

Pless Environmental, Inc.
440 Nova Albion Way, Suite 2
San Rafael, CA 94903
(415) 492-2131 voice
(815) 572-8600 fax

BY EMAIL

September 18, 2010

Thomas A. Enslow
Adams Broadwell Joseph & Cardozo
520 Capitol Mall, Suite 350
Sacramento, CA 95814

Re: Review of Draft Environmental Impact Report for Sierra Pacific Industries Cogeneration Power Project, Shasta County, CA

Dear Mr. Enslow,

Per your request, I have reviewed the Draft Environmental Impact Report ("Draft EIR") for the Sierra Pacific Industries ("SPI" or "Applicant") Cogeneration Power Project ("Project")¹ published by Shasta County ("County") as the lead agency under the California Environmental Quality Act ("CEQA") for potential impacts on the environment.

My qualifications as an environmental expert include a doctorate in Environmental Science and Engineering ("D. Env.") from the University of California Los Angeles. In my professional practice, I have reviewed and commented on numerous CEQA documents for power plants including biomass-fired cogeneration units. My résumé is attached to this letter.

Background

The Applicant is requesting approval of a modification of an existing use permit for the construction and operation of a larger biomass cogeneration power plant at its existing lumber manufacturing facility, Siskiyou Forest Products, located in Shasta County adjacent to the City of Anderson.² The project site, which is owned by SPI, is currently used to manufacture lumber, wood poles, and metal/machinery components; generate power through an existing

¹ Shasta County Department of Resources Management, Draft Environmental Impact Report, Sierra Pacific Cogeneration Power Project, SCH #2009072011, August 2010.

² Draft EIR, p. 2.0-1.

12-1

Enslow, September 18, 2010
Page 2

4-Megawatt ("MW") biomass co-generation facility; store and re-distribute manufacturing parts; repair trucks and machinery; and ship wood chips and lumber by truck and rail.³

The Project would consist of the construction and operation of a new cogeneration power facility including a new fuel shed, boiler building, turbine building, cooling tower, electrostatic precipitator, ash silo, and an electric substation on the project site. The new stoker-type boiler would burn biomass fuel including non-treated wood generated by the lumber manufacturing facility on site and regional lumber manufacturing facilities, in-forest materials from SPI-owned or controlled timberlands, and other biomass fuel sources including agricultural crop residues, as well as urban wood waste. The boiler would use natural gas during startup and would generate up to 250,000 pounds of steam per hour during normal operations. The steam would be used to dry lumber in existing kilns and to power a steam turbine. According to the Draft EIR, the steam turbine would drive a generator that would produce up to 31 MW of electricity for on-site use (~7 MW); the remainder (~24 MW) would be sold on the open market to a public utility. The existing 4-MW cogeneration plant would be maintained as a backup facility but would not be permitted to operate simultaneously with the new plant.⁴

12-1

³ Draft EIR, p. 2.0-2.

⁴ Draft EIR, pp. 2.0-3 – 2.0-4 and 3.2-70; Appendix B, p. 8.

Enslow, September 18, 2010
Page 3

Comments

As discussed in my comments below, the Draft EIR is deficient and should be revised and recirculated for public review.

The following table of contents summarizes the organization of this letter:

I.	The Draft EIR Is Inconsistent with Appendix B, SPI's Permit Application to the Shasta County Air Quality Management District	4
II.	The Draft EIR Improperly Defers Review	5
III.	The Draft EIR Fails to Adequately Describe the Project and Fails to Provide Adequate Documentation	6
III.A	The Draft Fails to Adequately Describe Several Project Components.....	6
III.B	The Draft EIR Fails to Provide a Fuel Supply Analysis.....	7
III.C	The Draft EIR Fails to Discuss Wastewater Generation and Disposal.....	8
III.D	The Draft EIR's Analysis of Construction Emissions is Not Adequately Documented.....	9
IV.	The Draft EIR's Air Quality Impact Analysis Is Flawed and Fails to Adequately Mitigate Significant Impacts	9
IV.A	The Draft EIR's Estimates of Construction Emissions Fail to Account for Cut-and-Fill Activities.....	9
IV.B	The Draft EIR Fails to Demonstrate that the Proposed Mitigation Measures Would Reduce the Project's Significant Emissions of NO _x during Construction to a Less than Significant Level and Several Proposed Mitigation Measures Are Vague and Unenforceable.....	10
IV.C	The Draft EIR Fails to Include Operational Emissions from All Emission Sources.....	11
IV.D	The Draft EIR Incorrectly Determines Net Annual Emission Increases Associated with the Project.....	11
IV.E	The Draft EIR Fails to Identify Significant Impact on Air Quality due to Project Operational Emissions of NO ₂ and Fails to Perform All Required Analyses.....	12
I.A.1	Project Operational Emissions Would Exceed the U.S. Environmental Protection Agency's Interim Significant Impact Level for the 1-hour Federal NO ₂ National Ambient Air Quality Standard Requiring Additional Impact Analyses.....	13
I.A.2	The Draft EIR Must Provide a Class I Impact Analyses.....	14
IV.F	Combustion of Urban Wood Waste, Railroad Ties, and Tires May Result in Higher Toxic Air Contaminant Emissions than Estimated by the Draft EIR.....	15
V.	The DEIR Fails to Identify and Require Mitigation Measures Available to Reduce the Project's Emissions of Greenhouse Gases and Associated Significant Impacts on Global Climate Change	17
VI.	The Draft EIR Fails to Analyze Potentially Significant Impacts on Public Health and Safety Associated with Transport, Storage, and Use of Anhydrous Ammonia	19
VII.	Conclusion	23

12-1

Enslow, September 18, 2010
Page 4

I. The Draft EIR Is Inconsistent with Appendix B, SPI's Permit Application to the Shasta County Air Quality Management District

The Draft EIR states that the analysis in its air quality section was derived from the Authority to Construct and Prevention of Significant Deterioration⁵ permit application ("PSD Report") prepared by Environ International Corporation ("Environ") in February 2010 as part of SPI's application package to the Shasta County AQMD. The Draft EIR states that this PSD Report is included as Appendix B. The Draft EIR further states that the PSD Report was independently peer reviewed by Urban Crossroads, Inc., a firm under contract with De Novo Planning Group, who prepared the Draft EIR under contract to Shasta County. The PSD report was also reviewed for adequacy by the Shasta County AQMD. Both Urban Crossroads and the District determined that the PSD report prepared by Environ was adequate, complete, and suitable for use in the preparation of the Draft EIR.^{6,7} However, review of the Draft EIR and Appendix B shows that information contained in these documents differs considerably and that Appendix B does not support the Draft EIR's air quality section:

12-2

- The Draft EIR's project description states that the Project's steam turbine/generator would produce up to 31 MW⁸; in contrast, Appendix B states that the Project would generate a maximum of 23 MW.⁹ During the scoping meeting for the Project, the consultant to SPI also stated that the Project would generate 23 MW of power.¹⁰
- The Draft EIR states that the Project would constitute a major modification [under the federal Clean Air Act] and would require a PSD permit.¹¹ In contrast, Appendix B states that the Project would be a minor modification [under the federal Clean Air Act] and therefore not subject to the PSD requirements.¹²

12-3

⁵ The Prevention of Significant Deterioration program under the federal Clean Air Act applies to new major sources or major modifications at existing sources for pollutants the source is located in an area classified as being in "attainment" or "unclassifiable" with the national ambient air quality standards. PSD requires a) installation of Best Available Control Technology ("BACT"); an air quality analysis; an additional impacts analysis; and public involvement.

⁶ Draft EIR, p. 3.2-35.

⁷ Draft EIR, p. 3.2-20.

⁸ Draft EIR, p. 2.0-3 and 3.2-70.

⁹ Draft EIR, Appendix B, p. 3.

¹⁰ Draft EIR, Appendix A, De Novo Planning Group, Scoping Meeting Notes Sierra Pacific Cogeneration Power Plant EIR, July 21, 2009, p. 2.

¹¹ Draft EIR, p. 3.2-12.

¹² Draft EIR, Appendix B, p. 1.

Enslow, September 18, 2010
Page 5

- The Draft EIR requires with Mitigation Measure 3.2-3 that the Shasta County AQMD “withdraw” sufficient emission reduction credits (“ERCs”) banked by SPI to offset the net increases of nitrogen oxides (“NOx”), carbon monoxide (“CO”), particulate matter equal to or smaller than 10 micrometers (“PM10”), and reactive organic gases (“ROG”) generated by operation of the Project.¹³ In contrast, Appendix B states that no offsets are required.¹⁴

12-4

Clearly, the Draft EIR is inconsistent with the permit application provided in Appendix B. The Draft EIR should be revised to resolve this discrepancy and provide any updates to Appendix B it relied upon.

II. The Draft EIR Improperly Defers Review

CEQA clearly forbids deferment of review beyond the scope of the environmental review document. Here, the Draft EIR improperly defers review in several instances, including:

- The Draft EIR discloses that the amount of over-excavation of incompetent materials (cut) at the Project site and replacement with recompact engineered fill material necessary to meet the foundation specifications “is yet to be determined.”¹⁵ Yet, the amount of cut-and-fill is necessary to adequately support the Draft EIR’s analyses. For example, the analysis of construction emissions must include fugitive dust and equipment and haul truck exhaust emissions associated with cut-and-fill activities. Similarly, without knowing the amount of cut that would be transported off-site and the amount of engineered fill that would be transported to the site, the traffic impact analysis for Project construction is incomplete and fails to adequately assess its potential impacts on traffic. Thus, a site preparation plan is mandatory for an adequate evaluation of the impacts of Project construction on air quality and traffic and to determine whether additional mitigation is required. (See also Comment IV.A)
- The Draft EIR states that the Project site would be lit during all hours that the sun is not up. The highest light sources would be along the catwalks at the top of the boiler and smoke stack. The Draft EIR further discloses that a specific lighting plan has not yet been developed.¹⁶ Yet, without a lighting plan it cannot be properly evaluated whether the lighting of the tall stack and other structures may be a nuisance to

12-5

12-6

¹³ Draft EIR, p. 3.2-48.

¹⁴ Draft EIR, Appendix B, p. 10.

¹⁵ Draft EIR, p. 2.0-6.

¹⁶ Draft EIR, p. 2.0-7.

Enslow, September 18, 2010
Page 6

nearby neighbors. Thus, a lighting plan must be part of the Project’s CEQA review to determine potential impacts and, if necessary, require adequate mitigation.

- The Draft EIR requires as Mitigation Measure 3.6-1 that prior to issuance of the conditional use permit for the Project a Hazardous Materials Business Plan/Spill Prevention Control and Countermeasures Plan be prepared to avoid spills of common hazardous materials (e.g., petroleum based fuels, oils, lubricants, etc.) and minimize impacts in the event of a spill.¹⁷ These plans must be part of the CEQA document for the reviewer to be able to assess whether Mitigation Measure 3.6-1 is adequate and effective. (See also Comment V.)

12-7

III. The Draft EIR Fails to Adequately Describe the Project and Fails to Provide Adequate Documentation

Under CEQA, an environmental impact report is legally deficient if it fails to accurately describe the whole of a proposed project. Here, as explained below, the Draft EIR fails to adequately describe the Project and hence, does not comply with CEQA. Further, the Draft EIR fails to provide adequate documentation for the presented analyses and conclusions.

III.A The Draft Fails to Adequately Describe Several Project Components

12-8

The Draft EIR states that biomass sources for the Project would include SPI-owned or controlled facilities and timberlands including, woodchips from trees, brush and slash from timber harvest operations or wildland fire fuel reduction projects and agricultural and urban wood wastes including orchard trees/branches, rice hulls, nut shells, tree trimmings, chipped pallets, commercial and residential source separated material programs, and construction debris.¹⁸ The Draft EIR fails to describe whether the biomass would arrive as chips that need no further sizing or whether it would be sized on site. If biomass would be sized on site, emissions associated with sizing biomass must be included in estimates of Project operational emissions.

The Draft EIR further states that biomass would be stored on site in a fuel shed and, if the fuel shed becomes full, excess fuel would be stockpiled at the outdoor fuel pile. The outdoor fuel pile would be maintained by a front end loader or dozer, and would be moved to the fuel shed as necessary to turnover the fuel at least every 30 days.¹⁹ Storage of pre-sized biomass can lead to dry matter losses and changes in moisture content. Biological and chemical degradation and chemical oxidation processes of biomass can result in increased temperatures within the storage piles which can potentially lead to self-ignition. Further,

12-9

¹⁷ Draft EIR, p. 3.6-14 and 3.6-13.

¹⁸ See Draft EIR, p. 2.0-4.

¹⁹

Enslow, September 18, 2010
Page 7

bacteria and fungi can rapidly grow within the biomass storage pile and potentially pose health risks and generate offending odors. The effects are complex and depend on the particle size, moisture content, and type of the stored biomass and the size and ventilation of the storage piles.²⁰ The Draft EIR does not discuss the storage and handling procedures for the different types of biomass, the effects of storage on biomass, or the potential hazards and generation of odors that may result from storing pre-sized biomass.

12-9

The Project's biomass-fired, stoker-type boiler would be equipped with the use of an integral selective non-catalytic reduction ("SNCR") to reduce NOx emissions, which would use anhydrous ammonia as a reagent.²¹ Anhydrous ammonia must be stored in a pressurized tank. The Draft EIR fails to describe the anhydrous ammonia tank, its volume, and how often anhydrous ammonia would be delivered to the site. (See also Comment VI.)

12-10

The Draft EIR further fails to specify whether the Project would require and operate an emergency generator. If the Project would require an emergency generator, emissions of criteria air pollutants and toxic air contaminants must be included in the emission estimates for Project operations.

12-11

III.B The Draft EIR Fails to Provide a Fuel Supply Analysis

The Draft EIR states the Project's boiler would consume 219,000 bone dry tons ("BDT") of biomass annually. The Draft EIR claims that the available annual biomass supply from SPI-owned or controlled facilities at Arcata, Anderson, Shasta Lake, and Red Bluff and timberlands totals 400,000 BDT plus 50,000 BDT from agricultural and urban wood wastes. The Draft EIR further states that SPI's Anderson lumber manufacturing facility currently produces approximately 160,000 BDT of wood waste per year, 60,000 BDT of which are consumed by the existing biomass cogeneration facility, 20,000 BDT are trucked to other biomass power plants and the balance is trucked to other markets (e.g., wood chips to pulp mills). The new Project boiler would consume the entire wood waste generated by SPI's Anderson lumber facility, i.e., 80,000 BDT per year, while the balance of 139,000 BDT per year would be trucked in from other sources.²² The Draft EIR further claims that the balance of biomass would be trucked in from within an average distance of 45 miles.²³

12-12

The Draft EIR contains no support for these numbers or any further analysis of the available sources of fuel, the seasonal availability of biomass, the percentages of various types of biomass that would be combusted (e.g., woodchips from trees, brush and slash from timber harvest operations or wildland fire fuel reduction projects, orchard trees/branches, rice hulls,

²⁰ Sjaak Van Loo and Jaap Koppejan, Handbook of Biomass Combustion and Co-firing, Earthscan, 2008, pp. 83-85.

²¹ Draft EIR, p. 3.2-36 and Draft EIR, Appendix B, p. 3.

²² Draft EIR, p. 2.0-5.

²³ Draft EIR, p. 3.2-25.

Enslow, September 18, 2010
Page 8

nut shells, tree trimmings, chipped pallets, commercial and residential source separated material programs, construction and demolition waste, etc.), the distances that would be traveled by the trucks delivering 139,000 BDT per year of biomass to the facility. In fact, the entire fuel supply discussion in the Draft EIR seems to have been copied verbatim without any updates from an equally unsupported permit application submitted to the Shasta County AQMD in 2007.²⁴

In other recent biomass projects, fuel supply has been a contested issue and at least one project has been withdrawn in part over fuel supply issues.^{25,26} It is further unclear whether the Project would result in harvesting of trees for the sole purpose of generating biomass for combustion in the Project's boiler. If this were the case, the harvesting of trees would have to be carefully evaluated in the greenhouse gas analysis for the Project.

12-12

The Draft EIR should be revised and recirculated to contain an adequate fuel supply analysis that demonstrates availability of biomass fuels, including the sources of fuel, the seasonal availability, the percentages of various biomass that would be combusted, the type of agricultural and urban wood waste that would be accepted, the distances that would be traveled by the trucks delivering 139,000 BDT per year of biomass to the facility, to the Project, etc.

III.C The Draft EIR Fails to Discuss Wastewater Generation and Disposal

The Project would operate a two-cell cooling tower with a flow rate of 27,600 gallons per minute ("gpm"). To avoid buildup of dissolved minerals, some of the recirculating cooling water must be drawn off and replenished with fresh water. The Draft EIR is silent on the quantity, chemical composition, and fate of the water that is drawn off, the so-called cooling tower blowdown; it is unclear whether the Applicant intends to discharge the blowdown to the Sacramento River or the City's wastewater treatment system, retain it in on-site ponds, or treat it on-site.

12-13

²⁴ See Sierra Pacific Industries, Biomass-Fired Cogeneration Project Prevention of Significant Deterioration and Authority to Construct Permit Application, Anderson, California, prepared by: Geomatrix Consultants, Inc., May 2007, p. 5; <http://www.co.shasta.ca.us/departments/resourcemanagement/drm/SPI/PSD-ATC%20application.pdf>, accessed September 17, 2010.

²⁵ See, for example, Valley Bio-Energy, Modesto, CA: documents available at www.mid.org/biomass/default.htm and San Joaquin Solar 1&2 Hybrid Power Project, Coalinga, CA: documents available at <http://www.energy.ca.gov/sitingcases/sjsolar/documents/index.html>.

²⁶ Martifer Renewables, Letter to California Energy Commission, Re: San Joaquin Solar 1&2 Hybrid Power Project, 08-AFC-12 - Notice of Withdrawal, June 17, 2010 stating: "We are not able at this time to resolve some of our issues regarding project economics and biomass supply amongst other things;" http://www.energy.ca.gov/sitingcases/sjsolar/documents/applicant/2010-06-17_Note_of_Withdrawal_TN-57296.pdf, accessed September 16, 2010.

Enslow, September 18, 2010
Page 9

The Draft EIR also fails to provide any information regarding treatment of steam generation (boiler) process water and the quantity, chemical composition, and disposal of wastewater that would be produced by the steam generation process.

12-13

III.D The Draft EIR's Analysis of Construction Emissions is Not Adequately Documented

The Draft EIR presents unmitigated *daily* emissions in pounds per day for Project construction in Table 3.2-7 supposedly based on URBEMIS 2007 modeling conducted by De Novo Planning in 2010.²⁷ The Draft EIR fails to provide documentation for these modeling runs. The URBEMIS modeling runs provided in Appendix J to the Draft EIR only present *annual* construction emissions in tons per year, which cannot be readily transform converted into maximum daily emissions because the amount of pollutants emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment operated, etc. Thus, the daily emissions from construction presented in Table 3.2-7 are not supported by any documentation. Public review of these emissions estimates is therefore not possible requiring acceptance of the emission estimates and the Draft EIR's conclusions in blind faith. (See also Comment IV.A.)

12-14

IV. The Draft EIR's Air Quality Impact Analysis Is Flawed and Fails to Adequately Mitigate Significant Impacts

The Draft EIR's air quality impact analysis suffers from a number of flaws and fails to reduce the Project's significant emissions from construction and during operation to the extent feasible as required by CEQA.

IV.A The Draft EIR's Estimates of Construction Emissions Fail to Account for Cut-and-Fill Activities

The Draft EIR presents unmitigated daily construction emissions in Table 3.2-7 and concludes that emissions of CO, sulfur dioxide ("SO₂"), ROG, PM10 and particulate matter equal to or smaller than 2.5 micrometers ("PM2.5") would not exceed the Shasta County AQMD's significance thresholds for construction emissions. While the Draft EIR fails to provide URBEMIS 2007 printouts for *daily* construction emission estimates, the annual estimates provided in Appendix J indicate that the Draft EIR's emission estimates presented in Table 3.2-7 do not include cut-and-fill activities, which would be required for the Project. (See Comments II and III.) Cut-and-fill activities result in considerable emissions of fugitive dust particulate matter both on- and off-site. When these emissions are included, fugitive dust PM10 emissions generated during construction may well exceed the Shasta County AQMD's threshold of significance of 80 pounds per day. Thus, the Draft EIR should be revised to

12-15

²⁷ See Draft EIR, footnote to Tale 3.2-7.

Enslow, September 18, 2010
Page 10

include documentation for daily emissions during construction including cut-and-fill activities and, if the threshold is exceeded, include adequate mitigation.

IV.B The Draft EIR Fails to Demonstrate that the Proposed Mitigation Measures Would Reduce the Project's Significant Emissions of NO_x during Construction to a Less than Significant Level and Several Proposed Mitigation Measures Are Vague and Unenforceable

The Draft EIR finds that Project construction would result in equipment and vehicle exhaust emissions of nitrogen oxides ("NO_x") of 50.15 pounds per day, exceeding the Shasta County AQMD's threshold of 25 pounds per day of NO_x pursuant to SCAQAMD Rule 2.1, Part 301 by 100 percent.²⁸ (As discussed in Comment III.C, the Draft EIR fails to support these emission estimates.) The Draft EIR requires implementation of Mitigation Measure 3.2-2 to reduce these significant combustion emissions of NO_x to reduce Project significant impacts on air quality due to combustion emissions from construction equipment and trucks to a less than significant level.²⁹

The Draft EIR fails to provide a quantitative analysis demonstrating that these measures would indeed reduce combustion emissions during Project construction to below the Shasta County AQMD's thresholds and to a less than significant level. The Draft EIR should be revised to include a quantitative analysis of the effectiveness of Mitigation Measure 3.2-2 to demonstrate that it would indeed reduce emissions by 50 percent to a less than significant level.

In addition, several of the proposed measures are vague and unenforceable:

- Mitigation Measure 3.2-2 requires the Applicant's contractor to "Limit the area subject to excavation, grading, and other construction activity at any given time."³⁰ However, the Draft EIR fails provide any guidelines or standards for determining the amount of area allowed to be excavated, graded or constructed at the same time. Without such guidance, this mitigation measure is meaningless.
- Similarly, Mitigation Measure 3.2-2 requires the Applicant's contractor to "Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use."³¹ This measure also fails to provide any guidelines or standards for determining when and how long heavy-duty equipment may be used during construction. Again, this lack of guidance renders this mitigation measure meaningless.

²⁸ Draft EIR, p. 3.2-21.

²⁹ Draft EIR, pp. 3.2-23 - 3.2-24.

³⁰ Draft EIR, p. ES-7.

³¹ *Ibid.*

12-16

Enslow, September 18, 2010
Page 11

IV.C The Draft EIR Fails to Include Operational Emissions from All Emission Sources

The Draft EIR presents emission estimates for vehicle emissions associated with trucks delivering biomass and employee vehicle traffic and emissions from normal operation of the biomass boiler and cooling tower.³² However, the Project would include several other sources of emissions including a) combustion emissions from the trucks moving fuel from the existing on-site planer and pole yard across the yard; b) combustion emissions from the front end loader or dozer moving fuel into the fuel shed and maintaining the outdoor fuel pile; c) emissions associated with refueling trucks and equipment on site; d) fugitive dust emissions associated with biomass handling; and e) fugitive dust emissions associated with ash handling and disposal.

12-17

The Draft EIR states that additional material handling operations associated with the Project would be enclosed and, as a result, fugitive dust emissions associated with the Project are "expected to be negligible."³³ In light of the inadequate description of the material handling operations (*see* Comments III.A and **Error! Reference source not found.**), this purely speculative conclusion is not acceptable under CEQA.

The Draft EIR should be revised to include emission estimates for all emission sources and, if necessary, require adequate mitigation.

IV.D The Draft EIR Incorrectly Determines Net Annual Emission Increases Associated with the Project

The Draft EIR presents Project cogeneration unit annual emissions and net annual emission increases associated with the Project based on the annual average heat input rate to the boiler of 425.4 MMBtu/hr and continuous operation (8,760 hours/year).³⁴ This determination is erroneous.

12-18

Annual emissions must be based on the boiler's "potential to emit," *i.e.*, the maximum heat input (or capacity) of the boiler, not an assumed annual average heat input. Under the federal Clean Air Act, the potential to emit ("PTE") is defined as "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, provided the limitation or its effect on emissions is federally enforceable, shall be treated as part of its design."³⁵ Thus, unless the permit would include a federally enforceable condition restricting

³² Draft EIR, Table 3.2-8, p. 3.2-25, and Table 3.2-9, p. 3.2-26.

³³ Draft EIR, p. 3.2-26.

³⁴ Draft EIR, Table 3.2-9 (*see* footnote 2), p. 3.2-26, and Table 3.2-11, p. 3.2-27.

³⁵ U.S. Environmental Protection Agency, New Source Review, Basic Information, p. A.4; <http://www.epa.gov/nsr/psd.html>.

Enslow, September 18, 2010
Page 12

emissions based on the boiler's *annual average* hourly heat input³⁶, net emissions must be calculated based on the boiler's *maximum* annual hourly heat input. The Draft EIR proposes no such condition. Review of the Permit to Operate issued by the Shasta County AQMD for the existing cogeneration facility shows that annual emission limitations are based on the *maximum* hourly heat input to the boiler.³⁷ Thus, net emission increases must be based on the maximum heat input to the boiler of 468.0 MMBtu/hr. This increases annual emissions from the boiler by 10%.³⁸ Net annual emission increases associated with the Project will be correspondingly higher. The Draft EIR must be revised accordingly and air quality modeling must be performed based on the revised net emission increase.

12-18

IV.E The Draft EIR Fails to Identify Significant Impact on Air Quality due to Project Operational Emissions of NO₂ and Fails to Perform All Required Analyses

On February 9, 2010, the U.S. Environmental Protection Agency ("U.S. EPA") published a new 1-hour national ambient air quality standard ("NAAQS") for nitrogen dioxide ("NO₂") at a level of 100 parts per billion ("ppb") (approximately 188 µg/m³).^{39,40} This new standard became effective on April 12, 2010, which means that permits issued under U.S. EPA's PSD rules (40 CFR 52.21) on or after April 12, 2010, must contain a demonstration that allowable emissions from any new major stationary source or major modification will not cause or contribute to a violation of the new 1-hour NO₂ NAAQS. There are no exceptions under 40 CFR 52.21 in this case because the U.S. EPA has not adopted a grandfathering provision applicable to the 1-hour NO₂ NAAQS because, while the short-term standard is new, the pollutant is not.⁴¹

12-19

³⁶ (425.4 MMBtu/hr) × (8,760 hr/year) = 3,726,504 MMBtu/year.

³⁷ Shasta County Air Quality Management District, Permit to Operate, Sierra Pacific Industries, Anderson Division, 80,000 lb/hr Wood Fired Boiler (116.4 MMBtu/hr), December 2008, Condition 24, p. 4.

³⁸ (468.0 MMBtu/hr) / (425.4 MMBtu/hr) = 1.10.

³⁹ 75 FR 6474-6537, February 9, 2010.

⁴⁰ The newly promulgated NO₂ standard not only establishes a new one-hour averaging period for the NO₂ NAAQS, but also establishes a new "form" for the one-hour standard as the three-year average of the 98th percentile of the yearly distribution of daily maximum one-hour average concentrations.

⁴¹ U.S. Environmental Protection Agency, Memorandum from Stephen D. Page, Director, to Air Division Directors and Deputies, Regions 1 – X, Re: Applicability of the Federal Prevention of Significant Deterioration Permit Requirements to New and Revised National Ambient Air Quality Standards, April 1, 2010; <http://www.epa.gov/region7/air/nsr/nsrmemos/psdnaaqs.pdf>, accessed September 17, 2010.

Enslow, September 18, 2010
Page 13

I.A.1 Project Operational Emissions Would Exceed the U.S. Environmental Protection Agency's Interim Significant Impact Level for the 1-hour Federal NO₂ National Ambient Air Quality Standard Requiring Additional Impact Analyses

Neither the Draft EIR nor the PSD Report in the Draft EIR's Appendix B contain a demonstration that Project emissions would not cause or contribute to a violation of the new 1-hour NO₂ NAAQS. In fact, both documents fail to mention the new 1-hour NO₂ NAAQS.

It is U.S. EPA's policy to exempt sources from conducting comprehensive, multisource modeling if their estimated maximum ambient impacts for a given pollutant are less than a so-called significant impact level ("SIL"), a *de minimis* threshold applied to individual facilities that apply for a permit to emit a regulated pollutant in areas that are designated attainment, *i.e.*, that meet the NAAQS for that pollutant.⁴² The state and the U.S. EPA must determine if emissions from that facility would cause the air quality to worsen. The SIL is a measure of whether a source may cause a violation of the PSD increment⁴³ or the NAAQS, or, in other words, would result in a significant deterioration of air quality. If an individual facility or a modification of a facility increases emissions resulting in ambient air quality impacts greater than the established SILs, the permit applicant is required to perform additional analyses to determine if those impacts will be more than the amount of the PSD increment. This analysis combines the impact of the proposed facility when added on to all other sources in the area.

The U.S. EPA has published guidance for determining compliance with the new 1-hour NO₂ NAAQS and has proposed an interim SIL equal to 4% of the 1-hour NAAQS of 100 ppb⁴⁴, *i.e.*, 4 parts per billion ("ppb") or about 8 µg/m³.⁴⁵ The Draft EIR's Class II⁴⁶ air quality impact

12-19

⁴² An attainment area is considered to have air quality as good as or better than the national ambient air quality standards as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a non-attainment area for other pollutants.

⁴³ A PSD increment is the amount of pollution an area is allowed to increase. PSD increments prevent the air quality in clean areas from deteriorating to the level set by the NAAQS. The NAAQS is a maximum allowable concentration "ceiling." A PSD increment, on the other hand, is the maximum allowable increase in concentration that is allowed to occur above a baseline concentration for a pollutant. The baseline concentration is defined for each pollutant and, in general, is the ambient concentration existing at the time that the first complete PSD permit application affecting the area is submitted. Significant deterioration is said to occur when the amount of new pollution would exceed the applicable PSD increment. It is important to note, however, that the air quality cannot deteriorate beyond the concentration allowed by the applicable NAAQS, even if not all of the PSD increment is consumed.

