Responsibilities and Technical Requirements Guide for Customer Owned Meters

This guide shares BPA's expectations of utilities that are interested in installing customer owned meters to meter new loads. The process begins with the utility vetting new projects through the customer's assigned Customer Service Engineer (CSE) to come to a feasible solution regarding project and metering options, which is then reviewed for approval by the CSE Manager before moving through the remainder of the process.

The intent of this document is to improve clarity regarding the roles and responsibilities of the key parties involved in the customer owned meter process, in an effort to decrease the number of issues associated with: 1) the customer owned meter installation and coordination process, and 2) the lack of notification to BPA when there are changes to customer owned meter configurations, both of which have resulted in a number of BPA bill revisions for multiple customers. These issues are costly and administratively burdensome for all involved and to avoid these issues, early and ongoing communication between all parties is key once a customer owned meter project enters the vetting process with the CSE.

Utilities and Transmission Providers – Expectations and Commitments

A. BPA's Communication Expectations of Utility Customers
- Notify the BPA Customer Service Engineer (CSE) immediately to research options installing a customer owned meter. This will begin the scoping process which is spearheaded by the CSE, who will work with the Customer Service Engineering (TPC) Manager to obtain approval for the customer owned meter solution.
- Complete and implement the Metering Letter Agreement provided by CSE.
- Complete the Customer Meter Setup Form, except for the "Procedures" section, and provide to BPA Metering Services at MDM@bpa.gov at least 45 days prior to energization to allow BPA to calibration MV-90 communications to the new meter(s).
  - *This form is in the attachments section of this PDF.*
- Work with BPA Metering Services to test meter communication at the time of meter energization.
- Complete the "Procedures" section of the Customer Meter Setup Form as part of the installation procedures, and provide a copy to BPA's SPC District Engineer within 14 days after energization of the meter(s).
- Confirm meter energization and data validity using BPA's MDMR2 system once the meter is online.

B. BPA Utility Customer Technical Requirements
These are high level requirements. For more information please see the FAQ section on next page.
- Meter or recorder must be MV90 compatible.
- Meter or recorder must be able to store 5 minute interval data for 45 days or more in a system that will not lose data when power to the meter is lost.
- BPA must be provided remote access to the meter via modem-compatible telephone line, TCP/IP, access through firewall, cellular device, etc.
- BPA would prefer the ability to update the time in the meter or recorder.

C. Utilities with Transfer Service
- If the transmission provider is willing to share meter information with BPA, BPA requests that pulse outputs (KYZ) are provided and recorders installed compatible with the specifications in this document. BPA also requests transmission provider staff works with BPA Metering Services to assure proper data sharing.
- If the transmission provider is not willing to share meter information, the utility will need to secure another form of metering compatible with the specifications in this document.

BPA – Expectations and Commitments

A. Customer Service Engineers (CSEs) are responsible for:
- Beginning the customer owned meter scoping process.
- Coordinating installation of the non-BPA meter and notifying internal BPA parties of the project.
- Creating, or requesting of Metering Services, documentation of the new meter in BPA systems, and notifying Metering Services of the expected meter installation date.
- Drafting the metering letter agreement, coordinating review by the customer, and executing the agreement no later than two months prior to meter energization.
- Ensuring the customer has a copy of the BPA Metering Services Customer Meter Setup Form, provided by KSM, for the customer to use prior to BPA witnessing activities.

B. Meter Data Analysts (MDA) in Metering Services are responsible for:

- Documenting the new meter in BPA systems as requested by the CSE.
- Sending the Customer-Owned Meter Setup form to the utility metering contact no less than three months prior to the expected meter installation date.
- Starting internal BPA processes to correctly account for the new meter no less than three months prior to the expected meter installation date. Includes ensuring all related systems have been updated to ensure proper billing of the new meter.
- If the utility involved has transfer service, ensuring the correct PST (Transfer Services) representative is on all correspondence regarding this new meter.

Frequently Asked Questions (FAQ)

What type of meter projects does this document apply to?
This is for utilities that are interested in installing customer owned meters to meter new loads or new generation connecting to their distribution facilities. Generation subject to this guide must be less than 3 MW nameplate and must only serve the utility's native load.

What qualifies as an MV90 compatible meter or recorder?
The specifications for the meter should specifically say the meter is MV90 compatible. The utility can also ask the BPA Customer Service Engineer, Meter Data Analyst, or System Protection Control (SPC) District Engineer if the meter or recorder they are expecting BPA to read is MV90 compatible prior to purchasing.

What should I know about meter communication using a telephone line, TCP/IP, access through firewall, or cellular device?
- The telephone line could be an analog line or digital line as long as a modem will communicate over that phone system.
- Communication using TCP/IP (Transmissions Control Protocol/Internet Protocol) through a utility's firewall is also an acceptable option. BPA is well-versed in working through a utility's private networks and accessing information through the firewall.
- Cellular devices are also an acceptable communication option. BPA has subject matter experts on metering cellular applications as well as cell coverage areas and testing for signal strength. These individuals can help utilities configure a reliable cell device if needed. The assigned MDA can work with the SMEs as needed.

Why does BPA want the ability to update time in a utility's meter or recorder?
- Since BPA holds a very small time tolerance threshold (30 seconds), permission to update the time in the meter/recorder is needed to keep the time within system tolerance.
- If a utility also uses MV90 to read their meter, the same 30 second time tolerance policy should be programmed on meters shared with BPA.
- BPA only needs read/write abilities to the meter in order to write/update the time within tolerance in the meter/recorder and does not need the ability to write anything else.
- BPA requests written passwords to store in the metering system and have easy access to update the time within tolerance as needed.

Why does Metering Services need a Customer Owned Meter Setup form when the customer already fills out the Metering Letter Agreement from the CSEs?
- The Metering Letter Agreement from the CSEs is reviewed and executed early in the meter process and contains basic meter requirements. It does not go into explicit detail regarding the customer's actual meter setup since setup is still being scoped out at this point. The Customer Owned Meter Setup form provides additional information and encourages communication with BPA's Metering Services.
- The Customer Owned Meter Setup form is filled out near the end of the process, and requests meter information related to multipliers, phone numbers, passwords, interval lengths, meter energization, and other detailed configuration information that is not part of the Metering Letter Agreement.