

- **Permit Authorizations.** Owner hereby authorizes ReVision Energy to act as Owner's Agent for the limited purpose of applying for and obtaining any permit or approval from each Authority Having Jurisdiction that may be required for the installation of the Renewable Energy System described in this Contract to be located on Owner's property.

ReVision Energy	Owner
Sign: <i>Fortunat Mueller</i>	Sign: <i>[Signature]</i>
Print: Fortunat Mueller, President	Print: STEPHEN D SURGENOR
Date: Sep 19 2022 14:11 EDT	Date: Sep 19 2022 14:06 EDT

53. Simplified Process Interconnection Application and Service Agreement

Contact Information - Legal name and address of Interconnecting Customer (or, Company name, if appropriate):

Customer/Company Name Stephen Surgenor Contact Person _____
Mailing Address PO Box 306
City Meriden State NH Zip Code 03770 Email sdsurgenor@gmail.com
Phone - Daytime (603) 748-1367 Evening _____ Fax _____

Alternative Contact Information (e.g, system installation contractor or coordinating company, if appropriate):

Name ReVision Energy Inc Contact Person Sue Morrison
Mailing Address 7A Commercial Drive
City Brentwood State NH Zip Code 03833 Email brentwood-ops@revisionenergy.com
Phone - Daytime (603) 583-4380 Evening _____ Fax _____

Electrical Contractor Contact Information (if appropriate)

Name Same as above Contact Person _____ License # 13139
Mailing Address _____
City _____ State _____ Zip Code _____ Email _____
Phone - Daytime _____ Evening _____ Fax _____

Facility Information

Address of facility 48 Colby Hill Rd
Mailing Address Same
City Meriden State NH Zip Code 03770 Electric Supply Co. Liberty
Account # 44620981-44365819 Meter # E-40017860 Gen/Inverter Manu SolarEdge
Model Name and # SE10000H-US Quantity 1 Nameplate Rating (kW) 10.0
(kVa) _____ (AC volts) 240 Single Phase Three Phase _____ Battery Backup Y N
Net Metering: If renewably fueled, will the account be Net Metered? Y N _____
Prime Mover: Photovoltaic Recip'g Engine _____ Fuel Cell _____ Turbine _____ Other _____
Energy Source: Solar Wind _____ Hydro _____ Diesel _____ Nat Gas _____ Fuel Oil _____ Other _____
UL 1741.1 (IEEE1547.1) Listed? Y N _____ External Manual Disconnect Y N _____
Estimated Install Date 03/17/23 Estimated In-Service Date 05/06/23
Production Meter Requested Y N System Design Capacity 10.0 kW/kVa

Interconnecting Customer Signature

I hereby certify that, to the best of my knowledge, all of the information provided in this application is true and I agree to the Terms and Conditions on the following page:

Please attach any documentation provided by the inverter manufacturer describing the inverter's UL 1741 listing.

Customer Signature [Signature] Title Owner Date Sep 19 2022 14:06 EDT

Approval to Install Facility (For Company Use Only): Installation of the Facility is approved contingent upon the terms and conditions of this Agreement, and agreement to any system modifications, if required.

Are system modifications required? Y N

Company Signature [Signature] Title Engineer Date 10/24/2022

Company waives inspection/Witness test? Y N

Application Number 2022-239

Issued: June 15, 2018 Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: June 15, 2018 Title: President



January 23, 2023

To: ReVision Energy
7 Commercial Drive
Brentwood, NH 03833

Subject: Structural Certification for Installation of Solar Panels
Surgenor Residence
48 Colby Hill Road
Plainfield, NH. 03781

To Whom It May Concern,

A design check for the subject residence was done on the existing roofing and framing systems for the installation of solar panels over the roof. From a field inspection of the property, the existing roof support structures were observed by the client's auditors as follows:

The roof structure of (MP1) consists of composition shingle on 1x decking that is supported by nominal 2x8 and 5-in semi log rafters @ 36"o.c., paired with ceiling joists @ 36"o.c.. The nominal 2x8 rafters are sistered to the semi-round logs. The total horizontal span of the roof is 13'-0", with a knee wall that's approximately 3'-6" from the eave to frame out the enclosed room. Therefore, the rafters have a max projected horizontal span of 9'-6", with a slope of 37 degrees. The rafters are connected at the ridge to a continuous 6-in diameter log ridge board that's sistered to a 2x12 ridge on the opposite side, and are supported at the eave by a load bearing wall. There are 2x6 collar ties @ 36"o.c. for structural stability.

The existing roof framing system of (MP1) is judged to be adequate to withstand the loading imposed by the installation of the solar panels. No reinforcement is necessary.

The spacing of the solar standoffs should be kept at 36" o.c..

I further certify that all applicable loads required by the codes and design criteria listed below were applied to the Ironridge solar rail system and analyzed by the manufacturer. Furthermore, the installation crews have been thoroughly trained to install the solar panels based on the specific roof installation instructions developed by Ironridge for the racking system and Ecofasten for the roof connections. Finally, I accept the certifications indicated by the solar panel manufacturer for the ability of the panels to withstand high wind and snow loads.

Design Criteria:

- Applicable Codes = 2018 IBC/IRC, ASCE 7-16, and 2015 NDS
- Roof Dead Load = 9 psf (MP1)
- Roof Live Load = 20 psf
- Wind Speed = 115 mph, Exposure C
- Ground Snow Load = 90 psf - Roof Snow Load = 69.3 psf

Please contact me with any further questions or concerns regarding this project.

