



August 1st, 2023

City of Essex Junction City Council
City of Essex Junction Planning Commission
Chittenden County Regional Planning Commission

**Re: Essex A North Lot Solar, LLC's 45-Day Notice to Persons and Entities
Entitled to Notice Pursuant to Public Utility Commission Rule 5.402(A), for a
Proposed 4.95 MW Solar Array to be located off Robinson Pkwy in Essex Junction,
VT.**

Dear Sir or Madam:

Essex A North Lot Solar, LLC (the "Applicant"), is pleased to provide you with this 45-Day notice in advance of filing a petition for a Certificate of Public Good with the Vermont Public Utility Commission ("Commission" or "PUC"), for a 4.95 MW solar electric generation facility to be known as the "Essex A North Lot Solar Project" (the "Project"). The Applicant proposes to construct the Project on GlobalFoundries property located off Robinson Parkway in Essex Junction, Vermont (the "Site"). This notice is provided in accordance with 30 VSA § 248, Vermont Statutes Annotated ("Section 248"), and Public Utility Commission Rule 5.402.

Pursuant to Commission Rule 5.402, the following letter includes information sufficient to understand the overall Project including the location of the facility, a description of the proposed Project, construction plans and equipment to be used. This letter also describes the rights of the noticed parties to comment on the Project plans and participate in the Section 248 review process.

This letter contains descriptions of the following:

- I. 30 V.S.A. § 248 Process Information;
- II. Project Description;
- III. Site Selection and Consideration of Alternatives
- IV. Construction and Transportation
- V. Preliminary Assessment of Environmental and Aesthetic Impacts;
- VI. Project Benefits;
- VII. Expected Filing Date.

Included as attachments to this letter are:

- I. Location Map / Preliminary Site Plan
- II. Preliminary Natural Resources Map

II. Representative Equipment Specifications

I. 30 V.S.A. Section 248 Petition and Notice

The state permitting process for electric generation facilities requires the Applicant to provide notice to certain entities and persons 45-days prior to a formal filing with the PUC. These include:

- The affected municipal legislative bodies;
- The affected municipal and regional planning commissions; and
- The Public Utility Commission.

The Applicant has also provided this 45-day notice to:

- The Department of Public Service
- The Agency of Natural Resources

Per Commission Rule 5.402(A), the municipal and regional planning commissions shall make recommendations, if any, at least seven (7) days prior to the intended filing date, which filing date is expected to be 45 days from the date of this notice.

Affected municipal and regional planning commissions may also provide revised recommendations within 45 days of the date on which the Applicant files its petition with the Commission, if the petition contains new or more detailed information that was not previously included in the original filing with the municipal and regional planning commissions pursuant to Section 248(f).

Recommendations made to the Commission pursuant to Section 248(f), or the lack of such recommendations, shall not preclude municipal or regional planning commissions from presenting evidence during technical hearings if granted party status.

Please send all recommendations during this 45-Day notice period to:

Vermont Public Utility Commission
c/o Clerk of the Commission
112 State Street
Montpelier, VT 05620-2701

AND

Encore Renewable Energy
Attn: Phillip D. Foy
P.O. Box 1072
Burlington, VT 05402
Tel: (802) 861-3023

phillip@encorerenewableenergy.com

For additional information regarding this process, including your commission's right to participate in the Public Utility Commission proceeding, please refer to the "Citizen's Guide to the Vermont Public Utility Commission's Section 248 Process," which can be found at <https://puc.vermont.gov/document/citizen-guide-public-utility-commission>.

II. Project Description

The Applicant is proposing a 4.95 MW solar project on property located off Robinson Parkway in Essex Junction, Vermont. The array will occupy roughly 30 acres of the greater 228-acre parcel. The electricity generated by this Project will flow to GlobalFoundries' electric grid.

