Responses to Comments

on the

Draft Environmental Analysis

for the

First Update to the Climate Change Scoping Plan

California Environmental Protection Agency
AIR RESOURCES BOARD

Released May 15, 2014

to be considered at the

May 22, 2014 Board Hearing

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PREFACE

The California Air Resources Board (ARB) released a Draft Environmental Analysis (EA) for the proposed First Update to the Climate Change Scoping Plan (Update) on March 14, 2014 for a 45-day public review and comment period that concluded April 28, 2014. A total of 118 comment letters were received during the public comment period, seven (7) of which addressed the Draft EA.

ARB staff made minor modifications to the EA based on responses to comments and other updates. To facilitate identifying modifications to the document, modified text is presented in the final EA with strike-through for deletions and underline for additions. None of the modifications alter any of the conclusions reached in the EA or provide new information of substantial importance relative to the EA. As a result, these minor revisions do not require recirculation of the document pursuant to the California Environmental Quality Act (CEQA) Guidelines, California Code of Regulations, title 14, section 15088.5, before consideration by the Board.

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1.0 INTRODUCTION

The California Air Resources Board (ARB) staff prepared and circulated for public review a Draft Environmental Analysis (EA) for the proposed First Update to the Climate Change Scoping Plan (Update). The Update was released for public review on February 10, 2014, and the EA, along with other appendices to the Update, were released for public review on March 14, 2014. The public comment period for all documents concluded on April 28, 2014.

ARB received numerous comment letters through the two comment dockets opened for the Update and EA during that time. The comment dockets are available on the ARB website at: http://www.arb.ca.gov/lispub/comm2/bccommlog.php?listname=draft-update-sp-ws. Pursuant to ARB's certified regulatory program, staff carefully reviewed all the comment letters received by the close of the comment period to determine which raised significant environmental issues related to the EA requiring a written response.

This document presents those comments and ARB's written responses for the Board to consider for approval prior to taking final action on the Update. Although this document includes written response only to those comments related to the EA, all of the public comments were considered by staff and provided to the Board members for their consideration. For reference purposes, this document includes the main body of each comment letter received on the EA before the written response. Attachments and appendices to these comment letters can be found at the link provided above.

Following consideration of the comments received on the EA and during the preparation of the responses to those comments, ARB revised the EA to prepare the Final EA released May 15, 2014 and presented as Appendix F to final version of the Update.

A. Requirements for Responses to Comments

These written responses to public comments on the EA are prepared in accordance with ARB's certified regulatory program to comply with the California Environmental Quality Act (CEQA). ARB's certified regulations states:

> *California Code of Regulations, title 17 section 60007. Response to Environmental Assessment*
>
> *(a) If comments are received during the evaluation process which raise significant environmental issues associated with the proposed action, the staff shall summarize and respond to the comments either orally or in a supplemental written report. Prior to taking final action on any proposal which significant environmental issues have been raised, the decision maker shall approve a written response to each such issue.*

Public Resources Code section 21091 also provides direction regarding the consideration and response to public comments in CEQA. While the provisions refer to

environmental impact reports, proposed negative declarations, and mitigated negative declarations, rather than an EA, this section of CEQA contains useful guidance for preparation of a thorough and meaningful response to comments.

Public Resources Code section 21091, subdivision (d) states:

> *(1) The lead agency shall consider comments it receives … if those comments are received within the public review period.*
>
> *(2) (A) With respect to the consideration of comments received …, the lead agency shall evaluate comments on environmental issues that are received from persons who have reviewed the draft and shall prepare a written response pursuant to subparagraph (B). The lead agency may also respond to comments that are received after the close of the public review period.*
>
> *(B) The written response shall describe the disposition of each significant environmental issue that is raised by commenters. The responses shall be prepared consistent with section 15088 of Title 14 of the California Code of Regulations, as those regulations existed on June 1, 1993.*

California Code of Regulations, title 14, section 15088 (CEQA Guidelines) also include useful information and guidance for the preparation of a thorough and meaningful response to comments. It states, in relevant part, that specific comments and suggestions about the environmental analysis that are at variance from the lead agency's position must be addressed in detail with reasons why specific comments and suggestions were not accepted. Responses must reflect a good faith, reasoned analysis of the comments.

> *California Code of Regulations, title 14, section 15088 (a – c) states:*
>
> *(a) The lead agency shall evaluate comments on environmental issues received from persons who reviewed the draft EIR and shall prepare a written response. The Lead Agency shall respond to comments received during the noticed comment period and any extensions and may respond to late comments.*
>
> *(b) The lead agency shall provide a written proposed response to a public agency on comments made by that public agency at least 10 days prior to certifying an environmental impact report.*
>
> *(c) The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice.*

B. Comments Requiring Substantive Responses

Staff is required to prepare substantive responses only to those comments that raise "significant environmental issues" associated with the proposed action as required by California Code of Regulations, title 17, section 60007(a). As stated above, of the total 118 comment letters submitted on the two comment dockets open until April 28, 2014, staff determined that seven (7) mentioned or raised an issue related to the EA or an environmental issue related to the Update addressed in the EA. Staff was conservatively inclusive in determining which letters warranted a written response. Although the other comment letters received are not responded to in writing, those comments were considered by staff and provided to the Board members for their consideration.

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2.0 RESPONSES TO COMMENTS

ARB received seven (7) comment letters that mentioned or raised an issue related to the EA or an environmental issue related to the Update addressed in the EA. Table 2-1 identifies the commenters that submitted those comment letters and commenter information. The full comments letters are reproduced here in their entirety even if only a portion of the letter raised an EA related comment. In addition, some comment letters were blocked entirely as one comment and only those portions of the blocked comment that related to the EA, or where ARB chose to provide clarifying text, were responded to accordingly. It is ARB's intent to indicate that the entire comment, related to the EA or not, was considered in those cases.

Table 2-1. List of Commenters

Comment Number	Commenter	Affiliation
1	Tom Frantz	
2	Harvey Eder	Solar Power Coalition
3	Joyce Dillard	
4	Michael Bullock	
5	Kevin Bundy	Center for Biological Diversity
6	Ed Pike	Energy Solutions
7	Catherine H. Reheis-Boyd	Western States Petroleum Association

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Letter 1

AB32 EJAC 2013 Biomass Issues
Tom Frantz, EJAC member

Biomass Incinerators in the San Joaquin Valley and concerns with the Adaptive Management Plan

Background:

There are more than 20 biomass incinerators in the San Joaquin Valley and the number has been growing. These incinerators have a fuel capacity of over 4 million tons of biomass. Statewide there are enough biomass incinerators for another million or two tons of fuel. Agricultural sourced biomass has never reached 1 million tons in the San Joaquin Valley and probably never will. Therefore, approximately 80% of the biomass fuel potentially incinerated in the SJV has to be trucked from the large urban areas in the state in order to keep these facilities running. This biomass from the urban areas consists of prunings, demolition timber, broken pallets, etc.

These facilities emit a lot of air pollution relative to the energy they create. They also emit a lot of CO2 relative to their output. Some of their permits from the San Joaquin Valley Air Pollution Control District allow up to 2% plastic by weight in the fuel mix. The trucking of the fuel also emits a lot of pollution.

These facilities are very often located near environmental justice communities. The ones listed in the appendix are all located in the SJV air basin which has the worst air in the nation and the most severe health effects from that pollution. Progress towards federal standards for air quality has been very slow in recent years. A graph is in the appendix showing negative progress at three SJV ozone monitors over the past five years. 1-1

It is believed that a lot of these facilities have contracts to sell renewable energy to help satisfy the Renewable Portfolio Standard for power companies.

The Appendix has a list of these facilities and an analysis of their potential pollution.

Liberty Energy has been permitted by Kern County as a renewable energy gasification plant using sewage sludge and biomass as fuel. Cal-Recycle certified the bubbling fluidized bed boiler as gasification so that the facility would qualify for renewable energy. The San Joaquin Valley Air District permitted the plant as having an ordinary boiler and said it was not gasification. PG&E gave the plant a contract to sell them renewable energy. The sewage sludge will not burn by itself so it needs massive amounts of biomass as extra fuel. The trucking of the biomass and the sewage sludge from Los Angeles County to Kern County (near the low income, largely Hispanic farmworker community of Lost Hills) uses more energy than the plant will provide to the grid. This plant, with the trucking, will produce a tremendous amount of air pollution for Kern County.

This ill conceived method of creating so-called renewable energy should not go forward. CARB should take a roll in reviewing permits and contracts such as this and decide their legitimacy.

More details on Liberty Energy are found in the Appendix below.

Concerns

1. The Adaptive Management Plan should be expanded to include the Renewable Portfolio Standard and the Low Carbon Fuel Standard. This should be done in order to cover all facilities qualifying as renewable energy and/or qualifying under the Renewable Portfolio Standard. Currently, the Adaptive Management Plan is directed at Cap and Trade actions only. http://www.arb.ca.gov/cc/capandtrade/adaptivemanagement/plan.pdf

2. The Adaptive Management Plan needs to be responsive to environmental justice communities. Besides having the Adaptive Management Plan applied to all aspects of the AB32 Scoping Plan there should be outreach to those communities which are already impacted by criteria and toxic emissions from facilities emitting quantities of GHG above a certain defined threshold. Affected communities should be told how AB32 is regulating these facilities and what specific improvements in the local environment may or may not occur because of AB32 implementation. The communities should also be directly asked for their input and suggestions.

3. A lifecycle analysis should be made of the varying situations among biomass incinerators of all types. Some of them may not qualify for the Renewable Portfolio Standard because of the type of fuel being used and/or the energy needed to procure the fuel. This analysis must include alternative uses of the different fuels and land use changes.

4. Alternatives such as well controlled aerobic composting of some of this biomass material should be encouraged with greater incentives than those existing for incineration. Currently, contracts for renewable energy suppliers are a real incentive for incineration of many types of biomass. Applying biomass to the soil is well documented to provide a greater CO2 reduction benefit than incineration for energy (please see the article on biomass incineration in the appendix).

5. The location of the biomass incinerator with respect to the fuel source should be considered. Trucking biomass over 100 miles to a greatly impacted air basin and then incinerating it for renewable energy goes against the specific language of AB32 which says actions to meet AB32 goals should not hinder the progress of a region towards air quality standards. It does not make sense for energy created from biomass fuel which is trucked over 50 miles from where it is collected be considered part of the renewable portfolio standard. There should be real

1-1 cont'd

incentives for biomass incinerators to be located next to collection centers for the fuel such as landfills.

6. The coordination of various agencies permitting biomass facilities needs to be improved. Liberty Energy, mentioned above, is a classic example of where the lack of this coordination seems to have resulted in something that is an abuse of AB32 goals.

Appendix

The table below is a list of the known Biomass facilities whose air pollution has an affect on the San Joaquin Valley. The last two on the list have not been built. Rio Bravo Jasmin and Rio Bravo Poso are still burning coal while they convert to Biomass. It is possible that other plants exist and even more plants have been proprosed and are perhaps being permitted currently. Even some oil companies in Kern County have proposed building several small biomass boilers to make steam for enhanced oil recovery.

Following the table are a few assumptions about how much biomass these facilities can incinerate. Included are the number of truck trips with an estimate of the NOx pollution from this trucking. Also included is an estimate of the NOx and PM emissions from these facilities.

1-1 cont'd

Comment Letter 1 Response

1-1 ARB has reviewed this comment and determined that it does not raise any significant environmental issues associated with the proposed action, the adequacy of the environmental analysis, or alternatives analyzed in the Draft EA prepared for Update. Under CEQA Guidelines (Cal. Code Regs., tit. 14, §15204), reviewers should focus on the sufficiency of the environmental document in identifying and analyzing the possible impacts on the proposed project and ways in which the significant effects might be avoided or mitigated. In accordance with ARB's certified regulatory program (Cal. Code Regs., tit. 17, § 60007, subd.(a)) and the CEQA Guidelines (See Cal. Code Regs., tit. 14, § 15088), no revision or further written response is required in response to this comment.

Nonetheless, staff notes that the concerns raised by the commenter about potential air quality impacts associated with biomass facilities are addressed generally in the Draft EA on pages 75 through 77 relative to the Natural and Working Lands Sector.

In addition to this concern, the commenter also makes several recommendations that staff addresses briefly below even though they do not directly relate the adequacy of the Draft EA.

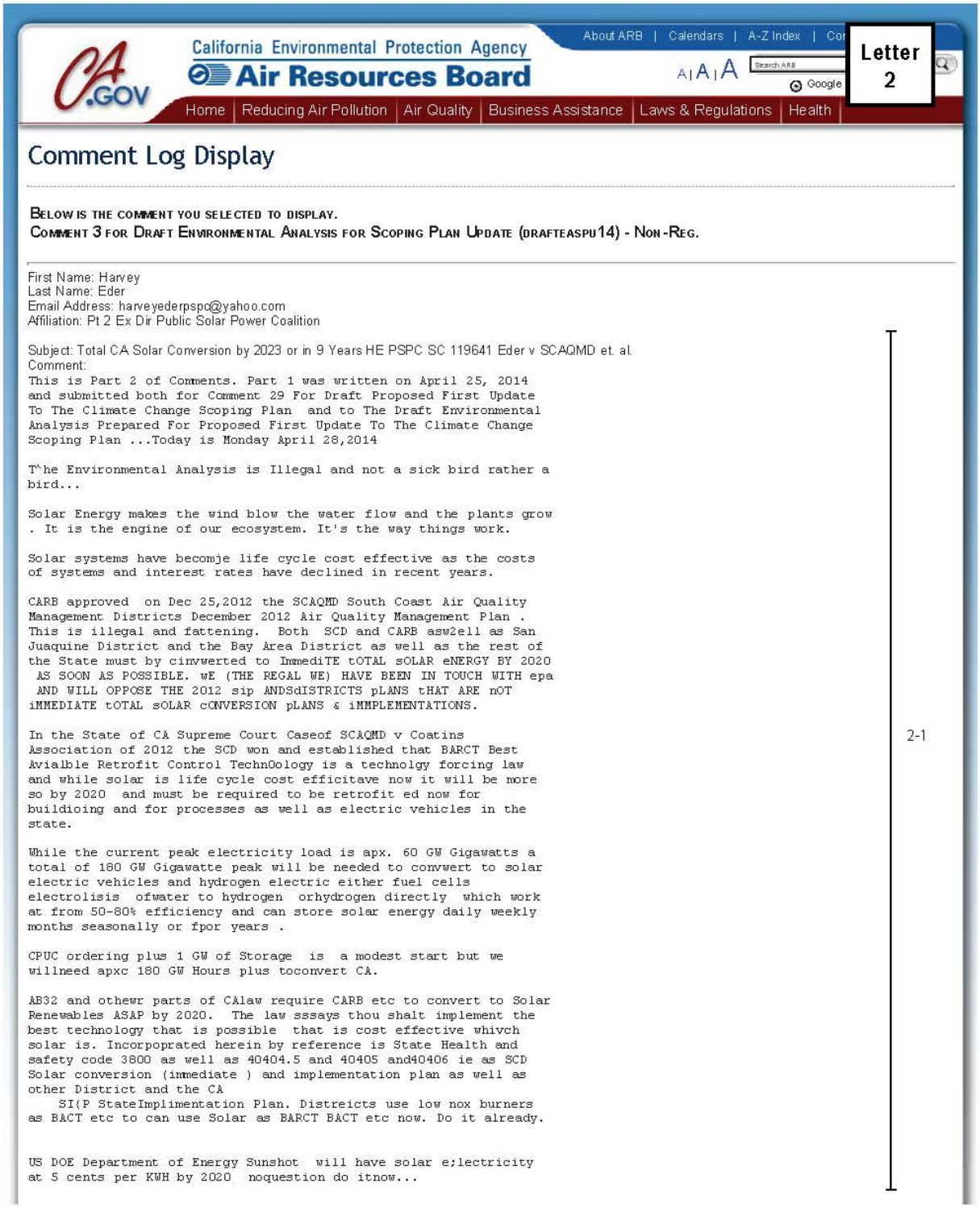
The commenter suggests that the Adaptive Management Plan be expanded to apply to other aspects of AB 32. ARB is developing a multi-phase proposal to assess the effects (e.g., benefits and potential impacts) of AB 32 programs on disadvantaged communities. The key objective is to introduce a quantitative mechanism to gauge the effectiveness of AB 32 programs with respect to disadvantaged communities. This effort could be integrated with the Cap-and-Trade Adaptive Management process, and ARB aims to present this proposal at public meetings anticipated to be held in 2014. ARB's proposed strategy is now described in Chapter 6, Section C of the final version of the Update posted on May 15, 2014.

The commenter suggests that a lifecycle analysis should be undertaken of the varying situations among biomass incinerator types, including alternatives such as aerobic composting. Staff agrees that conducting a full lifecycle analysis for the treatment of biomass is necessary to capture all the potential benefits and impacts that could occur with its many treatment options including biomass incineration and the use of biomass in aerobic composting. The treatment of biomass crosses different sectors and affects how each of these sectors accounts for the potential greenhouse gas (GHG) reductions. For example, biomass use in the Forest and Natural Lands sector encourages increases in forest biomass through forest management practices and increases in the amount of carbon stored in urban trees by the removal of carbon dioxide (CO_2)

from the atmosphere via photosynthesis. On the other hand, the use of biomass for energy production can be beneficial to meet the demands of renewable energy. Composting also provides GHG benefits by its use in land application and in water savings, fertilizer, and soil stabilization. The Scoping Plan Working Papers in Attachment C provide an analysis of different waste treatment options, including thermal treatment and composting. While not a full lifecycle analysis based on different types of incinerators, the papers provide GHG emissions information and some of the challenges and opportunities with each waste treatment option. The Working Papers can be found here: http://www.arb.ca.gov/cc/scopingplan/2013_update/waste.pdf.