⁴⁴ U.S. Environmental Protection Agency, Memorandum from Stephen D. Page, Director, Office of Air Quality Planning and Standards to Regional Air Division Directors, Re: Guidance Concerning the Implementation of the 1-hour NO₂ NAAQS for the Prevention of Significant Deterioration Program, June 29, 2010; <http://snipurl.com/142in9> [www.google.com], accessed September 17, 2010.

⁴⁵ At standard ambient temperature of 25°C: $(4 \text{ ppb}) \times (12.187) \times (\text{molecular weight of NO}_2: 46.01) / (293.15^\circ\text{K}) = 7.65 \text{ µg/m}^3$.

Enslow, September 18, 2010
Page 14

analysis shows that the Project would result in a maximum increase of 14.0 µg/m³ NO₂ on a 1-hour basis⁴⁷, which exceeds the U.S. EPA-recommended interim 1-hour NO₂ SIL of 8 µg/m³ by almost 80 percent.⁴⁸

Thus, additional impact analyses should be performed including impact analyses on air, ground and water pollution on soils, vegetation, and visibility caused by any increase in emissions of any regulated pollutant from the source or modification under review, and from associated growth. Associated growth is industrial, commercial, and residential growth that will occur in the area due to the source.⁴⁹

12-19

I.A.2 The Draft EIR Must Provide a Class I Impact Analyses

PSD guidance requires an analysis of potential impacts on air quality-related values (“AQRVs”) in federal Class I areas within 100 kilometers (62.1 miles) of the proposed site from pollutants emitted by the project subject to PSD review. However, for most applications the Federal Land Managers (“FLMs”) request analyses of AQRV impacts for additional Class I areas within 200 kilometers (124 miles) of the site.

There are four Class I areas within 100 kilometers of the Project site requiring an AQRV analysis and four other areas that are within the expanded range of 200 km as shown in Table 1.

Table 1: Class I areas within 250 kilometers of the Project site

Class I Area	Distance	
	(km)	(miles)
Yolla Bolly-Middle Eel Wilderness Area	57	35
Thousand Lakes Wilderness Area	62	39
Lassen Volcanic National Park	64	40
Caribou Wilderness Area	89	55
Marble Mountain Wilderness Area	116	72
Redwood National Park	147	91
Lava Beds National Monument	148	92
South Warner Wilderness Area	192	119

12-20

⁴⁶ Class II areas are essentially the entire country save for areas designated as Class I areas, which are National Parks, Wilderness Areas, and other areas where the smallest PSD increments have been imposed to allow the smallest degree of air quality deterioration. Class II areas have been deemed able to accommodate normal, well-managed industrial growth, and, therefore, have higher PSD increments.

⁴⁷ Draft EIR, Appendix B, Table 4-4, p. 31.

⁴⁸ (14.0 µg/m³) / (7.65 µg/m³) = 1.8.

⁴⁹ U.S. Environmental Protection Agency, New Source Review, Basic Information; <http://www.epa.gov/nsr/psd.html>.

Enslow, September 18, 2010
Page 15

The AQRVs of concern include visibility, soil, flora, fauna, and aquatic resources. The Draft EIR must be revised to include the respective analyses to comply with the PSD requirements under the federal Clean Air Act.

IV.F Combustion of Urban Wood Waste, Railroad Ties, and Tires May Result in Higher Toxic Air Contaminant Emissions than Estimated by the Draft EIR

According to the Draft EIR, the Project would burn only non-treated wood pulp, sawdust and other natural un-treated wood waste that is generated onsite by the existing sawmill operations; agricultural and timber wood wastes; and urban biomass fuel or urban wood waste. The Draft EIR also claims that construction debris will only be used if it is a clean source separated material such as ground up wood that does not include such things as wallboard and general debris or any other treated or painted wood.^{50,51} The Draft EIR, however, fails to include a condition specifying a restriction on materials that can be burned as a mitigation measure for the Project.

Construction waste originates from construction, repair, or remodeling of residential, commercial, and industrial buildings and typically consists of a variety of building products such as roofing, gypsum wallboard, and wood products. Construction waste wood typically consist of wood scraps from dimensional lumber, siding, laminates, flooring (potentially stained), laminated beams, and moldings (potentially painted). Demolition waste originates from the destruction of buildings or other structures. Typical constituents include aggregate, concrete, wood, paper, metal, insulation, glass, and other building materials, which are frequently contaminated with paints, including lead paints.

As a result, construction and demolition ("C&D") wood waste may be contaminated with a variety of hazardous chemicals including heavy metals such as copper, chromium, arsenic, cadmium, lead, mercury, zinc, and beryllium, and organic contaminants such as creosote, pentachlorophenol, dioxin, polychlorinated biphenyls, polycyclic aromatic hydrocarbons, solvents, and volatile organic compounds.⁵² Incineration results in volatilization of metals during combustion and accumulation of metals in ash, which may result in health and environmental impacts.⁵³

12-21

⁵⁰ Draft EIR, p. 2.0-4.

⁵¹ Draft EIR, p. 3.6-13.

⁵² Ellen Moyer, Ph.D., P.E., Should Construction and Demolition Wood Be Burned? An Evaluation of NESCAUM's May 2006 Report, December 20, 2007;
<http://www.mass.gov/Eoeea/docs/doer/gca/aps/apsmoyer.pdf>.

⁵³ Florida Center for Solid and Hazardous Waste Management, Final Report of Evaluation of Thermal Processes for CCA Wood Disposal in Existing Facilities, May 15, 2006;
<http://combustcca.ees.ufl.edu/FCSHWM%20Report-CCA%20Thermal%20Processes.pdf>.

Enslaw, September 18, 2010
Page 16

A critical element in minimizing air emissions, especially toxic air contaminants, is the elimination of copper-chromium-arsenic ("CCA")-treated and pentachlorophenol-treated ("penta-treated") wood and the minimization of painted wood and fines in the C&D wood waste.⁵⁴ CCA is a major arsenic-based treatment chemical used to preserve wood. Although in the U.S. it is no longer used for residential uses, it is still used in industrial applications. Wood preservatives, especially CCA, accounted for most of the arsenic consumption in U.S. until about 2004. As a result, a large quantity of arsenic-treated wood is currently in use and is present in significant amounts in C&D waste. Its presence in the disposal sector is predicted to increase heavily in the near future.

The separation of wood products from C&D debris for beneficial uses depends on the type and origin of the debris. Typically, construction debris is more easily separated than demolition debris. No statewide standards for the content of C&D waste exist and most waste management firms rely on their own standards and specifications to remove the majority of the contaminants and non-burnables from the C&D waste. Limited test data indicate that concentrations of arsenic and dioxin are doubled and quadrupled, respectively, when burning 50 percent C&D wood compared to burning only forest biomass.⁵⁵

Due to concerns regarding the release of hazardous substances, several states have restricted or banned the use of C&D wood waste as fuel for biomass plants and other purposes. For example, New Hampshire has banned the use of C&D debris regardless of whether it is clean, unadulterated waste from construction sites or pressure-treated and painted wood, for example, from demolition activities. The state of Massachusetts has implemented a moratorium on use of C&D waste. The City of Portland, Oregon, prohibits any use, including combustion, of painted or pressure-treated woods except in "incidental" quantities.⁵⁶ The Maine Department of Environmental Protection has published detailed specifications limiting the permissible fraction of non-combustible materials, plastics, CCA-treated wood, fines, and asbestos in C&D wood waste and specifying fuel quality standards for arsenic, lead, and PCBs in blended biomass fuel.⁵⁷

Therefore, the Draft EIR must either impose an enforceable permit condition or identify and analyze toxic air contaminant emissions from the combustion of C&D waste and require

12-21

⁵⁴ Ellen Moyer, Ph.D., P.E., Should Construction and Demolition Wood Be Burned? An Evaluation of NESCAUM's May 2006 Report, December 20, 2007; <http://www.mass.gov/Eoeea/docs/doer/gca/aps/apsmoyer.pdf>, accessed November 9, 2009.

⁵⁵ Ellen Moyer, Should Construction and Demolition Wood Be Burned? An Evaluation of NESCAUM's May 2006 Report, December 20, 2007, p. 23; <http://www.mass.gov/Eoeea/docs/doer/gca/aps/apsmoyer.pdf>, accessed November 6, 2009.

⁵⁶ Ron Kotrba, The Politics of 'Dirty' Wood, Biomass Magazine, April 2009; http://www.biomassmagazine.com/article.jsp?article_id=2539&q=&page=all, accessed November 9, 2009.

⁵⁷ Maine Department of Environmental Protection, Maine Solid Waste Management Rules: Chapter 418, Beneficial Use of Solid Wastes, June 16, 2006, pp. 13-14.

Enslow, September 18, 2010
Page 17

the Applicant to employ maximum available control technology (“MACT”) to control these emissions.

Further, during the scoping meeting for the Project, a public comment was made that another plant that was approved for biomass burning based on a similar proposal now burns tires, railroad ties, and other carcinogenic materials.⁵⁸ The commentator asked whether the Project’s use permit would be conditioned on not allowing the burning of carcinogenic materials. In response, the consultant stated that such a condition is “something that the County decision makers will determine.”⁵⁹ The Draft EIR claims that urban fuels would not include railroad ties;⁶⁰ however, it fails to identify such a mitigation measure.

12-21

The Draft EIR should be revised to require an enforceable permit condition excluding railroad ties and construction and demolition debris from combustion or revise its emission estimates and health risk assessment to include those fuels.

V. The DEIR Fails to Identify and Require Mitigation Measures Available to Reduce the Project’s Emissions of Greenhouse Gases and Associated Significant Impacts on Global Climate Change

The DEIR finds that the Project’s cumulative impacts on climate change due to emissions of greenhouse gases are significant and unavoidable.^{61,62} Despite this conclusion of significance, the Draft EIR failed to require any mitigation whatsoever for the Project’s greenhouse gas emissions. Instead, the Draft EIR makes the conclusory claim that no feasible mitigation measures are available.⁶³ However, the Draft EIR lacks any foundation for this

12-22

⁵⁸ The facility in question is presumably the Wheelabrator Shasta Energy Company, Inc., in Anderson, CA, which has been burning railroad ties since 1996.

⁵⁹ Appendix A, De Novo Planning Group, Scoping Meeting Notes Sierra Pacific Cogeneration Power Plant EIR, July 21, 2009, p. 2.

⁶⁰ Draft EIR, p. 2.0-4.

⁶¹ Draft EIR, p. ES-9, Impact 3.3-1, and p. 3.2-72.

⁶² The Draft EIR states that biomass burning may be carbon neutral since it may use biomass material that would otherwise still release GHGs through open burning or decomposition in a landfill. (Draft EIR, p. 3.2-71.) The Draft EIR, however, recognizes that it is impossible to determine whether the Project’s burning of biomass fuel would, in fact, be carbon neutral or carbon positive compared to the potential alternative uses or disposal of the Project’s biomass fuel. (*Id.*) As a result the Draft EIR determines that the Project would likely result in significant greenhouse gas emissions. For example, biomass burning in cogeneration plants would only be carbon neutral compared to decomposition of biomass in landfills on a very long time scale (hundreds of years), if at all. Greenhouse gas emissions resulting from the project, on the other hand, will be felt most significantly in the short term. Given the general consensus that greenhouse gas emissions must be reduced immediately, reduction of greenhouse gas emissions hundreds of years from now will not mitigate the current threat of global climate change. Accordingly, the Draft EIR correctly found that the Project’s greenhouse gas emissions were significant.

⁶³ Draft EIR, pp. ES-9 and 3.2-72.

Enslow, September 18, 2010
Page 18

claim. The Draft EIR fails to identify or evaluate any potential mitigation measures and provides no analysis to support its conclusion that no feasible mitigation measures are available.⁶⁴

The Draft EIR's failure to identify and evaluate potential mitigation measures for greenhouse gas emissions is a prima facie violation of CEQA. CEQA prohibits agencies from approving projects with significant environmental impacts when feasible mitigation measures can substantially lessen or avoid such impacts.⁶⁵ Specifically, an agency is prohibited from approving a project unless it has "[e]liminated or substantially lessened all significant effects on the environment where feasible."⁶⁶ Accordingly, an agency may only adopt a statement of overriding considerations only *after* it has imposed all feasible mitigation measures to reduce a project's impact to less than significant levels.⁶⁷

Contrary to the Draft EIR's assumption, there are many opportunities available for meaningful mitigation of the Project's GHG impacts. Some of these mitigation measures could include replacing all SPI owned haul trucks, on-site trucks, front end loaders or dozers by new energy-efficient models complying with the most stringent U.S. EPA emission limits.

In addition, many off-site mitigation measures are feasible, including:

- (1) **Energy Audits and Retrofits at SPI Facilities:** Mitigation could include offsetting the Project's greenhouse gas emissions through a comprehensive audit of existing facilities owned by the Applicant and processes to identify and implement energy saving measures, including improving the efficiency of existing equipment so that it uses less electricity or burns less fuel. As an example, in September 2007, the California Attorney General's office came to an agreement with ConocoPhillips, by which ConocoPhillips agreed to mitigate greenhouse gas emissions for a planned hydrogen facility by, among other measures, undertaking an energy efficiency audit and carbon emissions audit for all of its California facilities.⁶⁸
- (2) **Community Energy Efficiency Building Retrofits:** Mitigation could include funding programs that provide for energy efficiency retrofits of existing buildings and housings in Shasta County, with a particular focus on rental and low-income housing. Indeed, new proposed power plants already provide mitigation funds for criteria pollutants and should be required to do the same for greenhouse gas emissions. As one example, the

⁶⁴ See Draft EIR, pp. 3.2-59 – 3.2-72 and 4.0-4.

⁶⁵ Pub. Res. Code 21002.

⁶⁶ CEQA Guidelines § 15092(b)(2).

⁶⁷ CEQA Guidelines §§ 15126.4, 15091.

⁶⁸ ConocoPhillips and California Attorney General Settlement Agreement, September 10, 2007); http://ag.ca.gov/globalwarming/pdf/ConocoPhillips_Agreement.pdf, accessed September 17, 2010.

12-22

Enslow, September 18, 2010
Page 19

Chula Vista Energy Upgrade Project included \$210,000 worth of mitigation funds “for energy efficiency and related improvements to local homes and business, ... intended to directly benefit the residents potentially most affected by the proposed project.”⁶⁹ These upgrades could include installation of a heat-reflecting “cool roof” and heat-reducing window awnings, high-efficiency air conditioning systems with programmable thermostats, and energy-saving fluorescent lighting fixtures that feature daylight and occupancy sensors.

- (3) **Greening Local Farm Operations:** Mitigation could include funding programs to install anaerobic manure biodigesters to recover methane from animal manure in local farm operations. Methane is over 20 times more effective in trapping heat in the atmosphere than carbon dioxide (“CO₂”).
- (4) **Funding of Carbon Offset Programs:** Mitigation could include providing funds to the Shasta County AQMD, Audubon Society, California Wildlife ReLeaf, or other organizations to fund carbon reduction or sequestration projects. For example, the 2007 ConocoPhillips settlement included an agreement to mitigate and offset greenhouse gas emissions by providing (1) \$7 million to a Bay Area Air Quality Management District to create a fund for carbon offsets, (2) \$200,000 to the Audubon Society for restoration of wetlands in the San Pablo Bay, for purposes of carbon sequestration, and (3) \$2.8 million to California Wildlife ReLeaf for reforestation projects, estimated to sequester 1.5 million metric tons of CO₂ over the lifetime of the forest.

12-22

These are just a few examples that could serve as inspiration for mitigation measures to reduce the Project’s significant greenhouse gas emissions.

VI. The Draft EIR Fails to Analyze Potentially Significant Impacts on Public Health and Safety Associated with Transport, Storage, and Use of Anhydrous Ammonia

The Draft EIR states that the Project’s biomass-fired, stoker-type boiler would be equipped with the use of an integral selective non-catalytic reduction (“SNCR”) to reduce NO_x emissions.⁷⁰ In the SNCR process, ammonia is mixed with the exhaust from the combustion device and the NO_x in the exhaust reacts with the introduced ammonia to form nitrogen and water. The reagent is typically injected at the exit of the furnace to mix with the hot flue gases. The reagent can be anhydrous ammonia, aqueous ammonia, or urea dissolved in water.⁷¹ The

12-23

⁶⁹ California Energy Commission, Docket No. 07-AFC-4, Chula Vista Energy Upgrade Project, Final Staff Assessment, Addendum, p. 3, September 30, 2008; http://www.energy.ca.gov/sitingcases/chulavista/documents/2008-09-29_FINAL_STAFF_ASSESSMENT_ADENDUM_TN-48266.PDF, accessed September 17, 2010.

⁷⁰ Draft EIR, p. 3.2-36.

⁷¹ Draft EIR, p. 3.2-31.

Enslow, September 18, 2010
Page 20

Draft EIR is silent on which type of ammonia would be used; however, Appendix B to the Draft EIR discloses that the Project's SNCR system would be injected with anhydrous ammonia.⁷²

Anhydrous ammonia is a highly hazardous and toxic chemical, classified by the U.S. Department of Transportation ("DoT") and the Occupational Safety and Health Administration ("OSHA") as a hazardous material and by the U.S. Environmental Protection Agency as an "extremely hazardous substance."⁷³ At low concentrations in air, ammonia irritates the eyes, nose, and throat. At higher concentrations, it causes coughing, bronchial spasms, conjunctivitis, laryngitis, and pulmonary edema, possibly accompanied by a feeling of suffocation. Severe eye damage and death, generally from pulmonary edema, can result from exposures to over 2,000 ppm.⁷⁴ The Draft EIR's hazards and hazardous materials impact analysis, Section 3.6, fails to identify anhydrous ammonia as a hazardous substance and discuss or analyze hazards associated with its transport, storage, and use.

12-23

Anhydrous ammonia delivered to the Project site would arrive in pressurized tank trucks and must be stored on site in pressurized steel tanks subject to 29 CFR 1910.111 and built in accordance with ASME Boiler and Vessel Code and rated to 250 pound-force per square inch gauge ("psig") and equipped with protections and sensors. Typically, similarly-sized projects would receive approximately one delivery per month for a total of 50 truckloads per year and would store anhydrous ammonia in one 2,000-gallon pressurized steel tank.⁷⁵

The frequency of accidents involving release of ammonia and the risks of injuries and deaths from ammonia storage, use, and transportation are well known and documented. Review of the Incident Reports Database maintained by the Department of Transportation ("DoT") shows that in the past 10 years numerous incidents related to truck transportation of anhydrous ammonia occurred including one fatality and 88 injuries related to ammonia exposure.⁷⁶ Most recently, on July 5, 2010 in Ohio, a tanker carrying anhydrous ammonia crashed resulting in the death of the driver and release of anhydrous ammonia which forced

⁷² Draft EIR, Appendix B, p. 3.

⁷³ See, for example, Tanner Industries, Storage and Handling of Anhydrous Ammonia, Revised May 1998.

⁷⁴ See, for example, Tanner Industries, Storage and Handling of Anhydrous Ammonia, Revised May 1998; Chemical Industries Association, Guidance for the Large Scale Storage of Fully Refrigerated Anhydrous Ammonia in the UK, June 1997; National Institute for Occupational Safety and Health, Criteria for Recommended Standard, Occupational Exposure to Ammonia, 1974.

⁷⁵ See, for example, Modesto Irrigation District, Initial Study and Proposed Mitigated Negative Declaration, Valley Bio-Energy, LLC, 33-MW Biomass Energy Project, June 8, 2010 (proposed 33-MW biomass-fired, stoker-type boiler with a heat input of 402 MMBtu/hr generating 265,000 pounds per hour steam); http://www.mid.org/biomass/Biomass_Energy_Project_Initial_Study.pdf, accessed September 14, 2010.

⁷⁶ Office of Hazardous Materials Safety, Incident Reports Database Search; <https://hazmatonline.phmsa.dot.gov/IncidentReportsSearch/Search.aspx>, accessed September 14, 2010.

Enslow, September 18, 2010
Page 21

evacuation of about 90 people.⁷⁷ On October 29, 2007, a leak of anhydrous ammonia from a ruptured 30,000-gallon storage tank resulted in a large cloud which forced emergency officials to evacuate a local elementary school and local residents in a rural Kentucky community.⁷⁸ On October 31, 2006, a pipe fitting that split suddenly while workers were trying to drain anhydrous ammonia from refrigeration equipment was responsible for the death of a worker in Kansas.⁷⁹ In 1976, in one of the most catastrophic releases in the U.S., a tank truck hauling a load of anhydrous ammonia crashed through a guardrail at a freeway interchange in Houston, Texas, and released its load onto a busy freeway below resulting in five deaths and 200 injured.⁸⁰ These are just a few examples of the frequent accidents involving transportation, use, and storage of anhydrous ammonia.

Anhydrous ammonia is also a key ingredient in the illegal production of methamphetamines ("meth"), a popular drug and significant problem in Siskiyou County as in much of California⁸¹, and is therefore subject to frequent theft, often resulting in accidental releases. The U.S. Environmental Protection Agency ("U.S. EPA") maintains a database with reported ammonia thefts, many of which resulted in accidental releases. The releases occurred when valves were left open as anhydrous ammonia was siphoned off; locks were sawed or broken; anhydrous ammonia was transferred inappropriately into makeshift containers such as propane tanks used on barbecue grills; or the wrong hoses and/or fittings were attached to storage containers, causing leaks and spills that would otherwise not have occurred.⁸² The same accidents could occur at the Project. Thus, a CEQA document for the Project should contain a discussion of preventive measures and personnel instructions that would be implemented to avoid ammonia theft and accidental releases.

12-23

⁷⁷ Fox News, Fatal Accident Fuels Fire over Farming Chemical Debate, July 6, 2010; <http://www.fox8.com/news/wjw-ammonia-tanker-fatal-ax-debate-chemical-txt,0,382168.story>, accessed September 14, 2010.

⁷⁸ Nashville News, Dangerous Chemical Leak Contained, October 29, 2007; <http://www.wsmv.com/news/14446396/detail.html>, accessed September 14, 2010.

⁷⁹ The Associated Press, Pipe Fitting Break Blamed for Fatal Accident, November 8, 2006; http://www.cjonline.com/stories/110806/bre_tysonfatal.shtml, accessed September 14, 2010.

⁸⁰ National Transportation Safety Board, Highway Accident Report, Transport Company of Texas, Tractor-Semitrailer (Tank) Collision with Bridge Column and Sudden Dispersal of Anhydrous Ammonia Cargo, I-610 at Southwest Freeway, Houston, Texas May 11, 1976, report adopted: April 14, 1977, NTSB Number: HAR-77/01, NTIS Number: PB-268251; <http://www.nts.gov/publictn/1977/HAR7701.htm>, accessed September 14, 2010; see also: YouTube, Anhydrous Ammonia Accident - Houston Texas 1976; <http://www.youtube.com/watch?v=1OR7A5jWmDs>, accessed September 14, 2010.

⁸¹ See, for example, David Smith, Siskiyou County Daily News, Board Hears Discussion on Meth Issues, August 13, 2010; <http://www.siskiyoudaily.com/news/x297209519/Board-hears-discussion-on-meth-issues>; or National Drug Intelligence Center, California Northern and Eastern Districts Drug Threat Assessment, Methamphetamine, January 2001; <http://www.justice.gov/ndic/pubs/653/meth.htm>, accessed September 14, 2010.

⁸² U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Anhydrous Ammonia Theft, EPA-F-00-005, March 2000.

Enslow, September 18, 2010
Page 22

Several agencies including the U.S. EPA, OSHA, DoT, the Federal Emergency Management Agency (“FEMA”), and local agencies have published guidelines to estimate the consequences of accidents involving ammonia spills.⁸³ Typically, a worst-case spill scenario is specified and downwind ambient concentrations of the spilled material are calculated and compared with benchmark concentrations that pose a health threat to exposed parties.

The impacts of transporting, storing, and using anhydrous ammonia when analyzed in CEQA documents are generally significant.⁸⁴ According to the U.S. EPA Risk Management Plan guidance documents, at a wind speed of 1.5 miles per hour, the release of 7,500 pounds of anhydrous ammonia in 10 minutes time from a pressurized system (*i.e.*, a catastrophic leak, not a faulty valve) will have a plume with a toxic end point 3.2 miles downwind from the site of the leak.⁸⁵ (Anhydrous ammonia liquid (pressurized gas) weighs approximately 5 pounds per gallon, at 60°F. A storage tank has about 85% usable capacity (15% vapor space must be maintained to allow for expansion); thus, a 2,000 gallon tank can store about 8,500 pounds of anhydrous ammonia under pressure.) In other words, anyone between the leak and 3.2 miles downwind could be exposed to dangerous concentrations of anhydrous ammonia. Here, the Verde Vale Elementary School is located only 0.38 miles to the southwest of the proposed cogeneration facility⁸⁶ and several places of worship and hundreds of residences are located within a 3-mile radius of the Project site.

The Project would likely store anhydrous ammonia in a 2,000-gallon tank. Since the California threshold quantity for anhydrous ammonia storage is 500 pounds, a California risk

12-23

⁸³ U.S. Environmental Protection Agency, Technical Background Document for Offsite Consequence Analysis For Anhydrous Aqueous Ammonia, Chlorine, and Sulfur Dioxide, April 1999; <http://snipurl.com/142reu> [www.google.com], accessed September 17, 2010; Federal Emergency Management Agency, U.S. Department of Transportation, and U.S. Environmental Protection Agency, Handbook of Chemical Hazard Analysis Procedures, Report PB93-158756, 1993; Santa Barbara County Air Pollution Control District, Guidelines for Modeling Accidental Releases of Hazardous Materials, November 1990; American Institute of Chemical Engineers, Guidelines for Chemical Transportation Risk Analysis, 1995.

⁸⁴ For example, the South Coast Air Quality Management District (“South Coast AQMD”) evaluated the hazards of transporting both aqueous and anhydrous ammonia to the Redondo Generating Station’s selective catalytic reduction system. The South Coast AQMD concluded that the consequences and probability of accidents involving anhydrous ammonia were significant and required instead the use of aqueous ammonia and off-peak delivery to mitigate impacts. (South Coast Air Quality Management District, Final Subsequent Environmental Impact Report: Anhydrous Ammonia Storage Tanks Installation at Redondo Generating Station, December 1992.) Many EIRs prepared for reformulated fuels projects at major refineries in California also evaluated the risks of transporting anhydrous ammonia. Most of these EIRs concluded that transportation impacts were significant and imposed mitigation, including stricter hiring policies for drivers, improved driver training, delivery restrictions during adverse weather conditions, enhanced vehicle inspection programs, enhanced vehicle maintenance programs, and off-peak hour transportation and delivery.

⁸⁵ U.S. Environmental Protection Agency, Technical Background Document for Offsite Consequence Analysis For Anhydrous Aqueous Ammonia, Chlorine, and Sulfur Dioxide, April 1999, Table 9; <http://snipurl.com/142reu> [www.google.com], accessed September 17, 2010

⁸⁶ Draft EIR, p. 3.2-6.

Enslow, September 18, 2010
Page 23

management plan ("RMP") must be prepared by a qualified person and approved by the Shasta County prior to operation of the facility. This RMP must be included in a CEQA document to fully disclose all hazards associated with the Project to the nearby residents and community.

As discussed above, the proposed SNCR can also be operated with aqueous ammonia or urea. Neither of these substances carries the risks associated with anhydrous ammonia and should therefore be considered to avoid any potential significant impacts on public health and safety associated with anhydrous ammonia transport, storage, and use. The Applicant's 20-MW cogeneration facility in Aberdeen, Washington, for example, operates its SNCR with aqueous ammonia.⁸⁷

12-23

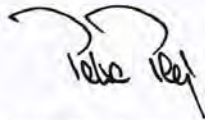
VII. Conclusion

As discussed in my comments above, the Draft EIR is deficient because it is inconsistent with the permit application that was submitted to the Shasta County Air Quality Management District; improperly defers review; fails to adequately describe the Project and fails to provide adequate documentation; provides a flawed air quality impact analysis and fails to adequately mitigate significant impacts on air quality and global climate change; and fails to analyze potentially significant impacts on public health and safety associated with transport, storage, and use of anhydrous ammonia. I recommend that the County prepare a revised Draft EIR that addresses the above discussed deficiencies. To avoid the risks associated with anhydrous ammonia, the Draft EIR should require that the Project's SNCR be operated with aqueous ammonia or urea.

12-24

Please feel free to call me at (415) 492-2131 or e-mail at petra@ppless.com if you have any questions about the comments in this letter.

Regards,



Petra Pless, D.Env.

⁸⁷ Washington Department of Ecology, Technical Support Document and Statement of Basis for the Sierra Pacific Industries Aberdeen Cogeneration Facility 2007 Air Operating Permit, issued: July 13, 2007, p. 2; <http://snipurl.com/13mh2v> [www.google.com].

Response to Letter 12: Petra Pless, D.Env, Pless Environmental, Inc.

Response 12-1: The commenter provides an introductory paragraph, summarizes her environmental qualifications, and provides a table of contents outlining the contents of the comment letter. This comment is noted and responses to the specific comments raised in this letter are provided below.

Response 12-2: The commenter states that the DEIR project description is inconsistent with the PSD permit application included as Appendix B to the DEIR. The commenter is referred to Response 10-4.

Response 12-3: The commenter states that the DEIR and the PSD are not consistent with regards to whether the project constitutes a major or a minor modification to the permit under the Clean Air Act. The commenter is referred to Response 11-6.

Response 12-4: The commenter states that the DEIR and the PSD application report are inconsistent with respect to the requirement to “withdraw” emissions credits to mitigate emissions impacts. The commenter is referred to Response 11-7.

Response 12-5: The commenter states that the DEIR fails to analyze construction emissions associated with cut and fill activities. The commenter is referred to Response 11-16.

Response 12-6: The commenter states that the lighting plan, as required under Mitigation Measure 3.1-2, must be prepared before the project can be approved.

Mitigation Measure 3.1-2 includes specific and detailed performance based measures that must be included in the lighting plan and implemented by the project prior to project operations. This mitigation measure is consistent with CEQA Guidelines section 15126.4(a)(1)(B), authorizing measures subject to performance standards, and the requirements of Section 17.84.050 of the Shasta County Zoning Ordinance. This mitigation measure includes requirements that all lighting be directed downward, that light spillage onto adjacent properties not increase above existing conditions, and ongoing monitoring requirements to ensure that the lighting plan is being implemented correctly and effectively. These performance-based mitigation approaches ensure that the implementation of this measure would effectively reduce nighttime lighting nuisance impacts to a less than significant level, as described in detail in Section 3.1 of the DEIR. No changes to the DEIR or mitigation measures are required.

