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and Development Commission

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Application for Certification for the)
Mariposa Energy Project)
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Docket No. 09-AFC-03

OPENING BRIEF OF MARIPOSA ENERGY PROJECT

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INTRODUCTION

There are no issues on which the Applicant and Staff disagree. Applicant and Staff join in recommending the Conditions of Certification set forth in the Staff Assessment and Supplemental Staff Assessment (“SSA”), as modified during the evidentiary hearings, with the agreement of the parties.¹ With the implementation of these conditions, the Mariposa Energy Project (“MEP”) will comply with all applicable laws and regulations, and will not result in any significant environmental impacts.

The agreement between Applicant and Staff is not coincidental. The Applicant has worked very hard to locate and design a project that not just meets, but exceeds, applicable environmental standards and maximizes environmental protection.

Despite endorsement of MEP by Staff, Alameda County and Contra Costa County, a few Intervenors have contested certain issues in this proceeding. This Brief will address these “contested” issues. Due to the page restriction on briefs set by the Committee, this Opening Brief will address only those issues that have been contested by one or more Intervenors. For a summary of the evidence supporting the Application on uncontested issues, the Committee is directed to the Applicant’s Opening Testimony.²

I. CONTESTED ISSUES

A. AIR QUALITY

Operation of MEP’s natural-gas-fired simple-cycle turbines and diesel-fired emergency fire pump engine will result in emissions of criteria pollutants, air contaminants and greenhouse gases (“GHG”). However, the potential emissions have been minimized as part of the turbine selection process and the implementation of best available control technology (“BACT”), as defined by the Bay Area Air Quality Management District (“BAAQMD”). The air quality impacts of the project were evaluated by the Applicant and shown to satisfy all state and federal air quality requirements.³ This conclusion was confirmed, after extensive review by BAAQMD, in the Final Determination of Compliance (“FDOC”) issued on November 24, 2010.⁴ The nonattainment criteria pollutant (and precursor) emissions will also be mitigated through BAAQMD emission reduction credit (“ERC”) program as well as a mitigation agreement between the Applicant and the San Joaquin Valley Air Pollution Control District (“SJVAPCD”).⁵ Therefore, as confirmed by the FDOC and the SSA,⁶ MEP will comply with all applicable federal, state, and local air quality LORS and meet the mitigation policies established by the CEC.

1. Mitigation for MEP will reduce all impacts to less than significant levels.

During construction, commissioning, and operations, the appropriate mitigation measure is to reduce potential air emissions before they are emitted. This has been accomplished by the careful design of the project, regulatory limitations imposed by the CEC and BAAQMD, and the installation

¹ See, Ex. 303 (HAZ-8), Ex. 304 (VIS-6), and Ex. 72 (WORKER SAFETY)

² Ex. 4

³ Ex. 4, p. 14.

⁴ Ex. 62, p. 100.

⁵ Ex. 8, p. 53.

⁶ Ex. 301, p. 4.1-1.

of BACT. Air quality impacts will be further mitigated by providing emission offsets in excess of the quantity expected to be emitted. Because annual emissions of NO_x are expected to exceed BAAQMD Regulation 2, Rule 3 emission offset thresholds, the Applicant is required to surrender 52.8 tons of NO_x ERCs to BAAQMD prior to the issuance of the Authority to Construct.⁷ The Applicant possesses sufficient valid BAAQMDERCs to offset these emissions. In addition to the mitigation provided to BAAQMD, the Applicant voluntarily agrees to fund localized air emission reductions in the Northern Region of the SJVAPCD, particularly within or near the Mountain House Community Service District (“MHCSA”), City of Tracy, and San Joaquin County.

With the surrender of BAAQMD required ERC offsets and the SJVAPCD agreement, the Applicant will have provided sufficient mitigation for nonattainment pollutants (and their precursors) to reduce the project’s air quality impacts to a less than significant level for all pollutants.⁸

2. MEP will not cause significant Greenhouse Gas Emissions

Although MEP will facilitate the integration of new and existing renewable generation consistent with the goals and policies of AB32, the GHG emissions were assessed for both the construction and operational phases of MEP. The emission calculations were based on the California Climate Action Registry Greenhouse Gas Reporting Protocol and the maximum estimated fuel consumption rates for the turbines and ancillary equipment. Based on the emission calculations for the construction phase, CEC Staff concluded the GHG emissions from construction would be less than significant based on the fact that the emissions would be short-term, intermittent, and mitigated to the extent possible through mitigation measures implemented for criteria pollutants.⁹

In the first half of 2011, only sources required to obtain a permit under the Clean Air Act due to their non-GHG emissions will need to address their GHG emission in their permit applications.¹⁰ MEP is not considered a major source; therefore BAAQMD concluded that the MEP is not required to address GHG emissions under the Clean Air Act.¹¹ The CEC Staff concluded that that MEP, when compared to other plants in the Greater Bay Area and San Joaquin County in place to provide local reliability, would be more efficient and emit fewer GHG emissions. Furthermore, the project’s maximum capacity factor is limited to 46 percent, which is less than the baseload facility threshold of 60 percent. Therefore, MEP is not subject to the limits of the GHG Emission Performance Standard, and it not expected to cause a significant GHG impact. Intervenor Sarvey incorrectly asserts that MEP is “likely to increase” GHG emissions “since it has a higher heat rate than the “system average...”¹² The SSA concluded that MEP would likely displace other existing power plants within the Greater Bay Area with higher heat rates, which would lead to a net reduction in GHG emissions across the electrical system.¹³

3. Intervenor Sarvey’s Air Quality testimony is without merit.

Intervenor Sarvey raises several criticisms of the air quality analysis performed by BAAQMD and the CEC Staff. None of these criticisms has any merit.

⁷ Ex. 62, Table 34.

⁸ Ex. 62 and Ex. 8, p. 52

⁹ Ex. 300, p. 4.1-80.

¹⁰ Ex. 62, p. 82

¹¹ Ex. 62, p. 82.

¹² Ex. 403, p. 7.

¹³ Ex. 300, pp. 4.1-82 and 4.1-91.

First, Sarvey asserts that it is incorrect to assume that MEP will operate for only 4,000-4,225 hours per year.¹⁴ Sarvey has mischaracterized the hours of operation limits identified in Condition of Certification AQ-15. Based on this Condition, MEP is allowed to operate an individual turbine up to 5,200 hours but it is only allowed to operate the four turbines up to 16,900 hours combined or an average of 4,225 hours per turbine per year. The SSA addresses this assertion by stating that Staff conducted an analysis of approximately 100 California peaking power plants. Staff determined that MEP's reasonably foreseeable annual capacity factor would be less than 16 percent (or 1,400 hours of operation per turbine per year) on which Staff based its mitigation recommendation.¹⁵

Second, Sarvey claims that the Staff has overestimated the effectiveness of the BAAQMD ERCs.¹⁶ The SSA addressed this specific comment by stating the effectiveness ratio used by Staff was obtained directly from SJVAPCD New Source Review Rule 2201, a key component of region-wide attainment planning.¹⁷ The same ERC effectiveness approach was also adopted by the SJVAPCD's Governing Board in the project specific mitigation agreement for MEP.¹⁸

Third, Sarvey asserts that the CEC Staff did not perform an air quality analysis for MEP to examine the potential formation of secondary particulate matter from 28 tons per year of ammonia slip.¹⁹ The SSA includes a section titled "Secondary Pollutant Impacts" which concludes that limiting ammonia emissions to 5 parts per million, as required in Condition AQ-17, is sufficient to mitigate potential secondary pollutant impacts.²⁰

Fourth, Sarvey disagrees with BAAQMD's conclusion that MEP uses BACT.²¹ BAAQMD addressed numerous BACT comments in preparing the FDOC.²² BAAQMD concluded after review of these comments that the MEP BACT emission levels are 2.5 parts per million by volume dry (ppmvd) oxides of nitrogen (NO_x) averaged over 1-hour, 2 ppmvd carbon monoxide (CO) averaged over 3-hours, and the use of clean burning, low sulfur natural gas to control sulfur dioxide (SO₂) and particulate matter (PM_{10/2.5}) emissions. Furthermore, BAAQMD's BACT determination is consistent with other similar sized peaking projects recently licensed by the CEC.²³

B. ALTERNATIVES

California Public Resources Code section 21002.1(a) requires the lead agency "to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided." Title 14, Section 15126.6 of the California Code of Regulations describes the information that must be considered in identifying alternatives to a project.²⁴ CEQA requires the consideration of a reasonable range of

¹⁴ Ex. 403, p. 1.

