



*The Energy Consortium*

*A non-profit Organization of Industrial, Commercial and Institutional Energy Users*

Will Lauwers (by email)  
Emerging Technology Director  
Massachusetts Department of Energy Resources (DOER)

April 12, 2019

**RE: Stakeholder feedback on Clean Peak Standard Straw Proposal**

Dear Will:

The Energy Consortium (TEC) is a non-profit association of commercial and industrial (C&I) ratepayers who are each large energy users in Massachusetts. TEC's members include hospitals, world-renowned universities, and large international companies. Among TEC's members are two of the ten largest employers in the Commonwealth. The cost and reliability of energy plays a crucial role in TEC members' continued ability to operate in Massachusetts. To that end, the organization's goals are to:

- Promote competition in the electricity and natural gas industries;
- Bring the C&I rate closer to the national average;
- Minimize cross subsidies in regional and local utility and regional transmission rates;
- Sponsor open discussions between large energy users, customer advocates, utilities; government agencies, transmission operators and environmental groups; and,
- Foster better understanding of national, regional and local energy efficiency programs, especially customer benefits.

We appreciate the DOER providing stakeholders with the *Clean Peak Standard Straw Proposal* prior to releasing draft regulations. The attached comments and questions are provided in the hope that they assist the DOER in developing a CPS that appropriately balances the need for programmatic simplicity without compromising rate payer savings and verifiable emission reductions.

Regards,

Roger Borghesani, Chairman  
The Energy Consortium

## 1. Eligible resources

- a. For Eligible resources that are not dispatchable (e.g. solar without collocated energy storage) and already incentivized through the RPS or APS programs, what incremental cost and emission reduction benefit is provided by further incentivizing such resources via the CPS above and beyond the existing RPS programs?
- b. A stated objective of the CPS is to “encourage co-location and/or co-operation of energy storage and clean generation”. How will the CPS ensure that energy storage systems (ESS) operate primarily to store and discharge renewable energy, particularly in light of numerous analysis showing ESS frequently increases emissions<sup>1</sup>? If the emission impacts of charging and discharging ESS are not quantified via real-time marginal emissions, at the very least the Clean Peak Standard must require renewable energy certificates (RECs) be retired on the load used to charge ESS.
- c. If a Clean Peak Certificate (CPC) is minted by a renewable energy generator that also mints RECs, these two certificates must remain bundled so as to avoid double counting the positive emission/environmental attributes fully and completely embodied in the REC. A CPC should ultimately only designate that a REC was produced within the Clean Peak Window, and not separately seek to capture the emission attributes of the *clean* generation.
- d. The CPS appears to qualify fuel cells fired by fossil natural gas as an eligible resource. If fuel cells qualify as a CPS eligible resource, would APS qualified Combined Heat and Power (i.e. CHP) facilities with comparable MW load and emission reduction profiles qualify? Could CHP with bio-gas contract qualify as a CPS eligible Resource?
- e. The CPS appears to include woody biomass and municipal solid waste as an eligible resource. Qualifying these facilities does not appear to be consistent with the DOER’s stated objectives to support cost-effective reductions in emissions during peak periods of energy use. Solid biomass and waste-to-energy facilities are expensive and generate more net pollution than fossil-fueled power plants per unit of energy produced. These types of expensive, carbon-intensive electricity sources are what the CPS is intended to replace and should thus be categorically excluded from eligibility.
- f. Eligible Clean Peak Resources connected microgrids interconnected to the distribution system in Massachusetts should qualify for the CPS in a fashion similar to RPS Class I resources (i.e. SREC I & II solar generating units).
- g. The Clean Peak Standard should remain otherwise agnostic as to how a facility dispatches an Energy Storage System (ESS), and rely entirely on the established Clean Peak Windows to define when ESS discharge is encouraged.

