



National Wildlife Federation

11100 Wildlife Center Drive • Reston, VA 20190-5362 • 703-438-6000

May 17, 2021

Mr. John Wassam
Massachusetts Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

Re: RPS Class I and RPS Class II Rulemaking - 225 CMR 14.00 and 225 CMR 15.00 - Phase 2 Biomass Changes

Dear Mr. Wassam:

On behalf of the six million supporters of the National Wildlife Federation (NWF), we appreciate the opportunity to offer a wildlife and climate perspective on Massachusetts' RPS Class 1 & II Rulemaking (225 CMR 14.00 and 225 CMR 15.00) – Phase 2 Biomass Changes. As America's largest advocacy-based conservation organization, NWF is dedicated to protecting wildlife and habitat and to inspiring the next generation of conservationists.

The National Wildlife Federation has long supported sustainable uses of bioenergy that support climate change mitigation and the maintenance of wildlife habitat. Although we recognize that some of the proposed changes by Department of Energy Resources (DOER) to the RPS could help to facilitate the adoption of renewable energy, we urge caution: energy systems are known to be susceptible to "lock-in" as a result of the large and entangled technological, infrastructural, cultural, and financial systems around them.¹ Incentives and policies designed today may have impacts for decades to come. Thus, adequate safeguards and reasonable incentives are of paramount importance when it comes to bioenergy.

With regard to energy derived from woody biomass, we identify three main areas of concern: impacts on public health, accurate life cycle carbon accounting, and protection of biodiversity. Unfortunately, the newly proposed regulations are likely to leave each of these areas more vulnerable than before.

Public health considerations

We commend the DOER for its introduction of new regulations to prevent woody biomass energy combustion facilities from qualifying in the RPS when such facilities are located within a five-mile radius of environmental justice communities. The recent revocation of the permit for the Palmer Renewable Energy biomass facility in Springfield, MA after years of community resistance underscores the need to proactively consider impacts of such polluting facilities on overburdened communities.

Although these provisions to prevent disproportionate impacts to environmental justice communities represent a positive step forward, the need for such a provision in the first place illuminates a fundamental problem of bioenergy combustion: it results in the release of air pollutants in addition to carbon dioxide pollution. Bioenergy may be renewable and pollution control technology can be installed to reduce impacts, but wood fuels are fundamentally not clean. In contrast with other renewable energy technologies, bioenergy

¹ Seto, K. C., Davis, S. J., Mitchell, R. B., Stokes, E. C., Unruh, G., & Ürge-Vorsatz, D. (2016). Carbon Lock-In: Types, Causes, and Policy Implications. *Annual Review of Environment and Resources*, 41(1), 425–452. <https://doi.org/10.1146/annurev-environ-110615-085934>



National Wildlife Federation

11100 Wildlife Center Drive • Reston, VA 20190-5362 • 703-438-6000

combustion can result in emissions of particulate matter, hydrocarbons, carbon monoxide, nitrogen and sulfur oxides, dioxin-like compounds, and heavy metals, among other substances² known to negatively affect human health and well-being. Simply exchanging one polluting energy source for another does a disservice to Massachusetts residents in *any* community where such facilities are located, especially when cleaner energy production technologies exist at increasingly competitive costs.

Lifecycle greenhouse gas (GHG) emissions

Massachusetts was the first government body to establish meaningful life cycle accounting (LCA) guidelines for biomass, setting an example for other entities interested in including bioenergy in their renewable energy portfolios. The state's robust cradle-to-grave life cycle accounting introduced rigor and transparency to the evaluation of bioenergy's net effects on atmospheric emissions. However, we are deeply concerned about the proposed regulatory amendments, which remove this innovative—if intensive—method of determining net emissions impacts. Specifically, we recommend against the adoption of amendments that:

- **Remove requirements for Biomass Fuel Certificate, related to tracking, verification, reporting, and compliance:** By profoundly altering guidance around the Biomass Fuel Certificate, the proposed regulatory amendments would undermine the transparency and rigor around fuel sourcing and evaluation that has set MA standards apart for since 2012. Accurate information concerning feedstock specifics remains integral to assessment of net impact on emissions. The existing guidance from previous versions of the RPS should be left in place.
- **Remove of requirement for evaluation of lifecycle GHG emissions:** Similarly, the removal of guidance around LCA of feedstocks prevents accurate estimation of carbon impacts of various biomass feedstocks and prevents operators of Generation Units from discerning between high- and low-emissions feedstocks. In doing so, it contradicts the findings of the Environmental Protection Agency's Science Advisory Board (SAB) peer review of the agency's federal framework for assessing biogenic emissions, which stated: "There is considerable heterogeneity in feedstock types, sources and production methods and thus net biogenic carbon emissions will vary considerably."³ It also makes it challenging to understand the full impact of bioenergy use, especially related to fossil fuel use across the supply chain and the emission of methane and other potent non-CO₂ GHGs.⁴
- **Reduce efficiency requirements:** Efficiency of the biomass plant is critical to beneficial use of resources. The original law established that Generation Units must operate at 60% overall efficiency or better to be eligible for a full credit or better than 50% for a half credit. Newly proposed language in 15.05(1)(a)8.c would remove all efficiency requirements for Generation Units sourcing 95% or more of its fuel from Non-forest Derived Residues. According to the Department of Energy, there are over 200 combined heat and power installations in Massachusetts, offering great potential to operate with high efficiency standards. To ensure that bioenergy plays the most sensible role in MA's energy portfolio,

² Jenkins, B. M., Baxter, L. L., & Koppejan, J. (2019). Biomass Combustion. In *Thermochemical Processing of Biomass* (pp. 49–83). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781119417637.ch3>

³ SAB Review of Framework for Assessing Biogenic CO₂ Emissions from Stationary Sources (2011). (2012). U.S. Environmental Protection Agency, Washington, D.C. Available at: [https://yosemite.epa.gov/sab/sabproduct.nsf/0/57B7A4F1987D7F7385257A87007977F6/\\$File/EPA-SAB-12-011-unsigned.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/0/57B7A4F1987D7F7385257A87007977F6/$File/EPA-SAB-12-011-unsigned.pdf)

⁴ Jenkins et al., 2019



National Wildlife Federation

11100 Wildlife Center Drive • Reston, VA 20190-5362 • 703-438-6000

efficiency requirements should be maintained for all woody bioenergy generation, regardless of feedstock type and date of establishment.

Sustainable forestry requirements

Although including standards for sustainable forestry can be a valuable tool support wildlife, the lack of specific requirements in this section could leave forest ecosystems and the plants and animals they contain quite vulnerable. The new amendments would be difficult to enforce, as the language is broad. To address these concerns, we recommend re-evaluation of the following aspects of the new guidance on Sustainable Forest Management:

- **Indicators:** The proposed revisions in section 15.02 for the definition of “Sustainable Forest Management (SFM)” establish strong principles, including biological diversity, soil and water conservation, and ecosystem health. However, these principles are not paired with indicators to measure success. Providing terms without defining them allows for variance in interpretation. The revised regulations should establish specific indicators for each principle.
- **Certification and verification:** In section 15.05 (5)(a), independent verification “through the attestation of a licensed forester, certified forester, or independent certification” is required. We note that variation in guidance and standards provided by these entities varies, which further reduces certainty around climate and biodiversity benefits compared to the existing requirements for certification through the Forest Stewardship Council or other eligible entities. The revised policy should also include verification by a wildlife biologist to ensure that the principles on biological diversity and ecosystem health are met when sourcing is done in the absence of a reliable certification scheme. We also note that SFM verification does not necessarily translate to climate-beneficial. Projects that benefit wildlife can have a deleterious impact on the climate, which reinforces why it is critical that Massachusetts maintain its adherence to the LCA calculations it set forth in the original regulations.

To be successful, bioenergy must balance public health, climate change, and wildlife considerations. The proposed revisions to the RPS by DOER leave all three of these areas vulnerable. To protect public health, the provision protecting environmental justice communities should be adopted but no revisions that weaken air quality standards should be permitted. To shield biodiversity from unintended impacts, any changes to soil and forest harvest regulations for eligible feedstocks should require describe specific indicators and be paired with robust monitoring and verification. Lastly, to ensure that bioenergy is climate-beneficial, the revisions should maintain the rigorous tracking process to differentiate between feedstocks and maintain or increase efficiency requirements for power plants, regardless of age or feedstock type.

As proposed, these regulatory amendments will result in an unfortunate overhaul of what may be the most innovative and stringent bioenergy regulations in the world, with likely negative impacts on local air quality, forest ecosystem integrity, and efforts to reduce net emissions. We urge the DOER to incorporate the new language related to Generation Units in environmental justice communities, but to reject the sweeping changes to the Biomass Fuel Certificate and lifecycle accounting processes.

Sincerely,

National Wildlife Federation