



February 22, 2018

TO: Persons and Entities Entitled to Notice Pursuant to Public Utility Commission Rule 5.107(B) (See Enclosed List)

RE: Novus Hardwick Solar, LLC's Proposed Solar Project in Hardwick, VT  
45-Day Notice of Application to be filed with Vermont Public Utility Commission

Dear Interested Persons and Entities,

Pursuant to 30 V.S.A. §§ 248 and 8010 and Public Utility Commission (PUC) Rule 5.107(B), Novus Hardwick Solar, LLC (Novus) is pleased to submit the following pre-application notice concerning a proposed 500-kilowatt (kW) group net-metered solar project (the Project), to be sited on a gravel pit site off of Arsene Avenue, a private road in Hardwick, Vermont. The purpose of this letter is to provide you with advance notice that Novus anticipates filing a Section 248/8010 application for a Certificate of Public Good (CPG) with the Vermont Public Utility Commission (PUC) soon after the 45-day notice period expires, in April 2018. This letter provides an overview of the Project design, its benefits and potential impacts, as well as the opportunity to participate in the review process before the PUC.

## **I. Introduction**

The proposed Project, to be known as the "Novus Hardwick Project" is a 500 kW (alternating current (AC)) solar electric generation facility in Hardwick, Vermont (the "Project"). The Project will be a group net-metered facility wherein the solar generating facility produces power to offset the electricity requirements of the group members. The Project would occupy an approximately 3.41 acre +/- portion of a parcel that is currently used as a gravel pit. The project will be located on a portion of the parcel that has been previously disturbed for gravel extraction, but is no longer being used for this purpose. The project area will be fully reclaimed before construction of the project begins, while other areas of the site will continue to be used for the gravel pit operation. A site location map and a preliminary site plan for the project are included with this letter.

The remainder of this letter briefly describes: (1) Novus's plans for construction and operation of the Project, including how equipment and materials will be transported to the site; (2) the expected economic and social benefits of the Project; (3) the preliminary assessment of impacts; (4) the expected date an application will be filed with the Commission; and (5) the rights of the persons receiving this notice to comment on the project plans in accordance with Commission Rule 5.107(B).

## **II. Project Description and Construction Plans**

Novus has a lease for a parcel of land off of Arsene Avenue in Hardwick, Vermont and intends to occupy approximately 3.41 +/- acres of that land for this project. A Location Map is provided in *Attachment A*. The site will be accessed via an existing access road coming off of Arsene Avenue.

The Project will include the installation and operation of up to 500 kW AC nameplate capacity solar electric generation facility comprising of approximately 2,160 solar modules mounted on fixed metal racks and the required electrical equipment. On-site electrical equipment will include string inverters, alternating current (AC) collector system components consisting of underground conduit, wire, four AC combiner panel boards, and four AC disconnects. The interconnection equipment will include three pole-mounted 167 kVA transformers, low side metering, and a high-side disconnect. The Project will connect to the existing electric distribution line located along Arsene Avenue.

A preliminary Project Site Plan is included in *Attachment A* and illustrates the anticipated location of Project components in relation to the surrounding area. Novus chose the proposed location for this solar array because it is a previously disturbed portion of a gravel pit and is thus deemed to be a “Preferred Site” under the PUC rules for net-metering (Rule 5.103). The gravel pit is currently operating under an Act 250 Land Use Permit (Permit #7C0671-1).

In addition, the site was chosen based upon solar exposure, accessibility to existing roads and distribution lines, and its minimal impacts on natural resources and the character of the area. While the attached site plan represents the current preferred layout, the layout that will be contained in the final application may vary somewhat based upon further engineering, environmental, or other siting considerations. The final layout will be within the overall site area where environmental and other impacts have been evaluated for the purposes of this 45-day notice.

The basic parameters of the site plan include the following working assumptions:

- Access to the solar site will make use of the existing roads within the area, including Arsene Avenue, then proceed on a 12-foot-wide existing access road to the entrance of the array.
- The solar panel support frame structures will be pile-driven, resulting in minimal grading and earth disturbance. Additionally, there will be insignificant amounts

of new impervious surfaces created by the Project.

