Sample DER Manual Application Guide

Customer Energy Integration Team December 2024



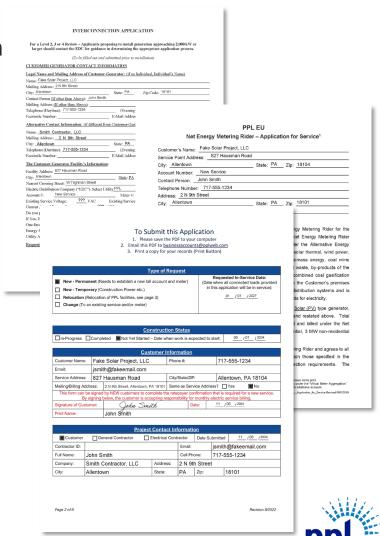
Please use the sample application documents in this slideshow to assist in filling out your own DER Interconnection Application documents.

The sample manual application is for a fictional Customer-Generator with a proposed Solar Array DER project that is applying for new primary service with a nameplate size of 3000 kW, but most of the information is applicable to various sized new primary and secondary service applications.

The highlighted areas in the following sections of the application documents are where we found the most common areas of application deficiencies.

Any areas on the sample application that show "???" may be project specific. Please fill your own application out completely.

If you have any questions about the documents, please contact DERApplications@pplweb.com for assistance on manual application submissions.



The package of Interconnection Application documents on <u>PPL Electric's Application Guide page</u> will include the Interconnection Application, Interconnection Agreement, Attachment A, and Attachment B in the same PDF.

- Attachment B (Certificate of Completion) is NOT needed when the application is submitted for review.

Below are the documents that are required with every application:

- Interconnection Application
- Interconnection Agreement
- Attachment A
- New Primary/Secondary Service Application
- One-Line Diagram
- Site Plan
- Equipment Data Sheets
- Completed W-9 Form

For applications greater than or equal to 500kW, more documents are required:

- Net Energy Metering Rider
- Customer Ownership Attestation
- Parasitic Load Estimate

Please use the following information in tandem with the available information on the <u>DER Interconnection</u> <u>General Info page</u> to complete your interconnection application.



Interconnection Application

INTERCONNECTION APPLICATION

For a Level 2, 3 or 4 Review – Applicants proposing to install generation approaching 2,000 kW or larger should contact the EDC for guidance in determining the appropriate application process.

(To be filled out and submitted prior to installation)

CUSTOMER GENERATOR CONTACT INFORMATION

Legal Name and Mailing Address of Customer-Generator: (if an Individual, Individual's Name)	
Name: Fake Solar Project, LLC	
Mailing Address: 2 N 9th Street	
City: Allentown State: PA Zip Code: 18101	
Contact Person (If other than Above): John Smith	
Mailing Address (If other than Above):	
Telephone (Daytime): 717-555-1234 (Evening):	
Facsimile Number: E-Mail Address: jsmith@fakeemail.com	
Alternative Contact Information: (if different from Customer-Generator above)	
Name: Smith Contractor, LLC	
Mailing Address: 2 N 9th Street	
City: Allentown State: PA Zip Code: 18101	
Telephone (Daytime): 717-555-1234 (Evening):	l
Facsimile Number: E-Mail Address: _jsmith@fakeemail.com	
The Customer-Generator Facility's Information:	
Facility Address: 827 Hausman Road	
City: Allentown State: PA Zip Code: 18104	
Nearest Crossing Street: W Tilghman Street	
Electric Distribution Company ("EDC"): Select Utility PPL Electric	
Account #: New Service New Service	
Existing Service Voltage: YAC Existing Service Capacity: Amps 3 Phase	
Current Annual Energy Consumption: ??? kWh Estimated In-service Date: 01/01/2027	١
Do you plan to export power? Yes	
If Yes, Estimated Maximum: 3000 kW _{AC} , Estimated Gross Annual Energy Production: 4000000 kWh	
One-line Diagram Attached (Required): Yes Site Plan Attached (Required): Yes	
Energy Source: Solar (PV) Gross Generator Rating; 3000 kW _{AC}	
Utility Accessible Disconnect or Lock Box: AC Disconnect near meter	
Requested Level of Review: Level 3 review Type of Generation Equipment: Inverter	

The legal name of the Customer-Generator goes on the first line. It is **CRUCIAL** that the **SAME** name for the Customer-Generator here is used throughout the application documents.

