

Investing in a connected future

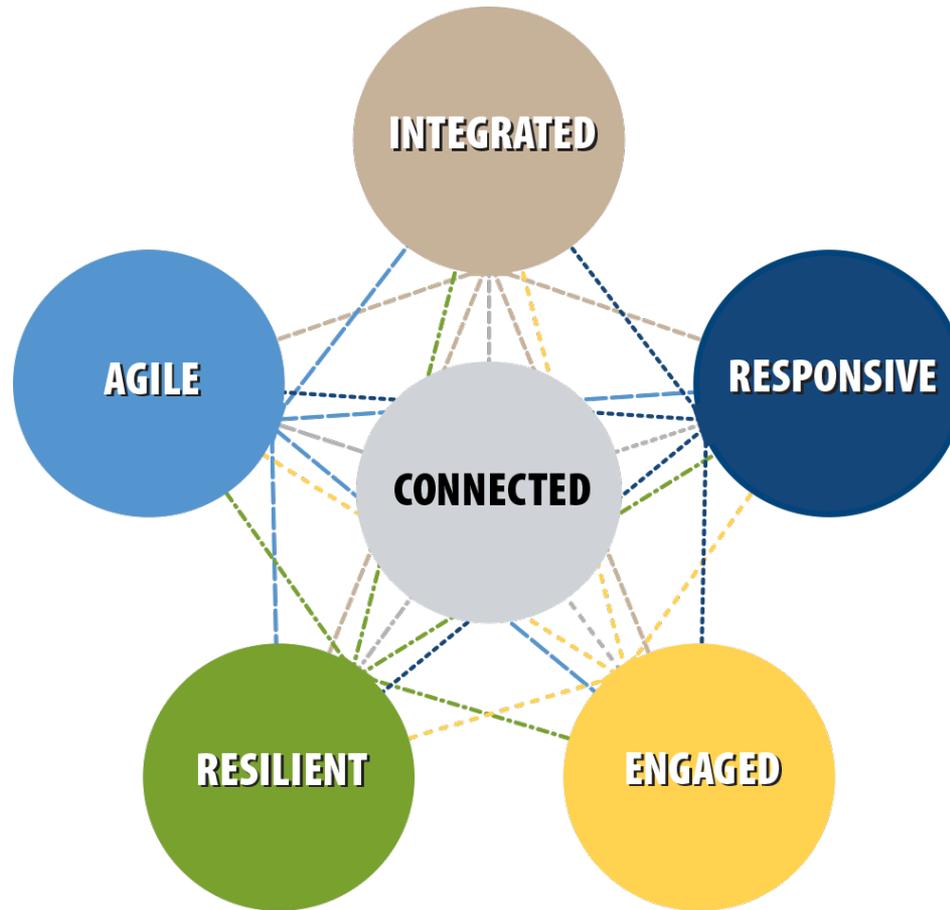
Kansas Electric Power Cooperative

Nov. 20, 2019 | Mayetta, KS

Mark A. Gabriel

Administrator and CEO

Connected energy future



