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State of California
Energy Resources Conservation
and Development Commission

In the matter of) Docket No. 04-AFC-1
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)
San Francisco Electric Reliability Project)
Power Plant Licensing Case) **Reply Brief**
)

7-10-06

DATE

Cumulative Impacts

Staff's attorney on page 15 of his brief states that "Both Sarvey and CARE either assert or imply that CEQA requires a list of all past, present, and probable future projects for a legally adequate cumulative impact analysis. In fact, CEQA does not have such a requirement. Rather, the CEQA Guidelines provide that a lead agency have "an adequate discussion of significant cumulative impacts." CEQA requires that when analyzing the cumulative impacts of a project under 15130 (b)(1)(A), the Lead Agency is required to discuss not only approved projects under construction and approved related projects not yet under construction, but also unapproved projects currently under environmental review with related impacts or which result in significant cumulative impacts. This analysis should include a discussion of projects **under review by the Lead Agency** and projects under review by other relevant public agencies, **using reasonable efforts** to discover, disclose, and discuss the other related projects. **The cumulative impact analysis requires a discussion of projects with related cumulative impacts which required EIRs, Negative Declarations, or were exempt from CEQA.** (See: *San Franciscans for Reasonable Growth v. City and County of San Francisco*, (1984) 151 Cal. App. 3d 61.)

The applicant did not disclose or discuss the projects under its control from exhibit 92B which include the Illinois Street Bridge and the Southern Waterfront EIR Projects. These projects surround the SFERP as evinced by Exhibit 92C. Both projects have significant impacts to local and regional air quality. (Exhibit 92B pages, 166, addendum page 2) The Illinois Street Bridge has a modeled pm-10 impact of .5 ug/m³ and is located less than 1000 feet from the SFERP. (Exhibit 92B addendum page 9) The

Southern Waterfront Projects have a local PM-10 impact of 1.2 ug/m3. (Exhibit 92A p. 7) The Southern Waterfront SEIR projects alone equal the SFERP 24 hour Pm impact. (Exhibit 15 p. B-19) CEQA guidelines go much further than staff opines. In Section 15130 (B) (2) of the CEQA Guidelines it states.

(2) When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, **the location of the project** and its type. **Location may be important, for example**, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, **when the impact is specialized, such as a particular air pollutant** or mode of traffic.

As demonstrated in Exhibit 92(c) the SFERP is located in the middle of the Southern Waterfront projects and about 1000 feet from the Illinois Street Bridge.

Staff also argues that its summary of projections approach satisfies CEQA, Staff's attorney touts an "exhaustive three fold analysis" on page 4 of his brief. According to staff, the first part of the analysis "is a summary of projections provided in adopted planning documents describing regional or area wide conditions contributing to a cumulative impact, including the attainment plans adopted by the Air District. (CEQA Guidelines, § 15130(b) (1) (B)."

The conclusion of the first phase staff's analysis is that "The Summary of Projections analysis for ozone indicates that the Air District is very close to attainment for the federal ozone standard, and expects its ozone abatement plan to result in attainment reclassification next year." (Exh. 46, p. 4.1-23, 24.) Staff's analysis and conclusion that the BAAQMD will reach attainment next year is misplaced. The California Air Resources Board web site shows that the BAAQMD had three consecutive days of 8 hour ozone violations on June 21-23 of 2006.

http://www.arb.ca.gov/aqmis2/display.php?year=2006&report=AREA1YR&statistic=DMOL8&o3pa8=SFB¶m=OZONE_ppm&submit=Get+the+Data&db=pagd

The error in reliance on a summary of projections by the air district is illustrated by staff's air quality expert Tuan NGO in Exhibit 46.

"With regard to the air district, CARB has recently provided the following summary regarding PM10 trends: As with other pollutants, the PM 10 statistics also show overall improvement. During the period for which data are available, the maximum annual average of quarters (state) decreased about 26 percent. [Para.] Calculated exceedence days for the State 24-hour standard dropped from a high of 123 days during 1988 to 30 days during 2002. The national 24-hour standard was last exceeded in 1991. Because many of the same sources contribute to both ozone and PM 10 exposure, future ozone precursor emission controls should help to ensure continued PM 10 improvements. (CARB, 2004 California Almanac of Emissions and Air Quality ["2004 Air Almanac"], p. 154.)

"Despite this positive assessment, direct PM10 emissions have actually increased in the air district by roughly 10 percent since 1980. All stationary sources, including power plants, comprise roughly eight percent of total direct PM10 emissions; the dominating source of emissions is "Area-wide Sources," which is defined as "primarily fugitive dust sources." (2004 Air Almanac, p. 152.) Table 4- 14 (p. 152) from the Air Almanac."
(Exhibit 46 pages 4.1-24,25)

Staff in the above citation effectively demonstrates that the summary of projections is unreliable since it is based on air district projections that they will reach attainment. In the case of both ozone and PM -10 the district's projections have proven wrong.

Staff's brief further states that "Staff did not just list these sources; it actually modeled the major sources (including power plant sources) with an air dispersion model to determine worst case cumulative effect". (Exhibit 46, pages 4.1-28.)

As the record reflects staff relied on the applicant's cumulative analysis and did not perform its own analysis as staff's attorney incorrectly suggests. (RT 5-24-06 p. 317,318) The Applicant's cumulative impacts analysis focuses on two diesel

backup generators miles from the project and ignores the multitude of significant projects surrounding the SFERP.

