

DOCKET NO. - ^{SP 36836}, SUB ⁰

Filing Fee Tendered \$ ⁵⁰

Report of Proposed Construction (RPC) – Commission Rule R8-65

Pursuant to G.S. 62-110.1(g), any person who seeks to construct an electric generating facility in North Carolina, and is exempt from the requirement to obtain a certificate of public convenience and necessity, is required to file this form and a notice of completion of the construction of the facility. This form may be accompanied by any exhibits or additional responses incorporated by reference thereto and attached to this form. This form must be accompanied by the required filing fee of \$50.00.

This form may be electronically filed. Please see www.ncuc.net for instructions.

If this form is filed by hard copy, the original plus 6 copies must be presented at or transmitted to the office of the Chief Clerk. Regardless of the method of delivery, this form is not deemed filed until it is received by the Chief Clerk, along with the required filing fee.

The mailing address is:

Chief Clerk
NC Utilities Commission
4325 Mail Service Center
Raleigh, NC 27699-4325

Exhibits required by Rule R8-65(g)		Applicant's Response
(1)(i)	Full and correct name of the owner of the facility	Maria Quintero
	Facility name	Residential Home
	Business address	2250 Cedar Oak Circle, Gastonia, NC 28052
	E-mail address	maelqura@gmail.com
	Telephone number	(704) 460-1657
(ii)	The owner is (check one)	<input checked="" type="checkbox"/> Individual <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation
	If a partnership, the name and business address of each general partner	
	If a corporation, the state and date of incorporation	
	If a partnership, the name and address of each general partner (add additional sheets if necessary)	

	Owner's agent for purposes of this report, if applicable:	Carter Joyce - Palmetto South Carolina Solar 1 LLC
	Agent's business address	1505 King Street Extension, Charleston SC 29405
	Agent's e-mail address	nc.interconnection@palmetto.com
	Agent's telephone number	(855) 339-1831
(iii)	The full and correct name of the site owner and, if the site owner is other than the applicant, the applicant's legal interest in the site	Maria Quintero
(2)(i)	Attach a color map or aerial photo showing the location of the generating facility site in relation to local highways, streets, rivers, streams, and other generally known local landmarks with the proposed location of major equipment indicated on the map or photo, including: the generator, fuel handling equipment, plant distribution system, startup equipment, the site boundary, planned and existing pipelines, planned and existing roads, planned and existing water supplies, and planned and existing electric facilities. A U.S. Geological Survey map or an aerial photo map prepared via the State's geographic information system (found at www.gis.ncdcr.gov/hpoweb/) is preferred.	
(ii)	E911 street address of the proposed facility	2250 Cedar Oak Circle, Gastonia, NC 28052
	County in which the proposed facility will be physically located	Gaston
	GPS coordinates of the approximate center of the proposed facility site to the nearest second or one thousandth of a degree	35.231026, -81.214833
(3)(i)	The nature of the facility, including its technology, and the source of its power and fuel(s)	Residential solar photovoltaic panels to be installed at the location. Net metering project.
(ii)	A description of the buildings, structures and equipment comprising the generating facility and the manner of its operation	Equipment specification sheets follow this RPC.
(iii)	The gross and net projected maximum dependable capacity of the facility in megawatts – Alternating Current	.0076 megawatts (7.6 kW)

	The facility's nameplate capacity in megawatts – Alternating Current	.0076 megawatts (7.6 kW)
(iv)	The projected date on which the facility will come on line	09/26/2021
(v)	The applicant's general plan for sale of the electricity to be generated, including the name of utility to which the applicant plans to sell the electricity	Duke Energy Net Metering
(vi)	Any provisions for wheeling of the electricity, if applicable	n/a
(vii)	Arrangements for firm, non-firm, or emergency generation, if applicable	n/a
(viii)	The service life of the project	20 years
(ix)	The projected annual sales in kilowatt-hours	15368
(x)	Whether the applicant intends to produce renewable energy certificates that are eligible for compliance with the State's renewable energy and energy efficiency portfolio standard <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
(4)	The expected cost of the proposed facility	\$ 51,765

Confidentiality

If an applicant considers certain of the required information above to be confidential and entitled to protection from public disclosure, it may designate said information as confidential and file it under seal. Documents marked as confidential will be treated pursuant to applicable Commission rules, procedures, and orders dealing with filings made under seal and with nondisclosure agreements.

