CPG Number: 21-0223-NM
Object by Date: March 1, 2021

January 29, 2021

Judith Whitney, Clerk
Public Utility Commission
112 State Street
Montpelier, VT 05620

RE: 21-0223-NM Application of Inn by the River for a certificate of public good for a 34.22 kW solar net-metered electric power system in Hardwick, Vermont. (the Project).

To Whom it May Concern,

Green Mountain ("GMS") has received an approval from the Public Utility Commission that we can proceed with the permit filing for Inn by the River, Freda and Perry Hollyer.

Currently, the opportunity to file objections directly to the Public Utility Commission is open. In this packet you will find details on where the array location is planned, the size of the array, a wetland delineation, and the application.

The next page in this packet will be detailed instructions on how to file an objection with the PUC should you choose to do so. The deadline for filing objections is March 1, 2021.

Please let us know if we can be of further assistance.

Sincerely,

Tara Huestis

Tara J Huestis
Office Manager
96 Commerce Street
Williston, VT 05495
Ph. 802.369.9149

Case Number 21-0223-NM
Date Determined Complete by the Commission 01/29/2021
Deadline for Filing Public Comments, Notice of Intervention,
Motion to Intervene, and Request for Hearing 03/01/2021

Instructions for Participating in the Review of the Attached Net-Metering Application

Any person may file a public comment addressing whether the application should be approved. Public comments may be filed via the Commission's online document management system, known as ePUC, which you can access on the Commission's website at puc.vermont.gov, or mailed to the Commission at 112 State Street, 4th Floor, Montpelier, VT 05620-2701.

If you wish to participate in the review of a CPG application as a party, which is a prerequisite filing an appeal of a final Commission decision, you must obtain party status from the Commission. The following persons may obtain party status by filing a notice of intervention form with the Commission by the deadline that is stated on the first page of the application:

- adjoining landowners,
- the municipal legislative bodies and the municipal and regional planning commissions where the net-metering system will be located,
- under certain circumstances, the municipal legislative bodies and the municipal and regional planning commissions of an adjacent municipality or region (see Commission Rule 5.116(B) for more information),
- the Vermont Agency of Agriculture Food and Markets,
- the Vermont Division for Historic Preservation, and
- the applicant's electric utility service provider.

If a party wishes to offer contrary evidence or to challenge the accuracy of information contained in an application, the party must request a hearing to present such evidence and argument. To request a hearing, a party may use the attached hearing request form. All requests for hearing must be filed by the deadline that is stated on the first page of the application.

Motions to intervene, notices of intervention, and requests for hearing may be filed with the Commission via the Commission's online document management system, known as ePUC, which you can access on the Commission's website at puc.vermont.gov or mailed to the Commission at 112 State Street, 4th Floor, Montpelier, VT 05620-2701. If you use ePUC to make such filings, ePUC will automatically provide notice of and access to your filing to all other parties who are participating in the case electronically. You must mail a copy of your filing to any party who is not participating in the case electronically (parties with an email address listed on the People tab in ePUC are participating electronically). If you mail your filing to the Commission, you must also mail a copy of your filing to all other parties in the case.

For more information about participating in the review of applications for CPGs, see Commission Rule 5.100 on the Commission's website (puc.vermont.gov).

Case Number 21-0223-NM
Date Determined Complete by the Commission 01/29/2021
Deadline for Filing Public Comments, Notice of Intervention,
Motion to Intervene, and Request for Hearing 03/01/2021

Net-Metering Application Form

Applicant Information	
Applicant Name	Inn by the River
Applicant Mailing Address	223 Mill Street
Town/City/State	Hardwick
Zip Code	05843
Daytime Telephone	(802) 272-4001
Email Address	info@greenmtnsolar.com
Name of Utility	Town of Hardwick Electric Department
Consumption Meter Number	8160
Is this a group net-metering system?	Yes
Is the property owner the same as the net-metering customer/applicant?	No
Do you elect to retain or transfer ownership of any environmental attributes associated with the system?	Transfer Ownership
Advance Filing Reference Number	20-3594-AN

Property Owner Information (if different than Applicant)	
Property Owner Name	Hollyer, Freda
Property Owner Mailing Address	223 Mill Street
Town/City/State	Hardwick VT
Zip Code	05843
Daytime Telephone	(802) 272-4001

System Information	
System Location	223 Mill Street
Town/City/State	Hardwick
Zip Code	05843
Existing CPG Number (if amendment)	
Description of Proposed Amendment	
Number of Act 250 Land Use Permit applicable to the host parcel (if any)	
Are there one or more existing, approved, or other proposed net-metering systems at this service address?	N
Case Number(s) or CPG Number(s) of Other Systems	

Photovoltaic System Information	
System Capacity (AC nameplate capacity of the inverter(s))	34.22 AC Kilowatts
PV Module Manufacturer	Hanwha
PV Module Model Number	QCell
Number of Modules	116
Power Rating per Module	425 Watts
Total Array Output (no. of modules x power rating)	49.3 Kilowatts
Inverter Manufacturer	Enphase
Inverter Model Number	IQ 7+
Physical Location of the Facility's Lockable Disconnect Switch	Lockable disconnect switch will be located on the back side of the building directly across from the river along the North Facing wall.
Interconnection Configuration	Behind Consumption Meter
Installation Type	Ground Mount
System Orientation	Fixed
Will the applicant own or lease the generation equipment?	Own
Setback Information	
Distance to the Nearest Residence	164 ft.
Name of and Distance to Each Adjoining Municipal or State Highway	Route 15, 86 ft.
Distance to All Adjoining Property Boundaries that Are Not State or Municipal Highways	Town of Hardwick, 41 ft. VT State of Transportation, 299 ft. Holmes, 541 ft. D&R Family Properites, 164 ft. Luangrath, 169 ft. Hays Service Station, 272 ft. Goudreau, 226 ft. D&R Family Properties, 232 ft. Leblanc.Farr, 606 ft. Town of Hardwick, 525 ft. Christensen, 327 ft. Menard, 318 ft.
Do the municipal bylaws or ordinances of the municipality where the project will be located contain any screening requirements for ground-mounted solar facilities?	No
Is the proposed project in compliance with the municipality's screening requirements?	
System Installer Information (if different than Applicant information)	
Installer Name	Tara Huestis, Green Mountain Solar
Mailing Address	96 Commerce Street
Town/City/State	Williston, VT
Zip Code	05495
Daytime Telephone	(802) 369-9149
Email Address	info@greenmtnsolar.com

Owner of Generation Equipment (if different than Applicant)	
Owner Name	
Mailing Address	
Town/City/State	,
Zip Code	
Daytime Telephone	
Email Address	

Environmental Information / Preferred Sites	
System will be sited on, near, or within the following resources	Floodway Stream Shoreline
Type(s) of Preferred Site	Near customer load 8160, 223 Mill Street, Hardwick, 100%

Visible and Aesthetic Impact	
Description of the visible and aesthetic impact of the project and why it will not have an undue adverse effect on aesthetics and the scenic and natural beauty of the area. Description of the location of the facility in relation to adjoining properties, including a specific statement about the visibility of the facility from adjoining properties; and, if it is highly visible, what measures the applicant has taken, if any, to minimize the visible impact.	Though this project is visible from the Route 15 & visible for adjoining landowner the Hollyers chose to break the array up into 3 smaller arrays and stack them with a little offset to minimize the visibility arrays. They are also planning to regrow natural vegetation on the east side of the property to help restore the riparian zone. This area was chosen due to its exposure, accessibility to existing roads and distribution lines and its minimal impacts on natural resources and the character of the area.

Certification

The undersigned declares, under the pains and penalties of perjury, that to the best of my knowledge:
(1) having exercised due diligence and made reasonable inquiry, the information which I have provided on this form and any attachments is true and correct;
(2) I have complied with the advance notice requirements of Public Utility Commission Rule 5.106(C);
(3) the project for which this application seeks approval is in compliance with the land conservation measures contained in the applicable Town Plan;
(4) the project is in compliance with all applicable local, state, and federal requirements and has all other necessary approvals for operation of this type of system;
(5) any waste generated by the construction of this project will be disposed of at a state-approved disposal facility;
(6) any construction activities will follow the recommendations of the Low Risk Site Handbook for Erosion Prevention and Sediment Control (available from the Agency of Natural Resources Stormwater Program);
(7) the system will be installed in compliance with the interconnection, safety, and technological requirements of Vermont Public Utility Commission Rule 5.100;
(8) this application will not result in more than 500 kW of cumulative net-metering generation being allocated to any customer consistent with Commission Rule 5.129(D) and the definitions of the terms "account" and "customer" contained in Commission Rule 5.103;
(9) within two business days of a determination that this application is administratively complete, I will mail a copy of this complete application to all parties as required by this form;
(10) site preparation or construction of the project will not commence until a Certificate of Public Good is issued;
(11) if I am a system installer, the Applicant has authorized me to submit this registration form on behalf of the Applicant and the Applicant has signed a binding contract for the installation; and
(12) I have paid the required Department/Commission Application Fee to the Department of Public Service.

Making false or misleading statements on this application is subject to penalties under 30 V.S.A. § 30 and/or amendment or revocation of any approval granted. Such revocation could require you to remove the project and restore the site to its original condition.

Tara Huestis	01/22/21
Filer Name	Date Filed with the Commission

CPG Number: 21-0223-NM
Object by Date: March 1, 2021

By Certified Mail:

Town of Hardwick
Selectboard
PO Box 523
Hardwick, VT 05843

Town of Hardwick
Planning Commission
PO Box 523
Hardwick, VT 05843

Northeastern Vermont Development
Association PO Box 630
Saint Johnsbury, VT 05819

Adjoining Landowners (by certified mail)

Inn by the River
223 Mill Street
Hardwick, VT 05843

April Christensen
PO Box 98
East Hardwick, VT 05836

Gail Leblanc and Elaine Farr
PO Box 563
Hardwick, VT 05843

Todd and Susan Holmes
173 Glenside Ave
Hardwick, VT 05843

Vermont State of Agency of Transportation
National Life Building
Drawer 33
Montpelier, VT 05633-5001

D&R Family Properties LLC
PO Box 169
Johnson, VT 05656

Raymond Goudreau
105 Glenside Ave
Hardwick, VT 05843

Kareen Luangrath
PO Box 812
Hardwick, VT 05843

Town of Hardwick
PO Box 523
Hardwick, VT 05843

Hay's Service Station Inc
PO Box 322
Hardwick, VT 05843

Ivan and Brenda Menard
PO Box 1274
Hardwick, VT 05843

CPG Number: 21-0223-NM
Object by Date: March 1, 2021

January 21, 2021

Judith Whitney, Clerk
Public Utility Commission
112 State Street
Montpelier, VT 05620

RE: Application of Inn by the River for a certificate of public good for a 34.22 kW solar net-metered electric power system in Hardwick, Vermont. (the Project).

Dr. Ms. Whitney,

Green Mountain Solar ("GMS") would like to certify that we have complied with all advanced notice requitements as indicated by Rule 5.106 (D)(4).

