



May 3, 2024

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

re: 2024 Clean Peak Energy Standard Review Stakeholder Questions

Dear Ms. Meserve and Mr. Ferguson,

New Leaf appreciates the opportunity to provide these comments to the Department of Energy Resources (DOER) 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. New Leaf's mission is to accelerate the transition to a world powered by renewable energy. We are actively developing energy storage in Massachusetts, including both transmission- and distribution-scale, to ensure our grid is reliable and efficient in a decarbonized future. Below are our responses to a selection of 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.

The Clean Peak program was developed in response to DOER's "State of Charge" report, which found that energy storage can provide a range of benefits to the Commonwealth, including facilitating deeper penetration of renewable generation, improving grid reliability, and more. However, while many storage developers such as New Leaf responded to the policy signals provided by the report and the establishment of the Clean Peak Energy Standard, to date very little energy storage has actually commenced construction and therefore the Clean Peak Standard is being met overwhelmingly with Alternative Compliance Payments, representing significant costs to ratepayers with no commensurate benefits.

While energy storage projects at both the distribution and transmission scale have been delayed by challenges with interconnection and permitting, these projects face an equal or greater threat to their viability in the lack of revenue certainty provided by the Clean Peak program. Given the relatively low energy price volatility in New England, storage resources depend on Clean Peak revenues for financial viability. However, since the program lacks a price floor or a mechanism to

restrict supply, our financing partners apply very significant haircuts to projected Clean Peak revenues.

To resolve this issue, New Leaf recommends DOER take a number of steps to improve revenue certainty for energy storage resources participating in Clean Peak. First, **for transmission-scale resources, we recommend that DOER initiate procurements for 3,000 MW of energy storage facilities that can begin delivering CPECs by 2030.** Storage facilities that are able to access long-term (20 year) contracts will have the revenue certainty needed to unlock lower-cost financing and move into construction quickly. Contracts for CPECs only would provide needed certainty, especially in the near term; ultimately an index mechanism that takes into account both CPEC and wholesale market revenues could lower costs to ratepayers even further. New Leaf supports DOER's efforts to seek legislative authority to conduct procurements directly and urges DOER to implement the first procurement as soon as possible. If a DOER-led procurement cannot be sufficiently expedited, we also support DOER directing the EDCs to issue CPEC procurements immediately. If EDC procurements are pursued, we strongly recommend that DOER direct the EDCs to procure up to 100% of the CPEC market, rather than limiting the procurements to 30% of the market as earlier contemplated.

For distribution-connected resources, New Leaf recommends that DOER establish a retail storage program that would function similarly to SMART in that participating resources would be governed by a tariff, and would receive a fixed rate for CPECs and other products and attributes for a term of 20 years. New Leaf has previously submitted comments to DOER recommending the consideration of a retail program in which distribution-connected storage resources would operate as load reducers. This would unlock much greater savings for ratepayers by offsetting transmission costs that are assessed based on load during distribution system peak hours. Regional Network Service (RNS) savings have no equivalent revenue stream that storage resources can access by participating in wholesale markets, yet the value of these potential cost savings dwarf the value of energy and capacity wholesale revenues. A retail program in which storage resources are operated as load reducers could compensate participating projects based on avoided costs for energy, capacity, and transmission as well as CPEC value. This value stack would be very attractive for project developers while also being very affordable for ratepayers, because the majority of the value stack are costs that are directly avoided by the operation of the batteries. Alternatively, DOER could also implement a retail program that compensates DG storage for CPECs only, or for CPECs plus energy and capacity, with the storage resources participating in wholesale markets. This would not be as affordable to ratepayers, but the revenue certainty provided by a retail tariff would support deployment of DG storage.

In addition to establishing these mechanisms to provide revenue certainty for storage resources participating in Clean Peak, we also recommend that DOER make additional changes to the Clean Peak program to support projects that can come online by 2030 and a robust storage market overall:

- New Leaf's internal analysis suggests that the current Clean Peak Minimum Standard is too low to achieve deployment of energy storage at the level needed to balance

renewable generation at the levels that Massachusetts is required to reach. **New Leaf therefore recommends that the Minimum Standard be increased starting in the late 2020's.**

- In addition to the revenue uncertainty caused by the lack of a price floor, the declining ACP assumes a steady decline in costs, when in fact equipment costs have moved in both directions in recent years and interconnection costs have only risen. **New Leaf therefore recommends that DOER hold the ACP constant at \$45 for transmission-scale resources, and consider a separate ACP for distribution-scale resources if no retail tariff is established.**
- While procurements for transmission-scale storage and a retail tariff for distribution-scale storage are the preferred strategy, DOER could also address revenue uncertainty by implementing a supply cap. DOER already exercises authority over the supply of CPECs by virtue of its role in certifying resource eligibility for the Clean Peak program. To implement a supply cap, DOER could follow the precedent of the SMART program by creating supply blocks that increase each year to roughly keep pace with CPEC demand. Resources would reserve capacity to begin delivering CPECs in a given year by applying once they reach certain development milestones, and then would have a fixed amount of time to come online or their reserved capacity would be released. **Limiting program participation to match program size would effectively eliminate the bankability issue under CPS.**