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

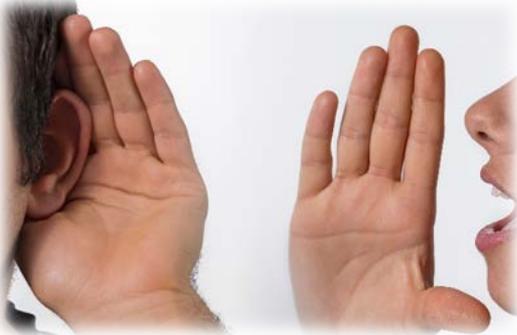
Sumner-Cowley

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.**

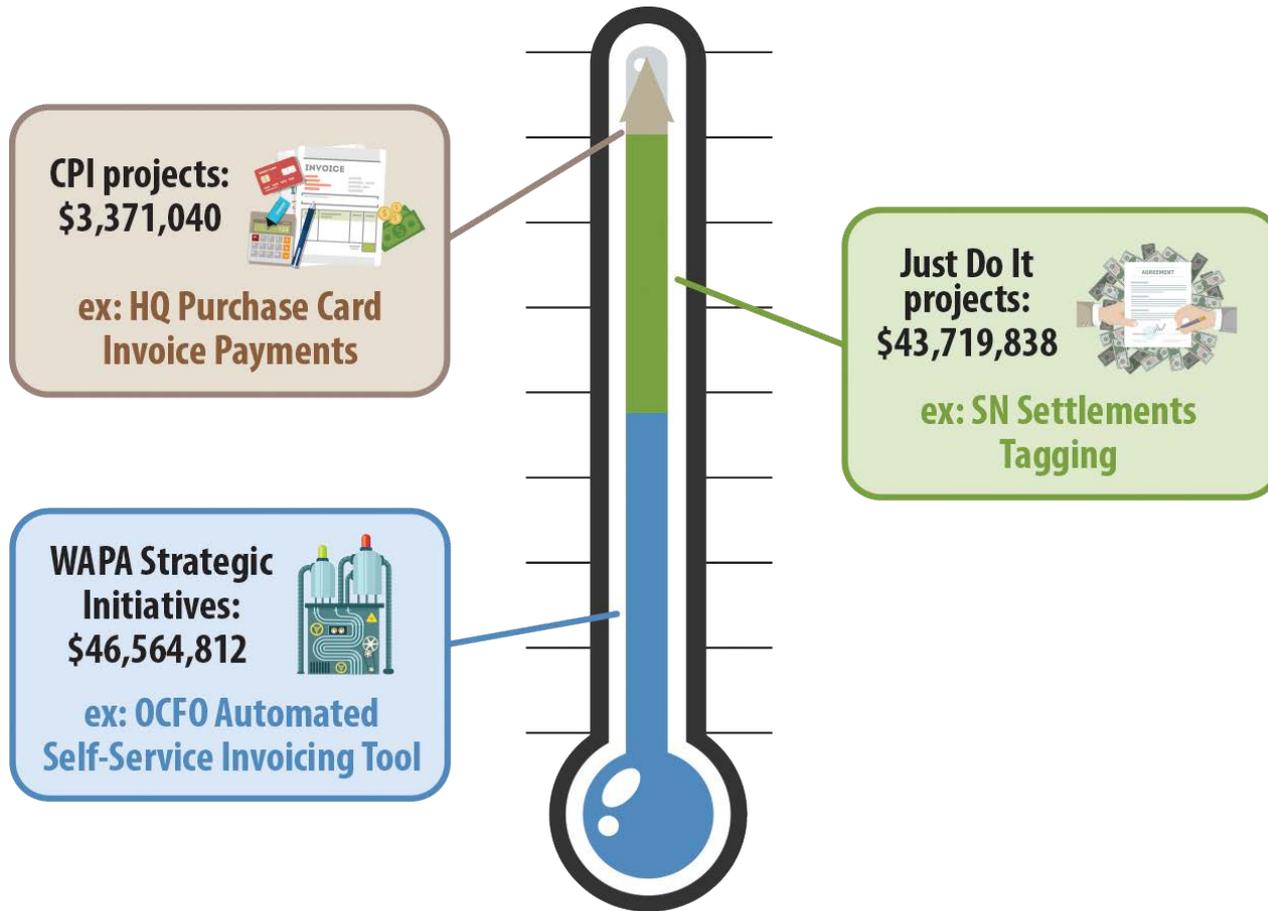


