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BY ELECTRONIC MAIL

Department of Energy Resources
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Boston, MA 02114
Attn: Attention John Wassam
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Re: Comments on Amendments to Renewable Portfolio Standard Class I and II Regulations, 225 C.M.R. §§ 14.00 *et seq.*, 15.00 *et seq.*

The Office of Attorney General Maura Healey (the “AGO”) appreciates the opportunity to offer these comments on the woody biomass provisions of the Massachusetts Department of Energy Resources’s (“DOER”) proposed amendments to 225 C.M.R. §§ 14.00 *et seq.*: *Renewable Energy Portfolio Standard – Class I*, 225 C.M.R. §§ 15.00 *et seq.*: *Renewable Energy Portfolio Standard – Class II*, and its proposed *Renewable Energy Portfolio Standard Guideline on Eligible Biomass Fuel for Renewable Generation Units* and *Draft Guideline on Overall Efficiency and Lifecycle Greenhouse Gas Analysis* (together, the “Proposed Amendments”).¹ The Proposed Amendments raise significant concerns about the potential for increased greenhouse gas emissions from biomass energy under the Commonwealth’s vital Renewable Energy Portfolio Standard (“RPS”) program and may undermine the Commonwealth’s nation-leading efforts to address climate change by achieving significant reductions in emissions over the short and long terms.

In these comments, the AGO provides (1) background information regarding Massachusetts’ climate policy and the emissions implications of woody biomass, (2) brief concerns about the legal implications of the Proposed Amendments to DOER’s RPS regulations, and (3) specific recommendations regarding the Proposed Amendments. The AGO urges DOER to reconsider its proposed changes to the woody biomass provisions of the Proposed Amendments as they appear to be inconsistent with Massachusetts climate policy and DOER’s statutory mandate to incentivize low-emission, advanced renewable energy.

¹ The AGO’s comments solely concern the Proposed Amendments related to woody biomass and do not address the other provisions of the Proposed Amendments.

Background

The AGO strongly supports Massachusetts's efforts to lower greenhouse gas emissions and promote clean, renewable energy. As the Fourth National Climate Assessment makes clear, the Earth's climate system is rapidly changing, almost wholly due to human activity, like deforestation and combustion of fossil fuels, that results in the emission of greenhouse gases.² Global annual average surface air temperature increased by 1.8 °F from 1901 to 2016, making this period “the warmest in the history of modern civilization.”³ Climate change presents a serious threat to the Commonwealth and its residents. According to recent research by the University of Massachusetts, the Northeast, including Massachusetts, will continue to see temperatures rise higher and more quickly than the rest of the United States and the world.⁴ Sea level rise, too, is projected to be higher on the East Coast of the United States than the global average.⁵ By 2100, Massachusetts is projected to experience between 4.0 and 7.6 feet of sea level rise relative to mean sea level from the year 2000, with up to 10.2 feet possible under a high-emissions scenario.⁶ Warmer temperatures, extended heat waves, flooding, changing precipitation, and increasingly severe weather events are already having significant impacts on public health, the environment, and agriculture in Massachusetts, causing billions in property damage and straining key infrastructure like the electrical grid.⁷

These accelerating climate harms underscore the need to reduce greenhouse gas emissions in the near term, as quickly as possible. According to the 2018 report of the Intergovernmental Panel on Climate Change, limiting global warming to 1.5 °C will require rapid—within the next ten to fifteen years—and far-reaching economy-wide transitions, including massive electrification of the economy with *carbon-free* fuels.⁸ Massachusetts law

² USGCRP, IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES: FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME II: REPORT-IN-BRIEF 4 (D.R. Reidmiller et al. eds., 2018), https://nca2018.globalchange.gov/downloads/NCA4_Report-in-Brief.pdf. The Fourth National Climate Assessment is a two-volume peer-reviewed assessment released by the U.S. Global Change Research Program coordinated by thirteen federal agencies and representing the work of over 200 governmental and nongovernmental experts. See USGCRP, CLIMATE SCIENCE SPECIAL REPORT: FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME I (D.J. Wuebbles et al. eds., 2017), available at <https://science2017.globalchange.gov/> (“FOURTH ASSESSMENT, Vol. I”); USGCRP, IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES: FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME II: REPORT-IN-BRIEF 1 (D.R. Reidmiller et al. eds., 2018), available at https://nca2018.globalchange.gov/downloads/NCA4_Report-in-Brief.pdf.

