



Colorado & Distribution System Planning

Colorado Energy Office
NASEO Electricity Committee

New Frontiers in Distribution System Planning February 4, 2020



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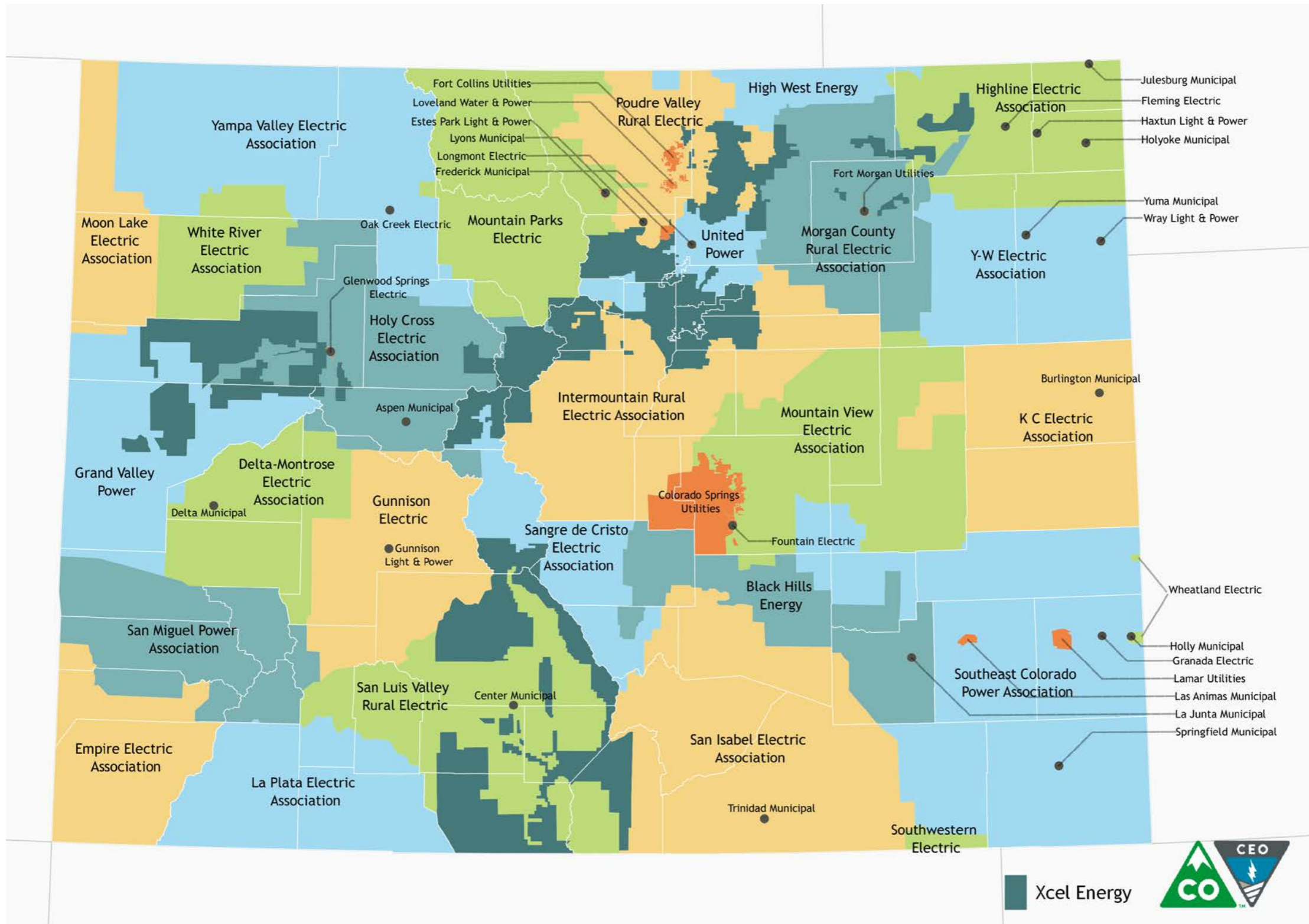
Overview

- Colorado's current environment
 - Utility planning
 - Legislation
 - Regulation
- Processes underway
 - Distribution system planning
 - Regulatory implementation of legislation



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Utility Planning and Environment

Multi-year plans for:

- Utility-scale generation resources, including energy storage
- Transmission
- Wholesale and retail distributed generation
- Energy efficiency and demand response

In addition:

- Customer-sited storage through individual interconnection applications
- 2020 will begin utility Transportation Electrification Plans
- Grid modernization underway for state's largest utility
- Colorado is experiencing significant population growth and new construction



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Recent Legislation

- Senate Bill 19-236 - Sunset Public Utilities Commission
 - **PUC to adopt distribution system planning rules; utilities to file distribution system plans for approval**
 - PUC to evaluate the social cost of carbon in utility plans
 - PUC to adopt Electric Resource Planning rules for wholesale generation and transmission cooperatives
 - PUC to investigate regional markets
 - PUC to conduct performance based rates and incentives investigation
- Senate Bill 19-096 - Collect Long-term Climate Change Data
- House Bill 19-1261 - Climate Action Plan To Reduce Pollution
 - Statewide goals to reduce 2025 GHG emissions by at least 26%, 2030 GHG emissions by at least 50%, and 2050 GHG emissions by at least 90% from a 2005 baseline.
- House Bill 19-1003 - Community Solar Gardens Modernization Act
- Senate Bill 19-077 - Public Utility Implementation of an EV Infrastructure Program
- Senate Bill 18-009 – Customer-Sited Energy Storage Systems



Rulemaking and Regulatory Action

- **Distribution System Planning (19M-0670E)**
- Electric Rule Modernization (Electric Resource Planning, Renewable Energy Standard Compliance Planning, Net Metering, Qualifying Facilities, Electric Resource Plans for Wholesale G&Ts, social cost of carbon, utility workforce transition plans)
- Zero Emission Vehicle Mandate
- Utility pilots (microgrids, geotargeting)
- Community solar garden rulemaking
- Interconnection rulemaking
- Requirements for utility Transportation Electrification Plans
- Investigation on performance based regulation
- Investigation on electricity markets
- Utility filings for residential time-of-use rates, EV Make Ready filing, renewable energy acquisitions



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Takeaways

- Colorado has multiple planning processes underway that impact the distribution grid
- Colorado has limited involvement in distribution planning previously
 - Standards have been safety and reliability
- Recent policy goals have introduced new planning considerations for the distribution grid in addition to previous focus



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