¹⁵ Ex. 301, p. 4.1-43.

¹⁶ Ex. 403, pp. 2-3.

¹⁷ Ex. 301, pp. 4.1-42 and 4.1-43.

¹⁸ Ex. 8, p. 53.

¹⁹ Ex. 403, p. 4.

²⁰ Ex. 301, pp. 4.1-28 and 4.1-29.

²¹ Ex. 403, p. 4-7.

²² Ex.302

²³ These include the Canyon Power Plant (07-AFC-09), Orange Grove Peaking Power Plant Project (08-AFC-04), and Almond 2 Power Plant Project (09-AFC-02).

²⁴ 14 C.C.R. § 15126.6; An EIR shall describe a *range of reasonable* alternatives to the project, or to the location of the project, which would *feasibly attain most of the basic objectives* of the project but would *avoid or substantially lessen any of the significant effects* of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a *reasonable range of potentially feasible alternatives*

alternatives to the project that would feasibly obtain most of the basic project objectives, but also avoid or substantially lessen any significant effects of the project. CEQA provides that alternatives that (1) are infeasible; (2) fail to avoid or substantially lessen any of the significant effects of the project; or (3) fail to meet most of the basic project objectives are not within the range of reasonable alternatives and may be eliminated from detailed consideration.²⁵ The range of reasonable alternatives must include the ‘no project alternative’.²⁶ Analysis of the no project alternative should not “create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment”²⁷ or assume that “project denial will somehow protect the site or resources in question.”²⁸ The feasibility of the alternative is the vital consideration: “CEQA does not require the examination of alternatives that are so speculative, contrary to law, or economically catastrophic as to exceed the realm of feasibility.”²⁹ Simply put, infeasible alternatives are “not appropriate for inclusion” in an EIR.³⁰

The SSA has presented a comprehensive analysis of Alternatives to MEP in compliance with CEQA. The SSA presents an analysis of the proposed project site and two alternative sites as possible locations for the proposed site, and utilized site screening criteria to eliminate alternative locations. Staff determined these alternative sites would not reduce or eliminate environmental effects, as the proposed site would be more advantageous over the alternative sites because of potential agricultural and biological impacts resulting from use of the alternative sites.³¹

The SSA also presented alternative technologies to MEP. Staff concluded that alternative technologies such as solar, wind, geothermal, biomass, tidal, and wave do not present feasible alternatives to the proposed project.³² The SSA found that the alternative linear routes are feasible but present no clear advantage. Power plants that are not natural gas-fired were eliminated from consideration because they did not meet the project objectives for a dispatchable energy project.³³

Staff concluded that the “no project” alternative is not superior to the proposed project. The “no project” scenario could lead to increased operation of existing plants, reliance on older, more polluting technologies, or development of new plants on other undeveloped land. In addition, conservation and demand side management programs would likely not meet the state’s growing electricity needs that will be served by MEP. Therefore, as MEP would not have any significant unmitigated impacts, Staff does not recommend the “no project” alternative or an alternative site, generation technology, or configuration over the proposed project.³⁴

that will foster informed decisionmaking and public participation. An EIR is not required to consider alternatives which are *infeasible* (Emphasis added).

²⁵ 14 C.C.R. § 15126.6 (c).

²⁶ 14 C.C.R. § 15126.6 (e).

²⁷ 14 C.C.R. § 15126.6 (e)(3)(B).

²⁸ Remy, Guide to CEQA, p. 596.

²⁹ *Save San Francisco Bay Association v. San Francisco Bay Conservation and Development Commission*, 10 Cal. App. 4th 908, 922 (1992) citing to *Citizens of Goleta Valley v. Board of Supervisors*, 52 Cal.3d 553, 565 (1990).

³⁰ *Save Our Residential Environment v. City of West Hollywood*, 9 Cal. App. 4th 1745, 1753.

³¹ Ex. 301, p. 6-1.

³² *Id.*

³³ *Id.*

³⁴ *Id.*

1. The Intervenor raises issues that are not relevant to the Alternatives analysis required by CEQA.

“Need” is not a CEQA subject matter. There is no “Need” section of any Staff Assessment or CEC Decision. CEQA and the CEC’s certified regulatory program require a review of “Alternatives,” using the basic legal principles discussed immediately above. In contrast, “Need” as framed by the Intervenor is essentially a request for the Commission to re-institute the “Integrated Assessment of Need,” an inquiry which the Legislature has expressly removed from the CEC’s consideration.

Sarvey’s Exhibit 406 raises two issues. First, Sarvey asks the Commission to find that “there is clearly no need for MEP.”³⁵ However, Senate Bill No. 110, which became Chapter 581, Statutes of 1999, repealed Public Resources Code sections 25523(f) and 25524(a) and amends other provisions relating to the assessment of need for new resources. SB 110 removed the Integrated Assessment of Need, which is the requirement that, to certify a proposed facility, the Commission must make a specific finding that the proposed facility is in conformance with the adopted Integrated Assessment of Need.³⁶ While Exhibit 406 argues at length regarding the “need” for MEP in relation to various forecasts, as a matter of law, these arguments are not relevant to this proceeding as it is no longer necessary, appropriate or permitted by existing law for the CEC to make this determination.

The question of whether MEP is needed was relevant to the CPUC’s 2009 decision to allow PG&E to enter into a Power Purchase Agreement as part of its Long Term Procurement Plan (LTPP). In that regard, the CPUC determined in D.09-10-017 that “The Mariposa Energy Project is a dispatchable peaking power plant with quick start and spinning reserve capabilities and therefore provides operational flexibility to provide “firming” for intermittent renewable resources.” The CPUC concluded as a matter of law that “The Mariposa PPA is consistent with the requirements of D.07-12-052, including the preferred loading order, and the need for dispatchable ramping resources.”³⁷

The second argument raised by Sarvey in Exhibit 406 is that distributed PV resources should be considered to be an alternative to MEP. Section 15126.6(a) of the CEQA Guidelines requires the reviewing agency to focus on “a range of reasonable alternatives to the project, or to the location of the project, *which would feasibly attain most of the basic objectives of the project.*” (Emphasis added) As noted above, failure of an alternative to meet most of the basic project objectives is a proper basis to eliminate an alternative from detailed consideration³⁸ Thus, the project proponent’s basic project objectives form the foundation for the consideration of alternatives.

As stated in the SSA, one of the primary Project Objectives is to “Site the project within the Altamont Wind Resource Area in order to supply back-up generation when the local wind turbines decrease output due to decreased wind. The quick start, peaking facility will be utilized to

³⁵ The Sierra Club California raises the same argument, in its testimony. (Ex. 900, pp. 2-3)

³⁶ (Cal. Pub. Res. Code, § 25009, added by Stats. 1999, ch. 581, § 1.) Regarding need-determination, SB 110 states: “Before the California electricity industry was restructured the regulated cost recovery framework for powerplants justified requiring the commission to determine the need for new generation, and site only powerplants for which need was established. Now that powerplant owners are at risk to recover their investments, it is no longer appropriate to make this determination.”

³⁷ It is particularly noteworthy that Sarvey, as a member of CARE, entered into a Settlement Agreement with PG&E recommending *approval* of the Mariposa PPA. Therefore, Sarvey’s belated assertion that MEP is not needed and should not have been approved by the CPUC is a collateral attack on a CPUC decision that he supported.

³⁸ 14 C.C.R. § 15126.6 (c).

supplement the renewable wind generation during periods of low or variable wind resource in order to maintain grid stability.”³⁹ Distributed PV resources do not have the capability of providing quick-start, peaking capability within the Altamont Wind Resource Area. The SSA properly rejected this alternative.

