Environmental Health Coalition

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RE: Preliminary Staff Assessment for the Chula Vista Energy Upgrade Project (07-AFC-4)

Dear Mr. Meyer:

Environmental Health Coalition (EHC) hereby submits the following comments on the Preliminary Staff Assessment (PSA) for the Chula Vista Energy Upgrade Project (CVEUP) (07-AFC-4) into the official administrative record.

After a full review of the PSA, EHC has concluded that the assessment is either incomplete or incorrect in many of the issue areas. These issue sections must be revised in the FSA so as to provide a full and fair analysis of the CVEUP.

This letter has been drafted following discussions with stakeholders on their concerns regarding the project and should be considered as reflective of many of the community's concerns of both the project and the woeful inadequacy of the PSA.

In addition to this letter, Shute Mihally and Weinberger have submitted a letter on EHC's behalf further commenting on the Land Use and Air Quality sections. Furthermore, a memorandum from engineering expert Bill Powers, P.E. commenting in detail on the Alternatives section has been included as an appendix to this EHC comment letter.

Thank you for the opportunity to comment on this document,

Very Truly Yours,

Leo Miras,
Energy Policy Advocate
Environmental Health Coalition

Attached: continued comments

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I. Air Quality

A. PSA HAS INCOMPLETE ANALYSIS OF IMPACTS FROM OPERATIONS

1. Emission Data Used In The PSA Is Inconsistent With Emissions Data From The AFC

Information on the potential impact from operations of the CVEUP is incomplete and inconsistent with data from the CVEUP. First, the stack parameters and emission rates used in this modeling exercise are not given, and there is no discussion of why the estimates of impacts from normal operations are so different in the PSA analysis than in the AFC analysis. The following table lays out the tremendous difference between MMC potential emissions based on the AFC and those based on the PSA.

Parameter	MMC AFC	MMC PSA
1 hour NO2 (ug/m3)	114.9	8.2
1 hour CO (ug/m3)	108.54	12.0
1 hour SO2 (ug/m3)	7.35	2.8

If different total annual operating hours were modeled, the annual average impacts would differ between the two studies; however, this parameter should not affect the 1-hour average levels. Residents who might expect that air quality models accurately predict the levels of pollutants in their breathing air are left with few answers. Staff must revise the PSA to explain the differences in the two set of numbers and allow appropriate time and opportunity for review of these numbers.

2. Unclear What Are the Operating Hours Staff Uses As The Basis for the Analysis

Also, the PFA's analysis of 1-hour average levels air emissions data does not state what number of operating hours the annual averages are based on. It appears that in the PSA used 1,000 hours as the basis but does not clarify nor explain this choice. There are several options to choose from with respect to the hours as a basis for analysis. The SDAPCD permit is for 4400 hours; the CEQA emission mitigation requirements are apparently based on 1200 hours. The impact analysis should include annual averages for both the expected annual maximum hours of operation and the permitted maximum number (4400). Currently the PSA has only one set of numbers. For the FSA, staff should expand and clarify this analysis. Please see Shute, Milhaly, and Weinberger commented letter on this subject as well.

B. PSA CONTAINS INCOMPLETE ANALYSIS OF IMPACTS FROM CONSTRUCTIONS

The construction impacts for both particulate matter and NO2 are quite high. The document does not state over what period of time residents will subjected to these impacts. Furthermore, the document does not discuss the health significance of these

impacts. Because of these major omissions, the analysis regarding construction impacts is incomplete and must include this additional information.

According to a Burden of Disease analysis done by air quality researcher Nino Kuenzli, 34% of the exacerbations of bronchitis symptoms among asthmatics, 2% of asthma symptoms requiring clinic visits, 5% of asthmatic symptoms requiring hospitalization, and 1% of asthma symptoms requiring emergency room visits could be attributed to a 10 ug/m3 increase in the annual average level of NO2. (Kuenzli, 2007) In comparison, MMC construction is expected to produce a 16 ug/m3 increase in annual NO2. Dr. Kuenzli's estimates derive from modeling based on published relative risk numbers, and they are not definitive; the important point, however, which is not stated in this document, is that there will be health impacts even at levels that do not violate any regulatory standard.

Likewise, the expected levels of PM10 and PM2.5 at the residential receptor sites are well within levels found in published studies to be associated with a range of health impacts. Studies in recent years have linked short-term exposure to particulate matter to total mortality in adults over 65 (Klemm et al., 2004), cardiovascular mortality (Villeneuve et al., 2003), respiratory mortality (Ostro, 2006), respiratory-related neonatal infant mortality (Woodruff et al., 2006), and increased bronchitis (McConnell et al., 2006).

D. INCOMPLETE GREENHOUSE GAS EMISSIONS ANALYSIS

1. Air Quality Staff Condition 9 Should Remain A Condition At The Present Time

In the PSA workshop, MMC disagreed with CEC's imposition of Air Quality Staff Condition 9 (AQ-SC9) stating that because of the creation of ARB monitoring schemes done under the auspices of AB 32, such a reporting requirement to the CEC is redundant. However, EHC agrees with staff's response stating that the ARB monitoring guidelines are not yet final and that, at least at the onset, reporting should occur with a climate action registry approved by the Commission Project Manager. Greenhouse gas emissions' reporting is a relatively new phenomenon, which will take time to perfect in accuracy, efficiency, and transparency. Thus it is important to ensure that there will not be a period of time where MMC can get away with providing less than accurate data or even no data at all. Greenhouse gas emission reductions are so crucial that we cannot risk undermining the importance of AQ-SC9.

2. The PSA Should Reflect CVEUP's Likely Greenhouse Gas Emission Contributions to the City of Chula Vista's Overall Total.

Also during the PSA workshop, a representative of the city of Chula Vista's Department of Conservation and Environmental Services stated that depending on the methodology used, CVEUP's projected greenhouse gas emissions would make up 7-25% of the City's total greenhouse gas emissions. Considering the City has recently passed a number of progressive greenhouse gas reduction measures, the certification of CVEUP appears to act in conflict with the City's intent to reverse climate change rather than

continue to exacerbate it. Moreover, as part of the Air Quality section, staff should point out this fact, as this information is crucial in determining the benefits and burdens of approving CVEUP. As California is taking great strides in reducing the effects of global climate change, staff is ignoring the large role power plants continue to have in emitting greenhouse gas emissions.

E. OMITTED OR OVERLOOKED DATA

1. PSA Should More Accurately Reflect Impact of Likely Increased Health Symptoms

The data in the Air Quality section all point to the probability of increased respiratory and cardiovascular symptoms among residents exposed for even short terms to levels of PM and NO2 expected from the construction and operation of the plant at close proximity to their homes. The exact magnitude of the health impacts is difficult to quantify but must certainly be greater than zero. Residents of more affluent communities do not have to worry about the magnitude and significance of emissions from the peaker down the block, because, more likely than not, there isn't one. If there is, then the likelihood is that it is one of the only pollution sources, not one of many. This is the environmental justice issue created by this project in this location.

2. PSA Should Include Air Quality Data Arising From LNG Use.

In earlier data requests, EHC requested information to MMC regarding information on the air quality effects of using liquefied natural gas (LNG) instead of traditional natural gas. Since CVEUP will use LNG for operations and that type of natural gas has a higher butane content, it is reasonable to conclude that this will add to CVEUP's air emissions. MMC never gave a direct response to EHC's request. This information, however, should be added to the FSA to give a more accurate view of the likely air quality impact of the project over time.

II. Hazardous Materials

A. THE FACILITY FIRE HAZARD WAS NOT ANALYZED

The facility fire hazard was not analyzed. As noted in the Introduction [PSA p. 4.4-2], the project "will involve the handling of large amounts of natural gas," and, "Natural gas poses some risk of both fire and explosion." The discussion of natural gas hazards notes that operating procedures would minimize the risk of a fire or explosion, but notes also that natural gas explosions have in fact occurred in recent history. The accident in Belgium in 2004, mentioned on PSA page 4.4-7, reportedly killed 23 people and injured 122. However, the offsite consequences of a fire and/or explosion at the site

are not analyzed. The potential presence of flammable materials at adjacent facilities, and the potential for a larger conflagration, is not analyzed.

According to hazardous materials and waste records obtained from the county Department of Environmental Health, the business located at 150 Reed has the following hazardous materials and hazardous wastes on site:

Hazardous materials (maximum amounts at one time):
1,000 gal diesel
220 gal motor oil
251 cubic feet oxygen
3,552 cubic feet of propane

Hazardous Wastes:
30 gal oxygenated solvents
3,136 gal solvent mixture
3,490 gal waste oil
50 gal organic liquids with metals
110 gallons organic solids
25,000 lbs. waste batteries
1,000 lbs. used oil filters

The business at 3517 Main has 1,850 cubic feet of propane, 110 gallons of waste oil, and 500 pounds of waste batteries.

Based on the above information, it appears that a fire that started at MMC would have the potential to become much larger and would certainly have offsite consequences for the schools and residences downwind. So, too, would a fire started adjacent to the plant that had impacted the plant have off-site consequences. Therefore, the FSA should include an analysis based on this information.

B. AMMONIA HAZARD ANALYSIS IS INCOMPLETE

1. With Respect to Ammonia, The PSA Fails To Explain The Difference Between MMC and Other Similarly Situated Peaker Plants.

Regarding the ammonia hazard, a discussion is needed of why offsite consequence estimates are so different for analyses of three very similar peakers: Larkspur, MMC Escondido, and MMC Chula Vista. The Larkspur peaker has 10,000 gallons of aqueous ammonia at less than 20% concentration; the MMC Escondido peaker has 12,000 gallons of 19% ammonia, and the MMC Chula Vista would also have 12,000 gallons of 19% ammonia. However, the maximum distance to a 200 ppm concentration is estimated at 1,056 feet in the Larkspur RMP offsite consequence analysis, compared to 528 feet for the Escondido plant. The closest comparable concentration in the hazardous materials analysis done for the Chula Vista MMC PSA is 174 ppm; the Screen 3 modeled distance for this level is at 131 feet. Therefore, these results demonstrate the hazards of computer modeling more than the hazards of sudden ammonia releases. Again, a reliance

on number crunching rather than precautionary land use planning is evident here. Residents and workers near the plant are reduced to blind faith that this particular exercise in risk estimating was done correctly – a belief that cannot be tested empirically -- and that the Escondido and Larkspur RMP analyses were somehow faulty.

2. PSA Fails To Look At A Precautionary Approach To Hazardous Materials Near Communities.

Finally, the analysis is not precautionary and fails to identify impacts that could be avoided by siting the plant further from residential communities. While it is true, as noted, that "some hazardous materials must be used at power plants," [PSA p.4.4-6] it is not inevitable that existing residential populations be placed at risk of exposure. The fundamental flaw within the PSA fails to analyze the storage of the hazardous materials within the context of the close proximity to residences and schools.

III. Land Use

A. PSA INCORRECTLY INTERPRETS GENERAL PLAN POLICY E 6.4

1. PSA Fails To Recognize The Intent Behind the Policy

a. CEC ignores the City's intent to create an enforceable buffer between sensitive receptors and power plants.

Just as CEC staff fails to include the failed expansion of the peaker plant in 2001, staff also failed to review and interpret policy E 6.4 in light of the context in which the policy was passed in 2005. In addition to the a plain meaning interpretation of the actual text, the history of the policy's drafting and passing provides illustrates that the legislative intent of those that created and voted for the policy is to prevent the same type of siting that the MMC proposal represents. EHC began as early as December 2003 to make recommendations to members of the Environmental, Open Space and Sustainable Development Subcommittee (See Appendix A). In a letter to the City of Chula Vista, EHC requested that there should be a general plan policy that ensures that, "new or repowered energy generation in the City results in a reduction of environmental and human health impacts for residents living downwind of generation facilities." Furthermore, the letter suggests that the plan should ensure, "that sensitive receptors such as schools, day care, residential, and senior centers are not impacted by energy generation." Here, the foundations for what would eventually become E6.4 were being laid out.

b. The removal of health risk assessment language illustrates the City's intent to create an absolute prohibition of power plants near sensitive receptors.

By 2005, a proposed policy had now been drafted by city staff, with considerable input by members of the community and EHC. Staff's language for the draft version of

E6.4 stated, "Avoid siting new or re-powered energy generation facilities and other major toxic air emitters within 1,000 feet of a sensitive receiver, or the placement of a sensitive receiver within 1,000 feet of a major toxic emitter, *unless a health risk assessment has been performed demonstrating that attendant health risks are within acceptable state and federal standards, as well as other relevant health hazard indices*" (emphasis added). This policy language is relevant as it adopts the general idea of the request EHC made in December 2003 covering new or re-powered power plants but went further as it specifically gives a 1,000 foot prohibitive buffer rather than the less specific term of "residents living downwind" (See Appendix B).

In a letter dated July 20, 2005 to the Mayor and City Council regarding the 2005 staff recommendation for E6.4, EHC urged the health risk assessment language stricken from the proposed policy. As stated in the letter, "health risk assessments are a single tool to be as part of a full analysis of facts related to decision-making." EHC disagreed with making E6.4 a numbers game in which a health risk assessment that presented a particular piece of data, usually paid for and produced by the polluter, placing the project in a favorable light would be used to exempt a new energy generation facility from the policy. The Council agreed and the language was stricken

c. Council's unanimous adoption of current language created a clear statement that staff chose to ignore.

In the final adoption, the Council voted **unanimously to strike the qualifying health risk assessment language** in E6.4, the major qualifier for a 1,000 foot buffer between energy generation facilities and sensitive receptors. By striking this qualifying language, the Council made clear its intent that the policy creates an unconditional buffer barring energy generation facilities within 1,000 feet of a sensitive receptor and rejecting any numerical or other thresholds as was found in the staff recommended language. Thus, the policy bars all energy generation facilities regardless of whether or not that facility is, as MMC argues, cleaner and more efficient.

The surviving record of the general plan update process illustrates the development of a policy that creates a clear and strong prohibition against new or re-powered energy generation without qualification or numerical thresholds. The policy, in clear terms, says that a power plant shall not be placed within 1,000 feet of homes and schools. Moreover, despite staff's statements in the PSA claiming that the City does not see peaker plants as covered by this policy, the policy does not make any distinction between baseload and peaker plants. Because of the unique experience having both types of power plants within its city limits, Chula Vista could have easily made that distinction within E 6.4, but chose not to. Thus, the policy was intended to cover all power plants. Therefore, approval of the MMC proposal will violate this policy in both the letter of the law and the spirit in which it was intended.

CEC staff was aware of all of this information yet made no mention of it and, based on its analysis of E 6.4, did not take it into account within the PSA. The legislative history of E 6.4 illustrates the City's intent to create an authoritative declaration of its values with respect to the appropriate distance between sensitive receptors and power plants. By focusing on events prior to the passage of this policy and not adequately focusing on the actual passage of the policy, staff misrepresents the City's intent and the General Plan as a whole.

d. The timing of E 6.4's passage is further evidence of the City's intent.

Furthermore, because the PSA does not mention RAMCO's 2001 failed attempt at expansion, the CEC does recognize the link between the failed expansion and passage of policy E 6.4. It is no coincidence given the statements of those involved in the policy's passage that the Chula Vista City Council passed a policy prohibiting the siting of a new or re-powered power plant within 1,000 feet of a sensitive receptor only four years after the City prevented the re-powering of a power plant within 1,000 feet of a sensitive receptor. This information should be reflected in the Final Staff Assessment as it is the only way to accurately analyze fully the City of Chula Vista's views and actions on siting of a power plant in the CVEUP's proposed location.

2. Incomplete Overall General Plan Analysis

a. PSA fails to look at other policies within the General Plan

General Plan Policy E 6.4 is not the only policy that the proposed power plant violates. Other policies include, E 6.15 "site industries in a way that minimizes the potential impacts of poor air quality on homes, schools, hospitals, and other land uses where people congregate." A 100 MW power plant that will run more than twice the amount of time the previous plant ran, located only 350 ft from the nearest residence and 1300 ft. from the nearest school, does not meet this policy. Nor does CVEUP do anything to help the City meet its commitment to "pursue 40% city wide electricity supply from clean, renewable sources by 2017" (General Plan Policy E 7.5). The City and, in this case, its surrogate the CEC, cannot allow these policies to be so flagrantly violated by the construction of a new 100 MW plant in the proposed location.

b. PSA misinterprets General Plan Policy E 23.3

Furthermore, the CVEUP will also violate E 23.3, "avoid siting industrial facilities and uses that pose a significant hazard to human health and safety in proximity to schools and residential buildings." The PSA does specifically deal with E 23.3, dismissing it as it did E 6.4. Staff once again focuses on the fact that the City's issuance of a Special Use Permit five years prior to the passage of the policy underscores that, "the City does not view such a use to pose a significant risk to human health and safety." This interpretation fails to take into account that E 23.3 could have been, and partly was, passed in response to the original certification. Moreover, staff incorrectly focuses on the fact that homes existed prior to the original plant. This implies that residences somehow become immune to risk posed by power plants because they have been near one for almost a decade. On the contrary, the longer a community is exposed to the effects of pollution attributed to energy generation, the higher the risk to human health and safety. Finally, staff once again overstates the fact that CVEUP would be an upgrade as if that itself is incontrovertible evidence that the new plant will be cleaner and safer than the older plant despite evidence that the CVEUP may be just as polluting if not more so than the current plant.

c. Taken in its entirety, the General Plan must be taken as a document that fully rejects plants such as the CVEUP due to its proximity to homes.

The general plan policy includes not just E 6.4, but an entire framework of land use policies designed to create a clear separation between homes and schools on the one hand and industrial uses on the other. If E 6.4 is read together within the context of E 6.15, E 23.3, and E 7.5, it is reasonable to interpret an intent on the City of Chula Vista to include "heavy industrial" uses like peaker plants within the parameters of E 6.4. Staff, however, does not do that. In fact, once again, staff looks to an action that occurred five years prior to the passage of the General Plan update as indicative of the city's intent with respect to siting power plants near homes and schools. This is wrong and thus, the PSA should be revised to include these other General Plan land use policies and a finding of compliance with LORS cannot be made.

3. PSA Fails to Properly Apply Policy E 6.4 To The CVEUP.

a. PSA ignores the fact that the policy was passed after the original plant's certification and thereby providing a new restriction on power plant siting not present in 2000.

The new plant is a gross violation of policy E 6.4. The policy was passed in 2005 and thus restricts all energy generation facilities built in the city of Chula Vista **after that date**- that includes MMC. Cities have a right to clarify and refine the articulation of their values, which is what Chula Vista did in 2005. The policy was passed partly in response to RAMCO's attempts at expansion in 2001 which were actively opposed by the city of Chula Vista. CEC staff constantly refers to the certification of the original power plant and yet leaves out the successful city-led opposition to the first expansion of the RAMCO peaker. It is in the context of this fight, that E6.4 was passed. E 6.4 was in direct response to the original expansion attempt.

Though, as Staff has asserted, the city did issue a permit to a power plant in this location yet that plant was considerably smaller and under different circumstances and thus should not be demonstrative of the City's interpretation of E 6.4. That act occurred prior to the passage of the policy and was done in light of the Emergency Peaker Siting which itself was a response to the purported California "energy crises" of 2000. This was an emergency situation; however, several months later, when the crises subsided, the City opposed expansion of the plant because of its location. As stated in our letter to the CEC on this issue, those that drafted and passed the policy have interpreted the goal of the policy as preventing the type of power plant siting that this new MMC plant represents. The 2005 policy is more representative of the city's intentions and values than their actions in the summer of 2000.

In the aftermath of the City's successful opposition to the RAMCO expansion, City Councilmember Jerry Rindone wrote an editorial explaining his position opposing the peaker in the midst of the state's purported energy crises. Councilmember Rindone stated, "for many, including the City Council, having one less pollution generating

facility in Chula Vista was regarded as a major victory (See Appendix C)." The policy is consistent with the goals, objectives, and overall philosophy articulated in the editorial and so it follows that this "major victory" would be consolidated and codified with E 6.4 four years later. Furthermore many of Councilmember Rindone's concerns mentioned in his editorial- inadequate cap on plant emissions, Chula Vista's disproportionate burden in hosting power plants, and increased health risks are present in this plant as well.

b. The PSA Ignores The Plain Meaning of Policy E 6.4

In the PSA, CEC staff focuses on the "other major toxic emitters" portion of policy E 6.4 rather than analyzing the policy under a plain reading. The policy covers "new or re-powered energy facilities *and* other major toxic emitters" (emphasis added). In the case of the CVEUP, the policy clearly refers to the first portion of that clause- "new or re-powered energy facilities." CVEUP is in every plausible interpretation of the term, an energy facility. However, inexplicably CEC staff ignores the plain meaning of the policy and instead argues that E 6.4 is not on point in this case because CVEUP is not considered a major toxic emitter. This is a false interpretation of the policy and uses a highly distorted interpretation of the statute to create a desired outcome- the conformity of the CVEUP to Chula Vista's existing LORS.

Moreover, staff fails to focus on the fact that E 6.4 covers new and *re-powered* energy facilities. This is significant because a re-powered energy facility presupposes an existing plant that was already approved by a regulatory body. Under staff's erroneous interpretation of E 6.4, the fact that a plant was already approved precludes it from violating E 6.4 even if approval occurred years before the policy was passed. Thus, if one would use staff's reasoning it would be impossible for any re-powered energy facility to violate E 6.4, rendering that word in the policy meaningless. Therefore, it can only be concluded that staff's interpretation of E 6.4 and its application to CVEUP is erroneous and does not take into account the City's intent to cover the re-powering of existing and approved power plants.

c. Staff is incorrect when it claims that the nearby residents do not qualify as sensitive receptors under the policy.

Furthermore, CEC staff argues that the plant is not in close proximity to sensitive receptors despite the fact that the plant is within 1,000 feet of a community because "given the existing permitted uses surrounding these residences....the proposed project would not be considered an incompatible land use with the surrounding and nearby uses, including these sensitive receptors (PSA p.4.5-23)." Therefore, according to the PSA, it can be reasonably construed that because of the surrounding uses, the sensitive receptors of the area are no longer "sensitive." On the contrary, however, it is precisely because of the other uses, the cumulative impact, that makes these sensitive receptors all the more sensitive to the likely potential for increased emissions.

B. PSA IGNORES THE FIRST ATTEMPT AT EXPANDING THE PEAKER PLANT ON MAIN ST.

In attempting to discern the nature and characteristics of the land use of the area surrounding the MMC peaker plant, CEC staff reviews the history of the neighborhood. In fact, CEC staff points out that the CVEUP would be consistent with the existing land use character because of the fact that the City permitted such a plant in 2001. The problem, with this analysis, however, is that it is woefully incomplete and, thus, misleading. The PSA mentions the City's original citing of the Chula Vista Power Plant but fails to mention the equally significant opposition the City of Chula Vista led against the proposed expansion to the Main St. peaker in 2001.

While the original peaker plant was being built, the plant's then-operators RAMCO applied to the California Energy Commission for permission to build a 100-plus MW unit on the property and for it to be given an "emergency" expedited review. Even though it had only been eight months from the time of Chula Vista's approval of the first application and RAMCO's filing for the CEC application, the City strongly opposed the peaker plant expansion.

In their June 2001 letter to the CEC, the City stated that although only eight months have passed, "there [were] dramatically different circumstances surrounding this second plant (See Appendix D)." The City goes on to state that the presence of the city-approved portion of the peaker as well as that of the 700 MW South Bay Power Plant underscored the fact that the South Bay portion of the county in general and the City of Chula Vista in particular were shouldering a burden disproportionately high compared to the amount of electricity the City uses (the majority of the electricity would go to the city of San Diego). Furthermore, the letter urges the CEC that the 90-plus MW from the expanded RAMCO peaker would not be enough to solve the San Diego region's energy woes and that the plant's location makes it an inappropriate choice for expansion.

Ultimately, RAMCO retracted its application and the expansion of the plant was canceled. That is, until this year when MMC, who purchased the plant in 2005, applied first for an application to the city for a 100 MW plant and then, when that application was rejected as being outside the City's authority, to the CEC for a 100 MW plant. Many of the issues presented in the City June 2001 letter to the CEC still exist- namely the inappropriate location of the CVEUP and the disproportionate burden Chula Vista residents continue to bear with respect to fossil fuel energy generation.

C. INCOMPATABLE LAND USE

1. PSA Conflicts With Chula Vista's Own Zoning Designations

a. Staff ignores the intent and purpose of the Limited Industrial designation.

The proposed power plant does not conform to existing land use designations of either the parcel the plant will be on or of the surrounding parcels. The site and adjacent parcels are both considered "limited industrial." According to the city ordinance creating the designation, "The purpose of the I-L zone is to encourage sound limited industrial development by providing and protecting an environment free from nuisances created by

some industrial uses and to ensure the health of the total environment of Chula Vista and San Diego County and to protect nearby residential, commercial and industrial uses from any hazards or nuisances (CV municipal code 19.44.010)." Power plants are not included on the list of permitted or conditional uses for this designation.

By the intent and letter of the applicable zoning ordinances, a 100 MW natural-gas fired electricity generating plant should not be permissible in this current zoning designation. Therefore when CEC staff states that the new power plant would be "compatible with surrounding uses and zoning districts (PSA p.4.5-21)" this is in fact untrue since by its very definition, limited industrial does not include electrical energy generation either as a permissible use or as a pre-approved conditional use.

b. Staff fails to identify that there is a pre-existing zoning designation for power plants.

The PSA fails to mention that power plants are mentioned within the current Chula Vista zoning scheme. Electrical energy generation plants are specifically mentioned within the "permitted uses" category of the General Industrial designation. This designation is designed for the siting of power plants, liquefied natural gas plants, automobile manufacturing and assembly, brick manufacturing, and trucking yards. Thus, staff fails to point out that there is already a proper zoning designation for power plants such as CVEUP. Furthermore, this zoning designation undermines staff's claim that the CVEUP would be consistent with surrounding land uses. According to Chula Vista, power plants are of a completely different character than the auto salvages yards, warehouses, and substation that is currently in the area. None of those uses are specifically mentioned in the I-G designation, once again, power plants are (CV Municipal Code 19.44.20). Staff must address the PSA's misreading of the Chula Vista zoning ordinances.

The PSA states that the surrounding area is designated industrial. This is misleading. . Much of the surrounding area is designated *limited* industrial— a designation that does not include a power plant. Areas designated and developed as residential are only 350 – 700 ft away, a school and recreational center are roughly 1500 ft away, and additional residences adjacent to the elementary school roughly 1800 ft away.

c. Staff's analysis fails to respect differences in zoning distinctions.

Staff's reversal is based on, like the analysis of policy E 6.4, the fact that the City permitted the original 44 MW plant in 2000. However, once again, staff is wrong to consider the actions of the City during a different set of circumstances, under a different regulatory scheme, and in consideration of a considerably smaller plant, as indicative of what the City would do in this current situation. Staff bases their decision on pure speculation and in direct conflict of the letter and spirit of Chula Vista's zoning designations. Chula Vista zoning designations are clear that the unique conditions present in a power plant deserve a much higher level of zoning than limited industrial use and therefore an area designation limited industrial is not an appropriate location for a general industrial use.

2. Staff Is Inconsistent With Own Earlier Assessment On Land Use.

Throughout the CEC process, CEC staff has referred to power plants such as the CVEUP as examples of "heavy" industrial uses. In a letter to the CEC, Chula Vista staff reiterated this description (Letter from City of Chula Vista to CEC, dated Jan. 31, 2008).. CEC staff had also properly identified that the existing zoning designation for the area was that of "light industrial" use which was defined as including light manufacturing. However, these distinctions are not reflected within the PSA. In fact, staff completely ignores the fact that power plants are of a different industrial character than the rest of the use in the Main St. corridor in which CVEUP would be sited. This omission is confusing and unacceptable since staff had made a particular point of mentioning the heavy- light industrial distinction several times throughout the CEC process. Instead in the PSA, staff merely concludes, "that permitted industrial uses...sited on properties zoned Limited Industrial within an Industrial Corridor, are compatible with surrounding uses and zoning districts (PSA p. 4.5-21)." This is a complete reversal of CEC position earlier in the process and should be explained in light of earlier comments. There was no new information that had emerged from the time CEC asserted that CVEUP would be a "heavy" use in a "light" use area and yet inexplicably staff's assessment of the land use character is completely different. Staff must address this inconsistency.

