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Via Email
Rajinder Sahota
California Air Resources Board
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Subject: BP Comments on the 2017 Climate Scoping Plan Update

Dear Rajinder:

BP America, Inc. submits these comments on CARB's 2017 Climate Scoping Plan Update, dated January 20, 2017.

Achieving the state's very ambitious 2030 GHG reduction target will require a fundamental transformation in the way California produces and uses energy – with significant uncertainty as to the availability and cost of the technology necessary for that transformation to occur. Because of this, it is imperative that the state learn from its experience to date, that it listen to input from noted experts and impacted industry, and that it pursue the most efficient and cost effective approach to meeting the 2030 targets. The consensus conclusion of the state's experience, respected experts and experienced regulated parties is clear – a well-designed cap and trade program with design measures that reduce cost and protect impacted industry is the best way to provide certainty in reaching these targets at a cost that is acceptable to the state's economy.

The Challenge of the Meeting the 2030 Target

Governor Brown has said that the post 2020 program will be "far more stringent" and "far more difficult" than the current program. According to the state's first Scoping Plan Update, achieving post 2020 emission reduction targets "will require that the pace of GHG emission reductions in California accelerate significantly. Emissions from 2020 to 2050 will need to decline several times faster than the rate needed to reach the 2020 emissions limit."[1]

[1] Proposed First Update to the Climate Change Scoping Plan: Building on the Framework, February, 2014.

The Legislative Analyst's Office said that given the new 2030 target, "it could be substantially more difficult for the state to meet the new target"[2], and there is "also significant uncertainty about the cost of meeting the state's GHG goals". Jim Sweeney, Chair of the state's Petroleum Market Advisory Committee and director of Stanford University's Precourt Energy Efficiency Center said, "It is dubious as to whether the California goal will be achieved without large economic costs"[3]. Respected professors and climate policy experts Lawrence Goulder (Stanford) and Robert Stavins (Harvard) opined in a joint op-ed[4] that "unless these ambitious goals are pursued with the most cost-effective policy instruments, the costs could be unreasonably high".

Regrettably, the Scoping Plan makes clear that the state is foregoing use of the most cost effective approach, and not taking sufficient advantage of available design elements that could further reduce cost to the state's economy and impact to businesses and consumers. Despite learnings obtained during the first phase of the state's program and despite the admonitions from respected experts, the state is actually planning to reduce its reliance on what has proven to be the most cost effective approach – and failing to take advantage of available cost control measures. Instead of learning from the experience of the current program, the 2017 Scoping Plan Update appears to be instead continuing, and even increasing, the use of expensive and non-scalable command and control measures at a time when the state should instead be doubling down on the most cost effective approaches. This is not 2006. The state has several years of experience operating under both a market-based approach and command and control measures. The evidence is clear that, even with the many improvements that can be made, the cap and trade program is by far the most cost effective approach to reducing GHG emissions. A market-based approach, such as an improved and expanded version of the state's cap and trade system, is the only policy alternative that provides the assurance of meeting a specific emissions reduction target - while delivering this outcome at the lowest cost. A market-based approach can react quickly to evolving technologies and new approaches in a way that a regulatory approach or series of complementary policies simply cannot.

Maintain and Expand the Benefits of Offsets

BP finds any consideration to reduce the 8% offset limit extremely concerning, especially given the myriad analyses (including some performed by CARB) that clearly demonstrate the benefits of the use of offsets. The challenge of meeting the post 2020 emission reduction targets are well documented and the need for and benefits of cost containment will become more, not less, important. We therefore suggest that CARB consider raising the offset limit, not lowering it, including a separate and incremental carve out for use of sector-based offsets.

