

MassDEP Stakeholder Discussion Document

Expanding the Clean Energy Standard

February 2019

The Clean Energy Standard (CES) regulation, 310 CMR 7.75, requires utilities and competitive suppliers to procure certificates to demonstrate the use of clean energy to generate the electricity that they sell in Massachusetts.

- Qualified clean energy includes post-2010 low-emitting generation, Renewable Portfolio Standard (RPS) Class I qualified generation, and generation procured pursuant to the 2016 Energy Diversity Act.
- The standard increases 2% per year, from 16% in 2018 to 80% in 2050 (of which RPS requires 13% in 2018 and 55% in 2050).
- The regulation includes an alternative compliance payment (ACP) option, based on 75% of the RPS Class I ACP amount in 2018-2020, and 50% thereafter.

The purpose of this document is to support stakeholder discussion of options for expanding the CES to achieve additional emissions reductions in support of the Global Warming Solutions Act.

For background information, see <https://www.mass.gov/guides/clean-energy-standard-310-cmr-775> for information on the CES, including the 2017 discussion document and stakeholder comments referenced in the footnotes. Information about participating in the stakeholder process is also available on MassDEP's CES web page.

MassDEP is seeking stakeholder input on increasing the stringency of the standard, applying the CES to municipally-owned utilities, and including existing clean generation resources. Please note that another opportunity to provide input will occur in 2021, when MassDEP is required by regulation to complete a full review of the CES program.

Increasing the standard

Increasing the standard above the current regulatory requirement of 20% in 2020, for example to 21% or 22%, could provide additional reductions to help ensure compliance with GWSA emissions limits. Market conditions indicate that sufficient supply exists in the regional certificate market to support a small increase in the standard in 2020 and 2021 without triggering the use of ACPs for compliance.

Municipally-owned utilities

Emissions from generating electricity sold by municipal utilities (MLPs) are reported to MassDEP under 310 CMR 7.75 *Clean Energy Standard*, as required by the GWSA, and are included in MassDEP's statewide GHG emissions inventory.

The CES requirements could be applied to MLPs beginning in 2021, with the following potential modifications to address unique circumstances of MLPs:

- The standard could be reduced, or phased in more slowly, in recognition of the fact that MLPs are not subject to RPS or the 2016 Energy Diversity Act and may need more time to comply.
- Certificates representing clean generation output purchased or owned under existing contracts with pre-2010 non-emitting generators (e.g., hydro, nuclear) could be counted toward compliance.¹
- An applicability size threshold could be established to exclude the smallest MLPs.

As an alternative to requiring MLPs to comply with a percentage standard in 2021, a monitoring-only approach could support voluntary action by MLPs and inform future regulatory requirements, and include:²

- Expanding GHG emissions reporting provisions to require MLPs to report all their use and ownership of clean and emitting generation, rather than continuing the current optional reporting of such generation.
- Amending CES program review provisions to include assessment of whether a regulatory percentage standard is necessary to ensure that all MLPs are appropriately reducing emissions.

A third alternative could be to simply re-propose the MLP requirements that were proposed in 2016. These requirements, including a gradual phase-in schedule starting at approximately 6% in 2021 and rising to 80% in 2050, are summarized in the file titled “Background Document” on the CES web page.

Existing clean generation resources

Under the GWSA, “statewide GHG emissions” is a defined term that includes emissions from the consumption of electricity “whether the electricity is generated in the commonwealth or imported.” Currently, new clean energy procured pursuant to CES and RPS reduces emissions, in part, by replacing electricity imports that are generated by a mix of emitting and non-emitting generators. Therefore, a policy that encourages retention of existing non-emitting imports would help ensure that new clean energy replaces emitting generation and reduces emissions. A “CES-E” could accomplish this if it were structured to:

- Set a CES-E standard of 15%, consistent with recent historical data.³
 - A mechanism would be needed to adjust the percentage to maintain the amount of MWh required if electricity sales change (e.g., if load were to double, the percentage

¹ If a CES-E were adopted, excess certificates could also be eligible for use for compliance with CES-E obligations.