IV. Public Health

A. INCONSISTENT AND CONTRADICTORY STAFF FINDINGS

Staff's statement that "levels of CVEUP's air toxic contaminants would be highest in the immediate area", though correct, is confusing given CEC staff's general approval of the project. Throughout the Public Health section, CEC staff fails to be consistent with the above statement and find it problematic that such an emitter of pollutants is so close to homes and a school (350 feet and 1300 feet respectively). Staff's recommendation is inconsistent with this general fact of toxic air pollution and thus the FSA should have a revised Public Health section consistent with the concern that CVEUP's emissions will have the greatest impact towards the most sensitive of receptors- namely children and fetuses. As it is written now, the Public Health analysis appears to be done in a vacuum, not taking into account the unique health concerns prevelant in a community 350 feet away with a large number of children, elderly, and people without health care.

Moreover, the discussion of the potential of particulate matter to cause cancer or asthma lacks a precautionary perspective. The definition of precaution developed by the California EPA Environmental Justice Advisory Committee is:

> "Taking anticipatory action to protect public health or the environment if a reasonable threat of serious harm exists based upon the best available science and other relevant information, even if absolute and undisputed scientific evidence is not available to assess the exact nature and extent of risk."

The existence of limited, but insufficient, evidence should not be taken as a green light to inflict pollutant burdens on people when there are available alternatives. In this case, an obvious alternative is to put the plant further away from residential populations.

Finally, staff concludes that particulate matter apart from those attributed to diesel emissions do not have a significant role in causing asthma or cancer. Conversely, there is at least more evidence that diesel emissions could in fact have a significant role in causing asthma or cancer. However, the PSA does not recognize that diesel PM will be emitted by construction equipment that will be used during the construction phase of the CVEUP. Table 2 does not identify diesel particulate matter and therefore should be revised to include it. Furthermore, a full analysis of the asthma and cancer risks of the diesel emissions of the construction impacts should be undertaken in the FSA.

B. INCOMPLETE ANALSYS OF ASTHMA IMPACTS

1. PSA Does Not Analyze The Exacerbation of Pre-Existing Conditions

As noted in the discussion of air quality impacts, existing research does identify non-cancer health impacts of the pollutants emitted by construction and operation of MMC. While is it not yet clear whether exposure to particulate matter can cause asthma, it can make it worse and lead to increased levels of other respiratory ailments such as bronchitis.

The PSA presented a thorough analysis of the causal link between non-diesel particulate matter and asthma. The analysis was in depth and well researched. However, the analysis was also incomplete in one very important aspect- the failure to look at the connection between non-diesel particulate matter and the exacerbation of pre-existing asthma. The PSA itself admits that "asthma prevalence has increased substantially over the past 20 years (PSA p.4.7-16)" and yet there is no analysis on what the emissions from CVEUP would do in the context of the increasing number of asthma cases. The fear is that CVEUP would make pre-existing asthma cases worse and considering there is an ever-growing number of asthma cases in the region, asthma hospitalizations could also increase.

2. Asthma Data Used Is Not An Accurate Indicator of the Public Health Impacts of the CVEUP.

Regarding the discussion of asthma prevalence, it should be noted that the statistic cited, 11%, is a county-level estimate that was generated through a statewide telephone health survey project (CHIS) housed at UCLA. Doctors are not required to report new diagnoses of asthma, and therefore no real prevalence data exists. Hospitalization rates are available at a zip code level, but not for small neighborhoods such as the area surrounding the MMC plant. A small area such as this one could have a high rate of asthma prevalence and/or high hospitalization rates which would not show up in any of the data that is currently available.

The fear of asthma exacerbation is compounded when taking into account Southwest Chula Vista's already-high rate of asthma hospitalizations. According to

recent figures, the zip code in which the proposed CVEUP would be located has an asthma hospitalization rate amongst children of 112 per 100,000. This is 18 percent higher than the county average and 90% higher than the neighboring zip code to the east. As stated above, the area immediately surrounding the MMC plant would likely have a higher rate within this zip code. It should also be noted that these numbers track asthma hospitalizations- thereby illustrating the higher rate of severity of asthma rather than an accurate account of actual asthma cases in the area. Once again, this highlights a major concern for the nearby community- that existing health conditions will get worse in an area with already high levels of background pollution. No analysis of asthma impacts can be complete without looking at the very important impact of pre-existing conditions.

C. FAILURE TO LOOK AT OTHER PUBLIC HEALTH RISKS, APART FROM ASTHMA AND CANCER

1. PSA Does Not Assess Public Health Risks from the Cumulative Impact worsened by contributions of the CVEUP

Overall, the Public Health section of the PSA is flawed in the fact that it spends a considerable amount of space debunking community concerns but does not adequately deal with the underlying concern that the plant is larger and will likely will run more hours than the existing plant. If the plant runs more hours, then there will be an increase in air pollution emitted. This increase in pollution will lead to greater health risks for the immediate area, which staff stated will likely suffer the highest levels of air toxic contaminants from the new plant. This is especially a concern given the already high levels of pollution and asthma-related hospitalizations in the area. Therefore, public health impacts due to cumulative impacts and not just emissions directly arising from the plant itself should be analyzed. Because of the increased hours the CVEUP will operate over the existing plant, the new plant will add more PM to an area with already high levels. This section should look at what the public health impact of this additional PM production will cause, i.e. the likely increase in hospitalizations, health risks, etc. The current Cumulative Impacts discussion does not accurately reflect this likely possibility of increased pollution and, therefore, should be revised to include this information

2. Staff Fails To Look At Public Health Risks Aside From Cancer and Asthma

Furthermore, staff looks only at carcinogenic effects and causal link to asthma and does not look at other health impacts such as respiratory impacts, bronchitis, or organ development amongst children. Using PM as an example, staff should look at PM's link to these other health risks. This analysis should also be done for the other applicable criteria and non-criteria pollutants. Also, both the causation and exacerbation of these health risks should be analyzed.

A few of the toxic air contaminants raise special concerns and warrant more evaluation. Lead is particularly toxic to young and unborn children. The homes in the immediate vicinity of MMC were built in 1959, according to county assessor data. This means they may contain lead-based paint. The cumulative impact of lead from MMC

emissions with the existing lead exposure through house dust should be assessed. Lead exposure amongst children can lead to brain damage and learning disabilities. Since the PSA focuses mostly on respiratory impacts, it is important that the FSA expand its analysis to include these public health risks as well.

3. Staff Fails To Look At Public Health Impacts Specific To Certain Classes of Residents.

Likewise, the section looks at the public at the whole and does not focus on particularly sensitive segments of the population such as children, the elderly, those with pre-existing conditions and residents living under the federal poverty line. Because of the above mentioned omissions, the public health section of the PSA is not an adequate assessment of the likely public health impacts of the CVEUP. Based on the information as it is presented here, the public is not getting an accurate assessment of the risks the plant that is moving into their neighborhood will cause.

V. Socioeconomics

A. THE RESPONSES TO AGENCY AND PUBLIC COMMENTS LACK RELEVANT OR MEANINGFUL RESPONSES FROM STAFF

1. Staff does not respond to public comment expressed in opposition to the plant due to the fact that few peakers are as close to schools as CVEUP is proposed.

One of the more incomplete discussions within the PSA, the Response to Agency and Public Comments does not actually present any of staff's responses. For example, one of the comments (Comment #2) compares the CVEUP with other peakers certified by the CEC in recent years, stating that "The closes residence to any of these other peakers is 1,000 feet. There are over 50 homes closer than this to this peaker. Only one peaker of 14 has an elementary school as close as the Chula Vista peaker plant (PSA p.4.8-10)." Staff's "response" to this over-150 word comment was simply to direct the reader to the "Demographic Screening" and "Schools" discussions in the Socioeconomics section. However, a review of both of these subsections does not directly address the claims made in the public comment. Neither of these sections make any reference to other plant sitings and their respective areas' demographics. This statement is never refuted, evaluated, or in anyway addressed anywhere in the PSA, let alone in the Socioeconomics section.

2. Staff does not respond to public comments pointing out the disproportionate impact the plant may have on communities of color.

Again, in lieu of responding to a comment, staff redirects the reader again in lieu of responding to a comment referring to the siting once more. Comment #3 reiterates the accusation that the demographics of the region has made it a particularly attractive target for siting a peaker plant in an area so close to schools and a home. The comment points out that the "occupants of these 50 or more homes within 1,000 feet of the Chula Vista plant are over 80% Latino with a few black families and a few Anglo (sic) mixed in (PSA p.4.8-10)." Once again, staff responds by not giving a response at all and instead refers the reader to the "Demographic Screening" discussion. Ironically, the "Demographic Screening" discussion seems to provide supporting evidence to comment #3's claims.

The way staff deals with these two comments is inadequate and completely out of place in a full and fair discussion of the socioeconomic impacts. Staff chooses to redirect and give the impression that they are responding to comments without actually responding to the comments. Staff does not refute or agree with the comments. A power plant, 122% larger than the original it is replacing, in an area 350 feet from residences, in a low-income community of color, deserves a much more detailed response to these assertions of environmental injustice.

B. LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS) SECTION IS INCOMPLETE

1. Table 1 is an Inadequate Assessment of the Applicable LORS.

The LORS discussion of the Socioeconomics section is incomplete as there are several important Socioeconomic and Environmental Justice LORS that were not mentioned and thus, not used as part of the CEC's assessment. Table 1, where the LORS are set up by Federal, State, and Local level is incomplete and does not provide a adequate basis to review the socioeconomic impact of the project. The intent of Table 1 is to provide the reader with an idea of what was used to evaluate the socioeconomics and based on that table's lack of some very important laws and regulations, it can only be properly concluded that the analysis is extremely incomplete (PSA p.4.8-1).

2. The LORS Section does not provide a full list of applicable socioeconomic or environmental justice related state regulations.

a. Staff fails to present the California definition of environmental justice.

Furthermore in the State section of Table 1, CEC staff fails to mention other important LORS relating to environmental justice. The Socioeconomics section is the place within the PSA where environmental justice concerns are directly addressed and yet, staff fails to bring in to the body of applicable LORS the section of California law that defines environmental justice (EJ). California law defines EJ as: "...the fair treatment of people of all races, cultures and income with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies." (Government Code Section 65040.12 and Public Resources Code Section 72000). It is unfathomable that a document that is designed to evaluate environmental justice impacts

fails to recognize and present the legal definition of Environmental Justice. It is impossible to gain a meaningful legal context in which this project falls without this crucial piece of information.

b. CEC staff fails to mention its own Environmental Justice policy.

The policy of the agency reviewing the project is very relevant to the discussion on Socioeconomics generally and Environmental Justice specifically. It is crucial for the reader of the PSA to know the context of what staff decided to bring in and leave out in their analysis. The CEC website mentions the policy as, "the fair treatment of people of all races, cultures and income shall be fully considered during the planning, decision-making, development and implementation of all Resources Agency [of which CEC is a part] programs, policies and activities." Furthermore, the website expands on this policy stating that the intent of this policy is to ensure that the development and implementation of all of the CEC's programs do not lead to "disproportionately high and adverse human health or environmental effects from environmental decisions." One of the central points of opposition to the CVEUP is the location of the proposed project and that the fear that it opens up a community of color to a disproportionately high rate of health hazards and other consequences resulting from the close proximity of a power plant. Therefore, staff should include a discussion of how allowing a power plant in this location is consistent with this policy in light of the concerns of the public and some of the intervenors in the CEC process.

2. Incomplete look at Chula Vista General Plan with respect to environmental justice.

With respect to the General Plan, Staff mentions E 6.4, however, there are other policies that have an environmental justice component that were not mentioned such as, E 6.15 "site industries in a way that minimizes the potential impacts of poor air quality on homes, schools, hospitals, and other land uses where people congregate." On several occasions' members of the public as well as EHC mentioned some of these other policies but were ultimately ignored by CEC staff. Moreover, another policy that should be reviewed as part of Chula Vista's environmental justice LORS is E 23.3, "avoid siting industrial facilities and uses that pose a significant hazard to human health and safety in proximity to schools or residential dwellings." Staff fails to adequately respond to the claim that the siting of CVEUP 350 feet from homes and 1300 feet from a school violates the residents' rights to equal protection under these policies.

Furthermore, Staff fails to mention that Chula Vista has an entire Environmental Justice section within the General Plan. This section made Chula Vista the first city in the state to have a distinct Environmental Justice element within its General Plan. Such an action highlights Chula Vista's recent commitment to environmental justice, hoping to reverse decades of incompatable land use decisions aimed at communities of color and low-income communities. Objective E 23 provides a layout of the City's environmental justice commitment- "[To] provide fair treatment for people of all races, cultures, and income levels with respect to development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." Staff fails to mention let alone analyze

CVEUP in light of this objective. A full and fair evaluation of CVEUP's socioeconomic impact must include this information.

In fact, this siting is a disproportionate treatment of an environmental justice community. Attached to this letter is a map of the fossil-fuel energy generation facilities by SANDAG community definition. There is a significant over-concentration of these facilities in this community. This issue is discussed in more detail below.

3. There is Little Meaningful Analysis of the LORS Presented.

    a. The LORS that were presented in the Socioeconomic analysis were never applied to the current situation to view whether and how CVEUP is in conformity with them.

Not only is Table 1 inadequate in its content what LORS that are included in Table 1 are poorly analyzed. The FSA does not serve to provide any meaningful analysis to the impacts to the community as there is no analysis of the application of the LORS to the current situation. LORS are important within the PSA to provide a background of the legal framework of all CEC projects under similar conditions. However, discussion of the LORS are also important to see how these laws and regulations are applied to this specific situation- with all the unique circumstances involved in certifying a 100 MW power plant in the exact location MMC seeks to place it. Staff simply presented the LORS and then moved on to general discussions of employment and the demographics, but there is little analysis of the application of these LORS to this situation.

    b. Staff ignores the community's environmental justice concerns and does not provide a meaningful analysis of the arguments opposing CVEUP on environmental justice grounds.

By the time the PSA was drafted, several general public points of opposition had been made to staff, in fact, some of those were mentioned in the public comments section. Furthermore, even if they were not mentioned repeatedly in the Public Information Workshop, the Data Request Workshop, in numerous written comments to CEC, and Data Requests to MMC, it is clear that a central concern of this project would be its close proximity to homes and a school. Further underlying the potential injustice of this siting is the ethnic and economic make up of the community. It is not unreasonable that the Environmental Justice analysis would have to explicitly deal with the question- why this project? Why now? Why here? Now that the PSA has been released, these and other questions pertaining to EJ still remain. Finally, it would not be sufficient for Staff to simply deflect all EJ concerns by pointing that the plant is already in the neighborhood, continuing and enlarging that environmental injustice does not mitigate that injustice. The facts are that the siting of this plant in this location is an environmental injustice and does result in a disproportionate impact of communities already burdened with pollution.

C. FAILURE TO REVIEW PROJECT AND THE APPLICABLE LORS WITHIN CONTEXT OF ENVIRONMENTAL JUSTICE

1. The Socioeconomics section Fails to Mention Policy E 6.4 within the Proper Context of Environmental Justice

One prominent example of staff simply presenting something in Table 1 and yet doing no further analysis is the discussion of Chula Vista General Plan Policy E 6.4. Though it is true that the Policy was mentioned in the Land Use section as part of a discussion of the Land Use LORS of Chula Vista, it is also crucially important to discuss the policy within the context of environmental justice. The history of this policy, as laid out in EHC's Letter to the City of Chula Vista, illustrates a strong foundation in environmental justice concerns (See Appendix A). The section of Chula Vista that lies west of I-805, is the site of two power plants near communities of color, despite the fact that most of the new load demand has come from the areas of Chula Vista east of I-805. Additionally, the Westside is a much more densely populated part of Chula Vista than the more expansive Eastern section. The city passed the General Plan Policy partly as a response to the placing of the peaker plant on Main St., so close to homes and schools. The fact that this policy is now being undermined instead of finding a more suitable location is evidence of environmental injustice.
A community that is majority people of color and with a high percentage of residents below the poverty line and of renters has made this area a particularly vulnerable location for such a polluting project. Furthermore, if this project successfully undermines the application of this policy designed to project all communities it is clear that the project violates the policy intention and that of the commitment to environmental justice made by the City when it passed the first Environment Justice Element in a General Plan the state in 2005. , If the policy is undermined, it will be clear that the community, due to its demographic make-up, is not receiving the full protection of this policy as warranted by the LORS on environmental justice. The GeneralPlan policy was not put in place to protect only certain neighborhoods from a power plant placement—but to protect ALL neighborhoods

2. The Socioeconomics Section Fails to Evaluate the CVEUP within the Context of Environmental Justice Generally

a. Staff ignores environmental justice as an issue apart from presenting demographic data.

The socioeconomics section is surprisingly devoid of any in-depth analysis of environmental justice concerns apart from the application of the LORS. From the current draft of the Socioeconomics it does not even appear that Environmental Justice is an issue in this siting case in spite of the fact that the demographic make-up of the community indicates that it is. . There are many factors present in this circumstance that compel the staff to find environmental injustice in the siting of the power plant in this community.

b. Staff ignores the environmental justice effects of disproportionate health impacts.

One of the most prominent examples of staff's failure to understand some of the special conditions present in an environmental justice community is the lack of discussion revolving health care in the community. Throughout the PSA, staff justifies the new CVEUP as "relatively clean and efficient" and that the emissions from the new plant are not such that would warrant extra mitigation measures (PSA p.6-14). However, this analysis ignores the fact that health impacts from air pollution and other by-products of energy generation are exacerbated in communities lacking sufficient health care and already suffering from high amounts of pollution. Nowhere within the Socioeconomic section is this type of discussion brought up- thereby making the section woefully inadequate to evaluate the impacts on the surrounding community.

During the siting process, a large number of residents from the closest community to the plant have expressed their concern regarding the health impacts from the proposed CVEUP. Once again, the fact that many of the residents may not be in a position to acquire quality and consistent health care due to their economic or legal status, illustrates once again the unique vulnerability of this community to additional pollution. The plant will likely run more hours and so there is a very strong likelihood that the emissions will be equal to or greater than the existing plant's emissions, if this is the case, the community is less in a position to adequately deal with such impacts. Furthermore, any additional pollution from the CVEUP add to the already degraded air quality , leading to further health impacts. None of this was taken into account by the Socioeconomics section and therefore, to ensure a full and fair discussion on the subject, it must be addressed.

c. Staff ignores the environmental justice effects of disproportionate economic impacts.

In a similar vain, despite having the title of "Socioeconomics," this section does not have any information relating to the economic demographics of the area within 1 mile and 6 miles from the CVEUP. It is difficult to take into account the socioeconomic impact of the surrounding community, when there is little understanding of the economic status of most of the community. Aside from poverty rate, there is no information on the average household income for areas within 1 mile and 6 miles from the project. Southwest Chula Vista is one of the more low-income sections of South Bay San Diego, which tends to be one of the overall low-income parts of the county. This information is crucial in determining whether the community would be in a financial position to adequately deal with some of the impacts of the CVEUP which would then give a more accurate assessment of the likely impacts from the new plant.

3. The PSA Argues Existing Infrastructure as an argument in favor of the CVEUP Yet Ignores the Environmental Justice Implications of Such a Siting.

    a. Staff needs to address the disproportionate siting of peaker plants in communities of color of which the original plant is an example.

Explicitly mentioned by the CEC within the PSA and by MMC representatives, one of the strongest points in favor of the CVEUP is that there is existing infrastructure for the new power plant. In other words, since there is a power plant already, it doesn't make any sense to look elsewhere. Unfortunately, this argument ignores the initial environmental injustice of placing the original plant in the area. The original plant was cited as part of a crises planning approach to energy generation during the 2000-01 energy "crises." With the passage of the emergency peaker siting powers of the CEC and local jurisdictions, many plants were cited in inappropriate locations with city governments unable to influence the plants' final siting. In a report by the Latino Issues Forum (LIF), *Power Against The People?* (November 2001), the power plant on Main St was used as an example of an environmental injustice in power plant siting. In the report the original Chula Vista Power Plant was part of the study of 18 plants sited during this "crises" period.[1] The report found that little or no environmental justice analysis was done for these plants and that 16 of 18 proposed new plants were in areas of over 50% people of color, much higher than the state average. The original plant was a clear environmental injustice. However, building upon that plant, on the same lot, continues the same injustice. This was never acknowledged, directly or indirectly, in the PSA.

    b. Staff needs to address the disproportionate burden Chula Vista and South San Diego County carry in terms of power plant siting.

Further underscoring the failure of the PSA to look at the proper context of the placement of this power plant in this community, is the fact that South San Diego County, the part of the county that has the largest percentage of people of color as part of the total population, also has the most fossil fuel energy generation in the region (see Appendix E). The PSA consistently justifies the placement of CVEUP as close to the largest growth in peak demand. However, this is not entirely true, South Bay, is becoming the de facto home of energy generation within the county of San Diego, no matter where the load or peak demand centers may be. The Socioeconomic section should be revised to specifically respond to the environmental injustice of concentrating more energy generation placement in south San Diego County (See Appendix E).

[1] Latino Issues Forum, Power Against The People?: Moving Beyond Crises Planning In California Energy. November 2001. Available at http://www.lif.org/download/power_rpt.pdf

VI. Alternatives

A. DISCUSSION REGARDING ALTERNATIVE LOCATIONS IS MISLEADING

1. Statements in the Summary of Conclusions Dismiss Concerns With The Current Location.

The Summary of Conclusions states that "Staff determined that the concern of the local residents and the city of Chula Vista warranted an evaluation of alternative sites (PSA p.6-1)." This statement, however, belies a fundamental problem with the Preliminary Staff Assessment as it continues to minimize the impact of a power plant only 350 feet from a residential community and 1300 feet from a school. Recently in Orange County, a power plant developer retracted its application for a new peaker plant due to considerable public outrage. This plant was farther from both schools and homes than the MMC plant (1800 feet and 600 feet respectively). In 2001, the city of Chula Vista forced RAMCO to retract its application for the expansion of this peaker due to considerable public opposition to the project.

Furthermore, the entire alternatives section does not give distance to sensitive receptors adequate weight. It is the CVEUP's location close to a residential neighborhood and a school – not the mere presence of community concern – that requires careful consideration of alternative sites. Although staff's discussion of the Landfill Alternative appears promising, and this alternative should be carefully considered, the PSA nonetheless failed to review other locations that are similarly distant from schools and homes or of cleaner technologies.

2. Alternatives Table 2 Should Be Revised To More Accurately Assess Alternative Locations

Because there would be less of a localized impact for Staff Alternative Site D-Otay Landfill, the air quality and public health sections would likely have an impact that should be characterized as "Less than proposed site (PSA p.6-10)." Since there is little in terms of sensitive receptors, the public health impact especially would be considerably less from the Staff Alternative D than in the CVEUP. The PSA currently states that public health and air quality impacts would be the same whether the plant is near homes and schools or near a landfill with the closest home being 2,500 feet away (as opposed to 350 ft. away).

Also, the PSA's discussion of Staff Alternative D misleadingly states that this alternative is expected to have impacts that are "greater than proposed site due to linear facilities (PSA p.6-10)." This discussion should disclose, however, that such impacts would be temporary in nature (as the PSA concludes in the Traffic and Transportation and Cultural and Biological Resources sections of the PSA). The table in this section is misleading as currently written, giving the impression that Staff Alternative D would have significantly more impact in these areas.

3. Inaccurate Information Regarding Contract with SDG&E Overstates Importance of Current Location

Within the Introduction subsection of the Alternatives section, Staff writes that "MMC has executed a contract with San Diego Gas and Electric Company (SDG&E) to deliver 100 MW of peaking capacity to SDG&E's Otay Substation (PSA p.6-2)." This statement is inaccurate and incredibly misleading. MMC does not have a contract with SDG&E; instead, it has an interconnection agreement. Otay Substation is an "open source," meaning that SDG&E has limited authority to turn away a power plant seeking to hook up to that substation. However, this statement implies that SDG&E has contracted with MMC to provide power from CVEUP for a fee. There is no evidence of that and thus this line should be stricken.

Moreover, in the same paragraph, staff explains that "In order to meet that contract, the applicant has stated that Energy Commission certification would be needed by October of 2008 (PSA p.6-2)." This statement is not applicable to a staff assessment. It appears that decisions are rushed in order for MMC to meet its contractual obligation. However, as not above, MMC does not have a contract with SDG&E to provide energy and therefore, this statement should be revaluated in light of more accurate information regarding a MMC-SDG&E contract. The fate of the health of the surrounding neighborhood should not be expedited and given short shrift in order for MMC to meet its non-existent obligations to SDG&E.

Both statements are major errors because they both overstate the importance of having a power plant in the location that MMC is proposing. MMC does not yet have a contract with SDG&E, and SDG&E is still more than able to serve its customers without the CVEUP. Therefore, there is no need to rush approval of the CVEUP. Contrary statements in the PSA are misleading, and cannot be used justify this flawed project.

B. DISCUSSION REGARDING ALTERNATIVE TECHNOLOGIES IS WOEFULLY INADEQUATE

1. Discussion Regarding Energy Efficiency Is Incomplete

a. The Conservation and Demand Side Management subsection should be reassessed based on the Goals and Findings of the California Energy Commission's 2007 Integrated Energy Policy Report (IEPR).

The way the PSA is written now gives short shrift to energy efficiency and completely minimizes the impact such measures would have on cutting peak demand which are the alleged reasons for the power plant. CEC staff recognizes that "one alternative to meeting California's electricity demand with new generation is to reduce that demand for electricity (PSA p.6-11)." However staff quickly dismisses this alternative as inadequate to meet new energy demands. Unfortunately, this attitude conflicts with the CEC's own assessment of the potential of demand side management as stated in the 2007 Integrated Energy Policy Report. The IEPR recommends adopting "statewide energy efficiency targets for 2016 equal to 100% of economic potential, to be achieved by a combination of utility programs, state and local standards, and other programs (IEPR 2007, p. 114)." In total, the CEC identifies an overall savings of 30,000 to 60,0000 gigawatt hours.

need for new peaker plants in the region. This, however, overlooks the new research on the subject. In San Diego Smart Energy 2020, it is stated that in addition to the continued implementation of current programs, SDG&E alone could "save an additional 4,8000 GWh through expanded, cost-effective energy efficiency programs[2] (Powers 2007, p. 34)." As Chula Vista and San Diego are likely to expand city programs on the issue, CEC staff is not adequately reflecting the amount peak demand could be reduced without a peaker plant in close proximity to neighborhoods. This is a viable alternative that MMC could be proposing a project that included significant amounts of energy efficiency retrofits and solar panel projects on nearby leased rooftops- instead of a fossil-fueled peaker plant in this inappropriate location. Such an alternative must be analyzed.

c. Inadequate Discussion of Demand Response Programs

Based on data from the San Diego Smart Energy 2020, CEC staff undermines the potential of renewable energy and energy efficiency by not taking into account the great potential of "acquiring" MW through cleaner more efficient means. In the report author Bill Powers states that "the peak demand in SDG&E service territory in 2007 was 4,636 MW. A 23 percent reduction in 2007 peak demand through use of smart meters represents a demand reduction of approximately 1,070 MW (Powers 2007, p.42)." Once again this underscores the great untapped potential of energy available and the fact that a power plant will be expanded near a residential community unnecessarily. Throughout the PSA, staff states how desperately the region needs the energy CVEUP will provide, however, the Smart Energy 2020 numbers, in addition to the IEPR's figures, clearly state that there are viable alternatives to continuing polluting communities with inappropriately sited power plants (See also Appendix G).