The name may be the name of your company, or an LLC owned by that company. Whatever name is used here MUST remain the same throughout the application.

Account and meter # must indicate "New Service." Do not use TBA/TBD here.

Give an estimated date for requested in-service date.

List the total kW AC nameplate of the proposed renewable generation system.

List the proper Requested Level of Review in accordance with the guide on our <u>Net Metered Distributed Energy page</u>.

Most projects over 2000 kW will fall into Level 3 if they plan to export power.



Interconnection Application

Equipment Installation Contractor: Name: Smith Contractor, LLC	cate by owner if applicable 🔳 🔫
Mailing Address: 2 N 9th Street	
	State: PA Zip Code: _18101
City: Allentown Contact Person (If other than Above): John S	
	(Evening):
Facsimile Number:	E-Mail Address: jsmith@fakeemail.com
Electrical Contractor: (If Applicable) Indic	ate if not applicable 🔳
Name:	<u> </u>
Mailing Address:	
City:	State: Zip Code:
Telephone (Daytime):	(Evening):
Facsimile Number:	E-Mail Address:
Consulting Engineer: (If Applicable) Ind	icate if not applicable 🔳 🚤
Name:	
Mailing Address:	
10 -2 0	State: Zip Code:
The state of the s	
	(Evening):
	E-Mail Address:
Utility Commission and is listed on the EDC's energy generating equipment, additional study Commission Regulations may be required and	wplication fee which is approved by the Pennsylvania Public Website. Depending on the level of review and nature of the and review fees, as permitted by Pennsylvania Public Utility are not a part of the aforementioned application fee.
Application Fee Enclosed: No	Amount: \$6350
Commission's Regulations. However, the C	required under the Pennsylvania Public Utility Customer still has responsibility and/or liability for any tomer-Generator Facility and/or the Customer's

Interconnection Facilities. The Customer-Generator is advised to consider obtaining appropriate

List the contact information for the equipment installation contractor, electrical contractor, and consulting engineer on this page.

<u>DO NOT</u> leave these areas blank. If the information is not applicable or you haven't chosen a contractor yet, please fill in the box that says, "Indicate if not applicable."

Fill in the appropriate application fee. It can be calculated using the information on our <u>Net Metered Distributed Energy page</u>.

DO NOT send any payment until you have received an invoice for the application.

PPL Electric strongly encourages payment submission within <u>two weeks</u> of receiving your invoice to ensure timely processing of your application and to reduce potential delays.

coverage.

Interconnection Application

0 1			
Cust	omer-Gene	rator Sig	nature

I hereby certify that to the best of my knowledge, all of the information provided in this Application is accurate.

Legal Name of Customer-Generator: Fake Solar Project, LLC

Customer-Generator Signature: John Smith

Printed Name: John Smith

Title: Manager

Customer-Generator Equipment Information for Inverter Based Systems (May be applicable to a Level 2, 3 or 4 Review)

DC Source information;

Energy Source: Solar (PV)

DC Source Rating: ??? kWpc

Nominal DC Voltage: ??? VDC

Ampere Rating: ??? Amps pc

Inverter Information:

Inverter Manufacturer: Chint Power System (CPS)

Inverter Type; Grid Interactive

Model Number of Inverter: SCH125KTL-DO/US-600

Number of Units: 24

Inverter Rating: 125 kWAC

Voltage Rating: 600 Voltsac

Ampere Rating: 127 Ampsac

Power Factor: 99 %,

Number of Phases: Three

Use the same Customer-Generator name that was used at the beginning of the Interconnection Application.

The Interconnection Application **MUST BE** signed when the application is submitted to PPL Electric for review.

Only inverters approved for use within our service territory may be used. You can find the Approved Smart Inverter List here.



