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July 28, 2011

**VIA FACSIMILE**  
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California Air Resources Control Board  
1001 "I" Street  
Sacramento CA 95814

Attn.: Clerk of the Board

Re: *Comments on Supplement to AB 32 Scoping Plan Functional Equivalent Document*

Dear Clerk:

On behalf of California Independent Petroleum Association, we are submitting this letter and the attached report from Environ Corp.<sup>1</sup> to provide additional comments on the Supplement to the AB 32 Scoping Plan Functional Equivalent Document ("FED Supplement") published by the California Air Resources Board ("CARB") on June 13, 2011 in connection with CARB's environmental analysis of its proposed Scoping Plan and the additional measures proposed therein to reduce the level of greenhouse gases ("GHG") (the "Proposed Project").<sup>2</sup> These comments follow our earlier comments noting certain deficiencies arising under the California Environmental Quality Act ("CEQA") with respect to the information provided in the FED Supplement.

At the outset, we note that CARB has still not provided all of the information that is missing from the FED Supplement identified in our initial comment letter dated July 1, 2011. As explained in that letter, no member of the public can adequately review and comment on the FED Supplement without that necessary information and, therefore, the FED Supplement fails as an adequate informational document under CEQA. (*County of Amador v. El Dorado Water Agency* (1999) 76 Cal.App.4th 931, 946.) CARB attempted to provide some of that information in a document that it published on July 22, 2011 entitled "Status of Scoping Plan Recommended Measures." ("CARB Status Report.") Yet, as explained in the Environ Report, that document fails to provide the needed information and simply raises more questions than answers. Moreover, by waiting to

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<sup>1</sup> Environ's comments on the FED Supplement are incorporated by reference in this comment letter.

<sup>2</sup> The scope of the Proposed Project is discussed further at page 4 of this letter.

provide the information contained in this Status Report until the 40th day of the 45-day comment period, CARB has deprived the public of an adequate time to review and comment on all of the information relating to the FED Supplement. Consequently, CARB should extend the comment period by 40 days.

In addition, the FED Supplement fails to satisfy a number of other requirements of CEQA. Those requirements must be satisfied because “in implementing [a certified regulatory] program, the agency must adhere to the basic policies and substantive obligations established by CEQA.” (*Sierra Club v. State Board of Forestry* (1994) 7 Cal.4th 1215, 1236-1237.) In particular, and as further explained below, the FED Supplement fails to provide (1) an accurate environmental baseline, and (2) a candid and accurate assessment of the No Project Alternative.

I. The FED Supplement Fails To Provide An Accurate Baseline Because (A) The GHG Reductions Attributable To Other Programs Are Underestimated Or Omitted In the FED Supplement And (B) The Effects Of The Economic Recession On State-wide GHG Emissions Have Been Understated

The FED Supplement states that it has updated the baseline used in the original FED by “updating projected BAU [business as usual] emissions based on current economic forecasts (i.e., as influenced by the economic downturn) and [GHG] reduction measures already in place.” (FED Supplement at p. 10.) Based on that updated baseline, the FED Supplement states that “the shortfall from the AB 32 target that would need to be obtained by remaining measures in the Proposed Scoping Plan would be approximately 22 MMTCO<sub>2</sub>E.” (“MMT”) (FED Supplement at p. 12.)

However, as confirmed in the technical analysis prepared by Environ Corp. provided in the report attached hereto, CARB has 1) both underestimated and ignored numerous GHG reduction measures that will more than make up any current shortfall in achieving the AB 32 target, and 2) failed to describe the methodology for estimating the effects of the recession on state-wide GHG emissions and failed to fully account for those effects. For example:

► With respect to the “ongoing, proved or otherwise authorized [GHG reductions] measures that would occur even if no Scoping Plan measures were implemented” that are included in the FED Supplement, CARB’s estimated GHG reductions attributable to those measures are, without adequate explanation, much lower than estimates in earlier CARB reports.<sup>3</sup> If those earlier GHG reduction figures are used, the total GHG

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<sup>3</sup> These comments are not intended to, and do not, endorse either the legal validity or effectiveness of the GHG reduction measures that CARB has approved. For purposes of this comment letter only, we assume that such measures are legally valid and will have the effectiveness at reducing GHG emissions asserted by the government agencies

reductions from those measures would exceed the 58 MMT stated in the FED Supplement and could account for most or all of the 22 MMT shortfall CARB estimates, even assuming that estimate is not overstated. (Environ Report, pp. 1-2, Table 1.) The FED Supplement provides no adequate explanation as to why it significantly lowered the GHG reductions associated with these measures, and the CARB Status Report only provided conclusory reasons with no quantitative analysis.

► The FED Supplement does not include the GHG reductions associated with two measures that CARB has already adopted or is adopting, namely the Commercial Recycling Measure and the Energy Efficiency And Co-Benefits Assessment. (Environ Report, pp. 2-3.)

► The FED Supplement does not include any of the GHG reduction programs that CARB has proposed but not yet adopted. CARB has estimated that the GHG reductions attributable to those measures total 68 MMT, again exceeding the 22 MMT shortfall. (Refer to Table 2 in the Environ letter.) Yet, CARB provides no analysis in the FED Supplement as to the foreseeability of these measures or the likely effect those measures will have on achieving the AB 32 target.

