Application ID (CORE use only): _____ Received: _____

Level 1Application and/or Energy Storage Application

Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than Twenty-five (25) kW for Residential or Twenty-five (25) kW for Commercial

Interconnection Customer Information

Name: Marty McFly Contact Person: Marty McFly

Account Number: 012345678910

Address: 1234 Main St

City: Hill Valley State: CA Zip: 90001

Phone Number: (310) 111-1985 E-Mail mcfly1985@backtothefuture.com

Equipment Installation Contractor/Electrical Contractor (If different from above)

Contact Name: Sunny Star

Company Name: Red Giant Solar

Contact Phone Number: (310) 111-1234 E-Mail Address: redgiant@solar.com

Small Generating Facility Information

☑ New ☐ Existing System Size AC: _____ Total System Size AC: 2.4 (kW)

Inverter Manufacturer: Micro-Phase Model: IN8-75

Inverter Nameplate AC Rating: 2.4 (kW) System DC Rating: 3.0 (kW)

Inverter Output AC settings Rating: 2.4 (kW) **(supporting documents required for export limiting)**

Projected Annual Energy Production: 5659 (kWh)

Service Voltage: ☑ 120/240 ☐ 120/208 ☐ 277/480

Power must be exported to the grid at a power factor of .95 or higher

Energy Storage Information:

☐ New ☐ Existing ☑ Not Applicable

Energy Storage Inverter Manufacturer: _____ Model: _____

Total Energy Storage Size: _____ kW _____ kWH

Batteries are subject to no-export restrictions.

Please include the following documentation: one-line diagram, site plan (showing all equipment location and fencing), specification sheets for modules, batteries, and inverter(s). $195 Application Processing Fee

Application ID (CORE use only): _____

This Application shall be deemed complete when the Interconnection Customer provides all applicable and correct information required below, as well as any additional information required by CORE to evaluate the Request. The terms of this Application are governed by the provisions applicable to the Level 1 Process of CORE's Small Generation Interconnection Procedures and/or Energy Storage Procedure, as the same may be amended, modified, or restated from time to time.

Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than twenty-five (25) kW for residential or twenty-five (25) kW for commercial and return the Certificate of Completion when the Small Generating Facility has been installed. I further agree that CORE shall be entitled to any renewable energy credits or other similar attributes associated with the production of electricity by the equipment referred to in this application upon interconnection of that equipment, until such time as CORE is notified in writing of the transfer or assignment of such credits or attributes to a third party.

I UNDERSTAND THAT ONLY SYSTEMS UP TO LESSER OF 200% OF THE 12 MONTH HISTORICAL USAGE AT THE METER LOCATION, OR 10 KW FOR RESIDENTIAL, OR 25 KW FOR COMMERCIAL ARE ELIGIBLE FOR NET METERING.

I UNDERSTAND THAT CORE HAS THE RIGHT TO CHANGE ITS RATES AT ANY TIME AND THAT FUTURE REVISIONS MAY INCLUDE A REDUCTION IN THE ENERGY CREDIT RATE, THE ADDITION OF A DEMAND CHARGE, AN INCREASED SERVICE CHARGE, A MODIFICATION TO THE COMPENSATION PAID FOR ANNUAL EXCESS GENERATION, OR OTHER CHANGES THAT WOULD ALLOW CORE TO RECOVER COSTS OF PROVIDING SERVICE TO NET METERING AND OTHER CUSTOMERS.

I UNDERSTAND THAT SUCH REVISIONS, IF ADOPTED, MAY AFFECT THE RELATIVE COSTS AND ECONOMIC BENEFITS OF MY GENERATION EQUIPMENT AND I ACKNOWLEDGE THAT IN AGREEING TO INTERCONNECT MY GENERATION EQUIPMENT, CORE RESERVES ITS RIGHT TO ESTABLISH RATES DESIGNED TO FULLY RECOVER ITS COSTS AND MAKES NO COMMITMENT TO ME THAT IT WILL CONTINUE ITS CURRENT RATES OR RATE STRUCTURE FOR ANY PERIOD OF TIME.

