

ENERGY STORAGE DAILY DISPATCH:

PROPOSED FULL SCALE OFFER AND EEAC RESOLUTION

► February 12, 2020 (2/7/20 Draft)

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INTRODUCTION



- ▶ **This consultant presentation builds on November and January EEAC meetings on Active Demand Reduction; refer to those meeting materials for full and detailed PA presentations on 2019 and 2020 activity on active demand reduction using all dispatch approaches**
- ▶ **Background and activities to date**
- ▶ **PAs are planning to seek DPU approval of full-scale Daily Dispatch offer for 2020 and 2021**
 - Residential Daily Dispatch
 - C&I Daily Dispatch
- ▶ **Proposed EEAC Resolution at February 12 meeting**
- ▶ **EEAC consultants' recommendation for EEAC approval of the Resolution on full-scale Daily Dispatch**

BACKGROUND



- ▶ **Department did not approve full-scale, statewide deployment of daily dispatch in 2019-21 Plan because DPU found it was an untested form of dispatch**
- ▶ **Department found merit in exploring the potential for daily dispatch through demonstration offerings, which National Grid, Eversource, and Until did (CLC worked on developing revised CVEO in parallel)**
- ▶ **Evaluations of residential and C&I demonstrations have been completed**
- ▶ **Program Administrators must submit a “compliance filing” to the Department, including the results of the demonstrations and the evaluations, before the PAs can implement statewide and at full scale**

DPU APPROVAL IS NEEDED TO DRIVE THE MARKET AND ACQUIRE MORE STORAGE

- ▶ **Daily Dispatch offer is more attractive than Targeted Dispatch to some customers and developers/vendors, and it is better aligned with electric system needs**
 - Developed with input from customers and storage industry
- ▶ **Until the DPU approves full-scale Daily Dispatch:**
 - The demonstration offering budgets may not exceed the planned budget level for daily dispatch (which affects both residential and C&I energy storage projects)
 - The PAs cannot offer the five-year incentive lock for C&I daily dispatch projects (affects C&I projects; the incentive commitment is needed to help finance projects based on expected performance and revenue over multiple years)
- ▶ **There are three C&I Daily Dispatch demonstration projects to date. The full-scale Daily Dispatch offer would be helpful to develop more storage projects – both residential and C&I**

PA COMPLIANCE FILING WITH DEPARTMENT IN MARCH 2020

- ▶ **PAs will file compliance filings on Daily Dispatch in the Three-Year Plan dockets in March 2020**
 - PA filings will include final evaluation reports, results of the demonstrations, PA testimony, and request to approve the 2020-2021 budgets already filed for National Grid, Eversource, and Unitil, as well as the Compact proposed budget (see Attachment A to the proposed EEAC Resolution)
 - While the Program Administrators hope the Department will approve the full-scale offer before the summer, there is no deadline for such approval
- ▶ **In the meantime, National Grid and Eversource will continue their Daily Dispatch demonstrations for each sector at the proposed 2020 Daily Dispatch budget levels until the Department's final decision**

Summer 2019 Daily Dispatch Performance & Takeaways



PA	Sector	Dispatch Type	Participants	Unit	2019 Planned (MW)	2019 Enrolled (MW)	2019 Performed (MW)	2019 Evaluated (MW)
National Grid	Resi	Daily - Storage	49	accts	-	0.19	0.19	0.135
Eversource	C&I	Daily - Storage	3	accts	-	1.07	0.971	0.972

■ Key Takeaways

- Residential – Positive customer response, low opt- outs, measurable peak demand reductions, PAs should reset, or lower, max discharge output expectations in future due to various reasons in customer control
- C&I – Complex installation and commissioning, seasonal performance is good and consistent, ESS optimization logic is challenging, customers not yet satisfied by financial benefits but value of performance payments is easier to understand than savings

Slide from January 22 PA presentation to EEAC

PROPOSED EEAC RESOLUTION

- ▶ **EEAC consultants have reviewed and commented on the Resolution; our comments were addressed (see proposed EEAC Resolution and Attachment A)**
- ▶ **The proposed EEAC Resolution on Daily Dispatch:**
 - Summarizes the Council’s review and analysis
 - States, “...the Council concludes and reaffirms that the proposed daily dispatch strategy will encourage the deployment of behind-the-meter storage and other technologies, benefits customers by securing daily peak demand reductions, and will achieve cost-effective peak demand reductions.” And...
 - “...the Council resolves to support the proposed wide-scale daily dispatch pay-for-performance offers.”
 - Requests timely review and approval by the Department
 - Confirms periodic PA reporting on costs and performance

ATTACHMENT A – RESIDENTIAL

	Residential Daily Dispatch Offer Incentive Costs, Demand Reductions, and Benefits Projections					
	2020			2021		
	Incentive Costs	Planned KW Reductions	Planned Benefits	Incentive Costs	Planned KW Reductions	Planned Benefits
Eversource	\$41,250	150	\$178,241	\$68,750	250	\$297,351
National Grid	\$396,880	1,763	\$1,923,750	\$606,936	2,696	\$2,944,976
Unitil	\$1,125	5	\$6,066	\$1,125	5	\$6,072
Cape Light Compact	\$35,475	120	\$142,593	\$59,125	200	\$237,881

ATTACHMENT A – C&I

	C&I Daily Dispatch Offer Incentive Costs, Demand Reductions, and Benefits Projections					
	2020			2021		
	Incentive Costs	Planned KW Reductions	Planned Benefits	Incentive Costs	Planned KW Reductions	Planned Benefits
Eversource	\$1,250,000	5,000	\$5,941,363	\$2,500,000	10,000	\$11,894,038
National Grid	\$1,125,000	5,000	\$5,455,988	\$1,575,000	7,000	\$7,646,301
Unitil	\$20,000	100	\$121,323	\$20,000	100	\$121,437
Cape Light Compact	\$350,000	1,400	\$1,663,582	\$350,000	1,400	\$1,665,165

*Please note that each Program Administrator budgets for all active demand reduction offerings together, as shown in the Energy Efficiency Data Tables, Table IV.C.1. The above table reflects the anticipated incentive amounts for daily dispatch, which are included in the overall active demand reduction budget.

EEAC CONSULTANT RECOMMENDATION



- ▶ **EEAC consultants recommend Council approval of the proposed Resolution on full-scale Daily Dispatch**
 - Energy storage is a valuable and cost-effective resource that delivers peak demand reductions
 - Daily Dispatch storage is attractive to customers and developers as well as being valuable for the electric system
 - The Daily Dispatch demonstrations performed well and about as expected and planned by the PAs
 - Evaluations concluded that the demonstrations performed fairly well; the studies also identified some improvements (for both enrollments/installations and for performance)
 - The pay-for-performance approach helps protect and ensure value for ratepayers by paying for actual performance
 - Att. A includes the projected costs, kW reductions, and benefits set forth in the Plan and previously approved by the EEAC*
 - Full-scale Daily Dispatch would result in more storage in MA

* 2019-2021 Plan values for 2020 and 2021 for National Grid, Eversource, and Unitil . New proposed values for CLC.

THANK YOU

Questions?

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