The Site location, array footprint, and approximate property boundaries are shown in the preliminary site plan attached as Exhibit 1. Vermont Route 117 is to the north of the Project. In summary, the Project will consist of:

- Approximately 12,000 solar panels installed on ground-mounted racking systems across roughly 30 acres of the Site:
 - Coated with non-reflective glazing;
 - Approximately 10-15 feet off the ground at their highest point.
 - Modules are to be mounted on fixed tilt racking systems with rows running east-west.
- A network of string inverters dispersed across the array connected with underground cables installed in protective conduit;
- A 7-8 ft agricultural style perimeter fence;
- Temporary laydown area for delivery and short-term storage of materials; and
- An approximate 850-ft extension of 3-phase power to the Site for interconnection into GMP's grid, from the existing distribution service on Robinson Parkway;
- Utilizing GlobalFoundries' existing road infrastructure for access for the projects

III. Site Selection and Consideration of Alternatives

This site was selected because of the site's proximity to substation infrastructure, access to three phase transmission infrastructure, even topography, and limited environmental impacts.

The applicant worked with its consultants to configure the Project in a way that would maximize the potential energy generation benefits while minimizing environmental and aesthetic impacts. The Applicant will continue working with all stakeholders prior to filing the CPG petition and thereafter to address any concerns.

IV. Construction & Transportation

The Applicant proposes to deliver materials for the Project using trucks and state and local roads, which are accustomed to the type of traffic representative of the proposed daily delivery of materials. Deliveries will be made to a temporary construction staging area on the Site, located off the proposed access drive. Most all transportation activity will occur during the construction phase, which would last between three and five months.

The Project is not expected to require oversize or overweight deliveries. Access to and from the Site will be restricted by perimeter fencing in order to secure the Site and prevent the public from entering the facility. All equipment associated with the Project will be installed in accordance with all applicable regulations and electrical codes.

V. Preliminary Impact Assessment

i. Aesthetics

The project would be setback approximately 345 feet from Route 117, which is north of the Project. From a preliminary review by Encore Renewable Energy, it is planned that screening plantings will be planted between the Project and Route 117.

In preparation for the CPG application for the Project, the Applicant will engage T.J. Boyle Associates of Burlington, Vermont to perform a review of potential aesthetic impacts resulting from the Project.

Overall, preliminary review by Encore Renewable Energy indicates that the Project would not result in undue impacts to the aesthetic and scenic and natural beauty of the area. The Applicant will continue to work with Essex Junction, adjoining property owners, and T.J. Boyle Associates in order to address any potential aesthetic impacts. The Applicant will file the complete TJ Boyle aesthetic report, and final mitigation measures, where warranted, with the complete petition.

ii. Environmental

The Applicant has engaged VHB, Inc. to perform preliminary due diligence as well as detailed natural resource assessments and delineations, including both database and field surveys. Results of those studies will be provided in the final petition.

Given that the project is located within an existing agricultural field, parking lots, and previously disturbed mound of soil, the likelihood of impacts to most natural resources is low. VHB will conduct natural resource assessments, and impact analyses (where applicable) will be completed for criteria considered under Section 248 and as relevant to any additional necessary environmental permitting.

The Applicant will consult with state and federal agency staff as necessary pending results of detailed natural resource studies, which will inform Project design to avoid resources where possible and/or secure necessary permits, reviews, and approvals.

VI. Project Benefits

The Project is being developed in cooperation with GMP to provide locally generated renewable energy to GlobalFoundries. As its own electric utility, the Project will contribute to GlobalFoundries' achievement of the requirements under the Vermont Renewable Energy Standards by creating new, locally generated renewable energy. In addition, the Project will generate a new source of property tax revenue for the municipality.

VII. Conclusion

The Project is not expected to result in undue adverse impacts to the applicable criteria. The Applicant looks forward to submitting the full Section 248 petition package, which will contain all of the information required by the PUC to evaluate the merits of the Project for potential award of a Certificate of Public Good and inform others of the Project's impacts and value.

The Applicant intends to file a Section 248 Petition and supporting materials with the PUC soon after the expiration of this 45-day notice period, which is expected to be no sooner than October 5th, 2023.

We look forward to receiving any input or suggestions you may have as we move through the Section 248 process. If you have any questions you may direct them to the Applicant by phone at 802-861-3023 or by email at phillip@encorerenewableenergy.com.