Sarvey cites the Chula Vista Energy Upgrade Project (“CVEUP”) proceeding and argues that MEP should be held to the same standard as CVEUP. Sarvey misunderstands the Chula Vista decision. Simply stated, in the Chula Vista decision the CEC found that the proposed facility did not comply with applicable LORS.⁴⁰ Where a project does not meet LORS, the CEC cannot approve the Project unless it makes certain specific findings.⁴¹ With respect to the Chula Vista facility, the CEC concluded that there was insufficient evidence in the record to persuade the CEC that the facility meets the “public convenience and necessity” requirements for the exercise of the CEC’s discretionary override authority set forth in Public Resources Code section 25525.⁴² In marked contrast, MEP meets all applicable LORS. Therefore, there is no need to use the discretionary override applicable to LORS, and no need to make findings regarding prudent and feasible alternatives of meeting public convenience and necessity.

The Sierra Club California argues that “PG&E’s proposal is inconsistent with California’s commitment to renewable energy.”⁴³ The Sierra Club argues that the “CEC should not approve PG&E’s request to procure unneeded fossil fuel energy at Mariposa Energy Project.”⁴⁴ At its core, the Sierra Club testimony reflects a glaring misunderstanding of the nature of this AFC proceeding and of the relative roles of the CEC and the CPUC. The CEC does not approve or disapprove the requests by PG&E to procure new sources of energy. That determination rests solely with the CPUC. The CPUC has already authorized PG&E to procure this resource and determined MEP is needed by PG&E in order to integrate renewable energy into the grid. Thus, the question for the CEC is not whether the CPUC decided this issue correctly. The question before the CEC is whether this project complies with CEQA and with all applicable laws and ordinances. If Sierra Club California disagrees with the CPUC’s findings regarding MEP, the proper forum is the CPUC – not the CEC.

C. BIOLOGICAL RESOURCES

Although Biological Resources has been identified as a “contested” issue, no Intervenor has offered testimony to contest the expert testimony of Applicant’s and Staff’s biologists. The Applicant’s testimony and the SSA contain a complete list of proposed conservation protection measures to avoid and minimize impacts to biological resources within and adjacent to the MEP project area. Both Applicant’s and Staff’s expert witnesses agree that, with the implementation of these measures, MEP will not have a significant impact on Biological Resources.

³⁹ Ex. 301, p. 3-2.

⁴⁰ Final Decision, Application for Certification of the Chula Vista Upgrade Project, 07-AFC-4, (2009) Adoption Order, p. 1.

⁴¹ The statutory basis for the Commission’s discretionary override authority is found in Public Resources Code section 25525, which states: The commission shall not certify any facility when it finds . . . that the facility does not conform with any applicable...[LORS], unless the commission determines that such facility is required for public convenience and necessity and that there are not more prudent and feasible means of achieving such public convenience and necessity....”

⁴² Application for Certification for the Chula Vista Upgrade Project, 07-AFC-4, Final Decision (2009) Introduction, p. 2.

⁴³ Ex. 900, p. 3.

⁴⁴ *Id.* at p. 8.

D. HAZARDOUS MATERIALS MANAGEMENT

The CEC's analysis of Hazardous Materials considers whether the construction and operation of MEP will have a significant impact on public health and safety resulting from the use, handling, transportation or storage of hazardous materials at the facility. With one exception, all Hazardous Materials Management issues are uncontested. The only "contested" issue relates to allegations raised by an Intervenor regarding the safety of PG&E's gas pipeline system beyond the first point of interconnection with MEP. As a matter of law, this issue is outside the CEC's jurisdiction. As a matter of fact, there is substantial evidence in this record that the MEP will not adversely affect PG&E's gas transmission system beyond the first point of interconnection with MEP.

As a matter of law, the CEC should not analyze the potential impacts of MEP on the PG&E natural gas pipeline beyond the first point of interconnection. Staff and Applicant are in complete accord with this fundamental legal point. These legal principles are fully articulated in *Applicant's Brief on Natural Gas Pipeline Jurisdiction*, dated and served on February 18, 2011⁴⁵

The CEC does not have permit or subject matter jurisdiction over the construction or operation of natural gas pipelines beyond the first point of interconnection.⁴⁶ Nor does CEQA provide the CEC justification for assessing the safety of PG&E's pipeline system beyond the first point of interconnection. Under CEQA, the environmental review of a proposed project must describe any *environmental* consequences imposed by the project, including significant direct effects and significant indirect effects that are reasonably foreseeable.⁴⁷ In this case, MEP would cause no direct or indirect *environmental* impacts on PG&E's natural gas pipeline system beyond the first point of interconnection. MEP requires no special facilities or other changes to the PG&E backbone system downstream of MEP's interconnection with PG&E Line 002.⁴⁸ As these terms of art are used in CEQA, no downstream facilities means no potential direct or indirect environmental effects. Just as in the transmission setting, the CEC's analyses under its CEQA jurisdiction is complete when no special electrical transmission facilities are required "downstream." The CEC's analyses under its CEQA jurisdiction for natural gas interconnection ends when there are no additional natural gas facilities required beyond the point of interconnection with the PG&E system.⁴⁹

Assuming for the sake of argument that the CEC has jurisdiction over the operation of PG&E's gas transmission system, there is substantial evidence in the record supporting the conclusion that PG&E's pipeline system will not be adversely affected by MEP's interconnection to Line 002. The Committee heard the testimony of a witness with more than 40 years' experience in natural gas pipeline safety issues, Mr. Cesar de Leon. Mr. de Leon's written and oral testimony was unequivocal: MEP can be safely and reliably interconnected to PG&E's Line 002.

Mr. de Leon's testified that the combined pressure cycles from MEP and the Tracy Peaker Project will not affect Line 002.⁵⁰ PG&E Line 002 has been pressure-tested to establish the Maximum Allowable Operating Pressure ("MAOP").⁵¹ The MAOP on the Line 002 is 890 psig.⁵²

⁴⁵ Ex. 68 as well as the Staff's Response to Committee's Request For More Information On PG&E Gas Pipeline Staff Workshop, served on February 18, 2011.

⁴⁶ Ex. 68, p. 2.

⁴⁷ 14 C.C.R. §§ 15060, 15064; Ex. 68, pp. 5-6.

⁴⁸ Ex. 1, p. 2-37, Appendix 2E.

⁴⁹ Cal. Pub. Res. Code §§ 25550, 25110, 25120, and 25107; 20 C.C.R. § 1702(n).

⁵⁰ Ex. 68, pp. 5-6.

⁵¹ *Id.*, p. 5.

⁵² Ex. 71, p. 16.

Line 002 was hydro-tested at 1,486 psig for 8 hours – a pressure well above the MAOP.⁵³ As Mr. De Leon testified, “Line 2 has been hydrostatically tested to 1.6 times the maximum allowable operating pressure.”⁵⁴

In response to questions from the Presiding Member, Mr. de Leon testified that because natural gas is a compressible fluid “the cycling of on and off [of MEP and the Tracy Peaker] will have a negligible or inconsequential effect.”⁵⁵ Mr. de Leon was also asked to assume hypothetically a pipeline in a “degraded” state, *i.e.*, “not up to the standards and federal regulations.”⁵⁶ In response to the Presiding Member’s hypothetical, Mr. de Leon testified that there would be no significant effect on a “degraded” line from cycling of the two powerplant projects: “I don’t believe the cycling would have any effect -- would have any effect.”⁵⁷ Thus, there is substantial evidence in the record that the combined pressure cycles from MEP and the Tracy Peaker Project will not affect Line 002, regardless of the condition of the pipeline.

Mr. de Leon’s testified that the “pigging” performed in 2006 confirms that the remedial action taken in 2001 was in conformance with the Federal regulations and does not indicate any problems, and thus it is safe for MEP to interconnect to Line 002.⁵⁸ The pigging, or “In Line Inspection,” of Line 002 was “completed on August 30, 2006, and covered a distance of 36.6 miles.”⁵⁹ With these pigging results in hand, PG&E’s consultants determined the “failure pressure,” defined as “the point with greatest reduction in wall thickness” for Line 002 was 1,640 psig: “Recalling that MAOP on the line is 890 psig, the calculated burst pressure at the most vulnerable point on the line within this segment is 755 psig above the MAOP.”⁶⁰ Mr. de Leon testified that he was aware of the pigging results for Line 002 and specifically referred to Exhibit 71, the report by Tetra Tech.⁶¹ Mr. de Leon stressed the importance of pigging results relative to the condition of Line 002: “So [Line 002] it’s had two recent, what I call recent, piggings where it’s verified that the pipeline is in good condition.”⁶²

In response to cross, Mr. de Leon drew sharp distinctions between the Line 002 and the line that failed in the San Bruno incident: “San Bruno was put in 1952, 20 years before federal regulations. The Line 2 was put in after federal regulations were put into effect. The San Bruno line could not be pigged, and Line 2 can be pigged. It was pigged, in fact, in 2006, just five years ago.”⁶³

In conclusion, substantial evidence in this record demonstrates that as both a matter of law and a matter of fact, there are no pipeline safety issues associated with the CEC’s certification of MEP.