Interconnection Agreement

Level 2, 3 or 4 Interconnection Agreement

This Interconnection Agreement ("Agreement") is made and entered into this 6th day of November, 2024, by PPL Electric, ("Electric Distribution Company" or "EDC"), and Fake Solar Project, LLC ("Customer-Generator"), each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties". In consideration of the mutual covenants set forth herein, the Parties agree as follows:

List the **same** Customer-Generator name on the line in the Interconnection Agreement. Please make sure the **entire name** is legible. The document may need to be adjusted to show the entire name.

- and the Customer-Generator agree that one or more generating facilities as further described in Attachment A, with an installed nameplate gross capacity of 3000 kW ("Facility" or "Facilities") may be interconnected to the EDC's distribution system. This Agreement is applicable to interconnection requests governed by the rules and Regulations of the Pennsylvania Public Utility Commission.
- 2) Construction of the Customer-Generator Facility. The Customer-Generator may

List the total kW AC nameplate of the proposed renewable generation system. It needs to match the size that was listed on the Interconnection Application.



Attachment A

ATTACHMENT A

DESCRIPTION OF FACILITY

For a Level 2, 3 or 4 Review Interconnection Agreement 1

Fake Solar Project LLC	ner-Generator: (if an Individual, Individual's Name)				
Mailing Address: 2 N 9th Street					
City: Allentown					
Contact Person (If other than Above): John Smith	1				
Mailing Address (If other than Above):					
Telephone (Daytime): 717-555-1234	(Evening):				
Facsimile Number:	E-Mail Address: johnsmith@fakeemail.com				
Alternative Contact Information: (if differe	nt from Customer Consenter above)				
Afternative Contact Information. (If unfere	iii from Customer-Generator above)				
Name:					
Mailing Address:					
City:					

State: PA

Do you plan to export power? Yes, Significant annual export/No net-metering/IPP

Utility Accessible Disconnect or Lock Box: AC Disconnect near Meter

Zip Code: 18104

New Service 4

Estimated Gross Annual Energy Production: 4000000 kWh

Site Plan Attached (Required): Yes

Gross Generator Rating: 3000 kWac

Most of the information on Attachment A should be the same information provided on the first page of the Interconnection Application.

The **same** name of the Customer-Generator goes here.

Account and Meter # must indicate "New Service."

The **same** total kW AC nameplate as listed on the Interconnection Application/Agreement goes here.



The Customer-Generator Facility's Information:

Facility Address: 827 Hausman Road

If Yes, Estimated Maximum: 3000 kWAC,

One-line Diagram Attached (Required): Yes

City: Allentown

Account #: New Service

Energy Source: Solar (PV)

Net Energy Metering Rider (NEMR)

PPL EU

Net Energy Metering Rider – Application for Service¹

Customer's Name:	Fake Solar Project, LLC	◀		
Service Point Addres	ss: 827 Hausman Road			
City: Allentown		State: PA	AZip:	18104
Account Number:	New Service			
Contact Person:	John Smith			
Telephone Number:				
Address: 2 N 9th S				
City: Allentown		State: PA	A Zip:	18101
Email Address: jsm	nith@fakeemail.com			

This application is for electric service under PPL EU's Net Energy Metering Rider for the above customer ("Customer"). The Customer qualifies for the Net Energy Metering Rider since its generator of electricity uses as its fuel approved under the Alternative Energy Portfolio Standards Act No. 2004-213 ("Act"), solar photovoltaic, solar thermal, wind power, hydropower, geothermal, biologically derived methane gas, biomass energy, coal mine methane, waste coal, demand-side management, municipal solid waste, by-products of the pulping process and wood manufacturing process, integrated combined coal gasification technology or a fuel cell/distributed generation that is located on the Customer's premises and operates in parallel with the Company's transmission and distribution systems and is intended primarily to offset part or all of the Customer's requirements for electricity.

The Customer-generator facility qualifies for the Rider as it is a <u>Solar (PV)</u> type generator, which is one of those qualifying facilities identified in the Rider and restated above. Total rated generating capacity of the Customer-generator to be used and billed under the Net Energy Metering Rider, is <u>3000 kW</u> (Not to exceed 50 kW residential, 3 MW non-residential and up to 5 MW under certain conditions as specified in the Act).²

The Customer acknowledges that it has read the Net Energy Metering Rider and agrees to all terms and conditions contained therein including without limitation those specified in the Company's interconnection tariff and the Company's interconnection requirements. The

The same Customer-Generator name goes here.