Signed: _____

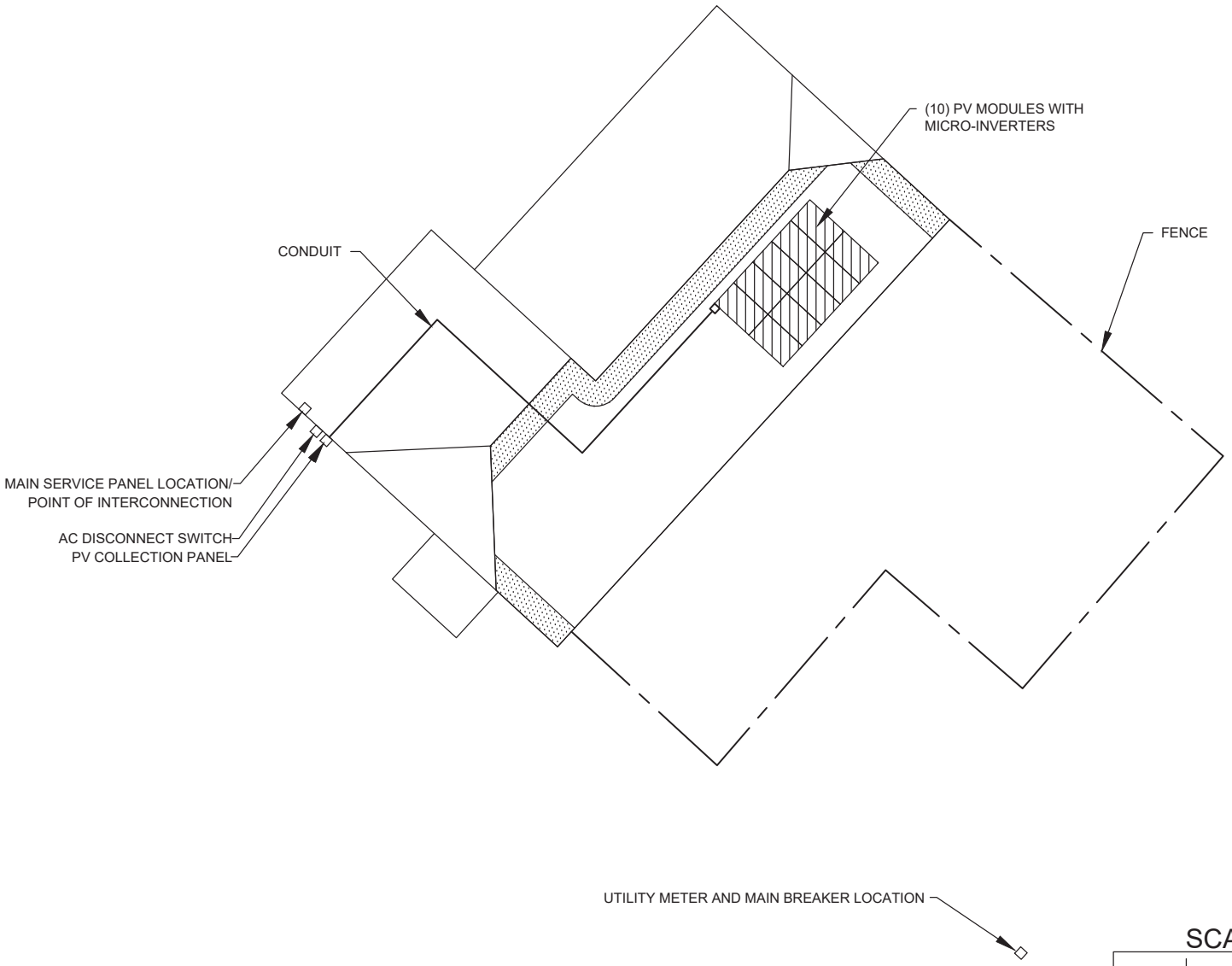
Title: _____ Date: _____

Contingent Approval (For CORE use only)

Interconnection of the Small Generating Facility and/or Inverter-Based Energy Storage Device is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than twenty-five (25) kW for residential or twenty-five (25) kW for commercial and return of the Certificate of Completion.

