

Individual Permit Application

for a **Lake Encroachment Permit** under
Chapter 11 of Title 29, § 401 *et seq.*

For Lake Encroachment Permitting Use Only

Application Number: _____



VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
**WATERSHED
MANAGEMENT DIVISION**
LAKES & PONDS PROGRAM

Submission of this application constitutes notice that the person in Section B intends to encroach beyond the mean water level of a lake or pond, and certifies that the project will comply with Chapter 11 of Title 29, § 401 *et seq.* All information required on this form must be provided, and the requisite fees (Section I) must be submitted made payable to the State of Vermont, to be deemed complete.

A. Project Information

1a. Physical Address (911 Address): 4A Champlain Landing

1b. Municipality: Grand Isle

1c. Zip: 05458

2. SPAN*: 255-018-11127

NA

3. Name of lake/pond: Lake Champlain

4. Is there an existing lake encroachment permit associated with this project location?

Yes

No

Permit #: _____

B. Applicant Contact Information

1. Name: Tim Follensbee II, Environmental Manager, VELCO

2a. Mailing Address: 366 Pinnacle Ridge Road

2b. Municipality: Rutland

2c. State: VT

2d. Zip: 05701

3. Phone: 802-770-6423

4. Email: tfollensbee@velco.com

C. Application Preparer Contact Information

1. Name: Lydia Lee

2a. Mailing Address: 40 IDX Drive, Building 100, Suite 200

2b. Municipality: South Burlington

2c. State: VT

2d. Zip: 05403

3. Phone: 802-497-6114

4. Email: llee@vhb.com

D. Abutting Land Owners

Using the abutter addendum available on watershedmanagement.vt.gov/permits/html/pm_encroachment-application.htm, attach a list of land owners who abut the proposed project.

*SPAN: The "School Parcel Account Number" is required for your application to be deemed complete. It can be obtained from your property tax bill. If you cannot locate your property tax bill, please obtain this information from your Town Clerk. SPAN is a unique identification number for each parcel of property in the State of Vermont consisting of eleven digits. The first three digits identify the town; the next three digits identify the school district; and the last five digits represent the unique parcel or property.

E. Project Description

1. Describe the proposed project including a description of the materials and mechanical equipment which may be used during construction and the anticipated work schedule. Identify whether or not the project includes placement or removal of fill and if so, specify the number of cubic yards of fill or dredged materials to be placed or removed beyond the shoreline at mean water level. On separate pages attach site plans with aerial and cross section views as well as any other relevant supporting documents:

The proposed PV-20 Project will replace the seven oil-filled cables located within Lake Champlain that extend between the New York Power Authority ("NYPA") Cumberland Head substation in Plattsburgh, New York and VELCO's Grand Isle terminal station in Grand Isle, Vermont with four new extruded dielectric (oil-free) submarine electric transmission line cables. The overall proposed Project includes: construction of new NYPA and VELCO transition/terminal stations, installation of four new submarine cables, removal of the seven existing cables, and removal of the existing terminal stations (also referred to as substations). In addition, the Vermont portion of the Project will involve the replacement of one existing overhead utility line structure and installation of one new overhead utility line structure associated with VELCO's existing K20 line circuit.

2. Describe the purpose of the proposed project:

The PV-20 line is a vital interconnection between the Vermont and New York electrical grids; this line is one of the five transmission lines that support the greatest electrical energy demand center of Vermont. A recent assessment conducted by NYPA determined that the existing cables are approaching the end of their design life and are regarded as being at risk for long term continued service. Based on this, the importance of this transmission interconnection, the long lead times for custom fabrication and repair of the existing cables, and the potential for a significant release of oil to the land or Lake in the event of a cable failure, NYPA and VELCO are proposing to replace the existing cables, prior to any failures associated with these cables.

3. Describe what less intrusive feasible alternatives have been considered and what measures are proposed to reduce adverse impacts on the waterbody:

VELCO considered several Project design and construction alternatives to develop the Project as proposed, which represents the least intrusive alternative that achieves the purpose and public benefits of the Project. Please refer to the Narrative Report for more information and discussion.

4. Describe the public benefits of the proposed project:

The PV-20 line is a vital interconnection between the Vermont and New York electrical grids; this line is one of the five transmission lines that support the greatest electrical energy demand center of Vermont. This Project creates economic and safety benefits to Vermont because it replaces aged and damaged infrastructure before its complete failure. Failure of one of the existing operating cables would likely result in a lengthy line outage, which would hinder the electrical reliability serving the Chittenden County area. Such a failure could result in higher wholesale electricity prices, generation limits, difficulty in performing transmission system maintenance, and potentially exposing the system to voltage collapse problems. Loss of this interconnection would have a significant impact upon the overall reliability of the VT electrical transmission grid. The Project will also increase property and education tax revenues based on the capital investment required for the replacement assets. Please refer to the Narrative Report for more information.