- Construction will be performed in accordance with the Vermont Standards & Specifications for Erosion Prevention and Sediment Control, 2006.
- Year-round daily access to the array is not required. Therefore, no on-site septic or water supply systems will be constructed. The solar array production will be monitored remotely and, if any upset conditions develop, technicians will be dispatched as required.
- The array will be enclosed by a perimeter fence that will meet applicable state and electric safety code standards.

#### Site Access & Equipment Delivery

Standardized trucking methods utilizing tractor-trailer and box truck vehicles will transport the panels and other project components to the site. Project construction will not require any oversized loads. Access to the site will be from the existing access road coming off of Arsene Avenue through the gravel pit. Construction equipment utilized to install the Project will likely include a light duty crane or similar equipment to lift the panels in place and a tire or track-mounted excavator utilized to drive the foundation posts.

#### Solar Panels and Electrical Collection System

Novus is considering the use of Hanwha 340-watt solar panels, or a similar product. The final panel selection will be made prior to the initiation of construction. The solar arrays will be set on driven steel foundation piles and hold the solar panels at a fixed angle of 30 +/- degrees, to maximize solar radiance collection. The support structures are designed to hold the bottom of the solar panels at approximately 4 feet above existing grade. The top of the solar panels will be fixed at approximately 10 feet above grade. The arrays will be supported by posts driven into the landscape utilizing standard construction technologies. This service mounting approach will not require any significant excavation, or placement of precast concrete under the panel array.

The array will be arranged in approximately 15 rows running east-west, with each row ranging from approximately 120 feet in length to approximately 250 feet in length. The rows will be connected via underground electrical cable in conduit to string inverters. From the inverters, the electrical interconnect line will continue to proceed underground to Hardwick Electric Department's pole-mounted three (3) 167 kVA transformers.

### **III. Project Benefits**

The Project is expected to provide a number of benefits, including:

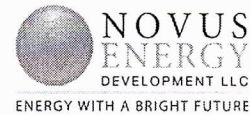
- Energy cost savings for net-metering group members.
- Payment of State educational and municipal property taxes.
- Purchasing equipment from Vermont businesses, when commercially feasible.
- Employing Vermont businesses for pre-application, construction, and operation and maintenance work, when commercially feasible.

While the Project has significant economic benefits, the environmental benefits of solar energy from the Project are also substantial. The 2016 Vermont Comprehensive Energy Plan has set a goal for the state to receive 90% of its energy from renewable resources by the year 2050, and solar power is needed to meet that goal. The solar energy produced by this Project will likely result in less electricity needed in the New England region from plants that use fossil fuel or nuclear energy. It will produce no emissions when operating, and thus will help in a small but measurable way to reduce global warming, acid rain, and the negative public health effects associated with the use of fossil fuel and the waste storage challenges presented by nuclear energy production.

### **IV. Preliminary Impact Assessment**

Based upon the initial review performed by Novus and its consultants, including the use of the State's environmental databases, the Project's location at an existing gravel pit will either avoid or not cause impacts to environmental resources, and will not create public health or safety concerns. Key elements include the following:

- The Project has been sited to avoid wetlands and streams.
- No rare/endangered plants, significant natural communities, or critical wildlife habitat have been discovered within the Project footprint.
- The Project is designed to meet electric safety and utility interconnection standards for safe and reliable operation of solar electric facilities.
- The Project will require no new municipal services and will not pose undue burdens on town fire, police, or water/sewer services. The Project will not impact the ability of the town to provide educational services.



- Based on an initial aesthetic assessment by Novus's consultant, the Project is well-sited to minimize visibility to surrounding areas. The Project site is located off of a private road, and will not be visible from the nearest public road (Route 116). From the private road, there may be some areas of low or intermittent visibility, with the only area of high visibility being directly in front of the Project entrance. As the road is private, with only one residence that is located before the Project site and separated from the Project site by intervening forest, the Project should have minimal aesthetic impacts. As a result, Novus's consultant has determined that no landscape mitigation measures are needed. A complete visual assessment will be conducted as part of the full application.

