

Residential Solar Panel Building Permit Application



The Mayor & Council of Middletown
19 West Green Street
Middletown, DE 19709

Phone: (302) 378-1171 Fax: 302-378-5675
www.middletown.delaware.gov
permits&inspections@middletown.delaware.gov

***Please submit the Municipality Generator Interconnection Application Part I in conjunction with this permit application. Your permit WILL NOT be released prior to Part I approval.**

APPLICANT <i>(Individual Applying For Permit)</i>	
Name: _____	Phone #: _____
Address: _____	Cell #: _____
City, State: _____	Fax #: _____
Zip Code: _____	Email: _____
Applicant's Signature: _____	
PROPERTY INFORMATION	
Parcel Number: _____	Zoning: _____
Street Address: _____	Lot #: _____
Owner's Name: _____	Development: _____
Street Address: _____	Phone #: _____
City, State & Zip: _____	Cell #: _____
CONTRACTOR Middletown Business License #: _____ - _____	
Name: _____	Phone #: _____
Address: _____	Cell #: _____
City & State: _____	Fax #: _____
Zip Code: _____	Email: _____
License Holder's Signature: _____	
TO BE COMPLETED FOR RESIDENTIAL HOME IMPROVEMENTS ONLY	
Description of Job: _____ _____ _____	
Total Square Feet: _____	Cost of Materials: _____
FOR OFFICE USE ONLY	
NFIP / FLOOD ZONE EVALUATION:	
Is Property Located in SFHA? <input type="checkbox"/> Yes <input type="checkbox"/> No	What Zone? <input type="checkbox"/> A <input type="checkbox"/> AO <input type="checkbox"/> AE
Base Flood Elevation: _____	WRPA: _____
Reviewed By: _____	Riparian Buffer: _____
Plan Examiner: _____	Plan Review Fee: _____
Date: _____	Inspection Fee: _____
Application ID #: _____	Permit #: _____ Date: _____

Municipality Generator Interconnection Application

Single Meter Application – Part I

New Application
(Meaning no other generator installed)

Revised Application
(Meaning existing interconnection to be modified)

A single customer interconnecting to a single meter at a single premise makes a new / revised application this date _____ to the Municipality of the Town of Middletown, to install and operate a generating facility interconnected with the Municipality's electric utility system.

By checking this box, I understand the Town of Middletown has exceeded a 5% threshold of solar capacity on its system, and pursuant to Del. Code Title 26, Chapter 10, Sec. 1014, has elected to NOT provide net metering to any additional generating customers.

Section 1. Ownership Type:

Customer Owned and Operated Customer Leased and Operated Third Party Owned and Operated

Applicant must attach a fully executed contract between the vendor and the applicant. The Municipal Electric Utility has the right to promulgate rules and regulations and while we make best efforts to support our customers desire for net-metering the Municipal Electric Utility retains the right to decline any application that does not meet the requirements of this application, municipal tariff, or technical considerations.

Section 2. Applicant Information:

New Construction Existing Construction
(Meaning new home or business) (Meaning existing home or business)

Name: _____ Email: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Installation Location (if different from Mailing Address above): _____

Telephone (Daytime): Area Code _____ Number _____ (Evening) Area Code _____ Number _____

Home/Business Building Age: _____ Power Account No.: _____

Section 3. Generator Technical Information

Customer Type: Residential Non-Residential Farm

The purpose of this application is to interconnect, not Net Energy Metering. Check box to acknowledge.

Is Generator under: 25 kW for Residential, 500 kW for Non-Residential, 100 KW for Farm? Yes No

Is Generator on a farm and applicant requests a waiver of the 100 kW limit? Yes No

Type Qualifying Energy Source: Solar Wind Hydro Electric Car _____ #
 Fuel Cell Anaerobic digestion of organic material

Any approved interconnections already in service at this location: Yes No

If yes use 3B. 3B is for changing: existing systems (expanding/shrinking) or approved but not yet installed systems.

