

Old Town Substation Rebuild

Open House Boards

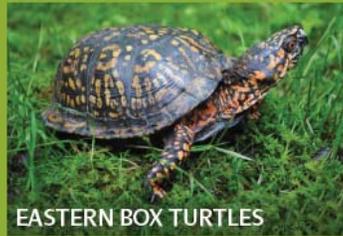
Environmental Board

I ENVIRONMENTAL

Consultations and Studies Completed at Old Town Substation:

- Onsite Wetland and Vernal Pool Assessment
- Connecticut Department of Energy and Environmental Protection (DEEP) – Natural Diversity Database Consultation
- U.S. Fish and Wildlife Service Endangered Species Consultation
- State Historic Preservation Office (SHPO) Consultation

Habitat Protections



EASTERN BOX TURTLES



NORTHERN LONG EARED BAT



Wetland Protections

- Construction Phase – CT DEEP Construction Stormwater General Permit
- Post Construction coordination with City of Bridgeport



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How the System Works Board

HOW THE ELECTRICAL SYSTEM WORKS

How the Electricity Delivery System Works

The electric grid consists of high-voltage transmission lines and low-voltage distribution lines that transport electricity from power generation plants to community areas that need electricity.



Generating Stations
Electricity is produced by resources such as wind, solar, natural gas, hydro and nuclear generating facilities.

Step-up Transformer
The power is then ramped up to high voltage for long-distance transmission.

Transmission
Next, a series of high-voltage lines transmit the electricity throughout the power grid.

Step-down Transformer
Power is then reduced to a lower voltage for use in homes and businesses.

Subtransmission Customer
The electricity then passes through a series of switches to distribution lines.

Customers
Power is then delivered to customers via local lines.



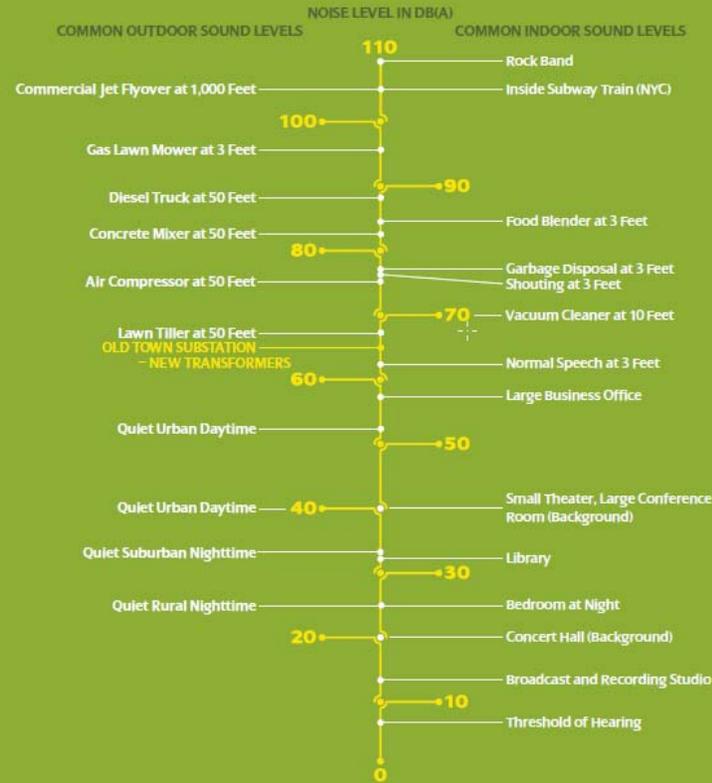
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Noise Board

NOISE ANALYSIS

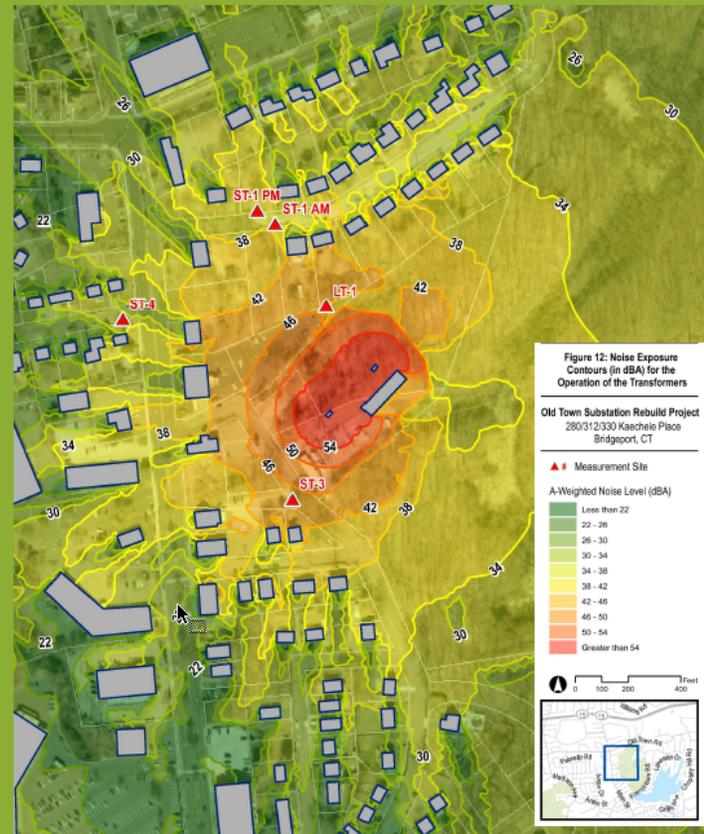
Proposed transformers are designed with a sound level of 65 DB, which is lower than the existing transformers which were designed at 70 DB.



