

March 16, 2018

California Air Resources Board Staff

Cap and Trade Program

Via <http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm>

CC: Mary Nichols, Chair, California Air Resources Board

NextGen California's Comments on the March 2, 2018 Workshop on Potential Amendments to Cap and Trade Regulation

Thank you for the opportunity to comment on the Discussion Draft, Concept Paper, and Staff presentation on potential amendments to California's Cap and Trade Regulations.

We appreciate the significant effort that Staff has made to develop market rules that will ensure that California's cap and trade system continues to be a model for other jurisdictions around the world as we enter the next phase of our efforts to reduce California's greenhouse gas emissions to at least 40% below 1990 levels in the year 2030, and to ensure that we are on a trajectory for at least 80% reductions by 2050 or sooner.

Previously, in response to the Air Resources Board October 12, 2017 presentation, NextGen California provided comment on several of the topics that Staff has requested comment on for the purposes of the this Workshop, which we incorporated here by reference. We have also discussed several of the issues raised in this workshop in three posts on our publicly available website, also attached.¹ We appreciate the thoughtful consideration Staff has given our comments and those of other stakeholders. We appreciate the shared commitment, by many stakeholders in this process, to support a cap and trade program that will deliver cost-effective pollution reductions at a scale sufficient to meet our greenhouse gas reduction targets while driving smart investments in pollution reduction throughout the state.

This comment supplements our previous comments, re-iterates some concerns that staff has not yet fully addressed, and addresses several questions specifically raised in the Discussion Draft.

¹ Available at <https://nextgenpolicy.org/blog/getting-californias-climate-rules-right/>; <https://nextgenpolicy.org/blog/california-cap-trade-price-ceiling-design/>; and <https://nextgenpolicy.org/blog/investing-balanced-climate-policy-portfolio/>.

1. Price Ceiling and Price Containment Points

a. The price ceiling should be based on sound analysis and the legislative requirement to achieve the 2030 target

Staff has proposed a price ceiling in 2030 between \$81 and \$150 (2015\$). The higher end of this range is consistent with a range we discuss in our previous comment and a mid-range among current scientific mainstream assessments of the social costs of carbon. Nevertheless, we reiterate that “CARB should examine best available economic modeling and expert resources in attempting to assess what carbon price will be needed in order to enable the commercialization of technologies that will be required to reach our 2030 targets, and should provide a buffer above that level to take a conservative approach.” We also note that the price ceiling mechanism will shield Californians from potential increases in costs that may be associated with high market prices.

In assessing what an appropriate price ceiling level may be, CARB should not rely solely on the comments of interested parties in regulated industry, nor should it rely solely on the perspective of non-governmental environmental public interest organizations that may have a higher tolerance for high market prices than Californians as a whole. The best guidance for this threshold comes from California’s elected legislature. While the legislature has not spoken explicitly to what the ceiling price should be, it does offer some guidance both in the text of AB 398, which Staff cites in its discussion draft, and in the actions it has taken to provide CARB with authority to achieve California’s carbon reduction targets.

California’s legislature enacted SB 32 in 2016, which establishes the legal requirement and authority for the Air Resources Board to adopt regulations sufficient to reduce greenhouse gas emissions in California to 40% below 1990 levels in 2030. Notably, this authorization remained silent on re-authorizing the cap and trade system beyond 2020 in support of this target. By enacting the 2030 target without requiring CARB to adopt any market based mechanism, the legislature expressed the will of the State that these pollution reductions be achieved even if CARB chose not to extend the cap and trade system, and instead relied solely on direct regulation. By explicitly re-authorizing cap and trade the following year, the legislature also expressed the hope that lower-cost measures could and would be found. But this hope does not negate the requirement that these targets must be achieved, even if reductions from the market mechanism are no more cost effective than direct regulation. Ultimately, the economic, social and public health cost of unchecked climate change are so great that when climate change damages and adaptation costs are considered, even cap-and-trade allowance prices well above the upper end of Staff’s proposed range are almost certain to provide net benefits to California.

It is the premise of the cap and trade system that the market can and will, given the opportunity and incentive, find lower-cost reductions than can be achieved through direct regulation alone. But we should not establish a price ceiling that could have the effect of excluding emissions reduction measures that may be more cost effective than direct regulation, but more expensive than an arbitrarily-chosen dollar amount. The best guide, therefore for determining the price ceiling is the marginal cost-per-ton reduction required in the absence of cap and trade. With this dollar amount as the price ceiling, we can be confident that the market will both (a) find any and all pollution reduction measures required to achieve the 2030 target, and (b) do so at a price no higher than the cost of direct regulation.