² This was not included in the 2017 stakeholder discussion document. It would be responsive to stakeholder comments regarding a voluntary clean energy program for MLPs.

³ 15% of recent electricity sales would be 7.5 – 9.0 TWh per year, depending on whether MLPs are included. This is significantly less than recent historical clean imports from NH (Seabrook) and Quebec, reflecting a “conservative” policy that would allow some variation in the level of “existing” imports over time. For comparison, using a method consistent with the MassDEP GHG inventory, clean imports from NH and Quebec were approximately 2-3 TWh and 10 TWh, respectively, in 2014.

standard would need to be reduced by half to maintain the same quantity of clean energy).⁴

- Allow clean energy generators to qualify if they:
 - Do not qualify as clean generation units under the CES because they commenced operation before 2010.
 - Meet the CES emissions standard, but have not generated certificates or energy used for compliance with other clean energy programs in the prior five years (i.e., nuclear, large imported hydro, possibly some smaller hydro generators).⁵
 - Are located in a state or adjacent control area that has consistently been a significant exporter of clean energy to Massachusetts, on a net annual basis (i.e., Quebec and NH).
 - Additionally, inclusion of existing non-emitting generators in Newfoundland or Labrador that can track imports through Quebec into New England could also be considered, as these generators are not connected to other control areas, and their addition to the program could lower costs by creating competition among generators that can support maintaining existing imports from Quebec.⁶
 - Do not have an announced retirement date (i.e., the Pilgrim nuclear power plant would not qualify).⁷
- Include special provisions for the Seabrook nuclear power plant, including to prevent “shuffling” of additional Seabrook MWh to MA over time and to address possible pre-2050 retirement:
 - The use of Seabrook certificates could be limited to 5% of sales,⁸ consistent with recent historical net electricity output from New Hampshire.⁹
 - Should Seabrook retire, certificates from CES-qualified clean generation units (i.e., post-2010 and RPS qualified) could be used to qualify for up to 5% of sales.¹⁰
- Include an ACP option, based on 15% of the RPS Class I ACP amount.¹¹
- Amend CES program review provisions to require periodic reviews to consider, for example:
 - Whether the 2% annual CES increase should end in 2045 to ensure that aggregate clean energy requirements in 2050 will not exceed 100%¹² of electricity sales.

⁴ Alternatively, the standard could be expressed in MWh instead of %. Under this approach, the regulation would include a formula for apportioning the MWh standard among retail sellers based on electricity sales.

⁵ This was not included in the 2017 stakeholder discussions document. It would address stakeholder comments on the potential contributions of small existing hydroelectric generators, while limiting the risk of “shuffling” credits among states.

⁶ This was not included in the 2017 stakeholder discussions document. It would address stakeholder comments requesting inclusion of generators in these provinces.

⁷ This provision replaces the post-1990 vintage requirement that was included in the 2017 stakeholder discussion document, which would have had the same effect.

⁸ Or a corresponding number of MWh if the standard is expressed in MWh.

⁹ 5% of recent electricity sales would be 2.5 – 3.0 TWh per year.

¹⁰ This was not included in the 2017 stakeholder discussions document. It would be responsive to stakeholder comments regarding the potential for new clean generators to replace existing clean generators. Alternatively, the Seabrook-related portion of the CES-E could end with Seabrook’s retirement.

¹¹ The 2017 stakeholder document included an ACP of 10% of the RPS Class I ACP amount. The higher ACP amount reflects stakeholder comments stating that 10% of the RPS Class I ACP amount is insufficient.

- Whether and how to integrate the CES and CES-E requirements, for example by allowing all CES-eligible resources to qualify for CES-E, or by creating a path for transitioning resources from the CES to the CES-E over time (e.g., after operating for 20 years, “new” CES eligible facilities could become “existing” CES-E eligible facilities, with a corresponding adjustment to the standards).

¹² This was not included in the 2017 stakeholder discussions document. It would be responsive to stakeholder comments regarding the potential for combined standards (including APS) to exceed 100% in 2050.