed position of the new power plant would be right next to these blighted properties and even closer to the residential development across the street.

Figure 15: Run down "Cannery Row" property across the street from medium density condominium development. Proposed new plant location is immediately adjacent to the AES property line on the left (replacing the containment berms of old power plant tank farm)

e. Blighting influence conclusions

The City report documents the significant negative economic impact of the power plant on the surrounding harbor area. The new plant, despite being smaller, cannot be effectively hidden and would continue these well documented blighting impacts. The bligihting affects surrounding business values and revenue. They also reduce much needed city revenue in the harbor area to continue to fund the sustainment of the Harbor enterprise. **The CEC should strongly consider these significant negative economic impacts on our community in its deliberations. If the power is not absolutely critical and/or can be obtained elsewhere with lesser impact, the CEC should deny AES' request to build a new power plant at this site.**

6. New plant will increase air pollution over densely populated area

Although the new plant is smaller and is projected by AES to be more efficient and cleaner than the current AES plant, the proposed run rates by AES will result in an increase in key pollutants, particularly particulate matter pollution. This increase combined with the prevailing wind directions and significantly shorter smoke stacks represents a significant increase in particulate pollution directly into a high density residential area. According to the Redondo School Board, over 6,500 students report to schools within a 1.5 mile radius of the power plant[23]. The CEC and SCAQMD should not allow Redondo and Hermosa residents to be exposed to this increased level of pollution.

a. Currently reported pollution

Table 2 shows the Redondo power plant emissions reported by AES to the SCAQMD for the last five reported years. The final column shows the average of these five years.

Pollutant Description	Units	Annual Emissions					
		2011	2010	2009	2008	2007	Average
Carbon Monoxide	tons	187.9	106.7	353.1	165.8	631.4	288.9966
Nitrogen Oxides	tons	20.4	10.7	20.8	10.8	12.8	15.1128
Reactive Organic Gases	tons	12.3	3.8	17.8	9.0	15.5	11.683
Sulfur Oxides	tons	1.3	0.4	1.9	1.0	1.6	1.252
Total Suspended Particulates	tons	3.5	1.3	5.2	3.0	3.6	3.3324
Ammonia	lb.	10951.3	3102.3	47206.4	24972.6	30919.1	23430.33

Table 2: Redondo Beach power plant emissions reported by AES

b. Projected pollution

AES has not revealed any projections of the annual emissions expected from the new power plant. They have submitted a project update to Redondo Beach City Council dated 1 May 2012 with new/altered details on their plan.[24] According to this document, the new plant will have a nominal generation capacity of 489 MW and will consist of three combustion turbine-generators, a condensing steam turbine generator, and three heat recovery steam generators. This technology is similar to that being employed by AES at the proposed Huntington Beach power plant replacement currently under consideration by the CEC.

In their Redondo project update submitted to Redondo's City Council, AES predicted the new Redondo plant will run between 25% and 42% of annual capacity and that they would seek a permit for up to 76% annual capacity. These values represent a substantial increase from AES' original presentation to the city council in November 2011, in which they cited expected run rates ranging from 15.8% to 30%. In fact AES had at that time accused us of misleading the public when we stated similar plants were requesting permits at around the 60% annual capacity factor.

[23] Data provided by School Board Member, Todd Loewenstein

[24] "AES Redondo Beach Modernization Project; A Project Update Presented to: Redondo Beach City Council"; AES Redondo Beach; 1 May 2012

AES' submission to the CEC proposes an application capacity limit of 72.7% of annual capacity. Table 3 extrapolates AES' submitted emissions data to the 25% to 42% expected run rates AES briefed the City Council.

	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 3: Projected Redondo Beach annual emissions calculated from AES RBEP submission to CEC compared to the current plant average pollution reported to the SCAQMD since 2007

Based on this estimate, some pollutants will likely be reduced (CO), but **Redondo and Hermosa residents can expect a dramatic increase in others including Nitrogen Oxides, Sulfur Oxides, and Particulate Pollution.**

Figure 16 graphically portrays the dramatic increase of annual particulate pollution of the new power plant at the run rates AES has proposed in their letter to Redondo's City Council.