## 2. Clean Peak Windows

- a. The description of the analysis used to establish the Season Peak Periods appears to be focused exclusively on MW load peaks. As a first-in-the-nation leader, it is incumbent on the CPS that it clearly articulate how the proposed design will reduce both ISO-NE system costs

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<sup>1</sup> Bulk Energy Storage Increases United States Electricity System Emissions, *Environ. Sci. Technol.* **2015**; The impacts of storing solar energy in the home to reduce reliance on the utility, *Nature Energy* **2017**

as well as average and/or marginal emissions. This is particularly important for energy storage system.

- b. To the extent information is currently available, how were the starting and ending hours of the Seasonal Peak Periods determined so as to not result in the load peak simply being pushed out of the Seasonal window versus a net overall reduction in peak MW load?
- c. While Summer and Winter Seasonal Peak periods may show more predictable MW load peaks as compared to Spring and Fall, should they have comparable multipliers? For example, the correlation between summer peak MW load, high marginal emissions, and high cost may be more reliable than winter's peak period where high emission and price events are more correlated with extreme weather events (e.g. cold snaps).

### **3. Clean Peak Certificate (CPC) multipliers**

- a. While the monthly regional peak provides significant incentive for resources to "chase the peak", it is unclear from the Straw Proposal material how the "region" is defined. If Clean Peak Resources are allowed on the Transmission system anywhere in the ISO-NE control area, how will those regions differ from resources connected to the distribution system?
- b. In the event that the monthly regional peak may not coincide with the ISO-NE system annual peak, should a multiplier for the ISO system peak be provided?
- c. For the Resiliency Multiplier, would these be limited to resources located at facilities providing critical public services (e.g. police and fire stations, hospitals, community centers, etc.), or would it also include resources providing exclusively private resilience (e.g. a residential battery)? If the privately held resilience resources do not provide some public good, should they be incentivized with a rate-payer funded portfolio standard program?
- d. For the Minimum Load Negative Multiplier, if the minimum load event occurs outside of the Seasonal Peak Period hours, how would the Clean Peak Standard address the not-more-than-four-hours program requirement? Rather than providing a penalty, would additional incentives for energy storage systems to charge during minimum load events provide a more effective market signal?

### **4. Program Metrics**

- a. Thermal energy storage systems should be required to meter the thermal energy output delivered during the daily Seasonal Peak Periods. By converting the thermal energy delivered during the period (e.g. number of ton-hours) to a MWh equivalent, the number of Clean Peak Credits could be calculated. The ton-hour to MWh conversion should be calculated using a pre-established "best available technology" efficiency rating (e.g. kW/ton) applicable to the type/size of useful-thermal energy generating system supplying the thermal energy storage system. This approach incentivizes facilities to install the most efficient equipment available as a less efficient chiller would produce fewer CPCs per cost of thermal energy production.
- b. Energy Storage Systems must be sub-metered so as to demonstrate they operate primarily to store and discharge renewable energy. If not exclusively charging from a co-located

eligible renewable generator (and maintaining ownership of the REC), unbundled RECs must be retired for the stored energy to substantiate claims the ESS primarily stores and discharges renewable energy.

- c. CPS eligible resources must be sub-metered so as to capture their output distinct from any other distributed generation resources.

## **5. Target, Requirements, and Impacts**

- a. In developing the final Consultant Report and the draft Clean Peak Standard regulations, clear and comprehensive cost reconciliation details should be provided. How will reductions in regional peak MWs be verifiably translated into reduced distribution charges from the Local Distribution Companies? As a first-in-the-nation program, the Clean Peak Standard will benefit tremendously from a fully transparent and accountable process to ensure savings from demand reductions are fully realized by rate payers.
- b. To ensure the Clean Peak Standard accomplishes all of the stated objectives and not just incentivizing energy storage agnostic of impact, the program needs rigorous and transparent qualification of emission and cost impacts.
- c. As a Massachusetts's ratepayer funded program, how should a resource outside of the Commonwealth and within an ISO-NE identified export constrained zone be incentivized via the Clean Peak Standard?
- d. Any revenue resulting from Alternative Compliance Payments should be reinvested directly into this program.
- e. The relationship between the production of clean energy, or the avoidance of load, during the Clean Peak Windows and the value of Clean Peak Credits should be as simple and transparent as possible and publically reported.