³ FOURTH ASSESSMENT, Vol. I, at 10, 13, 17 (Exec. Summ.), 39, 40 (Ch. 1), 78, 80-84 (Ch. 2).

⁴ Horton et al., *Northeast*, in CLIMATE CHANGE IMPACTS IN THE UNITED STATES: THE THIRD NATIONAL CLIMATE ASSESSMENT, 373 (2014), available at <http://nca2014.globalchange.gov/report/regions/northeast>.

⁵ FOURTH ASSESSMENT, Vol. I, at 10 (Exec. Summ.).

⁶ See NORTHEAST CLIMATE ADAPTATION SCIENCE CTR., MASSACHUSETTS CLIMATE CHANGE PROJECTIONS- STATEWIDE AND FOR MAJOR DRAINAGE BASINS 15 (Mar. 2018), https://nescaum-dataservices-assets.s3.amazonaws.com/resources/production/MA%20Statewide%20and%20MajorBasins%20Climate%20Projections_Guidebook%20Supplement_March2018.pdf.

⁷ See, e.g., *id.* at 4-6; MASSACHUSETTS DEP'T OF PUB. HEALTH, CAPACITY TO ADDRESS THE HEALTH IMPACTS OF CLIMATE CHANGE IN MASSACHUSETTS, 6 (Apr. 2014), available at <http://www.mass.gov/eohhs/docs/dph/environmental/exposure/climate-change-report-2014.pdf>; Horton, *supra*, at 379; Runkle et al., *Massachusetts State Summary*, NOAA TECHNICAL REPORT NESDIS 149-MA, 4 (2017), available at <https://statesummaries.ncics.org/MA>.

⁸ IPCC. 2018. GLOBAL WARMING OF 1.5 °C - SUMMARY FOR POLICYMAKERS, SPM-15-16, Sec. C.1.3. (approved by IPCC Oct. 6, 2018), available at http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf.

accordingly requires sweeping immediate and long-term emission reductions within the Commonwealth, mostly notably under the Global Warming Solutions Act (GWSA), G.L. c. 21N.

Working in collaboration with Massachusetts agencies, the AGO has a long history of legal advocacy to secure reductions in the greenhouse gas emissions that are the key driver of climate change. The AGO led the federal litigation that resulted in the United States Supreme Court's determination in *Massachusetts v. EPA* that greenhouse gases are pollutants and that EPA was obliged to regulate greenhouse gas emissions under the federal Clean Air Act if it found such emissions endanger public health or welfare. *See* 549 U.S. 497 (2007). In subsequent administrative proceedings and litigation, the AGO has worked closely with other states to advocate for and defend federal findings and regulations addressing climate change and to fight now-pending rollbacks of those policies.⁹

Here at home, the AGO has supported Massachusetts agencies' critical efforts to lower greenhouse gas emissions from numerous sources, including successfully defending the Massachusetts Executive Office of Energy Affairs ("EEA") and Department of Environmental Protection's ("DEP") recently promulgated declining emissions cap on the electric sector and its Clean Energy Standard ("Cap and CES Regulations"), 310 C.M.R. §§ 7.74-7.75, under the GWSA. *See New England Power Generators Ass'n v. Department of Env'tl. Prot.*, 480 Mass. 398 (2018). And through its advocacy on behalf of ratepayers, the AGO has sought to ensure that utilities and other participants in the energy markets make reasonable and prudent investments in clean energy initiatives while avoiding ratepayer subsidies for costly and unneeded fossil fuel infrastructure. With the timing and substance of federal climate action now in question, it is more critical than ever that the Commonwealth maintain and strengthen its leadership in cost-effectively reducing greenhouse gas emissions while demonstrating that the transition to clean energy promotes good-paying jobs, economic growth, and consumer savings.

