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8 STATE OF CALIFORNIA  
State Energy Resources  
9 Conservation And Development Commission

10 In the Matter of:

Docket No.: **06-AFC-6**

11  
12 **APPLICATION FOR CERTIFICATION FOR**  
**THE EASTSHORE ENERGY CENTER**

OPENING EVIDENTIARY BRIEF

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20 DATED: February 11, 2008

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**Table of Contents**

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

- I. INTRODUCTION..... 1
- II. TRAFFIC & TRANSPORTATION..... 3
  - a. **The Applicant Has Not Demonstrated That the Eastshore Thermal Plumes Are Not a Serious Threat to Aviation Safety** ..... 3
    - i. The FAA Safety Analysis Does Not Serve as "Federal Guidelines" ..... 4
    - ii. The Committee Should Not Adopt Thermal Plume Guidelines In an AFC Proceeding..... 5
    - iii. In the Absence of Official Guidelines, the Committee Cannot Resolve the Dispute Over Modeling ..... 5
    - iv. Applicant's Helicopter Overflight of the Barrick Plant Does Not Fulfill Need for Extensive In-Flight Scientific Testing ..... 6
  - b. **Thermal Plumes Pose an Actual Threat as Aircraft Currently Fly Over the Eastshore Site** ..... 7
  - c. **Eastshore's Aviation Safety Hazards Cannot Be Mitigated** ..... 8
  - d. **The Committee Should Defer to the Judgment of Federal, State and Local Aviation Regulatory Agencies**..... 9
- III. LAND USE ..... 10
  - a. **Construction of Eastshore at the Present Site Would Violate Local LORS** ..... 10
    - i. The Applicant's Evidence of Land Use Conformity Is Contingent Upon the Commission Finding Eastshore Does Not Pose Any Aviation Risks..... 10
    - ii. The Eastshore Facility Is Incompatible with the Hayward Executive Airport Compatible Land Use Policy Plans..... 11
      - 1. The Eastshore Facility Is Inconsistent With the Safety Provisions of the 1986 CLUP..... 12
      - 2. The Eastshore Facility Violates the December 2007 Draft CLUP and Would Require an Override..... 13
  - b. **Every Public Agency Agrees Eastshore Is Incompatible Due to the Aviation Hazard and the Negative Impact to the Surrounding Neighborhood**..... 14
    - i. The FAA Part 77 Structures Analysis Does Not Account for Impact of Thermal Plumes ..... 15
    - ii. Eastshore Will Inhibit the Redevelopment Agency's Efforts to Eradicate Blight and Revitalize the Mount Eden Area ..... 16
  - c. **Objections to Evidence** ..... 17
    - i. Commission Must Strike Applicant's Exhibits 17 and 56 ..... 17

|    |  |           |
|----|--|-----------|
| 1  | ii. Commission Must Deny Applicant's Motion to Strike County's Exhibit 534.....          | 19        |
| 2  | <b>IV. AIR QUALITY .....</b>   | <b>19</b> |
| 3  | <b>a. Eastshore Will Cause Significant Adverse Air Quality Impacts that Cannot</b>       |           |
| 4  | <b>Be Sufficiently Mitigated .....</b>   | <b>20</b> |
| 5  | i. Using Proper Modeling, Eastshore Exceeds the California NO <sub>2</sub> Standard..... | 20        |
| 6  | ii. The Proposed Mitigation Will Not Prevent Eastshore From Exacerbating                 |           |
| 7  | Existing Particulate Matter Nonattainment in the East Bay .....                          | 21        |
| 8  | 1. Regional ERCs Will Not Mitigate the Local Impact of PM.....                           | 21        |
| 9  | 2. Interpollutant Trading Will Increase the Local PM Impact.....                         | 22        |
| 10 | 3. Unproven Fireplace Retrofit Program Inappropriate for Use as PM Mitigation.....       | 23        |
| 11 | <b>b. In the Alternative, County Has Made a Reasonable Showing That More</b>             |           |
| 12 | <b>Stringent Conditions of Certification Are Required to Minimize Impact to</b>          |           |
| 13 | <b>Human Health and the Environment.....</b>   | <b>25</b> |
| 14 | <b>c. The Applicant's Proposed Modifications to the Conditions of Certification</b>      |           |
| 15 | <b>Will Further Jeopardize Human Health and the Environment.....</b>                     | <b>25</b> |
| 16 | i. Applicant's Proposed "Good Faith Effort" to Locate Local ERCs Is                      |           |
| 17 | Unenforceable and Will Lead to Increase in Local Emissions.....                          | 25        |
| 18 | ii. Proposed Reduction to Interpollutant Trading Ratio Simply Reduces Cost of            |           |
| 19 | Mitigation and Is Not Driven By Good Science.....  | 26        |
| 20 | <b>V. ENVIRONMENTAL JUSTICE.....</b>   | <b>27</b> |
| 21 | <b>a. The Risk Assessment Definition of "Sensitive Receptor" Is Inappropriate</b>        |           |
| 22 | <b>for Environmental Justice Analysis under the 1998 EPA Guidelines .....</b>            | <b>28</b> |
| 23 | i. Sensitive Receptors Must Be Defined By the Unique Circumstances Affecting             |           |
| 24 | a Particular Population.....   | 28        |
| 25 | ii. The Unique Circumstances of the Affected Population Must Include in the              |           |
| 26 | Existing Burden of Disease in the Local Population .....                                 | 30        |
| 27 | iii. The Staff Analysis Fails to Identify the Proper Geographic Boundaries .....         | 31        |
| 28 | <b>b. The Staff's Environmental Justice Analysis Ignores Important Components</b>        |           |
|    | <b>of the 1998 EPA Guidelines .....</b>  | <b>31</b> |
|    | i. The Staff Analysis Fails to Consider that the Environmental Justice Population        |           |
|    | May Disproportionately Experience Environmental Effects.....                             | 32        |
|    | ii. The Staff Analysis Does Not Adequately Factor in the Uneven Distribution of          |           |
|    | Exposure to Various Sources of Toxicity.....   | 32        |
|    | <b>c. The Commission's Approach to Environmental Justice Reinforces Existing</b>         |           |
|    | <b>Environmental Injustices in the Community.....</b>                                    | <b>33</b> |
|    | <b>VI. CONCLUSION .....</b>  | <b>33</b> |

1 VII. PROPOSED FINDINGS..... 34

2 Attachment 1.....36

3

4

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OPENING EVIDENTIARY BRIEF

Memorandum of Points and Authorities

15  
16 **OPENING EVIDENTIARY BRIEF BY COUNTY OF ALAMEDA**

17 **Memorandum of Points and Authorities**

18 **I. INTRODUCTION**

19 In an Order dated January 18, 2008, Commissioner Jeffrey Byron, acting on behalf of the  
20 Eastshore AFC Committee ("the Committee"), ordered the parties to file opening briefs that  
21 discuss the contested issues arising out of the Eastshore AFC, and to identify the exhibits and  
22 testimony that support their respective briefs.<sup>1</sup> In response, the County of Alameda ("the  
23 County") submits this brief.

24 Although the Committee heard testimony and considered documentary evidence during its  
25 three days of evidentiary hearings on a variety of contested topics, the County has confined its  
26

27  
28 <sup>1</sup> The Committee requested the parties separately file briefs on the use of the Energy Commission's  
override authority at a later date.

1 brief to the four topic areas in which it presented evidence and conducted cross examination:  
2 Traffic & Transportation, Land Use, Air Quality, and Environmental Justice. With respect to  
3 these four topic areas, the applicant, Eastshore Energy Center, LLC ("the Applicant") has failed  
4 to meet its burden of proof that the facility will not cause any significant adverse environmental  
5 effects under CEQA, and that the facility will comply with all applicable federal, state and local  
6 laws, ordinances, regulations and standards ("LORS"). (20 C.C.R. §§ 1748(d), 1752-1752.5.)

7 Specifically, the Applicant has failed to prove that the so-called "thermal plumes" emitted by  
8 the Eastshore Energy Center ("Eastshore") are not a serious threat to aviation safety for pilots  
9 operating in and out of the nearby Hayward Executive Airport. Moreover, the Applicant has not  
10 presented any evidence indicating that the threat to aviation safety can be mitigated. The  
11 aviation hazard posed by Eastshore in turn makes it incompatible with the City of Hayward's  
12 land use restrictions and the Alameda County Airport Land Use Commission's ("ALUC") land  
13 use regulations. In addition, the Eastshore facility threatens the safe and orderly growth and  
14 expansion of the Hayward Executive Airport, and will burden the Alameda County  
15 Redevelopment Agency's efforts to eliminate blight and revitalize the neighborhood.

16 Most of these significant adverse effects and LORS incompatibilities were identified in the  
17 Traffic & Transportation and Land Use sections of the Energy Commission Staff's ("the Staff")  
18 Final Staff Assessment ("FSA"). (See Ex. 200.) As the Applicant has failed to present evidence  
19 that rebuts the Staff's findings, the Committee must uphold the Staff FSA and deny the  
20 Eastshore AFC.

21 In the alternative, the County and its fellow interveners have presented substantial evidence  
22 demonstrating that contrary to the evidence and analyses supplied by the Staff and Applicant,  
23 Eastshore will cause significant adverse effects with respect to air quality and environmental  
24 justice that requires the Committee to deny the Eastshore AFC. Using proper modeling,  
25 Eastshore will exceed the California standard for NO<sub>2</sub> and exacerbate existing local PM<sub>10</sub>/PM<sub>2.5</sub>  
26 nonattainment, both on its own and cumulatively along with the recently-certified Russell City  
27 Energy Center. The Staff's proposed air quality mitigation fails to adequately address these  
28 significant adverse effects. In addition, the Staff FSA environmental justice analysis does not

1 follow the Energy Commission's own environmental justice framework guidelines. (FSA, Ex.  
2 200, at 2-4; Ex. 710; RT 12/17/07 340:16-19.)

3 Finally, should the Committee approve the Eastshore AFC, it must not do so without  
4 imposing more stringent air quality conditions of certification to lessen the local impact of  
5 emissions. Based upon its reasonable evidentiary showing that Staff's proposed air quality  
6 mitigation will not adequately address Eastshore's significant adverse effects, the County has  
7 provided for the Committee's consideration proposed modifications to conditions of certification  
8 AQ-SC6 and AQ-SC8.

## 9 II. TRAFFIC & TRANSPORTATION

10 The overwhelming weight of the evidence strongly demonstrates that the thermal plumes  
11 the Eastshore facility will emit pose a serious impediment to safe air navigation into and out of  
12 the Hayward Executive Airport. The Applicant has not presented credible evidence to rebut the  
13 Staff's analysis that thermal plumes are "a hazard that has the potential to cause air frame  
14 damage or negatively affect the stability of aircraft in flight." (RT 12/18/07 85:16-21.) The  
15 Committee must directly address this potential hazard as the evidence demonstrates aircraft  
16 presently fly over the Eastshore site at low altitudes. Moreover, whatever disputes remain over  
17 the degree of hazard posed by the thermal plumes, the weight of the evidence clearly indicates  
18 that the existing restrictions on the Hayward Executive Airport airspace make application of any  
19 of the mitigation used for the nearby Russell City Energy Center unreasonable and impossible.

