

BLUEWAVE

VIA ELECTRONIC FILING

May 3, 2024

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

re: CPS Review – BlueWave Comments

Dear Ms. Meserve,

BlueWave appreciates the opportunity to provide these comments to the Department of Energy Resources (“Department”) in response to the March 26, 2024, CPS Review Stakeholder Questions. We applaud the Department for soliciting input on how to improve the Clean Peak Standard with the aim of deploying eligible projects and delivering grid and ratepayer value.

BlueWave's vision is to protect our planet by transforming access to renewable energy. BlueWave is actively developing energy storage projects, including both transmission- and distribution-scale projects in Massachusetts, to ensure our grid is reliable and efficient in a clean energy future. BlueWave is proud to be a certified B Corp, scoring in the top 5% of companies assessed towards certification in Governance, and named Best for the World for Governance.

Below, BlueWave provides a response to the Department's questions.

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.*

It is well understood that the CPS is struggling to sufficiently incentivize resources to develop in response to the program. This not only challenges ratepayers through high Alternative Compliance Payments (“ACPs”), it also challenges our ability to ensure there are sufficient flexible resources on the grid to capture renewable power when it is generated and deliver it back to the grid when it is most needed. As discussed throughout our comments, BlueWave encourages a focus on improving revenue certainty to drive down the cost of financing and allow projects to be built, delivering benefits to the grid and to ratepayers.

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

The CPS Program is relatively straightforward for project owners to participate in. The benefit is the additional revenue stream available, and the cost is the foregone revenue from a constrained operating profile to charge and discharge in compliance with the program requirements.

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

The CPS has stimulated the beginning of a market in Massachusetts. In fact, the CPS was one of the main drivers in BlueWave investing in standalone energy storage. However, we have learned through the development activities we have performed to date that the CPS is not sufficient to overcome interconnection costs, charging costs, and revenue uncertainty. As such, while there are many projects in queue, few have

come to fruition, and many are likely to not end up being built without a reform of the storage policy paradigm in Massachusetts.

We have been developing FTM energy storage projects in Massachusetts for several years, and we expect that, without significant reform, only the lowest cost projects with straightforward permitting pathways will be able to come online in response to the CPS signal. This represents a small minority of the projects BlueWave has in its storage development pipeline. At the distribution-scale, the cost and complexity of interconnection has continued to increase over time and, as such, few projects meet the low-cost and easy permitting criteria. At the transmission-scale, the capital expenditures necessary to bring a project to the point that it is ready to secure financing are so high that the current CPS structure does not provide sufficient certainty to move forward with these projects, even with favorable permitting or low expected interconnection cost scenarios. This is also only going to become more challenging as reforms to the ISO-NE interconnection process significantly increase costs for early-stage transmission projects.

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.*

BlueWave has a portfolio of solar-plus storage projects, as well as standalone storage projects that we intend to enroll in the CPS.

Solar-plus-storage

BlueWave's solar-plus-storage portfolio development is driven by the SMART program and its requirements. Our solar-plus-storage portfolio is at varying stages of development but has the potential to bring up to 50 megawatts of paired energy storage online in the next four years that we would enroll in the CPS. These projects are paired with front-of-the-meter ("FTM") solar located across the state, though naturally located in areas with land availability.

Standalone storage

BlueWave is also developing a portfolio of standalone FTM storage projects, at both the transmission and distribution scale. These projects are being developed in response to the CPS and expectations for improved economics (and the potential for procurements) in upcoming years. Our portfolio is currently weighted towards four-hour duration lithium-ion energy storage.

Our distribution scale portfolio represents up to 200 MW of projects that could COD in the next four years. Many of these are early-stage projects, and there is likely to be attrition of this pending interconnection results and permitting challenges, both of which continue to challenge project development. These are generally ~5 MW FTM projects and are located throughout the Commonwealth.

Our transmission scale portfolio represents up to 1 GW of projects that could COD in the next four years. These projects are early- to mid-stage development and will be subject to ISO New England's new interconnection procedures, which significantly increase early-stage interconnection costs. Without CPS reform, transmission scale development will be challenging given the high early-stage costs with little certainty of the revenue that will be available when the project comes online. Absent permitting reform, projects will also continue to endure long and uncertain permitting processes that will further limit development.

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

As noted previously, the risk of market oversaturation has limited the deployment of energy storage in response to the CPS. To help mitigate the risk of oversaturation and ensure that projects that participate in the CPS are intentionally aligning their behavior with the CPS objectives, we recommend reevaluating the multiplier for non-dispatchable resources.

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

Given the challenges in receiving financing to build projects to participate in the CPS, BlueWave recommends significant changes to the Program that will help achieve the Program objectives. In order for investors to feel confident investing in CPS resources, project owners need to secure hedges for CPECs. These hedges come at a significant discount to the expected CPEC value; we have seen quotes 30-40% below ACP values for near-term projects to receive 3-5 year hedges. To overcome the lost value through hedging, we recommend increasing the ACP for the life of the program.

BlueWave also encourages exploration of other options to limit the possibility of the CPEC price crashing, thus providing the investor confidence needed to build projects. Some options include: capping the number of projects that are admitted into the CPS at a value near the total market demand, thus limiting supply and reducing price risk; and implement procurements for CPECs to provide selected projects with revenue certainty for a period of time.

