

# Evergy Application Guidance

<https://www.evergy.com/smart-energy/renewable-resources/private-solar-and-net-metering>

Expect a bit of frustration and delay

Evergy's application site is set up to require all the questions with an asterisk to be answered before moving on to the next page. There are two contracts that they want you to “sign” and date before moving on. And it ends with a request for four jpg documents to be uploaded: a site drawing, a “one-line” drawing, and a certification document for both the solar panel and the inverter. These last two documents state they both pass UL or other nationally recognized certification lab safety requirements. They also want uploaded a signed copy of their Customer Acknowledgement Form. These are downloadable from our (FHREEC) site.

## Evergy Kansas Solar Net Metering Application

Before you begin your application, please make sure to have the following handy:

- Account Number
- Address
- Customer Phone Number & Email Address
- Meter ID
- Jurisdiction
- Site Plans
- One Line Diagram
- Module Equipment Specification Sheet
- Inverter Equipment Specification Sheet
- Customer Acknowledgement Form (download [here](#))

\$100 application fee online payment option will be provided following the completion of your application.

### Steps to net metering

- Get several quotes from solar contractors in your area to pick one that fits your needs
- **Submit a [net metering application online](#)** (we'll then review for approval)
- When approved, install your renewable system **within six months**
- Upon completion, request a post-inspection through the application portal (and we'll take it from there!)

To get an in-depth breakdown of what to expect step-by-step, you can [view or download the full process here](#).

### How it works

It starts with a net-metering billing arrangement...

- ✓ Energy exported to Evergy and power supplied by Evergy is monitored through a bi-directional meter
- ✓ Through one-for-one net metering, exported energy is used to offset an equal amount of power supplied by Evergy during the billing period. Excess energy is credited at our avoided cost
- ✓ The avoided cost you receive for your energy exported greater than the amount of power supplied by Evergy is less than retail because it reflects only energy – not generation, transmission, distribution and administrative costs included in retail rates
- ✓ Utility bill will represent the charge if monthly usage is greater than amount exported or credit if monthly usage is less than amount exported

### RESOURCE OVERVIEW

For a quick reference to links featured throughout, take a look through our resources below:

- ✓ [Distributed generation tariff](#)
- ✓ [Customer acknowledgment form](#)
- ✓ [Questions to ask solar installers](#)
- ✓ [Customer interest info](#)

### RESOURCE OVERVIEW

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#### Information inquiries:

[816-242-5971](tel:816-242-5971)

[netmeteringapp@evergy.com](mailto:netmeteringapp@evergy.com)

Application processing fee of \$100 must accompany your application.

## Applicant Information

### Your Home/Business Information

--SELECT EXISTING CONTACT--

First Name: \* **First & Last or Company**

Address: \*

Last Name: \* **First & Last or Company**

Address (cont):

Address (continued)

Company: \* **First & Last or Company**

City: \*

Manhattan

Acct #: \*

State/Province: \*

KANSAS

Premise ID:

9943061000

Postal Code: \*

66503

Meter ID:

1274840333522

Phone: \*

eMail: \*

**Save contact for later use in your contact list?**

☐ Yes, save this as a new contact in my profile contact list

Contractor Information

- If you are a self-installer, please click on the search option to search on "Self Installer" under the company field.
- If you are a new contractor and submitting application for the first time, please enter "New Contractor" under the company field and click on search. Additionally, please send an email to [netmeteringapp@kcpl.com](mailto:netmeteringapp@kcpl.com) with your company info to be added to the drop-down list going forward.
- For customers selecting a contractor from the list below, you agree to allow for the chosen contractor to view and edit your application for the duration of the project or until the application automatically expires. Should you make a contractor selection in error, need to modify the contractor or remove a contractor, please notify Evergy as quickly as possible.

Select Contractor From Pick List: \*

Click Here To Search For A Contractor

In the list of contractors, select “Self Installer” In spite of it saying “Kansas City”

Current Selected Contractor: Self Installer

Continue

- OR -

Save & Complete Later



Apply Now   Manage Applications   Contact Us

Max Allowable System Size

Max Allowable System Size (Calculated)

10.773

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Continue

- OR -

Save & Complete Later

Distributed Energy Generation

Customer class \*

Residential

Distributed Energy Generation Facility Type (select all that apply) \*

- ☒ PV
- ☐ Battery
- ☐ Wind
- ☐ Fuel Cell
- ☐ Other

Select the application you're submitting: \*

Net Metering

Is the DER system owned by an entity other than the account holder? \*

No

Please select the type of ownership agreement (if third party is selected complete fields below)