Furthermore, a recent agreement between Southern California Edison and Honeywell casts further light on the promise of energy efficiency programs in cutting peak load demand in the region. The program, known as Night Shift, will deliver 2.5 MW of peak power between noon and 6 pm in SCE territory through the retrofitting of approximately 30,000 rooftop air conditioners. The retrofit will add a system to air conditioners that will allow water to freeze in a storage tank at night and then cool the refrigerant instead of a energy-consuming condensing unit. This process is expected to cut peak cooling demand by up to 95% and reduce power generation emissions by "approximately 20% or more (Los Angeles Times, May 29, 2008)." Once again, CEC staff overlooks programs such as these in favor of the polluting business as usual approach which does nothing to curb future peak load demand.

2. Discussion Regarding Renewable Alternatives Is Incomplete

a. Staff should reassess Renewable Resources subsection based on the Goals and Findings of the California Energy Commission's 2007 Integrated Energy Policy Report (IEPR).

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[2] Powers, Bill, *San Diego Smart Energy 2020: The 21st Century Alternative*, available at http://www.sdsmartenergy.org/11-oct-07_SD_Smart_Energy_2020_report_complete_FINAL1.pdf

Renewable Resources are not given adequate review as viable alternatives within the PSA. With the state prepared to adopt a new Renewable Portfolio Standard (RPS) of 33% by 2020, a more aggressive pursuit of renewable energy is necessary. SDG&E itself has been lagging beyond the rest of the Investor Owned Utilities (IOUs) with only 5% of its RPS when the law mandates 20% (in contrast to 16% from Southern California Edison and 11% from Pacific Gas and Electric) (CEC presentation, May 2008). Thus, clearly the business as usual approach of fossil fuel generation and the CEC siting process is not adequately assessing renewable energy opportunities. The new 33% RPS will not be met as long as such inappropriately sited projects such as CVEUP continued to be certified by CEC. There is simply no incentive for utilities and power plant companies to provide renewable energy proposals for certification especially if deeply flawed projects such as this receive certification.

b. Staff fails to review renewable energy alternatives fully and properly.

Furthermore, the discussion on renewable alternatives is woefully incomplete as it misunderstands the different ways renewable energy could be developed. Staff only considers single alternatives to a 100 MW power plant and does not take into account an alternative composed of several smaller distributed generation projects that have an accumulated total of 100 MW. This failure completely distorts the feasibility of renewable sources as alternatives to the proposed CVEUP.

In the renewable energy subsection (PSA p.6-11 - 6-12) of the alternatives section, staff reviewed several alternative technologies, namely solar, wind, and biomass. Staff ruled out solar and wind as viable alternatives since, "solar and wind resources require large land areas in order to generate 100 MW of electricity (PSA p.6-11)." Staff limited itself to look at alternatives to one 100 MW project. However, staff does not evaluate the technological and financial feasibility of several smaller distributed generation projects that have an accumulated total of 100 MW. This could be done through one solar project in one location, one hydrogen fuel cell in another location, and a Combined Heat and Power (CHP) project in another. In an attempt to further the discussion with respect to a renewable energy replacement of the South Bay Power Plant (SBPP), EHC in our Green Energy Options (GEO) report looked at several renewable energy alternatives.[3] Each of these alternatives looked at a mix of energy sources to replace SBPP such as some solar, some CHP, and possibly even some properly sited smaller fossil fuel sources.

Since the filing of the original AFC by MMC, and just prior to the filing of the PSA by CEC staff, Southern California Edison unveiled plans to set up utility-owned solar arrays on rooftops throughout their service territory, producing 250-500 MW. Such a plan undermines both MMC's and CEC Staff's claims on the CVEUP's necessity and infeasibility of renewable alternatives. The Commission should be analyzing whether a similar proposal – one that could be developed consistent with the mixed-use, light industrial character of Southwest Chula Vista – would be a more prudent and feasible option in this part of SDG&E's service territory. Sadly, the type of certification of inappropriately sited power plants that CVEUP represents will make it more difficult for

[3] Environmental Health Coalition, *Green Energy Option*. January 2007. Available at http://www.environmentalhealth.org/South_Bay_GEO_Alternative_Energy_Plan_Report.pdf

utilities to propose such innovative project as the SCE rooftop project. Instead, California residents will continue to see the proliferation of business as usual environmental injustice disasters like the CVEUP.

c. Other Methods of Distributed Generation Were Ignored

Finally, methods of distributed generation, apart from renewable energy sources, were not analyzed. Though fuel cells and CHP are not renewable energy sources, they emit fewer pollutants and at least in the case of CHP are highly more efficient (at 60-80%) than the proposed CVEUP's much touted efficiency (46%). Distributed generation is generally a much less polluting, more efficient way of providing energy, but CEC staff completely ignores it (See Appendix G). Even if natural gas power plants are absolutely necessary, a smaller, properly sited fossil fuel power plant could be built along with several other small, cleaner, more efficient distributed generation projects. There are numerous different possibilities available that would mean acquiring the same amount of energy the CVEUP would provide without subjecting the local community to more pollution.

C. THE "NO PROJECT" ALTERNATIVE DISCUSSION SHOULD BE COMPLETELY REVISED

1. There Are Misleading Statements Regarding The Existing Plant's Regulatory Scheme

The "No Project Discussion is riddled with misinformation, highly speculative statements and extremely inaccurate analyses, and therefore should be revised. Specifically there are several statements and passages that should be modified or even stricken completely. The first such passage states, "The existing Chula Vista Power Plant is not under the jurisdiction of the CEC and the operation of this facility would not be monitored nor would the permit conditions be enforced by the Energy Comission's specialized Compliance Unit under California Code Regulations, T20, sec. 1770. (PSA p.6-13)" The statement should be modified by adding and clarifying that the existing power plant will still be under the jurisdiction of the City of Chula Vista which it has been since its establishment in 2001. The way the sentence currently reads gives the impression that the current plant is in an unregulated limbo. In fact, the City of Chula Vista has been active in attempting to relocate the power plant away from sensitive receptors. This stands in contrast to the CEC which, according to the PSA, has largely ignored the close proximity to homes as an objective point of concern.

Moreover, as mentioned several times throughout the certification process by Southwest Chula Vista Civic Association, it appears that the existing peaker plant violated the terms of the Special Use Permit by ceasing operations and then starting them up again without any new permit. If this is indeed the case, then the existing plant will need to apply for a new permit before it can continue to operate. This changes staff's "no alternative" forecast since there is a very good chance that if there is no CVEUP, there will be no power plant in the area at all. This could then give the residents of Southwest

Chula Vista some much needed relief from toxic air pollution that has been emitting from the peaker plant since 2000.

2. Statements Made in The "No Project" Analysis Are Highly Speculative and Not Based in Concrete Evidence.

The "No Project" analysis is unfairly skewed in favor of the new power plant in the same location. The PSA states, "in the absence of the CVEUP, however, MMC Energy, Inc. or another power company would likely propose that other power plants be constructed in the project area to serve the demand that could be met with the CVEUP. These plants could consume more fuel and emit more air pollutants per kilowatt-hour generated than the CVEUP." Unfortunately, the PSA is incomplete since these new plants could just as easily consume less fuel and emit fewer air pollutants. Furthermore, it is also just as likely that the failure of CVEUP to be certified would encourage other companies to propose a power plant farther away from schools and homes, since this is the central argument against the project. Moreover, it is also just as likely under a "no project analysis" that the city will seek to remove or relocate the older 44 MW plant to an area farther away from sensitive receptors.

3. The "No Project" Analysis Is Highly Speculative With Regard to the Possible Future Emissions of the South Bay and Chula Vista Power Plants.

Moreover, later in the discussion, staff makes a highly speculative assumption that forces one to suspend a certain amount of logic. "In the near term, the more likely result is that existing plants, such as the Chula Vista Power Plant and the South Bay Power Plant, many of which produce higher level of pollutants, could operate more. The existing South Bay Power plant is an older base-load facility that is now being run as a peaker. The technology and design of the proposed CVEUP is considerably more efficient as a peaking power facility than the South Bay Power Plant, which was designed to operate continuously as a base-load facility (PSA p.6-13)." This passage should include a statement that clarifies that there is no evidence that CVEUP would lead to the removal of the South Bay Power Plant. There is little direct evidence of any link between certification of the CVEUP gets built and a possible reduction in the operational hours of the SBPP. Any attempt to create such a link is largely speculative.

CEC staff is quick to point out that the failure to build CVEUP would lead to greater emissions and greater operation hours for SBPP, however, they fail to take into account some of the peak demand reduction programs that the city of Chula Vista is currently undertaking. These programs should be analyzed as part of the "No-Project" alternative as well.

4. The PSA Assumes That The Greater Efficiency of the CVEUP Will Directly and Automatically Lead To Less Emissions

Throughout the PSA, staff makes statements illustrating a confusion surrounding the impact of CVEUP's greater efficiency in operations. Greater plant efficiency allows more energy to be created with less fuel, however, the effect of this is that it makes it less expensive to run the plant more hours. Staff's confusion is especially indicative from the

statement, "If the project is not built, the region will not benefit from the local, relatively clean and efficient source of 100 MW of new peaking generation that this facility would provide (PSA p.6-14)," should be struck out as it does not accurately reflect the real likelihood of increased emissions that the CVEUP would emit given the amount of hours it will run and the 122% increase in size from the original plant. According to the AFC, the CVEUP will be dirtier per hour with respect to NOx, SOx, VOC, and PM2.5/10. This is not reflected in the above passage when staff mentions that "the region will not benefit (PSA p.6-14)." Southwest Chula Vista already has a very high level of air pollution and is suffering from cumulative impacts from surrounding emissions. Adding the increased pollution of the CVEUP, especially if the hours increase from 200 hours of the original plant to, as MMC Vice President Harry Scarborough stated at the PSA workshop, "500. 600, or even 800 hours," it does not appear accurate to refer this new plant as a benefit. Furthermore, it is unclear how staff defines the region, if CEC staff is referring to Southwestern Chula Vista, or even broadly referring to Western Chula Vista, the region is already suffering the burden of being the location for two of the region's power plants. while the major load increases are occurring in Eastern Chula Vista, that is, areas of the city east of I-805.

5. The PSA Is Incorrect In Its Information About RMR Removal of South Bay Power Plant

a. Staff Statements Contradict CAISO's Letter on the Subject

The PSA's assertion that "the additional peaking power the proposed project would provide would be an integral step in removing the Reliability Must Run status from the South Bay Power Plant and allowing the removal of this older, inefficient facility" should also be removed as it is an incorrect and false statement.

This statement is not supported by any evidence EHC has seen on this matter. In fact, in a letter to Chula Vista Mayor Cheryl Cox, the California Independent Systems Operator, dated January 28, 2008, stated that for RMR to be removed, there must be changes to local area reliability (See Appendix F). CAISO points to three projects that would meet this requirement- Otay Mesa Energy Center, Sunrise Powerlink, and two new peaking generators currently under contract by SDG&E. These two peakers do not include CVEUP. It should be noted that at the time the letter was sent, the CEC certification process was well under way for the CVEUP and yet CAISO chose to say nothing about the CVEUP regarding RMR removal of SBPP.

The fact that neither of those two peakers were in South Bay region of San Diego County underlines the point that the additional energy does not need to be near the existing SBPP. Thus the additional energy does not need to come from a peaker that is so close to homes and schools in an area with already high levels of air emissions.

b. Staff's Statements Are Incorrect With Respect to a SDG&E-MMC Contract

This then brings up a crucial point. It appears from the available evidence that MMC does not have a contract to sell energy to SDG&EInstead, CVEUP will sell energy directly to CAISO. CAISO will call on CVEUP whenever state energy reserves are such

that extra generators are needed. Thus, CVEUP will respond to state energy needs, not necessarily any regional energy needs. And considering that recently CAISO stated that its summer reserves are more than adequate to meet the upcoming summer peak periods, it does not appear a crisis is imminent if there is no project. This needs to be incorporated into the FSA and explicitly mentioned in the "No-Project" alternative. Moreover, the discussion should also address the future of the plant once the reliability process is shifted from ISO contradicts to IOU's Resource Adequacy filings.

c. Staff's Statements Are Inconsistent with Publicly Available Data From CAISO With Respect To San Diego Area Reliability

The comments made by CEC staff pertaining to "an integral step" in removing RMR status from the SBPP" are not consistent with the information EHC has reviewed recently. In a review of the San Diego Area reliability data the numbers show that the gap between energy currently available and energy needed so as to remove RMR is not a very large one. In fact, publicly available data illustrates that even without Sunrise Powerlink and assuming SBPP is retired, the reliability deficiency can be met without the CVEUP. This evidence supports the assertion that whether or not CVEUP is certified, there will be little effect on the operations of SBPP, as other factors are controlling that decision. Staff, however, uses this highly controversial issue, without any substantial support, to make the case for the CVEUP. This is incorrect and should not be used as a basis for approving MMC's application. Furthermore, the data clearly illustrates that the reliability can be met through a combination of demand-response programs and renewable energy programs, despite staff's statements questioning the feasibility of both types of programs.

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Appendix A

Environmental Health Coalition

COALICION de SALUD AMBIENTAL

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ehc@environmentalhealth.org • www.environmentalhealth.org

March 3, 2008

David Garcia
Chula Vista City Manager
276 Fourth Avenue
Chula Vista, CA 91910

Dear Mr. Garcia:

Environmental Health Coalition (EHC) feels compelled to correct some misconceptions and confusion surrounding General Plan Policy E6.4. The policy states that the City, "avoid siting new or re-powered energy facilities and other major toxic emitters within 1,000 ft. of a sensitive receptor." As EHC has stated several times before, a plain reading of the policy clearly illustrates its applicability to the current situation. The proposed plant will be located roughly 350 feet from the nearest residential community, a sensitive receptor. Furthermore, as the plant will be a new 100 MW facility, it thus falls into the "new or re-powered energy facilities" threshold.

In addition to the a plain meaning interpretation of the actual text, the history of the policy's drafting and passing provides illustrates that the legislative intent of those that created and voted for the policy is to prevent the same type of siting that the MMC proposal represents.

EHC began as early as December 2003 to make recommendations to members of the Environmental, Open Space and Sustainable Development Subcommittee. In a letter to Ed Batchelder and Paul Hellman of the City of Chula Vista, EHC requested that there should be a general plan policy that ensures that, "new or repowered energy generation in the City results in a reduction of environmental and human health impacts for residents living downwind of generation facilities." Furthermore, the letter suggests that the plan should ensure, "that sensitive receptors such as schools, day care, residential, and senior centers are not impacted by energy generation." Here, the foundations for what would eventually become E6.4 were being laid out.

By 2005, a proposed policy had now been drafted by city staff, with considerable input by members of the community and EHC. Staff's language for the draft version of E6.4 stated, "Avoid siting new or re-powered energy generation facilities and other major toxic air emitters within 1,000 feet of a sensitive receiver, or the placement of a sensitive receiver within 1,000 feet of a major toxic emitter, **unless a health risk assessment has been performed demonstrating that attendant health risks are within acceptable state and federal standards, as well as other relevant health hazard indices"** (emphasis added). This policy language is relevant as it adopts the general idea of the request EHC made in December 2003 covering new or re-powered power plants but went

further as it specifically gives a 1,000 foot prohibitive buffer rather than the less specific term of "residents living downwind."

In a letter dated July 20, 2005 to the Mayor and City Council regarding the 2005 staff recommendation for E6.4, EHC urged the health risk assessment language stricken from the proposed policy. As stated in the letter, "health risk assessments are a single tool to be as part of a full analysis of facts related to decision-making." EHC disagreed with making E6.4 a numbers game in which a health risk assessment that presented a particular piece of data, usually paid for and produced by the polluter, placing the project in a favorable light would be used to exempt a new energy generation facility from the policy. Also stated in the July 2005 letter was EHC's concern that "federal and state standards generally do not reflect cumulative toxic burdens in their standards, nor do health risk assessments." EHC opposed linking the policy to state and federal legislation arguing that such legislation does not adequately deal with local conditions and is simply "not protective."

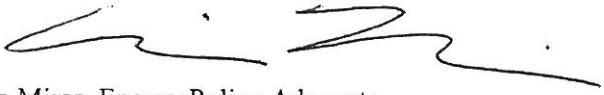
In the final adoption, the Council voted unanimously to strike the qualifying health risk assessment language in E6.4, the major qualifier for a 1,000 foot buffer between energy generation facilities and sensitive receptors. By striking this qualifying language, the Council made clear its intent that the policy creates an unconditional buffer barring energy generation facilities within 1,000 feet of a sensitive receptor and rejecting any numerical or other thresholds as was found in the staff recommended language. Thus, the policy bars all energy generation facilities regardless of whether or not that facility is, as MMC argues, cleaner and more efficient.

Furthermore, the new policy reflects Council's clear direction that the buffer and policy was not to be tied into federal or state standards. Thus it is incorrect for MMC to bring in a Federal Clean Air Act definition to define "major toxic emitters." MMC is also incorrect to bring in projected emissions data as proof that the policy does not apply, as by striking out the health risk assessment, the policy framers made it clear that there should not be a health risk threshold for a power plant or similar type of polluter to be covered under the policy.

In conclusion, the surviving record of the general plan update process illustrates the development of a policy that creates a clear and strong prohibition against new or re-powered energy generation without qualification or numerical thresholds. The policy, in clear terms, says that a power plant shall not be placed within 1,000 feet of homes and schools. Here, approval of the MMC proposal will violate this policy in both the letter of the law and the spirit in which it was intended.

We strongly urge the city of Chula Vista to uphold the integrity of its General Plan; in fact it is your responsibility to your citizenry. Please defend this policy and ensure its equal application through all of our communities.

Very Truly Yours,



Leo Miras, Energy Policy Advocate
Environmental Health Coalition

Appendix B

July 25, 2005

Mayor Stephen Padilla
City of Chula Vista
476 Fourth Avenue
Chula Vista, CA 91910

RE: EHC recommended policy amendments for the Final Chula Vista General Plan Update

Dear Mayor Padilla:

Environmental Health Coalition (EHC) representatives have participated in the GPU process since its inception as a member of the Environment, Open Space, and Sustainability Subcommittee. EHC has been primarily involved with the Environmental Element of the GPU. We wish to thank the staff for the significant improvements in the GPU text revisions issued this month. Many of our comments have been addressed and we thank the staff for their responsiveness to our comments.

We do, however, still have three areas that we hope the Council will strengthen to better protect residents' health and to seek consistency with the recommendations in the Regional Comprehensive Plan (RCP) and the Regional Energy Strategy (RES) on the issues of Air Quality, Energy Sustainability, and Environmental Justice.

ENVIRONMENTAL JUSTICE

In 2003, direction to incorporate Environmental Justice (EJ) was specifically added to the State Guidance on General Plans.[1] It is clear that the staff consulted this guidance in developing the EJ language in the Environmental Element and we sincerely appreciate their efforts and fully support the addition of a specific objective and policies to address environmental justice.

However, our major concern is Policy EE 23.3 that merely seeks to *"avoid over-concentrating"* dangerous facilities near schools or residential units. Facilities that pose a significant hazard to human health should not be located in proximity to these types of facilities at all.

EHC requests that policy EE 23.3 be amended to read:

EE 23.3 ***Avoid*** **siting industrial facilities and uses that pose a significant hazard to human health and safety ~~in a manner that seeks to avoid over-concentrating these uses~~ in proximity to schools or residential dwellings.**

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[1] http://www.opr.ca.gov/planning/PDFs/General_Plan_Guidelines_2003.pdf

This position is supported by the State Guidance on Environmental Justice which states in a section on New Residential Uses and Schools that "*...Cities and counties should provide for the location of new schools and residential dwellings in a manner that seeks to avoid locating these uses in proximity to industrial facilities and uses that will contain or produce materials that, because of their quantity, concentration, or physical or chemical characteristics, pose a significant hazard to human health and safety.*"[2]

PROMOTING CLEAN AIR

Another important amendment for the health of Chula Vista residents is the requirement that major toxic air emitter be, at a minimum, **no closer** than 1,000 feet to sensitive receptors. We strongly urge the Commission to strike the health risk assessment language from policy recommendation EE.6.4 as noted below. It is well established that Health Risk assessments are merely a model, easily manipulated, representing assumptions that may or may not be accurate, and should **never** be the single factor in allowing major toxic air emitters to impact human populations. Further, the federal and state standards generally do not reflect cumulative toxic burdens in their standards, nor do health risk assessments. Bottom-line, the current language is not protective.

EHC recommends policy EE 6.4 be amended to read:

EE 6.4 Avoid siting new or re-powered energy generation facilities and other major toxic air emitters within 1,000 feet of a sensitive receiver, or the placement of a sensitive receiver within 1,000 feet of a major toxic emitter. ~~unless a health risk assessment has been performed demonstrating that attendant health risks are within acceptable state and federal standards, as well as other relevant health hazard indices.~~

CREATING A SUSTAINABLE ENERGY FUTURE

We also strongly support the additional policies for the inclusion of LEED, tree planting, and renewable energy. We hope the Council will take an even more assertive step and adopt the Regional Energy Strategy goal of satisfying 40% of the region's energy needs with renewable energy by 2030.

We recommend the policy EE 7.5 be amended to read:

EE 7.5 *Pursue* ~~Encourage~~ *40% city-wide* electricity supply from *clean* renewable sources *by 2017.*

Thank you for the opportunity to comment on this important document. Please contact me with any questions on these amendments.

Sincerely,

Laura Hunter, Director
EHC Clean Bay Campaign

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[2] State Guideline, page 27

Appendix C

Submitted August 14, 2001
Guest Editorial by Council member Jerry R. Rindone
Star News / Union Tribune

Peaker Plant Plans Repealed

The Chula Vista City Council, along with several other noteworthy organizations, wholeheartedly support the Governor's plan to reduce reliance on out of state resources of energy. However, based on the twelve percent drop in energy use in California over the last year, and the concern about the burning of fuel oil at the South Bay plant without limitation, the Council and several other community organizations unitedly voiced their opposition to the emergency siting of the RAMCO 62 MW peaker power plant in Chula Vista.

Because of the state's energy crisis, environmental and community groups have been reluctant to challenge the implementation of peaker plants. However, as peaker plants have continually exceeded emission caps, and as air quality has decreased, these same groups have decided to take action. There are now several lawsuits in the courts which challenge the state's right to allow the peaker plants to exceed their emission caps contained in their permits. Although the districts justify the granting of these excesses by requiring mitigation payments and imposing additional conditions, there has been no true legal test of the validity of this approach. Simply stated, many contend that the energy crisis does not give the state government the right to provide power at the expense of human health. These same groups are demanding that the emission caps outlined in a plant's permit be enforced.

Enforcement of emission caps is vitally important because the turbines often used in these peaker plants are fueled by distillate oil, which is a particularly dirty source of energy. In order to provide the energy needed during an energy crisis, these plants would most likely emit oxides that would exceed their permit requirements and adversely affect our air quality. Even those that promote the building of peaker plants state that "once the new, large, efficient and clean power plants are built, that we won't need the small, inefficient, dirty, peaker plants." (2001 Union Tribune Publishing Co.) Most agree that peaker plants adversely affect the air quality in the location where they are built.

To allow a peaker plant to be built, and then to operate it without limiting its emissions level, was more than the City Council could accept. Therefore, the City Council, in conjunction with other local groups and individuals, joined together to oppose the building of the peaker plant in Chula Vista. When RAMCO voluntarily chose to rescind its application to build its peaker plant here in Chula Vista, a general response of gratitude and relief followed. For many, including the City Council, having one less pollution generating facility in Chula Vista was regarded as a major victory.

Appendix D

ALIFORNIA ENERGY COMMISSION
16 NINTH STREET
CRAMENTO CA 95814-5512

RAMCO CHULA VISTA II PEAKER GENERATING STATION (01-EP-3)

STAFF SUPPLEMENTAL ASSESSMENT FILED JUNE 12, 2001

On June 11, 2001, the City of Chula Vista submitted written comments regarding the RAMCO Chula Vista II Peaker Generation Station (01-EP-3). Staff has reviewed these comments and provides the following response.

Comments Contained in the Letter

Comment: The fact that this plant will not be completed until September 30, 2001, at the earliest and will not be operating in time to meet the need addressed in under the executive order suggests that it should not (be) expedited, and the community should be given the time it needs to thoroughly review the applicants requests in context with the other energy projects within the region.

The Governor's Executive Order, D-28-01, specifically requires the Energy Commission to expedite the processing of Applications for Certification for peaking and renewable powerplants which can be constructed and become operational by September 30, 2001. The proposed RAMCO Chula Vista II facility meets this criteria and qualifies for expedited processing under the Governor's Emergency Orders.

Comment: The City has already approved a maximum 49-megawatt peak load electrical power generating facility at the site...there are dramatically different circumstances surrounding this second plant. The project was approved under the City of Chula Vista's normal permitting process with appropriate environmental review and land use approvals.

As identified in the staff assessment, the proposed facility is consistent with the land uses in the area, including the Chula Vista I facility approved by the City under a mitigated negative declaration. The site is and surrounding facilities are within the Southwest Redevelopment District and are zoned IL-Light Industrial. The City categorizes power facilities as Public/Quasi which is consistent with an IL zoning designation. Staff believes the original Conditional Use Permit (CUP) issued by the City is applicable to the entire property and RAMCO has agreed to abide by the CUP requirements. Public Resources Code, section 25500 provides the Commission with the exclusive authority to certify all sites and related facilities in the state. This section further states that the issuance of a certificate by the Commission shall be in lieu of any permit, certificate or similar document required by any state, local, or regional agency.

The City indicates that the Chula Vista I facility was "...approved under the City of Chula Vista's normal permitting process with appropriate environmental review and land use approvals." This appears to be the City's only citation as to why the circumstances of the City's approval of the Chula Vista I facility are "substantially different" than the Commission's approval of the Chula Vista II project.

Comment: The CEC's February 2001 report to the Governor identified the San Diego area as one that might benefit from peaker plants but indicated that, "all potential sites in the area (are) questionable," due to limited supplies of natural gas.

The Commission held a hearing on the status of California's Natural Gas Supply on June 5, 2001. At the hearing, information was provided by SoCal Gas and staff which indicates that the supply of natural gas is being increased by the 175 MM cfd by the winter of 2002, and that additional projects are underway which will also increase the availability of natural gas in Southern California. Since SDG&E has no gas storage and relies on the SoCal Gas system for supply, an increase in the availability of natural gas to SoCal Gas should also result in an increase in the supply available to SDG&E.

a. Cumulative Air Impacts

The City believes the project should be placed on hold until the results of the San Diego Air Pollution Control District's cumulative analysis is complete. The District has, with the exception of one component, completed this analysis. Still underway is the cumulative analysis of the proposed projects with the Larkspur facility operating on oil. This analysis should be completed by 9 a.m. on June 13, 2001, and will be available to the Commission at its Business Meeting.

At the June 11, 2001, Commission Business Meeting issues were raised by the City regarding the air quality analysis done for the Chula Vista II project. Specifically, questions were raised regarding cumulative impact analysis which included the following factors:

- Background or ambient air quality used in the analysis
- Inclusion of all plants proposed for the area
- Inclusion of fuel oil use at the Larkspur site

The San Diego Air Pollution Control District has reviewed the initial data, is providing modeling with the Larkspur Energy Facility utilizing fuel oil, and provided clarification regarding the issues raised regarding the use of the South Bay plant as a part of the background against which modeling is done.

Background data is inclusive of air quality information from a variety of locations, taken at regular intervals over a long time period, and is inclusive of all real measured conditions and impacts. This data is the actual ambient air quality environment against which proposed or new projects are modeled.

