



Via Electronic Mail

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

Flatiron Energy Comments - DOER's Clean Peak Energy Standard Program Review

Dear Ms. Meserve,

Flatiron Energy submits these comments to the Department of Energy Resources ("DOER" or "The Department") in response to the 2024 Clean Peak Energy Standard Review Stakeholder Questions.

Flatiron Energy develops utility-scale, standalone storage with a regional focus in the Northeast. The Flatiron leadership team has extensive experience developing storage in New England, in addition to a history of building over 20 operational and profitable energy storage projects. Flatiron Energy is a portfolio company of Hull Street Energy, a private equity firm committed to aiding in the clean energy transition. Finally, Flatiron Energy is a partially woman owned, certified B Corporation, with a commitment to ethical, community-first development.

2024 Clean Peak Energy Standard Review - Stakeholder 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.

To date, the under supply in the CPS program has meant most CPS obligations have been met through ACP payments. With the right improvements, the CPS program could become a powerful tool for incentivizing the deployment of energy storage in the Commonwealth. As currently designed, the CPS program does not provide sufficient value nor the bankability necessary to drive the magnitude of storage deployments necessary for the state to meet the 2050 GWSA mandates. As noted in the state's recent "Charging Forward" Report, energy storage will play a crucial role in balancing the grid and enabling the state to integrate renewable energy at high penetrations.



For the CPS program to incentivize storage deployments in the Commonwealth, the state should focus on improving program value, bankability, and long-term contracting. Under the current program design, the ACP rate creates a price ceiling that is insufficient to cover the missing money gap for most storage projects in the state. This is especially true as storage projects face decreased wholesale market revenue potential due to the change from average to marginal capacity accreditation in the ISO-NE Capacity market. The significant decline of the ACP rate over the course of the program presents the most material value challenge. If the state were to keep the ACP at a flat, higher rate it would provide significant economic uplift to projects and go a long way toward covering the missing money needed by storage projects to come online.

The second significant barrier energy storage projects face to utilizing the CPS program is an issue of revenue bankability. While the ACP creates a price ceiling, the program has no price floor. Without a price floor or means to restrict supply to meet demand, the program could theoretically oversaturate to the point of CPEC price collapse. Financial institutions tend to underwrite projects assuming the worst-case scenario and thus apply a heavy haircut to proposed CPS revenue and charge a much higher cost of capital given the perceived revenue risk. The Department can help address this challenge in several ways.

First, if the DOER were to increase the size of the program to better match forecast storage demand in the later 2020s and early 2030s, it would help prevent program oversaturation. Second, the Department could consider implementing a policy mechanism to limit CPS program participation to meet program size. Under such a program revision, projects would qualify to participate in the CPS Program upon reaching established readiness criteria and then have a set number of years to come online. This process of asset qualification has significant precedent under previous DOER programs such as SMART. Limiting program participation to match program size would effectively eliminate the bankability issue under CPS.

To the extent limiting program participation is not feasible at this time, the Department could alternatively explore further increasing the ACP value and/or creating a program multiplier to help cover the financing costs for storage project to secure a third-party CPEC hedge. This multiplier and/or increased ACP value could be limited to near-term projects in need of an immediate bankability solution. This alternative could be implemented in coordination with expanding the program size.

Finally, the Department should lead long-term CPEC procurements as an additional means to solve the bankability challenges facing the current program design. Please see the response to Question 9 for further details of this topic.

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



The CPS program provides an incremental revenue stream to energy storage projects beyond the revenue attainable through ISO-NE wholesale market participation. While the program allows projects to receive wholesale revenue separately from CPEC revenue, projects must limit their market optimization to ensure they are correctly hitting the CPS target dispatch windows. This reduced optimization leads energy storage projects to leave some wholesale market revenue on the table to prioritize CPS credits. Generally, however, participation in the CPS program has a net benefit revenue impact to projects beyond only wholesale market participation. To the extent the value and bankability of the program can be improved, this net benefit will increase materially.

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 Commonwealth's expressed support for and desire to deploy energy storage as seen first in the "State of Charge" Report and then the "Charging Forward" Report and in the creation of the CPS program played a significant role in Flatiron's decision to invest in the development of transmission-scale standalone energy storage projects in the state. The development of transmission-scale energy storage projects on average takes five-to-seven years to go from inception to finished construction. As such, development in new markets is often based on some degree of faith that viable program offtake will come to fruition prior to the start of construction. While the CPS program helped send a market signal to drive Flatiron investment in the state, additional program changes to improve value and bankability will be needed before the company can invest the hundreds of millions of dollars necessary to bring these projects through construction.