-Select-

Third party name

Third party company

Third party Address

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Photovoltaic Solar

PV installation (New or Existing) \*

New

Panel manufacturer \*

Panel model No \*

Number of panels \*

Panel rating-individual (DC Watts) \*

Panel rating-total (DC kW) (Calculated)

Panel rating-total (AC kW) \*

Certification \*

UL-1703

Panel type \*

high efficiency monocrystalline silicon

Panel location \*

Roof

Panel location Other

Existing electrical service capacity (amperes) \*

Existing electrical service capacity (voltage) \*

Service character \*

Single Phase

Installation type \*

Fixed

Install type Other

This application is not designed to be easy. All asterisked questions need to be answered before the website will allow you to move to the next page. Don't be intimidated by all the techy questions. Only answer those with a red asterisk. And if you don't know the answer call or email FHREEC: mail@fhreec.org

Number of panels multiplied by the wattage of each paanel

Number of panels multiplied by the wattage of the inverter, 295W

Or Ground Mount

The amperage rating of your electric panel is usually printed on the door of your of your electric breaker panel. A typical home has 200 amp service. (Evergy knows this information better than anyone so it is odd that they ask for it)

Or Tracking (not typical)

Solar Panel Direction Orientation \*

South East

Array location: Latitude

Array location: Longitude

Array tilt angle (degrees)

Array azimuth angle (degrees)

PV Inverter

Inverter installation (New or Existing) \*

New

Inverter manufacturer \*

Enphase Energy

Inverter model No \*

IQ7+

Inverter phases \*

Single Phase

Inverter rating (kW) \*

.295

Communication protocols supports (IEEE Std 1815 (DNP3) -TCP/IP))

Inverter rating (kVA)

Number of Panels x .295 KVA

Communication protocols supports (IEEE Std 2030.5 (SEP2) -TCP/IP)

Communication protocols supports (IEEE Std 2030.5 (SEP2) -TCP/IP)

Communication protocols supports (SunSpec Modbus -RD-485)

Communication protocols supports (SunSpec Modbus -TCP/IP)

Inverter/Interconnection Equipment Location (describe) \*

Microinverters with one bolted under each panel for 21 total

Meter location (describe) \*

Southwest exterior wall of garage

Inverter max power factor rating (%) - Leading

Inverter efficiency (CEC%)

Inverter max power factor rating (%) - Lagging

Inverter fault current (Amps)

Power control function - (Constant power factor mode)

Power control function - Voltage-reactive power (volt-var) mode

Inverter is certified compliant with IEEE 1547-2018

-Select- ▾

Inverter is certified compliant with UL1741-SA as Grid Support Utility Interactive Inverter

-Select- ▾

Power control function - (Constant reactive power mode)

Power control function - (Voltage-active power (volt-watt) mode)

Power control function - (Active power-reactive power (watt-var) mode)

Power control function - (Constant reactive power mode)

Power control function - (Voltage-active power (volt-watt) mode)

Power control function - (Active power-reactive power (watt-var) mode)

Inverter performance configuration - (Abnormal operating performance category)

-Select- ▾

Inverter performance configuration - (Normal operating performance category)

-Select- ▾

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- OR -

Save & Complete Later

Outdoor Manual/Utility Info

DER Disconnect switch is located at how many feet from existing utility billing meter? \*

DER Disconnect switch location (describe) \*

next to the billing meter

Make/Model/type of AC disconnect to be utilized

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Installation Info

Approximate Installation Date \*

Contractor's License Number (if applicable) \*

Will electrician work be performed by Licensed Electrician \*

Yes

Is an electrical and/or inspection required? \*

Yes

Person or Agency who will inspect certify installation

The DER Facility will be installed based on the requirements of NEC version 20 \*

Yes

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In addition to abiding by the Company’s other applicable rules and regulations, the Customer-Generator understands and agrees to the following specific terms and conditions:

**1. Operation/Disconnection**

If it appears to the Company, at any time, in the reasonable exercise of its judgment, that operation of the Customer-Generator’s System is adversely affecting safety, power quality, or reliability of the Company’s electrical system, the Company may immediately disconnect and lock-out the Customer- Generator’s System from the Company’s electrical system. The Customer-Generator shall permit the Company’s employees and inspectors reasonable access to inspect, test, and examine the Customer-Generator’s System.