Additional questions were raised regarding 13 days of fuel oil burning at the South Bay facility due to gas supply curtailment in December 2000 and January 2001. This situation is incorporated into the background data and was considered in modeling the potential impacts of the Chula Vista II project along with the cumulative impacts of the other new projects in the area (see attached June 11, 2001 letter from Daniel Speer of the SDAPCD). Specifically, modeling including worst case scenarios, indicated that "...California and Federal standards for CO and NO2 will not be exceeded due to the operation of these facilties as proposed." (Spear, p. 2, June 11, 2001). Modeling of the PM10 impacts of the RAMCO and all other projects also indicated that neither California or Federal PM10 standards would be exceeded.

SDAPCD verbally reported the cumulative toxics analysis for the projects as being well within acceptable limits. Health risks, and acute non-cancer impacts are below the acceptable level of 1.0, reaching a levels of .77 and .148 respectively. For the Cancer health risk, the combined projects rated 1.16 where 10.0 is the standard. (D. Speer, personal communication 6-12-01).

An additional model is being developed analyzing the impacts with the Larkspur Energy Facility operating on fuel oil instead of natural gas. This modeling, though not yet complete, is not expected to make significant changes to NOx, CO, SO2, or PM10 (Personal Communication, D. Speer, June 12, 2001). This data will be appended upon receipt from SDAPCD, expected June 13, 2001.

Concerns regarding cumulative impacts of the increased numbers of electric facilities usually center around the existence of two plants, South Bay and the new Otay Mesa facility. According to Matt Layton, CEC and confirmed by D. Speer of the APCD, emission plumes from these two large plants do not interact. This helps to reduce the local cummulative impacts of key pollutants and PM10, though regional air quality analysis reflects the combined impacts.

External to the plant operations is the concern regarding gas supply in the San Diego region. As previously noted, in December 2000 and January 2001 the South Bay facility was forced to operate for 13 days using fuel oil instead of gas. This was due to curtailment of the gas supply. In testimony before the CEC on June 5, 2001, Michael Murray of Sempra Energy indicated that events of last winter causing brief curtailment were more a result of market place actions catching the industry by surprise, having expected no sharp increase in demand. This foreknowledge, increased storage, coupled with infrastructure improvements to the transmission system in Southern California, should greatly alleviate the potential for curtailment of customers in the region.

b. Natural Gas Consumption

The City asserts that the Chula Vista I project will use "two to three times as much natural gas as the Otay Mesa plant to generate a comparable amounty of electricity.

Staff believes that the City's comparison of the Chula Vista II project's fuel efficiency to the Otay Mesa project fuel efficiency is invalid. The Otay Mesa project is a large (510 MW) baseload facility, intended to be operated for long periods at full load. The Chula Vista II project, on the other hand, is a much smaller (one-eighth the output) 62.4 MW project, and is intended to operate as a peaker. As such, it can be called on to start quickly, operate for a few hours, and then shut down as system conditions warrant. Otay Mesa could not perform satisfactorily under a similar operating regimen.

c. Environmental Impact Inequities

The City states that "staff and the communities are concerned about increases in chemical, noise and thermal pollution and "what appears to be a trend to relax environmental restrictions in favor of relief from system reliability issues..." The City further states that the "CEC is relaxing the NOx standards to allow the proposed facility to operate between September 30, 2001 and June 30, 2002."

Staff is also very concerned with the potential for environmental impacts from power plant which are permitted by the Commission. The Governor's Emergency Order D-28-01 requires that all agencies involved in the expeditious implementation of the Emergency Orders follow substantive requirements designed to achieve environmental protection and the protection of public health and safety to the maximum extent consistent with the prompt execution of the executive orders.

Staff performed a "fatal flaw" analysis of the environmental, engineering, and system impacts of the Chula Vista II project. The results of this analysis are contained in staff's assessment of the project filed on June 5. The analysis is consistent with requirements of the Emergency Order. Staff's assessment concluded there were no unmitigated impacts associated with the Chula Vista II project and recommended Commission approval. Staff still supports this conclusion.

Further, the City's assertion that the CEC "relaxed" NOx standards to allow the proposed facility to operate is false. Projects eligible for emergency siting may, upon a showing of cause, be allowed to operate at 25 ppm NOx until equipment for reducing NOx emissions is available. If an Applicant proposes this alternative, they must install equipment to reduce NOx emission to 5 ppm by June 1, 2002. This requirement is the result of discussions between the California Air Resources Board, local air districts, and the U.S. Environmental Protection Agency and is not, as the City asserts, a relaxation of standards for the Chula Vista II project by the Energy Commission.

d. Public Convenience and Necessity

The City believes that the proposed Chula Vista II facility is not in compliance with "applicable state, local or regional standards and that the Commission must make a finding of public convenience and necessity before approving this project.

As previously stated, staff believes the project is in compliance with all applicable laws, ordinances, regulations and standards and recommends Commission adoption.

Additional Requirements

The City of Chula Vista has requested the Commission make the approval of the proposed Chula Vista II project contingent upon the implementation of six conditions. Staff has reviewed the City's proposed conditions and offers the following comments.

Condition 1: All conditions adopted by the Agency for Phase I will be incorporated and adopted for Phase II.

Staff believes that implementation of the Special Use Conditions placed on the Chula Vista I project by the City are appropriate for the Chula Vista II project and proposes the following modification to condition Land-1.

LAND–1 The project permitted under this emergency process will conform to all applicable local, state and federal land use requirements, including general plan policies, zoning regulations, local development standards, easement requirements, encroachment permits, truck and vehicle circulation plan requirements, Federal Aviation Administration approval, and the Federal Emergency Management Agency National Flood Insurance Program. *The applicant shall also comply with the Special Use Conditions placed on the Chula Vista I project by the City of Chula Vista.*

Verification: Prior to start of construction, the project owner will submit to the CPM documentation verifying compliance with the above referenced land use requirements

Condition 2: The sound wall built on the south side of the property will be built around the entire perimeter of the site to buffer the sound effects in all directions.

Staff agrees with the proposed comment and recommends the addition of the following condition:

NOISE-5 To further mitigate the potential noise impacts of the project, the owner shall extend the existing sound wall on the south side of the project site to the

entire perimeter of the project. The sound wall installed as a result of this condition shall be permanent in nature and painted to blend with the landscape.

Verification: Prior to project start, the owner shall notify the CPM, in writing, that the permanent sound wall has been constructed and painted.

Condition 3: The term of the CEC approval be limited to three (3) years. If approved for a period longer than three (3) years, reduce NOx emissions to 2 ppm.

Staff does not believe the project life should be limited to three years, or that a 2 ppm NOx emission limit is warranted.

Condition 4: The applicant should be required to make a significant contribution to local renewable energy projects or mobile air emissions retrofit funding to at least partially mitigate adverse air impacts. Require that if the applicant violates 2001 emissions standards and is not required to pay a penalty to the APCD or comparable authority then the applicant shall pay the penalty amount to the City of Chula Vista for Chula Vista/South Bay regional air pollution mitigation projects.

Staff does not believe the City has provided justification which would warrant the imposition of the above conditions. The project will receive a valid air permit from the San Diego Air Pollution Control District which specifies the mitigation required to offset any project impacts.

Condition 5: The Selective Catalytic Reduction (SCR) pollution control equipment would be installed at the earliest possible specified date. The proposed June 1, 2002 date is too relaxed a standard.

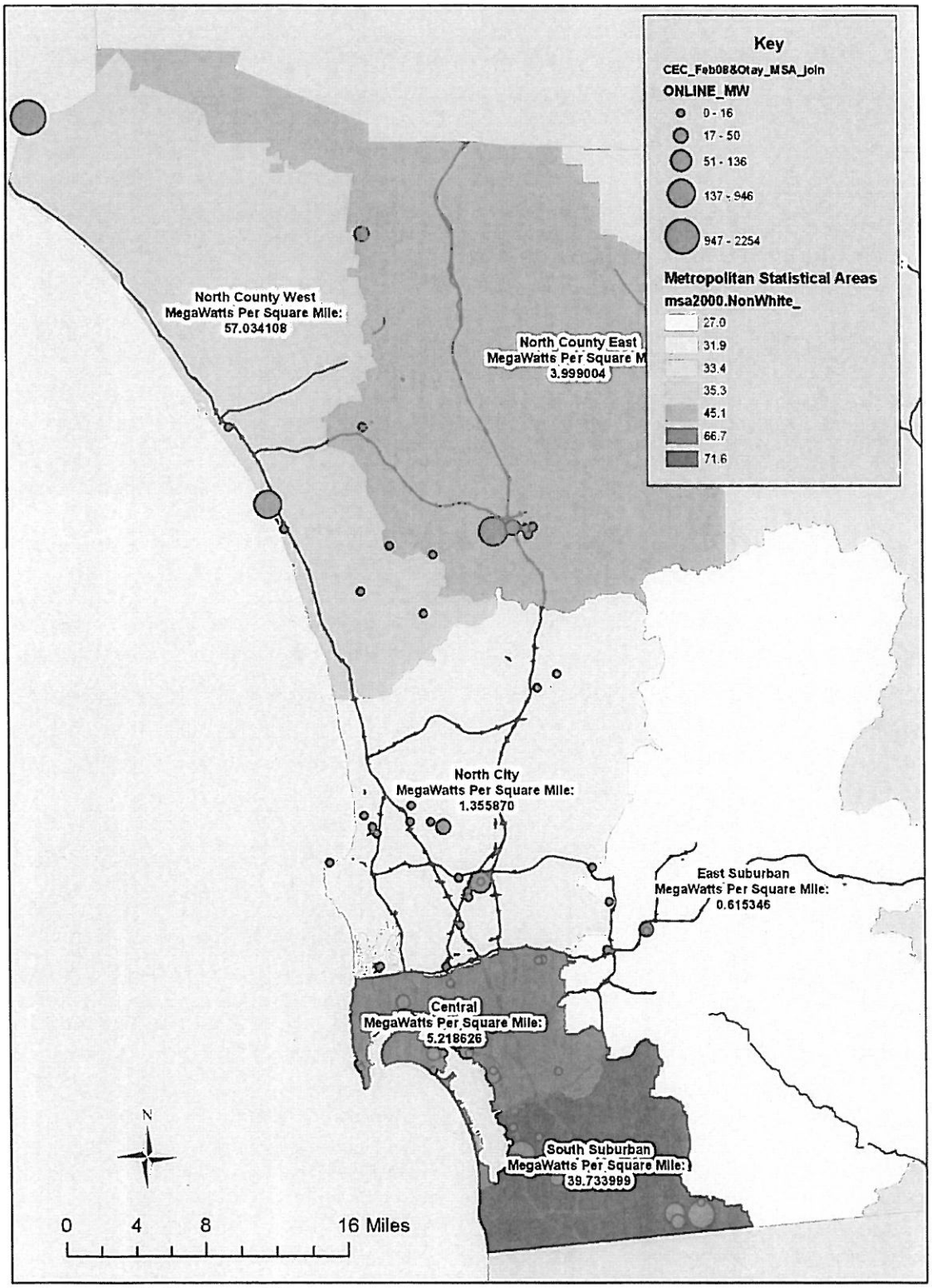
Staff believes the applicant intends to install SCR as soon as possible but not later than June 1, 2002.

Condition 6: Any future applications of this type by Ramco or any other entity should be processed locally or at least in a more extensive CEC process that includes a more complete CEQA review and public process.

Staff believes that this comment is beyond the scope of the project currently before the Commission and, in fact, is in conflict with Public Resources Code section 25500 and the Governor's Emergency Orders.

Appendix E

MegaWatts Per Square Mile & Percent NonWhite by Metropolitan Statistical Region



Sources: CEC (Power plants)
SANDAG: MSA map layer

Feature edit map.mxd
Environmental Health Coalition, 2008.

Appendix F

California ISO
Your Link to Power

California Independent System Operator Corporation

Yakout Mansour
President & Chief Executive Officer

January 28, 2008

Honorable Cheryl Cox
Mayor
City of Chula Vista
276 Fourth Avenue, MS A-101
Chula Vista, CA 91910

Dear Mayor Cox:

Thank you for your letter of January 7, 2008, regarding the future of the South Bay Power Plant ("SBPP"). The letter asks the California Independent System Operator (ISO) to respond to the following questions:

1) What is the function of the SBPP as it relates to reliability and transmission?
2) What needs to occur in order to reduce the reliability designation on the SBPP enough to allow the lattice towers and transmission lines to be removed by December 2008?
3) What needs to occur in order to eliminate the Reliability Must Run (RMR) designation on SBPP so that it can be decommissioned and removed by February 2011?

I understand that the City of Chula Vista is in negotiations with various parties regarding the future use of the bay front that would require removal of the SBPP. Thus, the timing of the possible retirement of the SBPP is an important factor in these negotiations. As you know, the generating units at the SBPP are currently designated by the CAISO as Reliability Must-Run (RMR) units. This designation cannot be removed until local reliability requirements can be met without the SBPP.

The CAISO is a non profit public benefit corporation chartered under the laws of the State of California for the purpose of operating and maintaining the reliability of the statewide electric transmission grid. The reliability of the transmission grid is dependent on a number of specific power plants located in specific areas. SBPP is, in fact, critical to maintaining the reliability of the San Diego area. In order to remove the RMR designation from SBPP, the California ISO must find that reliability requirements can be met without SBPP units.

In May 2007, San Diego Gas & Electric ("SDG&E") entered into an agreement with the operator of the SBPP to fill SDG&E's Local Capacity Area Resource requirement needs as mandated by the California Public Utility Commission (CPUC). This agreement runs through December 31, 2009 and

will secure all of the 704-megawatt capacity from the SBPP to the region. Although this agreement will provide SDG&E more flexibility over the operation of the facility and will ensure that the output from the plant is available to the CAISO to support the local area needs, the CAISO concluded that continued RMR designation was required in order to ensure availability of the resource to meet local reliability needs.

The CAISO is aware of the widespread interest that exists to see SBPP decommissioned and has been in discussions with SDG&E about the requirements necessary to remove the SBPP'S RMR designation. In order to remove the RMR designation, there are a number of modifications to the transmission and/or generation infrastructure that must happen first to ensure that local area reliability is maintained.

Three projects are underway to meet this local area reliability requirement. First, with respect to the need for new resources, construction of the Otay Mesa Energy Center is currently underway. Second, SDG&E has filed an application with the CPUC to construct the Sunrise Powerlink Transmission Project that will enable SDG&E to substantially improve system reliability and provide access to renewable resources. Third, SDG&E has recently executed contracts with two developers for new peaking generation resources in its service territory.

From the CAISO's perspective, at least two out of three of these major modifications must occur before the RMR designation at the SBPP can be removed. In addition to these modifications, the new Silvergate 230 kV substation and its related upgrades (scheduled for December 2008) as well as the new Baja Norte natural gas interconnection (scheduled for January 2008) must both be in service.

Given that the Otay Mesa Energy Center is under construction, the future addition of Sunrise Powerlink would satisfy the requirements for removal of RMR designation at SBPP. If Sunrise is delayed or not constructed, additional new peaking generation will be required within SDG&E's service territory. The amount of new capacity would be based on the CAISO's existing grid reliability standards, which are analyzed each year. Based on the current status of the previously noted projects, the RMR designation at the SBPP could be removed as early as 2010. However, delays in construction of the Sunrise Powerlink, lack of sufficient new peaking capacity, or delays in the in-service dates in implementing the new Baja Norte natural gas interconnection, would clearly delay this date. Once the RMR designation is removed, there should be no CAISO-related impediment to retiring and decommissioning SBPP.

I trust that this sheds some light on the California ISO's role in determining the generation and transmission infrastructure necessary to ensure grid reliability and its analysis of local reliability needs related to the SBPP. If you have additional questions, please call Ali Chowdhury, Director of Regional Transmission South, at (916) 608-1113.

Sincerely,

Y. Mansour

Yakout Mansour
President & CEO

cc: Ali Chowdhury (CAISO)
Mike Niggli (SDG&E)
Steve Castaneda (City of Chula Vista)
David Garcia (City of Chula Vista)
Scott Tulloch (City of Chula Vista)
Michael Meacham (Conservation & Environmental Services)

Appendix G

Powers Engineering Memorandum

To:	Laura Hunter, Leo Miras – Environmental Health Coalition
Date:	June 6, 2008
Subject:	CEC PSA Alternatives analysis - Chula Vista Energy Upgrade Plant
Pages:	12
From:	Bill Powers, P.E.

This memorandum addresses: 1) purpose of the alternatives analysis, 2) conservation and demand side management alternatives to the proposed Chula Vista Energy Upgrade Project (CVEUP), 3) renewable resource alternatives to the CVEUP, and 4) combined heat and power alternatives to the CVEUP.

I. CEC's lack of authority to consider alternatives is a fundamental deficiency in the application review process

CEC staff state (p. 6-10): "*The Energy Commission does not have the authority to approve an alternative or require MMC Energy Inc. (MMC) to move the proposed project to another location, even if it identifies an alternative site that meets the project objectives and avoids or substantially lessens one or more of any significant effects of the project.*"

The CEC makes clear that the alternatives analysis is little more than a pro forma exercise that has no bearing on the CVEUP application. This underscores a deficiency in the scope of the current application review process. The CEC developed the Energy Action Plan "loading order" in conjunction with the CPUC in 2003. The loading order prioritizes energy efficiency and demand response, followed by renewable energy, combined heat and power, clean utility-scale generation (like the proposed CVEUP), and lastly transmission. Yet the CEC staff dismiss the first two elements of the loading order in one sentence, stating "*current demand side programs are not sufficient to satisfy future electricity needs, nor is it likely that even much more aggressive demand side programs could accomplish this at the economic and population growth rates of the last ten years*" (p. 6-11).

This offhand dismissal of the loading order is an example of the disjunct identified by former CEC Commissioner John Geesman as he explained the state's approach to energy policy in a May 2007 quote in California Energy Circuit: "*There's an ongoing schizophrenia in state energy policy between what we say we want to do and what we actually allow to happen.*"[1]

As discussed in the following section, CEC staff is mistaken in stating that demand side programs can not satisfy future demand.

II. Conservation and demand side management alternatives

a. CPUC/CEC Energy Action Plan - energy efficiency, demand response, and renewable energy are higher priorities than peaking gas turbines

[1] California Energy Circuit, *State Sees DG Providing 25% Peak Power*, May 11, 2007, p. 8.

The CEC and the CPUC developed the "*Energy Action Plan*" in 2003 to guide strategic energy decisionmaking. This plan establishes the energy resource "loading order" that defines how California's energy needs are to be met. *Energy Action Plan I* was published in May 2003. *Energy Action Plan II* was adopted in September 2005. *Energy Action Plan II* describes the loading order as "the priority sequence for actions to address increasing energy needs" and then states (p. 2):

> "*The loading order identifies energy efficiency and demand response as the State's preferred means of meeting growing energy needs. After cost-effective efficiency and demand response, we rely on renewable sources of power and distributed generation, such as combined heat and power applications. To the extent efficiency, demand response, renewable resources, and distributed generation are unable to satisfy increasing energy and capacity needs, we support clean and efficient fossil-fired generation.*"

SDG&E is projecting that both per capita energy consumption and per capita peak electricity demand will increase in SDG&E service territory between 2007 and 2016. This forecast increase runs counter to California's 30-year history of "no change" in per capita energy consumption. It is the reliance on forecast paper reductions instead of absolute reductions relative to a fixed baseline year that allows SDG&E to state in the 2007-2016 Long-Term Procurement Plan that "*SDG&E does not believe that significantly more energy efficiency savings could be realistically achieved from a technical standpoint.*"[2]

A May 2006 energy efficiency potential study prepared by Itron, Inc. for California's three investor-owned utilities (IOU) – PG&E, SCE, and SDG&E - estimates that as much as 48,000 gigawatt-hours (GWh) of reduction is attainable in existing buildings statewide with economical technologies.[3] The study identifies that 58,000 GWh is technically possible in existing structures.

California's three IOUs achieved a combined total of 6,200 GWh of energy efficiency savings through 2006. However, the CPUC wants utilities to develop far bolder energy-saving strategies to improve grid reliability and cut customer costs. The Utility Ratepayers Network (San Francisco), a utility watchdog, has indicated that the difference between economically achievable energy efficiency reductions and what has actually occurred to date is so stark that a different utility energy efficiency program design and longer-term market strategies must be considered.

b. Achievement of 100 percent cost-effective energy efficiency will eliminate demand growth cited in PSA as reason for CVEUP

The CPUC is now requiring that the IOUs achieve 100 percent of cost-effective energy efficiency measures by 2020.[4] Achieving this target will result in a significant absolute decline in energy usage in California by 2020, as shown in **Figure 1**. The black line in Figure 1 approximates forecast rise in demand by SDG&E the next decade. The red line approximates the effect on electricity demand of implementing 100 percent of cost-effective energy efficiency measures in SDG&E service territory. SDG&E assumes in its long-term forecast that both peak demand and average energy usage increase at the same rate. For this reason, although Figure 1 looks at energy usage trends over time, it is also applicable to the peak demand trend over time.

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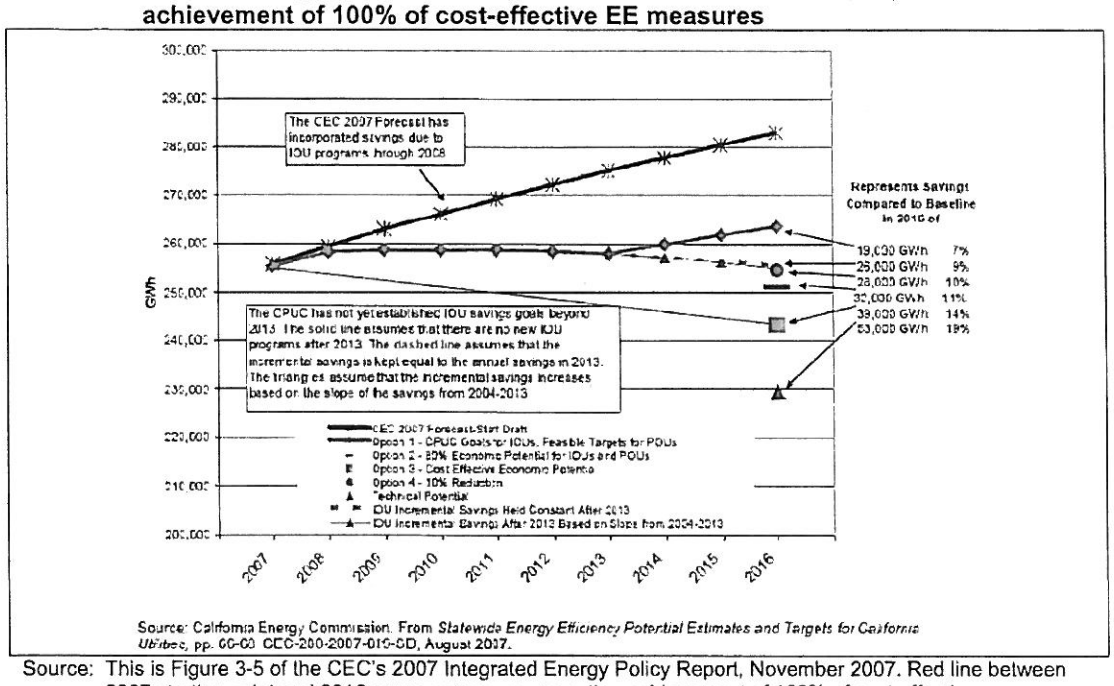
[2] B. Powers, *San Diego Smart Energy 2020*, October 2007, p. 33.
[3] Ibid, p. 34. 1 GWh = 1,000 megawatt-hours.
[4] CPUC Decision 07-10-032, October 17, 2007.

The October 2007 CPUC decision requiring much more aggressive energy efficiency measures by SDG&E means that the demand growth forecast developed by SDG&E for its long-term plan, published in December 2006, is obsolete. An obsolete demand growth forecast should not be used by the CEC to justify its statement in the PSA that even much more aggressive demand side programs could not counter economic and population growth rates. The CEC staff who compiled the PSA are directly contradicting the data shown in Figure 1, also prepared by the CEC and included in the 2007 IEPR.[5]

Figure 1. CEC projection of impact of varying levels of energy efficiency (EE) on electric energy consumption by California utilities – red line represents achievement of 100% of cost-effective EE measures



Source: California Energy Commission. From *Statewide Energy Efficiency Potential Estimates and Targets for California Utilities*, pp. 60-63. CEC-200-2007-010-SD, August 2007.

Source: This is Figure 3-5 of the CEC's 2007 Integrated Energy Policy Report, November 2007. Red line between 2007 starting point and 2016 green square, representing achievement of 100% of cost-effective energy efficiency measures, was added by B. Powers.

SDG&E assumes the same growth rate for energy usage and peak demand growth in its long-term procurement plan.[6] It is appropriate as a result to assume that Figure 1 is equally applicable to annual energy usage and peak demand.[7]

Achieving 100 percent cost-effective economic potential could and should be simple, straightforward, and lucrative for SDG&E. The September 20, 2007 CPUC decision in the energy efficiency proceeding (R.06-04-010) has restored energy efficiency program performance-based shareholder penalties and rewards that were dropped by the CPUC in 2002.[8] SDG&E can now make just as much return on investment from aggressive demand management programs as it makes on traditional utility rate-based assets like transmission

[5] CEC, *2007 Integrated Energy Policy Report, December 2007*, Figure 3-5, p. 84.
[6] CPUC A.06-08-010 Sunrise Powerlink Phase II proceeding hearing transcript at 3417 ln 4
[7] Ibid at p. 3417 ln 14
[8] B. Powers, *San Diego Smart Energy 2020*, October 2007, p. 67.
See: http://www.sdsmartenergy.org/11-oct-07_SD_Smart_Energy_2020_report_complete_FINAL1.pdf

lines. The incentive is now in place for SDG&E to achieve 100 percent of cost-effective economic potential.

Approximately 70 cost-effective energy efficiency projects have been carried-out by the City of San Diego with an average absolute reduction of energy use of 20 percent.[9] These projects have been financed using low interest loans from the CEC. Cost-effective is defined in this context by the CEC as a simple payback within ten years.[10]

SDG&E promotes the energy efficiency potential of new and remodeled commercial buildings through its Sustainable Communities Program. A San Diego business, TKG Consulting Engineers, Inc., was recognized by SDG&E for achieving a 30 percent reduction in energy usage beyond the California new building energy efficiency standard. SDG&E states in reference to the retrofit of a commercial building under this program that, "*TKG's new office building is a model for other San Diego County projects. It demonstrates that energy efficiency, occupant comfort and environmentally friendly design is cost effective and can be achieved even with a tight construction schedule*".[11]

SDG&E clearly knows how to dramatically reduce the energy demand of existing buildings in a cost-effective manner. The energy efficiency of the TKG building was improved by: 1) adding insulation to the interior of the existing concrete walls, 2) adding a film to the existing single glazed windows, 3) use of a variety of high efficiency lighting strategies, 4) occupancy sensors for private offices, 5) and use of a high efficiency air conditioning system. SDG&E also sited a 40 kW PV array on the roof of the TKG building to provide renewable power to the utility's distribution grid. This is a potential model for the local siting of utility-owned PV generation. SDG&E has the knowledge.[12] To date it has simply chosen not to apply this knowledge on a broad scale to reduce energy demand in existing buildings through established, cost-effective energy efficiency measures.

c. Moderate effort by SDG&E to reduce air conditioning demand would eliminate demand that the CVEUP would meet

i. Upgrading to to state-of-the-art at time of worn-out central air conditioner replacement

Air conditioning load is the dominant contributor to peak power demand on the hottest days of summer, comprising approximately one-third of total demand. In SDG&E service territory, this means a 1,500 MW air conditioning load out of a peak 2007 load of just over 4,600 MW. Yet SDG&E has no incentive program to motivate customers to upgrade from the federal minimum air conditioner efficiency standard to the highest level commercially available when worn-out units are replaced. Replacement with state-of-the-art units would reduce energy consumption approximately 30 percent while adding only 10 to 20 percent in incremental cost. One example of such a program for central air conditioning units is described in the following two paragraphs:[13]

> *All energy efficiency upgrades with a reasonable energy savings payback period reduce energy costs in SDG&E's service territory. However, it is unlikely that large numbers of individual consumers will be willing to spend significant additional sums of up-front money to*

[9] Ibid at p. 32.
[10] Ibid at p. 32.
[11] Ibid at pp. 32-33.
[12] Ibid at p. 33.
[13] Ibid at pp. 38-39.

maximize the energy efficiency of their residences and businesses. Yet it is in the interest of the community and the region that these residences and businesses are as energy efficient as feasible from a cost perspective.