⁵³ *Id.*, p. 13.

⁵⁴ 2/25 RT 270.

⁵⁵ 2/25 RT 278.

⁵⁶ *Id.*, pp. 278-279.

⁵⁷ *Id.*, p. 279.

⁵⁸ Ex. 68, p. 6 The February 22, 2001 e-mail from PG&E’s Alan Eastman regarding these repairs confirms that the repairs were conducted in conformance with the Federal regulations in §192.485 using the RSTRENG pipeline assessment procedure to assure the continued integrity of the pipeline after repairs to the identified corrosion area are made to the pipeline.

⁵⁹ Ex. 71, pp. 15-16.

⁶⁰ *Id.*, p. 16.

⁶¹ 2/25 RT 250.

⁶² 2/25 RT 270.

⁶³ 2/25 RT 269-270.

E. LAND USE

Staff and Applicant are in agreement that MEP will not have a significant adverse impact on land use, with the adoption of Staff's proposed Conditions of Certification.⁶⁴

1. MEP complies with all applicable local LORS.

When making a decision on land use, the Commission reviews a project's compliance with all applicable land use laws and regulations.⁶⁵ Due deference is accorded to a local government's interpretation of its land use LORS.⁶⁶ Notably, both Alameda County and Contra Costa County have found MEP to be consistent with all applicable local land use LORS.⁶⁷

a. MEP is consistent with the ECAP.

The specific Area Plan applicable to the Project site is the East County Area Plan ("ECAP").⁶⁸ The ECAP was last amended in November 2002 by Measure D, which imposed several new policies regarding phased development, including Policy 13.⁶⁹ Policy 13 generally provides for the construction of public facilities and infrastructure necessary to support permitted development, but prevents Alameda County from permitting "public facilities or other infrastructure in excess of that needed for permissible development consistent with [Measure D]."⁷⁰ Additionally, Measure D recognized that certain types of development should not be subject to the policies set forth in Policy 13.⁷¹ Specifically, Measure D provided that Policy 13 "shall not bar" the following: "New, expanded or replacement infrastructure necessary to create adequate service for the East County; and Infrastructure such as pipelines, canals, and power transmission lines which have no excessive growth-inducing effect on the East County area and have permit conditions to ensure that no service can be provided beyond that consistent with development allowed by [Measure D]."⁷² In addition to pipelines, canals, and transmission lines, Policy 13 provides that the term "infrastructure" also includes "public facilities, community facilities, and all structures and development necessary to the provision of public services and utilities."⁷³

i MEP constitutes infrastructure under the ECAP.

Alameda County has determined that MEP constitutes infrastructure under the ECAP. First, MEP is a "structure and development necessary to the provision" of public utilities, as the facility is necessary to produce electricity, a public utility function.⁷⁴ Second, MEP can be considered a public facility, as it serves the needs of the public at large.⁷⁵ Thus, MEP constitutes infrastructure under

⁶⁴ Ex. 1, pp. 5.6-16 through 5.6-19; Ex. 4, pp. 53-54; Ex. 301, pp. 4.12-1 and 35-39; See generally, Ex. 4.

⁶⁵ 20 C.C.R. §§ 1741, 1744.

⁶⁶ See, for example, the CEC's Final Decision for the East Altamont Energy Center, p. 386, P800-03-012, Docket No. 01-AFC-4 (August 2003), available at http://www.energy.ca.gov/sitingcases/eastaltamont/documents/2003-08-20_FINAL_DECISION.PDF; also see 20 C.C.R. § 1744(e) (comments and recommendations made by an interested agency "on matters within that agency's jurisdiction" should be given due deference by staff).

⁶⁷ Exs. 41, 49 and 54.

⁶⁸ Ex. 1, p. 5.6-2.

⁶⁹ This policy is set forth in Measure D as Policy 14A, but is currently incorporated into the ECAP as Policy 13.

⁷⁰ ECAP, Urban and Rural Development, Policy 13, p. 10 (Revised by Initiative No. 2000).

⁷¹ ECAP, Urban and Rural Development, Policy 13, p. 10 (Revised by Initiative No. 2000); Ex. 67, p. 2.

⁷² ECAP, Urban and Rural Development, Policy 13, p. 10 (Revised by Initiative No. 2000); Ex. 67, p. 2.

⁷³ ECAP, Urban and Rural Development, Policy 13, p. 10 (Revised by Initiative No. 2000); Ex. 67, p. 2.

⁷⁴ Ex. 41; Ex. 67, p. 2; also see 2/24 RT 129-130.

⁷⁵ Ex. 41; Ex. 67; 2/24 RT 30, 37, 114, 135

Policy 13 of the ECAP, a finding consistent with the CEC’s previous determinations in both the East Altamont Energy Center and the Tesla Power Plant proceedings where the CEC deferred to Alameda County’s interpretation of the ECAP, and found that the power plants could be considered infrastructure under the ECAP.⁷⁶

ii MEP is necessary to meet current levels of demand in Eastern Alameda County.

Eastern Alameda County has insufficient local generation to meet load demands.⁷⁷ This fact is uncontroverted. As established in the *Final Report: Electrical Load & Power Generation Evaluation- Alameda County*, developed by R.W. Beck, in 2009 the amount of available local generation constituted only 31.83 percent of the total load in Eastern Alameda County.⁷⁸ Furthermore, most of the local generation available in Eastern Alameda County is comprised of intermittent resources such as wind and solar.⁷⁹ Intermittent resources require dispatchable generation support to ensure that load needs are met, especially during critical times such as when the intermittent resource is not generating or during peak load conditions.⁸⁰ MEP provides such support, and provides additional local dispatchable generation necessary to ensure adequate electrical service to East County.⁸¹ Because MEP is necessary to meet the current needs of Eastern Alameda County, it is not infrastructure “in excess” of that permitted by the ECAP. Additionally, as testified to by expert witness Adolph Martinelli, MEP will not have excessive growth-inducing effects on the East County.⁸² Simply put, MEP is not the type of infrastructure that attracts new development to the area because it is not built to support nearby growth.⁸³ Therefore, MEP is consistent with Policy 13 and the ECAP.

b. As a public utility use, MEP is consistent with applicable local planning and zoning LORS.

MEP is sited on lands designated as Large Parcel-Agriculture land use in Alameda County's General Plan/ECAP, which specifically allows public and quasi-public uses.⁸⁴ MEP is also located within Alameda County's A (Agricultural) Zoning District, which conditionally permits public utility uses, such as MEP.⁸⁵ Thus, MEP is compatible with permissible uses of the land. This is consistent with the position of Alameda County, which has confirmed that “infrastructure such as power plants . . . are permitted in the “A”- Agriculture Zoning District.”⁸⁶

⁷⁶ East Altamont Energy Center, Final Commission Decision, 01-AFC-4, p. 369 (August 2003); Tesla Power Project, Final Commission Decision, 01-AFC-21, p. 388, Findings of Fact 6, 11, and 12 (June 2004); also see Ex. 67, pp. 4-5.

⁷⁷ Ex. 1, Appendix 5.6A, p. 1.

⁷⁸ Ex. 1, Appendix 5.6A, Table 7.

⁷⁹ Ex. 1, Appendix 5.6A, p. 9.

⁸⁰ Ex. 1, Appendix 5.6A, p. 9; Ex. 301, p. 4.1-72, 77, 82.

⁸¹ 2/24 RT, 30, 31, 89, 115, 128; Ex. 1, Appendix 5.6A, p. 9.

⁸² 2/24 RT 128.

⁸³ 2/24 RT 128; also see 2/24 RT 31, 92

⁸⁴ Ex. 1, p. 5.6-1; Ex. 4, p. 53.