**V. Expected Petition Filing Date with Vermont Public Utility Commission**

Novus intends to file an application and supporting materials with the PUC soon after the 45-day notice period expires in April of 2018.

**VI. Comments and Inquiries Concerning the Project**

At this juncture, if you have any questions or comments concerning the Project please feel free to contact Novus as follows:

T. Alex Bravakis  
Novus Hardwick Solar, LLC  
2 Spring Street  
Montpelier, VT 05602  
[alex@novusenergydev.com](mailto:alex@novusenergydev.com)  
Phone: (347) 891-0296

We here at Novus hope you will support this Project, given its benefits to net-metering customers, the town and the State, and given its extremely limited impacts. You will have an opportunity to file comments with the Public Utility Commission once the application for a Certificate of Public Good is filed, of which you will receive a copy via certified mail. In the meantime, I invite you to contact me with any questions or comments you have, as we welcome your input and suggestions to make this a successful project.



Sincerely,

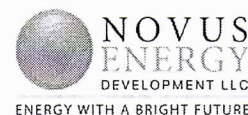
A handwritten signature in black ink, appearing to read "T. Alex Bravakis". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

T. Alex Bravakis  
Novus Hardwick Solar, LLC

Enclosures:

List of Persons and Entities Receiving Notice

Attachment A – Site Location Map and Preliminary Project Site Plan



**Novus Hardwick Solar, LLC**  
**Proposed Group Net-Metered Solar Project in Hardwick, VT**

**List of Persons and Entities Receiving 45-Day Notice of the Application**

Vermont Public Utility Commission  
112 State Street, 4th floor  
Montpelier, VT 05620-2701

Vermont Agency of Natural Resources  
Secretary's Office  
1 National Life Dr, Davis 2  
Montpelier, VT 05620-3901

Vermont Public Service Department  
Commissioner's Office  
112 State Street, 3rd Floor  
Montpelier, VT 05620-2601

Town of Hardwick Selectboard  
20 Church Street  
Hardwick, VT 05843

Town of Hardwick Planning Commission  
20 Church Street  
Hardwick, VT 05843

Hardwick Electric Department  
P.O. Box 516  
Hardwick, VT 05843

Northeastern Vermont Development  
Association

36 Eastern Ave, Suite 1  
PO Box 630  
St. Johnsbury, VT 05819

Vermont Division for Historic  
Preservation

1 National Life Drive, # 6  
Montpelier, VT 05620

Vermont Agency of Agriculture,  
Food, and Markets

116 State Street  
Montpelier, VT 05602

Natural Resources Board  
1 National Life Drive

Montpelier, VT 05602

Gary and JoAnne Dimick

60 Petes Pond Road  
East Hardwick, VT

**Adjoining Landowners**

Gary and Joanne Dimick  
55 Michaud Farm Road  
East Hardwick, VT 05836

Denis and Claire Michaud  
109 Michaud Farm Road  
East Hardwick, VT 05836

Howard Silver  
189 East Main Street  
Greensboro Bend, VT 05842

Darin W. & Tanya Barber  
8 Dimick Road  
East Hardwick, VT 05836

Life Estate of Cheryl M. Phaneuf  
PO Box 147  
Greensboro Bend, VT 05842

Ronald & Brenda J. Modica  
PO Box 274  
Greensboro Bend, VT 05842

Denise Fradette et al.  
3148 Vermont Route 16  
East Hardwick, VT 05836

Mark & Cheryl Williams  
67 Dimick Road  
East Hardwick, VT 05836

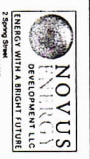
David Dow  
3633 Vermont Route 16  
East Hardwick, VT 05836