Response 12-7: The commenter states that a Hazardous Materials Business Plan/Spill Prevention Control and Countermeasures Plan must be prepared prior to project approval and must be included in the DEIR for analysis, as required by Mitigation Measure 3.6-1.

As stated by the commenter, MM 3.6-1 requires the preparation of a Hazardous Materials Business Plan/Spill Prevention Control and Countermeasures Plan. This mitigation measure includes detailed performance standards that identify the contents of the plan, monitoring and implementation requirements of the plan. MM 3.6-1 also requires that the plan be submitted and approved prior to the issuance of a Conditional Use Permit for the project. Because this measure includes detailed and specific performance based measures, Shasta County can effectively and correctly determine that the implementation of MM 3.6-1 would reduce potential impacts associated with the accidental release of a common hazardous material would be less than significant. No changes to this mitigation measure or the DEIR are required.

Response 12-8: The commenter states that the DEIR fails to adequately describe biomass fuel sources and whether or not biomass fuel would be sized onsite. The commenter is referred to Response 11-11.

Response 12-9: The commenter states that the DEIR fails to describe fuel handling activities onsite. The commenter is referred to Response 11-11.

Response 12-10: The commenter states that the DEIR fails to address hazards associated with the transport, storage, and use of anhydrous ammonia. The commenter is referred to Response 11-26.

Response 12-11: The commenter states that the DEIR fails to specify whether the project would require and operate an emergency generator. The facility currently has emergency generators onsite, however, no new emergency generators are proposed as part of the project. Additionally, the use of the existing emergency generators located onsite would not increase as a result of project implementation. There would be no change from the existing environmental baseline condition, and no changes to the DEIR are required.

Response 12-12: The commenter states that the DEIR fails to provide an adequate fuel supply analysis. The commenter is referred to Response 11-12.

Response 12-13: The commenter states that the DEIR fails to adequately address wastewater generated by the project. The commenter is referred to Response 11-14.

Response 12-14: The commenter states that the DEIR's analysis of construction emissions is not adequately documented. The commenter is referred to Response 11-15.

Response 12-15: The commenter states that the DEIR fails to account for construction emissions associated with cut and fill activities. The commenter is referred to Response 11-16.

Response 12-16: The commenter states that the proposed mitigation measures to address NOx emissions from construction activities are insufficient. The commenter is referred to Response 11-17.

Response 12-17: The commenter states that the DEIR fails to address operational emissions from all sources. The commenter is referred to Response 11-19.

Response 12-18: The commenter states that the DEIR incorrectly determines net annual emissions associated with the project. The commenter is referred to Response 11-20.

Response 12-19: The commenter states that the DEIR fails to adequately address impacts associated with nitrogen dioxide. The commenter is referred to Response 11-21.

Response 12-20: The commenter states that the DEIR must include a Class I Impact Analysis. The commenter is referred to Response 11-22.

Response 12-21: The commenter states that the combustion of urban wood waste, railroad ties and tires may result in high toxic air emissions that estimated by the DEIR. The commenter is referred to Response 11-23.

Response 12-22: The commenter addresses the greenhouse gas and climate change analysis in the DEIR. It is noted that the greenhouse gas and climate change analysis contained in the Draft EIR was revised and replaced by the GHG and climate change analysis contained in the 2nd Recirculated Draft EIR. The 2nd Recirculated Draft EIR was provided to this commenter during the 45-day public review period. No additional comments were received from this commenter.

Response 12-23: The commenter states that the DEIR fails to address impacts associated with the transport, storage and use of anhydrous ammonia. The commenter is referred to Response 11-26.

Response 12-24: The commenter provides a summary paragraph to the letter that summarizes the points raised throughout the letter by the commenter. Responses to each point raised by the commenter have been provided above.

ADAMS BROADWELL JOSEPH & CARDOZO

DANIEL L. CARDOZO
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
MARC D. JOSEPH
ELIZABETH KLEBANER
RACHAEL E. KOSS
ROBYN C. PURCHIA

A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721

SO. SAN FRANCISCO OFFICE
601 GATEWAY BLVD., SUITE 1000
SO. SAN FRANCISCO, CA 94080
TEL: (650) 589-1660
FAX: (650) 589-5082

OF COUNSEL
THOMAS R. ADAMS
ANN BROADWELL

TEL: (916) 444-8201
FAX: (916) 444-8209
tenslow@adamsbroadwell.com

October 14, 2011

RECEIVED
SHASTA COUNTY

OCT 17 2011

DEPT OF RESOURCE MGMT
PLANNING DIVISION

VIA OVERNIGHT DELIVERY

Lio Salazar
Associate Planner
Planning Division
Shasta County Department of Resource Management
1855 Placer Street, Suite 103
Redding, CA 96001
lsalazar@co.shasta.ca.us

Re: Comments on the Recirculated Draft Environmental Impact Report for the Sierra Pacific Industries Cogeneration Power Project

Dear Mr. Salazar:

We are writing on behalf of Citizens for Responsible Industry to comment on the September 2011 Recirculated Draft Environmental Impact Report ("RDEIR") for the Sierra Pacific Cogeneration Power Project, State Clearinghouse No. 2009072011 ("Project"). The Project consists of the construction and operation of a new cogeneration power facility, including a new fuel shed, boiler building, turbine building, cooling tower, electrostatic precipitator, ash silo and electric substation. The boiler associated with the plant will burn biomass fuel consisting of sawmill wood waste, agricultural surplus, and urban wood waste. The Project applicant is Sierra Pacific Industries. The Project is located on the Sierra Pacific Industries Anderson sawmill site on a 121.39-acre parcel in Shasta County ("County"), immediately northwest of the city limits of Anderson.

A previous Draft Environmental Impact Report ("DEIR") was prepared for the Project in August 2010. The RDEIR revises Chapter 2 (Project Description) and Chapter 3.2.4 (Greenhouse Gases and Climate Change) of the DEIR. The rest of the DEIR remains unchanged for the Project.

2472-004d

printed on recycled paper

13-1

Lio Salazar
Shasta County
October 14, 2011
Page 2

On September 20, 2010, we submitted comments to the County on the original DEIR identifying a number of legal inadequacies and errors in the document. The RDEIR fails to address or correct the vast majority of deficiencies identified in our prior letter on the original DEIR. Moreover, the changes that are included in the RDEIR create new legal deficiencies in the document. Most egregiously, the RDEIR improperly changes the DEIR's threshold of significance for global warming impacts to a new, more limited and narrow threshold of significance in order to avoid having to mitigate the Project's significant emissions of greenhouse gas ("GHG"). By exclusively relying on a narrow threshold of significance for global warming impacts, the RDEIR arbitrarily reverses the DEIR's original finding that the Project's cumulative impact on global warming will be potentially significant.

13-1

The Lead Agency may not approve the Project until the new errors in the RDEIR and the unaddressed errors in the DEIR are corrected, and an adequate document is circulated for public review and comment.

I. INTEREST OF COMMENTATORS

Citizens for Responsible Industry is an unincorporated association of individuals and labor unions that are concerned about public and worker health and safety risks and environmental and public service impacts from industrial development. The members of Citizens for Responsible Industry include Plumbers and Pipefitters Local 228 and International Brotherhood of Electrical Workers Local 340, and their members and their families, and other individuals who live and work in Shasta County.

13-2

The members of Citizens for Responsible Industry also include individuals who build, maintain and operate industrial facilities in Shasta County, such as those proposed by the Project. Individual members of Citizens for Responsible Industry work in industrial facilities and other areas impacted by the health and safety risks from industrial development. Citizens for Responsible Industry members also live in and use areas that will suffer the public service and environmental impacts related to industrial development, including polluted air, water quality degradation, soil contamination, water supply limitations, traffic congestion, destruction of wildlife areas and exposure to hazardous materials.

2472-004d

Lio Salazar
 Shasta County
 October 14, 2011
 Page 3

Public service impacts and inadequately mitigated environmental impacts can also jeopardize future jobs by causing construction moratoriums, eliminating protected species and habitat, using limited fresh water, and putting added stresses on the public service and environmental carrying capacity of the State. This reduces future employment opportunities. In contrast, well-designed projects that ensure adequate public service capacity and minimize environmental harm improve long-term economic prospects.

13-2

Based on these concerns, the members of Citizens for Responsible Industry have a strong interest in ensuring that projects comply with CEQA, as well as all applicable federal, state and local laws and regulations. While Citizens for Responsible Industry recognizes the potential benefits of biomass as a renewable energy source, it is also cognizant of the health and safety and environmental risks associated with the intensive industrial processes involved in the Project.

II. CEQA REQUIRES THE DISCLOSURE OF ALL POTENTIALLY SIGNIFICANT PROJECT IMPACTS AND THE INCORPORATION OF ALL FEASIBLE MITIGATION MEASURES NECESSARY TO REDUCE SUCH IMPACTS TO BELOW A LEVEL OF SIGNIFICANCE

CEQA has two basic purposes. First, CEQA is designed to inform decisionmakers and the public about the potential, significant environmental effects of a project.¹ Except in certain limited circumstances, CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report ("EIR").² An EIR's purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, an EIR "protects not only the environment but also informed self-government."³

13-3

To fulfill this function, the discussion of impacts in an EIR must be detailed, complete, and "reflect a good faith effort at full disclosure."⁴ CEQA requires an EIR to disclose all potential direct and indirect, significant environmental impacts of a

¹ CEQA Guidelines, § 15002, subd. (a)(1).

² See, e.g., Pub. Resources Code, § 21100.

³ *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

⁴ CEQA Guidelines, § 15151; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721-722.
 2472-004d

Lio Salazar
 Shasta County
 October 14, 2011
 Page 4

project.⁵ In addition, an adequate EIR must contain the facts and analysis necessary to support its conclusions.⁶

The second purpose of CEQA is to require public agencies to avoid or reduce environmental damage when possible by requiring appropriate mitigation measures and through the consideration of environmentally superior alternatives.⁷ If an EIR identifies potentially significant impacts, it must then propose and evaluate mitigation measures to minimize these impacts.⁸ CEQA imposes an affirmative obligation on agencies to avoid or reduce environmental harm by adopting feasible project alternatives or mitigation measures.⁹ Without an adequate analysis and description of feasible mitigation measures, it would be impossible for agencies relying upon the EIR to meet this obligation.

13-3

As discussed in detail below and in our September 20, 2010 comments, the DEIR/RDEIR fails to meet either of these two key goals of CEQA.

III. THE RDEIR IMPROPERLY RELIES ON A NARROW THRESHOLD OF SIGNIFICANCE WHICH FAILS TO EVALUATE THE CUMULATIVE IMPACTS OF THE PROJECT'S ACTUAL GREENHOUSE GAS EMISSIONS

The RDEIR is legally deficient because it relies upon an arbitrary and improperly narrow threshold of significance for GHG emissions and fails to evaluate other substantial evidence that the Project's GHG emissions may be cumulatively significant.

13-4

CEQA does not permit a lead agency to ignore evidence of project impacts by formulating artificially narrow thresholds of significance. A lead agency may formulate standards of significance for use in an EIR, but only if a reasonable basis

⁵ Pub. Resources Code, § 21100, subd. (b)(1); CEQA Guidelines, § 15126.2, subd. (a).

⁶ See *Citizens of Goleta Valley v. Board of Supervisors*, supra, 52 Cal.3d at 568.

⁷ CEQA Guidelines, § 15002, subds. (a)(2)-(3); see also, *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors*, supra, 52 Cal.3d at 564; *Laurel Heights Improvement Assn. v. Regents of the University of California*, supra, 47 Cal.3d at 400.

⁸ Pub. Resources Code, §§ 21002.1, subd. (a), 21100, subd. (b)(3).

⁹ Pub. Resources Code, §§ 21002-21002.1.
 2472-004d

Lio Salazar
Shasta County
October 14, 2011
Page 5

exists for using those standards. This requires that the agency make a policy judgment about where the line should be drawn for distinguishing adverse impacts deemed substantial from those that are not deemed substantial.¹⁰ This judgment must, however, be based on scientific information and other substantial evidence.¹¹

Moreover, thresholds of significance only create a presumption of significance or insignificance. They do not relieve a lead agency of its duty to evaluate substantial evidence that may rebut this presumption.¹² A threshold of significance cannot be applied in a way that would foreclose the consideration of other substantial evidence tending to show the environmental effect at issue may be significant.¹³

Here, the RDEIR applies a threshold of significance that looks only at the Project's consistency with the State's Renewable Portfolio Standard ("RPS").¹⁴ The RDEIR's reliance on this threshold of significance violates CEQA because it fails to evaluate whether the Project's GHG emissions may have a significant cumulative impact on global warming even with compliance with the RPS. Accordingly, this threshold is applied in a way that forecloses the consideration of other substantial evidence tending to show the Project's GHG emissions may be significant.

The RDEIR justifies its approach on the grounds that the RPS aims to have 33% of the State's electricity come from renewable energy sources by 2020 and the AB 32 Scoping Plan relies on the RPS to assist in meeting its goal to reduce California GHG emissions to 1990 levels by 2020. Eligibility as a renewable energy facility under the RPS, however, does not necessarily mean that the addition of the Project's new GHG emissions to the existing environment will not have a significant cumulative impact on global warming.

To the contrary, the record contains substantial evidence that the GHG emissions emitted from the Project would, in fact, cumulatively contribute to

¹⁰ CEQA Guidelines, § 15064, subd. (b); *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 493.

¹¹ I Kostka & Zischke, *Practice Under the Cal. Environmental Quality Act* (Cont.Ed.Bar 2009) § 13.2, p. 621.

¹² *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109.

¹³ *Id.*

¹⁴ RDEIR at p. 3.2.4-15.
2472-004d

13-4

Lio Salazar
 Shasta County
 October 14, 2011
 Page 6

significant global warming impacts notwithstanding its eligibility as a renewable energy facility under the RPS. This evidence includes the County's evaluation of the Project's GHG impacts contained in the original Project DEIR, which found that the Project's emissions would be cumulatively significant.¹⁵ Nothing has changed from that original analysis except for the RDEIR's creation of a new flawed threshold of significance that incorrectly (and without foundation) assumes that eligibility as a renewable energy facility under the RPS ensures that the Project's GHG emissions will not be cumulatively significant.

Furthermore, the amount of GHG emissions that will be emitted by the Project vastly exceeds the amount of GHG emissions that is considered significant under any proposed or adopted CEQA threshold. The RDEIR estimates that the Project will result in a gross increase in GHG emissions of 329,848 tons of CO₂ per year and a net increase in GHG emissions of 175,541 tons of CO₂ per year. This net increase is more than 17 times greater than the CEQA threshold of significance of 10,000 metric tons per year of CO₂ adopted by the Bay Area Air Quality Management District.¹⁶

This increase in CO₂ emissions also greatly exceeds all seven proposed CEQA thresholds developed by the California Air Pollution Control Officers Association ("CAPCOA") for evaluation of the significance of GHG emissions.¹⁷ The range of CAPCOA thresholds include a zero emission threshold, a 900 GHG tons/year threshold, a 25,000 GHG tons/year threshold and, as the largest threshold, a 50,000 GHG tons/year threshold.¹⁸ The CAPCOA report provides extensive technical justification for each of the GHG significance thresholds it identifies within these programmatic approaches.¹⁹ The Project's net increase of GHG emissions of more than 175,541 tons per year far exceeds even the most generous of thresholds evaluated by CAPCOA.

By focusing solely on consistency with the RPS and the GHG Scoping Plan while failing to evaluate the Project's potential impacts from its actual emissions, the RDEIR violates Section 15064.4 and Appendix G of the CEQA guidelines.

¹⁵ DEIR at p. 3.2-72.

¹⁶ Bay Area Air Quality Management District, CEQA Air Quality Guidelines (June 2010) at p. 2-2.

¹⁷ CAPCOA, CEQA & Climate Change (January 2008) at p. 49.

¹⁸ *Id.*

¹⁹ *Id.* at pp. 52-57 (summary of the substantial evidence supporting the different thresholds).
 2472-004d

13-4

Lio Salazar
Shasta County
October 14, 2011
Page 7

Section 15064.4 states that, when assessing the significance of impacts from a project's GHG emissions, a lead agency should consider:

- (1) "The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;"
- (2) "Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;" and
- (3) "The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. *Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.*" (Emphasis provided.)

13-4

Similarly, Appendix G requires a CEQA analysis of climate change-related impacts to consider whether the Project will: (1) "[g]enerate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment"; and (2) "[c]onflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

In other words, it is not sufficient under CEQA to merely evaluate a project's consistency with applicable GHG reduction plans, policies or regulations. An EIR must also evaluate whether the actual increase in GHG emissions from the Project is cumulatively significant notwithstanding compliance with the adopted regulations or requirements. The RDEIR's GHG evaluation, however, only looks at the secondary question regarding consistency with applicable plans, policies or regulations and fails to look at all at the primary question of whether the Project's emissions are large enough in scope to result in cumulative impacts.

The RDEIR's reliance on the Project's consistency with the 33% RPS Standard is also improper because the RPS does not contain any provisions that would actually reduce or mitigate the Project's incremental contribution of GHG

2472-004d

Lio Salazar
Shasta County
October 14, 2011
Page 8

emissions. Section 15064.4, subdivision (3), states that compliance with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions is only relevant to the determination of significance for an individual project if the plan that is relied upon will actually "reduce or mitigate the *project's* incremental contribution of greenhouse gas emissions." (Emphasis provided.)

The RPS, however, only sets forth a desired percentage of electricity production that will be derived from renewable energy sources. It does not contain any provisions to reduce or mitigate the incremental contribution of greenhouse gas emissions of this Project (or any other biomass project).

A renewable energy project under the RPS is not required to be carbon-neutral or to emit less than significant amounts of GHG gases. Renewable Energy merely means energy from sources that constantly renew themselves or that are regarded as practically inexhaustible.²⁰ Renewable energy includes energy derived from solar, wind, geothermal, hydroelectric, wood, biomass, tidal power, sea currents and ocean thermal gradients. (*Id.*) Some of these energy sources result in significant GHG emissions, while others have no, or very little, GHG emissions. Accordingly, it is improper to rely simply on compliance with the RPS for a determination that the Project's GHG emissions will not be significant.

Furthermore, the California Air Resource Board ("CARB") expressly recognizes in its own AB 32 regulations that biomass power facilities can emit substantial amounts of GHG gases, while other renewable energy power plants do not emit any significant amount of GHG. CARB GHG regulations require electrical generating facilities and co-generation facilities to comply with AB 32 reporting requirements if they are greater than 1 MW and emit more than 2,500 metric tons of CO₂ a year.²¹ The only electrical generating or co-generation facilities that are exempted from this requirement are those solely powered by nuclear, hydroelectric, wind, or solar energy.²² Notably, biomass power facilities are not exempted from this requirement since, unlike the exempted facilities, they produce significant amounts of GHG. CARB expressly recognizes the GHG-emitting potential of biomass power facilities by setting forth requirements for calculating CO₂

²⁰ Cal. Code Regs., tit. 17, § 95102, subd. (a)(170).

²¹ Cal. Code Regs., tit. 17, § 95101.

²² *Id.*

2472-004d

13-4

Lio Salazar
Shasta County
October 14, 2011
Page 9

emissions specifically tailored for biomass power facilities.²³ These specific requirements contradict the RDEIR's claim that biomass facilities are not considered potentially significant sources of GHG emissions under CARB's AB 32 regulatory scheme.

Finally, the RDEIR's reliance on the RPS standards as a threshold of significance violates CEQA because the RPS standards were not adopted for a CEQA-specific purpose and do not claim to establish a threshold for determining the potential significance of GHG emissions. In the case *Communities for a Better Environment v. Cal. Resources Agency*, the Court held that it is a violation of CEQA to rely on regulatory thresholds that were not adopted for CEQA-specific purposes.²⁴ In the case at hand, compliance with the RPS has not been established as a CEQA "threshold of significance" under AB 32 or any other adopted standards. Moreover, nowhere in AB 32 or the RPS is it stated that compliance with the RPS will be the only mitigation required or permitted under CEQA to reduce GHG emissions from renewable power plant projects to below a level of significance. Because the RPS does not claim to, and is not intended to, establish a threshold for the determination of significance under CEQA, the County's reliance on compliance with the RPS is in error.

13-4

IV. THE RDEIR MISREPRESENTS THE PROJECT'S POTENTIAL NET EMISSIONS OF GHG

The RDEIR is also inadequate because it misrepresents the Project's potential net annual emissions of GHG. The RDEIR estimates that the Project will result in a gross increase in GHG emissions of 329,848 tons of CO₂ per year. However, it then adjusts this amount to a net increase in GHG emissions of 175,541 tons of CO₂ per year by subtracting the GHG emissions that would be avoided by the reduced use of the existing 4 MW natural gas cogeneration facility and by the use of certain biofuel sources that would otherwise create GHG emissions through decomposition or burning.

13-5

²³ Cal. Code Regs., tit. 17, § 95111.1, subd. (c)(6).

²⁴ *Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 112-113.
2472-004d

Lio Salazar
 Shasta County
 October 14, 2011
 Page 10

The RDEIR states that: (1) the decomposition of urban wood waste would result in 10,586 metric tons per year of CO2 if not consumed by the biomass power plant; (2) the burning of agricultural woody waste would result in 35,294 metric tons per year of CO2 if not consumed by the biomass power plant; and (3) the burning of forest thinning and slash would result in 62,246 metric tons per year of CO2 if not consumed by the biomass power plant. Assuming these calculations are correct, the use of these sources of biofuel would create an offset of GHG emissions totaling 108,126 metric tons per year of CO2.

The RDEIR errs, however, in assuming that the Project would actually use the estimated amounts of urban wood waste, agricultural woody waste and forest thinnings and slash as biofuel each year. To the contrary, elsewhere in the RDEIR it states that sawmill residuals may account for up to 100% of the fuel mixture for the biomass power plant, depending on market conditions.²⁵ Under such a scenario, no offset of GHG emissions would occur from the use of urban wood waste, agricultural woody waste or forest thinnings and slash. Because the Project may use up to 100% sawmill residuals as biofuel, the Project has the potential to emit 108,126 net tons per year of CO2 more than disclosed in the RDEIR (for a total net of 283,667 tons of CO2 per year). The RDEIR must be revised and recirculated to disclose that the Project's GHG emissions may be substantially higher than stated.

13-5

V. THE DEIR/RDEIR ALSO REMAINS LEGALLY INADEQUATE FOR THE REASONS PRESENTED IN THE COALITION'S SEPTEMBER 20, 2010 COMMENT LETTER ON THE DEIR

13-6

In addition to the deficiencies of the RDEIR discussed above, the DEIR/RDEIR remains legally inadequate due to the following deficiencies discussed in detail in the Coalition's September 20, 2010 comment letter:

- Inconsistencies between the DEIR and the Project's application for Authority to Construct/Permit to Operate submitted to the Shasta County Air Quality Management District;
- Failure to adequately disclose, evaluate and mitigate the Project's construction and operational air quality impacts;

13-7

13-8

²⁵ RDEIR at p. 2.0-9; see also RDEIR at p. 2.0-5.
 2472-004d

Lio Salazar
 Shasta County
 October 14, 2011
 Page 11

- Failure to disclose, evaluate and mitigate potential hazardous material impacts from the Project's use of anhydrous ammonia; and
- Failure to adequately evaluate and mitigate railroad crossing safety impacts.

13-9

13-10

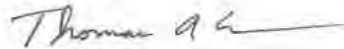
The DEIR/RDEIR must be withdrawn and revised to address these errors and deficiencies. Because of the substantial omissions in the information disclosed in the DEIR/RDEIR, revisions necessary to comply with CEQA will be, by definition, significant. Because these revisions are significant, a second revised Draft EIR will need to be recirculated for additional public comment.²⁶

13-11

VI. CONCLUSION

Citizens for Responsible Industry and its individual members urge the County to comply with its obligations under CEQA and ensure that the Project's impacts are fully disclosed, evaluated and mitigated before the Project is allowed to proceed. We thank the County of Shasta for providing the opportunity to comment on this matter.

Sincerely,



Thomas A. Enslow

TAE:cnh
 Attachments

²⁶ Pub. Resources Code, § 21091.1; 14 Cal. Code Regs. ("CEQA Guidelines") § 15088.5; *Laurel Heights Improvement Assn. v. Regents of Univ. of Cal.*, *supra*, 6 Cal.4th at 1129. 2472-004d

Response to Letter 13: Thomas A. Enslow, Adams Broadwell Joseph and Cardozo

Response 13-1: The commenter states that they are writing on behalf of Citizens for Responsible Industry, provides a summary of the project, states that they submitted a comment letter on the Draft EIR on September 20, 2010, and states that the Recirculated Draft EIR fails to address comments previously submitted on the DEIR. This comment is noted.

The commenter also states that the Recirculated Draft EIR changed the threshold of significance for GHGs and relies on an inappropriately narrow threshold of significance to address GHG impacts and their significance. This comment is also noted.

Following the public review period for the Recirculated Draft EIR, the GHG and climate change analysis was subsequently revised, and a new GHG and climate change analysis was included in the 2nd Recirculated Draft EIR. The 2nd Recirculated Draft EIR was provided to the commenter during the 45-day review period, and the commenter submitted new comments related to this topic. The 2nd Recirculated Draft EIR focused exclusively on GHGs and climate change. The commenter was provided a copy of the 2nd Recirculated Draft EIR during the 45-day public review period, and was invited to submit new comments related to the revised GHG analysis contained in the 2nd Recirculated Draft EIR.

Full responses to the GHG and climate change issues raised by the commenter on the 2nd Recirculated Draft EIR are provided following Letter 17, which was submitted by the commenter on April 2, 2012. Since the GHG and climate change analysis included in the 2nd Recirculated Draft EIR replaces the GHG and climate change analysis included in the Draft EIR and Recirculated Draft EIR, GHG and climate change issues raised in letters submitted on the Draft EIR and Recirculated Draft EIR are not responded to in this Final EIR.

Response 13-2: The commenter provides an overview of the interests of the organization Citizens for Responsible Industry. This comment is noted.

Response 13-3: The commenter provides an overview of the purposes of CEQA, including the need to inform decision makers and the public of the potential significant environmental impacts of a project and to identify mitigation measures to reduce or eliminate significant environmental impacts. This comment is noted, and details responses to the commenter's concerns over the analysis in the Recirculated DEIR are provided in the responses below.

Response 13-4: The commenter states that the Recirculated DEIR applies an inappropriate threshold of significance for the GHG analysis.

The commenter is referred to Response 13-1.

Response 13-5: The commenter states that the Recirculated DEIR misrepresents the potential net emissions of GHGs associated with the project. The commenter specifically references the description of fuel sources for the proposed project.

The commenter is referred to Response 13-1.

Response 13-6: The commenter states that the DEIR remains inadequate for reasons stated in the commenter's September 20, 2011 comment letter on the Draft EIR. This comment is noted. Full and detailed responses to the issues raised by the commenter in the September 20, 2010 letter are provided following Letter 11, above.

Response 13-7: The commenter cites inconsistencies between the DEIR and the PSD permit application, raised in the commenter's September 20, 2010 letter on the DEIR. The commenter is referred to Responses 11-5 and 11-6.

Response 13-8: The commenter states that the EIR fails to disclose and analyze the project's construction and operational air quality impacts, as raised by the commenter in the September 20, 2010 letter on the DEIR. The commenter is referred to Responses 11-12 and 11-15 through 11-23.

Response 13-9: The commenter states that the EIR fails to evaluate and mitigate impacts associated with anhydrous ammonia, as raised in the commenter's September 20, 2010 letter on the DEIR. The commenter is referred to Response 11-26.

Response 13-10: The commenter states that the EIR fails to evaluate and mitigate impacts associated with rail crossings, as raised in the commenter's September 20, 2010 letter on the DEIR. The commenter is referred to Response 11-27.

Response 13-11: The commenter urges the County to ensure that all project impacts are adequately disclosed under CEQA, and thanks the County for the opportunity to comment on the project's EIR. This comment is noted. All issues raised by the commenter have been adequately addressed in this Final EIR.



CENTER for BIOLOGICAL DIVERSITY

October 14, 2011

Via Federal Express

Lio Salazar, Associate Planner
Shasta County Department of Resource Management
Planning Department
1855 Placer Street, Suite 103
Redding, CA 96001

RECEIVED
SHASTA COUNTY

OCT 17 2011

**Re: Sierra Pacific Industries Cogeneration Power Project
Recirculated Draft Environmental Impact Report**

DEPT OF RESOURCE MGMT
PLANNING DIVISION

Dear Mr. Salazar:

The Center for Biological Diversity (the "Center") submits the following comments concerning the Recirculated Draft Environmental Impact Report ("RDEIR") prepared for Shasta County (the "County") for a 31-MW biomass-fired power plant and associated use permit (collectively the "Project") proposed by Sierra Pacific Industries ("SPI"). The Center is a non-profit environmental organization dedicated to the protection of imperiled species, their habitats, and the environment through science, policy, and environmental law. The Center has more than 320,000 members and online activists throughout the United States. The goal of the Center's Climate Law Institute is to reduce U.S. greenhouse gas emissions and other air pollution to protect biological diversity, the environment, and public health. Specific objectives include securing protections for species threatened by the impacts of global warming, ensuring compliance with applicable law in order to reduce greenhouse gas emissions and other air pollution, and educating and mobilizing the public on global warming and air quality issues.

14-1

The Center previously submitted comments, dated September 20, 2010, regarding the Draft Environmental Impact Report ("DEIR") prepared for this Project. Those comments, and the exhibits attached thereto, remain relevant to the RDEIR and are hereby incorporated by reference as if fully set forth herein. We also note that although the Notice of Availability for the RDEIR attempts to limit public comment to the few sections of the DEIR that the County chose to recirculate, changes to the Project Description and other aspects of the DEIR render such a limitation inappropriate. These comments accordingly address sections of the previously circulated DEIR as well as the newly recirculated sections.

