State of California  
State Energy Resources Conservation and Development Commission

In the Matter of: ) Docket # 09-AFC-03  
) Robert Sarvey’s  
Mariposa Energy Project ) Opening Brief

Introduction

The MEP violates numerous Land Use LORS including the Williamson Act, the Williamson Act Contract, the ECAP and the zoning code. The air quality mitigation is inadequate to mitigate the projects significant air quality impacts and does not comply with CEQA. The alternatives analysis does not comply with CEQA Requirements. No water supply assessment has been provided and the project does not comply with the 2003 Integrated Energy Policy Report, State Water Resources Control Board Resolution 75-58 and SWRCB Res. 2009-0011. Staff has not even provided a threshold analysis for environmental justice. Without PG&E’s participation it cannot be determined whether the project poses a significant safety hazard and any other determination is speculative. The committee refuses to subpoena PG&E so the information required by the full Commission for every AFC proceeding is not in the record. The project as proposed cannot be certified by this Commission.

MEP is not Consistent with the County’s General Plan or Zoning Ordinance

“In November 2000, the Alameda County electorate approved the Save Agriculture and Open Space Lands Initiative (Measure D, effective date December 22, 2000) (Initiative) which amended portions of the ECAP. The purpose of the Initiative is to preserve and enhance agriculture and agricultural lands, and to protect the natural qualities, the wildlife habitats, the watersheds and the beautiful open space of Alameda County from excessive, badly located and harmful development. The ECAP presents the county’s intent concerning the future development and resource conservation within the East County. The ECAP provides the basis for County zoning and subdivision approvals (AC 2000.).”

The MEP accomplishes none of these objectives. First the MEP does not preserve agricultural land it removes 10 acres of grazing land from agricultural production. The MEP does not protect wildlife habitat and as both Applicant and Staff admit. The project will destroy and displace sensitive species including the Red Legged Frog, the Tiger Salamander, Kit Fox, Burrowing Owl and other sensitive species. The MEP is not inside an urban the growth boundary and is not located near existing cities. The MEP does not remove the County government from urban development outside the Urban Growth Boundary. In short the MEP is exactly the type of land use the voters

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1 Exhibit 301 Page 4.12-18
2 Exhibit 414 Page ii
voted to prohibit when they passed Measure D. A project cannot be found consistent with a
general plan if it conflicts with a general plan policy that is “fundamental, mandatory, and clear,”
regardless of whether it is consistent with other general plan policies. (Endangered Habitats League
v. County of Orange (2005) 131 Cal.App.4th 777, 782-83; Families Unafraid to Uphold Rural El
Dorado County v. Board of Supervisors (1998) 62 Cal.App.4th 1332, 1341-42 (“FUTURE”).) Moreover,
even in the absence of such a direct conflict, a particular development project may not be
approved if it interferes with or frustrates the general plan’s policies and objectives. (Napa Citizens,
supra, 91 Cal.App.4th at pp. 378-79; see also Lesher, supra, 52 Cal.3d at 544)

“Alameda County says that the, “MEP is consistent with the ECAP because it is permissible
infrastructure allowed under Policy 13 because it can be considered a public facility,” The record is
not clear on what a public facility is. The MEP is potentially a public facility, but if it doesn’t have
a power purchase agreement no one is sure it is a public facility. The applicant was asked at the
evidentiary hearing, “In this particular instance, you’re stating that the MEP is a public facility
because it has its power purchase agreement. What happens when this purchase power agreement
is no longer in effect? The applicant replied, “I don’t know.” Staff doesn’t know if the MEP is a
public facility without a power purchase agreement either. Staff was asked, “When PG&E’s
contract expires in ten years, would this still be considered a public facility?” Staff replied, “I can’t
answer that question.”

The Byron Cogeneration Facility is a 6.5 MW power plant that sells electricity to PG&E just like
the MEP, but for some reason the applicant does not believe the Byron Cogen is a public facility. The
County claims that, “the project (MEP) is appropriately called a public facility as well as
structures and development necessary to the provision of...public utilities’ because it would
substantially serve a key need of the public at large.” The Byron cogeneration plant supplies
electricity to PG&E but why it isn’t a public facility? The definition of a public facility depends on
who pays for that designation. The majority of the public within six miles of the MEP live in
Mountain House. The residents of Mountain House use MID as there electric service provider. The
public at large within a six mile radius is not served by PG&E. PG&E does not serve the
public at large it serves the ratepayers and shareholders of PG&E.

The legal definition of public facilities and public services is “facilities or services which are
financed, in whole or in part, by any state or political subdivision thereof, including, but not
limited to, highways and secondary roads, parking, mass transit, docks, navigation aids, fire and
police protection, water supply, waste collection and treatment (including drainage), schools and
education, and hospitals and health care. The MEP is not financed by any state of political
subdivision it is financed by the PG&E ratepayers at least for the first ten years. The MEP is not
available to the public at large it is only available to PG&E ratepayers who pay their bills on
time.

The only basis to conclude that the MEP is a public facility is statements by Alameda County
that staff has chosen to defer to. The County has a cooperation agreement with the applicant. The
cooperation agreement requires the MEP to donate 1.2 million dollars to the county. The county in
return agrees to, “Provide all appropriate governmental services and actions to meet the goal of
the CEC issuing the final decision on or before November 1, 2010 and mariposa starting MEP

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3 Exhibit 402 Page 3
4 RT 2-24-11 Page 115
5 RT 2-24-11 Page 243
7 Exhibit 4.12-19
8 Exhibit 404
9 Exhibit 301 Page 4.8-3,4
10 http://www.mountainhouse.net/commercial/pages/technology.php
operations on schedule."11 Under these circumstances “Due deference” to Alameda County’s LORS interpretation is not warranted. The Staff should not accept uncritically local agency conclusions, particularly where the local agency has a cooperative agreement with the applicant and has a financial stake through the cooperative agreement. It would not be consistent with Staff’s duty to provide an independent analysis to defer to an agency with a commitment to the MEP to assist in the, “CEC issuing the final decision on or before November 1, 2010 and Mariposa stating MEP operations on schedule.”12

“In the Alameda County May 2010 letter, the county stated the ECAP does not preclude construction of a power plant on lands designated for Large Parcel Agricultural use. The letter continues, stating the County considers a power generation facility a land use allowed under the Large Parcel Agriculture LPA description of the ECAP, provided that mitigation for agricultural land permanently removed from production as a result of the construction and presence of the facility is mitigated.

The mitigation proposed for the loss of ten acres of farmland is the reseeding of 9.2 acres of land which is the construction laydown area with an improved seed mix and additional water supplies for livestock. This Mitigation is fully adequate in the County’s view and CEC staff has deferred to the county’s interpretation. As mentioned above the CEC staff should not accept uncritically local agency conclusions, particularly where the local agency has a cooperative agreement with the applicant and has a financial stake through the cooperative agreement. But beside that there is no evidence that the 9.2 acres of reseeding and provision of a additional water supply is adequate to offset the permanent loss of ten acres of grazing land. First of all the applicant will have to reseed the construction lay down area anyway since it will be rendered useless to agriculture after its use so this is not additional mitigation. This action is merely restoring the 9.2 acres of agricultural land rendered useless by the projects construction. In a record of conversation between Lisa Worrall and Brian Leahy13, “Mr Leahy confirmed that there is not a scientific way to calculate how much of the property would need to be seeded with the higher quality seed to mitigate the 10 acre loss of grazing land. He told me how he visited the project site and discussed with Mr. Bohdan “Bo” Buchynsky his wish to see more of the property managed better. He also suggested the applicant hire a range manager who could assess the property’s food value (grazing quality) and make appropriate recommendations.” According to the record the applicant has not hired a range manger or assessed the property’s food grazing value as recommended by the Department of Conservation so there is no analysis that demonstrates that the reseeding of 9.2 acres of existing farmland and additional water supplies would mitigate the loss of ten acres of grazing land.14

Beside the county’s statements that were required by its cooperation agreement there is no evidence that the loss of ten acres of grazing land has been mitigated. The applicant has not met his burden of proof that the project does mitigate the loss of ten acres of agricultural land.