**2. Liability Insurance**

All Customer-Generators may have legal liabilities not covered under their existing insurance policy in the event the Customer-Generator’s negligence or other wrongful conduct causes personal injury (including death), damage to property, or other actions and claims. In Missouri, liability insurance is not required for Customer-Generators of ten kilowatts (10 kW) or less. For generators greater than ten kilowatts (10 kW), the Customer-Generator agrees to carry no less than one hundred thousand dollars (\$100,000) of liability insurance that provides for coverage of all risk of liability for personal injuries (including death) and damage to property arising out of or caused by the operation of the Customer-Generator’s System. Insurance may be in the form of an existing policy or an endorsement on an existing policy. In Kansas, the Company may not require a Customer-generator to purchase additional liability insurance. Everygy shall not be liable directly or indirectly for permitting or continuing to allow an attachment of a Customer-generator System or for the acts or omissions of the Customer-generator that causes personal injury (including death), damage to property, or other actions and claims.

**3. Metering**

A Customer-Generator’s facility shall be equipped with sufficient metering equipment that can measure the net amount of electrical energy produced or consumed by the Customer-generator Any meter testing, maintenance, or meter equipment change necessitated by the Customer-generator shall be paid for by the Customer-Generator.

**4. Ownership of Renewable Energy Credits or Renewable Energy Certificates (RECs)**

RECs created through the generation of electricity by the Customer-Owner are owned by the Customer-Generator however, if the Customer-Generator receives a solar rebate, the Customer- Generator transfers to the Company all rights, title, and interest in and to the RECs associated with the new or expanded solar electric system that qualified the Customer-Generator for the solar rebate for a period of ten (10) years from the date the electric utility confirms the solar electric system was installed and operational.

**5. Energy Pricing and Billing**

The net electric energy delivered to the Customer-Generator shall be billed in accordance with the Company’s applicable rate schedules. The value of the net electric energy delivered by the Customer-Generator to the Company shall be credited in accordance with the net metering or parallel generation rate schedule(s), as appropriate, to the account specified in Section A. The Customer-Generator shall be responsible for all other bill components charged to similarly situated customers.

**6. Terms and Termination**

This Agreement becomes effective when signed by both the Customer-Generator and the Company and shall continue in effect until terminated. After fulfillment of any applicable initial tariff or rate schedule term, the Customer-Generator may terminate this Agreement at any time by giving the Company at least thirty (30) days prior written notice. In such event, the Customer-Generator shall, no later than the date of termination of Agreement, completely disconnect the Customer-Generator’s System from parallel operation with the Company’s system. Either party may terminate this Agreement by giving the other party at least thirty (30) days prior written notice that the other party is in default of any of the terms and conditions of this Agreement, so long as the notice specifies the basis for termination, and there is an opportunity to cure the default. This Agreement may also be terminated at any time by mutual agreement of the Customer-Generator and the Company. This agreement may also be terminated, by approval of the Commission, if there is a change in statute that is determined to be applicable to this contract and necessitates its termination.

7. Transfer of Ownership/Operational Control

If operational control of the Customer-Generator’s System transfers to any other party than the Customer-Generator, a new Application/Agreement must be completed by the person or persons taking over operational control of the existing Customer-Generator System. Company shall be notified no less than thirty (30) days before the Customer-Generator anticipates transfer of operational control of the Customer-Generator’s System.

The person or persons taking over operational control of Customer-Generator’s System must file a new Application/Agreement and must receive authorization from the Company before the existing Customer-Generator System can remain interconnected with the Company’s electrical system. The new Application/Agreement will only need to be completed to the extent necessary to affirm that the new person or persons having operational control of the existing Customer-Generator System completely understand the provisions of this Application/Agreement and agree to them. If no changes are being made to the Customer-Generator’s System, completing sections A, D, and F of this Application/Agreement will satisfy this requirement.

If no changes are being proposed to the Customer-Generator System, the Company will assess no charges or fees for this transfer. the Company will review the new Application/Agreement and shall approve such, within fifteen (15) days if the new Customer-Generator has satisfactorily completed the Application/Agreement, and no changes are being proposed to the existing Customer-Generator System. The Company will then complete section G and forward a copy of the completed Application/Agreement back to the new Customer-Generator, thereby notifying the new Customer-Generator that the new customer-generator is authorized to operate the existing Customer-Generator System in parallel with the Company’s electrical system.