► The FED Supplement ignores GHG reduction programs implemented or under development by the federal government and other state agencies such as the California Public Utilities Commission. (Environ Report, pp. 5-6.) Even though CARB states in the FED Supplement that it has updated the environmental baseline to account for events subsequent to the original FED prepared for the Proposed Project, CARB has not included these programs in its updated baseline. Accordingly, CARB's updated baseline is inflated and overstates any shortfall in achieving the AB 32 target. Indeed, proper accounting for these omitted programs could exceed the 22 MMT shortfall estimated in the Supplemental FED.

► Although the FED Supplement states that it has updated the environmental baseline by accounting for the effects of the recent economic recession on state-wide GHG emissions, there is no explanation, let alone any quantitative analysis, as to how CARB accounted for those recessionary effects. Indeed, the only information provided in the FED Supplement on this issue is a conclusory statement that CARB relied on the energy demand forecast provided in the 2009 "IEPR" prepared by the California Energy Commission ("CEC"). Yet, in findings issued in March 2011 – before the publication of the FED Supplement – the CEC acknowledged that its 2009 forecast substantially underpredicted the depth and duration of the recession. (Environ Report, p. 7.) Accordingly, CARB's baseline of GHG emissions is significantly overstated.

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responsible for the measures. These comments relate only to CARB's accounting for the current baseline of GHG emissions and for the effectiveness of existing, pending and proposed GHG control measures.

Since the FED Supplement provides an inaccurate environmental baseline against which the impacts and alternatives associated with the Proposed Project are measured, as well as an inaccurate assessment of the need for the Proposed Project, the FED Supplement is legally defective. (See generally *Sunnyvale West Neighborhood Assoc. v. City of Sunnyvale* (2010) 190 Cal.App.4th 1351.) Indeed, these defects result from CARB's failure to apply its own methodology stated in the FED Supplement – recognizing the GHG reductions associated with federal and state programs and accounting for the effects of the recession – to the facts of this matter.

## II. The FED Supplement Fails To Adequately Analyze The No Project Alternative

CEQA requires that the No Project Alternative accurately assess “what would be reasonably expected to occur in the foreseeable future if a project were not approved, based on current plans. . . .” (CEQA Guideline § 15126.6(e)(2); see also *Dusek v. Redevelopment Agency of the City of Anaheim* (1986) 173 Cal.App.3d 1029.) The FED Supplement fails to carry out that mandate in a number of key respects. First and foremost, the FED Supplement misleads the public and the lead agency by wrongfully stating that “ARB cannot adopt the No Project Alternative described in this document because AB 32 requires ARB to prepare and approve a Scoping Plan.” (FED Supplement at p. 19.)

That statement is erroneous for two reasons. First, the “proposed project” is not the adoption of a Scoping Plan, but “the adoption and implementation of the Scoping Plan and the measures described in the plan.” (Refer to p. 20 of original FED; emphasis added.) The Scoping Plan itself results in none of the environmental impacts analyzed in the FED. Rather, the programs adopted by CARB pursuant to its original and Supplemental Scoping Plan result in the impacts against which any benefits of the measures in the Scoping Plan are to be weighed by the public and the lead agency.

Second, CARB's statutory authority under AB 32 is limited to taking the steps necessary to reduce the State's GHG levels to 1990 levels by 2020. (See, e.g., Cal. Health & Safety Code Section 38550.) As demonstrated by the Environ analysis, CARB can achieve that goal without adopting the additional GHG reduction measures called for by the Proposed Project. Even if one interprets AB 32 to require CARB to adopt a “Scoping Plan,” the Scoping Plan can, and should, provide that no additional GHG reduction measures are required and CARB should only be monitoring the effectiveness of the other GHG reduction measures already in place.

Further, given the defects in CARB's updated baseline analysis, the FED Supplement's assessment of the environmental impacts of the No Project Alternative is also flawed. The FED Supplement states that “because Alternative 1, No Project Alternative, does not reach the reduction target mandated by AB 32, it would not be environmentally advantageous compared to the Scoping Plan, or the other action

alternatives.” (FED Supplement at p. 110.) Yet, the No Project Alternative would more than achieve the reduction target mandated by AB 32 given current baseline conditions and the further effect of implemented, pending and proposed GHG reduction measures and programs. Accordingly, since the No Project Alternative would not lead to any of the environmental impacts associated with either the Proposed Project or the other alternatives, the No Project Alternative is the environmentally superior alternative. Further, since the No Project Alternative would achieve the key project objective – achieving the reduction target mandated by AB 32 – and cause no new impacts, CARB is legally precluded from adopting the Proposed Project. (See *Citizens of Goleta Valley v. Board of Supervisors* (1988) 197 Cal.App.3d 1167; CEQA Guideline 15901.)

Given these significant defects in the analysis, CARB must revise the FED Supplement and recirculate it for public review and comment. Once that it is done, the public and lead-agency decisionmakers would recognize that the additional GHG reduction programs proposed in the Scoping Plan are not necessary to achieve the goals of AB 32 and, accordingly, that CARB should adopt the No Project Alternative.