Staff further suggests that, “Staff (like the City) satisfied the subsection (A) “list” requirement separately by considering the SFERP impact in the context of other significant and related past, present, and future resources.” Staff’s list like the applicant’s list does not comply with CEQA requirements as explained above.

Next staff argues that “Perhaps most importantly, the *conclusion* of the cumulative analysis was that the impacts of the project are, at least for PM10 and PM2.5, cumulatively significant, and therefore require mitigation. Thus, even if Staff had relied solely on the “list of future projects” approach for its analysis, the failure to include in such an analysis a particular project is completely irrelevant because it could not have changed the conclusion regarding impact.” This could be true if staff was providing complete mitigation of the projects impacts as staff has suggested but as explained below there is no mitigation for the projects 7.7 tons of VOC’s, 3 tons of SOX, and 38 tons of ammonia. As explained in the unrefuted testimony of Environmental Justice expert Francisco Da Costa (Exhibit 75 p. 1-3) and the comments of Ann Eng (Exhibit 92B C&R 84-93) the Southern Waterfront SEIR projects are a cumulative impact that violates environmental justice polices an issue never addressed by staff or applicant since neither did a cumulative assessment of all relevant projects in the area.

Project Mitigation

Staff on page 4 of their brief states that the “SFERP would emit criteria pollutants that are “precursors” to ozone; it will also emit particulate matter (PM2.5 and PM10). Although these emissions are too small to violate any air quality regulations or health standards, and are thus not a “direct” impact, they may be **cumulatively** significant when considered with other pollution sources and the existing ambient air quality. (See Cal. Code Regs., tit. 14 [“CEQA Guidelines”], § 15130

Despite that assessment Staff failed to require mitigation for the projects VOC emissions of 7.7 tons per year even though the evidence in the record is that the VOC emissions will contribute to ozone violations if not mitigated. “Staff believes that the emissions of NOx and VOC from the project do have the potential to contribute to higher ozone levels if not mitigated.” (NGO Exhibit 46 p. 4.1-29)

The SOx emissions of 2.7 tons per year and the ammonia emissions of over 37 tons per year also remain un-mitigated. Staff’s conclusion on page 5 of their brief is that “Staff concluded that SFERP could contribute to the PM10 and ozone levels that surpass the state 24-hour PM10 standard and the federal ozone standard, and that this constitutes a significant cumulative impact requiring mitigation.” Even though staff states this is a significant cumulative impact requiring mitigation they do not require mitigation for over 44 tons of precursor emission.

Staff has already stated that the projects emissions of ozone precursors are a significant impact. “Staff believes that the emissions of NOx and VOC from the project do have the potential to contribute to higher ozone levels if not mitigated.”

(Exhibit 46 p. 4.1-29) On page 7 of staffs brief it states, “All NOx and VOC emissions are fully offset by NOx emission reduction credits (“ERCs”) for reductions achieved at the nearby Potrero power plant. (*Id.* at 14.) The ERCs are required to be at a ratio that exceeds the highest potential (“worst case”) emissions calculated for the project. (*Ibid.*)” The evidence in the record indicates that VOC emissions have not been offset at all. (Exhibit 54 page 14) The applicant will provide 45.8 tons of 1985 NOx Emission reduction credits at a 1.19 to 1 ratio for the projects NOx emissions of 39.8 tons which equals 45.8 tons. No emission reduction credits are offered for the 7.7 tons of VOC’s (Exhibit 54 page 14) that staff has deemed cumulatively significant. Staff is under the impression that the VOC emissions have been mitigated although they clearly have not been as the record indicates.

In footnote 4 on page 7 of staff’s brief its states that “As previously stated, Air District rules do not require offsets for the levels of PM10 that SFERP will emit. However, when Air District rules do require PM10 offsets, they allow SOx offsets to be substituted for PM10 offsets at “offset ratios” **determined by the Air District.** (Air District Rule 2-2-303.1.) Air district rule 2-2-3003.1 states that these offsets ratios must be determined by the air district which also requires approval of the USEPA on a case by case basis. These ratios must be determined by a site specific analysis which staff has not conducted. Staff has no basis for determining that a 3:1 ratio of SOx to PM is reflective of site conditions. There is no evidence in the record that this ratio is sufficient to mitigate the projects PM 2.5 emissions. In fact staff attorneys reasoning is

contradicted on page 11 of his brief, “The air district is attainment for SOx standard (EXH 46 p. 4-1-10) and it therefore does not require SOx offsets unless emissions exceed 100tpy Staff further opines on page 11 “Since SOx is not an Air District problem, there is no significant impact from SOx in and of itself, and so no mitigation can be required.” There are no current SOx exceedances in the air district, there is no significant impact from “SOx in and of itself” and SOx offsets are not even required for SOx emissions of less than 100tpy. Obviously the surrender of 47 tons of SOx ERC’s which don’t even trigger offset requirements in the District could not possibly mitigate a significant impact under CEQA of 15 tpy of PM 2.5 emissions. The Emission reduction credits proposed in AQSC-12 are a programmatic effort to reduce regional emissions and are not designed to mitigate local impacts from PM-2.5.

Staff’s brief on page 11 states, “Staff has focused on mitigating PM10 and not specifically PM2.5, the latter of which is a finer subset of the former.” Staff’s entire focus has appropriately been on mitigating the projects PM 2.5 impacts since the applicant’s proposed street sweeping program **allegedly** provides 24 tons of PM-10 mitigation. Staff’s ASCQ-11 and ASQC-12 are entirely focused on mitigating PM 2.5 since the PM-10 mitigation has been **allegedly** provided by the street sweeping program that is totally ineffective during the PM season as explained in my opening brief on page 5.

