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California Air Resources Board
1001 I Street, Sacramento, California 95814

IETA COMMENTS TO CALIFORNIA AIR RESOURCES BOARD (CARB)
POTENTIAL REVISIONS TO CALIFORNIA CAP AND TRADE REGULATION POST-2020

The International Emissions Trading Association (IETA) appreciates this opportunity to provide comments on California Air Resources Board (CARB)'s public workshop presentation, held on 21 June, regarding possible revisions to California's cap and trade regulation ("**Presentation**") and the related second project design document (**"2nd PDD"**).

An active and transparent cap and trade program, which empowers and drives market efficiencies, is essential in mobilizing private investment while unlocking the most cost-effective solutions across the multi-jurisdictional program. We take this opportunity to stress that California's existing cap and trade program is working and should continue to be the instrument of choice for California policy-makers in reducing greenhouse gas (GHG) emissions both to and past 2020. We encourage using the cap and trade as a "workhorse" rather than a "backstop" for meeting the state's ambitious climate goals.

In response to the workshop, we encourage CARB to take into account the following key considerations while moving forward with potential cap and trade amendments:

1. Direct Environmental Benefits
2. Price Ceiling
3. Use of Consigned Allowance Revenue
4. Energy Imbalance Market

1. DIRECT ENVIRONMENTAL BENEFITS

The Presentation explained CARB's interpretation of direct environmental benefits (DEBs) as "in addition to GHG removals or reductions that our [cap and trade] program credits" before reiterating that not all offsets will be able to receive a DEBs designation.

UNDER-CREDITING OF GHG BENEFITS

Research on carbon offsetting tends to focus on instances of over-crediting, where regulators award a credit to a project when it failed to achieve a corresponding one-ton reduction in emissions (e.g., Cullenward and Wara 2014). However, research tends to neglect the existence of under-crediting, where regulators fail to award a credit to a project when it achieved a corresponding one-ton reduction in emissions (Kanbur et al. 2012). Under-crediting results from numerous design features including, but not limited to, regulators assigning crediting baselines well below business-as-usual emissions levels and setting short crediting periods that end while abatement technology continues to provide reductions (Warnecke et al. 2014).

IETA contends that CARB under-credits the GHG removals or reductions of certain offset projects. Take, for example, CARB's livestock protocol, which encourages the installation of biogas control systems for manure management on farms. This protocol employs a global warming potential (GWP) of 21 for

methane reductions, corresponding to a 100-year timeframe, estimated in a 23 years-old report (IPCC, 1995). In contrast, the most recent estimate of the GWP for methane is 28 over a 100-year timeframe (IPCC, 2013). Moreover, contemporary science illustrates that the most relevant timeframe for the reduction of short-lived climate pollutants is around 20 years, which would amount to a GWP of 84 for methane. Therefore, CARB's design choice for the GWP of methane results in under-crediting of livestock offset projects up to 75% (1 – (21/84)). In addition, livestock projects that continue to operate their biogas control systems after their crediting period expires will produce additional atmospheric benefits with no awarding of credits.

IETA argues that under-credited offset projects should be designated as providing DEBs since they offer net positive reductions in GHGs. By lowering net radiative forcing of climate pollutants of a commonly recognized class of air pollutants (e.g., carbon dioxide and methane) these offset projects clearly avoid adverse impacts on California's waters. As stated in IETA's previous comments, evidence from climate science shows that the atmosphere is a global sink in that GHG emissions – and therefore GHG reductions and avoidances – anywhere in the world have direct impacts on California and its waters. The realization of net positive reductions is rooted in and acknowledged by the economics literature. An offset project that achieves net positive reductions lowers overall global emissions when used for compliance with a cap and trade program. This fact stands in direct contrast to comments shared in the public workshop by opponents of carbon offsets, including Friends of the Earth.

NON-GHG BENEFITS

IETA underscores that certain offset projects provide numerous non-GHG benefits to California's waters and that these offset projects should be designated as providing DEBs. For example, livestock projects also reduce groundwater runoff from farms that contaminate both the water table and the surrounding areas. The runoff causes nutrient imbalances in the ecosystem and can damage nearby farms and residences. Additionally, anaerobic digesters significantly reduce the odor that comes from farms. As another example, forestry projects increase soil retention and reduce the risk of landslides in the event of heavy rains (an ongoing issue in California).