8. Customer-Generator System Modification

If any changes are planned to be made to an existing Customer-Generator System that in any way alters the Systems characteristics, as approved in the original Application/Agreement, then the Customer-Generator shall submit to Evergy a new Application/Agreement for the entire Customer-Generator System and all portions of the Application/Agreement must be completed.

9. Dispute Resolution

Disputes between the Customer-generator and Westar Energy that cannot be resolved by the parties by other means may be brought to the appropriate Commission.

In Kansas disputes may be brought before the Kansas Corporation Commission by either party through complaint procedures as described in K.A.R. 82-1-220.

In Missouri, the disagreements may be brought to the Missouri Public Service Commission by either party, through an informal or formal complaint. Procedures for filing and processing these complaints are described in 4 CSR 240-2.070.

10. Testing Requirement

Westar may require net metered facilities to be tested according to IEEE 1547 that provides testing specifications and requirements. If testing is required, then IEEE 1547.1 will be utilized to verify conformance to IEEE 1547.

IEEE 1547 requires periodic testing of all interconnection-related protective functions. The Customer-Generator must, at least once every year, conduct a test to confirm that the Customer-Generator’s net metering unit automatically ceases to energize the output (interconnection equipment output voltage goes to zero) within two (2) seconds of being disconnected from Evergy’s electrical system. Disconnecting the net metering unit from Evergy’s electrical system at the visible disconnect switch and measuring the time required for the unit to cease to energize the output shall satisfy this test.

The Customer-Generator shall maintain a record of the results of these tests and, upon request by Evergy, shall provide a copy of the test results to Evergy. If the Customer-Generator is unable to provide a copy of the test results upon request, Evergy shall notify the Customer-Generator by mail that Customer-Generator has thirty (30) days from the date the Customer-Generator receives the request to provide to Evergy, the results of a test. If the Customer-Generator’s equipment ever fails this test, the Customer-Generator shall immediately disconnect the Customer-Generator’s System from Evergy’s system. If the Customer-Generator does not provide results of a test to Evergy within thirty (30) days of receiving a request from Evergy or the results of the test provided to Evergy show that the Customer-Generator’s net metering unit is not functioning correctly, Evergy may immediately disconnect the Customer-Generator’s System from Evergy’s system. The Customer-Generator’s System shall not be reconnected to Evergy’s electrical system by the Customer-Generator until the Customer-Generator’s System is repaired and operating in a normal and safe manner.

I have read, understand, and accept the provisions of Section D (1) - (10) of this Application Agreement.

