



# Be the Guide you seek

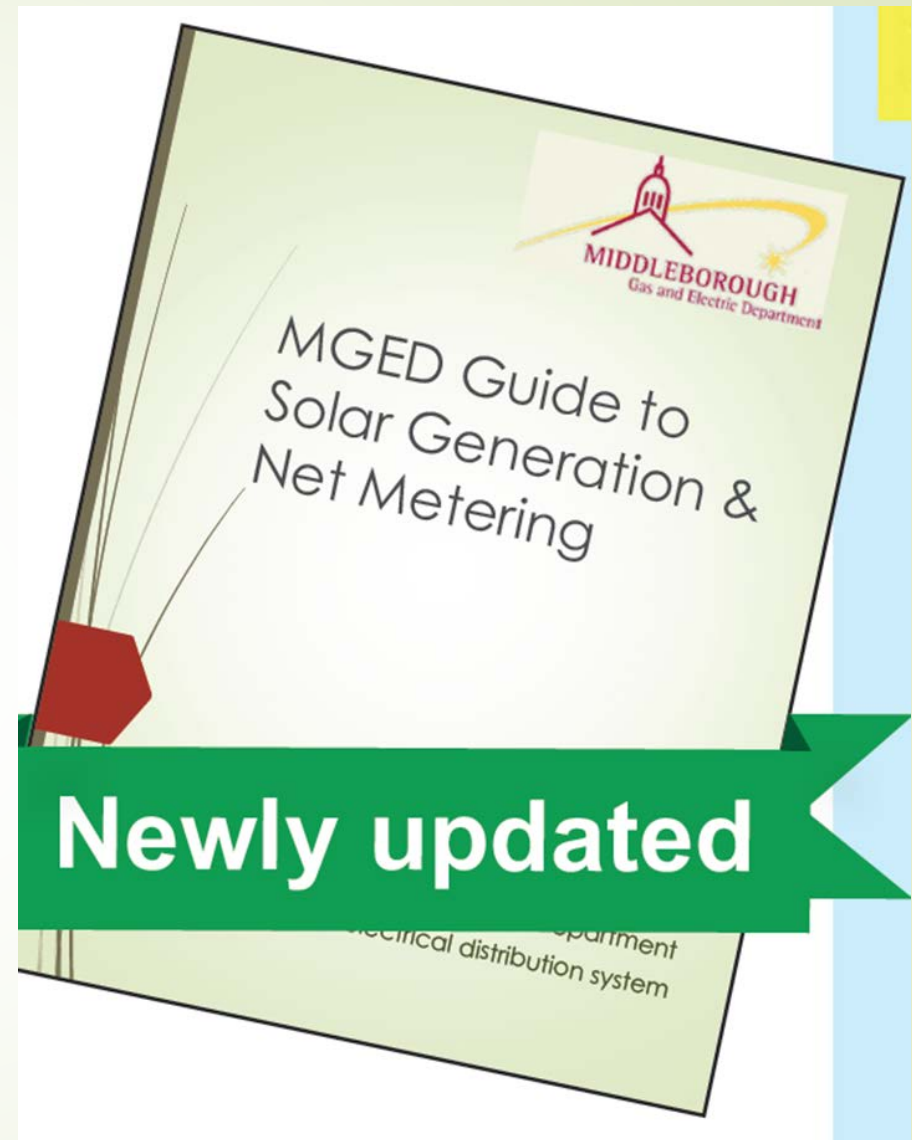
Walking your solar customers through the connection process

By Sandy Richter

Middleborough Gas & Electric Dept.

# Why a Guide?

- DIYers can find what they need on their own
- Hold-my-Hand-ers can read it as you walk them through it
- Vendor/Contractors can find the basics of your requirements
- Your CSR's will thank you



# Introduction

- Some basics:
  - What's in this guide
  - Definitions
  - Application
  - No PPAs allowed!