COST EFFECTIVENESS

IETA notes that requiring offsets to achieve multiple objectives (that is, GHG and non-GHG benefits) undercuts their purpose, which is to contain the costs of covered entities. To date, offsets are priced at approximately 80% or more of the reserve price. These thin margins will likely quickly erode if all offsets are required to also produce non-GHG benefits. A recent report by Yale University echoes this perspective and views the addition of co-benefit requirements into California's cap and trade program as fundamentally opposed to the original intent of offsets, which is to provide cost containment through additional reductions outside of the capped sectors (Dulaney et al 2017).

EXPANDING OFFSET PROTOCOLS

IETA generally supports the addition of new offset protocols, particularly those that are near-ready for swift approval and delivery of real climate and local benefits. For instance, the Foam Blowing Methodology (version 2.0) and Advanced Refrigeration Systems Methodology (version 2.0), both currently under review

with ACR, are two protocols poised to produce DEBs, as currently envisioned by CARB, within the State of California.

2. DESIGN OF COST-CONTAINMENT FEATURES

PRICE CEILINGS AND TIERS

CARB staff proposes setting the allowance price ceiling in 2030 at a level between US$81.90/tonne (in 2015 dollars) and $147/tonne. IETA recognizes that the purpose of a hard price is to provide for the continued economic stability and political support of the program. However, many market players have expressed concerns about the proposed price levels, and their underlying assumptions/rationale. Given that allowance prices flow directly through to energy prices, IETA posits that CARB's proposed 2030 price ceiling range may be too high to ensure allowance prices do not rise to economically and politically unacceptable levels. We strongly encourage CARB to host a series of meaningful, fully-transparent and comprehensive stakeholder consultations related to levels of acceptability and potential implications associated with various price ceiling options.

As a starting point, IETA puts forth a range of $60/tonne to $80/tonne (in 2015 dollars) for the 2030 price ceiling with speed bumps spaced one-third and two-thirds between the Reserve and ceiling price, contingent on the price ceiling level. Recent research conducted by NERA Economic Consulting implies that the speed bumps provide for a smooth transition to the price ceiling over this range of prices (NERA, 2018). This recommendation for the placement of the speed bumps is highly dependent on the setting of a reasonable ceiling price – if the price ceiling is too high the speed bumps would not be effective at containing costs.

3. USE OF CONSIGNED ALLOWANCE REVENUE

IETA recommends further expanding the list of acceptable uses of consigned allowance revenue for natural gas suppliers to achieve parity with electric distribution utilities. This would ensure that funds for projects like renewable natural gas infrastructure, renewable natural gas integration, and other projects supporting GHG emissions reductions and near-zero emissions vehicles or public transportation are not excluded. IETA views fair access to allowance revenue for purposes that serve the ultimate aim of the program—to reduce emissions and thereby meet climate targets—is essential to the political acceptability and environmental performance of cap and trade.

4. ENERGY IMBALANCE MARKET

The California Independent System Operator (CAISO) and ARB have devised an approach for capturing the GHG "leakage" that is caused by imports into California scheduled by the Energy Imbalance Market (EIM) and assigning responsibility for allowances to cover the leakage to buyers of EIM energy in CAISO. The drawback of the approach is that the cost of the allowances for leakage will not be considered in the EIM least cost dispatch and so the market cannot respond to these costs. Once the allowances for leakage are included, it may well be that the EIM dispatch is no longer least cost resulting in a loss of efficiency. In addition, EIM may not be able to adjust the dispatch to avoid the leakage of GHG emissions even if there were another dispatch with lower emissions and costs. **IETA therefore requests that CAISO and CARB track this to evaluate whether this is a material problem.**

IN CONCLUSION

Once again, IETA appreciates this opportunity to comment on CARB's Presentation and 2nd PDD.

While moving forward with cap and trade amendments and stakeholder engagement in 2018, we look forward to closely engaging with Staff.

If you have questions about IETA's comments, please contact Katie Sullivan, Managing Director, at sullivan@ieta.org.

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