

**Bay State Hydropower Association
55 Union Street
Boston, MA**

October 30, 2019

By email to: DOER.CPS@mass.gov

Kara Sergeant
Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

**RE: Comments of the Bay State Hydropower Association Regarding Proposed
Rulemaking by the Department for a Clean Peak Standard**

Dear Ms. Sergeant:

The Bay State Hydropower Association (“BSHA”) wants to thank you and the Department for the opportunity to provide comments in the above referenced rulemaking proceeding.

Introduction

BSHA was established in 2007 to advance the use of hydropower, an indigenous and carbon free energy source in Massachusetts, and thereby positively support the economy, improve the environment, and contribute to emissions reductions in the Commonwealth – essential to the success of the Global Warming Solutions Act. The Association is comprised of hydropower facility owners and operators representing nearly 90 percent of the hydropower facilities in the state – many are small and often family-owned and operated.

An essential purpose of the Association is advocacy for programs and government action to support carbon-free hydropower energy including revenue enhancements and regulatory streamlining. Toward that end, the Association was instrumental in having hydropower recognized as an integral part of the Massachusetts Renewable Portfolio Standard, particularly for small hydro. For many hydro facilities, support provided by such programs is essential to staying productive to generate emission-free power for the Commonwealth.

The Legislature agreed with the need to include existing hydro in the clean peak standard as evidenced in Section 10 of Chapter 227 the Acts of 2018 where class I and II RPS renewable generating sources can be “qualified RPS source.”

Procedural Background

The Department of Energy Resources issued draft regulations that if adopted would implement a clean peak standard pursuant to An Act to Advance Clean Energy. Several public hearings took place across the Commonwealth and October 30 at 5 p.m. is the deadline for filing comments.

The proposed rules would allow for qualified renewable energy generators, energy storage resources, and demand response to earn Clean Peak Certificates for every megawatt hour of electricity they produce or reduce coincident with Seasonal Peak Periods, which are also to be set by the rulemaking. These credits may then be purchased by retail electricity suppliers, who under the Act, are required to show annual procurement of a certain quantity of credits each year.

Comments

The Bay State Hydropower Association (BSHA) commends the Department of Energy Resources (DOER) for its efforts to develop a program to provide incentives for clean energy technologies that can supply electricity or reduce demand during seasonal peak demand periods in accordance with the enabling legislation, An Act to Advance Clean Energy (Chapter 227 of the Acts of 2018). This is a complicated matter with many considerations to take into account; BSHA appreciates both the rigor and the public process that DOER has brought to bear on this endeavor to date. BSHA respectfully submits the following comments as requested by DOER in its Notice of Public Review filed on September 20, 2019.

BSHA recommends several amendments to the current draft regulations for the Clean Peak Energy Standard (CPS) to increase the benefit they bring to the citizens of the Commonwealth.

First, BSHA agrees that incentivizing energy storage system development is appropriate for shifting renewable generation from off-peak to peak demand periods. Climate science leaves no debate that people of the world, our country, our region and our state must adopt the goals of using fewer resources, using resources more efficiently, and concentrate on using only those resources that are renewable. Massachusetts has done much to increase the amount of clean energy being generated, however that generation does not necessarily coincide with our peak demands. As a result, the highest cost and emissions hours are not being addressed as the Commonwealth remains dependent on gas and oil generation to meet our peak demand.

Second, BSHA also agrees that renewable resources that have been or are proposed to be developed as a result of state-sponsored procurements should be limited (if not completely excluded) in participating in such incentives as those resources are exempt from market conditions. Though renewable generation development has flourished in recent years with various government incentives, low wholesale energy prices driven by cheap fossil fuels threaten the viability of those resources over the long term. Existing renewable resources struggle to survive and development of new renewable resources is hindered when energy prices are and have long been at historic lows. States wishing to move to renewable energy must ensure that their consumers buy and consume renewable energy. Those who purchase renewable energy certificates (RECs) are contributing substantial benefit to renewable energy producers. But, even with REC revenues, a wholesale energy price of \$25 per MWh to \$35 per MWh is not sufficient to support the industry, in the long term. Contracted Resources (as defined in the draft

regulations as a Clean Peak Resource that has received a Statement of Qualification as a Solar Tariff Generation Unit pursuant to 225 CMR 20.00; or has a contract with a Distribution Company that has been approved by the Massachusetts Department of Public Utilities pursuant to St. 2008, c. 169, §§ 83, 83A, or 83C) are not subject to these market pressures.

BSHA Recommendation: De-couple the definitions of “Existing” and “Contracted Resources.”

Existing Resources, being those defined as “a Clean Peak Resource that has a Commercial Operational Date before January 1, 2019 that is not also a Contracted Resource.” Contracted Resources should be defined as “a Clean Peak Resource that has received a Statement of Qualification as a Solar Tariff Generation Unit pursuant to 225 CMR 20.00; or has a contract with a Distribution Company that has been approved by the Massachusetts Department of Public Utilities pursuant to St. 2008, c. 169, §§ 83, 83A, or 83C.”

