

## BUSINESS PROCEDURE

<b>EVERSOURCE</b>	SUBJECT	NUMBER
	ELECTRIC METERING	NB-3
DATE REVISED	DATE EFFECTIVE	ISSUED BY
June 2017	May 1, 2018	Director-Distribution Engineering

### A) PURPOSE

To set forth the policy regarding new electric metering installations and the addition of capabilities to existing metering installations.

### B) SCOPE

This policy applies to customers in all classes of retail metered accounts in the EVERSOURCE service territory in CT.

### C) POLICY

#### A) General

The policy of the Company is to provide one electric service to a building and to measure all electric consumption at one location. Metering shall be accomplished at the utilization voltage. Rate structures are based on metering at the low voltage side of the delivery transformer(s). Where more than one customer occupies the same building, a separate meter shall be installed for each customer from the single service. Special arrangements may apply to large buildings where individual metering of each nonresidential customer may not be cost-effective or may not be physically practical. Each meter shall be billed as a separate customer. When the size of the building or different service voltages requires more than one service, and the local municipal authority approves, such services shall be physically segregated, metered separately and billed as separate customers.

1. All proposed metering locations must be approved by the Company prior to the start of the customer's construction. Metering for multiple occupancy buildings will be grouped in a location acceptable to the Company. When multiple locations are appropriate, the number of locations will be kept to a minimum.
2. The Company will own, install, control and maintain all revenue meters, and associated equipment such as the telephone line surge suppresser, the Load Pulse Output Protector (LPOP) and the meter interface enclosure if required for any extended metering service when requested by the customer/supplier.
3. When required, the Company will supply, own, and maintain instrument transformers and the wiring between the instrument transformers and the meter. It is the customer's responsibility to install instrument transformers and to supply and install all boxes, sockets, and conduit. Such items must meet Company specifications, where applicable. The customer will be required to pay the cost of any equipment and labor (and the associated CIAC tax liability) necessary for any metering installation other than the normal secondary metering.
4. The customer/supplier will pay the fee approved by the Authority for the provisions of any extended metering service.

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5. All Residential, Commercial, and Industrial meters shall be located outdoors. Any variance on this prerequisite requires pre-installation approval from the EVERSOURCE Meter Service Department.
6. Company-owned meters will be installed for the primary purpose of billing and for other Company/Customer/Supplier benefits.
7. Meter Sequence:
  - a. Self-contained meters will be located on the line side of the main disconnecting device, as defined in the EVERSOURCE "Information and Requirements for Electric Supply below 600 volts", with the following exceptions:
    - i. Self-contained three phase 277/480 volt services shall have the main disconnect device on the line side of the meter socket.
    - ii. Self-contained single phase 120/208 volt and three phase 120/208 volt and 277/480 volt services fed from a network distribution system shall have the main disconnect device on the line side of the meter socket.
  - b. Instrument transformers are normally located on the load side of the disconnecting device. They may be located on the line side of the disconnecting device when approved by the Company prior to construction as long as the following conditions are all met:
    - i. The customer must obtain Company approval before the proposed installation will qualify for this exception.
    - ii. The Company must determine that the power transformer(s) supplying the load will be used to supply only a single customer's load now and in the future.
    - iii. The Company will have available, or will be installing, a primary supply load break device ahead of the power transformer(s), which will allow interrupting the supply to the customer's load without affecting the supply to other customers' loads. In spot network installations, network protectors may be used for this purpose.
    - iv. The installation conforms to all Code requirements, including state approved National Electrical Code and/or local codes and ordinances.
    - v. The customer will be responsible for any additional expense incurred by the Company to repair/maintain the metering equipment where an outage is required.

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8. All self-contained metering installations require an approved socket with a manual lever operated bypass. Automatic, horn and slide bypasses will not be permitted.
9. In multiple meter installations, the main entrance door to each store, office, apartment or area serviced must be permanently identified on the applicable door with a unique identification. This unique identification must also be permanently marked on the associated exterior meter socket cover, inside the meter socket, and exterior of the load disconnect before the meter will be installed.
10. Some Time-of-Day rates require remote access metering communications. The customer agrees to supply and install communication equipment for the company to read the meter(s).

The type and location of such remote communication equipment shall be at the sole discretion of the Company. It is the sole responsibility of the customer to provide communication equipment in the proximity of the electric meter as determined by the Company's specifications. The customer shall be the owner of communication equipment and shall maintain it in operable condition at all times. The Company will be responsible for the installation and maintenance of the connection between the communication equipment and the Company meter.