Intermountain Rural Electric Association d/b/a CORE Electric Cooperative
Signature: _____

Title: _____ Date: _____



SCALE:

1" = 12'-7"

Red Giant Solar

Hill Valley
California

Marty McFly

1234 Main St
Hill Valley, CA 90001

SYSTEM SIZE: 3.0 kW DC
2.40 kW AC
10 MODULES

DATE: 6/3/1776

DRAWN BY: MW

ADDITIONAL NOTES:

PV CIRCUIT 1

SHEET:

SITE PLAN

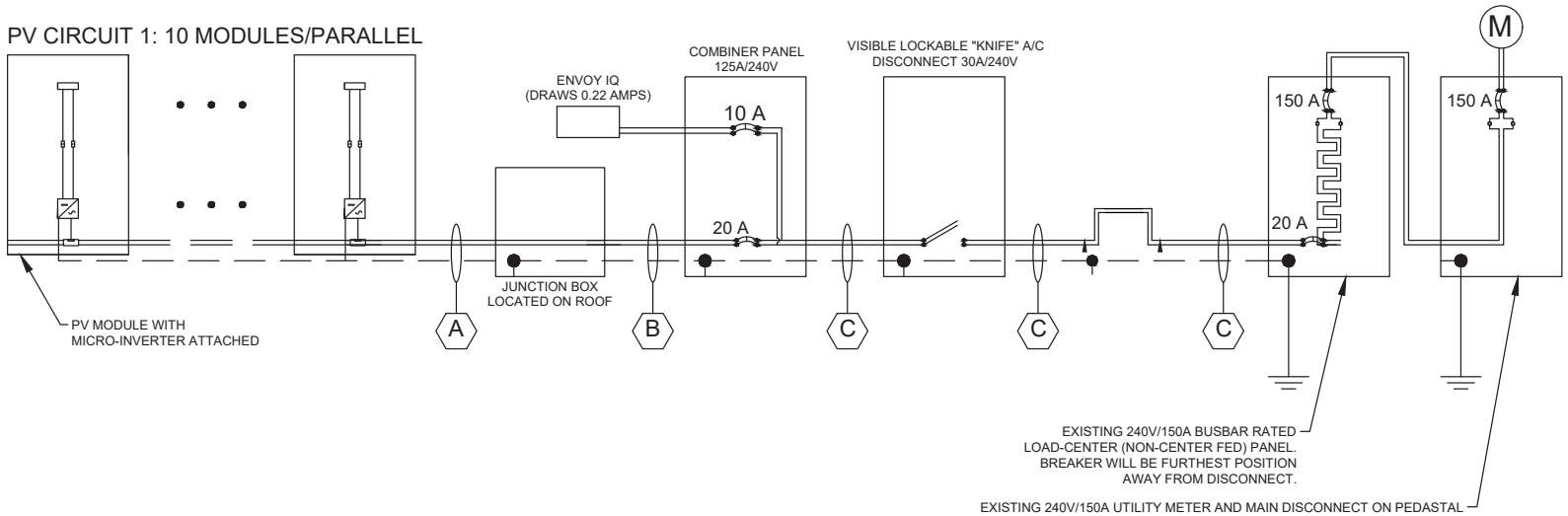
(10) MICRO-INVERTERS
(10) PV PANELS

MICRO-INVERTER ATTACHED TO EACH PV PANEL

PV MODULE SPECIFICATIONS		
MODULE MAKE AND MODEL	PV XYZ 300	
MAXIMUM POWER (DC)	300	WATTS
MAX POWER-POINT VOLTAGE (VMPP)	33.7	VOLTS
MAX POWER-POINT CURRENT (IMPP)	9.50	AMPS
OPEN CIRCUIT VOLTAGE (VOC)	40.45	VOLTS
SHORT CIRCUIT CURRENT (ISC)	9.96	AMPS
TEMPERATURE COEFFICIENT VOC	-0.3	%/°C
MAXIMUM SYSTEM VOLTAGE	1000V DC (UL)	

MICRO-INVERTER SPECIFICATIONS		
INVERTER MAKE AND MODEL	MICROPHASE IN8-75	
RATED OUTPUT POWER (AC)	240	WATTS
NOMINAL OUTPUT VOLTAGE (AC)	240	VOLTS
MAX OUTPUT CURRENT (AC)	1	AMPS
MAX INPUT VOLTAGE (DC)	48	VOLTS
MAX INPUT CURRENT (DC)	15	AMPS
MAX OCPD RATING (AC)	20	AMPS
MAX NUMBER OF PANELS PER CIRCUIT	16	
POWER FACTOR SETTING	1.0	