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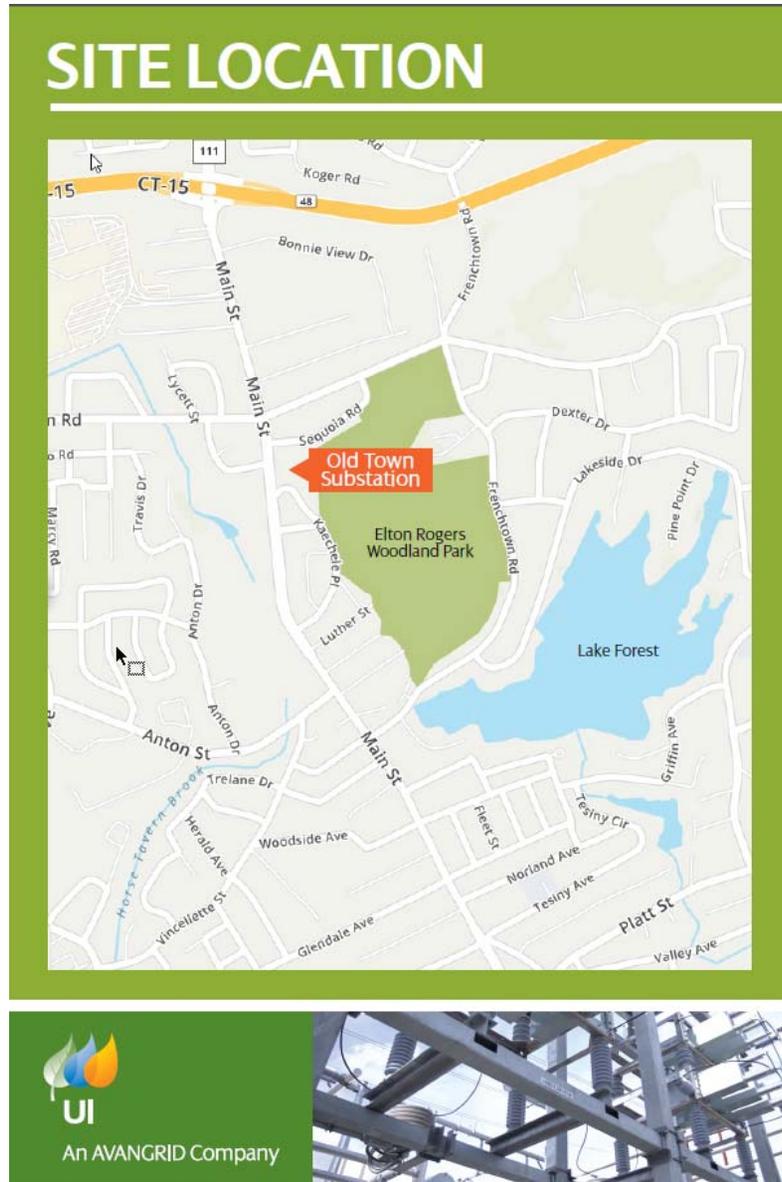


HEAT MAP



Noise Board

Location Board



Station Board

STATION DIRECTORY



WELCOME

- Old Town Substation FAQ's and Fact Sheet
- How Can You Participate?
- Comment Cards
- Sign-in



PROJECT OVERVIEW

- Why do we need a new substation in Bridgeport?
- Computer-generated photo renderings of the substation
- Construction Schedule



SITE PLAN

- Where is the location of the proposed substation?
- Needs
- Environmental
- Noise Impacts



UI

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Project Need Board

NEEDS

The existing Old Town substation was constructed in the 1960's and is nearing the end of its useful operating life. Several pieces of equipment require replacement/ upgrades to meet the existing and future need for electricity in the greater Bridgeport area, as well as continue to provide electricity safely and reliably. After evaluating the extent of the modifications required and the feasibility of making modifications, UI determined the most cost-effective solution was to rebuild the substation.