All reports shall be signed and verified (notarized) by the applicant or by an individual duly authorized to act on behalf of the applicant for the purpose of the report. A blank verification page is attached below:

VERIFICATION

STATE OF SC COUNTY OF Charleston

[Signature]
Signature of Owner's Representative or Agent

Utility Specialist
Title of Representative or Agent

Carter Joyce
Typed or Printed Name of Representative or Agent

The above named person personally appeared before me this day and, being first duly sworn, says that the facts stated in the foregoing report and any exhibits, documents, and statements thereto attached are true as he or she believes.

WITNESS my hand and notarial seal, this 3 day of September, 2021.

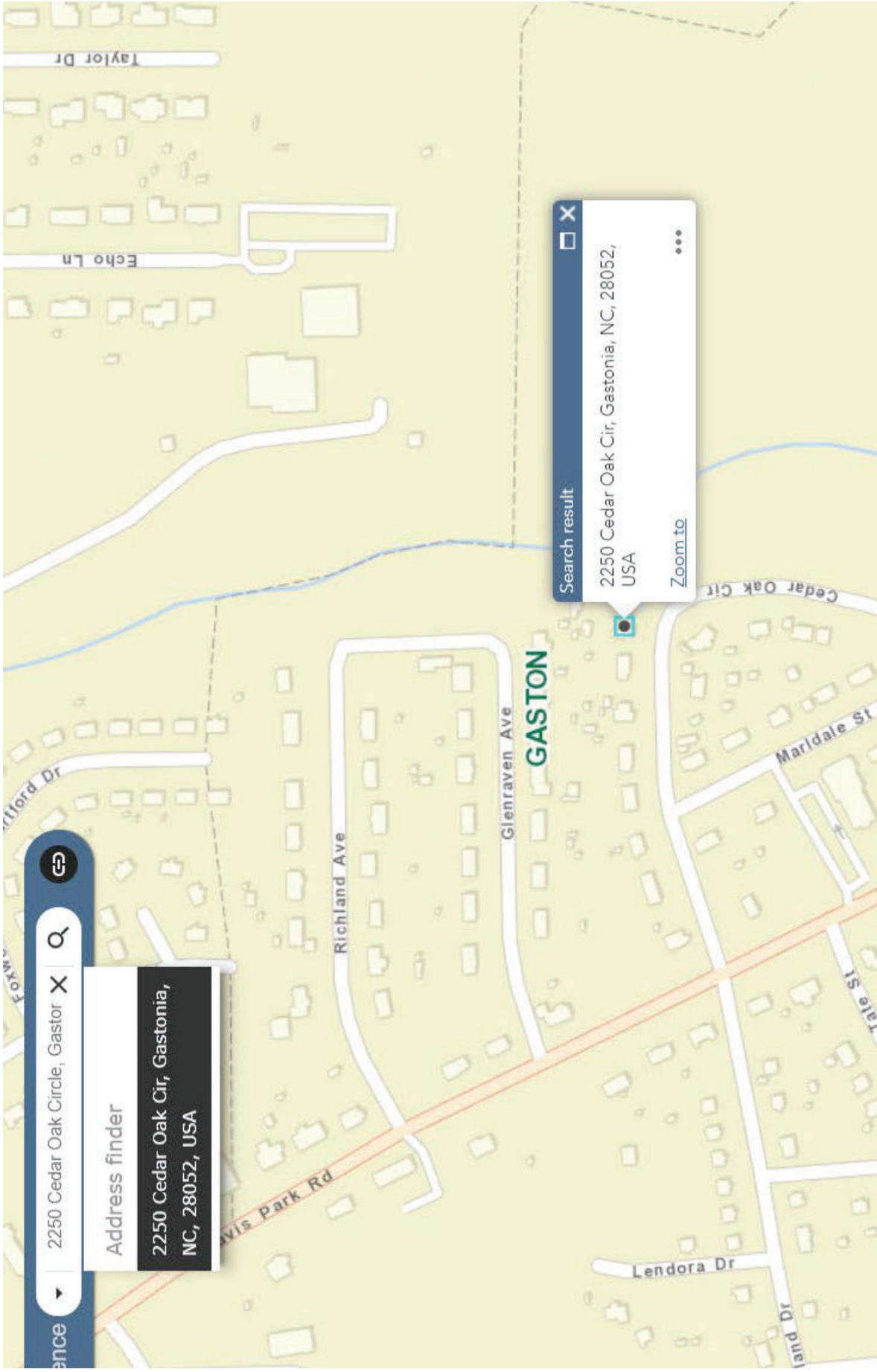
My Commission Expires: 7/28/27

[Signature]
Signature of Notary Public

Kathryn A. Parton
Name of Notary Public – Typed or Printed



This original verification must be affixed to the original report, and a copy of this verification must be affixed to each of the copies that are also submitted to the Commission.