It is in this context of climate crisis and the Commonwealth's and the AGO's shared interest and commitments to address that crisis that the AGO's concerns regarding DOER's Proposed Amendments arise. Unlike the zero-carbon technologies recognized under the RPS, forest biomass energy production—the burning of woody fuel from forests to generate electricity—is not a sustainable climate solution. It is not "carbon neutral," as EPA has recently claimed.¹⁰ In fact, burning forest biomass to generate electricity has the potential to *increase* greenhouse gas emissions if technologies, forest management, and fuel sources are not carefully

⁹ *See, e.g.,* California et al. v. EPA, No. 18-1114 (D.C. Cir. filed May 1, 2018); New York et al. v. EPA, No. 18-1174 (D.C. Cir. filed June 26, 2018); Comments of the Attorneys General of Massachusetts et al. on EPA's Proposed Revisions to the Refrigerant Management Program's Extension to Substitutes (Nov. 15, 2018), Doc. ID No. EPA-HQ-OAR-2017-0629-0300; Comments of the Attorneys General of New York et al. on EPA's Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program (Oct. 31, 2018), Doc. ID No. EPA-HQ-OAR-2017-0355-24817; Comments of the Attorneys General of California et al. on EPA's Proposed Review of Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (Mar. 18, 2019), Doc. ID No. EPA-HQ-OAR-2013-0495-12736.

¹⁰ Scott Pruitt, Administrator, Env'tl. Prot. Agency, Policy Statement: EPA's Treatment of Biogenic Carbon Dioxide Emissions from Stationary Sources that Use Forest Biomass for Energy Production, *available at* <https://www.epa.gov/air-and-radiation/epas-treatment-biogenic-carbon-dioxide-emissions-stationary-sources-use-forest>.

understood and regulated. As DOER’s own groundbreaking 2010 Manomet Study explains, *net cumulative emissions in 2050 of biomass electricity are approximately equal to those from equivalent electricity generated by coal burning*, and cumulative total emissions are substantially higher with biomass electricity generation than equivalent electricity generated by natural gas combustion—the dominant and marginal fuel in the New England electric grid.¹¹ Although some of the emitted carbon can eventually be resequenced through forest regrowth, that process takes decades and some emissions—like those resulting from the cutting, processing, transportation, and drying of woody biomass fuel—will never be offset.¹²

Harvesting of Massachusetts forests for bioenergy facilities also can have significant impacts on ecosystems and the long-term sustainability of important state industries such as recreation, tourism, and even forestry.¹³ And burning of biomass materials releases particulate matter and other harmful pollutants that have serious health effects in surrounding communities, especially in combination with other local pollution commonly experienced in environmental justice communities and in regions like western Massachusetts where wood-fired heating is widespread.¹⁴

Expanding subsidies for polluting biomass energy production without appropriate safeguards through a program meant to promote clean “renewable energy” would be inconsistent with the Commonwealth’s greenhouse gas emission reduction mandate. And, in light of the critical role forests play in mitigating emissions, the Commonwealth should be working to preserve and replenish our forests as important carbon sinks, not putting incentives in place to burn them as fuel. As discussed in more detail below, the AGO is concerned that the Proposed Amendments would promote and subsidize forest biomass energy production under the RPS program by removing or weakening the restrictions on woody biomass eligibility established in 2012, notwithstanding the legal and scientific imperatives to reduce greenhouse gas emissions as rapidly as possible.

Questions AGO Urges DOER to Consider Before Finalizing the Proposed Amendments

The Proposed Amendments raise several legal concerns that DOER should assess carefully before finalizing any rule, many of which relate to the central question whether the Proposed Amendments would result in increased greenhouse gas emissions. That complex question, however, has not yet been answered by DOER, because DOER has not yet modeled or assessed the likely emissions impacts of its proposed action. At the very least, DOER should take this opportunity to further extend the rulemaking process to comprehensively assess and model through a transparent, iterative public process both the effect of further biomass subsidies on electric market demand for biomass energy and the likely short- and long-term emissions impacts of each of its proposed changes against an accurate baseline. It is critically important for

¹¹ MANOMET CTR. FOR CONSERVATION SCIENCES, BIOMASS SUSTAINABILITY AND CARBON POLICY STUDY 7 (June 2010), *available at* https://www.manomet.org/wp-content/uploads/old-files/Manomet_Biomass_Report_Full_June2010.pdf (“MANOMET STUDY”).

