Grid Modernization Update

Oklahoma Corporation Commission
November 14, 2019
Modernization Acronyms

- **AMI** – Automated Metering Infrastructure
- **CVR** – Conservation Voltage Reduction
- **DA/CR** – Distribution Automation/Circuit Reconfiguration
- **DER** – Distributed Energy Resources
Smart Grid Pilot (2010)
AMI Completed (2016)
CVR Program Implementation (2017 – Ongoing)
Filing of Grid Modernization Plan (2018) Not Implemented
Progress and Future Technology Deployments

Summary of Current Progress

- AMI Deployment (100%)
- DA/CR (12% - YE 2019)
- CVR (10% - YE 2019)

Future Deployments

- DA/CR: 45 – 50 Circuits Per Year (DRS Rider – 2020 & 2021)
- CVR: 15-25 Circuits Per Year (EE/DR Rider - 2021)
- Smart Street Lighting and Non-Wires Alternatives pilot programs
Benefits Realized by Modernization Investments

Automated Metering Infrastructure

- Enabler for Customer Programs (TOU, Pre-Pay, etc.)
- Customer education on energy usage (Web Portal)
- Mobile alerts and outage communications
- Outage Restoration (major events and blue sky days)
- Equipment failure and power quality predictor
- Reduced operating expenses
- System operations and planning
- Reduces/delays capacity increases
- Public and employee safety
Benefits Realized by Modernization Investments

Distribution Automation

- Automatic isolation of electrical faults and restoration of undamaged sections of grid (resiliency)
- Limits customers impacted by sustained outages
- Reduced trouble shooting and restoration time
- Improved public safety
- Facilitates DER integration
- Overall reduction of outage duration and scope lowers economic impacts on commerce
Plan Components (proposed pending stakeholder review):

Total 2020 investment = $40M
Note: Does not address accelerated replacement of aging infrastructure with modern equipment.
Modernization Drivers

- OCC and stakeholder support for NARUC CI-1/EL-2 Resolution Regarding Infrastructure Modernization Programs
- Expansion and continuation of PSO’s DRS Rider beyond next rate filing
- Accelerated replacement of aging grid infrastructure with modern equipment
- Added focus on ability to accommodate customer DER installations
- Continued discussions regarding alternative cost recovery mechanisms that support grid modernization activities