

## FREQUENTLY ASKED QUESTIONS FOR INTERVAL METERING / PULSE SERVICE

**Q)** How can customers obtain interval metering or pulse service?

**A)** Work Orders are available electronically on FirstEnergy's web site at: <http://www.firstenergycorp.com/metering/>. Customers should complete the applicable work order and follow instructions provided to initiate the fulfillment process. An invoice will be sent to customers within 7 business days. Within 14 business days of payment being received, customers will be contacted by the Company to schedule a date and time to perform the interval meter or pulse service field work. All customer required field work must be completed prior to scheduling this appointment for the Company to perform the interval meter or pulse service work.

**Q)** Do I need to speak to my account representative to order interval metering or pulse service?

**A)** No. All inquiries should be processed in accordance with the steps outlined above. This will allow the Company to track the interval meter / pulse service workflow to ensure timely fulfillment.

**Q)** Is a phone connection or dedicated phone line required for pulse service?

**A)** No. Pulse service does not require any phone line connection.

**Q)** Is a phone connection or dedicated phone line needed for all Interval Metering?

**A)** Analog interval meters require the use of a phone line connection. This is the preferred and usually the least cost option of interval metering and communication method to obtain interval data. If a phone line is unavailable or cost prohibitive, an alternative to the analog interval metering may be the use of a 'digital' interval meter with remote/digital communication equipment.

**Q)** Can the interval meter be installed before the dedicated phone line is installed?

**A)** No. The meter can only be installed after the dedicated phone line is installed to ensure the meter and communication equipment is functioning properly. The customer will incur additional charges if Company personnel arrive on site to perform the meter field work and discover that the phone line is not available or operational at the time of their installation visit.

**Q)** How much are the additional charges?

**A)** These charges may vary by the work needed to be completed, operating company and the specific tariff metering requirements. \$50 is the minimum amount. In addition, it is the customer's responsibility to maintain the communication link to the interval meter. Additional 'recurring' charges may also apply if the local operating company has to send metering personnel to manually obtain monthly data from the meter. These charges would be placed on the customer's bill until the problem is resolved by the customer.

**Q)** Can my third party energy provider, consultant, or vendor initiate and coordinate the installation of my interval metering / pulse order?

**A)** Yes. However a letter of authorization and appropriate work order need to be completed and executed by the customer in order for a third party to initiate such a request. The contracts for interval metering and pulse service are binding between the customer and the Company.

**Q)** What is the cost for the interval meter / pulse service?

**A)** Please refer to the proper work order. Costs will vary by Company, type of work order that is being requested and equipment needed to fulfill the request.

**Q)** Will I be able to access the meter to obtain interval data?

**A)** No. Customers are not permitted to directly access revenue meters. However, customers can access interval data utilizing the Company's Meter Profile service. This subscription service can be established by going to the Meter Profile link and registering online at [www.meterprofile.com](http://www.meterprofile.com).

**Q)** When does the 4-8 week processing timeline begin?

**A)** The work order completion timeline begins when the payment is received by the Company.

## FREQUENTLY ASKED QUESTIONS FOR INTERVAL METERING / PULSE SERVICE

<p><b>Q)</b> Can the payment be included on my monthly electric bill for the work order to be processed? <b>A)</b> No. Customers will receive a separate invoice for the work order requested, however if the digital meter option is chosen, the recurring communication fee will be provided to customers on their monthly electric bill.</p>
<p><b>Q)</b> How are the costs for interval metering / pulse service determined? <b>A)</b> Costs vary and include: type of meter required, installation charges, applicable tariff charges, and applicable taxes.</p>
<p><b>Q)</b> What if customers cannot provide a dedicated analog phone line to the existing meter location? <b>A)</b> There may be a second option for customers with remote meter locations. This option requires the use of a digital cell phone meter and related equipment. Please refer to the Digital Interval meter work order for additional information regarding this requirements and costs for this option.</p>
<p><b>Q)</b> Are there any other equipment requirements that are the responsibility of the customer in addition to the costs by the Company to complete the work order? <b>A)</b> Yes. It is the responsibility of the customer to provide isolation protection and surge protection to the metering location within the weatherproof demarcation box. This equipment must conform to accepted industry standards, and must be installed PRIOR to the installation of the interval meter. Please see the diagram provided on the web site.</p>
<p><b>Q)</b> Who determines the customer's meter read schedule for interval metered customers? <b>A)</b> The Company determines meter read schedules based on meter reading system availability.</p>
<p><b>Q)</b> When is interval metering required? <b>A)</b> Interval metering is required pursuant to the retail tariffs of the Companies. Please consult the applicable tariffs for further information.</p>
<p><b>Q)</b> Can you elaborate on the analog telephone specifications required by the customer? <b>A)</b> Specifications include: Standard voice grade (analog) with dial tone, two pair or 4 conductor with RJ11 / male termination (the Company will make final connection to the meter), must be able to receive incoming calls, must be direct line to meter – no operator interception – no PBX system. Install the telephone line between telephone company source and telephone interface enclosure located at the meter socket (the Company will supply and install the enclosure at the meter socket). Telephone line must be 'tagged' with the phone number – including area code.</p>
<p><b>Q)</b> Can you describe a form "A" circuit in more detail? <b>A)</b> A form "A" circuit is a 2 wire circuit used for counting pulses. In a form "A" circuit there are 2 wires, a common wire called "K" and one sensing wire called "Y". In this type of circuit, counting occurs by sensing a change of state, generally from low to high, on the "Y" sensing wire. This change of state causes the end device, generally a demand controller or recording device, to increment its counter by one. Typically this is the type of circuit used by the customers end device.</p>
<p><b>Q)</b> Can you describe a form "C" circuit in more detail? <b>A)</b> A form "C" circuit is a 3 wire circuit used for counting pulses. In a form "C" circuit there are 3 wires, a common wire called "K" and 2 sensing wires called "Y" and "Z". In this type of circuit, counting occurs by sensing a change of state, generally from low to high, on either the "Y" or "Z" sensing wires. Each one of these changes of states causes the end device, generally a demand controller or recording device, to increment its counter by one. This is the type of circuit connected between the utilities meter and the pulse interface box.</p>
<p><b>Q)</b> Are there voltage and current limits for the pulse circuit? <b>A)</b> Yes, there are limits on the maximum wetting voltage and maximum current draw for pulse circuits. The wetting voltage is that voltage applied by the customers end device used for sensing a change of state. The maximum wetting voltage that can be applied for</p>

## FREQUENTLY ASKED QUESTIONS FOR INTERVAL METERING / PULSE SERVICE

this purpose is 240V AC or 120 V DC. The maximum current draw on pulse circuit is 60mA AC or DC. The customer is responsible for ensuring these limits are not exceeded.

**Q)** I want to connect my demand controller or recorder in close proximity to the revenue meter. How do I mount my equipment and how do I power up my equipment.

**A).** Customer owned equipment of this type cannot be mounted on Company owned equipment. Also, the customer is responsible for powering his customer owned equipment, as there are no voltage connections available at the existing meter base. The customer is responsible for providing isolation protection between the customer's equipment and the Company's meter. The Company reserves the right to refuse to connect or reconnect pulses should an isolation problem exist or cause a failure of pulse circuitry in the meter. The customer may be charged a \$50 investigation fee to troubleshoot pulse service problems, including pulse value calculations after the installation, up to the Pulse Service Interface Box. Maximum wetting voltage is 240V AC or 120V DC with a maximum current draw of 60mA AC or DC.