Customer(s) with interval recording meter(s) may also qualify for Interval Data Services (Section C) and Extended Metering Options (Section D).

11. The customer/supplier will own and be responsible for all maintenance on all customer-provided communication infrastructure used for meter communications and customer/supplier-installed recorder(s) and equipment. The customer/supplier must make repairs should the communication infrastructure used by the Company become out of service. If repairs to the customer-owned communications infrastructure are not made within 20 working days of the initial notification of the issue, the Company may discontinue all extended metering services enabled by the installation of a remotely accessible meter. The customer/supplier will notify the Company within five working days of the termination of any remote communications. In addition, the customer will be responsible for any fees associated with reading the meter until such time the communications are re-established.

### B) Basic Metering

The Company meter installed at the customer's site will be used for the measurement of customer billing determinants. Billing determinants are defined as the energy/demand and Time of Day (TOD) quantities required for the customer under the appropriate rate schedule.

1. Any request for primary metering or totalizing will require the prior approval of the Meter Engineering staff.

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2. In cases where primary metering has been requested by the customer and has been approved by the Meter Engineering staff, the customer will be required to make a nonrefundable contribution equal to the difference in cost, if any, between primary and secondary metering. The customer will also be required to pay for any associated CIAC tax liability. The total payment must be received by EVERSOURCE prior to the start of construction.
3. In cases, approved by the Company, where the customer requests a metering option other than what would normally be used by the Company for the primary purpose of billing, the customer will be responsible for the difference in cost between the requested option and the Company's normal procedures.

### C) Interval Data Services

The Company meter may also be used to provide optional customer/supplier interval data services at an established or agreed upon fee.

1. The Company owned metering used for obtaining the customer's interval load data must be interval recording and have existing Company-approved remote access meter communications
2. If the existing Company-owned metering is not interval recording then, at the expense of the customer, the meter will need to be upgraded to an interval recording meter type with Company approved meter communications (refer to section D. Extended Metering, "Option #1").
3. When the Company has the ability to remotely read and collect monthly billing determinates and daily customer interval load data to each metering installation, the customer may qualify for the following services:
  - a. Customer/supplier may subscribe to the Company-offered Interval Data Services as described on EVERSOURCE's web site (<http://www.eversource.com>). Interval Data Services are available whenever interval recording meter is in place. Suppliers/Third Party(s) are required to obtain and forward to the Company the customer's written permission to access customer load data.
  - b. Customers/suppliers may also use their own software to access the meter data. The Company will provide all applicable information on where this software may be purchased and provide "read only" access to the meter.

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### D) Extended Metering Options

The Company meter may also be used to provide optional customer/supplier extended metering services at an established or agreed upon fee. The options are as follows:

1. Option #1 - Interval Recording "AMR" (Automatic Meter Reading) Meter  
Company owned metering for obtaining the customer's interval data via Company approved metering communications (refer to Section B.5. Metering.Communications).
2. Option #2 - "Load Pulse" Output  
The customer/supplier may use the real time energy output from the Load Pulse Output Protector (LPOP) for interfacing to their own Energy Monitoring/Management Systems or external customer owned metering recorders.

The Company will respond to customer inquiries relative to rate options and assist the customer in analyzing the possible effect of various methods of demand control and/or load management on monthly billing.

The Company load pulse meters provide dry-contact, Form A, 2-wire output circuit for load pulses. Load pulses are directly proportional to a kilowatt-hour value for that specific installation and the value of the pulse is in terms of energy (kilowatt-hours). The industry standard nomenclature for kWh per pulse is Ke. (i.e. Ke = kWh/pulse) The 2-wires do not provide voltage or current, but are only a make or break contact between two wires. Each make of contact represents one Ke.

Time signals will not be provided from Company metering equipment.

3. Option #3 - "Special Request" Metering  
The Company will work with customers/suppliers to integrate new metering products into their operation to support their needs. Customers/suppliers may request, and the Company will install, a particular type of meter or metering equipment as long as it meets all applicable standards and Company requirements; in the case of a device installed on a Company meter, it shall not interfere with the operation of that meter.

The customer/supplier shall bear all costs associated with the new metering product approval process as well as the incremental cost associated with the installation, ownership and ongoing maintenance of the meter and/or metering equipment.

Any communication device or approved meter shall be owned, installed, controlled and maintained by the Company.