Very truly yours,



Edward J. Casey

EJC/ysr

Enclosure

# ENVIRON

July 28, 2010

Edward J. Casey, Attorney  
Alston Bird LLP  
333 South Hope Street  
16th Floor  
Los Angeles, CA 90071

**Re: Comments on the AB 32 Scoping Plan Supplemental FED**

Dear Mr. Casey:

In addition to those submitted with your letter to the Air Resources Board ("ARB") dated July 1, 2011, we have prepared the following comments based on our review of the Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED). It should be noted that we did not receive the additional information based on our request as submitted by you on July 1, 2011, and therefore, our comments do not reflect the benefit of the requested information. Based on our review of the FED, we believe that ARB has not sufficiently discussed the basis for changes to the original scoping plan measures and the reduction in greenhouse gases (GHG) attributable to those measures. We also believe the FED does not provide sufficient information to evaluate the change in the GHG emission inventory projections. Further, we believe that the FED has not completely represented the potential for GHG reductions from various regulatory programs.

- 1. A detailed rationale for changes to the original scoping plan measures has not been provided other than a broad reference to the economic downturn.**

We have attached Table 1 which provides a comparison of the estimates for GHG reductions as reported in the original Scoping Plan and in the FED. As per our comments submitted on July 1, 2011, additional information is required to evaluate how these updated estimates were derived. We have also reviewed the latest information from ARB clarifying certain GHG reductions from the Scoping Plan.<sup>1</sup> This information provides insight on why some the measures were changed, but it does not provide information on how exactly they were changed or why a considerable number of other potential reduction measures were revised. Instead, ARB repeatedly states that the GHG reductions associated with these measures were lowered due to the economic downturn, but without a detailed explanation on how each of the measures was adjusted due to the recession.

Specific uncertainties are exemplified by looking at individual GHG reduction measures. For example, Measure E-1, Energy Efficiency was calculated to obtain 7.8 MMTCO<sub>2</sub>e in the FED while this measure was originally estimated to obtain a GHG reduction of 15.2 MMTCO<sub>2</sub>e. Some details are provided to support the original estimate in Appendix I, 2008 Scoping Plan Document<sup>2</sup>, but we have not found information to bridge the relationship to the new estimate.

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<sup>1</sup>ARB, 2011. Status of Scoping Plan Recommended Measures. July 22.

<sup>2</sup>Available at: [http://www.arb.ca.gov/cc/scopingplan/document/appendices\\_volume2.pdf](http://www.arb.ca.gov/cc/scopingplan/document/appendices_volume2.pdf), See Appendix I, Accessed on July 7, 2011.

In the first column of Table 1, the original scoping plan estimates for the BAU inventory of 596 MMTCO<sub>2</sub>e and the GHG reductions of 174 MMTCO<sub>2</sub>e are shown.<sup>3</sup> After reviewing ARB's July 22 Status of Scoping Plan Measures document, it appears that several rules have been developed and the rulemaking ISOR's have adjusted several of the scoping plan estimates. After considering these changes, the 174 MM ton figure on Table 1 can be adjusted to 169.5 MM tons. In the third column of Table 1, the FED estimates for a BAU inventory as 507 MMTCO<sub>2</sub>e (a decrease of 15%), and the GHG reductions as 62 MMTCO<sub>2</sub>e (a decrease of 55%).<sup>4</sup> It is not clear why there is this disproportionate change in the GHG estimates between the adjusted 2020 inventory and the adjusted GHG anticipated reductions.

As shown in Table 1, there are changes to no less than 21 of the measures. These changes have similar transparency issues as those described for energy efficiency. Based on ARB's approach, the estimated gap in GHG emission reductions is important to substantiate the need for the AB 32 program as it is proposed.

**2. ARB's inventory does not include the Commercial Recycling measures (RW-3), which appear to be near adoption.**

ARB has not included the Commercial Recycling GHG reductions measure in the FED analysis. A workshop has been scheduled by CalRecycle for July and Hearings have been scheduled by the Air Resources Board for RW-3 for October. Legislation for this sector goes into effect on January 1, 2012.<sup>5</sup> The mandatory commercial recycling measure is designed to achieve a reduction in GHG emissions of 5 MMTCO<sub>2</sub>e.<sup>6</sup> If this measure was included in ARB's FED evaluation, the 22 MMTCO<sub>2</sub>e GHG reduction gap would be reduced to 17 MMTCO<sub>2</sub>e. This measure is an example of a regulatory measure that ARB could have included in its evaluation. It is not clear from the FED why this measure was not included in the GHG reductions of ongoing, adopted and foreseeable Scoping Plan measures.

**3. The FED does not consider the potential reductions from CARB's Energy Efficiency and Co-Benefits Assessment.**

The ARB adopted a regulation to require an energy efficiency assessment of California's large industrial facilities to determine the potential for greenhouse gas emission reductions and other pollution reduction co-benefits.<sup>7</sup> This regulation will identify energy consumption and greenhouse gas, criteria pollutant, and toxic air contaminant emissions from the largest stationary facilities in the State, determine the potential opportunities available for improving energy efficiency that could result in emission reductions, and identify potential future actions for obtaining further reductions in greenhouse gas and co-pollutant emissions.

