California Council for Environmental and Economic Balance
101 Mission Street, Suite 1440, San Francisco, California 94105
415-512-7890 phone, 415-512-7897 fax, www.cceeb.org

April 10, 2017

Ms. Rajinder Sahota
Branch Chief, Cap-and-Trade Program
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target ("2030 Scoping Plan")

Dear Ms. Sahota:

On behalf of the members of the California Council for Environmental and Economic Balance ("CCEEB"), we submit the enclosed comments on the draft 2030 Scoping Plan. CCEEB is a non-profit and non-partisan coalition of business, labor, and public leaders that advances balanced policies for a strong economy and a healthy environment. Many of our members are regulated under climate change programs at the Air Resources Board ("ARB"), and CCEEB has been an active stakeholder throughout ARB's implementation of AB 32 and SB 32.

Our key points are:

- Climate change programs are an ineffective way to reduce local emissions of criteria pollutants and toxic air contaminants. Program design should instead focus on maximizing reductions of greenhouse gases.
- Cap-and-Trade has been a successful program to date, and should continue post-2020 as part of a comprehensive plan to reach the state's 2030 targets. For this reason, CCEEB supports Alternative 3.
- Care must be taken when developing regulations to achieve direct reductions in pollutants in parallel with Cap-and-Trade so that the programs are complementary and do not raise costs unnecessarily and without clear environmental benefit.
- A carbon tax increases environmental uncertainty yet escalates economic costs by a factor of two to three as compared to Cap-and-Trade.

**Can't Get There from Here**

There's a running assumption that state climate programs can reduce emissions of local pollutants in a meaningful way, and that programs should be designed with this purpose in mind. While the "single smokestack" theory is certainly convenient, CCEEB believes it over-simplifies control strategies and questions it on two important levels.

First, this argument generally assumes a 1:1 reduction ratio, that is, for every unit of GHGs reduced, combustion emissions are reduced by the same level. CCEEB believes this oversimplifies the relationship between criteria pollutants and GHGs.

More importantly, the critical question is not whether bigger sources emit more than smaller sources; it is whether programs can achieve concurrent reductions. There are key differences between controls for criteria and toxic pollutants and strategies to reduce GHGs; it is wrong to assume emissions can be reduced across the board, and there could even be tradeoffs among pollutant types. For example, while emissions from electric generation were 12 percent of total GHGs statewide (2014), the associated criteria pollutants were less than one percent of state total. As a study conducted by UC Irvine for the 2015 Integrated Energy Policy Report explained, "Deep GHG reduction strategies do not necessarily provide proportionally deep air quality benefits," for generators due to progress already achieved through current air quality and energy regulations and to siting of power plants outside of degraded air basins.[1] Another example are process and equipment changes at refineries undertaken to comply with State and federal fuel standards; these changes typically increase GHG emissions at the refinery, but provide much greater emission benefits for the transportation sector as a whole.[2]

Second, the "single smokestack" argument all but ignores emission inventories, current control programs, and the proportional contribution of capped facilities. Simply put, you cannot get there from here. Capped facilities represent only a portion of cumulative emissions in regional air basins (ranging from 1.1 percent to 9.4 percent[3]), and—even assuming a 1:1 ratio—reductions mandated under climate rules would not meaningfully change ambient concentrations of ozone, particulate matter, and air toxics in communities, as shown by ARB staff analysis below. Conversely, programs directed at criteria and toxic pollutants continue to succeed, with a significant new round of regulations and measures targeting all source categories recently adopted by ARB in the 2017 State Implementation Plan.

Taken together, CCEEB believes there is insufficient reason to scrap or curtail Cap-and-Trade in pursuit of assumed "foregone co-benefits" of criteria and toxic pollutants. ARB must carefully evaluate the tradeoffs between Cap-and-Trade and other options under consideration, and be clear about legislative intent and program goals.

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[1] Presentation by Brian Tarroja, Ph.D., Advanced Power and Energy Program, UC Irvine, "Transition to a Low-Carbon Economy: Air Quality Considerations." https://efiling.energy.ca.gov/getdocument.aspx?tn=205462-3.

[2] It is important to note that any change at a refinery must be reviewed and permitted through the regional air district, and for non-attainment areas, emissions must be offset at a greater than 1:1 ratio.