Ammonia Emissions

Staff and applicant argue that the ammonia emissions are not a significant impact. Ammonia emissions are responsible for 73% of the nitrogen deposition on San Bruno Mountain. (Exhibit 25 page 9) The applicant's and the Staff's testimony is that nitrogen deposition is a significant impact. (Exhibit 46 p. 4.21) (RT 5-31-06 p. 124) The other 23% of nitrogen deposition occurs from the projects NOx emissions. Both applicant and staff claim that the 45 tons of NOx ERC's surrendered for the projects NOx emissions mitigate the significant nitrogen deposition impact. BAAQMD witness Mr. Bateman testified that the NOx ERC's surrendered by the applicant are not mitigation for nitrogen deposition.

5 Q In your response to my comment number
6 five on the PDOC you state that the District's
7 offset requirements are not intended to mitigate
8 local impacts such as NO2 and nitrogen deposition
9 impacts, is that correct?
10 MR. BATEMAN: Correct. RT 5-24-06 p. 312

Staffs analysis on in Exhibit 46 states 4.2-1

Existing nitrogen deposition rates at San Bruno Mountain are estimated to be 6.169 kilograms/hectare/year (kg/ha/yr). The San Francisco Electric Reliability Project would contribute an additional 0.0059 kg/ha/year to this background level, resulting in a net nitrogen deposition of 6.175 kg/ha/year, or a 0.0009 percent increase. The background deposition rate is already above the level that is likely to be affecting listed species and their habitat on San Bruno Mountain. (Exhibit 46 p. 4.2-1)

The SFERP nitrogen deposition is considered significant by staff. The applicant's analysis tries to imply that the closure of the Potrero and Hunters Point Power plant somehow provides mitigation for significant impacts of nitrogen deposition on San Bruno Mountain. The closure of these plants has nothing to do with the SFERP's contribution to nitrogen deposition on San Bruno Mountain. Even with the closure of both plants nitrogen deposition on San Bruno Mountain will be significant. The SFERP's contribution will continue to be significant even if both plants do close. The applicant's reasoning is faulty. Next they will try say the reduction in nitrogen emissions from their cars when they switch to cleaner

automobiles provides mitigation for the SFERP. The fact is the SFERP has nothing to do with the closure of the Hunters Point Power Plant since the plant is already closed. The closure of the Potrero unit is uncertain yet the applicant probably wants to credit the nitrogen reductions from the Potrero retrofit as mitigation for the SFERP. If that were the case the BAAQMD and the CEC would not be requiring any ERC's for the SFERP because all of its emission would be offset by the closure of some other facility anywhere in the BAAQMD which is ridiculous. . Secondly the closure of both the Hunters Point Power plant and the Potrero Power plant are going to require that generation somewhere else will be required which may impact San Bruno Mountain or some other serpentine habitat more than the two existing facilities. A prime example is the turbine that must be sited at the airport to allow the action plan to **possibly** close the Potrero 3 unit. Those nitrogen and ammonia emissions are closer to the mountain and may impact it more than existing generation. The generation at Potrero and Hunters Point must be replaced by some other generation somewhere and the nitrogen impacts from that generation may possibly inflict greater damage to the environment than the existing Potrero unit of the now non operational Hunter Point unit.

Public health

Staff's public health analysis attempts to dispel the already admitted fact that the Southeast San Francisco Community is overburdened by industrial pollution as the applicant freely admits. Any contribution to a cumulative impact to a community that is labeled overburdened by industrial pollution must be considered significant. When combined with the health risk impacts of the Southern Waterfront EIR (Exhibit 92A p. 8) the environmental justice considerations testified to in the expert testimony of Francisco DaCosta (Exhibit 75) demonstrate that the applicant is continuing to site industrial pollution in the overburdened community to which applicants EJ witness (Eng Exhibit 92B p. C&R 93) has previously stated is a violation of Title VI of the civil rights act. Mr. Da Costa's expert testimony concurs with the applicant's Environmental Justice

witness's previous comments in (Exhibit 92B C&R p. 84-93) that CCSF is violating the civil rights of the overburdened community by the continuous siting of industrial sources like the projects in the Southern Waterfront EIR and the SFERP in close proximity to the admitted overburdened community.

Local system effects

Staff's argument focuses on the action plan and its potential effects on increased voltage support, transmission line losses, greater system reliability and increased operational flexibility. Staff concludes that the SFERP is necessary to close the Potrero Power Plant. The planned retirement of the Potrero Unit 3 triggers a multitude of local system effects. As the record demonstrates the action plan has many risks and disadvantages compared to the current electrical system in San Francisco. The action plan clearly increases transmission line loss as testified to by ISO witness Mr. Tobias (RT 4-27-06 p. 41.) This impact will lead to the additional generation and associated air pollution impacts in other communities (Exhibit 86 p. 119) as well as well as increased costs to ratepayers for additional generation. These impacts remain unanalyzed. Exhibit 86 a memorandum to the ISO board from Gary DeShazo illustrates the shortcomings and impacts of the action plan on system reliability and operational flexibility. "While the ISO Action Plan does achieve the retirement of old generation in San Francisco, it also contributes to increased flows on the transmission facilities that serve the load in the area. (Exhibit 86 p. 118)

