



Biomass Electricity Isn't Cheap, Won't End Wildfire

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With California's commitment to renewable energy and the growing concern about wildfires, biomass electrical generation is increasingly being promoted at the state Capitol as a tool for addressing both challenges as the legislative session is about to end. For a number of reasons, this approach has a lot to overcome.

A clean-energy policy has a different set of concerns than the issue of safety from wildfires. For clean energy, policymakers focus on emissions, price, and the ability of new resources to work together in ways that keep the lights on.

Fire safety revolves around reducing fuel, hardening communities to withstand ferocious fires and clearing vegetation from near electric lines. While these policies are not contradictory, there are obstacles to making them work in harmony.

There are 26 biomass plants in California that can generate enough electricity to power about 400,000 homes. These facilities rely on fuel sources ranging from agricultural waste to wood waste from lumber mills. Most of the plants are located near the fuel sources to reduce trucking costs. Many plants are not well suited to use fuel from high-risk fire areas since it is difficult to deliver sufficient fuel without incurring prohibitive costs, even if electric customers pay a premium for the energy.

After Gov. Jerry Brown's 2015 "Tree Mortality Emergency" proclamation, California utilities entered into a number of biomass contracts. These were focused on forest waste that was sold at premium prices to account for the cost of obtaining the forest fuel and could generate enough electricity for more than 100,000 homes. But even with prices two to four times higher than solar or wind power, most of the facilities will struggle to obtain enough fuel.

Increased use of biomass faces other obstacles, too. New power plants far from customers would require new transmission lines. Small power lines that served remote areas in the Sierra forests don't have the size and equipment to bring enough power to meet electrical needs hundreds of miles away. Building new power lines or upgrading existing ones to these biomass plants can cost millions of dollars.

Historically, biomass plants that burned forest waste were either owned by lumber mills or had entered into partnerships with them, but the California timber industry has shrunk. Now, public agencies such as the U.S. Forest Service are the major supplier of wood. But with limited budgets to log and remove dead trees, not much progress has been made in reducing fire fuel.



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The governor’s interagency Forest Management Task Force is coordinating a study to identify and assess barriers to wider use of fuels from high-risk areas. But the current level of forest activities probably isn’t enough to supply biomass facilities with an economically viable flow of fuel from high-hazard areas and is insufficient to meet forest management needs within those same fire-prone regions.

Building a new sustainable forestry industry in the Sierra and Siskiyou mountains could make biomass facilities more effective as part of a whole array of fire prevention tools, as well as offering jobs and economic development in those communities.

But on its own, biomass is a limited fire prevention tool and will require extensive ratepayer subsidies. Even with subsidies, biomass may not work as an effective fire-prevention tool outside pine forests.

It seems clear that if we’re counting on biomass electricity generators to significantly reduce the number and ferocity of fires, we’ll fall short. If we expect these generators to help with carbon reduction, we’ll also fall short. And if we overbuild these plants to provide more electricity, we’ll overshoot our demand for what customers need.

Simple solutions to complex issues often sound good at first but may look unwise in hindsight. If there is a role for biomass in mitigating against more destructive wildfires, it’s only part of a much larger firefighting and sustainable forestry strategy.

<https://calmatters.org/articles/commentary/my-turn-biomass-electricity-isnt-cheap-wont-end-wildfire/>

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