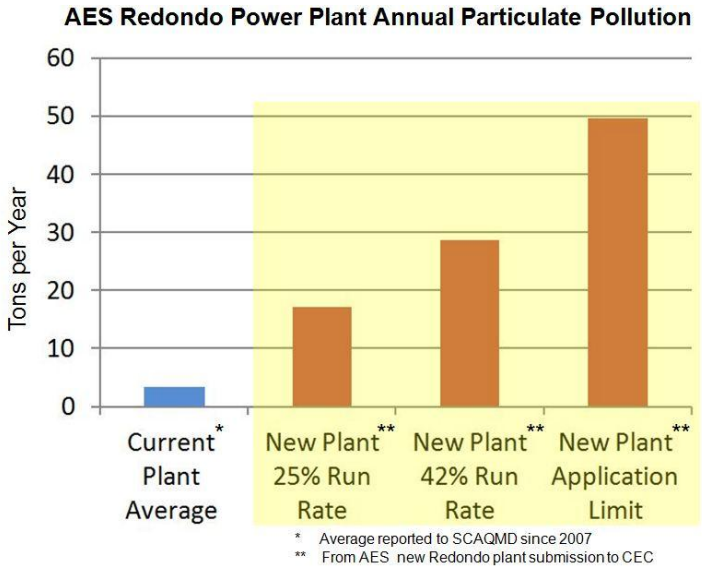

Figure 16: Comparison of average annual particulate emissions reported on current power plant compared to projected emissions of proposed new plant at projected run rates

The bottom line is that the increased run rates increase emissions over what Redondo residents have been exposed to over the last five years of the current plant's operation.

Of particular concern is the increase in particulate matter pollution, which in recent years has been show to have a direct impact on health. In fact, recent CARB and AMA studies show a **direct** correlation between long term exposure to particulate pollution and mortality rate:

> **"*Health studies show that when the PM2.5 concentration decreases so does the death rate."*[25]**

While the PM2.5 emissions for NRG and AES Redondo power plants are not available, it is intuitive that if PM10 increases, so will PM 2.5 from the new plant. **Thus the CARB, CEPA, and EPA recognize a direct link between long term particulate exposure and premature mortality.**

The dispersion of PM2.5 is complex and is affected by many factors. However, calm, cool conditions, like those that prevail in the Redondo area at night and in the morning, as well as inversion conditions decrease dispersion substantially. But Redondo and Hermosa residents may fare no better in windy conditions. AES is proposing 120 foot tall smokestacks. With 80 foot tall facilities, this falls well below the old thumbnail rule that smokestacks should be 2.5 x the height of the building to escape turbulence effects. The closer the smokestack exit is to the roof of the facility, the more likely the turbulent effects of the building will entrain and disperse the emissions close to the ground during windy conditions. Combined Cycle systems lower the exhaust temperatures at the smokestack exits. This decreases the ability of the emissions to penetrate inversion condition. The lower temperature of the exhaust would decrease dispersion of the particulate pollution. Studies conducted on the impacts of CCT power plant plumes on airplane operations shows a rapid dissipation of both temperature and velocity[26]. Finally, the fact that the smokestacks are well below the height of the development on the hill immediately east of the power plant increases the likelihood of increased exposure in the immediate power plant vicinity.[27]

The same power plant exhaust study shows that winds rapidly increase the dissipation of vertical velocity in the exhaust plume.[28] While AES appears to have used average winds, the wind along the coast varies quite a bit on a daily basis, with calm winds in the morning and regularly10 to 15 knots of onshore winds from 10 AM through 6PM. Figures 17, 18 and 19 provide solid evidence that even under windy conditions with much taller smokestacks and

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[25] Estimate of Premature Deaths Associated with Fine Particle Pollution (PM2.5) in California Using a U.S. Environmental Protection Agency Methodology"; CARB and CEPA; 31 August 2010; page 19

[26] "Potential for Power Plant Stack Exhaust to Disrupt Aircraft Operations"; Joel Reisman and David leCureux, Greystone Environmental Consultants, Inc, 650 University Avenue, Suite 100, Sacramento, CA 95825

