## **GAS METER FARMS**

## Diagnose issues, test software, perform tests, and more with a controlled group of installed meters.

Gas Meter Farms are population management tools in a post-deployment AMI world and a certification tool before, during and even after an AMI deployment. Gas meter farms will allow the Meter Service department to track long-term performance of installed meters, assist in diagnosing issues found in the field population, and certify initial meters prior to deployment as well as future generations of meters after deployment. A properly set-up gas meter farm will have test collectors and head end systems which allow testing of new firmware and hardware for this portion of an AMI system as well.









## **TESTS & USES**

- Long term meter performance
- Testing of all firmware and software upgrades before downloading them to meters, collectors, or even the head end
- Diagnose field issues against a control group of meters
- Test future generations of meters against a control group of initially installed meters

- Perform certification tests for new types of meters, modules and communication systems
- Perform accelerated life tests
- Track and assess any potential component failures
- Test battery recovery performance for existing and future meter generations
- Perform communication tests
- Perform download testing

## **GAS METER FARMS—continued**





The gas meter farm is designed with safety in mind to be a tool to measure baseline performance of your meters. Meter farms should include a simulation of the entire communication network back to the head end.

The breakdown of meter types should be representative of the meters within your population. On average, residential meters take up to 85-90% of the spots in the meter farm. Larger diaphragm and rotary meters should have a space to load a minimum of two or three meters if possible.

**USING A METER FARM PRIOR TO DEPLOYMENT.** Modules, firmware, and even meters change. Communication protocols and information passed change. A meter farm allows you to perform an mini-pilot and control and modify this pilot multiple times during meter certification. The meters in this meter farm also allow for longer term observation of the new meters/modules performance in the field. Any anomalies reported from the field during your pilot can be more readily identified and diagnosed.

**METER FARMS DURING DEPLOYMENT.** The meter farm gives you a microcosm of your population and as a result can be used as a baseline to ensure the longer term stability of the meters being delivered and to ensure they are not changing over the course of the deployment. Functional testing allows you to do this as well. The meter farm allows longer term performance comparison between delivered meters over the course of deployment.

**METER FARMS AFTER DEPLOYMENT.** The meter farm becomes your most valuable tool in managing your AMI population now. Meter farms can assess the performance of meters and look for potential systemic issues after AMI deployment.

METER FARMS AS DIAGNOSTIC TOOLS. When a meter or a module is brought back to the shop, as series of diagnostics can and are run in the meter lab. Testing and evaluation of the module (or meter) is also performed. Now this meter/module can be placed in the meter farm and run against other meters of a similar age and checked for any anomaly over time. Acceptance protocols can be run and performance checked one meter/module against the others.