The Compliance Pathway Analysis estimated approximately 5 MMTCO<sub>2</sub>e of potential emissions reductions from the industrial sector.<sup>8</sup> If we include this estimate in ARB's GHG emissions inventory in the FED, the 22 MMTCO<sub>2</sub>e gap would be further reduced. This measure is an example of a regulatory measure that ARB could have included in its evaluation. It is not clear from the FED why this measure was not included in the GHG reductions of ongoing, adopted and foreseeable Scoping Plan measures particularly since

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<sup>3</sup>ARB, 2008. Climate Change Scoping Plan, December Table 2. Page 17.

<sup>4</sup>ARB, 2011. Supplement to the AB 32 Scoping Plan Functional Equivalent Document. June 13.

<sup>5</sup>See Project Timeline, Available at: <http://www.calrecycle.ca.gov/Climate/Recycling/default.htm>, Accessed in July, 2011

<sup>6</sup>Available at: <http://www.calrecycle.ca.gov/Climate/Recycling/default.htm>. Accessed: July 2011.

<sup>7</sup>ARB, 2011. Supplement to the AB 32 Scoping Plan Functional Equivalent Document. June 13. page 67.

<sup>8</sup>Available at: <http://www.arb.ca.gov/regact/2010/capandtrade10/capv3appf.pdf>, Accessed July 15, 2011

the FED states that improvement in efficiency for boilers and other heat sources is also under consideration and CARB's Energy Efficiency and Co-Benefits Assessment will be available mid-2012.<sup>9</sup>

**4. ARB excludes various measures from the Scoping Plan which may help the State reach the 2020 goals without a cap-and-trade program.**

The FED includes an estimate of 22 MMTCO<sub>2</sub>e for the difference between the revised 2020 baseline forecast and the 2020 emissions target (i.e., 1990 level) taking into consideration the reduction (58 MMTCO<sub>2</sub>e) from measures other than Cap-and-Trade and Clean and Advance Clean Cars.<sup>10</sup> This estimate does not include a number of measures identified in the Scoping Plan from direct regulation of GHG emissions as listed in the Scoping Measures Implementation Timeline.<sup>11</sup>

Based on the estimated 2020 GHG emissions reductions in ARB's own timeline, ARB has estimated potential GHG reductions from a number of potential regulatory measures not included in the FED which could help the state achieve meaningful GHG reductions. Using ARB's estimates, it appears that approximately 68 MMTCO<sub>2</sub>e of reductions can be achieved from numerous measures that are not included in the FED (see Table 2).<sup>12</sup> Based on our review of other programs outside of California, we believe that many of these programs excluded by ARB actually have promise and thus do not need to be excluded. For example, the state of Connecticut Climate Action Plan contains several measures that would achieve a reduction of greater than 7 MMTCO<sub>2</sub>e and included in this estimate are bulk purchases of appliances, pilot fuel switching projects, high performance buildings and shared savings program for government agencies all of which have been implemented. This appears to correspond to several programs that are not included in the foreseeable measures of the FED including, for example, Measures GB-1, Greening New Residential and Commercial Construction and Greening Existing Homes and Commercial Buildings for which emissions reductions are not yet identified and are therefore classified as "to be determined".<sup>13</sup> Other neighboring states such as Oregon have also identified several regulatory measures that have a significant impact in reducing GHG emissions including a program establishing standards for high efficiency/low rolling resistance tires, implementing cost-effective electricity measures for electric users and for natural gas users.<sup>14</sup> This appears to correspond to Measure T-4 Tire Tread Program, which is not included in the list of foreseeable measures by ARB.<sup>15</sup> If the ARB was more inclusive with its projections in the FED about what programs have a chance for implementation, then the GHG balance to reaching the 2020 goals could be very different.

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<sup>9</sup>ARB, 2011. Supplement to the AB 32 Scoping Plan Functional Equivalent Document. June 13.

<sup>10</sup>CARB, 2011. Supplement to the AB32 Scoping Plan Functional Equivalent Document. June 13. Page 12. Available at: [http://www.arb.ca.gov/cc/scopingplan/document/Supplement to SP FED.pdf](http://www.arb.ca.gov/cc/scopingplan/document/Supplement%20to%20SP%20FED.pdf). Accessed: July 2011

<sup>11</sup>CARB, 2010. Scoping Plan Measures Implementation Timeline. October 28. Available at: [http://www.arb.ca.gov/cc/scopingplan/sp\\_measures\\_implementation\\_timeline.pdf](http://www.arb.ca.gov/cc/scopingplan/sp_measures_implementation_timeline.pdf). Accessed July, 2011.

<sup>12</sup>Note that this assumes there are no overlapping reductions from various programs.

<sup>13</sup>CARB, 2010. Scoping Plan Measures Implementation Timeline. October 28. Available at: [http://www.arb.ca.gov/cc/scopingplan/sp\\_measures\\_implementation\\_timeline.pdf](http://www.arb.ca.gov/cc/scopingplan/sp_measures_implementation_timeline.pdf). Accessed July, 2011.