Single Phase Inverter with HD-Wave Technology for North America

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



Optimized installation with HD-Wave technology

- Specifically designed to work with power optimizers
- Record-breaking efficiency
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Extremely small
- High reliability without any electrolytic capacitors
- Built-in module-level monitoring
- Outdoor and indoor installation
- Optional: Revenue grade data, ANSI C12.20 Class 0.5 (0.5% accuracy)



INVERTERS

OFFICIAL COPY

Sep 03 2021



Single Phase Inverter

with HD-Wave Technology for North America

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

OFFICIAL COPY

Sep 03 2021

	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400	VA
Max. AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400	VA
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	✓	-	✓	-	-	-	Vac
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	✓	✓	Vac
AC Frequency (Nominal)				59.3 - 60 - 60.5 ⁽¹⁾				Hz
Maximum Continuous Output Current 208V	-	16	-	24	-	-	-	A
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	A
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	-	-	-	
Transformer-less, Ungrounded				Yes				
Maximum Input Voltage				480				Vdc
Nominal DC Input Voltage		380				400		Vdc
Maximum Input Current 208V	-	9	-	13.5	-	-	-	
Maximum Input Current @240V	8.5	10.5	13.5	16.5	20	27	30.5	Adc
Max. Input Short Circuit Current				45				Adc
Reverse-Polarity Protection				Yes				
Ground-Fault Isolation Detection				600k Ω Sensitivity				
Maximum Inverter Efficiency	99			99.2				%
CEC Weighted Efficiency				99				%
Nighttime Power Consumption				< 2.5				W
ADDITIONAL FEATURES								
Supported Communication Interfaces				RS485, Ethernet, ZigBee (optional), Cellular (optional)				
Revenue Grade Data, ANSI C12.20				Optional ⁽²⁾				
Rapid Shutdown - NEC 2014 and 2017 690.12				Automatic Rapid Shutdown upon AC Grid Disconnect				
STANDARD COMPLIANCE								
Safety				UL1741, UL1741 SA, UL1699B, CSA C22.2, Canadian AFCl according to T.I.L. M-07				
Grid Connection Standards				IEEE1547, Rule 21, Rule 14 (H)				
Emissions				FCC Part 15 Class B				
INSTALLATION SPECIFICATIONS								
AC Output Conduit Size / AWG Range		3/4" minimum / 14-6 AWG				3/4" minimum / 14-4 AWG		
DC Input Conduit Size / # of Strings / AWG Range		3/4" minimum / 1-2 strings / 14-6 AWG				3/4" minimum / 1-3 strings / 14-6 AWG		
Dimensions with Safety Switch (HxWxD)		17.7 x 14.6 x 6.8 / 450 x 370 x 174				21.3 x 14.6 x 7.3 / 540 x 370 x 185		in / mm
Weight with Safety Switch	22 / 10	25.1 / 11.4		26.2 / 11.9		38.8 / 17.6		lb / kg
Noise		< 25				< 50		dBA
Cooling		Natural Convection				Natural convection		
Operating Temperature Range		-13 to +140 / -25 to +60 ⁽³⁾ (-40°F / -40°C option) ⁽⁴⁾						°F / °C
Protection Rating				NEMA 3R (Inverter with Safety Switch)				

⁽¹⁾ For other regional settings please contact SolarEdge support

⁽²⁾ Revenue grade inverter P/N: SExxxxH-US000NNC2

⁽³⁾ For power de-rating information refer to: <https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf>

⁽⁴⁾ -40 version P/N: SExxxxH-US000NNU4





Q. PEAK DUO BLK-G6+

330-345

ENDURING HIGH PERFORMANCE



Q. ANTUM TECHNOLOGY: LOW LEVELIZED COST OF ELECTRICITY
Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.5%.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti-LID and Anti-PID Technology¹, Hot-Spot Protect and Traceable Quality TraQ™.

EXTREME WEATHER RATING
High-tech aluminum alloy frame, certified for high snow (5400Pa) and wind loads (4000Pa).