“Once the ISO Action Plan is fully implemented, this same transmission infrastructure must support an additional 378 MW of San Francisco Peninsula Area load as well as anticipated load growth of approximately 15 to 20 MW per year that is expected to occur in this area. While the increased reliance on this transmission infrastructure was addressed in the ISO Action Plan through various transmission additions, upgrades, and re-rates, the impact on the area’s future load serving capability was not assessed beyond 2007 until the Phase 2 study effort was initiated. Due to the long lead times required for building new transmission infrastructure, ISO Staff believes that action to mitigate these limitations must be taken now to assure that the necessary transmission infrastructure is in place by the time the limitations are expected to occur.” (Exhibit 86 p. 119)

The action plan necessitates the need for new costly transmission projects that will lead to increased ratepayer costs, transmission line losses and shifting of the environmental burden to another community. In the event of an emergency the energy action plan cannot even ensure the 100 MW of in city generation as required by the action plan. (RT 5-1-06 p. 64) Further in exhibit 86 the CAL-ISO memorandum details the decrease in operational flexibility on the San Francisco Peninsula.

“Notwithstanding the identified reliability planning standard violations that are expected to occur in 2012, there are several operational constraints and locational capacity issues that this area will face once the Action Plan is fully implemented and the existing generation at Hunters Point and Potrero is retired. The need for existing SPS will remain and will continue to increase as the load in the area increases.” (Exhibit 86 p. 119)

Further the CAL-ISO memorandum explains that the San Francisco Peninsula Area’s Locational Capacity requirements will exceed the amount of generation expected to be available in this area by approximately 100 MW.

“At the request of the CPUC, the ISO performed a technical analysis to determine the local generation capacity requirements within the transmission constrained local areas of the grid. These studies show that after the San

Francisco Action Plan is implemented, the San Francisco Peninsula Area's Locational Capacity requirements will exceed the amount of generation expected to be available in this area by approximately 100 MW. Because it is likely that no new generation can be sited in San Francisco, the only alternatives available to meet this additional locational capacity requirement is to either install a new SPS to trip about 100 MW of firm load when required or build new transmission into the San Francisco load area to replace the area's generation deficit." (Exhibit 86 p. 119,120)

The Action plan with the substitution of the SFERP for the Potrero 3 unit provides far more reliability problems than solutions and the Potrero 3 units PM impacts are comparable to the SFERP. (Exhibit 15 p. B-19, B-21) Exhibit 25 Applicants response to CARE's data request confirms the inherent risks in the action plan. Attachment 3 of the October 27, 2004 CAL-ISO letter to CCSF from Marcie Edwards details the risk inherent in the action plan.

1) Risk of Power outages created by the action plan.

- The original design and subsequent configuration of the power system in San Francisco was based on more local generation versus imported generation. The Action Plan moves away from the original design in the area, and therefore creates greater dependency on imported energy. This increased dependency translates into understanding that a loss of a transmission circuit(s) supplying the SF area may result in customer power outages in situations wherein the remaining amount of local generation may be insufficient to eliminate. In short, the custom demand on the Peninsula at a peak load period is estimated at 1,970 MW in 2007. Local generation, assuming full use of the planned City peaking power plants, without both Hunters Point and Potrero, and assuming all the transmission enhancements outlined in the action plan are completed, will be approximately 192 MW. The difference (nearly 1,800 MW) is the amount upon which the peninsula will be dependent upon the transmission system. Risks are potentially small that multiple transmission outages will occur during peak periods, but it should be understood that choosing to minimize the amount of local generation thereby minimizes the choices available during emergency conditions such as loss of a transmission circuit(s).

(Exhibit 25 October 27, 2004 Marcie Edwards CAL-ISO letter attachment 3 page1)

2) Loss of operational flexibility from the action plan.

- The reality of all generation is that at one point or another the units will trip off-line or break down. Again, without having more local generation immediately available, dependency on imports is increased. In other words, while the minimum planning criteria will have been met, the loss of the associated operational flexibility carries risk under peak load/multiple equipment outage scenarios.

(Exhibit 25 October 27, 2004 Marcie Edwards CAL-ISO letter attachment 3 page1)

3) Greater risks during natural disasters from the action plan.

- **Greater dependency on external generation as opposed to local generation also carries with it a greater risk in areas that are prone to natural disasters. Natural disasters such as earthquakes, fires, and hurricanes play havoc with power lines. Much like bridges, transmission lines can fail in natural disasters, thereby isolating customers from their generation when that generation is not local.**

(Exhibit 25 October 27, 2004 Marcie Edwards CAL-ISO letter attachment 3 page2)

4) Need for additional generation from action plan to respond to Load growth.

- **While every effort has been made to model San Francisco's projected energy requirements, there remains a number of potential projects that may notably increase the City's energy needs over and above that currently forecast. An example is the proposed cruise ship terminal where the ships would be required to interconnect with the Control Grid to operate while in port instead of relying on their 10 MW diesel generators that would pollute the area. Each 10 MW ship would consume the margin that was allowed in the Action Plan for one year's load growth. Activities such as this will require more generation to operate, and hasten the need for more projects to serve this volume of load.**

(Exhibit 25 October 27, 2004 Marcie Edwards CAL-ISO letter attachment 3 page2)

5) Increased need for special protection schemes as result of the action plan.

