

EDITORIAL: Biomass and carbon

An emerging industry needs fair accounting

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The Environmental Protection Agency has decided against labeling biomass-fueled power generators as “carbon neutral,” which could mean they’d be penalized like coal-burning plants under any sort of system that slaps a fee on carbon emissions.

The EPA’s judgment is wildly overbroad. To arrive at a fair and effective accounting of carbon, not to mention rational policies on energy and climate change, the EPA will need to acknowledge differences in where biomass plants’ fuel comes from, where that fuel would otherwise go and what types of power are being replaced.

Reporter Diane Dietz delved into these complexities in a July 11 Register-Guard article that focused on the carbon equation as it relates to an 18.8-megawatt wood-fired power plant being built by Seneca Sawmill Co. in north Eugene. The plant will emit 200,000 tons of carbon dioxide a year. By some measures, Seneca’s plant would be cleaner than a coal plant of similar size. Critics of biomass, however, claim that coal plants actually emit less carbon per megawatt, and that other power sources — such as natural gas, wind or solar — are cleaner yet.

Such comparisons are meaningless without context. The carbon contained in coal and other fossil fuels has been sequestered underground for millions of years. The carbon contained in fuel for biomass plants is part of an active atmospheric cycle, and its duration is measured sometimes in years, sometimes in centuries. A plant or tree absorbs carbon dioxide as it grows. When it dies, the carbon is released through the process of decay. A tree can sequester carbon for decades or longer, either as standing timber or as lumber. But eventually the carbon is released, whereas carbon remains locked in coal essentially forever unless it is mined and burned.

Building a biomass plant entails a decision to release carbon dioxide now, rather than waiting for it to be released later through natural processes. That renders comparisons to the emissions from fossil fuel plants meaningless, and unfairly disadvantageous to biomass.

A biomass plant can accelerate significantly the carbon cycle of plant life — burning biomass today will contribute to climate change, while leaving a forest standing would, barring a catastrophic wildfire, keep the carbon locked up for generations.

But Seneca isn't planning to log its forests to fuel its power plant. It logs its forests to produce lumber. It's the slash left over from logging operations, and the waste produced in the milling process, that will feed the boilers. Currently, the slash and waste either are burned in open fires or left to decompose. The biomass plant will not accelerate the release of carbon appreciably, but it will provide cleaner combustion than occurs now.

Seneca's plant will substitute one form of all-but-immediate release of carbon dioxide for others. The carbon budget for such a plant should look different than the carbon budget for a plant where the fuel results in carbon dioxide emissions that otherwise would be kept out of the atmosphere for centuries or millennia. Seneca intends to make productive use of carbon releases that are going to occur anyway, reducing the need for power from sources that involve a greater acceleration of the carbon cycle.

Energy and environmental policies that fail to take these matters into account will serve the nation poorly. The EPA needs a finer-tuned definition of carbon neutrality.