PV CIRCUIT 1: 10 MODULES/PARALLEL



AC PHOTOVOLTAIC SYSTEM RATINGS		
MAX AC OPERATING CURRENT	10	AMPS
MAX AC OPERATING VOLTAGE	240	VOLTS

*ROMEX/MC CABLE WILL BE RAN THROUGH THE ATTIC WHERE POSSIBLE

** IF MORE THAN 12 CONDUCTORS, TWO SEPARATE RACEWAYS MAY BE INSTALLED WITH NO MORE THAN 12 CONDUCTORS IN EACH RACEWAY OTHERWISE, #8 WIRE AND 3/4" CONDUIT MUST BE USED WHERE APPLICABLE

RACEWAY AND CONDUCTOR SCHEDULE					
TAG	CONDUCTOR TYPE Q-	MINIMUM WIRE SIZE	# OF CONDUCTORS	RACEWAY / CABLE TYPE	MINIMUM CONDUIT SIZE
A	CABLE (USE-2)	12	2	USE-2 / FREE AIR	FREE AIR
	BARE COPPER (EGC)	6	1	BARE / FREE AIR	
B	THWN-2 OR NM (ROMEX/MC) *	10	2	EMT OR ROMEX/MC CABLE	3/4"
	THWN-2 OR NM (ROMEX/MC) (EGC)	10	1		
C	THWN-2	6	3	EMT	3/4"
	THWN-2 (EGC)	8	1		

Red Giant Solar

Hill Valley
California

Marty McFly
1234 Main St
Hill Valley, CA 90001

SYSTEM SIZE: 3.0 kW DC
2.40 kW AC
10 MODULES

DATE: 6/3/1776

DRAWN BY: MW

ADDITIONAL NOTES:

SHEET: 1-LINE

MICRO-**phase** IN8-75 **Microinverters**

INPUT DATA (DC)	IN8-75	
Commonly used module pairings[1]	235 W - 350 W +	
Module compatibility	60-cell PV modules only	
Maximum input DC voltage	48 V	
Peak power tracking voltage	27 V - 37 V	
Operating range	16 V - 48 V	
Min/Max start voltage	22 V / 48 V	
Max DC short circuit current (module Isc)	15 A	
Overvoltage class DC port	II	
DC port backfeed current	0 A	
PV array configuration	1 x 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit	
OUTPUT DATA (AC)	IN8-75 **Microinverter**	
Peak output power	250 VA	
Maximum continuous output power	240 VA	
Nominal (L-L) voltage/range[2]	240 V / 211-264 V	208 V / 183-229 V
Maximum continuous output current	1.0 A (240 V)	1.15 A (208 V)
Nominal frequency	60 Hz	
Extended frequency range	47 - 68 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms	
Maximum units per 20 A (L-L) branch circuit[3]	16 (240 VAC)	13 (208 VAC)
Overvoltage class AC port	III	
AC port backfeed current	0 A	
Power factor setting	1.0	
Power factor (adjustable)	0.85 leading ... 0.85 lagging	
EFFICIENCY	**@240 V**	**@208 V**
Peak efficiency	97.6 %	97.6 %
CEC weighted efficiency	97.0 %	97.0 %
MECHANICAL DATA		
Ambient temperature range	-40°C to +65°C	
Relative humidity range	4% to 100% (condensing)	
Connector type (IQ7-60-2-US & IQ7PLUS-72-2-US)	MC4 (or Amphenol H4 UTX with additional Q-DCC-5 adapter)	
Dimensions (WxHxD)	212 mm x 175 mm x 30.2 mm (without bracket)	
Weight	1.08 kg (2.38 lbs)	
Cooling	Natural convection - No fans	
Approved for wet locations	Yes	
Pollution degree	PD3	
Enclosure	Class II double-insulated, corrosion resistant polymeric enclosure	
Environmental category / UV exposure rating	NEMA Type 6 / outdoor	
FEATURES		
Communication	Power Line Communication (PLC)	
Monitoring	Enlighten Manager and MyEnlighten monitoring options. Both options require installation of an Enphase IQ Envoy.	
Disconnecting means	The AC and DC connectors have been evaluated and approved by UL for use as the load-break disconnect required by NEC 690.	
Compliance	CA Rule 21 (UL 1741-SA) UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC-2014 and NEC-2017 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according manufacturer's instructions.	