Despite the difficulty associated with predictive economic modeling of carbon abatement technologies on this scale and time horizon, CARB has, in the scoping plan, provided a reasonable starting place for assessing the approximate high end of this range in its “No Cap and Trade Scenario.” We therefore recommend that CARB adopt as a price ceiling the marginal cost per ton associated with the measures included in this scenario, but excluded from the Scoping Plan scenario.

b. The price containment points should not impede pollution abatement price discovery

Staff has requested comment on where to set the price containment points (“Reserve Tiers”). We reiterate here our previous comment on this topic:

AB 398 provides no guidance to ARB regarding the appropriate price points for the required speed bumps. For this reason, ARB must look to the broader purpose of the cap and trade program: to provide a market based mechanism that allows for cost effective emissions reductions. In order to achieve this goal, the market must be allowed to function in a manner that enables price discovery for carbon abatement. For this reason, ARB should set the “speed bumps” at market prices that are relatively close to the price ceiling. If the market is flooded with allowances whenever prices begin to climb even a small amount above the reserve price, the price discovery function of the allowance market will be significantly frustrated. Price containment mechanisms should not be treated as a means of keeping prices artificially low. Rather, they should be treated as safety valves that will hopefully never be called upon – failsafes to ensure that we do not breach the price ceiling. In order to allow the market to cool off in this situation, without undermining the price discovery function of the market, ARB should set both speed bumps well above the median available market price. It would be unreasonable to set the speed bumps below the median price; a market that has not even reached a median within an acceptable range of prices cannot be said to be “overheating” in any way. CARB should evaluate levels such as 75%, 85% and 95% of the price ceiling as potential speed bump points.

NextGen agrees with the logic of Staff’s proposal to set the lower of the two Reserve Tiers at the same level as the 2016 rulemaking’s single ACPR tier of \$72.90 in 2021 (2015 dollars), but if this value is below the median

available market price, CARB should adopt as the lower Tier price a value no lower than the median value. This Tier should be adjusted annually in the same manner as the auction reserve price (“Price Floor”). Establishing the lower Reserve Tier at this level will maintain continuity and expectations with current and previous market rules, which allow the market to function freely in the range between the floor price and this tier price. There is at this time no evidence to suggest either that this tier is too high, or that it may need to be adjusted downward. To the contrary, prices have remained near the price floor, and market participants have had ample time and abundant opportunity to use CARB’s generous allowance allocations to make early investments to ensure that the Reserve Tier is never breached.

The second Reserve Tier should be set midway between the 2016 rulemaking’s Reserve Tier price and the Price Ceiling we recommend above. The second tier should also be adjusted annually in the same manner as the price floor, to maintain continuity with current and previous market expectations.

2. Several Interacting Factors Affect the Market’s Ability to Drive Cumulative Reductions Expected by the Scoping Plan and Achieve the 2030 Target, Given Current Oversupply

We have previously commented on the significant role assigned to the cap and trade program in the Scoping Plan, and asked CARB to fully evaluate whether and how proposed market rules will enable the program to deliver pollution reductions at this unprecedented scale. Our concern is that nominal compliance with cap-and-trade obligations will not guarantee compliance with the annual emissions target in 2030 if large numbers of banked permits are used for compliance in the last compliance period, or if current market oversupply conditions persist long enough to unduly delay investments in pollution reducing technologies that will be needed to achieve the 2030 target and put us on a trajectory to achieve the 2050 target.

We identify three interdependent factors that will affect the cap and trade program’s ability to deliver the pollution reductions required to achieve the 2030 target: Total Allowance Supply and Distribution Among Reserve Tiers, Banking Rules, and Complementary Policies. No one of these factors should be considered in isolation, because each affects the overall market dynamics, including allowance scarcity, price signals, and investment timing. For this reason, CARB should analyze likely market performance under a range of scenarios, and adopt rules that are consistent with the level of performance required of the market under the Scoping Plan Scenario.

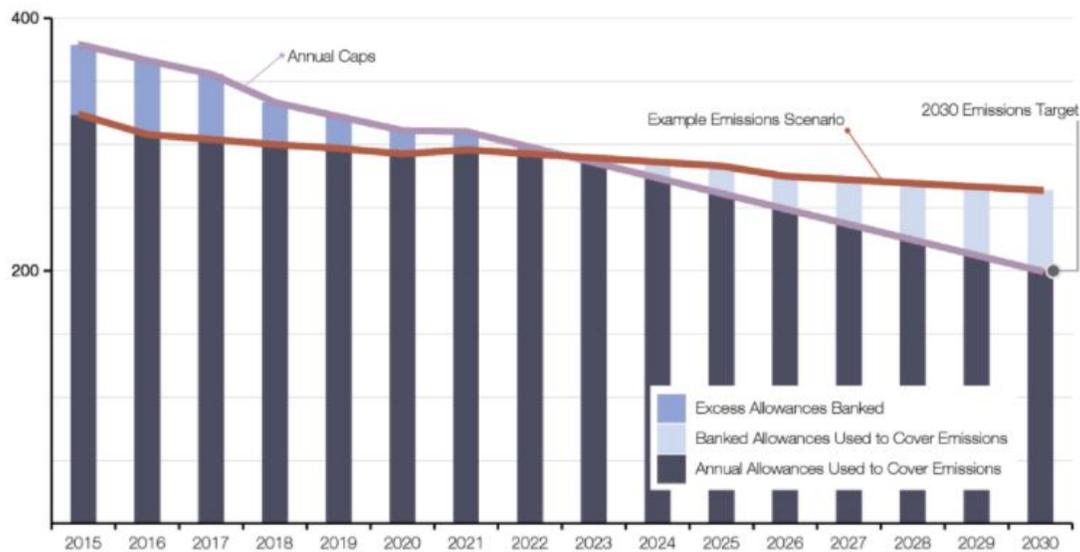
a. CARB Should Establish A Transparent Mechanism To Assess Risks from Oversupply and Take Early, Incremental Action Correct it

