

Investing in the connected future

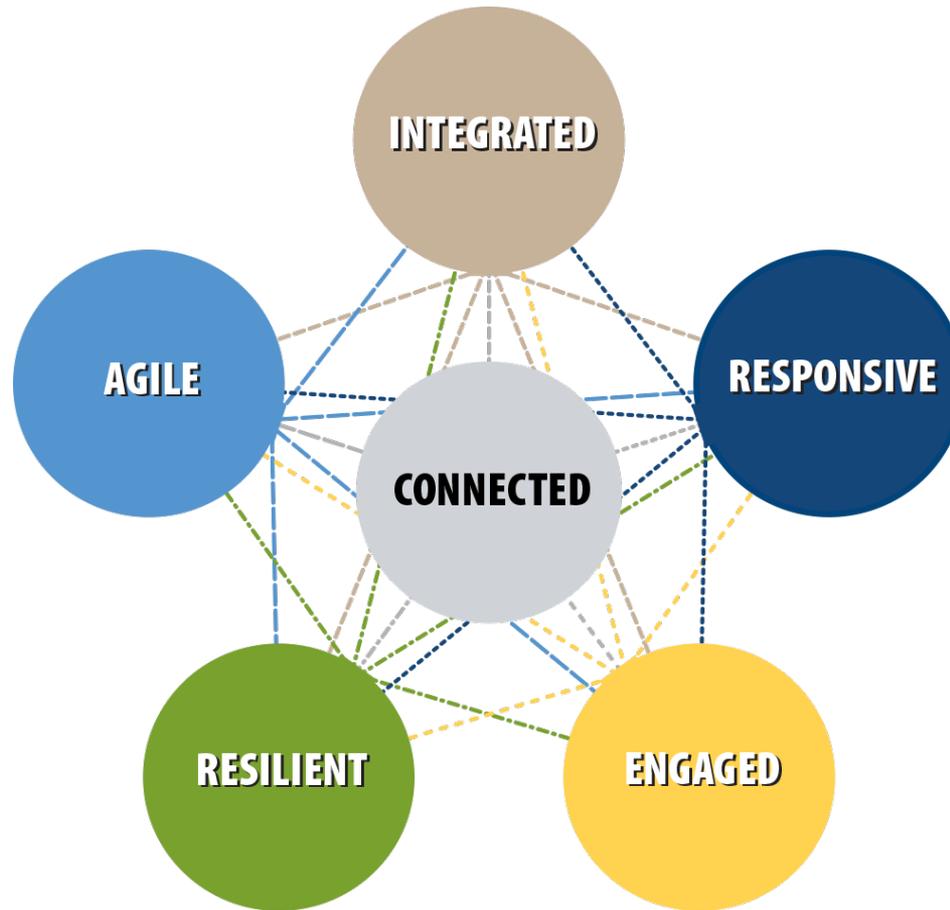
East River Electric Power Cooperative Annual Meeting
Sept. 4, 2019 | Sioux Falls, SD

Mark A. Gabriel
Administrator and CEO

Shared Integrated Grid

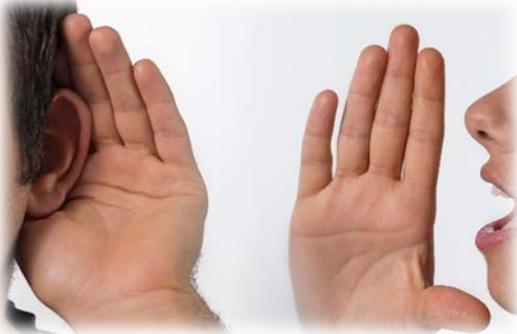


Connected energy future



Core Values

**Listen to understand,
speak with purpose**



Seek. Share. Partner.



