



Ten Biomass Myths

Our energy consumption is massive. Numbers with lots of zeros. This situation is important to keep in mind when thinking about how we are going to build a new energy infrastructure. Without a doubt, the current system is not going to work for too many more decades. Conservation and efficiency will be critical. Without them, little else is going to be effective. With that also in mind, we need to develop as many non-fossil fuel technologies as possible. All of them. Including wood.

Below are some of the wood energy myths gleaned from actual “news” reports and oppositionist websites.

1 Wood-fired power plants are no environmental cure-all. Of course not. No single energy source will be a “cure-all,” short of something yet undiscovered. However, wood energy, done properly, has an enormous potential. And for the most part, wood can be harvested with minimal, if any, negative environmental consequences. Inversely, many positive outcomes are derived from timber harvest. No one (except the oppositionists) has suggested that forests could replace all of our fossil fuel consumption.

2 Cutting down trees causes carbon to be released, which contributes to climate change. OK, this is sometimes true for the first several years following harvest, but after those forests have rebuilt their soil carbon capital (from atmospheric carbon), the regenerating forests actually absorb carbon at a faster rate than before. More importantly, combusted carbon released into the atmosphere is the same carbon that came from the atmosphere. It’s simply a matter of moving carbon among normal pools within the natural carbon cycle. Scientists are still working on the mechanics of this cycle, but the general picture seems to be reasonably clear. The big benefit of using wood, and other non-fossil fuel sources, is preventing long-buried carbon from fossil fuel combustion from entering the carbon cycle.

3 Ethanol takes more energy to produce than what you get. Almost certainly a myth when a complete life cycle assessment is used. Also, there is a large difference between ethanol from cellulose (e.g. wood) and ethanol from grains (e.g. corn). More important, again, is the displacement of fossil fuel consumption. Furthermore, consider the energy budgets of our current energy consumption. For example, coal-generated electricity, the bulk of our electricity, is grossly inefficient. That should make one think twice about the “greenness” of a plug-in electric car.

4 The emerging biomass industry will devastate our forests. Hmmm. If an owner and their forest could be so easily separated, it would have been done long ago. Simply because a new market emerges does not mean forest owners will be lining up to harvest their woodlands. In fact, recent research from Wisconsin and Pennsylvania suggests that providing wood for energy is not a significant motivator for future timber harvest. On public lands, the current forest management mechanisms will remain in place, with the addition of recently developed biomass harvest guidelines.

5 Wood energy doesn’t create many jobs. Not true. In Sweden, where wood based energy infrastructures are advanced, 250-300 jobs were created for each terawatt of wood energy. Michigan consumes 900 terawatts per year. Do the math. The jobs are not in utility facilities, which is often what opponents cite. The jobs are in the procurement, handling, and support within the feedstock supply chain. And these are local jobs that keep energy dollars local.

6 Energy plantations will displace land used for forests and food crops. Nonsense. First, it is far too expensive to clear forests for energy plantations. The financial and economic budgets for such plantations are already marginal. Second, revenue from energy plantations is not likely to be competitive with that of traditional food or forest crops, at least in the near term. Third, the place to grow energy crops is on some (not all) of the millions of acres of retired productive farmland.



7 Energy plantations will exhaust soil nutrients. Not likely. The bulk of research regarding soil nutrient capabilities suggests biomass harvesting on most of our soil types and in most of our forest types is feasible. However, there are some soil types and some forest types where caution will be required. This knowledge is built into biomass harvesting guidelines.

8 Wood-fired facilities present a health risk from air pollution. The Europeans have studied this extensively. Proper emission control technology, which is well understood and a relatively simple technology, reduces potential pollutants well below acceptable levels. Wood combustion, compared to other feedstocks, is among the cleanest available, especially when compared to coal, which is currently our largest source of energy in the U.S. The black sheep of the wood burning world are those backyard furnaces. Modern wood-fired facilities don't have those problems.

9 Energy fiber will consume sawlogs and pulpwood that would be better used for higher value-added products. Why would someone take a \$500 log and sell it for \$25? The market will determine where wood fiber goes. At this time, and well into the near future, energy markets will not typically be price-competitive with already existing wood markets. In reality, lower quality material lacks sufficient markets. There are huge volumes of currently non-commercial wood that could be sold into an emerging energy market.

10 There isn't enough wood out there to supply all the proposed projects. This is actually true, but it's also a bit of a lame-duck argument. Feedstock supply is just one item on a long list that determines if a project moves forward. Projects without feedstock won't happen.

Using wood to produce a portion of our energy demand has a lot of merit - environmentally, socially, and economically -- especially in forest-rich regions like ours. Building a new energy economy will not be easy, but it will be necessary. Challenges are known and are being worked on. Using science-based information and taking lessons from those more experienced will need to be important components of building our future.