[3] ARB Cap-and-Trade Regulations, Appendix P: Co-Pollutant Emissions Assessment https://www.arb.ca.gov/regact/2010/capandtrade10/capv6appp.pdf

**Alternative 3 is the Most Cost Effective and Environmentally Sound Option**

ARB, with public input and strong collaboration with stakeholders, has spent the last decade developing a successful Cap-and-Trade Program. In light of SB 32's even more ambitious 2030 targets, CCEEB continues to believe that a well-designed Cap-and-Trade Program remains the best approach among alternatives.

First, Cap-and-Trade has achieved full compliance and is on track to meet program goals through 2020. It has done so by directing the most efficient reductions among "capped" entities, while providing an important funding mechanism for GHG reductions that either cannot be directly regulated or advance development and deployment of new, lower-carbon technologies and systems.

More importantly, Cap-and-Trade has successfully facilitated linkages and partnerships to other jurisdictions, and has served as an important model to other areas. California has formal linkage agreements with the Province of Québec and partnership agreements with Acre, Aguascalientes, Baja California, Beijing, Chiapas, Chongqing, British Columbia, Guangdong, Jalisco, Jiangsu, Shenzhen, Sichuan, Inner Mongolia, Osaka, Zhenjiang, Chile, France, India, Israel, Japan, Malaysia, Mexico, Kingdom of the Netherlands, Peru, Scotland, and South Korea. While the preponderance of GHG reductions occur within the state, these agreements help prompt much needed international action, needed now more than ever as federal climate programs come under attack. To mitigate GHG emissions and avoid catastrophic effects from climate change, it is imperative that California's strong policies be exported to other states, jurisdictions, and national governments. Without such cooperation, California's economic investments will not pay the hoped for environmental dividends.

Public debate over the 2030 Scoping Plan, fueled in part by recent critiques of Cap-and-Trade, is a concern, as it has undermined confidence in the burgeoning carbon market. While the Governor has sent clear signals of support for continuing Cap-and-Trade, ambiguous discussion at the ARB regarding interpretations of AB 197 and legislative press statements has at times been destabilizing. We believe this has contributed to lackluster auction results in recent cycles—although other factors, such as slower than expected economic growth, play a role and the influence of complementary policies[4]. Care should be taken interpreting what lessons are to be learned. The true test is whether GHG targets are achieved, not how much money is spent. With that said, CCEEB believes that a stronger signal to all stakeholders from ARB and legislative reauthorization supporting Cap-and-Trade extension in parity with the 2030 goal could help ameliorate investment uncertainty.

**Facility-level Mandates Shift Emissions, Diminish Effectiveness of Cap-and-Trade**

Direct facility regulations, as proposed in the refinery measure and also in broader industry sector specific rules (found in Alternative 1), set a precedent that undermines the very principles of Cap-and-Trade. As reasoned in the 2010 staff report, "By establishing a limit for the program overall rather than for individual sources, the Cap-and-Trade Program gives sources the flexibility to make the most cost-effective choices about when and how to reduce emissions."[5]

[4] http://www.lao.ca.gov/reports/2017/3553/cap-and-trade-021317.pdf
[5] https://www.arb.ca.gov/regact/2010/capandtrade10/capisor.pdf

Regulations that mandate when and where reductions occur remove this flexibility and shift emissions to other sectors and sources. Where efficiencies are not possible due to a lack of control technology, then facilities are left with combustion/production cuts as the only option for compliance. This results in the highest economic impact, with the potential of emission leakage outside of California, which in turn could increase net GHG emissions. ARB notes this production leakage or rationing selectively in its analysis of Alt 4, this is however also true for the refinery sector measure.

**Why Cost Effective? Who Benefits?**

ARB's Market Advisory Committee noted that Cap-and-Trade "reduces economic impacts on workers, consumers, and taxpayers."[1] This is because the price of carbon gets passed through in costs for goods, services, and energy. Additionally, regulations can cause economic drag, with some level of jobs and investments "leaking" along with emissions outside of California. For regulated entities, there are costs under any program alternative. What is important is that the state as a whole achieves maximum benefits—both environmental and economic—for its climate programs. We believe this is why AB 32 requires that cost effectiveness be considered.