- **There are load-dropping schemes in place to assure compliance with the Reliability Criteria for critical double contingencies. Reducing San Francisco generation, as outlined in the Action Plan, may result in the need to increase the amount of load that is shed in the San Francisco Peninsula Area to mitigate line overloads for these critical double contingencies.**

(Exhibit 25 October 27, 2004 Marcie Edwards CAL-ISO letter attachment 3 page2)

The local system effects of the action plan create a great risk to reliability in San Francisco. The SFERP's stated purpose to close the Potrero 3 unit does little to lower the community's exposure to air quality impacts but exposes the minority Southeast San Francisco community and the rest of the peninsula to increased risks of power outages and increased cost of electricity to all ratepayers including the minority ratepayers in San Francisco.

Staff admits on page 21 of their brief the already well known fact that “Ending the RMR contracts will not force the Potrero units to cease operation.” Therefore one of the main purposes of the SFERP to close the Potrero Unit 3 will not be accomplished by the siting of the SFERP. To the contrary the retrofit of the Potrero 3 unit will prolong its useful life. (Exhibit 96 p. 41, 42) Staff then speculates that “there are additional problems for Potrero Unit 3, such as the recent ultimatum from the Regional Board that Mirant must establish that the unit’s once-through cooling system is not adversely affecting the San Francisco Bay before it can renew its NPDES permit in 2008.” (Staff Brief p. 21) The City was instrumental in forcing the regional board to issue the ultimatum that Mirant must establish the once through cooling impacts for Potrero 3 permit. Had they accomplished denial of Mirants water permit what impacts would occur to reliability in San Francisco without the SFERP or the needed transmission improvements in place? Further more if Mirants water permit is not granted in 2008 and forces the shutdown of the Unit 3 will the city have the SFERP operating? The city is engaging in reckless behavior which will have dire consequences to the residents and businesses in the City.

Environmental Justice

The applicant states on page 8 of the city’s opening brief “The City’s objectives are simple: “The SFERP is being pursued by the City to reduce the need for existing unreliable and highly-polluting in-City generation while maintaining the reliability of the electric system” The City, Cal-ISO and the Staff

cannot guarantee the closure of the Potrero 3 unit. In fact in the City's electric resource plan (Exhibit 96 p. 41, 42) states that "the retrofit of the Potrero Unit 3 would be costly. Mirant would only make an investment in such a retrofit if it were guaranteed by the ISO that it could recover those costs through an RMR contract or similar mechanism. This investment would be amortized over time and **could result in the operation of Potrero Unit 3 instead of the development of more efficient and reliable sources of generation.**" The retrofit of the Potrero 3 unit has occurred its NOx emissions have been reduced by 85% and its PM 2.5 emission are comparable to the SFERP (Exhibit 15 B-19-21)

Further on page 8 of the city's opening brief it states "The City is committed to minimizing impacts on the community in southeast San Francisco where the SFERP will be located." (Exh. 15 at 1-1) The fact is the City is unwilling to even commit \$800,000 to ASQC-11 to mitigate the projects PM 2.5 impacts even though they have received over 13 million dollars of ratepayer money to implement this project.

Further the City states "Substantial evidence in the record demonstrates that there is no alternative that will meaningfully reduce the impacts of the SFERP while still accomplishing the City's core objectives in pursuing the project." There are several alternatives to the project that the record demonstrates.

The Jessie street co-generation option was available to the city but the city states "the capital costs of the 5th and Jessie Street Parcel was \$40-50 million

dollars more expensive than the airport site, and the City had been given informal indications by DWR that it would resist paying those additional costs under the DWR PPA. (Exhibit 12 response 9) The city's stated purpose of reducing in city NOx emissions to promote environmental justice could have been fulfilled at the Jessie street location. The existing steam turbine at Jessie Street which operates around the clock emits 20ppm of NOx and its replacement by one of the combustion turbines would generate lower in city NOx generation of by 10 tons and avoided the siting of one turbine in the Southeast Community. This could achieve three of the goals in the environmental justice section of the Electricity Resource plan 1) " minimize environmental impacts in Southeast San Francisco", 2) "closure of old polluting power plants", 3) " make sure that any impacts are distributed more equitably throughout the City (Exhibit 96 p. 17)

The San Francisco Electricity resource plan Exhibit 96 page 47 states'

One site currently under consideration is a 50-megawatt cogeneration plant at 5th and Jessie Streets in the City. This installation would produce steam to feed into a district heating system, with the electricity being produced as a by-product of the production of steam. The City currently has a steam franchise agreement with NRG Thermal Corporation that produces steam at the 5th and Jessie facilities. The new plant could produce 90 percent of the steam requirement and reduce air emissions by significant amounts compared to a new combined cycle power plant and the boilers necessary to provide the steam for the downtown heating system. (Exhibit 96 page 57)

Another potential site for a cogeneration system is the Mission Bay campus of the University of California, San Francisco. The University of California has experience with cogeneration plants at six of its campuses including a 43 megawatt facility at UCLA. That plant provides heat during the winter months and air conditioning through a central chilled water plant and a chilled water distribution loop. (Exhibit 96 p. 57)

The Mission substation was eliminated since only one turbine could be sited there. (Applicant opening brief page 12) The city could have sited one turbine there achieving two of the environmental justice goals of the Electricity Resource Plan. 1) “to minimize environmental impacts in Southeast San Francisco” 2) to make sure that any impacts are distributed more equitably throughout the City. (Support Environmental Justice Section Exhibit 96 page 17) The city refused to support environmental justice since multiple turbine sites would cost the city additional money. As the record reflects

“While there is some industrial land adjacent to Mission Substation, this substation was eliminated from consideration to site three combustion turbines because there was insufficient land to locate multiple combustion turbines in the vicinity, and because of the expense of a natural gas interconnection in this area.” (Exhibit 15 p. 9-3)

The city could have utilized barges to site the turbines as was proposed in 00-SPPE-2. With all of these potential alternatives to implement environmental justice the city chose five parcels for alternatives consideration that all impacted the Southeast San Francisco community even though they were allegedly committed to not choose sites that would not impact the Bayview community.

