

Number	Issue	Operational Tracking Measure
1	<p>Customers enrolled in Peak Time Rebate, Real Time Pricing, and other dynamic/time variant prices</p> <p>NOTE: Ameren has committed to measuring the number of customers eligible for the peak time rebate tariff, signed up for a peak time rebate tariff, and participating in Power Smart Pricing, Real-Time Pricing, or other real-time rates. Ameren Ex. 2.2RH at 23.</p>	<p><u>Residential Customers</u></p> <p>1. Number of customers on a time-variant or dynamic pricing tariff offered by Ameren. Expressed also as a percentage of customers in each delivery class.</p> <p>2. Number of customers served by retail electric suppliers for which the supplier has requested monthly Electronic Data Interchange delivery of interval data. Expressed also as a percentage of customers taking supply from a retail electric supplier in each delivery class.</p> <p><u>Small Commercial Customers</u></p> <p>1. Number of customers on a time-variant or dynamic pricing tariff offered by Ameren. Expressed also as a percentage of customers in the delivery class.</p> <p>2. Number of customers served by retail electric suppliers for which the supplier has requested monthly Electronic Data Interchange delivery of interval data. Expressed also as a percentage of customers taking supply from a retail electric supplier in the delivery class.</p>
2	Customer-side-of-the-meter devices sending or receiving grid related signals	Number of Ameren AMI meters with consumer devices registered to operate with the Home Area Network (HAN) chip by tariffs under which customer receives delivery.
3	AMI Meter failures	<p>Number of advanced meter malfunctions where customer electric service is disrupted.</p> <p>A “malfunction” is a malfunction that causes the meter to become inoperable but does not include cases of tampering, service panel and service entry equipment, house fires, etc.</p>
4	AMI Meters replaced before the end of their expected useful life	<p>Number of Ameren advanced meters replaced annually before the end of their expected useful life, including reasons for replacement that include Ameren errors.</p> <p>“Replaced” means a replacement due to a malfunction that causes the meter to become inoperable, including tampering.</p>

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5	Customers with net metering	Number of customers enrolled on Net Metering tariff and net load of each customer.
6	<p>Customer premises capable of receiving information from the grid</p> <p>Note: Ameren has committed to measuring the number of customers able to access the web Portal and providing Web Portal statistics.</p> <p>Ameren Ex. 2.2RH at 23.</p>	<p>Number of installed AMI Meters as of the last day of the calendar year that communicate back to the head end system.</p> <p>Number of installed AMI Meters as of the last day of the calendar year that communicate back to the head end system, divided by the total number of AMI meters installed.</p> <p>Number of customers who have accessed the web-based portal as of the last day of the calendar year as a percentage of customers with AMI Meters and as a percentage of Ameren customers in that delivery class.</p> <p>Number of customers who can directly access their usage data as of the last of the calendar year as a percentage of customers with AMI Meters and as a percentage of Ameren customers in that delivery class</p>
7	Peak load reductions enabled by demand response programs	Load impact in MW of peak load reduction from the summer peak due to AMI enabled, Ameren administered demand response programs such as the Peak Time Rebate program as a percentage of all demand response in Ameren’s portfolio.
8	Customer Complaints	Number of formal ICC complaints, informal ICC complaints, and complaints escalated to Ameren’s customer relations department related to AMI Meter deployment, broken down by type of complaint and resolution. AMI Meter deployment includes AMI Meter installation, functioning or accuracy of the AMI meter, and HAN device registration.
9	Reduction in Greenhouse Gas Emissions enabled by smart grid	Ameren will work collaboratively with CUB and EDF to operationalize this measure.

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10	Distributed generation projects	<p>Number of locations and total MWs of customer owned distributed generation connected to the transmission or distribution system, broken down by connection to transmission and distribution system.</p> <p>“Distributed generation” locations are those where customers take service under net metering or successor tariffs.</p>
11	Load served by distributed resources	<p>Total sales of electricity to the grid from distributed generation divided by zone energy plus distributed generation sales, with all data provided in sortable format.</p>
12	System load factor and load factor by customer class	<p>Total annual consumption for AMI meters (including, separately, small commercial customers) divided by the average demand across all AMI meters over the 4 peak hours multiplied by 8760 hours by customer class.</p> <p>Ameren will work collaboratively with CUB and EDF to establish a similar measure for all system load.</p>
13	Products with end-to-end interoperability certification	<p>Ameren will conduct an annual survey through a third-party provider to evaluate how products are being introduced in the smart grid enabled marketplace.</p>
14	Network nodes and customer interfaces monitored in “real time”	<p>Ameren will work collaboratively with CUB and EDF to operationalize this measure.</p>
15	Grid connected energy storage interconnected to utility facilities at the transmission or distribution system level	<p>Number of locations and total MWs of utility-owned or operated energy storage interconnected to the transmission or distribution system as measured at storage device electricity output terminals.</p> <p>Ameren will conduct an annual survey through a third-party provider to estimate similar measures of non-utility storage units.</p>
16	Time required to connect distributed resources to grid	<p>Ameren’s response time to a distributed resource project application, and time from receipt of application until energy flows from project to grid.</p>

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17	Voltage and VAR controls	Number and percentage of distribution lines using sensing from an AMI meter as part of Ameren’s voltage regulation scheme.
18	Grid assets that are monitored, controlled, or automated	<p>Number and percentage of Ameren substations (Distribution Center Substations (DCs), Substations (SSs) Transmission Substations (TSSs) and Transmission Distribution Centers (TDCs)) monitored or controlled via Supervisory Control and Data Acquisition (SCADA) systems.</p> <p>Number and percentage of Ameren distribution circuits (4kV, 12kV and 34kV) equipped with automation or remote control equipment including monitor or control via Supervisory Control and Data Acquisition (SCADA) systems.</p>
19	Customers connected per automated circuit segment	<p>Average number of customers per automated three phase 12kV line segment.</p> <p>An “automated line segment” is a segment of 12 kV three phase mainline circuit between automated devices which include circuit breakers, reclosers, automated switches, etc.</p> <p>A “customer” is a Ameren account connected on the automated 12kV three phase line segment.</p>
20	Improvement in line loss reductions enabled by smart grid technology	Ameren will research the uncertainty in line loss measurement collaboratively with CUB and EDF.