However, BSHA does not believe that the CPS program should distinguish between other existing and new resources when it comes to incentivizing paired energy storage systems. The only difference between a new RPS Class I resource and an existing RPS Class I/II resource is their date of in-service operation. If the objective of the CPS is to “send a market signal to clean energy generation to invest in storage technologies to deliver energy to load users to reduce demand during peak periods”, there is no discernable public policy purpose for favoring new renewable resources over existing renewable resources, if both are willing to consider pairing with storage. Emphasis should be placed on the storage resources, not the generation resources.

Whether it is built to be coupled with a new renewable generating resource or an existing renewable generating resource, the cost of building and operating an energy storage system (ESS) should be the same. Arguably, as will be discussed below, current law and draft regulations dictate that the average cost of an ESS to be associated with existing renewable generating resources will be *higher* than the cost of the same ESS facility built to serve a new renewable generating resource. This is a perverse incentive and the regulations should be amended to correct it.

A group of BSHA member companies hired an engineering consultant to analyze the feasibility of constructing and operating a joint ESS with a capacity of 22 megawatts and an energy storage capability of 88 Mwh. The alternative to this large, shared ESS would be up to nine separate ESS facilities with a total capacity and energy similar to the large facility. It is estimated these separate ESS facilities, required by the current statute and draft regulations, would take two to three times longer to design, permit, construct and integrate with their host utilities as would the single large ESS rendering the same benefit to society. Also, according to our consultant, the total, combined cost of the multiple smaller ESS facilities would be four to five times the cost of the single large ESS.

This result is not consistent with the goal of making an efficient transition to an all-renewable economy. Thus, as well as making the following recommendations regarding modification of the draft regulations, BSHA will be conferring with our elected officials, in an effort to ameliorate this inefficient result by removing from the current legislation the requirement that an

existing resource, participating in the CPS, be collocated with the ESS to which it delivers charging energy.

Existing Renewable Generation and New Renewable Generation Market Advantages

As currently written, the draft regulations give new renewable resources three significant market advantages over existing renewable generation.

First, Section 21.05(1) (a)1 subparagraphs a. and b. describe substantially different requirements for new and existing Renewable Generation Units. Notably, Section 21.05(1) (a) 1 subparagraph b.i. and ii. subject existing units to requirements of Minimum Nominal Rated Power (i.) and Minimum Nominal Useful Energy (ii.). There appears to be no such requirement for new Renewable Generation Units. The requirements are not onerous.

BSHA Recommendation: apply the same sizing standards to all Qualified RPS Resources.

Second is the requirement of collocation set forth in Section 21.05(1) (a) 1 subparagraph b.iii. This condition places existing Renewable Generation Units at a significant economic disadvantage, described in greater detail in other parts of these comments. We understand this requirement is created by the enabling legislation and BSHA intends to seek a legislative solution.

BSHA Recommendation: Pending such legislative solution, DOER should insert a Section 21.05(1) (a) 1 subparagraph b.iv. stating “The Department may remove the requirements of Section 21.05(1) (a) 1 subparagraph b. iii. at such time as the enabling legislation, An Act to Advance Clean Energy (Chapter 227 of the Acts of 2018) should be amended allowing it to do so.

Third is the CPEC multiplier for existing resources.

BSHA Recommendation: Apply the “Existing Resource Multiplier”, as currently conceived, to only Contracted Resources. Most appropriately, this multiplier should be re-named to “Contracted Resource Multiplier” and kept at a 0.1 factor for Contracted Resources paired with storage. Existing, non-contracted resources should receive equal treatment to new resources.

The current draft CPS regulations call for a new renewable generating resource, paired with a qualified ESS, to be able to qualify all of its on peak generation for Clean Peak Energy Certificates (CPEC), at the rate of one CPEC per MWh of on-peak generation. Such new resources would be eligible to share with other new resources the costs of developing and operating a joint ESS.

In contrast, the current law and the draft regulations limit existing Class I and II renewable generation resources to participating in the Clean Peak Standard (CPS) only through the use of multiple, smaller, much less economically feasible ESSs; each one of which would be paired

with an individual existing Class I and II renewable generation resource.

BSHA Recommendation: Either one, compensate existing Class I and II renewable generation resources for their imposed inability to utilize economies of scale by changing the “Existing Resource Multiplier”, as described in the table below, to compensate participants for lack of scaling benefits.

Nameplate Capacity of Existing Resource	Existing Resource Multiplier
less than or equal to 500 kW	2.0x
501-2,500 kW	1.5x
2,501-10,000 kW	1.25x
10,001 or more kW	1.0x

Or, two if the first is unacceptable, remove the “Existing Resource Multiplier” and grant existing, non-state-contracted resources equal treatment to new resources.

Conclusion

BSHA wants to thank the Department for this opportunity to comment on this important proposed regulations. While they advance the first of its kind peak standard, the changes recommended above would make the proposed rules more efficient and equitable. The members of BSHA have for decades and many for generations have reduced carbon emissions, and have done so in the face of low energy costs and inexpensive competition. They would very much like to participate in this first in the nation program and their facilities are often very well suited for generation at specific dispatchable hours. When these facilities are paired with new storage the results can be revolutionary. While impediments exist that make such a cooperative approach impossible, policy and statutes do evolve.

Please let us know if you have any questions.

Respectfully submitted,
Bay State Hydropower Association

Thomas Tarpey, President