“The Hunters Point Substation was eliminated from the analysis due to environmental justice concerns. Specifically, communities in the vicinity of Hunters Point Substation have borne and continue to bear the impacts of substantial industrial activity, most notably the Hunters Point Power Plant and the Southeast Water Pollution Control Plant. To ameliorate environmental justice concerns, it has been the City’s objective since 1998 to close down the Hunters Point Power Plant. Given the longstanding impacts of the Hunters Point Power Plant on the local communities, and continued community concerns about the impacts from Southeast Water Pollution Control Plant, **City policy makers are determined to avoid siting any new City-sponsored generation in the Hunters Point area..**” (Exhibit 15 p. 9-3)

The goal of the Electricity Resource Plan Exhibit 96 page 17 in the section on Environmental Justice advocates that the burden of environmental impacts are to be spread throughout the city rather than concentrate the impacts in Southeast San Francisco the rejection of other sites in San Francisco for the SFERP violates the environmental justice goals of the Resource Plan.

This goal seeks to minimize environmental impacts in Southeast San Francisco, **to make sure that any impacts are distributed more equitably throughout the City**, and to mitigate for past and present injustice by focusing the benefits of health and clean energy programs in the Southeast. (Exhibit 96 p. 17)

Another Environmental Justice goal of the Resource Plan is to not site any more generation in Southeast San Francisco the siting of the SFERP at its current location also violates the stated environmental justice goals of the Plan

Factors influencing Environmental Justice overlap with those discussed above under Improved Air Quality. As voiced at public hearings, the most pressing issue is the closure of old polluting power plants and **the prevention of the construction of any new polluting sources of electricity generation in the Southeast.** (Exhibit 96 p. 17)

The SFERP violates all the Environmental Justice goals of the Electricity Resource Plan. The SFERP does not prevent the construction of new generation in Southeast San Francisco. The SFERP does not distribute the environmental burden of electricity production in San Francisco it continues the practice of centering all generation in Southeast San Francisco. . The SFERP does not by itself or even with the other expensive components of the action plan guarantee the closure of the Potrero Power Plant. The SFERP does not support affordable electrical bills because it is one of the exorbitant DWR contracts its price per megawatt may be over \$4,000 per MW (Exhibit 76) depending on how

much the plant runs and its cost per megawatt is an appropriate measure as stated in the Resource plan.

With the city, alternatives that implement environmental justice are considered as long as others are paying the bill. The city supports the Jefferson Martin project at a cost of \$230 million to the ratepayer to support environmental justice in San Francisco. The city supports the Transbay cable project at a cost of \$300 million dollars to the ratepayer to support environmental justice in San Francisco. The city supports the other 12 transmission upgrades necessary to implement the action plan that cost the ratepayers millions but costs the city nothing. The city is not willing to even devote \$800,000 of its 13 million dollars of ratepayer money given to them to site this project to mitigate the projects PM 2.5 emissions as proposed in Exhibit 93. Yes with the city the alternatives that implement environmental justice are a consideration when someone else foots the bill for them. The record is replete with alternatives that are turned down that would promote environmental justice but are rejected since they cost the city too much money.

The city on page 25 of their brief states that the city is focusing substantial resources on addressing air quality issues in Southeast San Francisco. This again demonstrates the cities commitment to environmental justice only depends on someone else footing the bill. On page 26 it states "During the negotiations related to the proposed divestiture of Hunters Point Power Plant, thirteen million dollars **were appropriated by the state to the City**, which placed those funds into a dedicated account for the Bayview/Hunter's Point and Potrero

neighborhoods. The money was used for a special environmental justice grant program that has to date awarded more than \$9 million in grants to nonprofit local community groups, and environmental groups that are serving the Bayview/Hunter's Point and Potrero neighborhoods. Id at 149: 4-18.” The thirteen million dollars used for environmental justice were given to the city by the state.

The cites most telling non-commitment to reducing industrial pollution in Southeast San Francisco is demonstrated in the unrefuted testimony of Francisco Da Costa an environmental justice expert who actually lives in the community. Mr. Da Costa and Mr. Brown were the only community members who participated and testified in this siting case. Mr. Da Costa’s Testimony details the massive Southeast Waterfront Project and the Illinois street Bridge Project and its unmitigated impacts on the community which are larger than the SFERP and are sponsored by the applicant with overriding considerations to local air quality. (Exhibit75 p. 1) The applicant provided no air quality mitigation for these impacts on the local community despite their admission of long-standing environmental justice concerns raised by the disproportionate impact of industrial activities on Southeast San Francisco. In addition Mr. Da Costa testified that there were over 25 projects currently being considered or constructed within three miles of the project at the port which have environmental justice implications. (RT 5-31-06 p. 198) Mr. Da Costa’s testimony is in agreement with the City’s Environmental Justice expert Ms. Eng (Exhibit 92B pages C&R 84-93) that these projects are clearly a violation of Title VI of the civil

rights act. Of course Ms. Eng now tries to refute her comments since she is now an employee of the applicant. But the issue is that the applicant continues to site industrial facilities in Southeast San Francisco and even the Southern Waterfront SEIR states that the projects will have significant PM-10 and Ozone. So much for environmental justice in Southeast San Francisco. One of the main environmental justice goals of the Electricity Resource Plan was to ensure that no more generation would be sited in the community.

