

Deshler Municipal Utilities

ELECTRIC METER CHANGE-OUT OVERVIEW

Advanced Metering Infrastructure (AMI) – Electric Meter Change-Outs

- ❖ Currently, Deshler Municipal Utilities read utility meters remotely with a drive-by system using one-way metering communications called *Automatic Meter Reading (AMR)*. This requires village employees to load a radio and then dock the radio in a truck and drive around to pick up all of the electric, water and gas meter readings. This meter reading technology was a big improvement from reading the meters manually, however; this current reading system will no longer be supported in the very near future and cannot support, Peak Demand Response, Behind-The-Meter (BTM) generation installations (solar & wind).
- ❖ The new system will be an *Advanced Metering Infrastructure (AMI)* which is a two-way meter communication system. This upgrade will require the village to replace all of electric meters with new Tantalus electric meters. The AMI meters will read electric meters every 15 minutes and water & gas meters every hour, and securely transmit this information to the Utility Offices several times per day. The water & gas meters will NOT need to be replaced.
- ❖ Customers moving in or out of a premise must currently wait for a utility worker to arrive and readout, connect or disconnect the electric service. The new AMI electric meters will allow the Utility Office to read these meters in house and enable remote connection and disconnection of electric service without rolling a truck.
- ❖ The new AMI electric meters will allow the electric department to monitor the power quality at each meter and records any blinks, outages, sags or swells in the electric service. The new meters will also allow for monitoring of the distribution system health by checking the loads on transformers and secondary wires to see if they are overloaded.
- ❖ When storms move through the area and knock out electric service, the Village's electric utility workers currently must rely on customer calls to determine locations where electric facilities may have been damaged. The AMI electric meters will produce a power outage alarm, enabling faster identification of these affected areas.
- ❖ The new AMI system will allow us to monitor the water and gas much closer with hourly readings. It will alert us of any high usages or no consumptions (dead meters) as they happen vs. finding these issues only after a single monthly read.

Additional Benefits

- ❖ Cost reductions will be enabled by less labor-intensive meter reading processes and eliminating truck rolls to get readings for move-in & move-outs and for connecting & disconnecting electric services.
- ❖ Customers with high bill complaints usually require a utility worker to perform an on-site meter read check. With advanced metering, customer service personnel within the Village Utility Office will have access to electric and water meter readings, reducing the need for on-site reading checks.
- ❖ The reduction in truck rolls will reduce fuel consumptions and wages for utility personnel.
- ❖ Ability to notify customers of leaks as soon as they appear vs. discovering them after we have collected the monthly meter readings.