Sincerely,



Phillip D. Foy
General Counsel
Encore Renewable Energy

Attachment 1 – Preliminary Site Plan
Attachment 2 – Preliminary Natural Resources Map
Attachment 3 – Representative Equipment Specifications

Copy to:

Vermont Public Utility Commission
112 State Street
Montpelier, Vermont 05620-2701

Department of Public Service
James Porter, Director for Public Advocacy
112 State Street - Third Floor
Montpelier, Vermont 05620-2601

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

Green Mountain Power
163 Acorn Lane
Colchester, VT 05446

GlobalFoundries
1000 River Street
Essex Junction, VT 05452

Chittenden County Regional Planning Commission
110 W Canal St #202
Winooski, VT 05404

City of Essex Junction City Council
2 Lincoln St
Essex Junction, VT 05452

City of Essex Junction Planning Commission
2 Lincoln St
Essex Junction, VT 05452

Natural Resources Board
District #6 Environmental Commission
10 Baldwin Street
Montpelier, VT 05633-3201

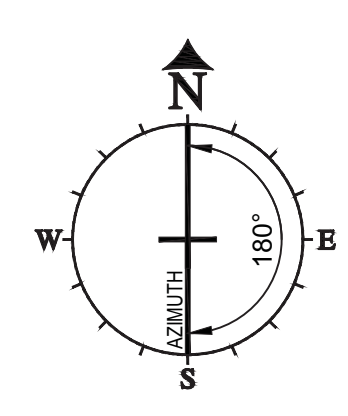
Agency of Agriculture and Food Markets
Secretary Anson Tebbetts
116 State Street
Montpelier, Vt 05620-2901

Department of Historic Preservation
Laura V. Trieschmann
One National Life Drive
Deane C. Davis Building, 6th Floor
Montpelier, VT 05620-0501



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A1
SCALE:
N/A





Leaders in Distributed Energy Generation.

110 Main Street, Suite 2E
Burlington, VT 05401
802-861-3023

www.encorerenewableenergy.com

PROFESSIONAL SEAL

ENGINEER'S SEAL APPLIES TO DESIGN OF STRUCTURAL COMPONENTS ONLY

Global Foundries IX Group A Concept Plan

Type	Fenced Area	
FT	~30 acres	
Intrarow Spacing	Tilt	Azimuth
	25°	180°
Module Rating / Count		
540W		
12,428 Modules		
DC Rating	AC Rating	
6.711 MW	4.95 MW	
Interconnection		
Existing line	Line Extension	Site Extension
x ft	y ft	z ft

RELEASE RECORD

5	08/01/2023	45 Day Notice ZB
4	03/17/2023	
3	09/14/2022	
2	09/08/2022	
1	09/06/2022	
DATE	DESCRIPTION	

PROJECT INFORMATION

TITLE & ADDRESS:
1040 Robinson Pkwy,
Essex Junction, 05452

ER PROJECT No.:

DRAWN BY:
ZB

REVIEWED BY:

SHEET TITLE:
Concept Plan

SHEET No.:
P-102



LEGEND

- Mapped Vernal Pools
- Rare Threatened and Endange
- RTE Animal
- RTE Plant
- Deer Wintering Areas
- Wetland - VSWI
 - Class 1 Wetland
 - Class 2 Wetland
 - Wetland Buffer
- Parcels (standardized)
- Stream
 - Stream
 - Intermittent Stream
- Roads
 - Interstate
 - US Highway; 1
 - State Highway
 - Town Highway (Class 1)
 - Town Highway (Class 2,3)
 - Town Highway (Class 4)
 - State Forest Trail
 - National Forest Trail
 - Legal Trail
 - Private Road/Driveway
 - Proposed Roads
- Town Boundary

1: 4,127

July 21, 2023



NOTES

Map created using ANR's Natural Resources Atlas

210.0 0 105.00 210.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

© Vermont Agency of Natural Resources

1" = 344 Ft. 1cm = 41 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.



