

May 3, 2024

Ms. Samantha Meserve
Director of the Renewable and Alternative Energy Division
Massachusetts Department of Energy Resources
100 Cambridge Street, 9th Floor
Boston, MA, 02114

RE: Zero-Point Development Comments - DOER's Clean Peak Energy Standard Program Review

Dear Ms. Meserve,

Zero-Point Development appreciates the opportunity to submit comments to the Massachusetts Department of Energy Resources ('DOER') for the 2024 Clean Peak Energy Standard ("CPS") Program Review. The attached responses to the 2024 Stakeholder Questions reflect the experience-based development of over 960MWh of FTM Energy Storage over multiple years that are intended to participate fully over their design life in the Clean Peak program and be in commercial operation in 2024-2025.

Sincerely,



Brendan Gove
President and CEO
Zero Point Development, Inc.
1 Mercantile Street
Worcester, MA 01608

cc: DOER.CPS@mass.gov



1. **How could the Clean Peak Energy Standard (“CPS”) Program be improved to better contribute to achievement of the 2050 GWSA mandates? Please include details and any supporting data and analyses?**

We believe that an adjustment to the ACP rate to \$115 for a period of 20-years is necessary to support the financial viability of the Clean Peak Program. As supply develops the price will drop on its own, then the compliance obligation can be increased. The ACP rate should remain fixed for some period of years for projects up to some pre-determined amount of MWh. There should be a carve out for distribution level assets to prevent the concern that large transmission level projects will saturate the market.

2. **What are the costs and benefits of participating in the CPS program?**

The CPS Program has failed to provide adequate incentives or benefits sufficient to encourage greater deployment of new energy storage resources. The challenges/barriers created by the current CPS structure include:

- 1) The uncertainty of future CPEC prices.
- 2) Standalone Storage is not economically viable given the current CPS value.
- 3) The Distribution Circuit Multiplier (DCM) calculation lacks the transparency necessary for future project development and conflicts with proposed EDC study criteria.

3. **Has the CPS incentive had an impact on the decision of system owners to invest in CPS eligible technologies? Why or why not?**

Yes, the CPS has led developers to invest in projects but, as the realities of project economics have become more clear, the CPS has not ultimately led to the deployment of standalone energy storage. Many projects that have advanced through development and are ready for construction are unable to move forward without program changes. Many projects were developed in response to the initial DCM proposal, which ended up being significantly altered in the final version compared to what was originally proposed. Also, the ACP rate is not sufficient to overcome revenue uncertainty challenges and lead to projects being built.



The current CPS incentive structure actually discourages the addition of new energy storage to PV participating in SMART, or increasing the capability of already paired energy storage to be able to cycle daily by using a less than 1 multiplier. The multiplier for the paired storage makes the program revenue insufficient to justify charging and discharging in response to the CPS.

4. **Please describe the portfolio of projects you have that you anticipate are within 4 years of commercial operation and that you intend to enroll in CPS. Include as many details as possible, including your projects' anticipated Commercial Operation Dates, power and energy capacities, interconnection level (i.e., front-of-the-meter, behind-the-meter), durations, technology types, intended use cases, locations, and any other pertinent information.**

Zero-Point Development's portfolio includes 36 Standalone Energy Storage Systems. The storage systems are a 4-hour system that utilizes a Lithium-ion battery (LFP chemistry). These standalone storage systems are intended to interconnect to 3-phase distribution lines. All Projects have an anticipated commercial operation date of late 2024 through 2025.

The portfolio consists of 36 projects totaling 968.7 MWh of energy and 220.59 MW power.

5. **Are the CPS Resource eligibility criteria appropriate? If any criteria pose a barrier, please describe and provide recommended mitigation strategies.**

Yes, we believe the criteria are appropriate.

6. **Are CPS application processes and requirements clear? Is communication between applicants, the CPS Program Administrator, and DOER clear and effective? Please describe any improvements you believe could be made to the CPS application process.**

No comment.

7. **Are CPS Program compliance requirements clear prior to program enrollment? If any requirements are unclear, please describe and recommend clarifying language.**

Yes, we believe the program compliance requirements are clear.



8. What modifications to CPS Multipliers, Minimum Standard, ACP Rate, and Seasonal Peak Periods as currently set forth in 225 CMR 21.00, if any, are needed? Please describe in detail and provide any supporting data and analyses.

As a targeted solution for near term SDES a DCM 2x Multiplier for projects on PV-saturated circuits for systems that are dedicated to only be able to charge during solar hours and discharge during high load hours. The rationale for this is its ability to provide much of the same diversity benefits as paired ESS noted in the “Charging Forward” study and report, while actually providing a tangible benefit to the saturated circuit. This would offset common system components from degradation due to high PV generation at low load and zero PV generation during high loads.

Alternatively, the ACP rate could be raised to 115 as noted in question 1, and the compliance obligation lowered in the short term and increased in the long term. The ratchet on the compliance obligation should also be removed. This will ensure a predictable ceiling and result in a more stable planning scenario.