[27] Statements derived from many sources, especially: "Borne on the Wind? Understanding the dispersion of power station emissions"; Prof. Alan Robins and Dr. Tim Hill; Joint Environment Programme (E.ON UK, RWE npower, EDF Energy, International Power, British Energy, Drax Power, Scottish and Southern Energy, and Scottish Power); Sept 2005

[28] Potential for Power Plant Stack Exhaust to Disrupt Aircraft Operations"; Joel Reisman and David leCureux, Greystone Environmental Consultants, Inc, 650 University Avenue, Suite 100, Sacramento, CA 95825

Figure 17: AES emissions on a windy day blowing <u>down</u> into neighborhood along Catalina Avenue

Figure 18: Another windy day (15 KTS). Same effect… exhaust plume blown <u>down</u> into neighborhood

hotter exhaust than those proposed by AES on the new power plant, emissions are often forced down into the residential neighborhoods surrounding the power plant. Once near ground level, the impacts of the terrain and development further affect the airflow and the dispersion of PM2.5 and other pollutants. Figure 18 is particularly alarming. Wind conditions were varying 10 to 12 knots (typical afternoon conditions). Although it is not entirely obvious in the still image, the plume was flowing at the same level as the rooftop deck and wisps of the plume curled around the photographer and continued into the neighborhood downwind. Residents often comment that they can smell the plant running, and here is graphic evidence. Clearly, on a day with moderate winds, the dramatically shorter smokestacks combined with the increased run rate and cooler exhaust temperature would result in increased resident exposure to the power plant pollutants.

Figure 19: AES Exhaust Plume being blown directly at photographer on Redondo home rooftop deck.

Even at the lowest run rate of 25%, Redondo residents will be exposed to over 5x the particulate pollution reported by AES in recent years. And because AES is lowering the new stacks substantially and moving the plant to the eastern property line, the increased pollution will be released even closer to high density residential neighborhoods.

c. Local pollution sources

An SCAQMD representative testified to the Redondo Beach City Council that the AES power plant represents the largest fixed source of pollution for Redondo and Hermosa

residents. According to his testimony prevailing winds do not generally expose us to pollution from LA Harbor or a variety of refineries in the broader area. Also, because of our location on the coast and prevailing winds, we suffer from a lesser amount of mobile sources of pollution than most communities.[29] Just to put the amount of particulate pollution generated in perspective, the amounts of particulate pollution generated by the new plant are approximately equivalent to adding another Pacific Coast Highway worth of particulate pollution based on the CARB EMFAC model. PCH is the biggest arterial through this power plant vicinity. **Thus an increase in pollution from the AES power plant site represents a significant impact to the surrounding residential areas.**

This contradicts what has presented to the public. AES has repeatedly cited a 2008 ARB emissions inventory stating that PM2.5 from electrical generation is just 1.1% of our total PM2.5 exposure[30], however the ARB inventory numbers are not localized to the area surrounding the AES Redondo power plant. It is invalid to claim Orange County and LA basin-wide numbers represent the air pollution conditions in Redondo Beach and Hermosa Beach.

d. LA Basin Air pollution summary

As stated earlier, a power plant at the Redondo site would have to run at higher capacity to fulfill the projected power needs of Orange County in the absence of SONGS. Replacing OTC power plants in the southern portion of the LA Basin would be able to serve these needs with less capacity due to the reduction in line loss. A Redondo plant running at higher capacity would produce more air pollution in the LA Basin than power produced from these alternate sites to fulfill the projected needs.