Implementing a cost-effective state-of-the-art requirement for residential central cooling system upgrades would be quite simple in concept. For example, SDG&E would advise local heating and cooling system contractors that the utility will pay the difference between the base price for a central air conditioning system that meets the 2006 federal SEER 13 standard and a state-of-the art unit (SEER 21 in 2007). SDG&E, or a third party provider such as the Center for Sustainable Energy, would identify each municipality and area in the county where the upgrade is automatic, such as Ramona, Lakeside, Santee, Poway, and El Cajon. The incentive payment in cooler areas of the county where air conditioning systems are run on only the very hottest days, such as La Jolla or Pacific Beach, would be pro-rated to cover the additional cost of the highest SEER rating that is cost-effective based on air conditioning usage patterns in that area.

Effective implementation of this central air conditioning upgrade protocol by SDG&E would address, by itself, the firm capacity addition requirements of 103 MW by 2010 and 417 MW by 2016 identified by SDG&E.[14]

ii. Realizing the potential of smart meters combined with smart thermostats for peak load reduction

Current California utility air conditioning cycling programs do not utilize AMI – advanced metering infrastructure – digital meters that allow real-time monitoring of electricity usage and remote control of air conditioner and appliance set-points. However, all 1.4 million SDG&E customers will be provided AMI meters by 2011. There are an estimated 500,000 to 600,000 central air conditioning units in residences in the SDG&E service terrritory. Most or all of these units are in operation on the hottest days of summer.

SDG&E has a very modest air conditioning cycling program involving 26,092 customers.[15] Customers enrolled in the air conditioning cycling program represent only about 5 percent of customers with central air conditioning units. In contrast, the Sacramento Municipal Utility District, with a customer base comparable in size to that of SDG&E, has nearly 40 percent of its customers enrolled in the utility's air conditioning cycling program.[16] SDG&E reported demand reduction due primarily to the air conditioning cycling program in the range of 18 MW during the summer of 2006 heat wave.[17] This equals a peak load reduction of only approximately 0.4 percent when peak loads were reaching 4,500 MW.

Smart meters with home thermostat control are capable of increasing the set-point room temperature automatically to reduce air conditioning load. Cycling the set-point of one-half of the central air conditioner population from 72 °F to 78 °F for 10 or 15 minutes, and repeating this cycling with the other half of the population for 10 to 15 minutes, would reduce instantaneous MW load during critical peak demand periods by 100s of MW with almost no impact on the comfort of end users.

Some reasons that participation in air condition cycling programs has historically been low are: 1) customers do not know the utility is turning-off their air conditioner, and they call for

[14] SDG&E Sunrise Powerlink Phase II rebuttal testimony, March 28, 2008, p. 5.9.
[15] Ibid at p. 5.32.
[16] CPUC A.06-08-010 Sunrise Powerlink Phase II proceeding hearing transcript at 3925 ln 24
[17] Powers Engineering Sunrise Powerlink Phase II direct testimony, March 12, 2008, p. 11.

maintenance assistance to get the unit back in operation, and 2) the period of time the air conditioner is off goes beyond the comfort level and customers begin to feel hot.[18] AMI will make air conditioning cycling painless.[19] With AMI, air conditioners can be phased-in and phased-out every 10 minutes between (sets of) 200,000 to 300,000 customers without the customers knowing or noticing a change in temperature. AMI can address the issues that have resulted in low air conditioning cycling program participation.[20]

The smart meters being installed by SDG&E are compatible with smart thermostats. SDG&E can ratebase the installation of the smart thermostats in the smart meters. All customers would be able to manually override the smart meter for whatever reason. Residences with sensitive populations, such as the elderly or chronically sick, would be kept out of this type of program.

There was a three-year program conducted in California to assess the demand reduction potential of AMI. Some of the participants received smart thermostats with the AMI meters. Smart thermostats automatically raise the temperature setting on the thermostat 2 to 4 degrees when the price becomes critical.[21] The study concluded that when critical peak pricing at five times the regular tariff, exactly what SDG&E is proposing with a tariff of $1.20/kWh, was combined with smart thermostats, the average reduction in peak load was 27 percent.[22]

Peak load in SDG&E service territory in 2007 was 4,636 MW.[23] Approximately one-third of this peak load is associated with central air conditioning units, or approximately 1,500 MW.[24] A 27 percent reduction in this 1,500 MW central air conditioning load would be a reduction of 405 MW. Yet as noted, SDG&E is only achieving an 18 MW reduction from its air conditioning cycling program. A reduction of 405 MW is essentially the same as SDG&E's projected need for 417 MW of additional firm capacity by 2016.

iii. SDG&E can painlessly expand its air conditioning cycling program to achieve substantial peak load reduction

Currently SDG&E has only 26,000 customers enrolled in its air conditioning cycling program out of 500,000 to 600,000 residential customers with central air conditioners. This is approximately 5 percent of the customer base with central air conditioners. SDG&E achieved 18 MW of reduction from its air conditioning cycling program during the peak demand period in 2006. The 18 MW reduction implies a low level of participation among the 26,000 customers enrolled in the program, and represents only about 1 percent of the peak air conditioning load in SDG&E service territory.[25] In contrast, the Sacramento Municipal Utility District, a utility of comparable size to SDG&E, has achieved nearly 40 percent customer participation in its air conditioning cycling program.[26] A direct result of SDG&E strengthening its air conditioning cycling program would be a reduction in the need for peaking gas turbine capacity in SDG&E service territory.

The CPUC also estimates that 30 to 50 percent of new air conditioning systems are not being properly installed.[27] The commission estimates that this failure has led to a 20 to 30 percent

[18] CPUC A.06-08-010 Sunrise Powerlink Phase II proceeding hearing transcript at 3926 ln 16-24
[19] Ibid at 3925 ln 26
[20] Ibid at 3927 ln 5-9
[21] B. Powers, *San Diego Smart Energy 2020*, October 2007, p. 42.
[22] CPUC A.06-08-010 Sunrise Powerlink Phase II proceeding hearing transcript at 3926 ln 1-8
[23] B. Powers, *San Diego Smart Energy 2020*, October 2007, p. 42.
[24] Ibid at p. 35.
[25] A typical residential home central air conditioning unit has a power demand of at least 4 kW (assumes 3-ton unit with Summer Energy Efficiency Ratio rating of 10). The demand of 26,000 4 kW units would be 104 MW.
[26] Application of PG&E for Approval of 2008-2020 Air Conditioning Direct Load Control Program, *Reply of PG&E to Protests of Division of Ratepayers Advocates and The Utility Reform Network*, May 21, 2007, p. 7.
[27] CPUC Rulemaking 06-04-010, *California Energy Efficiency Strategic Plan (Draft)*, February 8, 2008, p. 46.

increase in peak energy needed to provide consumers with adequate cooling on hot summer days. Assuming the 20 to 30 percent increase in peak energy demand is an accurate figure, SDG&E could reduce peak air conditioning load in its service territory by 300 to 450 MW by realizing a methodical inspection and repair program for existing central air conditioning units. This is another straightforward measure that could be implemented quickly and that would eliminate any justification for the CHEUP project.

iv. Program to correct improper installation of central air conditioning units would provide substantial peak load reduction benefits

The *Draft California Energy Efficiency Strategic Plan* (March 2008) states that 20 to 30 percent of air conditioning load is due to improperly installed air conditioning units.[28] Twenty (20) to 30 percent of the estimated 1,500 MW peak central air conditioning load in SDG&E service territory would be 300 to 450 MW. A program as simple and basic as assuring central air conditioning units are properly installed has the potential to reduce peak demand by 300 to 450 MW, nearly eliminating by itself SDG&E's projected need for 417 MW of additional firm capacity by 2016.[29]

III. CEC and CAISO Summer Demand Forecasts

a. CEC 2008 summer demand forecast – adequate supply in Southern California

The California Public Utilities Commission (PUC) regulates California's three investor-owned utilities, Pacific Gas & Electric, SCE, and SDG&E. The PUC requires that the IOUs contract in advance with generators to maintain a 15 to 17 percent reserve margin above the 1-in-2 or "50/50" peak demand forecast in a given year. "50/50" is the forecast peak demand that has a 50 percent chance of occurring based. The forecast 50/50 peak demand in 2008 for the SDG&E system is approximately 4,700 MW. Therefore SDG&E must have access to 5,400 to 5,500 MW of supply in the form of both generation and transmission to meet the PUC 15 to 17 percent reserve margin requirement.

The CEC permits power plants above 50 MW in capacity and develops electricity and natural gas demand forecasts. The CEC is projecting that Southern California will have a reserve margin of 20.2 percent in August and September of 2008.[30] Southern California will have a significant cushion above the 15 to 17 percent PUC reserve margin requirement in the summer of 2008.

b. CAISO 2008 summer demand forecast – adequate supply in Southern California, 2009 will be even better

CAISO was created in 1996 to assure the proper functioning of the newly deregulated electricity market in California. CAISO is also the representative of the Federal Energy Regulatory Commission in the state. A central role of CAISO is to ensure adequate transmission capacity to allow a deregulated power market to function with minimum physical transmission constraints. CAISO is responsible for assuring the reliability of the California's transmission grid. The principal tool available to CAISO to assure grid reliability is the support of new transmission projects through forecasts and grid reliability assessments.

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[28] CPUC A.06-08-010 Sunrise Powerlink Phase II proceeding hearing transcript at 3919 ln 10-24
[29] Ibid at ln 26-28.
[30] CEC, *Summer 2008 Electricity Supply and Demand Outlook*, May 2008, Table 4, p. 5.

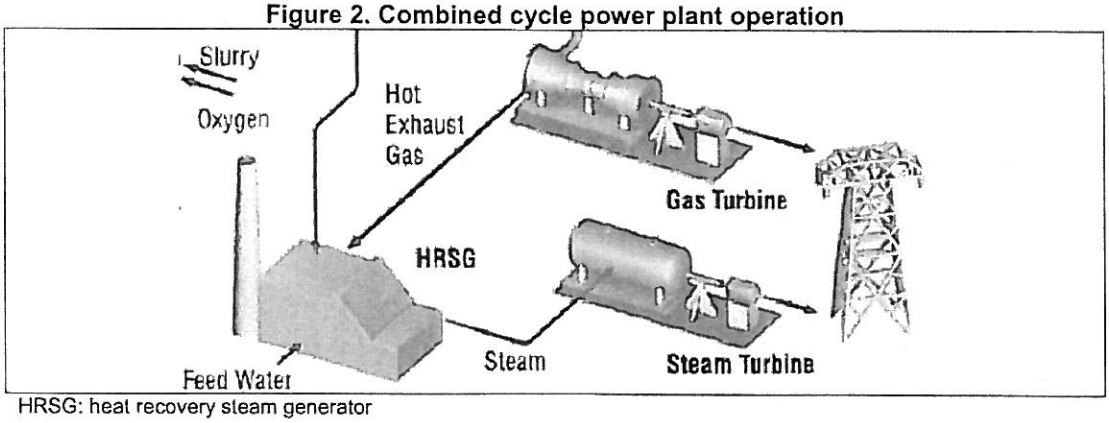
CAISO issued its summer 2008 demand forecast on April 28, 2008. CAISO is projecting that Southern California will have a reserve margin of 20.8 percent in the summer of 2008.[31] CAISO is also projecting a higher reserve margin in the summer of 2009 due to new generation coming online. CAISO states, "*Although resources are tight this summer in SP26 (Southern California), the outlook for summer 2009 improves when approximately 1,700 MW of expected additional generation comes on line in southern California.*"[32] The projected online date identified in the PSA is fall 2009 for the net 55 MW CVEUP addition, right after 1,700 MW of new generation goes online in Southern California. There is no near-term power "gap" projected by either the CEC or CAISO that would support the CEC staff implication that CVEUP is necessary to fill a looming power shortage.

c. CAISO recognition that 542 Palomar Energy Project and 562 MW Otay Mesa Project are designed to operate with the steam turbine offline would add 233 MW to local SDG&E generating capacity immediately

The local capacity calculated by CAISO as available in an N-1, G-1 event assumes the total shutdown of either 542 MW Palomar Energy (in operation) or 562 MW Otay Mesa (online in 2009) in case of a forced outage at either of these two combined cycle plants. If only a partial outage occurs at either of these facilities, the G-1 event would remain what it is currently, loss of the 329 MW Unit 5 at the Encina Power Plant in Carlsbad. SDG&E local capacity is increased by 233 MW if Encina Unit 5 remains the G-1 event.

The two combined cycle power plants each consist of two gas turbines and a single steam turbine generator. The system is called "combined cycle" because the gas turbine cycle and the steam turbine cycle both produce power. Under normal operating conditions the gas turbines at Palomar and Otay Mesa provide about two-thirds of the power and the steam turbine provides about one-third. A sketch of a combined cycle power plant with a single gas turbine and a single steam turbine is shown in **Figure 2**.

Figure 2. Combined cycle power plant operation



HRSG: heat recovery steam generator

SDG&E stated in data request responses in the Sunrise Powerlink Phase I proceeding before the PUC that both Palomar and Otay Mesa combined cycle plants are designed to continue operation under all foreseeable conditions, including loss of the steam turbine at each plant.[33]

[31] CAISO, *2008 Summer Loads and Resources Operations Preparedness Assessment*, April 28, 2008, Table 1, p. 3.
[32] Ibid, p. 5.
[33] A.06-08-010 Sunrise Powerlink Project, SDG&E responses to UCAN Data Request 1. Question 91: "*SDGE identifies G-1 as the complete loss of the 541 MW Palomar Energy Project. G-1 later becomes loss of the entire 561 MW Otay Mesa Power Project. Please provide any analysis that has been performed on the cost to retrofit Palomar*

The units are designed so that steam can be vented through the heat recovery steam generator while the turbines continue to operate. It is unlikely that SDG&E would choose to vent steam through the heat recovery steam generators (to avoid over heating the metal tubes) and operate either Palomar or Otay Mesa as de facto peaking gas turbine power plants under any condition other than a peak load, emergency N-1, G-1 condition, as venting large amounts of steam would be resource intensive. However, the capability is there when needed in a peak demand, N-1, G-1 situation.

Recognition by CAISO that both Palomar and Otay Mesa combined cycle plants are designed to allow continued operation of the gas turbines even if a steam turbine failure occurs would immediately add 233 MW to local SDG&E generation capacity. This is significantly more local power than the net 55 MW of additional power from CVEUP.

IV. The urban commercial-scale PV alternative to the CVEUP is viable, higher in the loading order, and more cost-effective

CEC staff states (p. 6-15): *"Alternative generation technologies (i.e. solar, wind, and biomass) were analyzed as possible alternatives to the project. Staff determined that none of the technologies were feasible. Solar and wind were eliminated for consideration, as significantly more land than is available for the project is needed to implement solar and wind."*

Yet it is also the CEC that states in the 2007 IEPR (p. 186) that: *Currently, Californians with a photovoltaic system that generates electricity in excess of their own consumption, provide it to the utilities for free. Recent experience with California's electrical system underscores a real need for reliable, zero emission electricity especially at peak usage times within the state's load centers. The Energy Commission believes that excess solar generation delivered to the grid should be compensated through a feed-in tariff. The price paid for each kWh delivered to the grid should be based on the RPS market price referent that includes a time-of-delivery adjustment. The Energy Commission and the California Public Utilities Commission should work together to establish an appropriate feed-in tariff for excess solar electricity. . . . For example, solar generation would be paid a higher average price per kilowatt hour because deliveries generally coincide with peak times of delivery. SCE's tariff pays 3.28 times the base MPR (market price referent) for deliveries during the summer peak time of delivery period.*

CEC staff summarily dismiss the solar option due to the amount of land that would supposedly be required. This is an error. SCE announced a 250 MW commercial PV project for the Riverside area that will require no land. All of the panels will be placed on existing rooftops. 250 MW of PV will be installed in an urban area and the land requirement will actually be less than that required for the CVEUP. SCE states that an advantage of utility ownership of the PV is the ability to balance loads at the distribution substation level to avoid having to add additional distribution infrastructure to handle the influx of PV power.[34] SCE states:

> *"SCE can coordinate the Solar PV Program with customer demand shifting using existing SCE demand reduction programs on the same circuit. This will create more fully utilized distribution circuit assets. Without such coordination, much more distribution equipment may be needed to increase solar PV deployment. SCE is uniquely situated to combine solar PV Program generation, customer demand programs, and advanced distribution circuit design and operation into one unified system. This is more cost-*

---

to include bypass stacks or dilution air blowers to allow simple-cycle operation of the gas turbines if the steam turbine is out-of-service." Response 91: *"Both facilities already have these attributes embedded in their operation flexibility."* See: http://www.sdge.com/sunrisepowerlink/info/ucanDataResponse1.doc

[34] CPUC A.08-03-012, SCE application to CPUC for commercial PV program, March 27, 2008, pp. 8-9.

effective than separate and uncoordinated deployment of each element on separate circuits."[35]

The addition of limited storage to each PV system ensures that the PV nameplate capacity is firm on-peak capacity. The CEC is funding a demonstration in SCE service territory of sophisticated energy management/battery systems integrated with residential PV to serve as peaking units to meet the late afternoon summertime peak.[36] Commercial-scale demonstration projects on 100 kW and 300 kW PV systems are also underway.[37] The energy management/ battery systems are fully controllable by the utility as peaking units. The addition of energy management and battery storage allows the PV system to supply the utility grid with its peak output through the late afternoon summertime demand peak.

SCE states in its 250 MW PV application that it "*can coordinate generation or storage technologies at the substation level to moderate the inherent weather-caused variability in solar PV production before such intermittency cascades into the higher voltage CAISO-controlled transmission system. Such coordination will reduce system costs.*"[38] Clearly SCE envisions large-scale storage as a fully viable and complementary element to its proposed PV program. The energy management/battery system adds approximately 10 percent to the cost of the PV system.[39]

SDG&E's assertion that batteries are only capable of serving as back-up and can not send power back to the grid is ill-informed.[40] SCE addresses the potential large-scale use of storage with its proposed commercial PV program. A large, 3.5 MW-hr stand-alone lead-acid battery system already operates as a peaking unit in the Los Angeles area.[41] Lead-acid batteries are not the only current off-the-shelf storage option. There is always the option to pay more initially for a lead-antimony thick plate battery guaranteed for 15 years that can last 20 years to avoid putting in batteries every seven years. The battery goes in with the initial system and lasts 20 years. Both of these battery options are commercially available now. They are being used in PV systems now.[42]

The estimated commercial rooftop and commercial parking area PV potential of Chula Vista is approximately 300 MW.[43] 300 MW of commercial PV potential is already available in Chula Vista with no land requirements.

Large-scale parking lot PV arrays are being developed all over California. Large-scale parking lot PV arrays and the use of storage allow the output of these PV arrays to be "shaped" to follow the afternoon peak load profile. See **Attachment 1**, Chevron Energy Solutions February 2008 presentation titled, "*Accelerating the Transformation to Efficient & Renewable-powered Facilities: CCCCD Case Study.*" Chevron Energy Services contemplates adding large-scale storage to enhance the flexibility and versatility of the PV resource (Attachment 1, p. 9).

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[35] *Ibid* at p. 9
[36] B. Powers, *San Diego Smart Energy 2020*, October 2007, p. 57.
[37] CPUC A.06-08-010 Sunrise Powerlink Phase II proceeding hearing transcript at p. 3943 ln 10-16
[38] SCE application to CPUC for commercial PV program - testimony, March 27, 2008, p. 17.
[39] B. Powers, *San Diego Smart Energy 2020*, October 2007, p. 48.
[40] SDG&E Phase II rebuttal testimony, Chapter 5, p. 5-14 (footnote 14).
[41] B. Powers, San Diego *Smart Energy 2020*, October 2007, p. L2.
[42] CPUC A.06-08-010 Sunrise Powerlink Phase II proceeding hearing transcript at 3937 ln 3-9
[43] *Potential for Renewable Energy in San Diego Region*, Chapter 2, August 2005 (www.renewablesq.org), 2010 Chula Vista commercial PV potential = 78 MW. Estimated commercial parking PV potential based on 220,000 population = 220 MW. Interpolated from San Diego County commercial PV potential calculation on p.31 of *San Diego Smart Energy 2020*, October 2007.

Large-scale thin-film PV systems are now being installed at a cost of energy less than the "market price referent" (MPR) established as the benchmark by the CPUC for defining cost-effective renewable energy projects. The cost of energy from First Solar's 7.5 MW Blythe project, built under a power purchase agreement with SCE, is expected to be in the range of $90/MWh.

The cost of energy from large-scale commercial PV is now less than the variable cost of energy from a peaking gas turbine power plant like the CVEUP. See **Attachment 2**, *First Solar April 4, 2008 comments on the Renewable Energy Transmission Initiative (RETI) Phase 1A Draft Report*. There is no economic driver to prioritize peaking gas turbines over commercial-scale PV to meet peak power demand loads.

V. The combined heat and power (CHP) alternative is higher in the loading order than the CVEUP and would meet all requirements defined in the PSA for CVEUP

CEC staff state (p. 6-13): "*Furthermore, because alternative generation technologies may not be available on demand, they do not fulfill a basic objective of this plant: to provide quick start peaking capability to respond to unexpected changes in regional demands. Consequently, staff does not believe that geothermal, hydroelectric, solar, wind or biomass technologies present feasible alternatives to the proposed project.*" The one technology that could undeniably be available on demand and provide quick start peaking capability, or simply displace load that might otherwise have to be met by quick start peaking capability, is CHP. Yet CEC staff conducted no analysis of CHP potential in Chula Vista or the San Diego area in general.

Steadfast utility opposition has been the main brake on local CHP development. As the CEC states in the 2007 IEPR (pp. 208-209): "*The Energy Commission found that, despite many years of articulated policy preferences, distributed generation and CHP in California continues to face major barriers to market entry in the context of traditional utility cost-of-service grid management. Investor-owned utilities continue to show little interest in accepting energy from customer-owned distributed generation projects or in developing utility-owned distributed generation or CHP projects. As a result, these options continue to struggle with major barriers to market entry. Large CHP units appear to offer the greatest fuel efficiency of available distributed generation technologies.*

Because CHP systems are located close to the load, transmission and distribution line losses are minimized, further reducing greenhouse gas impacts. As regulations for AB 32 compliance are finalized, the benefits of distributed generation and CHP for the electricity system will become more quantifiable. This will reinforce the need to make distributed generation and CHP projects a higher priority in utility resource mixes for both IOUs and publicly-owned utilities."

The CEC is now recommending a distributed generation portfolio standard, similar to the current 20 percent portfolio standard for renewable energy, to assure CHP systems get built (2007 IEPR, p. 212). Additional CEC recommendations regarding CHP are:

1) A tariff structure to make distributed generation and CHP projects "cost and revenue neutral", while granting owners' credit for system benefits, such as reduced congestion;
2) Elimination of all non bypassable charges for distributed generation and CHP, regardless of size or interconnection voltage, and standby reservation charges for distributed generation; and
3) Continue the work of the "Rule 21" industry/utility collaborative working group to refine interconnection standards, provide third party resolution of interconnection issues and streamline permitting (p. 212).

There were 105 MW of non-renewable DG capacity in SDG&E territory at 61 sites as of mid-2006.[44] There are approximately 240 total candidate sites for conventional combined heat and power facilities in San Diego County.[45] These include large private employers, large city and county government centers, military bases, large hospitals, large hotel complexes, large shopping complexes, and large universities and colleges. Some of these sites already operate CHP plants, such as the University of California San Diego, San Diego State University, Children's Hospital, and Qualcomm.[46]

A CHP marketing study conducted by EPRI for the CEC estimated nearly 400 MW of additional CHP potential in SDG&E service territory.[47] EPRI in its assessment of commercial and small industrial customer interest in CHP applications conducted market research on the payback period for an investment in a distributed energy project. EPRI found that "*A little over half would reject a project with a payback of 2 years.*"[48] Two years is a very aggressive payback period. As noted, the CEC metric for cost-effective is a simple payback in ten years. A ten-year payback would greatly expand the cost-effective CHP potential in SDG&E service territory relative to the nearly 400 MW of additional CHP potential already identified in the EPRI CHP marketing study.

The PSA simply ignores CHP as an alternative to the CVEUP, even though CHP is higher in the loading order than a peaking gas turbine power plant and would permanently eliminate the load, just as energy efficiency or demand response programs would, that the CVEUP would supposedly be built to address.

[44] CPUC Sunrise Powerlink DEIR, January 3, 2008, p. E.6-27.
[45] B. Powers, *San Diego Smart Energy 2020, October 2007*, p. 61.
[46] Ibid at p. 61.
[47] SDG&E Phase II rebuttal testimony, p. 5-38.
[48] Ibid at 5.15.