Multiple independent researchers and program stakeholders have raised the issue of over-supply of allowances relative to expected pre-2020 emissions. A potentially massive balance of allowances currently exists, spread between CARB’s Auction Account, individual holding accounts and expected future allocations. While a moderate amount of banked credits can serve as a hedge against price volatility, the current over-supply of allowances greatly exceeds the amount needed as a reserve and threatens the program’s ability to meet critical GHG reduction targets in 2030 and beyond. There is sufficient aggregate capacity in holding accounts for this oversupply to be held through much or all of the next decade, and there will likely be a financial incentive to do so as auction reserve prices rise and as we approach 2030.

If permits are held through the mid-2020’s and deployed in the late years of the program, real emissions could be significantly above targets even while all parties are nominally in compliance with Cap and Trade rules (See figure below).

Large Number of Banked Allowances Increases Risk of Exceeding GHG Target

Million Metric Tons



GHG = green house gas.

LAO

2

² Legislative Analysts’s Office, *Cap-and-Trade Extension: Issues for Legislative Oversight, Figure 3*, (2017) <http://www.lao.ca.gov/Publications/Report/3719>.

It is important that California achieve a trajectory of emissions reductions compatible with the goals of SB 32. In addition to the legal, perceptual and political problems which would arise from missing the SB 32 target, success in the global effort to combat climate change requires broad decarbonization by mid-century. If California ends the 2020's far behind the trajectory needed to achieve this global imperative, the consequences could be severe.

We acknowledge that the scenario described above is a risk, not a certainty, and the Cap and Trade program is designed to be, to a certain extent, self-correcting and resistant to a variety of external challenges. That self-correcting nature is predicated upon the system maintaining an approximate balance between the supply and demand for emission allowances, to allow the market to function in a predictable way.

CARB has asserted in workshops that it possesses the authority to adopt a variety of corrective measures, in the event that the imbalance between allowance supply and demand persists and becomes a threat to program stability. We agree that CARB has sufficient authority to take corrective action, however there may be significant temporal and procedural constraints which would affect such action. The multi-year compliance schedule means that CARB may have to wait for several years before unambiguous evidence emerges that oversupply is persisting through to later years in the program. Then any corrective action would require many months of development and public input before it could be finalized, and then may need to wait until the following compliance period before it could be implemented without disrupting market activity in the compliance period at the time. The cumulative delay to acquire unambiguous evidence of a problem, develop a solution and deploy it without disrupting market activity within the compliance period at the time could easily add up to many years of delay, pushing the implementation date of any remedy to the last compliance period of the proposed program. If the oversupply at that time is even half of the most recent LAO estimate, that would require adjusting the market by 100 million tonnes over two or three years, a precipitous change which could significantly increase price volatility.

To avoid this problem, CARB should take preventive steps now, to address market oversupply. At minimum, CARB should establish a clear set of metrics, triggering criteria and actions to facilitate quick response to potential problems stemming from the pre-2020 imbalance between supply and demand. By creating a process now, CARB maximizes its ability to make early, gradual course corrections which will promote market stability and send a clear and consistent long-term signal to market participants, who can modify their behavior appropriately.

The imbalance between allowance supply and demand has been identified early. This offers CARB the ability to send predictable signals to the market and ensure that it can respond to the potentially developing problem with modest, incremental adjustments to the market rather than abrupt, volatility-inducing change.

We would like to reiterate our suggestion from the previous letter about how to develop a plan to support predictable, transparent and incremental responses to this problem.

CARB should adopt policies that reduce the reserve of excess credits currently available to be banked or otherwise carried over into the late 2020's. We strongly recommend the following steps.