Customer Name \*

Customer Signature Date

I agree (Customer) \*

☐ Yes

Required Supporting Documentation

Document Upload

Customer Acknowledgement Form

Document Upload

One-Line Diagram

Document Upload

Site Plan

Document Upload

Module Specification Sheet

Document Upload

Inverter Specification Sheet

 All Items Have Been Completed

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Complete Application

 - OR - 

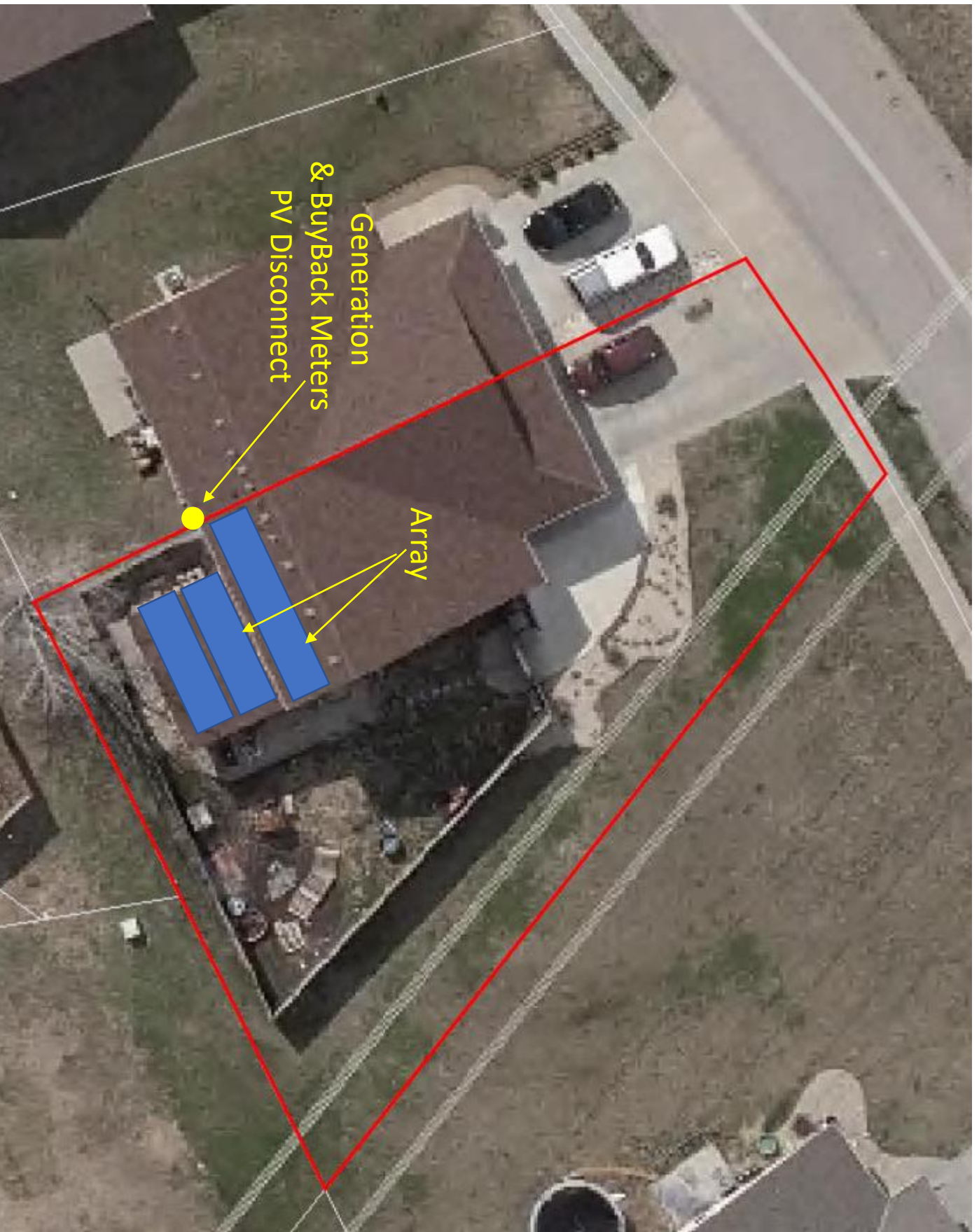
Save & Complete Later

Thank you for submitting your Net Metering application through this online process.

In order to facilitate further review, please use the [Paypal](#) link to pay your \$100 application fee.