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Energy Solutions

Solar Forum at Diablo Valley College

February 8, 2008

Accelerating the Transformation to Efficient & Renewable-powered Facilities: CCCCD Case Study

Presented By:
Bruce Dickinson, Director of Business Development

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Outline

- Chevron Energy Solutions Introduction
- What Technologies are available?
  - Energy Efficiency & Demand Response
  - Solar Photovoltaic (PV) Systems
  - Solar Thermal, Hydrogen fuel Cells, Wind, Storage Technologies, Biofuels
- Contra Costa CCD Solar and Efficiency Program
- Financing Options
- Questions & Comments

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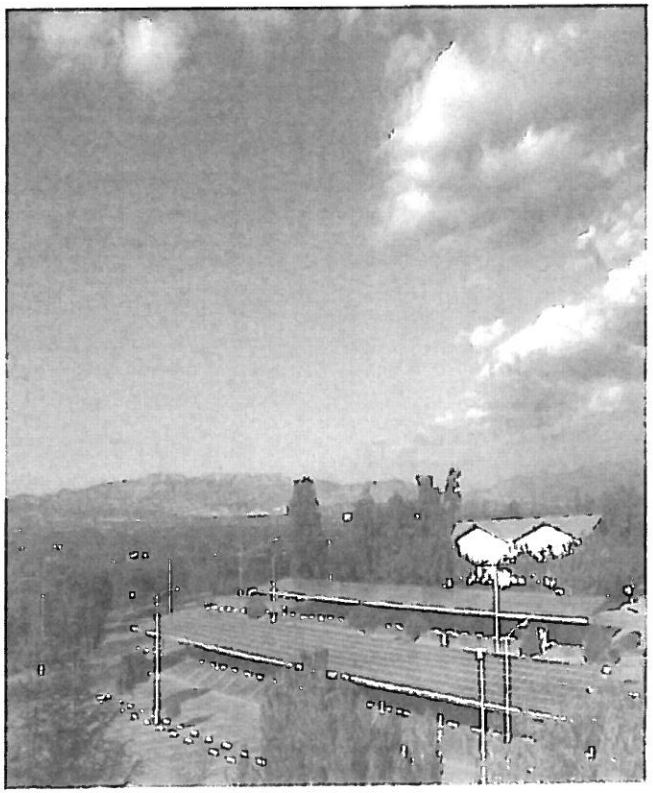
A Different Solution: Energy Efficiency Plus Renewable Energy

- Energy efficiency/conservation is the cheapest "new" source of energy
- Chevron develops self-generation, efficiency and demand response projects for commercial, industrial & institutional customers
- Projects can be partially funded by energy savings from new high-efficiency equipment
- Best economics result from efficiency with solar, wind or fuel cell/biogas generation systems
- This helps bring renewable power to market in a cost-effective way



Pierce College, Woodland Hills, CA
Solar/cogeneration/efficiency project

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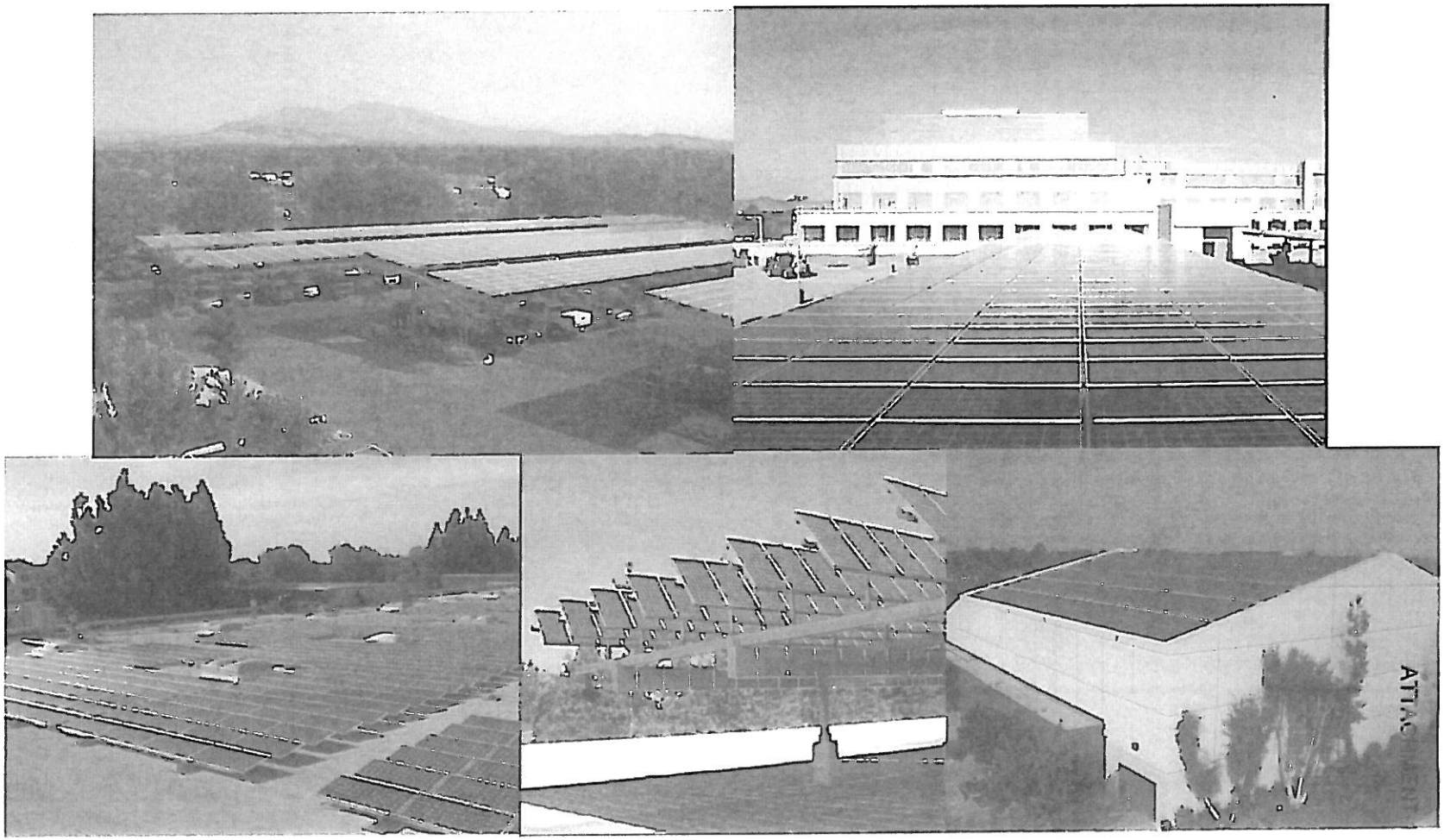
Solar PV Projects – Recent Experiences



Over 60 MW of Distributed Generation (15 MW PV) installed in CA

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Solar PV:
Clean, Durable, Visible, Aesthetic, Amenity

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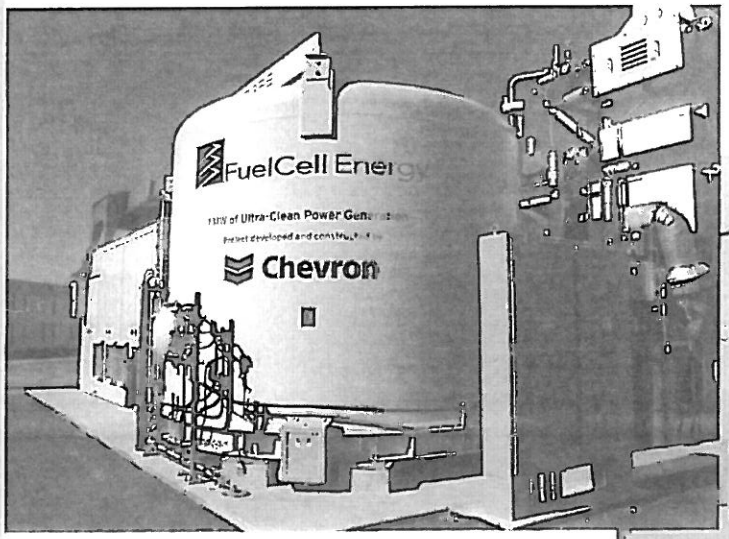
Hydrogen Fuel Cells

- Greatest reductions achieved by using "Hybrid" distributed generation systems, e.g., fuel cells + solar PV + solar thermal + storage
- Fuel cells can use either hydrogen, natural gas, or renewable fuels such as landfill gas or digester gas.



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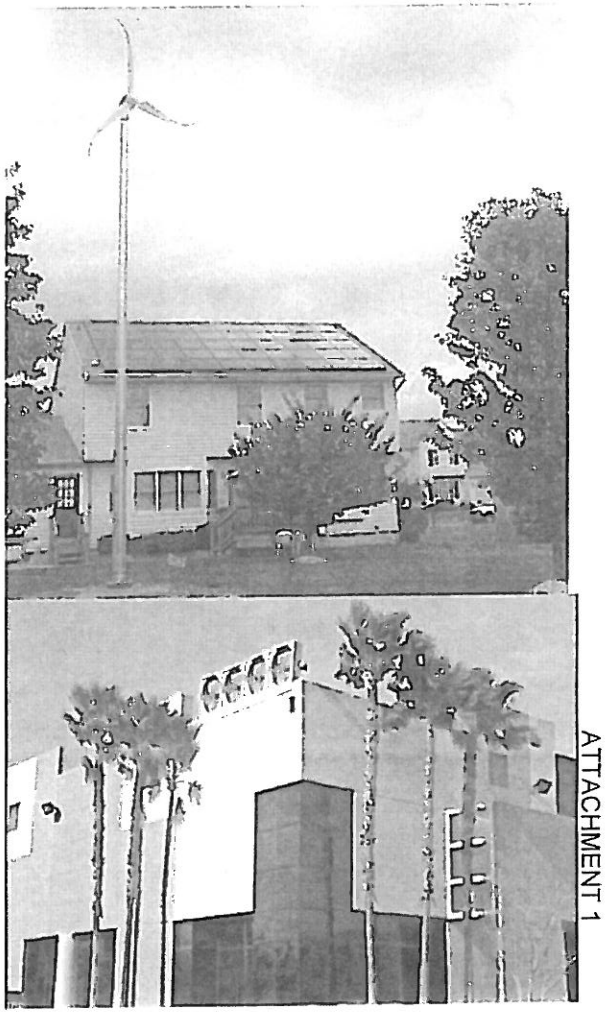
Wind Generation

- Single Turbine – Sizes (0.5-3MW)
- Small wind generators (0.4 - 4 kW) These turbines can be used for high visibility projects with good wind resources. Simplified siting and permitting vs. large turbines
- New Systems- Architectural Wind

Small wind generators that can be attached to a roof parapet. System sizes can be in increments of 4-6kW



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Energy Storage Applications

Large scale battery energy storage: emission-free!

Benefits:

- On-Peak period load shifting
- Rapid, large scale demand response
- Emission-free on-peak power
- System reliability and clean back-up power
- Enhanced reliability and security
- Increased capability to act as emergency response center

Magnitude of benefits will depend on demand profile where the project is sited

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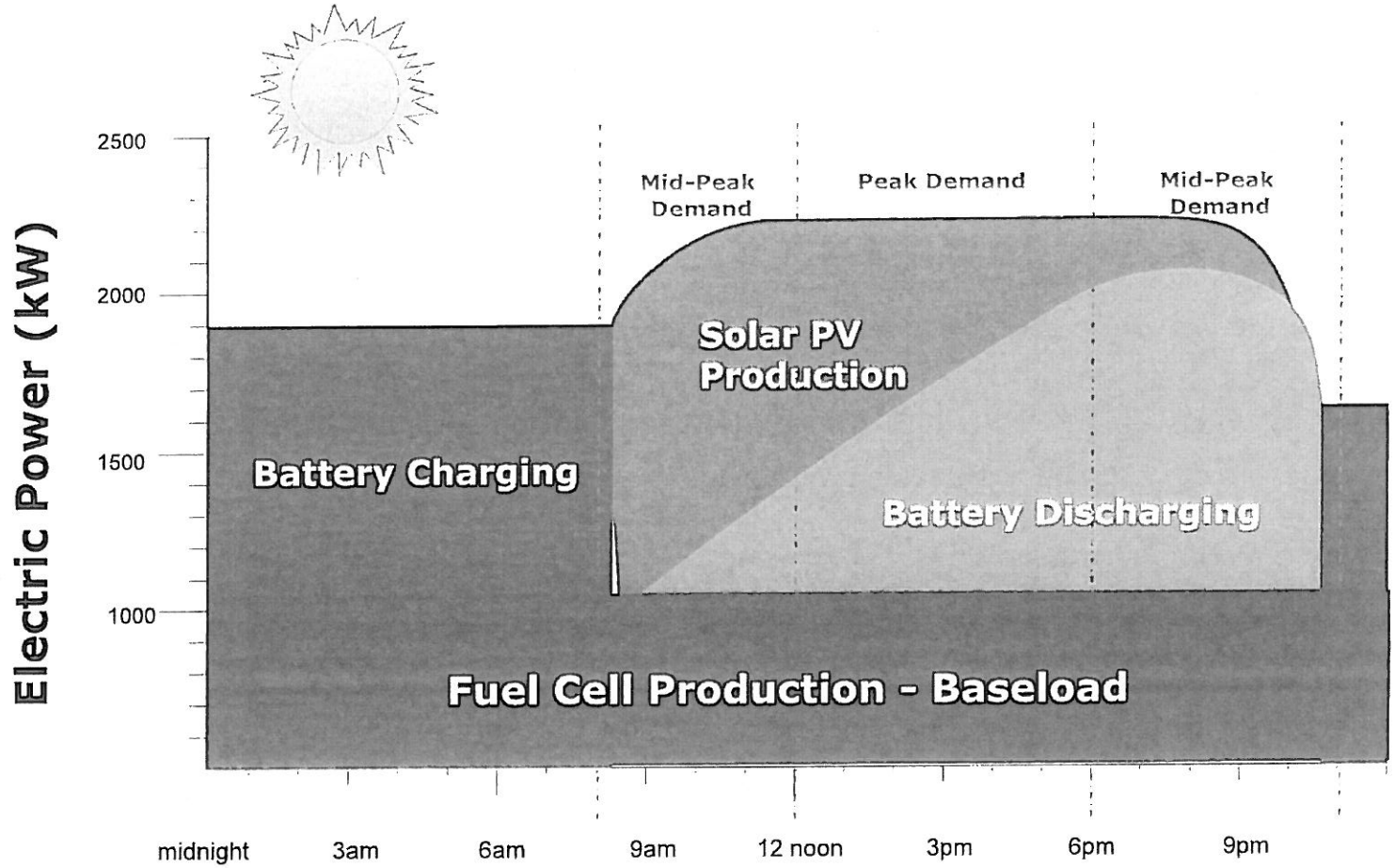
Combining Storage with Renewables

Spring renewable load profile with energy storage



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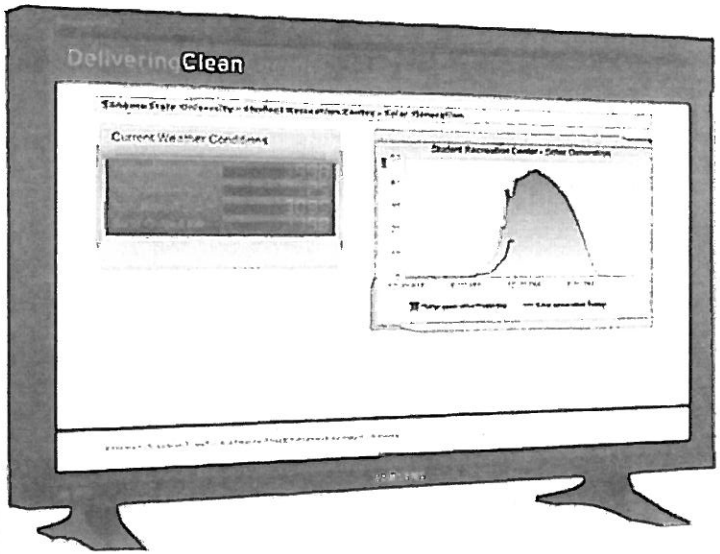
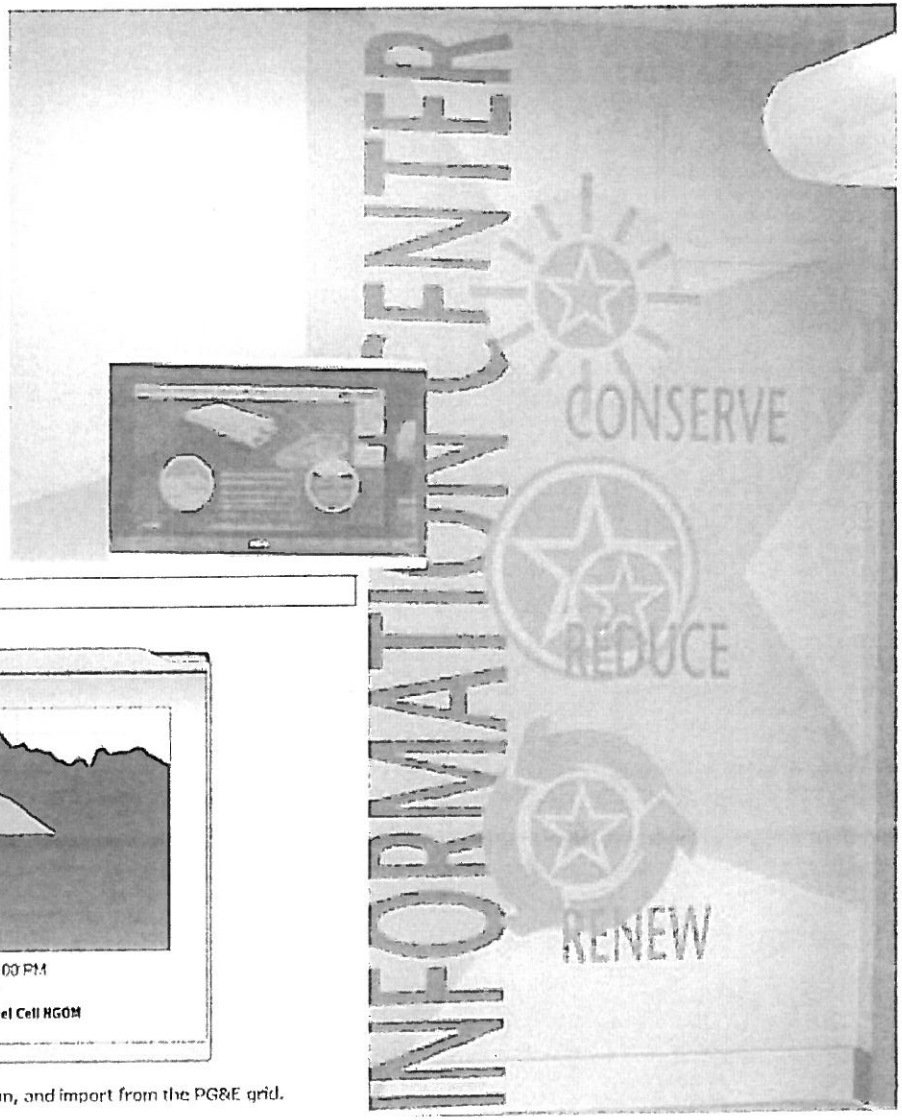
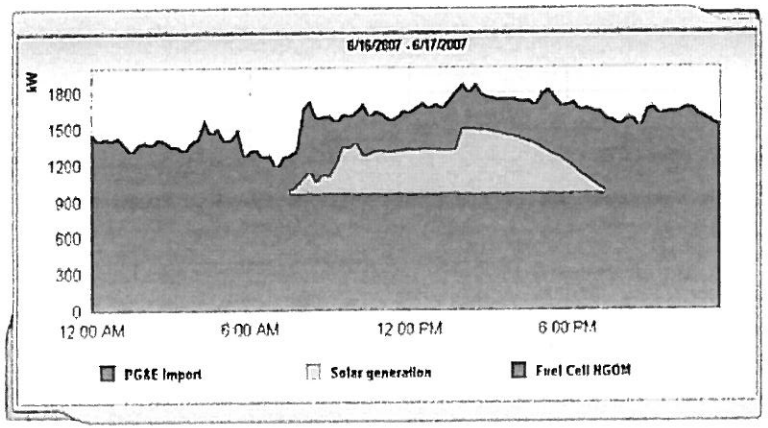
Public Information Center





Santa Rita Jail Fuel Cell Power System - On-site Generation



The chart shows composition of hourly fuel cell generation, solar generation, and import from the PG&E grid.

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Solar PV & Efficiency Case Study

Contra Costa Community College District

Needs:
- Reduce Utility Expenses
- Improve Energy and Water Efficiency
- Expand use of Renewable Energy
- Decrease exposure to price volatility
- Increase Operational Control & Reliability

Solutions:
- **3.2 MW solar power photovoltaic (PV)**
- **High-efficiency lighting, heating, ventilating, AC**
- **Energy management systems**
- **High-voltage electrical system upgrades**

Process:
- Public meetings with board, campus, and community
- Feasibility Assessment to determine optimal PV design
- Siting and procurement recommendations
- Identified program financing options
- Secured rebates/incentives.

Benefits:
- 20% energy renewable energy – will be provided by solar
- Total energy program reduces annual CO_2 emissions by over 1,500 tons/ year

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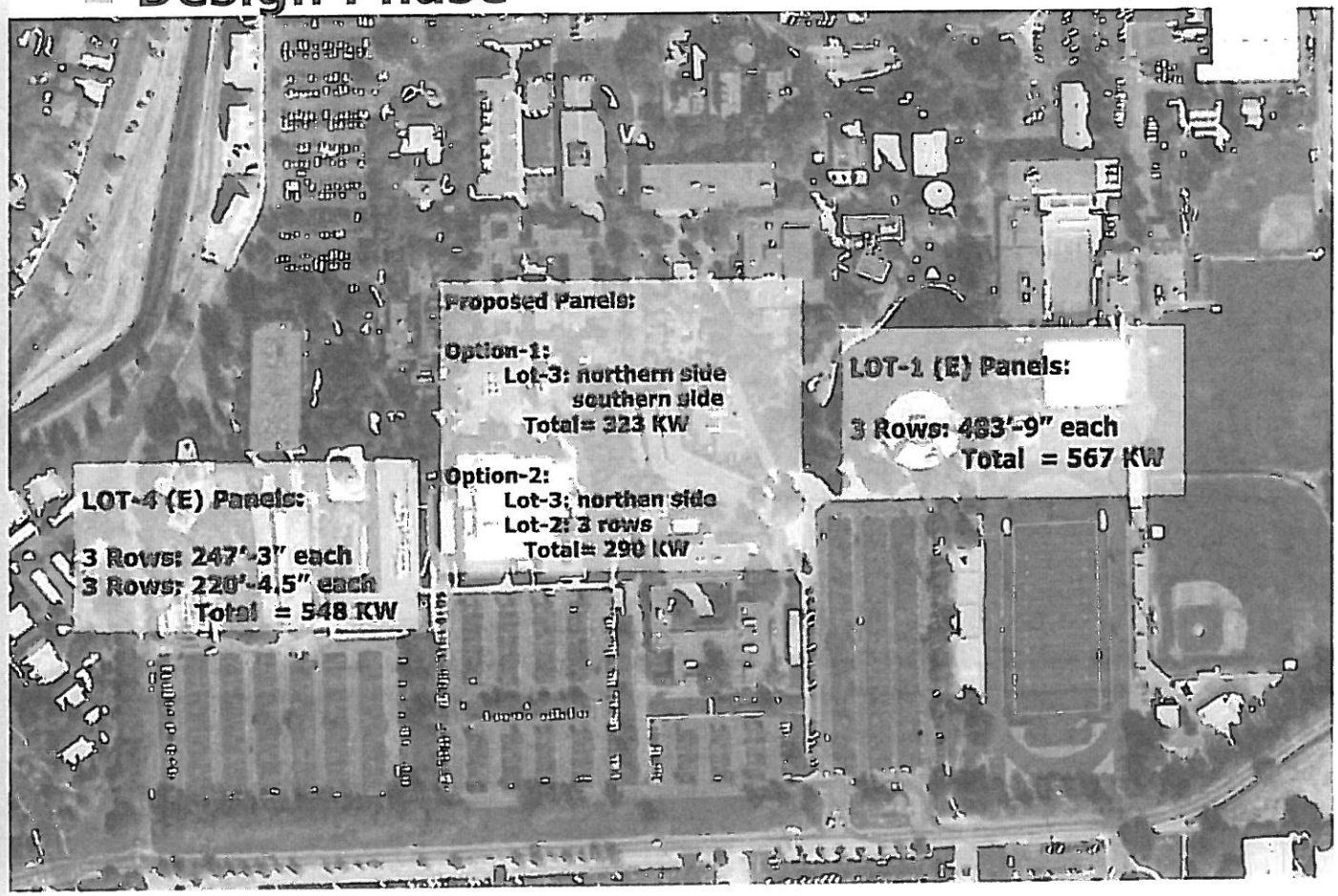
Solar PV & Efficiency Case Study

- Design Phase



DVC: 1.4 MW LMC: 1.4 MW CCC: 430 kW

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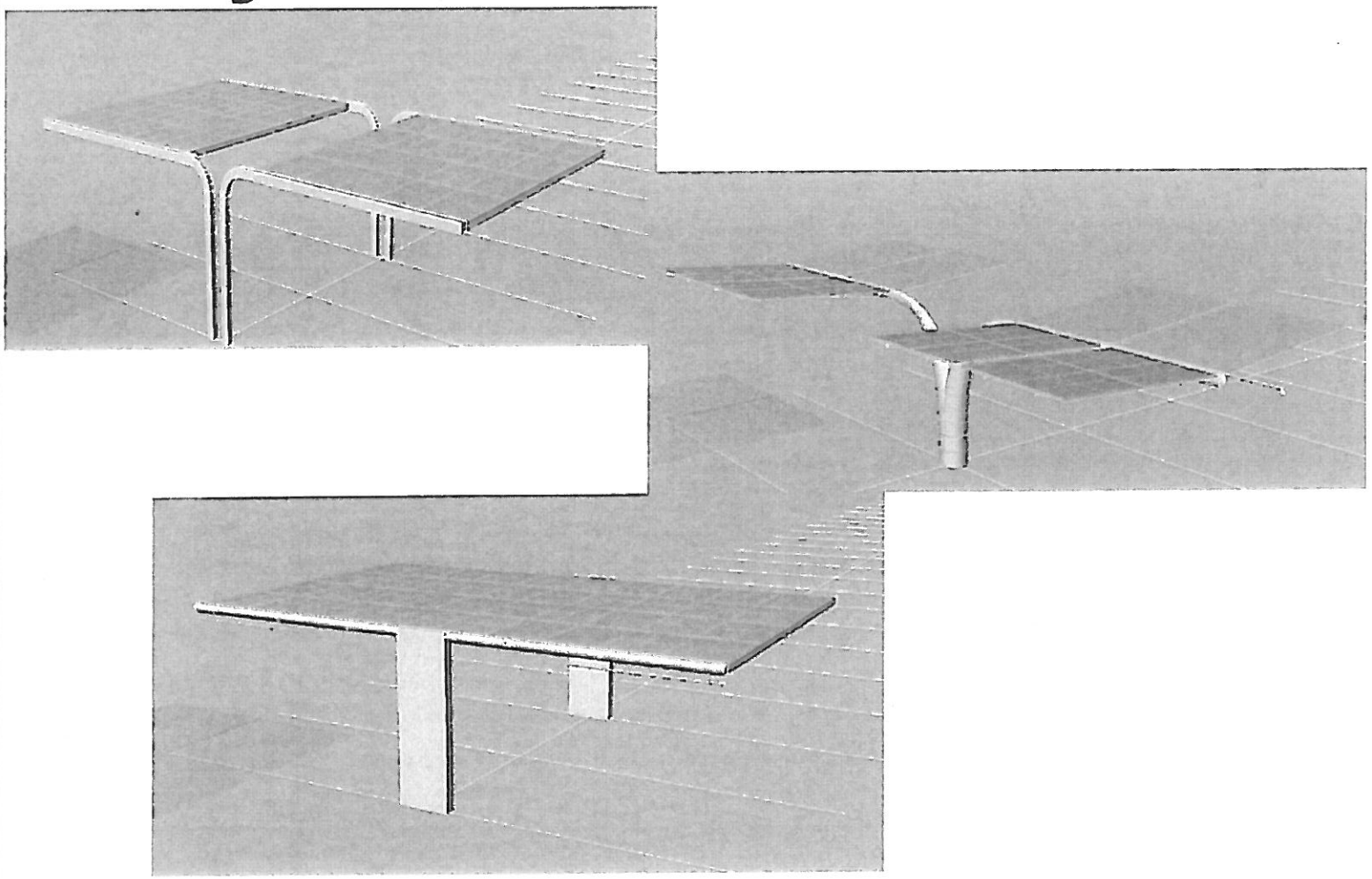
Solar PV & Efficiency Case Study