¹² *See, e.g.*, Philip Duffy, Woods Hold Research Ctr., Burning wood for energy is not “carbon neutral” (Apr. 25, 2018), <https://whrc.org/burning-wood-for-energy-is-not-carbon-neutral/>.

¹³ MANOMET STUDY at 8.

¹⁴ *See, e.g.*, Naeher, L.P., Brauer, M., Lipsett, M., Zelikoff, J.T., Simpson, C.D., Koenig, J.Q. & Smith, K.R., Woodsmoke health effects: a review, *Inhalation Toxicology* 67-106 (2007).

the Commonwealth to have an accurate understanding of the actual greenhouse gas emissions impacts of each of the Proposed Amendments in isolation and in combination, because finalizing any rule that would result in an emissions increase would likely conflict with the Commonwealth’s legal frameworks for reducing emissions in both the near and long terms—a course that would benefit neither DOER nor the Commonwealth’s ability to rapidly decarbonize its electric sector in the face of an ever more urgent climate emergency.

First, to the extent the Proposed Amendments could lead to an increase in greenhouse gas emissions, they would run counter to the Commonwealth’s obligation to “attain actual, measurable, and permanent emissions reductions” under the GWSA. *Kain v. Department of Env’tl. Prot.*, 474 Mass. 278, 300 (2016). The GWSA “is designed to make Massachusetts a national, and even international, leader in the efforts to reduce the greenhouse gas emissions that cause climate change.” *New England Power Generators Ass’n, Inc.*, 480 Mass. at 399. The statute accordingly requires the Commonwealth and its agencies to reduce statewide greenhouse gas emissions by at least eighty percent below 1990 levels by 2050 and to meet interim declining limits every decade along the way to maximize the Commonwealth’s ability to meet the 2050 target. G.L. c. 21N, § 3(b); *see also id.* § 6 (“In implementing its plan for statewide greenhouse gas emissions limits, the commonwealth and its agencies *shall promulgate regulations that reduce energy use, increase efficiency and encourage renewable sources of energy in the sectors of energy generation, buildings and transportation.*” (emphases added)). And, pursuant to that mandate, the Secretary of EEA has directed that Massachusetts reduce statewide greenhouse gas emissions by at least twenty-five percent below 1990 levels by 2020.¹⁵

DOER’s RPS program is a key component of the Commonwealth’s efforts to meet the GWSA’s interim and 2050 limits by incentivizing renewable energy sources while phasing out dirtier fuel. Indeed, it is important not only as a climate policy in its own right but also as a foundation for EEA and DEP’s implementation of the GWSA through its Cap and CES Regulations and DEP’s regulations of other sources of emissions. *See id.* § 3(c)-(d); 310 C.M.R. §§ 7.72-7.75 & 60.05-60.06. If the Proposed Amendments would, by expanding subsidies for biomass energy, increase greenhouse gas emissions, the RPS program would be inconsistent with the GWSA’s near- and long-term emissions-reduction mandates and its core “anti-backsliding” purpose.¹⁶

Second, to the extent the Proposed Amendments would increase greenhouse gas emissions, they may be in significant tension with the RPS statute. In particular, the statute requires that qualifying renewable energy generating sources include only those biomass facilities that use “low emission advanced biomass power conversion technologies.” G.L. c. 25A, §§ 11F(b)(8), (c)(7), and (d)(8). If DOER weakens its existing biomass eligibility and

¹⁵ *See generally* Secretary of Energy and Env’tl. Affs., 2015 Update of the Clean Energy and Climate Plan for 2020 (Dec. 31, 2015), *available at* <https://www.mass.gov/files/documents/2017/12/06/Clean%20Energy%20and%20Climate%20Plan%20for%202020.pdf>.