<sup>14</sup>Available at: <http://www.oregon.gov/ENERGY/GBLWRM/Strategy.shtml>. Accessed July, 2011

<sup>15</sup>ARB, 2010. Greenhouse gas Reductions from Ongoing, Adopted and Foreseeable Scoping Plan Measures, Last Updated: 10/28/2010



**5. ARB has not included federal GHG programs that might impact or supplement the California programs.**

Several GHG emission reduction programs have been initiated and implemented at the federal level, yet the FED does not appear to discuss whether or how the federal programs have been accounted for in reducing GHG emissions in California. For example, we did not see how the FED accounted for the Clean Air Act Permitting requirements for GHG emissions. EPA's final Tailoring Rule<sup>16</sup> includes provisions to install state-of-the-art control technology at new or existing plants that are undergoing a major modification. In addition, the EPA has proposed New Source Performance Standards (NSPS) for Utility Boilers and Refineries for GHG emissions. It is not evident that consideration has been given as to how these programs will reduce GHG emissions through 2020.

Following are three additional programs that may lead to further GHG reductions in California that were not accounted for in ARB's estimate of GHG reductions:

- i) EPA and National Highway Traffic Safety Administration (NHTSA) will initiate two joint rulemakings: a) to improve fuel efficiency and reduce GHG emissions for commercial trucks, and b) to adopt the second-phase of GHG and fuel economy standards for light-duty vehicles. EPA's preliminary analysis indicates that the heavy-duty standards under consideration have the potential to reduce GHG emissions by approximately 250 million metric tons and save over 500 million barrels of oil over the life of vehicles produced in the first five years of the program.<sup>17</sup>
- ii) EPA has initiated a voluntary program seeking to reduce the environmental impact of power generation by promoting the use of combined heat and power (CHP). The Partnership works closely with energy users, the CHP industry, state and local governments, and other clean energy stakeholders to facilitate the development of new projects and to promote their environmental and economic benefits.<sup>18</sup>
- iii) The Natural Gas STAR program is a USEPA voluntary partnership that encourages oil and natural gas companies to adopt proven, cost-effective technologies and practices that improve operational efficiency and reduce methane emissions.<sup>19</sup> The program covers oil production and all sectors of the natural gas industry, from drilling and this program, the oil and natural gas industry, in conjunction with Natural Gas STAR, has pioneered some of the most widely used, innovative technologies and practices that reduce methane emissions. These innovative technologies have been documented with costs, methodologies and actual methane reductions that have been approved in practice.<sup>20</sup>

**6. The Supplement does not consider potential reductions from the California Public Utilities Commission (CPUC) for Combined Heat and Power (CHP) from the utility sector.**

For the electricity sector, the CPUC promulgated a decision to reduce emissions from the utility sector with the increased reliance on CHP facilities as one of the principle strategies for reducing GHG emissions. As described below, the CPUC is evaluating the potential GHG reductions from CHP but this does not appear to be included in ARB's 2020 forecast

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<sup>16</sup>EPA, June 3, 2010. Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 40 CFR Parts 51, 52, 70 and 71. Available at: <http://www.gpo.gov/fdsys/pkg/FR-2010-06-03/pdf/2010-11974.pdf#page=1>

<sup>17</sup> Available at: <http://epa.gov/otaq/climate/regulations.htm>. Accessed: July 2011.

<sup>18</sup> Available at: <http://www.epa.gov/chp/index.html>. Accessed: July 2011.

<sup>19</sup> Available at: <http://www.epa.gov/gasstar/tools/recommended.html>. Accessed: July 2011.

<sup>20</sup> Available at: <http://www.cpuc.ca.gov/PUC/energy/Climate+Change/chp.htm>. Accessed: July 2011.

for GHG emissions inventory in the FED. This CPUC program is specifically attempting to address AB32 goals, as stated in its Final Opinion on Greenhouse Gas Regulatory Strategies the CPUC states that: "Our goal is to estimate, using best-available information, the overall level of reductions that may be expected from the electricity and natural gas sectors within AB 32's 2020 timeframe; which resource areas, generally, those reductions will derive from and the associated costs."<sup>21</sup>

The FED includes measures for energy efficiency and conservation, but it is unclear if the GHG reductions from CHP are included from the CPUC promulgated decision. The FED now states that the reductions have been reduced (from the original estimate of 26.3 MMTCO<sub>2</sub>e) to 7.8 MMTCO<sub>2</sub>e (electricity) and 4.2 MMTCO<sub>2</sub>e (natural gas). The release by CARB of the status of recommended measures<sup>22</sup> indicates that the CPUC approved settlement identifies 4.8 MMTCO<sub>2</sub>e of incremental GHG emission reductions by 2020 from this measure. It is also stated that due to accounting differences between the Scoping Plan and the settlement, actual reductions in 2020 may differ from the 4.8 MMTCO<sub>2</sub>e. It is then unclear if the additional benefits from the CPUC's CHP program have been included in the revised estimates or not.