Moreover, in order for offsets to provide their full cost containment benefit, they must be available to the market and provide an attractive compliance alternative to regulated parties. In addition to the previously mentioned concerns about quantitative limits, there is also the potential that even if offsets are available, some regulated entities may not be

[2] The 2017-18 Budget: Cap and Trade, Legislative Analyst's Office, February 2017

[3] California's Climate Fight Could Be Painful – Especially on Job and Income Growth, Los Angeles Times, December 11, 2016

[4] New Emissions Targets Make Cap and Trade the Best Low-Cost Approach, Sacramento Bee, October 30, 2016

inclined or able to use them because of many of the offset program's design elements. Failure by some parties to utilize offsets impacts all market participants. Therefore in addition to increasing the quantitative limit on the use of offsets, CARB should:

1) Work expediently to create a clear timeline and path forward for the inclusion of sector based offsets, such as through the REDD+ protocol.
2) Create a system to carry over to new compliance periods and distribute amongst all market participants, the ability to use offsets unused by the overall market in a previous compliance period.
3) Reduce the perceived risks to the use of offsets by increasing certainty and transparency in the invalidation process – including the consideration of the significance of breaches of environmental, health or safety regulations.
4) Reduce uncertainty by avoiding making major changes to protocols without early and proactive outreach to stakeholders.
5) Overhaul the time-consuming process for approval of new offset protocols and approval of individual projects within existing protocols.
6) Develop a CARB-led stakeholder engagement forum to update stakeholders on guidance for each protocol and to encourage early feedback from stakeholders.

California has an opportunity to contribute to the creation of a class of global carbon entrepreneurs by sending a signal to every corner of the globe that carbon reductions have value. The offset program has already resulted in engaging and benefiting vulnerable communities such as Native American Tribes. California's encouragement of the development of high quality offsets in other states and countries – and acceptance of these verifiable emission reductions - demonstrates that we are willing to not only encourage these actions but to credit them - and in so doing reduce the costs of these policies on our citizens here at home. The offset program must be expanded and improved, not reduced.

The Case for REDD Offsets

To increase the potential for addressing global climate change impacts, California must successfully encourage action by others. But California policymakers have not consistently adopted positions that promote such action. On one hand, policymakers acknowledge the global nature of the problem and the need for others to act. On the other hand, policymakers seem intent on valuing only in-state emission reductions and minimizing the role of out-of-state emission reductions in its cap and trade program. As Berkeley economist Severin Borenstein has said, "It's time to make our Global Warming Solutions Act about global solutions".

Beyond the development of domestic offsets, the state must also develop a clear path for international offsets to play a role in the cap and trade program. California's cap and trade program is the template by which countless jurisdictions are now looking to model their own cap and trade regulations and CARB must take this opportunity to lead others in pursuing the <u>real and necessary</u> benefits that can be found through offsets from programs like REDD+.

Forests are an essential part of global efforts to reduce GHG emissions, storing over 650 billion tCO2 and removing over 4 billion tCO2 from the atmosphere each year. However, there is a low level of private sector investment in these essential emission reductions

because of a lack of regulatory inclusion of these credits. Owing to the low levels of investment, between 1990 and 2015 there was a net loss of 129 million ha of forest, representing an area about the size of South Africa (UN FAO, Forest Resources Assessment 2015). Tropical deforestation accounts for around 11% of the world's GHG emissions, more than the total emissions from Western Europe. (Goodman and Herold, 2014). Forest sinks will be essential to meet the twin goals of the Paris Agreement: limiting global warming to 2 degrees C, and achieving a balance between anthropogenic emissions and removals in the second half of this century. If deforestation was halted entirely, and mature forests were left undisturbed, tropical forests alone could capture 25-35% of all anthropogenic carbon emissions immediately, without relying upon new technology. However, if current deforestation and degradation trends continue, forests could change from a net sink to a net source of GHG emissions.

A large proportion of the world's forest carbon stocks lie in lower-middle and low income countries, who must manage the twin challenges of generating economic growth, while managing the impact of this growth upon the environment. REDD+ provides an alternative source of sustainable income to these countries and communities, but due to a lack of cohesive regulation recognizing its contribution, struggles to compete with more destructive forest uses such as conversion to plantation or grazing land. Acceptance of REDD offsets by California offers the chance to fund significant levels of emission reductions while improving standards of living and resilience to climate change for some of the poorest communities in the world.