⁸⁵ Alameda County Zoning Ordinance Section 17.60.040(J); Ex. 1, p. 5.6-11 to 13; Ex. 4, p. 54; Ex. 41, p. 3; Ex. 301, p. 4.12-11 and 4.12-12.

⁸⁶ Ex. 41, p. 3.

2. MEP is a compatible use pursuant to the Williamson Act, and does not require the cancellation of a Williamson Act contract.

The Williamson Act was enacted by the Legislature to preserve open space and agriculture from premature development.⁸⁷ To achieve these goals, the Legislature authorized local governments to enter into contracts with local landowners whereby the land owners voluntarily agreed to restrict uses of the land to agricultural uses and/or uses compatible with agricultural uses (“compatible uses”), in exchange for tax benefits.⁸⁸ A fundamental purpose of the Williamson Act is to keep such land under contract; cancellation of a Williamson Act contract is discouraged.⁸⁹

The Williamson Act recognizes two types of compatible uses: (1) those established by statute; and (2) those established by the local agency, so long as the latter comply with the Act's “principles of compatibility.”⁹⁰ Uses expressly recognized by the Act as compatible include “the erection, construction, alteration, or maintenance of gas, electric . . . facilities.”⁹¹ These statutorily-recognized uses are presumptively considered to be compatible with agriculture unless the local government has made a specific “finding to the contrary.”⁹² To date, Alameda County has not taken any action to restrict electric facilities as a compatible use.⁹³ Thus, as an electric facility, MEP meets the statutory definition of a compatible use under the Williamson Act., and is a permitted use of the Project site as a matter of law.⁹⁴ In addition, as set forth by both the State Department of Conservation, which administers the Williamson Act, and Alameda County, agree that MEP meets the principles of compatibility, and should be considered a compatible use under Government Code section 51238.1.⁹⁵ Thus, MEP is a compatible use as it meets the requirements of both types of compatible uses recognized by the Williamson Act.

At the evidentiary hearing on February 24, 2011, Commissioner Douglas asked why the partial cancellation or cancellation of the Williamson Act contract was not required for MEP.⁹⁶ As stated above, cancellation of a Williamson Act contract is discouraged, as retaining the contract keeps the land under the protections of the Williamson Act.⁹⁷ Both Alameda County and the Department of Conservation have determined that it is appropriate to retain the Williamson Act contract on this parcel given that MEP is a compatible use and will use only a fraction of the parcel under contract,⁹⁸ thus ensuring the parcel will remain committed to agricultural uses.

3. MEP will not have an adverse impact on agricultural resources.

To determine whether a project has significant impacts to agricultural, the CEQA Guidelines ask, among other things whether Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as defined by the Farmland Monitoring and Mapping Program (collectively, “Farmland”), are being converted to a non-agricultural use.

⁸⁷ The formal name of the Williamson Act is the “California Land Conservation Act of 1965.”

⁸⁸ Cal. Gov. Code § 51243(a).

⁸⁹ Ex. 9, Attachment RSDR4-1, p. 4.

⁹⁰ Cal. Gov. Code §§ 51201(e); 51238.1.

⁹¹ Cal. Gov. Code § 51238(a)(1).

⁹² Cal. Gov. Code § 51238(a)(1).

⁹³ Ex. 9, Attachment RSDR4-1, p.4; Ex. 41.

⁹⁴ Ex. 9, Attachment RSDR4-1, p.4; Ex. 41; *also see* Ex. 20.

⁹⁵ Ex. 20; Ex. 41.

⁹⁶ 3/7 RT, p. 153.

⁹⁷ Ex. 9, Attachment RSDR4-1, p. 4.; *also see* 2/24 RT, p. 154.

⁹⁸ Ex. 41, p. 3; Ex. 20.

MEP is located on land that has been designated by the Farmland Monitoring and Mapping Program as Grazing Lands and not "Farmland" as defined above; therefore, MEP will not result in the conversion of Farmland to a non-agricultural use.⁹⁹ Additionally, MEP will not involve changes to the existing environment, which could result in the conversion of Farmland to a non-agricultural use.¹⁰⁰ MEP will ensure that the current agricultural uses of the land will continue, if not increase.¹⁰¹ MEP will provide year-round water for the cattle, which will allow for more flexible rangeland management.¹⁰² Holding capacity will be increased on the land as (i) year-round water will allow for an extended period of grazing, leading to a direct increase in agricultural productivity, and (ii) the laydown area will be reseeded with a higher productivity seed mix.¹⁰³ Finally, as described above, MEP will not conflict with existing zoning for agricultural use, as power plants are conditionally permitted uses within the applicable zoning district, and are a compatible use under the Williamson Act. Therefore, MEP will not have significant impacts to agriculture.

F. PUBLIC HEALTH

In this proceeding, as in every CEC licensing proceeding, a human health risk assessment ("HHRA") was conducted using guidance developed by the Office of Environmental Health Hazard Assessment, the U.S. Environmental Protection Agency, and , and California Air Resources Board. According to BAAQMD Regulation 2, Rule 5, Best Available Control Technology for Toxics ("TBACT") shall be applied to any new source of toxic air contaminants ("TACs") where the excess cancer risk for each individual source is predicted to be greater than one in a million, while the predicted incremental increase in cancer risk for the entire project must be less than 10 in 1 million individuals. A chronic hazard index less than 0.2 for each individual source and an acute or chronic hazard index of less than 1.0 for the entire project are also considered less than significant by BAAQMD.

There is no evidence in this record that MEP poses any threat to the health of the public in general, or to residents of MHCS D in particular. Due to the multiple levels of mitigation included in response to BAAQMD, SJVAPCD and CEC Staff, MEP will offset more emissions than it will create. Furthermore, the dispersion modeling includes all existing and future Mountain House residential areas within the MHCS D, as well as discrete sensitive receptors (five schools and twenty-three preschool or daycare facilities).¹⁰⁴ Results of the health risk assessment for MEP indicate that the excess cancer risk from MEP for the nearest resident or offsite worker would be less than 1 in a million and that the acute and chronic hazard indices are significantly less than 1.0. To put the risk of exposure to MEP in perspective, the risk of death to a person in the U.S. from an automobile accident is 1 in 85. Therefore, the expected public health impacts from MEP are less than significant. These conclusions were confirmed by BAAQMD in the FDOC.

G. SOCIOECONOMICS

The CEC's Socioeconomics analysis evaluates the effects of project-related population changes on local schools, medical and fire protective services, public utilities and other public

⁹⁹ Ex. 1, Ex. 4; Ex. 301, p. 4.12-11.

¹⁰⁰ Ex. 1, Ex. 4; Ex. 301, p. 4.12-12.

¹⁰¹ Ex. 13, p. 5.

¹⁰² Ex. 13, p. 5.

¹⁰³ Ex. 13, p. 5.

¹⁰⁴ Ex. 4, p. 64.

services, as well as the fiscal and physical capability of local governmental agencies to meet the needs of any project-related population change.¹⁰⁵ The focus of the socioeconomics analysis is whether any physical impacts to the environment would result from project-related population changes, as “economic or social impacts that do not contribute to or are not caused by physical changes in the environment is not substantial evidence that the project may have a significant effect on the environment.”¹⁰⁶ Public benefits of the project, such as sales and tax revenues, are also reviewed. Both Applicant and Staff agree that MEP will have no significant adverse socioeconomic impacts, no significant adverse cumulative socioeconomic impacts, and will benefit the public.¹⁰⁷

1. MEP will not have a significant effect on housing.

Under CEQA Guidelines, the socioeconomics evaluation considers, among other factors, whether substantial numbers of existing housing will be displaced, requiring the construction of replacement housing elsewhere; and whether substantial numbers of people will be displaced, requiring the construction of replacement housing elsewhere.¹⁰⁸ The focus of this analysis is on physical impacts on housing, not perceived impacts on housing values.

MEP will not displace any existing housing.¹⁰⁹ MEP will be built on land that does not have existing housing, and does not require homes to be bought out to accommodate construction of the plant.¹¹⁰ As there is no existing housing on the project site, MEP will not displace any people requiring the construction of replacement housing elsewhere.¹¹¹ Therefore, there are no socioeconomic impacts from MEP as there are no Project-related population changes that will have a physical effect on the environment.

2. MEP will not have a significant impact on public services, facilities, or utilities; but will instead provide significant public benefits.