### 20 a. The Applicant Has Not Demonstrated That the Eastshore Thermal Plumes 21 Are Not a Serious Threat to Aviation Safety

22 The Energy Commission has only recently been faced with the question whether and to  
23 what extent industrial thermal plumes pose a threat to aviation safety. (RT 1/14/08 195:6-12.)  
24 Answering this question has proven difficult because of the lack of state and federal guidelines,  
25 uncertainty in the theoretical modeling, and the absence of rigorous in-flight testing. Although  
26 the parties have made some progress to address these shortcomings, the answer to this safety  
27 question remains unknown. Without sufficient information to rule out the Staff's conclusion that  
28 there exists a strong possibility that thermal plumes could endanger aircraft in flight, the

1 Committee must find that the Applicant has failed to meet its burden to demonstrate that  
2 Eastshore will not pose a threat to aviation safety.

3 i. The FAA Safety Analysis Does Not Serve as "Federal Guidelines"

4 The Applicant has argued that federal guidelines exist in the form of the FAA Safety Risk  
5 Analysis of Aircraft Overflight of Industrial Exhaust Plumes ("FAA Safety Analysis") (Ex. 20,  
6 Attachment 1). (Testimony of William Corbin, Ex. 20, at 3.) The Applicant points out that the  
7 FAA Safety Analysis concludes that thermal plumes pose an "acceptable risk." (Id., quoting  
8 FAA Safety Analysis at 15.) As the FAA witness David Butterfield explained, however, the FAA  
9 Safety Analysis is of limited usefulness, and should not serve as the sole basis for thermal  
10 plume analysis. (RT 12/18/07 113:17-115:25.)

11 While the FAA Safety Analysis is based upon 30 years worth of incident data, the FAA has  
12 determined since the time of the Russell City Energy Center proceedings that the data does not  
13 include the kind of invisible thermal plumes being emitted from relatively short stacks at facilities  
14 such as Eastshore. (Id.) Instead, that data reflects pilot interactions with facilities that have tall  
15 stacks that emit visible plumes, and that cannot be built near airports. (Id.)

16 The paucity of incident data in the FAA Safety Analysis simply reflects the reality that pilots  
17 can see visible plumes and tall stacks and can easily avoid them<sup>2</sup>. (Id.) Moreover, as a  
18 practical matter most pilots do not report discreet incidents of turbulence, and would not  
19 necessarily know turbulence was the result of a thermal plume. (RT 12/18/07 150:9-16.) In  
20 addition, as these kinds of facilities cannot be constructed near airports, pilots typically fly over  
21 them at altitudes above 1000 feet, beyond the range in which thermal plumes pose a hazard.  
22 (RT 12/18/07 113:17-115:25.) By contrast, Eastshore will be built near the Hayward Executive  
23 Airport where aircraft are in the process of conducting takeoffs and landings. Therefore, the  
24 FAA Safety Analysis simply does not apply to a facility such as Eastshore.

25  
26 \_\_\_\_\_  
27 <sup>2</sup> Indeed, the FAA Safety Analysis recommends that pilots can largely avoid thermal plumes by applying  
28 "prudence and common sense skills to constantly 'see and avoid' any potential hazard." (Exhibit 20,  
Attachment 1, at 16.) That advice makes little sense in the context of short stacks and invisible plumes.



1                   ii. The Committee Should Not Adopt Thermal Plume Guidelines In an AFC  
2                   Proceeding

3           Recognizing the limited usefulness of the FAA Safety Analysis, the parties have attempted  
4 to apply guidelines promulgated by the Australian Civil Aviation Safety Authority (“CASA”). (See  
5 FSA, Ex. 200, at 4.10-20; see also Testimony of William Corbin and Gregory Darvin, Ex. 20.)  
6 Staff and the Applicant cannot, however, agree on what the CASA guidelines mean, or how to  
7 apply them to Eastshore. (See Id.; see also RT 12/18/07 285:18-287:11.) This same problem  
8 arose in the Russell City Energy Center amendment proceedings. (See Staff FSA for Russell  
9 City Energy Center, Ex. 30, at 4.5-18.)

10           In the absence of official guidelines, the Applicant has essentially asked the Committee to  
11 simultaneously decide which rules, modeling, and testing to apply at the same time it applies  
12 those rules, models and testing to the Eastshore data. The Committee should reject this  
13 approach, as the evidence that has been produced as a result has only pointed up the  
14 continuing uncertainty in the area of thermal plume research. The debates concerning the  
15 theoretical modeling, the meaning of the CASA guidelines and FAA Safety Analysis, and the  
16 results of limited in-flight testing are emblematic of the problems inherent in this flawed  
17 approach, and simply reinforce the Applicant’s failure to meet its burden of proof.

18                   iii. In the Absence of Official Guidelines, the Committee Cannot Resolve the  
19                   Dispute Over Modeling

20           Staff and the Applicant have both used the so-called “Katestone” method of thermal plume  
21 modeling, as it is the method adopted by CASA in its guidelines. The Staff concluded however,  
22 that the Katestone method has flaws, and has modified it to attempt to better predict  
23 Eastshore’s thermal plumes. (RT 12/18/07 90:24-91:10.) Even assuming the Committee could  
24 resolve this dispute, Staff and the Applicant cannot agree what the modeling results mean  
25 because they disagree how to interpret the data within the context of the CASA guidelines.  
26 (See e.g. Testimony of William Corbin and Gregory Darvin, Ex. 20, at 10.) The questions about  
27 modeling thus involve too many decisions with too little data: the Applicant is asking the  
28 Committee to make potentially far-reaching decisions about thermal plume guidelines and

1 modeling methods using only the data from Eastshore. Within the legal framework of an AFC  
2 proceeding, however, the Committee must find that the Applicant has simply left too many  
3 questions unanswered and has failed to meet its burden of proof.

4 iv. Applicant's Helicopter Overflight of the Barrick Plant Does Not Fulfill Need  
5 for Extensive In-Flight Scientific Testing

6 Similarly, the Eastshore AFC has pointed up the dearth of in-flight testing, which both the  
7 FAA and the County's expert witness Larry Berlin have identified as an essential prerequisite to  
8 understanding the impact of thermal plumes on aircraft. (RT 12/18/07 254:13-255:5<sup>3</sup>; 164:4-  
9 165:6.) Perhaps recognizing this omission, the Applicant hastily assembled a series of  
10 helicopter overflights of the Barrick power plant near Reno, Nevada. (See Ex. 20.)

11 Based on the lack of incident, the Applicant argues that the overflight test demonstrates that  
12 thermal plumes do not pose a threat to aircraft. (See "Turbulence Felt in a Light Helicopter  
13 Caused By A Power Plant Thermal Plume," Executive Summary at v, Ex. 20.) Implicitly, of  
14 course, the Applicant further argues that the overflight test fills in the gaps in the FAA Safety  
15 Analysis, and resolves any disputes over the theoretical modeling by putting that theory into  
16 practice. The Committee should reject these contentions.

17 First and foremost, the FAA's representative David Butterfield indicated that he understood  
18 the purpose of the Applicant's overflight test, but that FAA could not accept the results of the  
19 Applicant's study because of the lack of scientific rigor. (RT 12/18/07 254:13-255:5.) Moreover,  
20 Mr. Butterfield explained that without scientific in-flight testing, the FAA would not waive the  
21 recommendation to avoid overflights below 1,000 feet. (RT 12/18/07 254:15-19.) In other  
22 words, the Applicant's overflight test does not overcome the significant limitation of the FAA  
23 Safety Analysis in that it relied entirely on statistical data. If the Applicant's overflight study does  
24 not assuage the FAA's safety concerns, it should not satisfy the Committee's concerns either.

25 Furthermore, the Applicant's overflight test was at best anecdotal. The test involved one  
26 type and model of aircraft, one power plant, and one set of meteorological conditions. The  
27  
28

1 test's designer, Dr. Blumenthal, conceded that he could not know for certain where the invisible  
2 plumes were located, and to what extent the helicopter encountered them because of the wind.  
3 (RT 12/18/07 24113:-242:2; 242:5-10.) In this regard, the Applicant's helicopter overflight is no  
4 different from Caltrans' Gary Cathey's overflight of the Blythe plant, which he terminated at 600  
5 feet because going any lower "jeopardized controllability and maneuverability of the aircraft."  
6 (RT 12/18/07 122:2-123:4.) Even if anecdotal testing has some value, the Committee has no  
7 basis for valuing the Applicant's overflight against Mr. Cathey's overflight. As a result, the  
8 Committee must conclude the Applicant has not met its burden of proof to demonstrate thermal  
9 plumes do not pose a threat to aviation.

10 **b. Thermal Plumes Pose an Actual Threat as Aircraft Currently Fly Over the**  
11 **Eastshore Site**

12 The dispute over the impact of thermal plumes on safe air navigation takes on particular  
13 significance in the Eastshore AFC because the evidence demonstrates that aircraft presently  
14 can and do fly over the Eastshore site. Flight track data presented by the Staff and the City of  
15 Hayward clearly demonstrates that aircraft fly over the Eastshore site, and do so at altitudes as  
16 low as 505 feet. (See Ex. 208, 417, 418.) Moreover, the flight track data does not record  
17 overflights less than 500 feet, altitudes at which aircraft may legally operate. (RT 12/18/07,  
18 96:16-97:4; 120:23-122:1; 155:24-156:25.) Furthermore, Mr. Butterfield from the FAA explained  
19 that pilots flying an approach under instrument conditions would be forced to fly over the  
20 Eastshore site, which is different from the situation with the Russell City Energy Center. (RT  
21 12/18/07 194:9-195:9.)<sup>4</sup>

22 The Applicant has also suggested that aircraft operating within the traffic pattern will not  
23 traverse the Eastshore site. (Testimony of Marshall Graves, Ex. 20, at 9.) That assertion is  
24

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25 <sup>3</sup> The transcript erroneously identifies the speaker as Applicant's witness "Dr. Blumenthal." From the  
26 context of the discussion, the speaker is obviously the FAA's David Butterfield.

27 <sup>4</sup> This evidence clearly contradicts the Applicant's witness Marshall Graves' testimony that "the  
28 occurrence of an aircraft flying within the influence area of the plume is essentially non-existent." (RT  
12/18/07 226:1-3.)

1 based upon a fundamental misunderstanding of traffic patterns. Traffic patterns are not fixed  
2 boundaries in the sky, but instead represent an average of where aircraft actually operate in a  
3 roughly oval-shaped pattern around the airport. (RT 12/18/07 141:11-24.) As Mr. Berlin  
4 explained, "traffic patterns will expand and contract during any given day. The more air traffic  
5 there is in a traffic pattern practicing takeoff and landings or whatever they're doing, generally  
6 the wider and further out the patterns go." (RT 12/18/07 157:22-158:2.) Moreover, the City of  
7 Hayward's Robert Bauman explained that as airport operations increase, so too will the size of  
8 the traffic pattern, placing an increasing number of aircraft directly over the Eastshore site. (RT  
9 12/18/07 141:25-142:11.)

