



16-8-5  
Alex Jackson

*Submitted at the hearing*

September 22, 2016

California Air Resources Board  
Byron Sher Auditorium  
1001 I Street  
Sacramento, CA 95184

**Re: Comments in Response to California's Proposed Compliance Plan for the Federal Clean Power Plan**

On behalf of the Natural Resources Defense Council, and our more than 72,000 members in California, we appreciate the opportunity to comment on the Proposed Compliance Plan (Plan) for the Federal Clean Power Plan (CPP).

**I. Summary**

California is proposing a Plan that would primarily rely on the state's existing economy-wide Cap-and-Trade Program and Mandatory Reporting Rule to reduce carbon dioxide emissions among fossil fuel-fired power plants. These primary mechanisms are supplemented by backstop emission standards for just fossil fuel-fired power plants that will apply if primary measures are not effective at reducing emissions to the level required by the Clean Power Plan.

As ARB's modelling shows, the stringency of the Cap-and-Trade program and California's complementary policies in the power sector makes it extremely unlikely that the backstop will be invoked. However, if demand grows, hydroelectric power underperforms, and other emissions drivers increase unexpectedly it is possible. In this case, it would be critical that the backstop function effectively to reduce power sector emissions and meet the requirements of the CPP. Moreover, as one of the first states to adopt a Plan, California should adopt a plan that can serve as a marker for other states.

ARB's fundamental approach of using power plant-specific, mass-based emission standards as a backstop is sound, but we are concerned that applying the backstop to only existing power plants would cause generation and emissions to rise at new fossil fuel-fired power plants in the event the backstop is invoked. To prevent this result, ARB should include existing and new fossil-fuel fired power plants as covered units in its Plan, and adopt the New Source Complement in setting its targets.

## II. Backstop Provisions

The backstop included in the Plan consists of mass-based emission standards that apply to affected fossil fuel-fired power plants (emission generating units or EGUs). It would be triggered when annual total-EGU emissions exceed 110 percent of interim- or final-period targets. ARB proposes a modified set of interim- and final-period targets as the backstop trigger (ARB added and subtracted EGUs from EPA's list). The backup allowance pool would contain an amount of allowances that would bring EGUs back into compliance and make up for any excess emissions. Backstop allowances would not be auctioned or sold, but rather granted to EGUs on the basis of historic emissions. EGUs subject to the backstop would have to match each ton of CO<sub>2</sub> emitted during the backstop compliance period with a backstop allowance; i.e., they would have to reduce emissions so that total EGU emissions equal the number of backstop allowances.

This basic design is sound, and is similar to the design NRDC argued for in earlier ARB comments.<sup>1</sup> By requiring EGUs to match emissions with allowances equal to the target, minus any prior-period excess emissions, the proposed backstop will ensure that EGUs collectively meet EPA's power plant-specific targets.

### **A. The backstop should apply to both existing and new fossil fuel-fired power plants, and ARB's backstop target should include EPA's New Source Complement**

EPA requires states that apply mass-based limits to fossil fuel-fired power plants, as the Plan's backstop would, to take actions to make sure that resulting emissions of carbon dioxide are equivalent to the amount that would have been emitted had states applied rate-based limits instead. There is a risk that, if states apply mass-based limits to only existing power plants, generation will shift to new natural gas combined cycle plants. This could happen because these new plants would not have to incur costs to reduce their carbon emissions in the same manner as existing power plants, and because natural gas plants do not get the same production incentives in mass-based plans as they do in a rate-based state. National modelling of the Clean Power Plan show that plans that include existing and new sources are much more effective at reducing total power sector carbon pollution than plans that include only existing sources.<sup>2</sup>

Recognizing this risk, EPA gives states the option to apply mass-based emission limits to both existing and new power plants. If they cover new plants under their mass-based limits, they get some extra tons of allowed CO<sub>2</sub> pollution, called the "new source complement." EPA calculated a new source complement for California that ARB could use to set the backstop target and to size the backstop allowance pool.