The commenter notes a concern about the over concentration of biomass facilities in the San Joaquin Valley and suggests that the location of biomass incinerators, relative to the fuel sources, should be more comprehensively considered to better avoid adverse pollution impacts from oxides of nitrogen (NO_X) that may result from truck trips generated to transport biomass to biomass incinerators in the San Joaquin Valley. As noted in the Update, the State generally supports further development of biomass facilities to increase renewable energy production and biofuel use for transportation purposes, for purposes of achieving GHG emission reductions. However, in accordance with AB 32, in implementing such policies the State is charged with ensuring that these actions complement the State's efforts to improve air quality. As noted in the Draft EA prepared for the Update, some of the secondary emission sources associated with biomass facility operations typically incudes the transport of biomass feedstock, feedstock processing, water consumption, waste water treatment, and waste handling, and facility construction. As a result, all of these factors (including the concentration of such facilities), should be taken into consideration by the local air district during the permit review stage for a prospective facility. For example, because the San Joaquin Valley Air Pollution Control District currently exceeds ambient air quality standards, the potential for developing additional biomass generating facilities in this district could be constrained.

Comment Log Display



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Letter 2

Comment Log Display

BELOW IS THE COMMENT YOU SELECTED TO DISPLAY.
COMMENT 3 FOR DRAFT ENVIRONMENTAL ANALYSIS FOR SCOPING PLAN UPDATE (DRAFTEASPU14) - NON-REG.

First Name: Harvey
Last Name: Eder
Email Address: harveyederpspc@yahoo.com
Affiliation: Pt 2 Ex Dir Public Solar Power Coalition

Subject: Total CA Solar Conversion by 2023 or in 9 Years HE PSPC SC 119641 Eder v SCAQMD et. al.
Comment:
This is Part 2 of Comments. Part 1 was written on April 25, 2014 and submitted both for Comment 29 For Draft Proposed First Update To The Climate Change Scoping Plan and to The Draft Environmental Analysis Prepared For Proposed First Update To The Climate Change Scoping Plan ...Today is Monday April 28,2014

T^he Environmental Analysis is Illegal and not a sick bird rather a bird...

Solar Energy makes the wind blow the water flow and the plants grow . It is the engine of our ecosystem. It's the way things work.

Solar systems have becomje life cycle cost effective as the costs of systems and interest rates have declined in recent years.

CARB approved on Dec 25,2012 the SCAQMD South Coast Air Quality Management Districts December 2012 Air Quality Management Plan . This is illegal and fattening. Both SCD and CARB asw2ell as San Juaquine District and the Bay Area District as well as the rest of the State must by cinvwerted to ImmediTE tOTAL sOLAR eNERGY BY 2020 AS SOON AS POSSIBLE. wE (THE REGAL WE) HAVE BEEN IN TOUCH WITH epa AND WILL OPPOSE THE 2012 sip ANDSdISTRICTS pLANS tHAT ARE nOT iMMEDIATE tOTAL sOLAR cONVERSION pLANS & iMMPLEMENTATIONS.

In the State of CA Supreme Court Caseof SCAQMD v Coatins Association of 2012 the SCD won and established that BARCT Best Avialble Retrofit Control TechnOology is a technolgy forcing law and while solar is life cycle cost efficitave now it will be more so by 2020 and must be required to be retrofit ed now for buildioing and for processes as well as electric vehicles in the state.

While the current peak electricity load is apx. 60 GW Gigawatts a total of 180 GW Gigawatte peak will be needed to convwert to solar electric vehicles and hydrogen electric either fuel cells electrolisis ofwater to hydrogen orhydrogen directly which work at from 50-80% efficiency and can store solar energy daily weekly months seasonally or fpor years .

CPUC ordering plus 1 GW of Storage is a modest start but we willneed apxc 180 GW Hours plus toconvert CA.

AB32 and othewr parts of CAlaw require CARB etc to convert to Solar Renewables ASAP by 2020. The law sssays thou shalt implement the best technology that is possible that is cost effective whivch solar is. Incorpoprated herein by reference is State Health and safety code 3800 as well as 40404.5 and 40405 and40406 ie as SCD Solar conversion (immediate) and implementation plan as well as other District and the CA
SI(P StateImplimentation Plan. Distreicts use low nox burners as BACT etc to can use Solar as BARCT BACT etc now. Do it already.

US DOE Department of Energy Sunshot will have solar e;lectricity at 5 cents per KWH by 2020 noquestion do itnow...

2-1

Comment Log Display

ITSC using CHP Combined Solar Heatand Colling (absorbtion chillers district heatingand cooling and pv and thermas systems or hybrids are cost effective now (also rember CA Supremes Tech Forcing Colar Scents by 2020.

PG&E went bankrupt and Comissioner Florio told me that Senator Pro Tem John Burton put together a deal what the state would buy out their T &
D transssssssssssssition and distribution system for $1 but even thought this was a go with a republican governor and was gpo for a few weeks it fvell thought . But they are going BK Gin when the share holders have topay for a minimun fof 250,00 0 year of storage of nuclear waste as well as bankkruptcy for SCE and SDG&E and Sempra Dirty Gas is 80-100 plus temmmmmes the GWP global warming potential impact compared to CIO2 must6 896dirty gas care and asall heat etd,.etc,. more to come ...

Wolarly HE PSPC 3:11 PM 4/28/14

2-1 cont'd

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-04-28 14:15:55

If you have any questions or comments please contact Clerk of the Board at (916) 322-5594.

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Comment Letter 2 Response

2-1 Although the commenter submitted several letters, issues related to the EA are limited to part 2 (i.e., the letter provided above). The commenter states that the "The Environmental Analysis is Illegal and not a sick bird rather a bird…"

ARB prepared the Draft EA for the Update in accordance with its certified regulatory program and CEQA. Absent any more specific critique of the adequacy of the EA, staff is unable to provide a more specific response. The other portions of the comment do not relate to the EA and no written response is required by ARB's certified regulatory program under CEQA. Nonetheless, ARB staff notes that the Update encourages the use of renewable energy projects, including solar panels, as described in Section 2, Project Description of the EA.

Letter 3

Comments to ARB EA Update to the AB 32 Scoping Plan due 4.28.2014

Project Description:

> *The Proposed Update builds upon the framework established by the initial Scoping Plan and provides recommendations for the State to achieve its long-term climate objectives beyond 2020. Under the guidance of the Climate Action Team, ARB and other State agencies collaborated during the development of the Proposed Update to identify and describe a long-term vision and near-term recommended actions to put California on the path to its 2050 emission reduction goals.*

and

> *The recommended actions in the Proposed Update have been developed to reduce GHG emissions from key sources and activities, **while improving public health, promoting a cleaner environment, preserving natural resources**, and ensuring, to the extent feasible, that the **impacts of the reductions are equitable and do not disproportionately affect low-income and minority communities**. The recommended actions are designed to contribute to further GHG emission reductions by 2020 and to continue the State's progress toward meeting the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels.*

Project Objectives

1. *To update the State's Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions at least once every five years*
2. *To update the State's Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions at least once every five years.*
3. *Pursue measures to maintain and continue reductions in emissions of GHG beyond 2020.*
4. *Pursue measures that implement reduction strategies covering the state's GHG emissions in furtherance of California's mandate to reduce GHG emissions to 1990 levels by 2020.*
5. *Reduce fossil fuel use – to reduce California's reliance on fossil fuels and diversify energy sources while maintaining electric system reliability*
6. *Design an enforceable, amendable program – to design a program that is enforceable and that is capable of being monitored and verified;*
7. *Ensure emission reductions – to pursue emissions reductions that are real, permanent, quantifiable, verifiable and enforceable*

3-1

8. *Achieve technologically feasible and cost-effective reductions – to achieve the maximum technologically feasible and cost-effective reductions in GHG emissions, in furtherance of achieving the statewide GHG emissions limit*
9. *Avoid disproportionate impacts – to ensure, to the extent feasible, that activities undertaken to comply with the measures do not disproportionately impact low income communities*
10. *Complement existing air standards – to ensure, to the extent feasible, that activities undertaken pursuant to the measures complement, and do not interfere with, efforts to achieve and maintain national and California Air Quality Attainment Standards and to reduce toxic air contaminant (TAC) emissions*
11. *Consider a broad range of public benefits – to consider overall societal benefits, including reductions in other air pollutants, diversification of energy sources, and other benefits to the economy, environment, and public health*
12. *Minimize administrative burden – to minimize, to the extent feasible, the administrative burden of implementing and complying with the measure*
13. *Weigh relative emissions – to consider, to the extent feasible, the contribution of each source or category of sources to statewide emissions of GHGs*
14. *Maximize co-benefits – to maximize, to the extent feasible, additional environmental and economic benefits for California, as appropriate*
15. *Avoid duplication – to ensure that electricity and natural gas providers are not required to meet duplicative or inconsistent regulatory requirements*

3-1 cont'd

Alternatives give no accountability to the following:

> ***. . . improving public health, promoting a cleaner environment, preserving natural resources**, and ensuring, to the extent feasible, that the **impacts of the reductions are equitable and do not disproportionately affect low-income and minority communities**.*

We see no mitigation for improving Public Health. We do see a Cap and Trade system of exchange with SB 535 allocations to Disadvantaged Communities or an Investment Justice approach. That is not Public Health.

We see no mitigation for preservation of Natural Resources.

The alternatives are weighted in Transportation outcomes and in Utility delivery. This focus on a Built-Environment does not take into account a Cleaner Environment. We see no Ecosystem approach to encompass Natural Resources or their preservation. California Climate Adaptation Strategy has not yet been adapted to General Plans and their Elements. Effects from the ocean due to natural occurrences or disasters are not yet incorporated into the AB32 Scoping Plan Update. There is no allowance for a surge of effects on the Plan and no alternatives to address an unexpected emission increase instead of reduction.

Earthquakes, high groundwater, surface water, stormwater and urban runoff are factors into the continuity of a Built Environment's vulnerability and potential reversal of the Plan's objectives.
The weak point is Groundwater Management. Non-adjudicated basins are difficult, but adjudicated basins where the rule of law is ignored present more unnecessary challenges.

For instance, the State Water Resources Control Board does not recognize the rule of law in the decision in the California Supreme Court-City of Los Angeles v. City of San Fernando , 14 Cal.3d 199 [L.A. No. 30119. Supreme Court of California. May 12, 1975.]. CITY OF LOS ANGELES surface water rights were awarded to LAUREN BON (Application 32212), ignoring the long standing judgment from January 26, 1979 involving PUEBLO RIGHTS of surface and groundwater to the City of Los Angeles. Politics and money superseded this plan and any plan.

Surface water is being confused with stormwater as stormwater is a NPDES permitted process with Total Daily Maximum Load reductions required. It does not involve urban runoff until the LA Regional Water Quality Control Board confused the issue and requires urban runoff to be captured as a TMDL compliance before entering any water body, regardless of the Clean Water Act jurisdiction.

Omitted is an approach to emissions from the Land and the extractions from Land such as Methane emissions. Without a Land Use approach, reporting and mitigation of oil field leakage, especially in the urban environment of cities like Los Angeles, one cannot rely on outcomes stated. In fact, Objective 7 is bypassed. There is no baseline for comparison and no method for detection for continuous greenhouse gas emissions.

3-1 cont'd

Inventory was created on limited sources, not the environmental picture and the sources of emission, whether man-made or not.

Also bypassed, is the geoengineering of the sky through the coined-term "chem trails". Those emissions are not ground based and are omitted from any alternative. This may or may not involve Public Law such as National Defense Authorization Act for Fiscal Year 1998 Section 1078 research activity or any such related activity in Federal law.

The Local Government partner is omitted from any alternative. There is an assumption that Infrastructure is up-to-date and funded. Attached is a 2010-2011 Infrastructure Report for the City of Los Angeles with low grades and high unfunded liabilities.

Your ALTERNATIVE 2 statement has no basis in merit since the No Project Alternative has no baseline inventory:

> *Therefore, while Alternative 2 meets some of the basic project objectives, it would likely achieve substantially fewer GHG emission reductions and overall is less effective at achieving the project objectives compared to the Proposed Update.*

Your ALTERNATIVE 3 does not satisfy Objectives 11, 13 or 14.

The three Alternatives are not sufficient to meet any Project Objectives and no framework to accomplish those goals past 2020.

There are not sufficient Alternatives to accomplish the Project Description and the Project Objectives.

3-1 cont'd

Joyce Dillard
P.O. Box 31377
Los Angeles, CA 90031

Attachment:
INFRASTRUCTURE REPORT CARD_2010_2011 B&W

Comment Letter 3 Response

3-1 The commenter quotes text from Section 2.A of the EA, "Overview of the Proposed First Update and Scope of the 'Project' under CEQA," and Section 2.B, which lists the project objectives. With consideration of this quoted text, the commenter expresses concern that the alternatives are not consistent with some of the quoted text.

While ARB, by virtue of its certified program, is exempt from Chapters 3 and 4 of CEQA and the corresponding sections of the State CEQA Guidelines, the Guidelines contain useful information for preparation of a thorough and meaningful alternatives analysis. California Code Regulations, title 14, section 15126.6, subdivision (a) speaks to evaluation of "a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the significant effects, and evaluate the comparative merits of the alternatives." The purpose of the alternatives analysis is to determine whether or not different approaches to or variations of the project would reduce or eliminate significant project impacts within the basic framework of the objectives, a principle that is consistent with ARB's requirements under its certified regulatory program.

Section 7 of the Draft EA entitled "Alternatives Analysis" provides a description of three alternatives: No-Project Alternative, Reduced-Intensity Project Alternative, and Extend the Cap-and-Trade Regulation to All Economic Sectors Alternative. The alternatives analysis describes each alternative's relationship to the project objectives (listed in Section 7.C of the EA) and the potential environmental impacts.

The comment provides a discussion of specific issues that were perceived to not be mitigated in the Alternatives Analysis. Examples included improvements to Public Health, preservation of Natural Resources, and unexpected emissions increases. However, the purpose of the Draft EA is to evaluate the potential for significant adverse impacts associated with the reasonably foreseeable compliance responses that are likely to occur as a result of implementation of the Project, namely the recommended actions identified in each of the nine sectors discussed in the Update (see page 3 of the Draft EA). The recommended actions were developed to address the project objectives, which were derived from the requirements of AB 32 (AB 32, Statutes of 2006, Chapter 488).

The Update builds upon the approach of the initial Scoping Plan by recommending a balanced mix of broad-based sector strategies and recommended actions for the State to ensure that California remains on track to meet the near-term 2020 GHG emissions limit and continues on a downward

GHG emissions trajectory consistent with achieving the State's long-term climate stabilization objectives, while maintaining a vibrant, clean, and sustainable California economy. Likewise, suitable alternatives considered in the EA also need to be broad-based, comprehensive approaches that could meet the basic project objectives, while reducing or eliminating the project's identified significant effects on the environment.

ARB identified a reasonable range of three alternatives that allow the public and Board to understand different comprehensive approaches to meet the project objective. In addition to a discussion of the No Project Alternative, ARB made a good faith effort to identify other potentially feasible project alternatives. Efforts included examining comments received at the public workshops held in June, July, and October of 2013, and at the Board hearings held in October 2013 and February 2014 to determine if any commenters suggested potentially feasible alternatives. The comments appear to be focused on particular components associated with the project overview and project objectives, rather than an alternative broad-based comprehensive approach to the project itself. Absent a more detailed critique of the alternatives and absent any suggestions for alternatives that could better meet the overall project objectives while reducing or eliminating the identified environmental impacts, staff is unable to provide a more detailed response.

Letter 4

April 28, 2014

Michael Tollstrup
California Air Resources Board 1001
"I" Street
Sacramento, CA 95814

Submitted via CARB comments webpage:
http://www.arb.ca.gov/cc/scopingplan/2013comments.htm

RE: Comments on the California Air Resources Board (CARB) 2014 Draft First Update to AB 32 Scoping Plan ("Draft") and It's Supporting Appendix B, Appendix C (Working Paper on Transportation), and Appendix F (Draft Environmental Analysis)

Dear Mr. Tollstrup:

I appreciate the opportunity to offer these transportation-related comments on the 2014 Draft First Update to the AB 32 Scoping Plan ("Draft") and its Appendices B, C, and especially F, the Environmental Analysis for the Draft. I am a retired satellite systems engineer. I worked for 36 years at Lockheed Martin in Sunnyvale. I have a BSEE and an MSE in engineering. I am now the Transportation Chair, speaking for a large and well-known environmental organization on regional issues, in my region, here in San Diego. Climate-transportation is a systems engineering problem. I have published and presented four times with the Air and Waste Management Association on subjects relating to how this problem can be solved.

Given the shortcomings of the Draft, if it were to be adopted as the CARB 2014 Update to AB 32 Scoping Plan ("Update"), it would itself, contribute to the ultimate human catastrophe of destabilizing our climate. It fails to do what if must do, which is to ensure that cars and light duty trucks ("LDVs") in California will support climate stabilization.

Note that the four documents identified in the subject of this letter (the Draft and its 3 appendices) will be referred to as the "Subject Documents".

I. THE SUBJECT DOCUMENTS FAIL TO STATE THAT ANY CALIFORNIA AB 32 GOBAL-WARMING SCOPING PLAN THAT FAILS TO ENSURE THAT LDVs SUPPORT CLIMATE STABILIZATION COULD DO GREAT AND IRREPARABLE ENVIRONMENTAL HARM, THEREBY MAKING IT A *PROJECT*, UNDER CALIFORNIA ENVIRONMENTAL QUALITY ACT LAW. 4-1

For example, AB 32 requires that all measures that

- would reduce greenhouse gas (GHG) emissions and
- are technologically feasible and cost effective

be adopted. This is reasonable, given the severity of our climate crisis. It will be shown in this response letter that measures that would greatly reduce emissions from the car and light-duty (Light-Duty Vehicle or "LDV") sector that are both technologically feasible and cost effective have been perhaps overlooked but most certainly not described or considered in this Draft. If the final version of the *California Air Resources Board (CARB) 2014 First Update to AB 32 Scoping Plan* ("Update") continues to ignore these measures, it will send a message to the world that California perhaps cares more about pleasing its oil industry and its road-building lobby than it cares about helping to solve the climate crisis. It is unreasonable to expect China and India, for example, to stop building coal-fired electrical generating plants, if we continue to widen our freeways, as we have done for the last six decades (helping to produce a "drive everywhere" life style, a high average commute length, and a high level of per-capita driving and CO2_e emissions).