10 As a result, the Committee must find that thermal plumes pose an actual, rather than  
11 theoretical, threat to aviation safety.

12 **c. Eastshore's Aviation Safety Hazards Cannot Be Mitigated**

13 The Committee does not have to resolve the *degree* of threat thermal plumes pose to safe  
14 air navigation because the evidentiary record clearly demonstrates that any attempt at applying  
15 the mitigation used for the Russell City Energy Center would be impractical or impossible.

16 As the FAA witness Andy Richards explained during the evidentiary hearing, the Hayward  
17 airspace is severely constricted due the nearby Oakland International Airport. (RT 12/18/07  
18 176:19-22.) The FAA cannot raise the Hayward airspace to restrict aircraft from flying at low  
19 altitudes over the Eastshore site without eliminating the separation from the turbojet airspace for  
20 aircraft operating in and out of the Oakland International Airport. (RT 12/18/07 176:19-177:3.)  
21 Eliminating the separation would prohibit the two airports from operating independently, thus  
22 greatly reducing efficiency. (*Id.*) He concluded that "FAA has no intention or interest of  
23 changing any air traffic operation at Hayward Executive Airport." (RT 12/18/07 178:1-4.)

24 Similarly, Joseph Rodriguez at the FAA Western-Pacific Region Office wrote that the "see-  
25 and-avoid" mitigation used for Russell City Energy Center was impractical for Eastshore  
26 because "pilots would be required to divert their attention from the sighting of both facilities on  
27 the ground, then maneuver the aircraft around both plumes." (Letter from Joseph Rodriguez to  
28 Bill Pfanner, October 9, 2007, Ex. 204, at 2.) That conclusion was amplified by Mr. Cathey from

1 Caltrans, who testified that approximately 50% of aircraft conducting takeoffs and landings from  
2 the Hayward Executive Airport are not based there and would be unfamiliar with the local  
3 infrastructure, especially a power plant. (RT 12/18/07 120:12-22.) Moreover, FAA could not  
4 issue a Notice To Airmen ("NOTAM") warning pilots of the two power plant thermal plumes  
5 because the Airmen's Information Manual section 5-1-3 restricts NOTAMs to use for temporary,  
6 not permanent, hazards. (RT 12/18/07 168:25-169:4.)

7 **d. The Committee Should Defer to the Judgment of Federal, State and Local**  
8 **Aviation Regulatory Agencies**

9 Finally, the Committee should be persuaded that Eastshore poses a safety risk to aviation  
10 that cannot be mitigated based on the identical conclusions of every federal, state and local  
11 aviation regulatory agency that has considered the Eastshore AFC. The FAA, Caltrans, Port of  
12 Oakland, and Alameda County ALUC all agree that the Eastshore site is fundamentally  
13 inappropriate for the construction of a thermal power plant given the close proximity of the  
14 Hayward Executive Airport. (See Exs. 203 (Caltrans), 204 (FAA), 205 (Port of Oakland), 206  
15 (FAA), 416 (FAA), 513 (ALUC).) These opinions were not necessarily the same as those for the  
16 Russell City Energy Center. (See e.g. Ex. 206.)

17 The Applicant has not presented any evidence that would support Committee findings  
18 overruling the opinions and expertise of the entire aviation regulatory system. Moreover, doing  
19 so would come at a terrible price for the Hayward Executive Airport: the FAA has indicated that  
20 the construction of Eastshore would call into question several of the grant assurances to  
21 maintain safe compatible land uses on which ongoing FAA grant financing for the Hayward  
22 Executive Airport depends. (See Letter from George Aiken to Ross Dubarry, December 17,  
23 2007, Ex. 416.) Mr. Richards indicated violation of FAA airport grant assurances not only  
24 jeopardized the City of Hayward's airport grants, but *all other* federal Department of  
25 Transportation grant funding as well. (RT 12/18/07 283:11-23.) Mr. Bauman testified that the  
26 loss of FAA grant funding would cause a "significant impact" to the City of Hayward. (RT  
27 12/18/07 137:18-138:10.) The construction of a single peaker plant does not merit the potential  
28 loss of critical transportation financing for the City of Hayward.

1       **III.     LAND USE**

2       As the Staff's witness explained, the "primary deciding factor in this case, it is not that the  
3 Energy Center itself would cause a significant adverse impact, it is the location of the Center."  
4 (RT 1/14/08 109:20-23.) The location, of course, refers to the proximity between the Eastshore  
5 site and its thermal plumes, and the Hayward Executive Airport. Construction of a thermal-  
6 plume generating power plant on the Eastshore site would violate numerous City of Hayward  
7 and ALUC LORS. In addition, every public agency that has evaluated the Eastshore AFC has  
8 recommended the Commission choose a different location. Furthermore, from a policy  
9 perspective, the location would also negatively impact the City of Hayward's planning goals and  
10 the County Redevelopment Agency's efforts to eliminate blight and revitalize the surrounding  
11 neighborhood, including housing construction.

12               **a. Construction of Eastshore at the Present Site Would Violate Local LORS**

13       The Staff found that the Eastshore site is incompatible with several City of Hayward zoning  
14 ordinance provisions designed to ensure the safe operation of the Hayward Executive Airport,  
15 and inconsistent with the 1986 Hayward Executive Airport Compatible Land Use Plan ("the 1986  
16 CLUP") and 2007 Draft Hayward Executive Airport Compatible Land Use Plan ("the 2007 Draft  
17 CLUP"). (RT 1/14/08 221:1-226:3.) In this regard, the County joins in the argument provided by  
18 the City of Hayward in its evidentiary brief. The Applicant's arguments to the contrary depend  
19 on a finding that thermal plumes do not pose an aviation hazard, and substituting its own  
20 opinions for the findings of public bodies. These failings preclude the Applicant from meeting its  
21 burden of proof and require the Committee to find the Eastshore site is incompatible with local  
22 LORS and will create a significant adverse impact.

23                       i. The Applicant's Evidence of Land Use Conformity Is Contingent Upon the  
24                       Commission Finding Eastshore Does Not Pose Any Aviation Risks

25       As a threshold matter, the Committee must first resolve whether Eastshore poses an  
26 aviation safety hazard, and whether that hazard can be mitigated. Most of the LORS  
27 noncompliance concerns the hazard posed by thermal plumes to aircraft operating in and out of  
28 the Hayward Executive Airport, and thus to the safe and continued operation of the airport.

1 The Applicant has conceded that its argument is contingent upon a finding that thermal  
2 plumes pose no risk to safe air navigation, or that the risk can be mitigated. (Testimony of  
3 Jennifer Scholl, Ex. 17, at 2-3; RT 1/14/08 97:14-21.) Moreover, the conclusions in the  
4 Applicant's land use testimony rely exclusively on the iconoclast opinions of its own witnesses  
5 that Eastshore poses no aviation safety hazard. (See generally Testimony of Jennifer Scholl,  
6 Ex. 17.)

7 The County has already demonstrated, *supra*, that the Applicant has failed to meet its  
8 burden of proof that Eastshore will not pose a safety hazard. Moreover, the Staff indicated that  
9 "[n]o matter what the level of risk the hazard itself would actually still be in place if it is permitted  
10 at that location." (RT 1/14/08 111:4-6) (emphasis added). Therefore, to the extent the  
11 Committee concludes Eastshore's thermal plumes will pose *any* risk – and thus *any degree* of  
12 hazard – the Committee must find that Eastshore does not comply with local LORS and deny  
13 the Eastshore AFC.

14 ii. The Eastshore Facility Is Incompatible with the Hayward Executive Airport  
15 Compatible Land Use Policy Plans

16 The State Legislature established county airport land use commissions to "protect public  
17 health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of  
18 land use measures that minimize the public's exposure to excessive noise and safety hazards  
19 within areas around public airports . . ." (Public Utilities Code § 21670(a)(2).) Among their  
20 statutory duties, airport land use commissions must "coordinate planning at the state, regional,  
21 and local levels so as to provide for the orderly development of air transportation, while at the  
22 same time protecting the public health, safety, and welfare." (*Id.* at § 21674(b).) To further  
23 these goals, airport land use commissions must "prepare and adopt an airport land use  
24 compatibility plan . . ." (*Id.* at 21674(c).)

25 The ALUC serves as the airport land use commission for the airports in Alameda County,  
26 including the Hayward Executive Airport. (See 1986 CLUP, Ex. 535, at 1.) In 1986, the ALUC  
27 adopted the Hayward Executive Airport's airport land use compatibility plan. (See Ex. 535.)  
28 The ALUC's jurisdiction extends to the boundary of the Airport Influence Area, an irregularly

1 shaped boundary that includes the Eastshore site. (See Resolution 02-2007, Ex. 513.) The  
2 Airport Influence Area includes within it several "safety zones" in the immediate vicinity of the  
3 airport where the ALUC has imposed greater restrictions on compatible land uses. (See Ex.  
4 535, at 9-11, 60.)

5 Within the boundaries of the Airport Influence Area, the ALUC reviews for consistency and  
6 makes recommendations on proposed projects under consideration by local public agencies.  
7 (See Ex. 535, at 3-5.) When the ALUC finds a proposed project would be incompatible with  
8 land use restrictions within the 1986 CLUP, the referring public agency must amend the project  
9 proposal to cure the defects, or override the ALUC's incompatibility finding by a two-thirds vote.  
10 (See Id., at 3-4.)

11 1. The Eastshore Facility Is Inconsistent With the Safety Provisions  
12 of the 1986 CLUP

13 The ALUC has reviewed the Eastshore AFC and based upon its finding that thermal plumes  
14 pose a threat safe air navigation into and out of the Hayward Executive Airport, recommends  
15 the Energy Commission find an alternative site outside of the Airport Influence Area. (See Ex.  
16 513.) Staff has concurred with the ALUC's findings and resolution. (See Staff FSA, Ex. 200, at  
17 4.5-9.)

18 The Applicant has not presented any evidence to rebut the ALUC's findings and resolution.  
19 The ALUC's resolution was based upon the research of its staff working in conjunction with the  
20 Energy Commission Staff, and review at a public meeting by members of the ALUC who are  
21 public officials and experts in the field of aviation. (See Exs. 513, 516, 517; Public Utilities Code  
22 § 21670(b) (identifying qualifications for commissioners).)

23 The ALUC rendered its Eastshore Resolution based upon its statutory duty to review safety  
24 concerns for the nearby Hayward Executive Airport. (See Public Utilities Code § 21674.) That  
25 resolution, however, is not the same as a formal consistency determination because the 1986  
26 CLUP does not include any specific restrictions on the construction of power plant or facilities  
27 emitting thermal plumes. In addition, the Eastshore site is located slightly outside the nearest  
28 Safety Zone where land use restrictions are more stringent. (See Ex. 535, at 60.)





1 The Eastshore site would violate both of these two new restrictions. The site is located  
2 within the new Zone 7 where power plants are conditional uses, and on the edge of Zone 6,  
3 where power plants are incompatible uses. (See Id., Figure 3-4, at 3-27.) In addition,  
4 Eastshore is located within 12,500 feet of Hayward Executive Airport<sup>6</sup> where facilities that emit  
5 thermal plumes that may create turbulence are not permitted. (Ex. 534, Attachment 2, at 3-22.)  
6 Therefore, the ALUC would likely not approve Eastshore as a conditional use within Zone 7.  
7 The Applicant has not offered any evidence to rebut this conclusion, save its witness Jennifer  
8 Scholl's opinion based on her misunderstanding that the ALUC lacks land use authority. (See  
9 RT 1/14/08 190:18-23.)