SOLAR MODULES
300W-325W

PV XYZ

MECHANICAL CHARACTERISTICS

Solar Cells	Monocrystalline 156mm x 156mm square, 6 x 12 pieces in series
Dimension	Length: 1956mm (77.0 inch)
	Width: 992mm (39.1 inch)
	height:45mm(1.8inch)
Weight	24kg(52.9lbs)
Front Glass	3.2mm toughened glass
Frame	Anodized aluminium alloy
Cable	4mm^2(IEC) / 12AWG(UL), 1100mm
Junction Box	IP 67 rated

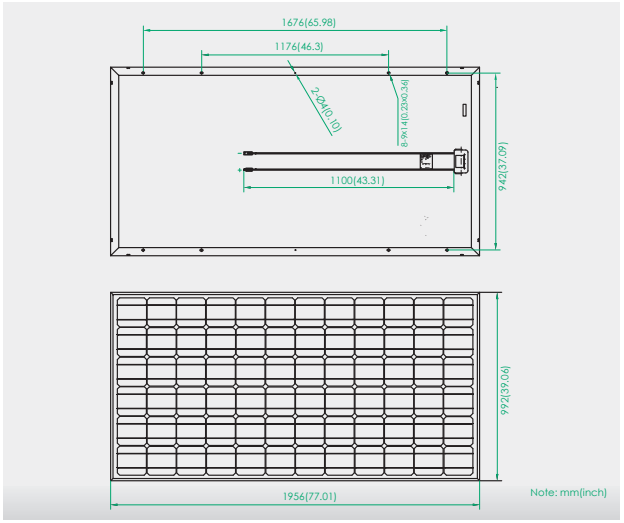
ABSOLUTE MAXIMUM RATING

Parameter	Values
Operating Temperature	From -40 to +85℃
Hail Diameter @ 80km/h	Up to 25mm
Surface Maximum Load Capacity	Up to 5400Pa
Maximum Series Fuse Rating	15A
IEC Application Class (IEC61730)	A
Fire Rating (UL 1703)	C
Maximum System Voltage	DC 1000V(IEC)
	DC 600V(UL)/1000V(ETL)

ELECTRICAL TYPICAL VALUES[4],[5]

Model	Rated Power (P_{mpp})	Rated Current (I_{mpp})	Rated Voltage (V_{mpp})	Short Circuit Current (I_{sc})	Open Circuit Voltage (V_{oc})	Module Efficiency (%)
PS300M-24/T	300W	8.17	36.7	8.60	45.9	15.46
PS305M-24/T	305W	8.26	36.9	8.68	46.1	15.72
PS310M-24/T	310W	8.36	37.1	8.75	46.3	15.98
PS315M-24/T	315W	8.45	37.3	8.82	46.5	16.23
PS320M-24/T	320W	8.55	37.4	8.90	46.7	16.49
PS325M-24/T	325W	8.64	37.6	8.98	46.9	16.75

DIMENSIONS



TEMPERATURE CHARACTERISTICS

NOCT (Nominal Operation Cell Temperature)	45℃ ± 2℃
Voltage Temperature Coefficient	-0.33%/K
Current Temperature Coefficient	+0.06%/K
Power Temperature Coefficient	-0.43%/K

WEAK LIGHT PERFORMANCE

Intensity [W/m^2]	I_{mpp}	V_{mpp}
1000	1.0	1.000
800	0.8	0.996
600	0.6	0.990
400	0.4	0.983
200	0.2	0.952

PACKING CONFIGURATION

Container	40' HQ
Pieces per pallet	22
Pallets per container	22
Pieces per container	484

PARTNER INFORMATION

1. Anti-PID modules are only available upon request.
2. UL 1703 listed
3. In PV Cycle member countries only, see: www.pvcycle.org
4. Defined as standard deviation of thousands measurements. Absolute power values depend on the measuring system. They can differ by +/-5% from one measuring system to another.
5. Measurement conditions under irradiance level of Standard Test Conditions(STC): 1000W/m^2, Air mass 1.5 Spectrum, cell temperature of 25°C.