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Critically Appraising Large-Scale Wood-Fired Electric Generation

Americans have not been very successful in stabilizing our forest products industry in terms of either available supply or reliable demand. For our first century as a nation, we focused on clearing forests so that we could plant our farms, even if that meant simply burning the trees and stumps out. Having cleared many of the forests in the original thirteen states, the timber industry then moved eagerly into the new Great Lake states were it proceeded to strip the land so bare of forests that the timber industry there collapsed and had to shift to a new area, namely the forests of the South. The initial harvests there reached a peak in the first part of the 20th century, leaving behind stripped mountains, erosion, and floods that took nearly a half-century to repair. That southern regional timber collapse fuel the move into the Pacific Northwest states, including Western Montana.

Despite a nominal commitment to, this time, operate on a sustainable basis, we, again, could not control either private or public harvests. We, again, overharvested, snatching the "gift of nature" but creating a "hole" in the timber supply, and, on less productive lands, finding that continued management of these lands for commercial timber was largely uneconomic. For the last two decades, harvest from both private and public lands has declined to very low levels.

One forest scientist who lived through the boom and bust in our regional timber harvests blamed it on what he called "a conspiracy of optimism." That sounds a lot like

the “animal spirits” of speculators who have been blamed for the multiple bubble economies are nation has suffered through over the last two decades.

This “conspiracy of optimism” in regional timber management was the belief that we could have it all and did not have to make difficult choices or tradeoffs. Commercial timber harvest was seen as compatible with and supportive of almost all other forest uses. Timber harvests, we were assured, created wildlife habitat. It opened more land to recreation. It created greater snowpack and higher late summer steam flows, boosting fisheries and agriculture. It mimicked natural fires, creating a mosaic of openings. Commercial timber harvest made natural forests better while creating local jobs and income. As one critic put it, we discovered the high value of the “multiple-use clearcut.” And then it all went bust.

We now seem to be doing our best to drum up a new “enthusiasm” for harvesting trees that also threatens to be over taken by a new “conspiracy of optimism.” If we want to avoid a new destructive boom and bust cycle, we ought to take a few lessons from our unstable past history with timber harvests and be a bit more careful this time about ignoring important questions about the sustainability of what is being proposed.

The most recent enthusiasm for renewed timber harvest goes by the name “biomass” development, which simply means harvesting trees as fuel for electric generation. This relatively new focus on our forests as a substitute for fossil fuels is seen as complementary with the other themes for reviving the forest products industry in the Pacific Northwest: Improving forest health, ecosystem management, and hazardous fuel reduction. Timber harvest, done correctly, is seen as contributing to all

of these public interest objectives while also protecting forest and mill jobs. That certainly sounds eerily familiar.

So this time, before we charge forward with a new “conspiracy of optimism” that ends in a costly and damaging bust, why don’t we carefully and calmly explore the details of what is being proposed so that we can be confident that it is sustainable and relatively environmentally benign?

For wood-fired electric generation, aka biomass conversion, the questions are clear:

First, given the large size of some of the electric generators that have been talked about and the multiple units being proposed, let’s map out exactly where the timber harvest to fuel them will come from over the 20 to 30 year life of the facilities. See how far we have to go, how deep into the forest we will have to cut, what sort of new road systems into wildlands will be necessary, and what the transportation costs ultimately will be?

Second, let’s not engage in wishful thinking about the air emissions associated with large wood-burning facilities in inversion-plagued mountain valleys. We have had recent bad experiences with the Thompson River co-gen facility as well as waste incineration in the Three Forks area. Large boilers are not automatically built clean, as many communities around the nation have discovered. We have to **make** them clean.

Third, exactly how does the harvest of trees to be burned to generate electricity affect carbon emissions? Is it carbon neutral as so often claimed? Does it reduce carbon emission from forest fires? Recent scientific analysis raises serious questions about many of these claims that wood-fired generation is an environmental boon.

Asking such questions does not indicate opposition to the use of wood as a fuel. Rather, it indicates a desire to try to get our next use of our spectacular forested mountains and valleys right and break the cycle of repeated destructive booms and busts based on enthusiasm and optimism fueled largely by incomplete information and wishful thinking.