The Public Utility Commission received the 45-day advanced notice on November 25, 2020. The mailed letters and document went out to adjacent landowners, Town of Hardwick Selectboard, Town of Hardwick Planning Commission, and Northeastern Vermont Development Association on November 25, 2020.

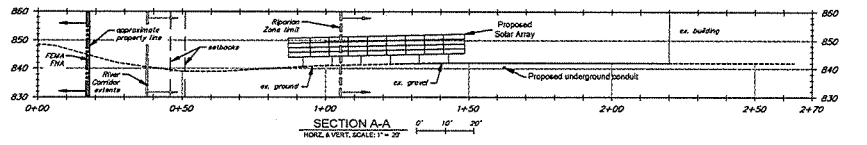
Please let us know if we can be of further assistance.

Sincerely,

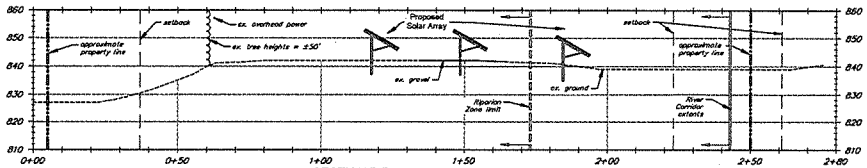
Tara Huestis

Tara J Huestis
Office Manager
96 Commerce Street
Williston, VT 05495
Ph. 802.369.9149

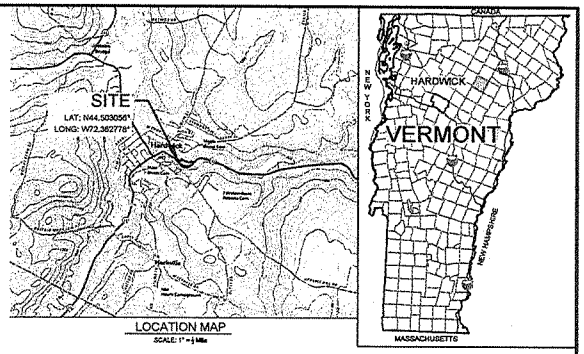
CPG Number: 21-0223-NM
bject by Date: March 1, 2021



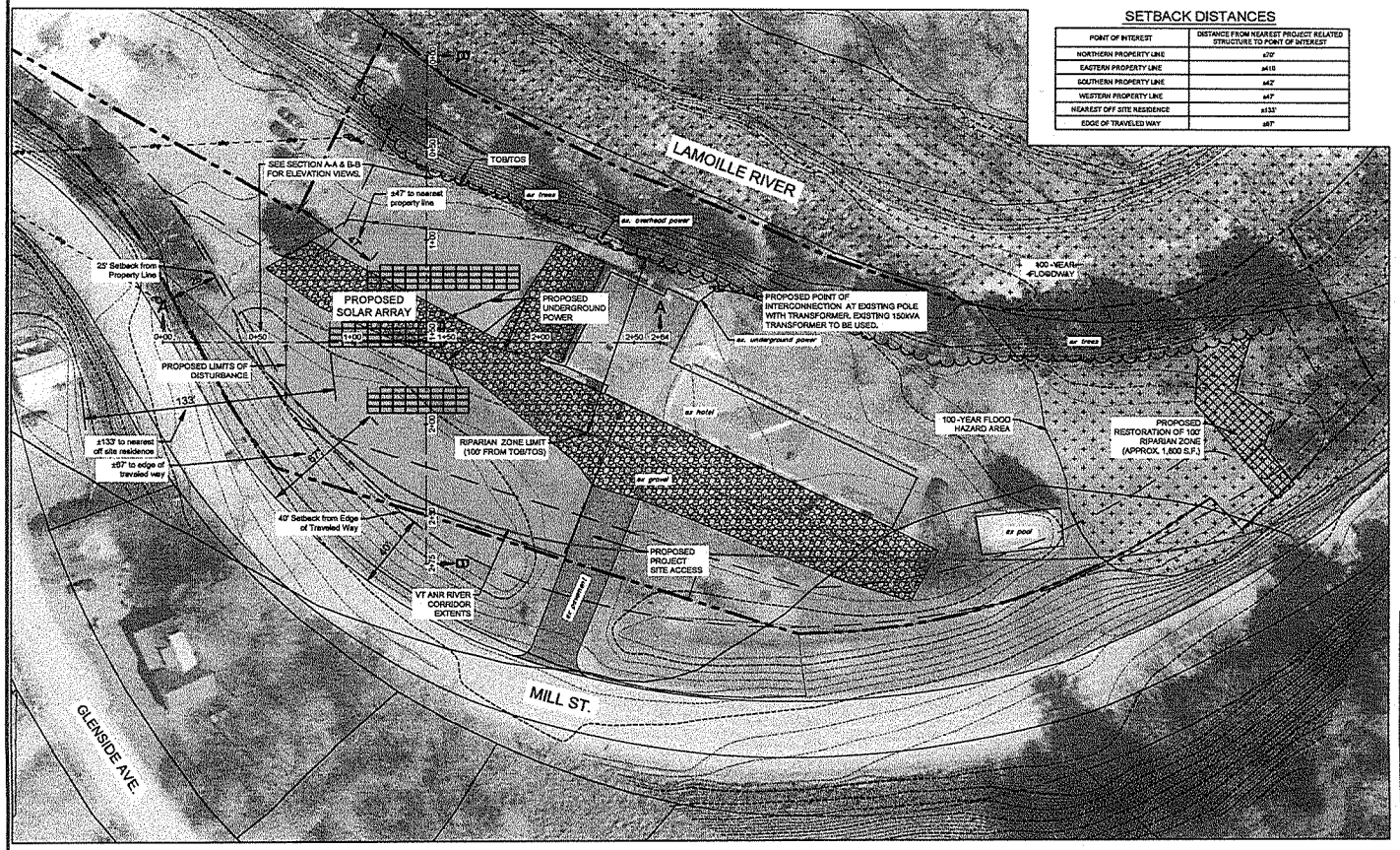
SECTION A-A
HORZ. & VERT. SCALE: 1" = 20'



SECTION B-B
HORZ. & VERT. SCALE: 1" = 20'



LOCATION MAP
SCALE: 1" = 6 Miles



SETBACK DISTANCES

POINT OF INTEREST	DISTANCE FROM NEAREST PROJECT RELATED STRUCTURE TO POINT OF INTEREST
NORTHERN PROPERTY LINE	±70'
EASTERN PROPERTY LINE	±410
SOUTHERN PROPERTY LINE	±42'
WESTERN PROPERTY LINE	±47'
NEAREST OFF SITE RESIDENCE	±133'
EDGE OF TRAVELED WAY	±57'

LEGEND

- EXISTING POWER POLE
- APPROXIMATE PROPERTY LINES
- APPROXIMATE PROJECT PARCEL
- EXISTING OVERHEAD POWER
- EXISTING GRADE CONTOUR LINES (5 FOOT INTERVALS)
- EXISTING GRADE CONTOUR LINES (1 FOOT INTERVALS)
- EXISTING GRAVEL DRIVEWAY/PARKING
- EXISTING PAVED DRIVEWAY
- PRIMARY AGRICULTURAL SOIL BOUNDARY
- SOLAR SETBACKS
- EXISTING TREE LINE
- PROPOSED UNDERGROUND POWER
- PROPOSED OVERHEAD POWER
- PROPOSED FIXED SOLAR PANEL RACKING
- 100-YEAR FLOOD HAZARD AREA
- PROPOSED RIPARIAN ZONE RESTORATION AREA
- PROPOSED DISTURBANCE AREA TO BE FLAGGED PRIOR TO CONSTRUCTION. SILT FENCE TO BE INSTALLED IN AREAS DOWNSLOPE OF DISTURBANCE.
- TOP OF BANK/TOP OF SLOPE
- RIPARIAN ZONE LIMIT
- VT ANR RIVER CORRIDOR EXTENTS

NOTES:

1. ASPECTS OF PLAN ARE APPROXIMATE AND DERIVED FROM AERIAL PHOTOGRAPHY.
2. THE HORIZONTAL COORDINATE SYSTEM IS BASED ON NAD83 VERMONT STATE PLANE 4400 (US SURVEY FEET). ELEVATIONS ARE BASED ON THE NAVD88 (US SURVEY FEET).
3. EXISTING GROUND CONTOUR ELEVATIONS ARE BASED ON LIDAR DATA (1' CONTOURS DERIVED FROM 2012 - 2017 QL2 LIDAR DATA - STATEWIDE) DOWNLOADED FROM THE VERMONT CENTER FOR GEOGRAPHIC INFORMATION.
4. UTILITIES ARE NOT WARRANTED TO BE COMPLETE OR ACCURATE. CONTRACTOR SHALL CONTACT DIG SAFE BEFORE BEGINNING ANY EXCAVATION.
5. THIS IS IN NO WAY A BOUNDARY SURVEY. PROPERTY LINES ARE FROM TAX MAP INFORMATION PROVIDED BY THE TOWN & A PLAN TITLED "SUBDIVISION SURVEY IN BETHEL, VERMONT FOR SKYVIEW PROPERTIES, LLC" BY AMERICAN SURVEY COMPANY DATED APRIL 26, 2004.
6. THIS IS A PRELIMINARY DESIGN PLAN. FINAL DESIGN WILL BE MODIFIED TO MATCH EQUIPMENT PURCHASED AND POSSIBLE PERMIT CONSTRAINTS REVEALED DURING PROJECT'S REVIEW.

ACREAGE CALCULATIONS

	S.F.	ACRES
PROPOSED IMPERVIOUS SURFACES	0	0
EXISTING IMPERVIOUS SURFACES		
Gravel & Paved Driveway/Parking	16,148	0.37
Buildings	8,444	0.19
TOTAL IMPERVIOUS AREA POST CONSTRUCTION	24,592	0.56
PROPOSED GROUND DISTURBANCE (FROM EXCAVATION)		
Trenching	750	0.02
Post Installation	200	0.01
TOTAL AREA	950	0.03
AREAS SUBJECT TO STORMWATER WATER CONSTRUCTION PERMIT (1)	23,525	0.54
PRIMARY AGRICULTURAL SOILS		
On Project Parcel	0	0
Disturbed	0	0

(1) According to VT DEC, all areas of solar sites have potential for "Ground Disturbance" under the storm water permit due to driving vehicles or other activities during construction, even if actual excavation of soils in those areas are not planned.

