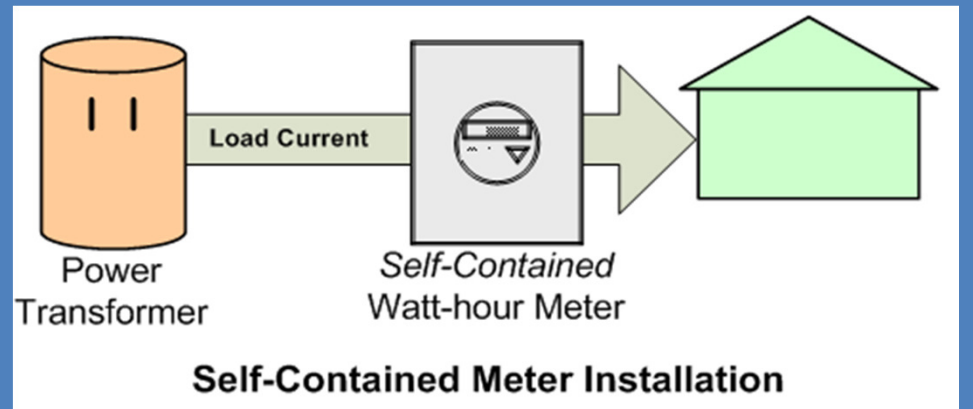


# Why Do Some Meters Have a Multiplier Greater than 1?



## Self-Contained Metering

The current and voltage ratings of Oncor watt-hour meters are limited to 320 amps and 240 volts, respectively. When customer load requirements are within these limits, the meter is connected directly to the customer's electrical service wires. This type of meter installation is referred to as a *self-contained* meter installation. Except for very rare instances, modern self-contained meters utilize a meter multiplier of "1".



## Instrument-Rated Metering

When customer load requirements exceed 320 amps and/or 240 volts, a more complex metering scheme is used, *instrument-rated* metering. Specialized devices called current transformers (CTs) and voltage transformers (VTs) are connected to the service wires. CTs and VTs "sense" the load current and service voltage and deliver an accurately-known *fraction* of the actual current and voltage values to the meter. Thus, the meter only registers a *fraction* of the actual usage. To compute the precise amount of energy consumption (kWh) and demand (kW), the meter reading must be multiplied by a factor based on the CT and VT ratios.