## What You Need to Know

Included in this guide are the documents that will help you understand the process of interconnecting your system to ours for net metering:

- Steps to take to interconnect your solar array
- Checklist to follow when applying to interconnect & net meter
- Customer Questions and MGED Answers about Net Metering
- MGED Net Metering Rate Tariff
- Critical Forms for net metering your system
  - Interconnection Application/Agreement with Terms & Conditions
  - Certificate of Completion
- For Your Information
  - About Finding a Solar Contractor
  - Local installation contractor information (MGED & Regional)

**Net Metering** is a simple way to connect renewable energy systems (solar arrays) up to 10 Kilowatts in size to the electric grid to offset part or all of your electricity use and charges from MGED. With net metering, excess energy produced by your solar system and not immediately used by your home is sent back out to our electric lines to be used by others while you receive a credit to your account. A net metered solar installation allows you to take electricity from our distribution lines at night or any time when your solar system is not meeting your needs. When you use electricity supplied by MGED, your solar credit will be applied toward eligible energy charges.

The Net Metering rate tariff enclosed in this guide became effective May 1, 2015 (replacing policy #18) to include systems which are hosted; either owned or leased by the customer. **Important: no customer can enter into a Purchase Power Agreement (PPA) with an agent or solar installer and purchase the power as it is produced.** Customers may lease-to-own or purchase the system outright to be eligible for net metering.

Whether you are ready to begin or simply have specific questions about your system, contact our Electric Division at **508-947-3023** and ask

# The Step-by-step Process

- The steps to follow in order
- Application & approvals
  - Ask first!!
  - Then install
- COC

## Steps to connect a Solar Array for Net Metering

When you have found a solar contractor and decided on the system to be installed, take these steps to confirm that your system can be connected to the MGED distribution system.

*If your contractor installs your system before our approval of the application, you run the risk of needing costly changes before we can allow your solar array to operate while connected to our lines.*

### 1. Submit the following by mail to:

Electric Division Manager, Solar Installation  
Middleborough Gas & Electric Department  
37 Wareham St.  
Middleborough, MA 02346

- Simplified [Application/Interconnection Agreement](#) for Net Metered Electrical Generation and filled-in [Certificate of Completion](#) form for later signatures
- A one-line drawing of your generation system ([sample included](#)) showing that it meets our system installation requirements
- Specifications showing the materials (panels & inverters) to be installed meeting all required codes as noted in the agreement

**2. Approval confirmation** – you will receive notice from MGED directly that your system has been approved for installation. You then share this notice with your contractor.

**3. Electrical Permit** - You (or your contractor/installer) must obtain an electrical permit from your town wiring inspector. Then installation can begin.

**4. Electrical Inspection/town wiring inspector** – After you complete the system installation, you should call the town wiring inspector for a final inspection. The inspector will visit our office and sign off on your Certificate of Completion here.

**5. System Inspection/MGED Engineer** - Call (508) 947-3023 to schedule our inspection prior to turn-on. Our Engineer will review the system and sign the Certificate of Completion.

**6. Your copy of the Certificate of Completion & Solar Renewable Energy Credits (SRECs) -**

# The Checklist

- Same as steps only with boxes
- Same critical messages
  - Apply first!!!
  - You are the responsible party
- Added info RE ongoing responsibilities

## MGED Checklist: Interconnection & Net Metering of your Solar Array

### First Apply:

- Prepare an Interconnection Application/Agreement for Net Metering to include:
  - ✓ System sizing and inverter specification information (spec sheets)
  - ✓ Contact information for the installing contractor
  - ✓ One-line electrical diagram of the installation as proposed (see sample provided with application)
  - ✓ Certificate of Completion pre-filled out in advance of inspection signatures
- Sign, date and mail the application, Certificate of Completion and information to:  
Electric Division Manager/Solar Installation, Middleborough Gas & Electric Department, 37 Wareham Street, Middleborough, MA 02346
- Confirm receipt of your application by calling 508-947-3023, asking for the Electrical Engineer.

### Then Wait For:

- Approval to proceed – a copy of your application/agreement will be returned with the approval signature and date noted. This approval is sent to you and NOT to the system provider or contractor/installer. It is your responsibility to confirm that the system as designed is approved for interconnection BEFORE you allow the installation to proceed.
- Local permits as required – your contractor/installer will likely apply for all required local permits including the wiring/electrical permit.

### Install:

- Construction completed and system is ready for operation.
- Local inspections completed and passed including wiring/electrical inspection.

### Activate:

- MGED has been called (508-947-3023) and the inspection scheduled.
- MGED has inspected the installation and installed a bidirectional meter (if not previously installed).
- MGED has signed the Certificate of Completion & returned a copy to you for your records. Again this will be sent to you and NOT to the system provider or agent.
- System activated and generating power.