INN BY THE RIVER SOLAR

Mill St.
Hardwick, Vermont

GMS GREEN MOUNTAIN SOLAR
96 Commerce St.
Williston, VT 05495
Office: 802.368.8149
GreenMtnSolar.com

KREBS & LANSING CONSULTING ENGINEERS
104 Main Street, Suite 201
Colchester, Vermont 05446
P: (802) 878-0375
www.krebsandlansing.com

ISSUED FOR PERMIT REVIEW
NOT FOR CONSTRUCTION

SOURCE DATA LEGEND

MAPPING SOURCE DATA USED FOR PLAN COMPILATION

Civil Engineering:
Krebs and Lansing Consulting Engineers, Inc.
104 Main Street, Suite 201
Colchester, Vermont 05446

Environmental:
Fitzgerald Environmental Associates, LLC.
18 Severance Green, Suite 203
Colchester, Vermont 05446

0" 15" 30" 60" 90"
0" 1" 2" 3"
STANDARD GRAPHIC SCALE (1" = 30')
VALID WHEN PLOTTED ON 24" BY 36" MEDIA

0" 32.7" 65.5" 81.9"
0" 0.5" 1" 1.25"
REDUCED GRAPHIC SCALE (1" = 65.5')
VALID WHEN PLOTTED ON 11" BY 17" MEDIA

Proposed Solar Array

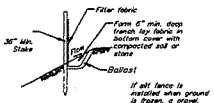
REV NO.	REVISIONS/COMMENTS	DATE

Drawing Title:
SITE PLAN & ELEVATION VIEW

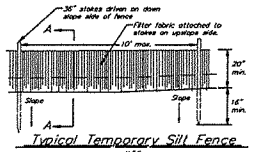
DATE of Issue: 01/20/2021
Drawn by: SDD — Checked by: GTD
Project No.: 21113 — Scale: Varies
Drawing No.: C-100 — Rev No.:

CPG Number: 21-0223-NM
Object by Date: March 1, 2021

NOTES:
1. Acceptable EPSC Measure details are provided above.
2. At a minimum, EPSC measures meet VT DEC Standards and Specifications for Erosion Prevention and Sediment Control or previously approved interchangeable practices.
3. Perimeter controls shall be utilized in small areas ≤ 1 acre. In areas > 1 acre, temporary sediment traps or temporary sediment basins are to be utilized.
4. Perimeter controls shall be installed on downslope side of planned earth disturbance.
5. Perimeter controls shall be installed prior to any earth disturbing activities within upslope contributing area.
6. Silt fence shall not be used as construction demarcation.

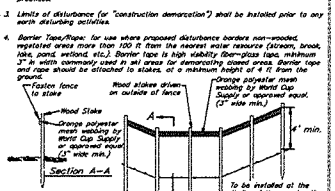


Section A–A



Typical Temporary Silt Fence
N.T.S.

NOTES:
1. Acceptable EPSC Measure details are provided below.
2. At a minimum, EPSC measures meet VT DEC Standards and Specifications for Erosion Prevention and Sediment Control or previously approved interchangeable practices.
3. Limits of disturbance (or "construction demarcation") shall be installed prior to any earth disturbing activities.
4. Barrier Tape/Rope: for use where proposed disturbance borders non-wooded, vegetated areas more than 100 ft from the nearest water resource (stream, brook, lake, pond, wetland, etc.). Barrier tape is high visibility fiber-glass tape, minimum 3" in width commonly used in ski areas for demarcating cleared areas. Barrier tape and rope should be attached to stakes, at a minimum height of 4 ft from the ground.

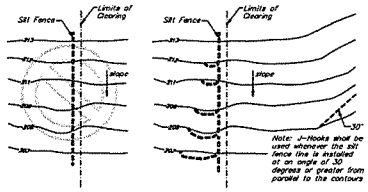


Section A–A

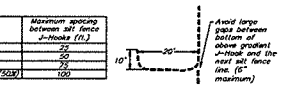
NOTES:
1. Minimum 1 to 2 rows of mesh barrier tape to be installed along construction perimeter.
2. Each row of barrier tape to be 3" wide minimum.
3. Barrier tape to be orange.
4. Secure barrier tape to stakes or existing tree trunks with bottom row at 4" distance from ground surface (minimum).
5. Maintain and replace as needed. Remove at completion of project per OSPC.
6. In event the OSPC determines barrier tape is not sufficient, replace with orange construction fence or snow fence.

Typical Construction Limit Barrier
N.T.S.

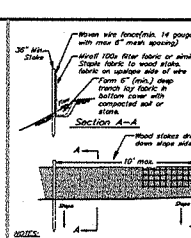
NOTES:
1. Proper installation of J-Hooks provides silt fence the ability to temporarily pond runoff, allowing time for sediments to settle.
2. Long runs of silt fence between J-Hooks should be avoided refer to adjacent table for proper spacing of J-Hooks.
3. J-Hooks should be built along contour in a "smile" shape with a minimum width of 20 feet and minimum depth of 10 feet.
4. Along a narrow right of way, narrower J-Hooks can be used with a higher spacing frequency.



Slope Steepness	Maximum spacing between silt fence J-Hooks (ft.)
2:1 Slope (50%)	25
3:1 Slope (33%)	50
4:1 Slope (25%)	75
5:1 Slope or Flatter (20%)	100



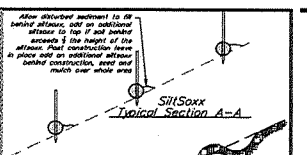
Typical Silt Fence "J-Hook" Construction
N.T.S.

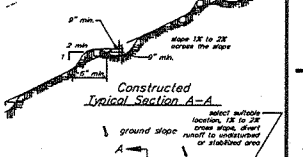


NOTES:
1. Woven wire fence to be fastened securely to fence posts with wire ties wire fence reinforcement required within 100 ft upslope of receiving waters.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced 24" at the top and mid section.
3. When two sections of filter cloth adjoin each other they shall be overlapped by 6" and folded. filter cloth shall be Mirafi 100X or approved equivalent.
4. Prefabricated units shall be Geofab, Enviafence or equivalent.
5. Contractor shall be responsible for the installation, maintenance, and removal of silt fence in all locations shown on the plans.
6. Maintenance shall be performed as needed and material removed when sediment reaches half of fabric height. Remove silt fence after successful establishment of vegetation.
7. If silt fence is installed when ground is frozen, a gravel or sand ballast must be used.
8. Contractor may use IM Wire Back Silt Fence (1st Product 940-3610-940-WSH) or equivalent.
9. Silt fence shall be installed along contours.
10. Silt fence shall not be located in areas of concentrated flow.
11. Drainage area shall be ≤ ¼ acre per 100 linear feet of silt fence.

Typical Temporary Reinforced Silt Fence
N.T.S.

Allow disturbed sediment to fill behind siltsoxx, add an additional siltsoxx to top if soil behind exceeds ½ the height of the siltsoxx. Post construction leave in place add an additional siltsoxx behind construction, seed and mulch over whole area





Typical Plan
SiltSoxx or Constructed Water Bar Detail
N.T.S.

INN BY THE RIVER SOLAR
Mill St.
Hardwick, Vermont

GMS GREEN MOUNTAIN SOLAR
96 Commerce St.
Williston, VT 05495
Office: 802.355.9149
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ISSUED FOR PERMIT REVIEW
NOT FOR CONSTRUCTION

SOURCE DATA LEGEND
MAPPING SOURCE DATA USED FOR PLAN COMPILATION
Civil Engineering:
Krebs and Lansing Consulting Engineers, Inc.
184 Main Street, Suite 201
Colchester, Vermont 05446

CONSTRUCTION STORMWATER DISCHARGE PERMIT INFORMATION

1. This Project proposes less than 1 acre of soil disturbance on site and will NOT be subject to a Construction General Permit 3-9020.
2. The proposed Project will be built in accordance with the Vermont Standards & Specifications for Erosion Prevention and Sediment Control 2006 and the Vermont Low Risk Site Handbook for Erosion Prevention and Sediment Control.
3. The maximum area of earth disturbance at any one time shall not exceed 0.54 acres.
4. All temporary EPSC measures shall be removed within 30 days after final site stabilization or after the temporary EPSC measures are no longer needed, unless otherwise authorized and approved in writing by the Owner.
5. Soil stabilization shall be achieved by seed and mulch, hydroseeding with mulch tackifier, sod, stone, and/or rolled erosion control products (e.g., erosion control blankets). Mulch shall be comprised of straw, hay, compost, woodchips, wood stump grindings, and/or erosion control mix.
6. Appropriate seed mix shall be applied to designated areas per this EPSC Plan and seed specifications.

Silt fence spacing chart	
Slope	silt fence spacing
5% to 10%	50 ft. or less
10% to 20%	25 ft. or less
> 20%	15 ft. or less

EPSC GENERAL NOTES

1. Erosion prevention and sediment control (EPSC) practices shall be implemented in all areas where there is an increased risk of erosion, and where there is potential for discharge of stormwater runoff (either direct or indirect) to a water body.
2. EPSC measures shall be installed prior to any earth disturbing activities within a given drainage area with the exception of land disturbance that may result from accessing the area(s) with equipment in which EPSC measures are to be installed. This exception includes land disturbance that may result from access of equipment that is needed for logging (see note #3), exploration and/or EPSC measure installation phases of the project. Temporary sediment basins, temporary sediment traps, perimeter dikes, temporary sediment barriers, and other temporary measures intended to trap sediment shall be constructed as a first step in any land disturbing activity and shall be made functional before upslope land disturbance takes place with the exception of those activities stated above. Earth disturbance includes stumping and grubbing of cleared areas.
3. EPSC measures shall be installed pursuant to the construction phase stormwater discharge permit for the project, this EPSC Plan, the Vermont Standards and Specifications for Erosion Prevention and Sediment Control (2006), Vermont Erosion Prevention and Sediment Control Field Guide (2006), and any other relevant project permits.
4. All proposed changes shall be approved by the On-Site Plan Coordinator (OSPC) or his/her designee prior to implementation.
5. Permission must be granted by VT DEC prior to use of any support activities occurring outside of the approved project boundaries.
6. All parties associated with construction activities who "meet either of the following two criteria a) "Principal Operator" must obtain coverage under the construction stormwater discharge permit for the project prior to commencement of construction activities by that operator:
   a. The party has operational control over construction plans and specification, including but not limited to the ability to make modifications to those plans and specifications; or
   b. The party has continuous day-to-day operational control of those activities at the project that are necessary to ensure compliance with an EPSC Plan for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the EPSC Plan or comply with other permit conditions).

EPSC CONSTRUCTION NOTES

1. Existing vegetation shall be protected and maintained to the extent practicable.
2. A vegetated buffer shall be maintained for water bodies where feasible (e.g., wetlands and streams).
3. To the extent practicable, surface flow shall be diverted away from exposed soils via diversion berms, earth dikes, perimeter dikes/swales, temporary swales, water bars, and/or check dams.
4. Resource areas (e.g., wetlands, streams, RTE plant species) shall be flagged prior to any construction related activities occurring within close proximity to those areas.
5. Effluent from dewatering operations shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not violate water quality standards or contribute to erosion. Dewatering details shall be reviewed and approved by OSPC prior to use.
6. Concentrated runoff shall not flow down steep slopes unless contained within an adequate temporary or permanent channel (see details), flume, or slope drain structure.
7. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
   a. No more than 500 linear feet of trench may be opened at one time.
   b. Excavated material shall be placed on the uphill side of trenches, where feasible, but not in resource areas.
8. Where feasible, all sediment removed from sediment control practices as part of maintenance shall be disposed of in an area that is at least one of the following, with immediate stabilization following disposal of material:
   a. Less than 50% slope
   b. At least 100 feet from any downslope water body or conveyance to a water body, including a ditch
   c. Vegetated
9. Disturbed areas bordering or draining to existing roads shall have an appropriate sediment barrier (e.g., silt fence) spanning the edge of the disturbance to prevent washing of sediment onto roadways or into road ditches.
10. In advance of predicted rainfall or snowmelt, all EPSC measures that are located in active areas of earth disturbance shall be inspected and repaired, as needed, to ensure that they will provide adequate stabilization of all disturbed soils on the site in advance of the anticipated runoff period.
11. Dust control shall be handled via water application to roadways and other areas where dust may be generated.