MEP will not make any new significant demands on public services or facilities.¹¹² Instead, MEP will provide significant public benefits for the local region.¹¹³ During construction, approximately \$12.3 million of the total cost of materials and supplies will be purchased locally.¹¹⁴ MEP will provide about \$16.3 million in construction payroll, and will employ a peak workforce of 177 personnel.¹¹⁵ Total annual local construction expenditures are estimated at \$23.16 million.¹¹⁶ During operations, approximately \$2,470,000 will be spent locally for operations and maintenance.¹¹⁷ Additionally, MEP will generate about \$2.44 to \$2.6 million in property taxes annually.¹¹⁸ The above are just a sample of the significant public benefits that will be provided by MEP.

¹⁰⁵ CEQA Guidelines, Appendix G, Sections XIII and XIV; *also see* 3/7 RT5.

¹⁰⁶ 20 C.C.R. § 15064 (f)(6); 3/7 RT, p. 31.

¹⁰⁷ Ex. 1, p. 5.10-23 ; Ex. 4; pp. 68-69; Ex. 301, p. 4.8-18.

¹⁰⁸ CEQA Guidelines, Appendix G, Sections XIII and XIV.

¹⁰⁹ 3/7 RT 35, 36.

¹¹⁰ See, Land Use Section of this Brief; *also see* 3/7 RT35, 36.

¹¹¹ Ex. 301, p. 4.8-6.

¹¹² Ex. 1, pp. 5.10-11 through 19, 21; Ex. 301, pp. 4.8-6 through 9, 14; *also see* 3/7 RT 63, 110, 147..

¹¹³ Ex. 1, pp. 5.10-17, 18, 20; Ex. 4, p. 68; Ex. 301, pp. 4.8-10 through 11.

¹¹⁴ Ex. 1, p. 5.10-17.

¹¹⁵ Ex. 1, p. 5.10-17.

¹¹⁶ Ex. 1, p. 5.10-18.

¹¹⁷ Ex. 1, p. 5.10-20.

¹¹⁸ Ex. 1, p. 5.10-21.

3. Economic effects are not a valid CEQA concern where such effects do not contribute to or are caused by adverse physical changes in the environment.

At the March 7, 2011 evidentiary hearing, the Committee asked parties to address in briefs “whether diminution of property values is even a CEQA concern.”¹¹⁹ The answer is no. Economic and social effects, such as changes in property values, are not a valid CEQA concern where such effects do not contribute to or are caused by adverse physical changes in the environment.

Under CEQA, “an economic or social change by itself shall not be considered a significant effect on the environment.”¹²⁰ As described in *Porterville Citizens for Responsible Hillside Development v. City of Porterville*, 157 Cal. App. 4th, 885, 903 (2007), “CEQA is not an economic protection statute. Landowners surrounding a proposed project site do not state a valid CEQA concern when they express fears that the proposed project could adversely affect their property value.” CEQA focuses on the “potential significant environmental effect of proposed activities,”¹²¹ and requires that public agencies “avoid or minimize environmental damage where feasible.”¹²² The analysis of environmental impacts focuses on adverse *physical* changes to the environment.¹²³ Thus, any change in regional property values is not a CEQA concern, unless such change can be shown to be caused by or contribute to an adverse physical change in the environment.

Intervenors’ speculation that MEP could adversely affect property values in MHCS D,¹²⁴ does not constitute substantial evidence under CEQA.¹²⁵ For example, Mr. Dighe cites generally to a paper by Lucas W. Davis (“Davis paper”) to support a blanket assertion that MEP will “trigger” home value losses in the MHCS D.¹²⁶ The Davis paper purports to show a correlation between housing value losses and the opening of power plants, and identifies a series of factors to explain such losses.¹²⁷

CEC Staff, Applicant, and MHCS D Staff have examined the issue and have found no merit in Mr. Dighe’s unqualified speculation.¹²⁸ Applicant’s expert witness identified the serious flaws contained in the research design of the Davis paper, and explained how the Davis paper cannot be relied upon as a valid basis for making determinations about the potential effects, if any, of power plants on housing values.¹²⁹ Moreover, Applicant and MHCS D Staff both agree that the negative factors identified in the Davis paper that led to housing value losses are not presented by MEP.¹³⁰ As explained by MHCS D Staff, “None of those negative environmental characteristics will be involved with the [MEP] in relation to Mountain House... The plant profile will be behind terrain to Mountain House and the noise of operation will not affect Mountain House. Therefore, all of the negative environmental factors cited by the study that create a drop in property value within two miles of the plant will not exist in the case of the [MEP].”¹³¹ Furthermore, Staff’s and Applicant’s expert

¹¹⁹ 3/7 RT481.

¹²⁰ 14 C.C.R. § 15382.

¹²¹ 14 C.C.R. § 15002.

¹²² 14 C.C.R. § 15021.

¹²³ Cal. Pub. Res. Code §§ 21100 (d) and 21151 (b).

¹²⁴ Ex. 609, p. 3; Ex. 1000.

¹²⁵ 14 C.C.R. § 15064(f)(5).

¹²⁶ Ex. 609, p. 3.

¹²⁷ Ex. 609; 3/7 RT 46.

¹²⁸ Ex. 67, pp. 7-12, Appendix A; Ex. 67, Appendix B; 3/7 RT 46-47, 51-52, 68-69, 110.

¹²⁹ Ex. 67, pp. 7-12, Appendix A; *also see* 3/7 RT 46-47, 68-69.

¹³⁰ Ex. 67, pp. 7-12, Appendix A; Ex. 67, Appendix B; 3/7 RT 46-47, 51-52, 68-69, 110.

¹³¹ Ex. 67, Appendix B.

witnesses reached similar conclusions, and have found that property values in MHCS D are not likely to decrease because of MEP.¹³² These conclusions are consistent with previous decisions made by the CEC in the Metcalf Energy Center and the Crockett Cogeneration Project proceedings.¹³³

4. MEP will not have a disproportionately high and adverse impact on a minority or low-income population.

The Environmental Justice Policy of the California Resources Agency directs state agencies to “fully consider[]” the “fair treatment of people of all races, cultures and income during the planning, decision-making, development and implementation of all Resources Agency Programs”¹³⁴ and in the “development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.”¹³⁵ The goal of this policy “is to ensure that the public, including minority and low-income populations, are informed of opportunities to participate in the development and implementation of all Resource Agency programs, policies and activities, and that they are not discriminated against, treated unfairly, or caused to experience disproportionately high and adverse human health or environmental effects from environmental decisions.”¹³⁶ This policy mirrors Executive Order 12898, which mandates federal agencies “to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”¹³⁷

Staff and Applicant agree that MEP does not raise any environmental justice issues.¹³⁸ As there are no unmitigated significant adverse environmental impacts from MEP, local minority and low-income populations will not be exposed to disproportionately high and adverse impacts from MEP.

To conduct the environmental justice analysis, both Staff and Applicant looked to guidance from the EPA.¹³⁹ The federal guidance provides a three-step screening process. The first step is to conduct a screening-level analysis to determine whether there is a minority or low income population (more than 50%) in the affected area.¹⁴⁰ The second step examines whether a project would result in high and adverse human health or environmental impacts.¹⁴¹ If high and adverse human health or

¹³² Ex. 67, pp. 7-12, Appendix A; Ex. 67, Appendix B; 3/7 RT 46-47, 51-52, 68-69, 110.

¹³³ Commission Decision on the Metcalf Energy Center, p. 429, Finding 9, p. 432, 99-AFC-3 (Sept. 2001, Pub. No. P800-01-023); Commission Decision on the Crockett Cogeneration Project, Finding 3, p. 153, 92-AFC-1 (May 1993, Pub. No. P800-93-004).

¹³⁴ Cal. Govt. Code § 65040.12; also see California Resources Agency- Environmental Justice Policy, available at http://resources.ca.gov/environmental_justice_policy_20031030.pdf.

¹³⁵ Cal. Govt. Code § 65040.12; also see California Resources Agency- Environmental Justice Policy, available at http://resources.ca.gov/environmental_justice_policy_20031030.pdf.

¹³⁶ Exec. Order No. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, Section 1-101, 59 Fed. Reg. 7629 (Feb. 11, 1994), available at <http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf>.