3A. Complete for New Generator Installations Only – See 3B. for Modifications

3A. Generator Equipment and Operation Details (If multiple different products are used please detail each).

Generator Manufacturer:	
Generator Model Name:	
Generator Model Number:	
Generator Output (kW):	
Inverter Manufacturer:	
Inverter Model Name:	
Inverter Model Number:	
Inverter Power Rating (AC Watts):	
Number of Inverters:	
Inverter Efficiency %:	
Intended Inverter Location:	
System Rated Output (Total Generator Output x Inverter Efficiency)	
Customer Consumption (2 year average) from Appendix A	
Generator Expected Annual Production (kWh)	

If Generator is Photovoltaic include as well:

Module Power Rating (DC @ STC): Should match Generator Output (kW)	
Number of Modules:	
Total Solar Output kW (Modules x Power Rating DC @ STC):	
Array Orientation (degrees): Note the size of each array that has different degrees.	
Array Tilt (degrees): Note the size of each array that has different degrees.	
Solar Shading Analysis May be Required (Solar Pathfinder or equivalent accepted): Solar Shading analysis should include readings at all four (4) points of each continuous array and one in the center. Shading analysis may be used by the utility in consideration of NEM benefits.	

3B.Complete for Interconnection Modification Only – See 3A. for New Generators

3B. Generator Equipment and Operation Details (If multiple different products are used please detail each).

Generator Details:	Existing Approved System	Modification (Changes must detail what the new system will be)
Generator Manufacturer:		
Generator Model Name:		
Generator Model Number:		
Generator Output (kW):		
Inverter Manufacturer:		
Inverter Model Name:		
Inverter Model Number:		
Inverter Power Rating (AC Watts):		
Number of Inverters:		
Inverter Efficiency %:		
Intended Inverter Location:		
System Rated Output (Total Generator Output x Inverter Efficiency)		
Customer Consumption (2 year average) from Appendix A		
Generator Expected Annual Production (kWh)		
If Generator is Photovoltaic include as well:		
Module Power Rating (DC @ STC): Should match Generator Output (kW)		
Number of Modules:		
Total Solar Output kW (Modules x Power Rating DC @ STC):		
Array Orientation (degrees): Note the size of each array that has different degrees.		
Array Tilt (degrees): Note the size of each array that has different degrees.		
Solar Shading Analysis May be Required (Solar Pathfinder or equivalent accepted): Solar Shading analysis should include readings at all four (4) points of each continuous array and one in the center. Shading analysis may be used by the utility in consideration of NEM benefits.		

Will a generator disconnect device, accessible to the Municipal Utility, be installed? Yes No

If the Generator Owner elects not to install a manual disconnect device accessible to the Municipal Utility, the Generator Owner assumes all risks and consequences when a service meter must be “pulled” to disconnect the generator thereby also interrupting all utility electric service to the Customer site.

Section 4. Generator/Equipment Certification

Generating systems that use inverter technology must be compliant with IEEE 929 and *Underwriters Lab. UL 1741*. Generating systems must be compliant with the Municipality’s Power Delivery’s Technical Considerations Covering Parallel Operations of Customer Owned Generation. **By signing below, the Applicant certifies that the installed generating equipment meets the appropriate preceding requirements and can supply documentation that confirms compliance. The applicant also agrees that if any details about the generator system as detailed in Section 3 change, it is the applicant’s sole responsibility to notify the Municipal Utility of those changes by submitting a revised Interconnection Application prior to commencing or completing construction / modification. The applicant agrees to wait to receive approval from the Municipal Utility of any revised Interconnection Application before proceeding with construction. Failure to notify the Municipal Utility in advance of system changes prior to submitting the Final As-Built Details could cause approval delays or denial of interconnection if the revised system is not compliant with NEM and/or Municipal Utility requirements.**

Section 5. Net Energy Metering

Net Energy Metering is a service to customers which allows customers to generate electricity for their own needs (from an eligible on-site generating facility) and to deliver excess electric into the municipal electric system and then allows the customer to take electric from the municipal electric system when the customer cannot produce the electric required to sustain their own needs.