¹⁶ *See* G.L. c. 21N, § 3(b), (d) (requiring adoption of declining statewide emissions limits and declining source category emissions limits, respectively); *Kain*, 474 Mass. at 287 (noting GWSA’s “central purpose” is “reducing emissions in the Commonwealth”); *see also* *Sierra Club v. Ruckelshaus*, 344 F. Supp. 253, 256 (D.D.C. 1972) (interpreting Federal Clean Air Act’s purpose to prohibit degradation of existing air ambient air quality), *aff’d sub nom. Fri v. Sierra Club*, 412 U.S. 541 (1973).

efficiency requirements, its regulations may exceed the scope of their enabling legislation and newly eligible facilities may no longer actually qualify as “low emission” and “advanced” within the meaning of the statute.

Third, DOER has not fully explained its rationale for or the impact of many of the changes in the Proposed Amendments. For example, DOER has not explained why “align[ing]” the RPS requirements with Alternative Energy Portfolio Standard requirements or “simplify[ing] and streamlin[ing]” the regulatory requirements is important or preferable notwithstanding potential emissions increases.¹⁷ Additionally, as set forth above, DOER has not yet completed any rigorous assessment of the energy market and greenhouse gas emissions impacts associated with the Proposed Amendments, including any analysis of whether the proposed changes would affect Massachusetts’ ability to achieve its statutory emission-reduction mandates. In this regard, EEA and DEP’s recently promulgated Cap and CES Regulations may serve as a useful guidepost. Before finalizing those rules, EEA and DEP compiled an extensive rulemaking record and commissioned an independent analysis of the electricity bill and greenhouse gas emissions impacts of the regulations¹⁸—analyses on which the Supreme Judicial Court relied in upholding the regulations. *See New England Power Generators Ass’n, Inc.*, 480 Mass. at 408-10. The AGO urges DOER to conduct a similarly robust assessment—informed by public input and review—to ensure any final amendments comport with the GWSA, the RPS statute, and the Commonwealth’s nation-leading emissions-reduction and public health goals.

Specific Recommendations – 225 C.M.R. §§ 14.00 *et seq.*, and 15.00 *et seq.*

As the above discussion makes clear, it is critical that any changes to DOER’s RPS regulations do not increase greenhouse gas emissions. The AGO appreciates that DOER’s Proposed Amendments in some respects appear to tighten the regulations and potentially strengthen eligibility requirements for RPS Class I and II Renewable Generation Units.¹⁹ But multiple proposed changes appear to relax regulatory requirements and efficiency standards and may, for example, allow units with increased greenhouse gas emissions to qualify for Renewable Energy Credits or to receive more Renewable Energy Credits per megawatt hour of generation, thus potentially increasing emissions overall.

The AGO is particularly concerned about the following proposed changes and urges DOER to carefully assess and explain their impact before finalizing any rule:

¹⁷ DOER Memorandum to RPS/APS Stakeholders, *available at* <https://www.mass.gov/files/documents/2019/05/15/RPS%20and%20APS%20Stakeholder%20Announcement.pdf>.

¹⁸ EEA and DEP Response to Comments on 310 C.M.R. §§ 7.74-75 (Aug. 2017), *available at* <https://www.mass.gov/files/documents/2017/08/zo/3drtc-electricity.pdf>; Synapse Energy Economics Inc., Analysis of Massachusetts Electricity Sector Regulations: Electricity Bill and CO2 Emissions Impacts (Aug. 2017), *available at* <https://www.mass.gov/files/documents/2017/08/zw/3dapp-study.pdf>.

¹⁹ *See, e.g.*, Proposed 225 C.M.R. § 14.02 (defining eligible biomass woody fuel to include trees incapable of yielding an eight-foot, rather than a twelve-foot, saw log; eliminating current eligibility for yard waste and trees cut during non-agricultural land use change); *id.* § 14.05(8)(f) (replacing five-year probationary period with one-year period followed by revocation of Statement of Qualification if compliance not achieved; eliminating facilities’ ability to pay DOER to retain Statement of Qualification in lieu of compliance).