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.

Flatiron Energy has an extensive portfolio of late-stage and mid-stage transmission-scale standalone storage projects under development in the Commonwealth. However, the company is not able to share this information publicly. Flatiron is happy to share any additional information on its storage development portfolio directly with DOER upon request.

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

Flatiron has no comment.



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.

Flatiron has no comment.

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

Flatiron has no comment.

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.

Please see Flatiron's response to Question 1.

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.

Flatiron is very supportive of a DOER lead CPEC procurement to be initiated as soon as possible. A CPEC procurement provides a cost-effective tool to provide the long-term contracted, bankable revenue storage projects need to unlock lower cost financing. Flatiron suggests coordination between a CPEC procurement and other potential program changes to help ensure the benefits of those other program changes are realized in the procurement structure. A CPEC procurement in coordination with a higher ACP or program expansion would enable a procurement to utilize the increased project value inherent in such changes.

The large capital investment required for the construction of transmission-scale energy storage projects requires developers to secure project finance ahead of any material project construction or the build-out of interconnection required upgrades. To secure such project finance, developers must present a compelling revenue proforma complete with all awards and documentation necessary to secure such revenue. A long-term CPEC contract would thus need to be in place prior to a project securing financing. As interconnection upgrades often take two-to-five years in Massachusetts, many projects looking to come online prior to 2030 will need to secure project finance in the next one to two years. Moreover, many of these projects have already invested millions in development and may need to be terminated if viable offtake cannot be secured soon. Thus, to both reach the state's 2030 climate goals and to ensure viable projects are not terminated, Flatiron recommends the DOER not delay and initiate a CPEC procurement this year.



Finally, Flatiron is aware that even with strong DOER support for a CPEC procurement this year, the process of DPU and utility review may lead to delays outside of the Department's control. As such, Flatiron urges the DOER to move forward with changes to the CPS program and CPEC procurement in parallel coordination. Under such a framework, mature projects that cannot wait, such as those on the clock due to a signed LGIA or Forward Capacity Market Obligation, could utilize the CPS program changes combined with a CPEC hedge to still come online to meet external deadlines in the case of procurement delays. In tandem, those projects that are able to wait could take advantage of the more preferable procurement structure.

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?

While the Flatiron leadership has developed projects to participate in these programs in the past, the company does not currently have any distributed projects under development at this time that would qualify for these programs and as such cannot comment.

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.

Flatiron is not aware of any policy conflicts with the program.

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.

Energy storage projects in the Commonwealth face a myriad of development challenges from siting and permitting to interconnection before the projects become eligible to enroll in the CPS program. However, many of these challenges are being addressed in other forums and are not directly relevant to the CPS program design.

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

Not at this time.

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.



The current CPS program design does not account for the locational benefits of energy storage. In particular, the program does not credit the ability of storage to provide clean capacity in localized, capacity-constrained areas, to improve localized grid congestion, and provide crucial reliability benefits. The 2050 Transmission Study published by ISO New England's Transmission Planning Group in 2024 found that the specific location of generators has a significant impact on the transmission upgrades required for reliability. Locating generators in suboptimal areas would likely significantly worsen overloads. The study found that additional generation, such as energy storage, located within the Boston Import subregion and other constrained areas would help reduce system overloads and necessary transmission upgrades.

In addition, a recent study from the North American Electric Reliability Corporation ("NERC") titled "2023 Long-Term Reliability Assessment" found that developing new resources near load centers, particularly in Northeast Massachusetts/Boston and Southeastern Massachusetts would provide the greatest reliability benefit. The myriad grid and ratepayer benefits of siting energy storage in dense, load pockets with persistent congestion and capacity constraints should be relatively straightforward to quantify by DOER given existing studies. Moreover, projects sited in these locations help enable the retirement of dirty peaking plants which are often located in key Environmental Justice Communities.

Flatiron encourages the DOER to consider either amending a CPEC procurement to include additional weighting criteria to value these benefits or to consider additional storage procurements outside of the CPEC program focused on storage projects that are able to deliver these key benefits to ratepayers and historically marginalized communities. The development of energy storage projects in these urban locations is often more expensive than the development of storage projects in rural areas. Thus, a proper policy mechanism is needed to ensure storage projects are located in the areas of highest value to the grid and Commonwealth ratepayers.

Thank you,

Juliana Mandell
Managing Partner
Flatiron Energy