The customer sited generating system shall be designed to produce no more than 110% of the initial design load. The initial design load shall be the calculated average of the two previous twelve-month periods of actual electric usage at the time of installation of electric generating equipment. For new building construction, the initial design load will equate to the electric consumption of units of similar size and characteristics at the time of installation of energy generating equipment as determined appropriate by the Municipal Electric Utility.

Section 6. Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Part I Interconnection Application is true and correct.

Signed (Applicant): _____ Date: _____

Print name: _____

Call your municipal electric service to find out who should receive this Part I Interconnection Application. Make sure to include all application sections (1 – 8) and Appendix A with new / modified submissions.

Section 7. Preliminary Generator/Equipment Installment Approval / Rejection

The Municipal Utility: Approves Approves w/ conditions Does NOT Approve

Part I Interconnection Application for a (system type) _____ generator as detailed in this application and located at (installation address) _____.

Signed (Municipal Utility): _____ Date: _____

Print Name and Title: _____

Approval with Conditions: _____

Reason of Not Approving: _____

Section 8. Internal Notifications

A copy of the approved Application Part 1 must be sent to the Municipal Building Department. Yes

A copy of the approved Application Part I must be sent to the Delaware Municipal Electric Corporation (“DEMEC”). Yes

**DEMEC
P.O. Box 310
Smyrna, DE 19977**

Appendix A

Customer Consumption and Generator Production

Item 1: Customer Consumption. Customer is to provide for existing construction 2 previous 12-month period(s) of actual electrical usage at the time of installation of energy generating equipment. For new construction provide estimated electrical consumption for units of similar size and characteristics at the time of installation of the energy generation equipment.

Month/Year	Year 1 Consumption (kwh)	Month/Year	Year 2 Consumption (kwh)
12 Month Total (kwh)			
2 Year Average (kwh)			

The municipal utility will verify the above consumption numbers. If the customer provided consumption numbers differ from the utility the applicant may need to provide copies of actual electric bills at the request of the utility to support the information provided in Item 1.

Item 2: Generator Production. Customer is required to provide estimated annual production totals for the proposed generator and a calculation method in sufficient detail so the utility can recreate the estimated annual production totals. Calculation totals and method to be attached to Appendix A.

Item 3: (check one)

- I certify that I am applying for net energy metering privileges and that Section 3 system is designed to produce no more than 110% of my facility’s expected electric consumption, calculated on the average of the 2 previous 12-month period(s) of actual electrical usage at the time of installation of energy generating equipment.
- I certify that I am applying for net metering benefits as a new building construction, that the system is being designed for electrical consumption as estimated at 110% of the consumption of units of similar size and characteristics at the time of installation of the energy generation equipment.

I hereby certify that, to the best of my knowledge, all the information provided in Appendix A is true and correct.

Signed (Applicant): _____ Date: _____

Print Name: _____

Municipality Generator Interconnection Application

Part II - Final As-Built Details

A single customer interconnecting to a single meter at a single premise provides Final As-Built Details this date _____ to the Municipality of _____, to install and operate a generating facility interconnected with the Municipal's utility system.

Section 9. Installation Details

Generating System was installed by: Owner State Licensed Electrician

Installing Electrician: _____ Firm: _____ License No.: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: Area Code: _____ Number: _____

Installation Completion Date: _____ Interconnection Date: _____
(System connected but shall not be active/live.
System not approved by Utility at this point.)

Supply certification that the generating system has been installed and inspected in compliance with the local Building/Electrical code of the municipality of _____.