Further Government Code Section 51292 requires, “If the land is agricultural land covered under a contract pursuant to this chapter for any public improvement, that there is no other land within or outside the preserve on which it is reasonably feasible to locate the public improvement (§51292(a)(b)). Selecting the "best" or "preferred" location will not satisfy the finding. The criterion to locate on contract land is that there is no other location that is not under contract and reasonably feasible for the public improvement (Government Code §51292(b)).” The record reflects that the Costanza property alternative site number 1 is not encumbered by a Williamson Act

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11 Exhibit 404 page 3 Article 1.2.3 Delivery of county Services and Actions.
14 RT 2-24-11 Page 191
Staff’s testimony is that, “I think my professional opinion would be the three sites that I looked at are all about a wash.” The project is not compatible with Government Code Section 51292 (a)(b) as an existing alternative site which is comparable is not encumbered by a Williamson Act Contract.

The MEP Does not Qualify for a Conditional Use Permit as it is not a Public Need.

The MEP would be required to obtain a conditional use permit from Alameda County were it not for the jurisdiction of the Energy Commission. Title 17 of the Alameda County Ordinance Code Section 17.54.130 identifies the four findings necessary for approval of a conditional use. The first finding is that the MEP must be required for the public need. Staff justifies its finding on the need for the MEP based on the “April 1, 2008, PG&E request for offers to procure 800-1200 MW of new resources.” The 2008 PG&E LTRFO was authorized by the CPUC in D.07-12-052 which adopted PG&E’s 2006 long term procurement plan. Under its adopted LTPP, the CPUC authorized PG&E to procure 800-1200 MW plus an additional 312 MW to replace the failed Eastshore and Bullard Projects for a total of 1,112-1,512 MW. Subsequently in A. 09-09-021 the CPUC decided that PG&E’s procurement authority should be limited to 1138-1188 MW which was 324 MW less than the amount authorized for PG&E’s 2008 LTRFO eliminating and need for the MEP. The decision to limit PG&E’s procurement to that level was based on the CEC’s 2009 IEPR forecast of peak demand. The CEC Staff’s most recent demand report the “Revised Short Term Peak Demand Forecast for 2011-2012” predicts that PG&E’s peak demand in its service territory is 912 MW less than the forecast from the 2009 IEPR.

According to the CAL-ISO 2010 summer assessment PG&E currently enjoys a 38.5 % Planning Reserve margin in its service territory. This 38.5 % Planning reserve margin does not include an additional 2,919 MW of approved projects some of which are currently under construction. There currently is no need for the Mariposa Project and recent analyses conducted by the CEC demonstrate that the MEP is not needed now or any time in the near future. Staff has not performed its own assessment of whether the MEP is required for the public need. Staff’s reliance on PG&E’s 2008 Long Term Request for Offers is misplaced and uninformed as the basis for the 2008 LTPP was the 2007 CEC Demand forecast which is no longer representative.

Staff also bases its conclusion that the MEP is a public need on unsupported statements by Alameda County. Staff’s testimony states that it relied on a “May 2010 letter, the county said, —even with growth constraints built into the ECAP, [Alameda County] will require significant

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15 Exhibit 301 Page 6-11
16 RT 3-7-11 Page 201
17 Exhibit 301 Page 4.12-25
18 PG&E’s procurement to the bottom of the range established in D.07-12-052, we determine that PG&E should procure between 950 - 1000 MW of new generation resources. D. 10-07-045 Page 33 http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/121605.pdf
19 Exhibit 410 Page 5
20 D. 10-07-045 Page 52 Finding of FACT Number 11 and 12. “11. No party in this proceeding disputes that the CEC’s 2009 IEPR forecast of peak demand for the PG&E planning area in 2015 is less than in the 2007 CEC forecast relied upon in D.07-12-052. 12. Given reporting err Exhibit 1 Page 5.16-15, Exhibit 414 Page T-11 and Exhibit 4 page 31
21 Exhibit 410 Page 6
24 Exhibit 408 Page 4
25 Oakley, Mairposa, Colusa, Russell City, GWF Tracy Combined Cycle, Los Esteros Upgrade
26 Exhibit 408 Page 4
27 RT 2-24-11 Page 167 Lines 20,21
28 Exhibit 301 Page 4,12-25
'electrical energy especially at times of peak demand.' When asked if the county had provided a assessment for the public need staff’s witness replied,” NO”. The County in the evidentiary hearing admitted that, “Well, the need for power isn't established -- it's not a function of the county.” When asked if the county had done an assessment that the MEP is needed for the public the county answered, “Well, we're not required to do an analysis on whether or not the facility in terms of the original network of the electrical delivery services.”

The MEP is not a public need as the record reflects and the staff cannot make the findings necessary for issuance of a conditional use permit. Hence without overriding considerations the AFC for the MEP must be denied.

The MEP is not a compatible use on Williamson Act Property

The Applicant has expressed a unique legal opinion that electrical generating facilities are compatible with Williamson Act Property and that the MEP is a compatible use. The County of Alameda’s former development director Adolph Martenelli who is also currently the applicants land use witness has already opined on this issue in the Tesla siting case stating that, “The power plant use is not consistent with a Williamson Act contract; this inconsistency is determined not by the County, but by the Department of Conservation and the State Legislature, which have made such determinations.”

In this case Alameda County has reversed its previous position and stated that the MEP is consistent with the Williamson Act, “Under Government Code section 51238, the erection, construction, alteration or maintenance of gas, electric, water or communication facilities on a parcel encumbered by the Williamson Act contract are all considered compatible uses unless the Board of Supervisors after notice and hearing makes a finding to the contrary.”

The County’s interpretation of Code Section 51238 would allow a gas refinery, a nuclear power plant or any other massive development as long as the Board of Supervisors didn’t object in a properly noticed public hearing. The Department of Conservation provides no description of electric facilities but this phrase has always been associated with gas, electrical, and water linear conveyance systems not electrical production facilities.

In relation to a Solar Power producing facilities on Williamson Act Land the Department of Conservation has opined that a power generation that supplies power to support agricultural production onsite and sells excess to a utility would be considered compatible as a conditional use.

The MEP is not Consistent with the Current Williamson Act Contract on the Property.

The project is not consistent with the current Williamson Act Contract on the property. While Staff and Applicant make claims that the MEP is consistent with the Williamson Act contract on the property their claims are not supported by the record. Exhibit Number 12, Appendix DR1-1, contains a copy of the existing Williamson Act Contract that runs with the property. Page 3 of the contract provides the restrictions on the use of the property, “During the term of this agreement, or
any renewal thereof, the said property shall not be used for any purpose, other than agricultural uses for producing agricultural commodities for commercial purposes and compatible uses, which uses are set forth in Exhibit B attached hereto and incorporated by reference. ” Exhibit “B” provides for two uses, “1) Grazing, breeding or training of horses or cattle 2) Co-generation/waste water distillation facility as described by Conditional Use Permit C-5653.” The MEP is not a co-generation/ waste water distillation facility and it is not Grazing, breeding or training of horses or cattle hence the MEP is not compatible with the existing Williamson Act contact C-89-1195.

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Alameda County Agricultural Preserves Objectives, Uniform Rules and Procedures (Williamson Act) Section 4(c)(3)(f) provides that, “Division of Land: Property under contract in a Preserve shall not be divided into parcels of less area that the minimum area required by the A (Agricultural) Zoning district or in the alternative, the minimum parcel size required by the PD (Planned Development) District in which the property is located consistent with these Guidelines.…All provisions of the contract shall remain applicable to both the transferred property and the remainder after the division.”

In order for the MEP to be consistent with the current Williamson Act on the Property the County would have to notify property owners, hold a public hearing and alter the existing contract. Since this is not proposed the MEP would be inconsistent with the current Williamson Act Contract. Energy Commission Staff had proposed to include a condition of certification requiring the landowner to “amend the existing LCA to include the MEP as an approved compatible use under the Williamson Act contract. As part of staff’s proposed condition, the project owner would provide a copy of the amended LCA identifying the MEP in Exhibit B as an approved compatible land use.” But staff chose not to require the condition based on communication with Alameda County Development Department. Alameda County stated that no County action was required because electrical facilities are compatible use under the Williamson Act. As discussed above electrical production facilities are not automatic compatible uses under the Williamson Act nor are they a compatible use under Alameda County’s Agricultural Preserves Objectives Uniform Rules and Procedures as explained below.