Mr. DaCosta's testimony outlines the disproportionate impact from hazardous and industrial waste facilities in Southeast San Francisco and agrees with the City's expert Mr. Lee's testimony in (Exhibit 83 page 4) that there are environmental justice implications of transporting and storing large quantities of hazardous materials.

The cities stated goal of shutting down the Potrero power plant is misplaced and the closure is out of the control of the City, Cal-ISO and the Commission. The Energy action plan finding number 1 Exhibit 96 states "Installing new pollution control technology on either of the plants would cost the owners and ratepayers tens of millions of dollars and could result in the extension of their operation for another ten to fifteen years." As we know the Potrero 3 unit has been retrofitted and the number 1 finding of the Electricity Resource Plan is that this will result in the operation of the Potrero 3 unit for another 10 to 15 years. (Exhibit 96 p 63). Without guaranteeing the shutdown of in city generation with the siting of the SFERP the city will not achieve its stated purpose of reducing impacts from in city generation. If the project does succeed in shutting down the

Potrero Plant it will transfer industrial pollution from electrical generation to another community. Relying on transmission means that the city may be importing power that creates pollution in other communities. (Exhibit 96 p. 60)

The Electricity Resource Plan states that imported power will result in increased pollution in other communities and could result in higher emission rates than the Potrero 3 unit in another community. “The emission values for purchased imports are averaged values from all of the generating resources available in California. Note that the emission rates for power supplied region-wide in the Western U.S. would be much higher, because of the dominance of coal in the regional generation mix.” (Exhibit 96 page RMI 145)

Another environmental justice consideration and a main focus of the Electricity Resource Plan that has been dismissed by the applicant is the exorbitant cost of the SFERP. The applicant on page 21 of their brief states that “Mr. Sarvey’s focus on dollars per kilowatt in inappropriate” for this project. The support affordable electricity Bills Section of the Electricity Resource Plan states,

There are two ways to reduce electric bills--by lowering the rate charged per kilowatt-hour or by lowering the amount of electricity used. The electric rates charged by the utilities are set by the California Public Utilities Commission (CPUC). The CPUC imposed a surcharge on PG&E’s rates in response to the historically high prices charged by producers in 2000 and 2001. The length of time that the surcharge will remain in place is uncertain. The cost of new generation technologies, transmission and distribution, and the cost of fuel will determine future electric rates. (Exhibit 96 p. 16)

The Electricity Resource Plan finding number 2.B.5 Exhibit 96 states,

Finding 2. B. 5 The siting of any new fossil fuel generation in San Francisco must demonstrate a significant improvement in air quality and other environmental benefits **in addition to cost-effectiveness using cost benefit analysis** criteria that includes health and environmental values.

Air Quality

The city states on page 30 of their brief there will be no significant impacts to local air quality. The applicant testifies in Supplement A “All of the major electrical generating units in San Francisco are located in Southeast San Francisco, which includes the Bayview, Hunters Point, Potrero Hill, and Dogpatch neighborhoods, Southeast San Francisco has a disproportionate number of industrial and polluting facilities, and Southeast San Francisco has an extraordinarily high rate of childhood asthma and other serious respiratory diseases.” (Exhibit 15 p. 4.1) Impacts are already occurring in the community as the applicant admits. The applicant also testifies that “the City recognizes that there will be PM10 impacts from the SFERP in both Potrero and Bayview/Hunters Point.” (Exhibit 15 p. 8.1-1) The applicant must mitigate all the projects contributions to the cumulative impacts as the community is already experiencing significant cumulative impacts. The applicant’s mitigation proposals do not accomplish the mitigation of all air quality impacts from the SFERP. The applicant proposed street sweeping program is ineffective when the community will need it most during the PM season. The applicant fails to account for the fact that when there is rain or high moisture conditions in the project area which would be in the months of November through February (PM Season) the street sweeping program would be ineffective. According to the world climate website the County of San Francisco receives 21.8 inches of rainfall a year with 75% of that occurring between November and February the PM season.

(<http://www.worldclimate.com/cgi-bin/data.pl?ref=N37W122+2300+047767C>) The applicants testimony

states that during the months of October through May the project area experiences an annual rainfall of 21 inches. (Exhibit 14 8.4-11). During the months of January through February it rains on the average of 39 days.

http://www.weatherreports.com/United_States/CA/San_Francisco/averages.htm

This rainfall is a dust suppressant and also washes PM-10 and PM 2.5 into the sewer which reduces the PM-10 and PM 2.5 reductions that the applicant claims credit for. The street sweeping program is ineffective when it is needed the most during the PM season. Even the applicant admits that,

11 Q Well, what value is the street sweeping
12 during the PM season, i.e., foggy winter months?
13 A Well, at anytime that you're going to
14 have high dust levels for road traffic it's going
15 to provide a benefit. And the impacts of rainfall
16 in terms of dampening streets are maybe three or
17 four days. Consequently, you know, in between
18 rainstorms the program is going to be effective.
(Rubenstein RT 5-30-06 p. 251,252)