1. CARB should quantify the oversupply of allowances at the end of the 2018-2021 compliance period, including permits held in the auction account, APCR and entity holding accounts.
2. CARB should set a schedule for drawing down the oversupply of allowances which ensures that real emissions from capped sectors decline sufficiently for the state to meet SB 32 goals and be on a trajectory which maximizes the chance to achieve mid-century decarbonization targets including Executive Order B-30-15.
3. CARB should evaluate and take steps to draw down the over-supply including, but not limited to:
 - i. Reducing the GHG allowance budget by an amount which yields a cumulative reduction equal to the total oversupply
 - ii. Decreasing the value of allowances held in the auction account, APCR, holding accounts or other accounts over time to erode the cumulative value of banked allowances until the over-supply has been reduced to zero
 - iii. Retiring allowances in the holding account and/or APCR

CARB should periodically review the total oversupply of allowances at the end of each compliance period to determine whether it is decreasing at the rate specified in the schedule. If not, CARB should take additional steps, such as those described in part 3 above, to ensure that the cap and trade market provides real reductions in line with SB 32 targets. CARB should identify the mechanisms it will employ to make these adjustments during this rulemaking process in order to send as consistent a signal to the market as possible.

b. CARB Should Retire Oversupplied Allowances, Rather Than Move Them to Reserve Tiers

CARB has, at several points, moved permits from the Auction Account, or other agency accounts, into the Price Containment Reserve. Staff indicated plans to move an additional amount of allowances out of the Auction Account to reflect the additional Compliance Offsets AB 398 authorized to be used after 2025. We recognize and

support Staff’s desire to reduce the supply of allowances in the Auction account, which would help bring prices off the floor. Independent analysis, however, suggests that the Auction Account will remain oversupplied by 100 - 200 million allowances unless additional action is taken.³

If the market were operating from a position of approximately balanced supply and demand, moving allowances to the APCR would be a prudent course of action to preserve future flexibility by keeping those allowances nominally within the Cap and Trade program. As discussed in the previous section, however, the market is not operating under a balance of allowance supply and demand. There is consensus among independent experts and most stakeholders that allowance supply exceeds demand and will continue to do so for several years, at least. Under these conditions, moving permits to the APCR does not address the fundamental problem; APCR permits return to the market at certain price points and can be used to satisfy compliance obligations. If permits from a Price Tier or the APCR are used for compliance, real emissions from covered entities can be significantly in excess of levels needed to maintain a trajectory towards attainment of SB 32 and mid-century decarbonization goals.

We agree with Staff that it is better to have excess allowances in the APCR or Price Tiers than in the Auction account or entity holding accounts and recognize that actions to move permits out of the Auction Account in the past were a step in the right direction. Moving allowances to the APCR or Price Tiers is not sufficient, however, to address the critical long-term problem of oversupply potentially causing California to miss its emission targets.

Accordingly, we strongly recommend that excess allowances be retired from the program, rather than moved to the APCR or Price Tiers. We also recommend that Price Containment Reserve allowances that would be released at the level of the price ceiling be retired, instead. The presence of an explicit price ceiling mechanism obviates the need to have a separate reserve of allowances at the price ceiling and the statutory requirement to reduce emissions from permits sold at the price ceiling on a ton-for-ton basis means that ceiling price transactions which occur through the price ceiling mechanism have an additional safeguard for environmental integrity.

c. Effective Procedures are Needed to Ensure Environmental Integrity at the Price Ceiling

³ See <http://energyinnovation.org/wp-content/uploads/2018/02/WCI-oversupply-grows-February-update.pdf>, which estimates that oversupply in the combined WCI market will be 200 - 340 million tons at the end of 2020. California’s share of that total is approximately 100-200 million allowances, after subtracting the staff proposal to remove 23 million allowance to account for offset credits.

AB 398 requires emissions reductions on a ton-for-ton basis to counteract any emissions above the program's emission budget associated with allowances sold at the price ceiling. Accordingly, CARB should design the price ceiling mechanism to ensure environmental integrity in the event of high allowance prices. The price ceiling mechanism should prioritize the procurement of real, quantifiable, verifiable and permanent emissions reductions beyond what would have happened in absence of the ceiling mechanism and these reductions should be procured as quickly as is practicable.

We laid out principles for effective ceiling mechanism design in our January 16th blog post on the subject.⁴ In brief:

- Ton-for-ton reductions must be real, quantifiable, verifiable and permanent reductions in emissions which are additional to those which would have otherwise occurred in the *status quo*.
- CARB should compile a registry of projects eligible to qualify as ton-for-ton reductions well in advance of any need for such projects, in order to ensure that when timely reductions are needed, the necessary procedural steps have already been taken. Project developers would submit their project to this registry and go through the certification process as projects came on-line. This ensures that if the ceiling is reached, there are projects ready to go in a timely fashion.
- If the price ceiling is reached, CARB should, as soon as possible, purchase half of the required emissions cuts from projects which have been certified and added to the registry. CARB should use a reverse-auction or similar blinded procedures to allocate purchases equitably between eligible, cost-effective projects with the intent to engage as many registered projects as possible and procure emissions cuts as rapidly as possible. The intent is to reward as many project developers as possible for participating in the registry system.
- The other half of the required emissions cuts should be allocated by a conventional grantmaking process, administered by CARB, through which CARB should seek to maximize co-benefits to California. CARB could draw projects from the registry described above or make other investments designed to compensate for the excess emissions and advance California's climate, clean air, and equity goals.
- CARB should allocate three-quarters of any remaining revenue from the sale of permits at the price ceiling to projects which reduce emissions under capped sectors, in order to take pressure off the market and reduce the chance that prices will remain at or near the cap level. These projects should

⁴ <https://nextgenpolicy.org/blog/california-cap-trade-price-ceiling-design/>

prioritize areas where market failures or other economic conditions prevent existing policies from effectively reducing emissions.

- The final quarter of remaining revenue should be used to replenish the stock of qualified emissions-reducing projects in the registry, to ensure that timely emissions cuts are available if prices return to the level of the cap.

By building an effective cap-preserving mechanism at the price ceiling, CARB can ensure that the environmental integrity of the cap-and-trade program is preserved under even extreme and unusual market conditions.

d. Banking Rules

In addition to addressing market oversupply, CARB should consider adjustments to current allowance banking rules. Current banking rules, which provide for holding limits, but no restrictions on the length of time banked allowances may be held or any means of adjusting banked allowances' value to account for the need to hit not just cumulative, but also annual emissions targets, do not prevent speculative behavior that may artificially increase near-term allowance prices and costs to Californians if CARB addresses the current market oversupply.

Staff noted in its presentation that there is not currently strong evidence of allowance hoarding or speculative behavior in the market. This is not an indication that present rules are adequate to prevent speculative behavior. Rather, it is an indication that many market participants do not currently anticipate future allowance scarcity. But if the cap and trade market must begin driving pollution reductions at the levels anticipated in the Scoping Plan, and we are to achieve the 2030 target, allowances must necessarily become increasingly scarce, and the program must begin driving more reductions than can be expected if prices remain at or near the auction reserve price. CARB should therefore not rely on present banking practices continuing indefinitely and should proactively prepare for how banking practices are likely to change in a market with an expectation of increasingly scarce allowances.

We therefore reiterate our previous comment on this topic:

CARB should assess options for reducing the incentive to treat cap and trade allowances as merely high-yield/low-risk financial instruments. Among other options, CARB should consider shortening the period during which banked allowances may ultimately be surrendered or forbidding the banking of allowances across three-year compliance periods. If allowances are purchased at the end of the surrender period, CARB should consider a system under which unused allowances can be returned and

their purchase price credited towards allowances purchased in the next period. CARB should also consider adjusting allowances' compliance value over time to reflect changes in the reserve price and/or cap decline rates. Banked allowances' compliance value may be adjusted to reflect their relative value against a shrinking cap. One way to accomplish this would be to treat banked allowances as a deposit against future allowance purchases' reserve price plus the dollar amount above the reserve price at which the banked allowance was purchased, but requiring the party surrendering the banked allowance to make up the difference between the clearing price and the reserve price in the surrender year. Another option is to adjust the compliance value of banked allowances by an amount proportionate to the increased cap stringency and increased reserve price.

e. Complementary Sector-Specific Policies

As CARB further develops market rules for the 2021 – 2030 cap and trade program it must consider how this program will interact with sector-specific policies to meet the emission reduction target mandated in SB 32. In addition to managing the supply of allowances by setting the price ceiling and speed bumps at appropriate levels and adjusting banking rules to avoid speculative behavior, CARB should reduce demand for allowances by strengthening its other emission reduction policies.

i. Transportation

Targeted policies will be particularly important to reduce emissions from mobile sources, which emit 40 percent of California's greenhouse gases and are likely to be less responsive to the price signal from the cap and trade program than other sectors. Fortunately, CARB has a variety of other tools it can use to reduce mobile source emissions by improving vehicles, transportation fuels, and the transportation system to support California's vibrant economy in a progressively cleaner and more sustainable fashion.

California must transition to 100% clean vehicles as soon as possible to meet its climate and clean air goals. CARB must update its mobile source strategy for light duty vehicles to ensure that 5 million Zero Emission Vehicles (ZEVs) are on the road by 2030, as called for by Executive Order B-48-18. To accomplish this CARB should strengthen its Zero Emissions Vehicle mandate and develop 2026-2030 tailpipe greenhouse gas emissions standards that set a course to 100% clean new cars by no later than 2040. To jumpstart the transformation of California's new car market, CARB should enhance the effectiveness of its clean vehicle rebate program by establishing a rebate schedule that is high enough in the near term to make ZEVs price competitive with internal combustion engine vehicles, with rebate levels declining in steps as a function of cumulative sales. CARB should also work with the Franchise Tax Board to establish a system for instant eligibility verification to enable true point-of-sale rebates. For the medium- and heavy-duty sector CARB

should adopt the Innovative Clean Transit Regulation and continue to focus incentives on true zero emission vehicles whenever they are available for a given duty cycle.