Seeding Specifications

Permanent Seed Mix shall be used as early as practicable between 5/15 and 8/15 and shall meet the following criteria:

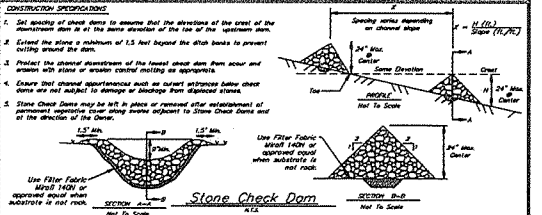
Seed	% Weight
Red Fescue	50%
Sheep Fescue	25%
Red Top	5%
White Clover	10%
Annual Rye	10%

Temporary Seed Mix shall be used between 9/16 and 5/14 and shall meet the following criteria:

Seed	% Weight	% Germination
Winter Rye	80% Minimum	85 Min.
Red Fescue (Creeping)	4 Min.	90 Min.
Perennial Rye Grass	3 Min.	90 Min.
Red Clover	3 Min.	90 Min.
Other Crop Grass	0.5 Max.	
Noxious Weed Seed	0.5 Max.	
Inert Matter	1.0 Max.	

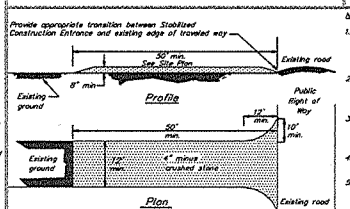
Stone Check Dam

CONSTRUCTION SPECIFICATIONS
1. Set spacing of check dams to assume that the elevations of the crest of the downstream dam be at the same elevation of the toe of the upstream dam.
2. Extend the stone a minimum of 1.5 feet beyond the ditch banks to prevent cutting around the dam.
3. Protect the channel downstream of the lowest check dam from scour and erosion with stone or erosion control matting as appropriate.
4. Ensure that channel appurtenances such as culvert entrances below check dams are not subject to damage or blockage from displaced stones.
5. Stone Check Dams may be left in place or removed after establishment of permanent vegetative cover along swales adjacent to Stone Check Dams and at the direction of the Owner.

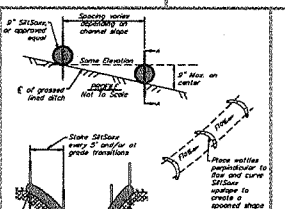


Stone Check Dam
N.T.S.

Stabilized Construction Entrance



NOTES:
1. Contractor shall stabilized construction entrance as required to prevent tracking of sediment off-site.
2. Contractor to use Mirafi 500x under stone for temporary construction roads.
3. Crushed stone shall be added or replaced when 60% of the voids are filled with sediment.
4. Stone size shall be 1–4".
5. At surface water flowing or directed toward construction entrance shall be piped beneath entrance. If piping is impractical, a mountable berm with 5:1 slopes is allowed.



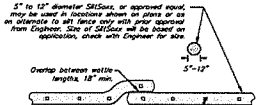
NOTE:
1. Contractor shall be responsible for the installation, maintenance, and removal of SiltSoxx in all locations shown on the plans. SiltSoxx may be left in place if the contractor seeds and mulches wattle for growth post construction.
2. Maintenance shall be performed as needed and additional SiltSoxx will be added when sediment reaches half of product height.
3. When installing lengths of SiltSoxx, lengths will overlap by minimum 2' when transitioning to a new length of wattle.
4. Contractor shall refer to all manufactures specifications and details.
5. SiltSoxx can only be used in a grass lined swale, may not be used in stone lined swales.
6. SiltSoxx check dam can only be used in channels with slopes less than 5%.
7. SiltSoxx is a specific manufacturer, other manufacturers with equal products may be used if approved by Engineer.

SiltSoxx Check Dam
N.T.S.

Guide to Mulch Materials, Rates, and Uses

	Quality Standards	Per 1000 sq. ft.	Per Acre	Depth of Application	Remarks
Wood chips or shavings	Air-dried. Free of objectionable coarse material	500–900 lbs	10–20 tons	3 – 7"	Used primarily around shrub and tree plantings and recreation trails to inhibit weed competition. Prevents rill and gully erosion. Decomposes slowly.
Wood fiber cellulose (partly digested wood fibers)	Made from natural wood usually with green dye and dispersing agent	50 lbs	2,000 lbs	–	Apply with hydromulcher. No tie down required. Less erosion control provided than 2 tons of hay or straw.
Gravel, Crushed Stone or Slag	Washed, Size 2B or 3A – 1½"	9 cu. yds.	405 cu. yds.	3"	Excellent mulch for short slopes and around plants and ornamentals. Use 3B where subject to traffic. (Approximately 2,000 lbs./cu. yd.) Frequently used over filter fabric for better weed control.
Hay or Straw	Air-dried, free of undesirable seeds & coarse materials	90–100 lbs 2–3 bales	2 tons (100–120 bales)	Cover about 90% surface	Use small grain straw where mulch is maintained for more than three months. Subject to wind blowing unless anchored. Most commonly used mulching material. Provides the best micro-environmental for permeability seeds.
Compost	Up to 3" pieces, moderately to highly stable	3–9 cu. yds	134–402 cu. yds.	1 – 3"	Coarser textured mulches may be more effective in reducing weed growth and wind erosion.
Erosion Control Mix	Well-graded mixture of particle sizes. Organic content between 40–100% (dry weight). Particles also shall pass 6" screen (100%)	* Coarse 3(no.)-1(fiber) or Soiler = 3 inch depth plus additional 1/2 inch depth per 30 ft. of slope up to 100 ft. ** Slopes between 3(no.)-1(fiber) and 2(no.)-1(fiber) = 4 inch depth plus additional 1/2 inch per 30 ft. of slope up to 100 ft. Slopes stronger than 2(no.)-1(fiber) applicability to specific site and mulch depth to be reviewed and approved prior to use by OSPC or EPSC Specialist			Comprised of shredded bark, stump grindings, composted bark, or acceptable manufactured products. May contain rock ≤ 4" in diameter. Organics shall be fibrous and elongated. No large portions of silts, clays or fine sands.

Proposed Solar Array



NOTE:
1. Contractor shall be responsible for the installation, maintenance, and removal of SiltSoxx in all locations shown on the plans. SiltSoxx may be left in place if the contractor seeds and mulches over SiltSoxx for growth post construction.
2. Maintenance shall be performed as needed and additional wattles will be added when sediment reaches half of product height.
3. When installing lengths of SiltSoxx, lengths will overlap by minimum 18" when transitioning to a new length of SiltSoxx.
4. Contractor shall refer to all manufactures specifications and details.
5. SiltSoxx is a specific manufacturer, other manufacturers with equal products may be used if approved by Engineer.
6. SiltSoxx can be used as a silt fence alternative.

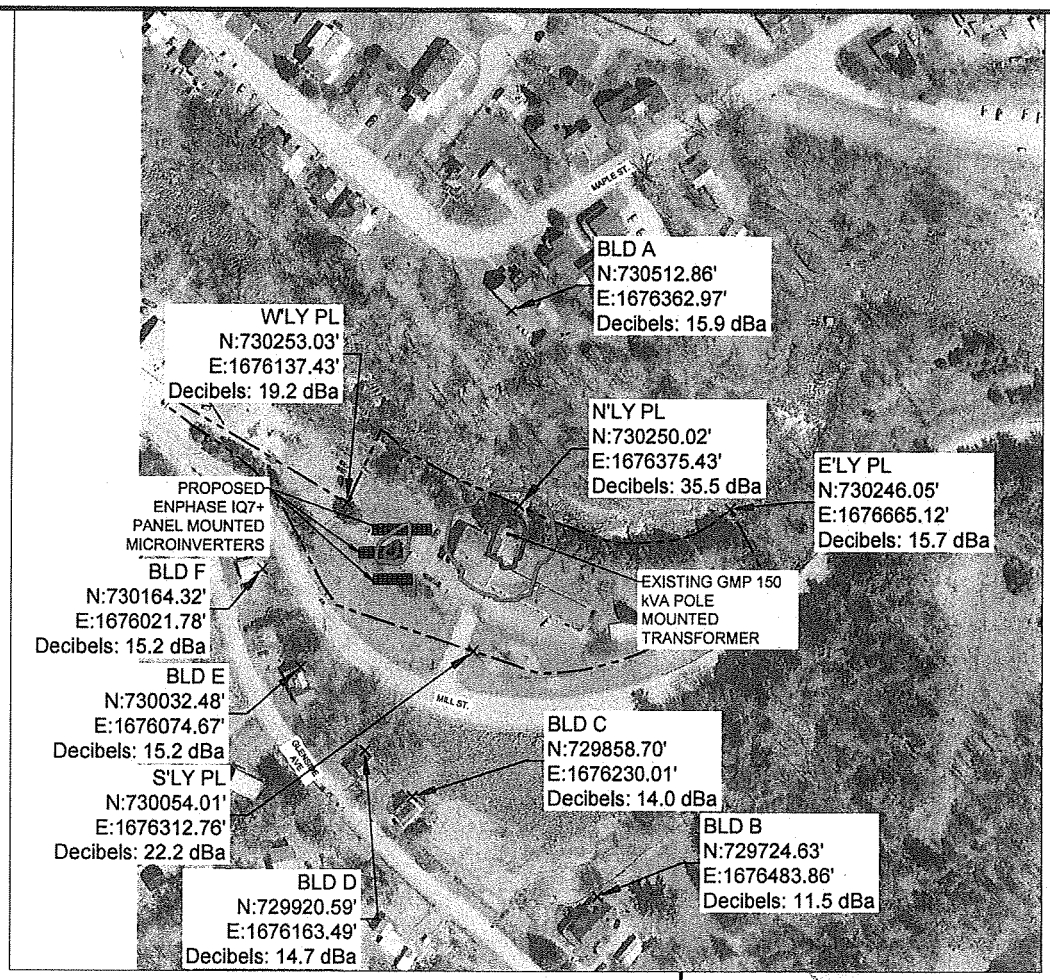
Typical SiltSoxx Sediment Control
N.T.S.