The EIR for this Project, as modified by the RDEIR, remains inadequate under CEQA. The revised Project Description fails to describe key components of the Project completely or consistently, rendering meaningful analysis of and comment on the Project's environmental impacts impossible. The recirculated greenhouse gas section

14-2

Arizona • California • Nevada • New Mexico • Alaska • Oregon • Montana • Illinois • Minnesota • Vermont • Washington, DC

Kevin P. Bundy • Senior Attorney • 351 California St., Suite 600 • San Francisco, CA 94104
Phone: 415-436-9682 x313 • Fax: 415-436-9683 • kbundy@biologicaldiversity.org

Mr. Lio Salazar

Re: Sierra Pacific Industries Cogeneration Power Project Recirculated Draft EIR
October 14, 2011

further violates CEQA by using both an improper baseline and an unlawful threshold of significance for evaluation of environmental impacts. The RDEIR's attempt to quantify the Project's greenhouse gas emissions, moreover, is inaccurate and misleading due to unsupported assumptions, unexplained calculations, and internal contradictions. Finally, the RDEIR fails to include updated discussions of environmental impacts and potentially feasible alternatives in light of changes to the Project Description and other new information that has come to light since circulation of the DEIR. As a result of these numerous flaws, the County cannot lawfully approve the Project on the basis of this EIR.

14-2

I. The Revised Project Description Fails to Comply with CEQA.

A. The Project Description Offers an Incomplete, Vague, and Shifting Account of the Project that Renders Meaningful Analysis and Comment Impossible.

An accurate, stable, and finite project description is the "*sine qua non* of an informative and legally sufficient EIR." *County of Inyo v. City of Los Angeles*, 71 Cal. App. 3d 185, 193 (1977). Without an accurate description, decision-makers and the public cannot weigh a project's environmental costs and benefits, meaningfully consider mitigation measures, or evaluate alternatives. *See id.* at 192-93; *see also* CEQA Guidelines § 15124 (requiring detail sufficient for "evaluation and review of the [project's] environmental impact"). CEQA requires that a project description provide sufficient facts "from which to evaluate the pros and cons" of the project; an EIR in which "important ramifications" of the project remain "hidden from view" throughout the approval process "frustrates one of the core goals of CEQA." *Santiago County Water District v. County of Orange*, 118 Cal. App. 3d 818, 829 (1981). An unstable, shifting, or curtailed project description sends conflicting signals to decision-makers and the public, undermining CEQA's central informational purpose. *San Joaquin Raptor Rescue Center v. County of Merced*, 149 Cal. App. 4th 645, 655-56 (2007); *see also Communities for a Better Environment v. City of Richmond*, 184 Cal. App. 4th 70, 84-85 (2010).

14-3

The RDEIR's account of fuel sources for the Project is unstable, vague, and inconsistent. First, the Project Description states that 100% of the facility's fuel *could* be sourced from mill waste from the Anderson and Shasta Lake sawmills. RDEIR at 2.0-5.¹ However, the document also lists a wide range of "additional and alternative fuel sources" that might be used in the facility, including "in-woods" fuels (such as thinned

¹ The RDEIR is inconsistent in its account of how much wood waste is produced each year at the Anderson facility. The Project Description (showing changes from the DEIR) states that the mill produces 160,000 BDT of waste per year and concludes that the new facility "has the capability" to utilize "one hundred percent" of this waste as biomass fuel. RDEIR at 2.0-5. The chart of "Biomass Fuel Types and Amounts" in Appendix B to the RDEIR, however, states that the new facility would use only 140,000 BDT of mill waste per year; this chart cites "Project Description" as a source. RDEIR App. B (table entitled "Biomass Fuel Types and Amounts"). Such inconsistencies interfere with meaningful evaluation of the Project's impacts.

Mr. Lio Salazar
 Re: Sierra Pacific Industries Cogeneration Power Project Recirculated Draft EIR
 October 14, 2011

whole trees and logging slash), urban wood, and agricultural wood waste. RDEIR at 2.0-5 to 2.0-7. This, in turn, is followed by a statement that “[a]ll fuels . . . for the proposed Cogen Facility would be sourced from any location that can provide appropriate fuel at an economically feasible cost.” RDEIR at 2.0-7; *see also id.* at 2.0-9 (“Market conditions will ultimately determine the fuel mix used in the proposed Cogen Facility at any given time”).

The RDEIR thus fails to provide *any* stable, factually based account of the fuel mix for the Project. By the same token, the Project Description also fails to provide any factual basis for the specific fuel mix assumptions used in quantifying the Project’s greenhouse gas emissions.² *See* RDEIR App. B (chart entitled “Biomass Fuel Types and Amounts”).

The RDEIR’s failure to provide a factually based description of the fuel mix is contrary to CEQA. As a threshold matter, quantitative emissions estimates must be supported by substantial evidence. CEQA Guidelines § 15064.4(a)(1). The RDEIR, by failing to provide a stable and factual description of the fuel mix, also fails to provide substantial evidence to support emissions calculations. Put another way, because the fuel mix assumptions used in Appendix B assign different quantities of “avoided” emissions to differently sourced fuels, changes in the overall fuel mix in response to “market conditions” necessarily affect the document’s conclusions regarding the Project’s “net” greenhouse gas emissions. This effort to preserve operational flexibility at the expense of disclosure—and ultimately at the expense of air quality and the climate—renders meaningful analysis of environmental impacts impossible and thus is contrary to CEQA.

14-3

The RDEIR’s failure to provide a stable account of the Project’s fuel mix also interferes with analysis of the Project’s potential impacts to forest and biological resources. Without any factually based account of the proportion of “in-woods fuels” the facility is expected to burn, it is impossible to determine the magnitude of potential changes in timberland management resulting from increased demand for, and diversion of forest materials to, biomass combustion.

Finally, the Project Description fails to provide even a basic description of the proposed boiler and associated technology. RDEIR at 2.0-3. Once again, the RDEIR’s inadequate Project Description fails to provide the information necessary to permit meaningful assessment of and comment on the Project’s environmental impacts.

14-4

B. Changes to the Project Description Require Revision and Recirculation of Other EIR Sections.

The RDEIR changed the Project Description in ways that should be reflected in the overall document’s analysis of all of the Project’s environmental impacts, not just its

14-5

² As discussed below, the calculations provided in Appendix B are rife with unsupported and contradictory assumptions governing “avoided” emissions associated with burning various feedstocks.

Mr. Lio Salazar
 Re: Sierra Pacific Industries Cogeneration Power Project Recirculated Draft EIR
 October 14, 2011

greenhouse gas emissions. Yet the County chose not to recirculate the entire document, and has improperly attempted to limit public comment only to the recirculated sections. This was error.

For example, the RDEIR fails to disclose or evaluate the Project's potential direct and indirect effects on timber management and forest resources. This analysis was also completely absent from the DEIR's discussion of potential effects on biological resources. The RDEIR now states that there will be no such effect because SPI has to follow long-term plans for maintaining maximum sustained production of timber products. RDEIR at 2.0-7 to 2.0-8. In other contexts, however, SPI has specifically argued that such long-term plans are *not* legally binding, contain "voluntary" elements, and can be rescinded at any time.³ While the merits of this view may be debatable, it is clear that SPI does *not* necessarily view its long-term plans for maximum sustained production as constraining timber management in the manner described by the RDEIR. Moreover, the RDEIR makes clear that the Project *will* affect timber management, at least to the degree that forest thinnings and slash "typically" left in the woods instead would be transported to the biomass facility and burned. See RDEIR at 2.0-6, 2.0-8. The Project may also have indirect effects by burning mill waste currently "trucked to other markets (e.g., wood chips to pulp mills)." RDEIR at 2.0-5. It is reasonably foreseeable that demand for this material would simply be shifted to other suppliers, with attendant environmental impacts (such as changes in forest management necessary to meet demand, increased greenhouse gas emissions from combusting material that otherwise would not be burned, and changes in transportation of wood product feedstocks).⁴ The RDEIR fails to consider the potential impacts of these changes.

14-5

SPI's intent to use fuels sourced from public lands is also disclosed for the first time in this RDEIR. RDEIR at 2.0-4. The document states that the Project will not result in "any additional harvesting of trees for the sole purpose of providing biomass fuel on any of the timberlands operated by Sierra Pacific Industries," RDEIR at 2.0-7, but says nothing about a similar intent with respect to harvesting on public lands. Nor does the document address whether obtaining fuels from public lands would change timber management or affect typical treatment methods for forest residuals. To be adequate under CEQA, an EIR for this Project must consider all reasonably foreseeable direct and indirect impacts of sourcing fuels from forests on public lands. This EIR fails to do so.

14-6

³ See comment letters from SPI, California Forestry Association, and California Forestry Association et al. to Climate Action Reserve (attached as Ex. 1).

⁴ Cf., e.g., Cindy MacDonald, *Biomass, Bioenergy, Bio-mess*, CANADA PULP & PAPER 16 (May/June 2011) (attached as Ex. 2); Juliet Eilperin, *Biomass Subsidy has Hidden Cost; MORE HARM THAN GOOD? Composite Wood Makers See Unintended Impact*, WASHINGTON POST A3 (Jan. 10, 2010) (attached as Ex. 3); Letter from Thomas A. Julia, Composite Panel Ass'n, to Brandon Willis, USDA (Nov. 18, 2009) (noting concern that subsidy for bioenergy feedstocks will "divert materials currently sold and used for the production of other products, particularly those such as composite wood products that sequester carbon rather than releasing it through combustion") (attached as Ex. 4).

Mr. Lio Salazar

Re: Sierra Pacific Industries Cogeneration Power Project Recirculated Draft EIR
October 14, 2011

II. The RDEIR Fails to Adequately Disclose and Evaluate the Significance of the Project's Greenhouse Gas Emissions.

According to calculations in the RDEIR, combustion of biomass fuels under the Project will emit nearly 330,000 MT/year of greenhouse gases (measured as CO₂e); even accounting for “avoided emissions,” which the RDEIR overestimates through the use of contradictory and unsupported assumptions, the Project would still emit about 175,000 MT/year CO₂e. RDEIR at 3.2.4-20. Emissions of this magnitude are significant by any reasonable measure, yet the RDEIR fails to treat them as such. The RDEIR reaches this conclusion by completely ignoring the Project’s actual greenhouse gas emissions, and by instead employing an impermissible “baseline” and an improper threshold of significance to dismiss those emissions as insignificant. The RDEIR’s calculations of greenhouse gas emissions are unsupported, contradictory, and inaccurate in any event. The RDEIR’s conclusions thus lack factual and legal support.

14-7

A. The RDEIR Uses an Unlawful Threshold of Significance and an Improper “Baseline” in Evaluating the Project’s Climate Impacts.

Although the greenhouse gas section of the RDEIR discusses a number of different regulatory programs and at least attempts to quantify the Project’s emissions, it nonetheless concludes that the Project’s greenhouse gas emissions are less than significant based solely on generic assertions that biomass energy generation is consistent with the AB 32 Scoping Plan and California’s Renewable Portfolio Standard (“RPS”). These assertions, and the RDEIR’s conclusions regarding significance, are without legal or factual foundation.

CEQA does not permit the County to evaluate the Project’s impacts solely by comparison with AB 32’s GHG reduction goals or the goals of the RPS program. See RDEIR at 3.2.4-15, 21, 23. Rather, CEQA requires evaluation of the Project’s effect on the *physical environment*, not just its consistency with a plan or a regulatory framework. The California courts—including the Supreme Court—have made this principle abundantly clear. See, e.g., *Communities for a Better Env’t v. S. Coast Air Quality Mgmt. Dist.*, 48 Cal. 4th 310 (2010); *Woodward Park Homeowners Ass’n v. City of Fresno*, 150 Cal. App. 4th 683 (2007); *Env’t. Planning & Info. Council v. County of El Dorado*, 131 Cal. App. 3d 350 (1982). The greenhouse gas reduction goals in the AB 32 Scoping Plan are a *projection* of planned reductions, based on business-as-usual emissions, that the state will strive to achieve by 2020. RDEIR at 3.2.4-21. The numerous independent goals of the RPS program—among which greenhouse gas reduction is only one, see Public Utilities Code section 399.11(b)—also essentially amount to a plan or projection. A comparison with the Scoping Plan or the RPS alone simply cannot provide what CEQA requires: an evaluation of the Project’s impacts on the existing physical environment. Insofar as the RDEIR’s significance conclusion is based entirely on an evaluation of consistency with hypothetical plans and projections, and not on the Project’s impact in light of existing physical conditions, it falls short of CEQA’s requirements.

14-8

Mr. Lio Salazar

Re: Sierra Pacific Industries Cogeneration Power Project Recirculated Draft EIR

October 14, 2011

The RDEIR's approach also conflicts with the CEQA Guidelines. In assessing the significance of a project's greenhouse gas emissions, the Guidelines permit a lead agency to "consider . . . the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions" *only* where such a plan actually "reduce[s] or mitigate[s] the project's incremental contribution of greenhouse gas emissions." CEQA Guidelines § 15064.4(b)(3). Neither the AB 32 Scoping Plan nor the RPS satisfies these requirements. The AB 32 Scoping Plan is not a "regulation or requirement"; it is, rather, an overall plan that must be implemented through other regulatory programs. One of those programs, the cap and trade regulation proposed for final adoption by the Air Resources Board later this week, specifically *exempts* biomass facilities from compliance obligations, and thus does nothing to "reduce or mitigate" emissions from these facilities.⁵ The RPS similarly does nothing to "reduce or mitigate" greenhouse gas emissions at the *project* level, as the CEQA Guidelines require. The CEQA Guidelines thus do not permit evaluation of the Project's effects by way of its consistency with either of these policies.

A threshold of significance based on compliance with the RPS, RDEIR at 3.2.4-15, is meaningless in any event. The Project is a "renewable" facility by definition and cannot conflict with the RPS; indeed, the RDEIR takes pains to point out that in order to qualify for the RPS, all a facility has to do is burn "biomass" as broadly defined in Energy Commission policies. RDEIR at 3.2.4-22. The RDEIR's conclusion that the Project complies with the RPS thus adds absolutely nothing to the public's or decision-makers' understanding of its actual environmental impacts. Indeed, it is critically important for the public and decision-makers to know that among the various types of projects that qualify for the RPS—including wind, solar, and hydroelectric electricity generation—biomass burning is by far one of the most carbon-intensive. It is both inconsistent and fundamentally misleading for the RDEIR to conclude on one hand that the Project will *increase* greenhouse gas emissions by 175,000 to 330,000 MT/year CO₂e, and yet conclude on the other that RPS eligibility alone means that the Project will *reduce* greenhouse gas emissions. Again, CEQA demands that the significance of an impact be evaluated in relation to the real, physical world, not simply in relation to a policy or plan.

In any event, a project's apparent consistency with an adopted threshold of significance does not relieve a lead agency of its independent responsibility to assess the significance of the project's impacts. *Protect the Historic Amador Waterways v. Amador Water Agency*, 116 Cal. App. 4th 1099 (2004). Even if the RDEIR were correct that the Project complies with AB 32 and the RPS, this would not demonstrate that its greenhouse gas emissions are less than significant. The goal of AB 32 is to reduce California greenhouse gas emissions to 1990 levels by 2020. Health & Saf. Code § 38550. Recent

⁵ See proposed 17 Cal. Code Regs. § 95852.2(a) (2d 15-day notice Sept. 2011), available at <http://www.arb.ca.gov/regact/2010/capandtrade10/capandtrade10.htm> (last visited October 12, 2011).

Mr. Lio Salazar

Re: Sierra Pacific Industries Cogeneration Power Project Recirculated Draft EIR
October 14, 2011

science, however, indicates that far steeper reductions are necessary to avoid the most significant impacts of climate change. Even to stabilize atmospheric CO₂ concentrations at 450 ppm and limit global average temperature increases to 2°C—a level at which devastating effects may still occur⁶—industrialized countries will have to reduce emissions by 25-40% below 1990 levels by 2020.⁷ Many scientists believe that avoiding the worst impacts of climate change will require reducing the concentration of CO₂ in the atmosphere to 350 ppm or below, which will require even steeper and more rapid reductions.⁸ The EIR must analyze the cumulative significance of the Project's emissions in light of reductions needed to avoid contributing to these physical impacts, not just measure them against the AB 32 Scoping Plan and the state's renewable generation goals.

As a result of its misguided focus on policies and plans, the RDEIR fails to conduct any evaluation of the Project's actual mass emissions. See RDEIR at 3.2.4-14. Contrary to the RDEIR's assertions, a mass emissions threshold is the most defensible and meaningful method of evaluating the Project's greenhouse gas impacts. The timing and severity of climate change impacts ultimately depend on long-term atmospheric concentrations of greenhouse gases. Mass emissions are directly relevant—indeed, are essential—to any analysis of an individual project's contribution to these impacts.⁹ The vast majority of state and federal climate policies and regulations—including, for example, EPA's monitoring and reporting programs and its recent rulemakings regarding PSD and Title V permitting—use mass emissions thresholds.¹⁰ The Project's greenhouse gas emissions on a mass basis far exceed thresholds of significance proposed by several

14-8

⁶ Recognizing this fact, scientists and international climate negotiators have begun to explore pathways for limiting average global temperature increases to less than 1.5°C. See, e.g., M. DEN ELZEN, ET AL., UNITED NATIONS ENVIRONMENT PROGRAMME, THE EMISSIONS GAP REPORT (NOV. 2010) (attached as Ex. 5).

⁷ M. den Elzen & N. Höhne, *Reductions of greenhouse gas emissions in Annex I and non-Annex I countries for meeting concentration stabilisation targets*, 91 CLIMATIC CHANGE 249 (2008) (attached as Ex. 6).

⁸ J. Hansen, et al., *Target Atmospheric CO₂: Where Should Humanity Aim?*, 2 OPEN ATMOS. SCI. J. 217 (2008) (attached as Ex. 7).

⁹ Indeed, current international climate change mitigation efforts are focused on establishing a global "carbon budget" and defining the emissions reduction trajectories necessary to limit the worst environmental impacts. See, e.g., NIKLAS HÖHNE AND SARA MOLTSMANN, *SHARING THE EFFORT UNDER A GLOBAL CARBON BUDGET* (WWF and Ecofys 2009) (attached as Ex. 8). A mass-based significance threshold is essential to evaluation of a project's impacts in the context of carbon budget limitations.

¹⁰ See Mandatory Reporting of Greenhouse Gases; Final Rule, 74 Fed. Reg. 56,260 (Oct. 30, 2009) (imposing reporting requirements on emitters of more than 25,000 tons per year CO₂e); Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule; Final Rule, 75 Fed. Reg. 31,514 (June 30, 2010) (requiring PSD and Title V permits for sources emitting more than 75,000 or 100,000 tons per year CO₂e).

Mr. Lio Salazar
 Re: Sierra Pacific Industries Cogeneration Power Project Recirculated Draft EIR
 October 14, 2011

agencies for use in the CEQA context.¹¹ The RDEIR's conclusion that these emissions are less than significant lacks any legal basis.

B. The RDEIR Fails to Account Accurately for the Project's Greenhouse Gas Emissions.

The RDEIR attempts to quantify the Project's "net" greenhouse gas emissions using a number of assumptions regarding "avoided" emissions from the "alternative fates" of various biomass fuels. As previously discussed, accurate calculations are impossible due to the RDEIR's failure to provide a stable account of the fuel mix. The RDEIR's assumptions regarding "avoided" emissions, moreover, are unsupported and in some cases incomprehensible. As a result, the RDEIR's conclusions regarding the quantity of greenhouse gases that the Project will emit, and its greenhouse gas "efficiency" relative to other projects, are without any factual basis.

First and foremost, the RDEIR's account of "avoided" emissions from the "alternative fates" of fuels derived from slash and forest thinning is both misleading and internally contradictory. The Project Description states that forest thinnings are "typically" lopped and scattered, and only "occasionally" burned. RDEIR at 2.0-6. Slash is "typically" burned, but also "occasionally masticated and spread back in the forest." RDEIR at 2.0-6. Yet the RDEIR attempts to take credit for "avoided emissions" from both types of fuels as if they were *all* typically burned at a very high 95% combustion efficiency. RDEIR App. B (table entitled "GHG Emissions from Forest Thinnings and Harvest Slash Burning (Current Fate)"). This contradicts the Project Description and serves to mislead readers of the document.

Even for forest materials that would otherwise be burned in the open, the 95% combustion efficiency assumption is entirely unsupported. This assumption is based on nothing more than a conclusory statement that "forest contractors will burn off as much piled forest thinning and slash woody wastes as possible." *Id.* This assumption has no

¹¹ See, e.g., Cal. Air Pollution Control Officers Ass'n, *CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act* (Jan. 2008) at 42-57 (evaluating thresholds of zero, 900, 25,000, and 50,000 metric tons per year) (attached as Ex. 9); Cal. Air Res. Bd., Preliminary Draft Staff Proposal, *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases Under the California Environmental Quality Act* (Oct. 24, 2008) at 10 (attached as Ex. 10) (recommending a presumptive threshold of significance of 7,000 metric tons of CO₂ equivalent per year for industrial projects); South Coast Air Quality Mgmt. Dist., *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (Oct. 2008) at 3-18 (Table 3-4) (attached as Ex. 11) (adopting screening threshold of 10,000 metric tons of CO₂ equivalent for industrial projects); Bay Area Air Quality Mgmt. Dist., *California Environmental Quality Act Guidelines Update: Proposed Thresholds of Significance* (Dec. 7, 2009) at 7 (attached as Ex. 12) (adopting threshold of 10,000 metric tons of CO₂ equivalent for stationary sources).

Mr. Lio Salazar

Re: Sierra Pacific Industries Cogeneration Power Project Recirculated Draft EIR
October 14, 2011

basis in fact; indeed, actual studies of forest slash combustion have revealed far lower combustion rates. According to Forest Service research, fuel consumption in slash piles can range as low as 75%.¹² Combustion factors for broadcast understory burning of coarse woody debris can be as low as 60%.¹³

14-9

The RDEIR makes the same conclusory 95% combustion assumption for agricultural woody waste. RDEIR App. B (table entitled "GHG Emissions from Agricultural Woody Waste Burning (Current Fate)"). The assumption is equally unreasonable and unsupported in this context. According to a staff report prepared by the San Joaquin Valley Air Pollution Control District, chipping and grinding for off-site transport, on-site shredding and chipping, and soil incorporation are among the "more common methods" of disposal of agricultural materials.¹⁴ Indeed, only about 18% of prunings from almond and walnut orchards are open burned, and "most of the growers are using other alternative practices."¹⁵ The RDEIR identifies no evidence in support of the assumption that all agricultural materials diverted to the biomass facility otherwise would have been open burned is therefore unsupported by the record.

14-10

The RDEIR's discussion of "avoided emissions" from urban wood waste is both similarly unsupported and also contradictory. The RDEIR states that the "principal alternative fate" of urban wood waste is to be chipped and used as mulch.¹⁶ RDEIR at 3.2.4-18; *see also* App. B (table entitled "GHG Emissionf [sic] from Composting/Decomposition of Urban Wood Waste (Current Fate)"). Based on the arbitrary assertion that the Project would burn 15,000 BDT/yr of urban wood waste, this table estimates that "Emissions from mulch and soil amendment applications" would include .15 MT/year of methane (CH₄) and .009 MT/year of nitrous oxide (N₂O). *Id.* The table also appears to assume that about 7500 BDT (or 6,802.5 MT) of urban wood waste will decompose into CO₂ each year, but the basis for this assumption is not explained (the "source" for this figure is identified only as "Calculated"). *Id.* Then, without any explanation or identified support, the table introduces a "Combustion Factor" of 0.95 and various "Emission factors (per dry matter unit burned)". *Id.* (emphasis

14-11

¹² Colin C. Hardy, *Guidelines for Estimating Volume, Biomass, and Smoke Production for Piled Slash*, U.S. Dept. of Agriculture, Forest Service, Pacific Northwest Research Station, Gen. Tech. Rep. PNW-GTR-364 (1996) (attached as Ex. 13).

¹³ See Eric E. Knapp et al., *Fuel Reduction and Coarse Woody Debris Dynamics with Early Season and Late Season Prescribed Fire in a Sierra Nevada Mixed Conifer Forest*, 208 FOREST ECOLOGY & MGMT. 383 (2005) (attached as Ex. 14).

¹⁴ San Joaquin Valley Air Pollution Control District, *Draft Staff Report: Recommendations on Agricultural Burning* (April 14, 2010) at 4-1 (excerpts attached as Ex. 15).

¹⁵ *Id.* at 3-7.

¹⁶ Several of the explanatory statements in this and other tables reproduced in Appendix B are truncated so as to omit potentially important assumptions and discussions. As a result, the RDEIR once again fails to provide a basis for informed, meaningful evaluation of the Project's environmental impacts.

Mr. Lio Salazar
 Re: Sierra Pacific Industries Cogeneration Power Project Recirculated Draft EIR
 October 14, 2011

added). Thus it appears that the RDEIR intends to take credit for some quantity of “avoided” emissions from *combustion* of urban wood waste, even though combustion is not one of the alternative fates identified for urban wood waste, and the RDEIR’s conclusions identify only avoided emissions from “*Decomposition of Urban Wood Waste*.” RDEIR at 3.2.4-20 (emphasis added). As a result of these inconsistencies and omissions, it is impossible for the public or decision-makers to understand the RDEIR’s account of purportedly “avoided” emissions from urban wood waste.¹⁷

14-11

Finally, as a general matter, the RDEIR uses inconsistent emissions factors for calculating direct and “avoided” emissions throughout Appendix B. Direct emissions are calculated using factors derived from California’s greenhouse gas monitoring and reporting program, while “avoided” emissions appear to be calculated using factors from Intergovernmental Panel on Climate Change guidance. No explanation is given for this inconsistent methodology, or for the decision to use one factor rather than another.

14-12

III. The EIR As Modified Fails to Evaluate Alternatives in Accordance with CEQA.

The DEIR’s analysis of alternatives should be revised and recirculated in light of new information. The Environmental Protection Agency (“EPA”), which is currently processing SPI’s application for a Clean Air Act permit for this Project, recently found that SPI had not adequately demonstrated the infeasibility of alternate boiler technologies that could further reduce the Project’s emissions of criteria air pollutants.¹⁸ EPA requested that SPI consider bubbling and circulating fluidized bed boiler technology in addition to stoker boiler technology. This is new information that should be considered in the alternatives section of the EIR. The EPA letter also mentions much lower emissions rates for CO and NOx at the Covanta facility in Delano. Because the DEIR identified significant air quality impacts, feasible measures to avoid or reduce these impacts must be evaluated and adopted.

14-13

The EIR does not provide any basis for concluding that additional measures to reduce these impacts are infeasible. The DEIR states that “maximum available control technology” alternative “may not be financially feasible.” DEIR at 5.0-4; *see also id.* at 3.2-36 (stating that SNCR is most “cost-effective”). This is an inadequate demonstration

¹⁷ Using this table’s unexplained assumption that 7500 BDT of urban wood waste would otherwise decompose into CO₂, and factoring in the global warming potentials for methane and nitrous oxide resulting from decomposition, total emissions from decomposition would total only 6,808.6 MT CO₂e (6802.5 MT CO₂ + (.15 MT CH₄ * 23) + (.009 MT N₂O * 296)). Yet the RDEIR concludes that 10,586 MT CO₂e from “*Decomposition of Urban Wood Waste*” would be avoided. RDEIR App. B (table entitled “Operations-Related GHG Emissions of the Proposed SPI Anderson Biomass Power Plant”) (emphasis added).

¹⁸ Letter from Gerardo Rios, EPA, to Eric Albright, ENVIRON International Corp., Re: Sierra Pacific Industries-Anderson Prevention of Significant Deterioration (PSD) Permit Application (Aug. 5, 2011) (attached as Ex. 16).

Mr. Lio Salazar
Re: Sierra Pacific Industries Cogeneration Power Project Recirculated Draft EIR
October 14, 2011

of infeasibility. A project proponent cannot merely show that a preferred design is more “cost-effective”; rather, the proponent must show that an alternative would make the entire project financially impracticable. *See, e.g., Save Round Valley Alliance v. County of Inyo*, 157 Cal. App. 4th 1437, 1461-62 (2007); *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal. App. 4th 587, 600 (2007); *Preservation Action Council v. City of San Jose* (2006) 141 Cal. App. 4th 1336, 1356-57 (2006). The BACT demonstration prepared for the PSD permit application states that selective catalytic reduction with a stoker-fired boiler would cost more, but it does not demonstrate that this or any other alternative combination of boiler technologies and pollution control measures would actually render the Project impracticable. DEIR App. B, BACT Analysis at 12. As a result, the alternatives analysis fails to comply with CEQA.

14-13

IV. Conclusion

For the foregoing reasons, and for the reasons stated in our prior comment letter on the DEIR, the County cannot lawfully approve this Project on the basis of this EIR. Thank you for your consideration of these comments.

14-14

Sincerely,



Kevin P. Bundy
Senior Attorney

Attachments

Response to Letter 14: Kevin P. Bundy, Center for Biological Diversity

Response 14-1: The commenter provides an overview of the mission of the Center for Biological Diversity (CBD) and a summary of the proposed project. The commenter also notes that the CBD submitted a comment letter on the Draft EIR on September 20, 2010 (see Letter 10 above). The commenter states that this comment letter (Letter 14) addresses sections of the previously circulated DEIR, as well as the new Recirculated DEIR.

The commenter's introductory and background comments are noted. It is also noted that per CEQA Guidelines Section 15088.5(f)(2), as further described on pages 1.0-3 and 1.0-4 of the Recirculated Draft EIR, the County need only respond to comments received during the initial comment period that related to chapters or portions of the EIR that were NOT revised, and comments received during the recirculation period that relate to the chapters or portions of the earlier EIR that were revised and recirculated. Therefore, comments contained in Letter 14 that address sections of the original Draft EIR that were not revised, are not responded to in this Final EIR, except as already covered in responses to comments submitted on the original Draft EIR. All comments received by CBD on the original Draft EIR in the September 20, 2010 comment letter have been responded to above in the responses following Letter 10. Individual responses to issues raised by the commenter on the content of the Recirculated DEIR are provided below.

Response 14-2: The commenter states that the Recirculated DEIR fails to describe key components of the project description, provides an inadequate threshold of significance for GHGs, provides an inaccurate quantification of GHGs, and fails to address an adequate range of project alternatives. The commenter provides additional detail regarding each of these issues in the following comments, and individual responses are provided below.

Response 14-3: The commenter states that the project description offers an incomplete, vague and shifting account of the project, particularly with respect to the proposed fuel mixture.

