Ken Johnson
2502 Robertson Rd
Santa Clara, CA 95051

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Dallas Burtraw, Chair,
and Danny Cullenward, Vice Chair
Independent Emissions Market Advisory Committee

Liane M. Randolph, Chair,
and Matthew Botill, Chief of Industrial Strategies Division
California Air Resources Board

Senator Henry I. Stern, Chair,
and Assembly Member Damon Connolly, Vice Chair
Joint Legislative Committee on Climate Change Policies

Subject: Comments on the 2023 IEMAC Annual Report

Dear Dr. Burtraw and members of the IEMAC,

Thank you for the opportunity to comment on the 2023 Annual Report of the Independent Emissions Market Advisory Committee Report. I am keenly interested in the IEMAC's advice and recommendations and their effect on both California's progress toward decarbonization, and our state's influence beyond our borders.

My comments pertain specifically to the report's topic heading "Propagating California's Program Success and the Vision of AB32 through Program Linking". It should have become evident by now that this vision is a mirage. As the report notes, California's role in leading global policy and technology development has the potential to be much more impactful than in-state efforts at reducing emissions, considering that California emits only approximately 1% of global greenhouse gas emissions. California has the size, position, and history as a climate leader to

influence both subnationals and other governments throughout the world. But the report's narrow and singular focus on Cap-and-Trade linkage epitomizes the cognitive dissonance and stultifying groupthink that are inhibiting effective collaborative action on climate change.

Linkage of multi-jurisdiction carbon trading systems has proved to be an ineffectual motivator for coordinated, ambitious climate action. After the Western Climate Initiative was founded in 2007, most of its founding member states withdrew from the pact and Quebec is currently the only jurisdiction linked to the California market. Quebec's emissions account for only 0.2% of the global total. Washington State, which also generates about 0.2% of global emissions, might join the linked market; and at some point New York and Maryland might also join, adding a combined 0.5% of global emissions to the program coverage. When might that happen? Maybe in another decade? The IEMAC Report notes, in an understatement, that "the propagation of emissions caps has been slower than proponents of AB32 would have hoped or anticipated."

Moreover, it is not clear that any useful purpose has been served by linkage with Quebec. The primary economic rationale for linkage is that it provides opportunities for cost reduction, which in practice means opportunities for procrastination. Decarbonization costs are not avoided; they are deferred. As of 2020, Quebec was purchasing about 11 million GHG credits (allowances and offsets) per year from California at a market price of about $17 USD per credit. (Post-2020 data has not yet been published.) Overallocation and low prices in the California market enabled Quebec to outsource its emission reductions to California and defer investments that Quebec will need to make sooner or later to achieve its 2050 carbon neutrality target. If Quebec was not linked to the California market, the roughly $200 million that it sent to California in 2020 could have instead been invested in building Quebec's own clean-energy infrastructure and developing its local economy. Quebec has gotten nothing for what it has been spending on California carbon credits.

Cap-and-Trade linkage would, according to the IEMAC, create "the opportunity for greater emission reductions" and "momentum for climate action." But a 2022 article published by Prof. Werner Antweiler of the University of British Columbia,

entitled "Is Quebec becoming a climate action laggard?", illustrates how a linked system like California-Quebec is constrained by the member with the least ambitious climate policies. The carbon prices that Quebec industries pay through the linked Cap-and-Trade system have been substantially lower than what other provinces pay through Canada's federal carbon tax. In order to eliminate this disparity, the article notes, "Quebec would need to lower its own emissions cap dramatically to drive up prices in the joint market to match the federal targets, but that is unlikely to be agreeable to California." On the other hand, if California were to accelerate its 2030 reduction target significantly beyond Quebec's, then the situation would be reversed: California industries could be outsourcing their near-term emissions reductions to Quebec, putting the state at risk of not achieving its 2045 net-zero goal.

A regulatory framework directed to achieving net-zero emissions "as soon as possible" according to the state policy established in AB 1279 should not seek to limit emissions at minimum cost; it should minimize emissions while limiting costs. Any emissions reductions that can be achieved at acceptable cost should be pursued. The limit of cost acceptability is not universal; it is differentiated between states and nations, between industries, and between socioeconomic classes. These differences are not accommodated by a policy that seeks economy-wide price equalization. Interstate and international collaboration on climate action can be more effectively guided by the UNFCCC policy paradigm wherein "the Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities." California can lead global policy and technology development by demonstrating that it can achieve its AB 1279 net-zero statewide emissions goal without relying on the crutch of cross-jurisdictional trading and offsets. Out-of-state emissions reductions should not substitute for in-state reductions in the accounting of "statewide" GHG emissions, and California should engage in multistate and international collaborations to achieve emissions reductions *in addition to*, not *in lieu of*, in-state reductions.

In the same way that prescriptive policies such as California's RPS and LCFS are optimally tailored for and differentiated between specific industries, carbon pricing

can be adapted to the unique circumstances of each industry within each state or nation. A high carbon price can be feasible if the price is directly regulated to eliminate price volatility, and if pricing revenue is applied to finance decarbonization of the regulated industry and to mitigate any equity disparities of carbon pricing. Coordinated, multijurisdiction pricing and financing policies can achieve economies of scale and accelerated commercial deployment of early-stage technologies such as green steel, green cement, sustainable aviation fuel, etc., in much the same way that Germany's feed-in tariff program in the early 2000s catalyzed the revolution in wind and solar power. The marginal incentive for decarbonization created by Germany's program at its outset was about *ten times* that of California's Cap-and-Trade system at current allowance prices.

Full decarbonization of the global economy is an ambitious undertaking, and the best way to tackle a problem of such magnitude and complexity is to break it down into smaller, tractable subproblems. The IEMAC-advocated approach of trying to subsume all carbon pricing programs under an overarching, multijurisdictional Cap-and-Trade system with a uniform, economywide carbon price has not achieved the "maximum technologically feasible and cost-effective greenhouse gas emission reductions" required by AB 32; and by continuing to promote this flawed and dysfunctional policy paradigm, the IEMAC is blocking progress on more practical and workable policy options.

Sincerely,

Ken Johnson