

RESPONSE OF BROOKFIELD RENEWABLE PARTNERS
L.P. TO REQUEST FOR WRITTEN COMMENTS ON
THE CLEAN PEAK STANDARD STRAW PROPOSAL

Brookfield Renewable Partners L.P. (“Brookfield Renewable”) appreciates the thorough work the Department of Energy Resources (“DOER”) has put into developing the Clean Peak Standard (“CPS”) Straw Proposal. In response to the request for written comments on the Straw Proposal presented April 2, 2019, Brookfield Renewable is pleased to submit the following written comments.

Brookfield Renewable has a significant presence in New England, including over 1,300MW of carbon-free resources in ISO-NE and a further 1,000MW that can be imported to New England from New York and Quebec. Our renewable hydro, wind and pumped storage resources are available to help meet the energy needs and environmental objectives of Massachusetts and the region. In Massachusetts, our facilities include a 600MW pumped storage facility (Bear Swamp) and a 10MW hydroelectric facility (Fife Brook), as well as our North American System Control Center in Marlborough. Brookfield Renewable is also affiliated with TerraForm Power, Inc., which owns and operates approximately 217MW of wind and 135MW of distributed solar resources in New England.

Clean Peak Standard Straw Proposal

Brookfield Renewable’s comments on the Straw Proposal are summarized in this section and discussed in greater detail below.

With respect to the participation of new standalone energy storage systems or incremental new capacity at existing energy storage systems, Brookfield Renewable recommends that DOER:

- Not require energy storage systems to purchase RPS Class I or Class II RECs if i) they are responsible for a reduction in load or the delivery of energy during Clean Peak

Windows or ii) their operations are facilitating the deployment of incremental renewable energy.

- Avoid restrictions that limit the participation of incremental pumped hydro to output above historical levels.

With respect to new energy storage paired with existing RPS Class I or Class II resources, Brookfield Renewable recommends that DOER:

- Establish eligibility to include resources in any New England state if the resource is participating in the wholesale electricity market.
- Reduce the proposed threshold for paired storage from a minimum of 25% of the facility's nameplate capacity to 10% of nameplate capacity to promote more widespread deployment.
- Reduce the minimum duration for paired storage from 4 hours to 2 hours to align with the requirements for Forward Capacity Market participation.

Finally, with respect to new RPS Class I resources, Brookfield Renewable seeks clarification whether resources qualifying under 225 CMR 14.05(7)(c) (Replacement RPS Class I Renewable Generating Unit) after January 1, 2019 would be eligible.

Eligibility of Standalone Energy Storage and Incremental Pumped Hydro

Brookfield Renewable strongly supports the proposed inclusion of incremental pumped storage capacity as a Qualified Energy Storage System under the CPS. However, it remains unclear how this capacity – or the capacity of new standalone energy storage systems more broadly – will be evaluated and deemed delivered.

Based upon discussion during the April 2, 2019 presentation, Brookfield Renewable understands the DOER is considering alternatives to requiring owners to show that a resource is primarily charged with Class I or Class II renewables, such as by purchasing RECs. Brookfield Renewable supports the DOER's willingness to consider such alternatives. Requiring standalone storage resources to purchase the RECs would pose a significant disincentive for these resources to

participate in the CPS, given the costs of acquiring Class I/II RECs and the roundtrip efficiency losses of energy storage resources. These costs would need to be priced into the value of Clean Peak Credits, which in turn would be borne by ratepayers.

Rather, Brookfield Renewable recommends that the CPS include standalone energy storage and incremental capacity at existing energy storage, including pumped hydro, without a requirement to purchase RECs if the resource is either 1) facilitating the reduction of load or energy delivery during a Clean Peak Window (i.e., Demand Response) or 2) enabling the deployment of incremental renewable energy through the delivery of energy or ancillary services, including operating reserves and regulation, during Clean Peak Windows. The latter approach would align with the DOER's stated goal of "Incentiviz[ing] and enabl[ing] continued deployment of renewable generation by flattening the net electric load curve".¹ Eligibility under either metric should extend to any resource interconnected within Massachusetts, regardless of whether the resource is interconnects at the distribution or transmission level.²

Finally, Brookfield Renewable urges the DOER to avoid implementing restrictions on incremental pumped storage capacity that would limit its participation to output above historical levels. For example, if a resource invests in upgrades totaling an additional 50 MW, then any performance up to 50 MW during Clean Peak Windows should be eligible for the creation of Clean Peak Credits, even if the resource is not operating above historic capacity capabilities during those hours.

Eligibility of Existing RPS Class I and Class II Resources Paired with a Qualified Energy Storage System

As currently drafted, the Straw Proposal requires Class I or II resources that are paired with new energy storage and are distribution-connected to be located in the Commonwealth. Instead, Brookfield Renewable recommends that eligibility for paired resources be broadened to include resources in any New England state, provided that the resource participates in the ISO-NE

¹ Clean Peak Standard Straw Proposal, Slide 4.

² The Straw Proposal includes a requirement that a Demand Response resource is connected to the Massachusetts Distribution System. Brookfield Renewable is uncertain whether this is meant to differentiate between distribution and transmission-connected resources interconnecting in Massachusetts. However, we recommend this be extended to include transmission-connected energy storage when qualifying as a load reduction.

wholesale electricity market – thereby providing meaningful grid services consistent with transmission-connected resources. Imposing an in-state requirement on distribution-connected Class I and II facilities would arbitrarily exclude many small-scale distribution-connected RPS resources located throughout New England that could be paired with energy storage and that provide the same energy and reliability services to Massachusetts and the region as resources interconnected to the transmission system.

In addition, Brookfield Renewable recommends reducing the proposed threshold for paired storage from 25% of the facility's nameplate capacity to 10% to reduce barriers to participation and promote more widespread and diversified energy storage deployment. The 25% threshold in the Straw Proposal could unnecessarily prevent the deployment of projects otherwise capable of providing meaningful contributions toward the goals of the CPS. For one, it will be challenging for many existing resources to achieve this threshold economically absent either a Clean Peak Credit value justifying this significant additional investment or the ability to qualify the additional capacity associated with the battery in the ISO-NE Forward Capacity Market. In addition, even assuming the economics justify deployment of a sizable energy storage system equivalent to 25% or more of the nameplate capacity of the paired facility, existing interconnection agreements may also impose restrictions and limit the extent of storage capacity added to the resource.

Finally, Brookfield Renewable also urges DOER to reduce the proposed minimum duration for new energy storage systems paired with existing RPS Class I or Class II resources from 4 hours to 2 hours. This would align CPS eligibility with eligibility in the ISO-NE Forward Capacity Market, while also promoting broader resource participation. In addition, the longer duration minimum is unnecessary given that the Straw Proposal proposes to average the output of the Clean Peak Resource over the Seasonal Peak Period on a particular day. This feature would be a limiting factor in itself, regardless of duration requirements.

Eligibility of New RPS Class I Resources

Brookfield Renewable supports the inclusion of new RPS Class I resources in operation after January 1, 2019 in the CPS. However, we are seeking clarification on whether eligibility under this proposal would extend to *all* resources deemed “New” under the RPS Class I Regulation

after January 1, 2019, including resources qualifying under 225 CMR 14.05(7)(c) (Replacement RPS Class I Renewable Generating Unit) after January 1, 2019.

Respectfully submitted,



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