THE PLAN AHEAD℠

Hawthorne Capacitor Bank Project: FAQ's

What is the Hawthorne Substation Capacitor Bank Project?

The Hawthorne Substation Capacitor Bank Project involves the addition of two 115kV capacitor banks on the west side of the existing substation towards the GE property. Built in the 1970s, the existing Hawthorne facility is a distribution substation networked within the Northeast US bulk electric transmission system. The installation of the capacitor banks will remediate reliability issues that can occur during transmission system contingency conditions.

Why is UI proposing 115kV Capacitor Bank additions at Hawthorne Substation?

The Southwest Connecticut (SWCT) Needs Assessment report (updated in June 2014) for electric system reliability has determined that the Old Town to Hawthorne 115kV electric transmission line corridor (between Bridgeport and Fairfield) is exposed to risks initiated by a single contingency transmission line failure event. If this event should occur during peak conditions, low system voltages (i.e. brownouts, etc.) would be observed in the area.

What is a Capacitor Bank?

A Capacitor Bank is a grouping of several identical capacitors interconnected with one another. A capacitor is a passive two-terminal electrical component used to store energy. Capacitor banks are typically used to correct low system voltage conditions on the bulk electrical system. Capacitor banks provide well-known benefits to the electric power system and its customers.

Why now?

The loss of the transmission line which causes system low voltages was identified in the SWCT Needs Assessment updated in June 2014. It was also identified that the reliability issues exist today and must be remediated as soon as possible. The proposed date is based on the earliest estimated completion date for the project based on the necessary design, regulatory approvals, permitting and construction schedules.

Will there be any additional visual impacts to the abutters?

There will be minimal visual impacts to abutters. Three-dimensional computer models were developed for the proposed facility expansion. A photographic simulation was then generated to portray a scaled rendering of the Project. Using field data, site plan information and image editing software, the proposed expansion was scaled to the correct location and height, relative to the existing Substation and surrounding area. The resulting images showed that the visibility of the Project would not substantially change existing conditions as viewed from neighboring properties. (See photographic exhibits)

Will there be any environmental impacts as a result of the project?

There will be no substantial adverse environmental impact associated with the proposed project, including the extension of the substation yard. A Wetland Identification and Delineation report was prepared and submitted to the Connecticut Siting Council (CSC). A Natural Diversity Database request to the CT DEEP was also submitted, with the supporting documentation copied to the CSC. During construction, there will be storm-water controls in place, a copy of the Stormwater Pollution Control Plan (Site Plan) was submitted to the CSC. During construction, sediment and erosion controls will be installed to manage and maintain compliance.

What is the project schedule?

The planned construction start date is June 2015 with completion estimated in March 2016, pending approvals from the CSC.

Will there be temporary additional noise during construction activities?

There will be a temporary increase in noise levels as expected with typical civil construction activities. Construction hours will be between 7:00 AM and 5:00 PM, Monday through Friday excluding some holidays. The proposed work hours may include evening and weekend hours on a temporary and case-by-case basis in order to complete critical installations.

Will there be permanent additional noise due to the additional equipment?

The noise emitted from the new Substation equipment will have no appreciable impact on nearby homes.

Will there be an increase in the Electric and Magnetic Fields (EMF) generated by the substation?

The increase in EMF generated by these upgrades will be negligible.

Which agencies review this project?

The Connecticut Siting Council, Department of Energy and Environmental Protection, New England Power Pool, ISO New England, Town of Fairfield

How much will this project cost? Who pays for it?

The total project cost is estimated at $8.9 million. Because this project impacts the Northeast US bulk transmission system the cost of the upgrade is shared by customers all across New England, not just UI customers.

Why can't this upgrade be installed at another UI Substation location?

The low transmission voltage issue that was identified centered around contingencies involving the Hawthorne transmission corridor. As a result, the most effective solution is to install new equipment at Hawthorne in lieu of other alternatives such as building new transmission lines in the area.

Would conservation programs help alleviate the demand in this area?

UI has a very aggressive conservation and load management (CLM) program that has been very successful in deferring capital investments; however we can't always target these efforts in a specific area. Additionally the CLM efforts can't always keep up with the load growth in a particular region. The analysis that determined the need for this equipment did take into account all current and predicted future CLM efforts, but the need still presents itself.

Will UI be providing screening of the new addition?

No vegetative screening has been included in the design as UI has an obligation to provide the lowest cost alternative and relies on the recommendations of the CSC regarding additional screening. However the new fence does include opaque slats to provide screening of new and existing equipment.

What will the final fence height be?

The new substation fence will be 14 feet high.

Will the site be lit at night?

General area lighting will be provided for security of equipment and personnel. Additional task specific lighting will be provided, but will remain off when the station is unoccupied.

Will there be any blasting during construction?

No. The construction activities required for the equipment addition will not require blasting.