Date Filed: October 27, 2026

Witness: David L. Gladey, Lavelle Freeman, John P. Dipaola-Tromba, Jennifer A. Schilling and Elli Ntakou
Request from: Department of Energy and Environmental Protection

Question:

Refer to Exhibit CLP-TSP-3. For each proposed substation or distribution-capacity project identified, please briefly identify the principal alternatives considered, including:

a. load transfers;
b. equipment uprating;
c. storage
d. demand response;
e. flexible interconnection;
f. or other non-wires alternatives.
g. Please provide the estimated cost, implementation timeline, and principal reason each alternative was rejected or not selected. If no alternatives analysis was performed, explain why.

Response:

The substation capacity projects identified in the workbooks are in various stages of the project-approval process. None of the projects have reached a stage that would have received a detailed NWA analysis to date. As these projects proceed through the solution selection and engineering stages, NWA and other alternatives will be vetted. The results will be submitted during the annual grid needs filing as part of the NWS docket. For additional project details, please refer to the Company's response to OCC-599[i], identifying current project status, estimated budget, and any alternatives identified at this time.

The line capacity projects identified currently exceed the planning criteria based on metered data and NWS solutions were analyzed as alternatives to traditional line projects. Demand response and flexible interconnections were not evaluated as alternatives due to the lack of both a DERMS system and AMI. The Company submitted all capital projects to the process monitor as part of Docket No. 25-08-08 and the ongoing Docket No. 26-08-08.

Please refer to BETP-025, Attachment 1, identifying alternatives reviewed for distribution line projects. Please note that the PAF reflects only alternatives that were evaluated and determined to be feasible. As an example, load transfer options that were found to be infeasible were not included among the listed alternatives.

Prior Referenced Response:

[i] OCC-599 Question:

Refer to Exhibit CLP-TSP-3 at 22–24.

a. Provide the data underlying the headroom and constrained-area presentations on pages 22–24. For each substation identified as constrained, provide its normal and emergency rating, five-year historical load and peak load data, available headroom, forecast first year of violation, and proposed project cost.
b. For each constrained substation identified, provide the existing analysis of temporary and permanent load transfers. Identify the receiving substation or feeder, available transfer capacity, MW that could be transferred, required enabling work, estimated cost, and reason any transfer was rejected. Please confirm if no transfer analysis was performed.
c. Provide a summary of each actual substation capacity violation and stranded-load event experienced from 2016 through the present. Identify the substation, date, maximum loading, applicable rating, duration, contingency, customers at risk, customers interrupted, and whether load transfer prevented or reduced an outage.

OCC-599 Response:

a. The graphic depicted in CLP-TSP-3, at 22, is derived from headroom data for substations with actual values, time series data, and ratings shown on our public maps using the Eversource CT Grid Connection Navigator. Loads are based on our most recent summer peak year, 2025. Please refer to OCC-599, Attachment 1 CONFIDENTIAL, for project forecast violation year and the 5-year historical peak load data for each respective project. The table contains the LCC rating of each substation which is the planning criteria identified within the DSPG, please refer CLF-SC-023, Attachment 1. The following substations have projects initiated and have obtained at a minimum a conceptual level estimate:

Substation	**Estimated Project Cost**
West Brookfield 14H	$16,900,000
Beacon Falls 11N	$12,632,000
Franklin Drive 1B	$17,986,000
Southington 4C	$9,772,600
Berlin 6A_13.8kV	$23,199,000
Westside 7A	$18,399,000
Hopewell 22R	$17,518,000

All other substations within the attachment have not had a comprehensive evaluation to identify possible solutions and the costs associated with those solutions. The table below depicts a high-level tabletop analysis for possible projected cost of a substation solution. These costs will be refined as these projects progress through the funding process and receive full engineering analysis for solutions and conceptual level estimates.

Substations	**High Level Estimate**	**Project Status**
Waterside 22M	$600,000	Investigating Project Need
Flax Hill 24A	$500,000	Investigating Project Need
Rocky Hill 12Y	Less than $250,000	Investigating Project Need – Anticipating Permanent Load Transfer from West Brookfield 14H with settings changes only
Triangle 11A	$4,800,000	Initial Funding Approved
Middle River 28M	$500,000	Investigating Project Need
Rockville 14W	$10,000,000	Initial Funding Approved
Campville 14R	$52,300,000	Partial Funding
Baldwin 13F	$20,250,000	Initial Funding Submitted
Tracy 14M	$9,900,000	Initial Funding Approved
Frybrook 13B	$20,000,000	Initial Funding Approved
Brooklyn 30Y	Less than $250,000	Investigating Project Need – Anticipating Permanent Load Transfer from Tracy 14M or Frybrook 13B with settings changes only

b. Prior to initiating a funding project, permanent load transfers are, in many cases, a preferred solution if the conditions at the constrained substation and the adjacent area support this as these are typically substantially lower cost than substation investments and have a much more rapid deployment timeline. Historically these load transfers were not explicitly tracked, and the Company does not possess historical data as it pertains to deferrals by means of permanent load transfer. As of 2024 the Company identified this opportunity to begin having a detailed record of load transfers, partly in response to increasingly constrained regional capacity. The Company is now prepared to track these transfers in the Step Load Tracker as a load transfer on the receiving substation and a negative load transfer to the originally constrained station. This tracker will not only allow the forecasted load transfer to be visible but will also allow for historical reporting of deferred major capital upgrades through completed load transfers.

   The newly identified projects are in early stages of development and have not yet completed the solution selection process yet. Therefore, these projects would not yet have any tracked load transfers or analyses completed to date. Following initial funding of these projects, all available solutions including permanent load transfers, non-wires solutions, and traditional solutions are identified and evaluated for suitability and for viability. No potential solutions have been rejected at this time from these newly identified projects. Temporary transfers are reserved for substations anticipating overload during a current planned peak event, planned or unplanned outages, or other transient system events. Temporary solutions place the system in an abnormal condition which can impact operations, protections and controls, and automations within the system and are not used as a long-term solution except where necessary to address real-time operational needs that do not have a permanent solution placed into service.

c. All substation forecasted violations are mitigated by using pre-contingent load transfers to adjacent substations with remaining capacity. In accordance with planning criteria in the Distribution System Planning Guide (CLF-SC-023, Attachment 1), the Company plans and designs its system to avoid overload of major substation assets such as transformers during an N-1 event. During real-time operation, these overload scenarios are avoided

through the use of monitoring technology and planned mitigation measures. However, the Company's substation planning group recreates a normalized substation load to aid in the process of forecasting for future years.