Account Number must say "New Service."

List the appropriate type of generator (e.g. Solar, Wind, CHP, etc.) for your project and the total kW AC nameplate.



Net Energy Metering Rider (NEMR)

customer agrees not to operate its generator in parallel with the Company's electrical system without specific approval in accordance with the Company's interconnection requirements.

The Customer understands and agrees that a meter, which is capable of registering the flow of electricity in each direction, must be in service at the facility. If a meter is not in service with this capability, the Customer must submit a written request to PPL EU, and provide reasonable time for installation and the EDC will not charge the Customer generator a fee or other type of charge unless the fee or charges would apply to other customers. (The customer-generator is responsible for the customer charge, demand charge and other applicable charges under the applicable Rate Schedule.)

The Customer acknowledges and agrees that operation of Customer's generation facility is intended primarily to offset part or all of Customer's electricity requirements in accordance with the Net Energy Metering Rider. Customer further acknowledges and agrees that excessive generation by the Customer's generation facility, as determined solely by the Company, is cause for disqualification for service under the Net Energy Metering Rider.

Requested By:	Approved By:
John Smith	
Customer Name	Company Signature
John Smith	
Authorized Signature	Name (Typed of Printed)
11/06/2024	
Date	Date

Dainatad

The Net Energy Metering Rider may not be amended in any fashion, except for this highlighted sentence.

It is acceptable to strike the last sentence of this paragraph.



Net Energy Metering Rider - Addendum

Addendum	
PPL EU Net Energy Metering Rider – Application for Service	
Virtual Meter Aggregation – Additional Account Information ¹	The same Customer-Generator name goes here.
Host Account Customer's Name: Fake Solar Project, LLC Host Account Number: New Service	Host Account Number must say "New Service."
Dependent Account Customer's Name: None Service Point Address: State: Zip: Zip:	If there is no Dependent Account Customer
Account Number:	Name, write "None." Do not leave that line blank.
Distance from Host Account Property:	
Dependent Account Customer's Name:	



New Primary (or Secondary) Service Application

<u>Type of Request</u>									
New - Permanent (Needs to establish a new bill account and New - Temporary (Construction Power etc.)					neter)	Requested In-Service Date: (Date when all connected loads provided in this application will be in service):			
☐ Relocation	(Relocation	on of PPL facilities, see pag	e 3)					01 / 01 / 2027	
Change (To	an existir	ng service and/or meter)							
		<u>Cor</u>	<u>ıstruct</u>	<u>ion S</u>	tatus				
☐In-Progress	Compl	eted Not Yet Started -	- Date w	hen w	ork is exp	ected to	start:	<u>06 / 01 / 2024</u>	
		<u>Cust</u>	<u>omer l</u>	nfor	<u>nation</u>				
Customer Name	Name: Fake Solar Project, LLC Phone #:						717-555-1234		
Email:	Email: jsmith@fakeemail.com								
Service Address	s: 827 Hausman Road City/State/ZIP:					:	All	entown, PA 18104	
Mailing/Billing A	Mailing/Billing Address: 2 N 9th Street, Allentown, PA 18101 Same as Se				e as Serv	ice Addre	ess?	Yes No	
This form can be signed by NEW customers to complete the ratepayer confirmation that is required for a new service. By signing below, the customer is accepting responsibility for monthly electric service billing.									
Signature of Cus	0 : - :			Da	ate:	te: 11 / 06 / 2024			
Print Name:									
Project Contact Information									
☐ Customer ☐ General Contractor ☐ Electrical Contractor Date Submitted 11 / 06 / 2024					11 / 06 / 2024				
Contractor ID:					Email:		jsmit	h@fakeemail.com	
Full Name:	John S	mith			Cell Phone: 717-555-1234			555-1234	
Company:	Smith (Contractor, LLC	Addres	ss:	2 N 9th Street				
City:	Allento	llentown State:			PA	Zip:		18101	

The same Customer-Generator name goes here.