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

Participation in the Clean Peak program provides an additional revenue stream on top of wholesale market participation. However, the Clean Peak dispatch windows will not always be in alignment with the most optimal times to charge and discharge in response to wholesale market signals. Participating projects therefore forgo a certain portion of their wholesale revenues in order to access Clean Peak revenues. For the foreseeable future participation in Clean Peak is a net benefit to storage resources, but as load and generation profiles change with electrification and deeper penetration of renewables DOER should review the Clean Peak schedules to ensure the program is providing the most benefit with the least conflict with wholesale market signals.

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 establishment of Clean Peak provided a major signal to develop standalone storage in Massachusetts. Given that energy price volatility in New England is minimal and capacity prices have also remained low, storage resources are not financially viable without additional policy support. New Leaf (then Borrego) was originally only developing transmission-scale storage, until the decision by DOER two years ago to offer a procurement only for distribution-scale resources. Following that decision we started developing distribution-scale resources in addition

to our existing transmission-scale pipeline. The ability to access contracted revenue has always been essential for the Clean Peak program to provide sufficient support; the promise of a DG procurement provided an important policy signal to develop DG storage. In the absence of a procurement for either distribution- or transmission-scale storage the projects in both of our pipelines have had uncertain outlooks.

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.

New Leaf will submit this commercially-sensitive information under separate cover.

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

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 DOER consider excluding non-dispatchable resources from participation in Clean Peak.

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 comments in 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.

Please see comments in response to question 1 regarding the necessity of CPEC procurements. **New Leaf recommends a series of procurements on a predictable schedule, with the first occurring in mid-2025.** Implementing a series of procurements on a known schedule will enable DOER to require that bidders meet relatively high maturity requirements to participate. This will ensure that projects will bid the most competitive prices and will have the highest likelihood of coming online in the timeframe proposed. Procurements with low maturity requirements have a track record in other states of leading to delays and defaults. We further

recommend that transmission- and distribution-connected resources be treated separately in any procurements, as they have different costs and benefits.

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?

New Leaf recommends that the ongoing SMART program review incorporate updated operational requirements and compensation rates for energy storage paired with solar to align with the intent of the Clean Peak program, so that SMART solar+storage projects can deliver full benefits and be fully compensated in a single program. This would simplify the development and operation of paired resources, while also reserving the capacity in the Clean Peak market for standalone storage projects that have no other policy support.

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.

New Leaf has previously communicated to both DOER and DEP that the current DEP noise policy poses a barrier for deployment of energy storage in certain locations. As currently written, the DEP noise policy limits incremental noise levels to 10 decibels over the minimum ambient level. This is a much stricter standard than peer states, many of which limit noise to a specific decibel level based on adjacent land uses, or to an incremental increase over *average* ambient noise levels. In addition to making it difficult to build storage in certain locations, the current DEP policy runs counter to the Healey Administration's commitment to environmental justice, because it has the effect of pushing noise-generating development to areas that already have a higher noise burden. New Leaf recommends that DEP implement a new policy that sets uniform noise limits based on adjacent land uses, along the lines of Maine's noise policy.

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 is a major challenge for all types of storage and generation projects, as DOER well knows. For distribution-connected storage in particular, we strongly encourage DOER to participate in the ongoing and forthcoming dockets at DPU and FERC that address operational parameters and charging rates. These issues, if not resolved favorably, will have a major impact on the ability of distribution-connected storage to participate in Clean Peak. In addition to participating in the relevant proceedings, DOER may also want to make adjustments to the Clean Peak program after the conclusion of these proceedings to ensure that dispatch schedules and compensation structures take the outcomes of the dockets into account.

In addition, DOER is also well aware that permitting energy storage is increasingly difficult. New Leaf strongly supports the prompt implementation of the recommendations of the Commission on Clean Energy Infrastructure Siting and Permitting. In addition to the recommended reforms to the overall permitting process, which we believe will facilitate the deployment of energy storage, we also urge DOER to act on the complementary recommendations to develop an energy storage model bylaw and fire safety guidance for local communities, and to update the Green Communities/Climate Leaders program to incentivize municipalities to implement pro-storage local zoning.

Thank you for considering our input.

Sincerely,

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