**Do what is right.
Do what is safe.**



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

Continuous Process Improvement



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

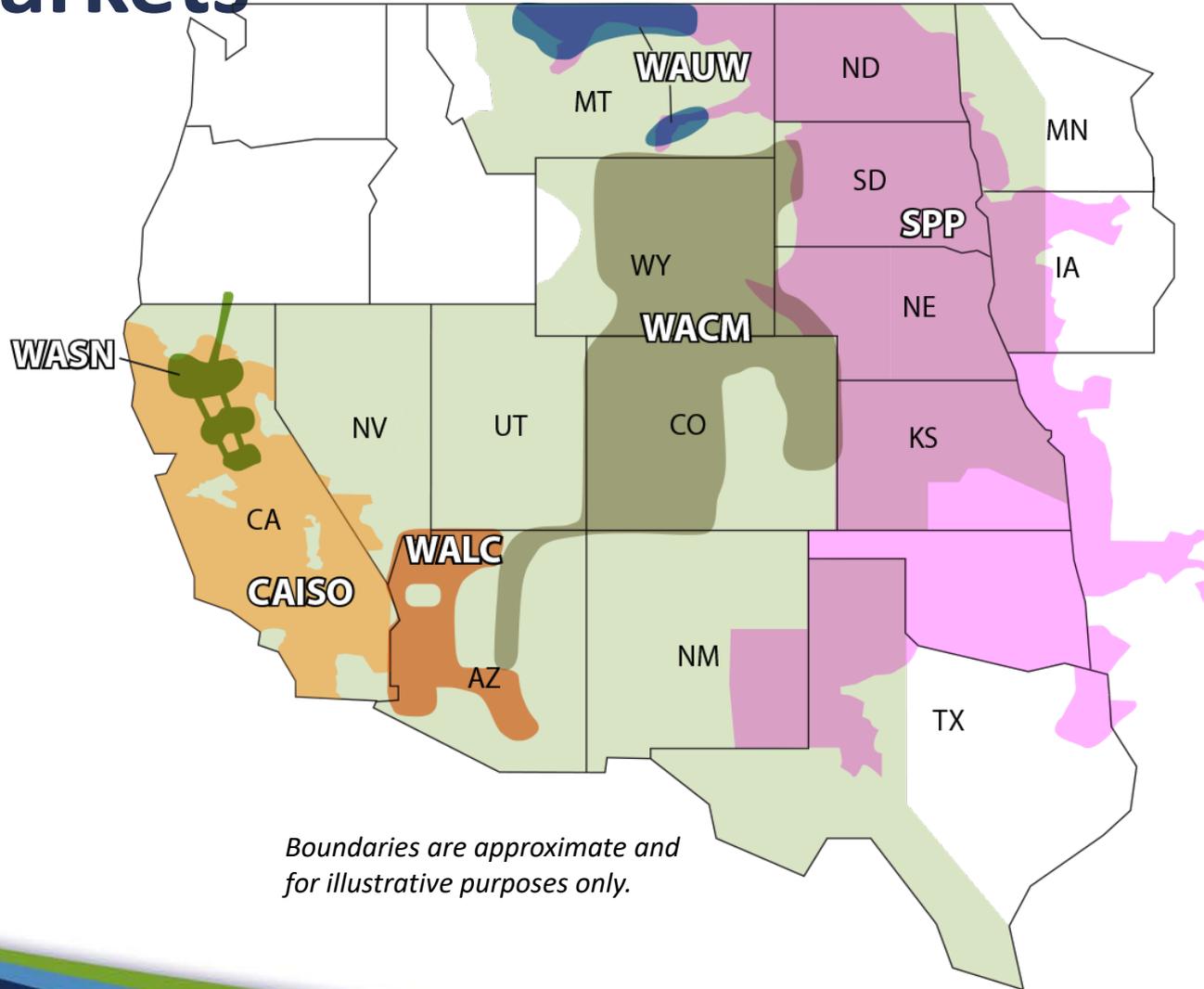
68.78% AT 1:37 A.M. ON OCT. 18, 2019

RENEWABLE PENETRATION

76.94% AT 3:01 A.M. ON OCT. 18, 2019



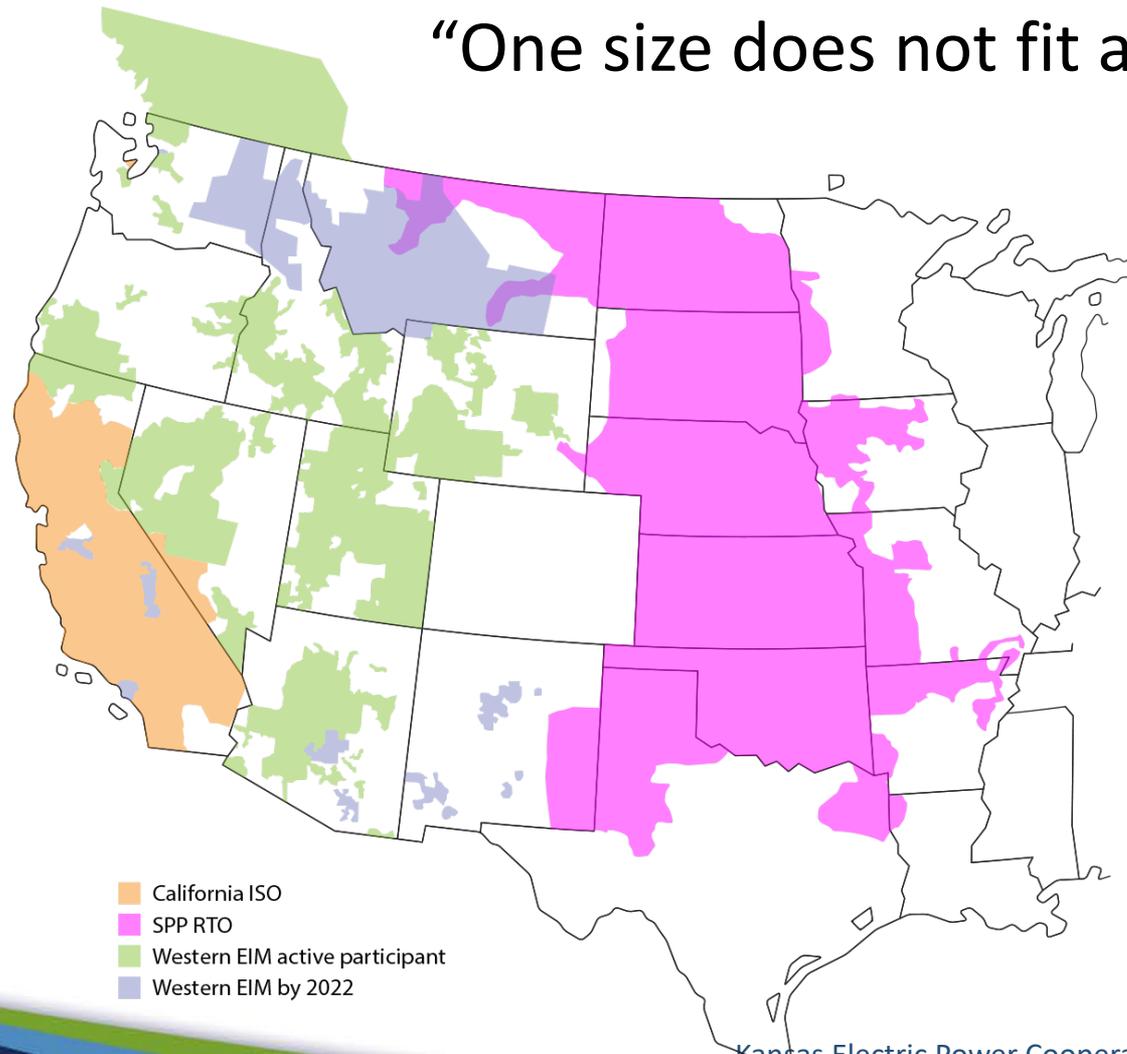
WAPA balancing authorities & markets