We reiterate the need to be clear about program objectives, while noting that staff has not articulated a compelling rationale for facility mandates in addition to Cap-and-Trade, especially given the potential negative impacts noted above. It is worth testing a few possible policy assumptions, using the refinery energy efficiency measure as an example:

| *If the Objective is…* | *then the likely Outcome is…* |
|---|---|
| **Reduce GHGs in a specific facility or sector** | Facility/sector costs increase, but emissions shift elsewhere |
| **Reduce carbon-intensity of fuels** | Combustion efficiency at a facility can already be credited in the LCFS; could actually impede projects needed for reformulation of fuels |
| **Force reductions in criteria and/or toxic pollutants** | Shifts authority from air district to ARB;[6] conflicting regulatory requirements;[7] cannot show "necessity" |

From a local public health perspective, we have already questioned whether the "single smokestack" approach would result in marginal benefits, regardless of costs due to the fact that capped stationary sources represent 1.1 percent to 9.4 percent of localized emissions in each air basin. For GHGs, ARB has no way of knowing how facilities would have behaved under Cap-and-Trade, and thus no means to show that direct mandates provide incremental GHG reductions rather than simply shifting emissions elsewhere, as economic theory would suggest.[8]

[6] Health and Safety Code, Section 38594, as directed by AB 32: "Nothing in this division shall limit or expand the existing authority of any district, as defined in Section 39025.

[7] H.&S.C., Section 38595: "Nothing in this division shall preclude, prohibit, or restrict the construction of any new facility or the expansion of an existing facility subject to regulation under this division, if all applicable requirements are met and the facility is in compliance with regulations adopted pursuant to this division."

[8] The problem of additionality—that is, emission reductions merely shift rather than increase—is true regardless of the regulating authority. So direct GHG mandates required by air districts would have the same problems as those required by ARB since the issue is overlapping requirements on top of Cap-and-Trade.

**Carbon Tax Raises Costs with Uncertain Environmental Benefits**

Alternatives 2 and 4 both rely on a carbon tax to replace Cap-and-Trade. CCEEB disagrees with either alternative, since a carbon tax places revenue above GHGs in policy priority, which is not consistent with either SB 32 or California's leadership role. And both alternatives increase total economic costs to the state, without providing comparable environmental or public health benefits. There is some question whether a carbon tax could even be passed, as seen recently when voters opposed a carbon tax initiative in Washington State. Conversely, the legislative pathway for extending Cap-and-Trade seems open.

A carbon tax has similar attributes to Cap-and-Trade in that it places a price on carbon, harnesses market forces, and generates revenue. However, as ARB staff point out, a tax does not provide environmental certainty that GHG targets will be met, and choosing a mechanism to set and adjust the "right" price over time is challenging. Conversely, Cap-and-Trade uses the auction and secondary markets to adjust prices in real time, while placing primacy of purpose on the level of GHG reductions needed. Cap-and-Trade also affords businesses some temporal flexibility, in that triennial surrendering of compliance instruments allows entities to respond to price variability in ways that smooth the financial impact of market fluctuations. Businesses also can better adjust for changes in demand for their products and services. In terms of leadership, a carbon tax may serve as a model, but it doesn't allow linkages. That is, other jurisdictions could copy but not join. Indeed, the worldwide trend has been toward markets, rather than taxes, in part because of this power of linkages to prompt action.

At the March 28 workshop, staff presented information estimating the GHG and air quality reductions for each of the 2030 Scoping Plan alternatives, as shown in the table below. The ranges indicate that there are some small tradeoffs among policies, but all are fairly comparable. However, differences in emission benefits must be weighed against program costs, estimates of which were also provided by staff. We find the two options with Cap-and-Trade to have the least total cost, meet GHG targets, and provide comparable environmental and public health co-benefits.

| | Staff Proposed Scenario | No Cap-and-Trade (Prescriptive Regulations) | Carbon Tax | All Cap-and-Trade | Cap-and-Tax |
|---|---|---|---|---|---|
| Range of GHG Reductions (MMTCO2) | 100-184 | 89-130 | 100-184 | 100-184 | 100-184 |
| Range of NOx Reductions (Tons/Day) | 54-68 | 53-68 | 54-68 | 53-67 | 52-66 |
| Range of VOC Reductions (Tons/Day) | 6.4-8.1 | 6.3-8 | 6.4-8.1 | 6.9-8.8 | 8.3-11 |
| Range of PM2.5 Reductions (Tons/Day | 4.2-5.4 | 13-16 | 4.2-5.4 | 4.2-5.4 | 1.8-2.4 |

