



SUBMITTED ELECTRONICALLY

October 30, 2019

Massachusetts Department of Energy Resources
c/o Kara Sergeant
100 Cambridge St., Suite 1020
Boston, MA 02114
EMAIL: DOER.CPS@mass.gov

RE: Stakeholder comments to MA DOER on proposed 225 CMR 21—Clean Peak Energy Portfolio Standard

Dear Ms. Sergeant:

Clean Energy Group (CEG) is pleased to offer these comments to the Massachusetts Department of Energy Resources (DOER) regarding the proposed Clean Peak Standard (CPS) regulations. The comments below are an expansion of the verbal comments CEG offered during the DOER hearing on 10/28/19 in Greenfield, MA.

Clean Energy Group is a leading national, nonprofit advocacy organization working on innovative policy, technology and finance programs in the areas of clean energy and climate change. CEG promotes effective clean energy policies, develops low-carbon technology innovation strategies, and works on new financial tools to advance clean energy markets. Our projects concentrate on climate and clean energy issues at the state, national, and international levels as we work with stakeholders from governments, and the private and nonprofit sectors. CEG does not accept any support from corporations or private companies; it is funded exclusively by foundations and government support.

Summary

Overall, CEG applauds DOER for its groundbreaking work in establishing a Clean Peak Standard (CPS). However, we think the draft plan should be amended in some significant ways. We are interested in the CPS' implementation and its potential to create a new market for energy storage in Massachusetts, therefore, our comments will focus on this aspect of the program.

In addition to the more detailed comments below, we also feel compelled to first make some general comments about the existing policy structure for energy storage in the Commonwealth that affect our comments on this proposal.

Our overall comment is that ***the proposed CPS regulation is overly complex, lacking in important details, and fails to address multiple issues stemming from the central problem of unlimited utility ownership of energy storage in Massachusetts. Our recommendation is that DOER should address these issues before moving ahead with the CPS program.***

To underscore the importance of getting the CPS right, it is important to put it in context.

The current situation is this:

- Massachusetts has established energy storage deployment targets of 200 MWh by January 1, 2020 and 1,000 MWh by December 31, 2025.
- No storage rebate or storage procurement mandate has been advanced to ensure that the Commonwealth meets these targets.
- Massachusetts has authorized utilities to own energy storage without any limitations or restrictions:
 - There are no requirements that storage development in the Commonwealth include distributed (BTM) as well as centralized systems.
 - There are no requirements that storage development in the Commonwealth include third-party or customer-owned storage.
 - There are no requirements that storage development in the Commonwealth allow or enable the participation of aggregators.
 - There are no requirements that storage development in the Commonwealth include or benefit low- and moderate-income communities.
- Utilities in Massachusetts are currently delaying the roll-out of distributed, customer- and third party-owned storage deployment under existing programs, such as SMART and the energy efficiency plan, while building large utility-owned storage systems such as those currently under development on Cape Cod.
- DOER is legislatively authorized to use several policy tools to achieve the Commonwealth's energy storage goals, including establishing a storage rebate and a storage procurement mandate for utilities. However, DOER has not done this, instead advancing the CPS as what appears to be the sole new procurement standard intended to drive storage markets in the Commonwealth.

In previous stakeholder comments,¹ CEG has recommended that Massachusetts take a few simple steps to avoid problems in the rollout of energy storage as a new and important clean energy technology. These recommendations have included:

- Fostering a diverse and competitive storage market by limiting utility ownership of energy storage resources;
- Ensuring timely deployment of storage at sufficient levels by instituting a storage procurement mandate (a storage portfolio standard);
- Supporting distributed, behind-the-meter (BTM) storage through a dedicated storage rebate; and
- Ensuring LMI participation through the use of adders, multipliers and carve-outs.

¹ See filings at <https://www.cleangroup.org/ceg-resources/resource/comments-to-mass-doer-regarding-utility-energy-storage-mandate/>, <https://www.cleangroup.org/ceg-resources/resource/round-2-comments-massachusetts-doer-energy-storage-mandate/> and <https://www.cleangroup.org/ceg-resources/resource/comments-on-ma-doer-energy-storage-target-docket/>

It now appears that DOER will not act directly on these recommendations, and instead plans to drive storage deployment primarily through the CPS. If this is indeed the case, DOER should acknowledge this fact, so that stakeholders understand the importance of the CPS to the future of energy storage in Massachusetts.