As another example, if this Draft adopts CO2_e emission-reduction goals that are insufficient to support climate stabilization, this would put the state of California on a path to climate failure. The negative impact of this would be unacceptably large.

II. THE SUBJECT DOCUMENTS FAIL TO DESCRIBE THE FUNDAMENTAL NATURE OF THE CLIMATE THREAT WE NOW FACE, WHICH IS NECESSAY, SO READERS CAN UNDERSTAND WHAT MEASURES AND LEVEL-OF-EFFORT ARE APPROPRIATE.

Genocide requires an inner circle of dangerously misguided (some would say evil) leaders and a large number of complicit government enablers. Climate destabilization, which would result in a "devastating collapse of the human population" (quote taken from the June 2008 issue of *Scientific American*, on its Page 100, within its featured article, *The Ethics and Economics of Climate Change*) is far worse than genocide, for it will most likely kill off most life forms on our currently-magnificent, teaming-with-life, planet. Facilitating this unbelievably gruesome process requires many sets of misguided leaders and complicit government enablers. With this Draft, CARB is mistakenly playing the role of a complicit government enabler. This is unacceptable. 4-2

Please consider how this Draft talks around climate destabilization's unbelievably-large potential for harm.

On Page 1, it says, " global warming poses a serious threat to the economic wellbeing, public health, natural resources and environment of California". Killing most life forms on the planet is the reality and the selected words are misleading. The words used are closer to the truth if they are applied to climate *success*, given our current prospects. climate *failure* (destabilization) will be an entirely different outcome. "Economic health" has no meaning if there are no people left.

On Page 2, it says, " catastrophic climate change". However, why climate change could be "catastrophic" is never explained in plain English. Who are the authors trying to protect? If they are concerned that children might read the Draft and they don't want to traumatize them, they should consider that if children understood what was going on, they would rather have the facts fully explained, as disturbing and distasteful as they are.

On Page 6, it says " climate goals" and " climate objectives". However, given our predicament, what is needed is a climate *requirement*, where that *requirement* is to achieve the greenhouse gas (GHG) reductions that, if achieved by the world, going forward from 2014, will guarantee climate stabilization at a livable level.

On Page 6, it says, "In addition to our climate objectives, California must also meet federal clean air standards." While I don't take sickness and life-ending cancer lightly, this is still similar to saying that in addition to not hitting an ice berg and sinking, the Titanic should prepare healthy meals for everyone. Statistically speaking, healthy meals will extend life and reduce the likelihood of life-ending sickness. Sinking in the frigid waters of the Atlantic Ocean was an outcome of a very different nature. Something to the effect of "In meeting our climate *requirements*, it so happens that we will also meet our federal clean air standards" would be appropriate.

On Page 9, it says, " avoid the most severe impacts of climate change." What are those "most severe impacts"? Again, who is the Draft trying to protect, the oil companies or the children?

On Page 11 it says, " avoid the worst impacts of climate change ." However, the Draft never explains what those impacts might be. Will we only have to turn up our air conditioners or is it something more serious?

On Page 13 is says, " the first Climate Change Adaptation Strategy for California ." However, nowhere is the key fact stated that without sufficient mitigation, no adaptation is possible. Without sufficient mitigation, any and all adaptation strategies will be overwhelmed. Any adaptation strategy must explain what climate outcome is being assumed.

On Page 14 is says, " 2^{o} C poses severe risks to natural systems and human health and well-being."

Nowhere in the Draft are these "severe risks" explained.

III. THIS DRAFT FAILS TO EXPLAIN WHAT DESTABILIZATION IS

Destabilization (sometimes called the tipping point) occurs when positive feedbacks take over and we lose all control, as the climate proceeds to warm so much that the planet is uninhabitable to most of its current life forms, including our own.

Positive feedback is any process where the warmer it gets, the more the process causes warming.

Two examples are

- the loss of ice mass that reflects a significant amount of the solar radiation it receives, because the warmer it gets, the less ice there is to reflect solar radiation and
- the melting of what was permafrost, giving off methane gas, a powerful greenhouse gas (GHG), because the warmer it gets, the more methane gas is put into the atmosphere.

4-3

These two positive feedbacks are underway and will be accelerated as more heat is trapped by our ever-increasing, elevated levels of atmospheric CO2. There is probably still hope that we can avoid destabilization. Destabilization must be avoided because it is such a bad outcome (loss of most life, including our own). This justifies doing hard work, making hard choices, and adopting significant changes.

IV. THE SUBJECT DOCUMENTS FAIL TO STATE THAT SUPPORTING CLIMATE STABILIZATION MUST BE, BY THE VERY NATURE OF DESTABILIZATION, A HARD AND FAST *REQUIREMENT*, NOT A GOAL AND NOT AN OBJECTIVE.

4-4

Stating the obvious, destabilization must be avoided at all costs, because it is so dire. Therefore, climate stabilization must be supported. Achieving that support must be a requirement.

V. THE SUBJECT DOCUMENTS FAIL TO TAKE ANY POSITION WHATSOEVER, ON WHAT CO2_e REDUCTION RATES ARE NEEDED TO ACHIEVE SUPPORT FOR CLIMATE STABILIZATION

The Draft presents the Governor's Executive Order S-3-05 ("S-3-05") and its three targets, on Page 1, where it also states that it was designed such that if the world's developed nations had achieved those targets, the atmospheric levels of CO2_e would be capped at 450 PPM, in the year of 2050. This fact is informative and historically important. However it is now 2014 and we know that in the nine years since the formulation of S-3-05, the industrialized world has failed to achieve the S-3-05 trajectory. The Draft makes it clear that achieving S-3-05 is not just hitting the targets, but is instead progressing from target to target with each year's CO2_e emission levels near or, better yet, below the straight-line that connects the target points, as shown in the Draft's Figure 6. This is true because what matters the most is the area under the achieved sets of year-by-year emission levels, which correspond to the net CO2_e emitted. For example, on the Draft's Figure 6, the blue-dashed line is preferable to the red line, because the area under that line, the total CO2_e emitted, is less.

4-5

However, at this point, it is clear to any climate realist that the S-3-05 target for 2050 is now too late, because, besides other reasons, the world's emissions, from 2005 to 2014 have put amounts of CO2_e into the atmosphere that far exceed what was allowed under S-3-05. The draft never makes a definitive statement about what must be done, given this situation. What targets are now needed? The Draft never states anything on that topic, but proceeds as if S-3-05 is still sufficient.

VI. THE SUBJECT DOCUMENTS ATTEMPT TO GET THE READER TO ACCEPT THE FALSE NOTION THAT S-3-05 IS A LEGITMATE REQUIREMENT TO SUPPORT CLIMATE STABILIZATION.

4-6

That S-3-05 is somehow sufficient is an absurd conclusion, based on the statements that appear in the Draft and also when considering other facts surrounding S-3-05. As stated at the top of the Draft's Page 2, S-3-05, if it had been achieved by the world, would have stabilized the atmospheric level of

CO2_e at 450 PPM[1] by the year of 2050 and this would have *reduced the likelihood* (emphasis added to point out that there is no assurance, rather, it is simply stated that the likelihood is reduced and furthermore, how *much* the likelihood is reduced is not stated) of catastrophic climate change. It also aimed for "only" a 2°C increase in temperature, from preindustrial temperature. This "aiming" generally means that there would have been a 50% chance that the increase would be less than 2°C and there would have been a 50% chance that it would have been larger than 2°C. However, even this discussion of what might have been is overly optimistic. On Page 14, it is stated that 2°C poses a "severe risk to the natural systems and human health and wellbeing." However all of this hope that S-3-05 would have been sufficient was probably misplaced all along. As shown on Page 14, a 2009 study which "synthesized many studies on climate" concluded that we would have needed to stabilize the atmospheric levels of CO2_ at 400 PPM, and that even if we did that, there would have been a 20% chance of exceeding 2°C. This is a good indication of how much trouble we are in because the current atmospheric level of CO2_e exceeded 400 PPM, several months ago. But it gets even worse. A recent paper by what may be the world's best climate scientists, including our own pre-eminent climate scientist, Dr. James Hansen, states that the 2°C target has always been too high and may in fact cause "irreparable harm to nature and future generations". 4-6 cont'd

VII. A REASONABLE CALIFORNIA TARGET TO SUPPORT CLIMATE STABILIZATION AT A LIVABLE LEVEL IS 80% BELOW THE 1990 LEVEL BY 2030, NOT 2050, AS DEFINED IN S-3-05.

Reference 1, using an Amicus Brief from James Hansen and other climate scientists, concludes that if California wants to set an example for the world, which is the only responsible action, given what we know, the correct target beyond 2020 is to reduce emission down to 80% below our 1990 levels by 2030. This is a full 20 years sooner than the third S-3-05 target. (Reference 1 also develops a set of requirements for California cars and light-duty trucks so that they can support this target.) 4-7

VIII. THE SUBJECT DOCUMENTS LEAVE OUT THE CRITICAL INFORMATION THAT CARB'S SB-375 TARGETS TO THE METROPOLITAN PLANNING ORGANIZATIONS (MPOs) FAILED TO EVEN SUPPORT S-3-05

As an example, this failure will be shown for the MPO named SANDAG, the San Diego Association of Governments. First, the target CARB gave to SANDAG is shown in this Wikipedia link, http://en.wikipedia.org/wiki/SB_375. As shown there, it was just 13%, which is exactly what SANDAG requested, so that they could continue to build all of their planned freeway expansions. However, using the car-efficiency data compiled by Steve Winkelman, Reference 1 derives the SB-375 target for 2035 that supports S-3-05. It is 35.1%. This derivation is shown, in painstaking detail, on Pages 3 through 9 of Reference 1, in its section titled, *The Required Driving Reduction for San Diego County, for 2035, Using Winkelman's LDV and Fuel Efficiency Values and S-3-05.* 4-8

IX. THE SUBJECT DOCUMENTS NEED TO BE CHANGED SO THAT IT ESTABLISHES AND APPLIES NEW SB 375 TARGETS TO THE MPOS THAT WILL, ALONG WITH A SET OF REQUIREMENTS TO CLEAN UP OUR FLEET OF LDVS, SUPPORT CLIMATE STABILIZATION.

Reference 1 does this very thing. Reference 1 has been peer reviewed and accepted by the Air and Waste Management Association (AWMA). It will be published as part of the proceedings of AWMA's yearly conference, this June, in Long Beach. The paper will be presented there in a panel discussion. 4-9

X. THE SUBJECT DOCUMENTS FAIL TO DISCLOSE THAT THE ACT OF PROVIDING SB 375 TARGETS HAS SIGNIFICANT ENVIRONMENTAL CONSEQUENCES AND SHOULD HAVE BEEN CONSIDERED A PROJECT UNDER CEQA AND IF IT HAD BEEN, THE FACT THAT THE TARGETS 4-10

[1] This stabilization of atmospheric CO2_e should not be confused with stabilizing the climate.

IGNORED S-3-05 COULD HAVE BEEN EXPOSED AND PERHAPS PREVENTED.

The Draft needs to provide this information. That will make it clear that CARB is now going to provide the MPOs with SB 375 targets for 2035 that will support stabilization. As will be shown, CARB can also provide the MPOs with the help they need to ensure that the LDV sector will support climate stabilization. 4-10 cont'd

XI. THE SUBJECT DOCUMENTS OMIT THE FACT THAT SANDAG, FOLLOWING CARB'S LEAD OF IGNORING S-3-05, WAS FOUND TO BE IN VIOLATION OF CEQA AND IN FACT THE FINAL RULING AGAINST SANDAG, IN SUPERIOR COURT, STATED THAT THE EIR FOR THEIR RTP WAS "IMPERMISSIBLY DISSMISSIVE OF S-3-05". 4-11

SANDAG, following the bad example set by CARB, of ignoring S-3-05 and its responsibility to support stabilization is unapologetic and is in fact appealing the case, using money that should instead be used to improve active transportation and transit. Keeping these important and relevant facts hidden from the reader is part of a criminal conspiracy to protect the parts of the status quo that have been a large contributor to our current climate crisis, as much as possible and as long as possible,.

XII. AFTER ESTABLISHING THE CO2_E REDUCTIONS REQUIRED TO SUPPORT CLIMATE STABILIZATION, AS SHOWN IN VII ABOVE, THE SUBJECT DOCUMENTS MUST DEVELOP AND ADOPT A PLAN, FOR EACH EMITTING SECTOR OF THE ECONOMY, TO ACHIEVE THOSE REDUCTIONS.

Climate stabilization is, among other things, a math problem. It is certainly a systems engineering problem. The task described in XII should be viewed as the primary purpose of the subject documents. The LDV sector is complicated by the fact that car efficiency (including the low-carbon fuel standard, LCFS) is controlled primarily by the state but driving reduction strategies are often under local control. However, CARB, thanks to SB 375, has the ability to apply the needed driving reductions to the MPOs. Therefore, the Subject Documents needs to have an overall plan to ensure that LDVs will support stabilization. Reference 1 shows such a plan. In fact, it develops two sets of requirements. One is called "Heroic Measures", due to its required rapid adoption of Zero Emission Vehicles (ZEVs) into California's fleet. It also has an "Extra Heroic Measures" set of requirements, created to satisfy those that want to continue to support the 2005 level of per-capita driving. Most would agree that the "Extra Heroic Measures" rate of ZEV adoption is not achievable. Reference 1 is only a start and only an example of the work that must be done. 4-12

XIII. FOR LDVS, A SET OF MEASURES MUST BE DEVELOPED AND INCLUDED IN THE SUBJECT DOCUMENTS THAT WILL ACHIEVE THE NEEDED DRIVING REDUCTIONS TO SUPPORT CLIMATE STABILIZATION

An example of such a list is given in Reference 1, on its Pages 17 to 20. All of the measures are technologically feasible and cost effective and therefore must be included in the Update and in the MPOs SCS (under SB 375, these are the Sustainable Communities Strategies, containing only measures that would be feasible for the MPO or for the MPO's local governments) and APS (under SB 375, these are the Alternative Planning Strategies, containing only measures that would be infeasible for the MPO or for the MPO's local governments), as part of their next Regional Transportation Plan (RTP). 4-13

XIV. THE SET OF MEASURES IDENTIFIED IN XIII ABOVE MUST INCLUDE A COMPREHENSIVE ROAD-USE FEE PRICING AND PAYOUT SYSTEM

This measure is identified on Page 18 of Reference 1. *Comprehensive* means that pricing would be set to cover all costs (including road maintenance and externalities, such as harm to the environment and health); that privacy and the interests of low-income drivers doing necessary driving would be protected to the greatest extent possible; that the incentive to drive fuel-efficient 4-14

cars would be at least as large as it is under the current fuels excise tax; and, as good technology becomes available, that congestion pricing is used to protect at least critical driving and perhaps all driving from congestion.

The words *payout* and *unbundle* mean that some of the money collected would go to people that are losing money under the current system. User fees (currently just gas taxes and tolls) are not enough to cover road costs as shown in an article *Gasoline Taxes and Tolls Pay for Only a Third of State & Local Road Spending*, viewable here, http://taxfoundation.org/article/gasoline-taxes-and-tolls-pay-only-third-state-local-road-spending. In fact, the article shows that in California, only 22.7% of state and local road spending is covered by user fees.

More than any other California agency, CARB should be aware of the fact that as our fleet of cars gets more efficient, there will be a continuously dwindling amount of gas tax revenue available. This means that our indefensibly bad situation will get worse. The large number of ZEVs needed mean that gas tax revenues will drop precipitously. What is the CARB recommendation to solve this obvious problem? The Draft indicates a desire to increase fairness, but what is fair about forcing those that drive less to subsidize those that drive more? Obviously, subsidizing driving increases the *amount* of driving and thus increasing the CO2_e emissions.

4-14 cont'd

It is impossible to believe that CARB has been unaware of these facts, which have been noted for decades. The first significant thing that Republican Congressman Ray LaHood said after he became President Obama's first Secretary of Transportation is that the gas tax was inadequate and it was time for what he called a "VMT Fee". ("Road-Use Fee" is a better description since the rate per mile would need to vary depending on a handful of variables, such as type of car.) There is nothing technologically infeasible or that is not cost effective about this measure.

This situation shows that CARB has been ignoring a technologically feasible and cost effective measure to reduce emissions, a clear violation of AB 32. The first Resolution shown in this letter's Appendix A contains more details on this measure.

XV. **THE SET OF MEASURES IDENTIFIED IN XIII ABOVE MUST INCLUDE A DESCRIPTION OF A PLAN TO UNBUNDLE THE COST OF MOST PARKING THAT IS NOW BUNDLED-COST PARKING, STARTING WITH GETTING DEMONSTRATION PROJECTS THAT DEVELOP AND INSTALL REDUCED-FEATURED SYSTEMS**

Reference 2 explains how a reduced-feature demonstration project could be developed and implemented. Reference 2 shows that the concept is feasible and cost effective. It would also increase fairness, transparency, and economic choice. Since its potential to reduce driving is large, it would be unacceptable for this measure to be left out of the Subject Documents. The second Resolution shown in Appendix A contains more details on this measure.

4-15

The ultimate and needed change would be the full implementation, as described here, http://www.sandiego.gov/environmental-services/pdf/sustainable/parkingcosts.pdf.

XVI. **APPENDIX D'S TABLE 2-2, ON PAGES 15 THROUGH 17 IS DEFICIENT IN THAT IT ASSUMES THERE IS NO CARB RESPONSIBILITY TO IDENTIFY BOTH A TARGET THAT WOULD RELIABLY SUPPORT CLIMATE STABILIZATION AND A SET OF MEASURES THAT WOULD ENSURE THAT THE LDV SECTOR ACHIEVES THAT CLIMATE STABILIZATION TARGET**

4-16

There is nothing in this table about how these measures might or might not support climate stabilization. It is clearly the work of an organization that does not realize that it has a responsibility to identify what target will support climate stabilization and what transportation measures will cause the LDV sector to achieve the target. Reference 1, which is also Appendix B in this letter does both of these things: it identifies the target and derives a set of actions to

achieve the target.