Compared to other methods of reducing global carbon emissions, REDD+ can deliver large-scale emissions reductions at relatively low cost. This supply of cost effective emission reductions could prove essential to California if supplies are needed quickly to fund emission reductions in conjunction with a price cap mechanism – or simply to satisfy the need for additional cost containment. Halving emissions from deforestation from 2005-2030, corresponding to a reduction of 1.7-2.5 billion tCO2 each year would require investment of $17-28 billion annually, at a cost of $10-21/tCO2. (Kindermann et al, 2008). To achieve the scale of financing necessary to reduce emissions from deforestation and maintain their vital role of forests as a carbon sinks, the private sector will need to play a larger role and hence make an economic return on forest conservation activities. A signal from California, as a global leader on climate change, can tip the balance in a way that leads to the necessary private investment.

This update of the Scoping Plan should earnestly begin the process to allow acceptance of international offsets, such as REDD, to play a limited role in the state's cap and trade program by 2021 – with an additional, separate, incremental 4% carve-out for REDD offsets. Leadership by California is desperately needed to facilitate this source of emission reductions that are absolutely essential to achieving the Paris objectives.

Economic Analysis

We are concerned that the economic analysis for the Scoping Plan falls into the same trap as the previous economic analysis upon which the LCFS was adopted. Both of these analyses depend on wildly optimistic assumptions of fuel savings from the displacement of conventional transportation fuels.

Recall that the 3/5/09 staff report in support of the LCFS adoption concluded:

"Staff estimated that the displacement of petroleum-based fuels with lower carbon intensity fuels will result in an overall savings in the State, as much as $11 billion from 2010 -2020" (p.239).

"For the five gasoline analyses, the cumulative net cost effectiveness ranged from ($121) to ($142)/MT CO2E reduced, which, for the period of 2010 – 2020, is a cumulative savings of $8 to $9 billion" (p.272).

The most recent estimates from the CEC[5] as to the impact of the LCFS on fuel prices is $0.041/gallon and $0.038/gal for gasoline and diesel fuel, respectively. Coupled with current demand estimates for each of these fuels yields an estimated cost to consumers of several hundred million dollars from the LCFS – in this year alone. This is far from savings "as much as $11 billion".

The economic analysis for the Scoping Plan relies on similarly optimistic fuel savings in order to bring the total cost to the state's economy to a reasonable level. The Scoping Plan estimates 2030 savings in fuel costs of $5.7 billion for the Proposed Scenario and $7.4 billion for the All Cap and Trade Scenario. These savings presumably come from assumptions of large uptake of EVs (4-5 million vehicles by 2030). If the assumed level of uptake of EVs does not occur, the costs to the state's economy will be much higher than presented in the Scoping Plan. Further, even if the uptake of EVs is in-line with the Scoping Plan's assumptions – the fuel savings from these vehicles do not come without cost. Consumers must purchase new, more expensive vehicles in order to realize these savings. It is not clear that the Scoping Plan's economic analysis includes the fact that consumers must spend an additional $10-15K per vehicle in order to realize these savings. What is clear is that the economic analysis does not include the current cost of state consumer subsidies to purchasers of these vehicles. If we assume 4 million additional ZEVs on the market by 2030, those subsidies would be on the order of $8 billion – alone surpassing the estimated fuel savings for each scenario in 2030.

None of this is to suggest that the state should not aggressively pursue its climate policies. However, if the state's economic analysis of the alternative scenarios available to achieve the very ambitious 2030 goals utilizes unrealistic assumptions, it cannot accurately inform policymakers in their choices over policy options. Unrealistic assumptions which lead to underestimating costs of the program allow policymakers to overlook the necessity and benefits of the most effective approach – and of the use of adequate cost control measures.

The economic analysis of the Scoping Plan should consider scenarios with low EV penetration – and should include the full cost of vehicles purchases and subsidies.

Conclusion

As California looks toward the meeting its longer term goals, it's more important than ever that the focus be on the most efficient and cost effective approaches. The state's cap and trade program should be the backbone of these efforts – not simply a backstop. Continuing, or doubling down on the current path which relies heavily on complementary

[5] Recent Trends for Petroleum, Electricity & Renewables, Western States Coordination Meeting WebEx, March 23, 2017, slides 52 and 70

policies - we believe greatly increases the potential for the state's efforts to be both expensive and unsuccessful.

Sincerely,

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