

Description of Greenport's Electric Distribution System and Fifth Street Infrastructure Description

Greenport's electric system is supplied from PSEGLI through a single dedicated underground distribution circuit that operates at 13,800 volts. (This is the voltage as measured between the wires at the top of the pole, when measured from any one of the wires to the ground wire the voltage is 7,900 volts). At the connection point between PSEGLI and the Village this circuit is split into two separate lines that run into our power plant at the same voltage, 13,800 volts.

At our power plant, each line supplies a separate transformer that reduces the voltage from 13,800 volts to 4,160 volts. (This is the voltage as measured between the wires at the top of the pole, when measured from any one of the wires to the ground wire the voltage is 2,400 volts). Through our switchgear we distribute this same voltage, 4,160 volts, throughout the Village on six separate overhead distribution lines. These lines are typically located at the top of each pole. At various points throughout the Village, transformers are installed on our poles that further reduce the voltage to 120/240 volts. This lower voltage is distributed on wires on a lower location at the pole and ultimately into homes and businesses throughout the Village.

The poles along Fifth Street are designed as described above. The proposed PSEGLI distribution circuit will operate at PSEGLI's distribution level of 13,800 volts. The cable will be installed in a conduit and manhole system at a depth of approximately three feet. There will be two spare conduits. These could be used to replace the cable if it should fail and is unable to be removed, or for an additional distribution circuit, should it be needed in the future.

The Village's existing underground infrastructure along Fifth Street consists of water mains and water services and sewer mains and sewer services. The water main depth is four and one half feet to five feet and the sewers are at a depth three and one half to five feet.