CEQA requires that negative impacts be considered. At a minimum this would require that climate destabilization be accurately described in terms of how bad it will get with insufficient reductions in the burning of fossil fuels (extinction of most species) and what it would take to support the avoidance of such destabilization. Table 2-2 contains measures with no accounting for how much they might collectively reduce CO_2 emissions. However, Reference 1 shows that is not even close to what is needed. Sadly, thanks to the impermissibly deficient nature of the Subject Documents, the reader has no way of knowing how far Table 2-2 is from achieving support for climate stabilization at a livable level. 4-16 cont'd

XVII. **APPENDIX D'S TABLE 2-2 SHOWS CARB STILL DOES NOT KNOW THAT WHEN SANDAG WAS FOUND TO BE "IMPERMISSIBLY DISMISSIVE OF S-3-05", EVEN THOUGH IT MET ITS SB-375 TARGETS, THAT WAS A CLEAR INDICATION THAT CARB SHOULD HAVE PROVIDED TARGETS THAT WOULD HAVE, AT THE VERY LEAST, SUPPORTED S-3-05.**

This in no way excuses SANDAG. Clearly CARB and SANDAG engaged in a conspiracy to betray the public trust by defeating the intent of SB 375, which is to support climate stabilization. They did this by pretending that ignoring the S-3-05 trajectory, which was thought by some to provide a path to climate stabilization, was responsible behavior. Behavior which leads to climate failure is irresponsible and unacceptable. Even now, Table 2-2's first sentence, under the "Transportation, Land Use and Housing" heading, says they will do a "technical review" to "inform the need" for revisions" and the "appropriate timing" of the revisions. Of course the climate-killing targets need to be fixed. This was pointed out in 2010 in Reference 4. The first 30 pages of Reference 4 is shown as Appendix D. Since SB 375 does not allow strengthening the targets for 8 years, CARB needs to admit its crime against humanity, and ask the legislature to pass a law to allow them to impose climate-stabilization-supporting targets to replace the climate-killing targets they gave the MPOs back in 2010. 4-17

XVIII. **TABLE 2-2 MEASURES INCLUDE NOTHING ABOUT IMPROVING THE WAY WE PAY FOR ROADS AND PARKING, AS IF MONEY MEANS NOTHING AND AS IF CARB STAFF IS INCAPABLE OF NOTICING THAT THE GAS TAX ACCOUNTS HAVE A POOR FUTURE, SINCE WE MUST HAVE SUBTANTIALLY CLEANER CARS AND AS IF CARB STAFF IS INCAPABLE OF NOTICING THAT BUNDLING THE COST OF PARKING, AT MOST LOCATIONS, IS INCREASING THE USE OF LDVS FOR TRANSPORTATION AND, FINALLY, AS IF CARB NEVER RECEIVED REFERENCE 4.** 4-18

XIX. **THE FOUR "COMPLIANCE RESPONSES" SHOWN IN APPENDIX E, JUST AFTER ITS TABLE 2-2, REPEAT THE UNACCEPTABLE OVERSIGHTS THAT ARE IDENTIFIED IN XVII ABOVE.** 4-19

XX. **PAGE 10 OF ATTACHMENT 3 OF APPENDIX F HAS A DEFICIENT, COVER-UP DESCRIPTION OF THE DISASTEROUS ENVIRONMENTAL CONSEQUENCES OF GIVING THE MPOS THE EXACT TARGETS THEY REQUESTED, TARGETS THAT IN NO WAY CAME EVEN CLOSE TO SUPPORTING THE S-3-05 TRAJECTORY.** 4-20

Sincerely,

Mike Bullock

California Democratic Party Delegate, 76 AD (author of 2 adopted resolution and 5 Platform changes)
Elected Member of the San Diego County Democratic Party Central Committee (author of 5 adopted resolutions)
Satellite Systems Engineer, 36 years (Retired for 7 years)
Air and Waste Management Association published and presented (or to be presented; the first will be presented in June) papers:
Author, ***The Development of California Light-Duty Vehicle (LDV) Requirements to Support Climate Stabilization: Fleet-Emission Rates & Per-Capita Driving***
Author, ***A Climate-Killing Regional Transportation Plan Winds Up in Court: Background and Remedies***
Co-author, ***A Plan to Efficiently and Conveniently Unbundle Car Parking Cost***
http://www.sandiego.gov/environmental-services/pdf/sustainable/parkingcosts.pdf

Memberships (not denoting support for this email):

Sierra Club San Diego's 2011 Volunteer of the Year
Oceanside Bicycle Committee
SVBC
CirculateSD
CNFF
Action4Oceanside

References

1. Bullock, M.; *The Development of California Light-Duty Vehicle (LDV) Requirements to Support Climate Stabilization: Fleet-Emission Rates & Per-Capita Driving*; Paper 2014-30793-AWMA, from the Air and Waste Management Association's 2014 Annual Conference and Exhibition; Long Beach, California, June 24-27, 2014. (Also shown as Appendix B)
2. Bullock, M.; *Equitable and Environmentally-Sound Car Parking Policy at Schools*; July 20, 2011. Unpublished. Available from mike_bullock@earthling.net, upon request. (Also shown as Appendix C)
3. Bullock, M.; Stewart, J.; *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*; Paper 2010-A-554-AWMA, from the Air and Waste Management Association's 103rd Annual Conference and Exhibition; Calgary, Canada, June 21-24, 2010. http://sierraclub.typepad.com/files/mike-bullock-parking-paper.pdf
4. *Comments on the Draft GHG Reductions, Pursuant to Senate Bill 375*, July 21, 2010, Letter summited to CARB regarding their targets to MPOs, from M. Bullock (Also shown as Appendix D.)

Comment Letter 4 Response

4-1 With regards to the reference about projects under CEQA, California Code of Regulations, title 14, section 15378 defines a project as:

a) "Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following:

(1) An activity directly undertaken by any public agency including but not limited to public works construction and related activities clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700.

(2) An activity undertaken by a person which is supported in whole or in part through public agency contacts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.

(3) An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

Section 2, "Project Description," in the Draft EA provides the description of the project (the Update) under consideration.

Recommended actions associated with the Transportation Sector of the Update include GHG emissions related to cars and trucks.

4-2 This is not a comment related to the EA. Nonetheless, staff notes that Section II of the Update provides an overview of the latest climate science, including trends, evidence of climate change, and the need to achieve climate stabilization. The Update describes the continuing evidence of climate change in California on pages 11 – 14.

4-3 This is not a comment related to the EA. Nonetheless, staff notes that Page 14 of the Update describes, in detail, the concept of climate stabilization. Several indicators of climate change are discussed, including ice loss, sea-level rise, ocean acidification, heat waves, and air quality effects (page 10 of the Update).

4-4 See response to comments 4-3.

4-5 This is not a comment related to the EA. Nonetheless, staff notes that Page 2 of the Update describes GHG emissions reductions to reach 1990 levels. Page 1 of the Draft EA states that: "The Proposed Update highlights California's success to date in reducing GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050, as required by AB 32, Executive Order S-3-05, and Governor Brown's Executive Order B-16-2012. The 2050 objective is consistent with an Intergovernmental Panel on Climate Change (IPCC)[1] analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million carbon dioxide equivalent (CO_2e) and reduce the likelihood of catastrophic climate change."

4-6 This is not a comment related to the EA. Nonetheless, staff notes that the comprehensive approach in the initial Scoping Plan addressed key criteria, including technological feasibility, cost-effectiveness, overall societal benefits, and impacts on specific sectors such as small business and disproportionately impacted communities. The thorough planning process underlying the initial Scoping Plan and this Update helps to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, helps to foster economic growth, and delivers improvements to the environment and public health, including in the most affected communities.

Key elements of the initial Scoping Plan included the following:

- Expand and strengthen energy efficiency programs, including building and appliance standards.
- Increase electricity generation from renewable resources to at least 33 percent of the statewide electricity mix by 2020.
- Establish targets for passenger vehicle-related GHG emissions for regions throughout California and pursue policies and incentives to achieve those targets.
- Adopt and implement measures pursuant to existing State laws and policies, including California's clean car standards and the Low Carbon Fuel Standard.
- Develop a cap-and-trade program to ensure the target is met, while providing flexibility to California businesses to reduce emissions at low cost.

The initial Scoping Plan identified specific GHG emission reduction measures that would assist the State in meeting the 2020 limit. A discussion of the status of all of the Scoping Plan measures is included in Appendix B of the Update.

4-7 See response to comments 4-5.

[1] The IPCC is the leading international body for the scientific assessment of climate change established in 1988 under the auspices of the United Nations.

4-8 This is not a comment related to the EA. Nonetheless, staff notes that the Board received a briefing on the status of Senate Bill (SB) 375 implementation at its January 23, 2014 meeting. The Board directed staff to obtain input from stakeholders to inform the need for and timing of a regional targets update. Over the next several months, ARB staff is convening a diverse group of stakeholders to participate in a roundtable discussion format to explore issues related to target-setting and to think strategically about appropriate methodologies for updating the targets. All the roundtable meetings are open to the public and members of the public will be welcome to observe the discussions and participate during a public comment segment of each meeting. More information about SB 375 can be found at: http://www.arb.ca.gov/cc/sb375/sb375.htm

4-9 This is not a comment related to the EA. Nonetheless, reference 1 is noted. See response to comment 4-8.

4-10 This is not a comment related to the current draft EA prepared for the Update. For information related to the SB 375 process, please see: http://www.arb.ca.gov/cc/sb375/sb375.htm

4-11 This is not a comment related to the EA. Issues related to SANDAG documents are not within the scope of the Update or the draft EA prepared for the Update.

4-12 This is not a comment related to the EA. Nonetheless, the comments are noted. The Update provides a plan for each emitting sector of the environment.

4-13 See response to comments 4-8.

4-14 This is not a comment related to the EA.

4-15 See response to comment 4-14.

4-16 This is not a comment related to the EA. Nonetheless, staff notes that climate stabilization is discussed in Section II.B of the Update. Section IV.B, Progress to Date, in the Update described key accomplishments, GHG emissions trends, and emission reductions to meet the 2020 Statewide limit.

4-17 See response to comments 4-11.

4-18 This is not a comment related to the EA.

4-19 See response to comments 4-11.

4-20 The commenter provides no supporting evidence or discussion of why page 10 of attachment 3 of appendix is deficient. Thus, staff is unable to provide a more detailed response.

Letter 5

CENTER *for* BIOLOGICAL DIVERSITY

April 28, 2014

Via internet upload (www.arb.ca.gov)

Clerk of the Board
Air Resources Board
1001 I Street
Sacramento, California 95814

Re: Draft Environmental Analysis for the Proposed First Update to the Climate Change Scoping Plan

Members and Staff of the California Air Resources Board:

The Center for Biological Diversity (the "Center") submits the following comments concerning the Draft Environmental Analysis ("EA") for the Proposed First Update to the Climate Change Scoping Plan ("Proposed First Update"). 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 775,000 members and online activists throughout the United States, including more than 100,000 in California. 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. 5-1

We thank the California Air Resources Board ("ARB") staff and members for their continued efforts to reduce greenhouse pollution and implement California's Global Warming Solutions Law ("AB 32"). Despite these diligent efforts, the EA contains serious flaws that undermine both its analysis and its conclusions, as well as rationales behind some of the measures in the Proposed First Update.

In particular, the EA does not meet the minimum requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000 et seq., and the CEQA Guidelines, title 14, California Code of Regulations, section 15000 et seq. Many of the deficiencies in the EA—particularly in its contradictory and unsupported discussion of the climatic and terrestrial impacts of increasing reliance on biopower and biofuels—reflect the same erroneous assumptions and evidentiary gaps addressed in the Center's November 1, 2013, comments on the 2013 Scoping Plan Update Discussion

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

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Draft.[1] That letter, and all accompanying exhibits, are hereby incorporated by reference and will be cited below as appropriate.

Specifically, the EA lacks an accurate and consistent description of the "project" under review; although the Proposed First Update should constitute the project being analyzed, the EA does not accurately reflect all aspects of the updated plan, as set forth in the text of the document itself or in many of the other documents attached or referred to in the document. Furthermore, the EA's analysis of environmental impacts—particularly impacts to forest resources, air quality, and greenhouse gas emissions—is undermined by the lack of a complete and stable project description, as well as by demonstrably erroneous assumptions, internal inconsistencies and contradictions, and the lack of evidentiary support for key conclusions. Where the EA does identify significant impacts, moreover, it fails to consider feasible mitigation measures or alternatives within ARB's control that could reduce or avoid these impacts.

The EA sets forth some laudable principles. For example, energy sector principles include "[t]horoughly account[ing] for the carbon intensity and air quality impacts of various energy resources, generation technologies, and associated fuels" and "[m]inimiz[ing] emissions of criteria air pollutants (CAPs) and toxic air pollutants (TACs)." EA at 9. However, absent accurate disclosure and analysis of the environmental effects of all aspects of the project under consideration—particularly efforts to expand biomass power generation, municipal waste incineration, and biofuels production—the EA cannot achieve these principles.

The Proposed First Update cannot be lawfully approved in reliance on the EA as drafted. Absent compliance with CEQA, the public is unable to understand or meaningfully comment on the environmental implications of the Proposed First Update, and ARB is incapable of making an informed decision that protects California's environment to the greatest possible extent. *See generally Laurel Heights Improvement Assn. v. Regents of University of California*, 47 Cal. 3d 376, 392-94 (1988) ("*Laurel Heights I*"); *Friends of Mammoth v. Board of Supervisors*, 8 Cal. 3d 247, 259 (1972). The EA must be revised to comply with CEQA and recirculated for comment prior to ARB's consideration of the Proposed First Update.

5-1 cont'd

I. Legal Background

ARB's regulatory program, at least in part, is a "certified regulatory program" for purposes of CEQA. Pub. Res. Code § 21080.5; CEQA Guidelines § 15251(d).[2] As such, the EA is considered the "functional equivalent" of an environmental impact report ("EIR"). *Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection*, 43 Cal. 4th 936, 943 (2008); *POET, LLC v. State Air Res. Bd.*, 218 Cal. App. 4th 681,

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[1] Center for Biological Diversity, Letter to Mary Nichols, Chair, California Air Resources Board, Re: 2013 Scoping Plan Update Discussion Draft (Nov. 1, 2013) ("Center Discussion Draft Comments").
[2] All further undesignated statutory references are to the Public Resources Code.

709 (2013). Although a formal EIR is not required under a certified regulatory program, ARB nonetheless "must comply with all of CEQA's other requirements." *Mountain Lion Foundation v. Fish & Game Comm'n*, 16 Cal. 4th 105, 113-114 (1997); *POET, LLC*, 218 Cal. App. 4th at 710. Those requirements include the basic information disclosure and environmental protection features of an EIR, including an accurate project description, disclosure and evaluation of significant environmental effects, consideration of feasible alternatives and mitigation measures, and consideration of cumulative impacts. *See Ebbetts Pass*, 43 Cal. 4th at 943-44; *see also POET, LLC*, 218 Cal. App. 4th at 709 ("regulatory programs are certified when they involve 'the same consideration of environmental issues as is provided by use of EIRs and negative declarations'") (quoting CEQA Guidelines § 15002(l)).

Informed decision-making and public participation are central to CEQA's fundamental purpose. *See, e.g., Citizens of Goleta Valley v. Board of Supervisors*, 52 Cal. 3d 553, 564 (1990) (purpose of EIR "is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made"); *Laurel Heights I*, 47 Cal. 3d at 394 ("A fundamental purpose of an EIR is to provide decision makers with information they can use in deciding *whether* to approve a proposed project . . . ."); *No Oil, Inc. v. City of Los Angeles*, 13 Cal. 3d 68, 75 (1974) ("an EIR serves to guide an agency in deciding whether to approve or disapprove a proposed project"). Informed decision making, moreover, is essential not only to environmental protection, but also to participatory democracy. "Because the EIR must be certified or rejected by public officials, it is a document of accountability. If CEQA is scrupulously followed, the public will know the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees." *Laurel Heights I*, 47 Cal. 3d at 392. The CEQA process thus "protects not only the environment but also informed self-government." *Id.*

The EA offers a "program-level" analysis of the impacts of the Proposed First Update, and explains that the level of analysis offered is not as "detailed" as would be offered in a project-level assessment. EA at 3. However, ARB may not defer thorough analysis of environmental impacts that can be addressed, given that the agency knows a great deal about what its project entails, simply by stating that the EA is a "programmatic" document. *See, e.g., Friends of Mammoth v. Town of Mammoth Lakes Redevelopment Agency*, 82 Cal.App.4th 511, 533 (2000). To the contrary, the purposes of a programmatic environmental document include providing "an occasion for a *more exhaustive* consideration of effects and alternatives that would be practical in an EIR on an individual action," ensuring "consideration of cumulative effects that might be slighted in a case-by-case analysis," and avoiding "duplicative reconsideration of basic policy considerations." CEQA Guidelines § 15168(b)(1)-(3) (emphasis added). Nor are programmatic documents exempt from CEQA's requirement that public agencies adopt all feasible measures to reduce or avoid significant environmental effects. § 21002. Rather, a programmatic analysis must "consider broad policy alternatives and program

5-2 cont'd

wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." CEQA Guidelines § 15168(b)(4). 5-2 cont'd

II. The EA's Project Description is Inadequate

In order for an environmental document to adequately evaluate the environmental ramifications of a project, it must describe the proposed project with sufficient detail and accuracy to permit informed decision-making. *See* CEQA Guidelines §15124. Indeed, "[a]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus*, 27 Cal. App. 4th 713, 730 (1994), quoting *County of Inyo v. City of Los Angeles*, 71 Cal. App. 3d 185, 193 (1977). As a result, courts have found that, even if an environmental document is adequate in all other respects, the use of a "truncated project concept" violates CEQA and mandates the conclusion that the lead agency did not proceed in a manner required by law. *San Joaquin Raptor*, 27 Cal. App. 4th at 730. Furthermore, "[a]n accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity." *Id.* (citation omitted). Thus, an inaccurate or incomplete project description renders the analysis of significant environmental impacts inherently unreliable. *See Communities for a Better Env't v. City of Richmond*, 184 Cal. App. 4th 70, 82-83 (2010) (approval of EIR based on inadequate project description constitutes legal error). Because an accurate and stable project description is essential to analysis of environmental effects, and critical to fulfillment of CEQA's fundamental informational goals, these requirements apply with equal force to "functional equivalent" documents prepared under certified regulatory programs. 5-3

The EA's project description fails to meet these standards, largely because the recommended actions and compliance responses discussed in the project description do not fully reflect proposals in the Proposed First Update or the accompanying technical "working papers" (compiled in Proposed First Update Appendix C).

