



NOISE CONTROL ENGINEERING: ENVIRONMENTAL NOISE



RSG performed property- and fence-line sound monitoring and modeling to forecast changes in noise levels at nearby residences.

Monitoring and modeling noise impacts from utility's electrical substations

CHALLENGE

The Northwest Reliability Project is the Vermont Electric Company's (Velco) proposed upgrade to portions of Vermont's electric power distribution system. The project involves the construction and/or upgrading of approximately 70 miles of transmission lines and 12 substations. The project is the first major change to Vermont's electric distribution system in over two decades.

INITIATIVE

To support Velco's proposed upgrade project, RSG:

- Prepared detailed testimony on the noise impacts of 2 substations and pre- and post-construction noise monitoring at 12 substations included in a planned upgrade
- Determined transformer sound emissions in strict conformance with IEEE, IEC, and NEMA standards
- Recommended noise mitigation measures to maintain reasonable noise levels in the community

RESULTS

We prepared testimony to the Public Service Board that, in part, formed the basis of positive findings by the Board. Their order required Velco to conduct pre- and post-construction monitoring to ensure that noise from the transformers, shunt reactors, phase angle regulators, and synchronous condenser units—which are the major noise-generating components of the existing and proposed substations—would not create undue adverse impacts on noise aesthetics in the community.

Contact Information

For more information about this project, contact:

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