

What Would Burial of High-Voltage Transmission Lines Cost?

Alternative	Northern Pass (Northeast Utilities and Hydro-Québec)	New England Clean Power Link (Transmission Developers Inc.)	Champlain Hudson Power Express (Transmission Developers Inc.)	Northeast Energy Link (National Grid, Emera)	Conceptual New Hampshire Burial Alternative (White Paper)
Key Elements	<ul style="list-style-type: none"> Conduit for 1200 MW of power from Hydro-Québec to ISO-NE market 187 miles of new HVDC/HVAC transmission lines in New Hampshire 180 miles of overhead lines, 7.5 miles of underground lines 10 miles of new and relocated transmission lines in White Mountain National Forest HVDC converter station in Franklin 	<ul style="list-style-type: none"> Conduit for 1000 MW of power from Canadian sources (likely Hydro-Québec) to central VT 150 miles of buried HVDC transmission lines in Vermont 100 miles of underwater HVDC transmission lines in Lake Champlain 50 miles of underground HVDC transmission lines buried in roads or transmission corridors HVDC converter station in Ludlow, VT 	<ul style="list-style-type: none"> Conduit for 1000 MW of power from Canadian sources (likely Hydro-Québec) to NYC area 333 miles of buried HVDC transmission lines in eastern New York 133 miles of underground HVDC transmission lines buried in active transportation corridors (rail and roads) HVDC converter station in NYC \$117m environmental trust fund 	<ul style="list-style-type: none"> Conduit for 1100 MW of power from Canadian and northern/eastern Maine sources to Massachusetts 230 miles of underground HVDC transmission lines in designated corridor (I-95) Two converter stations To include AC upgrades to collect northern/eastern Maine-based wind energy 	<ul style="list-style-type: none"> Similar length and configuration as Northern Pass HVDC portion Conduit for 1100 MW of power Buried transmission lines with preferred use of softened corridor Several routing alternatives, including interstate highways, railroad ROWs, and existing Phase II HVDC transmission corridor
Estimated Costs	<ul style="list-style-type: none"> \$1.4 billion total Overall project cost per mile: \$7.5m Burial costs: <i>\$13m/mile</i> 	<ul style="list-style-type: none"> \$1.2 billion total Overall project cost per mile: \$8m Burial costs: TBA 	<ul style="list-style-type: none"> \$2.2 billion total Burial costs: \$5.4m/mile 	<ul style="list-style-type: none"> \$2 billion total Burial costs: \$5.7m/mile 	<ul style="list-style-type: none"> \$2 billion total Burial costs: \$5.3m/mile
Potential Relationship to Northern Pass		<ul style="list-style-type: none"> Direct competitor Strong commitment to stakeholder engagement Champlain Hudson model 	<ul style="list-style-type: none"> Original proposal called for Connecticut spur of 1,000 MW Currently has state approvals, federal permits pending 	<ul style="list-style-type: none"> Facilitates imports and domestic renewable energy Provides corridor lease payments to Maine 	<ul style="list-style-type: none"> White paper confirms feasibility of HVDC and HVAC burial