9. Please provide any comments on the necessity of, Resource eligibility for, and structure of a CPEC procurement. If in favor of a CPEC procurement, please comment on its timing, in particular if it should occur in parallel with the CPS Review or after, and any considerations DOER should make about the CPEC procurement in light of the CPS Review.

Revenues from CPEC’s alone will not be sufficient to support FTM ESS connected at the Distribution level at it’s current ACP even under a procurement.

Procurement should be limited to Chemical and Electrochemical Storage, and should be overseen solely by DOER. This should be undertaken as soon as possible.



10. How well does the CPS align with other Commonwealth programs, such as SMART and Connected Solutions, to incentivize the deployment of peak reducing resources, and how could program alignment be improved?

With a 0.3 multiplier, the CPS disincentivizes pairing with SMART PV projects. Those projects, intended to receive the battery adder, will certainly apply for CPS, however, most were designed to only charge and discharge once per week. ESS would remove revenue from the PV facility and would receive a less than 1 multiplier for the ESS making it uneconomical for ESS to be redesigned to participate in daily charging and discharging.

11. Are there any Commonwealth policies (e.g., renewable energy goals, land use priorities, codes and standards, etc.) that you believe the CPS program inadvertently conflicts with? Please describe any potential modifications to CPS that would alleviate these conflicts.

The proposed ESS operational tariffs prevent ESS development on substation transformers or circuits that exceed 75% of it's rating at peak load. Developers not having peak hour circuit data, creates an unknown erosion of revenue if a projects intends to target a new 75% limit on the high peak to average circuits listed under the DCM. 86% to 99% of the listed peak load is still present during the hours the EDC's will study the ESS as operating, regardless of the ESS intended operation. This will persist until there is a fully operational active control by the EDC's of DER assets.

There could be circuits that qualify for the DCM multiplier, that could be curtailed to 0 MW during the summer constrained hours when the CPS provides a 4x Seasonal Multiplier

This restriction would result in a 40% loss of the CPEC revenue in one EDC territory and a substantial loss in the other major territory.

The total MW that can target the DCM across Eversource and National Grid is very low (see attached)



12. Please describe any factors outside of the CPS Program that impact the ability of Resources to enroll or participate in the CPS Program, and any mitigation recommendations you have for DOER.

No comment.

13. Is there any additional information you believe DOER should consider in its 2024 CPS Review?

No comment.

14. Would any Clean Peak Resources or specific use cases for such Resources be better incentivized by a different program than CPS? If yes, please describe the proposed program and justify why the particular Clean Peak Resources and associated use cases would be better incentivized by such a program, with particular attention paid to added ratepayer benefits.

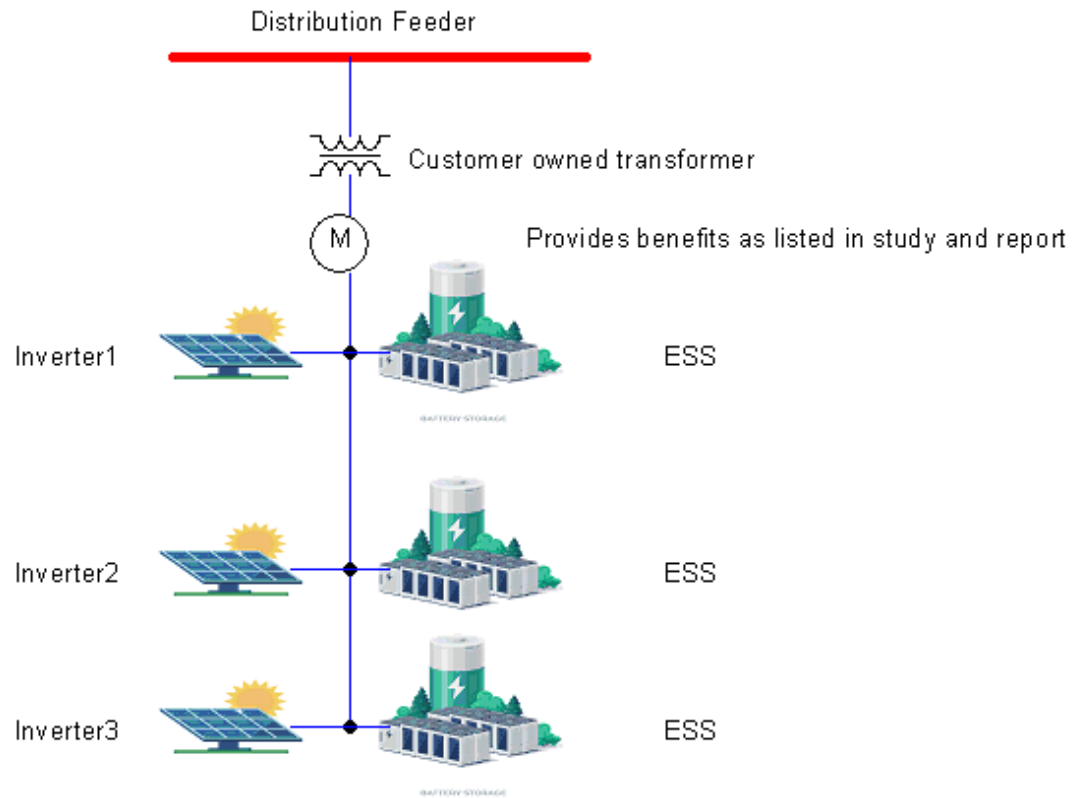
Front-of-the-meter (FTM) energy storage lacks a dedicated deployment incentive (unlike other eligible CPS technologies, such as offshore wind, solar, ESS paired with solar, etc.). A specific deployment incentive for FTM energy storage would help to lower the cost of financing and therefore lower the necessary CPEC value needed to support these resources (and would overcome the revenue uncertainty challenges inherent with the CPS).

