DOCKETE			
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Project Title:	Redondo Beach Energy Project		
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Document Title:	Assessment of AES Noise Submission		
Description:	Assessment points out flaws, shortcomings and incompleteness of AES noise submission		
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AES's noise assessment does not accurately characterize the Redondo Beach noise ordinance. Table 5.7-12 in AES' Noise submission neglects a very important caveat in the Redondo noise ordinance:

"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."

The noise from a running power plant is certainly "steady", therefore the allowable noise levels should properly be decremented 5dB. Also, AES incorrectly emphasizes a caveat in the Redondo noise ordinance related to where a measurement is performed, stating that the ordinance grants a 5dB increase at land use boundaries. But the CEC should note that measurement at the boundary of two properties is not the standard. The standard is defined at any place on the receiving property – "shall apply to all such property". Therefore, the CEC should require measurement away from the property line and/or ignore the 5dB credit AES claims. Thus the interpretation of Redondo Beach noise limits should be:

Receiving Land Use	7 AM to 10 PM limit	10PM to 7AM limit
Catalina Ave residential	50 dBA	45dBA
Salvation Army	50 dBA	45dBA
Best Western	60 dBA	55 dBA
Offices and retail uses east of property	60 dBA	55dBA
boundary		

We concur with the CEC's request for more monitoring stations. The prevailing onshore winds and rising topography inland render the the data from Harbor Cove Apartments non-representative. Additionally, Harbor Cove Apartments are subject to noise from the pumps of the SeaLab and the desalination test site, which is not representative of other uses surrounding and inland of the AES site.

The onshore prevailing winds and the frequent marine layer and inversion conditions tend to reflect noise back to the ground. This combined with the rising topography inland drive the need for a more detailed modeling of the power plant generated noise. Likewise urban canyons created along high density residential streets create the potential for hotspots of reflected noise due to resonance and soundwave superpositioning. BBR requests a much more detailed analysis of the predicted noise distribution that models for the frequent and worst case environmental conditions as well as the topography and urban hardscape of the inland land uses.

AES' admission that audible tones are possible is disconcerting as it demonstrates they do not really know what the plant will produce. Likewise, their mitigation to noise limit exceedances is unsatisfactory.

AES has a track record of regularly and flagrantly violating Redondo noise standards. A YouTube video posted by a resident entitled "AES power plant in Redondo Beach" demonstrates a typical steam release from the current plant: http://www.youtube.com/watch?v=Yi9RkroYaCY. In fact, AES had noise exceedances (loud stem venting) while they were collecting the data for this study and they neglected to report them or remedy them despite the data being recorded. Since taking over the power plant in 1998, AES has not remedied the plant's well known noise violation.. Therefore, their statement that they will "take all feasible measures to reduce noise at its source" is simply not credible.

The City of Redondo Beach does not have the equipment to collect this data. AES should be required to provide the city with fixed and portable systems to monitor AES noise generation and pay for an independent third party to monitor their noise. And the CEC should define "feasible" and hold AES to a

much, much higher standard than their current track record of blatant disregard for their impact on the community.

The actual text of the Redondo Beach noise ordinance follows:

4-24.301 Maximum permissible sound levels by land use categories.

The noise standards for the various categories of land use districts identified shall be the higher of either the presumed or actual measured ambient and shall apply to all such property within a designated category as follows:

Receiving Land Use District		Presumed Ambient Level
Category	Time Period	(dBA)
Low Density	10:00 p.m. to 7:00	45
	a.m.	
Residential R-1-A, R-1, R-2, P-D-R,	7:00 a.m. to 10:00	50
P-U-D Overlay	p.m.	
Medium Density	10:00 p.m. to 7:00	50
	a.m.	
Residential R-3, R4, P-D-R, P-U-D	7:00 a.m. to 10:00	55
Overlay	p.m.	
High Density	10:00 p.m. to 7:00	55
	a.m.	
Residential R-5, R-6, P-D-R, P-U-D	7:00 a.m. to 10:00	60
Overlay, C-I	p.m.	
Commercial NSC,	10:00 p.m. to 7:00	60
	a.m.	
CSC, GC, P-D-C	7:00 a.m. to 10:00	65
	p.m.	
Industrial P-D-I	10:00 p.m. to 7:00	60
	a.m.	
	7:00 a.m. to 10:00	65
	p.m.	
Industrial P-I	10:00 p.m. to 7:00	70
	a.m.	
	7:00 a.m. to 10:00	70
	p.m.	

As indicated above, the presumed ambient levels in the Planned Development Residential (P-D-R) and the Planned Unit Development (P-U-D) Overlay land use districts are categorized so as to be consistent with the actual density of the development. The presumed ambient levels for the Planned Development (P-D) and the Civic Center (C-C) land use districts shall be consistent with those established for the lowest adjacent land use district.

(a) Correction for time characteristics. No person shall operate, or cause to be operated, any source of sound at any location within the City or allow the creation of any noise

on property owned, leased, occupied, or otherwise controlled by such person which causes the noise level when measured on any other property to exceed:

- (1) The noise standard of the receiving land use district for a cumulative period of more than thirty (30) minutes in any hour; or
- (2) The noise standard of the receiving land use district plus five (5) dB for a cumulative period of more than fifteen (15) minutes in any hour; or
- (3) The noise standard of the receiving land use district plus ten (10) dB for a cumulative period of more than five (5) minutes in any hour; or
- (4) The noise standard of the receiving land use district plus fifteen (15) dB for a cumulative period of more than one minute in any hour; or
- (5) The noise standard of the receiving land use district plus twenty (20) dB for any period of time.
- (b) Levels exceeding the noise limit categories. If the measured ambient level exceeds that permissible as set forth in subsections (1), (2), (3), and (4) of subsection (a) of this section, the allowable noise exposure standard shall be increased in five (5) dB increments as appropriate to encompass or reflect such ambient noise level. In the event the ambient noise level exceeds the noise level set forth in subsection (5) of subsection (a) of this section, the maximum allowable noise level shall be increased to reflect the maximum ambient noise level.
- (c) Correction for location of noise source. If the measurement location is on a boundary between two (2) different land use district categories, the noise level limit applicable to the lower land use district category, plus five (5) dB shall apply.
- (d) Correction for ambient noise levels when alleged offending sources cannot be shut down. If possible, the ambient noise shall be measured at the same location along the property line utilized in subsection (a) of this section with the alleged offending noise source inoperative. If for any reason the alleged offending noise source cannot be shut down, then the ambient noise shall be estimated by performing a measurement in the same general area of the source, but at a sufficient distance such that the offending noise from the source is inaudible. If the difference between the noise levels with the noise source operating and not operating, with the utilization of either of the above-described methods of measure-

ment, is six (6) dB or greater, then the noise measurement of the alleged source can be considered valid.

(e) 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.