The applicant's expert states that rainfall dampens the streets and makes the street sweeping program ineffective. With an average of 39 days of rainfall during the months of October through February the street sweeping program will be ineffective for a high percentage of the PM season. This mitigation is completely ineffective when needed most. As Staff's expert testifies "PM10 exceedances occur primarily in the winter during evening and night hours, from a combination of wood smoke, fossil fuel combustion, airborne dust entrained by motor vehicles, and construction. (CAP, p.12.) The largest source, wood-burning, occurs principally in winter and represents about one-third of district PM10 emissions. (*Ibid.*) Exceedances of the PM10 24-hour state standards are greatly

influenced by weather (*ibid.*), usually occurring during periods of calm in the winter months.” (Exhibit 46 p. 4.1-25)

The applicant is unwilling to commit the necessary funding for the emission reduction program outlined by staff in ASQC-11. Staff’s expert Mr. Tuan Ngo has estimated that to successfully mitigate the projects PM 2.5 emissions the applicant must subsidize replacement or modification of approximately 107 wood stoves (93 lbs/unit) or 961 fireplaces (10.4 lbs/unit) to generate 5 TPY of PM2.5. (Exhibit 46 p. 4.1-22) This has been estimated to be around \$800,000 by Mr. Ngo. Since the street sweeping program will be ineffective from October to February it will take more emission reductions to mitigate the projects PM 2.5 impacts. In the alternative the applicant has proposed surrender of SOx ERC’s as mitigation which are regional mitigation and not intended to mitigate local impacts as testified by the BAAQMD. (RT 5-24-06 p. 312) The PM 2.5 impacts are local impacts from the SFERP as the applicant has testified (Exhibit 15 p. 8-1) These impacts must be mitigated with reductions in local PM 2.5 emissions like a wood stove program since the community is admittedly overburdened (Exhibit 15 p. 4.1) and cumulative air quality and environmental justice considerations dictate complete local mitigation. SOx ERC’s are part of a regional mitigation program designed to demonstrate a no new net increase in regional emissions to accommodate the siting of new point sources. They are not intended to mitigate local PM 2.5 impacts in an overburdened community. Applicants air quality witness Phyllis Fox agreed. (Exhibit 63 p. CCSF Witness Testimony p. 3) The Electricity Resource Plan Environmental justice section

calls for reductions of emissions at the source near the communities most affected not region wide ERC's

BAAQMD requires that if any new generation source that creates pollution is built to replace Hunters Point, there must be offsets in pollution identified over the entire Bay Area airshed. **However, participants in public hearings wanted guarantees to reduce emissions at the source, near the communities most impacted.** (Exhibit 96 p. 16)

Conclusions

The minority Southeast San Francisco community is overburdened by industrial pollution sources which have led to significant health impacts. The project is located in the center of the Southeast Waterfront Project that increases the number of polluting industrial sources in the community and the applicant is the lead agency for all of these projects. The applicant has refused to analyze the cumulative impacts of the additional industrial sources that are being sited. The applicant's Environmental Justice witness has provided comments previously before being employed by the applicant that the impacts from the additional industrial sources in the community are a violation of Title VI of the civil rights act. Mr. Da Costa the only other environmental Justice expert in the proceeding agrees with the conclusions of Ms. Eng that the Southern Waterfront Projects are a violation of the communities civil rights. There are no disagreements there.

The project is part of an Electricity Resource plan that has stated Environmental Justice goals. The SFERP violates all the Environmental Justice goals of the Electricity Resource Plan. The SFERP does not prevent the

construction of new generation in Southeast San Francisco. The SFERP does not distribute the environmental burden of electricity production in San Francisco. The project continues the practice of centering all generation in Southeast San Francisco. The SFERP does not by itself or even with the other expensive components of the action plan guarantee the closure of the Potrero Power Plant a stated project objective. Reasonable alternatives that do accomplish the goals of the energy action plan are not adopted because of the applicant's refusal to provide the money to make these alternatives viable. The applicant is only willing to promote environmental justice in the community if someone else is willing to pay for it. (ie Jefferson Martin, Transbay Cable, etc.) The action plan transfers the environmental burdens of electricity generation to other communities that may be similarly overburdened by industrial pollution. The action plan provides more reliability issues than it solves and necessitates further expensive transmission projects to ensure reliability in the near future.

Staff and applicant and intervenor experts have determined that the projects impacts to regional ozone and particulate matter violations are cumulatively significant. The projects 7.7 tons of VOC's which are an ozone precursor remain unmitigated. The projects 3 tons of SOx emissions which are a particulate matter precursor remain unmitigated. The projects 37 tons of ammonia emissions remain un-mitigated and they are also a precursor for PM 2.5 and a major contributor to nitrogen deposition on San Bruno Mountain which has been determined to be a significant impact. BAAQMD representative Mr. Bateman has testified that ERC's are not mitigation for local impacts like nitrogen deposition.

Accordingly there is no mitigation provided for the nitrogen deposition on San Bruno Mountain and the ozone and PM 2.5 precursors are not fully mitigated. Applicants PM-10 street sweeping program is ineffective when needed most during the PM Season. CEC Staff has crafted a program which could provide the needed PM 2.5 mitigation but the applicant has said it is too restrictive and refuses to commit the necessary funding to achieve the mitigation. Exhibit 93 is crafted to address the concerns of the applicant and still provide the emission reductions that the staff has deemed necessary to mitigate the projects PM 2.5 emissions in ASQC-11. AQSC-12 which allows the applicant to use SO2 ERC's a regional precursor are not adequate to mitigate the projects local PM 2.5 impacts in an overburdened community. Adoption of Exhibit 93 will mitigate the projects PM 2.5 impacts but the additional unmitigated ozone and pm-10 precursors and the nitrogen deposition must be addressed for the project to comply with CEQA.