Mario & Mary Jane Fradette  
PO Box 23  
Hardwick, VT 05843



**NOVUS  
HARDWICK  
SOLAR, LLC**

Aspen Ave  
Hardwick, Vermont



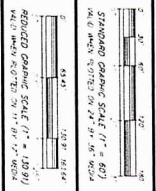
NOVUS ENERGY DEVELOPMENT LLC  
1000 WASHINGTON STREET  
MONTPELIER, VT 05602

NOVA 1, L.P. (a limited liability partnership)  
146 Lake Street, Suite 201  
Hardwick, Vermont 05743  
781.221.8424  
www.novusenergy.com

**ISSUED FOR PERMIT REVIEW  
NOT FOR CONSTRUCTION**

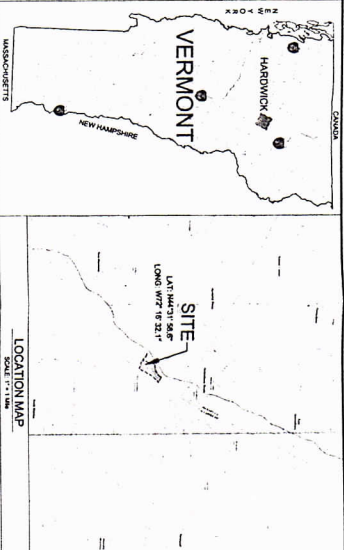
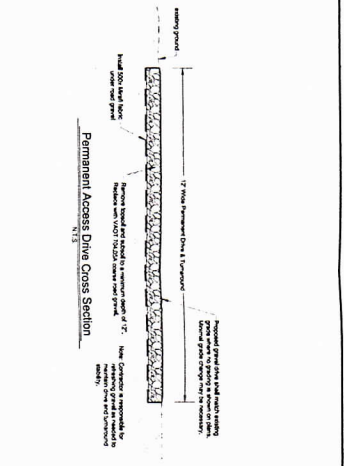
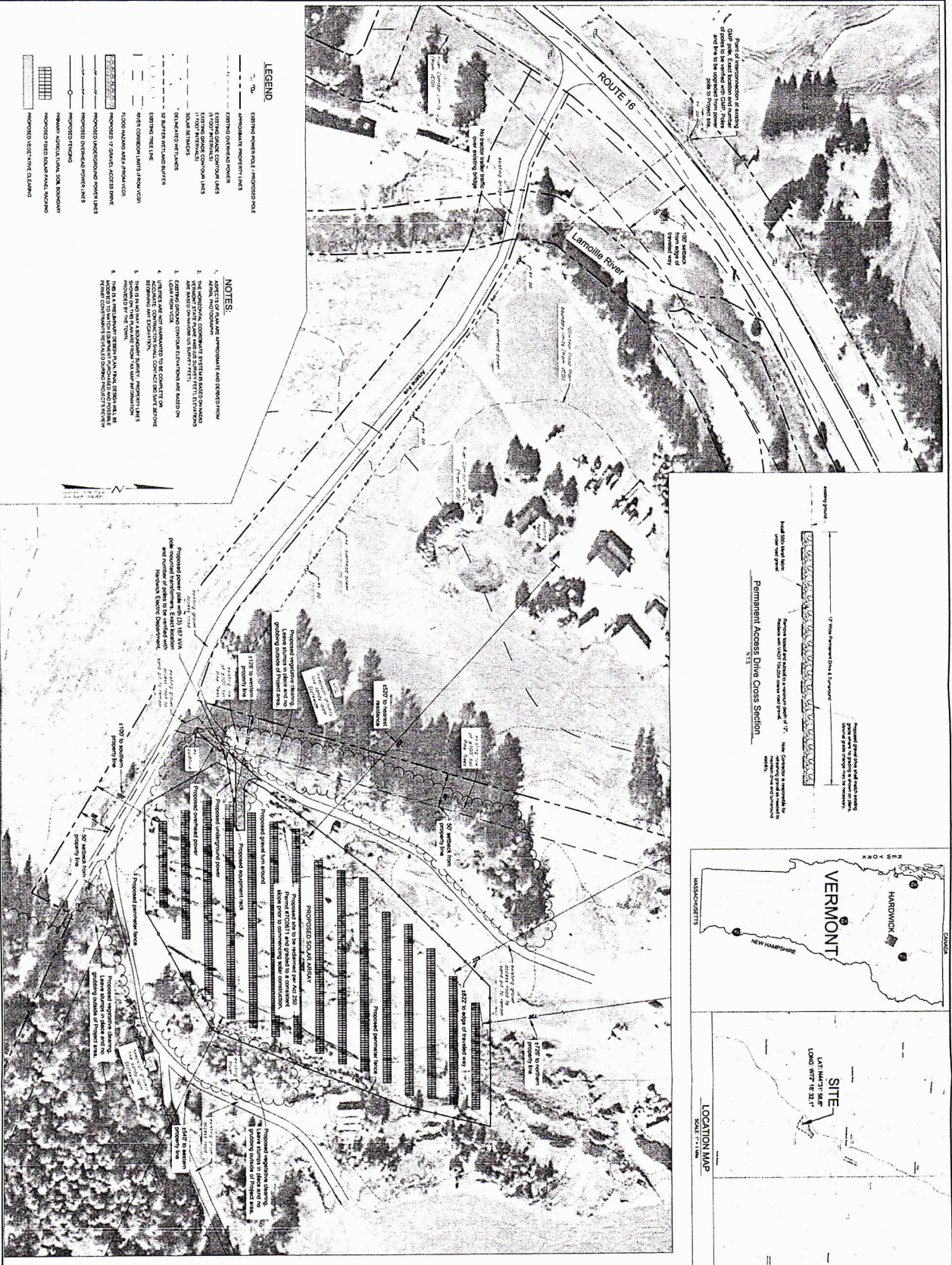
**SOURCE DATA LEGEND**