**7. ARB's economic adjustment may under estimate the overall impact of the current economic recession.**

The FED indicates: "ARB staff derived the updated emissions estimates by projecting emissions from a past baseline estimate using three-year average emissions, by sector, for 2006-2008 and considering the influence of the recent recession and reduction measures that are already in place. Growth factors specific to each of the different economic sectors were used to forecast emissions to 2020. This three-year average of known emissions dampened unusual variations in any single year that would make the baseline year unrepresentative for forecasting."<sup>23</sup> As part of the evaluation, the ARB relied upon the 2009 Integrated Energy Policy Report electricity demand forecast.<sup>24</sup>

However, the California Energy Commission (CEC) released findings in March 2011 that indicated that the 2009 Integrated Energy Policy Report (IEPR) under-predicted the effect of the recession.<sup>25</sup> In the CEC's report, they indicate that the peak demand forecasts for 2011 and 2012 average about 3.8 percent less (for PG&E, SCE and SDG&E) than the forecasts used for the 2009 IEPR. A comparison of the 2009 IEPR and the October 2010 employment growth projections showed higher unemployment rates and lower personal income projections as compared to the 2009 IEPR. These facts suggest that ARB's BAU inventory as reported in the FED may be too high.

Based on the State's continued economic struggles it appears that the ARB's forecasting would need to be revised to address future GHG emission levels in light of this documented under-prediction of the recession in the 2009 IEPR. Our previous letter raised this point and the document released July 22, 2011 on the Status of Scoping Plan Recommended Measures did not provide further explanation.

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<sup>21</sup>Final Opinion on Greenhouse Gas Regulatory Strategies, Rulemaking 06-04-009, 10/22/2008.

<sup>22</sup>ARB, 2011. Status of Scoping Plan Recommended Measures. July 22.

<sup>23</sup>ARB, 2011. Supplement to the AB32 Scoping Plan Functional Equivalent Document. June 13. Page 10.

<sup>24</sup>Cap-and-Trade, ISOR, Volume 3, APPENDIX F, Compliance Pathways Analysis, pg. 33.

<sup>25</sup>Available at: <http://www.energy.ca.gov/2011publications/CEC-200-2011-002/CEC-200-2011-002-CTF.PDF>. Accessed: July 2011.

**8. The FED has not adequately evaluated the leakage potential for the Alternatives.**

The FED and handout materials provided by ARB suggest that cap-and-trade will be the most effective to minimize leakage. Minimizing leakage is defined as minimizing, to the extent feasible, leakage of emissions to states and countries without a mandatory GHG emissions cap. When comparing the likelihood of leakage, the ARB identifies Alternatives 2 and 5 as having a high likelihood of minimizing leakage whereas Alternatives 3 and 4 are identified as having a low likelihood of minimizing leakage (see Table 2.8-1 of the FED<sup>26</sup>). There is little explanation or discussion for these conclusions.

The ARB has focused on addressing leakage with the cap-and-trade alternative. However, it has not adequately addressed whether leakage can be minimized under the other alternatives as well as cap-and-trade programs. During the July 8, 2011 workshop a member of the Legislative's Analyst Office asked: "...it seems in part because Cap-and-Trade Regulations you're making a lot of the decisions to reduce leakage and risk, for example. Couldn't leakage and risk also be addressed under direct regulation or carbon tax?"<sup>27</sup> ARB responded: "This is one of the questions that we are going to be looking at in our response to comments."

The comments included are based on the best available information we have identified to date. To the extent that additional information becomes available, our comments may change accordingly. Please contact Eric Lu ((949) 798-3650) or Steven Messner ((415) 899-0747) if you have any questions regarding this matter.

Very truly yours,



Eric Lu, MS, PE  
Senior Manager



Steve Messner  
Principal

EL:js

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cc: Ron Friesen, ENVIRON

Enclosures: Table 1 – Comparison of Original GHC Reductions to Current Estimates  
Table 2 – List of Measurements Not Included in the Ongoing, Adopted and Foreseeable Scoping Plan Measures

<sup>26</sup>ARB, 2011. Supplement to the AB 32 Scoping Plan Functional Equivalent Document, page 111.

<sup>27</sup>ARB, 2011. Public Workshop Transcript. July 8. Available at: <http://www.arb.ca.gov/cc/scopingplan/meetings/070811/transcripts.pdf>. Accessed: July 2011.

DRAFT  
Privileged and Confidential / Attorney Work Product  
Table 1. Comparison of Original GHG Reductions to Current Estimates