Signed (Inspector): _____ Date: _____
(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached)

Generator Technical Information

The applicant certifies that the system described below is the Final As-Built Design and **does match any revised application submitted by the applicant and approved by the municipality prior to the interconnection date.**

Generator Equipment and Operation Details (If multiple different products are used please detail)

Generator Manufacturer:	
Generator Model Name:	
Generator Model Number:	
Generator Output (kW):	
Inverter Manufacturer:	
Inverter Model Name:	
Inverter Model Number:	
Inverter Power Rating (AC Watts):	
Number of Inverters:	

Inverter Efficiency %:	
Intended Inverter Location:	
System Rated Output (Total Generator Output x Inverter Efficiency)	
If Generator is Photovoltaic include as well:	
Module Power Rating (DC @ STC): Should match Generator Output (kW)	
Number of Modules:	
Total Solar Output kW (Modules x Power Rating DC @ STC):	
Array Orientation (degrees): Note size of each array with different degrees.	
Array Tilt (degrees): Note size of each array with different degrees.	
May be Required: Completed Generator Installation Pictures Attached. Must show whole generator, inverters, electric permits	

Section 10. Applicant Certifications

I hereby certify that, to the best of my knowledge, all the information provided in the Final As-Built Details is true and correct. I agree to install a Warning Label provided by the Municipality on or near my service meter location. I also agree to submit a new or revised Interconnection Application and comply with all governing permitting requirements before adding to in any way or subtract from in any way the current approved electric generating system; including but not limited to expanding, replacing, or removing all or a portion of the current system, adding a new generator type, and/or replacing in anyway the generator system inverter. I further agree to notify the utility in writing through official certified mail at least 30 days before I sell or transfer ownership of the system to another owner to allow the municipal electric utility to update records and determine if the new owner agrees to the generation and interconnection responsibilities associated with the transfer of ownership. A new property owner, of property that up until the time of sale had an approved Interconnection Agreement in place for net-metering, has 30 days to submit a new Interconnection Agreement for net-metering in his/her name. If the new owner fails to submit an Interconnection Agreement within 30 days of property transfer, certain net-metering transfer rights may be discontinued.

Failure for non-compliance to these certifications will be considered a violation of the net-metering agreement and may result in the disconnection of the electric generator at the discretion of the municipal electric utility. The sale or transfer of the electric generator shall not compromise law.

I further certify and understand that municipal utility review and approval of this application does not constitute an endorsement of actual equipment performance nor does it endorse its benefits or economics.

Signature of Applicant: _____ Date: _____

Print Name: _____

Call your municipal electric service to find out who should receive this Part II Interconnection Application. Make sure to include all application sections (9 – 12) with final submissions.

Section 11. Final Approval or Non-Approval for Interconnection and System Operation

The Municipal Utility: Approves Approves w/Conditions Does NOT Approve

The interconnection of a _____ generator as detailed in the Final As-Built Details and located at (installation address) _____.

The Municipal Utility has verified the applicant’s average electric consumption in Appendix A. Yes No

The Municipal Utility has verified at the time of installation that the installed electric generator is designed to produce no more than 110% of the applicant’s/customer’s average annual electric consumption as calculated in Appendix A. Yes No

Signed (Municipal Utility): _____ Date: _____

Print Name & Title: _____

Approval with Conditions: _____

Reason of Not Approving: _____

Approval to connect to the municipal system indicates only that the minimum requirements for a safe proper interconnection have been satisfied. Such approval does not imply that the Generator Owner’s facility meets all federal, state and local standards or regulations.

Section 12. Municipal Internal Notifications

- Send Applicant Warning Label for installing on/ near service meter: Yes
- Notify Billing Dept. of Interconnected Generation: Yes
- Notify District Engineering of Interconnected Generation: Yes
- Notify System Protection of Interconnected Generation: Yes
- Notify Municipal Building Department: Yes
- A copy of the approved Part II Final As-Built Details must be sent to the Delaware Municipal Electric Corporation (“DEMEC”).** Yes

**DEMEC
P.O. Box 310
Smyrna, DE 19977**