Sincerely,

Elaine Huang, P.E.
Project Engineer



Wind Calculations

Per ASCE 7-16 Chapter 29.4

Input Variables		
Wind Speed	115 mph	Ultimate
Exposure Category	C	
Roof Shape	Gable	
Roof Slope	37 degrees	
Mean Roof Height	25 ft	
Building Least Width	40 ft	
Effective Wind Area	21.2 ft	

Design Wind Pressure Calculations	
Wind Pressure $P = qh(GCp) * rE * ra$	(Eq. 29.4-7)
$qh = 0.00256 * Kz * Kzt * Kd * Ke * V^2 * I$	(Eq. 26.10-1)
Kz (Exposure Coefficient) = 0.94	(Table 26.10-1)
Kzt (topographic factor) = 1	(Fig. 26.8-1)
Kd (Wind Directionality Factor) = 0.85	(Table 26.6-1)
V (Design Wind Speed) = 115 mph	
I Importance Factor = 1	(Table 1.5-1)
$qh = 27.05$	
$rE = 1.50$	(Fig. 29.4-7)
$ra = 0.75$	(Fig. 29.4-8)

Standoff Uplift Calculations					
	Zone 1	Zone 2	Zone 3	Positive	
$GCp =$	-1.50	-1.80	-2.20	0.80	(Fig. 30.4-2)
Uplift Pressure =	-45.65 psf	-54.78 psf	-66.95 psf	21.6 psf	
0.6 x Uplift Pressure	-27.39 psf	-32.87 psf	-40.17 psf		(ASCE-7 2.4.1.7)
X Standoff Spacing =	3.00	3.00	3.00		
Y Standoff Spacing =	3.25	3.25	3.25		
Tributary Area =	9.75	9.75	9.75		
Footing Uplift =	-267 lb	-320 lb	-392 lb		

Standoff Uplift Check	
Maximum Design Uplift =	-392 lb
Standoff Uplift Capacity =	400 lb
400 lb capacity > 392 lb demand Therefore, OK	

Fastener Uplift Capacity Check	
Fastener = 1 - 5/16" dia Lag	
Number of Fasteners =	1
Embedment Depth =	2.5
Pullout Capacity Per Inch =	205 lb (NDS Eq 12.2-1)
Fastener Capacity =	513 lb (NDS Eq 11.3-1)
w/ F.S. of 1.0 = 513 lb	
513 lb capacity > 392 lb demand Therefore, OK	

Q.PEAK DUO BLK ML-G10

385-405

ENDURING HIGH PERFORMANCE



BREAKING THE 20% EFFICIENCY BARRIER

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 20.9%.



INNOVATIVE ALL-WEATHER TECHNOLOGY

Optimal yields, whatever the weather with excellent low-light and temperature behaviour.



ENDURING HIGH PERFORMANCE

Long-term yield security with Anti LID Technology, Anti PID Technology¹, Hot-Spot Protect and Traceable Quality Tra.Q™.



EXTREME WEATHER RATING

High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa).



A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance warranty².



STATE OF THE ART MODULE TECHNOLOGY

Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.

¹ APT test conditions according to IEC/TS 62804-1:2015, method B (-1500V, 168h)

² See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:



Rooftop arrays on residential buildings

/ Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/
SE7600H-US / SE10000H-US / SE11400H-US

Model Number	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXXH-XXXXXBXX4							
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	✓	✓	Vac
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	✓	-	✓	-	-	✓	Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5 ¹⁾							Hz
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	A
Maximum Continuous Output Current @208V	-	16	-	24	-	-	48.5	A
Power Factor	1, adjustable -0.85 to 0.85							
GFDI Threshold	1							A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes							
INPUT								
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500	17650	W
Maximum DC Power @208V	-	5100	-	7750	-	-	15500	W
Transformer-less, Ungrounded	Yes							
Maximum Input Voltage	480							Vdc
Nominal DC Input Voltage	380				400			Vdc
Maximum Input Current @240V ²⁾	8.5	10.5	13.5	16.5	20	27	30.5	A _{dc}
Maximum Input Current @208V ²⁾	-	9	-	13.5	-	-	27	A _{dc}
Max. Input Short Circuit Current	45							A _{dc}
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600k Ω Sensitivity							
Maximum Inverter Efficiency	99	99.2						%
CEC Weighted Efficiency	99						99 @ 240V 98.5 @ 208V	%
Nighttime Power Consumption	< 2.5							W

¹⁾ For other regional settings please contact SolarEdge support

²⁾ A higher current source may be used; the inverter will limit its input current to the values stated



January 26, 2023

Town of Plainfield
Building Inspector
PO Box 380
Meriden, NH 03770

Greetings,

Enclosed is a completed application for a Solar Installation at:

48 Colby Hill Rd

Also included are the necessary requirements needed for the permit and a self-addressed stamped envelope for your convenience. Please apply the \$50 credit we have for this application and let me know if there are any additional fees.

Also note, the customer has authorized ReVision Energy, Inc to apply and obtain any permits necessary for this installation. (Authorization Enclosed)

If you have any questions, or need additional information regarding this application, please feel free to contact me.

Thank you and Enjoy the Sun!

Sue Morrison

Employee-Owner | Operations Administrator

smorrison@revisionenergy.com

(603) 583-4380 Direct

ReVision Energy, a [Certified B Corp](#)

[Locations](#) in Maine, New Hampshire and Massachusetts