- EXISTING POWER POLES, PROPOSED POLES
- EXISTING OVERHEAD POWER LINES
- EXISTING UNDERGROUND POWER LINES
- EXISTING DRAINAGE CONDUIT LINES
- EXISTING DRAINAGE CONDUIT LINES
- EXISTING TRAIL LINES
- EXISTING WETLAND BUFFERS
- EXISTING WETLANDS
- EXISTING CORNER LOTS FROM 1930
- EXISTING CORNER LOTS FROM 1930
- PROPOSED OVERHEAD POWER LINES
- PROPOSED UNDERGROUND POWER LINES
- PROPOSED TRAIL LINES
- PROPOSED WETLAND BUFFERS
- PROPOSED WETLANDS
- PROPOSED CORNER LOTS FROM 1930
- PROPOSED CORNER LOTS FROM 1930
- PROPOSED VISIBILITY CLEARING



**Proposed  
Solar Array**

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- NOTES:**
1. ALL DISTANCES ARE APPROXIMATE AND DERIVED FROM THE FIELD SURVEY.
  2. THE PROPOSED CORNER LOTS FROM 1930 SHOWN ARE BASED ON THE CORNER LOTS FROM 1930 AS SHOWN ON THE RECORD PLANS FOR THE PROJECT.
  3. EXISTING DRAINAGE CONDUIT ELEVATIONS ARE BASED ON THE FIELD SURVEY.
  4. CORNER LOTS FROM 1930 SHOWN ARE BASED ON THE FIELD SURVEY.
  5. THERE IS A 10' BUFFER WITH LAND BUFFER BETWEEN THE PROPOSED SOLAR ARRAY AND THE EXISTING CORNER LOTS FROM 1930.
  6. THERE IS A 10' BUFFER WITH LAND BUFFER BETWEEN THE PROPOSED SOLAR ARRAY AND THE EXISTING CORNER LOTS FROM 1930.
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  10. THERE IS A 10' BUFFER WITH LAND BUFFER BETWEEN THE PROPOSED SOLAR ARRAY AND THE EXISTING CORNER LOTS FROM 1930.

- LEGEND**
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  - PROPOSED CORNER LOTS FROM 1930
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