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.*

Revenue uncertainty is the single biggest barrier to CPS success today (as the Department recognized in the *Charging Forward* Report); a procurement would allow CPS resources to receive the certainty needed to secure financing and will lower ratepayer expenditures on ACPs. BlueWave encourages the Department to move forward with a CPEC procurement expeditiously. As noted in previous answers, resources have been developing for years on the prospect of CPS Program improvement and, in particular, a procurement. We encourage DOER to issue a procurement as soon as practicable once the CPS Review is finalized (as that will influence bid prices); many of the details of the procurement could be finalized in parallel with the CPS Review.

BlueWave suggests that a CPEC procurement should be limited to new, dispatchable resources, particularly FTM energy storage. FTM energy storage, unlike other clean energy resources, does not have a dedicated

incentive program to encourage development and needs a mechanism (like a procurement) to ensure projects are built. We further suggest that project maturity requirements or bid deposits are necessary for ensuring that projects bid into the solicitation are sufficiently advanced to mitigate risk.

Given the currently anticipated limitation of the procurement to ~30% of the overall CPS program size, BlueWave believes a procurement of this size would be best suited for distribution-scale energy storage resources. A procurement for distribution-scale energy storage would help create a market in the state by procuring many projects. Should the procurement be larger than ~30% of the overall CPS supply (and thus large enough to support both distribution and transmission resources), we encourage separate procurements for distribution- and transmission-connected resources.

Lastly, regardless of the overall size of the procurement authorization, we encourage the Department to stagger the procurement of the CPECs over a series of annual procurements to create a more predictable pathway for development and to spur additional competition.

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

The storage portion of SMART projects receives a 0.3x multiplier on the number of CPECs the resource generates. While we understand the intent of the fractional multiplier, it does disincentivize storage paired with solar participating in the SMART Program from charging and discharging in response to the CPS signal. The benefit of cycling in response to CPS does not overcome the additional cost and, as such, we expect that most SMART storage resources are cycling to meet the SMART requirements only. Re-evaluating the Multiplier for SMART ES Resources could incentivize additional cycling to provide peak shaving benefits for both new and existing resources.

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 CPS inadvertently conflicts with renewable energy goals in its lack of a signal for development of energy storage in solar-saturated areas. Massachusetts' success in deploying significant amounts of distributed solar has also created a need to manage solar output in certain areas of the distribution system. Originally the Distribution Circuit Multiplier ("DCM") draft had proposed providing an additional multiplier to distribution-scale projects on solar saturated feeders, but this was dropped from the final DCM Guideline. We understand that this is largely because the current CPS Program design does not align with the windows of charge and discharge that are most beneficial in these areas. However, we encourage a re-examination of this policy decision, with potential program changes to encourage siting in solar saturated areas. This could involve a different set of charging and discharging windows for these projects than the rest of the program, which could increase administrative complexity (and may not align with the utility-imposed Discharge Limiting Schedules), but it would also allow the state to unlock additional solar capacity. We are eager to explore how CPS changes (or new programs) could encourage this type of development that is necessary to meet our climate commitments.

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.

Interconnection of energy storage resources is a challenge that is impacting the success of the CPS. The cost and complexity of interconnection is increasing, and the limitations on energy storage charge and discharge are challenging the ability to fully participate in the program. Operational parameters tariffs, filed by the

EDCs, are pending at the DPU, and we encourage DOER to participate in the DPU process to ensure the energy storage projects are not unnecessarily limited in their ability to contribute to the CPS.

Increasingly, we are also experiencing challenges with permitting. We support the Department's efforts to develop a model bylaw and to provide resources to educate communities about energy storage, and we believe this will be helpful. We further support the efforts of the Clean Energy Infrastructure Siting and Permitting Commission and look forward to continuing to support implementation of that Commission's recommendations.

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

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.

FTM energy storage resources, at both the distribution and transmission scale, lack a deployment incentive mechanism that will be necessary for creating a sustainable market in Massachusetts. For distribution-scale resources, a SMART-style tariff-based program would provide the signal necessary to invest in these resources. Designed well, this program could capture distribution system benefits that storage is currently uncompensated for providing and could also transfer the CPECs generated to the EDCs in the same way SMART does. This could lead to a more cost-effective program for ratepayers by reducing financing costs and aligning charging and dispatch with distribution system realities, in addition to CPS signals.

Transmission-scale energy storage is more well-suited to a procurement program. A predictable procurement schedule for a predictable amount of MWs would drive projects to invest in anticipation of the procurement, spurring competition and minimizing ratepayer costs. Today, projects struggle to secure financing because the CPEC value could, theoretically, crash to zero. This requires projects to work with CPEC hedge providers, who offer hedges at significant discounts to both the ACP and expected CPEC value. This essentially means that storage providers need higher expected CPEC values to cover the opportunity cost of procuring the hedge, and ratepayers are thus forced to pay more for storage than is truly necessary. A procurement removes the broker from the equation and aligns the ratepayer expenditures with the actual revenues the storage needs to be built.

Conclusion

Thank you for the opportunity to provide these comments. BlueWave looks forward to continuing our engagement in this process. Please contact me if you have any questions.

Sincerely,

/s/ Sean Burke

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