The Low Carbon Fuels Standard (LCFS) is an essential tool for expanding the clean transportation fuels market in parallel with improving the vehicles which use these fuels. The LCFS has reduced emissions by over 30 million metric tons of carbon dioxide equivalent since its inception in 2011 by incentivizing transportation fuel producers to bring to market cleaner alternatives to petroleum like biodiesel, renewable diesel, ethanol, renewable natural gas and electricity. CARB's draft plan to extend the program calls for the carbon intensity reduction target to rise from 8% in 2020 to 20% by 2030. This is a very conservative goal and NextGen will be providing detailed comments to the LCFS rulemaking showing that there will be enough low-carbon fuel available to set a higher target, which will reduce emissions by millions of tons per year.

We can also get smarter and more equitable in the way we think about transportation in the first place. California's Sustainable Communities and Climate Protection Act (aka, SB 375, passed in 2008) requires city transportation planners to improve access to transit, change zoning to bring people closer to jobs and services, and encourage more walking and biking.

SB 375 sets a good goal, but more is needed to achieve it. California should invest more in programs like Transformative Climate Communities, which creates a pool of funding from cap and trade that neighborhoods can use to help make walking, biking, carsharing, and transit the best transportation option for people in their communities. Neighborhoods can begin to guide their own process of transforming their mobility by adopting innovative solutions, while serving as living laboratories for novel ideas.

ii. Buildings

Homes and commercial buildings (restaurants, hospitals, stores, offices, etc.) were responsible for 11 percent of California's heat-trapping pollution in 2015, as much as emissions from in-state electricity generation. Besides improving our buildings' ability to keep warm with less fuels through strong efficiency standards, we need to begin replacing fossil natural gas in buildings with electricity and renewable gas.

CARB and California's energy regulators have taken some initial steps to recognize the benefits of building electrification and have the opportunity to do more in 2018. To the extent that buildings continue to use gas it is also possible to reduce emissions by replacing some fossil natural gas with renewable natural gas (RNG). For example, biogas captured from landfills, dairy digesters, and waste treatment plants can be purified to produce pipeline quality gas and injected into the existing gas distribution system. This strategy

should not be considered a substitute for building electrification because using RNG does not eliminate methane leaks and RNG supplies are limited.

iii. Oil Supply

When it adopted the 2030 Scoping Plan, CARB also resolved to “continue to evaluate and explore opportunities to achieve significant cuts in greenhouse gas emissions from all sources, including supply-side opportunities to reduce production of energy sources.” A recent report from the Stockholm Environment Institute (SEI) shows that there are indeed significant opportunities to reduce emissions by aligning California’s oil supply policies with its policies to reduce demand for petroleum products.⁵ Indeed, failure to do so would lead to significant leakage of the emission reduction benefits from California’s clean cars and low carbon fuels policies as the petroleum demand reductions produced by these policies are partially offset by increased oil demand outside of California. SEI’s analysis also indicates that the cost of emission reductions driven by phasing down oil production in California are comparable to the cost of other policies included in the Scoping Plan.

CARB should evaluate available regulatory pathways to begin bringing fossil fuel production in California into line with the decline in consumption (relative to a BAU baseline) we are currently achieving, and prepare for the significant declines in consumption that will and must occur if we are to achieve our 2030 and 2050 pollution reduction targets.

iv. CARB Should Continue to Develop New Pathways

As our understanding of climate change increases, so does the need to address a broader spectrum of both causes and effects. CARB must proactively expand the portfolio of tools at its disposal, to continue to drive down emissions in an efficient manner while addressing critical economic, equity, and environmental goals. Expanding the set of tools at our disposal will be essential to our long term success. Accordingly, CARB should commit significant resources to develop new methods of leveraging the power of the Cap and Trade market to address a variety of critical challenges. Developing methods to quantify the GHG benefit from forest management practices which reduce wildfire risk and valorizing that through the Cap and Trade market would help bring resources into this desperately needed area. Developing a carbon capture and sequestration protocol eligible to generate credits or offset emissions would help drive that critical climate-protective technology forward. Another possible opportunity to drive further emissions reductions would be to use the Cap and Trade market to value fossil fuel supply limitation measures.