The MEP is not Compatible with Alameda County’s Agricultural Preserves Objectives Uniform Rules and Procedures.

Alameda County Agricultural Preserves Objectives, Uniform Rules and Procedures Section 4(c)(3)(f) provides that the MEP is subject to the existing contract on the proposed parcel. The County’s Agricultural Preserves Objectives, Uniform Rules and Procedures Section (C) (3) (g) provides the restrictions on the use of Williamson Act Property, “While under contract property may be used only for producing agricultural commodities for commercial purposes, and compatible uses as listed below.” Section C (3) (g) (23) allows for the construction, alteration or maintenance of gas, electricity, water, communication, radio, television, or microwave transmitters and related facilities as accessory to the other permitted uses. The MEP is not an accessory to other permitted uses. If in fact the MEP were to provide power to support the agricultural uses on the property an argument could be made that the MEP is a compatible use under the county’s guidelines. As stated further in Section C (3) (g) the Board of Supervisors, “During the term of the

39 Exhibit 42 Page 2
40 Exhibit 42 Page 2
41 Exhibit 42 Page 2
42 Exhibit 42 Page 2
43 Alameda County’s Agricultural Preserves Objectives Uniform Rules and Procedures.
44 Alameda County’s Agricultural Preserves Objectives Uniform Rules and Procedures.
contract, the Board may by resolution add to, and with the written consent of the owner subtract form the list of compatible uses.”

Since the Board to date has failed to take any action then the MEP is not a compatible use under Alameda County’s Agricultural Preserves Objectives, Uniform Rules and Procedures. In order to be compatible the county would need to rescind or modify the existing Williamson Act Contract at a public hearing.

**The MEP is incompatible with the Standards for Subdivision and Site Development Review for Agricultural Parcels**

The MEP as an agricultural parcel must conform to the ECAP’s standards for subdivisions and site development review for agricultural parcels. One of the standards listed in Table 5 is, “The subdivision shall include access to each parcel that is consistent with Alameda County Fire Department requirements, and shall be subject to reasonable response times for emergency services.”

Alameda County Fire Code Chapter 5 Section 503.1.2.1 requires that, “the maximum length of a single access road shall be no greater than 1,000 feet.” According to the FSA and the AFC, “Access to the facility would be from Bruns Road, via a new 1,100-foot long road along the route of the existing unpaved access road that connects the Byron Power Cogeneration Plant to Bruns Road.” This would exceed the maximum length of the access road which is 1,000 feet.

Policy 246 of the ECAP requires that, “The County shall limit Development to very low densities in areas where police, fire, and emergency medical response times will average more than 15 minutes.” The evidence in the record demonstrates that “Station #8 in Livermore would provide first response to the facility. The response time to the facility would be approximately 30 minutes.”

Another standard for subdivisions and site development review for agricultural parcels contained in ECAP Table 5 is, “The subdivision shall be configured to avoid the significant loss of potential wildlife habitat or significant natural vegetation. Neither the subdivision of land nor on-going or proposed agricultural uses on such subdivided land shall interfere with the ability of any identified species of concern to use the site as habitat or as a corridor linking identified habitat areas.”

According to the evidence, “Operationally the project will result in habitat fragmentation and cause a barrier to dispersal for terrestrial species such as California red-legged frog, California tiger salamander, and San Joaquin kit fox. Common and special-status species may enter the fenced facility in search for food or cover and thus may be killed from entrapment or vehicle mortality. A new 6-inch tall curb or similar barrier installed along the perimeter fence will discourage entry by California tiger salamander and the perimeter fence will be properly maintained to minimize the potential for access by other wildlife including San Joaquin kit fox.” The project is not compatible.

**Air Quality**

The MEP does not Comply with the Federal 1 Hour NO2 Standard

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46 Exhibit 414 Page T-9
47 Exhibit 414 Page T-11
48 Exhibit 414 Page T-9
49 Exhibit 301 Page 4.14-2
50 Exhibit 414 Page T-11
51 Exhibit 4 page 31
Staff’s testimony concludes that the direct impacts of NO2, in conjunction with worst-case background conditions, would not create a new violation of the California 1-hour or annual NO2 ambient air quality standard.\textsuperscript{52} Staff’s conclusion has no basis since staff did not use EPA or SJVAPCD approved methods to determine if in fact the MEP would violate the new federal 1-hour standard. As Staff’s testimony admits “Relevant NO2 modeling guidelines include options from SJVAPCD in draft guidelines for use of AERMOD and OLM, dated 8/19/2010. Energy Commission staff and MEP modeling differs from these draft guidelines and regulatory recommendations for major sources because MEP uses three years of locally-available meteorological data where major source modeling requires five years (nearest station: Stockton) and because MEP uses the 3-year average of the eighth highest concentration rather than the form of the standard which is the 98th percentile of the annual distribution of daily highest 1-hour concentrations. Energy Commission staff may revise this assessment if U.S. EPA releases a prevailing recommendation, suitable for federal non-major sources, as part the Guideline on Air Quality Models in Appendix W of Title 40, Code of Federal Regulations (CFR) Part 51.”\textsuperscript{53}

Staff and applicant’s NO2 analysis also fails to satisfy the USEPA’s requirements for the placement of NO2 monitors, which states: In urban areas, monitors are required near major roads as well as in other locations where maximum concentrations are expected. Major roadways are defined as those with at least 250,000 annual average daily traffic and monitors for this exposure condition must be located within 50 meters of the monitoring station. The use of the Tracy and Patterson pass monitoring data does not satisfy this requirement as they are both rural locations. The applicant has not met the burden of proof that the MEP will not violate the new Federal NO2 standard.

\textbf{Operation Impacts and Mitigation}

The CEC Staff on Page 4.1-28 of the Supplemental Staff Assessment concludes, “that particulate matter emissions from routine operation would cause a significant impact because they will contribute to existing violations of PM10 and PM2.5 ambient air quality standards. Mitigation should be provided for emissions of PM10, PM2.5, SOx, NOx, and VOC to reduce PM10, PM2.5, and ozone impacts”.\textsuperscript{54}

Staff’s mitigation proposal falls short of its intended goal of mitigating all of the criteria and precursor emissions. First Staff’s mitigation proposal fails because it mitigates only a portion of the projects potential emissions. Staff’s analysis assumes that the project is allowed to operate for 4,225 hours a year.\textsuperscript{55} CEC Staff proposes to mitigate the projects emissions based on only 1,400 hours of operation. This is pure speculation on Staff’s part and it is reasonably foreseeable that the project could operate up to 4,250 hours a year since its air permit allows it to. Staff confirmed at the hearing that its conditions of Certification do not provide mitigation if the project actually does run over 1,400 hours.\textsuperscript{56}

\begin{footnotesize}
\textsuperscript{52} Exhibit 301 Page 4-1.24
\textsuperscript{53} Exhibit 301 Page 4.1-23
\textsuperscript{54} SSA 4.1-28
\textsuperscript{55} SSA 4-1.19 “Each CTG firing up to 4,000 hours at full turbine capacity with air inlet chiller operation and 300 startup and shutdown events per turbine (MEP 2009a) or 4,225 hours per turbine annually”
\textsuperscript{56} 7 MR. SARVEY: What happens if the project operates 8 more than 1,400 hours since it's permitted for 4,250 9 hours? Does staff have a condition to deal with that 10 issue?
11 MR. LAYTON: We do not.
2-24-11 Page 388
\end{footnotesize}
particulate matter precursors including SOx and ozone precursors (NOx and VOC) would contribute to existing violations of these standards.\textsuperscript{57}

CEC Staff relies on a donation of $644,503 by the applicant to the SJVAPCD in a mitigation agreement to mitigate the projects PM-10/2.5 and SOx emissions. Staff expects at least 11.03 tons of PM-10 reductions to be achievable through the SJVAPCD using the fee but has provided no analysis to demonstrate that level of reductions.\textsuperscript{58} The SJVAPCD the agency that will implement the emission reduction programs assumes that the mitigation fee will retrofit 337 wood stoves and achieve 4.68 tons per year of PM-10 and SO2 which is less than 50% of what the staff projects that the Air Quality Mitigation Agreement will achieve.\textsuperscript{59} The projects permitted PM-10/2.5 emissions are 18.5 tpy.

