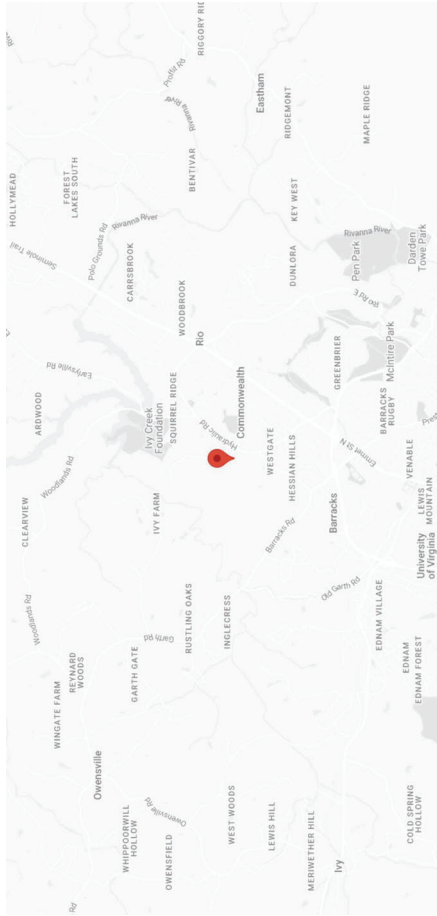


ALBEMARLE COUNTY - ALBEMARLE HIGH

2775 HYDRAULIC ROAD, CHARLOTTESVILLE, VA 22901



1 AERIAL PHOTO
Scale: NTS



2 VICINITY MAP
Scale: NTS

PHOTOVOLTAIC SYSTEM SUMMARY

TOTAL DC SYSTEM SIZE: 455.3 kW DC TOTAL
TOTAL AC SYSTEM SIZE: 440.0 kW AC TOTAL
MAXIMUM SYSTEM VOLTAGE: 1000 VDC
MODULE TYPE: 580W NESE 580-72THB-M10
QUANTITY: 785 MODULES
ARRAYS PER STRING: 24
TILT ANGLE: 10 DEGREES
ROW SPACING: 13 INCHES
DESIGN INFORMATION:
DESIGN WIND SPEED: 118 mph
GROUND SNOW LOAD: 60 lb/sqft
EXPOSURE CATEGORY: III
OCCUPANCY CATEGORY: B
RACKING DESCRIPTION:
RACKING MANUFACTURER: UNIRAC GRIDFLEX 10
MODULE DESCRIPTION:
MAXIMUM POWER (Vmp): 51.5 V
OPEN CIRCUIT VOLTAGE (Voc): 42.8 V
MAXIMUM POWER VOLTAGE (Vmp): 42.8 V
SHORT CIRCUIT CURRENT (Isc): 14.35 A
MAXIMUM POWER CURRENT (Imp): 13.56 A
EFFICIENCY (%): 22.45 %
INVERTER DESCRIPTION:
TYPE OF INVERTER: SOLAR EDGE TECHNOLOGIES
TOTAL NUMBER OF INV: 120KW
MODEL NUMBER: SE120KUS
CONTINUOUS POWER: 120KW
DC PEAK POWER TRACKING RANGE: 850-1000V
CEC PEAK EFFICIENCY: 98.5%
INVERTER 2 DESCRIPTION:
TYPE OF INVERTER: SOLAR EDGE TECHNOLOGIES
TOTAL NUMBER OF INV: 80KW
MODEL NUMBER: SE80KUS
CONTINUOUS POWER: 80KW
DC PEAK POWER TRACKING RANGE: 850-1000V
CEC PEAK EFFICIENCY: 98.5%

CODE COMPLIANCE

APPLICABLE CODES
NATIONAL ELECTRIC CODE (NEC) 2020
INTERNATIONAL BUILDING CODE (IBC) 2018
INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 70E)

KEY CONTACTS

DEVELOPMENT ENGINEER:
BAILEY ROE
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757-291-7554
DEVELOPMENT MANAGER:
NOMI CARTER
NOMI@MADISONENERGY.COM
434-964-7530
PROFESSIONAL ENGINEER:
BARRY SKULCH
BSKULCH@MADISONENERGY.COM
732-713-3078
LICENSE #: 0402067979

AUTHORITY HAVING JURISDICTION (AHJ):
UTILITY: ALBEMARLE COUNTY DOMINION

ALBEMARLE COUNTY
CHARLOTTESVILLE, VA 22901
455.3 KW DC
440.0 KW AC

COVER SHEET

SHEET SET INDEX

GENERAL
G001 - COVER SHEET
G100 - SITE PLAN
ELECTRICAL
E100 - SINGLE LINE DIAGRAM
E200 - ELECTRICAL CALCULATIONS
E300 - CUTSHEETS

REVISIONS

NO.	DESCRIPTION	DATE
01	PROPOSAL	07-28-25
02		
03		
04		
05		
06		
07		
08		
09		
10		

PROJECT: 01-25-25
REV: 0
DESIGN #:
DATE: 07-28-25
PROPOSAL

PROJECT: 01-25-25
REV: 0
DESIGN #:
DATE: 07-28-25
PROPOSAL

G001

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POWER OPTIMIZER

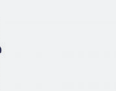


Made in USA

Commercial Power Optimizer

C651U

USA Domestic Content Eligible



SolarEdge's USA-manufactured offering for C&I projects, for power optimization at the module level

- Enhanced Monitoring and Visibility**
 - Maximum system visibility up to the individual module level
 - Diagnosed fault detection and mode
- Maximum Protection with Safe to Touch**
 - Designed to automatically reduce high-DC voltage during maintenance, even upon inadvertent activation, with SafeDC™
 - Compliant with UL9540 and IEEE1547-2018
 - Connectors for overvoltage protection and lightning protection
 - Compliant with IEEE1547-2018 and IEEE1547-2003 according to IEEE 2014 – 2021
- Higher Energy Yields**
 - Power optimizer with 99.99% power conversion
 - Supports high power and bifacial PV modules, including G12 modules
- Eligible for Domestic Content**
 - SolarEdge USA-manufactured power optimizer modules are available to US customers and are eligible for domestic content credit for domestic content
- Higher Energy Yields**
 - Power optimizer with 99.99% power conversion
 - Supports high power and bifacial PV modules, including G12 modules

For more information, visit the SolarEdge of the Americas website: solaredge.com

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