



**Comments to the Dept. of Energy Resources on
Clean Peak Standard (CPS) Straw Proposal of April 2nd
April 11, 2019**

Summary

The MA Sierra Club appreciates the opportunity to comment on the CPS Straw Proposal of April 2, 2019. Page 29 of the presentation contains a statement that is contrary to the emissions reduction requirement of the CPS: “Procurement should focus on facility types that may not have other sources of long-term financing available to them (e.g. most energy storage facilities, small non-solar renewable facilities such as AD or biomass, etc.)” DOER should remove preferential treatment of biomass in its implementation of the CPS and to the extent possible should prioritize the use of clean resources over biomass.

Purpose and Intent of CPS is Reductions in Greenhouse Gas Emissions

The Clean Peak Standard was passed in An Act to Advance Clean Energy ([H4857](#)) to “implement measures that are designed to result in cost-effective reductions in greenhouse gas emissions through the use of expanded electricity consumption while minimizing ratepayer costs.”

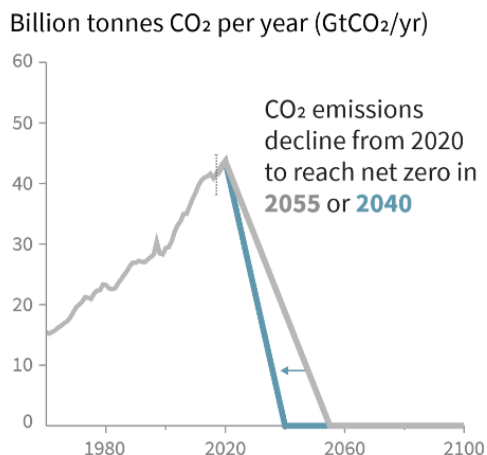
A clean peak program must reduce emissions. Proposed program elements that increase emissions have no place.

The Urgent, Immediate Need to Reduce Emissions

The UN Intergovernmental Panel on Climate Change (IPCC) report released in October 2018 paints a dire picture of the immediate consequences of climate change. The report is unequivocal in its assessment that we have only 12 years to reduce emissions by 45% from 2010 levels by 2030 to avoid the worst consequences of climate change. We have a climate crisis:

- In the past decade the US had the worst economic losses from climate-fueled disasters: \$944.8 billion (followed by China and Japan).
- Absent aggressive action many effects will arrive by 2040 and at lower global temperatures than previously thought.
- “We have wasted 15 years of response time. If we waste another five years of response time, the story gets worse. The longer you wait, the faster you have to respond and the more expensive it will be.

The IPCC chart of emissions increases since 1960 shows that we are required to dramatically and immediately cut emissions, not merely reduce the rate of increase.



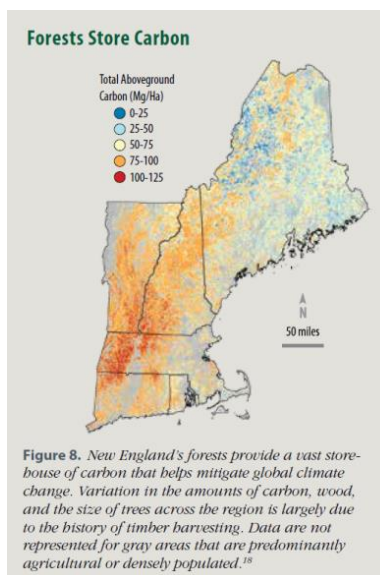
The IPCC report was written by 91 scientists from 40 countries who analyzed more than 6,000 peer-reviewed, scientific papers. More than 1000 scientists reviewed the findings. The 34-page Summary for Policy Makers was approved by all representatives from 195 nations, including the U.S. The US National Climate Assessment (Nov. 2018), written by 13 federal agencies, confirms the findings.

The Problems with Biomass

Problem 1: Biomass is a significant net source of CO2 emissions. Both garbage incinerators and biomass power plants release significant CO2 emissions at the stack per megawatt hour. A recent PFPI study shows that even in the industry's "best case" scenario, where only wood residues are burned for energy (as opposed to whole trees), biomass energy is a net source of carbon for decades¹. This finding is like other recent papers on bioenergy that demonstrate that burning wood for energy is not compatible with Paris Agreement goals to reduce carbon pollution in the coming decades. Net CO₂ emissions are large even under the biomass industry's best case scenario.

Problem 2: Trees and plants are the only effective means to take CO2 out of the atmosphere. The Harvard Forest report, "Wildlands and Woodlands²" (Sep. 2017) states that, "Annually, New England's forests take up a vast amount of carbon dioxide from the atmosphere, providing the critical service of mitigating climate change (Figure 8). Across the region this storage offsets approximately 20 percent of the total carbon dioxide that is released across New England through fossil fuel combustion". The chart shows (in red) that the forests of Massachusetts have the highest carbon storage rate in New England. Burning is thus doubly bad – in addition to the immediate CO2 emissions, we lose many future years of sequestration through tree loss.

Problem 3: The "renewable" aspect claimed for biomass is no longer valid. A small tree planted to replace a large tree will not



¹ <http://www.pfpi.net/biomass-energy-has-big-climate-impact-even-under-best-case-scenario>

² <https://wildlandsandwoodlands.org/sites/default/files/W&W%20report%202017.pdf>

achieve the same sequestration rate of the tree it replaced for a hundred or more years. The IPCC report is clear: We don't have that time. We must take bold action in the next 12 years.

Problem 4: Burning biomass has terrible health impacts. Combustion of biomass and solid waste releases fine particulates (soot) and other air pollutants. Low-income communities, communities of color, and sensitive populations such as children, the elderly, and people with respiratory ailments are at risk. Massachusetts already has the highest levels of particulate pollution in New England from residential wood burning. According to the most recent data from the National Emissions Inventory, wood-burning accounted for 83% of all Particulate Matter^{3,4} emissions from heating in Massachusetts in 2014, and a quarter of the state's total Particulate Matter emissions. There is a direct (if localized) health care cost to ratepayers from the use of biomass for electricity.

Conclusion

The Clean Peak Standard requires emissions reductions. Burning biomass is contrary to this purpose. It's net emissions are significant over the timeframe available for action on the climate crisis and its pollution increases cost to ratepayers for health care. Furthermore, it reduces the amount of CO₂ Massachusetts sequesters through its forests. The claim that biomass is a "renewable resource" is not valid. The time frame for action on the climate crisis is only a few years; we don't have time to grow replacement trees.

Therefore, DOER should not give preferential treatment to biomass. On the contrary, in the interest of Advancing Clean Energy DOER should use its regulatory authority to prioritize other forms of clean energy generation over biomass. Biomass should be the last choice for electricity.

³ <http://www.pfpi.net/massachusetts-tops-northeast-in-air-pollution-from-wood-burning>

⁴ <https://www.iso-ne.com/about/key-stats/resource-mix>