



# *Alternative Power Solutions*

of NY, LLC

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*A Renewable Energy Company*

*Forrest English-Loeb ♦ Project Manager*

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## **Description of work to be completed -**

Alternative Power Solutions is proposing a ground mounted array at 843 Crow Crow Hill Rd Skaneateles, NY. This array will have 20 Silfab 500w with a maximum output of 10.00kW, and 20 Power Optimizers with a maximum AC output of 10.0kW. This system will be net metered, grid tie-in, and will not have any back-up batteries onsite.

# PHOTOVOLTAIC GROUND MOUNT SYSTEM

20 MODULES - SYSTEM SIZE STC (10.000 kW DC / 10.000 kW AC)  
843 CROW HILL ROAD, SKANEATELES, NY 13152, USA (42.9750962, -76.4483600)

## SYSTEM SUMMARY STC (10.000 kW DC / 10.000 kW AC)

- STC DC: 245 600W = 10.000 kW
- STC AC: (1) 10000W = 10.000 kW
- (2) SILFAR SOLAR INC. SE 500 NM (500W) MODULES
- (2) SOLAREDGE P505 OPTIMIZERS
- (1) SOLAREDGE SR10000H LIE (240) INVERTERS
- 2x STRINGS OF 10 CONNECTED IN SERIES

## GOVERNING CODES

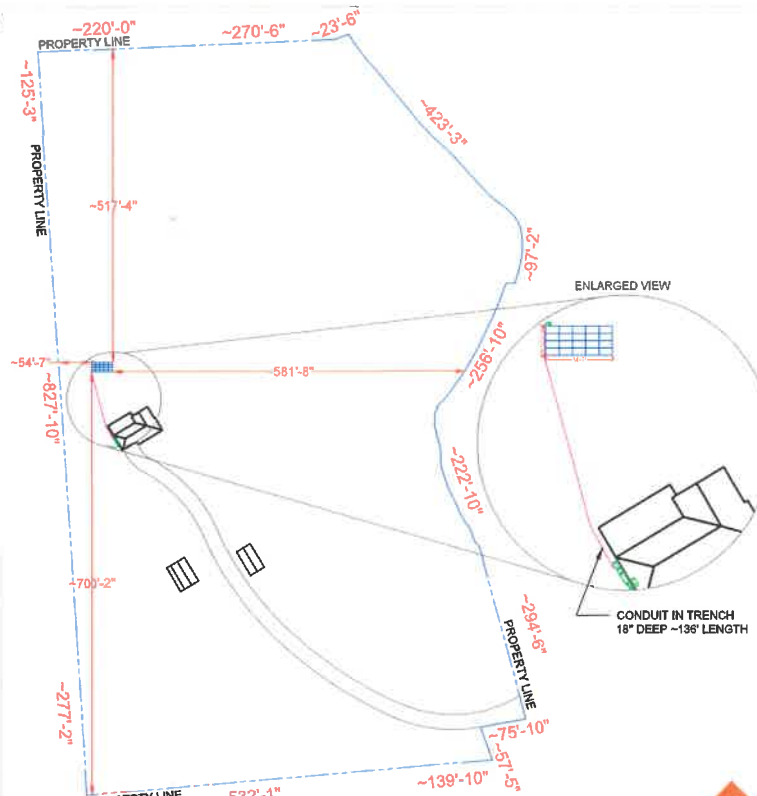
- ALL WORK SHALL CONFORM TO THE FOLLOWING CODES
- 2020 BUILDING CODE OF NEW YORK STATE
- 2020 RESIDENTIAL CODE OF NEW YORK STATE
- 2020 FIRE CODE OF NEW YORK STATE
- 2017 NATIONAL ELECTRICAL CODE

