## STATE OF VERMONT PUBLIC SERVICE BOARD

Petition of Champlain VT, LLC d/b/a TDI New England	)
for a Certificate of Public Good, pursuant to 30 V.S.A. §248,	)
authorizing the installation and operation of a high voltage	)
direct current (HVDC) underwater and underground electric	) Docket No
transmission line with a capacity of 1,000 MW, a converter	)
station, and other associated facilities, to be located in Lake	)
Champlain and in the Counties of Grand Isle, Chittenden,	)
Addison, Rutland, and Windsor, Vermont, and to be known	)
as the New England Clean Power Link Project ("NECPL")	)

## PETITION FOR CERTIFICATE OF PUBLIC GOOD

NOW COMES Champlain VT, LLC d/b/a TDI New England ("TDI-NE") and files this Petition, pursuant to 30 V.S.A. § 248 and Public Service Board ("Board") Rule 5.400, requesting that the Board issue a Certificate of Public Good for the New England Clean Power Link Project ("NECPL" or "Project").

By this Petition, TDI-NE represents the following:

- 1. TDI-NE is a Delaware limited liability company authorized to do business in Vermont, with a business mailing address of P.O. Box 155, Charlotte, Vermont 05445. TDI-NE is owned by The Blackstone Group, a publicly-traded global investment and advisory firm.
- 2. The NECPL is a proposed high voltage direct current (HVDC) electric transmission line that will provide electricity generated by renewable energy sources in Canada to the New England electric grid.
- 3. The nominal operating voltage of the NECPL will be approximately 300 to 320 kV, and the system will be capable of delivering 1,000 MW of electricity. The NECPL is



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- expected to deliver 8,322 gigawatt hours of electricity per year, which is equivalent to the energy used by approximately one million residential homes.
- 4. The NECPL will run for approximately 154 miles in Vermont along underwater and underground routes, beginning from the Canadian border at Alburgh, Vermont where the line will enter and run through Lake Champlain, exiting the lake at Benson, Vermont and running underground along state and town rights-of-way to a converter station in Ludlow, Vermont. From Ludlow, it will then connect to the existing Vermont Electric Power Company (VELCO)-owned Coolidge Substation in Cavendish.
- 5. The HVDC cables run underground or underwater from Alburgh to Ludlow. For the approximately 98 miles the line will run through Lake Champlain, the cables will be buried or placed on the lake bottom. For the remaining 56 miles over land, the line will be buried to an estimated four feet within existing public (state and town) road or rail rights-of-way.
- 6. At Ludlow, the line will terminate at the Converter Station where the electrical power will be converted from direct current (DC) to alternating current (AC). The converted electricity will then exit through the AC transmission line that will run underground for approximately 0.3 miles from the Converter Station along a town road to the existing Vermont Electric Power Company (VELCO)-owned Coolidge Substation in Cavendish.
- 7. The Project's major equipment will generally consist of the following: two solid insulated dielectric HVDC cables (one positively charged and one negatively charged) and a separate armored multi-strand fiber optic cable; a converter station in Ludlow which will include a structure housing DC to AC conversion equipment, a



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- capacitance-coupled voltage transformer, three single-phase and one spare transformer, an auxiliary transformer, an air-core series reactor, a pre-insertion resistor, a disconnect switch, circuit breakers, a valve cooling system, an enclosed diesel generator, lightning protection masts, and a spare parts building; and an underground 345 kV AC transmission line within a duct bank.
- 8. The NECPL will be a privately-financed, or "merchant" plant. TDI-NE does not intend to seek recovery of project costs through charges paid by retail electric ratepayers; rather, it will recoup its construction and operation costs through the payments it will receive from Canadian power suppliers who contract to utilize capacity on the NECPL.
- 9. The NECPL would contribute to meeting State and regional energy and sustainability goals and result in millions of tons/year in reduced greenhouse gas emissions by replacing electricity generated by fossil fuels. By burying the NECPL underground, the Project will also provide a major source of electricity without the need for aboveground transmission lines and the associated aesthetic impacts.
- 10. The NECPL will provide significant economic benefits to the State of Vermont, including hundreds of millions of dollars in lease and tax revenue over the course of the Project's lifetime, the creation of in-state jobs during construction and operation, and the development and financing of four public good benefit funds. These funds will directly benefit Vermont electric ratepayers, efforts to clean-up and improve Lake Champlain, and enhancement of in-state renewable energy programs.
- 11. The hydroelectric power provided by the NECPL will enhance the State and region's fuel diversity, reducing its dependence on natural gas, and will strengthen the Vermont electric grid. The Project will have "Black Start" capability that will enable



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- it to quickly restart the electric grid in case of a blackout, and the buried infrastructure will protect the line from natural disasters.
- 12. The NECPL will contribute to Vermont's ability to meet present and future energy demands in light of forecasted load growth and the impending retirement of regional power plants, without causing undue adverse effects on the environment or the communities in which the Project will be located.
- 13. In support of this Petition, TDI-NE submits prefiled testimony and exhibits that address each of the § 248(b) criteria.

## REQUEST FOR RELIEF

WHEREFORE, TDI Nee England respectfully requests this Board to:

- A. Hold a prehearing conference as expeditiously as possible on the Petition;
- B. Hold technical hearings, as the Board determines necessary;
- C. Render a decision on this Petition by no later than the end of 2015, in order to allow TDI-NE to construct the Project and begin operations by no later than April 2019
- D. Make findings, as required by 30 V.S.A. § 248, that TDI-NE shall be authorized to construct and operate a 1,000 MW electric transmission line from Alburgh, Vermont to Ludlow, Vermont and related infrastructure in Ludlow and Cavendish, Vermont, and that the Project will promote the general good of the State of Vermont; authorize TDI-NE to undertake the actions described herein and in the attached testimony and exhibits; and issue a Certificate of Public Good to that effect; and



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E. Take such other action as may be required for the expeditious review and approval of this Petition.

DATED at Burlington, Vermont, this 8th day of December, 2014.

## Champlain VT, LLC d/b/a TDI New England

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