Measure No.	Category	Original Scoping Plan Reductions <sup>1</sup> MMCO <sub>2</sub> e	Timeline Table 2020 Reductions <sup>2</sup> MMCO <sub>2</sub> e	Revised GHG Measures Table 2020 Reductions <sup>3</sup> MMCO <sub>2</sub> e	Difference in Estimates 2020 Reductions MMCO <sub>2</sub> e
<b>Measures in Capped Sectors</b>					
<i>Transportation</i>					
T-1	Pavley 1 (2009-2016)	31.7	27.7		
	Pavley II LDV				
T-1	Advance Clean Cars (2017-2020)		5.1	3.8	1.3
T-2	Low Carbon Fuel Standard	15	16	15	1
T-3	Regional Targets	5	5	3	2
	Vehicle Efficiency	4.5			
	Goods Movement	3.7			
T-4	Tire Pressure Program		0.74	0.6	0.14
T-5	Ship Electrification		0.2	0.2	0
	Medium/Heavy Duty Vehicles	1.4			
	Heavy Duty GHG Emission				
T-7	Heavy Duty Aerodynamics		0.93	0.9	0.03
T-8	Medium/Heavy Hybridization		0.5	0	0.5
T-9	High Speed Rail	1	1	1	0
	Sub-total	62.3	57.17	24.5	4.97
<i>Electricity and Natural Gas</i>					
E-1	Energy Efficiency and Conservation	26.3	15.2	7.8	7.4
CR-1	Energy Efficiency and Conservation		4.3	4.1	0.2
CR-2	Solar Hot Water (AB 1470)		0.1	0.1	0
E-3	Renewable Electricity Standard (20-33%)	21.3	13.4	11.4	2
E-4	Million Solar Roofs	2.1	2.1	1.1	1
	Sub-total	49.7	35.1	24.5	10.6
<i>Industry</i>					
I-1	Energy Eff. and Co-Benefits, Large Sources	0.3	N/A	N/A	N/A
	Additional Reductions to Achieve Cap	34.4		22	
	Sub-total	34.7	N/A	N/A	N/A
<b>Measures in Uncapped Sources/Sectors</b>					
H-1	Motor Vehicle A/C Refrigerants		0.26	0.2	0.06
H-2	SF6 Limits on non-utility an non-semiconductor		0.1	0	0.1
H-3	Reduce PFCs in Semiconductor Mfg		0.18	0.2	-0.02

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Table 1. Comparison of Original GHG Reductions to Current Estimates

Measure No.	Category	Original Scoping Plan Reductions <sup>1</sup> MMCO <sub>2</sub> e	Timeline Table 2020 Reductions <sup>2</sup> MMCO <sub>2</sub> e	Revised GHG Measures Table 2020 Reductions <sup>3</sup> MMCO <sub>2</sub> e	Difference in Estimates 2020 Reductions MMCO <sub>2</sub> e
H-4	High GWP use in Consumer Products	20.2	0.23	0.2	0.03
	Industrial Measures	1.1			
H-5	Enforce Fed Ban on A/C servicing emissions		0.2	0	0.2
	Enforce Fed Ban on A/C dismantling emissions		0.1	0	0.1
	A/C leak test during smog check		0.5	0	0.5
H-6	Refrig. Track/Report/Repair/Deposit		8	5.8	2.2
H-6	SF6 Leak Reduction and Recycling			0.1	
F-1	Sustainable Forests	5	5	5	0
RW-1	Landfill Methane Capture	1	1.5	1.5	0
	Sub-total	27.3	16.07	13	3.17
	<b>Total Reductions towards target</b>	<b>174</b>	<b>80.64</b>	<b>62</b>	<b>18.74</b>
<b>Other Recommended Measures</b>					
	State Government Operations	1.50			
	Local Government Operations	0			
	Green Buildings	26			
	Recycling and Waste	9			
	Water Sector Measures	4.8			
	Methane Capture at Large Dairies	1			
	Sub-total	42.30	0	0	0
<b>Overall Percent Reductions</b>					
	GHG Emissions Projection 2020	596		507	
	Percent Difference in Projections			15	Per cent
	Total Reductions towards target	139.3		62	
	Percent Difference in reductions			55	Per cent

Footnotes:

- 1 From Table 1.2-1, Greenhouse Gas Reduction Measures and Estimated Reductions as Originally Proposed in 2008.
- 2 From Scoping Plan Measures Implementation Timeline, October 28, 2010. Available at: [http://www.arb.ca.gov/cc/scopingplan/sp\\_measures\\_implementation\\_timeline.pdf](http://www.arb.ca.gov/cc/scopingplan/sp_measures_implementation_timeline.pdf) From Greenhouse Gas Reductions from Ongoing, Adopted and Foreseeable Scoping Plan Measures.
- 3 From Greenhouse Gas Reductions from Ongoing, Adopted and Foreseeable Scoping Plan Measures. Available at: [http://www.arb.ca.gov/cc/inventory/data/tables/reductions\\_from\\_scoping\\_plan\\_measures\\_2010-10-28.pdf](http://www.arb.ca.gov/cc/inventory/data/tables/reductions_from_scoping_plan_measures_2010-10-28.pdf)

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Table 2. List of Measures Not Included in the Ongoing, Adopted and Foreseeable Scoping Plan Measures

