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Electric System Work Center
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*Richard J. Reed
Vice-President - Electric System*



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**CITY OF BRIDGEPORT
MAYOR'S OFFICE**

December 21, 2005

The Honorable John M. Fabrizzi
Mayor
City of Bridgeport
999 Broad Street
City Hall Annex
Bridgeport, CT 06604

Re: Proposed Trumbull Substation

Dear Mayor Fabrizzi:

In order to continue to provide highly reliable service to the Town of Trumbull and surrounding areas, The United Illuminating Company ("UI" or "Company") proposes to construct, own and operate a new 115,000/13,800 -volt ("115/13.8-kV") electric substation and associated facilities (which UI has named the Trumbull Substation) in Trumbull. UI expects to file an application to the Connecticut Siting Council ("Council") in early 2006 for a certificate of environmental compatibility and public need for this substation, in accordance with Conn. Gen. Stat. § 16-50i. Pursuant to Conn. Gen. Stat. §16-50i (e), UI is providing to you as the City of Bridgeport's chief elected official the "technical reports concerning the public need, the site selection process and the environmental effects of the proposed facility" because Bridgeport's municipal boundary is within 2,500 feet of the proposed substation. UI is providing you with one copy of the technical reports, but please let us know if you need additional copies. For your convenience, I have attached to this letter a copy of Conn. Gen. Stat. § 16-50i(e), which outlines the municipal consultation process and Bridgeport's right to provide recommendations to UI regarding the proposed substation.

The proposed Trumbull Substation will be located on UI-owned property at 3-7 Wildflower Lane immediately west of Connecticut State Route 8/Nichols Avenue (State Route 108) interchange (the "Project"). There are presently transmission lines owned by UI and transmission lines owned and operated by The Connecticut Light and Power Company ("CL&P") on and adjacent to the property on which the substation will be located. I have attached for your convenience a conceptual layout of the substation.

As a guide to the technical reports provided with this letter, UI has provided the following summary to assist Bridgeport in its review of the Project. We will follow up with you or your designee to answer questions related to the Trumbull Substation.

Statement of Need: The Project adds capacity necessary to enable UI to continue to deliver electricity reliably to customers in Trumbull as well as customers in the Bridgeport/Stratford/Shelton area of Southwest Connecticut. The new substation will

help assure reliable service given the existing customer electric needs (i.e., "load"), and becomes even more important as load grows.

The rated capacity of substations reflects the amount of electricity that the substations can reliably deliver to customers. Presently over 95% of Trumbull's electric load is supplied by UI's Old Town Substation (located on Kaechele Place in Bridgeport) and Trap Falls Substation (located on Armstrong Road in Shelton). These substations are at or beyond their capacity limits. The capacity problem at both Old Town and Trap Falls Substations, already a significant issue at today's electric demands, will increase in severity as economic development continues and as customer usage grows.

During the summer of 2005 Old Town Substation reached a loading level of 83.7 MVA (97% of its maximum rated capacity of 86.5 MVA) and Trap Falls Substation reached a loading level of 77.6 MVA (101% of its maximum rated capacity of 76.5 MVA). If a single transformer at either Old Town or Trap Falls Substation failed during summer peak loading conditions, the result would be overloads that would require service to be disrupted to nearly all of the 11,000 customers in Trumbull and to several thousand customers in Bridgeport, Stratford and Shelton. This disruption (load shedding) would be necessary to avoid unacceptable thermal overloading and degradation of the remaining substation transformer.

Without the construction of the Trumbull Substation, Trap Falls Substation is expected to operate at 108% of its firm thermal capacity in 2007. Such a condition is unsustainable from a system reliability standpoint. Constructing the proposed new Trumbull Substation will enable approximately 18 MVA of load to be transferred from Old Town Substation and approximately 17 MVA from Trap Falls Substation (35 MVA total) to the new substation. To mitigate the possibility of load shedding, the new substation should be in service by June 15, 2007.

The need for additional capacity, and accordingly the ability to avoid load shedding if a single contingency of a transformer failure were to occur at system peak, cannot be met by non-substation alternatives. Potential alternatives, including (1) adding distribution load transfers to adjacent substations, (2) replacing the existing substation transformers with larger units, (3) the installation of a single modular substation in the region, (4) distribution automation, (5) distributed generation, and (6) conservation and load management, were all evaluated and do not produce the required capacity increase.

We recognize the emphasis of the recently enacted Public Act 05-1, An Act Concerning Energy Independence, legislation on expanding the use of distributed generation in the future. To support this objective, the new substation will be designed with sufficient short circuit duty margin to enable it to accept the additional short circuit current contributions from customer owned generation.

