



SPRUCE MOUNTAIN

CLIENT: Patriot Renewables, LLC

LOCATION: Woodstock, Maine

PROJECT DETAILS

Spruce Mountain Wind, located in Woodstock, Maine, consists of 10 - 2.0 MW Gamesa G87 Wind Turbines. The project interconnects to a new CMP 34.5 kV roadside distribution circuit from Woodstock Substation. RLC was hired to facilitate the interconnection process and to serve as the project electrical engineers to design the collector system and communications for construction and for the permit application.

The 34.5 kV ridge top collector system was designed as an underground cable system to avoid electric system exposure to extreme ice and wind conditions. Once off the ridge line, the collector system transitions to an overhead line which carries the generation from the site to the interconnection location with Central Maine Power's 34.5 kV distribution system.

SCOPE OF SERVICES

- Facilitated the interconnection application process.
- Designed the underground collector system.
- Developed plan & profile design for 1.3 miles of 34.5 kV aerial collector system down steep grades, and minimized wetland impacts by reducing clearing limits.
- Developed construction and equipment specifications for 34.5 kV collector system.
- Identified and conceptually designed all on site communications, consisting of multi strand fiber optic cabling.
- Coordinated with local ISP to provide backup communications to the site.
- Provided construction review and commissioning supervision services.