10 Despite the new CLUP still only existing in draft form, the Committee should make a LORS  
11 compatibility finding with respect to the December 2007 draft CLUP as it will likely be the  
12 operative CLUP for the Hayward Executive Airport prior to the release of the presiding  
13 member's proposed decision. (See Briefing and Scheduling Order, dated January 18, 2008.)  
14 Once the ALUC has adopted a new CLUP, it will supersede the 1986 CLUP as the operative  
15 document, and be subject to the requirement that a compatibility finding be made in the  
16 presiding member's proposed decision. (20 CCR § 1752(a)(3).) Although the Committee  
17 indicated to the Applicant that it should "conservatively . . . assume that there is or there are  
18 LORS violations," the Applicant has requested the Committee exercise its override authority  
19 pursuant to Public Resources Code § 25525. (RT 1/14/08 370:1-2.)

20 **b. Every Public Agency Agrees Eastshore Is Incompatible Due to the Aviation**  
21 **Hazard and the Negative Impact to the Surrounding Neighborhood**

22 The conclusion by the Staff and the ALUC that Eastshore would be incompatible with the  
23 safe operation of the Hayward Executive Airport is shared by every single public agency that  
24 \_\_\_\_\_  
25 created a new safety zone in the area previously identified as the Airport Influence Area outside of the  
26 Safety Zones.  
27  
28

1 has considered the Eastshore AFC, including the FAA, Caltrans, the City of Hayward, and the  
2 Port of Oakland. (See Exs. 203 (Caltrans), 204 (FAA), 205 (Port of Oakland), 206 (FAA), 207  
3 (City of Hayward), 404 (City of Hayward), and 416 (FAA).) In addition, the City of Hayward and  
4 the Alameda County Redevelopment Agency have demonstrated that Eastshore would  
5 significantly set back efforts to revitalize the surrounding neighborhoods. (See Exs. 404, 405,  
6 504.) The Applicant's effort to rebut the great weight of this evidence relies on its contention  
7 that thermal plumes pose no risk to low-flying aircraft and its flawed reliance on the FAA's Part  
8 77 structures analysis.

9 i. The FAA Part 77 Structures Analysis Does Not Account for Impact of  
10 Thermal Plumes

11 The Applicant relies upon the FAA review of Eastshore pursuant to 14 CFR § 77 and  
12 issuance of a Determination of No Hazard to Air Navigation ("Part 77 Determination") to suggest  
13 that the FAA considers Eastshore a compatible land use. (Testimony of Jennifer Scholl, Ex. 17,  
14 at 6.) During the Eastshore evidentiary hearing, David Butterfield from the FAA explained that  
15 the Part 77 determination "is limited to the brick and mortar aspects of the structure" and that  
16 "the brick and mortar aspects of the Center do not pose a hazard to navigation." (RT 12/18/07  
17 113:20-24.) He went on to explain, however, that FAA does not "have a statutory authority to  
18 render an opinion on plumes" within the context of its Part 77 analysis. (*Id.* at 113:25-114:1.)  
19 Therefore, the Part 77 Determination should have little bearing on the Committee's decision as  
20 it does not reflect the FAA's opinion on the threat posed by thermal plumes.

21 The Applicant's witness points to language within the Part 77 Determination suggesting that  
22 FAA had looked at the thermal plume aspect of Eastshore. (Testimony of Jennifer Scholl, Ex.  
23 17, at 6.) Were that the case, however, then FAA exceeded its authority under 14 CFR § 77.  
24 (RT 1/14/08 113:25-114:1.) Moreover, the FAA explained this issue in an October 9, 2007 letter  
25

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26 <sup>6</sup> On January 11, 2008, the Hearing Officer ordered the parties to stipulate to a series of distances from  
27 the Eastshore site to various landmarks, including the Hayward Executive Airport. Although the parties  
28 were unable to fully resolve their disputes concerning these distances, none of the parties proposed a  
distance from Eastshore to the Hayward Executive Airport greater than 12,500 feet. (See Memo from Bill

1 docketed on October 12, 2007, stating that “the effects of industrial plumes . . . have not yet  
2 been implemented for Part 77 obstruction evaluations.” (Ex. 204.) The Applicant’s witness  
3 would have had this document available to her at the time she submitted her prefiled testimony  
4 on December 7, 2007. (Ex. 17.) The Committee should disregard the Applicant’s attempt to  
5 confuse this issue.

6 ii. Eastshore Will Inhibit the Redevelopment Agency’s Efforts to Eradicate  
7 Blight and Revitalize the Mount Eden Area

8 Beyond LORS noncompliance, Eastshore will negatively impact public agencies’ efforts to  
9 eliminate blight and revitalize the surrounding neighborhood. Significantly, Eastshore will inhibit  
10 the Alameda County Redevelopment Agency’s plans to revitalize surrounding blighted  
11 neighborhoods by using property tax increment financing to upgrade the surrounding  
12 neighborhood’s inadequate infrastructure to support housing – including affordable housing –  
13 and commercial development. (See Testimony of Eileen Dalton, Ex. 504.) Under a unique  
14 provision of an annexation agreement between the City of Hayward and Alameda County, the  
15 Alameda County Redevelopment Agency retains redevelopment jurisdiction over a series of  
16 unincorporated “islands” in the Mt. Eden area slightly over 1000 feet from the Eastshore site.  
17 (RT 1/14/08 167:15-168:18; see Memo from Bill Pfanner to Hearing Officer Susan Geffer,  
18 February 4, 2008, docketed as part of the Eastshore AFC.)

19 Construction of a thermal power plant so close to this redevelopment area has the very  
20 strong potential to create a negative perception in the community that can deter development or  
21 reduce the market value of property in the area. (RT 1/14/08 165:19-166:19.) Property tax  
22 increment financing depends entirely on property values in the area slated for redevelopment; if  
23 property values become depressed, the Redevelopment Agency does not receive the tax  
24 increment to fund the necessary infrastructure improvements and revitalization stalls. (See Id.)

25 Although redevelopment authority does not create an issue of LORS noncompliance, the  
26 Committee must factor the negative impact to neighborhood revitalization in its evaluation of the

27  
28 Pfanner to Hearing Officer Susan Geffer, February 4, 2008, docketed as part of the Eastshore AFC

1 Eastshore AFC. The Applicant has not introduced any evidence to counter Redevelopment  
2 Director Eileen Dalton's testimony, and the Applicant's witness conceded she did not discuss  
3 any of the County's redevelopment plans in her testimony. (RT 1/14/08 193:22-194:3.)

4 **c. Objections to Evidence**

5 During the course of the evidentiary hearing, the Applicant and the County objected to the  
6 entry into evidence of different draft versions of the Hayward Executive Airport Compatible Land  
7 Use Plan ("CLUP"). These objections are discussed below:

8 i. Commission Must Strike Applicant's Exhibits 17 and 56

9 In reviewing the Applicant's prefiled testimony, the County realized that the Applicant's land  
10 use witness, Jennifer Scholl, had included an excerpt from an unpublished internal  
11 administrative July 2007 draft of the CLUP in her testimony and rendered opinions based upon  
12 it. (See Ex. 17.) The County timely asserted an objection to Exhibit 17. (RT 1/14/08 89:11-12.)  
13 The Committee proceeded to admit the exhibit over the County's objection. (RT 1/14/08 92:18-  
14 93:8.)

15 The Committee must strike the attached excerpt of the July 2007 administrative draft CLUP  
16 from Exhibit 17 because Ms. Scholl cannot authenticate it. Applicant's counsel indicated that  
17 Ms. Scholl obtained the excerpt from the Energy Commission's Russell City Energy Center  
18 proceedings. That the excerpt was made a part of the Russell City Energy Center proceedings  
19 does not make it authentic.

20 Moreover, an objection to the introduction of the July 2007 administrative draft was asserted  
21 during the Russell City Energy Center proceedings by County Planning Staff Cindy Horvath,  
22 acting on behalf of the ALUC. (See Transcript of July 12, 2007 Evidentiary Hearing, Ex. 33,  
23 235:4-236:3.) The Russell City AFC Committee did not rule on the objection. The Staff,  
24 however, has recognized this objection and did not comment upon the July 2007 administrative  
25 draft CLUP in the Eastshore FSA. (FSA, Ex. 200, at 4.5-21 n. 5.)

26  
27  
28 record.)

1 The July 2007 administrative draft CLUP was an internal administrative draft document  
2 created as part of the ALUC's long-term project to update the compatible land use plans for the  
3 three airports within its jurisdiction. During the course of the update, the ALUC requested  
4 numerous changes to what it viewed as problematic parts of the July 2007 administrative draft  
5 CLUP. Those changes resulted in a December 2007 draft CLUP.

6 Unlike the July 2007 administrative draft CLUP, the ALUC intends to release the December  
7 2007 draft CLUP for public review. (See ALUC Agenda for January 16, 2008, Ex. 534,  
8 Attachment 2.) Having been superseded, the July 2007 administrative draft CLUP has no  
9 evidentiary value, and risks to mislead the Committee in its review of the evidence. In  
10 particular, the December 2007 draft CLUP includes new language not found in the July 2007  
11 administrative draft CLUP regarding the compatibility of power plants and facilities emitting  
12 thermal plumes in different zones within the Airport Influence Area. (See December 2007 draft  
13 CLUP, Table 3-2, Ex. 534, Attachment 2.) Although Applicant's counsel denied that Applicant  
14 relies on the July 2007 administrative draft CLUP, the testimony of Jennifer Scholl is clearly to  
15 the contrary. (RT 1/14/08 156:16-157:2; Ex. 17, at 9-10.)

16 Applicant's counsel also alleged that the ALUC made these changes to intentionally stop the  
17 Commission's certification of Eastshore. (RT 1/14/08 154:8-155:4.) Counsel's allegation is  
18 baseless. The ALUC has been involved in a long-term effort to update the compatible land use  
19 plans for the three airports within its jurisdiction as the existing plans are over 20 years old. The  
20 ALUC first became aware that it should consider adding language concerning power plants and  
21 thermal plumes in the course of updating its CLUPs in July, 2007, when it was contacted by the  
22 Staff during the Russell City Energy Center proceedings. (See Staff Report, July 18, 2007, Ex.  
23 515, at 3.) The new language in the December 2007 draft CLUP simply reflects the ALUC's  
24 response to a new threat to aviation safety that it had never before encountered, not a  
25 conspiracy to stymie the Applicant's AFC.

26 The problem with using an internal non-public draft became more obvious when the  
27 Applicant attempted to file a copy of the July 2007 administrative draft CLUP. (Ex. 56.) In a  
28 cover letter, David Stein explains that the Applicant did not have a copy of chapters 4 and 5.