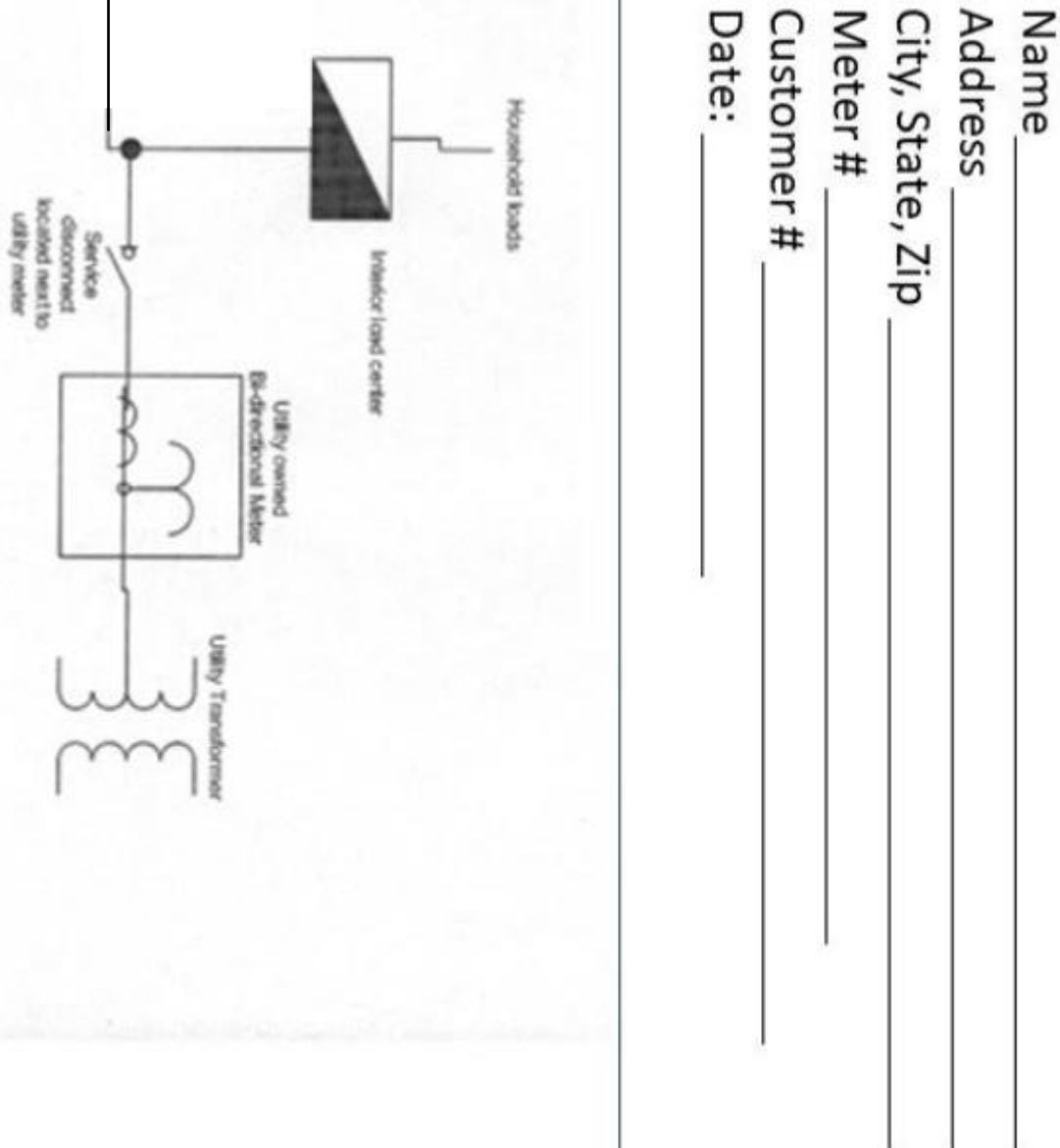
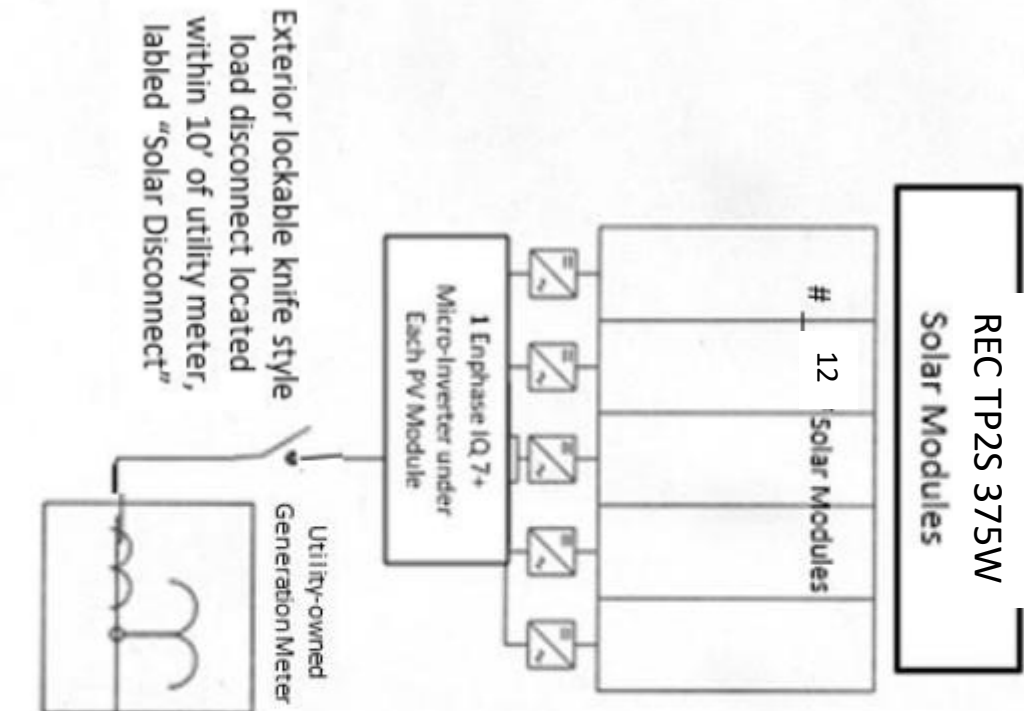
## Solar Site Plan Example

Obviously your site map will have to be customized for your property. We use a snipping tool of the screen shot from Google Earth or the county GIS website for the aerial photo of a property.