¹³⁷ Exec. Order No. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, Section 1-101, 59 Fed. Reg. 7629 (Feb. 11, 1994), available at <http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf>.

¹³⁸ Ex. 4, p. 69; Ex. 301, p. 1.5-11.

¹³⁹ Ex. 4, p. 69; Ex. 301, p. 1-6.

¹⁴⁰ 3/7 RT, p. 32; also see Text of Executive Order With Proposed Guidance, p. 25. A “minority” is defined as a member of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.

¹⁴¹ 3/7 RT, p. 33.

environmental impacts are identified, the third step examines the spatial distribution of these impacts to determine whether those impacts disproportionately affect a minority or low-income population.¹⁴²

The Applicant analyzed a six-mile radius around the MEP site, broken down into census blocks.¹⁴³ The screening-level analysis indicated the presence of minority populations in 15 out of 112 census blocks.¹⁴⁴ However, substantial evidence in this proceeding establishes that, with mitigation, MEP will not cause any significant adverse human health or environmental impacts.¹⁴⁵ Because there are no significant adverse environmental impacts from MEP, there are no disproportionate impacts on any of the minority populations identified in the screening analysis.¹⁴⁶ Therefore, there are no environmental justice issues caused by MEP. Furthermore, this analysis would not change even if a greater number of census blocks in the six-mile radius around the project site contained minority populations, as there are no significant impacts from MEP.¹⁴⁷

H. SOIL AND WATER RESOURCES

MEP will use water supplied by Byron Bethany Irrigation District (“BBID”). Assuming a realistic operating scenario of 600 hours per year and 200 startup and shutdown events, MEP will use about 34.8 acre-feet per year.¹⁴⁸ This extremely low level of water consumption, equivalent to the annual consumption of approximately 35 homes, results from the fact that the Applicant has designed the combustion-turbines to be air-cooled, rather than water-cooled. Given the water conservation measures incorporated into the project design, lack of a local reliable source of recycled water, the increase in potential environmental impacts associated with constructing additional and longer conveyance pipeline routes, and the relatively small quantity of water that is expected to be used at MEP, the use of recycled water is not economically feasible for this project.¹⁴⁹

Applicant and Staff agree that MEP’s water usage is consistent with State Water Resources Control Board (“SWRCB”) Resolution 75-58 and the CEC’s fresh water policy because alternative cooling technology has been incorporated into the project design to avoid the use of fresh water for cooling purposes and the project has been designed to minimize water usage. In addition, the Applicant will voluntarily fund a program designed to conserve a volume of raw water equal to the volume of water consumed by MEP annually for process needs. As a result of this commitment, MEP will not result in a net increase in consumption of raw water within BBID. Because MEP will not result in an increase in raw water consumption, the uncontested testimony of Applicant’s and Staff’s experts is that MEP will have no possibility of a significant impact on water supply. MEP will have no water supply impact on farmers who rely on BBID as their water supplier. MEP will make no direct use of groundwater resources and will have no effect on groundwater quantity or quality.

No Intervenor offered testimony on the subject of soil and water resources. However, Sarvey argued in his Prehearing Conference Statement that the Project does not meet State water policy because “The Commission can only approve the use of fresh water for cooling purposes by

¹⁴² 3/7 RT, p. 33.

¹⁴³ 3/7 RT, p. 32.

¹⁴⁴ Ex. 1, Appendix 5.10-A; Ex. 4, 3/7 RT, p. 33. There were no indications of a low-income population in the six-mile radius around the Project. 3/7 RT, p. 33.

¹⁴⁵ 3/7 RT 33; Ex. 1, Ex. 4; Ex. 301.

¹⁴⁶ 3/7 RT 33; Ex. 1, Ex. 4; Ex. 301.

¹⁴⁷ 3/7 RT 41.

¹⁴⁸ Ex. 4, pp. 100-101

¹⁴⁹ *Id.* at p. 101

power plants it licenses....”¹⁵⁰ Sarvey is wrong for several reasons. First, MEP is not using fresh water for cooling purposes – it is air cooled. Second, due to the planned water conservation measures, MEP will not result in a net consumption of water. Third, the uncontroverted testimony of both Staff and Applicant is that a recycled water line from either MHCSO or Tracy is both environmentally undesirable and economically unsound.¹⁵¹

I. TRAFFIC AND TRANSPORTATION (AVIATION)

MEP is approximately 2.7 miles southeast of the Byron Airport, in neighboring Contra Costa County. MEP is nestled in a valley between high voltage power lines to the east and west, and is neither directly under nor adjacent to established Byron Airport traffic patterns.

Both the Federal Aviation Administration (“FAA”) and the CEC Staff have assessed the potential impact of these thermal plumes on aviation. In addition to the analyses performed by the FAA and the CEC Staff, the Applicant has commissioned extensive studies of the thermal plumes and aviation. Both the FAA¹⁵² and the CEC Staff¹⁵³ have recommended certain conditions for MEP, and conclude that, with implementation of these conditions, impacts to aviation resulting from the operation of MEP would be less than significant. The Applicant agrees to these conditions.¹⁵⁴

1. The FAA has exclusive jurisdiction over aviation safety matters.

Pursuant to Federal statutes, regulation and longstanding judicial precedent, the safety of aviation in general, and pilots in particular, lies within the exclusive jurisdiction of the FAA.¹⁵⁵ Where, as here, the FAA has conclusively determined that a project does or does not pose a hazard to air navigation, no state or local agency has authority to make contrary findings.¹⁵⁶ Just as the CEC preempts local jurisdictions with respect to the siting of thermal power plants and related facilities, the FAA preempts state authorities with respect to the question of whether such facilities may impact air navigation.¹⁵⁷ Even CalPilots agrees that the FAA, rather than the CEC, has exclusive jurisdiction over aviation matters.¹⁵⁸ As CalPilots recently told the FAA: “Petitioner [CalPilots]also urges that restriction of navigable airspace near proposed power plants is a federal issue for regulation by the FAA - not a state energy land-use agency.”¹⁵⁹

Because the question of air navigation is an issue for regulation by the FAA, the CEC should accept the determination of the FAA that MEP will pose no hazard to navigation, and find that MEP will not have significant impacts on aviation.

¹⁵⁰ Sarvey Prehearing Conference Statement, pp. 2-3

¹⁵¹ Ex. 1, p. 5.15-13; Ex. 4 pp. 101, 111; Ex. 301, pp. 4.12-1, 17-18, 21; 3/7 RT 206, 208-209, 449-450, 461-462.

¹⁵² Ex. 7, Attachment DR51-1

¹⁵³ Ex. 301, p. 4.12-33.

¹⁵⁴ See generally, Ex. 4.

¹⁵⁵ Ex. 4, pp. 82-83.

¹⁵⁶ See, for example, Cal. Pub. Utilities Code § 21240.

¹⁵⁷ Pub. Utilities Code § 21240.

¹⁵⁸ On August 9, 2010, CalPilots submitted to the MEP Docket a copy of its Petition to the FAA for Discretionary Review of the RCEC Project (“Petition”), stating that the Petition will “apply equally to MEP.” CALPILOTS Petition for Discretionary Review Per 14 C.F.R.77.37 of Case No. 2010-AWP-2565-OE and 2010-AWP-2566-OE, “Stack RCEC HRSG Exhaust Stack, Hayward, CA”, available at Petition found at:

http://www.energy.ca.gov/sitingcases/mariposa/documents/others/2010-08-09_Aviation_Issues_from_the_CA_Pilots_Association_TN-57944.pdf.

¹⁵⁹ Petition, p. 6

2. The FAA has determined that the structures and plumes will not pose a hazard to aviation; CEC Staff confirms these findings.

The FAA issued Determinations of No Hazard to Air Navigation for the MEP.¹⁶⁰ In the No Hazard Determinations for the four exhaust stacks, the FAA Flight Standards Division addressed the issue of thermal plumes, and stated: “The [MEP] will be located just over 2 miles southeast from the Byron Airport, a civilian public-use general aviation landing area, that includes ultralight and glider activity. Potential plumes emanating from the MEP stacks may not be readily visible. MEP is encouraged to work with the Byron Airport authority to develop pilot education material for local distribution identifying the location of the MEP facility and provide information on plume efflux rates at various altitudes at least as high as 1000 feet above the source. It is also suggested that the Byron Airport authority, through the FAA Airports District Office (ADO) provide the MEP location and avoidance information in the listing for Byron Airport contained in the Airport/Facility Directory (AFD).”¹⁶¹ The FAA determined that, with implementation of these recommendations, neither MEP’s structures nor plumes pose a hazard to general aviation, including gliders and ultra-lights.