> *"In addition, in the absence of SONGS, generation at* ***Huntington Beach is more effective than generation at Redondo Beach in mitigating the overload that establishes LCRs for the Western LA Basin sub-area.*** *Therefore,* ***fewer megawatts of new conventional generation can be added at Huntington Beach than at the Redondo Beach location to satisfy the Western LA Basin sub-area LCRs. The addition of fewer megawatts of new conventional generation will tend to reduce air emission, land use and visual impacts along the Western LA Basin sub-area coastline.*** *"*[31]

e. Air pollution summary

In recent years, the Redondo power plant has run at around 5% of annual capacity. AES is projecting run rates for the new plant that, at a minimum are on the order of 4x to 5x the

[29] A video of the SCAQMD representative testimony can be viewed at the www.redondo.org on the City Council Agenda page for the 10 April 2012 meeting.
[30] "AES Redondo Redevelopment" ; AES Brief to City Council; 8 November 201; Delivered by Jennifer Didlo, Project Manager and Eric Pendergraft, AES Southland President. Video can be viewed at www.redondo.org on the City Council agenda page for the meeting on 8 November 2011
[31] ANALYSIS OF LOCAL CAPACITY REQUIREMENTS IN THE WESTERN LOS ANGELES (LA) BASIN SUB-AREA", Advanced Energy Solutions, June 2013, page 6

current run rate while moving the power plant closer to residential and office uses and substantially lowering the smokestacks. Therefore, Redondo and Hermosa residents will be exposed to more particulate pollution.

Because Redondo and Hermosa are located on the coast with prevailing winds inland, the impact of mobile sources of air pollution are greatly reduced from other communities inland. Thus the air pollution from the AES power plant represents a much greater component of air pollution in this area than it might in others.

Despite improvements in technology, Redondo and Hermosa residents will be exposed to more particulate pollutants with the new plant due to its increased run rates. **With the close proximity of schools, high and medium density residential neighborhoods, senior housing, health facilities, bike paths, and parks, the CEC should deny a permit for a new plant at this location unless the power is absolutely critical and cannot be obtained by any other location or means.**

But beyond the local impacts, **the fact that a power plant at Redondo would have to run at higher capacity than plants at alternate sites to meet the projected power needs means that the LA Basin overall would be subject to more air pollution than necessary.**

7. New plant will increase noise pollution at surrounding uses

Because the current plant rarely runs, its neighbors rarely have to deal with its noise pollution. According to the project update AES submitted to the Redondo Beach City Council the *"maximum property line noise levels resulting from the Project is estimated to be **68 dBA**. The maximum noise level at a receptor (building or residence) resulting from the operation of the RBEP is estimated to be **63dBA**".*[32]

Redondo Beach City Code 4-14.301 sets noise limits for different uses. For medium density residential uses, it sets the noise level restriction from 10PM to 7 AM at 50 dBA. During the daytime hours, medium density residential limits are set at 55 dBA and high density residential limits are set at 60 dBA. Commercially zoned property has a limit of 60 dBA from 10PM to 7AM and 65 dBA during the day. The noise levels are measured at the receiving land use property line. Also according to the noise ordinance; *"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*[33]." **AES seems to have missed this requirement in their application.**

Clearly, AES does not meet this standard based on their own report. AES may have a loophole here as the noise ordinance has not been updated with some of the recently

[32] "AES Redondo Beach Modernization Project; A Project Update Presented to: Redondo Beach City Council"; AES Redondo Beach; 1 May 2012
[33] Redondo Beach City Code 4-24.301

approved zoning designations that surround the plant, but the intent, limits, and application are unmistakably documented.

Furthermore, the AES site is located at the bottom of a natural amphitheater that rises substantially above the power plant property to the west. The impacts of noise reflection and potential concentration caused by this hillside and surrounding high density development must be assessed in order to fully characterize and understand the noise impacts of a new plant. **This type of topography and urban build out combined with onshore breezes and a steady state noise source can create and complex environment of harmonics, standing waves, and resonance that can well exceed their projected noise levels and needs to be characterized and understood prior to approval. AES' approach of fixing it as much as possible if it is discovered after the plant starts operation is unacceptable. It is clear AES has not gone to the level of analysis required to ensure residents are not impacted by the noise of the power plant.**

There is no escaping the conclusion that the increased run time and AES' own reported estimates of noise levels will represent a significant increase in noise pollution at surrounding land uses which include offices, hotels, a senior living facility, and medium and high density residential dwelling units. The CEC should take the increase in noise pollution into consideration in making a final decision.