The Commission may rely on the SJVAPCD to report on how much mitigation has been attained, but it is the Commission’s ultimate responsibility to ensure that all the required mitigation is provided. Staff’s testimony provides no yardstick or mechanism by which the CPM or anyone else can calculate whether sufficient offsets are provided by the AQMA. The mitigation plan must be formulated before the project is approved and must contain objective criteria to measure its effectiveness to comply with CEQA.

There are several issues with staff’s unstructured approach. Staff does not know what projects will be implemented by the SJVAPCD to achieve the particulate matter reductions.\textsuperscript{60} Emission reductions could occur through various programs but the life of the emission reductions may not match the thirty year life of the MEP. Staff has not addressed this issue. When asked about the useful life of the programs in the Carl Moyer Program staff replied that, “Some of them can be very long and some of them can be very short. Some of the ag engines have been in operation for 50, 60 years.”\textsuperscript{61} CARB reports that the maximum project life for agricultural use engine projects is 7 to 10 years.\textsuperscript{62} Most of the other Carl Moyer programs have maximum lives of three to ten years.\textsuperscript{63} The problem with this mitigation proposal is that the average life of the mitigation programs is three to ten years and the life of the MEP is 30-40 years. For example if the useful life of a mitigation program is five years will the mitigation be proposed six times in five year intervals to match the 30 year life of the MEP. The details are not given and the public and the Committee do not have a logical basis to conclude that the mitigation will be provided with out some structure for implementation. This underscores the problem with not having an approved mitigation plan in place for the intervenors, the public and the committee to review. This violates CEQA’s mandate for informed participation.

Staff proposes in AQSC-7 that, “If insufficient emission reductions would result from the use of the fee, then the project owner shall expand the scope of the Settlement Agreement and fee or surrender sufficient PM10 and/or SOx ERCs from the northern region of the San Joaquin Valley Air Pollution Control District in the amount corresponding with the shortfall.” But staff provides no mechanism to compute the success of the emission reduction programs utilized by the SJVAPCD so the CPM and compliance staff will not know how many reductions have occurred and how much additional mitigation is needed.

**Greenhouse Gas Analysis**

\textsuperscript{57} SSA Exhibit 301 4.1-28
\textsuperscript{58} SSA Exhibit 301 Page
\textsuperscript{59} Exhibit 9 Attachment RSDR1-1 SJVAPCD Agreement Pages A-2, A-3
\textsuperscript{60} RT 2-24-11 Pages 396, 397
\textsuperscript{61} RT 2-24-11 Pages 396
\textsuperscript{62} http://www.arb.ca.gov/msprog/moyer/guidelines/cmp_guidelines_part1_2.pdf
Staff’s Greenhouse Gas analysis is inadequate as it fails to consider feasible alternatives to lowering statewide greenhouse gas emissions form the MEP. Staff’s testimony is that, “The proposed MEP would have a net worst-case heat rate of approximately 10,187 Btu/kWh.” This is higher than the average system-wide heat rate for California which in 2002 was about 9,750 BTU/kWh. This heat rate is higher than the advanced versions of the LM-6000 which are capable of lower heat rates than the proposed LM-6000PC. The 10,187 Btu/kWh is much higher than advanced simple cycle units which are capable of heat rates below 8700 Btu/kWh. These are factors which must be considered in any meaningful Greenhouse Gas Analysis. Feasible alternatives to the projects design which lower the states greenhouse gas emissions must be analyzed and considered.

Staff’s analysis focuses on speculation by hypothesizing that the MEP will displace older less efficient generation but provides no comparable unit that the MEP could feasibly replace. The majority of facilities that staff considers in its analysis are once through cooling units which are already slated for retirement. The remaining units have equivalent or better heat rates than the proposed MEP with the exception the Pittsburg Power Plant which produced only 216 GWH in 2009 according to staff’s testimony. When all the facts are holistically considered the MEP is likely to increase Greenhouse Gas emissions since it has a higher heat rate than the system average and a higher heat rate than most of the projects that have been recently approved at the CPUC.

Staff’s Greenhouse Gas analysis also justifies the MEP’s siting because it can integrate intermittent renewable energy resources. The record does not contain an analysis of whether the MEP is needed to integrate renewable energy in the Bay Area Load Pocket. The original presiding member of the MEP unambiguously stated that this type of analysis must be included in the record evidence. As Commissioner Levin stated, “And while we absolutely want to better integrate renewables we would like to see evidence if that's what's going on. And so that would be helpful. So that's why I'd like to know more concretely, it doesn't need to be tonight, but if you can put evidence in the record, specifically are there contracts, PPAs already with PG&E from new renewables that require integration into the system and require a natural gas peaking plant to better integrate them into the system because I don't think that's currently the situation at Altamont. It may be elsewhere but that would be very helpful information to put in the record. And we are very excited to see more renewables come on line. Please don't get me wrong. We hear this now in a lot of power plants siting cases. That the need for the plant is based on integration of renewables. And while we absolutely want to better integrate renewables we would like to see evidence if that's what's going on. And so that would be helpful.”

In terms of the renewable integration capabilities of the MEP a thorough analysis of existing and expected dispatchable and renewable generation and their proper location would be necessary to conclude that in fact the MEP will be needed to integrate renewable energy within the greater Bay Area Load Pocket. With the approval of three new dispatchable gas fired generating units within
the Bay Area Load Pocket including the 719 MW Marsh Landing Generating Station, the 586 MW fast start Oakley Project, the upgrade of the LECEF facility for another 109 MW of new generation, it is clear that additional dispatchable generation is not needed in this area. The combination of newly approved facilities represents 1,414 MW of new dispatchable generation all within the Bay Area Load Pocket. This does not include the Russell City Project another 600 plus MW which is reportedly commencing construction.

In the immediate area near the MEP there are several resources that are reasonably foreseeable that make the MEP unneeded. A few miles away from the MEP the Mulqueeny Ranch Pumped storage Project is being developed. This pumped storage project will utilize off peak wind power and recycled water from the City of Tracy to produce 280 MW of stored dispatchable renewable energy connected to the Tesla Substation. Unlike the MEP this project is high in the loading order and a desirable project for integrating renewable energy with 280 MW of dispatchable power without Greenhouse Gas emissions. As this Committee knows The Tracy Peaker Plant is being converted to combined cycle providing an additional 145 MW with duct firing capability connected to the Tesla Substation. According to Staff’s testimony the Tracy Peaker ran an average of 76 hours a year for the last five years. Another project proposed within two miles of the MEP is the East Altamont Energy Center an 1100 MW combined cycle Project with 254 MW of duct firing. The maximum annual generation possible from the facility is estimated to be between 7,125 and 7,655 gigawatt hours (GWh) per year. The project can produce two and half times the electrical energy needed for Eastern Alameda County and much more power than is permissible under Policy 13 of the ECAP.

This type of analysis was recommended in the Committee Guidance on Fulfilling California Environmental Quality Act Responsibilities for Greenhouse Gas Impacts in Power Plant Siting applications. In a situation such as this where reserve margins in PG&E’s service territory are over 35% and the CPUC has allowed 555 MW of over procurement in the LTPP with almost all of the generation in the Bay Area Load Pocket, this analysis is critical to preventing the overbuilding of fossil fuel resources to the detriment of preferred resources.

The MEP’s Ammonia Emissions are not Mitigated

Ammonia is a known precursor emission for secondary particulate matter formation. The BAAQMD’s testimony states that the District’s Draft PM2.5 report concludes that ammonia emissions

Nevada_Desert_Energy_Committee_Attachment.PDF "Once combined heat and power targets and once through cooling retirements were made only a few new natural gas fired plants had to be added to meet local capacity and reliability needs. Those were in the Sacramento Utility District, Turlock Irrigation District, and Imperial Valley Control Areas which have no once though cooling units and limited large hosts for combined heat and power units.”

74 Exhibit 403 Page 7
75 Exhibit 411


76 RT 2-24-11 Page 387, 388


78 http://www.energy.ca.gov/sitingcases/eastaltamont/documents/applicants_files/EAEC_AFC_files/EAEC_AFC_Vol02_8.10-.pdf 10-4

79 7,125 GWH /2868 = 2.48


Committee Guidance on fulfilling California Environmental Quality Act Responsibilities for Greenhouse Gas Impacts In Power Plant Siting Applications Page 29

11 There is simply too high a risk, in the turmoil of rapid change, that a project without a utility contract would not run enough (and earn enough) to justify the considerable capital investment, particularly as the electric generation system transforms to greater reliance on renewables.”