For example, in the description of proposed actions for the transportation sector, the EA acknowledges the Proposed First Update's recommendation to extend and strengthen the low carbon fuel standard ("LCFS"). EA at 16. The Proposed First Update also refers to the expanded role of biofuels under the state's 2012 Bioenergy Action Plan.[3] *See* Proposed First Update at 70. Nothing in the EA's description of compliance responses, however, mentions the role of biofuels (particularly cellulosic biofuels) either in the LCFS context or in the context of the Bioenergy Action Plan. EA at 17.

According to the Bioenergy Action Plan, "[b]iomass is expected to play a key role as a feedstock for the production of transportation fuels needed to meet LCFS and the federal Renewable Fuel Standard (RFS2)."[4] Much of this is expected to come from cellulosic feedstocks (including "woody biomass from dedicated agricultural crops, crop

[3] Bioenergy Interagency Working Group, 2012 Bioenergy Action Plan (Aug. 2012) (attached as Ex.1).
[4] Id. at 12.

and forest residues, and other urban biomass waste") that are not currently in commercial production. The Bioenergy Action Plan estimates the availability of potential cellulosic feedstocks at 18.05M bone dry tons ("BDT") per year.[5] Reaching this potential from the current near-zero level of utilization would obviously represent a huge expansion in feedstock production, harvest, and processing. The EA acknowledges the importance of the Bioenergy Action Plan in other contexts. *See* EA at 21-22 (agriculture sector). Yet the EA fails to identify any anticipated level of biofuels expansion as part of the proposed project.

The waste management section of the project description does not mention any increase in combustion of municipal solid waste ("MSW") and biomass, both of which may result in greenhouse gas ("GHG") and other air pollutant emissions. EA at 24-27. Yet the Proposed First Update includes expansion of "municipal solid waste (MSW) thermal operations (waste-to-energy)" as well as "biomass management (combustion, composting, chip and grind)." Proposed First Update at 75. Moreover, one of the main goals of the Bioenergy Action Plan is to "[i]ncrease energy production from urban-derived biomass."[6] The EA's description of compliance responses, however, refers only to new or expanded "composting and anaerobic digestion facilities"—not new or expanded biomass conversion or waste-to-energy facilities—and makes only oblique references to new offset protocols for "biomass." EA at 26. Expanded biomass combustion and waste-to-energy applications are part of the Proposed First Update and are foreseeable compliance responses. Because the EA omits that these applications are, in fact, part of the project, it cannot provide the basis for adequate analysis of environmental impacts, properly inform decision-makers, and facilitate meaningful public comment.

Finally, the cap-and-trade section of the project description similarly fails to disclose that the cap-and-trade program—as acknowledged in the Bioenergy Action Plan—was specifically "designed to incent the use of biomass derived fuels" by relieving sources of biomass GHGs from compliance obligations.[7] This section of the project description also fails to identify any recommendations or copmliacne responses associated with new offset protocols for "biomass." EA at 26. Again, these omissions preclude full environmental analysis and frustrate CEQA's informational goals.

5-3

[5] Id. at 6.
[6] Id. at 21.
[7] Id. at 13.

III. The EA Fails to Adequately Disclose, Analyze, and Consider Feasible Mitigation for the Proposed First Update's Significant and Potentially Significant Environmental Effects

A. Agriculture and Forest Resources

Natural and Working Lands Sector

The EA acknowledges that expanding biomass operations may affect forests, although the document claims that there is no way to assess potential impacts because the exact locations and characteristics of biomass facilities are not known and other agencies will be responsible for permitting and mitigation. *See* EA at 56-57. The fact that the EA is a programmatic document cannot excuse this highly generalized, inadequate level of disclosure and analysis.

ARB must make a good-faith effort to disclose, at the level of the Proposed First Update, what overall scale of expansion is planned and what the environmental effects might be. Both the Proposed First Update and the EA recognize that expansion is intended to happen in accordance with the Bioenergy Action Plan. *See* EA at 27, 28 (forecasting "increased use of biomass facilities" as compliance response); *see also* Proposed First Update at 85, 108. A core goal of the BAP is to "increase biomass use for energy production" primarily by "[d]evelop[ing] policies and programs to increase sustainable use of biomass residues from the forestry, agricultural, and urban sectors . . . ."[8] Indeed, the Bioenergy Action Plan's first two goals are (1) to "[i]ncrease environmentally and economically sustainable energy production from biomass residues, including but not limited to forest-derived wood waste, agricultural and food processing waste, wastewater, and urban-derived biomass," and (2) to "[i]ncrease the use of biomass for local distributed generation, combined heat and power facilities, fuel cells, and renewable transportation fuels."[9] The plan also recommends seeking legislative and executive "direction regarding increased biomass use" and working to "[f]acilitate growth of California's biomass industry" by streamlining regulatory processes.[10] Some level of bioenergy expansion is clearly envisioned by the Proposed First Update, and ARB has a responsibility to estimate what level is likely.

In fact, the scale of expansion could be dramatic. According to the Bioenergy Action Plan, "[t]echnically available biomass is estimated to be approximately 36 million bone dry tons per year (BDT/year) in 2010 and 40 million BDT/year in 2020 (not including purpose grown energy crops). In 2010, existing solid-fuel biomass facilities used about 4.5 million bone-dry tons of biomass residues to generate over 4,300 GWh (less than 15 percent of the resource)."[11] A recent fuel procurement study for a biomass plant in the Lake Tahoe basin estimated that forest fuels treatments would produce an

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[8] Id. at 17.
[9] Id. at 18.
[10] Id. at 18-19.
[11] Id. at 10.

average of 13 BDT per acre.[12] At this level of production, generating 36 million BDT from fuels treatments would require logging 2,769,231 acres per year—the equivalent of logging the entire 20.8 million acres of National Forest lands in California about once every 7.5 years. Even at a far more aggressive biomass removal rate of 30 BDT/acre, generating this amount of biomass would require logging 1,200,000 acres per year, the equivalent of logging California's entire National Forest acreage about once every 17 years.

ARB may feel that expanding biomass utilization to the technically available maximum is unrealistic. Yet ARB still has a responsibility to forecast what level of expansion is likely to occur, given that such expansion is an explicit goal of the Proposed First Update and the Bioenergy Action Plan. *See* CEQA Guidelines §§ 15144, 15151. This is especially the case given that the Bioenergy Action Plan and supporting documents for the Proposed First Update acknowledge increased utilization may cause ecosystem damage.[13]

The EA may not avoid this analysis by claiming that development of bioenergy facilities will not result in increased biomass demand. *See* EA at 56-57 (asserting that "[t]he generation of woody biomass would occur regardless of the proposed biomass project"). This not only defies economic logic but also contradicts the goals of the Bioenergy Action Plan. Indeed, one major purpose of that plan is to use bioenergy facilities to make forest thinning operations more economically practicable; thus new biomass facilities are specifically intended to facilitate the harvest and removal of woody biomass which would not have been economical—and thus would *not* have occurred—without the proposed biomass project.[14] The creation of economic incentives to conduct additional logging and forest thinning operations must be analyzed in the EA. *See, e.g., California Unions for Reliable Energy v. Mojave Desert Air Quality Mgmt. Dist.*, 178 Cal. App. 4th 1225 (2009). Absent such analysis, the EA's conclusion that disposal of woody biomass at bioenergy facilities "would not have a substantial, long-term effect on forest resources," EA at 57, lacks any evidentiary basis.

The EA's proposed mitigation measures are also inadequate. The EA acknowledges that forest resource impacts from bioenergy expansion are potentially significant, and claims they could be mitigated to a less-than-significant level, but then argues that all such mitigation is "beyond the authority of the ARB and not within its purview." EA at 57. Mitigation measure 2.f, for example, simply refers back to

5-4 cont'd

[12] TSS Consultants, *Fuel Procurement Plan for the Lake Tahoe Basin Biomass Power Facility* 13 (Feb. 26, 2011) (attached as Ex. 2).
[13] Bioenergy Action Plan at 17 (identifying necessity of "safeguards to protect and restore ecosystem health"); Proposed First Update App. C, Energy Working Paper at 57 (recommending that state develop "a uniform state sustainable forest biomass usage policy" to reduce impacts from increased utilization).
[14] Id. at 6. 9 (discussing ways in which new bioenergy facilities, if able to charge enough for electricity generated, could lead to thousands of acres of additional forest treatment).

mitigation measure 2.a, which says only that other agencies will follow applicable laws and conduct CEQA reviews for future projects. *See* EA at 51-52, 57-58.

This is insufficient. An agency may disclaim responsibility for mitigation measures only if they are exclusively the responsibility of other agencies. *City of Marina v. Board of Trustees of California State University*, 39 Cal. 4th 341, 366 (2006). Moreover, even in a programmatic environmental document, a lead agency has the responsibility to evaluate feasible mitigation measures that *are* under its control. *See* CEQA Guidelines § 15168(b)(4), (c)(3). The EA fails to identify any feasible mitigation measures that are within ARB's "purview," such as delaying efforts to expand biomass facilities as called for in the Bioenergy Action Plan until the state develops forest sustainability criteria and other environmental safeguards. These safeguards, moreover, are not solely the responsibility of other agencies, but rather are at least partly ARB's responsibility. The Bioenergy Action Plan explicitly tasked various agencies with developing standards to ensure the sustainability of increased biomass harvests and harvest practices.[15] ARB was listed as a supporting and participating agency in this context, particularly in light of ARB's authority over the LCFS program, which will rely heavily on biofuels.[16] ARB cannot simply push these responsibilities onto other agencies.

Finally, the EA's "conservative" conclusion that impacts will be significant and unavoidable, EA at 58, lacks support. The conclusion may or may not be conservative, but absent adequate analysis of impacts and consideration of mitigation measures, it is also a legally impermissible shortcut. *Berkeley Keep Jets Over the Bay Comm. v. Bd. of Port Comm'rs*, 91 Cal.App.4th 1344, 1371 (2001) (agency may not "travel the legally impermissible easy route to CEQA compliance" by making a significance determination without fully analyzing a project's effects).

Cap-and Trade Sector

The discussion of cap-and-trade sector actions and responses entirely fails to disclose or analyze any potential effects of recommendations that ARB adopt additional offset protocols for "biomass." EA at 26. This omission results in inadequate disclosure and analysis of the possible effects of recommended cap-and-trade sector actions.

5-4 cont'd

B. Air Quality

Energy Sector

The EA's analysis and conclusions regarding potential air quality impacts from energy sector recommendations and compliance actions are inadequate.

5-5

[15] Id. at 20-21.
[16] Id.

The EA acknowledges that new renewable energy projects could be built in response to the Proposed First Update, but claims that these facilities "could result in an indirect emission reduction by displacing emissions associated with fossil-fuel fired power plant electricity generation that otherwise would occur. Thus, implementing such actions could also be beneficial to air quality conditions through replacement of coal, or other fossil-fueled power plants." EA at 64. Bioenergy facilities are not mentioned, but as discussed below (under the natural and working lands sector), these facilities may have substantially higher criteria pollutant emissions than gas-fired and even coal-fired facilities.[17]

The EA states that unspecified types of renewable energy facilities may have potential criteria and hazardous air pollutant ("HAP") emissions, but then concludes that following project-level review and mitigation, none of these sources would have emissions above applicable significance thresholds. EA at 64-65. Accordingly, the EA concludes that operational emissions will be less than significant. *Id.* There is no evidentiary basis for this claim, and in fact the evidence strongly points in the opposite direction. Significance thresholds—especially in areas of California that already experience poor air quality—are quite stringent. For example, in the San Joaquin Valley Air Pollution Control District, the emission of 10 tons per year of NOx or reactive organic gases is considered significant.[18] A draft update to these thresholds published in 2012 would consider 15 tons per year of PM2.5 or PM10 significant.[19] A wide range of facilities could easily exceed these thresholds. Moreover, nothing in CEQA requires a project's effects to be mitigated to a level of insignificance, provided all other applicable legal requirements are satisfied. PRC 21081(a)(3), (b). There is no basis for the EA's conclusion that the air quality impacts of all conceivable renewable energy facilities will be less than significant.

5-5 cont'd

Waste Management Sector

The EA completely fails to disclose or analyze any potential air quality impacts of increased municipal solid waste ("MSW") conversion, transformation, and incineration, even though expanding waste-to-energy technologies and utilization are explicit goals of the First Proposed Update (at 75), Bioenergy Action Plan (at 21), and the Waste Management Working Paper (*passim*). Instead, the EA discloses only that the Proposed First Update could lead to construction of new anaerobic digesters and composting

5-6

[17] Without explanation, the EA seems to split discussion of the impacts of renewable energy facilities in two, with bioenergy facilities discussed variously under the natural and working lands, agriculture, and waste management sectors, and other facilities discussed under the energy sector. This is needlessly confusing and does not contribute to meaningful public understanding of the impacts at issue.

[18] San Joaquin Valley Air Pollution Control District, *Guide for Assessing and Mitigating Air Quality Impacts* 26 (Table 4-1) (Jan. 2002) (attached as Ex. 3).

[19] San Joaquin Valley Air Pollution Control District, *Draft Guidance for Assessing and Mitigating Air Quality Impacts* 84 (Table 6) (April 2012) (attached as Ex. 4).

facilities, and fails to mention the conventional waste combustion, gasification, pyrolysis, and plasma arc technologies discussed throughout the Waste Management Working Paper. This failure to disclose and analyze a substantial aspect of the project under consideration violates CEQA as a matter of law.

The EA's significance conclusions also lack support. As in its energy sector analysis, the EA states that because individual facilities would have to obtain permits and go through CEQA review, there would be no emissions above significance thresholds from any facility, and that overall impacts would therefore be less than significant. EA at 71-72. There is no legal or evidentiary basis for this conclusion. Emissions from waste-to-energy facilities—particularly large facilities burning biomass materials, plastics, and other municipal waste—easily could easily exceed the significance thresholds discussed above. Again, nothing in CEQA requires a project to be mitigated to a level of insignificance, provided all other applicable legal requirements are satisfied. § 21081(a)(3), (b). The EA's conclusions regarding the significance of air quality impacts cannot be supported.

5-6 cont'd

Natural and Working Lands Sector

The EA acknowledges that construction and operation of new biomass facilities could have significant air quality impacts. EA at 75-77. The analysis, however, lacks detail essential to public and decision-maker understanding of the scale and severity of these impacts. The document's mitigation measures and significance conclusions also lack legal and factual support.

Bioenergy facilities are significant sources of conventional air pollutants. For example, a PSD permit evaluation for a new 31-MW biomass power plant proposed by Sierra Pacific Industries in Anderson, California, shows the following potentials to emit for criteria pollutants: CO at 472 tpy, NOx at 267 tpy, PM10 and PM2.5 at 42.1 tpy, and VOCs at 34.9 tpy.[20] Indeed, a recent study of 88 air permits for bioenergy facilities shows that permitted criteria air pollutant emission rates for biomass facilities typically exceed those for coal facilities on a lbs/MWh basis, and vastly exceed those for NG facilities ("by more than 800% for every major pollutant").[21] For every megawatt of bioenergy that displaces a megawatt of conventional (largely gas-fired) generation in California, therefore, criteria pollutant and HAP emissions will likely increase. The EA must be revised to consider these impacts on air quality in light of the expansion of biomass operations recommended in the Proposed First Update and the documents on which it relies.

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[20] USEPA Region IX, *Statement of Basis and Ambient Air Quality Impact Report, Sierra Pacific Industries—Anderson*, Permit No. SAC 12-01 at 9 (Sept. 2012) (attached as Ex. 5).
[21] Mary S. Booth, Ph.D., *Trees, Trash, and Toxics: How Biomass Energy Has Become the New Coal* 5 (April 2, 2014) (attached as Ex. 6).

The EA in this section also once again improperly disclaims ARB's responsibility for mitigation. As discussed above, ARB is designing the Proposed First Update and helping to pursue a Bioenergy Action Plan intended to aggressively increase biomass use. ARB could change that plan to rely less on renewable energy sources that may cause even more air pollution than the fossil sources they are meant to displace. Once again, the EA cannot avoid CEQA's requirements for adequate disclosure and analysis, and disclaim ARB's responsibility for mitigation, by simply asserting that impacts will be significant and unavoidable. *Berkeley Keep Jets Over the Bay Committee*, 91 Cal.App.4th at 1371.

5-7 cont'd

C. Greenhouse Gases

Energy Sector

The EA's conclusion that long-term greenhouse gas impacts from the energy sector will be beneficial (EA at 126) is not supported by adequate analysis or evidence.

The EA states that carbon capture and sequestration ("CCS") facilities could be built in response to the Proposed First Update. EA at 124. The EA's project description section acknowledges that CCS could be used for enhanced oil recovery ("EOR"), EA at 15, 18, but the environmental impact section does not address this possibility. *See* EA at 125-26. The EA thus omits discussion of the potentially significant greenhouse gas emissions that could result from combustion of the oil developed from EOR operations.

