

**Witness: CL&P Panel
Request from: Connecticut Energy Advisory Board**

Question:

The GRSP, which includes new transmission lines from Ludlow to Agawam to North Bloomfield, is one component of the NEEWS project. How does the GSRP relate to the other components, especially the proposed North Bloomfield to Frost Bridge transmission line that is part of the Central Connecticut Reliability Project? Can the GSRP be an effective solution without the other components of NEEWS? Given that the GSRP and the Central Connecticut Reliability Project both interconnect at North Bloomfield, explain why CL&P did not provide municipal consultations filings for both components simultaneously. Please describe in detail how CL&P analyzed the various components of the NEEWS project, specifically addressing how the various components affect each other.

Response:

For an explanation of how the GSRP relates to the other components of the NEEWS Plan, please refer to pages ES 9 – ES 13 of the GSRP Municipal Consultation Filing ("MCF"), and Section 2.2.2 and Appendix A, Section A.5 of the GSRP Solution Report that is provided with the response to Data Request CEAB-01, Q-CEAB-003.

The GSRP would definitely provide an "effective solution" to the reliability deficiencies of the Greater Springfield Area described in Section 3.3.3 of the Needs Analysis (pp. 23-30) and summarized at pages ES-1, 2 and Section IV.A.2 (pp. IV-1 – IV-4) of the MCF, and at Section 2.1 (pp. 2-1 - 2-4) of the GSRP Solution Report. The GSRP solution is also designed to strengthen the Massachusetts/Connecticut interconnection.

Please note that, because the jurisdiction of the Siting Council is limited to facilities that will be constructed in Connecticut, the MCF focuses on these facilities. However, GSRP will be constructed mainly in Massachusetts. Of the approximately 35 circuit miles of new 345-kV line in the GSRP, approximately 23 circuit miles will be in Massachusetts and 12 in Connecticut. Of the approximately 60 circuit miles of reconstructed or new 115-kV lines, all will be in Massachusetts. (Less than 3 miles of 115-kV line in Connecticut, on the Manchester to Meekville Junction right-of-way, will be modified in a related project.) Similarly, while the North Bloomfield Substation will be modified, the Massachusetts construction will include new 345-kV equipment at Agawam Substation, a new 115-kV switching station (Cadwell) and extensive modifications at one existing substation and one existing switching station (Ludlow and Fairmont). Accordingly, of the estimated total GSRP cost of \$714.3 million, approximately \$580.9 million relates to facilities that will be located in Massachusetts and \$133.4 million to facilities that will be located in Connecticut.

As described in the reports referenced above, the proposed construction will relieve thermal overloads and voltage violations on the existing transmission grid in the Greater Springfield area. These reliability improvements would be realized regardless of whether all, some, or none of the other projects envisioned by the NEEWS Plan are built. Similarly, the completion of a 345-kV loop that includes the North Bloomfield Substation, thus providing a second 345-kV feed to that substation, would improve the security of electric supply to Connecticut customers, whether all, some, or none of the other projects in the NEEWS Plan are realized.

As stated in the Options Analysis:

Springfield Component – Although a number of the improvements for this component are primarily needed to address existing system conditions, they have been designed to consider the other components. These improvements are independent of the preferred Interstate component and can be selected during the first stage of the selection process. One exception is that if Interstate Option D is selected, additional Springfield upgrade(s) will be required. Options Analysis, at 53; see *also*, Options Analysis §3.1, pp. 5-7

The "consideration" of "other components" to which this quotation refers was multifaceted. First, each potential project (or "component") had to be designed so that it would not have an adverse impact on other parts of the system - both the existing system and the system with improvements that were likely to be proposed to address other recognized deficiencies – that is, other NEEWS projects. Thus, before proposing the configuration of GSRP presented in the MCF, CL&P needed to know that when the Interstate Reliability Project went forward, Interstate Option D would not be proposed. Second, the objective was to design each component project so that it could work together with the other NEEWS projects, assuming they were completed, to provide benefits in addition to those that each project would provide on a stand-alone basis – that is, so that the whole would be more than the sum of the parts. Thus, one of the objectives of the NEEWS Plan was to increase the Connecticut import limit. See, Needs Analysis, pp. 3, 4, 12-17; Options Analysis, pp. 24-25. By itself, the GSRP will provide a modest improvement to the CT import limit. Most of the targeted improvement of 1,100 MW would be provided by the Interstate Reliability Project. But both of these projects, together with the Central Connecticut Project, would be required to yield the full 1,100-MW improvement targeted by the Needs Report. Similarly, all four NEEWS projects would be needed to yield the improvement in New England East – West transfer capacity sought by the NEEWS Plan. See, Needs Analysis, pp. iii, 2,3; Options Analysis, pp. 3, 14, 16, 18, 20, 22, 24; GSRP MCF, ES-10. However, as previously mentioned, each project on its own has an independent need and benefits.

The Central Connecticut Reliability Project (CCRP) has not been proposed for state siting simultaneously with the GSRP for several reasons. First, CL&P believes that the simultaneous filing of two projects of the magnitude of the Connecticut portion of GSRP and the CCRP would strain the resources of the Connecticut Siting Council. To allow for more orderly processing of its applications, CL&P plans to allow a multi-month lag time between applications. Moreover, the next NEEWS project that CL&P expects to propose to the Connecticut Siting Council a few months after the GSRP siting application is filed would not be CCRP, but rather the Interstate Reliability Project, which will consist of system improvements in Connecticut by CL&P, and improvements in Rhode Island and Massachusetts by National Grid. Siting applications for the Interstate Reliability Project would be filed by CL&P and National Grid subsidiaries essentially simultaneously in Connecticut, Rhode Island, and Massachusetts; and a CL&P application to the Connecticut Siting Council for the CCRP would be filed later.

The preliminary engineering and design of the GSRP (and the Interstate Reliability Project) have been more fully developed at this point than that for the CCRP. Since the need for the GSRP is immediate, the application for its approval should not be delayed so that it could be filed at a later time along with the CCRP application. That both projects include a 345-kV line termination at North Bloomfield Substation does not mean that both projects should be proposed in siting simultaneously. For instance, when CL&P filed its Bethel to Norwalk 345-kV line application with the CT Siting Council, it had already announced a long-term plan to complete a 345-kV loop with the Middletown to Norwalk project; and it soon also announced the related Glenbrook to Norwalk 115-kV cables project. Moreover, CL&P also then announced that it was considering proposing an HVDC undersea cable project from Norwalk to Long Island. However, each project was at a different stage of development. Accordingly, separate municipal consultations were held for each of three of the projects; and none was held for the HVDC project because it ultimately was not proposed.