⁵ https://www.sei-international.org/mediamanager/documents/Publications/SEI_2018-DB-California_oil.pdf

3. CARB Should Provide a Transparent Analysis Showing that its Proposed Cap and Trade Market Rules, plus Complementary Policies, will Deliver Compliance with SB 32

The Scoping Plan attributes 236 million tons of cumulative emissions reductions between 2021 and 2030 to the cap and trade program, and 60 (34 – 79) million tons of reductions in the year 2030. These numbers, however, were derived by subtraction, not analysis. Staff developed an estimate of the total emission reductions from a Reference scenario required to meet the SB 32 target and subtracted reductions expected from a set of sector-specific “known commitments,” yielding a gap that the Scoping Plan *assumes* will be filled by the cap and trade program.

While this may have been an acceptable approach for developing the Scoping Plan at a time when the post-2020 cap and trade market rules had not yet been defined, CARB staff should present a more rigorous estimate of the emission reductions that cap and trade can be expected to deliver given the final set of market rules it proposes for adoption. This would allow the Board to assess whether the proposed rules, in combination with complementary sector-specific policies, are likely to achieve the SB 32 target, as required.

This analysis should not only provide a reasonable estimate of the aggregate emission reductions expected from cap and trade, given the proposed market rules, but also one or more SB 32-compliant scenarios showing actual emissions by sector that could plausibly result from the combination of cap and trade and known commitments to complementary sector-specific measures. This level of disaggregation is necessary to allow CARB and interested stakeholders to evaluate the credibility of the analysis in attributing emissions reductions to different policies while avoiding double counting. This would also allow CARB to determine whether it would be desirable to strengthen known commitments or adopt additional complementary measures to provide greater assurance that the SB 32 target will be met.

4. CARB Should Maintain Current Industrial Assistance Factors Until 2021 and Re-examine Benchmark Factors for 2021-2030

CARB has not yet identified any rational basis for changing the industrial assistance factors (IAFs) for the current compliance period. The Discussion Draft and Presentation assert, without support, that altering current regulations represents a “conservative” approach and provides polluters with a “smooth path” to their post-2020 allocation levels. Neither document provides any evidence or even conjecture that this change is needed or useful

to counter emissions leakage. In the absence of strong evidence of need to ensure the environmental integrity of the cap and trade program, CARB should not allocate additional free allowances to these polluters, many of which operate in some of California's most polluted and most-disadvantaged communities. This action therefore runs directly contrary to the intent of AB 197, which directs CARB to prioritize pollution reductions in these communities, not give these polluters additional leeway at the expense of other market participants.

Polluters that would benefit financially from the proposed change in existing final regulations are currently operating under the existing IAFs, which are already higher than CARB's analysis shows is needed to prevent leakage, and they have the expectation of the post-2020 IAFs required by AB 398. Neither the statute nor market conditions indicate any need for a change to current regulations. The legislature had every opportunity to require this change, and chose instead to maintain existing regulation for the current period, and to implement changes only after 2021.

It is unconscionable for CARB to consider an action so clearly contrary to the intent of both AB 398 and AB 197 to adjust the current rules merely for the sake of being able to draw a straight line on a graph to provide a "smooth path," as is done in Staff's presentation on this topic.

Staff's repeated reminders that the IAFs do not relieve covered entities of their entire compliance obligation and that the proposed increase in free allowances is a relatively small proportion of the entire allowance market are irrelevant to the question as to whether the current regulations should be changed to provide these polluters with additional free allowances. The same rationale could equally justify giving free allowances to any entity for any reason. Unless Staff can provide strong evidence that current factors are resulting in leakage that would be mitigated by increasing the free allowances polluters receive, there is no basis for changing the current allocation.

Staff has also indicated that with additional free allowances, these sources will have more capital on hand which may be invested in pollution reductions, but has provided no evidence that capital availability is a constraint on pollution reduction investments or that these sources intend to use the value of additional free allowances to make these investments. These sources have not made any binding commitments to invest the value of additional free allowances in pollution reduction projects and nothing in the staff proposal would compel them to do so. It is just as likely that the additional free allowances will be spent on shareholder profits, lobbying, executive compensation, or any other unspecified corporate expenditures.

If the proposed change takes place, there is no evidence they will do anything to prevent leakage or incentivize pollution reductions. With current market prices at or near the auction reserve price, they also do little to nothing to shield California consumers from any price impacts. Rather, they will only serve to divert over \$300 million worth of allowances and the associated revenue they would raise at auction away from investments in pollution reductions and other community resilience investments. This money would instead go directly into the hands of the very polluting industries whose impacts that money should go towards abating.

The Board has directed Staff to propose this change, and Staff has no choice but to follow the Board's direction. Nevertheless, Staff should fully inform the Board that the change to the current regulations is unnecessary, not required by statute, and counter to the intent of the cap and trade program so that the Board may make an informed decision to reject the change.

In addition to maintaining the existing IAFs in current regulation, Staff should examine potential adjustments to industrial allocations in the 2021 to 2030 period. The current benchmark factors, for example, were set based on data that reflected industry practice that may no longer be current. CARB should fully examine current practice and recent technological advancements, and if appropriate, adjust the benchmark factors accordingly.