## GENERAL NOTES

- ALL PANELS, SWITCHES, ETC. SHALL HAVE SUFFICIENT CUTTER SPACE AND LUGS IN COMPLIANCE WITH UL REQUIREMENTS TO ACCOMMODATE CONDUCTORS SHOWN.
- THIS SYSTEM WILL NOT BE INTERCONNECTED UNTIL APPROVAL FROM THE LOCAL JURISDICTION AND UTILITY IS OBTAINED.
- ALL EXTERIOR ELECTRICAL DEVICES AND EQUIPMENT INCLUDING THOSE THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WEATHERPROOF AND SHALL BE LISTED BY UL FOR THE TYPE OF APPLICATION AND VOLTAGE. LABELS SHALL APPEAR ON ALL ELECTRICAL EQUIPMENT.
- WIRING METHOD SHALL BE ENT ABOVE GROUND MOUNTED IN CONCEALED SPACES (UNLESS APPROVED OTHERWISE) AND SCHEDULE 40 PVC FOR BELOW GROUND INSTALLATIONS UNLESS NOTED OTHERWISE.
- AN OSHA APPROVED LADDER PROVIDING ACCESS TO ALL PORTIONS OF THE ARRAY SHALL BE SECURED IN PRIOR TO REQUESTING INSPECTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL A SUPPLEMENTAL GROUNDING ELECTRODE CONDUCTOR IF NECESSARY.

## LEGEND

|  |                                     |  |                             |
|--|-------------------------------------|--|-----------------------------|
|  | PV MODULE                           |  | DIMENSIONS                  |
|  | TRENCH                              |  | PROPERTY LINE               |
|  | DRIVE WAY                           |  | FENCE                       |
|  | GATE                                |  |                             |
|  | MAIN SERVICE PANEL (EXISTING, 200A) |  | AC DISCONNECT UNFUSED (N/A) |
|  | UTILITY METER (EXISTING)            |  | AC DISCONNECT FUSED (NEW)   |
|  | PRODUCTION METER (NEW)              |  | JUNCTION BOX (NEW)          |
|  | BATTERY (N/A)                       |  | AUTO TRANSFORMER (N/A)      |
|  | INVERTER (NEW)                      |  | SUBPANEL (N/A)              |
|  | LOAD CENTER (COMBINER PANEL) (N/A)  |  | DC DISCONNECT (N/A)         |
|  | SOLAR METER (N/A)                   |  | DC COMBINER (N/A)           |
|  | BACKUP LOAD PANEL (N/A)             |  | EXISTING EQUIPMENT          |



**SITE PLAN & SAFETY PLAN**  
SCALE: 1/152" = 1'-0"

CROW HILL ROAD

## SHEET INDEX

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| PV-5  | WIRING CALCULATIONS            |
| PV-6  | PLACARDS                       |
| PV-7+ | EQUIPMENT SPECIFICATION        |

AHJ: TOWN OF SKANEATELES  
UTILITY: NATIONAL GRID - NEW YORK



**HOUSE PHOTO**  
SCALE: NTS



**VICINITY MAP**  
SCALE: NTS



CONTRACTOR: ALTERNATIVE POWER  
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PHONE: 315.344.8889  
CONTRACTOR LICENSE # 4247  
EMAIL: DP@apsoenergy.com

| REVISIONS   |      |    |
|-------------|------|----|
| DESCRIPTION | DATE | BY |
|             |      |    |
|             |      |    |
|             |      |    |

SIGNATURE & SEAL

HOMEOWNER INFO  
**DEREK SMITH**  
843 CROW HILL ROAD,  
SKANEATELES, NY 13152, USA

APPROVALS  
NAME: N/A  
PHONE: N/A

SHEET NAME  
**COVER PAGE**

SHEET SIZE  
**ANSI B  
11" X 17"**

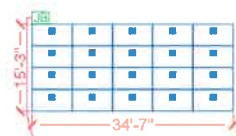
SHEET NUMBER  
**PV-1**

PANEL TYPES (COUNT, AREA, WEIGHT):  
 a (20x) BULFIN SOLAR INC. 38L 500 HM (500W) (82.6" x 44.6", 57.8 LB)  
 OPTIMIZER TYPES (COUNT, WEIGHT):  
 a (20x) SOLAREDGE P505 (2.3 LB)  
 MOUNTING SYSTEM WEIGHT/TAKEOFF: 1.5 LB  
 TOTAL ARRAY AREA: (20) 82.6" x 44.6" = 811 SF  
 TOTAL ARRAY WEIGHT: (20) 57.8 + (20) 2.3 + (20) 1.5 = 1232 LB  
 DISTRIBUTED LOAD: 1232 LB / 511 SF = 2.41 PSF