REV. NO.	REVISIONS/COMMENTS	DATE

Drawing Title:
EROSION PREVENTION AND SEDIMENT CONTROL DETAILS

DATE of issue: 01/20/2021
Drawn by: EDG
Checked by: LAJ
Project No.: 21113
Scale: N.T.S.
Drawing No.: C-101
Rev No.:

CPG Number: 21-0223-NM
Object by Date: March 1, 2021



NOTES:

1. *Sound from the Enphase microinverters is purported to be negligible due to a lack of moving parts within the microinverters. Conservatively all inverters were modeled to be producing the minimum audible noise level of 10.0 dBa's with them all running simultaneously. The sound level for the pole mounted 150kVA transformers is a maximum of 55 dBa [measured at 0.3 meter, as per NEMA TR1 (ANSI/IEEE Std. C57.12-90-1993, sec. 13.3.4)] Assuming the measurement was taken at 1 meter to be conservative, the calculated sound level at 3 meters is 45.5 dBa.*

2. *Other decibel ranges were derived using the following distance damping equation [L2 = L1 -20 Log(d1/d2)] This damping equation was the only factor considered in decibel range attenuation estimates. Elevation, ambient noise, vegetation, proposed solar array and other structures which would further effect the attenuation of sound levels were not considered in this study. Sound levels depicted are for all (1165) Enphase inverters and the pole mounted Cooper 150 kVA Single-Phase Transformer operating simultaneously at maximum noise level. See additional calculation information on Sound 2, Sound 3 and Sound 4.*

3. *Plans Sound 3 & Sound 4 run the calculations for nighttime operation. Site inverters make negligible noise when not loaded with power. For this calculation we assume they will make no noise. The site transformers do still make noise at night, to be conservative the nighttime calculation models the transformers running at maximum noise.*

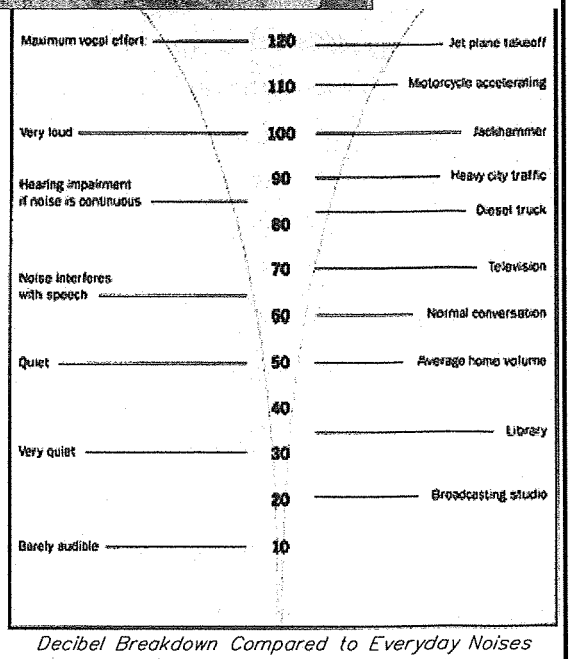
4. *Sound levels reported do not account for any background noise. Local background noise may exceed sound created by project equipment.*

Legend:

- 70 dBa range
- 60 dBa range
- 50 dBa range
- 40 dBa range
- 30 dBa range "Very Quiet"

0' 125' 250' 500'

GRAPHIC SCALE 1" = 250'



Decibel Breakdown Compared to Everyday Noises

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164 Main Street, Suite 201 P: (802) 878-0375
Colchester, Vermont 05446 www.krebsandlansing.com

GMS GREEN MOUNTAIN SOLAR
96 Commerce St., Williston, VT 05495
Office: 802.369.9149 GreenMtnSolar.com

DAYTIME FULL OPERATION SOUND LEVEL PLAN

Basic Sound Level Estimates for Noise Produced by Transformers and Inverters

DRAWN BY: EJM | CHECKED BY: SDG

Project: Inn By The River Solar

Location: Mill St., Hardwick, VT

Source Data:

Revision Date:

Plan ID: Sound 1

Scale: 1" = 250'

Date: 01/20/21

Inn by the River Solar Project, Hardwick, Vermont - DAYTIME - EQUIPMENT

Sound Source #	Easting (feet)	Northing (feet)	Noise Level (dBA @ 3 Meters)
Proposed Enphase IQ7+ 295W Microinverters (135)	See Plan	See Plan	10.0
Proposed 150 kVA Cooper Pole Mounted Transformer	See Plan	See Plan	45.5

Enphase Inverters: Enphase specifies that the sound created by their microinverters is negligible. A 10.0 dBA sound level at 3.0 meters was used to be conservative.

Cooper Power Systems 150 kVA Single-Phase Overhead Transformer specifies the units peak noise level as <45.5 dBa measured at 3 meters. (Manufacturer specification is a maximum of 55 dBa measured at 0.3 meters, as per NEMA TR1 (ANSI/IEEE Std. C57.12-90-1993, sec. 13.3.4). Assuming this measurement to be at 1 meter, to be conservation, the calculated sound level at 3 meters is 45.5 dBa.

Formulas used for Calculations

Adding of Noise Levels

$L_T = 10 \times \text{Log}_{10} (10^{L1/10} + 10^{L1/10} + ... + 10^{Ln/10})$

Where:

L_T = Total noise level of all equipment

Ln = Noise level for each piece of equipment

Noise Level Changes with Distance

$Lb = La - 20 \times \text{Log10} (Db/Da)$

Where:

Lb = Noise level at new distance

La = Noise level at original distance

Db = New distance from source of noise

Da = Original distance from source of noise

	1 meter	3 meters
Proposed Enphase IQ7+ 295W Microinverters	-	10.0
Existing 150 kVA Cooper Pole Mounted Transformer	55.0	45.5

Points of Interest	Northing (feet)	Easting (feet)	Estimated Noise Level Based on Project Components (Sound Pressure, dBA)
N'LY PL	730,250.02	1,676,375.43	35.5
W'LY PL	730,253.03	1,676,137.43	19.2
S'LY PL	730,054.01	1,676,312.76	22.2
E'LY PL	730,246.05	1,676,665.12	15.7
BLD A	730,512.86	1,676,362.97	15.9
BLD B	729,724.63	1,676,483.86	11.5
BLD C	729,858.70	1,676,230.01	14.0
BLD D	729,920.59	1,676,163.49	14.7
BLD E	730,032.48	1,676,074.67	15.2
BLD F (NEAREST OFFSITE RESIDENCE)	730,164.32	1,676,021.78	15.2

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DAYTIME FULL OPERATION SOUND LEVEL PLAN

Basic Sound Level Estimates for Noise Produced by Transformers and Inverters

DRAWN BY: EJM | CHECKED BY: SDG

Project: Inn By The River Solar

Location: Mill St., Hardwick, VT

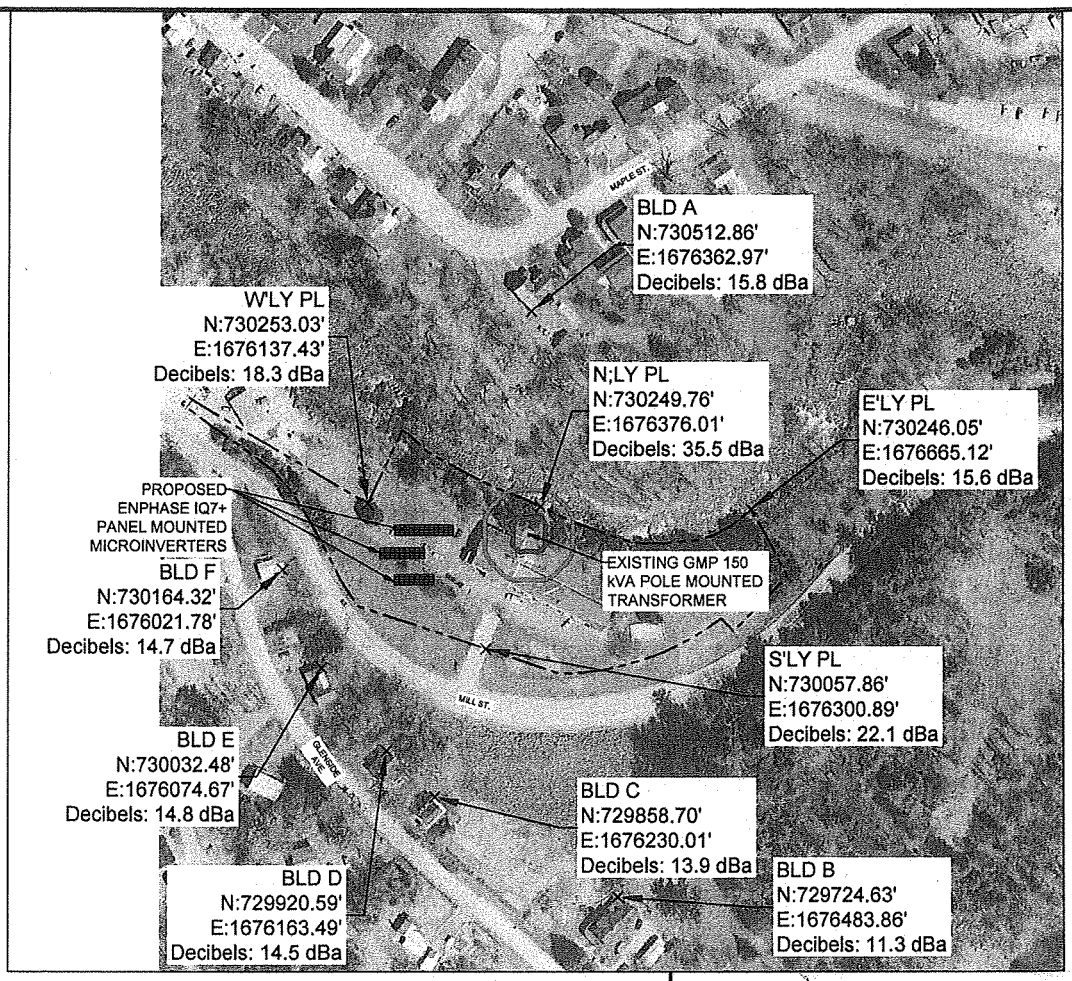
Source Data:

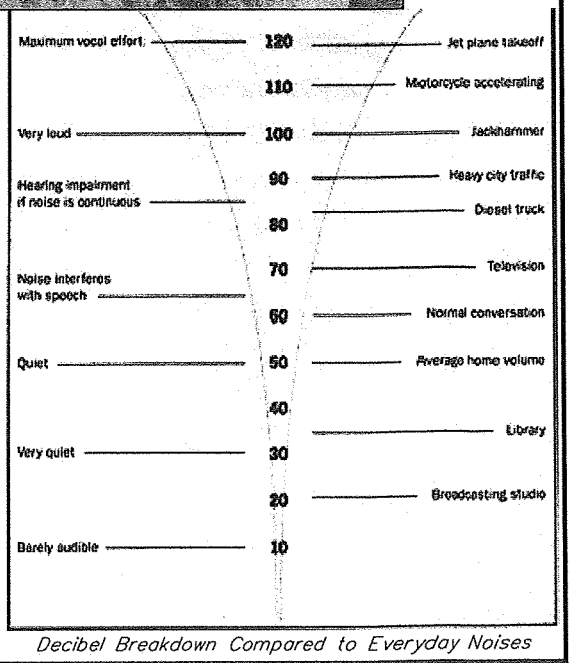
Revision Date:

Plan ID: Sound 2

Scale: N/A

Date: 01/20/21





Decibel Breakdown Compared to Everyday Noises

NOTES:

1. *Sound levels for pole mounted transformer are a maximum of 55.0 dBa [measured at 0.3 meter, as per NEMA TR1 (ANSI/IEEE Std. C57.12-90-1993, sec. 13.3.4)]. Assuming 1 meter to be conservative calculated sound level at 3 meters is 45.5 dBa.*
2. *Other decibel ranges were derived using the following distance damping equation [L2 = L1 −20 Log(d1/d2)]. This damping equation was the only factor considered in decibel range attenuation estimates. Elevation, ambient noise, vegetation, proposed solar array and other structures which would further effect the attenuation of sound levels were not considered in this study. Sound levels depicted are for the 150 kVA pole mounted transformers operating at maximum noise level.*
3. *Sound levels reported do not account for any background noise. Local background noise may exceed sound created by project equipment.*

Legend:

- *70 dBa range*
- *60 dBa range*
- *50 dBa range*
- *40 dBa range*
- *30 dBa range "Very Quiet"*

0' 125' 250' 500'

GRAPHIC SCALE 1" = 250'

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NIGHTTIME OPERATION SOUND LEVEL PLAN

Basic Sound Level Estimates for Noise Produced by Transformers

Project: Inn By The River Solar	Plan ID: Sound 3
Location: Mill St., Hardwick, VT	
Source Data:	Scale: 1" = 250'
DRAWN BY: EJM / CHECKED BY: SDG	Date: 01/20/21
Revision Date:	

Inn by the River Solar Project, Hardwick, Vermont - NIGHTTIME - EQUIPMENT

Sound Source #	Easting (feet)	Northing (feet)	Noise Level (dBA @ 3 Meters)
Proposed 150 kVA Cooper Pole Mounted Transformer	See Plan	See Plan	45.5

Cooper Power Systems 150 kVA Single-Phase Overhead Transformer specifies the units peak noise level as <45.5 dBa measured at 3 meters. (Manufacturer specification is a maximum of 55 dBa measured at 0.3 meters, as per NEMA TR1 (ANSI/IEEE Std. C57.12-90-1993, sec. 13.3.4). Assuming this measurement to be at 1 meter, to be conservation, the calculated sound level at 3 meters is 45.5 dBa.

Formulas used for Calculations

Adding of Noise Levels

$L_T = 10 \times \text{Log}_{10} (10^{L1/10} + 10^{L1/10} + ... + 10^{Ln/10})$

Where:

L_T = Total noise level of all equipment

Ln = Noise level for each piece of equipment

Noise Level Changes with Distance

$Lb = La - 20 \times \text{Log10} (Db/Da)$

Where:

Lb = Noise level at new distance

La = Noise level at original distance

Db = New distance from source of noise

Da = Original distance from source of noise

	1 meter	3 meters
Existing 150 kVA Cooper Pole Mounted Transformer	55.0	45.5

Points of interest were picked based on close proximity to the proposed project.

Points of Interest	Northing (feet)	Easting (feet)	Estimated Noise Level Based on Project Components (Sound Pressure, dBA)
N'LY PL	730,249.76	1,676,376.01	35.5
W'LY PL	730,253.03	1,676,137.43	18.3
S'LY PL	730,057.86	1,676,300.89	22.1
E'LY PL	730,246.05	1,676,665.12	15.6
BLD A	730,512.86	1,676,362.97	15.8
BLD B	729,724.63	1,676,483.86	11.3
BLD C	729,858.70	1,676,230.01	13.9
BLD D	729,920.59	1,676,163.49	14.5
BLD E	730,032.48	1,676,074.67	14.8
BLD F (NEAREST OFFSITE RESIDENCE)	730,164.32	1,676,021.78	14.7

NOTE:
Site inverters make negligible noise when not loaded with power. For this calculation we assume they will make no noise.

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NIGHTTIME OPERATION SOUND LEVEL PLAN

Basic Sound Level Estimates for Noise Produced by Transformers

DRAWN BY: EJM | CHECKED BY: SDG

Project: Inn By The River Solar

Location: Mill St., Hardwick, VT

Source Data:

Revision Date:

Plan ID: Sound 4

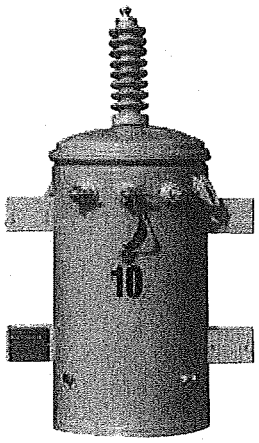
Scale: N/A

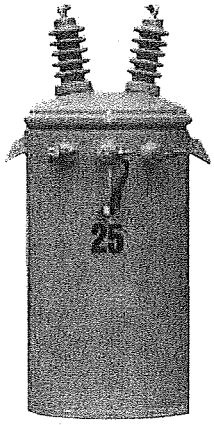
Date: 01/20/21

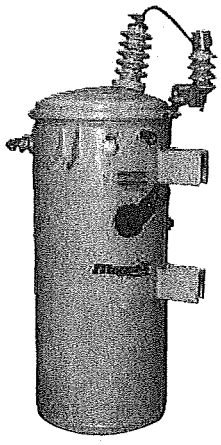
Technical Data **201-10**

Effective March 2014
Supersedes August 2013

Single-phase overhead transformers







General

Eaton's Cooper Power Systems manufactures a complete line of single-phase overhead-type distribution transformers. Single-phase transformers are available as conventional (5-167kVA), completely self-protected (CSP 5-75kVA), or MagneX™ interrupter-protected (5-167kVA) in a variety of ratings to meet or exceed the requirements of applicable ANSI® and NEMA® standards. Units designed per Rural Utilities Service (RUS) standards are also available.

CSP transformers have direct connected primary arresters, secondary circuit breakers, and internal primary voltage fuses. This eliminates the need for separately mounted protective devices and provides reduced installation costs.

The MagneX interrupter is an overcurrent protective device that protects distribution transformers from damaging overloads and secondary faults, and is also used for switching the transformer "on" or "off."

Transformers shown include, first and second, single-phase overhead conventional transformers, and third, MagneX interrupter-protected transformer.

Cooper Power Systems
by EATON

Standard features

- Meet or exceeds ANSI® and NEMA® standards
- Meets DOE Energy Efficiency Standard 10 CFR Part 431 for distribution transformers
- EPRI recommended interlaced core-type design (5-75 kVA)
- Tank coating exceeds IEEE Std C57.12.31™-2010 standard
- Cover with a minimum dielectric strength of 8 kV
- Tin-plated high and low-voltage bushing terminals to accommodate aluminum or copper conductors
- Laser-engraved nameplate
- Wet process porcelain high-voltage bushings resistant to high-voltage corona
- Tank grounding provisions
- Envirotemp™ FR3™ fluid or electrical grade mineral oil
- Heavy-duty lifting lugs and hanger brackets per ANSI® requirements1
- Visible cover ground on units with cover-mounted bushings
- Recessed tank bottom that offers protection when sliding over rough surfaces
- Automatic pressure relief device
- Polymer low-voltage bushings (5-75 kVA)
- Arrester mounting and grounding provisions
- Internal mark indicating the proper oil level
- Permanently stamped secondary leads to ensure proper identification
- Corrosion-resistant cover band
- Quality System ISO 9001 certified

Optional accessories

- Taps either two 2.5 % above and below; four 2.5% below; NEMA® taps or special taps
- Externally-operable tap changer switches for safe operation
- Multiple voltage primaries (5-75kVA)
- Externally-operable multiple voltage switches for safe operation
- High corrosion area protection with 304 or 409 stainless steel hardware and tanks
- MagneX™ interrupter
- Birdguards
- Envirotemp™ FR3™ fluid where less-flammable fluid is required and superior environmental characteristics are desired
- Cover with a minimum dielectric strength of 15 kV
- Extra creep high voltage bushings (up to 150 kV BIL)
- Porcelain low-voltage bushings
- Canadian Standards Association (CSA) conforming design
- Special designs conforming to international specifications
- Drain/sampling valve
- Pressure vacuum gauge (tank size limitations apply)
- Filter press connections
- Temperature gauge (tank size limitations apply)
- Liquid level gauge (tank size limitations apply)
- High efficiency transformers at 0.05% or higher above DOE efficiency

[1]Lugs and brackets per ANSI requirements up to 4500 lbs.

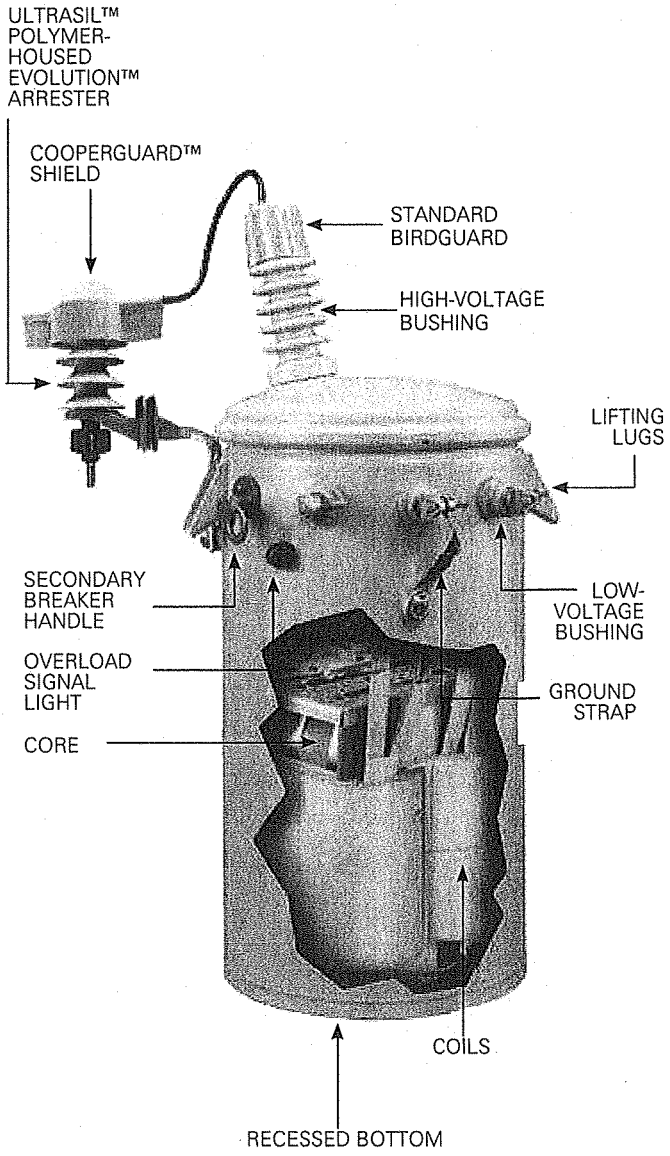
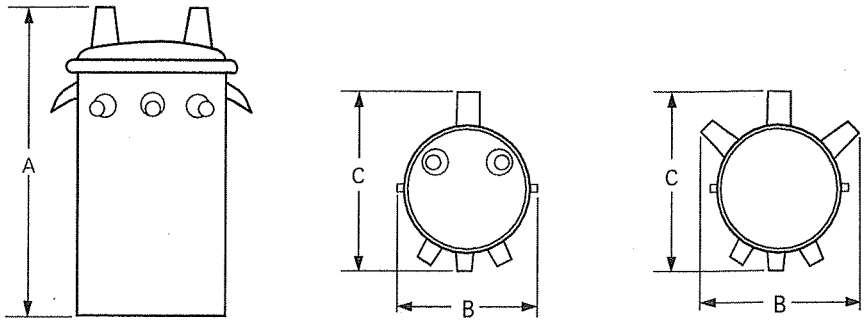


Figure 1. Single-phase overhead CSP transformer.

