



Comment on the Extension of the Voluntary Renewable Electricity Program

Dallas Burtraw

**Public Comment
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California Air Resources Board
1001 I Street
Sacramento, CA 95814

To whom it may interest,

On behalf of Resources for the Future (RFF), I am pleased to share the accompanying comments to the California Air Resources Board addressing an important issue raised during the July 27, 2023, Cap-and-Trade Program Workshop.

RFF is an independent, nonprofit research institution in Washington, DC. Its mission is to improve environmental, energy, and natural resource decisions through impartial economic research and policy engagement. RFF is committed to being the most widely trusted source of research insights and policy solutions leading to a healthy environment and a thriving economy.

I serve on the California Independent Emissions Market Advisory Committee; however, these comments are strictly my own. While RFF researchers are encouraged to offer their expertise to inform policy decisions, the views expressed here are my own and may differ from those of other RFF experts, its officers, or its directors. RFF does not take positions on specific policy proposals.

This brief comment addresses the Voluntary Renewable Electricity Program.

If you have any questions or would like additional information, please contact me at burtraw@rff.org.

Sincerely,

A handwritten signature in black ink that reads "Dallas Burtraw". The signature is written in a cursive, flowing style.

Dallas Burtraw

Resources for the Future

Comment on the Extension of the Voluntary Renewable Electricity Program

I appreciate the opportunity to comment on potential regulations for the cap-and-trade program presented at the July 27 workshop. I wish to comment on the future of the Voluntary Renewable Electricity Program.

This comment has two companion elements that are mutually dependent.

1. Renewal of the Voluntary Renewable Electricity Program would preserve incentives for actions by civil society to reduce emissions.

As noted in the workshop, if the allowances deposited in the Voluntary Renewable Electricity Program are depleted, entities will not be able to recognize voluntary purchases of renewable electricity as a contribution to reductions in their carbon footprint. The affected parties may be business entities that point to renewable electricity purchases to substantiate voluntary efforts to decarbonize business operations, but the principle in play is broader than that. The ability of any element of civil society to make a difference by taking action to reduce its carbon footprint hinges on the effort resulting in additional emissions reductions. It is important that economic approaches to climate change amplify, rather than diminish, the ability of civil society to address climate change directly. The introduction of an emissions cap potentially creates not only an emissions maximum (cap) but also an emissions minimum (floor). This is the phenomenon known as the *waterbed effect*, wherein a reduction in emissions in one location does not change the total volume of emissions (like pushing down on a waterbed, which does not change the volume of water inside). In the carbon market, unless the supply of emissions allowances dynamically responds to changes in demand for allowances, the emissions cap directly determines the emissions outcome.

The California cap-and-trade program partially corrects for the waterbed effect through supply adjustments implemented at the price floor and through occasional program reviews. For periods with an extended sequence of auctions that settle at a price above the price floor, changes in demand do not affect emissions; they only affect allowance prices rendering incremental actions by civil society irrelevant to the emissions outcome. The Voluntary Renewable Electricity Program is an additional feature that helps to adjust supply. In doing so, it affects the incentives for individual action that are crucial to good program design. Consequently, renewal of the Voluntary Renewable Electricity Program is important as a signal about how the carbon market will incentivize and integrate with other regulations and other efforts across society to reduce carbon emissions.

2. In collaboration with other state agencies, CARB has the opportunity to develop and implement a method to more accurately estimate the emissions reductions that are achieved by incremental investments in renewable energy.

The value of the contribution of voluntary action to reduce emissions through investment or purchase of electricity from nonemitting resources depends on location and time of consumption. Incremental renewable generation can have a substantial effect on emissions if it occurs at a time when consumption would otherwise be met with generation from fossil resources, and it can have negligible effect if it occurs when there is already a glut of renewable resource supply. The alignment of supply and consumption has broad relevance in general in validating the claims of steps taken by entities to achieving carbon reduction goals,

and it has specific relevance to the eligibility for tax credits for hydrogen production under the Inflation Reduction Act. Methods for estimating and matching electricity consumption with incremental nonemitting generation need to be developed. A one-size-fits-all approach to eligibility under the Voluntary Renewable Electricity Program appears inappropriate.

In considering a renewal of the Voluntary Renewable Electricity Program, CARB and other state agencies have an opportunity to address a lingering critique of renewable energy credits generally, to improve the program, and to take steps that could be influential to other jurisdictions. One approach would be to populate the Voluntary Renewable Electricity Program reserve initially as a depository for invalidated allowances, perhaps representing a portion of the supply adjustment that may be consistent with achieving 2030 goals. After an appropriate methodology is developed to score and credit the contribution of voluntary renewable purchases, that methodology could be applied to the Voluntary Renewable Electricity Program reserve to permanently cancel the properly measured allowances held in the reserve.

In summary, renewal of the Voluntary Renewable Electricity Program would strengthen incentives provided by the cap-and-trade program. The development of methods to estimate the incremental contribution of incremental renewable supply to avoiding greenhouse gas emissions would greatly enhance the performance of both programs.