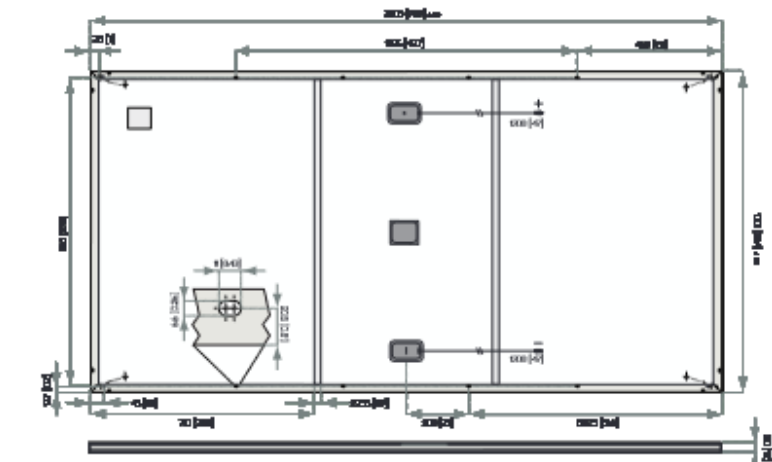


# One-Line Diagram



Solar Panel Data Sheet Example

REC TWINPEAK 25 MONO 72 SERIES



All measurements in mm [in]

ELECTRICAL DATA @ STC		Product code*: RECxxxTP2SM 72						
Nominal Power - $P_{MPP}$ (Wp)		370	375	380	385	390	395	400
Watt Class Sorting - (W)		0/+5	0/+5	0/+5	0/+5	0/+5	0/+5	0/+5
Nominal Power Voltage - $V_{MPP}$ (V)		39.8	40.1	40.3	40.5	40.7	40.9	41.1
Nominal Power Current - $I_{MPP}$ (A)		9.30	9.36	9.43	9.51	9.58	9.66	9.73
Open Circuit Voltage - $V_{OC}$ (V)		47.0	47.4	48.0	48.6	49.2	49.8	50.4
Short Circuit Current - $I_{SC}$ (A)		10.02	10.04	10.05	10.07	10.08	10.09	10.10
Panel Efficiency (%)		18.4	18.7	18.9	19.2	19.4	19.7	20.0

Values at standard test conditions STC (airmass AM 1.5, irradiance 1000 W/m<sup>2</sup>, cell temperature 77°F (25°C).  
At low irradiance of 200 W/m<sup>2</sup> (AM 1.5 and cell temperature 77°F (25°C)) at least 95% of the STC module efficiency will be achieved.  
\*xxx indicates the nominal power class ( $P_{MPP}$ ) at STC, and can be followed by the suffix XV for modules with a 1500 V maximum system rating.

ELECTRICAL DATA @ NMOT		Product code*: RECxxxTP2SM 72						
Nominal Power - $P_{MPP}$ (Wp)		276	280	283	287	290	295	298
Nominal Power Voltage - $V_{MPP}$ (V)		37.1	37.3	37.5	37.7	37.9	38.1	38.3
Nominal Power Current - $I_{MPP}$ (A)		7.44	7.49	7.54	7.60	7.66	7.73	7.78
Open Circuit Voltage - $V_{OC}$ (V)		43.7	44.1	44.7	45.3	45.8	46.4	46.9
Short Circuit Current - $I_{SC}$ (A)		8.02	8.03	8.04	8.06	8.06	8.07	8.08

Nominal cell operating temperature NOCT (800 W/m<sup>2</sup>, AM 1.5, windspeed 1 m/s, ambient temperature 68°F (20°C).  
\*xxx indicates the nominal power class ( $P_{MPP}$ ) at STC, and can be followed by the suffix XV for modules with a 1500 V maximum system rating.

CERTIFICATION



UL TUV, Fire classification Type 1 (500V AC), Type 2 (1000V AC)  
IEC 61215, IEC 61730, IEC 62044, IEC 62716 (Monocrystalline)  
IEC 61730 (Salt Mist level 6)  
ISO 9001:2015, ISO 14001:2014, OHSAS 18001:2007

WARRANTY

20 year product warranty  
25 year linear power output warranty  
Max. performance degradation of 0.5% p.a. from 97.5% in year 1  
See warranty conditions for further details.

