

MASSACHUSETTS DOER CLEAN PEAK STANDARD REGULATIONS UPDATE

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To: Clients and Colleagues

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On August 7th and 9th, the Massachusetts Department of Energy Resources (DOER) held informational meetings on the development of the Clean Peak Standard (CPS), which would require retail energy suppliers to procure a portion of their supplies from clean energy resources produced (either through generation or energy storage) during defined peak periods.

During these meetings a [summary](#) of the draft regulation was reviewed, which highlighted key features of the program:

- The CPS will require retail electricity suppliers to meet a Minimum Standard Obligation, which will be a percentage of annual electricity sales. Starting in 2020, the minimum obligation will be 1.5% of retail electricity sales, and will increase by 1.5% each year, reaching 16.5% by 2030.
- To meet the obligations, retail electricity suppliers purchase Clean Peak Energy Certificates (CPECs). The CPECs are generated during Seasonal Peak Periods by qualified Clean Peak Energy resources, which include:
 - o New (in operation on or after 1/1/19) RPS Class 1 eligible resources
 - o Existing RPS Class 1 or 2 resources paired with a Qualified Energy Storage System
 - o Qualified Energy Storage System
 - o Demand Response Resources
- The number of CPECs generated is determined by the resource's output during the Seasonal Peak Period with different multipliers applied for different seasons and to align production with various policy incentives (e.g., promoting resilience). Additionally, CPECs will be generated during the monthly system peak, which will be determined retrospectively at the end of the month.
 - o Seasonal Peak Periods have been initially identified by DOER as the following:

| Season | Season Duration | Seasonal Peak Period |
|--------|----------------------------|----------------------|
| Spring | March 1 - May 14 | 5 - 9 pm |
| Summer | May 15 - September 14 | 3 - 7 pm |
| Fall | September 15 - November 30 | 4 - 8 pm |
| Winter | December 1 - February 28 | 4 - 8 pm |

For existing RPS Class I or II Resources paired with energy storage, the storage system must be at least 25% of the nameplate capacity of the RPS resource and offer a minimum of 4 hours of

storage. DOER noted that this was to discourage large, existing RPS resources from being paired with a small storage system, resulting in minimal shifting of renewable energy production.

Qualified Energy Storage Systems must operate primarily to store and discharge renewable energy. There are four options to demonstrate this:

- 1) The storage system is co-located with an RPS Class I or II resource
- 2) The storage system is paired (operationally or contractually) with an RPS Class I or II resource
- 3) The storage system aligns charging periods with the designated charging windows defined by the DOER as shown below:

| Clean Peak Season | Solar-Based Charging Hours | Wind-Based Charging Hours |
|-------------------|----------------------------|---------------------------|
| Winter | 10 am - 3 pm | 12 am - 6 am |
| Spring | 8 am - 4 pm | 12 am - 6 am |
| Summer | 7 am - 2 pm | 12 am - 6 am |
| Fall | 9 am - 3 pm | 12 am - 6 am |

- 4) The storage system has an operational schedule in their interconnection service agreement that demonstrates the “resolution of intermittency-based power issues”

CPEC multipliers are used to determine how much CPECs are generated from any qualified resource’s performance. Some multipliers are less than 1, effectively discounting the value of existing or contracted RPS Class I and II resources. The chart below summarizes these multipliers.

| Multiplier Name | Multiplier Magnitude | Requirement or Description |
|---|--------------------------------------|---|
| Seasonal | Summer/Winter: 3x Spring/Fall: 1x | CPECs are subject to multipliers depending on when they are generated |
| Actual Monthly System Peak | 15x | Performance coincides with the highest single hour of demand in the month |
| Resilience | 1.5x | An onsite, RPS-eligible resource that can continue to generate electricity through an external outage. Applicable on daily CPEC generation, not just during outage conditions |
| Existing and State Contracted Resource | 0.1x | For existing and state contracted renewable resources’ performance |
| Distribution Circuit | TBD | <i>*Under development, in order to account for distribution specific locational values</i> |

In a departure from the earlier SREC programs (SREC 1 and 2), DOER will collaborate with the EDCs to procure CPECs under long term contracts from suppliers. These long term contracts will be a complement to the open market.

Next Steps

DOER plans to have a draft regulation filed by Q4 2019, which will kick-off a formal comment period and public hearings on the draft regulation. Q1 2020 is the target for the promulgation of the final regulations.

Key Questions

1) Where will the market for CPECs settle?

DOER has proposed an Alternative Compliance Payment (ACP), which effectively represents a ceiling of \$30 for CPECs for the first 10 years of the program. With battery storage anticipated to be the marginal resource that sets the price for CPECs, what revenues are needed from CPECs beyond anticipated energy and capacity market revenues?

2) What other value stacking opportunities are there?

The cycling requirements of the CPS are likely to limit these.

3) What are preferred project configurations?

Is the resilience multiplier sufficient to overcome economies of scale offered by larger projects that don't benefit from this multiplier?

4) Is there sufficient revenue certainty given the program design?

DOER has proposed an optional procurement process for electric distribution companies. Fixing the price for CPECs doesn't address the quantity risk associated with changes in the duration of Seasonal Peak Periods and changes to CPC multipliers. Will DOER mitigate this risk in the final program design?