Committee Guidance on fulfilling California Environmental Quality Act Responsibilities for Greenhouse Gas Impacts In Power Plant Siting Applications Page 22

Committee Guidance on fulfilling California Environmental Quality Act Responsibilities for Greenhouse Gas Impacts In Power Plant Siting Applications Page 22

82 Exhibit 403 page 8
emissions contribute more strongly to PM2.5 formation than other types of precursor emissions, including NOx in the BAAQMD.\textsuperscript{83} Staff does not even bother to quantify the secondary particulate formation must less mitigate the ammonia emissions. Staff must provide mitigation for the secondary particulate formation from the ammonia emissions since by their own testimony, “all precursor emissions must be mitigated to avoid contributing to existing violations of PM10 and PM2.5 ambient air quality standards.” The projects potential 33 tons per year of ammonia will create more secondary particulate than the projects NOx and SOx emissions which staff concludes must be mitigated to prevent a significant impact. The evidence in the record is that ammonia is the most significant precursor emission for the formation secondary PM-10/2.5 but no mitigation is provided for this significant impact.

The MEP Does not Utilize BACT For Particulate Matter Emissions

The Air District and CEC staff have not provided an hourly emission limit for particulate matter which would be required to comply with BAAQMD Rule 2-2-301 (b) or BAAQMD SIP Rule 2-2-206.2. District Regulation 2-2-301 requires that the Mariposa Energy Project use the Best Available Control Technology to control NOx, CO, POC, PM10, and SOx emissions from sources that will have the potential to emit over 10 pounds per highest day of each of those pollutants. Pursuant to Regulation 2-2-206, BACT is defined as the more stringent of: (a) “The most effective control device or technique which has been successfully utilized for the type of equipment comprising such a source; or (b) The most stringent emission limitation achieved by an emission control device or technique for the type of equipment comprising such a source.

The district in its analysis of BACT for PM-10 looked at emissions performance data for seven recently permitted simple cycle facilities that utilize the LM6000 turbine.\textsuperscript{84} Of those seven facilities analyzed only one facility has measured PM-10 emissions over 2.3 pounds per hour which was the Goosehaven Facility. The next highest PM-10 emission rate was from the Los Esteros Facility which had a 2.266 lb/hr emission rate back in 2005. Five of the seven facilities have never exceeded 2.2 pounds per hour for PM-10. The best performing facility is the Gilroy Energy Center which has never exceeded 2 lbs/hr. An emission limit between 2.0 and 2.2 pounds per hour should be considered BACT since these limits have been achieved in practice at similar facilities.\textsuperscript{85}

The Los Esteros Critical Energy Facility was licensed by the CEC in 2002. The BAAQMD propose a 2.5 pounds per hour PM-10 limit as BACT and that limit was adopted as BACT in the final Commission Decision on the LECEF.\textsuperscript{86} In 2006 the FDOC for the San Francisco Electrical Reliability Project’s proposed a 2.5 pound per hour PM-10 per turbine limit as BACT and the Commission adopted that BACT level in its final decision.\textsuperscript{87}

The district in table 25 of the PDOC also completes a review of “Recent BACT PM-10 permit limits for large simple cycle gas turbines” The districts review omits three recent PM-10 BACT determinations for large simple cycle turbines that have been recently licensed by the CEC and support a lower PM-10 BACT emission rate for the Mariposa Project. The first determination is for the Hanford facility. The projects simple cycle PM-10 emission rate is 2.2 pounds per hour utilizing the LM 6000 turbines.\textsuperscript{88} The Henrietta Project has just been licensed with a 2.2 lb/hr PM-
10 emission limit for simple cycle operation also with the LM-6000.\textsuperscript{89} The Marsh Landing simple cycle facility was just permitted with a PM-10 rate of 0.0041 lb/MMBTU or just 1.97 lbs/hr. The three most recent BACT determinations for simple cycle turbines have been 2.2 pounds per hour or less for PM-10 and support a lower BACT limit for PM-10.\textsuperscript{90}

The air district defends its lack of an hourly or daily limit on particulate matter emissions by stating that, "The district has concluded that imposing a numeral emissions limit in addition to requiring BACT technologies would not be warranted given that there are no add on control devices that the facility can use to control PM emissions."\textsuperscript{91} The district's witness at the evidentiary hearing confirmed the district's position, "There is no way to lower particulate other than the technology. And therefore a numerical limit doesn't make any sense."\textsuperscript{92} That is right after the district witness testified that with the use of dry low NOx combustors the turbines would emit .14 pounds per hour less per hour of particulate matter emissions. For four turbines this would lower the project's emission by .56 pounds per hour.\textsuperscript{93}

At the evidentiary hearing it was clear that CEC staff was unaware that there was no hourly or daily limit on PM-10/2.5 emissions.\textsuperscript{94} Staff testified that they modeled the PM-10/2.5 concentration based on a three pounds per hour per turbine emission limit.\textsuperscript{95} The record reflects staff's witness is wrong and that Staff's air quality impact assessment was performed with a PM-10/2.5 emission rate of 2.5 pounds per hour.\textsuperscript{96} Even with a 2.5 pound per hour emission rate the PM-2.5 impact was 3 μg/m\textsuperscript{3} which is 8% of the federal 24 hour standard.\textsuperscript{97} Without an hourly or daily emission limit for PM-10/2.5 emissions the air quality impact from the MEP’s PM-10/2.5 emissions can not be properly assessed.

The nearest monitoring station is at 793 Rincon Road in Livermore. The 24 hour national design value in 2009 was 34 μg/m\textsuperscript{3}.\textsuperscript{98} The Federal 24 hour PM 2.5 standard is 35 μg/m\textsuperscript{3}. The 3 μg/m\textsuperscript{3} impact from the MEP in combination with the background 24 hour design value for the Livermore station would cause a violation of the Federal standard in the project area. That is why it is essential to establish an hourly and daily emission limit for PM-10/2.5 emissions.

As the record reflects the applicant proposed a 2.5 pound per hour limit for PM-10/2.5 for the LECEF.\textsuperscript{99} BACT for particulate matter emissions for a LM-6000 turbine has been 2.5 pounds per hour since 2002.\textsuperscript{100} The LECEF has met that BACT limit since 2002 so the limit is achieved in practice.\textsuperscript{101} The project as proposed with no hourly or daily emission limits for PM-10/2.5 does not comply with BACT.

There is no Health Risk Assessment for Particulate Matter.

At the evidentiary hearings the BAAQMD’s witness confirmed that no health risk assessment had been performed for the project particulate matter impacts. The district was asked, "\textbf{MR. SARVEY: Exhibit 302, Appendix D, page 12 the district states the air district does not have the}\n\begin{quote}
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Exhibit 403 Page 6
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Exhibit 302 Page 19
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RT 2-24-11 Page 1
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RT 2-24-11 Page 380
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MR. LAYTON: I believe there are some conditions in the -- excuse us for a second. Offhand, I cannot find that we have placed a limit on PM2.5. RT 2-24-11 Page 391
\end{quote}
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MR. SARVEY: Okay. I asked you earlier did staff evaluate the project's PM2.5 concentrations based on a 2.5pound per hour limit? MR. LAYTON: I believe the modeling was done on three.” RT 2-24-11 Page 390
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Exhibit 301 Page 4.1-27
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http://www.arb.ca.gov/adam/trends/trendsdisplay.php
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"Didn't the applicant themselves propose a 2.5 pound per hour PM10 limit as BACT for these turbines? MS. CABRAL: Yes." RT 2-24-11 Page 380
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Exhibit 302 Page 56
\end{quote}
appropriate tools to include fine particular matter in its formal health risk assessment. When do you expect the district will have that ability? The district replied, “MS. CABRAL: The State agency called OEHHA needs to give us a procedure or information to determine how to use fine particular in a risk assessment. So we would depend on OEHHA before we could do that.”