As described in the Project Description contained in the Recirculated DEIR, there are a variety of fuel sources available for the proposed project. The Recirculated DEIR has fully disclosed the details and sources of the available fuel supplies, which include sawmill residuals, in-forest materials such as thinnings and slash, agricultural woody waste, and urban wood waste. The Recirculated DEIR further describes variables such as seasonal availability, shifting market costs for these fuels, and other aspects that require the project proponent to remain flexible with regards to the ultimate fuel mix that would be used for the proposed project. The actual fuel mix used for the project will constantly shift, but will remain

“bracketed” within the variables and source percentages described in the Recirculated Draft EIR. For example, at times, the project may source 100% of its fuel from sawmill residuals. At other times, sawmill residuals may represent 64% of the fuel mix, with the remaining 36% of the fuel coming from other sources, as shown in Table 2-3 of the 2nd Recirculated Draft EIR. The 2nd Recirculated Draft EIR very clearly articulates that the fuel supply is subject to change, but would remain within the parameters disclosed in Table 2-3 and those described in the Project Description contained in the Recirculated Draft EIR.

The fuel supply assumptions and information disclosed in the Recirculated DEIR are based on fuel supply studies and information provided by the project applicant. The project applicant operates several biomass cogeneration facilities throughout California, and thus, has a clear understanding of available fuel resources and supplies. The Recirculated DEIR has very clearly explained what the variety of fuel sources available to the project are, and includes information regarding the location and supply availability of each fuel type. As described above, the Recirculated DEIR explains that fuels supplies for the project may change on an annual basis, and provide specific examples of the potential fuel mixes that may be used by the proposed project. The commenter’s assertion that the Recirculated DEIR fails to provide a stable factually based account of the fuel mix for the project is false, and no changes to the Recirculated DEIR are required.

Response 14-4: The commenter states that the Recirculated DEIR fails to provide even a basic description of the proposed boiler and associated technology.

The Recirculated DEIR includes extensive details regarding the proposed project and the proposed components of the project. For example, pages 2.0-3 and 2.0-4 of the Recirculated DEIR describes that the proposed project consists of the construction and operation of a new Cogen Facility, including a new boiler, fuel shed, boiler building, turbine building, cooling tower, electrostatic precipitator, ash silo and electric substation, on the project site. The boiler associated with the Cogen Facility would burn biomass fuel (i.e., non-treated wood and agricultural crop surpluses, as well as urban wood waste) generated by the lumber manufacturing facility on-site, regional lumber manufacturing facilities, and other biomass fuel sources to produce up to 250,000 pounds of steam per hour. The steam would be used to dry lumber in existing kilns and to power a steam turbine. The steam turbine would drive a generator that would produce up to 31 MW of electricity for on-site use as well as for sale to the local power grid. Approximately 7 MW will be used to power on-site equipment; the remainder will be sold on the open market. The electricity that is sold would originate from the on-site electric substation and be transferred to the local power grid for distribution to the purchaser. The proposed boiler would have a maximum annual average heat input of approximately 425.4 million British thermal units per hour (MMBtu/hr) and a maximum steam generation rate of 250,000 pounds per hour (lb/hr). Over

short-term periods, the boiler may be fired at heat input rates that exceed the annual average rate: an hourly maximum of 468.0 MMBtu/hr (10 percent greater than the annual average), and a maximum 24-hour average of 446.7 MMBtu/hr (5 percent greater than the annual average). The boiler would be equipped with two natural gas burners, each with a maximum rated heat input of 62.5 MMBtu/hr, for start up and flame stabilization. The Cogen Facility design would incorporate a selective non-catalytic reduction (SNCR) system to reduce emissions of oxides of nitrogen (NOx), as well as a multiclone and electrostatic precipitator (ESP) to control emissions of particulate matter (PM). A closed-loop two-cell cooling tower would be used to dispose of waste heat from the steam turbine. The location of the existing and proposed structures is shown in Figure 2-5 of the Recirculated DEIR. The dimensions of the proposed structures are shown in Table 2-1 of the Recirculated DEIR.

The project description includes sufficient detail regarding the proposed physical site improvements and operational characteristics of the proposed project to facilitate meaningful review and consideration of the project's potential environmental impacts. No changes to the EIR project description are required.

Response 14-5: The commenter states that changes to the project description contained in the Recirculated Draft EIR require recirculation of other sections of the Draft EIR, specifically to address impacts to timber management and forest resources.

This comment is noted. As specifically described on pages 2.0-7 and 2.0-8 of the Recirculated Draft EIR project description, the proposed project would have no impact, nor would it result in any changes to the existing forest management practices and activities undertaken by the project applicant or other forest managers. The commenter's references and assertions related to the project applicant's opinions on forest management practices in other contexts is outside of the scope of this EIR and has no bearing on the environmental analysis contained in this EIR. As specifically described in the Recirculated Draft EIR, the project applicant would continue to implement approved Timber Harvest Plans and their long-term Maximum Sustained Production management plan, which have been certified by the California Board of Forestry. Since the project would not result in any changes to existing timber harvesting or forestry management practices, there are no residual impacts to resources that would be impacted by the project that have not already been addressed in the Draft EIR and Recirculated Draft EIR. No additional analysis is required or warranted.

Response 14-6: The commenter states that the Recirculated DEIR fails to address impacts associated with the use of fuels sourced from public lands. The commenter is referred to Response 14-5. The proposed project would not result in changes to existing forest management practices on any forest lands, whether public or private. The Recirculated DEIR provides background information regarding existing available sources of in-forest biomass materials, which includes thinnings

and slash generated during existing and previously approved timber harvesting activities. The project would in no way result in increased timber harvesting activities on public or private lands, nor would the project result in any changes to current or planned (and approved) forest management activities on public and private lands. This issue has been thoroughly addressed in the DEIR and Recirculated DEIR, and no additional analysis is required or warranted.

Response 14-7: The commenter states that the Recirculated DEIR fails to adequately disclose and evaluate the significance of the project's GHG emissions.

Following the public review period for the Recirculated Draft EIR, the GHG and climate change analysis was subsequently revised, and a new GHG and climate change analysis was included in the 2nd Recirculated Draft EIR. The 2nd Recirculated Draft EIR was provided to the commenter during the 45-day review period, and the commenter submitted new comments related to this topic. The 2nd Recirculated Draft EIR focused exclusively on GHGs and climate change. The commenter was provided a copy of the 2nd Recirculated Draft EIR during the 45-day public review period, and was invited to submit new comments related to the revised GHG analysis contained in the 2nd Recirculated Draft EIR.

Full responses to the GHG and climate change issues raised by the commenter on the 2nd Recirculated Draft EIR are provided following Letter 16, which was submitted by the commenter on March 30, 2012. Since the GHG and climate change analysis included in the 2nd Recirculated Draft EIR replaces the GHG and climate change analysis included in the Draft EIR and Recirculated Draft EIR, responses to GHG and climate change issues raised in letters submitted on the Draft EIR and Recirculated Draft EIR are not responded to in this Final EIR.

Response 14-8: The commenter states that the Recirculated DEIR uses an unlawful threshold of significance for addressing GHG impacts and does not evaluate the project's actual mass emissions.

The commenter is referred to Response 14-7.

Response 14-9: The commenter states that the Recirculated DEIR fails to accurately account for the alternate GHG emissions from forest thinning and slash. The commenter cites inconsistencies between the project description and the GHG analysis in Appendix B of the Recirculated DEIR.

The commenter is referred to Response 14-7.

Response 14-10: The commenter questions the assumption that agricultural wood waste would otherwise be burned in the open.

The commenter is referred to Response 14-7.

Response 14-11: The commenter states that the Recirculated DEIR's discussion of avoided emissions from urban wood waste is unsupported and contradictory.

The commenter is referred to Response 14-7.

Response 14-12: The commenter states that the Recirculated DEIR uses inconsistent emissions factors for calculating direct and avoided GHG emissions.

The commenter is referred to Response 14-7.

Response 14-13: The commenter states that the EIR, as modified, fails to evaluate alternatives in accordance with CEQA.

A range of feasible alternatives was evaluated in the original Draft EIR, which was circulated for public review. The commenter submitted a comment letter on the original Draft EIR on September 20, 2010 and did not comment on the adequacy or range of the alternatives analyzed in the DEIR. There have been no changes or modifications to the project alternatives since the DEIR was completed and circulated for public review. New or modified alternatives were not included in the Recirculated Draft EIR. As noted under Response 14-1, per CEQA Guidelines Section 15088.5(f)(2), as further described on pages 1.0-3 and 1.0-4 of the Recirculated Draft EIR, the County need only respond to comments received during the initial comment period that related to chapters or portions of the EIR that were NOT revised, and comments received during the recirculation period that relate to the chapters or portions of the earlier EIR that were revised and recirculated. Therefore, the commenter's comments related to the EIR alternatives do not require a response from the County, as this issue was not included in the Recirculated Draft EIR.

Response 14-14: The commenter states that the County cannot approve the project on the basis on this EIR. This comment is noted. All issues raised by the commenter have been addressed in this Final EIR.



Sierra Pacific Industries

Forestry Division • P.O. Box 496014 • Redding, California 96049-6014
Phone (530) 378-8000 • FAX (530) 378-8139

October 17, 2011

Shasta County Department of Resource Management
Planning Division
1855 Placer Street, Suite 103
Redding, California 96001
Attention: Lio Salazar, Associate Planner

Re: Recirculated DEIR for Sierra Pacific Industries Cogeneration Power Project

Dear Mr. Salazar:

Sierra Pacific Industries (SPI) welcomes the opportunity to comment on the Recirculated Draft Environmental Impact Report (RDEIR) for the proposed SPI cogeneration facility (Cogeneration Facility), and specifically on RDEIR Chapter 3.2.4, Greenhouse Gases and Climate Change.

By seeking to quantify both operational emissions and avoided emissions, and to explain the assumptions behind those calculations, SPI believes that the expanded discussion of greenhouse gases (GHGs) in the RDEIR addresses the concerns raised by certain commenters on the original DEIR. Additionally, the RDEIR accurately concludes that any GHG-related impacts that may be attributable to the project are less than significant, requiring no mitigation. SPI submits the attached scientific analysis specific to the proposed Cogeneration Facility to provide further relevant information for this conclusion. This supplemental information includes published and regulatory adopted information regarding the nature of carbon emissions for this biomass facility and why they actually have a positive impact on global concentrations of GHGs.

The attached discussion was prepared based on a specific analysis of the project by Dr. Gregory Morris, director of the Green Power Institute and one of the foremost experts on carbon emissions associated with biomass power. Dr. Morris, who holds a PhD degree in Energy and Resources from the University of California, Berkeley (1982), has served on the Western Governor's Association's Biomass Task Force to the Clean and Diversified Energy Advisory Committee and the boards of the California Biomass Collaborative and the Western Renewable Energy Generation Information System. He has also served as editor and facilitator for the Renewables Working Group to the California Public Utilities Commission, consultant to the California Energy Commission's renewables program committee, consultant to the Governor's Office of Planning and Development during the 2000-2001 energy crisis, and has provided expert testimony in a variety of regulatory and legislative proceedings. In his role at the Green

sf-3047555

1

15-1

Power Institute, he has made major contributions to the development of California's renewable portfolio standards program and is actively involved in the implementation of California's Global Warming Solutions Act (AB 32).¹

Dr. Morris evaluates GHG emissions for the project through the Pacific Institute Model, which has been adopted by State regulatory agencies in rulemaking relating to renewable energy.² Through the application of this model, he concludes that the Cogen Facility will have a strongly positive effect on atmospheric carbon concentrations, causing reductions of approximately 167,500 MT of CO₂ equivalent per year over 20 years of operations. Additionally, by adjusting the RDEIR's model to reflect all appropriate inputs – including the alternative disposal of wood wastes and the offset of fossil fuel usage avoided by operation of the Cogen Facility – Dr. Morris demonstrates that the methodology used in the RDEIR results in an almost identical conclusion: reductions of approximately 167,700 MT of CO₂ equivalent per year. In short, the analysis reinforces the RDEIR's ultimate conclusion that the GHG-related impacts from the Cogen Facility will be less than significant.

SPI respectfully requests that the County consider the attached scientific analysis as further support for its determination on the RDEIR and the proposed Cogen Facility.

Sincerely,



David C. Brown, PE
Environmental Affairs & Compliance Manager



Ed Murphy
Manager – Resource Inventory Systems

Cc: FILE

¹ A more detailed bio can be found at http://www.pacinst.org/about_us/staff_board/morris/index.htm.

² See, e.g., California Public Utilities Commission, Interim Opinion on Phase I Issues: Greenhouse Gas Emissions Performance Standard, D.07-01-039, pg. 18, January 25, 2007.

Response to Letter 15: David C. Brown, P.E., Sierra Pacific Industries

Response 15-1: The commenter (project applicant) states that the GHG analysis contained in the Recirculated DEIR correctly concludes that the project would result in less than significant GHG impacts. The commenter has provided additional supporting information that asserts that the project would result in overall decreases in atmospheric CO₂ over the next 20 years, and has provided supporting documentation and analysis. This supporting documentation and analysis is contained in the CD attached to this Final EIR.

Natural Resources Agency

Edmund G. Brown, Jr., Governor



DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

801 K STREET, MS 19-01, SACRAMENTO, CALIFORNIA 95814 • (916) 322-4027 • WWW.CALRECYCLE.CA.GOV

RECEIVED
SHASTA COUNTY

OCT 21 2011

October 19, 2011

Mr. Lio Salazar, Associate Planner
Shasta County Planning Department
1855 Placer Street, Suite 103
Redding, California 96001

DEPT OF RESOURCE MGMT
PLANNING DIVISION

Project: State Clearinghouse (SCH) No. 2009072011 Recirculated Draft Environmental Impact Report (EIR) for the Sierra Pacific Industries Cogeneration Power Project (SPICPP), Shasta County.

Dear Mr. Salazar:

The following Project Description is intended for use by the California Department of Resources, Recycling and Recovery (CalRecycle) staff's use in evaluating the project for permitting purposes and is followed by CalRecycle staff comments intended to aid the lead agency and project proponent (Sierra Pacific Industries) in the permitting of the proposed project.

Project Description

Cal Recycle staff understands that the proposed project is the construction and operation of a cogeneration power plant at an existing lumber manufacturing facility. The project includes construction of a new fuel handling building, boiler building, turbine building, cooling tower, electrostatic precipitator, ash silo and electric substation. The boiler would burn biomass fuel generated by the on-site lumber facility, regional facilities and other biomass fuel sources. At completion, the boiler would produce 250,000 lbs of steam per hour, which would be used for drying at the on-site lumber facility and for the proposed steam turbine. The steam turbine would drive a generator that would have the capacity to produce 31 MW of electricity. Approximately 7 MW will be used to power on-site equipment; the remainder will be sold on the open market.

C-1

CalRecycle Staff Comments

Cal Recycle takes this opportunity to provide comments and information regarding the project proponent's potential need to obtain a Compostable Materials Handling Facility Permit (CMHFP) for wood-chipping and/or composting taking place on-site.

C-2

The CalRecycle is the permitting agency for composting facilities, and wood chipping operations and facilities (chip and grind operations), and works together with Shasta County Department of Resource Management, Division of Environmental Health, the Local Enforcement Agency (LEA),

for the permitting and inspection of composting facilities in Shasta County. Please work together with the LEA to determine the permit requirements for this facility (if any).

C-2

Below, for the lead agency and project proponent's use is the State's regulatory definition for chip and grind operations, and definition of "active compost".

**Title 14, California Code of Regulations, Section 17862.1.
Chipping and Grinding Operations and Facilities.**

(a) A chipping and grinding operation that receives up to 200 tons per day of material that may be handled by a green material composting operation shall comply with the EA Notification requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0 (commencing with section 18100), except as otherwise provided by this Chapter.

(b) A chipping and grinding facility that receives more than 200 tons per day, and up to 500 tons per day of material that may be handled by a green material composting operation shall obtain a Registration Permit pursuant to the requirements of Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0, prior to commencing operations.

(c) A chipping and grinding facility that receives more than 500 tons per day of material that may be handled by a green material composting operation shall obtain a Compostable Materials Handling Facility Permit pursuant to the requirements of Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3, and 3.1 (commencing with section 21450) prior to commencing operations.

C-3

(d) A chipping and grinding operation of facility shall not be subject to the provisions of sections 17868.1 through 17868.3 of this Chapter.

(e) If a chipping and grinding operation or facility exceeds the contamination limits in section 17852(a)(21), it shall be regulated as set forth in the Transfer/Processing Regulatory requirements (commencing at section 17400).

(f) If a chipping and grinding operation or facility stores material for a longer period of time than is allowed by section 17852(a)(10)(A)(2), then the site shall be regulated as a green material handling operation or facility, as set forth in this Chapter.

Title 14, California Code of Regulations, Section 17852. Definitions.

(a) For the purposes of this Chapter:

(1) "Active Compost" means compost feedstock that is in the process of being rapidly decomposed and is unstable. Active compost is generating temperatures of at least 50 degrees Celsius (122 degrees Fahrenheit) during decomposition; or is releasing carbon dioxide at a rate of at least 15 milligrams per gram of compost per day, or the equivalent of oxygen uptake.

C-4

Composting regulatory requirements may be found in Title 14, Division 7, Chapter 3.1, Articles 1 through 9, beginning with Section 17850, and ending with Section 17870. The permitting tiers are located under Article 2, beginning with Section 17854.

For more information please see our website:

Regulations: Title 14, Natural Resources--Division 7, Chapter 3.1.

Compostable Materials Handling Operations and Facilities Regulatory Requirements

<http://www.calrecycle.ca.gov/Laws/Regulations/Title14/ch31.htm#article2>

Summary

The previous information provided may not apply to the proposed operation of the cogeneration plant. However, if the proposed facility meets the definition cited in 14 CCR 17852(a)(1), information and resources for obtaining approval to operate a compostable material handling operation or facility can be found on CalRecycle's website at

<http://www.calrecycle.ca.gov/SWFacilities/Permitting/FacilityType/Compost/>

At this time, CalRecycle staff has no further comments. If you have any questions regarding these comments, please contact me at (916) 341-6727 or e-mail at diana.post@calrecycle.ca.gov

Sincerely,



Diana Post, Integrated Waste Management Specialist (IWMS)
Waste Compliance and Mitigation Program
Permitting and LEA Support Division North
CalRecycle

cc: David Otsubo, Supervisor,
Waste Compliance and Mitigation Program
Permitting and LEA Support Division North
CalRecycle

Ms. Carla Serio, Shasta County LEA
Department of Resource Management
Division of Environmental Health
1855 Placer Street
Redding, CA 96001

State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044

Response to Letter C: Diana Post, Integrated Waste Management Specialist, California Department of Resources, Recycling and Recovery

Response C-1: The commenter provides an introductory statement, followed by a summary of the project description. This comment is noted.

Response C-2: The commenter states that the comment letter and supporting comments reflect the project's potential need to obtain a Compostable Materials Handling Facility Permit (CMHFP). The commenter further states that CalRecycle is the permitting agency for composting facilities and wood chipping operations. The commenter notes that CalRecycle works together with the Shasta County Department of Resource Management, Division of Environmental Health, which is the Local Enforcement Agency (LEA), for the permitting and inspection of composting facilities in Shasta County. The commenter states that the County should coordinate with CalRecycle to determine the permit requirements for this facility (if any).

This comment is noted. The Shasta County Department of Resource Management, Division of Environmental Health will coordinate with CalRecycle to determine any relevant permitting requirements for the proposed project as they relate to composting activities. It is noted that the proposed project currently generates woody biomass material during the processing of timber into various lumber and wood products for sale. The proposed project would not engage in composting activities. Rather, the woody waste generated during lumber milling activities is, and would continue to be, used as a biomass fuel source for the generation of electricity in the proposed Cogen Facility. As such, the project would not be required to obtain a CMHFP, as no composting activities are proposed.

Response C-3: The commenter provides language from Title 14, California Code of Regulations, Section 17862.1- Chipping and Grinding Operations and Facilities.

This comment is noted. As stated above, under Response C-2, the proposed project is not a composting facility. The woody biomass material generated at the project site, in addition to the biomass material that may be brought to the project site from outside locations, would be used as a fuel source for the proposed Cogen Facility. There are no composting activities proposed by the project. As such, the project would not be subject to the requirements of Title 14, California Code of Regulations, Section 17862.1.

Response C-4: The commenter provides text regarding the definition of "active compost" as listed in Title 14, California Code of Regulations, Section 17852.

The proposed project would not generate or store active compost as defined by Title 14, California Code of Regulations, Section 17852. This comment is noted.

Response C-5: The commenter provides regulatory citations and an internet link to the regulatory requirements and supporting information related to the permitting requirements for composting facilities.

This information is noted.

Response C-6: The commenter states that the information provided in the comment letter may not apply to the proposed operation of the cogeneration plant. The commenter further states that if the facility meets the definition cited in 14 CCR 17852(a)(1), information can be found on the CalRecycle website.

The County agrees that the information provided in the comment letter does not directly apply to the proposed project, as the project would not result in any active composting operations. The County appreciates this letter from CalRecycle, and will continue to cooperate as the LEA. However, the proposed project is not subject to the permitting requirements outlined in this comment letter. No changes to the environmental analysis are required.

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY
CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

EDMUND G. BROWN JR., GOVERNOR

RECEIVED
SHASTA COUNTY



FEB 29 2012

DEPT OF RESOURCE MGMT
PLANNING DIVISION

February 24, 2012

Mr. Lio Salazar
Shasta County
1855 Placer Street, Suite 103
Redding, California 96001

Subject: Sierra Pacific Industries Cogeneration Power Project
SCH Number: 2009072011
Document Type: DEIR –Draft Environmental Impact Report

Dear Mr. Salazar:

Staff of the Central Valley Flood Protection Board (Board) has reviewed the subject document and provides the following comments:

The proposed project is located within the regulated areas of the Sacramento River under the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

D-1

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);
- Existing structures that predate permitting or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);
- Vegetation plantings will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection, and flood fight procedures (CCR Section 131).

D-2

D-3

D-4

Vegetation requirements in accordance with Title 23, Section 131 (c) states "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

Mr Lio Salazar
February 24, 2012
Page 2 of 2

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and State agency requirements for on-site mitigation within the floodway.

|
D-4
|

Hydraulic Impacts - Hydraulic impacts due to encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The DEIR should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

|
D-5
|

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at <http://www.cvfpb.ca.gov/>. Contact your local, federal and State agencies, as other permits may apply.

|
D-6
|

If you have any questions, please contact me by phone at (916) 574-0651, or via email at jherota@water.ca.gov.

Sincerely,



James Herota
Staff Environmental Scientist
Flood Projects Improvement Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

Response to Letter D: James Herota, Central Valley Flood Protection Board

Response D-1: The commenter notes that the project is located within the regulated areas of the Sacramento River under the jurisdiction of the Central Valley Flood Protection Board (CVFPB), and that the Board is required to enforce standards for the construction, maintenance and protection of adopted flood control plans.

The 2nd Recirculated Draft EIR states that only one section (the Greenhouse Gas and Climate Change section) is being modified and recirculated for public comment in accordance with CEQA 15088.5(c). In addition, the 2nd RDEIR in Section 1.4 specifically requests that reviewers limit their comments to the revised portions of the RDEIR. The CVFPB provided no comments to the County during the Notice of Preparation (July 3, 2009), the DEIR (August 6, 2010), nor during the Recirculation of the DEIR (September 2, 2011). The CVFPB comments do not pertain to the recirculated section of the 2nd RDEIR and while addressed below, are not intended to establish precedence for responding to comments beyond the recirculated section of the 2nd RDEIR.

Response D-2: The commenter states that a Board permit is required prior to starting work within the Board's jurisdiction for the placement, construction, removal or abandonment of materials and facilities that involve cutting into levees.

The proposed project, as defined in the DEIR and RDEIR does not include, have physical contact with, or otherwise impact an existing levee. The Sacramento River, approximately 1200 feet northeast of the Project, consists of a bed-bank geometry topographically lower than the Project.

Response D-3: The commenter states that a Board permit is required prior to starting work within the Board's jurisdiction for existing structures that predate permitting or where it is necessary to establish the conditions normally imposed by permitting.

None of the existing structures within the project site or structures proposed by the project encroach within the Sacramento River or floodway.

Response D-4: The commenter states that vegetation plantings require the submission of detailed information and must not interfere with flood protection measures or plans. The commenter notes potential adverse impacts associated with the accumulation of woody vegetation in flood control channels.

This comment is noted. No vegetation planting or removal is proposed as part of this project.

Response D-5: The commenter states that hydraulic impacts could impede flood flows and states that the DEIR should include mitigation measures to reduce or prevent hydraulic impacts.

As described in greater detail in Chapter 3.7 of the DEIR (August 2010), the Project is outside the floodway limits for the Sacramento River and would have no impact to the floodway.

Response D-6: The commenter states that permit applications and Title 23 CCR can be found on the CVFPB's website.

This comment is noted. The Project as shown in the DEIR and RDEIR is not adjacent to any existing levee network and is located outside the floodway. No permit from the Central Valley Flood Protection Board is required.

RECEIVED

APR 03 2012

COUNTY OF SHASTA
PERMIT COUNTER

CENTER for BIOLOGICAL DIVERSITY

March 30, 2012

Via Federal Express

Lio Salazar, Associate Planner
Shasta County Department of Resource Management
Planning Division
1855 Placer St., Suite 103
Redding, CA 96001

**Re: Second Recirculated Draft Environmental Impact Report
Sierra Pacific Industries Cogeneration Power Project**

Dear Mr. Salazar:

The Center for Biological Diversity (“Center”) submits the following comments on the Second Recirculated Draft Environmental Impact Report (“Second RDEIR”) prepared on behalf of Shasta County (the “County”) for the Sierra Pacific Industries Cogeneration Power Project (the “Project”).

16-1

The Second RDEIR concludes that the Project’s greenhouse gas (“GHG”) emissions will have a less than significant effect on the environment. Although the Second RDEIR states that this conclusion has not changed from the prior version of the document, the method of reaching this conclusion has changed radically. Whereas this conclusion previously rested on an unlawful threshold of significance, it now rests on the scientifically and legally indefensible assumption that all biomass combustion is “carbon neutral.” The analysis in the Second RDEIR is thus completely inconsistent with the approach taken in prior versions of the document. This abrupt shift in methodology—nowhere explained in the Second RDEIR—appears to be entirely arbitrary.

16-2

The California Environmental Quality Act (“CEQA”), Public Resources Code section 21000 et seq., and the CEQA Guidelines, California Code of Regulations, title 14, section 15000 et seq., require a good-faith effort at full disclosure of a project’s environmental effects. CEQA Guidelines § 15151. CEQA also requires a lead agency to substantiate its conclusions with facts and analysis. The Second RDEIR, like the previous iterations of the document, fails to comply with these and other substantive and procedural requirements of CEQA.

16-3

The Center’s prior comments on the CEQA documents prepared for this Project, and all exhibits submitted with those comments, are hereby incorporated by reference. The County may not disregard these prior comments, but rather must respond to each substantive comment concerning this Project in accordance with CEQA’s requirements.

16-4

Arizona • California • Nevada • New Mexico • Alaska • Oregon • Florida • Washington • Minnesota • Vermont • Washington, DC

Kevin P. Bundy • Senior Attorney • 351 California St., Suite 600 • San Francisco, CA 94104
Phone: 415-436-9682 x213 • Fax: 415-436-9683 • kbundy@biologicaldiversity.org

Mr. Lio Salazar
 Re: Second Revised Draft EIR: Sierra Pacific Industries Cogeneration Power Project
 March 30, 2012

I. Biomass Combustion Is Not “Carbon Neutral”

The Second RDEIR’s conclusions turn entirely on the assumption that carbon dioxide (“CO₂”) and other GHG emissions from biomass combustion have no impact on atmospheric GHG concentrations or climate change. As explained in the Center’s September 20, 2010 comment letter on the first Draft EIR for this Project, and particularly in Exhibits 4 and 4A through 4D of that letter, there is no scientific basis for assuming that biomass combustion is by definition “carbon neutral” or that it has no climatic effect. Rather, as these materials make clear, GHG emissions from biomass combustion can persist in the atmosphere—where they contribute to global warming and climate change just like fossil GHG emissions—for many decades, and even upwards of a century, before being resequenced. This long-term “carbon debt” must be considered in evaluating the significance of short-term biomass combustion emissions.

16-5

Scientific articles published in the past two years underscore that global GHG emissions must peak within the next few years and drop sharply thereafter in order to preserve a likely chance of keeping aggregate global warming below 2°C—a level at which serious impacts will still occur.¹ Because resequencing of forest biomass emissions—if it occurs at all—may occur many decades in the future, forest biomass combustion is not a near-term strategy for reducing greenhouse gas emissions; indeed, in the short term, forest biomass combustion runs directly counter to the goals science indicates are most critical.

Recent scientific articles also have addressed the “carbon debt” associated with combustion of forest “waste” and “residuals” (i.e., materials ranging from branches to stems and stumps). This research similarly demonstrates that even these materials cannot be considered “carbon neutral” in the critical near term.²

McKechnie (2011) concluded that “[i]gnoring the complex relationship between forest carbon stocks and biomass harvest by employing the carbon neutrality assumption overstates the GHG mitigation performance of forest bioenergy and fails to report delays in achieving overall emissions reductions.”³ The Second RDEIR’s embrace of this outdated and scientifically indefensible assumption is inappropriate, and cannot sustain the document’s conclusion that the Project’s impacts are less than significant. Moreover, as a result of its reliance on this assumption, the Second RDEIR fails to adequately disclose and evaluate the Project’s GHG emissions and its contribution to climate change, and thus fails to comply with CEQA’s procedural and substantive requirements.

16-6

¹ Joeri Rogelj, et al., *Emission Pathways Consistent with a 2° Global Temperature Limit*, 1 NATURE CLIMATE CHANGE 413 (2011) (attached as Ex. 1).

² See, e.g., Jon McKechnie, et al., *Forest Bioenergy or Forest Carbon? Assessing Trade-Offs in Greenhouse Gas Mitigation with Wood-Based Fuels*, 45 ENVIRON. SCI. TECHNOL. 789 (2011) (attached as Ex. 2); Anna Repo, et al., *Indirect Carbon Dioxide Emissions from Producing Bioenergy from Forest Harvest Residues*, GLOBAL CHANGE BIOLOGY BIOENERGY, doi: 10.1111/j.1757-1707.2010.01065.x (2010) (attached as Ex. 3).

³ McKechnie 2011 (Ex. 2) at 794.