5-8

Indeed, the indirect emissions resulting from EOR could exceed the volume of CO_2 stored. According to a recent National Energy Technology Laboratory/Department of Energy report, 67.2 billion barrels of oil could become economically recoverable nationwide using "next generation" EOR technology.[22] Recovering this amount of oil would require 17.6 billion metric tonnes ("Gt") of CO_2 from anthropogenic (i.e., industrial) sources.[23] Using an EPA emission factor of .43 metric tonnes CO_2 per barrel of oil,[24] consumption of 67.2 billion barrels of otherwise unproduced oil would result in emissions of 28.9 Gt CO_2—11.3 Gt more CO_2 than would be captured from industrial sources and sequestered in the course of producing the oil. This is obviously a rough comparison that assumes (a) permanent and complete sequestration of all injected CO_2 following oil production and (b) that the oil otherwise could not and would not be produced using another method (i.e., that it would "stay in the ground"). It nonetheless points to the potentially significant *increase* in greenhouse gas emissions that could result

[22] U.S. Dept. of Energy and Nat'l Energy Tech. Laboratory, *Improving Domestic Energy Security and Lowering CO_2 Emissions with Next Generation CO_2-Enhanced Oil Recovery (CO_2-EOR)* 10 (June 20, 2011), *available at* www.netl.doe.gov/File%20Library/Research/Energy%20Analysis/Publications/DOE-NETL-2011-1504-NextGen_CO2_EOR_06142011.pdf (accessed April 28, 2014).
[23] Id.
[24] U.S. EPA, Calculations and References, *at* http://www.epa.gov/cleanenergy/energy-resources/refs.html (accessed April 28, 2014).

from this use of CO_2. Depending on how much CO_2 is captured and used for EOR, any emissions reductions achieved by CCS could be cancelled out, or even exceeded, by CO_2 emissions from the resulting oil production. The EA fails even to acknowledge, much less to consider the significance of, this potential impact.

The EA also assumes that any electricity generation qualifying as "renewable" will reduce GHG emissions. EA at 126. As described in the Center's comments on the Discussion Draft, this is not true of bioenergy, which is substantially more carbon-intensive than other renewables and even than fossil fuels.[25] The EA's conclusions regarding the impact of GHG emissions from this sector thus further lack support.

5-8 cont'd

Recent research is also showing that cellulosic biofuels of the kind that will be necessary to fulfill expanded LCFS mandates, whether made from agricultural residue or woody materials, may not be effective in reducing GHG emissions, at least not in the time frame relevant for consideration under AB 32 and Executive Order S-3-05.[26] Other studies have pointed out the importance of considering direct and indirect land use change in evaluating the overall GHG impacts of biofuels production and use.[27] The EA must be revised to consider the expanded use of biofuels under the Proposed First Update and the likely effect on GHG emissions in light of current scientific understanding.

Agriculture Sector

Rather than considering the effects of increased biofuels usage in the transportation sector—where one might expect to find impacts related to expanding the LCFS—the EA cursorily addresses these effects in the agriculture sector. Wherever the analysis appears, it is insufficient.

5-9

The EA properly acknowledges that "[d]epending on the feedstock and production process and time horizon of the analysis, biofuels can emit even more GHGs than some fossil fuels on an energy-equivalent basis." EA at 128. Yet the EA fails to address the significance of this acknowledgment. Instead, the EA simply dismisses the impact: "[B]ecause the Proposed Update would include research and coordination between State, local, and national conservation programs to reduce GHG emission reductions [*sic*], the recommendations under the Agriculture Sector would result in reduced GHG emissions." *Id.* From this, the EA concludes that impacts associated with

[25] Discussion Draft Comments at 4-5; *see also* Comments of the Center for Biological Diversity on the 2013 AB 32 Scoping Plan Update (Aug. 5, 2013) (attached as Ex. 7).
[26] See, e.g., Adam Liska, et al., *Biofuels from Crop Residue Can Reduce Soil Carbon and Increase CO_2 Emissions*, Nature Climate Change (April 20, 2014), DOI: 10.1038/NCLIMATE2187 (attached as Ex. 8); 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. 9 to Discussion Draft Comments).
[27] *See, e.g.*, Jerry M. Melillo, et al., *Indirect Emissions from Biofuels: How Important?* ScienceExpress 10.1126/science.1180251 (Oct. 22, 2009) (attached as Ex. 9).

the Agriculture sector will be beneficial. *Id.* Yet the EA fails to explain how unspecified "coordination" efforts among unidentified "conservation programs" to "reduce GHG emission reductions" will ensure that potential *increases* in emissions relative to fossil fuels somehow actually turn out to be *reductions*. The EA identifies no evidence in support of this conclusion.

In any event, CEQA does not permit an agency to identify an impact, and then to dismiss it based on vague promises of future "research and coordination." Having acknowledged that biofuels may increase GHG emissions, and may have other undesirable environmental effects (EA at 128), ARB must "do more than agree to a future study of the problem." *California Clean Energy Committee v. City of Woodland*, __ Cal.App.4th __, 2014 Cal. App. LEXIS 300, 38 (Cal. App. 3d Dist. Feb. 28, 2014). Nor does the "programmatic" nature of the EA excuse ARB from at least attempting to provide some meaningful analysis here. "While proper tiering of environmental review allows an agency to defer analysis of certain details of later phases of long-term linked or complex projects until those phases are up for approval, CEQA's demand for meaningful information 'is not satisfied by simply stating information will be provided in the future.'" *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 40 Cal. 4th 412, 431 (2007) (quoting *Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (2003) 106 Cal.App.4th 715, 723).

5-9 cont'd

Waste Management Sector

Once again, this section of the EA fails to disclose or analyze the increased use of waste-to-energy technologies envisioned in the Proposed First Update, the Bioenergy Action Plan, and the Waste Management Working Paper. *See* EA at 130. Absent such disclosure and analysis, there is no support for the EA's conclusion that impacts will be beneficial.

The documents underlying the Proposed First Update also contain serious errors that further undermine the EA's analysis. The Waste Management Working Paper, for example, states that "only the emissions from combustion of nonbiogenic material (such as fossil fuels) are counted as GHG emissions that contribute to climate change per protocols established by the Intergovernmental Panel on Climate Change (IPCC)."[28] On this basis the Working Paper concludes that "California biomass conversion operations result in net negative GHG emissions. While these facilities result in direct GHG emissions (mostly as carbon dioxide) when biomass is burned, the majority of these emissions are biogenic, and not counted as discussed above."[29] On the basis of this assumption, the Working Paper goes so far as to conclude that the more biomass facilities built, the greater the reduction in overall GHG emissions.

5-10

[28] Waste Mgt. Working Paper at 75; see also id. 88 (repeating same error in discussion of GHG emissions from conversion of biogenic fraction of MSW).
[29] Id. at 76.

As discussed in the Center's comments on the Discussion Draft, these conclusions are based on a demonstrably erroneous interpretation of IPCC guidelines—one now expressly disavowed by both the IPCC and EPA, and one that has no basis in physical science.[30] Accordingly, this erroneous interpretation cannot constitute substantial evidence in support of any conclusion in the EA. CEQA Guidelines § 15384(a) ("evidence which is clearly erroneous or inaccurate . . . does not constitute substantial evidence").

The Bioenergy Action Plan also suggests that combustion of urban-derived lumber will avoid GHG emissions, particularly methane emissions, associated with landfill disposal of that material.[31] Large woody materials, however, tend to stay sequestered in landfills and do not generate much, if any, methane.[32] While landfill diversion and the reduction of landfill methane emissions are very important goals, increasing combustion of urban-derived wood for bioenergy may have the effect of increasing rather than reducing GHG emissions. To the extent that the Proposed First Update incorporates efforts to increase combustion of urban-derived waste wood, the EA must accurately assess the environmental impact of these efforts.

5-10 cont'd

Natural and Working Lands Sector

This section of the EA contains serious errors, and contradicts other sections of the EA and the white papers supporting the Proposed First Update.Chief among these errors is the claim that combustion of biomass is "'carbon neutral' by virtue that the CO2 emissions are already part of the carbon cycle." EA at 131.

The blanket assumption that biomass combustion is *a priori* "carbon neutral" has no factual support, as described in our comments on the Discussion Draft.[33] The "natural carbon cycle" theory of carbon neutrality in particular is entirely unsupported and demonstrably incorrect. Reducing terrestrial carbon stocks results in a transfer of carbon to the atmosphere. While trees, plants, and soils may not store carbon for as long as fossil fuel materials, trees and soils in particular can store that carbon for periods of time relevant to climate mitigation efforts—and certainly for periods of time relevant to California's 2020 and 2050 emission reduction goals. When that carbon is in terrestrial stocks, it is not exerting a warming effect on the atmosphere. When that carbon is oxidized to CO_2, however, it does exert a warming effect on the atmosphere. The atmosphere cannot tell the difference between a molecule of biogenic CO_2 and a molecule of fossil CO_2.[34] Both trap heat for as long as they remain in the atmosphere.

5-11

[30] Discussion Draft Comments at 8-9, nn. 17-19, & Ex. 6, 14-16.
[31] Bioenergy Action Plan at 14.
[32] J. A. Micales & K. E. Skog, *The Decomposition of Forest Products in Landfills*, 39 International Biodeterioration & Biodegradation 145 (1997) (attached as Ex. 10).
[33] Discussion Draft Comments at 5-7, nn. 11-15, & Ex. 6-12.
[34] Science Advisory Board Review of EPA's Accounting Framework for Biogenic CO2 Emissions from Stationary Sources 7 (Sept. 28, 2012) (hereafter "SAB Panel Report")

Indeed, taken to its logical extreme, the "natural carbon cycle" theory would lead to the absurd conclusion that deforestation has no effect on climate change. Under a literal application of this theory, every single tree, shrub, and blade of grass on Earth could be burned tomorrow and converted into CO_2 with no discernible effect on the climate.

Scientists and policy-makers agree, however, that deforestation—which necessarily entails conversion of sequestered biogenic carbon into atmospheric CO_2—does contribute to climate change. Ten to 15 percent of global carbon emissions result from deforestation and forest degradation, primarily in the tropics.[35] These emissions are estimated at between 1,400 and 2,000 Tg per year.[36] Although U.S. forests are generally considered a net carbon sink, this may be true only due to significant global leakage related to domestic demand for wood and agricultural products.[37] The United States has also experienced the greatest loss of forest cover, as a proportion of forest cover in the year 2000, of any country with more than one million square kilometers of forest.[38] GHG emissions associated with these losses are significant contributors to climate change notwithstanding their "biogenic" character.[39] By the same token, a wide-scale shift to woody biomass energy generation could result in conversion of nearly all of the world's unmanaged forests and much of its pastureland to energy plantations.[40]

The "natural carbon cycle" theory also ignores the fact that a tremendous amount of primary forest, representing a huge proportion of historic biogenic carbon stores, has been lost during the last few centuries. According to recent maps compiled by the World Resources Institute, only 21 percent of the world's forests are "intact," and 47 percent have been lost entirely.[41] Between 1850 and 2000, global land use change caused emissions of 156,000 Tg of carbon, mostly from deforestation.[42] Recent studies indicate

5-11 cont'd

(attached as Ex. 6 to Discussion Draft Comments); *Center for Biological Diversity v. EPA*, 722 F.3d 401, 406 (D.C. Cir. 2013) ("In layman's terms, the atmosphere makes no distinction between carbon dioxide emitted by biogenic and fossil-fuel sources").

[35] *See* Gregory P. Asner, et al., *High-Resolution Forest Carbon Stocks and Emissions in the Amazon*, Proc. Nat'l Academy of Sci. Early Edition (2010) (attached as Ex. 11).

[36] Michael G. Ryan, et al., *A Synthesis of the Science on Forests and Carbon for U.S. Forests*, Ecological Society of America: Issues in Ecology, Report No. 13 (Spring 2010) at 5 (attached as Ex. 12).

[37] *Id.* at 5-6.

[38] Matthew C. Hansen, et al., *Quantification of Global Gross Forest Cover Loss*, 107 Proc. Nat'l Academy of Sci. 8650 (May 11, 2010) (attached as Ex. 13).

[39] *See* Eric Johnson, *Goodbye to Carbon Neutral: Getting Biomass Footprints Right*, 29 Envtl. Impact Assessment R. 165 (2008) (attached as Ex. 14).

[40] *See* Marshall Wise, et al., *Implications of Limiting CO_2 Concentrations for Land Use and Energy*, 324 Science 1183 (2009) (attached as Ex. 15).

[41] World Res. Inst., State of the World's Forests (Jan. 8, 2009), *at* http://www.wri.org/resource/state-worlds-forests (accessed April 28, 2014).

[42] Ryan 2010, *supra* note 36 at 6.

that the density of remaining forest cover may be lower and far more variable than previously thought.[43] This historic and continuing loss of forest biomass—much of which has been burned or otherwise converted into atmospheric carbon pollution—represents a tremendous existing carbon debt, one that further emissions of biogenic carbon can only increase. To extend the debt metaphor, continuing to burn trees for energy isn't like balancing a checkbook. It's like taking out another mortgage on a house that's already far underwater.

In support of this thoroughly discredited assertion, the EA cites CEQA review documents for three biomass facilities. However, neither the EIR for the Buena Vista facility nor the EIR for the Placer County facility even made the assumption that biomass combustion is "carbon neutral," much less that it is carbon neutral because biogenic CO_2 is "part of the carbon cycle." Although the final version of the EIR for the Sierra Pacific Industries Anderson facility did ultimately assume that biomass combustion was "carbon neutral," it did so only after having assumed in prior versions of the document that it was not. And in any event, after a federal court invalidated EPA's unlawful exemption of biogenic CO_2 from Clean Air Act permitting requirements, *Center for Biological Diversity v. EPA*, 722 F.3d 401 (D.C. Cir. 2013), Sierra Pacific Industries submitted a PSD permit to EPA Region IX acknowledging that the facility will emit 432,439 tons CO_2-equivalent (including 423,526 tons of CO_2, nearly all of it biogenic) every year.[44] Nothing cited in the EA provides any support at all for the assertion that biomass combustion is "carbon neutral" because the CO_2 released is part of a "natural carbon cycle."

The EA also asserts that "[a] modeling study by the California Energy Commission suggests that biomass power facilities that consume hazardous fuels removed from forests provide a GHG benefit over time because the thinned forests are less likely to become subject to more intense, catastrophic, GHG-emitting wildfires." EA at 133. The Natural and Working Lands Working Paper similarly asserts that "[t]he near-term carbon emissions associated with the thinning can be reduced if the waste material is used at a local biomass facility to generate energy."[45] As a threshold matter, these assertions serve to underscore the EA's inconsistent deployment of the "natural carbon cycle" theory. If bioenergy emissions are part of a natural carbon cycle that has no effect on the atmosphere, there is no reason to count reductions or offsets of wildfire emissions, because those emissions are also part of the same "natural carbon cycle." The EA cannot have it both ways.

In any event, several other studies—including peer-reviewed, published studies and one additional study funded by the Energy Commission itself—have concluded that

5-11 cont'd

[43] *See* Asner 2010, *supra* note 35.
[44] USEPA Region IX, *Supplemental Statement of Basis and Ambient Air Quality Impact Report for Greenhouse Gas Emissions, Sierra Pacific Industries—Anderson*, PSD Permit No. SAC 12-01 at 12 (Table 3-3) (November 2013) (attached as Ex. 16).
[45] Natural and Working Lands Working Paper at 15.

forest thinning treatments nearly always result in greater losses of carbon stocks (and greater atmospheric emissions) than they avoid in wildfire emissions.[46]

Finally, the EA's assertion that biomass combustion is "carbon neutral" because the CO_2 released is part of the "natural carbon cycle" flatly contradicts other assertions in the EA and accompanying white papers. The acknowledgment in the agriculture sector discussion that biofuels can emit more GHGs than fossil fuels depending on feedstock (EA at 128) is a case in point, as is the Energy White Paper's recognition that "[f]urther work is needed to analyze existing state and federal forest and wildland protections to ensure that biomass use will not increase net long-term GHG emissions."[47] It is irrational and arbitrary for the EA to deploy multiple, contradictory rationales for its conclusions. As a result, the conclusion that the expansion of bioenergy envisioned in the SPU and BAP will have a less than significant impact is misleading and lacks evidentiary support.

5-11 cont'd

IV. The EA Fails to Consider Feasible Alternatives Within ARB's Control that Could Alleviate Significant and Potentially Significant Environmental Impacts

Given the risk that increasing reliance on bioenergy may increase GHG and criteria pollutant emissions, while also increasing impacts to forests and habitat, the EA should articulate an alternative that delays implementation of aggressive expansion of bioenergy pending completion of the study and analysis recommended in portions of the documents. Absent this analysis, the EA cannot conclude that the proposed project is better at meeting stated objectives (particularly objectives 1, 2, 3, 6, 9, and 10, EA at 251-52) than an alternative that does not rely on bioenergy expansion.

5-12

V. Conclusion

For the foregoing reasons, the EA does not comply with CEQA. A revised EA must be prepared and recirculated for comment before ARB can lawfully approve the Proposed First Update.

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[46] See Discussion Draft Comments at 10-12; Stephen R. Mitchell, et al., *Carbon debt and carbon sequestration parity in forest bioenergy production*, Global Change Biology Bioenergy (2012), doi:10.1111/j.1757-1707.2012.01173.x (attached as Ex. 7 to Discussion Draft Comments); 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 (2011), doi:10.1890/110057 (attached as Ex. 17 to Discussion Draft Comments); Tara Hudiburg, et al., *Regional carbon dioxide implications of forest bioenergy production*, Nature Climate Change (2011), doi: 10.1038/NCLIMATE1264 (attached as Ex. 18 to Discussion Draft Comments); T.R.H. Pearson, et al., *Emissions and potential emission reductions from hazardous fuel treatments in the WESTCARB region*, California Energy Commission (2010) (attached as Ex. 17).

[47] Energy Working Paper at 57.

California Air Resources Board
Re: Draft EA for the Proposed First Update to the Climate Change Scoping Plan
April 28, 2014

Thank you for your consideration of these comments. We would be happy to meet at your convenience to discuss our comments and the supporting documents. We look forward to working with ARB to address these issues in the EA and the Proposed First Update.