Staff also testified that they had done no health risk assessment for the projects particulate matter emissions. “We typically do not address the (inaudible) of criteria pollutants in our public health analysis. That is done in our air quality analysis.”

As discussed above staff’s air quality witness didn’t know whether there was a particulate matter emission limit for the MEP. Staff’s air quality witness assumed that the projects PM-10/2.5 air quality impacts had been analyzed with a three pound per hour emission limit when actually staff’s air quality impact analysis assumed a 2.5 pound per hour limit. In fact there is no hourly or daily emission limit for PM-10/2.5 to assess the projects 24 hour PM-10/2.5 impacts. As discussed above an assessment of the local impact of particulate matter emissions demonstrates a violation of the health based Federal 24 Hour PM 2.5 ambient air quality standard. Staff, Applicant and the air district ignored these facts and no health risk assessment has been performed to determine if there is a significant impact to the minority and general population in the project area. The applicant has not met the burden of proof that the project’s particulate matter emissions will not be a significant impact to the health of residents near the project area. As the evidence in the record shows the project area already has significant particulate matter concentrations and the maximum modeled 24-hour average PM10 increment consumption was 140 $\mu$g/m$^3$, and annual average PM10 increment consumption was 30 $\mu$g/m$^3$ for another recently approved project near the MEP.

**Alternatives**

Under CEQA, a lead agency may not approve a project if there are feasible alternatives that would avoid or lessen its significant environmental effects. (§§ 21002, 21002.1(b).) To this end, an EIR is required to consider a range of potentially feasible alternatives to a project, or to the location of a project, that would feasibly attain most of the project’s basic objectives while avoiding or substantially lessening any of the project’s significant environmental impacts. (Save Round Valley Alliance v. County of Inyo (2007) 157 Cal.App.4th 1437, 1456.) The discussion of alternatives must be sufficiently detailed to foster informed decision-making and public participation, not simply vague and conclusory. (Id. at pp. 1456, 1460.) The same requirements apply to an environmental document, like an FSA, prepared as part of a certified regulatory program. (See Sierra Club v. Bd. of Forestry, supra, 7 Cal.4th at pp. 1228-29.) Alternatives must be analyzed in such a document even if measures intended to mitigate a project’s significant impacts also are proposed. (Friends of the Old Trees v. Dept. of Forestry & Fire Protection (1997) 52 Cal.App.4th 1383, 1393-94.)

The applicant proposed only two alternative sites which were adjacent to the MEP parcel. The Gomes parcel (Alternative 2) is located immediately northeast of the Lee Parcel, across Kelso Road. The Costanza parcel (Alternative 1) is located immediately west of the Lee Parcel, on the

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102 RT 2-24-11 Page 328
103 RT 2-24-11 Page 376
104 MR. LAYTON: I believe there are some conditions in the -- excuse us for a second. Offhand, I cannot find that we have placed a limit on PM2.5. RT 2-24-11 Page 391
105 MR. SARVEY: Okay. “I asked you earlier did staff evaluate the project's PM2.5 concentrations based on a 2.5 pound per hour limit? MR. LAYTON: I believe the modeling was done on three.” RT 2-24-11 Page 390
106 Exhibit 301 Page 4-20
107 Exhibit 412 - PSD Increment Consumption Status Report April 16, 2008 BAAQMD Page 4 “The maximum modeled 24-hour average PM10 increment consumption and Exhibit 403 Page 3 is 140 $\mu$g/m$^3$, and annual average PM10 increment consumption is 30 $\mu$g/m$^3$. Although these values exceed the allowed Class II increments for PM10, the location of the exceedance is in SJAPCD, which is non-attainment for PM10.”
108 Exhibit 301 Page 6-7
western side of Bruns Road. Staff’s testimony is that, “they would all have roughly the same impact.”

Staff failed to consider any alternative sites or any other sites besides the two sites provided by the applicant. Staff failed to consider Brownfield sites or any sites that were not in Alameda County’s Agricultural Zoning district. The Applicant has not met its duty to analyze a reasonable range of alternative sites. The applicant has limited his analysis to the two sites discussed above primarily based upon the project and site objectives which is impermissibly narrow. An alternative sites analysis that complies with CEQA and the CEC CEQA-equivalent process must include a reasonable range of alternatives. The Applicant’s analysis fails to meet this standard. The record reflects that the Costanza property alternative site number 1 is not encumbered by a Williamson Act contract. Due to the projects numerous conflicts with the Williamson Act and the Williamson Act Contract on the MEP Site, documented above, the Constaza Site alternative site number 1 is the environmentally superior site.

**Alternative Pollution Control Technologies**

Staff’s Assessment properly concludes that the potential use of 186.9 AFY of surface water a year is a significant impact and does not comply with State Water Laws related to power plant cooling. Staff has testified that it did not consider any alternative pollution control technologies.

The applicant is proposing to use demineralized water for NOx control. Roughly two thirds of the water consumption for the MEP is for NOx abatement and the other third is for power augmentation. By utilizing dry low NOx combustors for NOx control the project can eliminate the potential use of up to 130.2 AFY of water. Another advantage of the dry low NOx combustor technology is the reduction in particulate matter emissions associated with the control of NOx with demineralized water as the applicant is proposing. Use of the dry low NOx combustors would reduce particulate matter emissions by .14 pound per hour per turbine which represents about 6% of the projects total annual particulate emissions. Another benefit from the use of dry low NOx combustors is turbine efficiency is higher and the associated Greenhouse Gas Emission would be lower. The evidence in the record is that staff failed to consider any alternative pollution control technologies even though they would reduce the significant impacts identified by Staff.

**Generation Technology Alternatives**

The applicant’s testimony states that, “Technologies based on fuels other than natural gas were eliminated from consideration because they do not meet the project objective of providing operationally flexible, dispatchable, quick start, and reliable power. Staff analysis similarly eliminated other technologies other than natural gas based on the applicant’s project objectives.” This is an example of a too-narrow project objective artificially limiting the range of potential alternatives. Requiring the use of natural gas as a project objective eliminates consideration of alternative fuel sources. The discussion of alternatives must be sufficiently detailed to foster informed decision-making and public

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108 Exhibit 301 Page 6-7
109 RT 3-7-11 Page 201
110 Exhibit 301 Page 6-11
111 SARVEY: In your analysis, Mr. Hoffman, did you consider any alternative pollution control technologies? MR. HOFFMAN: No, I did not.” RT 3-7-11 page 210
112 Supplemental Staff Assessment Water Resources Testimony Page 4.12-7 Table 3
113 Annual Particulate matter limit: 2.2 pounds per hour/.14= 6%
114 RT 2-24-11 Page 379,380
115 MR. SARVEY: In your analysis, Mr. Hoffman, did you consider any alternative pollution control technologies? MR. HOFFMAN: No, I did not. RT 3-7-11 page 210
116 Exhibi 4 page 112

Staff’s analysis in the Alternative section of the SSA dismisses energy efficiency and demand side alternatives to the Mariposa Energy Project (MEP) in a conclusionary statement without any analyses. “Even with this great variety of federal, state, and local demand side management programs, the state’s electricity use is still increasing as a result of population growth and business expansion. 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. Therefore, although it is likely that federal, state, and local demand side programs will receive even greater emphasis in the future, both new generation and new transmission facilities will be needed in the immediate future and beyond in order to maintain adequate supplies117.” Staff testified that they did not consider the loading order or in fact did not even know what the loading order is. Bill Powers testified that currently there are energy efficiency programs which are in place that can provide an alternative to the MEP and that have not bee accounted for in the LTPP determinations supported PG&E’s 2008 LTRFO, “The impact of these energy efficiency measures was not reflected in CED 2009 or in the CPUC’s determination of need in D.07-12-052. The CEC’s May 2010 report estimates that the incremental impacts of prospective CPUC 2008 energy efficiency goals programs in PG&E service territory would amount to 506 MW to 795 MW of peak demand savings by the year 2015. By the year 2020 the study predicts a much larger savings of 1,731 MW to 2,722 MW.14 The implementation of the CPUC’s 2008 energy efficiency goals alone eliminates the need for MEP. The MEP SSA is deficient in its analysis of the impact of planned energy efficiency measures on the need for the Mariposa Energy Project.”118

