Connected energy future

INTEGRATED

AGILE

RESPONSIVE

CONNECTED

RESILIENT

ENGAGED
Mission breakout

**RELIABILITY**

651 people and 28 percent of dollars invested in maintenance and related areas.

**DELIVERY**

334 people and 22 percent of dollars dedicated to power operations and engineering areas.

**MARKETING**

including purchase power and wheeling. 158 people and 42 percent of dollars committed to power marketing areas.

**COST-BASED**

and related services. 298 people and 8 percent of dollars applied to support the mission.
KEPCo members

Ark Valley
Bluestem
Brown-Atchison
Butler
Caney Valley
CMS
DS&O
Flint Hills
Freestate
Heartland
Lyon-Coffey
Ninnescah
Prairie Land
Radiant
Rolling Hills
Sedgwick County
Sumner-Cowley
Twin Valley
Victory
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.
Continuous Process Improvement

CPI projects: $3,371,040
   ex: HQ Purchase Card Invoice Payments

WAPA Strategic Initiatives: $46,564,812
   ex: OCF0 Automated Self-Service Invoicing Tool

Just Do It projects: $43,719,838
   ex: SN Settlements Tagging

WAPA cost savings and avoidance: $93,655,690 as of September 30, 2019
Carbon constraints/capacity conflict

• Demand for new power sources will outstrip capacity
• Demand for clean energy will outstrip the capacity
• Public perception contrasts with the reality of the system
• Renewables are being promoted the only answer
• Cost of renewables creates financial challenges
Change is upon us

WIND PEAK
17,595.1 MW at 8:42 p.m. on Oct. 17, 2019

WIND PENETRATION
68.78% at 1:37 a.m. on Oct. 18, 2019

RENEWABLE PENETRATION
76.94% at 3:01 a.m. on Oct. 18, 2019
WAPA balancing authorities & markets

Boundaries are approximate and for illustrative purposes only.
Energy imbalance decisions

“One size does not fit all”
Energy imbalance objectives

- Ensure reliable delivery of our hydropower while adjusting to a changing energy mix
- Respond to customer feedback requesting WAPA lead organized market discussions
- Address WAPA BA limitations
- Facilitate integration of renewable resources
- Enable participants who want to optimize their resources
Market status timeline

- **UGP**: E W
  - EI decision Sept. 2019
  - Full market Oct. 2015

- **SN**: TBD
  - EI decision Aug. 2019

- **RM**: TBD
  - EI decision Sept. 2019

- **CRSP**: TBD
  - EI decision Sept. 2019

- **DSW**: TBD
  - EI Study 2019/2020
RC transition

- UGP-East – SPP
  10/2015
- SN – CAISO
  7/2019
- DSW/RM/CRSP/
  UGP-West – SPP
  12/2019

Image credit: Adapted from NERC and WECC graphics
Wildfire prevention & mitigation

• Reviewing vegetation management programs
• Working with landowners & other agencies
• Participating in utility committees
Physical Security update

- GridEx V
- 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
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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