**Be curious, learn more,
do better. Repeat.**



**Respect self, others
and environment.**



**Do what is right.
Do what is safe.**



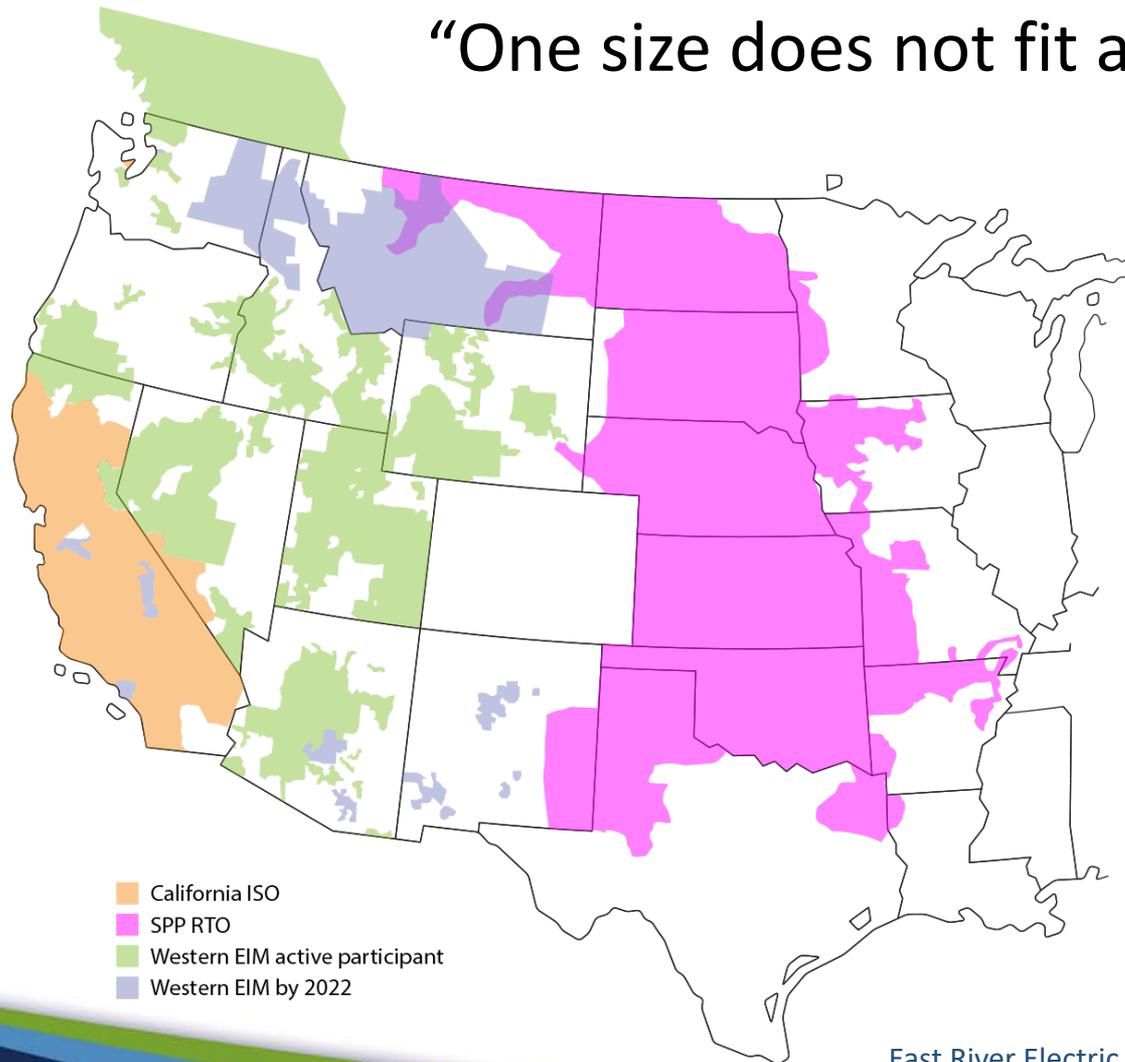
**Serve like your lights
depend on it.**

Pick-Sloan composite rate projection

WAPA project	Long-term composite rate (weighted average) \$/MWh	Average long-term market- based electricity prices \$/MWh
Loveland Area	31.44	63.72-76.30
Pick-Sloan	24.00	35.26-66.60

Energy imbalance market decisions

“One size does not fit all”



- California ISO
- SPP RTO
- Western EIM active participant
- Western EIM by 2022