Given this landscape, it is very important for DOER to get the CPS right. The CPS presents an opportunity to address some of the issues mentioned above; however, the current draft CPS regulations fail to address these issues in any way.

Utility ownership of energy storage in Massachusetts

Because many of the issues we address stem from the unlimited right of utilities to own energy storage in Massachusetts, we now address that issue in more detail.

As we have warned in previous filings (see footnote above), if left unaddressed, the unlimited right of utilities to own energy storage in Massachusetts may lead to a monopoly situation. This is the case because utilities enjoy many competitive advantages over third parties.

For example, they have access to revenue streams, such as T&D deferral and some wholesale energy markets, that third parties cannot easily capture. They have access to inside information, such as where grid congestion and hosting capacity issues exist, that third parties do not have. They control interconnection and metering requirements, making them the gatekeepers for new distributed energy resources (we note that the Massachusetts Department of Public Service is already calling for an independent audit of National Grid, because the utility has used “cluster studies” and onerous interconnection and metering requirements to stall some 900 MW of proposed solar and storage projects under the SMART program – while, nearly a year into the three-year energy efficiency plan, Eversource has done little to enroll customers into the ConnectedSolutions program).

Most importantly, utilities operate within a state-sanctioned monopoly that allows them to rate-base investments and receive a guaranteed rate of return. Under these conditions, in the absence of regulation and policy that would level the playing field, third-party and customer-owned energy storage cannot effectively compete with utility-owned storage.

The draft CPS regulation does nothing to address this central issue. Instead, the combination of complex CPS regulations, unlimited utility rights of storage ownership, and a lack of safeguards for customers, third parties and low-income communities could likely result in a CPS landscape that is ultimately owned and controlled by utilities, with little opportunity for competition by third parties, and little to no participation by low- and middle-income customers.

There is no reason that the future of energy storage in Massachusetts must play out this way. In developing the CPS, DOER should take the opportunity to address the utility ownership problem. This could be achieved in a very simple and effective way, by requiring that some significant portion of CPS storage resources be procured from third parties, and that some portion of these resources be located behind customer meters. More specific suggestions on this and other aspects of the proposed program are incorporated in our comments below.

Omissions and deficiencies in the draft CPS regulation

A second major issue with the current draft CPS regulation is that it provides insufficient information to allow proper stakeholder review.

Given that DOER does not seem to be developing a stand-alone storage procurement mandate or rebate, the Commonwealth's ability to meet its energy storage targets appears destined to stand or fall with the CPS program.

However, the CPS draft conveys too little information regarding the anticipated participation of energy storage resources. For example, the public has not been provided information regarding the anticipated (modeled) storage deployment resulting from the CPS, nor does the draft CPS regulation include guidelines on the participation of BTM storage as a demand response resource. It is therefore impossible for stakeholders to comment on many important aspects of this plan as it pertains to energy storage.

The omission of demand response (DR) regulations in particular not only fails to provide adequate information for stakeholder review but conveys a general lack of concern about the important BTM storage sector. This is an area where Massachusetts should learn from California, which required utilities to install BTM storage as part of its procurement mandate. (California also established a robust, well-funded BTM energy storage rebate incentive through its Self-Generation Incentive Program (SGIP), including a significant equity budget carveout focused on disadvantaged and low-income communities).

The results in California have been dramatic: for example, as of August 2018, Southern California Edison had procured more than 300 MW of BTM storage, as compared to 120 MW on the transmission grid and 131 MW on the distribution system in the same utility territory.

BTM storage is important in Massachusetts (or should be) for numerous reasons: it provides direct customer benefits, such as energy cost savings and resiliency; it can be developed quickly, leveraging the resources of developers like Sunrun and Stem; it achieves high levels of efficiency because it is located close to loads, and often combined with on-site solar generation; and it can be aggregated to create cost-effective virtual peaker plants, as has been done by Green Mountain Power in Vermont, thereby avoiding land use, pollution, and other problems associated with fossil fuel peakers. Furthermore, because many areas in Massachusetts have high commercial customer demand charges – Boston metro area demand rates are among the highest in the nation – customer-sited energy storage can provide significant demand charge savings, an important means to reduce the cost of doing business in the Commonwealth.

For all these reasons, it is important for stakeholders to be given the opportunity to review and comment on DOER's proposed DR regulations within the CPS. The fact that these have not yet been published means that it is impossible to understand how DR resources, including BTM storage, will participate – and therefore, it is impossible to review the draft CPS as a whole, within the broader market needs that must be met. Presenting a program of this scope to the public in a segmented manner is not in accord with the intent of the stakeholder review process and is unlikely to result in the best outcome for ratepayers.