Description of the Site: The proposed Project will be built on UI-owned property consisting of three parcels totaling 4.85 acres at the eastern end of Wildflower Lane. Over half of the proposed site is within UI's existing transmission line right-of-way ("ROW"). UI's existing transmission line ROW and switch structure border the eastern

section of the site. UI's ROW is 200 feet wide and supports its two 115-kV transmission lines. CL&P's existing transmission line ROW borders the northern portion of the site. CL&P's ROW is 110 feet wide and supports its two 115-kV transmission lines.

Most of the proposed site is flat, with some rock outcroppings. Grasses and low brush comprise the ground cover under UI's existing 115-kV transmission lines. The eastern section of the site slopes gently to the south. Several years ago UI cleared the western section of the site and installed wood poles for line maintenance training. While training no longer takes place on the property, the site remains disturbed and numerous poles are still located on the property. The western edge of the site near Wildflower Lane is wooded.

Description of Project Facilities: The following is a general description of the Project's proposed 115-kV facilities:

The Project will consist of an outdoor, air-insulated, 115-kV switchyard with the following equipment installed:

- A single-story (15 feet above grade) prefabricated control/switchgear building.
- Three tubular steel H-frame transmission structures (55 feet above grade).
- Three circuit breakers (17 feet above grade).
- Switchyard steel bus structure (26 feet above grade).
- One termination structure on northern edge of ROW (84 feet above grade).

UI's existing transmission lines will be routed through the proposed Project and no additional ROW will be required.

Site Selection: As set forth in the Capacity Expansion Alternatives (Tab 1) and the Site Selection Study (Tab 2) Trumbull is the geographical center of increasing load growth in the area. Accordingly, from an electric system standpoint, the new substation is best located in Trumbull. Locating the Project in Trumbull will also alleviate the load at the existing Trap Falls and Old Town substations.

UI used the following site evaluation criteria to determine the preferred site for the Project:

- **Transmission and Distribution:** interconnection costs and related considerations, system impacts, system access, and ROW requirements.
- **Substation Construction and Access:** construction constraints, vehicular access, the effects of site size, shape, topography and development of present land uses, floodplains, streams, wetlands, zoning and general encumbrances.

- Environmental: site characteristics, past and present land uses, inland wetlands, ponds, watercourses, public watersheds, character of the surrounding neighborhood, zoning and other permitting.
- Real Estate: site acquisition costs, subdivision requirements and availability.

Based on the site evaluation criteria, the UI-owned property near Wildflower Lane is the preferred site, and offers several advantages over the other sites. UI already owns the property, which eliminates the site acquisition process and costs. There is immediate access to UI's transmission and distribution facilities so that development costs are minimized. The size of the site is appropriate for the proposed Project.

Environmental effects from the construction and operation of the Project are expected to be minimal. The site is already disturbed, as sections of the site were previously cleared. There are no streams or inland wetlands on or next to the site. Construction will require the removal of a small amount of woody vegetation and mature trees. There will be no adverse impacts on water resources, other natural resources or federal or state protected plant and animal species or their habitats. Once constructed, UI will install vegetative screening to reduce visual impacts. The Project's Environmental Assessment is in Tab 3.

Noise impacts from construction and operation of the Project should be negligible. Noise emissions from the substation will increase the existing background sound levels at the nearest residences very slightly during the occasional quietest nighttime periods but are anticipated to comply with applicable noise regulations. The Project's Noise Assessment is at Tab 4.

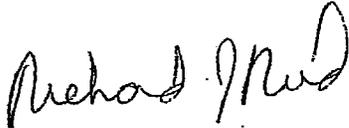
Visual impacts from the construction and operation of the Project will be minimal. One residence on Wildflower Lane will have seasonally obstructed views of the substation. The two residences immediately adjacent to and north of the existing CL&P ROW will have mostly unobstructed views of the new substation year-round. These residences currently have unobstructed views of the CL&P and UI transmission lines and tap structure. Other residences and the Armenian Church will have seasonally obstructed views of the tops of some of the structures and portions of the substation. UI will add additional natural vegetative screening to assist in minimizing visual impacts to Town residents.

The Project's electric and magnetic fields assessment is at Tab 5. There will be slight changes in magnetic field levels on Wildflower Lane and at the northern edge of the CL&P ROW near the closest residence. Under normal load conditions following construction of the Middletown/Norwalk 345-kV project, the magnetic field levels will decrease along the ROW and slightly increase (0.2 milligauss) at Wildflower Lane.

UI looks forward to discussing this Project further with Bridgeport. We would be pleased to meet with you and your staff to discuss the specifics of the Project, to discuss the details of the reports UI is providing you, and to answer any questions you or other Bridgeport officials may have about the project.

John M. Fabrizzi
December 21, 2005
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Very truly yours,

A handwritten signature in black ink, appearing to read "Richard J. Reed". The signature is written in a cursive, slightly slanted style.

Richard J. Reed, PMP
Vice President
Electric System

cc: Gene Kallaur, The United Illuminating Company
Kate Shanley, The United Illuminating Company
Melanie Howlett, City Attorney's Office (w/out enclosure)

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