

FAQ: Metering Requirements For The MTC Production Tracking System (PTS)

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Version 3
March 25, 2004

Work completed under contract with the MTC
for the Renewable Energy Trust.



Notice and Acknowledgments

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Abstract and Keywords

This guide provides answers to commonly asked questions regarding the metering requirements associated with reporting production to the Massachusetts Technology Collaborative's (MTC) renewable energy Production Tracking System (PTS). The primary objective of the Production Tracking System (PTS) is to provide MTC with the means to monitor and evaluate the performance of a wide range of renewable energy distributed generation systems installed in Massachusetts through assistance from the Renewable Energy Trust (RET). A secondary objective is to provide the Massachusetts Technology Collaborative (MTC) with the information necessary to monitor and evaluate the effectiveness of the various renewable energy installations programs. Finally, the PTS supports the production payment approach used within certain grants to partially fund the installation of photovoltaic (PV) systems in Massachusetts.

Keywords

Automated Reporting
Energy Production
Data Acquisition System (DAS)
Fuel Cell
Grantee
Meter
Photovoltaic
Production Payment Approach
Production Reporting
Production Tracking System (PTS)
System Owner
System Registration
System Representative

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Introduction

The primary objective of the Production Tracking System (PTS) is to provide MTC with the means to monitor and evaluate the performance of a wide range of renewable energy distributed generation systems installed in Massachusetts through assistance from the Renewable Energy Trust (RET). A secondary objective is to provide the Massachusetts Technology Collaborative (MTC) with the information necessary to monitor and evaluate the effectiveness of the various renewable energy installations programs. Finally, the PTS supports the production payment approach used within certain grants to partially fund the installation of photovoltaic (PV) systems in Massachusetts.

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FAQ: MTC Meter Requirements

Below are answers to frequently asked questions pertaining to requirements for meters employed to track energy production reported the PTS.

What are the MTC meter requirements?

MTC requires that revenue quality certified meters be used for purposes of reporting monthly energy production. The meters may be either electro-mechanical or solid state based. Previously used meters that have been reconditioned may be used, provided that they have been recertified for revenue quality.

Why does MTC require revenue quality meters on renewable energy systems?

“Revenue quality” is the standard for accuracy and reliability of meters used to track energy bought or sold. MTC wants accurate and timely reporting of energy production from systems it supports for several reasons. Accurate reporting is especially important for those MTC initiatives where portions of project grant money are distributed on a “payment for production” schedule. Further, MTC is interested in having production-related environmental attributes credited on the NEPOOL Generation Information System and certified to meet obligations under the Massachusetts Renewable Portfolio Standard (RPS). To be certified to meet RPS obligations, energy production must be tracked using revenue quality meters. Finally, compiled production reports will be used for continuing monitoring and evaluation of MTC’s efforts to spur development of

renewable energy in Massachusetts. Revenue quality meters, in combination with quality assurance efforts by MTC, will ensure that this data is accurate.

What makes a meter a revenue quality meter?

- (1) Registry: A key feature of a revenue quality meter is a registry that tracks historical energy flow through the meter. Similar to an odometer on a car, the registry should not be reset or tampered with in any way. A reading from the registry provides the official value at any point in time, and trumps any other recorded measurements.
- (2) Accuracy: Accuracy standards for revenue quality meters are provided by the American National Standards Institute (ANSI) for both mechanical and solid state meters. (See table below)
- (3) Reliability: Meter models are tested for performance during simulated adverse conditions. Individual meters must be tested before shipment to ensure that the meter has been calibrated correctly. Previously used meters that have been reconditioned must be recertified to revenue quality standards.

What are the key ANSI Standards for accuracy and reliability?

ANSI C-12.1-1995	Code for electricity metering
ANSI C-10-1997	Mechanical meters
ANSI C-20-1998	Solid-state meters

How can I find out if a meter from a supplier or manufacturer has been certified for revenue quality?

Ask the manufacturer whether the product is certified for revenue quality, or check the promotional literature for technical specifications. The product literature should note that the product has been certified or the product specifications will refer to one or more of the ANSI standards listed in the table above. As a general rule of thumb, manufacturers that make the effort to certify a product will note that the product is certified in the marketing literature.

Are revenue quality meters expensive?

No. Reconditioned mechanical meters can be found for less than \$50. Solid-state meters with integrated data-logging and automated reporting capabilities can be found for less than \$500.

What is Automated Reporting?

Automated Reporting offers an alternative to the process of manual meter reading and subsequent reporting to the MTC Production Tracking Systems (PTS). This option is only available for systems tracked by a Data Acquisition System (DAS). There are three options for establishing automated reporting to the PTS. Two require either third party DAS software or services that have PTS-incorporated Automated Reporting features. The third requires integrating a sample source code for PTS reporting with your DAS. DAS software and service providers should follow this third option to integrate PTS reporting features in their products.

Automated Reporting may make sense for you if:

You have, or will have, a DAS that collects and stores data locally, or you are subscribed to a service that monitors your system remotely and provides access to data via a web site. If a manual monthly meter reading will be inconvenient for you, then you should consider Automated Reporting. Because MTC requires a revenue quality meter, make sure the DAS uses a revenue quality meter.

Automated Reporting may not make sense for you if:

You have a smaller system and do not want to spend additional money on a DAS or pay a monthly fee for a remote monitoring service.

For more information on the Automated Reporting option see the *Automated Reporting Guide For The MTC Production Tracking System (PTS)*. (Available at <http://ar.masstech-pts.org/downloads/>)

Acronyms/Definitions

- **ANSI.** American National Standards Institute
- **AR.** PTS Automated Reporting
- **DG.** Distributed Generation.
- **DAS.** Data Acquisition System
- **MTC.** The Massachusetts Technology Collaborative
- **PTS.** The MTC Production Tracking System
- **PTS Administrator.** MTC contractor responsible for developing and administering the PTS
- **PV.** Photovoltaic
- **RET.** The Renewable Energy Trust of the Massachusetts Technology Collaborative.
- **SMI.** The Solar to Market Initiative of the Renewable Energy Trust.
- **SMI PV System.** A PV system installed through partial funding under the Renewable Energy Trust's SMI Installations Program.
- **System Meter:** This is the meter measuring system power production. Do not confuse this with other meters that might be at the site. MTC requires a meter that meets the "utility revenue quality" standard..
- **System Representative:** The System Representative account is for those responsible for entering monthly production data for a renewable energy system. The account allows access to the production reporting section of this site. No other user type has access to this section.