

E. Substations

Green Mountain Power manages and operates 185 transmission, distribution, switching, and hydro substations. Out of that total, 11 are in a FEMA-designated 100-year floodplain, and two are in a FEMA-designated 500-year floodplain. As defined by FEMA, a 100-year floodplain is a geographic area with a 1.0% chance of flooding every 100 years; in other words, the potential to flood once every 100 years. A 500-year floodplain is a geographic area with a 0.2% chance of flooding every 500 years; in other words, the potential to flood once every 500 years.

CHANGES TO OUR SUBSTATIONS IN FLOODPLAINS

Over the past four years, we have conducted topographical surveys of our substations, including those in FEMA-designated floodplains. As a result, there are a number of changes from our list of substations in floodplain from our 2014 IRP:

- The Middlesex transmission station and hydro generation step-up (located at 7510 Vermont 100B, Moretown in Washington County) were both found to be located on ground higher than both the 100-year and 500-year floodplain. There is no history of flooding at either location.
- The Waterbury distribution substation was removed from its location in the 100-year floodplain (48 Winooski Street, Waterbury in Washington County), and rebuilt it on Cloverdale Lane, Waterbury in a location outside of the floodplain.
- The Barre South End distribution substation (located at 121 South Main Street, Barre City in Washington County) has been raised three feet (from 616 feet to 619 feet) at its current location so that it resides above the 100-year floodplain. There is no history of flooding at this substation.

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Substations in FEMA-Designated Floodplains

- The Vernon equipment (located at 152 Governor Hunt Road, Vernon in Windham County) is actually a pole-mounted recloser that, while in the 500-year floodplain, is above a potential high-water mark. There is no history of flooding of this equipment.
- The East Jamaica distribution substation (located at 2069 Route 30, Jamaica in Windham County), while in the 500-year floodplain, was found to be four feet above a potential high-water mark, so it no longer resides in the floodplain.
- Our topographic survey uncovered three additional substations in a FEMA-designated floodplain: Taftsville transmission and hydro substation, Brownsville distribution substation, and Glen hydro substation.

SUBSTATIONS IN FEMA-DESIGNATED FLOODPLAINS

Table E-1 provides an overview of the substations in either a 100-year or 500-year FEMA designated floodplain.

Substation	Address	County	Floodplain Designation
Brownsville	Churchill Road at Route 44, West Windsor	Windsor	100-year
Dover	37 Kingswood Road, Dover	Windham	100-year
Fair Haven	33 Cottage Street, Fair Haven	Rutland	100-year
Georgia Pacific	0 Riverside Drive, Brattleboro	Windham	100-year
Glen	Route 7, Rutland Town	Rutland	100-year
Riverside	6 Chester Road, Springfield	Windsor	100-year
Riverton	2074 Route 12, Berlin	Washington	500-year
Rochester	237 Peavine Drive, Rochester	Windsor	100-year
Taftsville	Taftsville Covered Bridge Road, Woodstock	Windsor	100-year
Vernon Road	567 Vernon Street, Brattleboro	Windham	100-year
Windsor	26 River Street, Windsor	Windsor	100-year
Winooski	250 West Allen Street, Winooski	Chittenden	100-year
Woodstock	0 Maxham Meadow Way, Woodstock	Windsor	500-year

Table E-1. Substations in FEMA-Designated Floodplains

There is no history of flooding at the Dover, Fair Haven, Riverside, Riverton, Windsor, Winooski, or Woodstock substations. The Brownsville (partially), Glen, Rochester, and Taftsville substations all flooded during Tropical Storm Irene in 2011. Brownsville and Glen also experienced some erosion. Taftsville was subsequently repaired; Rochester was rebuilt with elevated control systems.