Mr. Lio Salazar
 Re: Second Revised Draft EIR; Sierra Pacific Industries Cogeneration Power Project
 March 30, 2012

II. The Second RDEIR Fails to Identify Any Support for Treating Project Biomass Combustion as “Carbon Neutral”

The Second RDEIR identifies several purported sources of support for its assertion that biomass combustion is carbon neutral. Yet none of these sources provides support for treating this facility’s considerable CO₂ emissions as if they do not affect the atmosphere or the climate. Rather, the Second RDEIR either misconstrues or misuses many of these sources.

16-7

The basis for the Second RDEIR’s assumption of carbon neutrality is neither consistent nor clear. The document’s primary assertion seems to be that biomass combustion simply returns to the atmosphere CO₂ that was sequestered while the biomass was growing. None of the authorities cited in the Second RDEIR, however, actually supports this position. Indeed, as discussed in the comments included as Exhibit 4 to our September 20, 2010 letter and sources cited therein, the contention is absurd. If this were the case, every plant currently growing on earth could be burned tomorrow without any effect on the climate. Deforestation, however, is an acknowledged contributor to climate change, notwithstanding the “biogenic” nature of the carbon emitted.

16-8

In other contexts, the Second RDEIR suggests that biomass may be considered carbon neutral so long as biomass fuel stocks are maintained in a “sustainable” manner. This assertion appears to be based on accounting approaches developed for national greenhouse gas inventories that have no place, yet often have been misapplied, in evaluations of facility-specific emissions.⁴

For example, in relying on IPCC inventory guidance the Second RDEIR repeats precisely the error identified by Searchinger 2009. Under the IPCC guidance, inventories do not report emissions from biomass combustion in the energy sector because those emissions are instead accounted for under the land use sector. Not reporting emissions in the energy sector is thus merely an accounting convention, designed to prevent double-counting of emissions. It does not mean these emissions do not occur. It just records these emissions in another part of the ledger. The problem with the Second RDEIR’s approach is that it does not record emissions associated with biomass combustion on *either* the land use *or* the energy part of the ledger. It just ignores these emissions entirely. The IPCC inventory guidance is intended only to standardize reporting of aggregate emissions at a national scale. It is not intended as a method of evaluating emissions from particular facilities. It provides *no* support for the Second RDEIR’s strategy of treating biogenic CO₂ emissions as if they do not exist.

16-9

In suggesting that contemporaneous biomass growth elsewhere on the landscape renders bioenergy emissions negligible, moreover, the Second RDEIR relies on a landscape-level, inventory-based accounting approach that is inadequate to provide a full and accurate account of the atmospheric consequences of biomass combustion. This

16-10

⁴ See generally Timothy Searchinger, et al., *Fixing a Critical Climate Accounting Error*, 326 SCIENCE 527 (2009) (attached as Ex. 4).

Mr. Lio Salazar
 Re: Second Revised Draft EIR; Sierra Pacific Industries Cogeneration Power Project
 March 30, 2012

approach essentially assumes that a biomass facility may “offset” its direct emissions with off-site forest growth occurring at some landscape scale on an annual basis, so long as that landscape serves as a net carbon sink at whatever spatial scale is chosen for analysis. See Second RDEIR at 2.0-20. Yet this approach does not provide an accurate account of “what the atmosphere sees” in terms of CO₂ emissions from construction and operation of particular biomass facilities over time.

16-10

The inadequacy of this approach is readily apparent from the arbitrary results it produces. Depending on the spatial scale used for the landscape analysis (e.g., ownership-wide, regional, statewide, national, or global) and the relative rate of forest growth across that landscape, the exact same facility, burning the exact same feedstocks, could appear to have a different atmospheric impact. Put another way, two identically designed facilities burning the same feedstocks might be found to have different atmospheric impacts depending solely upon their locations and the multitude of other activities occurring on the surrounding landscapes. These results cannot be correct as a physical matter; the amount of GHG emissions to the atmosphere cannot depend solely on the geographical scale of analysis.⁵

16-11

Numerous recent scientific articles and studies have pointed out the inadequacies of an inventory-type approach to accounting for facility-level CO₂ emissions and have urged the adoption of more sophisticated and accurate accounting methods.⁶ The European Environment Agency’s Scientific Committee also recently rejected a landscape-level, inventory-based approach to bioenergy accounting.⁷ Measuring direct bioenergy emissions against annual fluctuations in current carbon stocks at some arbitrary spatial scale also ignores the tremendous historical “carbon debt” associated with deforestation and other forms of land conversion, all of which have contributed significantly to current elevated atmospheric CO₂ levels.⁸

16-12

⁵ This approach also could result in another absurdity: two different facilities in the same area, one releasing twice as much CO₂ as the other, would be deemed to have exactly the same atmospheric impact based solely on their location in the same landscape. Again, this approach does not reflect physical reality on a facility-specific basis.

16-11

⁶ See, e.g., McKechnie 2011 (Ex. 2); MANOMET CENTER FOR CONSERVATION SCIENCES, MASSACHUSETTS BIOMASS SUSTAINABILITY AND CARBON POLICY STUDY: REPORT TO THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES 103 (Walker, T., ed. 2010) (attached as Ex. 5); GIULIANA ZANCHI ET AL., THE UPERONT CARBON DEBT OF BIOENERGY (May 2010) (included in Exhibit 4C to the Center’s Sept. 20, 2010 letter); Searchinger 2009 (Ex. 4).

16-12

⁷ European Environment Agency Scientific Committee, Opinion of the EEA Scientific Committee on Greenhouse Gas Accounting in Relation to Bioenergy (Sept. 15, 2011) (attached as Ex. 6).

⁸ See, e.g., John S. Gunn, et al., *Biogenic vs. Geologic Carbon Emissions and Forest Biomass Energy Production*, GLOBAL CHANGE BIOLOGY BIOENERGY, doi: 10.1111/j.1757-1707.2011.01127.x (2011) (attached as Ex. 7).

Mr. Lio Salazar
 Re: Second Revised Draft EIR; Sierra Pacific Industries Cogeneration Power Project
 March 30, 2012

The rate at which a forest sequesters carbon over time, and the degree to which carbon stores are maintained and increased over time, have a direct relationship to atmospheric CO₂ levels. Incentivizing the harvest and combustion of additional biomass right up to the point where forest sector emissions begin to exceed uptake will exacerbate, not ameliorate, the atmospheric conditions causing climate change. Indeed, if the Second RDEIR were correct, each and every forest in the country could be logged and burned right up to the point where harvest was equal to annual growth—in other words, to the point where the forest would cease to serve as a sink, and become a source—and maintain the forest as a merely nominal sink thereafter. The effect of this approach, however, would be to convert existing sequestered carbon into atmospheric CO₂ and to maintain that CO₂ in the atmosphere over time—which would clearly contribute to climate change. Emissions from a biomass facility do not disappear simply because the surrounding forest is a net sink. The extent to which a forest remains a sink, and its ability to sequester and store carbon over time, depends on how carbon stocks in that forest are managed and maintained over time. Bioenergy emissions and changes in forest carbon stocks and sequestration capacity affect the carbon cycle, and thus have an effect on atmospheric GHG concentrations.⁹

16-13

For these reasons, the Second RDEIR's invocation of "maximum sustained production" requirements embodied in SPI's Option A is unavailing. Reliance on this document essentially chooses an arbitrary landscape scale—the area covered by SPI's Option A—and asserts that bioenergy emissions from this landscape need not be counted so long as the forest continues to function as a sink. For the reasons stated above, this is incorrect. The selection of this landscape scale, as opposed to some other scale, is entirely arbitrary. In any event, SPI has argued in other contexts that the harvest and growth levels in its Option A are not actually mandatory, so there is no guarantee that the forest will function over time in the manner represented in the Option A.¹⁰ SPI's Option A also does not clearly account for the fact, acknowledged in the Second RDEIR, that "[t]he productivity of the state's forests is also expected to decrease as a result of global warming." Second RDEIR at 2.0-5.

16-14

The Second RDEIR also asserts that the Environmental Protection Agency ("EPA") views biomass combustion as "carbon neutral," based primarily on comments in EPA's national GHG inventory. This is incorrect. The Second RDEIR cites an inventory published in April 2010. Second RDEIR at 2.0-19 n.11. The most recent final annual inventory, published in 2011, does not contain the statement cited in the Second

16-15

⁹ See the Center's Sept. 20, 2010 comment letter, Ex. 4 at 7-8 and references cited therein.

¹⁰ See, e.g., SPI and California Forestry Association comments dated July 30, 2010, and California Forestry Association et al. comments dated February 2, 2010, attached as Exhibit I to the Center's October 17, 2011 comment letter concerning the first Recirculated Draft EIR.

Mr. Lio Salazar

Re: Second Revised Draft EIR; Sierra Pacific Industries Cogeneration Power Project
March 30, 2012

RDEIR.¹¹ Nor does the draft inventory for 1990-2010 released for comment in February 2012.¹² These changes followed submission of a petition by the Center pursuant to the Information Quality Act *challenging* EPA's assertion in the 1990-2008 inventory that biomass combustion did not cause a net addition of CO₂ to the atmosphere—the very assertion cited in the Second RDEIR. EPA's subsequent revisions do not contain the challenged assertion, and thus provide no support for the Second RDEIR's conclusions. EPA also acknowledged in its final rule temporarily exempting biogenic CO₂ emissions from regulation under Clean Air Act permitting programs that an ongoing review of the science of biogenic CO₂ emissions by a Science Advisory Board panel could show some biomass feedstocks do have an effect on the climate. Final Rule, 76 Fed. Reg. 43,490, 43,499/1-2 (July 20, 2011) (“[T]he possibility also remains that EPA’s detailed examination of the science of biogenic CO₂ will demonstrate that the utilization of some biomass feedstocks for bioenergy production will have a significant impact on the net carbon cycle . . .”). The Science Advisory Board process is continuing, as the Second RDEIR obliquely acknowledges. Second RDEIR at 2.0-26 n.23. There is thus no evidence for the document’s suggestion that EPA views all biomass combustion as “carbon neutral.”

16-15

The Second RDEIR's reliance on the California Air Resources Board's ("ARB's") exemption for biogenic GHG emissions from compliance obligations under the AB 32 cap-and-trade regulation is similarly misplaced. The Initial Statement of Reasons for the regulation did not explain the proposed exemption at all. The Final Statement of Reasons, aside from repeating several times the single conclusory sentence cited at Second RDEIR 2.0-19 n.10, also did not explain the basis for the exemption. In fact, the FSOR completely failed to respond to pages and pages of critical comments, backed up by published scientific articles, demonstrating that biomass combustion could not be treated as “carbon neutral.” FSOR at 400-415. One conclusory and ambiguous sentence in an ARB document cannot justify treating impacts as insignificant. Nor does ARB's decision to exempt biomass emissions from cap-and-trade compliance requirements under AB 32 relieve the County of its responsibility to analyze the particular impacts of this Project under CEQA. See *Californians for Alternatives to Toxics v. Dept. of Food and Ag.*, 136 Cal. App. 4th 1 (2005).

16-16

Indeed, the extent to which ARB's biomass exemption is even based on an assumption of carbon neutrality is not clear. ARB's CEQA document for the cap-and-trade regulation stated that any additional incentives for biomass development would be produced by the California Renewables Portfolio Standard ("RPS"), not by the cap-and-

16-17

¹¹ U.S. EPA, Inventory of Greenhouse Gas Emissions and Sinks, 1990-2009, EPA 430-R-11-005 (April 15, 2010) at 3-1 (excerpt attached as Ex. 8).

¹² U.S. EPA, Draft Inventory of Greenhouse Gas Emissions and Sinks, 1990-2010 (February 27, 2012) at 3-1, available at <http://www.epa.gov/climatechange/emissions/usinventoryreport.html> (last visited March 28, 2012).

Mr. Lio Salazar
 Re: Second Revised Draft EIR: Sierra Pacific Industries Cogeneration Power Project
 March 30, 2012

trade exemption.¹³ In the absence of any clear explanation or justification for the exemption in ARB's statement of reasons for the regulation, it remains plausible that ARB simply believed any GHG reductions from biomass under the AB 32 Scoping Plan would be accomplished through the RPS rather than the cap-and-trade regulation. This is consistent with the Second RDEIR's discussion of the relationship between AB 32 and the RPS at pages 2.0-34 to 2.0-36. Of course, nothing in the RPS explicitly states or is meant to imply that RPS-eligible technologies are "carbon-neutral" or that biomass combustion would result in reductions in greenhouse gas emissions. In any event, ARB's lack of clarity in explaining its exemption under the cap-and-trade program—a lack of clarity that cannot be remedied by citations to personal communication with ARB staff—provides no support for the Second RDEIR's assumptions.

16-17

The Second RDEIR also improperly relies on a decision of the California Public Utilities Commission ("CPUC") implementing the GHG performance standard established by SB 1368. Contrary to the suggestion in the Second RDEIR, the CPUC's decision to deem biomass generation consistent with the performance standard does not support a conclusion of "carbon neutrality" here. First and foremost, the CPUC decision considered only "waste" biomass fuels that otherwise would be disposed of in a manner that would generate large quantities of methane, a more powerful greenhouse gas than CO₂. The assumption that biomass wastes would generate high quantities of methane if not burned for energy is critical to the CPUC's conclusion. However, methane is produced by *anaerobic* decomposition, which occurs primarily in landfills. The Second RDEIR does not establish whether or the extent to which Project-related combustion would avoid anaerobic decomposition of fuels; accordingly, the Second RDEIR has not demonstrated that the CPUC's assumptions regarding methane—and its conclusions regarding bioenergy—are relevant to this Project at all.

16-18

The CPUC decision also did not *calculate* the lifecycle greenhouse gas emissions of various biomass fuels, but rather simply *deemed* those fuels compliant with SB 1368's emissions performance standard; in other words, the CPUC decision *assumed* no calculations were necessary. Recent scientific work demonstrating that source-specific analysis is critical to an understanding of biomass carbon dynamics shows that the CPUC decision is predicated on outdated and unsupported assumptions.¹⁴ The County cannot simply rely on dated assumptions and methodologies when new information is available. *See Berkeley Keep Jets Over the Bay Comm. v. Bd. of Port Comm'rs*, 91 Cal. App. 4th 1344 (2001). In any event, the analysis of carbon flows cited in the Second RDEIR as providing the "methodology" used by the CPUC—an analysis from a "subcontractor's report" not subjected to peer review or published in a scientific journal—explicitly

16-19

¹³ See ARB, Final Statement of Reasons for California's Cap and Trade Program 1188 (Oct. 2011) (citing Functional Equivalent Document at 351-52).

16-17

¹⁴ See, e.g., Searchinger 2009 (Ex. 4). For a more recent, and much more sophisticated, methodology for analysis of carbon stock changes and atmospheric emissions over time, see McKechnie 2011 (Ex. 2).

16-18

Mr. Lio Salazar
 Re: Second Revised Draft EIR, Sierra Pacific Industries Cogeneration Power Project
 March 30, 2012

acknowledges the need to consider the timing of bioenergy emissions relative to the potential alternative fates of feedstocks:

One complicating factor in comparing the greenhouse gas implications of biomass energy production with disposal alternatives for the biomass is that the timing of the emissions can be very different. Energy production leads to the conversion of virtually all the carbon in the biomass to CO₂, which is released immediately to the atmosphere. The various alternative disposal options produce a mixture of CO₂, CH₄, and fixed carbon, and in some cases the emissions of the greenhouse gases (CO₂ and CH₄) are significantly delayed. For example, biomass carbon that accumulates in the forest as overstocked material may remain as intact biomass for many years before being cycled to the atmosphere via fire or decay. Lag times in emissions, as well as relative radiative effectiveness, have to be taken into account when comparing the greenhouse warming implications of alternatives for disposing of biomass residues.¹⁵

16-19

Recent peer-reviewed, published scientific material, as discussed herein and in the exhibits to the Center's September 20, 2010 letter, indicates that the "carbon debt" associated with this lag time is far more significant than assumed in the quoted report.

Finally, the Second RDEIR dramatically misrepresents the conclusions of Searchinger et al. 2009. Searchinger did *not* conclude, as the Second RDEIR claims, that "waste and residue forms of biomass should be considered carbon neutral." Second RDEIR at 2.0-27. The article in fact explicitly rejected the idea that any biomass combustion should be assumed to be carbon neutral. Rather, Searchinger concluded that proper biomass accounting requires careful tracing of carbon flows, beginning with stack emissions, and that "credit" for greenhouse gas reductions should be available only where it can be demonstrated that use of a particular feedstock results in *additional* carbon sequestration, considering net changes in carbon stocks, non-CO₂ GHG emissions, and "leakage" emissions.¹⁶ The article suggests that certain "residues or biowastes" might be able to satisfy these criteria, but it does not state that anything a project applicant might classify as "wastes" or "residues" may be *assumed* to be carbon neutral.

16-20

Published, peer-reviewed scientific work over the last several years has discredited the assumption that all biomass combustion is "carbon neutral." The Second RDEIR has identified no support for its reliance on this assumption in either the documents discussed above or the other materials cited. The Second RDEIR thus fails to justify its lack of detailed disclosure and analysis regarding the Project's contribution to climate change. As such, the document fails to comply with CEQA's informational requirements.

16-21

¹⁵ Gregory Morris, Subcontractor Report, *Biomass Energy Production in California: The Case for a Biomass Policy Initiative*, NREL Report No. NREL/SR-570-28805 (Nov. 2000) at 39.

¹⁶ Searchinger 2009 (Ex. 4) at 528.

Mr. Lio Salazar
 Re: Second Revised Draft EIR; Sierra Pacific Industries Cogeneration Power Project
 March 30, 2012

III. The Second RDEIR’s Discussion of GHG Impacts Contains Legal and Factual Errors

The Second RDEIR’s unsupported reliance on an assumption of “carbon neutrality” is compounded by further legal and factual errors in its discussion of GHG impacts. 16-22

A. The Second RDEIR Fails to Articulate or Employ a Legally Adequate “Baseline” for Environmental Analysis

As a threshold matter, the Second RDEIR does not establish a clear and legally adequate “baseline” for analysis of the Project’s GHG emissions. Existing environmental conditions normally constitute the baseline for analysis of a project’s impacts. CEQA Guidelines § 15125; *see also Cmties. for a Better Env’t v. S. Coast Air Quality Mgmt. Dist.*, 48 Cal. 4th 310 (2010). Analysis of Project-related GHG emissions here should thus be straightforward: current emissions from SPI’s cogeneration facility should be compared with anticipated emissions from the expanded Project, and any increase should be evaluated against the significance threshold. Under this analysis, the Project-related increase in GHG emissions over the baseline—in excess of 300,000 MT CO₂e/yr. Second RDEIR at 2.0-33 and Table 2-4—is indisputably significant. 16-23

In its misguided effort to defend assumptions regarding the “carbon neutrality” of biomass fuels, however, the Second RDEIR eschews this straightforward analysis. In so doing, the document contravenes CEQA’s clear requirements governing establishment, disclosure, and justification of a baseline. Instead of comparing Project emissions to existing conditions as CEQA requires, the Second RDEIR instead pursues a confusing and inconsistent set of comparisons with various hypothetical outcomes. For example, by relying on the CPUC decision regarding the GHG performance standard, the Second RDEIR implicitly compares Project-related GHG emissions to hypothetical decomposition and disposal alternatives that might occur in the absence of the Project. CEQA demands analysis of a project’s effects on the existing environment, not a comparison between the project and the “no project” alternative, CEQA Guidelines § 15126.6(e)(1), or any other hypothetical future condition. 16-24

The Second RDEIR fails to articulate a clear description of the current environmental conditions that serve as the baseline. The document also implicitly indulges in prohibited comparisons between the Project, the “no project” alternative, and other hypothetical situations. In these respects it contravenes CEQA. 16-25

B. The Second RDEIR’s Discussion of GHG Impacts Is Marred by Inconsistencies, Omissions, and Factual Errors

Quite aside from its failure to identify and employ a proper baseline for analysis, the Second RDEIR’s discussion of GHG emissions from the Project is deeply flawed. 16-26

Mr. Lio Salazar
 Re: Second Revised Draft EIR: Sierra Pacific Industries Cogeneration Power Project
 March 30, 2012

First, the Second RDEIR's quantification of GHG emissions from boiler combustion is inconsistent with estimates provided to U.S. EPA as part of SPI's air permit application for the Project. Specifically, the Second RDEIR estimates that biomass combustion will produce 317,497 MTCO_{2e} per year, Second RDEIR at 2.0-33 and Table 2-4, while information supplementing the Project air permit application estimates that combustion of wood in the boiler will produce 393,431 MTCO_{2e} per year.¹⁷ The Second RDEIR thus understates the Project's biomass combustion-related GHG emissions by about 20 percent.

16-27

The Second RDEIR also grounds its discussion of "carbon neutrality" in the unsupported statement that "all of the fuels that will be used by the proposed Cogen Facility are waste and residue forms of biomass." Second RDEIR at 2.0-27. As discussed in detail above, biomass materials do not become "carbon neutral" simply by being labeled "waste and residue." Moreover, nothing in the Second RDEIR guarantees that only "waste and residue" wood will be combusted in the Project's boiler. Nowhere does the document even define "waste and residue," much less identify any condition limiting the Project to burning only these fuels. The "alternative fuel type mix" used for quantification of the Project's GHG emissions includes not only mill, agricultural, and urban waste wood, but also "woody biomass" from forest "harvesting" and "thinning" operations. Second RDEIR at 2.0-30. Living, growing trees do not become "waste" or "residue" simply because a timberland owner has decided they need to be thinned. More importantly, living and growing trees would continue to store and sequester carbon well into the future if not cut and burned for energy; accordingly, thinned materials cannot be considered "carbon neutral," but rather incur a long-lasting carbon debt.¹⁸

16-28

None of the operative definitions discussed in the Second RDEIR limit the Project to "waste and residue" fuels in any event. The document refers to the extraordinarily broad definition of "biomass" adopted in ARB's cap-and-trade regulation, which includes virtually any organic material whatsoever. Second RDEIR at 2.0-14 (quoting 17 Cal. Code Regs. § 95802(a)(31)). In fact, supporting materials for the air permit application for the Project show that SPI is seeking to *replace* a condition of the current air permit limiting the facility to "wood waste" fuels with a condition permitting combustion of the far broader range of "biomass" fuels described in Public Resources Code section 40106(a)(4)—a list which includes *all* forms of "wood, wood chips, and wood waste."¹⁹ The Second RDEIR's assertion that the Project will burn only "waste and residue" is thus directly contradicted by SPI's air permit application materials. The Second RDEIR has

16-29

¹⁷ Letter from Eric Albright, Environ Int'l, Inc., to Gerardo Rios, U.S. EPA Region IX, Re: Response to Additional Information Request (June 8, 2011) (attached as Ex. 9).

¹⁸ See, e.g., Stephen R. Mitchell, et al., *Forest Fuel Reduction Alters Fire Severity and Long-Term Carbon Storage in Three Pacific Northwest Ecosystems*, 19 *Ecological Applications* 643, 652 (2009) (included in Ex. 4B to the Center's Sept. 20, 2010 comments).

¹⁹ Letter from Eric Albright, Environ Int'l, Inc., to Gerardo Rios, U.S. EPA, Re: Response to Additional Information Request 2-3 (Dec. 2, 2010) (attached as Ex. 10).

Mr. Lio Salazar
 Re: Second Revised Draft EIR: Sierra Pacific Industries Cogeneration Power Project
 March 30, 2012

not identified any provision of law, condition, or other enforceable document supporting its assertion that only “waste and residue” will be burned.

16-29

The Second RDEIR’s assertion that fuels will be derived from forest fuels reduction operations does not justify treating combustion of those fuels as carbon neutral. Recent science shows that even where avoided future emissions from wildfire are taken into account, combustion of live, growing trees from forest thinning operations will increase CO₂ emissions over the critical near term, and quite possibly for many years beyond that.²⁰ By treating even the cutting and burning of live growing trees as “carbon neutral” without respect to the temporal duration of emissions increases, the Second RDEIR completely fails to disclose and analyze the relevant impacts of the Project.

16-30

The Second RDEIR’s analysis also directly contradicts that of the first RDEIR, which attempted to quantify emissions based on purported alternative fates of biomass fuels. Even employing favorable and unsupported assumptions, as detailed in the Center’s comments dated October 2011, the RDEIR arrived at a total GHG emissions figure of about 175,000 MTCO₂e per year—an amount far in excess of the new significance threshold. The Second RDEIR now suggests that these emissions actually make the Project even better than “carbon neutral,” Second RDEIR at 2.0-34, but provides no supporting analysis or any explanation as to why an increase of 175,000 MTCO₂e per year is now apparently regarded as a *negative* net emission. This analytical about-face is not explained, cannot be supported, and appears to be completely arbitrary.

16-31

Finally, the Second RDEIR fails to account properly for GHG emissions from natural gas. The Second RDEIR acknowledges that the Project may be permitted to operate its two natural gas burners at a 10% capacity factor, or “at nearly 3,000 hours per year.” Second RDEIR at 2.0-31. Yet the Second RDEIR quantifies emissions from these burners based on the assumption that they will operate for at most 500 hours per year. *Id.*

16-32

²⁰ See John L. Campbell, et al., *Can fuel-reduction treatments really increase forest carbon storage in the western US by reducing future fire emissions?* FRONT. ECOL. ENV’T, doi:10.1890/110057 (2011) (attached as Ex. 11); Tara Hudiburg, et al. 2011. *Regional carbon dioxide implications of forest bioenergy production*, NATURE, CLIMATE CHANGE, doi: 10.1038/NCLIMATE1264 (2011) (attached as Ex. 12). Campbell et al. found that it is “extremely unlikely” that “thinning trees and other fuel-reduction practices aimed at reducing the probability of high-severity forest fire are consistent with efforts to keep carbon (C) sequestered in terrestrial pools.” Rather, the study revealed “high C losses associated with fuel treatment, only modest differences in the combustive losses associated with high-severity fire and the low-severity fire that fuel treatment is meant to encourage, and a low likelihood that treated forests will be exposed to fire.” Hudiburg et al. similarly found that forest fuels reduction management resulted in net increases in greenhouse gas emissions over the next 20 years, even assuming substitution of fossil fuels by forest biomass energy, and concluded that “forest policy should consider current forest carbon balance, local forest conditions and ecosystem sustainability in establishing how to decrease emissions.”

16-30

Mr. Lio Salazar
 Re: Second Revised Draft EIR; Sierra Pacific Industries Cogeneration Power Project
 March 30, 2012

CEQA case law requires that the effects of a project be evaluated *at the permitted level*, not at some other level that may have the effect of minimizing or obscuring the project's potential effects. *San Joaquin Raptor Rescue Ctr. v. County of Merced*, 149 Cal. App. 4th 645 (2007). The Second RDEIR cannot adequately evaluate the Project's natural gas GHG emissions without knowing or disclosing the permitted capacity factor. Moreover, the calculations provided at page 1 of Appendix A show that at a permitted capacity factor of 10% (2,981 hours of operation), natural gas GHG emissions would total 19,876 MTCO_{2e} per year. Even ignoring emissions from biomass combustion, this would bring the Project total to 28,808 MTCO_{2e} per year—above the 25,000 MT significance threshold. The Second RDEIR fails to properly disclose, analyze, and discuss the significance of these emissions.

16-32

IV. The Project Conflicts with AB 32

The Second RDEIR's assumption of biomass carbon neutrality obscures a serious conflict between this Project and AB 32. The goal of AB 32 is to *reduce* GHG emissions to 1990 levels by 2020. As shown in the scientific materials discussed above and included with our prior comment letters, biomass combustion will likely *increase* emissions, even as compared to fossil fuels, over that time period. The Project thus undermines the actual goals of AB 32.

16-33

Consistency with the RPS cannot resolve this conflict. As discussed in our previous letters, the RPS was not written specifically to achieve GHG reductions. Inclusion in the RPS thus does not necessarily achieve GHG reductions, especially when high-carbon "renewables" like biomass are compared to lower-carbon generation like solar and wind. Once again, the Project's purported consistency with the RPS does not relieve the County of its independent obligation to fully disclose, analyze, and propose mitigation for the Project's environmental impacts. See *Californians for Alternatives to Toxics v. Dept. of Food and Ag.*, 136 Cal. App. 4th 1 (2005).

16-34

V. Conclusion

For the foregoing reasons, and for the reasons stated in the Center's previous comment letters regarding this Project, the EIR as a whole fails to comply with CEQA. Approval of the Project based on this EIR would constitute a prejudicial abuse of discretion.

16-35

Thank you for your consideration of our comments.

Sincerely,



Kevin P. Bundy
 Senior Attorney

Response to Letter 16: Kevin P. Bundy, Center for Biological Diversity

Response 16-1: The commenter provides an introductory statement to the letter, noting that the comment letter is directed at the 2nd RDEIR. This comment is noted.

Response 16-2: The commenter states the commenter's opinion that the 2nd RDEIR is based on a "scientifically and legally indefensible assumption that all biomass combustion is 'carbon neutral.'"

The 2nd RDEIR does not take the position that all biomass combustion is carbon neutral. For example, it acknowledges studies indicating that under some conditions, some types of biomass fuels, such as fuels derived from forest harvesting conducted specifically for energy production, may not be carbon neutral (p. 2.0-26). However, the 2nd Recirculated DEIR concludes, consistent with analysis conducted as part of policy efforts by the California Public Utilities Commission, California Air Resources Board, California Energy Commission, and the U.S. Environmental Protection Agency, as well as the Intergovernmental Panel on Climate Change and the European Parliament, that the biomass fuels used for the Cogeneration Facility would be carbon neutral (or carbon negative) because they are all waste and residue forms of biomass, considered in the context of sustainable forestry practices (see, e.g., p. 2.0-27). As discussed on page 2.0-20, the Project would not result in any additional timber harvesting operations for the sole purpose of biomass combustion.

The comment also states that the 2nd Recirculated DEIR takes an approach that is inconsistent with the approach taken in prior versions of the greenhouse gas analysis for the Cogeneration Facility. The County recognizes that the Second RDEIR has been modified, based on its review of information received in comments on the First RDEIR, and that this constitutes "significant new information" requiring recirculation under Public Resources Code section 20192.1 and CEQA Guidelines section 15088.5. The County has circulated the 2nd Recirculated DEIR in satisfaction of this requirement.

Response 16-3: The commenter states that CEQA requires a good-faith effort at full disclosure of a project's environmental effects, and requires a lead agency to substantiate its conclusions with facts and analysis. The commenter goes on to state that the 2nd RDEIR fails to comply with these and other requirements of CEQA.