A RELIABLE INVESTMENT
Inclusive 25-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 (-500V, 1.66h)
² See data sheet on rear for further information



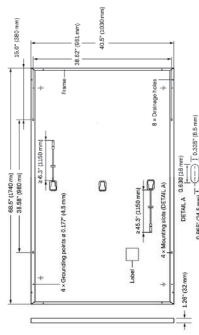
THE IDEAL SOLUTION FOR:



Engineered in Germany

MECHANICAL SPECIFICATION

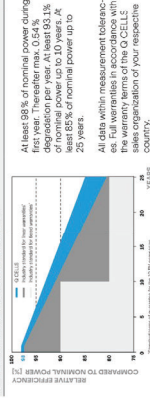
Format	68.5 x 40.6 x 1.26 in (including frame) (1740 x 1030 x 32 mm)
Weight	43.9 lbs (19.9 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodized aluminum
Cell	6 x 20 monocrystalline Q. ANTUM solar half cells
Junction Box	2.09-3.98 x 1.28-2.36 x 0.59-0.71 in (53-101 x 32-60 x 15-18 mm), protection class IP67, with bypass diodes
Cable	4 mm ² Solar cable (+) x 45.3 in (1150 mm), (-) x 45.3 in (1150 mm)
Connector	Shoabi MC4 IP68



ELECTRICAL CHARACTERISTICS

POWER CLASS	330	335	340	345
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE ±5% / -0W)				
Power at MPP	330	335	340	345
Short Circuit Current ¹	I _{sc} [A]	10.41	10.47	10.58
Open Circuit Voltage ¹	V _{oc} [V]	40.15	40.41	40.66
Current at MPP	I _{mp} [A]	9.91	9.97	10.07
Voltage at MPP	V _{mp} [V]	33.29	33.62	33.94
Efficiency ¹	η [%]	≥18.4	≥18.7	≥19.3
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ²				
Power at MPP	P _{max} [W]	2470	2507	254.5
Short Circuit Current	I _{sc} [A]	8.39	8.43	8.48
Open Circuit Voltage	V _{oc} [V]	37.66	38.10	38.34
Current at MPP	I _{mp} [A]	7.80	7.84	7.89
Voltage at MPP	V _{mp} [V]	31.66	31.97	32.27
MINIMUM PERFORMANCE AT LOW IRRADIANCE				
Short Circuit Current	I _{sc} [A]	8.39	8.43	8.48
Open Circuit Voltage	V _{oc} [V]	37.66	38.10	38.34
Current at MPP	I _{mp} [A]	7.80	7.84	7.89
Voltage at MPP	V _{mp} [V]	31.66	31.97	32.27

Q CELLS PERFORMANCE WARRANTY



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²)

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I _{sc}	α [%/K]	+0.04	Temperature Coefficient of V _{oc}	β [%/K]	-0.27
Temperature Coefficient of P _{max}	γ [%/K]	-0.36	Normal Module Operating Temperature	NMOT [°F]	109 ± 5.4 (43 ± 3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V _{sys} [V]	1000 (IEC) / 1000 (UL)	PV module classification	Class II
Maximum Series Fuse Rating [ADC]	20	Fine Rating based on ANSI / UL 61730	C (IEC) / TYPE 2 (UL)
Max. Design Load, Push / Pull [lbs / ft²]	75 (3600Pa) / 65 (3072Pa)	Permitted Module Temperature	-40°F up to +185°F (-40°C up to +85°C)
Max. Tensile Load, Push / Pull [lbs / ft²]	113 (5400Pa) / 94 (4500Pa)	on Continuous Duty	

QUALIFICATIONS AND CERTIFICATES

UL 61730, CE-compliant, IEC 61215:2016, ISO 9001:2015, U.S. Patent No. 8,993,215 (solar cells)



PACKAGING INFORMATION

Horizontal packaging	70.1 in	42.5 in	47.6 in	1455 lbs	28	26	32
Vertical packaging	71.5 in	45.3 in	48.0 in	54.4 lbs	28	24	32

Note: Installation instructions must be followed for the installation and operation of the module. For further information on approved installation and use of this product, Q CELLS supplies solar modules in two different stacking methods, depending on the location of the manufacturer's products are stacked horizontally or vertically. You can find more detailed information in the document "Packaging and Transport Information".

Hanwha Q CELLS America Inc.

400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL: +1 949 748 59 96 | EMAIL: inquiry@us.q-cells.com | WEB: www.q-cells.us

PROJECT NAME & ADDRESS

SIGNATURE WITH SEAL

REVISIONS

SHEET TITLE
RESOURCE
DOCUMENT

DRAWN DATE
03/04/2021

DRAWN BY
SAT

REVIEWED BY
-

SHEET NUMBER
R-001