The United Illuminating Company

Proposed Trumbull Substation

Fact Sheet

May 10, 2006

Trumbull Substation

Why is UI proposing a new substation?

- In the past 10 years Trumbull's residential electrical use has increased by 38%. Its commercial usage has increased, for the same period, by 45%.
- UI presently has no substation in Trumbull. UI serves the residents and businesses in the Town of Trumbull from 2 substations – one is located in Shelton (Trap Falls Substation) and one is located in Bridgeport (Old Town Substation). These two existing substations are either at or near their maximum capacity.
- Without the addition of a new substation, the Trumbull area, is at risk of experiencing rolling blackouts if a transformer were to fail at the Trap Falls Substation either during periods of peak demand.
- Increasing capacity at a new Trumbull substation will also allow UI to more reliably serve customers in the region, both today and in the future.

Where is UI proposing its new substation be built?

- UI examined 11 potential sites for the new substation and determined, for reasons of reliability, the long term expansion of the electric grid, and cost, reliability,the property at Wildflower Lane is the preferred location.
- During the municipal consultation phase of the application process the Town of Trumbull asked UI to look at placing the substation on a privately owned parcel located on Quarry Road.
- UI examined the Quarry Road parcel and our conclusions are: (1) without any formal soil testing, it appears the substation could be constructed on the land; (2) the incremental cost of the site is conservatively estimated to be $4.9 million more than UI's proposal, (3) given the Siting Council's requirements that UI evaluate a site for, among other things, "economic practicability", UI will not adopt the Quarry Road site as our preferred location or our alternate location.
- In addition to cost issues, the Quarry Road site does not provide for the long term expansion of the electric grid to the same level as UI's Wildflower Lane property.

What type of substation is UI proposing for Trumbull?

- UI is proposing an open air 58MVA substation be built on our 4.85 acre parcel on Wildflower Lane. Estimated cost is $16,000,000.
- UI is proposing the substation be built along the south side of the CL&P 1730/1710 right-of-way.
- The substation's footprint would be approximately 335' by 200'.
- The tallest structure within the substation fence line would be 76 feet
- The substation would be surrounded by a 14 foot chain link fence.
- The chain link fence will be surrounded by mature plantings.

The substation will be located near residential properties, will there be impacts?

- UI will submit electric and magnetic field calculations as part of the application. After the substation is build, established modeling indicates that at the north side of the CL&P right-of-way, at normal system loading, the magnetic field will be 5.4mG. After the Middletown/Norwalk Transmission Project is completed the mg is reduced to 3.8. At peak loading the magnetic field will be 10.3mG, and post Middletown/Norwalk the number is reduced to 6.5mG. At the substation fence line closest to the end of Stella Lane, at normal loading, the calculated magnetic field would be 8.8mG and at peak loading the calculated magnetic field would be 9.4mG. After Middletown/Norwalk the numbers are reduced to 7.2mG at normal loading and 8.2mG for peak loading.
- The noise emitted from the substation will have no appreciable impact on nearby homes. UI is filing a noise assessment study with the Siting Council.
- The homes on Stella Lane will be buffered from the substation by 120 feet of woody terrain between the UI property line and the substation fence line. Additionally, the mature plantings will soften any seasonal views of the fence line.
- The home on Wildflower Lane will be approx. 175 feet from the substation's fence line. The 175 feet includes the width of the street and the mature plantings. Additionally, UI is proposing that the entrance from Wildflower Lane be angled in such a way that there will be no direct views from the street or the house.
- The home on the northwest side of the CL&P right-of-way will be separated from the substation by brushy groundcover and the 110 foot cleared right-of-way. The house is approximately 110 feet from the substation fence line.
- The home on the northeast side of the CL&P right-of-way will be buffered by woody brush and the CL&P right of way. The house is approximately 360 feet away from the nearest new structure.

Are there any other proposals for the design of the substation?

- In addition to its proposed design, UI has examined several different design modifications including (1) using an architectural concrete panel wall, rather than a chain link fence; (2) building a Gas Insulated Substation (GIS) and placing the substation behind an architectural concrete panel wall, and (3) building a Gas Insulated Substation (GIS) and enclosing the substation in a structure which resembles a barn, enclosed by a chain link fence.
- Each alternative design adds incremental cost to the substation.
- UI expects that the Siting Council will consider each of these alternative designs.

What is the process once the application is filed?

- The Siting Council will consider UI's application following the procedures set forth in the Council's statutes and regulations. This process will include a field visit to the proposed site which will be followed by a public hearing in Trumbull.
- The Council may hold one or more days of evidentiary hearings on UI's application at its offices in New Britain.

Does UI have a time line for when it wants the substation in service?

- Yes. For reliability purposes we would like the substation to be in operation by December of 2007.

Figure 0.1 View of Primary Entrance from Wildflower Lane - Before Construction

Figure 0.2 View of Secondary Entrance from Wildflower Lane - Before Construction

Figure 0.3 View of Residential Property Line - End of Stella Lane - Before Construction

Figure 0.4 View from Residential Property - Northwest of ROW - Before Construction

Figure 0.5 View from Huntington Turnpike - Before Construction

Figure 0.6 View from Residential Property - Northeast of ROW - Before Construction

Figure 0.7 View from Stella Lane - Before Construction

Figure 1.1 View of Primary Entrance from Wildflower Lane - Open Air Substation with Chain Link Fence