Specific comments on the draft CPS plan

We respectfully ask that you address the broad policy questions outlined above in any further review of this proposal. But in order to meet the deadline for comment on what has been proposed, and in addition to our two main points above, we offer the following specific questions and recommendations (in bold) on the draft CPS. (We have structured our comments as a series of key questions raised by the proposal.)

1. *What is the overall impact of the proposed CPS re storage procurement?*

MA DOER has not indicated any intention to institute a utility procurement mandate for energy storage, despite having been authorized to do so by the state legislature. Instead, it appears that DOER intends to rely on the CPS to meet the Commonwealth's energy storage deployment goals of 200 MWh this year and 1,000 MWh by 2025. As such, the CPS takes on a significance beyond its nominal purpose of increasing the amount of renewable and clean generation during peak demand hours. It is important, therefore, to understand whether the CPS will result in sufficient new energy storage deployment for the Commonwealth to meet its 2025 energy storage targets. In other words, assuming CPS will be the only effective storage procurement mandate in the Commonwealth for the foreseeable future, will resulting storage deployment meet the 2025 target? No information on the anticipated storage outcomes of the CPS have been made public, although modeling of these outcomes was conducted by the Commonwealth's consultant.

- ***Recommendations: In order to provide the public with assurance as to whether and how the Commonwealth will meet its storage deployment targets, DOER should make public the following information:***
 - ***How much storage, in megawatt hours, is anticipated to be deployed under the CPS by 2025?***
 - ***What calculations and assumptions were used to arrive at this conclusion?***
 - ***If the anticipated amount of storage deployment does not occur under the CPS, what will DOER do to correct course so that the Commonwealth's energy storage targets are met?***
- ***DOER should postpone further development of the CPS until the above information has been made public. A second round of stakeholder input should be conducted after this information has been provided.***

2. *Is the ACP rate of \$30/MWh sufficient to drive deployment?*

DOER has proposed a \$30/MWh ACP price through 2029, then declining. This means there will be an effective CPS credit price ceiling of \$30/MWh for a decade.

To put this into context, California's initial SGIP rebate rate for energy storage was \$0.50/Wh (\$500,000 per MWh), and New York's storage rebate is \$350 per kWh for the first four hours of a system's storage duration (\$350,000 per MWh). Current prices for energy storage average about \$800,000/MWh. Utilities in Massachusetts may be able to rate-base energy storage investments and earn a guaranteed rate of return, but third-party storage developers cannot.

Given current costs, is a \$30/MWh ACP rate sufficient to drive third party deployment (and utility procurement) of energy storage, which will likely be necessary for the Commonwealth to meet its energy storage targets? On what is this calculation based? What additional incentives, cost savings and revenue streams are assumed to be available in Massachusetts to third-party owned storage resources? And assuming substantial ACP funds will be collected, how will they be used to further the purposes of the Clean Peak program?

- **Recommendations: DOER should make public its calculations of the appropriate ACP rate for various use cases of energy storage that may be eligible under the CPS, showing that the ACP rate of \$30/MWh will result in storage deployment, particularly by third party owners.**
- **DOER should explain what ACP funds collected under the CPS will be used for. Will they be dedicated to fund additional clean peak resources?**

3. *Will the CPS result in customer- and third party-owned storage?*

DOER's CPS proposal includes no carve-out for distributed or customer- or third party-owned storage. Given the current ability of utilities in MA to own energy storage without limits or restrictions, it is entirely possible that utilities will choose to own the storage they procure to meet CPS requirements. Under these conditions, how will customer- or third party-owned storage participate in the CPS? How do DOER and MassCEC intend to create a diverse marketplace with competition, which would ensure that ratepayers receive the greatest possible benefits at the lowest price? And how will a monopoly situation be avoided? If not through CPS regulations, how does DOER propose to address these problems?

- **Recommendations: DOER should amend the CPS proposal to require that at least 50% of energy storage resources procured by utilities for CPS compliance be owned by customers or third parties, and to clarify that resource aggregators may participate.**
- **DOER should amend the CPS proposal to include a significant carve-out for BTM resources.**

4. *Where are the demand response guidelines and eligibility requirements?*

The draft CPS regulations indicate that behind-the-meter (BTM) energy storage will be able to participate as a demand response (DR) resource. However, the DR guidelines have not yet been made available. This leaves several critical points to be addressed. For example:

- Will CPS participation compete with or prevent demand charge management opportunities? (Maybe in some utility territories, not in others?)
- Will customers be able to participate in both the CPS and other Massachusetts programs (SMART, net metering, energy efficiency) using the same BTM resources?
- Who will own the capacity rights to BTM storage participating in the CPS?
- What is the role of aggregators?

