### Activists Write

- "Per megawatt hour, biomass facilities emit more carbon dioxide than fossil fuel plants…"
- "Even when the regrowth of forests is taken into consideration, the extra carbon pollution from burning biomass will stay in the atmosphere for decades."
- "That's well beyond the time that we need to achieve emissions reductions to address climate change."

### The Science Says

#### Is biomass worse than fossil fuels?

- "[C]omparisons between forest biomass emissions and fossil fuel emissions at the time of combustions and for short periods thereafter do not account for long-term carbon accumulation in the atmosphere and can significantly distort or ignore comparative carbon impacts over time. ("Science Fundamentals")
- "[I]n the case of forest-derived fuels, as long as wood-producing land remains in forest, this short-term increase in emissions is reversed in essentially all cases, and in the long-term, the use of forest-based systems provides lower cumulative CO2 emissions than fossil fuel-based alternatives." (Journal of Forestry)
- "Using a time horizon of less than 100 years to judge the significance of emissions of biogenic CO2 implies that wood energy emissions are more damaging than fossil fuel-derived CO2 and other GHGs, which has no scientific basis." (Journal of Forestry)
- "[A 100-year measurement timeframe] provides a more accurate accounting ... [and] more appropriately demonstrates the cumulative carbon benefits of biomass energy compared to fossil fuels." ("Science Fundamentals")
- "[T]here is no evidence for global-scale tipping points in any of the most comprehensive models evaluated” (UN IPCC 2013).
- "[T]he relationship between cumulative emissions and peak warming is remarkably insensitive to the...timing of emissions or peak emission rate." (Allen et al. 2009)
- "[I]t is cumulative emissions over the entire century that to a first approximation determines the CO2 concentration at the end of the century, and therefore no individual year's emissions are critical. . ." (Bruckner et al. 2014)
- "Given the consensus on the importance of reducing long-term cumulative emissions, near-term increases in CO2 emissions should not be judged in isolation." (Journal of Forestry)

#### Should we focus on short-term or long-term carbon impacts?

#### Is biomass too late to combat climate change?

Direct quotations from recent letters to Congress signed by a number of eco-activist groups.

For more details on sources see: [http://www.biomass101.org/resources/](http://www.biomass101.org/resources/)