

310 CMR 7.75: Clean Energy Standard Review of Options for Expanding the CES Stakeholder Discussion Document

The Massachusetts Executive Office of Energy and Environmental Affairs (EEA) and the Massachusetts Department of Environmental Protection (MassDEP) are seeking stakeholder input on options for expanding the Clean Energy Standard. As described below, such options may address (1) generation units that do not qualify as clean energy under the CES because of “vintage” requirements, and (2) municipal utilities. EEA and MassDEP are particularly interested in stakeholder input on expansion of the CES to include all energy procured pursuant to Session Law: Chapter 188 of the Acts of 2016, an Act to Promote Energy Diversity (“Energy Diversity Act”).

310 CMR 7.75(10) requires a review of options for expanding the CES:

Not later than December 31, 2017, the Department shall complete a review, including an opportunity for public comment, of options for including generators that meet all requirements of 310 CMR 7.75, except for the commercial operation date requirements in 310 CMR 7.75 (7)(a)2. and (b)1., in the clean energy standard. This review shall also examine options for including annual standards for MEDs and MLBs in the clean energy standard.

The commercial operation (i.e., “vintage”) dates referenced in the regulation are listed below:

- 310 CMR 7.75(7)(a)2. requires that CES-eligible clean generators must have commenced commercial operation after December 31, 2010.
- 310 CMR 7.75(7)(b)1. requires that CES-eligible clean generators that are located outside New England must utilize transmission capacity that commenced commercial operation after December 31, 2016.

In this document, clean generators that satisfy these vintage requirements are referred to as “new” clean generators, and those that do not are referred to as “existing” clean generators. Municipal Electric Departments (MEDs), Municipal Light Boards (MLBs), and Municipal Light Plants (MLPs) are referred to as “municipal utilities.”

Additional information about 310 CMR 7.75, include a fact sheet, the background and technical support document (TSD) issued with the public hearing draft of the regulation, and the response to comments (RTC) document issued with the final regulation referenced below are available at the following web address: <http://www.mass.gov/eea/agencies/massdep/climate-energy/climate/ghg/ces.html>. Additional information about implementation of the Energy Bill is available at <https://macleanenergy.com/>.

The remainder of this document describes potential options for expanding the CES, and provides instructions for stakeholders to provide input to inform the review of options required by 310 CMR 7.75(10).

Options for Expanding the CES: The 2016 Energy Diversity Act

Consistent with the Commonwealth's greenhouse gas emission reduction goals and addressing the Energy Diversity Act's directive for Massachusetts' utilities to solicit clean energy generation, including firm service hydroelectric generation and Class I RPS eligible resources, EEA and MassDEP are considering amending the CES so that energy procured pursuant to the Energy Diversity Act shall be considered a CES-eligible resource.

As noted in the RTC interactions with other clean energy policies shall be considered as part of the required review of options for expanding the CES:

The review will also consider technical issues such as the treatment of various categories of hydroelectricity, interactions with other clean energy policies, and whether any limits on generator capacity (i.e., < 100 MW) would be appropriate.

The Energy Diversity Act and the CES interact to create overlapping policy objectives to achieve cost effective greenhouse gas emissions reductions from clean energy sources. In order to administer both policies concurrently and effectively, EEA and MassDEP are considering aligning the regulation with the Energy Diversity Act implementation.

EEA and MassDEP request stakeholder comment on the expansion of the CES to align with the Energy Diversity Act, including responses to the following question:

- Are there any other policy implications with expanding CES eligibility to include clean energy generation procured to align with the Energy Diversity Act implementation?

Options for Expanding the CES: The "CES-E"

The TSD includes the following three paragraphs that explain why CES eligibility is limited to new clean generators, and how including existing generators in the CES at a later date could help to ensure that the CES reduces emissions over time:

. . . MassDEP is proposing to limit the CES eligibility to new clean energy generation built after 2010, to acknowledge any efforts after the December 2010 publication of the 2020 CECP. Allowing generators existing before 2010 to qualify would likely result in significant resource shuffling and windfall profits, as these certificates could be moved among accounts used for CES compliance without any corresponding change in

generation or emissions. MassDEP also notes that existing low and zero-emissions generators already benefit from the incentives created by the RGGI since, unlike their competitors, they do not need to purchase allowances.