The Old Town Substation Rebuild Project will entail the construction and operation of a new 115/13.8-kV transmission and distribution substation, proposed to be built on an adjacent parcel to the existing substation, presently undeveloped property.

CURRENT SUBSTATION DEFICIENCIES

OPERATIONAL CONCERNS

Inadequate Lightning Protection – The substation's bus structure does not adequately protect the exposed equipment (e.g., disconnect switches) from direct stroke lightning strikes.

Insufficient Control Enclosure Space – The existing small control enclosure does not have sufficient work room space and cannot be expanded further due to the small size of the existing substation site.

Single Point of Failure – Both cable feeders extend from the bus enclosure through a common splice chamber, exposing customers to a single point of failure outage event.

Bus No. 3 Enclosure Problems – Issues associated with the buckling of the bus room floor.

Lack of Mobile Substation Access – UI owns two 50 MVA 115/13.8-kV mobile substation transformers that can be deployed to substations in the event of a transformer failure, the current substation has a single point of access for mobile substation deployment and has insufficient space to deploy even UI's smallest mobile substation transformer without violating clearances to the overhead strain bus. [PHOTO 1](#)

OBSOLETE EQUIPMENT CONCERNS

Oil Circuit Breaker (OCB) Replacement – The substation's 115-kV OCB is obsolete and is at an increased risk of failure. [PHOTO 1 and 2](#)

Disconnect Switch Maintenance Issues – The OCB disconnect switches are outdated and are increasingly difficult to maintain due to the absence of replacement parts and long lead times for specialty fabricated components. [PHOTO 1 and 2](#)

Corroded CCVTs – Two CCVTs require replacement. These CCVTs are badly corroded with a high risk of moisture penetration into the internal components. [PHOTO 3](#)



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Project Need Board

NEEDS

PHOTO 1



PHOTO 2



PHOTO 3



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How Can You Participate Board

WORKING WITH UI

HOW CAN YOU PARTICIPATE?

You Have a Voice in the Process

- Through discussions with company representatives, filling out comment cards and contacting us via email and telephone. There are also opportunities to participate in the Siting Council process.
- During the siting process, UI must formally consult with municipal officials. As part of the municipal consultation process, UI has elected to host this "open house" meeting, where residents have an opportunity to discuss their concerns and questions with subject experts.

After the application is filed, individuals and groups can also participate as parties or intervenors, or make limited appearances at the Connecticut Siting Council hearings.

- A public hearing will be held in the county in which the facility is proposed. The Council will publish the hearing date by general newspaper notice and will send notice to all parties and intervenors and to other parties required, or who have requested to receive notice.

MUNICIPAL CONSULTATION

- 60 days prior to filing an application with the Siting Council, the applicant must consult with the municipality in which the facility may be located.
- The municipality may conduct public hearings as necessary for it to advise the applicant of its recommendations concerning the proposed facility.

APPLICATION TO THE CONNECTICUT SITING COUNCIL

- Application must include detailed information about the project including a description of the technical specifications, a statement of why the facility is necessary and how the facility will serve the public need for adequate, reliable and economic electric service.
- The applicant must provide public notice of the application for approval to build a new electric substation by means of the newspaper, a sign at the proposed site and letters to the abutting land owners.

SITING COUNCIL PROCEEDINGS

- The Siting Council will review the application within 30 days. The Council and any party or intervenor may file exhibits and interrogatories requesting supplemental or explanatory materials.
- A public hearing will be held in the county in which the facility is proposed. The Council's record remains open for 30 days after the public hearing. The Council must render a decision within 180 days of the receipt of an application.



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Visual Simulation Board

PHOTO SIMULATION

EXISTING CONDITIONS: Sequoia Road



PROPOSED CONDITIONS: Sequoia Road



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Visual Simulation Board

PHOTO SIMULATION

EXISTING CONDITIONS: Sequoia Road



PROPOSED CONDITIONS: Sequoia Road



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Visual Simulation Board

PHOTO SIMULATION

EXISTING CONDITIONS: Main Street



PROPOSED CONDITIONS: Main Street



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Visual Simulation Board

PHOTO SIMULATION

EXISTING CONDITIONS: Old Town Substation



PROPOSED CONDITIONS: Old Town Substation



Construction Schedule Board

SCHEDULE

WORK HOURS

The Project will require approximately 18 to 24 months to construct. Standard work hours will be from 7 a.m. to 7 p.m., Monday through Saturday; however, some construction tasks will require work on Sundays or beyond these standard daily work hours.