5-12 cont'd

Sincerely,

Kevin P. Bundy
Senior Attorney

Encl.: Exhibits 1-17 (uploaded as zipped PDF files; see attached list)

California Air Resources Board
Re: Draft EA for the Proposed First Update to the Climate Change Scoping Plan
April 28, 2014

List of Exhibits
(Submitted via internet upload in PDF format)

Exhibit	Title
1	Bioenergy Interagency Working Group, 2012 Bioenergy Action Plan (Aug. 2012).
2	TSS Consultants, *Fuel Procurement Plan for the Lake Tahoe Basin Biomass Power Facility* (Feb. 26, 2011).
3	San Joaquin Valley Air Pollution Control District, *Guide for Assessing and Mitigating Air Quality Impacts* (Jan. 2002).
4	San Joaquin Valley Air Pollution Control District, *Draft Guidance for Assessing and Mitigating Air Quality Impacts* (April 2012).
5	USEPA Region IX, *Statement of Basis and Ambient Air Quality Impact Report, Sierra Pacific Industries—Anderson*, Permit No. SAC 12-01 (Sept. 2012).
6	Mary S. Booth, *Trees, Trash, and Toxics: How Biomass Energy Has Become the New Coal* (April 2, 2014).
7	Comments of the Center for Biological Diversity on the 2013 AB 32 Scoping Plan Update (Aug. 5, 2013).
8	Adam Liska, et al., *Biofuels from Crop Residue Can Reduce Soil Carbon and Increase CO_2 Emissions*, Nature Climate Change (April 20, 2014), DOI: 10.1038/NCLIMATE2187.
9	Jerry M. Melillo, et al., *Indirect Emissions from Biofuels: How Important?* ScienceExpress 10.1126/science.1180251 (Oct. 22, 2009).
10	J. A. Micales & K. E. Skog, *The Decomposition of Forest Products in Landfills*, 39 International Biodeterioration & Biodegradation (1997).
11	Gregory P. Asner, et al., *High-Resolution Forest Carbon Stocks and Emissions in the Amazon*, Proc. Nat'l Academy of Sci. Early Edition (2010).
12	Michael G. Ryan, et al., *A Synthesis of the Science on Forests and Carbon for U.S. Forests*, Ecological Society of America: Issues in Ecology, Report No. 13 (Spring 2010).
13	Matthew C. Hansen, et al., *Quantification of Global Gross Forest Cover Loss*, 107 Proc. Nat'l Academy of Sci. 8650 (May 11, 2010).
14	Eric Johnson, *Goodbye to Carbon Neutral: Getting Biomass Footprints Right*, 29 Envtl. Impact Assessment R. 165 (2008).
15	Marshall Wise, et al., *Implications of Limiting CO_2 Concentrations for Land Use and Energy*, 324 Science 1183 (2009).
16	USEPA Region IX, *Supplemental Statement of Basis and Ambient Air Quality Impact Report for Greenhouse Gas Emissions, Sierra Pacific Industries—Anderson*, PSD Permit No. SAC 12-01 at 12 (Table 3-3) (November 2013)
17	T.R.H. Pearson, et al., *Emissions and potential emission reductions from hazardous fuel treatments in the WESTCARB region*, California Energy Commission (2010).

Comment Letter 5 Response

5-1 This portion of the comment letter provides an introduction and general comments about the EA, with more detailed comments provided later in the body of the letter. See response to comments 5-2 through 5-12 for the more detailed responses.

5-2 This portion of the comment cites various requirements that the commenter asserts apply to ARB's certified regulatory program and case law regarding preparing CEQA-based documents. The EA prepared by ARB for the Update provides an accurate project description, disclosure of potentially significant indirect environmental impacts for the reasonably foreseeable compliance responses associated with implementation of the recommended actions in the Update, and a discussion of feasible alternatives, mitigation measures, and cumulative impacts. It provides as much information as reasonably can be provided at this level of planning and sufficiently informs the public and decision-makers of the potential indirect environmental effects associated with the project as required by CEQA.

The commenter incorrectly suggests that ARB has deferred the environmental analysis and does not provide sufficient detail for a program-level analysis. While the commenter states the "advantages" of using a programmatic document (Cal. Code Regs., tit. 14, §15168(b)), the commenter does not acknowledge that the level of detail in a program-level document need not be greater than that of the program being analyzed. (Cal. Code Regs., tit. 14, § 15152(b).) The level of detail in the Draft EA reflects that the project is a broad plan with recommendations that are not fully defined at this time. Consequently, the analysis does not, and cannot, provide the level of detail that will be provided in subsequent environmental documents prepared for specific regulatory or non-regulatory actions to reduce GHG emissions that ARB or other agencies may pursue.

Finally, the commenter states that programmatic documents are not exempt from CEQA's requirement that public agencies adopt all feasible mitigation measures. The impact discussion includes, where relevant, construction-related effects, operational effects of new or modified facilities, and analysis of the recommended actions on GHG and air pollutant emissions. Because the specific location, extent, and design of potential new and/or modified facilities that may be constructed in response to implementation of the recommended actions in the Update cannot be known at this time, the EA's discussion of these impacts is necessarily generalized and reflects a conservative assessment to describe the type and magnitude of effects that may occur (i.e., conservative in that the conclusions tend to discuss the potential adverse effects related to a worst-case scenario). These impact discussions are followed by the types of mitigation

measures that could typically be required to reduce potentially significant environmental impacts. This EA takes a conservative approach in finding some impacts to be potentially significant after mitigation because the authority to determine project-level impacts and require project-level mitigation lies with the land use and/or permitting agency for individual projects, and because the programmatic level of analysis associated with this EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts. This conservative approach (i.e., tending to overstate environmental impacts) is intended to satisfy the good-faith, full-disclosure intent of CEQA (page 4 of the Draft EA) and sufficiently informs the public and decision-makers.

5-3 The commenter asserts the project description does not meet CEQA's requirements "largely because the recommended actions and compliance responses discussed in the project description do not fully reflect proposals in the Proposed First Update or the accompanying technical 'working papers'." As stated in the EA's Project Description, Section 2.0, ARB considers the recommended actions for each of the nine sectors discussed in the Update as the "project" under CEQA. The recommendation boxes from the Update are reproduced in the Project Description section of the EA. The EA focuses on reasonably foreseeable compliance responses associated with the recommended actions and not the other strategies, objectives, and recommendations in each of the "focus area working papers" or other referenced documents because not all of the strategies, objectives, and recommendations in those documents were incorporated into the Update. As described in the Update (see *Process for Developing the Update*), the working papers developed for the six focus areas were designed to inform and guide the policy recommendations and program priorities for the Update. Not all of the recommended actions developed for the "focus area working papers" are carried over into the Update as "key recommended actions" for the various sectors.

The Update also references the strategies, goals, objectives, and actions set forth in relevant cited State documents (such as the 2012 Bioenergy Action Plan developed by the CEC). However, the Update does not adopt or incorporate all those proposed policies or actions because not all of the policies or actions within these documents directly relate to the Update's underlying objective of achieving GHG emission reductions or because they may conflict with the "key recommended actions" set forth in the Update or other State environmental objectives.

Pages 4 and 5 of this comment letter's notes that the Update includes recommendations to extend and strengthen the Low Carbon Fuel Standard (LCFS), which potentially would include an expanded role for biofuels consistent with the Bioenergy Action Plan. The letter also refers to Page 70, which contains an agricultural sector policy to promote the input of digester biogas into pipelines

and bioenergy onto the electricity grid. The commenter asserts that the Draft EA, however, does not identify any anticipated level of biofuels expansion as part of the proposed project. The Draft EA addresses the potential for the development of biomass facilities for purposes of producing electricity and transportation fuels within the Natural and Working Lands section of the document—see pages 75 and 131 relative to Air Quality and Greenhouse Gas impacts, respectively.

With regard to the potential expansion of the LCFS, that program is a performance-based regulation that does not prescribe specific fuels for compliance and, therefore, does not promote the development of any particular fuel. That being said, ARB sees tremendous opportunity for the use of biomethane as an ultra-low-carbon intensity (CI) fuel. Such biomethane can come from dairy digesters, landfills, wastewater treatment plants, and anaerobic digesters that use landfill-diverted food and green wastes as a feedstock. Furthermore, the biomethane for transportation purposes could be produced in lieu of on-site electricity production at existing dairy digesters and wastewater treatment plants, and in lieu of flaring at landfills.

Finally, cellulosic biofuels using woody biomass, may or may not be produced in California, depending on the costs of production. Finding a constant 20-year feedstock supply within 50 miles of a prospective biofuel plant is a particular challenge, as occasional forest-thinning or orchard removal activities would not provide a reliable feedstock supply. A Draft EA for proposed amendments to the LCFS, which will evaluate GHG emissions, is currently under development and is anticipated to be release later this year with that proposal.

Page 5 of the comment letter indicates “the waste management section of the project description does not mention any increase in combustion of municipal solid waste (MSW) and biomass, both of which may result in GHG and other air pollutant emissions.” The letter references pages 24 – 27 of the Draft EA. Page 5 of this comment letter states: “Yet the proposed update includes expansion of MSW thermal operations (waste to energy) and biomass management….” Page 75 of the Update identifies MSW waste-to-energy projects as a component of the existing Waste Management Sector, and page 76 notes that various State agencies are evaluating emission reduction options within the waste management sector, including waste-to energy projects. However, the Key Recommended Actions for the Waste Sector on Page 78 of the Update do not call for the development of new or expansion of existing MSW waste-to energy facilities. Thus, the proposed project does not include a recommendation to increase the combustion of MSW and analysis of the potential impacts is not required.

Page 5 of this comment letter indicates “the EA’s description of compliance responses, however, only refers to new or expanded composting and anaerobic digestion facilities—not new or expanded biomass conversion or waste to energy facilities—and makes only oblique references to new offset protocols for

biomass." The letter references page 26 of the Draft EA. The proposed project does not include a recommendation to increase the combustion of MSW so an analysis of the potential impacts was not required. The "compliance responses" paragraph on page 26, however, does refer to the possibility of new or expanded biomass facilities: "These facilities would be necessary to accommodate actions such as increased recycling, development of biomass facilities, and anaerobic digestion facilities." In addition, page 28 of the Draft EA, relative to the Natural and Working Lands Sector, also identifies increased use of biomass facilities to produce electricity and transportation fuels as a potential compliance response.

The Update and the Draft EA's reference to offset protocols for recycling, composting, anaerobic digestion and biomass in the table of Key Recommended Actions for the Waste Sector has been modified in the final version of the Update released May 15, 2014. While ARB will explore the potential for offset protocols in the waste sector, ARB does not plan to develop a biomass waste-to-energy offset protocol for the Cap-and-Trade Program. Energy is a capped sector and only GHG reductions in sectors not covered by the program are eligible for offset credits. Please see the following link for the criteria for development of compliance offset protocols for the Cap-and-Trade Program: http://www.arb.ca.gov/cc/capandtrade/compliance-offset-protocol-process.pdf

5-4 The comment expresses concern related to the potential scale and extent to which biomass facilities could be constructed and operated based on the Update's recommended action that "[t]he Bioenergy Interagency Working Group would continue to work with stakeholders, and relevant agencies to strengthen, refine, and implement actions contained in its Bioenergy Action Plan related to use of forest biomass (page 85 of the Update)." For the purposes of the environmental analysis, this recommendation was deemed to encourage construction and operation of biomass facilities.

The commenter expresses concern that quantities described in the Bioenergy Action Plan (e.g., technically available biomass is estimated to be approximately 36 million bone dry tones per year…page 10 of the Bioenergy Action Plan) would result in a dramatic expansion of construction and operation of biomass facilities. This section of the Bioenergy Action Plan describes the potential feedstock in an effort to demonstrate the feasibility of using biomass energy from agriculture, forestry, and urban-derived materials. Regardless, the Update, in essence, recommends support for the Bioenergy Interagency Working Group continued progress associated with its proposed action and not the incorporation of all mentioned projects.

ARB's policies associated with biomass use is described in the Cap-and-Trade FED, which is incorporated by reference in accordance with California Code of Regulations, title 14, section 15150. The Cap-and-Trade FED fully analyzed the potential for adverse impacts resulting from the Forest Protocol. The Forest Offset Protocol would not allow any forest management activity that is not

allowed by state, federal, or local laws and regulations. In addition, the Forest Offset Protocol includes environmental safeguards to help assure the environmental integrity of forest projects. These include requirements for projects to demonstrate sustainable long-term harvesting practices, limits on the size and location of even-aged management practices, and requirements for natural forest management that require all projects to utilize management practices that promote and maintain native forests comprised of multiple ages and mixed native species at multiple landscape scales.

The commenter asserts that the Draft EA should include feasible mitigation measures that are within ARB's purview, "such as delaying efforts to expand biomass facilities as called for in the Bioenergy Action Plan until the state develops forest sustainability criteria and other environmental safeguards." While the Bioenergy Action Plan is not a regulatory document, because the Update recommends the continued work of the Bioenergy Interagency Working Group on these issues, language was added to the final version of the Update regarding the need for continued efforts to examine overall environmental issues associated with potential biomass facilities. The recommendations in the Natural Working Lands Sector and Agriculture sector now includes the following processes associated with the biomass recommendations:

- Strengthen, refine, and implement actions contained in its Bioenergy Action Plan related to use of forest biomass.
- Evaluate the potential biomass energy generation capacity.
- Develop methods to quantify biomass life-cycle GHG flux.

5-5 Comment 5-5 indicates that "[t]he EA states that unspecified types of renewable energy facilities may have potential criteria and hazardous air pollutant emissions, but then concludes that following project-level review and mitigation none of these sources would have emissions above applicable significance thresholds. Accordingly, the EA concludes that operational emissions will be less than significant." The letter references the Draft EA at pages 64 – 65. The letter then states and attempts to describe that there is no evidentiary basis for this claim.

The analysis on pages 64 – 65 of the Draft EA indicates that the operation of certain types of renewable energy projects such as solar PV farms and wind turbine farms could result in indirect emission reductions by displacing emissions associated with fossil-fuel power plant generation and could also have local air quality benefits. The analysis also indicates that the operation of combined heat and power (CHP) and/or carbon capture and sequestration systems or other technologies at an existing or new facility could adversely affect local air quality emissions depending on the technology type used; and includes a table of the primary pollutants associated with CHP technologies.

The analysis indicates that the authority to permit and operate these kinds of projects would be subject to local air district stationary source rules and would be required to comply with applicable air district rules and regulations, including best available control technologies and measures. As described in Section 15126.4(a)(2), "[m]itigation measures must be fully enforceable through permit conditions…," which would be required by local air district rules and regulations to allow for implementation of relevant projects. Thus, the Draft EA concludes that the air emissions from any facility that may receive a local air quality permit would be considered less than significant because it would not be allowed to have emissions that exceed local air district requirements. Since certain air districts, such as the SJVAPCD, exceed ambient air quality standards, the potential for developing additional biomass generating facilities in these districts is highly constrained.

5-6 The commenter states that "[t]he EA completely fails to disclose or analyze any potential air quality impacts of increased municipal solid waste (MSW) conversion, transformation, and incineration, even though expanded waste to energy projects are explicit goals of the Update (at 75), Bioenergy Action Plan (at 21) and the Waste Management Working Papers." Expanded waste to energy projects are not goals of the Update at page 75 or elsewhere.

While page 21 of the CEC's 2012 Bioenergy Action Plan, includes a policy or goal to increase energy production from urban derived biomass (including MSW), this policy is not incorporated in the Update. This policy or goal of the Bioenergy Action Plan is also contingent on legislative changes, which are beyond the control of any State agency. In addition, as previously noted, not all of the working paper recommendations were incorporated into the Update.

5-7 Comment 5-7 states that "[t]he EA acknowledges that construction and operation of new biomass facilities could have significant air quality impacts (at 75 – 77). The analysis, however, lacks detail essential to public and decision-maker understanding of the scale and severity of these impacts. The document's legal mitigation measures and significance conclusions also lack legal and factual support."

This section of the Draft EA acknowledges that "key recommendations" within the Natural and Working Lands section of the Update (as well as the Energy sector) could encourage the use of biomass to produce electricity and transportation fuels. The Draft EA also notes that while it is not possible to determine the long-term operational emission impact (without specific development project details), long-term air quality impacts associated with the Natural and Working Lands sector could be potentially significant.

Therefore, not only does the analysis clearly state that the long-term air quality impacts of biomass facilities could be potentially significant, but as previously noted, the analysis on pages 64 – 65 provides sufficient detail of the potential

types of pollutants as well as the individualized emission control and permitting standards that would be required to operate in specific air districts or basins.

5-8 The commenter correctly notes the Draft EA indicates carbon capture and sequestration (CCS) facilities in California could potentially be used for enhanced oil recovery (EOR), in addition to the purpose of permanently sequestering carbon—see page 15 of the EA. This comment letter indicates that "the EA omits discussion of the potentially significant GHG emissions that could result from the combustion of the oil developed from EOR operations."

However, unlike the development of CCS facilities designed to sequester CO_2 as a potential response to the energy (and other) policies of the Update, the Draft EA does not assume or indicate that these policies would encourage or lead to the use of CCS for EOR; it simply provides an informational sentence that "In some cases enhanced oil recovery has been proposed in conjunction with CCS projects in existing oil fields." However, using EOR as a technique to recovery oil would not increase the market demand for fossil fuels. Thus, consumption rates of oil in the State would not be expected to increase and there would be no increase related to GHG emissions from fossil fuel sources.

Page 126 of the EA states, " [b]y increasing the share of total electricity generated from wind, solar, and other renewable sources, fuel combustion could be substantially decreased." Any plan involving the use of bioenergy, associated with the Update and compliance with AB 32 would require that GHG emissions are reduced.

The Update states that "ARB will propose enhancements to strengthen the LCFS. ARB will also consider extending the LCFS beyond 2020 with more aggressive long-term targets, such as a 15 to 20 percent reduction in average carbon intensity, below 2010 levels, by 2030 (Page 16 of the EA)." As described above, the LCFS is a performance-based regulation that does not prescribe specific fuels for compliance; and therefore does not promote the development of any particular fuel.

As stated above, a Draft EA for amendments to the LCFS, which will evaluate GHG emissions, and is anticipated to be release later this year.

5-9 The commenter asserts the EA inadequately considered the effects of increased biofuels usage in the transportation sector. The Project Description of the Update in the EA describes the proposed enhancements to strengthen LCFS. Previous environmental analyses prepared for the Scoping Plan in 2008 and 2011 have been incorporated by reference in the Draft EA. These documents provide a discussion of anticipated GHG emissions associated with LCFS. However, as described on pages 9-10 of Attachment 3 to the Draft EA, the LCFS is currently under revisions in response to court-ordered corrective actions.

