

NECPL MITIGATION SUMMARY TABLE
Steps Taken to Avoid, Minimize and/or Mitigate Potential Impacts
 (Revised as of August 26, 2015)

General Mitigation Strategies
<ul style="list-style-type: none"> • Establishing as a fundamental design criterion that the transmission line would be installed underwater and underground -- even though the cost will be significantly higher -- to avoid/reduce visual impacts, fragmentation, and other environmental impacts associated with overhead lines. • Using environmentally sensitive lake installation measures to install approximately 2/3 of the transmission line route in Lake Champlain, which will reduce overall construction time and lessen overland construction impacts on Vermonters. • Locating the overland cable route almost exclusively within existing public rights-of-way (ROW) (other than TDI-NE's property). The ROWs are heavily used, easily accessible during construction, are generally cleared of trees, undergo regular vegetation management and contain existing utilities. • Selecting the proposed Converter Station site from several possible locations by a multidisciplinary team, to significantly reduce potential visual and noise impacts. In addition, the station is sited in close proximity to compatible land uses, including multiple overhead lines and a VELCO substation. • Establishing a conservative overall noise objective at any residence near the Converter Station, and taking measures during siting and design of the Project to ensure that objective is met.
Specific Environmental Mitigation Strategies for Project Installation
<p><u>Lake:</u></p> <ul style="list-style-type: none"> • Shorelines - Using horizontal directional drilling (HDD) for land/water transitions in Alburgh and Benson entirely avoid impacts to the Lake Champlain shoreline, nearshore environments, and shallow water habitats. • Commitment to restore an existing degraded shoreline on TDI-NE controlled parcel in Benson. • Utilizing installation techniques in the Lake to minimize resuspension of sediments and to avoid specific aquatic archaeological sites. • Timing the installation to avoid sensitive periods of fish life cycles. • Fisheries – In consultation with state regulators, certain known fisheries habitats, specifically certain reefs and shoals identified by VT ANR have been avoided. • Invasive plants - Developing an Aquatic Invasive Species Management Plan to prevent the introduction and spread of invasive species.

- Turbidity - Real-time monitoring of turbidity during construction, and utilizing controls such as changing the rate of installation in order to reduce suspension of sediments if appropriate.
- Utilizing environmental inspectors on the installation vessels to monitor compliance with Lake-related regulatory requirements.
- Siting the cable route in conjunction with the Lake Champlain Maritime Museum (“LCMM”) to avoid archaeological resources wherever possible, and committing to LCMM best management practices.
- Relocating the cable 300’ from the deepwater intake of a State Fish Hatchery and other measures to mitigate potential impacts to the Fish Hatchery (i.e. proactive communication with DF&W during construction and compensation to DF&W if there is fish mortality attributable to the Project).
- Implementing a plan to return any debris temporarily removed from the Lake during construction back to the Lake as practical.
- Implementing a post-construction thermal monitoring plan.

Overland

- Streams - Minimizing buried crossings of streams, and avoiding any permanent stream channel or riparian habitat impacts. Utilizing HDD in over 20 locations, spanning almost 5 miles, to avoid any impacts to significant waterbodies such as Otter Creek, Cold River, Castleton River, and Lake Bomoseen.
- Tree clearing - Reducing and minimizing tree clearing within the ROW during project design.
- Routing the project away from or under RTE species and potential significant natural communities to the extent practical to avoid undue adverse impacts. Any tree removal in potentially significant communities will be limited to areas immediately adjacent to the ROW and promptly restored and re-vegetated to preconstruction conditions to the extent practical.
- Identifying potential Indiana Bat roosting trees and designing the route to avoid them. Implementing protocols for identifying roost trees if the project design changes.
- A long-term Vegetative Management Plan will be implemented to address the introduction of invasive species and mitigate impacts to RTE plants, including long-term monitoring of RTE plants and a plan to remediate any impacts that may occur.
- Due to the project design and the nature of trench construction permanent fill to wetlands will be avoided.
- TDI-NE has, and will, continue to coordinate with VTTrans and VTANR to ensure that crossing culverted streams will not interfere with potential future culvert replacement or stream enhancements. In addition, certain Town and/or State culverts could be replaced and hydrology would be improved during project construction.
- Riparian buffers have been identified in accordance with ANR Buffer Guidelines, and ground contours will be restored following construction to avoid any permanent alterations to waterways,

flood elevations, or the ability of land to hold water.

- In certain areas the cable is proposed in roadside stormwater ditches. These ditches will likely be improved as part of construction.
- Implementing a rigorous inspection protocol during construction in areas where RTE snake and turtle species may be present.

Public Health and Safety Mitigation Measures

- The project will use solid-state High Voltage Direct Current (HVDC) cables that eliminate the potential for leaks, and which contain protective layers designed to provide superior mechanical and corrosion protection thereby reducing the need for repairs over the lifetime of the project. HVDC cable technology has a proven track record of safety and reliability.
- DC technology, by its nature, significantly reduces electric and magnetic fields in comparison to AC. By burying the DC line the magnetic impacts are reduced further.
- The line will generally be installed in roadway cleared or safety zones to provide a buffer from traffic. Traffic controls will be implemented per Town, State, and Federal standards.
- Limitations will be placed on construction hours and seasonal restrictions on work along certain ROWs will be imposed.
- The HVDC technology immediately terminates the flow of electricity in the event the cable is compromised. Warning tape and protective material will be placed over the cables in the trench to reduce the chance for the cable to be compromised.
- If blasting is required, pre- and post-blast surveys will be offered to residents in the vicinity of the blast area. In addition, perchlorate will not be used in blasting activities and VTDEC Blasting BMPs will be followed.
- The creation of an Overall Oil and Hazardous Materials Spill Prevention and Contingency Plan to be implemented during construction.
- Fiber communication may be made available to VTtrans for their broadband program.
- The project route within the lake will avoid public water supplies, and owner/operators of public water supplies will be notified at least three weeks prior to cable installation.
- Owners and operators of infrastructure that will be crossed by the project, including existing electric, gas, telecommunications, water and waste water facilities, will be consulted prior to installation. This infrastructure will be protected by the use of mats.
- Risk of snagging from anchors is minimized due to the burial and concrete protection of the line.

- Communications and response plans will be developed and adopted, including an Aquatic Safety and Communications Plan for coordination with US Coast Guard and maritime users and an Emergency Repair and Response Plan to facilitate an efficient response in the event of an unanticipated breakage of the line.
- Use of commercially reasonable efforts to utilize circuit breakers that do not contain SF6.
- The overland and in water cables will be regularly inspected to confirm system integrity.
- Commercial operators in the lake have been briefed on the Project and installation will be coordinated with them, so as to not adversely impact their businesses.
- The Converter Station will be fenced and locked to control access.
- Installation, operation, and maintenance of the project will not require significant use of municipal water or wastewater facilities.
- The Project route within the lake will avoid private water supplies.
- The Town of Ludlow who is expected to host the Converter Station, has indicated that the project will not impact their municipal services.