8. Residents and local officials are opposed to new power plant

Redondo Beach and Hermosa Beach residents were surprised and upset at the AES announcement of its intent to rebuild the Redondo power plant. Since the 2002 move to rezone the harbor/power plant area, residents assumed the eventual retirement of the plant was a *fait accompli*. Further actions in the city bolstered that assumption.

a. 2005 visioning process and advisory vote

In 2004, the City started a visioning process to define what the residents would like to do with the power plant property and some of the surrounding area. Neither vision included a power plant. Thus two visions emerged, neither of which had a power plant. The one vision was largely park and the second vision was largely a mixed use development with a small park. The City put these two visions to a vote and the park version won handily despite ballot wording that implied it would be costly for residents.

b. 2010 Measure G Vote

In 2008, the City began to work revised zoning for the harbor and power plant area. The zoning for the power plant site was amended to add park uses to the site. This was put to a binding public vote in 2010. **Those opposed to the zoning largely wanted outright elimination of the power plant from the zoning and lower density development in the harbor. Those voting for the zoning largely thought the new zoning would phase out the power plant and replace it with a park.** The new addition of park zoning was

prominently figured in the campaign advertising for the new zoning. The new zoning won the voters' approval. These same voters were upset in 2011 when AES announced their plans to rebuild.

c. Local officials and organizations joining ranks to oppose the new power plant

There is a growing list of local officials and organizations who have concerns or oppose the new power plant. Those who oppose the power plant include:

- Redondo Beach City Councilman Bill Brand
- Hermosa Beach City Councilman Howard Fishman
- Redondo School Board Member Todd Loewenstein
- US Congresswoman Janice Hahn
- California Assemblywoman Betsy Butler
- Torrance Schoolboard Member, Deputy Attorney General, and California Assembly Assembly Member Al Murasutchi
- West Basin Water District Director Carol Kwan
- US Congressman Henry Waxman

California Senator Ted Lieu has held a press conference supporting initiative process to measure the voter's will on the future of the power plant site. And, Congresswoman Hahn and Congressman Waxman have sent the CEC letters opposing a new power plant in Redondo.

In addition to Building a Better Redondo and NoPowerPlant.com, environmental organizations have joined the ranks of those opposed to a new power plant in Redondo Beach. Those environmental organizations include:

- Sierra Club
- Surfrider Foundation
- Volunteers and Organizations Improving the Communities Environment (VOICE)
- Environmental Priorities Network
- The South Bay Parkland Conservancy
- The Guacamole Fund

Board members and staff of Beach Cities Health District have publicly added their significant concerns about the particulate pollution from a new plant and their health impacts on the high density neighborhoods directly downwind of the power plant.

d. Local business opposition

The Redondo Chamber of Commerce recently announced their support of the new power plant. **However, this organization is clearly conflicted in that AES is one of the top five**

sponsors of the Chamber. Members of the Chamber have begun to speak out against the power plant and have complained that the Chamber did not poll its membership in deriving its position on the power plant. Businesses openly opposed to the new power plant include:

- Port Royal Marina
- Sophie's Restaurant
- WeFixPrinters
- Impact Productions
- Property owner of the top soil business, Mini Storage, and Tech Center

The list is growing. But many businessmen have shied away from coming out publicly due to potential repercussions from the City or Chamber or specifically because they fear lawsuit from AES against themselves or the City. AES has proven litigious on previous issues and have publicly made thinly veiled threats referring to the "legal costs" and "lawsuits" of rezoning the current power plant site to phase out power generation uses.

e. Measure A Initiative

The April 2011 AES submission of its plan announcing their intent to rebuild the power plant to the State Water Resources Control Board energized the public. Immediately, Building a Better Redondo began a program to educate the public on AES's intent. Another group, NoPowerPlant.com was formed independently by concerned residents and joined forces with Building a Better Redondo. When it was clear the Redondo Beach City Council would not take rapid and decisive action opposing a new power plant, residents determined our best option would be to rezone the power plant site and phase out power generation uses through a ballot initiative. Public contributions poured in to hire a lawyer to draft the ballot initiative. In addition, the Guacamole Fund worked with Jackson Browne to allocate a portion of the proceeds from a concert in Hermosa Beach to the fight against a new power plant. With the funds raised, residents engaged a land use attorney to draft the initiative. The "Notice of Intent to Circulate Petition" and the actual text of the rezoning initiative were submitted to the City of Redondo in July 2012 and qualified for the ballot by October 2012. Measure A was narrowly defeated by just 257 out of 12,847 total votes after a deceptive $500K campaign by AES. Many opposed to the power plant voted against Measure A concerns AES highlighted during their campaign including:

- Threats of lawsuits that would bankrupt the city
- Threats that police and fire positions would be unfunded if Measure A passed
- Threats that the park zoning in Measure A would bring in homeless people and crime

The resident budget to combat this information could not match AES' expenditures. In fact, the narrow loss of Measure A in the face of this overwhelming expenditure by AES shows just how strong resident opposition is to a new power plant.

f. City Council and School Board Opposition

On 22 Jan 13, prior to the Measure A vote, the Redondo Beach School Board passed a resolution opposing the new power plant unless it was required for school system power:

> *"NOW THEREFORE BE IT RESOLVED that the* ***Redondo Beach Unified School District Board of Education does hereby formally oppose the proposed new Power Plant by AES SOUTHLAND, LLC*** *unless it can be demonstrated that:*
>
> - *The proposed Power Plant meets all the requirements, regulations and standards of the Federal Clean Air Act, the US EPA, the California Air Resources Board and the South Coast Quality Management District; and*
> - *The proposed Power Plant installs the best available pollution control technology; and*
> - ***The proposed Power Plant is of vital necessity to the energy security of the Redondo Beach Unified School District.****".*[34]

In April 2013, after Measure barely failed, the City Council decided to finally take action and unanimously passed a resolution opposing a new power plant at the site if the power was not needed.

> *"****The City Council resolves to oppose the licensing application submitted by AES to the California Energy Commission to construct and operate a new electrical energy generating plant in Redondo Beach.****.*[35]

g. Power plant opposition summary

The number of residents, organizations and elected officials opposed to the power plant is growing as word spreads of AES' intent. **We would hope that the CEC would not act in contradiction to the demonstrated will of the people especially in light of the significant ongoing and increased impacts of the power plant on the community and the blatant evidence, corroborated from multiple independent sources, that power generation from this site is no longer needed nor is its location optimal for grid reliability.**

[34] Redondo Beach Unified School District Resolution R:12-13:24, "Opposing the Proposed Construction of the Redondo Beach Energy Project by AES Southland, LLC., dated 22 Jan 13

[35] Resolution Number CC-1304-029, "A Resolution of the City Council of the City of Redondo Beach, California, Opposing the Licensing Application by the AES Corporation to the California Energy Commission", Dated 2 April 2013

9. Substantial Impacts and Mitigations

The following table summarizes the substantial impacts discussed throughout this report and lists the options for mitigation:

Number	Impact	Mitigations	Paragraph Reference
1	Increased air pollution due to increased run rate and distance from projected power needs in Orange County	5. Deny application 6. Place limitations on use for Western LA Basin power needs only 7. Reduce max annual production from permit requested 72% to 60% or less.	3.c. and 6.d.
2	Plant incompatible with surrounding uses Plant's blighting influence	6. Deny application 7. Require plant be located in center of property to maximize buffer distance from surrounding residential and business uses. 8. Require landscaping, walls and other features that mask impact. 9. Require proper noise studies that take actual terrain, development, and weather conditions into account. 10. Demand stronger requirements on mitigating noise violations discovered after operations start.	8. And 5.
3	Negative impact on property values	5. Deny application 6. Require AES to show views from viewpoints that show real visual impacts 7. Force plant to be located in center of property to maximize buffer distance from surrounding residential and business uses. 8. Require landscaping, walls and other features that mask impact	5.a
4	Negative impacts on nearby business revenues	5. Deny application 6. Require AES to show views from viewpoints that show real visual impacts 7. Force plant to be located in center of property to maximize buffer distance from surrounding residential and business uses. 8. Require landscaping, walls and other features that mask impact	5.b
5	Increased air pollution	6. Deny application 7. Approve application for alternative site that is more effective for predicted power demands 8. Limit run time to only service need in Western LA Basin 9. Restrict permit to lower annual capacity 10. Require constant monitoring of stack exhaust for NOX, SO2, VOC, CO PM10, PM2.5, and Ammonia and require publishing on public website	6