The comment is noted. Specific contentions relating to the County's effort, full disclosure of environmental effects, and substantiation of its conclusions, are addressed further below.

Response 16-4: The commenter refers to previous comments it submitted on the prior CEQA documents for the Cogeneration Facility. It states that the County may not

disregard those prior comments, but must respond to each substantive comment concerning the Project.

These comments, to the extent they remain relevant in the 2nd RDEIR, are addressed in the County's separate response to CBD's prior letters. CBD's letter responding to the Draft EIR, dated September 17, 2010, is included above as Letter 10, and full responses to this letter are provided. CBD's letter responding to the Recirculated Draft EIR, dated October 14, 2011, is included above as Letter 14, and full responses to this letter are provided.

However, as explained on page 1.0-4 of the 2nd Recirculated DEIR, CEQA does not require that the County respond to earlier comments received on portions of the EIR that have subsequently been revised and recirculated. (See CEQA Guidelines, 14 Cal. Code Regs. section 15088.5(f)(2) (Following recirculation of a portion of an EIR, "[t]he lead agency need only respond to (i) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (ii) comments received during the recirculation period that relate to the chapters or portions of the earlier EIR that were revised and recirculated."))

Response 16-5: The comment states that the 2nd Recirculated DEIR relies on the assumption that greenhouse gas emissions from biomass combustion have no impact on atmospheric greenhouse gas concentrations or climate change.

The 2nd Recirculated DEIR does not take this position. However, as discussed at pages 2.0-21 and 2.0-25, the 2nd Recirculated DEIR is based on the premise that emissions from biomass combustion cannot be considered in isolation from the biogenic carbon cycle. Considered in this context, U.S. EPA analysis performed in accordance with IPCC protocols concludes that managed temperate forests in the U.S., and California in particular, operate as a significant annual net greenhouse gas sink, even factoring in emissions relating to harvest and land use changes (see, e.g., 2nd Recirculated DEIR at 2.0-21, 2.0-25; U.S. EPA, Inventory of U.S Greenhouse Gas Emissions and Sinks: 1990-2008, at Table 7-6 and Chapter 7 generally).

Additionally, analysis conducted on behalf of the California Energy Commission and by the California Air Resources Board has determined that the state's forests act as a significant net sink for greenhouse gases on an annual basis, factoring in "oxidation of timber harvest slash, fuel wood, biomass consumed in wildfires, other disturbance (land use change or unspecified) or from the decomposition of landfilled or composted wood products consumed in the state." (See California Air Resources Board, Forested Lands and Wood Products Biodegradable Carbon Emissions & Sinks (2000-2009), available at

<http://www.arb.ca.gov/cc/inventory/sectors/forest/forest.htm> (labeled “Net CO2 Flux Estimates for 2000-2009”), accessed April 11, 2012.

Finally, the analysis conducted in connection with SPI’s own “Option A” demonstrates a significant increase in forest carbon sequestration over the next century. (See 2nd Recirculated DEIR at 2.0-21 to 2-24). In short, the 2nd Recirculated DEIR does not apply a blanket assumption that biomass combustion has no effect on global greenhouse gas levels. Rather, it relies on data and detailed analyses demonstrating that when biomass combustion emissions and forest regrowth are accounted for – whether on the national, state, or SPI-owned level – the net result is a significant forest sequestration effect, both on an annual basis and over time.

The commenter also refers to recent scientific articles and states that because re-sequestration of forest biomass emissions, if it occurs at all, may occur many decades in the future, forest biomass combustion is not a near-term strategy for reducing greenhouse gases.

The assertion is based on an accounting approach that, in effect, would require the regrowth of each specific portion of biomass used as fuel before the biogenic carbon cycle can be considered closed. As described in the 2nd Recirculated DEIR at page 2.0-20, the method used for accounting is to analyze the forest source as a whole, on a landscape basis, within a given timeframe (e.g., on an annual basis). If total biomass in the source forest is increasing over time in conjunction with the supply of fuel removed for biomass power production, then the enterprise is not only carbon neutral, but is contributing to the net sequestration of atmospheric carbon. The 2nd Recirculated DEIR documents that California forests as a whole, and SPI’s managed forests in particular, are currently acting as a net sink for atmospheric carbon, not just in long-term scenarios, as described above. The biomass fuels sourced from these forests as mill residues, forest thinnings and slash are part of a system that is demonstrated to be a net sink of greenhouse gases on a current and annual basis.

Response 16-6: The commenter refers to recent sources addressing the combustion of forest “waste” and “residuals” and states that even these materials cannot be considered “carbon neutral” in the near term.

The County has based its impact analysis on numerous recent analyses regarding woody biomass fuels and the biogenic carbon cycle, in particular the benefits to atmospheric carbon associated with using waste and residual biomass sources to generate electricity. (See, e.g., 2nd Recirculated DEIR p. 2.0-12, citing CPUC Decision 07-01-039: “In particular, the record shows that electric generation using biomass (e.g., agricultural and wood waste, landfill gas) that would otherwise be

disposed of under a variety of conventional methods (such as open burning, forest accumulation, landfills, composting) results in a substantial **net reduction** in GHG emissions.” (emphasis in original)). The expert studies cited in the 2nd Recirculated DEIR provide support for the assessment by the County, consistent with the approaches taken in state, federal, and international rulemaking relating to climate change mitigation and notwithstanding the existence of other studies that the County has not expressly addressed.

The commenter also asserts that the 2nd Recirculated DEIR ignores “the complex relationship between forest carbon stocks and biomass harvest by employing the carbon neutrality assumption.”

The 2nd Recirculated DEIR bases its analysis on various sources that model the relationship between stocks and biomass harvest; it does not apply an assumption of carbon neutrality. (See also Response 16-5 above). The comment goes on to state that as a result of this assumption, the 2nd Recirculated DEIR fails to disclose and evaluate the Project’s greenhouse gas emissions and contributions to climate change. The commenter is directed to review the project-specific greenhouse gas analysis at pages 2.0-29 to 2.0-34 of the 2nd Recirculated DEIR, including Table 2-4, which calculates the direct and net greenhouse gas emissions that would be generated by the Cogeneration Facility. Moreover, with respect to the 2nd Recirculated DEIR’s project-specific analysis, the quantification of emissions is conservative. For example, the analysis of the greenhouse gas emissions is not balanced against the emissions generated by an equivalent amount (31 MW) of fossil fuel energy production as well as an analysis of emissions that would be avoided by using the biomass fuel sources for the Cogeneration Facility rather than leaving them to alternative disposal fates such as open burning. While this approach was not taken, such an analysis would show greenhouse gas emissions being further offset by the project. (See p. 2.0-31, 2.0-34).

Response 16-7: The commenter notes that the 2nd Recirculated DEIR identifies several purported sources of support for its position regarding the carbon neutrality of biomass combustion, yet states that the sources do not support the 2nd Recirculated DEIR’s conclusions and that many of the sources are either misconstrued or misused.

The comment is noted. Specific contentions are addressed in the responses below.

Response 16-8: The commenter states that the basis for the 2nd Recirculated DEIR’s assumption of carbon neutrality is neither consistent nor clear. It speculates that the 2nd Recirculated DEIR would support the position that “every plant currently growing on earth could be burned tomorrow without any effect on the climate.”

The 2nd Recirculated DEIR does not take this position. Rather, its analysis is based on research and studies that considered on multiple scales – across the U.S., in California, and in forest lands managed by SPI – how temperate forests (i.e., the primary source of the vast majority of fuels to be consumed at the Cogeneration Facility) act as a significant annual sink for greenhouse gases, net of emissions from biomass, wildfire, harvesting, and other land use changes. This is also explained in Responses 16-5 and 16-6. Although the commenter refers to deforestation as a contributor to climate change, the project does not propose deforestation (i.e., harvesting and/or land use conversion absent sustainable reforestation and management practices)—the comment is not directed to consideration of the managed forests involved here, or to the analysis of biomass fuel sources considered to be sustainable.

Response 16-9: The commenter suggests that accounting approaches for national greenhouse gas inventories have no place in evaluations of facility-specific emissions.

The County disagrees. The accounting approaches developed for U.S. EPA purposes, as well as those recommended by the IPCC, California Air Resources Board, and in connection with SPI's demonstration of Maximum Sustained Production, are all relevant to understanding the context in which biogenic carbon emissions from biomass sources should be analyzed.

The commenter also asserts that the 2nd Recirculated DEIR has failed to account for emissions associated with biomass as either “energy” or “land use” emissions.

Rather than treating these emissions as though they do not exist, the 2nd Recirculated DEIR takes a comprehensive approach to analysis of biogenic carbon emissions and concludes – consistent with policy approaches adopted on the state, national, and international levels – that when these emissions are accounted for and considered in light of sequestration levels, the forestry sector continues to operate as a significant net greenhouse gas sink, year by year.

Response 16-10: The commenter states that the 2nd Recirculated DEIR relies on a landscape-level, inventory-based accounting approach that is inadequate to provide a full and accurate account of the consequences of biomass combustion.

As a general matter, the County notes that no relevant regulatory authority (such as the California Air Resources Board or Shasta County Air Quality Management District) has adopted recommended methodology for evaluating greenhouse gas emissions associated with stationary sources and/or new projects, let alone biomass projects specifically (see 2nd Recirculated DEIR p. 2.0-17). Consistent with the CEQA Guidelines (14 Cal. Code Regs. section 15064.4), the County has made “a good-faith effort, based to the extent possible on scientific and factual data, to

describe, calculate, or estimate the amount of greenhouse gas emissions resulting from [the] project.” The Guidelines go on to specifically state that if a lead agency uses a model or methodology to quantify greenhouse gas emissions, it has discretion to select the model or methodology it considers most appropriate, provided the decision is supported by substantial evidence. (Id.) The multiple sources cited throughout the 2nd Recirculated DEIR constitute substantial evidence for the County’s adoption of methodology that evaluates both landscape-level and project-level biomass impacts.

Response 16-11: The commenter asserts that the approach used by the 2nd Recirculated DEIR produces arbitrary results when applied at different spatial scales.

The identified available inventories – from lands within SPI’s ownership, to regional, to statewide, to national levels – indicate that forest land use is a significant net sink considering relevant emissions sources (harvest, biomass combustion, wildfire, and other development/land use change). While the various inventories differ in aspects of their methods, the similarity of results and size of the net sink in each analysis provides support for the approach in the 2nd Recirculated DEIR. Moreover, it is not accurate to state that the amount of greenhouse gas emissions under the 2nd Recirculated DEIR depends solely on the geographical scale of analysis; the biomass fuel sources are considered in the analysis, as the 2nd Recirculated DEIR describes, e.g. at p. 2.0-19 (“[I]t is important to consider both the role of forest management and the treatment of biomass fuels, as both affect the overall GHG impact.”). In this case, analysis of two identically designed facilities burning the same feedstocks would not be found to have different GHG impacts depending upon their locations—the sustainability of the feedstocks is the driver of the emissions. It should be noted that the California Air Resources Board requires, as proof of sustainable origin, the State Timber Harvest Plan Number and/or the federal NEPA identifier for all biomass to qualify as exempt from compliance obligations under AB 32. Only biomass considered exempt by the California Air Resources Board is proposed for use by the Cogeneration Facility; any other non-exempt source material is not contemplated for the Cogeneration Facility.

Response 16-12: The commenter points to inadequacies of inventory-type approaches to greenhouse gas accounting, and urges measurement against the “carbon debt” associated with deforestation and land conversion throughout history.

The comment is noted. The analysis and approach taken in the 2nd Recirculated DEIR is supported by numerous studies, and coincides with approaches utilized by other governmental entities at the state and federal level. The project’s impacts are based on environmental baseline conditions and the County is not aware of

any adopted policy, under AB 32 or otherwise, that requires an analysis of “deforestation and other forms of land conversion” throughout history.

Response 16-13: The commenter remarks on the relationship between forest carbon sequestration and atmospheric greenhouse gas levels.

The County agrees with the commenter’s statement that the extent to which a forest remains a sink, and its ability to sequester and store carbon over time, depends on how carbon stocks in that forest are managed and maintained over time. In this respect, the County directs the commenter to the documentation provided demonstrating sustainable management in SPI-owned lands, as discussed at pages 2.0-21 to 2.0-24 of the 2nd Recirculated DEIR. The County notes that the project does not involve additional timber harvesting, as the fuel sources for the Cogeneration Facility would all be waste and residual biomass forms (see page 2.0-20 to 2.0-21, 2.0-27). The adopted and cited policy approaches indicate that sustainable forest management for biomass production on a larger scale is consistent with reductions of atmospheric greenhouse gas levels, especially to the extent it may offset carbon-intensive fossil fuel energy production.

Response 16-14: The commenter questions the references to Maximum Sustained Production as cited in SPI’s Option A.

The County does not agree that selection of this landscape scale is arbitrary, as the Project Description indicates that up to 100% of the fuel requirements for the Cogeneration Facility may come from these sources (as residuals processed from SPI’s Anderson and Shasta Lake sawmills), with likely average scenarios indicating approximately 35% may come from other sources. The Option A reflects lands under the ownership of SPI and is separately reviewed and evaluated by the California Department of Forestry and Fire Protection for adequacy. The Option A is then incorporated into timber harvesting plans that must demonstrate a balance of growth and harvest on the ownership over time. This analysis at this scale is a reasonable approach for showing that the majority of biomass feedstock—the fuel sourced from SPI’s ownership—is collected consistent with the state’s laws governing sustainable production. While SPI lands will likely be the primary source for the in-woods and sawmill residues, SPI does purchase wood products from other landowners. All timber harvest, on public or private land, must meet sustainability requirements under state and federal forestry regulations. In this respect, the California Air Resources Board requires, as proof of sustainable origin, the State Timber Harvest Plan Number and/or the federal NEPA identifier for all biomass to qualify as exempt from AB 32 compliance obligations. Thus, all forest origin wood residues to be used at the facility will be sustainably grown in compliance with applicable laws.

Response 16-15: The commenter notes, and the County recognizes, that the most recent published EPA inventory does not contain the statement cited in the 2nd Recirculated DEIR that “[i]t is assumed that the carbon (C) released during the consumption of biomass is recycled as U.S. forests and crops regenerate, causing no net addition of CO₂ to the atmosphere.” (See Second RDEIR at 2.0-19 n. 11).

To the County’s knowledge, the EPA has not retracted this statement, and the calculations for the forest land use sector in the 2011 report still employs the same methodology showing U.S. forests to be functioning as a significant net sink of greenhouse gases (see U.S. EPA, U.S. Inventory of Greenhouse Gas Emissions and Sinks: 1990-2009, Table 7-6 (April 15, 2011)). The comment also refers to ongoing EPA review of biogenic CO₂ emissions in connection with Clean Air Act permitting actions, which the County recognizes and which does not alter the analysis. The 2nd Recirculated DEIR does not take the position that all biomass combustion should be treated as “carbon neutral” (see, e.g. p. 2.0-26, recognizing that under some conditions, some types of biomass fuels, such as fuels derived from forest harvesting conducted specifically for energy production, may not be carbon neutral).

Response 16-16: The commenter challenges the 2nd Recirculated DEIR’s reliance on the California Air Resources Board’s exemption for biogenic greenhouse gas emissions from compliance obligations under recently adopted cap-and-trade regulations.

The comment is noted. Notwithstanding the commenter’s disagreement, the California Air Resources Board (“CARB”) has concluded in a formal rulemaking process that “biomass-derived fuels are exempt from a compliance obligation since CO₂ emissions resulting from the combustion of biomass are considered biogenic.” (See p. 2.0-19, 2.0-26).

Response 16-17: The commenter questions CARB’s biomass exemption as premised on the carbon neutrality of biomass sources.

The commenter has not pointed to any evidence compelling a different interpretation from the one used by the County based on the plain language of the regulation. This interpretation has also been confirmed by communications with staff at CARB, the agency which is owed deference in interpreting its own regulations. This interpretation is that qualified biomass sources do not have a compliance obligation because they do not hinder achievement of the greenhouse gas reduction goals under AB 32, and can be considered carbon neutral, as explained in the 2nd Recirculated DEIR. (See p. 2.0-19, 2.0-26).

Response 16-18: The commenter states that the 2nd Recirculated DEIR improperly relies on a California Public Utilities Commission decision relating to greenhouse gas performance standards.

The commenter is referred to Response 16-2 regarding “carbon neutrality.” The 2nd Recirculated DEIR, p. 2-0-12, identifies Senate Bill 1368 and explains that biomass generation of electricity is Emissions Performance Standard-compliant because alternative means of disposing biomass, such as open air burning and landfill deposition, have the potential to generate greater concentrations of greenhouse gas in the atmosphere, including (but not limited to) methane. By extension, biomass fuels, including sawmill residues used for electrical generation, avoid anaerobic decomposition and the alternative fates that would result in greater greenhouse gas emissions. Moreover, the project assumes use of urban wood wastes, which would otherwise be disposed of in landfills, as well as agricultural and forest wastes that would otherwise result in methane generation. Again, the CPUC expressly determined that as an alternative to “open burning, forest accumulation, landfills, [and] composting,” biomass electrical generation has the potential for a substantial net reduction of greenhouse gas emissions. (See p. 2.0-12 n.5, emphasis added).

Response 16-19: The commenter generally asserts that it is necessary to consider specific sources to understand biomass carbon dynamics.

The commenter is directed to the various sources cited in Response 16-5 and throughout the 2nd Recirculated DEIR. These recent sources provide support for the County’s assessment, consistent with the approaches taken in state, federal, and international rulemaking relating to climate change mitigation, and notwithstanding the existence of other studies that the County may not have expressly addressed. Additionally, while the County agrees that it is important to consider the timing of bioenergy emissions relative to potential alternative fates, the U.S. EPA Inventory and CARB calculations take these factors into account in determining the various landscape levels to be significant net sinks for greenhouse gases.

Response 16-20: The commenter addresses the 2nd Recirculated DEIR’s summary of the conclusions in an article by Searchinger et al.

Again, the 2nd Recirculated DEIR has relied on multiple sources for “careful tracing of carbon flows,” and that give “credit” for greenhouse gas reductions when it can be demonstrated that use of particular fuel sources will result in *additional* carbon sequestration. Under the methodology used in the 2nd Recirculated DEIR and as

described at p. 2.0-26 to 2.0-27, the fuel sources to be used at the Cogeneration Facility satisfy the concerns expressed in this article.

Response 16-21: The commenter repeats the assertion that the 2nd Recirculated DEIR assumes that all biomass combustion is “carbon neutral.” See Response 16-2 above.

Response 16-22: The commenter refers to further asserted factual and legal errors in the 2nd Recirculated DEIR.

The comment is noted. Specific contentions are addressed below.

Response 16-23: The commenter addresses the appropriate “baseline” for analysis of the project’s greenhouse gas emissions.

The County agrees that existing environmental conditions normally constitute the baseline and that the project should be compared to these conditions. However, the approach requested by the commenter is not warranted given the nature of the project. In this case, the “project” involves not a fossil fuel source but biomass sources that must be considered in the context of their (sustainable) production and the biogenic carbon cycle. It is not accurate to state that the project-related increase in greenhouse gas emissions is more than 300,000 MT CO₂e/yr over the baseline, as this statement does not consider the *net* emissions from biomass production, harvesting, and combustion, consistent with the approaches described in Response 16-6. (See Table 2-4, Direct and Net GHG Emissions Generated by the Project, which concludes that *net* emissions will be approximately 12,351 MT CO₂e/yr).

Response 16-24: Describing the baseline, the commenter states that the 2nd Recirculated DEIR improperly compares the project’s effects to a “no project” alternative, rather than to the existing environment, by referring to alternative disposal fates.

The 2nd Recirculated DEIR expressly does *not* “account for the emissions that would be avoided by using the fuel sources for the Cogen Facility rather than alternate disposal fates (such as open burning) Such an analysis would show how greenhouse gas emissions could fall even further below the threshold.” (See p. 2.0-34.). Therefore, this comment is incorrect.

Response 16-25: The commenter states that comparisons between the project, a “no project” alternative, and other hypothetical situations is prohibited.

Recent case law establishes that it is permissible to compare a project to various scenarios so long as the existing conditions are identified (see *Pfeiffer v. City of Sunnyvale*, 200 Cal. App. 4th 1552). Here, the analysis in Table 2-4 identifies the

gross and net emissions associated with the project, relative to existing conditions, in satisfaction of CEQA's requirements.

Response 16-26: The commenter introduces the commenter's opinion that the 2nd Recirculated DEIR's discussion of greenhouse gas emissions is deeply flawed. The comment is noted.

Response 16-27: The commenter states that the 2nd Recirculated DEIR's quantification of greenhouse gas emissions from boiler combustion is inconsistent with estimates provided to the U.S. EPA.

The difference in estimates is a result of differing methodologies between the respective EIR and PSD processes. The 2nd Recirculated DEIR relied upon and cited the California Mandatory Reporting Rule (2008), and in part, Chapter 13, Equation 1 of the instructional guidance for the Rule. The GHGs estimated by the County are based on this reference and utilize fuel consumed, along with high heat values and emission factors to estimate GHGs. The EPA PSD permit and associated GHG estimates are based on the Federal Mandatory Reporting Rule (40 CFR Part 98). The Federal method utilizes boiler design heat (mmbtu/hour) and then high heat values and emission factors to estimate GHGs. The numerical difference between the two estimating methodologies is already identified by the commenter.

The County recognizes that it used a different methodology regarding emissions. However, this analysis remains valid for the purposes of the greenhouse gas analysis in the 2nd Recirculated DEIR. For purposes of CEQA, no relevant regulatory authority (such as the California Air Resources Board or Shasta County Air Quality Management District) has adopted recommended methodology for evaluating greenhouse gas emissions associated with stationary sources and/or new projects, let alone biomass projects specifically (see Second RDEIR p. 2.0-17). Consistent with the CEQA Guidelines (14 Cal. Code Regs. section 15064.4), the County has made "a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from [the] project." As explained in Response 16-10, if a lead agency uses a model or methodology to quantify greenhouse gas emissions, it has discretion to select the model or methodology it considers most appropriate, provided the decision is supported by substantial evidence. (Id.)

Even if the County had used the other methodology identified by the commenter, the conclusion would remain the same as the County has based its impact analysis on numerous recent analyses regarding woody biomass fuels and the biogenic carbon cycle, in particular the benefits to atmospheric carbon associated with

using waste and residual biomass sources to generate electricity. (See, e.g., 2nd Recirculated DEIR p. 2.0-12, citing CPUC Decision 07-01-039: “In particular, the record shows that electric generation using biomass (e.g., agricultural and wood waste, landfill gas) that would otherwise be disposed of under a variety of conventional methods (such as open burning, forest accumulation, landfills, composting) results in a substantial net reduction in GHG emissions.” (emphasis in original)). See Response 16-6 for additional detail. The multiple sources cited throughout the 2nd Recirculated DEIR constitute substantial evidence for the County’s adoption of the methodology it used here.

Response 16-28: The commenter indicates that the 2nd Recirculated DEIR does not guarantee that only “waste and residue” will be consumed at the Cogeneration Facility.

As explained, the project would not involve any change to existing and approved forest management practices (see p. 2.0-21). Additionally, power generation is the lowest-value use for biomass resources, and only waste and residual materials are used as fuels throughout the industry (p. 2.0-20). The function of an EIR is to analyze the environmental impacts that would result from the project, based on construction and operation of the project as set forth in the Project Description, which clearly identifies that only waste and residual products will be used. In addition to being established by this EIR, fuel types consumed at the facility will be subject to a PSD permit and AQMD operating permit for the facility. The operating permit outlines parameters and compliance monitoring to ensure prohibited fuels are avoided and only permitted fuels are utilized.

Response 16-29: The commenter expands on the notion that the project will not be limited to “waste and residue” fuels.

Although the project applicant may have sought flexibility to burn various biomass fuels in connection with its air permit, this is not inconsistent with the EIR’s Project Description, which limits analysis to specific fuel sources. See Response 16-28 above.

Response 16-30: The commenter contends that fuels derived from forest fuel reduction operations should not be treated as carbon neutral.

First, the County reiterates that no changes to approved forest management practices would result from approval of this project (see p. 2.0-21). Second, as explained in Response 16-5, the various inventory analyses that have been conducted as relevant to the fuel sources at issue here have all concluded that temperate forests operate year-to-year as significant net sinks for greenhouse gases, even accounting for the types of forest fuel operations identified here.

While the 2nd Recirculated DEIR does not apply a blanket presumption that combustion of all fuel from forest thinning operations would necessarily be treated as “carbon neutral,” the fuels at issue here fall within the context of the fuels that have been determined in a variety of policy contexts to be neutral or assist in reducing greenhouse gas levels.

Response 16-31: The commenter states that the 2nd Recirculated DEIR contradicts the first Recirculated DEIR.

The opinion of the commenter that the change is “completely arbitrary” is noted. The County has issued the 2nd Recirculated DEIR to address comments on the first Recirculated DEIR that suggested use of a quantitative threshold of significance was appropriate to evaluate climate change impacts. The thresholds and methodology employed in the 2nd Recirculated DEIR are based on a careful consideration of scientific literature and policy directives, cited in footnotes throughout the chapter, concerning the global warming impacts of biomass fuel sources, and provide the County’s good faith and intelligent effort at disclosure of the potential environmental effects of the project in order to allow the decision-makers an opportunity for meaningful consideration of the environmental impacts of the project. The County recognizes that the 2nd Recirculated DEIR has been modified, based on its review of information received in comments on the first Recirculated DEIR, and that this constitutes “significant new information” requiring recirculation under Public Resources Code section 20192.1 and CEQA Guidelines section 15088.5. The County has circulated the 2nd Recirculated DEIR in satisfaction of this requirement. The commenter is directed to the project-specific net GHG emission calculations in the 2nd Recirculated DEIR (see p. 2.0-29 to 2.0-34).

Response 16-32: The commenter asserts that the 2nd Recirculated DEIR fails to account for greenhouse gas emissions from natural gas. The comment points out that the 2nd Recirculated DEIR states that 3,000 hours of natural gas usage could occur, representing 10% of the operational hours for the facility.

If the facility ran on natural gas heat every hour in the year that would be 8,760 hours of natural gas operation per year, and ten percent of that number would be 876. However, as explained on p. 2.0-31, even 500 hours of operations is considered a very conservative estimate for use in the calculations, based on a review of the operational characteristics of similar facilities in the County, according to discussions with Shasta Air Quality Management District staff, and professional knowledge of biomass facility operations. In order to ensure that natural gas usage at the project does not exceed the assumptions used in these calculations, Mitigation Measure 3.2-4 has been added, which requires the Shasta

County AQMD Permit to Operate and the Title V Permit to Operate to limit annual usage of natural gas as a heat source to an annual limit of 62,500 mmbtu, which represents 500 hours of the rated natural gas burners. This new mitigation measure is shown in Section 3.0, Errata.

Response 16-33: The commenter states that the Project will conflict with implementation of AB 32.

It is noted that the California Air Resources Board – the primary state agency charged with implementing regulations to achieve the goals of AB 32 – has expressly exempted biomass emissions such as those generated by the project from any compliance obligation under its regulations. This determination is discussed at length at pages 2.0-13 to 2.0-14 and 2.0-18 to 2.0-19 of the 2nd Recirculated DEIR. The County is satisfied with CARB’s determination, reached through extensive public rulemaking processes, that biomass emissions sources are consistent with achievement of AB 32.

Response 16-34: The commenter states that consistency with the state’s Renewables Portfolio Standard does not resolve the project’s conflict with AB 32.

For the reasons stated above in Response 16-33, the County does not agree that the project would conflict with AB 32; CARB has also treated the RPS, and specifically biomass fuel sources as proposed for the Cogeneration Facility, as complementary to the goals of AB 32. (See pages 2.0-13 to 2.0-14 and 2.0-18 to 2.0-19).

Response 16-35: The commenter concludes that the EIR fails to comply with CEQA, and that approval of the project based on the EIR would constitute an abuse of discretion.

The comment is noted. The County has determined, on the basis of substantial evidence, that the Project’s impacts have been fully disclosed, evaluated and mitigated, consistent with the County’s obligations under CEQA. Commenter concerns regarding project approval should be directed toward the Planning Commission and Board of Supervisors in connection with their consideration of any such permit approvals.

ADAMS BROADWELL JOSEPH & CARDOZO

DANIEL L. CARDOZO
THOMAS A. ENSLOW
PAMELA H. EPSTEIN
TANYA A. GULESSERIAN
MARC D. JOSEPH
ELIZABETH KLEBANER
RACHAEL E. KOSS
ROBYN C. RURCHIA
ELLEN L. TREGGOTT

OF COUNSEL
THOMAS R. ADAMS
ANN BROADWELL

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

520 CAPITOL MALL, SUITE 450
SACRAMENTO, CA 95814-4121

TEL: (916) 444-8289
FAX: (916) 444-8209

tenslow@adamsbroadwell.com

80 SAN FRANCISCO OFFICE

601 GATEWAY BLVD., SUITE 1000
80 SAN FRANCISCO, CA 94039

TEL: (415) 569-1660
FAX: (415) 569-5662

April 2, 2012

VIA EMAIL & OVERNIGHT DELIVERY

Lio Salazar
Associate Planner
Planning Division
Shasta County Department of Resource Management
1855 Placer Street, Suite 103
Redding, CA 96001
lsalazar@co.shasta.ca.us

Re: Comments on the Recirculated Draft Environmental Impact Report for the Sierra Pacific Industries Cogeneration Power Project

Dear Mr. Salazar:

We are writing on behalf of Citizens for Responsible Industry to comment on the Second Recirculated Draft Environmental Impact Report ("RDEIR") for the Sierra Pacific Cogeneration Power Project, State Clearinghouse No. 2009072011 ("Project"). The Project consists of the construction and operation of a new cogeneration power facility, including a new fuel shed, boiler building, turbine building, cooling tower, electrostatic precipitator, ash silo and electric substation. The boiler associated with the plant will burn biomass fuel consisting of sawmill wood waste, agricultural surplus and woody biomass waste and residue from forest harvesting and thinning operations. The Project applicant is Sierra Pacific Industries. The Project is located on the Sierra Pacific Industries Anderson sawmill site on a 121.39-acre parcel in Shasta County ("County"), immediately northwest of the city limits of Anderson.