- **Design Phase**



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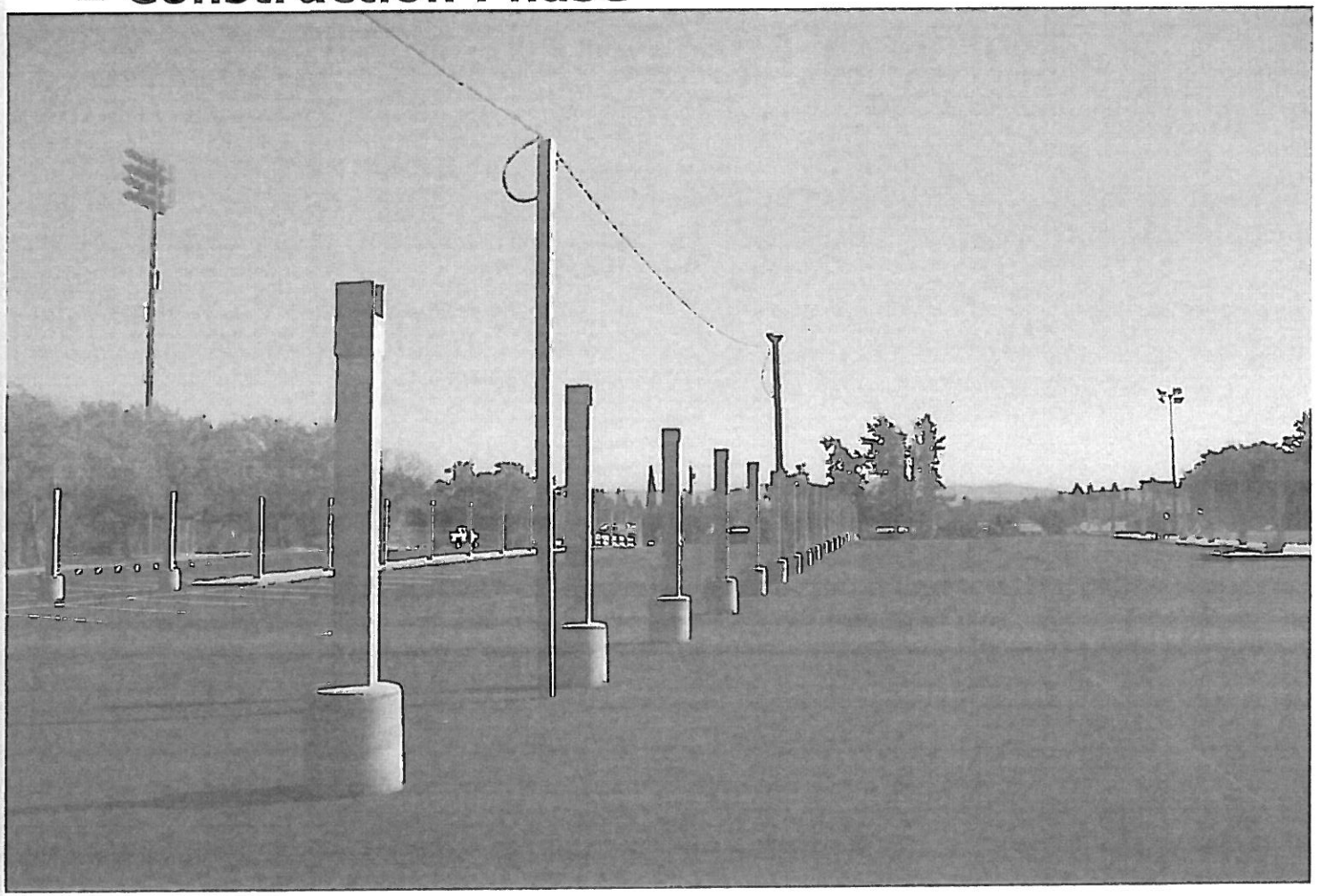
Solar PV & Efficiency Case Study

- **Construction Phase**



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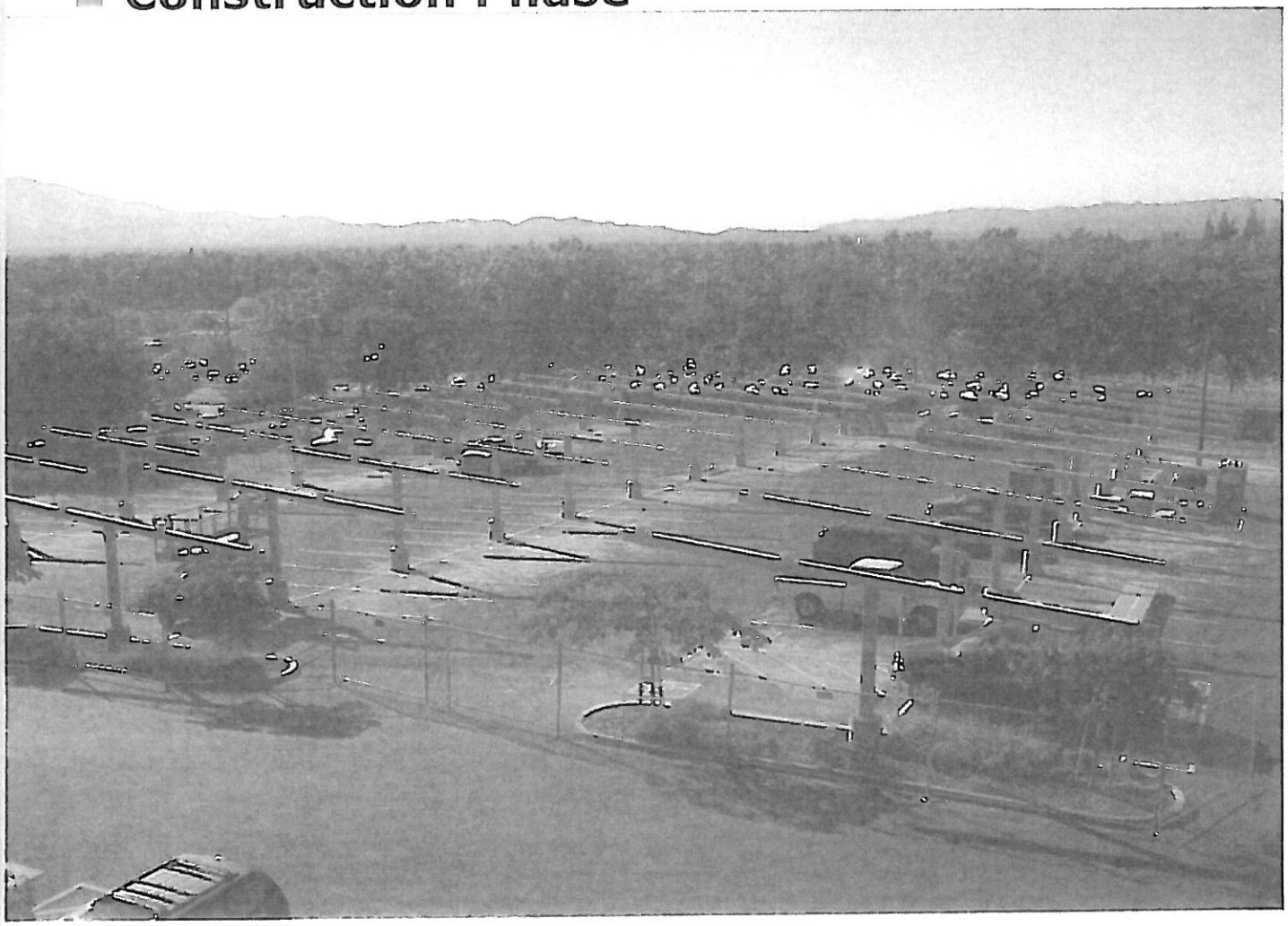
- Construction Phase



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Solar PV & Efficiency Case Study

- View of "Y" Parking Canopy – Contra Costa College

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Solar PV & Efficiency Case Study

- View of Parking Canopy – DVC

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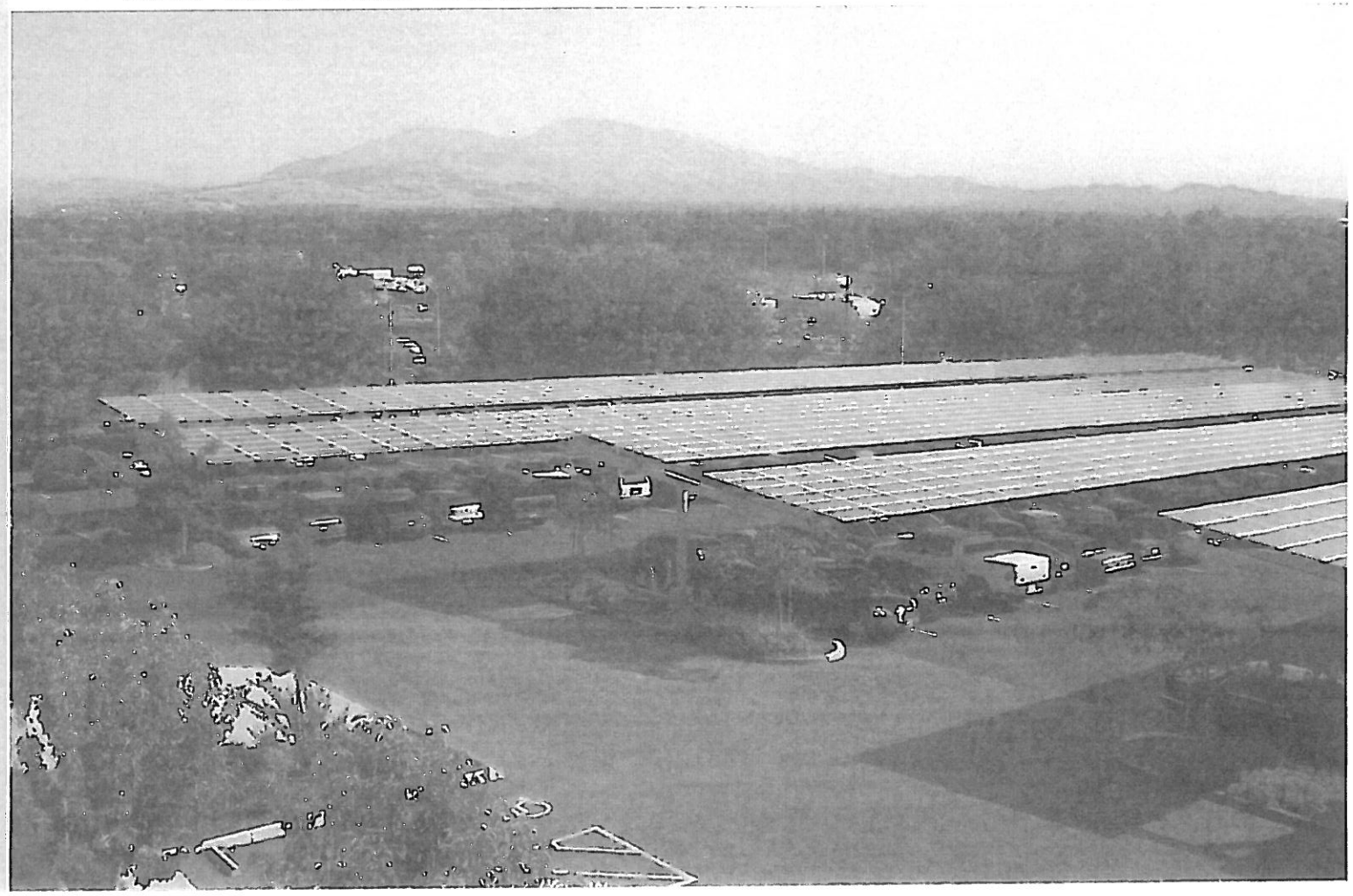
Solar PV & Efficiency Case Study

- **Let the Sun Shine on DVC!**



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Thank You!

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Comments on the Renewable Energy Transmission Initiative (RETI) Phase 1A DRAFT Report

First Solar, Inc. (NASDAQ: FSLR) is the world's largest manufacturer of thin film photovoltaic solar modules. Since our founding in 1999, we have successfully commercialized our proprietary thin film manufacturing process that allows us today to convert a sheet of glass into a functional solar module in less than 2.5 hours while providing significantly lower module production costs compared to traditional crystalline silicon based PV technologies. We have current annual manufacturing capacity over 300 MW, and will have manufacturing capacity of over 1 GW by the end of 2009. While rapidly scaling manufacturing, First Solar has made significant reductions in module production costs from $2.94/W in 2004 to $1.12/W for the 4th quarter of 2007. First Solar is a market leader in utility-scale PV systems and has forward contracted for delivery of over 3.2 GW of modules during 2008-2012. First Solar is based in Phoenix, Arizona and has manufacturing operations in Ohio, Germany, and Malaysia.

1. Use of Thin-Film PV as the Representative Photovoltaic Technology

First Solar respectfully requests that the RETI Phase IA Report be modified to include thin-film PV as a solar photovoltaic technology and that such technology be used either in addition to or as the representative photovoltaic technology.

The Renewable Energy Transmission Initiative (RETI) is designed to identify and quantify the renewable resources that can provide cost-effective energy to meet the California RPS requirements. As such, First Solar believes that thin-film PV should be either used in addition to or as the representative photovoltaic technology as it is rapidly becoming the technology of choice for large PV systems due primarily to its lower installed costs. A recent report by the German government indicates that over 60% of the 2007 free-field market in Germany used thin-film technology. A recent Solar Buzz report indicates slightly lower numbers and that of the large PV projects installed in Germany in 2007, over 40% used thin-film technology and well over 90% of the thin-film projects used First Solar technology. This same report indicates production growth rates of over 120% for thin-film modules while crystalline experienced growth rates of 50% during 2007. Based on this report, First Solar experienced a production growth rate of 240% in 2007, representing just under a 50% share of all thin film production and became the fifth largest PV manufacturer in the world.[1] First Solar has forward contracted for delivery of over 3.2 GW of modules during 2008-2012 and will have annual manufacturing capacity of over 1 GW by the end of 2009.

2. Cost and Performance Characteristics of Thin-Film PV

First Solar respectfully disagrees with Black & Veatch's assertion that all photovoltaic technologies should have similar cost of energy characteristics (Renewable Energy Transmission Imitative Phase 1A Draft Report, Section 5.5.6, pg. 5-27). Thin-film modules such as those produced by First Solar, use about 1% of the semiconductor material of crystalline modules. Furthermore, First Solar's manufacturing process uses high-throughput production lines that complete all manufacturing steps, from semiconductor deposition to final assembly and testing, in an automated, continuous process which significantly reduces production costs. First Solar also uses a systematic replication process to build new production lines which has enables us to rapidly expand production capacity to meet product demand.

As a result, First Solar module manufacturing costs reached $1.12/W in the 4th quarter of 2007, a reduction of over 60% since 2004. A recent presentation by Lazard indicates expected levelized cost of energy of $90/MWh for First Solar thin-film technology based on total project cost of $2.75/W and fixed O&M of $25.00/kw-yr,

[1] MarketBuzz™ 2008, Annual World Photovoltaic Market, March 2008

representing a significant difference between the assumptions for PV included in Table 5-7 of the RETI Draft report (pg. 5-28).[2]

Other indications that the cost assumptions in the RETI draft report are overstated for PV technology include:

- Southern California Edison's recent announcement of its plans to install 250 MW of distributed 1-2 MW photovoltaic project in California at an estimated installed cost of $3.50/W dc (2008$). SCE has indicated that program cost parameters were based on confidential market surveys.
- Southern California Edison's Advice Letter seeking CPUC approval of a contract with FSE Blythe Solar 1 for a 7.5-21 MW project. As no supplemental energy payments (SEPs) were requested and the Advise Letter process was used, it is reasonable to assume the contract is for power delivered at or below the California market price referent (MPR).

Based on this information, First Solar respectfully requests that the capital and operation costs for utility-scale thin-film photovoltaics be modified to reflect the above information.

3. New Plant Capacity (MW) and Geographic Location

The draft report recognizes the immense potential of solar PV within the state of California. However, First Solar recommends that the report consider PV both within and outside the state of California. With the cost changes recommended above for PV, PV will become a much more competitive resource both inside and outside of California. Furthermore, the study assumes a plant size of 20 MW for PV. However, PV is modular and scalable so it should be considered in California and as a minimum in those areas identified for further consideration of solar thermal technology.

4. Methodology, Financing Assumptions and Risk

Black and Veatch assumes that the cost of equity is the same for all technologies which fails to take into account the differences in risk for various technologies. Although First Solar understands the simplicity of such an approach, nowhere in Black & Veatch's proposed methodology are the differences in risk associated with the various technologies taken into account. We respectfully request that Black & Veatch includes either differences in financing costs to address differences in risk for various technologies or another alternative methodology. Furthermore, First Solar recommends using a cost of equity (Table 4-1, pg. 4-3) of 10% rather than 15%, as it is more in line with current market realities.

Larger, more complex projects, especially those dependent on new transmission siting, permitting and construction, face longer development timelines. These longer development timelines bring with them greater uncertainly related to a host of issues including changes in commodity and capital costs. The longer the development cycle, the greater the uncertainty regarding these issues and their ultimate impact on cancelled projects, consumer rates or a "dash to gas" where utilities are forced to aggressively build new gas fired generation in order to meet reliability needs arising from plant cancellations. Other appropriate risks to consider are those associated with technological feasibility, constrained supply-chains, and exchange rate risk.

[2] Lazard Frères & Co. Presentation to EXNET 21st Annual Utility M&A Symposium, January 2008

Comments on the Renewable Energy Transmission Initiative (RETI) Phase 1A DRAFT Report

California utilities have seen significant contract breakage related to their renewable energy contracting activity, no doubt a result of many of the aforementioned risks. Over the past several years, many contracts have been executed with companies based on unrealistic and unsubstantiated project cost estimates or non-commercially proven technologies. As one might predict, many of these contracts have resulted in upwardly renegotiated contract prices, missed development timelines or outright non-performance. In an area of generally rising costs related to utility plant infrastructure, these contract and performance failures hurt consumers who later are saddled with higher cost options. These represent additional reasons to address the differences in project risks in the proposed methodology.

5. Costs and Performance Characteristics for Solar Thermal Technologies

First Solar supports the assumption that CSP and other thermal cycle plants' capital costs, O&M costs and operating envelopes assume dry cooling, particularly when CREZ zones are identified in desert areas.

Concerns about long-term water availability and consumption patterns are real and growing in importance in the U.S. west. As indicated on page 3-12 of the draft report, BLM applications for over 45,000 MW have been received in California. The vast majority of these identified sites are in arid and semi arid areas where near term water availability is often challenged, let alone 20 year commitments.

As a result, the base trough plant design, capital cost, energy production, and capacity contribution should be based on dry cooling, sized to address the summer season 12 p.m. to 6 p.m. ambient air temperature and humidity characteristics associated with each CREZ.

Several very recent studies and reports present widely different capital, O&M and levelized MWh costs associated with solar trough plants. We respectfully suggest a rationalization take place between these studies to understand how and why these levelized cost differences exist.

In addition to the RETI Phase 1A Draft Report, two other reports have recently been delivered in the industry: (1) The multi-client Arizona Renewable Energy Assessment, September 2007, and (2) the multi-client EPRI CSP Feasibility Study, a summary of which was presented to the New Mexico Public Regulatory Commission on March 20, 2008.

Examples of these differences include but are not limited to:

	Wet/dry Cooling	Rated Capacity	Molten Salt Storage	Capital Cost (2011 Start)	O&M ($/Kw-yr)	Levelized Costs ($/MWh)	Dollars Used
RETI Draft	Dry	200MW	No	$3600-4200/Kw based on site	$66 fixed, no variable	137-176	N/A
AZ RE Assessment	Wet	100 MW	Yes	$4200/Kw	$55	161-176	2007
EPRI CSP Feasibility	Dry	125 MW	No	Not included in summary	Not included in summary	170-185	1/1/2011

First Solar

Comments on the Renewable Energy Transmission Initiative (RETI) Phase 1A DRAFT Report

Certainly specific solar resource assumptions, ownership assumptions and financing variables all will of course have an impact on levelized costs. That said, these studies, delivered within a very few months of each other, drive at least one significant question:

> If dry cooled trough plants cost more to construct per MW of capacity as a result of required design changes, typically have higher operating costs and demonstrate significant performance degradation when operating in the desert where 100 - 115 degree F plus summer temperatures are coincident with peak demand hours, all other things equal, why wouldn't they show significantly higher levelized costs and a lower peak season capacity contribution than similarly rated wet cooled trough plants?

Gaining an understanding across these studies surrounding the design, cost and operating assumptions used would presumably help policy makers make better informed decisions on behalf of consumers.

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June 5, 2008

Christopher Meyer, Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: Chula Vista Energy Upgrade Project (07-AFC-4) – Preliminary Staff Assessment

Dear Mr. Meyer:

This firm represents the Environmental Health Coalition in matters related to the Chula Vista Energy Upgrade Project ("CVEUP" or the "Project"). These comments regarding the Land Use and Air Quality sections of the Preliminary Staff Assessment ("PSA") for the Project supplement the comments filed by Environmental Health Coalition on other sections of the PSA.

The Project clearly conflicts with the City of Chula Vista's General Plan and zoning ordinances. The PSA erroneously assumes that these conflicts can be dismissed because the City previously approved the siting of a smaller power plant on the same location. However, this prior decision – rendered under a previous (and now repealed) version of the General Plan – does not mean that the City is now bound to ignore the many ways in which the much larger plant proposed as part of this Project conflicts with local law. Moreover, the PSA's proposed condition of certification (LAND-1) does nothing to ameliorate these conflicts, and in fact conflicts with statutory procedures that the California Energy Commission ("Commission") must follow in determining whether the Project is consistent with local laws, ordinances, regulations, and standards ("LORS"). For all of these reasons, the PSA's ultimate conclusion – that the Project is consistent with local LORS – is incorrect. The Commission thus must explore other more prudent and feasible means of addressing the demand for additional generation in this area.

In addition, the PSA's analysis of the air quality impacts of the Project violates the California Environmental Quality Act ("CEQA"). The PSA reveals that the Project would be permitted to run for 4,400 hours per year, yet the PSA analyzes (and proposes mitigation for) only the impacts of running the plant for 1,000 hours per year. California courts have squarely held that this type of analysis – relying on assumptions about future operations rather than the actual permitted level approved for a project – is inconsistent with CEQA, and that approval of a project based on such analysis constitutes a prejudicial abuse of discretion. *San Joaquin Raptor Rescue Center v. County of Merced*, 149 Cal. App. 4th 645 (2007). The PSA must be revised to address this deficiency and recirculated for additional public comment.

I. The Project Is Inconsistent with Local LORS.

A. Legal Background.

1. State Planning and Zoning Law.

Each city in California, including the City of Chula Vista, must adopt a General Plan to guide its physical development. *See* Gov. Code § 65300 et seq. The General Plan operates as a "constitution" for future development. *See Lesher Communications, Inc. v. City of Walnut Creek*, 52 Cal. 3d 531, 540 (1990). Accordingly, all of the City's land use decisions – including zoning ordinances, specific plans, and conditional use permits – must be consistent with the General Plan. *Id.* at 536; *see also* Gov. Code §§ 65454, 65860; *Napa Citizens for Honest Gov't v. Bd. of Supervisors*, 91 Cal. App. 4th 342, 355 (2001); *Neighborhood Action Group v. County of Calaveras*, 156 Cal. App. 3d 1176, 1184-85 (1984).

In order to be found "consistent" with the General Plan, a project must be compatible with the objectives, policies, general land uses, and programs specified therein. *See Napa Citizens*, 91 Cal. App. 4th at 378. A project is inconsistent with the General Plan – and may not be approved by the City – if it frustrates the plan's objectives, policies, and programs, or conflicts with a policy that is mandatory, specific, and clear. *Id.*; *see also Families Unafraid to Uphold Rural El Dorado County v. Bd. of Supervisors*, 62 Cal. App. 4th 1332, 1341-42 (1998). By the same token, the City may not issue a permit for a project that is inconsistent with applicable zoning ordinances. *See, e.g., Land Waste Management v. Bd. of Supervisors*, 222 Cal. App. 3d 950, 958. Nor may the City effectively exempt particular projects from otherwise applicable provisions of local law on an *ad hoc* basis. *See generally Neighbors in Support of Appropriate Land Use v. County of Tuolomne*, 157 Cal. App. 4th 997 (2007).

2. Local Land Use Regulation and Power Plant Siting.

The California Legislature has assigned the California Energy Commission (the "Commission") primary responsibility for implementation of local land use regulations in power plant siting proceedings. *See generally* Pub. Res. Code §§ 25500, 25523(d). Thus the Commission itself, rather than the City, must ultimately determine whether siting and construction of the plant are consistent with local LORS.

The City still plays an important role in this process. An application for certification must contain information on "measures planned by the applicant to comply with all applicable federal, state, regional, and local laws, regulations, standards, and plans." 20 Cal. Code Regs. § 1744(a). The Commission must forward applications to "local government agencies having land use and related jurisdiction in the area of the proposed site and related facility" for their "comments on, among other things," facility design, architectural and aesthetic features, access to highways, landscaping and grading, public use of nearby lands, and "other appropriate aspects of the design, construction, or operation of the proposed site and related facility." Pub. Res. Code § 25519(f).

Each agency responsible for enforcing applicable laws must assess the adequacy of the applicant's proposed compliance measures to determine whether the facility will comply with those laws. 20 Cal. Code Regs. § 1744(b). The applicant's proposed measures and the responsible agencies' assessments of compliance must be presented to the Commission and considered at the evidentiary hearings on the application. 20 Cal. Code Regs. §§ 1744(c), 1748(c). If a responsible agency asserts that the facility will not comply, Commission staff must "independently verify the non-compliance" and advise the Commission of their conclusions during the hearings. 20 Cal. Code Regs. § 1744(d).

As shown below, the Project does not comply with the City's General Plan and zoning ordinances, and thus cannot be found consistent with local LORS. Moreover, staff's proposed condition of approval not only fails to ameliorate these conflicts, but also creates additional conflicts with statutory and regulatory procedures governing Commission approval of power plant siting decisions.

B. The CVEUP Conflicts with the Chula Vista General Plan and Zoning Ordinances.

To our knowledge, the City of Chula Vista has not yet provided the Commission with its assessment as to whether the Project complies with the City's General Plan, zoning ordinances, and other local LORS. It is abundantly clear, however, that the Project as proposed conflicts with several General Plan and zoning provisions.

1. The City's Past Approval of a Smaller Power Plant Does Not Make the Present Project Consistent with the General Plan and Applicable Zoning Ordinances.

The PSA's conclusion that the Project is consistent with local LORS is grounded almost exclusively on an erroneous assumption. Noting that the City's Redevelopment Agency approved a Special Use Permit for a smaller peaker plant on the southern portion of the site several years ago, the PSA assumes that City's Planning Department would currently find the proposed Project – a peaker plant with more than twice the generating capacity of the existing facility[1] – to be compatible with surrounding land uses. PSA at 4.5-11.

The assumption is improper for at least two reasons. First, local regulations applicable to the site have changed in the intervening years. The PSA cites a Redevelopment Agency staff report from 2000 finding that the proposal would be consistent with the "Montgomery Specific Plan" and the General Plan. PSA at 4.5-5 to 4.5-6. The General Plan, however, was updated in 2005, and the Montgomery Specific Plan was repealed upon adoption of the new General Plan. GP at LTU-6. Accordingly, consistency with the current General Plan cannot be inferred from the Redevelopment Agency's finding of consistency with provisions of past plans that are no longer in effect.

Second, the Redevelopment Agency's past approval of a peaker plant does not mean that the City must find that a new, larger peaker plant is a proper use of the site. A city's past approval of a particular land use in a particular location cannot be construed as a promise to approve the continuation or expansion of that use in the future. *See Laurel Hill Cemetery v. City and County of San Francisco*, 152 Cal. 464, 475-76 (1907), *aff'd*, 216 U.S. 358 (1910). It is axiomatic that a city cannot contract away or otherwise abdicate its responsibility and authority to protect the public health, safety, and welfare. *Id.*; *see also Trancas Property Owners Ass'n v. City of Malibu*, 138 Cal. App. 4th 172, 181 (2006). Indeed, a city's police power must remain flexible in order to address changing conditions. *See, e.g.*, *Richeson v. Helal*, 158 Cal. App. 4th 268, 277 (2007).

Contrary to these well-settled principles, the PSA assumes that the Redevelopment Agency's previous approval of a particular land use, under a different regulatory regime, means that the City will always and forever find a future "intensification or upgrade" of that use to be both permissible and compatible with surrounding land uses. The Commission may not rely on this assumption – which has no basis in law – in order to find this Project consistent with local LORS.