1 (See Id.) A review of the filing also reveals that it lacks a cover page or table of contents. (See  
2 Id.) These omissions not only call into question the genuineness of the document, but make it  
3 inappropriate for the Committee's consideration. Accordingly, the Committee must strike  
4 Exhibits 17 and 56.

5 ii. Commission Must Deny Applicant's Motion to Strike County's Exhibit 534

6 The Applicant asserted an objection to the County's Exhibit 534, the December 2007 draft  
7 CLUP, on the basis that it was not filed until the January 14, 2008 evidentiary hearing. The  
8 Committee should overrule the objection for two reasons. First, the document was not made  
9 available to the public until the ALUC provided public notice on January 11, 2008 that it would  
10 release the December 2007 draft CLUP for public review during its January 16, 2008 meeting.  
11 (See Ex. 534, Attachment 2.) Second, the ALUC is likely to adopt the December 2007 draft  
12 CLUP as final prior to the conclusion of the Eastshore AFC proceedings. The County has  
13 contended that the December 2007 draft CLUP contains language that would require the  
14 Committee to make a LORS compatibility finding. That is different from the existing 1986  
15 CLUP, which would be superseded by a new CLUP. Therefore, the December 2007 draft CLUP  
16 is essential to the proceedings and satisfies any required showing of good cause for its late  
17 entry.

18 **IV. AIR QUALITY**

19 Should the Committee not uphold the Staff FSA and deny the Eastshore AFC, the County  
20 contends in the alternative that Eastshore would cause a significant adverse air quality impact  
21 that cannot be sufficiently mitigated. If the Committee approves the Eastshore AFC, it should  
22 require more stringent conditions of certification for air quality to mitigate Eastshore's significant  
23 impact. The Committee should not accept the Applicant's proposed modifications to the  
24 conditions of certification as they will only exacerbate an already unacceptable level of air  
25 pollution impact to the surround community.

26 ///

27 ///

28

1           **a. Eastshore Will Cause Significant Adverse Air Quality Impacts that Cannot**  
2           **Be Sufficiently Mitigated**

3           The County's expert witness Dr. Paolo Zannetti presented sufficient evidence to  
4 demonstrate that Eastshore will cause significant adverse air quality impacts, and that the  
5 proposed mitigation falls far short of what would be necessary to mitigate the impacts.<sup>7</sup> His  
6 testimony undermines the Staff and Applicant's view that there will be limited significant adverse  
7 impacts, and that all of those impacts will be mitigated. As a result, the Applicant has failed to  
8 meet its burden of proof that Eastshore will not cause significant adverse air quality impacts.

9           i. Using Proper Modeling, Eastshore Exceeds the California NO<sub>2</sub> Standard

10          The Staff FSA indicates that NO<sub>2</sub> emissions for Eastshore will be 97% of the California  
11 limiting standard. (Staff FSA, Ex. 200, Table 16, at 4.1-23.) That conclusion, already on the  
12 very edge of creating a significant adverse impact, was based on modeling that did not  
13 sufficiently account for facility start-up conditions. (RT 12/17/07 144:8-10.) The start-up  
14 conditions are significant because Eastshore could perform 300 start-ups per year. (Id.)

15          During the start-up of the facility, the exit velocity of the plumes and their temperatures  
16 would be lower. (RT 12/17/07 144:10-12.) When Dr. Zannetti adjusted some of the  
17 assumptions in the modeling to account for this problem, the recalculated emissions were  
18 higher and exceeded the California standard for NO<sub>2</sub> by over 100 µg/m<sup>3</sup>. (Id. at 144:12-145:5.)

19          The Committee does not have to accept Dr. Zannetti's modeling, however, to call into  
20 question the Staff's conclusion that Eastshore would not impose a significant NO<sub>2</sub> impact.  
21 Staff's own calculations indicate that NO<sub>2</sub> impacts would be on the verge of exceeding the NO<sub>2</sub>

22 \_\_\_\_\_  
23 <sup>7</sup> During the course of the evidentiary hearings, questions were raised about Dr. Zannetti's qualifications  
24 to opine on the air quality regulatory decisions made by Bay Area Air Quality Management District  
25 ("BAAQMD") and the Staff. (See e.g. RT 12/17/07 152:17-153:9.) Those concerns are misplaced when  
26 the County does not have the burden of proof. Dr. Zannetti's testimony was based on his expertise in air  
27 quality modeling and the science of air pollution. The County did not offer him as a regulatory specialist.  
28 Dr. Zannetti's testimony raises serious concerns about the science underlying the discretionary decisions  
made by BAAQMD and the Staff, as well as the comments from the Applicant's witnesses. Dr. Zannetti's  
testimony thus calls into question these witnesses' opinions that Eastshore will not create significant  
adverse effects, or that those effects can be mitigated. To the extent the Committee agrees with Dr.  
Zannetti's concerns, it must find the Applicant has failed to meet its burden of proof and deny the  
Eastshore AFC.



1 standard. Given how close Eastshore would be to the California standard, the Committee  
2 should treat Eastshore as causing a significant impact and at a minimum require further  
3 mitigation.

4 ii. The Proposed Mitigation Will Not Prevent Eastshore From Exacerbating  
5 Existing Particulate Matter Nonattainment in the East Bay

6 The Staff FSA warns that “particulate matter emissions from the project’s routine operation  
7 would cause a significant impact because those emissions would contribute to existing  
8 violations of PM10 and PM2.5 ambient air quality standards.” (Ex. 200, at 4.1-23.) The Staff  
9 FSA goes on to warn that the project’s particulate matter emissions would also be “cumulatively  
10 considerable” when combined with the nearby Russell City Energy Center. (Id., at 4.1-32.)  
11 Moreover, Mr. Lusher from BAAQMD admitted that “the ambient air quality impacts of Eastshore  
12 are higher than typical power plant emissions.” (RT 12/17/07 101:3-6.)

13 1. Regional ERCs Will Not Mitigate the Local Impact of PM

14 Despite these warnings, BAAQMD and the Staff propose to mitigate on a regional basis  
15 what is a local problem for the people living in the vicinity of Eastshore by allowing the Applicant  
16 to mitigate particulate matter (“PM”) using emissions reduction credits (“ERCs”) from as far  
17 away as San Jose and San Francisco. Given the degree to which Eastshore will exceed  
18 particulate matter emissions limits, both on its own and cumulatively with Russell City, the  
19 regional approach to mitigation must necessarily fail to contend with the admitted significant  
20 adverse impact to the air quality in Hayward. As Dr. Zannetti noted:

21 Of course if you have an emission like a particulate matter, and  
22 you want to mitigate that emission, the only way to do it is to have  
23 local emissions very close to the source to be reduced. That is the  
24 only way that has a potential of working.

25 ...

26 [O]nce you start reducing the emissions that are miles away for  
27 PM10 it is almost ridiculous. There is no way that these emissions  
28 that are 10, 20, 30 miles away of PM10 are going to mitigate the

1 impact of PM10 in Hayward. They are negligible, they are  
2 completely negligible.

3 It is always good to reduce emissions, I agree with that. But there  
4 is no way to justify with science, with the physics of the  
5 atmosphere and with modeling, the reduction of PM10 twenty  
6 miles away with benefits in Hayward. By the time the plume reach  
7 Hayward it is going to be absolutely negligible in comparison with  
8 the local emissions.

9 (RT 12/17/08 145:11-16; 145:21-146:10.)

10 Moreover, the Staff has given the Applicant something of a "free pass" by finding that  
11 significant adverse PM impacts could be mitigated despite the Applicant's failure to identify the  
12 ERCs it will use to mitigate the PM impact in Hayward. (RT 12/17/07 33:20-22.) By contrast,  
13 the applicant for the Russell City Energy Center identified the ERCs it would use, allowing the  
14 Staff to analyze the local PM impact using the actual ERCs. (*Id.*) The Committee should not  
15 permit this practice as it allows the Applicant to shirk its burden of proof. If the Applicant cannot  
16 identify the ERCs it will use to attempt to mitigate PM emissions during the course of the AFC  
17 proceedings, the Committee should simply deny the AFC. Hayward's PM nonattainment – and  
18 its resultant human and environmental health impact – is too severe to demand anything less of  
19 the Applicant.

## 20 2. Interpollutant Trading Will Increase the Local PM Impact

21 The Staff's proposed mitigation of PM through the application of SO<sub>2</sub> ERCs at a 5.3:1 ratio  
22 will not reduce Eastshore's significant adverse impact to Hayward. Reducing SO<sub>2</sub> emissions will  
23 eventually reduce PM impact as SO<sub>2</sub> converts to PM over time, but those reductions will be felt  
24 downwind, rather than in Hayward, as the conversion process can take days. (RT 146:17-  
25 147:1.) Thus application of SO<sub>2</sub> credits will result in an increase in the amount of PM emissions  
26 in the Hayward area. Although interpollutant trading of this kind is permissible under BAAQMD  
27 regulations, that does not diminish the significant adverse impact under CEQA this proposed  
28 form of PM mitigation will cause within Hayward. (See BAAQMD Regulation 2-2-203.)

1 Moreover, it is not clear that the proposed interpollutant trade would meet the more stringent  
2 requirements imposed by BAAQMD Regulation 2-2-303.1, which provides that “[e]mission  
3 reduction credits of nitrogen oxides and/or sulfur dioxide may be used to offset increase  
4 emission of PM<sub>10</sub> at offset ratios determined by the APCO *to result in a net air quality benefit.*”  
5 (emphasis added.) The Staff’s witness, Mr. Birdsall, indicated that interpollutant trading of this  
6 kind would be “conservative” and “protective.” (RT 12/17/07 68:2.) He did not indicate it would  
7 be “result in a net air quality benefit.” Although the Staff’s proposed mitigation is designed to  
8 satisfy its obligations under CEQA, the actual interpollutant trading of ERCs will necessarily be  
9 bound by BAAQMD’s regulations. If the Committee cannot make a finding that interpollutant  
10 trading would result in a net air quality benefit, it should require direct PM mitigation or deny the  
11 Eastshore AFC.

12 **3. Unproven Fireplace Retrofit Program Inappropriate for Use as PM**  
13 **Mitigation**

14 In addition to ERCs, the Staff has proposed to allow the Applicant to use fireplace retrofitting  
15 as a form of mitigation for PM. (See, Ex. 200, at 4.1-46.) Although the parties are in substantial  
16 agreement that wood burning fireplaces and stoves contribute to PM emissions, the Staff and  
17 the Applicant have not provided any evidence that retrofitting fireplaces and stoves would be an  
18 effective form of mitigation for power plant PM emissions.

19 First, the Staff readily concedes that “[a]lthough there appears to be abundant opportunity to  
20 reduce these emissions, staff has general concerns with the ability of retrofit programs to  
21 produce real and quantifiable reductions. Wood stove and fireplace replacement programs in  
22 the Bay Area have produced *highly localized and uneven results.*” (Ex. 200, at 4.1-26)  
23 (emphasis added). Compounding this problem, the Energy Commission adopted the exact  
24 same fireplace and stove retrofit mitigation for the nearby Russell City Energy Center, in which  
25 the Final Staff Assessment made the identical observation of “highly localized and uneven  
26 results.” (Ex. 29, at 4.1-12.) Moreover, the Staff’s air quality expert, Mr. Birdsall, admitted that  
27 he had not conducted any studies of the effectiveness of the retrofit program as a form of  
28 mitigation, and was not even familiar with its implementation. (RT 12/17/07 74:4-23.) Thus the

1 Staff has twice proposed a single form of mitigation in which it has little faith or understanding  
2 for two power plants in a single geographic area.