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### D) PROCEDURE

#### A) Basic Metering

1. The request for electric service will begin the process for the installation of a standard meter.
2. Requests for primary metering, or any other proposed departures from the Company's standard service offering, will be made in writing to the Meter Engineering staff. The request will document the need and circumstances for the proposed metering.

Note: Primary metering, totalized metering or any departures from the standard requires prior approval by Meter Engineering staff. Totalized metering is typically utilized when the load is served at one point and could be primary metered but secondary metering at each transformer bank with totalization is less costly. Primary metering or totalized metering are not options for the customer. Rate structure allowances for primary metering do not provide any true economic benefit to customers. Primary metering allowances are distinctly separate from any allowances for customer ownership of facilities. Meter Engineering staff will, in all cases, make the final determination of the metering scheme (which may include customer supplied-remote access communication equipment and/or infrastructure for each meter) and will be based on cost to the Company to ensure that the overall metering installation is both reliable and accurate.

3. The additional costs of any metering other than the normal secondary metering, as well as any CIAC tax liability, will be paid for by the customer as a nonrefundable contribution. The contribution must be received prior to installation and charged to the same account distribution as the work order associated with the installation. The CIAC tax liability portion of the contribution should be charged to account 186 (e.g. deferred debit).

#### B) Interval Data Services

1. The Company's preferred method for receiving requests for interval data services is via the Internet on the EVERSOURCE Home Page:  
  
<http://www.eversource.com/Business/CustomerService/MeteringServicesBusiness.aspx>
2. This service will provide interval meter data via an access-protected web site. At least one interval-recording meter is required per account. An internet connection is required to access and view the meter data. This service is not intended for billing comparison purposes.
3. A service agreement form must be completed and submitted by the customer and received by the Company within three months of the date signed by the customer

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to be valid. Suppliers/Third Party(s) are required to obtain and forward to the Company, the customer's written permission to access customer load data.

4. Upon receipt of the completed service agreement, data will be provided within two business days. Additional time may be needed for complex requests.

### C) Extended Metering Options

1. The Company's preferred method for receiving requests for extended metering services is via the Internet on the EVERSOURCE Home Page:  
  
<http://www.cl-p.com/Business/CustomerService/MeteringServicesBusiness.aspx>  
An alternate manual transaction form is available upon request.
2. The Company shall answer customer requests concerning the effect of remote access metering and load management methods on monthly billing, including the possibility of using load data pulses from the revenue metering to assist in control or shifting of monthly peak demand.
3. The customer/supplier will submit a request for extended metering services indicating the option and the appropriate fee. Supplier requests require customer approval in writing for the Company to work with the supplier.
4. The Company will notify the customer/supplier of agreement with the request after investigating the customer's metering installation records and verifying that the meter to be installed will accommodate the request. The notification will include the Company contact person's name and for load pulse outputs, the Company's standard specification and the load pulse output energy value (Ke) for that installation.
5. Metering Communications:
  - a. Cellular:
    - i. This communication option will only be considered if the Company-provided cellular electric meter has available cell coverage. Otherwise the customer will be provided with an alternative electric meter and will be responsible for providing the necessary communication equipment and/or infrastructure for the Company to have the ability to read and collect monthly billing determinants and daily customer interval load data. Contact the Company for alternative electric meters or refer to Section 5.b. "Telemetry".
  - b. Telemetry:
    - i. The customer/supplier will install a dedicated, direct dial, analog, telephone line terminated with a RJ11 jack to within 3"

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of the meter and with a one (1) foot loop in the phone line cable after receiving the agreement. See I&R book reference for telephone line specifications.

- ii. The customer/supplier will notify the Company after the operable telephone line RJ11 jack is installed and will provide the Company with the area code and telephone number.

The Company will furnish and install the meter interface enclosure and the appropriate meter, relocate the operable telephone line RJ11 jack inside the enclosure and make all connections after receiving notification of the area code and telephone number and that the telephone line is operable.

- c. Other:
  - i. Other than options 5.a. and 5.b., the Company may consider other meter communication options, dependent on the meter and communication technologies available and supported by the Company. The customer must contact the Company for a current listing of available technologies (e.g., Ethernet).

6. For Load Pulse Outputs:
  - a. The Company will furnish and install the load pulse output meter, the meter interface enclosure and the LPOP.
  - b. The Company will notify the customer/supplier that the pulse output interface has been installed.
  - c. The customer/supplier is responsible for connecting their equipment/recorder to the Form A, 2-wire customer output of the LPOP.
7. The Company will invoice the customer/supplier for the services after the installation is complete.