

MassDEP Discussion Document
Strengthening the Clean Energy Standard
December 2023

MassDEP is seeking stakeholder input on options for strengthening the Massachusetts Clean Energy Standard (CES). As required by the CES regulation, 310 CMR 7.75, a CES program review was completed in 2021. However, since that time Massachusetts has published the Clean Energy and Climate Plan for 2025 and 2030 (2025/2030 CECP), the 2050 CECP, and sector based GHG emissions limits for electric power in 2025 and 2030. Therefore, MassDEP is initiating a supplemental program review to consider options for strengthening the ability of the CES to support clean energy development in line with the latest CECPs and GHG emission sublimits.

MassDEP requests comments by January 19, 2024, and will hold virtual stakeholder meetings on January 11 at 11AM and 5PM (advance registration required). Registration information and additional information about the CES is available on MassDEP's CES web page at <https://www.mass.gov/guides/clean-energy-standard-310-cmr-775>. Comments and questions may be submitted by email to climate.strategies@mass.gov.

MassDEP requests comment on the following options for strengthening the CES:

Options for Strengthening the Standard: These options would increase the ability of the CES to bring new clean energy on line and ensure that it is counted toward Massachusetts' clean energy goals.

- **Increase the CES ACP rate.** MassDEP could raise the alternative compliance payment (ACP) rate. Raising the ACP rate would have two distinct benefits. First, raising the ACP rate could increase the market price of clean energy certificates (CECs). Because higher CEC prices make clean energy projects more profitable, this would tend to support development of additional clean energy. Second, raising the ACP rate to a level consistent with (or higher than) other regional programs would better ensure that when the regional supply of clean energy increases due to Massachusetts' clean energy contracts, the increase in regional supply is fully counted toward Massachusetts' clean energy goals vs. those of other states that have similar programs with higher ACP rates.
- **Dedicate CES ACP funds to supporting new CES-eligible projects.** ACPs occur when there is not enough clean energy in a particular year to satisfy all of the New England states' energy standards. In such cases, obligated electricity suppliers comply by making payments to MassDEP instead of purchasing CECs from clean energy generators. As a result, funds that would otherwise support clean electricity are deposited into the Climate Protection and Mitigation Expendable Trust (the "Trust") and may be spent on other projects or programs in addition to clean energy projects. One option for better targeting ACP funds to clean energy projects could be to offer and award competitive grants to project developers in exchange for future CECs that would be retired to make up for the CEC deficit that led to the ACP payment. For example, ACP payments received for compliance year 2028 could be used to support construction of a clean energy project that will generate electricity beginning in 2030, with some or all of the projects'

CECs retired by MassDEP to compensate for the 2028 shortfall rather than sold for use to meet the standard in later years. Another option could be to amend the regulation to include a general requirement that ACP funds be retained by MassDEP for use by MassDEP to purchase additional CECs (i.e., above the CES requirement) in future years when CECs are available at lower prices. Both options could be effective because the resulting increase in demand for CECs in future years would tend to support future CEC prices, thereby increasing confidence that future CEC revenue can contribute meaningfully to project economics. The two options are not mutually exclusive and could be implemented in combination depending on market conditions.

- **Add a new project requirement:** To better support deployment of new clean generation resources, MassDEP could amend the CES to add a “recent vintage” requirement. For example, the regulation could require that some fraction of each year’s compliance obligation be met with CECs from generation with a commercial operation date in the prior three years. To be effective, this requirement would need to have a relatively high per-MWh ACP rate, thereby allowing new projects to quickly recoup construction costs. A 3-year time period would also be compatible with contracts that retail electricity sellers make with their customers, as these contracts often do not extend more than three years. Limiting the requirement to 3 years would also avoid providing unnecessary support over the operational life of projects.
- **Require long-term planning.** To provide more certainty to clean energy generators than current certificate markets, MassDEP could amend the CES to add some form of planning requirement, such as a requirement that a certain percentage of the compliance obligation be met via multi-year contracts with clean energy generators. One option for implementing such a requirement could be the creation of an organized regional or Massachusetts-specific auction process for advance purchases from planned projects.

Options for More Comprehensive Clean Electricity Accounting: These options would make the CES percentage standard more reflective of the fraction of non-MLP¹ Massachusetts electricity consumption that is served by clean energy. This would allow the CES to be used to “lock in” a particular percentage standard instead of requiring analysis of contributing components and load projections to estimate the overall effect of the CES.²

- **Adjust for electricity consumption at sites with behind-the-meter generation.** MassDEP could amend the CES to include an adjustment to each year’s compliance obligation to better capture electricity consumption at sites with behind-the-meter generation, such as rooftop solar installations.³ Under the current CES program structure, this generation may be credited toward compliance, but the portion of the energy used on site is not included in the basis of the compliance obligation because it is never sold. For example, if this energy is estimated to account for 5% of total electricity consumption in the state in a year, this could be addressed by requiring retail electricity sellers to adjust their sales upward by 5% when calculating their CES

¹ The CES does not include clean energy requirements for Municipal Light Plants.