5. Offsets

a. Direct Environmental Benefits

Staff has requested feedback on how offsets may be qualified as providing Direct Environmental Benefits to the state of California (DEBs) for the purposes of compliance with AB 398. Staff has proposed to define DEBs as “the reduction or avoidance of any air pollutant in the state or avoidance of any pollutant that could have an adverse impact on waters of the state,” to qualify any in-state offset project as compliant with this requirement, and to allow for individualized project reviews for offsets that are neither geographically inside California nor directly beneficial to a river that flows through California.

These guidelines provide a useful starting place for distinguishing projects with direct versus indirect benefits to California. Staff should provide more specificity on how projects may fail to meet these requirements.

First, CARB should clarify that, for the purposes of DEBs certification, the pollution reductions or avoidances from an offset project must occur as a *direct*, rather than *indirect* effect of the offset project, and that those

reductions must result in air or water quality benefits inside the geographic boundaries of California. For example, an out of state anaerobic methane digester may *directly* reduce some air pollutants that would otherwise be emitted from the undigested feedstock, but unless it is clear that these pollutants would affect air quality in California, these pollution reductions should not qualify as DEBs. Similarly, the combustion of that methane for onsite space heating may *indirectly* reduce emissions that would otherwise have occurred if the onsite operations had providing the space heating from another source, or the operation may *indirectly* reduce emissions elsewhere if the captured methane is injected into a natural gas pipeline for sale as RNG. In either case, whether these indirect emission reductions occur in California or not, they should not be considered DEBs because they are, by definition, not “Direct.”

Second, Staff should clarify that the reduction or avoidance of “any air pollutant” refers to air pollution reductions above and beyond any greenhouse gas reductions that occur as a result of the project. Staff indicated that this is the intent of the proposed rule, and agreed that it is the clear intent of the statute in establishing DEBs offsets as a separate category from non-DEBs offsets. We are requesting that Staff clearly make this distinction in the regulatory documents as well.

Finally, staff should indicate clearly to offsets project developers that the bar for showing that out of state projects provide DEBs is a high one, and one that is increasingly difficult to satisfy, the farther a project is from California. CARB would be well within its rights to exclude out of state offsets altogether from eligibility for DEBs designation. Some stakeholders have expressed concern that this clear geographic distinction may violate the federal Commerce Clause, but this concern is misplaced. CARB is not seeking to prevent the purchase or sale of offsets, nor is it engaged in any discriminatory or protectionist behavior, nor is it seeking to regulate activities that occur outside of California. CARB offers regulated entities the opportunity to meet a portion of their compliance obligation for the voluntary cap and trade program through the voluntary alternative compliance mechanism of purchasing offsets that meet certain standards of effectiveness. CARB’s role in determining the form of voluntary alternative compliance within a voluntary alternative compliance air pollution reduction program bears no connection whatsoever to the federal Commerce Clause or the protectionist behavior it seeks to prevent. CARB should therefore feel no obligation to accept out of state offsets (or any other offsets for that matter) at all merely out of concern for Commerce Clause compliance. CARB should therefore prioritize the clear intent of the legislature to ensure that at least half of the offsets provided for cap and trade compliance provide direct, tangible environmental co-benefits to California, and set a high bar for out of state projects to demonstrate that they meet these requirements.

b. Other Offsets Topics

In AB 398 the legislature reduced the share of compliance obligations that can be satisfied with offsets as well as requiring that at least half of the offsets submitted for compliance provide direct environmental benefits in California. This is a clear indication that the legislature prioritizes direct emission reductions over offsets (as it stated explicitly in AB 197, enacted in 2016) and is concerned generally that offsets may not achieve climate and other benefits that are equivalent to directly reducing emissions from sources covered by the cap and trade program. In the preliminary discussion draft staff has only addressed the definition of Direct Environmental Benefits. As stated in our previous comments, NextGen encourages CARB to respond to the legislature's concerns about offsets in a comprehensive manner by quickly establishing the Compliance Offsets Protocol Task force and ensuring that all offset protocols include conservative benchmarks for assessing additionality.

6. Conclusion

California's cap and trade system has been the foundation of its global leadership in climate policy for the last decade. CARB now has the opportunity, and the responsibility, to ensure that it can continue in this role for the next decade and beyond. We appreciate the substantial effort CARB Staff has invested in this essential task, as reflected in its preliminary discussion draft, concept paper, and workshop presentation, and its commitment to engage with all stakeholders in a transparent manner. We look forward to continued constructive engagement as this process moves forward.

Sincerely,

Dan Lashof,
Chief Operating Officer

David Weiskopf,
Climate Policy Director

Colin Murphy,
Transportation Policy Manager