MassDEP acknowledges that the loss of existing low and zero-emissions generators prior to 2050 could make it more difficult to achieve GWSA-required emissions reductions. MassDEP also acknowledges concerns raised during its stakeholder process for the potential that, by providing incentives for new generators that could compete with existing low and zero-emission generators, the CES has the potential to reduce the profitability of existing generators to some degree over time. In order to address this issue, MassDEP is proposing to include a regulatory requirement for MassDEP to complete an analysis in 2017 of options for including existing low and zero-emissions generators in the CES. This analysis will also consider unique issues that could arise for MLPs that have ownership or contractual interests in existing low or zero-emitting generators, the appropriateness of including existing nuclear power plants, treatment of technologies currently included in DOER's RPS Class II program for existing generators, and whether the CES can be better aligned with the contracting process specified in the Energy Bill.

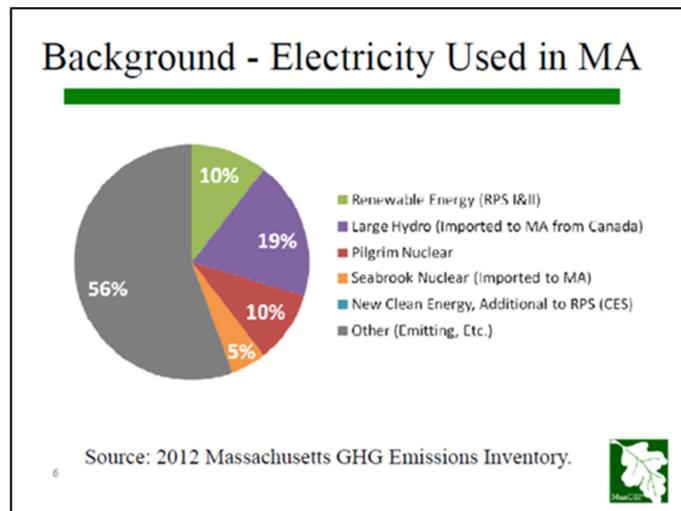
Excluding existing resources from the CES would not be sufficient to prevent resource shuffling with respect to transmission of electricity from Canada. Currently, electricity imported from Canada is an important source of clean electricity for Massachusetts, but the ability to import additional electricity from Canada is limited by the amount of transmission capacity. Resource shuffling could occur if new hydroelectric generation resources were to displace existing hydroelectric resources as the source of the electricity traveling through existing transmission lines. In this case, CES compliance could occur without any change in the amount of clean energy available for use in Massachusetts. In order to prevent this from occurring, MassDEP is proposing to require that clean energy imported to Massachusetts from outside New England demonstrate, using NERC tags, that the electricity was imported into New England through transmission capacity that came online after 2017, including through upgrades to existing transmission lines. This provision will ensure that, in order to be counted toward compliance with the CES, new eligible generation sources provide for the delivery of the electricity to Massachusetts. MassDEP requests comment on whether this provision is necessary and adequate, and on whether there may be other ways to ensure that the CES results in the delivery of additional clean energy to Massachusetts.

MassDEP received significant comment on the treatment of existing clean generators under the CES. In response to these comments, the review requirement was retained in the final regulation at 310 CMR 7.75(10). The RTC described a potential option for including existing clean generators in the CES:

One option that MassDEP may consider in the review could be amending 310 CMR 7.75 to add a separate requirement to support existing clean generators (a "CES-E"). The

purpose of the CES-E would be to encourage existing clean generators to continue to generate electricity for consumption in Massachusetts at current or historic levels.