PREC BIFACIAL

PV MODULE

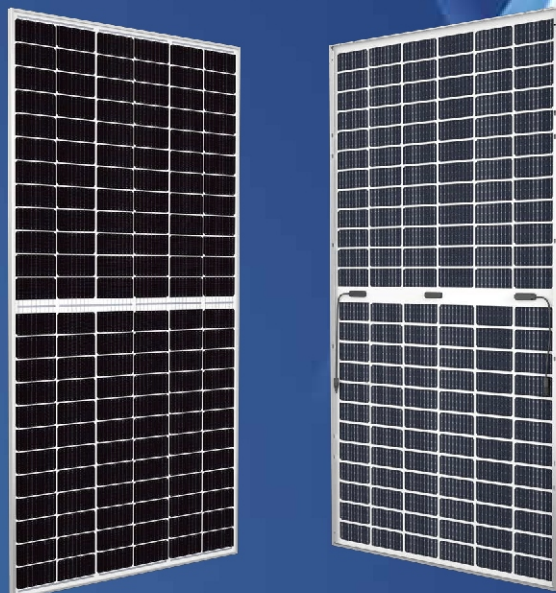
ET-M772BH525TW 530W

ET-M772BH530TW 535W

ET-M772BH535TW 540W

ET-M772BH540TW 545W

ET-M772BH545TW 550W



KEY FEATURES



Enhanced safety by excellent fire resistance



Perfect for sandy, snowy and high latitude regions



Bifacial technology enables additional energy harvesting from rear side(up to 25%)

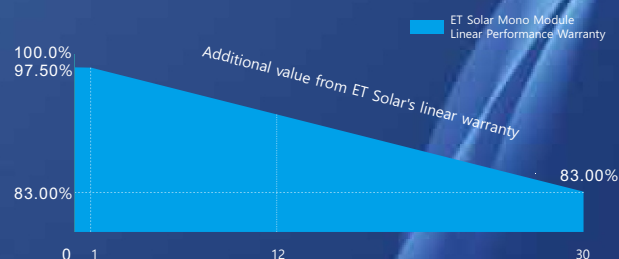


Lower operating temperature, more reliable



Cut cell, Less internal power loss, Less mismatch loss

WARRANTY



IEC61215
IEC61730
UL61215
UL61730



Guarantee on product material and workmanship



linear power output warranty

ET SOLAR
support@etsolar.hk



ELECTRICAL SPECIFICATIONS

Module Type	ET-M772BH530TW ET-M772BH530TB		ET-M772BH535TW ET-M772BH535TB		ET-M772BH540TW ET-M772BH540TB		ET-M772BH545TW ET-M772BH545TB		ET-M772BH550TW ET-M772BH550TB	
Maximum Power -P _{mp} (W)	530	398	535	401	540	405	545	409	550	349
Open Circuit Voltage -V _{oc} (V)	49.30	46.20	49.45	46.24	49.60	46.28	49.75	46.32	49.90	46.16
Short Circuit Current -I _{sc} (A)	13.72	11.29	13.79	11.38	13.86	11.46	13.93	11.54	14.00	11.20
Maximum Power Voltage -V _{mp} (V)	41.31	37.18	41.47	37.24	41.64	37.30	41.80	37.36	41.96	37.12
Maximum Power Current -I _{mp} (A)	12.83	10.69	12.90	10.77	12.97	10.86	13.04	10.94	13.11	11.03
Module Efficiency STC-η _m (%)	20.5%		20.7%		20.8%		21.0%		21.3%	
Power Tolerance (W)					(0 , +4.99)					
Pmax Temperature Coefficient					-0.350%/°C					
Voc Temperature Coefficient					-0.290 %/°C					
Isc Temperature Coefficient					+0.048 %/°C					

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5

REAR SIDE POWER GAIN (ET-M772BH535TW)

Power Gain	10%	15%	20%	25%
Maximum Power -P _{mp} (W)	589	615	642	669
Open Circuit Voltage -V _{oc} (V)	49.06	49.06	49.06	49.06
Short Circuit Current -I _{sc} (A)	15.13	15.81	16.50	17.19
Maximum Power Voltage -V _{mp} (V)	42.67	42.67	42.67	42.67
Maximum Power Current -I _{mp} (A)	13.79	14.42	15.05	15.68

MECHANICAL SPECIFICATIONS

External Dimension	2279 x 1134 x 35mm
Weight	28kg
Solar Cells	PERC Mono crystalline 182 x 91 mm (144pcs)
Front Glass	3.2mm AR coating tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cables	4.0 mm ² , Portrait:350mm(+)/250mm(-) Or customized
Connector	MC4 Compatible