- 20.0% EFFICIENCY
- 20 YEAR PRODUCT WARRANTY
- 25 YEAR LINEAR POWER OUTPUT WARRANTY

GENERAL DATA

Cell type:	144 half-cut monocrystalline PERC cells 6 strings of 24 cells in series
Glass:	0.13" (3.2 mm) solar glass with anti-reflection surface treatment
Backsheet:	Highly resistant polymeric construction
Frame:	Anodized aluminum
Support bars:	Anodized aluminum
Junction box:	3-part, 3 bypass diodes, IP67 rated in accordance with IEC 62790
Cable:	4 mm <sup>2</sup> solar cable, 1.2 m + 1.2 m in accordance with EN 50618
Connectors:	Tonglin TL-Cable015-F (4 mm <sup>2</sup> ) in accordance with IEC 62852, IP68 only when connected
Origin:	Made in Singapore

MAXIMUM RATINGS

Operational temperature:	-40 ... +85°F (-40 ... +85°C)
Maximum system voltage:	1000V/1500V
Design load (+) snow:	75.2 lbs/ft <sup>2</sup> (3600 Pa)
Maximum test load (+):	112.8 lbs/ft <sup>2</sup> (5400 Pa)
Design load (+) wind:	33.4 lbs/ft <sup>2</sup> (1600 Pa)
Maximum test load (+):	50.1 lbs/ft <sup>2</sup> (2400 Pa)
Max series fuse rating:	25A
Max reverse current:	25A

\* Calculated using a safety factor of 1.5  
\* See installation manual for mounting instructions

TEMPERATURE RATINGS

Nominal Module Operating Temperature:	44.6°C (+2°C)
Temperature coefficient of $P_{MPP}$ :	-0.37 %/°C
Temperature coefficient of $V_{OC}$ :	-0.28 %/°C
Temperature coefficient of $I_{SC}$ :	0.04 %/°C

\*The temperature coefficients stated are linear values

MECHANICAL DATA

Dimensions:	78.9" x 39.4" x 1.2" (2005 x 1001 x 30 mm)
Area:	216 ft <sup>2</sup> (2.01 m <sup>2</sup> )
Weight:	48.5 lbs (22 kg)

Specifications subject to change without notice.  
Rev: P04-05-07-23 Rev-B 07.19

# Enphase IQ-7+ Inverter Data Sheet

## CERTIFICATE OF COMPLIANCE

Certificate Number 20200212-E341165  
Report Reference E341165-20171030  
Issue Date 2020-FEB-12

Issued to: Enphase Energy Inc.  
1420 N. McDowell Blvd. Petaluma, CA 94954-6515

This is to certify that  
representative samples of

Photovoltaic Grid Support Utility Interactive Inverter with Rapid Shutdown  
Functionality

Models IQ7-80, IQ7PLUS-72, IQ7X-96, IQ7XS-96, may be f/b -2, 5 or -  
E, may be f/b ACM, f/b US+, may be f/b -NM, may be f/b -RMA, may be  
f/b -&, where "&" designates additional characters.

Models IQ7A, may be f/b S, may be f/b 66 or -72, may be f/b -2, 5, -E,  
or ACM, f/b -US+, may be f/b -NM, may be f/b -RMA, may be f/b -&,  
where "&" designates additional characters.

Have been investigated by UL in accordance with the  
Standard(s) indicated on this Certificate.

Standard(s) for Safety:

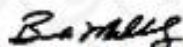
UL 1741, Standard for Safety for Inverters, Converters, Controllers  
and Interconnection System Equipment for Use With Distributed  
Energy Resources, UL 1741, Second Edition, dated January 28,  
2010. Including the requirements in UL 1741 Supplement SA,  
sections as noted in the Technical considerations.  
IEEE 1547, IEEE Standard for Interconnecting Distributed Resources  
with Electric Power Systems.  
IEEE 1547.1, IEEE Standard for Conformance Test Procedures for  
Equipment Interconnecting Distributed Resources with Electric  
Power Systems.  
UL 62109-1, Safety of Converters for Use in Photovoltaic Power  
Systems - Part 1: General Requirements; IEC 62109-2, Safety of  
Power Converters for use in Photovoltaic Power Systems - Part 2:  
Particular Requirements for Inverters.  
CSA C22.2 No. 107.1-01, General Use Power Supplies.

Additional Information:

See the UL Online Certifications Directory at  
[www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's  
Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.



Bruce Mahlenholz, Director North American Certification Program  
UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please  
contact a local UL Customer Service Representative at <http://ul.com/about/location>

