

Forest Biomass: An Opportunity, Yes ... but Curb Your Enthusiasm

- Economies-of-scale conflict with sustainability. Bigger is better for the market, but smaller is better for the forest.
- Fuel reduction must be strategic, near communities. Not every acre.
- Long-term supply of small trees is not sustainable. The first entry may be economically attractive, but the next entry should be with fire, not machines.
- Electricity is a relatively low value use of wood.
- Biomass efforts must be coupled with other economic activities (e.g. logging) which may be counter to restoration objectives.
- Competing renewable energy sources (e.g. wind) are cheaper than forest biomass.
- Increasing transportation costs do not bode well for a remote and dispersed raw material supply.
- Power infrastructure limitations: Grid connection is difficult. Wheeling power from where it's generated to population centers is difficult, due to grid bottlenecks.
- Cellulosic Ethanol is still a pipe dream. The "magic bullet" enzymes may never be found. Genetic engineering may be required to make weaker fibers, but is it wise?
- Chip trucks generally can't be used on logging roads.
- After logging, a second entry for biomass extraction may have unacceptable cumulative impacts on soil, water, wildlife, & weeds.
- We need humility. Due to climate change we may have limited control over both fire and fuels.