² See <https://www.mass.gov/doc/frequently-asked-questions-massdep-clean-energy-standard/download>, Q8.

³ MassDEP would need to develop a methodology for estimating the appropriate adjustment factor. Note that this adjustment factor approach would build on the process currently used to calculate CES compliance obligations inclusive of line losses in that it would allocate electricity consumption that is not directly measured by customer meters among retail electricity sellers so that it can all be included in compliance obligations.

compliance obligations. That way, in the year when the standard is 60%, there would be enough clean energy to cover 60% of total electricity consumption (vs. only retail sales).

- **Redefine the numerical percentage standard.** The CES currently includes the CES and CES-E as additive requirements, each expressed as a percent of electricity sales. The CES standard is set in regulation as a particular percentage of electricity sales each year. However, the CES-E percentage is established using electricity sales from four years before the compliance deadline to maintain the contribution of existing generators over time on a MWh basis. Therefore, the total (CES + CES-E) percentage cannot be known for a future year until the CES-E percentage is finalized. For example, at this time, the 2030 CES standard is set at 60% but the CES-E standard can only be estimated based on projected electricity sales. As electricity sales begin to rise rapidly due to electrification, it may be useful to specify the total amount of clean energy contributed by both program requirements further in advance. For example, a total standard of 95% could be established in regulation for a future year; then, if the CES-E contribution was determined to be 22% in that year based on electricity sales, the CES would automatically be set at 73% so that the sum of both components would equal 95%.
- **Count hydropower used to comply with MA RPS Class II toward CES-E compliance.** Hydropower is generically recognized under the CES-E as clean energy, but hydropower used to comply with the MA Renewable Portfolio Standard (RPS) Class II program is not currently counted toward CES-E compliance. A possible way to address this would be to simply count MA RPS Class II compliance toward CES-E compliance on a percentage basis. For example, under this approach, in 2025, for which the CES-E standard has been set at 26% and the MA RPS Class II standard has been set at 3.6%, complying with CES-E would only require electricity sellers to hold CES-E eligible certificates representing 21.4% of their electricity sales. A corresponding increase in the CES-E standard could be used to avoid reducing the combined impact of the MA RPS Class II and CES-E standards. Note that the purpose of this change would be to simplify clean energy accounting by making the CES percentage standard more reflective of the total fraction of Massachusetts electricity consumption that is served by clean energy, not to substantively change the clean energy requirements.
- **Improve the ability of the CES to deliver clean energy when it is needed.** Currently there is no requirement that clean electricity counted under the CES be generated when there is corresponding demand for electricity in Massachusetts. One option for improving the timing of CES clean energy generation would be to exclude clean energy generated during periods of negative wholesale electricity prices from generating CECs. This would avoid rewarding the production of clean electricity when it is not needed. Another option would be to transition the CES to quarterly or monthly compliance periods such that the clean electricity used for compliance would need to be generated in the quarter or month when the electricity sales occurred. This change could be particularly useful in supporting the transition to clean heat because it would require adequate clean generation supply in winter months.

Other potential program improvements

- **Update CES eligibility criteria.** For resources that do not qualify for RPS, CES eligibility currently requires a 50% reduction in GHG emissions relative to an existing efficient natural gas-powered

facility on a lifecycle basis. Recently proposed EPA standards⁴ will require certain natural gas-fired facilities to capture 90% of their carbon dioxide emissions, a benchmark that is more stringent than the CES's 50% reduction standard. Therefore, it may be appropriate to update the CES eligibility benchmark to require that lifecycle emissions be no higher than a facility that meets the new EPA standard vs. 50% lower than an existing facility. This update would also provide an opportunity to clarify that biomass energy that does not qualify for the RPS Class I program is not eligible for CES.

- **Just transition fee.** MassDEP could consider requiring all or a subset of qualifying clean energy resources to pay a fee associated with CES qualification, CEC transfers, or the use of CECs for compliance. The fees collected would then be used to support equitable siting of CES-eligible projects, such as solar on rooftops in low-income communities.

⁴ <https://www.epa.gov/system/files/documents/2023-05/FS-OVERVIEW-GHG-for%20Power%20Plants%20FINAL%20CLEAN.pdf>