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[1] The PSA inconsistently refers to the Project in some places as an "intensification or upgrade" of the existing land use and in others as "the same exact type of land use." *See* PSA 4.5-11, 4.5-14. Both characterizations are misleading. The Project is an entirely new, 100 MW power plant, to be "constructed on vacant land," that would replace an existing plant with less than half the generating capacity on a different portion of the site. PSA at 1-2.

2. The Project Is Inconsistent with the General Plan.

The Project lies within the Main Street Corridor planning area of the Southwest Area Plan. *See* AFC at 4.5-4; Chula Vista General Plan at LUT-131, LUT-156 to LUT-158. Two separate sites, subject to different General Plan provisions, are necessary for the Project: the power plant site itself and a "construction laydown/worker parking" site nearby. The uses proposed for each of these sites are inconsistent with the applicable provisions of the General Plan.

a. The Project is Inconsistent with Controlling General Plan Land Use Designations.

The power plant site is subject to two General Plan designations: the northern portion of the property is designated Limited Industrial, while the southern portion is designated Open Space. AFC Fig. 5.6-2. The Limited Industrial designation is "intended for light manufacturing; warehousing; auto repair; auto salvage yards; and flexible-use projects that combine these uses with associated office space." CVGP at LUT-53. The Open Space designation is "intended for lands to be protected from urban development." CVGP at LUT-54.

Nothing in the General Plan indicates that a peaker plant is consistent with the stated purposes of the "Limited Industrial" or "Open Space" land use designations applicable to the power plant site. On the contrary, the General Plan specifies that "public utilities" are to be located on sites designated as "General Industrial." CVGP at LUT-54. On its face, therefore, the Project is inconsistent with the applicable General Plan land use designations.

The PSA does not explain this discrepancy. Rather, the PSA concludes in light of the City's 2000 approval of the existing peaker plant that the Project is "compatible with surrounding uses." PSA at 4.5-11. As explained above, however, the Commission cannot rely on the City's past approval of a different project under a different General Plan to conclude that the present Project is consistent with the current General Plan. The PSA also places too much reliance on the fact that a Conditional Use Permit ("CUP") would be necessary for the Project if the City were responsible for permitting the facility.[2] *See* PSA at 4.5-11; *see also* Issues Identification Report (Oct. 26, 2007) at 7. Issuance of a CUP, however, cannot by itself cure a General Plan inconsistency; on the contrary, a CUP must be consistent with the applicable General Plan. *Neighborhood Action Group*, 156 Cal. App. 3d at 1184-85.

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[2] The City of Chula Vista has indicated that it would require a CUP for the Project if it had permitting authority. *See* Letter from S. Tulloch and M. Meacham, City of Chula Vista, to C. Meyer, California Energy Commission (Jan. 31, 2008) at 2, 5. This determination, however, was admittedly preliminary and did not discuss whether any such CUP could be found consistent with the General Plan. *See id.* at 2-3, 5, 7. In any event, for the reasons set forth in this letter, the City could not lawfully approve a CUP for this Project due to numerous conflicts with the General Plan.

The construction laydown/worker parking area is designated as "Open Space Preserve" in the General Plan. AFC at Fig. 5.6-2; PSA at 4.5-5. The "Open Space Preserve" designation is "intended for areas designated within the Chula Vista Multiple Species Conservation Program (MSCP) Subarea Plan for the permanent conservation of biological resources." CVGP at LUT-55. The PSA does not even discuss whether or how the proposed construction laydown/worker parking facility would be consistent with the "permanent conservation of biological resources," as set forth in the "Open Space Preserve" designation. Again, this aspect of the Project is facially inconsistent with the General Plan.

b. The Project Is Inconsistent with Policy E 6.4.

General Plan Policy E 6.4 was adopted to prevent precisely what this Project entails: the siting of a new or re-powered energy generation facility within 1,000 feet of a sensitive receiver. The PSA's conclusion that the Project is consistent with Policy E 6.4 ignores the policy's plain language, purpose, and history.

The PSA's conclusion that the Project is consistent with this policy turns almost entirely on the City's approval of a smaller peaker plant on the site in 2000. *See* PSA at 4.5-14. This conclusion – which, as explained above, would be erroneous in any case – is especially puzzling here, given that Policy E 6.4 did not exist in 2000, but rather was adopted as part of the General Plan Update in 2005. Moreover, as set forth in the separate comments of the Environmental Health Coalition, the history of Policy E 6.4 clearly demonstrates that the purpose of the policy was to prevent exactly this type of project. Letters previously provided to Commission staff also reflect this fact. *See* Letter from L. Miras, Environmental Health Coalition, to C. Meyer, California Energy Commission (Feb. 13, 2008) at 3. If anything, the adoption of Policy E 6.4 in 2005 indicates that the City of Chula Vista is now far *less* likely than it was in 2000 to approve the siting of a peaker plant in close proximity to a residential neighborhood.

The PSA's contrary conclusion makes no sense. Based on the City's approval of the smaller peaker plant five years before Policy E 6.4 was adopted, the PSA "concludes that the City does not define a peaker power plant as a 'major toxic emitter,' . . . and that it views such a land use type to be appropriately sited at the proposed location and consistent with its goals and objectives for development in the area." PSA at 4.5-14. This defies logic. The City's decision to permit a peaker plant on the site in 2000, under a different General Plan, sheds absolutely no light on the meaning of terms incorporated into Policy E 6.4 of its new General Plan five years later. The City could not have been interpreting the meaning of Policy E 6.4 when it approved the smaller peaker plant, because the policy did not yet exist.

The PSA also ignores the plain language of Policy E 6.4, selectively quoting from the policy in order to omit the very provisions most directly applicable to the Project. Under Policy E 6.4, the City must "avoid siting *new or re-powered energy generation facilities* and other major toxic air emitters within 1,000 feet of a sensitive receiver." CVGP at E-32 (emphasis added). The General Plan's use of the term "energy generation facilities" could not be any clearer: the policy is intended to prevent the siting of electrical power plants within 1,000 feet of a sensitive receiver. "Other major toxic emitters" are not at issue here – an "energy generation facility" is. Moreover, the General Plan's use of the term "re-powered" further undermines the PSA's conclusion that the Project must be consistent with the policy because the City once approved a smaller plant on the same site. If replacement or expansion of an existing power plant would always by definition be consistent with Policy E 6.4, there would have been no occasion to use the phrase "new or re-powered." Indeed, Policy E 6.4 contemplated exactly this kind of proposal – replacement of an existing power plant with a new facility, at a location "within 1,000 feet of residential sensitive receptors," PSA at 4.5-14 – and directed the City to "avoid" approving it.

The Project is thus facially inconsistent with Policy E 6.4. Siting a power plant within 1,000 feet of a residential neighborhood – an outcome that Policy E 6.4 expressly directs the City to "avoid" – will frustrate implementation of the purposes and objectives of the General Plan. *See Napa Citizens*, 91 Cal. App. 4th at 378. The Commission cannot avoid this inconsistency by reading the City's 2000 approval of the existing plant as a clairvoyant interpretation of its 2005 policies. Nor can the Commission ignore the policy's history, purpose, and plain language.

c. The PSA Fails to Discuss Several Potentially Applicable General Plan Policies.

The list of relevant General Plan policies discussed in the PSA appears to be incomplete. Even a cursory review of the General Plan reveals a number of policies that bear on this Project but were not analyzed in the PSA:

- Policy E 6.15: "Site industries in a way that minimizes the potential impacts of poor air quality on homes, schools, hospitals, and other land uses where people congregate." CVGP at E-33. The Project site is within 350 feet of a residential neighborhood, PSA at 4.5-4, and within two miles of several schools and day care centers. MMC Energy, Response to Environmental Health Coalition Data Requests 1 through 35 (Feb. 6, 2008) at 5-6.

- Policies LUT 3.1, 3.2: Adopt urban design guidelines in specified Districts (including the Main Street District, within the Southwest Planning Area) to ensure that new development or redevelopment "recognizes and enhances

the character and identity of adjacent areas," consistent with the General Plan's vision and policies. CVGP at LUT-93. The PSA does not disclose whether these guidelines have been adopted or whether the Project is consistent with them.

- Policy LUT 4.2: "Protect existing, stable, single-family neighborhoods through zoning or other regulations that discourage the introduction of higher density residential or other incompatible or potentially disruptive land uses and/or activities." CVGP at LUT-94.

- Objective LUT-35: Revitalize and protect existing stable residential neighborhoods in the Southwest Planning Area from adverse land use impacts. CVGP at LUT-134.

- Policy LUT 40.3: "Identify and protect important public viewpoints and viewsheds along the Otay River Valley and the Bayfront, where native habitat areas exist." CVGP at LUT-139.

- Policies LUT 45.5, 45.13: These General Plan provisions require the preparation of a specific plan or plans for the Main Street District. Policy LUT 45.5 states that the City "shall" prepare a specific plan for the area that "establishes design and landscape guidelines and zoning-level standards" and "addresses the interface of the Otay Valley Regional Park with land uses on or near Main Street." CVGP at LUT-158. According to Policy LUT 45.13, "[t]he appropriate Specific Plans for the Main Street Corridor shall include design guidelines and standards that address urban development adjacent to the Otay Valley Regional Park." *Id.* at LUT-159. The PSA does not discuss whether these specific plans have been prepared or whether the Project is consistent with them.

Based on these omissions, it appears that the PSA's discussion of potentially applicable General Plan policies – and the Project's consistency with those policies – is incomplete.

3. The Project Is Inconsistent with Applicable Zoning Ordinances.

The two separate parcels necessary for the Project are subject to different zoning provisions. The uses proposed for both parcels are incompatible with applicable zoning.

a. The Proposed Power Plant Is Inconsistent with Allowable Uses in the "Limited Industrial Precise Plan" District.

The zoning designation applicable to the power plant site is I-LP, or "Limited Industrial Precise Plan." AFC at Fig. 5.6-3; PSA at 4.5-5. The purposes of the I-L zone include the following: (1) to "encourage sound limited industrial development by providing and protecting an environment free from nuisances created by some industrial uses," (2) to ensure "the purity of the total environment of Chula Vista and San Diego County," and (3) to "protect nearby residential, commercial and industrial uses from any hazards or nuisances." Chula Vista Municipal Code ("CVMC") § 19.44.010.

The PSA once again erroneously assumes that the Project is consistent with I-L zoning because the City issued a Special Use Permit for a smaller plant at the same site in 2000. *See* PSA at 4.5-15. As previously discussed, the City's prior approval of a smaller plant on the same site, under a different regulatory scheme, does not and cannot mean that the City must find the Project consistent with the site's current zoning.

In fact, the Project is facially inconsistent with the applicable zoning ordinance. A peaker plant is not a permitted or conditional use in the I-L zone. CVMC §§ 19.44.020, 19.44.040. Rather, the City's zoning code specifies that "Electrical generating plants" are permitted in the "General Industrial" or "I" zone. CVMC § 19.46.020(E). The PSA concedes that a power plant is not an expressly allowable use in the I-L zone, but nonetheless concludes that the City's prior approval of the smaller, existing plant indicates that it would find the current Project similar to other conditional uses allowed in the I-L zone. PSA at 4.5-15. The list of allowable conditional uses in the I-L zone, however, does not include a catch-all category of conditional uses that may be allowed if they are "similar" to the other enumerated uses. *See* CVMC § 19.44.040. The list of *permitted* uses in this zone does include a "similar" category, but it is restricted to "other limited *manufactured* [sic] uses" – probably meaning the type of light manufacturing uses that dominate the list of permitted uses. CVMC § 19.44.020 (emphasis added). The zoning ordinance does not support the PSA's conclusion.

The PSA also cites a single sentence in the City's January 31, 2008 letter to Commission staff, in which City staff states that the City would probably require a CUP for the project if it were in charge of issuing land use approvals. *See* PSA at 4.5-15; Letter from S. Tulloch and M. Meacham, City of Chula Vista, to C. Meyer, California Energy Commission (Jan. 31, 2008) at 2. The key point made in the City's letter, however, is that City staff lacked enough information at the time to determine whether the project could be found consistent with local laws. *See id.* at 2, 7. Nor does the City's letter clearly state that a CUP could be granted under existing zoning. According to the Municipal Code, the purpose of a CUP is to impose conditions on *permitted* uses due to special circumstances, not to allow uses that would not otherwise be permitted under the applicable zoning ordinance. *See* CVMC § 19.14.060. In any event, the City could not

issue a CUP despite inconsistencies with existing zoning if the effect would be to create an *ad hoc* exception that benefits only one particular parcel of land within the zoning district. *See Neighbors in Support of Appropriate Land Use*, 157 Cal. App. 4th at 1009. Accordingly, the City could not lawfully grant a CUP for the Project as proposed, confirming that the Project is not consistent with local LORS.

The PSA also fails to discuss the effect of the "P" or "Precise Plan" modifying district applicable to the site – namely the need for preparation and approval of a "precise plan" before *any* use may be permitted. The zoning code expressly requires a "precise plan" for development of the site. CVMC § 19.12.120(B) ("[T]he city council may require that a precise plan be submitted for the development of the property by attaching the P precise plan modifying district to the underlying zone.") "Where use is made of the precise plan procedure . . . a zoning permit shall not be issued for such development or part thereof until the planning commission and city council have approved a precise plan for said development." CVMC § 19.14.570. The effect of these provisions is clear: the City could not issue a CUP or any other approval for the Project unless and until a precise plan was prepared and approved for the site. As a result, the Project as proposed cannot be found consistent with local LORS.

b. The Proposed Construction Laydown/Parking Area Is Inconsistent with Agricultural Zoning.

The construction laydown/parking area for the project is also incompatible with applicable zoning. According to the AFC and the PSA, this area is zoned A70, or "Agricultural/County." AFC at Fig. 5.6-3; PSA at 4.5-5. The PSA concludes that construction laydown and worker parking are consistent with this zoning district because parking and equipment storage are listed as allowed "accessory" uses. PSA 4.5-17 (citing CVMC § 19.20.030). However, "accessory" uses are defined as uses "customarily incidental" to the uses *permitted* in the Agricultural zone. CVMC § 19.20.030. Neither "construction laydown" nor "worker parking" – much less "power plant" – is listed among the permitted (or, for that matter, conditional) uses allowed in the Agricultural district. *See* CVMC §§ 19.20.040, 19.20.040. Accordingly, this aspect of the Project is inconsistent with applicable zoning.

For all of these reasons, the PSA's conclusions regarding the Project's compliance with applicable zoning are erroneous. The Project cannot be found consistent with local LORS.

C. Proposed Condition of Certification LAND-1 Cannot Make the Project Consistent with LORS.

The PSA's proposed LAND-1 condition not only fails to ameliorate the Project's numerous conflicts with local LORS, but also contravenes the Commission's statutory and regulatory procedures for siting power plants.

Under proposed condition LAND-1 the "project owner" must "ensure that the project and its associated facilities are constructed and operated in compliance" with the requirements of the Limited Industrial zoning district "and other applicable municipal code requirements." PSA at 4.5-24. To this end, the project owner would be required to submit a "development plan" containing "all elements normally required for review and permitting of a similar project" to the City for "review and comment" prior to construction. *Id.* According to the PSA, this condition "requires the applicant to comply with the conditions that the City would attach to the project if it were to issue a Conditional Use Permit similar to the existing on-site peaking facility." PSA at 4.5-15.

There are numerous problems with this approach. As a threshold matter, the proposed condition on its face concerns only the Project's compliance with applicable zoning regulations. *See* PSA at 4.5-24. As a result, the condition will do nothing to resolve the Project's serious conflicts with the General Plan. Moreover, to the extent that the proposed condition is intended to substitute for a CUP, it is misguided; the City cannot grant a CUP for a project that is inconsistent with the General Plan, and the mere issuance of a CUP cannot make a project consistent with the General Plan. *See Neighborhood Action Group*, 156 Cal. App. 3d at 1184-85.

The proposed condition also inappropriately attempts to make the "project owner," rather than the Commission, responsible for ensuring that the Project meets the requirements of the I-L zoning district and other municipal regulations. Determining whether a project is consistent with LORS, however, is the responsibility of the *Commission*, not the applicant. *See* Pub. Res. Code §§ 25500, 25523(d); 20 Cal. Code Regs. §§ 1744, 1748(c), 1752(a)(3). The condition also effectively attempts to defer a finding on LORS consistency until *after* the Project is certified. Again, this violates statutory and regulatory provisions requiring the Commission to make specific findings regarding a proposed project's compliance with LORS *before* approval. *See* Pub. Res. Code §§ 25523(d), 25525; 20 Cal. Code Regs. § 1752(k). In entrusting the Commission with sole authority over power plant siting decisions, the Legislature mandated that certain procedures be followed. Proposed condition LAND-1 is inconsistent with this mandate.

The problems with the proposed condition are readily foreseeable. If the Commission were to follow the PSA's recommendation and conclude that the Project is consistent with local LORS based on compliance with proposed condition LAND-1, the

Commission could approve the Project without making any of the findings required for a project that does not comply with LORS. After approval, however, when the project owner submits a "development plan" for the Project to the City, the City (as discussed above) would very likely have to find that the Project cannot be constructed and operated in compliance with the General Plan and applicable zoning ordinances. This would amount to a determination by the relevant local agency that the project as proposed is inconsistent with local LORS. Because this would occur only *after* project approval, however, the Commission would be unable to take any of the steps required to confirm and resolve these inconsistencies – and in fact would have already approved the project without making the findings required by law. The proposed condition thus contravenes the procedures set forth in the Warren-Alquist Act for approving projects despite inconsistencies with local land use regulations.

Accordingly, proposed condition LAND-1 does not mitigate or resolve the Project's multiple inconsistencies with local LORS.

D. The Commission Must Explore More Prudent and Feasible Alternatives to the Project.

For the foregoing reasons, the PSA's conclusions regarding the Project's compliance with local LORS are incorrect. The Project is inconsistent with provisions of the General Plan and applicable zoning ordinances, including provisions adopted precisely to prevent this type of facility from being sited near a residential neighborhood. Moreover, the PSA's proposed condition LAND-1 does not, and cannot, resolve these conflicts in a manner consistent with both local law and the Warren-Alquist Act.

To our knowledge, the City has not yet specifically responded to the Commission's request for a determination as to the Project's consistency with local LORS. For the many reasons set forth in this letter, however, any determination by the City that the Project is consistent with the General Plan and local zoning ordinances would be arbitrary, capricious, and unlawful. Even if the City had authority to permit this project or condition its approval, the City could not create an ad hoc exception from local zoning ordinances for the Project by issuing a CUP. *Neighbors in Support of Appropriate Land Use*, 157 Cal. App. 4th at 1009. Nor could the City issue a CUP for the Project due to its numerous inconsistencies with the General Plan – foremost among which is the Project's irreconcilable inconsistency with Policy E 6.4. *See Neighborhood Action Group*, 156 Cal. App. 3d at 1184-85. Accordingly, the City could not lawfully find that the Project is consistent with the existing General Plan and zoning ordinances, and even if it did, the Commission could not justifiably rely on such an arbitrary and capricious conclusion.

Accordingly, in order to certify the Project, the Commission must determine whether there are more prudent and feasible means of achieving public

convenience and necessity. *See* Pub. Res. Code § 25525; 20 Cal. Code Regs. § 1752(k)(2). The Commission's responsibility to do so is a free-standing, separate requirement of the Warren-Alquist Act that does not depend on the California Environmental Quality Act principles informing the PSA's analysis of alternatives.

Therefore, the Commission's inquiry into whether there are more prudent and feasible means of achieving public convenience and necessity cannot be limited by the applicant's narrow objectives. Rather, the Commission must conduct a broader inquiry into other potential sources of electricity that will not further burden a community already bearing a disproportionate share of environmental impacts. This inquiry must therefore include, but not be limited to, energy efficiency measures, conservation efforts, renewable energy sources, distributed generation facilities, and possible combinations of these strategies that could either reduce peak demand or provide additional power equivalent to that provided by the Project.

As set forth in the separate comments of the Environmental Health Coalition, several such strategies exist. Indeed, the Commission's own Integrated Energy Policy Report ("IEPR"), published just last year, could serve as an excellent starting point for this inquiry. As the IEPR itself acknowledges, fossil fuel-driven electricity generation is at the bottom of the "loading order" that guides California energy policy – and other strategies, including energy efficiency, demand response, distributed generation, and renewable energy, must be given higher priority. Accordingly, the Commission cannot make the necessary findings under Public Resources Code section 25525, and may not certify this Project as proposed.

II. The PSA Fails to Analyze and Mitigate the Air Quality Impacts of the Project in Accordance with the California Environmental Quality Act ("CEQA").

The PSA's air quality discussion fails to analyze and mitigate the environmental effects of the Project as actually proposed and permitted. If certified by the Commission and permitted the San Diego Air Pollution Control District ("SDAPCD"), the CVEUP would be authorized to run for 4,400 hours each year. The PSA's analysis and proposed CEQA mitigation, however, are predicated on an assumption that the plant will run for a maximum of 1,000 hours each year. This approach both understates and fails to mitigate the environmental impacts of the Project actually being approved – and thus plainly violates CEQA.

The AFC seeks permission to operate each of the two turbines to be installed as part of the CVEUP for up to 4,400 hours per year in order to meet SDG&E's contractual requirements. PSA at 4.1-23. Accordingly, for the Project to operate, the SDAPCD must issue a federal Clean Air Act permit allowing the facility to operate at up to 4,400 hours per year (400 hours in start-up/shut-down mode and 4,000 hours at full load). *See* PSA at 4.1-3, 4.1-25. Indeed, the Conditions of Certification clearly state that

the two turbines "shall not be operated more than 4,400 hours per year." PSA at 4.1-65 (Condition AQ-5). The permitted level of operation for the Project, therefore, is clearly 4,400 hours per year.

The PSA's CEQA analysis, however, assumes that the Project will operate at a maximum of 1,000 hours per year. PSA at 4.1-25. As a result, the PSA concludes that the CVEUP will produce only a fraction of the air emissions that would be allowed under its permit. PSA at 4.1-25, 4.1-26. The difference between permitted and assumed emissions is striking:

	NOx[3]	CO	VOC	SOx[4]	$PM_{10/2.5}$	NH_3
Permitted Annual Emissions	23.1	29.8	5.0	4.4	13.2	13.9
Assumed Annual Emissions	5.66	n/d[5]	1.12	1.03	3.01	n/d
Assumed Incremental Emissions (over Chula Vista Power Plant baseline)	4.36	n/d	1.05	.83	2.51	n/d

Compare PSA at 4.1-25 (AIR QUALITY Table 17) *with* PSA at 4.1-26 (AIR QUALITY Table 18). These lower *assumed* emissions figures, moreover, are used for both impacts assessment and mitigation development. PSA at 4.1-25, 4.1-26. In particular, the emissions offsets for the Project (through the Carl Moyer Fund) are calculated "based on a maximum expected operations [sic] of 1,000 operating hours per year." PSA at 4.1-37.

CEQA prohibits the approach to analysis and mitigation taken in the PSA. In *San Joaquin Raptor Rescue Center v. County of Merced*, 149 Cal. App. 4th 645 (2007), the Court of Appeal held an Environmental Impact Report ("EIR") for a gravel quarry expansion proposal inadequate due to its use of similar, conflicting assumptions. In that case, the quarry owner sought a permit to produce 550,000 tons per year of aggregate, but the EIR analyzed impacts and proposed mitigation based on the assumption that the quarry would actually produce less than half that amount. *See id.* at 655-56. Noting that this approach gave "conflicting signals to decisionmakers and the public about the nature and scope of the activity being proposed," the court held the EIR "insufficient as an informational document for purposes of CEQA, amounting to a prejudicial abuse of discretion." *Id.* at 655-56, 657. The court ordered that any new EIR for the project must clearly disclose and analyze the impacts of the expansion at the full, permitted level of 550,000 tons per year. *See id.* at 657.

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[3] All pollutant emissions are given in tons per year.

[4] The PSA does not adequately explain its use of an average natural gas sulfur content of .25 grains/100 dry cubic feet, rather than the higher .75 grains/100 dry cubic feet used by the SDAPCD in permitting the Project. *See* PSA at 4.1-26. Use of this lower figure may significantly understate Project emissions.

[5] No data provided. The PSA omits summary information concerning annual CO and NH3 emissions expected from operation of the turbines at 1,000 hours per year. *Compare* PSA at 4.1-25 (AIR QUALITY Table 17) *with* PSA at 4.1-26 (AIR QUALITY Table 18).

The PSA suffers from exactly the same defect. While acknowledging that the CVEUP would be permitted to run for 4,400 hours per year, the PSA evaluates impacts and mitigation measures based on a lower assumed figure of 1,000 hours per year. Nothing in the proposed conditions of certification would limit operation of the plant to 1,000 hours per year. The PSA thus not only sends conflicting signals to decision-makers and the public, and accordingly fails as an informational document for purposes of CEQA. Even more fundamentally, the PSA fails to disclose, analyze, and mitigate the actual environmental impacts of the Project under consideration. As a result, approval of the Project based on the analysis in the PSA would constitute a prejudicial abuse of discretion under CEQA and a failure to proceed according to law.

The Commission must comply with these provisions of CEQA. The Commission's AFC process is a "certified regulatory program" under CEQA, and the PSA is intended to serve as the functional equivalent of an Environmental Impact Report. See Pub. Res. Code § 21080.5; 14 Cal. Code Regs. § 15251(j), 15252. In preparing this substitute environmental document, the Commission remains bound by CEQA's broad policy goals and substantive standards. *See* Pub. Res. Code §§ 21000, 21001, 21002; *Sierra Club v. State Board of Forestry*, 7 Cal. 4th 1215, 1228-30 (1994); 2 Kostka & Zischke, Practice Under the California Environmental Quality Act § 21.11 (2008) at 1093. In short, the Commission still has a fundamental obligation under CEQA to identify and mitigate all of the Project's environmental impacts, and to refrain from approving the project unless those impacts are mitigated to the extent feasible. The PSA fails to uphold this obligation. Accordingly, the PSA must be revised to address these deficiencies and recirculated for additional public comment. *See Joy Road Area Forest and Watershed Association v. Cal. Dept. of Forestry and Fire Prot.*, 142 Cal. App. 4th 656, 667-73 (2006) (requiring notice and recirculation of document prepared pursuant to certified regulatory program where new information revealed significant environmental impacts not previously analyzed).

The PSA's failure to analyze and mitigate the impacts of the Project also could prevent other agencies, including the SDAPCD, from issuing necessary permits for the CVEUP. Normally, a responsible agency like the SDAPCD may rely on a substitute environmental document such as a PSA in making its own permitting decisions. *See* 14 Cal. Code Regs. § 15253(a). Such reliance is permissible, however, only where the substitute document identifies both the significant environmental effects of a project within the responsible agency's expertise and mitigation measures that could avoid or reduce the severity of those effects. 14 Cal. Code Regs. § 15253(b)(3)(A), (B). If the document fails to meet these criteria, the responsible agency may not rely on it, and may not grant any approval for the project unless and until it separately complies with CEQA (for example, by preparing an EIR). *See* 14 Cal. Code Regs. § 15253(c).

Accordingly, the PSA's failure to identify and mitigate the Project's full environmental impact renders the document inconsistent with the criteria set forth in section 15253 of

the CEQA Guidelines. The SDAPCD therefore cannot issue any permit for the Project unless and until it (or another agency acting as lead agency) prepares an EIR that both considers and mitigates the Project's full impacts.

Thank you very much for your consideration of these comments.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Kevin P. Bundy

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STATE OF CALIFORNIA

ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of: The Application for Certification for the CHULA VISTA ENERGY UPGRADE PROJECT	Docket No. 07-AFC-4

PROOF OF SERVICE

I, Lilia Escalante, declare that on June 6, 2008, I deposited copies of the attached Preliminary Staff Assessment Comment Letters in the United States mail at National City, California, with first class postage thereon fully prepaid and addressed to the following:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 07-AFC-4
1516 Ninth Street, MS-14
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Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified in the following list:

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

Lilia Escalante