EXPOSURE CATEGORY = C  
WIND SPEED = 110 MPH  
SNOW LOAD = 50 PSF

[illegible]

| GROUND MOUNT DESCRIPTION |            |         |
|--------------------------|------------|---------|
| ARRAY                    | ARRAY TILT | AZIMUTH |
| #1                       | 30°        | 180°    |



GROUND ARRAY #1  
PITCH 30°  
AZIMUTH 180°

CONDUIT IN TRENCH  
18" DEEP ~136' LENGTH

BACK OF HOUSE

FRONT OF HOUSE  
CROW HILL ROAD

### GROUND MOUNT PLAN WITH MODULES



CONTRACTOR: ALTERNATIVE POWER  
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CONTRACTOR LICENSE #: 4347  
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SIGNATURE &amp; SEAL

## HOMEOWNER INFO

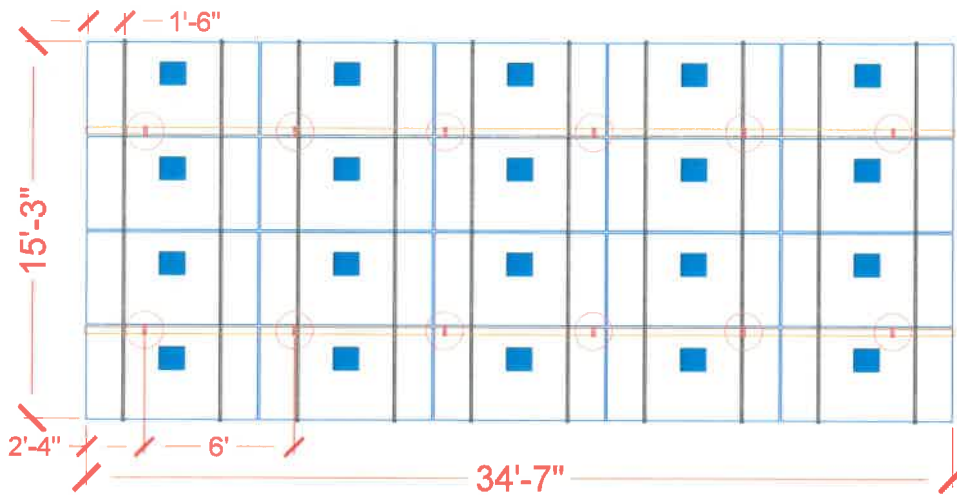
**DEREK SMITH**  
843 CROW HILL ROAD,  
SKANEATELES, NY 13152,

APN: 624,81-78.0  
EMAIL: N/A  
PHONE: N/A

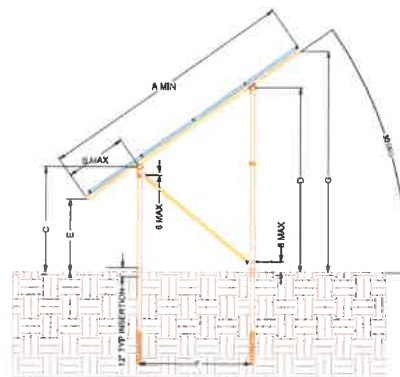
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**GROUND MOUNT**  
**PLAN WITH**  
**MODULES**

**SHEET SIZE**  
**ANSI B**  
**11" X 17"**

**SHEET NUMBER**  
**PV-2**



| DIMENSIONS IN INCHES |       |
|----------------------|-------|
| A                    | 183.0 |
| B                    | 43.0  |
| C                    | 27.5  |
| D                    | 76.5  |
| E                    | 12.0  |
| F                    | 85.0  |
| G                    | 97.0  |



**RACKING DETAILS**  
SCALE: NTS



CONTRACTOR: ALTERNATIVE POWER  
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| REVISIONS   |      |     |
|-------------|------|-----|
| DESCRIPTION | DATE | REV |
|             |      |     |
|             |      |     |
|             |      |     |

SIGNATURE & SEAL

HOMEOWNER INFO

**DEREK SMITH**  
843 CROW HILL ROAD,  
SKANEATELES, NY 13152, USA

APR: 04-01-2018  
EMAIL: 1011  
PHONE: 315

SHEET NAME

**RACKING  
DETAILS**

SHEET SIZE  
**ANSI B  
11" X 17"**

SHEET NUMBER  
**PV-3**