F. Encroachment Effects (describe how the proposed project will affect the following)

1. Water quality:

VELCO completed studies to characterize Lake conditions and assess the Project's potential impacts on natural resources in the Lake during construction. Analysis of potential impacts to surface waters included the assessment of impacts to Lake Champlain that may result from the installation of the submarine cables, including the potential resuspension of lakebed sediments. As presented in VHB's VELCO PV-20 Lake Champlain Crossing Water Quality Assessment Memorandum ("PV-20 Technical Memorandum" provided in Appendix 4 of the Narrative Report), the comprehensive review of relevant available datasets and model outcomes, in addition to Project specific studies, indicates that the installation of the Project will not result in undue adverse effects to water quality and will maintain compliance with all applicable VWQS criteria. Please refer to the Narrative Report for more information.

2. Fish and wildlife habitat:

No significant or measurable impacts on fish and wildlife habitat are anticipated as a result of the construction or operation of the project. VELCO retained EcoLogic, LLC ("EcoLogic") of Syracuse, New York to complete an aquatic habitat and biota assessment for the Project corridor (provided in Appendix 4 of the Narrative Report). EcoLogic assessed the use of the Lake littoral zone by other fish and wildlife species. Based on their assessment, EcoLogic found that no significant short-term or permanent impacts are anticipated to occur as a result of installation of the four new cables based or as a result of the cable removal. Please refer to the Narrative Report for more information.

3. Aquatic and shoreline vegetation:

HDD installation methodology is being proposed to avoid impacts to the shoreline. Project activities involving ground disturbance within the shoreline of the Lake will be primarily associated with the removal of the existing cables. Impacts due to trench excavation within the defined shoreline area total approximately 2,030 square feet (0.05 acre). During construction, specific EPSC measures will be utilized to ensure no unintended releases of sediment to the Lake will occur. The Project will also retain existing vegetation to screen the development and to maintain shoreline stabilization. Once cable removal activities are completed, the shoreline will be restored, including bank stabilization measures, to pre-construction conditions to the extent feasible. Although a portion of the Project is located within the shoreline area, the Project will not impinge on the current shoreline condition, recreational use, existing riparian vegetation, or result in decreased bank stability from the current condition and will therefore, not have any undue adverse effect on the shoreline. Please refer to the Narrative Report for more information.

4. Consistency with natural surroundings:

Once installed, the cables will not be visible and their presence will therefore be consistent with the natural surroundings. The new terminal station will be similar in size and content to the existing station. Vegetation will be maintained to shield the view of the station and its components.


5. Navigation, recreation, and other public uses:

Once installed, there would be no significant or measurable impacts on recreation and public uses. The alternating current through the cables will emit magnetic fields, but the magnetic field will not affect compass readings (refer to Technical Memorandum, Appendix 4). The cables are being buried within the Lake bed to water depths of 100 feet in order to avoid impacts to fishing and recreation.

G. Applicant Certification

As APPLICANT, I hereby certify that the statements presented on this application are true and accurate and recognize that by signing this application, I agree to complete all aspects of the project as authorized. I understand that failure to comply with the foregoing may result in violation of the Chapter 11 of Title 29, § 401 *et seq.*, and the Vermont Agency of Natural Resources may bring an enforcement action for violations of the Act pursuant to 10 V.S.A. chapter 201.

Applicant/Landowner Signature: _____



Date: 03/18/2016

H. Application Preparer Certification (if applicable)

As APPLICATION PREPARER, I hereby certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Application Preparer Signature: *Sydney He* Date: 3/18/2016

I. Permit Application Fees

1. Estimated project cost: \$ 18,500,000.00

Select the most applicable permit description and requisite fee. If the proposed project involves more than one of the project types, multiple fees may apply. For example, a project involving structural erosion control and marina improvement will require both fees (3) and (4).

2. Non-structural erosion control project (e.g., rip rap):

Non-structural erosion control project: \$155.00		
Total:		\$

3. Structural erosion control project (e.g., concrete wall replacement):

Structural erosion control project: \$250.00		
Total:		\$

4. Other projects (e.g., marina improvements):

Other Project: \$300.00		
Project Cost Fee: 0.01 times project cost	Project cost (H1.) $\frac{\$18,500,000.00}{1}$ X 0.01	
Total:		\$ 20,000.00

The in-lake capital costs are expected to be approximately \$18.5 million, therefore the required fee is the permit application cap of \$20,000 pursuant to 3 V.S.A. Section 2822

Vermont Department of Environmental Conservation
Watershed Management Division
Lake Encroachment Permitting
1 National Life Drive, Main 2
Montpelier, VT 05620-3522

Direct all correspondence or questions to Lake Encroachment Permitting at:
ANR.WSMDShoreland@state.vt.us

For additional information visit: www.watershedmanagement.vt.gov

Lake Encroachment Application Addendum

for a **Lake Encroachment Permit** under
Chapter 11 of Title 29, § 401 *et seq.*

For Lake Encroachment Permitting Use Only

Application Number:



VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
**WATERSHED
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This Abutting Land Owner Addendum is intended to accompany a completed *Lake Encroachment Permit Application* in instances of a proposed lake encroachment abutting land owners other than the applicant.