Single-phase overhead conventional

Product Scope:
kVA: 5-167
Primary Voltage: 2400-19,920 V
Secondary Voltage: 120-600 V



≥95 kV BIL ≤75 kV BIL[1]

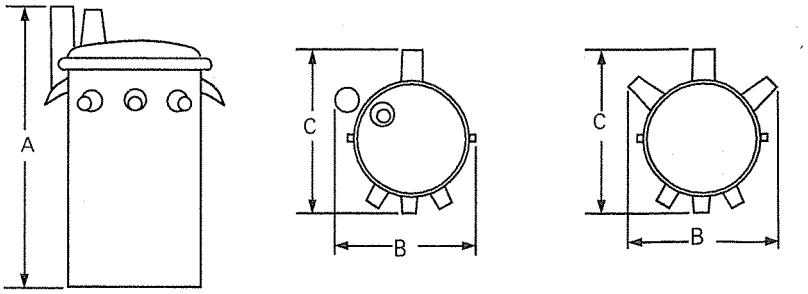
Table 1. Typical dimensions and Weights[2,3]

	Dimensions (in.)							
	"A"				"B"			
kVA	≤75 kV BIL	95 kV BIL	125 kV BIL	150 kV BIL	≤75 kV BIL	≥95 kV BIL	"C"[1]	Approx. Weight (lbs.)
5	26	32	42	45	28[1]	17	20	220
10	26	32	42	45	28[1]	17	20	220
15	30	35	46	49	28[1]	17	20	280
25	31	38	48	51	30[1]	20	22	350
37.5	33	40	52	55	31[1]	20	24	450
50	36	44	52	55	33[1]	22	25	600
75	39	51	54	57	33[1]	24	28	820
100	40	55	58	61	33[1]	27	31	1100
167	47	55	58	61	35[1]	35	37	1400

[1] Includes sidewall mount H.V. bushings.
[2] Includes radiators.
[3] Weights, gallons of fluid and dimensions are for reference only, and not for construction. Please contact Eaton's Cooper Power Systems for exact dimensions.

Single-phase overhead completely self protected (CSP)

Product Scope:
kVA: 5-75
Primary Voltage: 2400-19,920 V
Secondary Voltage: 120-600V



≥95 kV BIL ≤75 kV BIL[1]

Table 2. Typical Dimensions and Weights[2,3]

	Dimensions (in.)							
	"A"				"B"			
kVA	≤75 kV BIL	95 kV BIL	125 kV BIL	150 kV BIL	≤75 kV BIL	≥95 kV BIL	"C"1	Approx Weight (lbs.)
5	26	36	42	45	28[1]	17	20	240
10	26	36	42	45	28[1]	17	20	240
15	30	42	46	49	28[1]	17	20	300
25	31	44	48	51	30[1]	20	22	400
37.5	33	46	52	55	31[1]	20	25	500
50	36	46	52	55	33[1]	22	26	600
75	39	51	54	57	33[1]	24	30	900
100[4]	40	55	58	61	33[1]	27	34	1100
167[4]	47	55	58	61	35[1]	35	40	1600

[1] Includes sidewall mount H.V. bushings.
[2] Includes Radiators
[3] Weights, gallons of fluid and dimensions are for reference only, and not for construction. Please contact Eaton's Cooper Power Systems for exact dimensions.
[4] MagneX interrupter Only

Protection options

- High fire point Envirotemp™ FR3™ fluid for increased fire safety
- Secondary breaker with weak link for secondary fault and overload protection (5-75 kVA)
- Primary weak link fuse
- Current-limiting fuse for high interrupting ratings and limiting fault currents
- Low-voltage distribution class MOV arrester – internally or externally mounted
- MagneX interrupter (Primary Breaker) with isolation link
- MagneX interrupter (Primary Breaker) with partial range current-limiting fuse
- Lightning arresters for primary over-voltage protection: direct connected, normal or heavy duty metal oxide varistor (MOV) either internal (VariSTAR™), or external UltraSIL Polymer-Housed Evolution or UltraSIL™ Polymer-Housed VariSTAR arrester with polymer housing.

Quality control

Single-phase overhead-type transformers manufactured by Cooper Power Systems provide outstanding performance. All transformers from Cooper Power Systems pass tests as prescribed by ANSI® prior to shipment. Cores and coils are designed for high reliability and low field failure rates. The domed cover design in conjunction with the formed cover band provides increased pressure withstand capability, eliminates bushing overhang and improves cover retention. The high-voltage bushing design improves gasket protection and seal. The low-voltage polymer bushing virtually eliminates ultraviolet deterioration with its captured gasket, compression-limiting design. Transformers are designed and manufactured to be corrosion-resistant. Special attention is given to all welded external parts, to avoid moisture entrapment that can lead to corrosion problems. The recessed bottom design, as well as the stainless steel cover band ends, provide corrosion protection in areas that are more susceptible to coating damage during handling. All coating systems exceed IEEE Std C57.12.31™-2010 standard.

The Quality System at Eaton's Cooper Power Systems Transformer Products is ISO 9001 certified.

Fluid options

Transformers can be filled with standard electrical grade mineral insulating oil, Envirotemp™ FR3™ fluid, or other dielectric coolants.

For fire-sensitive locations, Envirotemp™ FR3™ fluid, a fire resistant natural ester-based fluid is recommended. Envirotemp™ FR3™ fluid also offers the benefits of a soy oil-based dielectric coolant that is sustainable and has unique environmental and material properties in addition to increased fire safety over conventional mineral oil.

Check with Eaton's Cooper Power Systems for the availability of other dielectric coolants in single-phase, pad-mounted transformers.

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Cooper Power Systems Business
2300 Badger Drive
Waukesha, WI 53188
United States
Cooperpower.com

Publication No. 201-10

Powering Business Worldwide

For Eaton's Cooper Power Systems single-phase overhead transformer product information call 1-877-277-4636 or visit: www.cooperpower.com.

Gmail by Google

Krebs and Lansing <email@krebsandlansing.com>

Single Phase Pole Audible Sound Rating

1 message

DustinRScaife@eaton.com <DustinRScaife@eaton.com> Fri, Jul 25, 2014 at 1:21 PM
To: gregdixson@krebsandlansing.com

Greg –

This email is to confirm our phone conversation about the 167 kVA single phase pole type transformer. The sound level will be limited to 55 decibels based on the NEMA TR1 sound levels. Let me know if you have any questions.

Thanks,

Dustin Scaife
Product Application Engineer

Power Delivery Division

Eaton's Cooper Power Systems Business
1900 E. North St.

Waukesha, WI 53188

Office: (262) 524-4336

Mobile: (262) 422-9256
Fax: (770) 268-7510

DustinRScaife@eaton.com

www.CooperPower.com

www.eaton.com

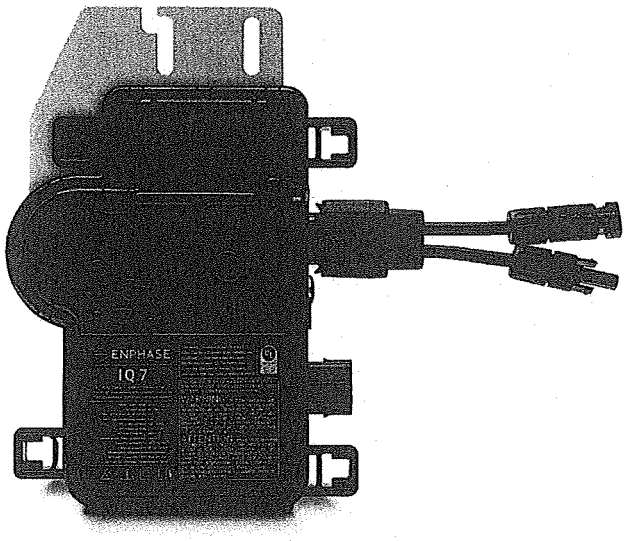
Data Sheet
Enphase Microinverters
Region: AMERICAS

Enphase IQ 7 and IQ 7+ Microinverters

The high-powered smart grid-ready **Enphase IQ 7 Micro™** and **Enphase IQ 7+ Micro™** dramatically simplify the installation process while achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7 and IQ 7+ Microinverters integrate with the Enphase IQ Envoy™, Enphase IQ Battery™, and the Enphase Enlighten™ monitoring and analysis software.

IQ Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty of up to 25 years.



Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

Productive and Reliable

- Optimized for high powered 60-cell/120 half-cell and 72-cell/144 half-cell* modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

* The IQ 7+ Micro is required to support 72-cell/144 half-cell modules.

To learn more about Enphase offerings, visit **enphase.com**

ENPHASE.