New Primary (or Secondary) Service Application

	<u>Bu</u>	siness/Build	ing Informa	<u>tion</u>		
Type of Business (Description):	Solar	Array		Daily Hours	of Operation:	N/A
Building Square Feet:	N/A			# Of Stories	s in Building:	N/A
Will There Be an Addition to the	Building?	Yes	■ No			
Will The Existing Point of Deliver	y (Meter Loca	ition) Remain th	ne Same?	Yes	□No	□ N/A
Existing Building Sq. Ft: N/A	Sq. Ft	Being Added:	N/A	Total Sq. F	t:	N/A
		<u>Existing</u>	<u>Service</u>			
	■ <u>N</u>	ot applicable (N	lew Service Or	nly)		
PPL Electric Account #:			and/or M	1eter #:		
2.1						
Keloo	ation of Pi			ities Informati	<u>on</u>	
		Not Ap	<u>piicabie</u>			
Facilities to be Relocated:						
				2		
Are these Transmission facilities	(steel poles of	or associated wi	ires)?:	Yes No		
Relocation Address:						
Reason for Relocation:			1		T	
Relocation is at property owner's request:						
Comments:						
	<u>Pr</u>	imary Servi	ce Informati	io <u>n</u>		
Nearest PPL Electric Utilities Po	le/Grid #:	40.591982	2, -75.555310) 4		
(Latitude/Longitude is also acc				rid number: 12345N54	1321 or 56789S98	765
New Service Size (Amps):	4000		AIC Required	(Fault Current)	■ Yes □	□No
3-Phase, 7,200/12,400 Volts,	4-Wire		3-Phase, 69	9,000 Volts or High	ner (<i>Transmiss</i>	ion)
T 4 Ph 7 000 \/- lt-			П Alt	b. Btd.	(0)	

le many customers submit projects that are solar arrays limited structures on the property, we still need to see ne description of the structure in this box.

re must be a PPL Electric pole/grid number or rdinates of the Point of Interconnection here.

Electric pole/grid numbers are formatted as the owing: XXXXX(S/N)XXXXX. 60925\$46595)

imal format is preferable for coordinates. s 40.591982, -75.555310, not 40°35'31.1"N 33'19.1"W)



New Primary (or Secondary) Service Application

Connected Electrical Load

Please indicate all connected loads in the table below.

If information is missing or incomplete, your application will **not** be processed and could cause delays in providing service to your facilities. PPL will perform design based on provided loads not total transformation.

Load Description	Total Net Load Addition	Equipment Description
Lighting - Indoor	kW	
Lighting - Outdoor	kW	
Motors (excludes HVAC)	HP	
Miscellaneous (*Specify Equipment)	kW	
Cooking	kW	
Water Heating / Tankless Water Heater	kW	
Process Heating	kW	
Electric Vehicle Chargers (See Page 5)	kW	
Refrigeration	kW	
Space Heating	kW	
Air Conditioning	TONS	
Welders (Supply Spec Sheets)	kW	
Other (Specify Equipment)	3000 kW	125 kW x 24 Solar Inverters

While inverters aren't usually considered "load," we need to see a description of the equipment that will be connected to the system provided here.

List the total kW AC nameplate and the size and number of inverters on this line.



Customer Ownership Attestation

Another requirement in the DER interconnection process is the submission of a dated customer ownership attestation document. This document should be on company letterhead and describe who will own the proposed DER system. Please see example language below. Additional documentation may be requested.

I, Name, am the Position for Business Entity, which has entered into a **generation type** installation contract with Developer (Customer) to design and build a X,XXX kW AC sized **generation type** project located at Location.

I confirm that **Project Name, LLC** will be the owner and operator of the **generation type**/distributed generation system that will interconnect to the distribution grid.



Useful Links

- PPL Electric Rules for Electric Meter & Service Installations (REMSI)
- DER Interconnection Generation Info
- DER Interconnection Application Guide
- DER Checklist
- PPL Approved Smart Inverters
- <u>DER FAQs</u>