The CEC Staff’s expert independent analysis confirms the findings of the FAA that MEP will not pose a hazard to air navigation.¹⁶² Therefore, consistent with the FAA, Staff proposed Condition of Certification **TRANS-8**.¹⁶³ “With these mitigations,” Staff concluded, “impacts to aviation would be less than significant.”¹⁶⁴

3. Applicant’s exhaustive analyses further confirm that MEP will not cause any detrimental effects on aircraft or pilots.

The evidentiary record contains several studies that assessed potential impacts to aircraft flying in the vicinity of MEP.¹⁶⁵ These studies confirm that thermal plumes generated by MEP will not pose a hazard to aviation.¹⁶⁶ For example, a study performed by Senta Engineering, LLC examined vertical loads imposed on the aircraft by the vertical velocity of the plumes, and the potential for roll upset of the aircraft if it happens to pass partially through the plumes (e.g., only the left half of the aircraft or only one wingtip).¹⁶⁷ Senta’s analysis examined potential impacts to an aircraft during worst case scenarios,¹⁶⁸ and found that the aircraft would only experience a light to moderate level of turbulence that would cause no detrimental structural effects on the aircraft, and which would be well within aileron operating limits for correction of any rolling moment.¹⁶⁹ Senta’s

¹⁶⁰ Ex. 7, Attachment DR51-1. The MEP was granted extensions for the Determinations of No Hazard to Air Navigation on March 4, 2011. The extensions are a part of the evidentiary record as Exhibit 73.

¹⁶¹ Ex. 7, Attachment DR51-1.

¹⁶² Ex. 301, p. 4.10-23.

¹⁶³ Ex. 301, pp. 4.10-23, 24. TRANS-8 includes means to advise pilots of the potential hazard to flight associated with the project, including requests for the issuance of a Notice to Airmen (NOTAM); amendment of the Airport/Facility Directory; revision of the San Francisco Sectional Aeronautical Chart; and addition of a new remark to the Automated Surface Observing System (ASOS).

¹⁶⁴ Ex. 301, p. 4.10-24.

¹⁶⁵ For example, see Exs. 1, 4, 5, 6, 7, 11, 15, and 16.

¹⁶⁶ Ex. 15.

¹⁶⁷ Ex. 15. It should be noted that Senta’s principals have conducted design, testing, analysis, and education for international technology developers and manufacturers and a wide array of government agencies and labs.

¹⁶⁸ Ex. 15; 2/25 RT, p. 138 (“...we just assume that an aircraft flies over the plume on the worst day in the very worst part of the plume); *also see* 2/25 RT, pp. 124-130. Other examples include if an aircraft were to overfly MEP at an altitude of 954 AGL, during calm wind conditions which have been found to occur in only 26 out of 8,760 hours in the worst meteorological year studied, and assuming full power operation of MEP.

¹⁶⁹ Ex. 15.

analytical conclusions were confirmed by actual overflights of a powerplant's plumes conducted by the Applicant.¹⁷⁰ Both Senta's analysis and the actual overflights confirm the lack of hazards from thermal plumes.¹⁷¹

4. The Concerns raised by CalPilots are speculative and unsubstantiated.

The evidence presented by CalPilots in this proceeding consists of the testimony of Andy Wilson and three supporting declarations.¹⁷² Neither Mr. Wilson nor the three declarants have stated any actual expertise in aviation safety matters. While these individuals may be pilots, they do not describe any academic or professional qualifications in matters relating to aviation safety. Mr. Wilson agreed to provide his qualifications¹⁷³, but never did so.

a. MEP is not within the approach or departure patterns for the Byron Airport.

In Exhibit 703, Mr. Wagner expresses a concern that "new restricted areas on the approach path vicinity...would increase the pilot's already busy workload at a critical time." However, Mr. Wagner's concerns are speculative, and based on two faulty premises: (1) that MEP will be a restricted airspace and (2) that MEP is within the "approach path vicinity" of the Byron Airport.

First, as noted above, the FAA has not imposed a restriction on the airspace over the MEP site. Second, MEP is not within the Byron Airport flight path. CalPilot's Exhibit 704, Figure No. 1, clearly shows that MEP does not lie within the Byron Airport approach and departure paths. This is further established in Figure A9-1, Additions to CalPilots Figure No. 1., which demonstrates that the actual location of MEP is well outside of all approach and departure paths.¹⁷⁴

b. The Byron Airport does not have congested flight patterns and MEP will not restrict airspace around the airport.

CalPilots appears to argue that the airspace around the Byron Airport is "very congested" and that MEP will further restrict already congested airspace.¹⁷⁵ CalPilots is mistaken. The airspace around Byron airport is not congested and MEP will not restrict airspace around the airport.

According to FAA standards, Byron Airport is neither a busy nor a congested airport.¹⁷⁶ Byron airport management reports that the Byron annual traffic count is relatively low at 60,000 annual operations.¹⁷⁷ Byron does not even have the minimum number of aircraft operations and complexity factors to be considered for the FAA's lowest level of Airport Traffic Control Tower (ATCT). Furthermore, the FAA, in issuing the FAR Part 77 Determinations of No Hazard to Air Navigation for MEP, analyzed Byron airport operations and associated airspace, and concluded that MEP will not present a Hazard to Air Navigation, either at the airport itself or in the en-route airspace adjoining the airport.

¹⁷⁰ 2/24 RT 154-157, 170-171, 176-180.

¹⁷¹ 2/24 RT 154-157, 170-171, 176-180.

¹⁷² Exs. 700-704.

¹⁷³ 2/24 RT 363.

¹⁷⁴ Ex. 68, p. 3; Ex. 68, Attachment Figure A9-1.

¹⁷⁵ Ex. 702.

¹⁷⁶ Ex. 68, pp. 1-2.

¹⁷⁷ 2/25 RT 67-68.

In Exhibit 702, Mr. Howell states that he has “concern[s] with the proposed construction of power plants if restrictions/limitations would be imposed to the flight pattern or instrument approaches,” speculating that “safety could be compromised” by such limitations.¹⁷⁸ Mr. Howell is incorrect. As noted above, pursuant to FAR Part 77, the FAA determined that MEP would not conflict with any VFR airport traffic or flight patterns, or Terminal Instrument Procedures (“TERPS”) standard associated with the RNAV (GPS) RWY 30 instrument approach procedure. In short, MEP will not impose restrictions or limitations on flight patterns or instrument approaches at Byron airport. The FAA has studied MEP and has determined that it is not a safety hazard to aviation. The FAA has simply recommended that pilots be advised of the MEP location and be provided avoidance information. These are advisory measures designed to promote pilot awareness, and will enhance safety, not compromise it.

c. MEP will not impact future use of the Byron Airport, including plans for expansion.

Mr. Wilson asserts that “CEC staff and MEP continue to avoid addressing the current and future use of the Byron Airport patterns...more airspace [will be required] to keep aircraft separated at a safe distance both in the airport traffic pattern and in airspace over MEP and the now CEC licensed East Altamont Power Plant.”¹⁷⁹ Mr. Wilson is wrong. The issue of future airport expansion has not been ignored. Under 14 C.F.R. Part 77, the FAA is expressly required to consider future airport expansion plans in arriving at its Determination of No Hazard to Air Navigation.¹⁸⁰

Dated: March 30, 2011

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By  _____

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¹⁷⁸ Ex. 702, p. 1.

¹⁷⁹ Ex. 704, p. 2 (citations omitted).

¹⁸⁰ 14 C.F.R. Part 77.21(a).

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

Application for Certification for the)
Mariposa Energy Project) Docket No. 09-AFC-03
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)
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PROOF OF SERVICE

I, Karen A. Mitchell, declare that on March 30, 2011, I served the attached *Opening Brief of Mariposa Energy Project* via electronic mail and U.S. Mail to all parties on the attached service list.

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



Karen A. Mitchell

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09-AFC-3

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