Enphase IQ 7 and IQ 7+ Microinverters

INPUT DATA (DC)	IQ7-60-2-US		IQ7PLUS-72-2-US	
Commonly used module pairings[1]	235 W - 350 W +		235 W - 440 W +	
Module compatibility	60-cell/120 half-cell PV modules only		60-cell/120 half-cell and 72-cell/144 half-cell PV modules	
Maximum input DC voltage	48 V		60 V	
Peak power tracking voltage	27 V - 37 V		27 V - 45 V	
Operating range	16 V - 48 V		16 V - 60 V	
Min/Max start voltage	22 V / 48 V		22 V / 60 V	
Max DC short circuit current (module Isc)	15 A		15 A	
Overvoltage class DC port	II		II	
DC port backfeed current	0 A		0 A	
PV array configuration	1 x 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit			
OUTPUT DATA (AC)	**IQ 7 Microinverter**		**IQ 7+ Microinverter**	
Peak output power	250 VA		295 VA	
Maximum continuous output power	240 VA		290 VA	
Nominal (L-L) voltage/range[2]	240 V / 211-264 V	208 V / 183-229 V	240 V / 211-264 V	208 V / 183-229 V
Maximum continuous output current	1.0 A (240 V)	1.15 A (208 V)	1.21 A (240 V)	1.39 A (208 V)
Nominal frequency	60 Hz		60 Hz	
Extended frequency range	47 - 68 Hz		47 - 68 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms		5.8 Arms	
Maximum units per 20 A (L-L) branch circuit[3]	16 (240 VAC)	13 (208 VAC)	13 (240 VAC)	11 (208 VAC)
Overvoltage class AC port	III		III	
AC port backfeed current	18 mA		18 mA	
Power factor setting	1.0		1.0	
Power factor (adjustable)	0.85 leading ... 0.85 lagging		0.85 leading ... 0.85 lagging	
EFFICIENCY	**@240 V**	**@208 V**	**@240 V**	**@208 V**
Peak efficiency	97.6 %	97.6 %	97.5 %	97.3 %
CEC weighted efficiency	97.0 %	97.0 %	97.0 %	97.0 %
MECHANICAL DATA				
Ambient temperature range	-40°C to +65°C			
Relative humidity range	4% to 100% (condensing)			
Connector type	MC4 (or Amphenol H4 UTX with additional Q-DCC-5 adapter)			
Dimensions (HxWxD)	212 mm x 175 mm x 30.2 mm (without bracket)			
Weight	1.08 kg (2.38 lbs)			
Cooling	Natural convection - No fans			
Approved for wet locations	Yes			
Pollution degree	PD3			
Enclosure	Class II double-insulated, corrosion resistant polymeric enclosure			
Environmental category / UV exposure rating	NEMA Type 6 / outdoor			
FEATURES				
Communication	Power Line Communication (PLC)			
Monitoring	Enlighten Manager and MyEnlighten monitoring options. Both options require installation of an Enphase IQ Envoy.			
Disconnecting means	The AC and DC connectors have been evaluated and approved by UL for use as the load-break disconnect required by NEC 690.			
Compliance	CA Rule 21 (UL 1741-SA) UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC 2014, NEC 2017, and NEC 2020 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according manufacturer's instructions.			

1. No enforced DC/AC ratio. See the compatibility calculator at https://enphase.com/en-us/support/module-compatibility.
2. Nominal voltage range can be extended beyond nominal if required by the utility.
3. Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

To learn more about Enphase offerings, visit **enphase.com**

ENPHASE.

CPG Number: 21-0223-NM
Object by Date: March 1, 2021

Fitzgerald Environmental Associates, LLC.

Applied Watershed Science & Ecology

January 21, 2021

Tara Huestis
Green Mountain Solar
96 Commerce St.
Williston, VT 05495

Re: Wetlands Assessment – Inn at the River, Hardwick, VT

Dear Tara:

I conducted a field review of the above-referenced site on September 28, 2020. My principal finding is that there are no jurisdictional wetlands anywhere on the property, or on adjoining property within 100 feet of the proposed solar project area.

My assessment of presence/absence of wetlands followed U.S. Army Corps of Engineers methodology using the "*Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.*" My observations of soils and vegetation included the area for the proposed array and adjacent low areas to rule out potential impacts to Class II wetland buffers. I did not observe any wetlands on the property, including the natural areas on the east side of the property.

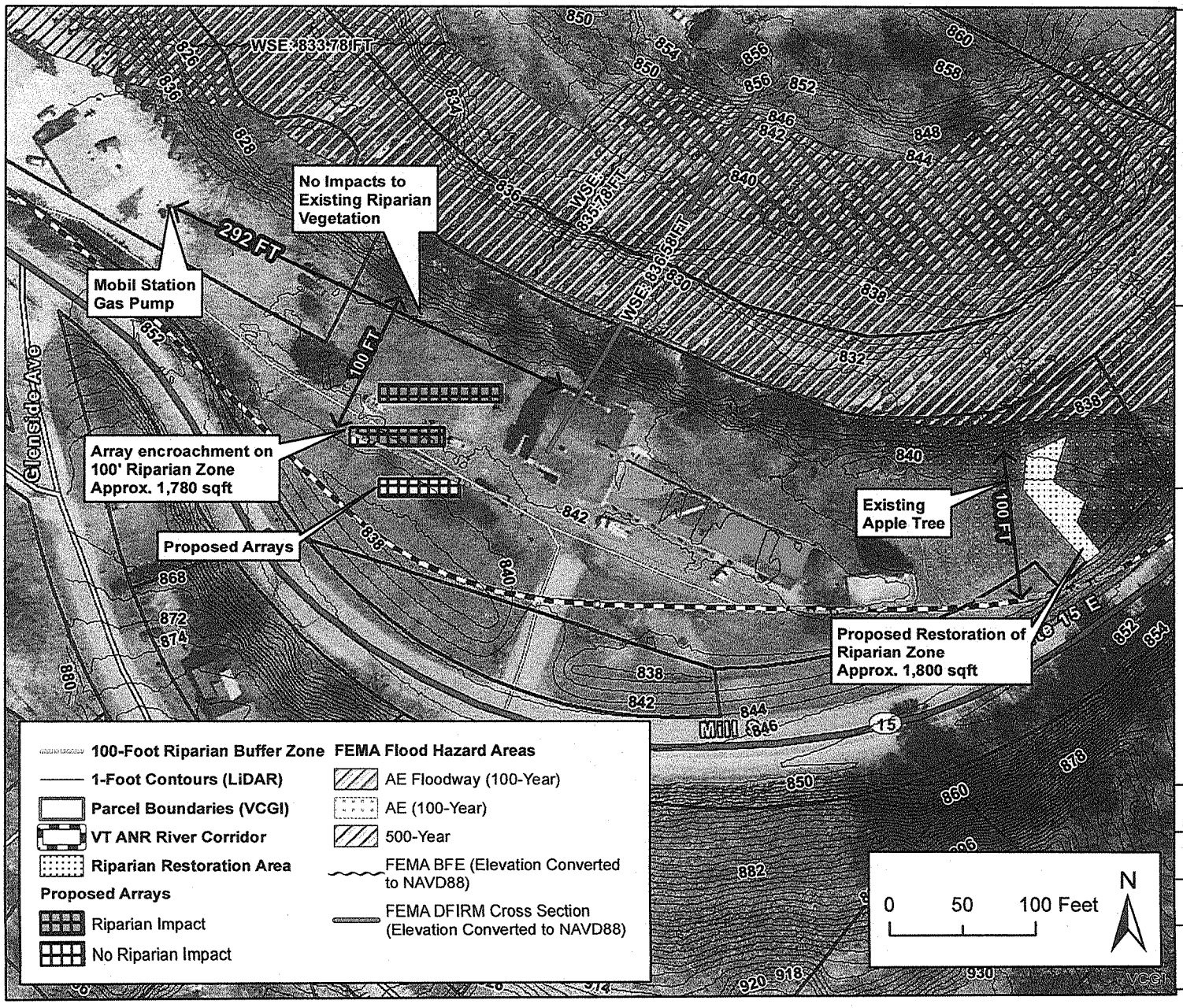
Please let me know if you have any questions about this summary.

Sincerely,

Evan P. Fitzgerald, CPESC, CFM
Principal Hydrologist/Geomorphologist

18 Severance Green · Suite 203 · Colchester · Vermont · 05446
Tel. 802.876.7778 · www.fitzgeraldenvironmental.com

CPG Number: 21-0223-NM
Object by Date: March 1, 2021



Fitzgerald Environmental Associates, LLC.
18 Severance Green, Suite 203
Colchester, VT 05446
Tel: 802.876.7778
www.fitzgeraldenvironmental.com

Notes:
- Contours based on VT LiDAR data from VCGI (NAD83)
- Site visit by FEA on 9/28/2020

Inn By the River Corridor and FEMA Flood Zone Basemap

Hardwick Vermont

EHB	EPF
Map By	Checked By

1 inch = 100 feet
Scale

January 13, 2021
Date

Sheet 1
SHEET NO.

CPG Number: 21-0223-NM
Object by Date: March 1, 2021

January 21, 2021

Judith Whitney, Clerk
Public Utility Commission
112 State Street
Montpelier, VT 05620

RE: Application of Inn by the River for a certificate of public good for a 34.22 kW solar net-metered electric power system in Hardwick, Vermont. (the Project).

Dr. Ms. Whitney,

Green Mountain Solar ("GMS") submitted a 45-day notice on behalf of Inn by the River on November 25, 2020. During that 45-day timeframe GMS received several comments and recommendations in response to the advanced submission.

First off, we are working with Sacha Pealer, the Regional River Scientist & Floodplain Manager regarding the River Corridor at this location. Sacha raised concerns that the arrays are located within the River Corridor as well as the "500-year" flood levels published in the FEMA flood study. Falling under the guidelines of C1D Floodways. GMS will be submitting a Full Application under V(C)(1)(E) of the General Permit and working closely with Sacha soon to make sure there is as little disruption to the area. After speaking with Sacha, it was determined that the trench line was unable to go around the back of the property. We agreed that to diminish the environmental impact that we would only trench to the front corner of the building and run exterior conduit on the outside of the building off the ground so there would be less disruption to the river area.

We, also, received a call from the Vermont Department of Transportation. Although, there were no objections they checked in to make sure that we are planning to use the existing driveway and parking lot for our install. We are.

Next, we heard from a neighbor. This neighbor expressed their excitement for the Hollyer's and Inn by the River stating this will be good for them and for their guests.

Lastly, we have been working with Karin McNeill, Regulatory Policy Analyst, and Jud Kratzer, Fisheries Biologist. Karin raised the concern that the project is being installed inside the riparian zone at the property falling under the C1E Streams guidelines and requested that we work with Jud to minimize and potentially mitigate riparian zone impacts. After speaking with Jud, the Hollyer's have agreed to allow for part of the property, about 1800sq ft, to regrow its natural vegetation. The Hollyer's have also agreed to plant Vermont species of plants and trees to allow for restoration of the property. GMS and the Hollyer's will be working closely with Jud throughout the project to make sure the correct species of plants and trees are planted to restore the native riparian vegetation.

During these conversations with Karin McNeill, she also raised the concern that we were utilizing an old Standard and Specification for Erosion Prevention and Sediment Control. Moving forward, GMS, will utilize the ANR's 2020 *Vermont Standards & Specifications for Erosion Prevention and Sediment Control*.

All objections and recommendations brought to our attention during the 45-day notice will be thoroughly and properly addressed prior to any construction commences and we will work closely with Sacha, Karin, and Jud to make sure that all standards are met.

Please let us know if we can be of further assistance.

Sincerely,

Tara Huestis

Tara J Huestis
Office Manager
96 Commerce Street
Williston, VT 05495
Ph. 802.369.9149

CPG Number: 21-0223-NM
Object by Date: March 1, 2021

January 21, 2021

Judith Whitney, Clerk
Public Utility Commission
112 State Street
Montpelier, VT 05620

RE: Application of Inn by the River for a certificate of public good for a 34.22 kW solar net-metered electric power system in Hardwick, Vermont. (the Project).

Dr. Ms. Whitney,

Green Mountain Solar ("GMS") has looked into the address for the host site and there are no ACT 250 Land Use permits for this parcel of land at this time.

Please let us know if we can be of further assistance.

Sincerely,

Tara Huestis

Tara J Huestis
Office Manager
96 Commerce Street
Williston, VT 05495
Ph. 802.369.9149