- **Adding “Eligible Biogas Fuel,” 225 C.M.R. §§ 14.02, 15.02:** The AGO urges DOER to specifically list the types of biogas that would be eligible under this definition beyond the currently eligible anaerobic digester gas and derivative biogases.
- **Expanding “Eligible Biomass Woody Fuel,” 225 C.M.R. §§ 14.02, 15.02:**
 - The AGO is concerned that DOER’s proposed addition of trees collaterally damaged during harvesting and entire trees and portions of trees harvested during rare species restoration and management could significantly expand the pool of eligible forest-derived residues, threatening to increase net greenhouse gas emissions from related energy production.
 - The AGO further urges DOER to retain the clear limitation that an injurious agent be a “major” threat to forest health or risk to private or public resources to render trees damaged by that agent eligible forest salvage. This qualifier is particularly important to ensure that the increased risks to forest health from climate change—like insect infestations—do not drastically expand the pool of available forest salvage fuel.
 - Additionally, adding agricultural wood waste (including whole trees) and post-consumer wood, as well as eliminating the concrete list of eligible forest products industry residues in favor of a general, vague definition, would increase the pool of eligible non-forest derived residues with new fuels that, again, could increase net greenhouse gas emissions.
 - Importantly, the Proposed Amendments’ expansion of forest salvage and non-forest derived residues is particularly concerning in light of DOER’s proposal to altogether eliminate the efficiency requirement for facilities burning such materials, as discussed below. *See* 225 C.M.R. § 14.05(1)7.c., (8)(b)1.-2. As the chief author of the Manomet Study explained in his comments on this rulemaking, the Manomet Study did not assess the complex question of how burning forest salvage will affect greenhouse gas emissions.²⁰ And DOER has not assessed how much wood might qualify as eligible salvage. DOER must fully understand these issues before finalizing the Proposed Amendments.
- **Deleting definition of “Dedicated Energy Crops,” 225 C.M.R. §§ 14.02, 15.02:** Deletion of the limitation that wood purposefully grown to produce fuel may not be grown on land that sequestered significant amounts of carbon, such as a forest, could result in deforestation of valuable carbon-rich lands, particularly in light of the vague sustainable forestry management standards and reduced efficiency standards discussed below.
- **Amending definition of “Eligible Liquid Biofuel,” 225 C.M.R. §§ 14.02, 15.02:**
 - The AGO urges DOER to clarify that it intends to incorporate only the Federal Clean Air Act’s definition of advanced biofuels, 42 U.S.C. § 7545(o)(1)(B) (requiring 50% reduction in lifecycle greenhouse gas emissions from a 2005 baseline), and not to incorporate any other EPA standards for such fuels, EPA accounting methods, or EPA determinations that specific fuels so qualify.
 - The AGO also urges DOER to (1) retain the requirement that DOER consult with EEA and DEP in determining whether fuels meet that definition in light of EEA and DEP’s expertise and statutorily mandated role in designing and implementing

²⁰ Comments of Thomas H. Walker, Consulting Resource Economist, on DOER RPS Class I & II Rulemaking 2-3 (June 4, 2019).

the Commonwealth's emissions-reduction policies, G.L. c. 21N, §§ 2-5; and (2) retain the requirement that DEP determine whether hazardous waste may be used as eligible fuel, again given DEP's expertise and statutory role in regulating such materials, G.L. c. 21C, § 4.