### Ongoing Responsibilities:

- Any planned changes to your system require that you notify MGED at least 30 days prior to the work being performed. This

# Customer Questions

- These are the FAQs
- Repeat of terms/definitions
- In depth about billing credits and other benefits or issues of solar ownership – mainly for those still on the fence
- A brief encapsulated message saying what we allow

## Important Points: Customer Questions About Net Metering...

### • What is Net Metering?

- For customers who generate their own electricity using small-scale energy systems, net metering measures both the electricity you buy from MGED and the electricity you produce using your own generating equipment.
- The electric meter lets us track the “net” difference as you generate excess electricity and take electricity from the electric grid.

### • How exactly does net metering work?

- Basically, net metering is a special metering installation and billing arrangement between you and MGED.
- Normally, your electric meter only measures the amount of electricity that MGED sends into your home or business. A net-metering arrangement means the meter can also measure the excess electricity your generating system produces that comes back into the MGED system.
- If your generation system makes more electricity than you need at any given time, net metering allows this electricity to run “backward” through the metering installation and out into the MGED distribution system. We measure this and then credit you for the full value for the electricity you generate but don’t use.
- Net metering can usually be accomplished using a special bi-directional meter at your

### What MGED allows

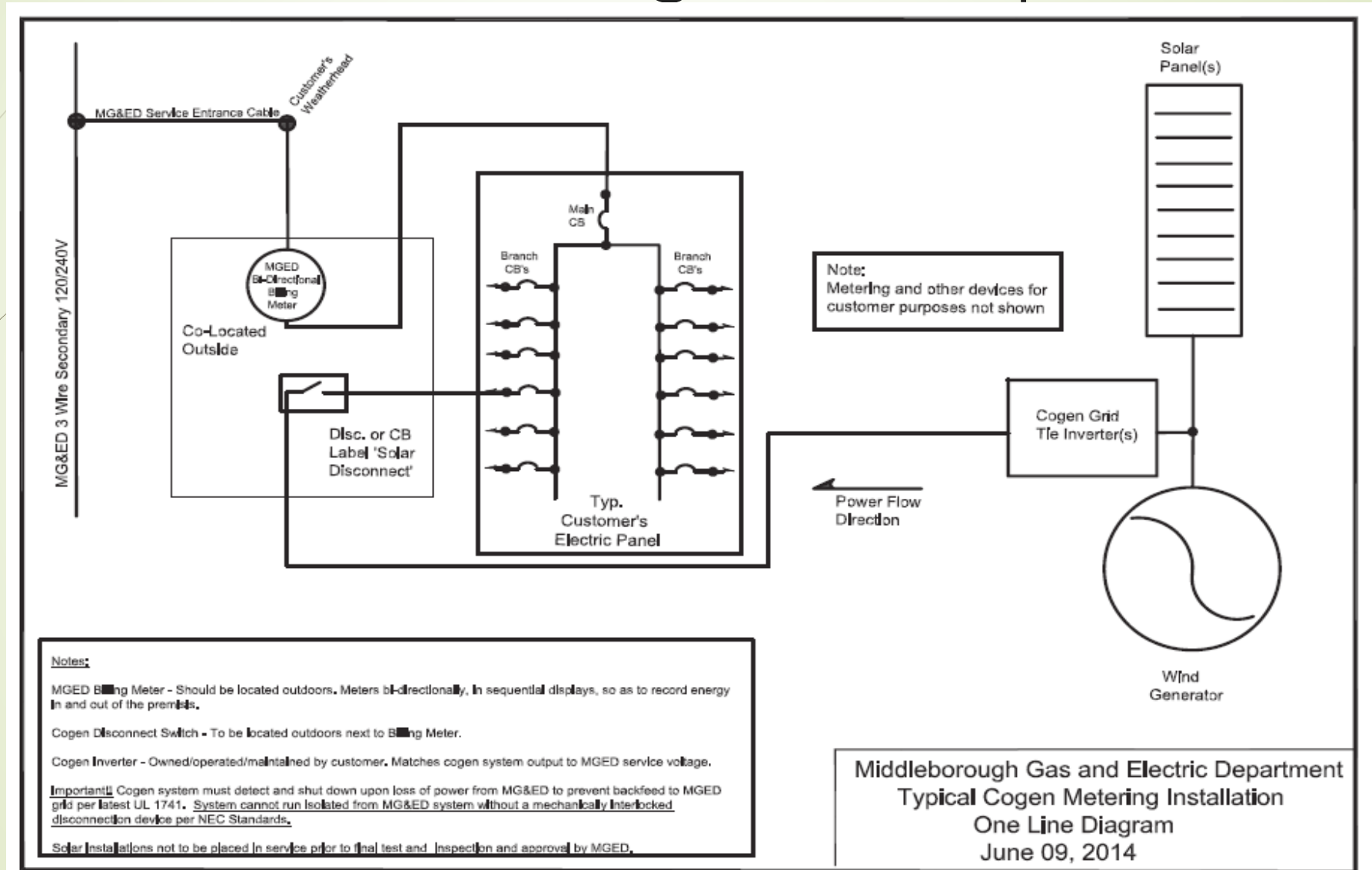
Middleborough Gas and Electric Department offers net metering to customers who wish to generate their own electricity with solar powered electric systems of 10 kilowatt DC or less in generating capacity. Once MGED reviews and approves a customer-owned electric generation system, net metering allows a customer to be connected to the utility’s distribution system. Any excess electricity generated by a customer can be credited to the customer’s account at the same rate they are charged for electricity.