3 In response to the parties' concerns, the Staff and the Applicant produced copies of  
4 BAAQMD documents marked as Exhibit 55. Exhibit 55 does not contain any evidence that  
5 fireplace or stove retrofitting would in practice provide an effective form of mitigation for power  
6 plant PM emissions. Instead, it largely consists of a public relations survey by BAAQMD  
7 regarding potential public interest in expansion of the "Spare the Air" program to include  
8 voluntary reduction of wood burning during the winter months. (See "Spare the Air Tonight  
9 Study," Ex. 55.) The study does not discuss fireplace or stove *retrofitting*, the effectiveness of  
10 the Spare the Air program or retrofitting programs, and has nothing to do with retrofitting as a  
11 form of mitigation. The "Spare the Air Tonight Study" is irrelevant to the Eastshore AFC.

12 Exhibit 55 does contain evidence, however, that BAAQMD intends to adopt regulations  
13 limiting actual use of wood burning fireplaces and stoves. (See "Proposed Regulation 6, Rule 3  
14 to Control Particulate Matter and Visible Emissions from Wood-burning Devices," Ex. 55.) If  
15 BAAQMD adopts the proposed regulation, it would make the proposed fireplace and stove  
16 retrofitting mitigation potentially redundant. Adoption of the proposed regulation could allow  
17 Eastshore to get credit for wood smoke PM reductions that have nothing to do with its retrofitting  
18 proposal. As a result, approval of the Eastshore AFC in its present form would negate the  
19 proposed regulation's laudable goal of reducing wood smoke PM independent of the need to  
20 mitigate power plant emissions. The Committee must not allow Eastshore to "piggyback" on PM  
21 reductions that will be imposed by regulation.

22 The Applicant has not provided any credible evidence that a fireplace or stove retrofit  
23 program would provide an effective form of mitigation. The Staff appears to concur with the  
24 County that the program has many uncertainties. Therefore, the Committee must find the  
25 Applicant has failed to meet its burden of proof that Eastshore's significant adverse  
26 environmental effects may be mitigated, and the Committee must in turn deny the Eastshore  
27 AFC.

28

1           **b. In the Alternative, County Has Made a Reasonable Showing That More**  
2           **Stringent Conditions of Certification Are Required to Minimize Impact to**  
3           **Human Health and the Environment**

4           Should the Committee approve the Eastshore AFC, it must require additional mitigation to  
5 reduce Eastshore's significant adverse effects on air pollution in Hayward. The testimony of Dr.  
6 Zannetti, along with the problems with the Staff's analysis, provide a reasonable showing of the  
7 necessity of more stringent conditions of certification for air quality. (20 CCR § 1748(e).)

8           Accordingly, in Attachment 1, the County has provided proposed modifications to the  
9 conditions of certification based upon Dr. Zannetti's testimony that PM mitigation must be from  
10 direct, local sources of PM emissions, rather than geographically remote SO<sub>2</sub> emissions. The  
11 proposed modification also attempts to reduce the heightened NO<sub>2</sub> emissions Dr. Zannetti  
12 identified in his modeling. For both PM and NO<sub>2</sub>, the County's proposal provides a flexible and  
13 feasible zone-based approach that ensures Eastshore will apply local ERCs first. In addition, the  
14 County's proposed modification eliminates the fireplace and stove retrofit mitigation as the  
15 Applicant and Staff have not provided any evidence that it would effectively mitigate PM  
16 emissions.

17           **c. The Applicant's Proposed Modifications to the Conditions of Certification**  
18           **Will Further Jeopardize Human Health and the Environment**

19           The Applicant's proposed modifications to the conditions of compliance will result in a further  
20 negative impact to human health and the environment.

21           i. Applicant's Proposed "Good Faith Effort" to Locate Local ERCs Is  
22           Unenforceable and Will Lead to Increase in Local Emissions

23           In its prehearing conference statement, the Applicant proposed that it only have to exercise  
24 "good faith" or "best efforts" to purchase ERCs within the more localized region proposed by the  
25 Staff in AQ-SC8, and otherwise be allowed to purchase ERCs from anywhere within the Air  
26 District. (See Ex. 57.) The Applicant's witness, Mr. Westbrook, expressed concern that  
27 Eastshore may be unable to secure ERCs from the more localized area proposed by the Staff,  
28 preventing the project from going forward. (RT 12/17/07 88:4-6.)

1 Although Mr. Westbrook refused to answer whether the Applicant's "best efforts" proposal  
2 would obligate the Applicant to actually purchase available credits within the localized region  
3 proposed by the Staff, the plain language of the proposal reveals its complete unenforceability.  
4 (RT 12/17/07 90:1-20.) The proposal does not define the terms "unable," or "good faith." (See  
5 Ex. 57.) It also does not identify the individual responsible for making a determination of "good  
6 faith." (Id.) The Applicant's "good faith" effort is a sham designed to give cover to the actual  
7 purpose of the proposal: to allow the Applicant to purchase geographically distant ERCs that  
8 may be more available or less costly.

9 More importantly, the Committee should disregard Mr. Westbrook's stated goal of avoiding a  
10 lack of emissions credits standing in the way of constructing Eastshore. (RT 12/17/07 88:4-6.)  
11 If the BAAQMD lacks sufficient ERCs in its emissions bank to mitigate Eastshore's significant  
12 adverse environmental effects, then arguably BAAQMD's regulatory program has succeeded in  
13 preventing the addition of a new source of air pollution that will harm the environment and  
14 human health. Although the East Bay region may need additional sources of reliable electricity,  
15 the Committee should not relax important environmental safeguards such as more restrictive  
16 ERCs when the result will cause further deterioration to human health.

17 ii. Proposed Reduction to Interpollutant Trading Ratio Simply Reduces Cost  
18 of Mitigation and Is Not Driven By Good Science

19 The Applicant has proposed lowering the PM to SO<sub>2</sub> interpollutant trading ratio from the  
20 Staff's proposed 5.3:1 to 3:1. (See Ex. 57.) Mr. Westbrook explains that the Applicant's  
21 concern with the 5.3:1 ratio stems from his claim that "[t]his number of 5.3 to 1 is not backed up  
22 or justified by staff. So, you know, what number do you want to make up without an analysis.  
23 We haven't seen calculations, we haven't seen peer review of this information. *We don't know*  
24 *how staff came up with that number.*" (RT 12/17/07 82:13-18) (emphasis added.) Mr.  
25 Westbrook goes on to say "[s]o it is not about money, it is about good science and about doing  
26 the science the way you're supposed to do it." (Id. at 82:22-24.)

27 A later filing from the Staff explaining how it derived the 5.3:1 ratio, however, reveals that  
28 Mr. Westbrook was simply being coy. Mr. Birdsall writes that "[t]he Eastshore applicant clearly

1 understands staffs [sic] work because it follows an identical method.” (Ex. 210.) In addition,  
2 Applicant’s counsel explained that Mr. Westbrook’s work was “peer-reviewed” by his supervisor,  
3 Mr. Darwin. (RT 12/17/07 20:19-21:2.) Peer review, of course, typically involves review by a  
4 person unaffiliated with the individual who authored the document, not a person who as a  
5 supervisor has the ability to alter the content of the document. As a result, Mr. Westbrook’s  
6 concern with a lack of “peer review” for the Staff’s work is baseless as there was no “peer  
7 review” of his own work. Thus the Committee must reject the Applicant’s proposal to reduce the  
8 interpollutant trading from Staff’s proposed 5.3:1 to 3:1 because it is based entirely on Mr.  
9 Westbrook’s disingenuous concerns about “good science.”

#### 10 **V. ENVIRONMENTAL JUSTICE**

11 The Staff’s Environmental Justice analysis fails to adhere to the 1998 EPA Guidelines it has  
12 adopted as its governing environmental justice framework, and as a result has failed to identify  
13 environmental justice problems that rise to the level of significant adverse impacts under CEQA.  
14 The Staff FSA indicates that “[f]or all siting cases, Energy Commission staff conducts an  
15 environmental justice screening analysis in accordance with the ‘Final Guidance for  
16 Incorporating Environmental Justice Concerns in USEAP’s National Environmental Policy Act  
17 (NEPA) Compliance Analysis’ dated April 1998.” (Ex. 200, at 2-4.) With respect to Public  
18 Health, however, the Staff FSA does not make any mention of the 1998 EPA Guidelines.

19 Instead, the Staff FSA environmental justice public health impact analysis simply imported  
20 the conclusions of the public health risk assessment. The Staff FSA concludes that “[a]ccording  
21 to the results of staff’s health risk assessment, emissions from Eastshore would not contribute  
22 significantly to morbidity or mortality in any age or ethnic group residing in the project area.  
23 Therefore, there would not be a disproportional impact on an environmental justice population.”  
24 (Id., at 7-2) (emphasis added).

25 The Public Health risk assessment was conducted pursuant to the “ARB/OEHHA Hotspots  
26 Analysis and Reporting Program (HARP) modeling program” (“HARP”). (Id., at 4.7-11; RT  
27 12/17/07 279:17-280:1.) While HARP may be appropriate for public health risk assessment, it is  
28 not appropriate for use in environmental justice impact analysis. Although the 1998 EPA

1 Guidelines and HARP use similar concepts, by comparison HARP uses more narrow term  
2 definitions, employs a less robust analysis, and ultimately provides little information about  
3 environmental justice impacts. In short, HARP analysis falls far short of the 1998 EPA  
4 Guidelines requirements, and thus fails to capture a wide range of potential significant adverse  
5 effects. Moreover by employing HARP, the Staff has not only failed to identify Eastshore's  
6 serious environmental justice problems, it has risked to perpetuate the very problems  
7 environmental justice impact analysis was designed to avoid.

8 **a. The Risk Assessment Definition of "Sensitive Receptor" Is Inappropriate**  
9 **for Environmental Justice Analysis under the 1998 EPA Guidelines**

10 Both HARP and the 1998 EPA Guidelines utilize the concept of "sensitive receptors" around  
11 which to conduct impact analysis. The definition of sensitive receptor under each framework  
12 differs markedly, and in turn alters the impact analysis. By using the public health risk  
13 assessment's definition of sensitive receptor based on HARP for the environmental justice  
14 impact analysis, the Staff has not satisfied the requirements of the 1998 EPA Guidelines.

15 The Staff's definition of "sensitive receptor" fails to incorporate the unique circumstances of  
16 the affected population as required by the 1998 EPA Guidelines. The Staff analysis looks for  
17 nearby institutions that may house "the most sensitive members of the population (i.e., the  
18 young, elderly and those with respiratory illnesses)." (Ex. 200, at 4.7-5.) These "sensitive  
19 receptors" are hypothetical individuals who are presumed to experience a particular impact  
20 according to certain assumptions within the HARP model. (See *Id.*, at 4.7-6.) The sensitive  
21 receptor population does not factor in *actual* individuals living with the community, and how  
22 those *actual* individuals would *actually* experience a particular impact.