ESS that are located on PV-saturated distribution circuits and designed such that they can only charge during solar hours and only discharge during higher load hours should receive an incentive similar to the CPS incentive with an ACP of 115 that remains the same over time. This represents the majority of the portfolio listed in question #4.

The development of this portfolio began with a desire to provide the greatest benefit toward the GWSA mandates using ESS.

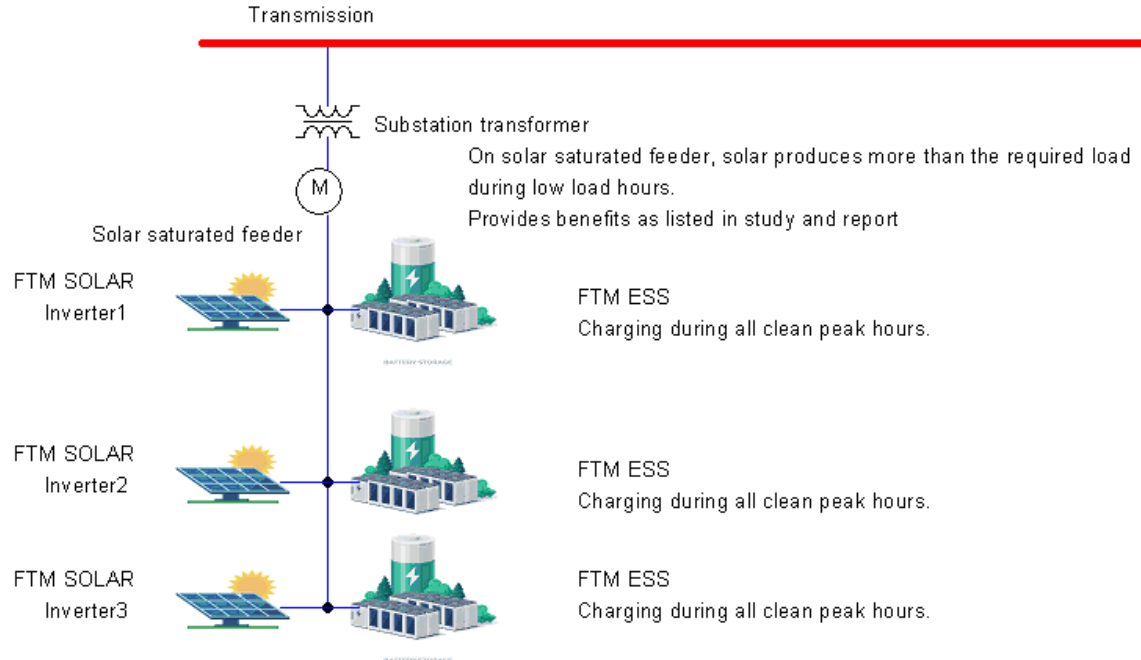
In our initial evaluation, ESS paired with PV seemed to provide that benefit. This was recently confirmed by the data in the “Charging Forward” study and report, as shown in the following diagrams:





Since it was not clear at the time what the CPS ACP rate would be, and projections were low, there was a disincentive to pair directly with solar since the ESS would take revenue away from it, and the ACP rate might not be set high enough to make it viable. (When the CPS program was released, not only was the ACP rate very low, but there was a less than 1 multiplier applied to paired ESS with SMART projects)

This issue could be resolved by installing ESS on PV-saturated circuits (see diagram below) where it could provide a majority of the same diversity benefits as paired ESS without the financial disincentive.



Without the ESS, this PV-saturated circuits common system components must handle the full power of the solar (less the circuit minimum load) during the solar day. Likewise, the common system components also must handle the circuits peak load which occurs off solar hours. Placing ESS here not only extends the life and lowers the O&M cost of those common system components, but also provides the same benefit to the transmission system.

With the removal of PV-saturated circuits as an eligibility criterion for the DCM this use case no longer has the return from the Clean Peak program to make it viable.

We still believe in the value of this use case, and this value was confirmed in the recent “charging forward” report issued by the DOER. These projects will begin to be automatically withdrawn from interconnection by the EDC’s due to non-payment resulting from the inability to get financing at the current ACP rate without the DCM. Any incentive or regulation that can be implemented for this use case in the very near term is needed. 220MW (969MWh) of ESS that can come online in 2024-2025 is at risk. This near term SDES deployment would provide the diversity benefits that are needed now.