Staff dismissed Solar and Wind technologies in one conclusionary statement, “Solar and wind are generally not dispatchable and, therefore, are not capable of providing fast-starting, flexible generating capacity and are not capable of producing ancillary services other than reactive power.”119 Staff testified that they, “dismissed solar and wind technologies as not meeting the requirements of the project.”120 Staff also testified that it discounted solar and battery storage technologies because that wasn't going to meet the peaking requirements of this project.121 Staff expert testified that “I could be honest with you; I don't know what a loading order is.”122 Mr. Powers testified that existing solar programs are currently being implemented which have not been considered in the LTPP to establish PG&E’s long term needs which will provide five times the nameplate capacity of the MEP with enough peak reliability to replace the MEP. “The total solar PV capacity to be installed by 2016 under the three existing solar PV programs in PG&E territory is 400 MWac + 340 MWac + 921 MWac = 1,661 MWac. The capacity factor at peak for tracking PV arrays is 77 percent.17 Fixed rooftop PV has a minimum peak capacity factor of 50 percent.18 Assuming two-thirds of this capacity is fixed PV and one-third is tracking PV, the availability of this combined PV resource at peak will be: (2/3 x 1,661 MW x 0.50) + (1/3 x 1,661 MW x 0.77) = 980 MWac. The peak reliability that PG&E will get from solar PV assets that will be built, at 980 MWac, is five times greater than the nameplate capacity of MEP. Nowhere in the SSA does the CEC acknowledge the peak reliability contribution of these solar PV resources.”123

117 Exhibit 302 Page 6-16,17
118 Exhibit 406 Page 3
119 Exhibit 301 Page 6-17
120 RT 3-7-11 Page 233
121 RT 3-7-11 Page 230
122 RT 3-7-11 Page 230
123 Exhibit 406 Page 8
According to the latest CEC report, Comparative Costs of California Central Station Electricity Generation Technologies, the price of the IOU solar PV alternative is $278.71 a megawatt while a simple cycle generating unit like the MEP the cost is $655.59 a megawatt meaning that the solar alternative is around 42% of the cost of a megawatt produced.\(^{124}\) Solar can easily replace the MEP at less than half the cost.

Another option that was not considered as an alternative technology is the pumped storage option powered by off peak wind. Projects like The Mulquenny Ranch Pumped storage project can provide 280 MW of dispatchable energy.\(^{125}\) The Mulquenny Ranch Pumped Storage Project filed an application for review at the FERC on October 1, 2010.\(^{126}\) Even the applicant considers it reasonably foreseeable as it was included in its load and resource balance calculation as part of the Beck Study.\(^{127}\) Despite this the applicant failed to consider it as the applicant limited its alternatives analysis to natural gas fired generation and the staff also failed to consider the option.\(^{128}\)

An alternative analysis that complies with CEQA and the Commissions CEQA-equivalent process must include a reasonable range of alternatives, chosen because they have the potential to avoid impacts caused by the proposed MEP. An EIR which does not produce adequate information regarding alternatives cannot achieve the dual purpose served by the EIR, which is to enable the reviewing agency to make an informed decision and to make the decision maker's reasoning accessible to the public, thereby protecting informed self-government. (Laurel Heights Improvement Assn. v. Regents of University of California, supra, 47 Cal.3d at p. 392.\(^\text{129}\)) (Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692, 733, 270 Cal.Rptr. 650.)

The No Project alternative

The no project alternative is the environmentally superior alternative because the MEP is not required for grid reliability and cheaper and less environmentally harmful generation technologies are currently being developed or can be developed which eliminate the need for the MEP. Staff’s analysis of the no project alternative ignores current conditions in PG&E’s service territory that eliminate the need for the MEP. As Bill Powers PE and expert with over 25 years experience testified, “The CPUC adopted PG&E’s current Long Term Procurement Plan in D.07-12-052. Under its adopted LTPP, the CPUC authorized PG&E to procure 800-1200 MW plus an additional 312 MW to replace the failed Eastshore and Bullard Projects for a total of 1,112-1,512 MW. Subsequently in A. 09-09-021 the CPUC decided that PG&E’s procurement authority should be limited to 1138-1188 MW.\(^{129}\) The decision to limit PG&E’s procurement to that level was based on the CEC’s 2009 IEPR forecast of peak demand.\(^{130}\) The CEC Staff’s most recent demand report the “Revised Short Term Peak Demand Forecast for 2011-2012” predicts that PG&E’s

\(^{124}\) Klein, Joel. 2009. Comparative Costs of California Central Station Electricity Generation Technologies, California Energy Commission, CEC-200-2009-017-SD Page 3

\(^{125}\) Exhibit 411 Page 13

\(^{126}\) Exhibit 411 Page 1

\(^{127}\) Exhibit 1 Appendix 5.6 A Page 3

\(^{128}\) SARVEY: In your analysis, did you consider the Mulqueeney ranch pump storage unit? MR. HOFFMAN: No. RT 307-11 Page 225

\(^{129}\) PG&E’s procurement to the bottom of the range established in D.07-12-052, we determine that PG&E should procure between 950 - 1000 MW of new generation resources. D. 10-07-045 Page 33 http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/121605.pdf

\(^{130}\) D. 10-07-045 Page 52 Finding of FACT Number 11 and 12. [“11. No party in this proceeding disputes that the CEC’s 2009 IEPR forecast of peak demand for the PG&E planning area in 2015 is less than in the 2007 CEC forecast relied upon in D.07-12-052. 12. Given reporting errors and changes in demand in its service territory, PG&E only needs to procure 950 - 1000 of its previously approved MW allotment.”]

http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/121605.pdf
demand in its service territory is 912 MW less than the forecast from the 2009 IEPR. 131 The 1,743 MW is 555 MW more than the CPUC authorized in D. 10-07-045. 132

Water Resources

Staff has concluded that the use of up to 187 acre feet of fresh water by the MEP is a significant impact. Staff has proposed a fee of $1,000 an acre foot to mitigate any use of fresh water by the MEP. Staff has not provided any details of how that $1,000 an acre foot would be used to conserve fresh water. Staff is not even sure which agency will be given the mitigation funding. As staff’s testimony states, “Alternatively, if BBID cannot develop a verifiable, cost effective water conservation program, the water conservation funding could be paid to local water agencies including the Contra Costa Water District or Alameda Zone 7. These agencies are currently developing and implementing plans to meet the water conservation goals of SBx7-7, a statewide 20 percent reduction in urban per capita water use by 2020. Contra Costa Water District has indicated that it has existing conservation programs in place that result in real water conservation through cash for grass programs and rebates for water efficient washers and toilet replacement. Contra Costa Water District water conservation program has been achieving water conservation at a rate of $1,000 per acre-foot or less.” 133 A mitigation program provided to mitigate a significant impact under CEQA cannot be speculative. Staff has performed no analysis and Zone 7 has provided no information which would lead to the conclusion that the $1,000 an acre foot could achieve an acre foot of water conservation.

Staff and the Applicant have not supplied a water assessment to determine if BBID can actually supply 187 AFY for the 30 to 40 year life of the MEP. The evidence in the record is that BBID currently has 50,000 acre feet as part of its pre 1914 water rights. Staff’s testimony is that BBID currently uses 40,000-45,000 acre feet a year currently. 134 But staff has not accounted for the commitments BBID has already made to other water users. 135 Table 5.15-2 in the AFC provides an assessment of future water commitments by BBID. The Mountain House community Services district has a 9,415 AFY commitment from BBID. According to footnote (e) of Table 5.15-2 the Mountain House Community currently uses 2,810 AFY which means at build out BBID will be obligated to provide an additional 6,605 AFY. BBID has also committed 3,006 AFY to the Tracy Hills project. If the East Altamont Project is constructed BBID is contracted to supply 7,000 AFY to the power plant. It’s easy to see that BBID has committed more water than it has contractual rights to. With just the Mountain House Projects additional 6,605 AFY at build out and the Tracy Hills 3,006 AFY and BBID’s current use of 40,000-45,000 AFY BBID has overcommitted its 50,000 AFY of pre 1914 water rights. The project does not have a firm water supply as freshwater supplies are overcommitted. An EIR must include substantial evidence demonstrating a reasonable likelihood that identified supplies will be available to serve the project. The EIR must also disclose all uncertainties associated with such supplies and evaluate the impacts of delivering all identified