I. Abutting Land Owner Information

1. **Name:** Robert Tashjian and Sarah Majercik

Address: 5220 East Pioneer Frok Road, Salt Lake City Utah 84108

2. **Name:** William and Joanne Champagne

Address: 64 West Shore Road, Grand Isle, VT 05458

3. **Name:** Jeanne Claude Rancoud-Guillon

Address: 10 Champlain Landing, Grand Isle, VT 05458

4. **Name:**

Address:

5. **Name:**

Address:

6. **Name:**

Address:

7. **Name:**

Address:

8. **Name:**

Address:

9. **Name:**

Address:

10. **Name:**

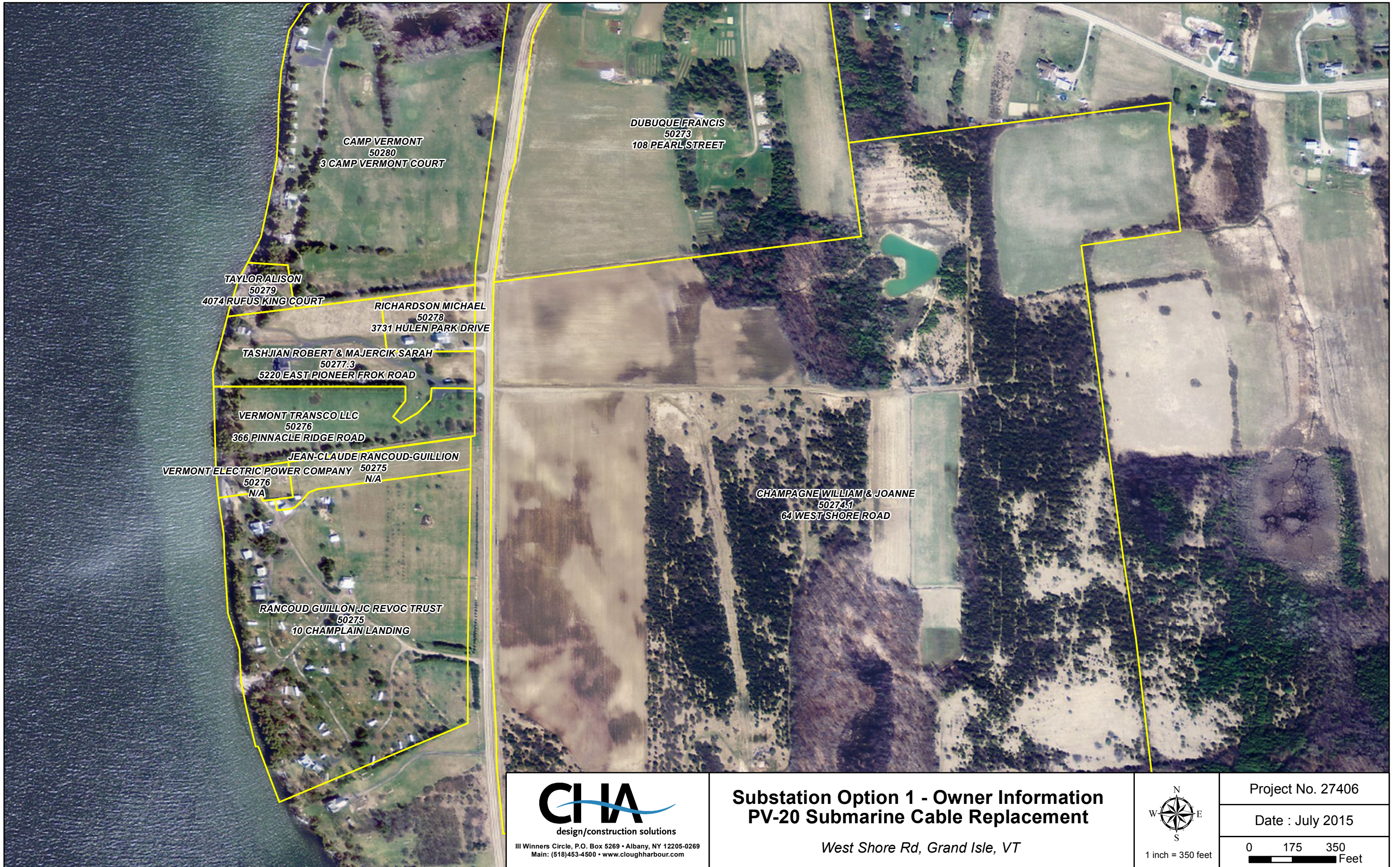
Address:

Submit this form as an addendum to a complete Lake Encroachment Application to:

State of Vermont
Vermont Department of Environmental Conservation
Watershed Management Division
Lake Encroachment Permitting
1 National Life Drive, Main 2
Montpelier, VT 05620-3522

Direct all correspondence or questions to Lake Encroachment Permitting at:
ANR.WSMDSshoreland@state.vt.us

For additional information visit: www.watershedmanagement.vt.gov



CAMP VERMONT
50280
3 CAMP VERMONT COURT

DUBUQUE FRANCIS
50273
108 PEARL STREET

TAYLOR ALISON
50279
4074 RUFUS KING COURT

RICHARDSON MICHAEL
50278
3731 HULEN PARK DRIVE

TASHJIAN ROBERT & MAJERCIK SARAH
50277.3
5220 EAST PIONEER FROK ROAD

VERMONT TRANSCO LLC
50276
366 PINNACLE RIDGE ROAD

JEAN-CLAUDE RANCOUD-GUILLION
50275
N/A

VERMONT ELECTRIC POWER COMPANY
50276
N/A

RANCOUD GUILLON JC REVOC TRUST
50275
10 CHAMPLAIN LANDING

CHAMPAGNE WILLIAM & JOANNE
50274.1
64 WEST SHORE ROAD

CHA
design/construction solutions
III Winners Circle, P.O. Box 5269 • Albany, NY 12205-0269
Main: (518)453-4500 • www.cloughharbour.com

**Substation Option 1 - Owner Information
PV-20 Submarine Cable Replacement**
West Shore Rd, Grand Isle, VT

1 inch = 350 feet

Project No. 27406
Date : July 2015
0 175 350 Feet



March 22, 2016

Ref: 57660.00

Mr. Misha Cetner
Vermont Department of Environmental Conservation
Lake Encroachment and Shoreland Permitting
1 National Life Drive, Main 2
Montpelier VT 05620-3522

Re: Vermont Transco, LLC
PV-20 Submarine Cable Replacement Project
Grand Isle, Vermont
Lake Champlain Lake Encroachment Permit Application

Dear Misha:

On behalf of Vermont Transco, LLC ("VELCO"), VHB has prepared the enclosed CD containing the Lake Encroachment Permit application form, narrative and supporting documents for the proposed PV-20 Project ("Project"). As previously discussed with you and others at Vermont Department of Environmental Conservation ("DEC") and presented to you via the Public Service Board Docket number 8604, the proposed PV-20 Project is to replace a segment of the existing 115 kV K20 circuit that extends west-to-east between New York Power Authority's ("NYPA's") Cumberland Head terminal/substation in Plattsburgh, New York and VELCO's Grand Isle terminal station in Grand Isle, Vermont. This segment of the existing circuit currently consists of seven oil-filled cables that are buried along the land portions and within the shallows of Lake Champlain (the "Lake") and directly laid along the bottom in the deeper portions of the Lake.

The existing cables are at the end of their expected useful service life. VELCO and NYPA propose to replace the existing seven cables with four new extruded dielectric (oil-free) submarine electric transmission line cables, and replace the existing terminal stations on either side of the lake. Upon commissioning of the replacement cables and new terminal stations, the existing cables and terminal stations will be completely removed.

This permit application and supporting materials are being submitted in accordance with Vermont Statutes Title 29, Chapter 11 Management of Lakes and Ponds §402(3), which states that "the alteration of the lands underlying any waters, or the placement of a cable or similar structure beyond the shoreline is considered to be an encroachment, and is prohibited without obtaining a Lake Encroachment Permit." Therefore, this application has been prepared to demonstrate how the proposed Lake installation will meet the applicable permitting criteria.

Mr. Misha Cetner
Ref: 57666.00
Page 2 of 2
March 22, 2016



In addition to these materials, VHB has enclosed an application fee check in the amount of \$20,000 made payable to the State of Vermont.

Please let us know if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink that reads "Lydia Lee".

Lydia Lee, PG
Geologist

LGL/jkw
Enclosures (on CD)

cc: Tim Follensbee (cover letter and electronic version on CD)
Jason Gorman (cover letter and electronic version on CD)