



June 14, 2022

Assemblymember Luz Rivas, Chair
 Assembly Natural Resources Committee
 1020 N Street, Room 164
 Sacramento, California 95814

RE: SB 1399 (Wieckowski) Carbon Capture Grant Program – OPPOSE

Assemblymember Rivas and committee members,

The undersigned organizations write to express our opposition to SB 1399 (Wieckowski), which is offered as climate policy yet has the unintended consequences of worsening the climate crisis, harming frontline communities, and wasting precious taxpayer funds, all based on false assumptions and promised impossibilities.

This bill would fund carbon capture, use, and storage (CCUS) pilot projects in three categories: natural gas power plants, biomass power plants, and industrial facilities. However, natural gas power plants must be phased out in order to meet our climate goals. The IPCC—among many others—has been very clear that we must stop burning fossil fuels for energy to have hope of limiting climate change.¹ Vast public and private spending on new infrastructure natural gas plants must be amortized over decades, so adding CCUS, even should it reduce greenhouse gas emissions at a particular source, serves to double down on our reliance on burning fossil fuels. Since CCUS allows a significant portion of carbon emissions to continue, extending the use of these plants will more than offset any climate gains that the new CCUS infrastructure could theoretically produce. Thus, CCUS on natural gas power plants increases carbon emissions and should not be considered climate policy but rather a handout to the fossil fuel industry.

Similarly, the promises of bioenergy with carbon capture and sequestration (BECCS) fail to live up to reality. Proponents argue that somehow burning these hydrocarbons is carbon negative. To make this case on paper, they must make unrealistic modeling assumptions and ignore the realities of operating a biomass power plant. First, they assume that all of the burned biomaterial would have been burned anyway, either by open burning of ag waste by farmers or in forest fires. However, most of these projects are proposed to be constructed in the San Joaquin Valley, where the Air District has recently outlawed open ag burning. Also, except where forest fires intervene, fallen trees in forests return carbon from the atmosphere to the soil, so the assumption that burning them elsewhere is carbon neutral is incorrect. A better option is mulching fallen trees and using it to rejuvenate soil, which aids in natural carbon sequestration. Furthermore, biomass facilities don't collect most of their biomaterial by collecting fallen trees and branches in forests to decrease forest fire intensity; that would be inefficient and a poor business model for these for-profit companies. Instead, biomass facilities pay farmers to create biomass, largely by monocrop cultivation. When land is converted to this type of use, it transforms from a carbon sink to a carbon source, reversing any paper climate benefits. What's more, biomass facilities rely on petrochemical accelerants to ensure efficient burning. Moreover, while the carbon capture equipment does remove some carbon from the emissions stream, that is only true during peak operation and not during fire-up or cool-down. Because BECCS involves changing land use and burning hydrocarbons that would not have otherwise burned, it likewise increases climate pollution.

Both natural gas power plants and BECCS only capture carbon during peak operation, and, while they may also capture more of certain other criteria pollutants during peak operation in order for the carbon capture equipment to function properly, the worst of the criteria pollution and toxic air contamination results from fire-up and cool-down, during which time enhanced emissions controls are inactive. Yet, the energy drawn from CCUS consumes about a third of a power plant's output. Thus, CCUS increases the pollution intensity of a power plant's emissions stream. That is, to get the same amount of power, a power plant with CCUS must burn more and thus also pollute more. Further, in the case of BECCS, facilities that shut down years ago

¹ Proponents often mis-cite the IPCC as supporting CCUS. That is incorrect. The IPCC calls for carbon dioxide removal, possibly including direct air capture. The IPCC rejects CCUS on fossil fuels, which would serve to maintain our reliance on the source of the climate crisis, even if it allows that CCUS *might* be useful in certain hard-to-decarbonize sectors such as cement. We take no collective position on CCUS on cement, nor on direct air capture. We do support some carbon dioxide removal through natural carbon sequestration.

as financially unviable are planned to come roaring back to life, bringing renewed local pollution to frontline communities. Finally, the price-tag of this new energy infrastructure is jaw-dropping, especially given that it decreases our energy output. These same funds could be used to develop renewable energy and storage, increasing our energy output without sacrificing grid reliability, air quality, or environmental justice.

The last category, “industrial facilities,” includes a variety of sectors that we won’t discuss exhaustively, but we’ll focus on a sector where the claims of CCUS are most egregious and yet somehow gaining traction: refineries. Like natural gas power plants, oil and gas refineries must be phased out. CCUS has been offered as some sort of savior, promising 90% emissions reductions. However, that promise would be impossible to keep at most California refineries. First, most capture equipment does not meet even close to 90% capture rates as applied. Second, to have a chance of reaching 90% capture, capture equipment must rely on an emission-free energy source such as solar or wind, which is not how our refineries are set up to operate. Third, refineries have many individual point sources of pollution, and each point source would need its own capture equipment, such that facility-wide high capture rates would require many separate capture apparatuses, each of which is expensive, large, and energy-hungry. Fourth, our refineries tend to be dense clusters of equipment with little room for expansion or further development. Thus, to add several large pieces of infrastructure in a crowded facility, along with associated renewable generation capacity, is not just cost-prohibitive or overly optimistic but, in most cases, literally impossible.

Converting refineries to biofuels or relying on existing ethanol facilities would provide no exception, but rather deepens local and climate harms. Ethanol is a farm subsidy, not a climate policy. For decades we have relied on it nationwide without any benefits to climate or fuel efficiency, but with clear benefits to the agricultural industry. Indeed, ethanol often requires more energy to produce than it provides for combustion, making it energy-negative. CCUS does not magically fix that dynamic. CCUS on ethanol facilities runs into roughly the same problems as CCUS on oil and gas refineries, requiring vast amounts of energy to run and only deepening the energy deficit that manufacturing ethanol creates.

Living near a power plant that relies on burning hydrocarbons is inherently hazardous, as is living near an oil and gas or biofuel refinery, and CCUS only worsens and prolongs those harms, as discussed above. Yet, these facilities are sited overwhelmingly in communities of color and low-income communities because of historical environmental racism. To worsen and prolong that harm now by adding CCUS would be to perpetuate environmental racism. Once again, our society would be choosing to sacrifice frontline communities, this time under the false banner of climate, despite the lack of climate benefits. The truth is that the real beneficiaries are, once again, fossil fuel companies. Once again, our most vulnerable communities would be sacrificed to the greed of the oil and gas industry, and policymakers supporting such a sacrifice would be complicit.

Finally, the state should think carefully before providing large subsidies in the form of “pilot projects” that would amount to paying companies for compliance. We have broad regulatory requirements under such programs as cap-and-trade, the low carbon fuel standard, and the renewable portfolio standard. While we have concerns about how those programs work, by paying directly for CCUS, the state is essentially paying for compliance with those programs.

Philosophically, that is a bad idea. Practically, it's even worse, an inefficient boondoggle that will rob from other essential climate opportunities as well as from taxpayers to provide handouts to the fossil fuel industry, an industry that hardly needs new subsidies in this time of record-breaking profits and profiteering.

For the reasons stated above, the below-signed organizations are strongly opposed to SB 1399.

Sincerely,

Dan Ress
Center on Race, Poverty & the Environment

Pauline Seales
Santa Cruz Climate Action Network

Melissa Romero
California Environmental Voters (formerly CLCV)

Raquel Mason
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