Number	Impact	Mitigations	Paragraph Reference
6	Air pollution proximity to densely populated neighborhoods	6. Deny application 7. Reduce allowed power production limit 8. Increase height of smoke stacks 9. Run detailed terrain and weather modeling for higher fidelity projections 10. Require constant monitoring at stack exhaust for NOX, SO2, VOC, CO PM10, PM2.5, and Ammonia and at sites east and west of PCH on SCE right of way and nearby school sites and publication of data on public website	6
7	Noise pollution impacts on surrounding properties	6. Deny application 7. Maximize buffer by requiring the plant to be sited in the center of the property 8. Validate noise projections with more detailed modeling once final design is determined 9. Require sound sampling devices on all property borders and publish information live on public website 10. Institute strict limitation that would revoke approval to operate if plant exceeds 50 dBA on any adjacent property boundary and public walkways surrounding the plant (or less if required by ordinance)	7

The only true mitigation for the impacts of a new power plant is to deny AES' application. The people of Redondo Beach and Hermosa Beach call upon the CEC to deny AES' application. Should the CEC ignore this request, we call upon the CEC to mandate and enforce the other mitigations described in the table above.

10. Summary and Conclusions

This request to deny AES' application to construct a proposed new power plant in Redondo Beach provides evidence of the following:

- Multiple reports and analyses support the conclusion that power from the Redondo site is no longer required for grid reliability even without SONGS.
- Power need projections demonstrate power is needed at the southern end of the LA Basin for voltage stability and power needs in Orange County without SONGS. The Redondo site is less effective at serving this need than alternative sites at Alamitos and Huntington Beach. Permitting a plant in Redondo to meet this need would require the plant to run at higher capacity to overcome line loss. This represents an increase in air pollution than permitting a new plant at either of these alternate sites.
- The Redondo power plant site is tightly surrounded by incompatible uses on all sides.
- There is no feasible method to reasonably "hide" a new plant.
- The power plant has and would continue to have significant negative and blighting impacts on those incompatible uses.
- Since 2005, the current plant has run at about 5% of capacity or less even with San Onofre offline. In fact this year, through June, the AES Redondo plant has run at less than 0.05% of capacity. AES projects the new plant will run at least 25% of capacity. AES' own numbers show the new plant will dramatically increase particulate matter pollution in the Redondo area due to its increased run rate. This would significantly increase the health impacts to the high density residential neighborhoods around the plant, especially in light of prevailing winds and proposed lower smokestacks.
- The new plant will expose the surrounding uses to more noise pollution because it will run more and its new Air Cooled Condenser cooling system will produce more noise.
- The significant environmental, health, and economic impacts of a new plant cannot be mitigated. The situation is exacerbated by the relatively small site and the lack of any real buffer between the plant and the surrounding incompatible uses.
- There is ample evidence that the residents surrounding this site do not want the continued and increased impacts of the power plant, particularly if the power is not absolutely critical and other sources are available.

a. Conclusions

- What was once an ideal site for an OTC power plant is no longer viable without significant, increased, and unreasonable impacts on the surrounding, incompatible uses.
- If the power is not required from this site, and/or if alternate sources better located to address likely grid contingencies would/could reasonably be available by the 2020 timeframe, the negative impacts of rebuilding a power plant can only reasonably drive the conclusion that any application for a new power plant at the Redondo Beach site should be denied.

In conclusion, BBR, NoPowerPlant.com and Councilman Bill Brand, on behalf of the people of Redondo Beach and Hermosa Beach, request the CEC heavily weigh the will of the residents and the significant, immitigable, and unreasonable negative impacts of a new plant at this site and deny any application for a new power plant at the Redondo Beach site.