- Finally, the AGO is also concerned that deletion of the limitations on derivative waste feedstocks could increase the available pool of eligible fuels.
- **Deleting definition of “Lifecycle Greenhouse Gas Emissions,” 225 C.M.R. §§ 14.02, 15.02:** The AGO urges DOER to retain the existing definition of “Lifecycle Greenhouse Gas Emissions” to provide clarity within the regulation itself on what such emissions must include and to retain the requirement that DOER consult with DEP—again, as an expert agency in emissions impacts—in determining lifecycle emissions.
- **Expanding definition of “Useful Thermal Energy,” 225 C.M.R. §§ 14.02, 15.02:** DOER should clarify that a facility is not permitted to count energy used to dry biomass fuel as useful thermal energy—whether the produced fuel is then used at that same generating unit or at any other unit.
- **Deleting air permit compliance requirement, 225 C.M.R. § 14.05(1)(a)7.:** To ensure the RPS program does not subsidize environmental harm in the Commonwealth, DOER should retain in the Class I regulations the requirement that certain generating units affirmatively demonstrate not only that they have obtained—but also that they have complied with—air permits to qualify as an RPS Class I Renewable Generation Unit.
- **Lengthening timeframe for calculating lifecycle greenhouse gas emissions, 225 C.M.R. §§ 14.05(1)(a)7.d., 15.05(1)(a)7.d.:** The AGO strongly urges DOER to abandon its proposal to extend from twenty to thirty years the period for evaluating the reduction of lifecycle greenhouse gas emissions as compared to a new natural gas combined cycle unit. Such extension could inflate the offsetting benefits from forest regrowth and the foregone carbon emissions resulting from decomposition over the longer period, potentially making biomass energy appear more efficient overall. Additionally, extending the timeframe would contradict recent science confirming the need to reduce emissions in the very near term.
- **Calculating Lifecycle Greenhouse Gas Emissions, Draft Guideline on Overall Efficiency and Lifecycle Greenhouse Gas Analysis:** DOER's Draft Guideline on Overall Efficiency and Lifecycle Greenhouse Gas Analysis likewise appears to overestimate the efficiency of biomass energy by calculating the emissions associated with burning biomass fuel based on a single year of emissions rather than the cumulative emissions over the full revised thirty-year period. Instead, as the chief author of the Manomet Study explained in his comments on this rulemaking, the calculation of lifecycle greenhouse gas emissions should assess the *actual* future levels of greenhouse gases in the atmosphere, including the continued release and build-up of emissions in the atmosphere over the full twenty- or thirty-year period at the same time that it assesses reabsorption over that period.²¹
- **Reducing and eliminating efficiency requirements, 225 C.M.R. §§ 14.05(1)(a)7.c., 14.05(8)(b)1.-2., 15.05(1)(a)8.c., 15.05(5)(b)1.-2.:** The AGO strongly urges DOER to abandon its proposal to reduce the Class I eligibility efficiency requirement from 60% to 50% for units that have 5% or more fuel sourced from forest-derived residues and forest-

²¹ See *id.* at 2-3.

derived thinnings and to altogether eliminate any efficiency requirement for Class I or II units that utilize fuel that has over 95% of its fuel sourced from forest salvage and non-forest derived residues. As noted above, this proposed change is particularly troubling in light of the Proposed Amendments' significant increase in the pools of such eligible fuels—including the potentially massive additional forest salvage that may result from climate change—and the poorly understood emissions impacts of burning such materials.²² DOER's proposed efficiency requirements would plainly relax the emissions standards applicable to RPS Class I or II Renewable Generation Units and be a step in the wrong direction for the Commonwealth.

- **Incorporating vague sustainable forestry provisions, 225 C.M.R. §§ 14.02, 14.05(8)(a), 15.02, 15.05(5)(a):** While DOER's sustainable forestry management provisions reflect important concerns like conservation of biological diversity and maintenance of forest contributions to global carbon cycles, they appear to lack any enforceable detail. The AGO urges DOER to revisit the definition of "Sustainable Forestry Management" in consultation with EEA, DEP, and the Division of Fisheries and Wildlife to add concrete, measurable requirements for forest management for each listed criterion.
- **Reducing oversight, 225 C.M.R. §§ 14.05(8), 15.05(5):** The Proposed Amendments would appear to eliminate the advisory panel consisting of representatives of EEA and DEP, among others, to monitor processes for verification of compliance with the regulations and to report on the success of DOER's verification and enforcement. The Proposed Amendments also appear to eliminate the requirements that DOER's forest impact assessment evaluate the appropriateness and accuracy of greenhouse gas accounting and that its report be provided to EEA and the public by a date certain. The AGO urges DOER to retain these important provisions to ensure agency and public oversight and accurate accounting of the regulations' emissions impacts.

²² See *id.* at 4.

Conclusion

As the Supreme Judicial Court recently emphasized, Massachusetts climate policy “is designed to go well beyond business as usual in terms of reducing emissions: to upend, rather than to uphold, the status quo.” *New England Power Generators Ass’n, Inc.*, 480 Mass. at 406. Incentivizing additional forest biomass energy production would be a step backward, not forward, in this effort. The AGO looks forward to further productive dialogue with DOER toward addressing climate change and securing a clean energy future for the Commonwealth.

Respectfully submitted,

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