17-1

Citizens for Responsible Industry is an unincorporated association of individuals and labor unions that are concerned about public and worker health and safety risks and environmental and public service impacts from industrial development. The members of Citizens for Responsible Industry include Plumbers 2472-007j

17-2

April 2, 2012

Page 2

and Pipefitters Local 228, International Brotherhood of Electrical Workers Local 340, Boilermakers Local 549 and their members and their families, and other individuals who live and work in Shasta County. The members of Citizens for Responsible Industry also include individuals who build, maintain and operate industrial facilities in Shasta County, such as those proposed by the Project. Individual members of Citizens for Responsible Industry work in industrial facilities and other areas impacted by the health and safety risks from industrial development. Citizens for Responsible Industry members also live in and use areas that will suffer the public service and environmental impacts related to industrial development, including polluted air, water quality degradation, soil contamination, water supply limitations, traffic congestion, destruction of wildlife areas and exposure to hazardous materials.

17-2

On September 20, 2010, Citizens for Responsible Industry submitted comments to the County on the August 2010 Draft Environmental Impact Report ("DEIR") prepared for the Project. These comments identified a number of legal inadequacies and errors in the document, including its failure to identify mitigation measures to address the Project's global warming impacts.

17-3

In September 2011, a Revised DEIR ("RDEIR") was prepared that revised Chapter 2 (Project Description) and Chapter 3.2.4 (Greenhouse Gases and Climate Change) of the DEIR, but left the rest of the DEIR unchanged.¹ On October 14, 2011, Citizens for Responsible Industry submitted comments identifying the lack of legal and factual support for the RDEIR's new greenhouse gas ("GHG") analysis. In order to avoid having to mitigate the Project's global warming impacts, the RDEIR arbitrarily changed the DEIR's threshold of significance for global warming impacts to a new, more limited and narrow threshold of significance. The RDEIR applied a threshold of significance that looked only at the Project's consistency with the State's Renewable Portfolio Standard ("RPS"). The RDEIR's reliance on this threshold of significance was arbitrary and without foundation because eligibility as a renewable energy facility under the RPS does not require, or mean, that the energy facility will have a less than significant impact on global warming. In addition, the RDEIR failed to evaluate substantial evidence that the GHG emissions emitted from the Project would, in fact, cumulatively contribute to

17-4

¹ The RDEIR failed to address or correct the vast majority of deficiencies identified in our prior letter on the August 2010 DEIR.
2472-007j

April 2, 2012
Page 3

significant global warming impacts notwithstanding its eligibility as a renewable energy facility under the RPS. 17-4

Apparently recognizing that the threshold of significance that they adopted in the RDEIR was not legally or factually defensible, the County has now issued a new Second RDEIR that again radically changes its GHG emission analysis in order to avoid requiring any mitigation. This new analysis throws out the calculations of net Project GHG emissions made in the prior two documents and replaces it with a broad (and discredited) assumption that biomass projects are carbon neutral. By arbitrarily and repeatedly changing its GHG analysis in order to meet a pre-determined outcome, the lead agency has engaged in precisely the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing the California Environmental Quality Act ("CEQA").² 17-5

The 2nd RDEIR is legally deficient because it relies upon an outdated and discredited assumption that all biomass combustion is "carbon neutral." Moreover, this new assumption is entirely contrary to the project-specific net GHG emission calculations made in the prior DEIR and RDEIR. This change in methodology is arbitrary and results driven. 17-6

The 2nd RDEIR fails to evaluate other, more up-to-date studies that demonstrate that GHG emissions from the "waste" and "residuals" proposed to be used for biofuel will create short term GHG increases that will contribute to serious global warming impacts long before the Project's GHG emissions become "carbon neutral."³ Short-term contributions to GHG emissions are significant to global warming impacts because recent studies have indicated that GHG emissions must drop sharply within the next few years or else serious global warming impacts may be inevitable. Because impacts from the Project's GHG emissions may occur despite the carbon neutrality assumptions made by the 2nd RDEIR, the conclusion that the 17-7

² See, e.g., *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 395; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307.

³ Jon McKechnie, et al., *Forest Bioenergy or Forest Carbon? Assessing Trade-Offs in Greenhouse Gas Mitigation with Wood-Based Fuels*, 45 ENVIRON. SCI. TECHNOL. 789 (2011); Anna Repo, et al., *Indirect Carbon Dioxide Emissions from Producing Bioenergy from Forest Harvest Residues*, GLOBAL CHANGE BIOLOGY BIOENERGY (2010), doi: 10.1111/j.1757-1707.2010.01065.x; Stephen R. Mitchell, et al., *Forest Fuel Reduction Alters Fire Severity and Long-Term Carbon Storage in Three Pacific Northwest Ecosystems*, 19 *Ecological Applications* 643, 652 (2009), 2472-007j

April 2, 2012

Page 4

Project will not result in any significant cumulative GHG impacts is not supported by substantial evidence.

17-7

The Second RDEIR's claim that the Project will only use forest "waste" and residuals" does not address this concern. Studies released in 2010 and 2011 have found that even these materials cannot be considered "carbon neutral" in the critical near term.⁴

17-8

Furthermore, the Second RDEIR fails to provide any substantial evidence, analysis or calculations to demonstrate that the particular feedstock it will use is carbon neutral and will not result in short term increases of GHG. In the 2009 Searchinger study cited in the RDEIR, Searchinger concluded that, while certain residues or biowastes may be able to demonstrate carbon neutrality, demonstration of such carbon neutrality requires careful tracing of carbon flows, and calculation of net changes in carbon stocks, non CO₂ GHG emissions and leakage emissions.⁵ Other studies have shown that lag times in emissions also have to be taken into account.⁶ Because the Second RDEIR fails to provide such a project-specific analysis, its assumption that the Project will not result in any significant cumulative GHG impacts is speculative at best.

17-9

Furthermore, the 2nd RDEIR contains no enforceable assurances that non-carbon-neutral wastes and residuals would not be used as biofuel. The Second RDEIR does not sufficiently define the scope of acceptable waste and residuals in a manner that permits evaluation of their actual carbon neutrality. Furthermore, the September 2011 RDEIR states that sawmill residuals may account for up to 100% of the fuel mixture for the biomass power plant, depending on market conditions.⁷ This assertion is supported by the Project's air permit application. Since sawmill residuals have other commercial uses, there is no evidence in the record that use of such residuals would be carbon neutral. Under such a scenario, no offset of GHG

17-10

⁴ Jon McKechnie, et al., *Forest Bioenergy or Forest Carbon? Assessing Trade-Offs in Greenhouse Gas Mitigation with Wood-Based Fuels*, 45 ENVIRON. SCI. TECHNOL. 789 (2011); Anna Repo, et al., *Indirect Carbon Dioxide Emissions from Producing Bioenergy from Forest Harvest Residues*, GLOBAL CHANGE BIOLOGY BIOENERGY (2010), doi: 10.1111/j.1757-1707.2010.01065.x.

⁵ Timothy Searchinger, et al., *Fixing a Critical Climate Accounting Error*, 326 SCIENCE 527 (2009) at p. 528.

⁶ Gregory Morris, Subcontractor Report, *Biomass Energy Production in California: The Case for a Biomass Policy Initiative*, NREL Report No. NREL/SR-570-28805 (Nov. 2000) at 39.

⁷ RDEIR at p. 2.0-9; see also RDEIR at p. 2.0-5, 2472-007j

April 2, 2012
Page 5

emissions would occur from the use of urban wood waste, agricultural woody waste or forest thinnings and slash. | 17-10

In addition to the deficiencies of the RDEIR discussed above, the un-revised portions of the August 2010 DEIR remains legally inadequate due to the following deficiencies discussed in detail in our September 20, 2010 comment letter: | 17-11

- Inconsistencies between the DEIR and the Project's application for Authority to Construct/Permit to Operate submitted to the Shasta County Air Quality Management District; | 17-11
- Failure to adequately disclose, evaluate and mitigate the Project's construction and operational air quality impacts; | 17-12
- Failure to disclose, evaluate and mitigate potential hazardous material impacts from the Project's use of anhydrous ammonia; and | 17-13
- Failure to adequately evaluate and mitigate railroad crossing safety impacts. | 17-14

The DEIR and Revised DEIRs must be withdrawn and revised to address these errors and deficiencies. Because of the substantial omissions in the information disclosed in the DEIR and Revised DEIRs, revisions necessary to comply with CEQA will be, by definition, significant. Because these revisions are significant, a third revised DEIR will need to be recirculated for additional public comment. | 17-15

Citizens for Responsible Industry and its individual members urge the County to comply with its obligations under CEQA and ensure that the Project's impacts are fully disclosed, evaluated and mitigated before the Project is allowed to | 17-16

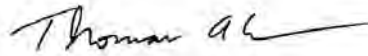
2472-007j

April 2, 2012
Page 6

proceed. We thank the County of Shasta for providing the opportunity to comment on this matter.

17-16

Sincerely,



Thomas A. Enslow

TAE:ljl

2472-007j

Response to Letter 17: Thomas A. Enslow, Adams Broadwell Joseph and Cardozo

Response 17-1: The commenter notes that they are writing on behalf of Citizens for Responsible Industry to comment on the 2nd Recirculated Draft EIR. The commenter also provides a summary of the project description. This comment is noted.

Response 17-2: The commenter provides an overview of the interests of the organization Citizens for Responsible Industry. This comment is noted.

Response 17-3: The commenter notes that on September 20, 2010 the commenter submitted comments to the County on the August 2010 Draft EIR for the project, and that these comments identified a number of asserted inadequacies in the document.

This comment is noted. The commenter's letter dated September 20, 2010 is included in this Final EIR (see Letter 11). These comments, to the extent they remain relevant in the 2nd Recirculated DEIR, are addressed in the County's separate response to the commenter's prior letters. However, as explained on page 1.0-4 of the 2nd Recirculated DEIR, CEQA does not require that the County respond to earlier comments received on portions of the EIR that have subsequently been revised and recirculated. (See CEQA Guidelines, 14 Cal. Code Regs. section 15088.5(f)(2) (Following recirculation of a portion of an EIR, "[t]he lead agency need only respond to (i) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (ii) comments received during the recirculation period that relate to the chapters or portions of the earlier EIR that were revised and recirculated."))

Response 17-4: The commenter notes that in September 2011, the County issued a Recirculated Draft EIR that revised the project description (Chapter 2.0) and the Greenhouse Gas and Climate Change analysis (Chapter 3.2.4). The commenter notes the changes to the GHG thresholds of significance and significance determinations between the Draft EIR and the Recirculated Draft EIR. The commenter notes the issues raised in the commenter's letter on the Recirculated Draft EIR, which was submitted on October 14, 2011.

The commenter's letter on the Recirculated Draft EIR, dated October 14, 2011 is included as Letter 13 in this Final EIR. The commenter is referred to Response 17-3 above, regarding responses to comments on issues that were revised and recirculated.

Response 17-5: The commenter states that the threshold of significance used in the Recirculated Draft EIR was not legally or factually defensible, and notes that the County has

issued a 2nd Recirculated Draft EIR that includes a revised and modified GHG analysis and threshold. The commenter further asserts that the 2nd Recirculated Draft EIR relies on the assumption that biomass projects are carbon neutral. The commenter also asserts that the County has arbitrarily changed the GHG analysis to meet a predetermined outcome.

The 2nd Recirculated DEIR does not take the position that all biomass combustion is carbon neutral. For example, it acknowledges studies indicating that under some conditions, some types of biomass fuels, such as fuels derived from forest harvesting conducted specifically for energy production, may not be carbon neutral (p. 2.0-26). However, the 2nd Recirculated DEIR concludes, consistent with analysis conducted as part of policy efforts by the California Public Utilities Commission, California Air Resources Board, California Energy Commission, and the U.S. Environmental Protection Agency, as well as the Intergovernmental Panel on Climate Change and the European Parliament, that the biomass fuels used for the Cogeneration Facility would be carbon neutral (or carbon negative) because they are all waste and residue forms of biomass, considered in the context of sustainable forestry practices (see, e.g., p. 2.0-27). As discussed on page 2.0-20, the Project would not result in any additional timber harvesting operations for the sole purpose of biomass combustion.

The County recognizes that the 2nd Recirculated DEIR has been modified, based on its review of information received in comments on the First RDEIR, and that this constitutes “significant new information” requiring recirculation under Public Resources Code section 20192.1 and CEQA Guidelines section 15088.5. The County has circulated the 2nd Recirculated DEIR in satisfaction of this requirement. The commenter’s assertion that the County has arbitrarily changed the GHG analysis to meet a predetermined outcome is not a factual statement. The County has made revisions to the GHG analysis in response to comments received on the Draft EIR and the Recirculated Draft EIR, including comments received on each of these documents from the commenter, and has issued the Recirculated Draft EIR in order to provide the public and interested agencies with the most accurate and comprehensive analysis of the project’s potential GHG impacts and in order to provide decision-makers with information to enable them to intelligently take account of the environmental consequences of the project.

Response 17-6: The commenter asserts that the 2nd Recirculated Draft EIR is legally deficient because it relies on the assumption that all biomass combustion is carbon neutral. The commenter also states that the assumptions used in the 2nd Recirculated Draft EIR are contrary to the calculations made in prior versions of the EIR.

The commenter is referred to Response 17-5.

Response 17-7: The commenter states that the 2nd Recirculated Draft EIR fails to evaluate studies that demonstrate that GHG emissions from the “waste” and “residuals” proposed

as fuel sources will create short-term GHG increases before the project's emissions become "carbon neutral."

As discussed at pages 2.0-21 and 2.0-25, the Second RDEIR is based on the premise that emissions from biomass combustion cannot be considered in isolation from the biogenic carbon cycle. Considered in this context, U.S. EPA analysis performed in accordance with IPCC protocols concludes that managed temperate forests in the U.S., and California in particular, operate as a significant annual net greenhouse gas sink, even factoring in emissions relating to harvest and land use changes (see, e.g., Second RDEIR at 2.0-21, 2.0-25; U.S. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008, at Table 7-6 and Chapter 7 generally).

Additionally, analysis conducted on behalf of the California Energy Commission and by the California Air Resources Board has determined that the state's forests act as a significant net sink for greenhouse gases on an annual basis, factoring in "oxidation of timber harvest slash, fuel wood, biomass consumed in wildfires, other disturbance (land use change or unspecified) or from the decomposition of landfilled or composted wood products consumed in the state." (See California Air Resources Board, Forested Lands and Wood Products Biodegradable Carbon Emissions & Sinks (2000-2009), available at <http://www.arb.ca.gov/cc/inventory/sectors/forest/forest.htm> (labeled "Net CO2 Flux Estimates for 2000-2009"), accessed April 11, 2012.

Finally, the analysis conducted in connection with SPI's own "Option A" demonstrates a significant increase in forest carbon sequestration over the next century. (See Second RDEIR at 2.0-21 to 2-24). In short, the Second RDEIR does not apply a blanket assumption that biomass combustion has no effect on global greenhouse gas levels. Rather, it relies on data and detailed analyses demonstrating that when biomass combustion emissions and forest regrowth are accounted for – whether on the national, state, or SPI-owned level – the net result is a significant forest sequestration effect, both on an annual basis and over time.

The commenter also refers to recent scientific studies and states that because re-sequestration of forest biomass emissions, if it occurs at all, may occur many decades in the future, forest biomass combustion is not a near-term strategy for reducing greenhouse gases.

The assertion is based on an accounting approach that, in effect, would require the regrowth of each specific portion of biomass used as fuel before the biogenic carbon cycle can be considered closed. As described in the Second RDEIR at page 2.0-20, the method used for accounting is to analyze the forest source as a whole, on a landscape basis, within a given timeframe (e.g., on an annual basis). If total

biomass in the source forest is increasing over time in conjunction with the supply of fuel removed for biomass power production, then the enterprise is not only carbon neutral, but contributing to the net sequestration of atmospheric carbon. The Second RDEIR documents that California forests as a whole, and SPI's managed forests in particular, are currently acting as a net sink for atmospheric carbon, not just in long-term scenarios, as described above. The biomass fuels sourced from these forests as mill residues, forest thinnings and slash are part of a system that is demonstrated to be a net sink of greenhouse gases on a current and annual basis.

The County has based its impact analysis on numerous recent analyses regarding woody biomass fuels and the biogenic carbon cycle, in particular the benefits to atmospheric carbon associated with using waste and residual biomass sources to generate electricity. (See, e.g., Second RDEIR p. 2.0-12, citing CPUC Decision 07-01-039: "In particular, the record shows that electric generation using biomass (e.g., agricultural and wood waste, landfill gas) that would otherwise be disposed of under a variety of conventional methods (such as open burning, forest accumulation, landfills, composting) results in a substantial **net reduction** in GHG emissions." (emphasis in original)). The expert studies cited in the Second RDEIR provide support for the assessment by the County, consistent with the approaches taken in state, federal, and international rulemaking relating to climate change mitigation and notwithstanding the existence of other studies that the County has not expressly addressed.

The Second RDEIR bases its analysis on various sources that model the relationship between stocks and biomass harvest; it does not apply an assumption of carbon neutrality. (See also Response 16-5 above). The commenter is directed to review the project-specific greenhouse gas analysis at pages 2.0-29 to 2.0-34 of the Second RDEIR, including Table 2-4, which calculates the direct and net greenhouse gas emissions that would be generated by the Cogeneration Facility. Moreover, with respect to the Second RDEIR's project-specific analysis, the quantification of emissions is conservative. For example, the analysis of the greenhouse gas emissions is not, but could have been, balanced against the emissions generated by an equivalent amount (31 MW) of fossil fuel energy production as well as an analysis of emissions that would be avoided by using the biomass fuel sources for the Cogeneration Facility rather than leaving them to alternative disposal fates such as open burning. Such an analysis would show greenhouse gas emissions being further offset by the project. (See p. 2.0-31, 2.0-34).

Response 17-8: The commenter reiterates the assertion that forest "waste" and "residuals" cannot be considered carbon neutral. The commenter is referred to Responses 16-5, 16-6, and 17-7.

Response 17-9: The commenter states that the 2nd Recirculated Draft EIR fails to provide evidence to demonstrate that the particular feedstock it will use is carbon neutral and will not result in short term increases of GHGs.

The County has based its impact analysis on numerous recent analyses regarding woody biomass fuels and the biogenic carbon cycle, in particular the benefits to atmospheric carbon associated with using waste and residual biomass sources to generate electricity. (See, e.g., 2nd Recirculated DEIR p. 2.0-12, citing CPUC Decision 07-01-039: “In particular, the record shows that electric generation using biomass (e.g., agricultural and wood waste, landfill gas) that would otherwise be disposed of under a variety of conventional methods (such as open burning, forest accumulation, landfills, composting) results in a substantial **net reduction** in GHG emissions.” (emphasis in original)). The expert studies cited in the Second RDEIR provide support for the assessment by the County, consistent with the approaches taken in state, federal, and international rulemaking relating to climate change mitigation and notwithstanding the existence of other studies that the County has not expressly addressed.

The commenter is directed to review the project-specific greenhouse gas analysis at pages 2.0-29 to 2.0-34 of the Second RDEIR, including Table 2-4, which calculates the direct and net greenhouse gas emissions that would be generated by the Cogeneration Facility. Moreover, with respect to the 2nd Recirculated DEIR’s project-specific analysis, the quantification of emissions is conservative. For example, the analysis of the greenhouse gas emissions is not, but could have been, balanced against the emissions generated by an equivalent amount (31 MW) of fossil fuel energy production as well as an analysis of emissions that would be avoided by using the biomass fuel sources for the Cogeneration Facility rather than leaving them to alternative disposal fates such as open burning. Such an analysis would show greenhouse gas emissions being further offset by the project. (See p. 2.0-31, 2.0-34).

The County also directs the commenter to the documentation provided demonstrating sustainable management in SPI-owned lands, as discussed at pages 2.0-21 to 2.0-24 of the 2nd Recirculated DEIR. The County notes that the project does not involve additional timber harvesting, as the fuel sources for the Cogeneration Facility would all be waste and residual biomass forms (see page 2.0-20 to 2.0-21, 2.0-27). The adopted and cited policy approaches indicate that sustainable forest management for biomass production on a larger scale is consistent with reductions of atmospheric greenhouse gas levels, especially to the extent it may offset carbon-intensive fossil fuel energy production.

All timber harvest, on public or private land, must meet sustainability requirements under state and federal forestry regulations. In this respect, the California Air Resources Board requires, as proof of sustainable origin, the State Timber Harvest Plan Number and/or the federal NEPA identifier for all biomass to qualify as exempt from AB 32 compliance obligations. Thus, all forest origin wood residues to be used at the facility will be sustainably grown in compliance with applicable laws.

The Second RDEIR has relied on multiple sources for “careful tracing of carbon flows,” and that give “credit” for greenhouse gas reductions when it can be demonstrated that use of particular fuel sources will result in *additional* carbon sequestration. Under the methodology used in the Second RDEIR and as described at p. 2.0-26 to 2.0-27, the fuel sources to be used at the Cogeneration Facility satisfy the concerns expressed in the article referenced by the commenter.

Response 17-10: The commenter claims that the 2nd Recirculated Draft EIR contains no enforceable assurances that non-carbon neutral wastes and residuals would not be used as biofuels. The commenter is referred to Response 16-28.

Additionally, although the project applicant may have sought flexibility to burn various biomass fuels in connection with its air permit, this is not inconsistent with the EIR’s Project Description, which limits analysis to specific fuel sources.

The Project Description indicates that up to 100% of the fuel requirements for the Cogeneration Facility may come from residuals processed from SPI’s Anderson and Shasta Lake sawmills, with likely average scenarios indicating approximately 35% may come from other sources. The Option A reflects lands under the ownership of SPI and is separately reviewed and evaluated by the California Department of Forestry and Fire Protection for adequacy. The Option A is then incorporated into timber harvesting plans that must demonstrate a balance of growth and harvest on the ownership over time. This analysis at this scale is a reasonable approach for showing that the majority of biomass feedstock—the fuel sourced from SPI’s ownership—is collected consistent with the state’s laws governing sustainable production. While SPI lands will likely be the primary source for the in-woods and sawmill residues, SPI does purchase wood products from other landowners. All timber harvest, on public or private land, must meet sustainability requirements under state and federal forestry regulations. In this respect, the California Air Resources Board requires, as proof of sustainable origin, the State Timber Harvest Plan Number and/or the federal NEPA identifier for all biomass to qualify as exempt from AB 32 compliance obligations. Thus, all forest origin wood residues to be used at the facility will be sustainably grown in compliance with applicable laws.

As explained, the project would not involve any change to existing and approved forest management practices (see p. 2.0-21). Additionally, power generation is the lowest-value use for biomass resources, and only waste and residual materials are used as fuels throughout the industry (p. 2.0-20). The function of an EIR is to analyze that project's impacts as set forth in the Project Description, which clearly identifies that only waste and residual products will be used. Commenter concerns regarding enforceable conditions of Project approval should be directed toward the Planning Commission and Board of Supervisors in connection with their consideration of any such permit approvals.

Response 17-11: The commenter reiterates its comment on the August 2010 Draft EIR, contained in its September 20, 2010 comment letter, noting inconsistencies between the project's Authority to Construct/Permit to Operate and the Draft EIR.

The commenter is referred to Responses 11-5 through 11-8.

Response 17-12: The commenter reiterates its comment on the August 2010 Draft EIR, contained in its September 20, 2010 comment letter, stating that the Draft EIR failed to adequately address construction and operational air quality impacts.

The commenter is referred to Responses 11-15 through 11-21.

Response 17-13: The commenter reiterates its comment on the August 2010 Draft EIR, contained in its September 20, 2010 comment letter, stating that the Draft EIR failed to address impacts associated with anhydrous ammonia.

The commenter is referred to Response 11-26.

Response 17-14: The commenter reiterates its comment on the August 2010 Draft EIR, contained in its September 20, 2010 comment letter, stating that the Draft EIR failed to address railroad crossing safety.

The commenter is referred to Response 11-27.

Response 17-15: The commenter asserts that the Draft EIR and Recirculated Draft EIRs must be withdrawn and revised to address errors and deficiencies asserted by the commenter.

The comment is noted. The County has determined, on the basis of substantial evidence, that the Project's impacts have been fully disclosed, evaluated and mitigated, consistent with the County's obligations under CEQA. No further recirculation is necessary.

Response 17-16: The commenter concludes by urging the County to comply with its obligations under CEQA to ensure that the project's impacts are fully disclosed, evaluated and mitigated before the project is allowed to proceed.

The comment is noted. The County has determined, on the basis of substantial evidence, that the Project's impacts have been fully disclosed, evaluated and mitigated, consistent with the County's obligations under CEQA.



Sierra Pacific Industries

P.O. Box 496028 • Redding, California 96049-6028 • (530) 378-8000

RECEIVED

MAR 29 2012

COUNTY OF SHASTA
PERMIT COUNTER

March 29, 2012

Shasta County Department of Resource Management
Planning Division
1855 Placer Street, Suite 103
Redding, California 96001
Attention: Lio Salazar, Associate Planner

Re: Second Recirculated DEIR for Sierra Pacific Industries Cogeneration Power Project

Dear Mr. Salazar,

Sierra Pacific Industries (SPI) welcomes the opportunity to provide input on the Second Recirculated Draft Environmental Impact Report (Second RDEIR) for the proposed SPI cogeneration facility (Cogen Facility). In order to complete the public record and ensure ease of access to the technical documents cited in Chapter 2, SPI is transmitting copies of the following documents in both paper and electronic (CD) format [bracketed numbers indicate footnotes citing these documents]:

- California Public Utilities Commission, Interim Opinion on Phase I Issues: Greenhouse Gas Emissions Performance Standard, D.07-01-039 (January 25, 2007). [5] – *Only Section 1 provided in hard copy due to document size*
- European Parliament, Directive 2009/29/EC, amending Directive 2003/87/EC, Article 27 (April 2009). [8]
- California Air Pollution Control Officers Association, CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act (January 2008). [p. 2.0-15]
- California Air Resources Board, Final Statement of Reasons for California's Cap and Trade Program (October 2011). [10]
- U.S. Department of Agriculture, Forest Service Pacific Southwest Research Station, Biomass to Energy: Forest Management for Wildfire Reduction, Energy Production, and Other Benefits, California Energy Commission Report no. CEC-500-2009-080 (January 2010). [11]
- Intergovernmental Panel on Climate Change, 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Vol. 1, General Guidance and Reporting, Chapter 1 (2006).
- Western Governors' Association, Clean and Diversified Energy Initiative, Biomass Task Force Report (January 2006). [11]

18-1

Lio Salazar
Page Two

- U.S. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2008, Chapter 3 (April 2010). [11]
- Nabuurs, G.J., et al., Forestry, in IPCC, Climate Change 2007: Mitigation (2007). [12]
- California Air Resources Board, California's 1990-2004 Greenhouse Gas Emissions Inventory and 1990 Emissions Level, Technical Support Document (May 2009). [13] – *Only relevant excerpt provided in hard copy due to document size*
- Marland, G. and B. Schlamadinger, Forests for carbon sequestration of fossil fuel substitution. *Biomass and Bioenergy* 13(6) at 389-397 (1997). [16]
- Kurz, W.A. et al., Forest Carbon Accounting at the Operational Scale, 78(5) *Forestry Chronicle* at 672 (2002). [16]
- Winrock International, Baseline Greenhouse Gas Emissions and Removals for Forest, Range, and Agricultural Lands in California, for the California Energy Commission, no. 500-04-069F (2004). [18]
- Morris, G., Biomass Energy Production in California: The Case for a Biomass Policy Initiative, NREL Report No. NREL/SR-570-28805 (November 2000). [20]
- Searchinger, T. et al., Fixing a Critical Climate Accounting Error, 326 *Science* at 527 (October 23, 2009). [25]

18-1

Additionally, we wish to clarify the references to certain sources identified in the Second RDEIR:

- The two sources attributed to Schlamadinger and Marland in footnote 16 should be identified as:
 - Schlamadinger, B. and G. Marland, Carbon implications of forest management strategies at 217-232 In: M.J. Apps and D.T. Price (eds.). *Forest Ecosystems, Forest Management and the Global Carbon Cycle*. (1996).
 - Marland, G. and B. Schlamadinger, Forests for carbon sequestration of fossil fuel substitution. *Biomass and Bioenergy* 13(6) at 389-397 (1997).
- The source attributed to Kurz in footnote 16 should be identified as Kurz, W.A. et al., Forest Carbon Accounting at the Operational Scale, 78-5 *Forestry Chronicle* at 672 (2002) (provided in the enclosed materials).
- The reference to IPCC, 2007 in footnote 17 should be clarified to indicate that the reference is to Chapter 9, Forestry, at 543 (provided in the enclosed materials).
- Footnote 19 refers to the U.S. EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007, page 8-6. To avoid confusion, we recommend consistently citing to the 1990-2008 version of the Inventory, as cited in footnote 11. Additionally, we believe this footnote should refer to pages 3-1 and 3-60 of the 1990-2008 version, as well as page 8-6.

18-2

Finally, we note that in the first paragraph on page 2.0-21, the Second RDEIR states that the temperate forests of North America create a significant annual net GHG sink. The support for this statement appears to come from the U.S. EPA Inventory, which addresses only U.S. forest sinks (see, e.g., 1990-2008 Inventory, Table 7-1). For this reason, we recommend revising this paragraph to refer to the forests of the U.S., rather than North America.

18-3

Lio Salazar
Page Three

We hope that this information helps to facilitate review of the Second RDEIR.

Sincerely,



David C. Brown
Environmental Manager

Response to Letter 18: David C. Brown, P.E., Sierra Pacific Industries

Response 18-1: The commenter provides a list of several reference documents provided by the commenter to the County for inclusion in the administrative record for this project.

The documents provided by the commenter have been included in the administrative record for the project, and are included in the CD attached to this Final EIR.

Response 18-2: The commenter provides information to clarify some of the references and footnotes included in the 2nd Recirculated DEIR.

Chapter 3.0, Errata, identifies changes to the 2nd Recirculated DEIR in response to the corrections and supplemental information provided by the commenter.

Response 18-3: The commenter recommends that the first paragraph on page 2.0-21 of the 2nd Recirculated DEIR be revised to state that temperate forests in the U.S. create a significant annual net GHG sink, rather than temperate forests of North America.

This comment is noted, and the above-referenced paragraph has been revised, as shown in Chapter 3.0 of this Final EIR. This revision does not alter the conclusions contained in the 2nd Recirculated DEIR.

This page left intentionally blank.