Scoping Plan Measure	Measure #	Responsible Agency (ies) (Lead in Bold)	Type of Action (Regulatory, Voluntary, etc.)	MMT CO2E Reductions in 2020
Port Drayage Trucks	T-6 <sup>1</sup>	ARB	Regulation	3.5
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1 <sup>2</sup>	ARB	Regulation	0
Commercial Recycling**	RW-3 <sup>4</sup>	ARB Cal-Recycle	Regulation	5
Alternative Suppressants in Fire Protection Systems	H-6	ARB, CalFire	Regulation	0.1
Foam Recovery and Destruction Program	H-6	ARB	Regulation	0.3
Mitigation Fee on High GWP Gases	H-7	ARB	Regulation	5
Natural Gas Transmission and Distribution GHG Emission Reduction	I-3	ARB, Local Air Districts	Regulation	0.9
Oil and Gas Extraction GHG Emission Reduction	I-2	ARB, Local Air Districts	Regulation	0.2
Refinery Flare Recovery System Improvement	I-4	ARB, Local Air Districts	Regulation	0.33
Removal of Methane Exemption from Existing Refinery Regulations	I-5	ARB, Local Air Districts	Regulation	0.01
Transport Refrigeration Units Cold Storage Prohibition and Energy Efficiency	T-6 <sup>1</sup>	ARB	Regulation	0
Goods Movement System-Wide Efficiency Improvements	T-6 <sup>1</sup>	ARB	Voluntary	0
Methane Capture at Large Dairies**	A-1 <sup>4</sup>	ARB	Voluntary	1
Vessel Speed Reduction	T-6 <sup>1</sup>	ARB	Voluntary	0
Cargo Handling Equipment- Anti-Idling, Hybrid, Electrification	T-6 <sup>1</sup>	ARB	Voluntary	0
Commercial Harbor Craft-Maintenance and Design Efficiency	T-6 <sup>1</sup>	ARB	Voluntary	0
Clean Ships	T-6 <sup>1</sup>	ARB	Voluntary/Regulation	0
Residential Refrigeration Early Retirement Program	H-6	ARB	Voluntary Incentive	0.1
Refrigerant Recovery from Decommissioned Refrigerated Shipping Containers	H-5	ARB	Regulation/Program	0.2
Enforcement of Federal Ban on Refrigerant Release during Servicing or Dismantling of Motor Vehicle Air Conditioning Systems	H-5	ARB	Regulation Partnership	0.1
Air Conditioner Refrigerant Leak Test During Vehicle Smog Check	H-5	ARB, BAR	Partnership	0.5
Sustainable Forest Target	F-1	Board of Forestry and Fire Protection	Various	5
Forest Conservation, Forest Management, Afforestation/Reforestation, Urban Forestry, and Fuels Management**	NA <sup>4</sup>	CalFire	Various	2

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Table 2. List of Measures Not Included in the Ongoing, Adopted and Foreseeable Scoping Plan Measures

Scoping Plan Measure	Measure #	Responsible Agency (ies) (Lead in Bold)	Type of Action (Regulatory, Voluntary, etc.)	MMT CO2E Reductions in 2020
State Government**	NA <sup>4</sup>	Cal/EPA, ARB, DGS	Various	2
Tire Tread Program	T-4	CEC	Regulation	0.3
Increase Renewable Energy Production (from Water sector)**	W-5 <sup>4</sup>	CEC, CPUC	Voluntary	0.9
Greening Existing Homes and Commercial Buildings	GB-1 <sup>3</sup>	CEC, CPUC	Voluntary/Incentive	0
Greening New Residential Homes and Commercial Buildings	GB-1 <sup>3</sup>	CEC, CPUC	Voluntary/Incentive	0
Water System Energy Efficiency	W-3 <sup>4</sup>	<b>CEC, CPUC, DWR, SWRCB</b>	Voluntary	2
Increasing the Efficiency of Landfill Methane Capture	RW-2 <sup>3,4</sup>	CalRecycle	Voluntary	0
Increase Production and Markets for Compost (studies underway for data development)**	RW-34	CalRecycle	Voluntary	2
Extended Producer Responsibility (EPR)	RW-3 <sup>3,4</sup>	CalRecycle	Voluntary	0
Anaerobic Digestion**	RW-3 <sup>4</sup>	CalRecycle	Voluntary	2
Environmentally Preferable Purchasing (EPP)**	RW-3 <sup>3,4</sup>	CalRecycle, DGS	Voluntary	0
Increasing Combined Heat and Power Use by 30,000 GWh	E-2	CPUC, CEC, ARB	Various	6.7
Greening New and Existing State Buildings	GB-1 <sup>3</sup>	DGS	Voluntary	0
Greening Public Schools	GB-1 <sup>3</sup>	DGS	Voluntary	0
Green Buildings**	GB-1 <sup>4</sup>	DGS, ARB, CEC, CPUC, HCD	NA	26
Public Goods Charge for Water	W-6 <sup>3</sup>	DWR, ARB, CPUC, SWRCB	Regulation	0
Water Use Efficiency**	W-1 <sup>4</sup>	DWR, SWRCB, CEC, CPUC, ARB	Various	1.4
Reuse Urban Runoff**	W-4 <sup>4</sup>	SWRCB	Regulation	0.2
Water Recycling**	W-2 <sup>4</sup>	SWRCB, DWR	Regulation	0.3
<b>Total</b>				<b>68.04</b>

Footnotes:

1. All the T-6 measures together add up to 3.5 MMTCO<sub>2</sub>e
2. Measure description indicates that reductions are not applicable (N/A)
3. Several measures indicate reductions are TBD

\*\* Not counted toward the 2020 total of 174 MMTCO<sub>2</sub>e

Source: CARB, 2010. Scoping Plan Measures Implementation Timeline. October 28. Available at:  
[http://www.arb.ca.gov/cc/scopingplan/sp\\_measures\\_implementation\\_timeline.pdf](http://www.arb.ca.gov/cc/scopingplan/sp_measures_implementation_timeline.pdf), Accessed July, 2011