# Important Documents to include

- ▶ The tariff or Policy that has been accepted by your board
  - ▶ Spells out the accepted process and limitations legally
- ▶ The application with Terms & Conditions
  - ▶ Primary record & reference – need original signature
  - ▶ Simpler the better but include enough tech info & contact info for reference
  - ▶ Important that they know they are responsible for this info

# The One-line Diagram Sample





# The Certificate of Completion

- One simple page
- Verifies system is interconnected
- Required for SREC sales
- Everybody wants one
- Hold on to this!

Middleborough Gas & Electric Department (MGED)  
32 South Main Street  
Middleborough, MA 02346

Tel: 508-947-1371  
Fax: 508-946-3706  
www.mged.com

## CERTIFICATE OF COMPLETION

### Installation Information

Interconnecting Customer (Print): \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
Location of Facility (if different from above): \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_  
Account # (required – on bill) \_\_\_\_\_ Meter # (required – on bill) \_\_\_\_\_

### Electrician or Electrical Installation Contractor:

Business Name: \_\_\_\_\_ Contact Name (Print) \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_  
Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_  
License number: \_\_\_\_\_  
MGED Date of Installation Approval: \_\_\_\_\_ Signature \_\_\_\_\_

### Inspection:

The system has been installed and inspected in compliance with the local Building/Electrical Code of

\_\_\_\_\_  
(City/County)

Signed (Local Electrical Wiring Inspector), \_\_\_\_\_

Name (printed): \_\_\_\_\_

Date: \_\_\_\_\_

As a condition of interconnection, MGED will retain this form on file and return a copy to you for your use. If needed in the future, you may obtain copies of this form which will be located at:

MGED  
32 South Main Street  
Middleborough, MA 02346

Final MGED inspection must be scheduled after the local wiring inspection and BEFORE system is turned on. Call (508) 947-3023 from 7:30AM until 3PM, Monday through Friday.

Date of Final MGED Inspection: \_\_\_\_\_ Confirmed for turn-on by: \_\_\_\_\_

# FYI: Solar Contractors

- First Question we get when they want to get started: Who do you recommend?
- We can only list who has done this work and guide them with the right questions.

## What we can do

Middleborough Gas & Electric Department does not recommend installers, nor is there an "approved" list of solar installers in Massachusetts. Instead we can share a listing of solar installation contractors that we have worked with on the next page. We can also provide a listing of contractors who have worked in surrounding towns, produced by the Massachusetts Clean Energy Center following our own list. We recommend that as a consumer you do your due diligence to screen potential installer/integrator companies to find a suitably experienced contractor.

## For Your Information: Solar Installation Contractors

To help you select the right contractor, consider asking them the following questions:

1. Can you provide references from previous customers with similar systems?
2. How many similar systems have you installed?
3. Have you worked with a municipal electric utility before?
4. When would you be able to perform the work?
5. How long will the project take?
6. Please describe the warranty that you provide on the system.
7. Have you worked with local building officials and utility representatives when installing similar systems in the past? Are there any unresolved issues with these representatives?
8. Do you have a MA licensed electrician as part of the project team?