APPLICATION CONDITIONS

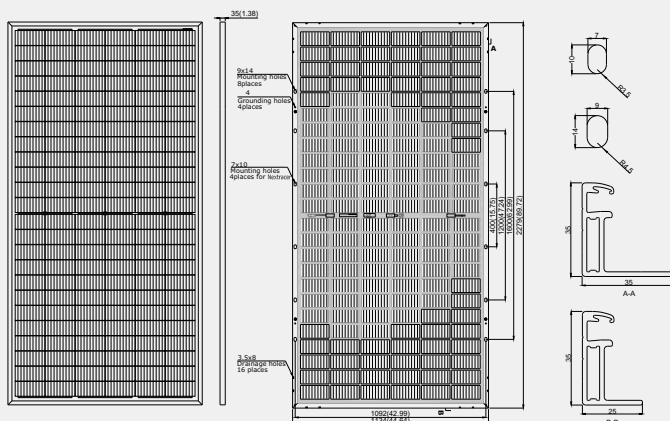
Maximum System Voltage	1500VDC
Maximum Series Fuse Rating	30A
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature	45±2 °C

PACKING MANNER

Container	40'HQ
Pieces per Pallet	31
Pallets per Container	20
Pieces per Container	620

PHYSICAL CHARACTERISTICS

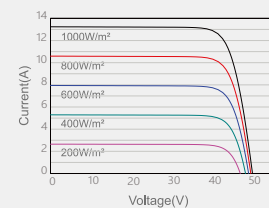
Unit:mm



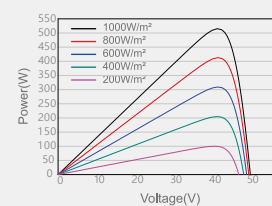
* The above drawing is a graphical representation of the product.
For engineering quality drawings please contact ET Solar.

CURVE

Current-Voltage Curve (530W)



Power-Voltage Curve (530W)



Note: the specifications are obtained under the Standard Test Conditions (STCs): 1000 W/m² solar irradiance, 1.5 Air Mass, and cell temperature of 25°C. The NOCT is obtained under the Test Conditions: 800 W/m², 20°C ambient temperature, 1m/s wind speed, AM 1.5 spectrum.

Please contact support@etsolar.hk for technical support. The actual transactions will be subject to the contracts. This parameters is for reference only and it is not a part of the contracts. The specifications are subject to change without prior notice.

100/125kW, 1500Vdc String Inverters for North America



CPS SCH100/125KTL-DO/US-600

The 100 & 125kW high power CPS three phase string inverters are designed for ground mount applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 99.1% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 100/125kW products ship with the Standard or Centralized Wire-box, each fully integrated and separable with AC and DC disconnect switches. The Standard Wire-box includes touch safe fusing for up to 20 strings. The CPS FlexOM Gateway enables communication, controls and remote product upgrades.

Key Features

- NFPA 70, NEC 2014 and 2017 compliant
- Touch safe DC Fuse holders adds convenience and safety
- CPS FlexOM Gateway enables remote FW upgrades
- Integrated AC & DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper and Aluminum compatible AC connections
- NEMA Type 4X outdoor rated, tough tested enclosure
- Advanced Smart-Grid features (CA Rule 21 certified)
- kVA Headroom yields 100kW @ 0.9PF and 125kW @ 0.95PF
- Generous 1.87 and 1.5 DC/AC Inverter Load Ratios
- Separable wire-box design for fast service
- Standard 5 year warranty with extensions to 20 years