Massachusetts' GHG inventory includes information about electricity consumed in Massachusetts, including imported electricity. The graph below, from a presentation shared with stakeholders in 2014, provides a rough accounting of the major contributors. The graph reflects the approach to accounting for imported electricity used in the GHG inventory, under which a significant fraction of emissions from power plants in New Hampshire (NH) are assigned to Massachusetts (because NH is a net exporter of electricity on an annual basis), but not from Connecticut (CT) (because CT is not a significant exporter in most years). Reflecting this approach, the graph shows that Massachusetts receives significant quantities of non-emitting electricity each year from the Seabrook nuclear power plant (in NH), but not the Millstone plant (in CT). Similarly, Massachusetts receives a large share of the electricity imported from Canada to New England because Massachusetts is by far the largest net electricity importer of the New England states.



A CES-E regulation structured in a manner consistent with the GHG inventory could help maintain the amount of clean electricity imported to Massachusetts from existing clean generators at current levels. For example, a CES-E could be structured to:

- *Require retail electricity sellers to annually purchase clean energy certificates (“CEC-Es”) from existing clean generators in amounts consistent with recent historical data, with quantities specified in MWh for each category of existing clean generator (e.g., hydroelectric generators in Canada).*
- *Allow generators to qualify to create CEC-Es if they:*
 - *Do not participate in other clean energy programs such as state energy portfolio standard programs.*

- *Are located in a state or region from which Massachusetts has consistently imported significant quantities of potentially eligible electricity in recent years.*
- *Commenced commercial operation after 1990. This requirement would be consistent with the GWSA requirement to reduce emissions between 1990 and 2050. In particular, it would acknowledge the importance of reducing emissions with respect to a 1990 baseline, and increase the likelihood that generators supported by the CES-E will remain operational through 2050. As the Pilgrim nuclear power plant commenced commercial operation before 1990, this restriction would also be responsive to comments received on the inclusion of nuclear power in the CES.*
- *Include an alternative compliance payment (ACP) option to limit impacts on electricity rates. The per-MWh ACP amount could be set at a relatively low level (e.g., 10% of the RPS Class I ACP amount, or ≈\$7/MWh), reflecting the fact that the existing hydroelectric and nuclear generators that would be supported by the program have relatively low operating costs, and that their clean attributes (CEC-Es) are not valued in other markets.*

The RTC also lists specific issues that would need to be considered before implementing a CES-E:

The required review of options for including existing clean generators in the CES will include consideration of whether a CES-E can help maintain emissions reductions over time, how the CES-E structure described above compares with other options, and potential bill impacts of a CES-E.

EEA and MassDEP request stakeholder comment on this option for expanding the CES, including responses to the following questions:

- Is the CES-E approach described above an appropriate approach for supporting existing clean generators? Are there other viable approaches?
- Are there eligibility requirements that are particularly important, such as limits on the size or location of clean generators, or technology-specific requirements?

Options for Expanding the CES: Municipal Utilities

In addition to addressing options for including existing resources, the review must also address options for including municipally owned electric utilities in the CES. The TSD described a particular approach to doing so, along with alternative approaches.

Because MLPs are not included in the RPS program, the standard will be established somewhat differently for MLPs, as described below. In 2050, consistent with the GWSA

requirement to address all electricity emissions, MLPs will be required to deliver the same percentage of clean energy as all other retail sellers. However, because MLPs are not subject to the RPS program, and are therefore not currently required to deliver renewable energy that can count toward CES compliance, the standard will be adjusted downward for MLPs by subtracting out a fraction of the RPS component of the non-MLP standard. MLPs also have longer financial planning and approval timeframes than private utilities. A gradual phase-in of the full CES requirement will occur between 2021 and 2050 to enable MLPs to comply more easily with the CES requirements.