- Is storage participating as DR from behind the customer meter subject to the same eligibility requirements as storage located on the distribution or transmission grid?

It is important for DOER to issue the DR guidelines, address these and other issues, and give stakeholders sufficient time to review and provide meaningful input.

- ***Recommendations: DOER should postpone further development of the CPS until detailed draft DR guidelines are made public, and stakeholders are allowed sufficient time for review and input on the draft CPS plan as a whole, including guidelines for DR participation.***

5. *Is the 1.5X resiliency multiplier sufficient to drive resiliency projects?*

DOER has proposed a resiliency multiplier of 1.5X. By contrast, the monthly peak multiplier is proposed to be 15X. Furthermore, the eligibility and requirements for resiliency projects are not well defined in the draft CPS regulation. This leads to a number of questions about resiliency in the CPS:

- Given that resilience is an important service and given the significant added expense necessary to create resilient, islandable solar+storage projects, is this 1.5X multiplier sufficient to incentivize resiliency projects?
 - What are the economic assumptions and calculations used to reach this 1.5X multiplier?
 - How is resilience defined (what are the requirements to qualify for this 1.5X multiplier)?
 - Are resilience projects expected to provide any specific duration of islanded service?
 - Is the four-hour peak window a sufficient duration to qualify a resilience project?
 - Can both FOM and BTM projects qualify as resilience projects?
 - Are particular types of facilities and populations to be eligible, or can any facility claim a resilience multiplier, regardless of what services it provides, what population it serves, and what loads are supported?
- ***Recommendations: DOER should clarify the definition of resilience and the resilient project eligibility requirements, and it should consider increasing the resilience multiplier to reflect the added difficulty and cost of developing resilience projects.***
 - ***DOER should consider a two-tiered resilience multiplier, with the higher multiplier rate reserved for facilities that would provide a critical community service during a grid outage.***

6. *Will the CPS include LMI participation?*

The DOER draft CPS guidelines appear to include no low/moderate income (LMI) multipliers or carve-outs. We have recently learned that the SMART program has seen only about 2.7% of applications from LMI customers, and DOER is in the process of amending SMART in an attempt to increase LMI participation. We have also seen that the current energy efficiency budget includes no added incentives or carve-outs for LMI participation in the energy storage pay-for-performance program (ConnectedSolutions).

The omission of LMI provisions in the draft CPS seems to represent another lost opportunity to drive LMI energy storage in MA. LMI communities should not be left behind in Massachusetts' energy revolution, especially given the Commonwealth's Affordable Access to Clean and Efficient Energy Initiative, announced in 2016, which is co-led by DOER in collaboration with MassCEC. DOER should learn from its experience with SMART in this regard, and from California's experience with the SGIP program. These programs show that a small adder or carve-out is not sufficient to overcome barriers to financing and developing projects in low-income communities – both a carve-out and a significant multiplier will be needed.

- ***Recommendations: DOER should amend the proposed CPS guidelines to include a significant equity multiplier, reflecting the added difficulty and expense of developing projects in LMI communities, as well as an equity carve-out to ensure that some significant percentage of projects are sited in LMI communities.***
- ***Additionally, DOER should consider a requirement that the benefits of the projects sited in LMI communities flow to those communities.***

7. *Why the 25% capacity requirement for BTM systems?*

DOER's draft CPS guidelines include a 25% capacity requirement for energy storage relative to associated renewable capacity. This seems overly complicated and restrictive, especially for BTM projects, where customers should be able to size energy storage to fit their home or business loads. What is the origin and rationale for this 25% requirement for BTM systems? If BTM system capacity is aggregated and delivered during a clean peak "window," why does the Commonwealth care how much of the delivered capacity comes from renewable generation, energy storage, or other DR measures?

- ***Recommendations: DOER should consider relaxing the 25% capacity requirement for BTM energy storage.***

CEG appreciates this opportunity to comment on DOER's draft CPS plan and looks forward to the opportunity to make additional comments once more details of the plan have been published. CEG is available at any time to clarify or answer questions on these comments.

Respectfully submitted,



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