RC transition

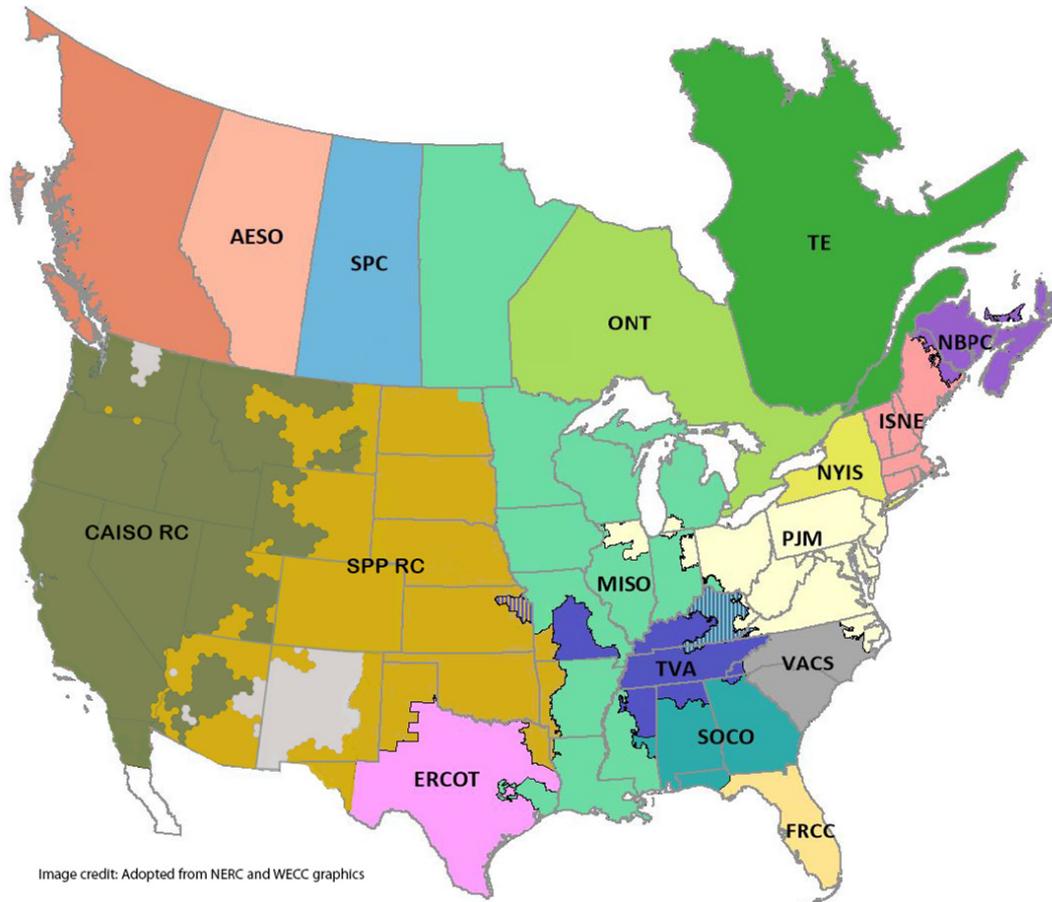


Image credit: Adopted from NERC and WECC graphics

Common SCADA vendor

- Does not equal one SCADA across WAPA
- Equals one SCADA vendor
- Expected benefits
 - Improve operational flexibility
 - Increase reliability
 - Avoid future support and administrative costs due to cross training and supporting multiple contracts

Physical Security update

- Implementing new remediation validation process
- Tiered security protection levels focus resources on more critical sites
 - 1,000+ tasks reduced to ~450
- ~94 site assessments done in FY 2019
- 84%+ of planned security remediations done in FY 2019
- Conducting assessments in house in FY 2020 will save over \$378,000



Cyber threat environment

- Increasing regulations
- Internet of Things
- Scope and breadth of organization
- Asset management nexus
- Continuous communications



OT/IT convergence

- Lifecycle discrepancy
- “Smart” technology
- Situational awareness
- Data management



DC update

- Fiber discussions
 - Improved capabilities for utility operations
 - Protect customers' investments
 - Support customer needs for expanded services
- Integrated Resource Plans
- Non-reimbursable funding from DOE

Work with DOE

Initiative	DOE-provided non-reimbursable funding
Geomagnetic disturbance study	\$1.2 million
Electro-magnetic pulse study	\$88,787
Fiber pilot project	\$750,000
Cybersecurity for Protective Relays	\$200,000
IT equipment and licenses	~1.25 million
TOTAL	~\$3.48 million

Key takeaways

- Make the best decisions based on regional needs.
- Prepare for and adapt to industry change.
- Leverage partnerships to achieve mission.



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Gavins Point