| | Staff Proposed Scenario | No Cap-and-Trade (Prescriptive Regulations) | Carbon Tax | All Cap-and-Trade | Cap-and-Tax |
|---|---|---|---|---|---|
| Range of Diesel PM Reductions (Tons/Day) | 4-9 | 1-2 | 4-9 | 5-10 | 5-10 |
| Mortality | 140-170 | 140-190 | 140-170 | 120-150 | 120-160 |
| Hospitalizations | 21-26 | 21-28 | 21-26 | 18-22 | 19-23 |
| ER Visits | 59-73 | 59-78 | 59-73 | 51-63 | 53-66 |
| 2030 Stock Costs* | $6.5 | $18.7 | $6.5 | $5.6 | $17.9 |
| 2030 Fuel Costs* | -$5.7 | $1.0 | -$5.7 | -$7.4 | -$4.3 |
| 2030 Cost of Reductions due to Carbon Pricing* | $1.1 to $3.6 | n/a | $2.6 | $1.6 to $5.1 | $0 |
| 2030 Cost of Reduced Production* | n/a | n/a | n/a | n/a | $50 |
| 2030 Total Cost* | $1.9 to $4.4 | $19.7 | $3.4 | -$0.2 to $3.3 | $63.6 |

**Billion $2015*

**Cap-and-Tax but No Trade**

The Cap-and-Tax approach tries to solve the problem of environmental uncertainty from a carbon tax by adding a regulatory overlay that requires facility- or company-specific reductions from major GHG emitters. However, it does so at the cost of efficiency in terms of directing how and where reductions occur. More importantly, compliance costs for businesses, as well as the state economy, rise substantially—Cap-and-Tax could cost more than twenty times a Cap-and-Trade Program. Businesses that could only comply through production or throughput cuts would be hardest hit and at risk of leakage. And, as the recent staff analysis indicates, higher compliance costs do not result in comparable increases in environmental or public health benefits.

**Cap-and-Trade Can Work under SB 32 and AB 197**

Assembly Member Eduardo Garcia (D-Coachella), the author of AB 197, testified in Assembly Natural Resources Committee on August 24, 2016:

> *"I also want to just clearly state that we to are supportive of the [Cap-and-Trade] program, the leadership of the Senate who moved the bill out this week is in support of the Cap-and-Trade Program, the leadership of the Assembly is in support of the Cap-and-Trade Program, the governor of the state is in support of the Cap-and-Trade and has asked that 197 be sent to his desk as a package with SB 32.* ***So, I wanted just to state that the intention is by no means to tamper with the Cap-and-Trade Program.****"*

In an August 31, 2016, letter to the Assembly Journal, Assembly Member Garcia reasserted, *"It is my intent that nothing in Section 38562.5 shall be interpreted to preclude ARB from adopting any market-based compliance mechanism pursuant AB 32."*

Based on these statements, CCEEB urges ARB staff to be measured in its response to AB 197. While AB 197 does list new priorities for ARB to consider in meeting 2030 GHG targets, these can be consistent with and in no way, supersede existing priorities under in AB 32, such as cost effectiveness and technological feasibility. Moreover, we note that at the October 21, 2016, Cap-and-Trade workshop, staff acknowledged the Cap-and-Trade Program already helps achieve direct emissions reductions.

In terms of SB 32, CCEEB disagrees with the assumption that higher compliance costs will result in increased direct emissions reductions. Rather, CCEEB believes that the 2030 program needs to be designed to *increase* cost effectiveness, both as a means to maximize GHG emissions reductions (i.e., "biggest bang for the buck") and as a way to prevent emissions and economic leakage in the post-2020 program as the declining cap drives up the cost of carbon.
Nancy McFadden, executive secretary to the governor, stated on August 4, 2016, "Let this be clear: We are going to extend our climate goals and the Cap-and-Trade Program – one way or another. The governor will continue working with the Legislature to get this done this year, next year, or on the ballot in 2018." CCEEB is actively working with legislative leaders on bills to improve and extend Cap-and-Trade through 2030.

**Conclusion**

In closing, CCEEB believes there is a great opportunity for California to lead global efforts on climate change through the adoption of a 2030 Scoping Plan that places Cap-and-Trade as the centerpiece of state programs. Unfortunately, we cannot at this time support carbon tax alternatives, nor do we support direct facility mandates underneath a Cap-and-Trade Program.

Thank you for your consideration of our comments. We look forward to discussing our comments with you at your convenience. Please contact me or Jackson R. Gualco, Kendra Daijogo or Mikhael Skvarla, CCEEB's governmental relations representatives at The Gualco Group, Inc. at (916) 441-1392.

Sincerely,

Gerald O. Secundy

GERALD D. SECUNDY
President

cc: Honorable Chair & Members of the Air Resources Board
Mr. Richard Corey
Mr. Jakub Zielkiewicz
Ms. Sara Nichols
Ms. Stephanie Kato
Ms. Emily Wimberger
Mr. Bill Quinn
Ms. Janet Whittick
The Gualco Group, Inc.