132 Exhibit 408 pages 3-4
133 Exhibit 408 pages 3-4
134 TR 3-7-11 Page 451 “I don’t know exactly what it was, but I know it was in the range of around 40 to 45,000 acre feet per year. And I got that when I was up late working on the staff assessment and checking things. And I believe it was either State Board as website or it was a website where diverters report their water use to the delta water manager like DWR.
135 RT 3-7-11 Page 454-455 MR. SARVEY: And you see that Mountain House also has an agreement with them for 9,415 acre feet a year? MR. LINDLEY: I see that. MR. SARVEY: Do you know what they're currently using? MR. LINDLEY: That, I do not know. But I know the 9,415 is their full build out scenario. MR. SARVEY: Okay. So when you start adding these numbers up, 45,000, 3,009, 418 does that come to over 50,000 acre feet a year? MR. LINDLEY: I would suppose it would.
supplies to the project. (Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova)\(^{136}\)

The Mountain House Community Services District, which is in neighboring San Joaquin County, has recycled water that could be utilized at the MEP. The current Phase II WWTP is designed to process a daily flow of 3.0 mgd, and includes tertiary filtration and ultraviolet disinfection. The average 2008 annual effluent flows (based on monthly averages reported in discharger self-monitoring reports) were approximately 0.483 mgd; the 2008 annual total was 560 acre-feet. The record reflects that Mountain House currently has adequate wastewater to supply the MEP. The record also reflects that staff has not contacted the Mountain House Community Services District to see if that water is available.\(^{137}\) Staff speculates that there would be jurisdictional issues with the using recycled water from Mountain House but has provided an analysis to support this speculation. Staff also speculates that the cost of building and engineering the water supply line to the MHCSD wastewater treatment plant is too high but has performed no analysis to confirm this. The California Energy Commission, under legislative mandate specified in the 2003 Integrated Energy Policy Report, (policy) and State Water Resources Control Board Resolution 75-58, will approve the use of fresh water for cooling purposes by power plants it licenses only where alternative water supply sources and alternative cooling technologies are shown to be environmentally undesirable or economically unsound. Staff has not performed an analysis that demonstrates that the MHCSD wastewater is environmentally undesirable or economically unsound. The applicant has not met the burden of proof that recycled water supplies from Mountain House are environmentally undesirable or economically unsound.

The Staff’s Assessment properly concludes that the potential use of 186.9 AFY of surface water a year is a significant impact and does not comply with State Water Laws related to power plant cooling. The applicant is proposing to use water for NOx control and power augmentation. Roughly two thirds of the water consumption for the MEP is for NOx abatement and the other third is for power augmentation.\(^{138}\) By incorporating dry low NOx combustors for NOx control the project can eliminate the potential use of up to 130.2 AFY of water a year. The use of dry low NOx combustors can eliminate 69% of the projects water usage. Feasible mitigation measures are required by CEQA to reduce the projects significant impacts.

Environmental Justice

Staff’s environmental justice analysis does not even meet the threshold requirements for Expedited Applications Under Public Resources Code Section 25550 much less the requirements of a complete AFC review. Staff’s analysis does not provide a discussion of the potential for disproportionate impacts from the project on minority or low-income people.” Staff just states there are no significant impacts so no EJ analysis is required.\(^{139}\) Staff’s analysis does not utilize “demographic information by census tract, based on the most recent census data available, showing the number and percentage of minority populations and people living below the poverty level within six miles of the proposed site.”\(^{140}\) Staff uses 10 year old census data instead.\(^{141}\) Staff does not provide, “one or more maps at a scale of 1:24,000 showing the distribution of minority populations and low-income populations and significant pollution sources within six miles of the proposed site, such as

\(^{136}\) #05-126 Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, S132972. (C044653; 127 Cal.App.4th 490; Sacramento County Superior Court; 02CS01214.)

\(^{137}\) RT 3-7-11 Page 202

\(^{138}\) Exhibit 301 Page 4.12-7

\(^{139}\) § 2022 (4) Information Requirements

\(^{140}\) § 2022 (4) (a) Information Requirements

\(^{141}\) RT 3-7-11 Page 77
those permitted by the U.S. Environmental Protection Agency (Toxic Release Inventory sites), the local air quality management district, or the California Department of Toxic Substances Control." Staff provides no cumulative health risk assessment or even lists toxic sources in the project area. Staff’s EJ analysis does not include, “identification of available health studies concerning the potentially affected population(s) within a six-mile radius of the proposed power plant site.” The applicant did not analyze the health studies of the minority population in the project area. Staff has provided no assessment of the health issues of the minority community around the project area. Despite overwhelming evidence of a minority community in the project area provided by the intervenors staff still denies the minority communities existence. Staff and applicant did no outreach to the minority community. Staff provided community meetings at the BBID headquarters a remote location out of town with no bus service. Translators and project materials in different languages were requested by the minority community but no translators and no project documents were provided in any other language.

Staff’s air quality analysis fails to examine the cumulative criteria pollutant impacts on the minority community. Staff’s analysis of the air quality impact from the MEP does not provide any information on the air quality impacts on the minority community from the MEP. Staff’s and Applicants Public health analyses fails to provide a cumulative impact analysis from the toxic air contaminants form the MEP. Staffs public health analysis fails to even examine the health impacts from the projects particulate matter emissions. At the evidentiary hearings the BAAQMD’s witness confirmed that no health risk assessment had been performed for the projects particulate matter impacts. Staff also testified that they had done no health risk assessment for the projects particulate matter emissions. “We typically do not address the (inaudible) of criteria pollutants in our public health analysis. That is done in our air quality analysis.” As the evidence in the record shows the project area already has significant particulate matter concentrations and the maximum modeled 24-hour average PM10 increment consumption was 140 μg/m³, and annual average PM10 increment consumption was 30 μg/m³ for another recently approved project near the MEP.

142 § 2022 (4) (b) Information Requirements
143 § 2022 (4) (c) Information Requirements
144 12 MR. SIMPSON: Is there a chance that an environmental justice community would have different stressors or different level of impact from the same source? DR. YUSUF: I wouldn't know. I'm sorry. RT 3-7-11 Page 42
145 MR. SARVEY: Has staff examined the existing health statistics for the minority population, including hospital admission data and other relevant health data? MS. STENNICK: That would be in the public health section, not the socioeconomic section. MR. SARVEY: Has the staff in the public health section done so? MS. STENNICK: I can't answer that question. 3-7-11 Page 83
146 MR. SIMPSON: So you didn't find an environmentaljustice community; is that correct? MS. STENNICK: That's correct. I would agree that Mountain House is a racially diverse community, but I would not stipulate it is an environmental justice nor is it a minority. 3-7-11 Page 131
147 MR. SARVEY: Did you outreach specifically to the minority community leaders about this project? It's a simple question, a yes or no. That's all I ask. MR. HOFFMAN: No, I did not.
148 MR. HOFFMAN: There were workshops, they were held at BBID office. That location is close to where the project is to be sited if it is licensed. Staff did take a look after about I think the second workshop we held there were questions about holding workshops actually in the Mountain House community. And one of the questions came up could we hold a workshop that the Mountain House Community Service District. And based upon the type of volume that we were receiving, the amount of from and the amount of people (inaudible) did not look to show up, staff determined that the Mountain House Community Services District facilities would be too small.
149 Exhibit 301 Page 4.1-38
150 Exhibit 301 Page 4.1-27
151 RT 2-24-11 Page 328
152 RT 2-24-11 Page 376
153 Exhibit 412 - PSD Increment Consumption Status Report April 16, 2008 BAAQMD Page 4 “The maximum modeled 24-hour average PM10 increment consumption is 140 μg/m³, and annual average PM10 increment consumption is 30 μg/m³. Although these values exceed the allowed Class II increments for PM10, the location of the exceedance is in SJAPCD, which is non-attainment for PM10.”
Mariposa Opening Brief Proof of Service

DECLARATION OF SERVICE

I, Robert Sarvey declare that on March 30, 2011 I served copies of Robert Sarvey's Opening Brief for the Mariposa energy Project. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner: (Check all that Apply)

For service to all other parties:
_x_ sent electronically to all email addresses on the Proof of Service list;

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CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 09-AFC-3
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

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

________________________________
3-30-2011

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