The proposed phase-in schedule for MLPs is:

- For 2018 – 2020, a standard of zero will be used for the purpose of allowing MLPs to create and bank CECs.*
- For 2021 – 2049, the standard for MLPs would be lower than for other retail suppliers to account for the fact that the MLPs are not subject to RPS. (For example, in 2021, MLPs would be subject to 6% plus a small fraction (1/30) of the 16% for non MLPs. The same process would be use for later years, except that the fraction would increase by 1/30 each year until reaching 29/30 in 2049.*
- The MLP standard would reach 80% in 2050 (the standard for other retail electricity sellers). The regulation includes a table listing the annual standard for each year for MLPs and other electricity sellers.*

Alternatively, MassDEP requests comment on whether the standard for MLPs should always be discounted by the full amount of the RPS standard for the year. For example, under this approach if the CES in 2050 is 80%, and the RPS Class I requirement is 45%, the standard for MLPs would be 35%.

MassDEP is aware that some MLPs have ownership and contractual relationships with low- and zero-emissions generation sources, including relationships that allow MLPs to sell RECs to electricity sellers that are subject to RPS. Except in cases where RECs are sold, MassDEP is proposing to allow MLPs to subtract MWh associated with these contractual and ownership interests from the calculation of the number of CECs required for compliance. For the purpose of completing this calculation, low and zero-emissions resources not associated with RECs would include only MWh generated by nuclear power plants and hydroelectric resources that are not eligible for RPS, consistent with what has been reported to MassDEP by MLPs under MassDEP's GHG emissions reporting program. Alternatively, MassDEP requests comment on whether ownership of and contractual relationships with low- and zero-emissions generation sources should be allowed to be used to meet the annual standard, instead of subtracting MWh associated with these contractual and ownership interests from the calculation of the number of CECs required for compliance. MassDEP is not proposing to allow subtraction of MWh for which RECs have been sold to third parties, to avoid double counting of the non-

emitting attributes of these MWh, but seeks comment on whether this is the correct approach.

The RTC also addresses the treatment of municipal utilities under the CES:

The final CES does not include requirements for MEDs/MLBs beyond already-required emissions reporting for the following two reasons: (1) In the proposed regulations, MEDs/MLBs were not required to comply until 2021, so their exclusion from the final CES will not affect compliance with the GWSA-mandated emission reductions by 2020; (2) MassDEP is considering options for achieving reductions from MEDs/MLBs after 2020, and also intends to address this topic in late 2017 in the context of the required review of options for including existing (pre-2010) resources in the CES. Future consideration of the inclusion of MEDs/MLBs in the CES is appropriate because many MEDs/MLBs currently own or contract with existing clean generators, as documented in the emission reports that they submit to MassDEP pursuant to 310 CMR 7.71.

EEA and MassDEP request stakeholder comment on this option for expanding the CES, including responses to the following questions:

- What would be the best way to include municipal utilities in the CES? How could a CES-E address municipal utilities' relationships with existing clean generators?
- What are the relevant legal and contractual issues faced by municipal utilities as we consider options?

Providing Stakeholder Input

The purpose of this discussion document is to solicit stakeholder input on options for expanding the CES. All stakeholder comments are welcome, but EEA and MassDEP are particularly interested in technical comments that can help EEA and MassDEP develop a more complete list of options, and help identify advantages and disadvantages of particular options. EEA and MassDEP will consider stakeholder input in developing any proposed amendments to 310 CMR 7.75, which would require a public comment process pursuant to M.G.L. c. 30A.

EEA and MassDEP are particularly interested in input related to the specific questions listed in each section of this document. In considering these questions, stakeholders are encouraged to draw on experience with other similar programs in Massachusetts and other jurisdictions.

Stakeholders who wish to provide input on expanding the CES may:

- Attend a stakeholder meeting in October to discuss options for expanding the CES. (Sign up below to receive additional information.)

- Provide input by submitting written comments to climate.strategies@state.ma.us by November 30, 2017.

If you wish to receive further emails about this stakeholder process, including meeting announcements, please provide your contact information at the following link:

<https://www.surveymonkey.com/r/C22Z6YR>

EEA and MassDEP will provide an update on the review of options for expanding the CES by December 31, 2017.

Questions may be directed at any time to climate.strategies@state.ma.us or william.space@state.ma.us.