Release of regulatory amendments will be accompanied by EA later this year, and will disclose any anticipated effects on GHG emissions.

No specific details associated with LCFS amendments were available at the time of release of the Update. The commenter expresses concern that the EA – without identifying a mitigation solution – recognizes that some biofuels are associated with higher GHG emissions. While that abstract statement, taken out of context might be correct, the entire purpose of the LCFS and indeed other LCFS programs in other jurisdictions is to *reduce* the GHG emissions associated with transportation fuels. The commenter focuses on the statement that some fuels have high life-cycle GHG emissions, while ignoring that the existing LCFS discourages such fuels and indeed requires overall reductions in GHG emissions. Amendments to LCFS are included in part of the Update project description as an acknowledgment of on-going program planning. Because no physical changes to the environment are proposed with this recommendation, there are no environmental impacts to mitigate at this time.

5-10 The commenter expresses concern about the use of the term “carbon neutrality” in the EA with respect to GHG emissions associated with biomass feedstock. For example, the commenter states: “the natural carbon cycle theory of carbon neutrality is entirely unsupported and demonstrably incorrect.”

ARB recognizes there is disagreement on the issue of “carbon neutrality” related to biomass feedstock. The Draft EA used the term to generally reference how biomass feedstock is treated under the State’s existing Renewable Portfolio Standard and other programs; ARB is not proposing to treat biomass as a carbon neutral material. ARB’s existing Cap-and-Trade Program for example, exempts biomass facilities from compliance obligations based on the biogenic origin of the source fuel rather than on the basis of the potential “carbon neutrality” of the fuel. No change to this exemption provision is included in the Update. To address this concern raised by the commenter, staff has clarified in the final version of the Update (in the Natural Working Lands and Agriculture Sectors) that part of the cross-sector coordination needed for developing recommendations for both small-scale and utility-scale biomass energy facilities should include addressing the potential environmental impacts of biomass, including the life-cycle GHG flux (see response 5-4 above).

5-11 With regard to the issue of biomass as “carbon neutral” see response to comments 5-4 and 5-10.

5-12 The commenter asserts that the EA should have examined an alternative that delays implementation of expansion of bioenergy pending further study of the GHG, criteria pollutant, forest, and habitat impacts asserted elsewhere in the comment letter. The alternatives analysis in the EA provided several approaches to complying with the overall objectives of the Update while addressing the overall impacts associated with potential implementation of the recommended

actions in each of the sectors in the Update. (See Response to Comment Letter 3 for more information.) The suggestion for an alternative that removes one recommendation addresses only one component of the overall Update. Additionally, it does not meet the requirement to provide a comprehensive alternative to the Update that can meet the overall project objectives while addressing the overall impacts associated with Update.

Further, the alternatives analysis reflects that the project is a broad plan with broad recommendations to further aligning the State's longer-term GHG reduction goals with other State policy priorities. Specific regulatory actions that ARB or other agencies decide to pursue to implement specific recommendations will require additional action by the lead agency with jurisdiction over that action. The examination of the potential for adverse impacts associated with particular actions could be examined when those actions have been defined with more specificity and any mitigation could be incorporated as part of the lead agencies approval of a particular action. As stated above, language was added to the final version of the Update regarding the need for continued efforts to examine overall environmental issues associated with potential biomass facilities as part of the recommendations in the Natural Working Lands and Agriculture Sectors.

ENERGY SOLUTIONS

Letter 6

November 1, 2013

Mike Tollstrup
Chief, Project Assessment Branch
1001 I Street
California Air Resources Board
Sacramento, California 95814

Subject: AB32 Scoping Plan Update – Passenger Vehicle In-Use Efficiency and Fuel Efficient Tires

Dear Mr. Tollstrup:

Thank you for the opportunity to provide comments on the discussion draft AB32 Scoping Plan update. We encourage you to build on California's leadership reducing transportation emissions by including passenger vehicle in-use efficiency in the update.

In particular, we recommend that the update include a pathway for deployment of fuel efficient passenger vehicle replacement tire and engine oil technology. We recommend including fuel efficient tire incentives for a limited time period, ratings, and then standards to permanently shift the market. These programs would allow drivers of every income level to participate directly in the benefits of AB32 with fuel savings of 4% when installing replacement tires. We estimate that fuel efficient replacement tires would achieve greenhouse gas (GHG) reductions of three to four million metric tons carbon dioxide equivalent ($MMTCO_2e$) per year (tailpipe and upstream GHG baseline emissions from vehicles with replacement tires are about 100 $MMTCO_2e$ per year). We also encourage evaluation of potential measures for improved engine oil technology for the in-use fleet.

6-1

We have attached suggested language for the scoping plan update and appreciate your consideration of our comments. Please contact me or have your staff contact me at epike@energy-solution.com or (510) 482-4420 x239 if you have any questions.

Sincerely,

Ed Pike

Ed Pike, P.E.
Senior Project Manager

1610 Harrison Street, Oakland, California 94612 Phone:510.482.4420 Fax:510.482.4421

Comment Letter 6 Response

6-1 In response to Comment 6-1, Attachment 3 of the Draft EA has been edited to include the following underlined text:

> "(T-4) Vehicle Efficiency Measures (tire inflation, use of low friction oils, cools paints and fuel efficient passenger vehicle replacement tires)."

Letter 7

Western States Petroleum Association
Credible Solutions • Responsive Service • Since 1907

Catherine H. Reheis-Boyd
President

November 1, 2013

Via web and email: **http://www.arb.ca.gov/cc/scopingplan/2013comments.htm**

Ms. Edie Chang
Deputy Executive Officer
Air Resources Board
1001 I Street,
Sacramento, CA 95814

RE: Comments on First Update to AB 32 Scoping Plan (Update) – October 15, 2013 Workshop

Dear Ms. Chang:

The Western States Petroleum Association (WSPA) is a trade association representing 27 companies that explore for, develop, refine, market and transport petroleum, petroleum products and natural gas in the Western States. WSPA appreciates the opportunity to provide input on the Update to the AB 32 Scoping Plan (Update).

We believe it is important that the Update be prepared in a manner consistent with AB 32's requirement for the California Air Resources Board (ARB) to update the 2008 Scoping Plan at least once every five years to achieve the maximum technologically feasible and cost-effective reductions of greenhouse gas emissions. As we previously suggested in our comment letter in August (attached), a key task of the Update should be to review the 2008 Scoping Plan to ensure that measures to achieve the 2020 emission reduction mandate are technologically feasible and cost effective. *We reiterate our earlier comments that the ARB authority under AB 32 extends only to the 2020 mandate*. No goals, objectives, or plans for GHG reductions beyond 2020 have been authorized by the legislature. 7-1

Again, as mandated by AB32, the Update must focus on implementation, progress and plans for AB32 policies and regulations. While aspirational goals of recent Executive Orders are of interest, they do not belong within the scope of this Update and should not be included in it. If ARB wants to make 1

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recommendations to the legislature based on Executive Orders, they should be developed in a separate document.

A second issue is the need for ARB to take into consideration the cost-effectiveness and efficacy of current and proposed regulatory programs under AB32. The Update and any future documents in response to legislative action must address the costs, feasibility, cost-effectiveness, sources of funding, timelines and milestones of the proposed policies and measures.

WSPA sees this Update as critical to the implementation of AB 32 for the following reasons:

i) It provides an opportunity to incorporate new scientific, economic and technical studies that have been commissioned by stakeholders and ARB, alike, since passage of AB 32 in 2006;
ii) It provides ARB an opportunity to modify aspects of the Scoping Plan as a result of experience gained in the State, in the U.S. and elsewhere;
iii) It allows ARB to reveal any regulatory actions that might be needed for implementation of the 2008 Scoping Plan in relation to the authority vested in the ARB by AB 32; and
iv) It provides an opportunity for ARB and interested stakeholders to identify elements that need to be postponed or need further study prior to implementation.

Clarify the Scope of Update

This Update should not be used as an opportunity to expand GHG emission reduction planning efforts beyond 2020, nor to establish a new emissions reduction goal in 2050. We recognize the Agency's interest in pursuing the objectives established in the Executive Orders issued by Governor Brown and Governor Schwarzenegger. However the ARB should not conflate the legislative and regulatory requirements of AB 32 and the required Update with the aspirations in Executive Orders for GHG reductions beyond what is defined under AB 32. 7-1 cont'd

Recommendation: This Update to the Scoping Plan must concentrate its plans and programs on the statutory requirements of AB 32.

We reiterate our earlier recommendation that ARB limit the scope of the Update to achieving the 2020 goal in a technically feasible and cost-effective manner that minimizes economic impacts, emissions leakage and job losses.

Limit Update to 2020 Goals: Need for Legislative Approval for Goals Beyond 2020

The presentation at the October 15, 2013 Workshop indicated that ARB and other state agencies are moving ahead with the development of the 2030 and 2050 emission reduction goals without statutory authority. We urge the ARB to exercise caution rather than embarking on an extreme mission without the necessary authority, without a strong technical basis and without consideration of the economic consequences of these actions on California's citizens and business community. For example, ARB has cited documents (see listing on Page 75 of the Scoping Plan) that outline a vision of future environmental programs. Because there is great uncertainty as to the cost, cost-effectiveness, and

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feasibility of these programs, ARB must make a concerted effort to document the economic and technical feasibility of these plans.

As we noted in our earlier comments on the Scoping Plan, the Update is overly broad and reflects "aspirations for emission reductions" post-2020 – aspirations that need to be evaluated separately from this Update. Again, presenting such information in this Update concerns us for the following reasons:

- It implies a mandate which may lead to future disputes regarding ARB's authority to impose the mandate through new regulations. The Environmental Assessment being prepared for this Update could exacerbate such disputes.

- WSPA is concerned that an Update characterized by largely undefined goals, ideas and strategies may be erroneously construed as enforceable. In other words, perceived mandates from the Updated Scoping Plan may impact local land use or air district permitting. For example, Slide 12 of the October 15, 2013 presentation shows that an Environmental (CEQA) Assessment will be prepared covering "foreseeable methods of compliance" and "feasible mitigation measures." This type of CEQA assessment is triggered when agencies are contemplating a regulatory decision, and have led to permitting issues for facilities (i.e., the SANDAG lawsuit on the implementation of the 2050 Regional Transportation Plan). The preparation of the Environmental Assessment document, while perhaps a useful tool is premature and leads to concern that ARB or others could erroneously consider the Update as having regulatory effect, when in fact, it does not. 7-1 cont'd

- The Recommendations to Transition Beyond 2020 essentially document the ARB and Administration's aspiration to de-carbonize the California economy. Inclusion of such recommendations regarding an aspirational goal is not appropriate for the Update. Plans to "de-carbonize" energy generation, for example, are speculative, premature and should not be adopted, at least at this time in this context. In addition, ARB lists several measures for immediate implementation in the update without providing analyses that explain the basis for the selection of these measures. Measures that presuppose the best future technology risk not only failing on their merits but also discourage future technologies that could be successful.

  If the Agency were to contemplate goals beyond 2020 in another forum, there are many necessary considerations that must be addressed in the proper forums, including:

  - What are the consequences to Californians of going forward virtually alone to implement extreme goals without linkage to jurisdictions larger or at least similar in size to CA. Without linkage to larger markets, the cap and trade program and covered entities could face substantial allowance and offset shortages. This hardship would be felt in spite of the lack of any meaningful global impact by California's GHG reductions. [1] Are the proposed post 2020 elements technically feasible and cost-effective?

[1] We recognize linkage of the California program to Quebec. However, Quebec's carbon market adds less than 20% of additional allowances into the merged cap and trade markets.

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- Is the timeline to meet 2030 and 2050 goals realistic? Are the proposals designed to transform California's transportation system to exclusively electric and fuels cells realistic? Is the technology available for implementation? Will California become an electricity island?
- What is the impact on the existing transportation system? Are conventional vehicles, fuels (both conventional and low carbon) and the infrastructure to deliver these fuels adequate, reliable and affordable?
- What is the overall impact on the California economy and jobs and how does California transition so as to minimize impacts (as required by AB 32)?
- What is the overall cost of this transformation? Where will the funding come from? How will funding be allocated?
- What legislative authority is needed to implement individual plan elements and funding for those elements?

Recommendation: ARB should clearly define elements of the Update that are required to achieve the statutory requirements of AB 32 (i.e., achieve 1990 GHG emission levels by 2020) and limit the Update to those issues. This Update should clearly assess the effectiveness and costs of all the 2008 Scoping Plan Measures (achieving both the maximum technologically feasible and cost-effectiveness criteria in AB 32) and their impact on the Business as Usual (BAU) forecast, on the emissions inventory and the prospects to meet the 2020 mandate.

ARB should separately, apart from this Update, identify all other plans, programs, policies and aspirations it sees as playing a role in achieving future emission reduction targets. Such policies, programs, and goals should also identify legislative, economic, regulatory and planning elements that would be important to achieving emission reduction milestones. ARB should clearly acknowledge that goals suggested in Executive Orders are only legally relevant after the legislature acts to incorporate those goals into law.

7-1 cont'd

Citation of Ongoing Technical, Economic and Regulatory Reviews

The Update should incorporate a section that summarizes the ongoing efforts to implement AB 32. For example, ARB should specifically discuss the potential economic benefit of the proposed changes to the industry Assistance Factor (AF) and the implications of the 25% reduction in allowances in the third compliance period. ARB should discuss the risks of trade exposure to show how they will comply with the Board direction to minimize leakage.

ARB should also address the implications of California "going it alone", because linkage opportunities have not progressed as expected.

Recommendation: Include within the Update a review of studies that are completed, in-progress, and planned so that stakeholders understand the level and implications of research currently underway, such as for trade exposure, for achieving the 2020 goals. Such a presentation will help guide further AB32 efforts to minimize trade exposure and prevent unintended emissions leakage.

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Need for Review of Impacts and Feasibility of the Low Carbon Fuel Standard (LCFS)

This Update is a chance to review the implications, and impacts and feasibility of the LCFS. Specifically, given new data, ARB should take this Update as a chance to review whether it is still appropriate to include transportation fuels coming under the cap and trade program and the ramping up of the LCFS. We note particular areas where ARB should provide additional information.

- On page ES-2, the document asserts that LCFS has "helped displace 2 billion gallons of gasoline and diesel". This assertion is very misleading as most of these gallons were displaced by initiatives or drivers other than the LCFS. For example, in 2012, CEC estimated that nearly 1.5 billion gallons were displaced largely by the 10% ethanol blending requirement that pre-dates effects of implementing the LCFS (2013 draft IEPR). While there was some small amount of E85 growth in recent years that could be attributed to the LCFS, it seems clear that most of this ethanol was pre-existing.

  Similarly, WSPA assumes that CARB has included estimates of petroleum displaced by natural gas vehicles. Again, most of this fuel use pre-dates implementation of the LCFS. Moreover, the LCFS has had little to no impact in increasing the use of natural gas as evidenced by the relative constant rate of natural gas-related LCFS credit generation since the program started in 2011. With respect to the growth of electric vehicles (EV and the like), it is realistic to argue that the observed increase in EVs stems more from direct subsidies and has little to do with the LCFS. 7-1 cont'd

  Recommendation: WSPA suggests that CARB revise this displacement volume to reflect only what is creditable to the LCFS.

- On pages 22 and 53, CARB asserts that 23 MMT (Million Metric Tones) of reduction in the transportation sector are attributed to the fuel and vehicle initiatives. WSPA would like to better understand the basis for this data, including precise breakdowns of how and where (both geographically and within the fuel lifecycle) the emission reductions have occurred. WSPA would like CARB to specifically delineate reductions separately based on geography and fuels vs. vehicles. The basis of these data is not clear. ARB should clearly identify the origin of the data so that all stakeholders have an opportunity to review it and compare it to other sources of information.

  Another concern is related to potential double-counting of the emission reductions from the vehicle fuel efficiency standards and the LCFS. One cannot, in all cases, base additional LCFS-related reductions on increased biofuel use with the shrinking fuel demand that is projected from the vehicle fuel efficiency increases. Any estimate of projected reductions requires careful calculation and public review.

  It would be valuable to understand the calculations behind this reduction number; as well as the actual reduction to date along with the supporting calculations.

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Recommendation: ARB should reveal the basis of all projected emission reductions and trends cited in the Scoping Plan and Update. Moreover, the ARB calculations should reflect the actual progress to date and then build on that number for future projections. Finally, these calculations should be made available to the public for review as there are potential issues with how this calculation was made. WSPA would like CARB to specifically delineate reductions separately based on geography and fuels vs. vehicles.

7-1 cont'd

It is our intent to provide more detailed comments on these and other issues as ARB moves forward with development of this Update. Thank you for the opportunity to comment and we look forward to discussing this with you in the future. Should you have any questions, feel free to contact me or Mike Wang of our staff (cell: 626-590-4905: email: mike@wspa.org).

Regards,

Attachment: August 5 comment letter on Scoping Plan

Cc: Richard Corey (rcorey@arb.ca.gov)

WSPA Update to AB 32 Scoping Plan.pdf

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Comment Letter 7 Response

7-1 The comment raises a variety of issues, including, e.g., the extent of ARB's regulatory authority as it relates to the content of the Update. As a threshold matter, ARB observes that its regulatory authority is set by statute. In any event, pursuant to ARB's certified regulatory program, ARB responds solely to those portions of the comment that relate to the adequacy of the ARB's environmental analysis or raise significant environmental issues associated with the Update. (See comment letter at p. 3, first two bulleted paragraphs.)

The comment appears to question why ARB prepared an environmental analysis for the Update. As stated in the EA's Project Description, Section 2.0, ARB considers the recommended actions for each of the nine sectors discussed in the Update as a "project" under CEQA. Because it is reasonably foreseeable that regulatory actions may be initiated to carry out the recommended actions in the Update, and that those subsequent regulatory actions could result in indirect physical changes in the environment, ARB determined that an EA should be prepared in accordance with ARB's certified regulatory program (Cal. Code Regs., tit. 17, §§ 60000 – 60008) to comply with the requirements of CEQA.