23 i. Sensitive Receptors Must Be Defined By the Unique Circumstances  
24 Affecting a Particular Population

25 By contrast, the 1998 EPA Guidelines requires agencies conducting environmental justice  
26 impact analysis to define the sensitive receptor population according to the actual unique  
27 circumstances affecting the community, not generic categories of persons with greater  
28



1 susceptibility to the impacts of pollution. (See e.g. 1998 EPA Guidelines, at 2.1.1<sup>8</sup> (“It is  
2 important that the . . . analyst consider both the circumstances of any groups residing within the  
3 affected area, as well as the percentage of the affected community that is composed of minority  
4 peoples.”).) The 1998 EPA Guidelines explain that

5 [a] factor that should be considered in assessing the presence of a  
6 minority community is that a minority group comprising a relatively  
7 small percentage of the total population surrounding the project  
8 may experience a disproportionately high and adverse effect. This  
9 can result due to the group's use of, or dependence on, potentially  
10 affected natural resources, or due to the group's daily or  
11 cumulative exposure to environmental pollutants as a result of  
12 their close proximity to the source. The data may show that a  
13 distinct minority population may be below the thresholds defined in  
14 the IWG key terms guidance on minority population. However, as  
15 a result of particular cultural practices, that population may  
16 experience disproportionately high and adverse effects.

17 (Id.) The 1998 EPA Guidelines advise analysts to “make every effort to identify the presence of  
18 distinct minority communities residing both within, and in close proximity to, the proposed  
19 project, and to identify those minority groups which utilize or are dependent upon natural  
20 resources that could be potentially affected by the proposed action.” (Id.) Similar guidance is  
21 provided with respect to defining low-income sensitive receptors. (Id., at 2.1.2.)

22 Using HARP's generic categories of sensitive receptors falls short of the detailed level of  
23 analysis the 1998 EPA Guidelines demands. By using general categories of individuals such as  
24 the elderly, the young, or the very ill, the Staff's environmental justice analysis cannot possibly  
25 hope to capture the kinds of unique community-specific impacts that a project like Eastshore will  
26

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27  
28 <sup>8</sup> The copy of the 1998 EPA Guidelines available on the EPA website lacks pagination. Thus citations are to section numbers.

1 cause. Moreover, by failing to correctly define the sensitive receptor population, the resulting  
2 analysis is necessarily flawed.

3 ii. The Unique Circumstances of the Affected Population Must Include in the  
4 Existing Burden of Disease in the Local Population

5 The 1998 EPA Guidelines requires analysts to consider a wide range of demographic,  
6 geographic, economic, human health and risk factors. (1998 EPA Guidelines, at 2.3, Exhibit 3.)  
7 One of the three most important factors identified in the 1998 EPA Guidelines is “whether  
8 communities currently suffer, or have historically suffered, from environmental and health risks  
9 or hazards.” (Id., at section 2.3.) Dr. Sandra Witt identified this factor as a requirement of  
10 sound environmental justice screening analysis. (Testimony of Dr. Sandra Witt, Ex. 532, at 4.)

11 The Staff’s witness, Dr. Greenberg, testified that his analysis would take into consideration  
12 the existing burden of disease. (RT 12/17/07 239:5-10.) That existing burden, however, is  
13 based on the same general categories of sensitive receptors, such as the elderly, and  
14 assumptions about their response to particular toxins, not the actual burden of disease present  
15 in the local population.

16 Dr. Greenberg’s approach not only ignores the 1998 EPA Guidelines requirements, but it  
17 fails to capture important aspects of the local population for use in environmental justice  
18 analysis. Dr. Witt’s analysis highlights the weakness of Dr. Greenberg’s approach. Noting that  
19 the population near the Eastshore site experienced statistically significant higher rates of  
20 chronic diseases, Dr. Witt explained that “the fact that rates of illnesses due to respiratory and  
21 circulatory system diseases (most often diseases of the elderly) are significantly higher in the  
22 proposed plant area than in the rest of the county suggests a level of vulnerability in this  
23 population that is not explained by age.” (Ex. 532, at 4.) By failing to include the existing  
24 burden of disease in his definition of sensitive receptors and relying instead on generic  
25 categories such as age, Dr. Greenberg’s resulting analysis necessarily misses the kind of  
26 significant impact identified by Dr. Witt in her testimony.

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iii. The Staff Analysis Fails to Identify the Proper Geographic Boundaries

In addition to identifying the unique circumstances of an affected population of sensitive receptors, the 1998 EPA Guidelines requires analysts to define the “appropriate unit of geographic analysis.” (1998 EPA Guidelines, at 2.1.1.) Although the 1998 EPA Guidelines warns against, “artificial dilution or inflation of the affected minority population,” it nevertheless describes defining the geographic boundaries of the affected population as a process through which analysts determine whether they are accurately capturing the contours of an affected population before beginning environmental justice impact analysis. (Id.) The 1998 EPA Guidelines does not adopt static definitions of geographic boundaries such as distance, census tracts or zip codes.

By contrast, Dr. Greenberg’s public health risk assessment uses an artificial one mile radius from the Eastshore site, and the point of maximum emissions impact, which does not necessarily correlate to where the affected population – or indeed any population – is located. (See Ex. 200, at 4.7-2; 208:12-22.) Using static geographic definitions such as these fall short of what the 1998 EPA Guidelines demands. Moreover, Dr. Witt’s testimony demonstrates the weakness of using Dr. Greenberg’s HARP-based risk assessment geographic boundaries for the environmental justice analysis. By using a three-mile radius, Dr. Witt identified census block groups comprised of a high poverty, high minority, low life expectancy population that in turn would disproportionately experience the impact of pollution from Eastshore. (See Ex. 532, at 2-3.)

**b. The Staff’s Environmental Justice Analysis Ignores Important Components of the 1998 EPA Guidelines**

Beyond failing to properly define the affected population of sensitive receptors, the Staff environmental justice analysis does not incorporate important, required aspects of the 1998 EPA Guidelines. As a result, the Staff’s analysis fails to identify significant adverse environmental justice impacts that weigh against approval of the Eastshore AFC.

///

1                   i. The Staff Analysis Fails to Consider that the Environmental Justice  
2                                   Population May Disproportionately Experience Environmental Effects

3           Central to environmental justice analysis under the 1998 EPA Guidelines is the concept that  
4 "potential impacts, which are not significant in the NEPA<sup>9</sup> context, are particularly  
5 disproportionate or particularly severe on minority and/or low-income communities." (1998 EPA  
6 Guidelines, at 3.2.2.) The Staff Environmental Justice impact analysis inverts this concept.

7           The Staff Environmental Justice analysis concludes that "[a]ccording to the results of staff's  
8 health risk assessment, emissions from Eastshore would not contribute significantly to morbidity  
9 or mortality in *any* age or ethnic group residing in the project area. Therefore, there would not be  
10 a disproportional impact on an environmental justice population." (Ex. 200, at 7-2) (emphasis  
11 added). By imposing impacts to the population at large as a threshold limitation on a finding of  
12 significant impacts to a minority and/or low-income population, the Staff analysis excludes the  
13 foundational concept underlying the 1998 EPA Guidelines that the sensitive receptor population  
14 will by definition experience significant impacts disproportionately due to unique circumstances  
15 affecting that population. Dr. Witt described the resulting Staff analysis as "blithe," as it fails to  
16 capture the true, significant environmental justice impacts to the affected population. (Ex. 532,  
17 at 2.)

18                   ii. The Staff Analysis Does Not Adequately Factor in the Uneven Distribution  
19                                   of Exposure to Various Sources of Toxicity

20           The Staff Analysis also fails to contemplate the uneven distribution of exposure to various  
21 sources of toxicity in the local population. The 1998 EPA Guidelines requires this level of  
22 analysis. (See 1998 EPA Guidelines, at 2.2.2, 3.2, Exhibit 3.) For example, the Staff Analysis  
23 fails to consider the potential for multiple and varied air pollutants to act synergistically, rather  
24 than additively, as required by the 1998 EPA Guidelines. (See *Id.*, at 3.2, Exhibit 3; Exhibit 532,  
25 at 4-5.) Indeed, the Staff FSA goes so far as to acknowledge this omission, and to point out that  
26 as a result, its analysis "could underestimate or overestimate the risks." (Ex. 200, at 4.7-6.) In  
27

28 <sup>9</sup> The National Environmental Protection Act ("NEPA") is the federal analogue of CEQA.

1 her testimony, Dr. Witt explained that the Staff analysis thus “effectively ignore[s] the  
2 compounding effects of various sources of toxicity (including non-airborne sources) to which  
3 residents in the surrounding Hayward community are already exposed.” (Ex. 532, at 4.)

4 **c. The Commission’s Approach to Environmental Justice Reinforces Existing**  
5 **Environmental Injustices in the Community**

6 Beyond the question of technical and legal compliance with the 1998 EPA Guidelines, the  
7 Staff’s severely flawed approach to environmental justice analysis threatens to simply  
8 perpetuate the very problems that analysis is designed to prevent. As Dr. Witt explained in her  
9 testimony

10 The CEC staff analysis largely ignores profoundly important  
11 questions of environmental justice and in so doing contributes to  
12 the unfortunate and widely repudiated legacy of racial and class-  
13 based discrimination that continues to shape the pattern and  
14 burden of disease that compromise the quality of life of residents  
15 in the vicinity of the proposed power plant site.

16 (Ex. 532, at 5.) The Committee must reject the Staff’s flawed Environmental Justice analysis as  
17 it fails to identify significant adverse impacts and risks to perpetuate environmental injustice in  
18 the community. Moreover, as the Applicant has concurred with the Staff’s analysis, it has failed  
19 to meet its burden of proof to demonstrate that Eastshore will not cause a significant adverse  
20 impact.

21 **VI. CONCLUSION**

22 The evidentiary hearings in this AFC proceeding strongly demonstrate the Applicant’s  
23 complete failure to meet its burden of proof to demonstrate that Eastshore will comply with  
24 applicable state and local LORS, and will not cause significant adverse environmental effects.  
25 The Applicant’s reliance on flawed studies and disregard of the great weight of the evidence  
26 against it requires the Committee to deny the Eastshore AFC. A denial from the Committee  
27 would be supported by every federal, state and local agency that has participated in these AFC  
28 proceedings, including the FAA, Caltrans, County of Alameda, City of Hayward, Port of

1 Oakland, and ALUC. The Eastshore AFC is also opposed by the vast majority of elected  
2 federal, state and local public officials, including County Board of Supervisors Gail Steele and  
3 Alice Lai-Bitker. The Committee must act to protect the health, welfare and safety of the people  
4 of Hayward and surrounding communities, as well as the environment, by denying the  
5 Eastshore AFC.

6 **VII. PROPOSED FINDINGS**

7 The County respectfully requests the Committee adopt the following proposed findings with  
8 respect to the December 2007 draft CLUP (Ex. 434.)