---

<sup>1</sup> See Jackson, Alex, "Comments in Response to Public Workshop on California's Plan for Compliance with the Clean Power Plan and Potential 2016 Amendments to the Cap-and-Trade Program," January 11, 2016, available at: <https://www.arb.ca.gov/lists/com-attach/31-capandtradeplan-ws-WjRVIVYzVmYLUMw.pdf>.

<sup>2</sup> Dual-rate and mass-based plans that include existing and new sources reduce total power sector carbon pollution by 18 and 16 percent, respectively, while mass-based plans that include existing sources reduce carbon emissions by 10 percent. Van Atten, Chris, "Updated Modeling Analysis of EPA's Clean Power Plan," MJ Bradley and Associates, June 1, 2016, page 17, available at: <http://www.mjbradley.com/reports/updated-modeling-analysis-epas-clean-power-plan>.

ARB argues that, because California's Cap-and-Trade program imposes more rigorous requirements than the CPP and the program applies the same set of carbon costs on both existing and new fossil fuel-fired power plants, there is no leakage incentive and thus no need for "a new set of formal leakage avoidance measures."<sup>3</sup> The scenario in which the backstop is invoked, however, is one where demand from fossil fuel-fired power plants is high, which could be the case if hydroelectric plants underperform throughout the west, economic growth is booming, and/or carbon-free resources do not materialize as expected. In this world, CPP targets would be binding, and under ARB's backstop, existing EGUs would indeed face abatement costs not faced by new facilities, because they are required to reduce emissions under ARB's backstop. This could cause generation to shift to new natural gas combined cycle units.

ARB can easily solve this problem by including new EGUs among the units covered by Plan and using the New Source Complement to set the target under which the backstop is triggered and the amount of backstop allowances available. Doing so will prevent a shift in generation from existing to new facilities in the unlikely event the backstop is invoked. It will also signal to other states linking with California's electricity market that the state takes seriously the need for CPP plans to address leakage.

## **B. Interstate Trading**

ARB does not address whether EGUs could purchase out-of-state allowances in the event the backstop is triggered. This added flexibility would be useful, we believe, provided it is accompanied by provisions that only allow California's EGUs to purchase allowances from states whose plans also include existing and new sources.

## **III. Aligning the Cap-and-Trade Program with the CPP**

We support staff's proposal to adjust the cap-and-trade program's compliance period schedule after 2020, for all sectors, to align with the compliance periods defined by the CPP. While the proposed "bridge" would shorten compliance periods from 3-years to 2-years for the initial two compliance periods after 2020, the need for alignment with the CPP compliance schedule necessitates a change, and 2-year compliance periods is preferable from a flexibility standpoint than a 1-year bridge. Ensuring alignment keeps open the possibility of expanding the overall market significantly, thereby increasing flexibility and lowering costs. Moreover, the initial compliance period was shortened to two years (2013-2014) without detriment to the market, and the program retains other mechanisms that can readily provide the flexibility needed to account for annual variations in hydro availability and other unforeseen emissions drivers. Finally, we support staff's proposal to require all affected EGU's to participate in the cap-and-trade program – not just those above the current emissions threshold – which is necessary to allow the program to serve as the primary mechanism for California to demonstrate compliance with the CPP.

---

<sup>3</sup> "California's Proposed Compliance Plan for the Federal Clean Power Plan," at p.50.  
<https://www.arb.ca.gov/cc/powerplants/meetings/09222016/proposedplan.pdf>

#### IV. Conclusion

ARB is correct to include a mass-based emission limit that applies to only fossil-fuel power plants as the backstop to its primary emission reduction measures in its Plan. ARB should modify the Plan, however, to apply the backstop and the Plan to existing *and new* EGUs, and adopt EPA's new source complement in its backstop target. This will provide a signal to other states designing plans, and prevent a shift in generation to new natural gas combined cycle units in the unlikely event the backstop is invoked.

Sincerely,

Dylan Sullivan  
Senior Scientist  
NRDC