100/125KTL Standard Wire-box



100/125KTL Centralized Wire-box

Model Name	CPS SCH100KTL-DO/US-600	CPS SCH125KTL-DO/US-600
DC Input		
Max. PV Power	187.5kW	
Max. DC Input Voltage	1500V	
Operating DC Input Voltage Range	860-1450Vdc	
Start-up DC Input Voltage / Power	900V / 250W	
Number of MPP Trackers	1	
MPPT Voltage Range ¹	870-1300Vdc	
Max. PV Input Current (Isc x1.25)	275A	
Number of DC Inputs	20 PV source circuits, pos. & neg. fused (Standard Wire-box) 1 PV output circuit, 1-2 terminations per pole, non-fused (Centralized Wire-box)	
DC Disconnection Type	Load-rated DC switch	
DC Surge Protection	Type II MOV (with indicator/remote signaling), Up=2.5kV, In=20kA (8/20uS)	
AC Output		
Rated AC Output Power	100kW	125kW
Max. AC Output Power ²	100kVA (111KVA @ PF>0.9)	125kVA (132KVA @ PF>0.95)
Rated Output Voltage	600Vac	
Output Voltage Range ³	528-660Vac	
Grid Connection Type ⁴	3Φ / PE / N (Neutral optional)	
Max. AC Output Current @600Vac	96.2/106.8A	120.3/127.0A
Rated Output Frequency	60Hz	
Output Frequency Range ³	57-63Hz	
Power Factor	>0.99 (±0.8 adjustable)	>0.99 (±0.8 adjustable)
Current THD	<3%	
Max. Fault Current Contribution (1-cycle RMS)	41.47A	
Max. OCPD Rating	200A	
AC Disconnection Type	Load-rated AC switch	
AC Surge Protection	Type II MOV (with indicator/remote signaling), Up=2.5kV, In=20kA (8/20uS)	
System		
Topology	Transformerless	
Max. Efficiency	99.1%	
CEC Efficiency	98.5%	
Stand-by / Night Consumption	<4W	
Environment		
Enclosure Protection Degree	NEMA Type 4X	
Cooling Method	Variable speed cooling fans	
Operating Temperature Range	-22°F to +140°F / -30°C to +60°C (derating from +113°F / +45°C)	
Non-Operating Temperature Range ⁵	-40°F to +158°F / -40°C to +70°C maximum	
Operating Humidity	0-100%	
Operating Altitude	8202ft / 2500m (no derating)	
Audible Noise	<65dBA@1m and 25°C	
Display and Communication		
User Interface and Display	LED Indicators, WiFi + APP	
Inverter Monitoring	Modbus RS485	
Site Level Monitoring	CPS FlexOM Gateway (1 per 32 inverters)	
Modbus Data Mapping	SunSpec/CPS	
Remote Diagnostics / FW Upgrade Functions	Standard / (with FlexOM Gateway)	
Mechanical		
Dimensions (WxHxD)	45.28x24.25x9.84in (1150x616x250mm) with Standard Wire-box 39.37x24.25x9.84in (1000x616x250mm) with Centralized Wire-box	
Weight	Inverter: 121lbs / 55kg; Wire-box: 55lbs / 25kg (Standard Wire-box); 33lbs / 15kg (Centralized Wire-box)	
Mounting / Installation Angle	15 - 90 degrees from horizontal (vertical or angled)	
AC Termination	M10 Stud Type Terminal [3Φ] (Wire range:1/0AWG - 500kcmil CU/AL, Lugs not supplied) Screw Clamp Terminal Block [N] (#12 - 1/0AWG CU/AL)	
DC Termination	Screw Clamp Fuse Holder (Wire range: #12 - #6AWG CU) - Standard Wire-box Busbar, M10 Bolts (Wire range: #1AWG - 500kcmil CU/AL [1 termination per pole], #1AWG - 300kcmil CU/AL [2 terminations per pole], Lugs not supplied) - Centralized Wire-box	
Fused String Inputs	20A fuses provided (Fuse values of 15A or 20A acceptable)	
Safety		
Safety and EMC Standard	UL1741-SA-2016, CSA-C22.2 NO.107.1-01, IEEE1547a-2014; FCC PART15	
Selectable Grid Standard	IEEE 1547a-2014, CA Rule 21, ISO-NE	
Smart-Grid Features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt	
Warranty		
Standard ⁶	5 years	
Extended Terms	10, 15 and 20 years	

1) See user manual for further information regarding MPPT Voltage Range when operating at non-unity PF

2) "Max. AC Apparent Power" rating valid within MPPT voltage range and temperature range of -30°C to +40°C (-22°F to +104°F) for 100KW PF ≥0.9 and 125KW PF ≥0.95

3) The "Output Voltage Range" and "Output Frequency Range" may differ according to the specific grid standard.

4) Wye neutral-grounded, Delta may not be corner-grounded.

5) See user manual for further requirements regarding non-operating conditions.

6) 5 year warranty effective for units purchased after October 1st, 2019.