- 9 1. The Hayward Executive Airport Compatible Land Use Plan ("the CLUP") is a local law,  
10 ordinance, regulation or standard.
- 11 2. The Eastshore Energy Center site is located within the Airport Influence Area as that  
12 term is defined by the CLUP, and as a result of its location is bound by the terms of the  
13 CLUP.
- 14 3. The CLUP provides that power plants are incompatible uses within Zone 6, and  
15 conditional uses within Zone 7.
- 16 4. The Eastshore Energy Center is located within the CLUP's Zone 7, and on the edge of  
17 Zone 6.
- 18 5. The CLUP provides that land uses that emit thermal plumes that may impair pilot vision  
19 or create turbulence within the flight path are prohibited within 12,500 feet of the  
20 Hayward Executive Airport Runways.
- 21 6. The Eastshore Energy Center is located less than 12,500 feet from the Hayward  
22 Executive Airport Runways.
- 23 7. The Eastshore Energy Center will emit thermal plumes that may create turbulence within  
24 the flight path of the Hayward Executive Airport.
- 25 8. Based on the Eastshore Energy Center's location within Zone 7 and on the edge of Zone  
26 6, as well as its location less than 12,500 feet from the Hayward Executive Airport  
27 runways, the Eastshore Energy Center could not be approved as a conditional use  
28 under the CLUP.


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9. As the Eastshore Energy Center could not be approved as a conditional use under the CLUP, the Eastshore Energy Center necessarily violates the CLUP.

DATED: February 11, 2008

RICHARD E. WINNIE, County Counsel in  
and for the County of Alameda, State of  
California

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By   
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1 **ATTACHMENT 1**

2 **County's Proposed Modifications to Conditions of Certification AQ-SC6 and AQ-SC8**

3 The County offers for the Committee's consideration the following proposed modifications to  
4 conditions of certification AQ-SC6 and AQ-SC8. New language is in italic text, original language  
5 in plain text, and removed language in strikethrough.

6  
7 **AQ-SC6** The project owner shall provide emission reduction credits (ERCs) to offset NOx and  
8 POC emissions. The project owner shall demonstrate that NOx and POC emission  
9 reduction credits are provided in the form and amount required by the District.

10 *The project owner shall surrender ERCs that originate from one of the three following*  
11 *zones:*

- 12 • Zone 1: *Hayward*
- 13 • Zone 2: *San Leandro, Union City, San Lorenzo, Cherryland, and Ashland*
- 14 • Zone 3: *Oakland, Fremont, Newark, Castro Valley, Fairview and the City of Alameda.*

15 *The project owner must first attempt to obtain ERCs for surrender that originate in*  
16 *Zone 1. Only to the extent the project owner is unable to purchase ERCs at fair market*  
17 *value in Zone 1 may the project owner surrender ERCs that originate in Zone 2. The*  
18 *project owner must demonstrate to the CPM, and the CPM must determine, that ERCs*  
19 *are either unavailable or offered at prices that substantially exceed fair market value in*  
20 *Zone 1 before surrendering ERCs that originate from Zone 2. Likewise, only to the*  
21 *extent the project owner is unable to purchase ERCs at fair market value in Zone 2*  
22 *may the project owner surrender ERCs that originate in Zone 3. The project owner*  
23 *must demonstrate to the CPM, and the CPM must determine, that ERCs are either*  
24 *unavailable or offered at prices that substantially exceed fair market value within Zone*  
25 *2 before surrendering ERCs that originate from Zone 3. The project owner shall be*  
26 *prohibited from surrendering ERCs that originate from anywhere outside of the above*  
27 *three zones.*



1 The project owner shall surrender the ERCs from among those that are listed in the  
2 table below or a modified list, as allowed by this condition. If additional ERCs are  
3 submitted, the project owner shall submit an updated table including the additional  
4 ERCs to the CPM. The project owner shall request CPM approval for any substitutions,  
5 modifications, or additions to the listed credits.

6 The CPM, in consultation with the District, may approve any such change to the ERC  
7 list provided that the project remains in compliance with all applicable laws,  
8 ordinances, regulations, and standards, and that the requested change(s) will not  
9 cause the project to result in a significant environmental impact. The District must also  
10 confirm that each requested change is consistent with applicable federal and state  
11 laws and regulations.

| Emission Reduction Certificate Number, Location | Amount (tpy) | Pollutant |
|---|--------------|-----------|
| 823 Crown Cork & Seal Company, Union City       | 71.000       | POC       |
| 4016 Koch Supply and Trading LP, Fremont        | 22.778       | POC       |
| 4016 Koch Supply and Trading LP, Fremont        | 15.518       | POC       |
| 4017 Koch Supply and Trading LP, San Leandro    | 4.4          | POC       |
| 4022 Koch Supply and Trading LP, Cupertino      | 10.718       | POC       |
| 4010 Koch Supply & Trading LP, Milpitas         | 15.856       | POC       |
| 4006 Koch Supply and Trading LP, Union City     | 23.4         | POC       |

22 **Verification:** The project owner shall submit to the CPM records showing that the project's  
23 offset requirements have been met prior to initiating construction. If the CPM approves the  
24 surrender of ERCs from Zone 2 or Zone 3, a substitution or modification to the list of ERCs, the  
25 CPM shall file a statement of the approval with the project owner and commission docket. The  
26 CPM shall maintain an updated list of approved ERCs for the project.

1 **AQ-SC8** The project owner shall obtain and surrender emission reduction credits (ERCs) to  
2 offset 20.4 tons per year of PM10 emissions and 3.0 tons per year of SO2 emissions.

3 *The project owner shall surrender ERCs that originate from one of the three following*  
4 *zones:*

- 5 • Zone 1: Hayward
- 6 • Zone 2: San Leandro, Union City, San Lorenzo, Cherryland, and Ashland
- 7 • Zone 3: Oakland, Fremont, Newark, Castro Valley, Fairview and the City of Alameda.

8 *The project owner must first attempt to obtain ERCs for surrender that originate in*  
9 *Zone 1. Only to the extent the project owner is unable to purchase ERCs at fair market*  
10 *value in Zone 1 may the project owner surrender ERCs that originate in Zone 2. The*  
11 *project owner must demonstrate to the CPM, and the CPM must determine, that ERCs*  
12 *are either unavailable or offered at prices that substantially exceed fair market value in*  
13 *Zone 1 before surrendering ERCs that originate from Zone 2. Likewise, only to the*  
14 *extent the project owner is unable to purchase ERCs at fair market value in Zone 2*  
15 *may the project owner surrender ERCs that originate in Zone 3. The project owner*  
16 *must demonstrate to the CPM, and the CPM must determine, that ERCs are either*  
17 *unavailable or offered at prices that substantially exceed fair market value within Zone*  
18 *2 before surrendering ERCs that originate from Zone 3. The project owner shall be*  
19 *prohibited from surrendering ERCs that originate from anywhere outside of the above*  
20 *three zones.*

21 PM10 emissions during the November 1 through February 28 PM10 nonattainment  
22 season shall not exceed 6.8 tons and SO2 emissions shall not exceed 1.0 tons except  
23 as provided below. SO2 ERCs may *not* be substituted for PM10 ERCs ~~at a ratio of 5.3~~  
24 ~~to 1.0~~. Compliance with this condition will be established by use of the most recent  
25 District-approved source test data, and the average load-based (grams/bhp-hr) PM10  
26 and SO2 emission rates from all engines tested.

27 The project owner shall notify the CPM if the project exceeds the PM10 emission limit  
28 in this condition. The owner shall surrender additional ERCs or other CPM-approved

1 mitigation for any excess emission (equaling the difference between calculated actual  
2 emissions and the emission limit). Surrendering additional ERCs will establish a new,  
3 annual emission limitation equal to 6.8 tons PM10 and 1.0 tons SO2 plus the quantity  
4 of reductions surrendered for November 1 through February 28.

5 ~~Fireplace or wood burning stove retrofits for Hayward residents may be used to satisfy~~  
6 ~~any additional mitigation requirement and shall be credited using the following factors~~  
7 ~~for each certified unit retrofit: 2 lb PM10/PM2.5 per year per fireplace without insert, 10~~  
8 ~~lb PM10/PM2.5 per year per fireplace with insert, and 24 lb PM10/PM2.5 per year per~~  
9 ~~wood stove. The program may be made available to all residents in the cities of~~  
10 ~~Fremont, Newark, Union City, San Leandro, Oakland, Emeryville, Albany, Piedmont,~~  
11 ~~Berkeley, Alameda, and the unincorporated areas of Alameda County west of the~~  
12 ~~Oakland/East Bay hills after twelve (12) months from the start date of the fireplace~~  
13 ~~retrofit/woodstove replacement program. The emission reductions from any fireplace~~  
14 ~~or wood burning stove retrofits must occur in accordance to with the following~~  
15 ~~schedule:~~

- 16 a. ~~achieving 15% of the mitigation (3.1 tons per year) of PM10 within six (6) months~~  
~~after start of construction;~~
- 17 b. ~~achieving 30% of the mitigation (6.2 tons per year) of PM10 within nine (9) months~~  
~~after start of construction.~~
- 18 c. ~~achieving 50% of the mitigation (10.2 tons per year) of PM10 within twelve (12)~~  
~~months after start of construction.~~
- 19 d. ~~achieving 80% of the mitigation (16.3 tons per year) of PM10 within eighteen (18)~~  
~~months after start of construction.~~
- 20 e. ~~achieving 100% of the mitigation (20.4 tons per year) within twenty four (24) months~~  
21 ~~after start of construction.~~

22 ~~During the 24 month period following the start of construction, ERCs may also be used~~  
23 ~~to supply additional mitigation.~~

24  
25 **Verification:** The project owner shall submit to the CPM prior to initiating construction  
26 evidence of surrendering the emission reduction credits ~~or evidence that sufficient emission~~  
27 ~~reductions from any fireplace or wood stove retrofit program will be achieved in accordance~~  
28 with the specified schedule. The project owner shall notify the CPM within 10 days of

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exceeding the PM10 emission limit in this condition. The owner shall surrender additional ERCs or other CPM-approved mitigation for any excess emission (equaling the difference between calculated actual emissions and the emission limit) within 60 days of the date that actual emissions exceed the limit in this condition. Quarterly status reports on the program meeting the milestones following the start of construction shall be submitted to the CPM. *If the CPM approves the surrender of ERCs from Zone 2 or Zone 3, the CPM shall file a statement of the approval with the project owner and commission docket.*

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION  
OF THE STATE OF CALIFORNIA

APPLICATION FOR CERTIFICATION  
FOR THE EASTSHORE ENERGY CENTER  
IN CITY OF HAYWARD  
BY TIERRA ENERGY

Docket No. 06-AFC-6

PROOF OF SERVICE  
(Revised 1/18/2008)

**INSTRUCTIONS:** All parties shall either (1) send an original signed document plus 12 copies or (2) mail one original signed copy AND e-mail the document to the address for the Docket as shown below, AND (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:

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**DECLARATION OF SERVICE**

I, Dalia Liang, declare that on February 11, 2008, I deposited copies of the attached Opening Evidentiary Brief by County of Alameda in the United States mail at Oakland, CA, with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

***OR***

Transmission via electronic mail was consistent with the requirements of the California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

  
\_\_\_\_\_  
Dalia Liang