*Boundaries are approximate and
for illustrative purposes only.*

Energy imbalance decisions

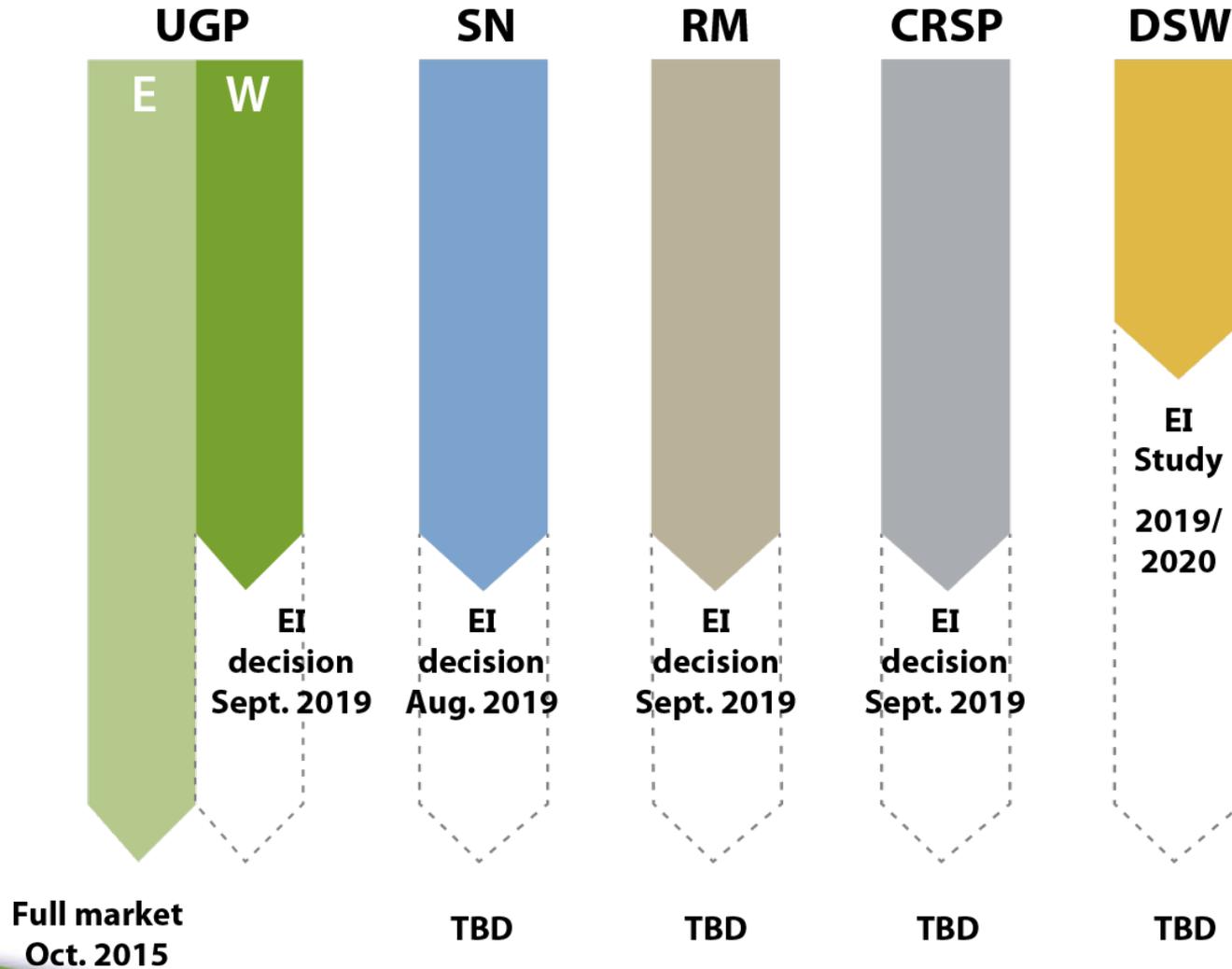
“One size does not fit all”



Energy imbalance objectives

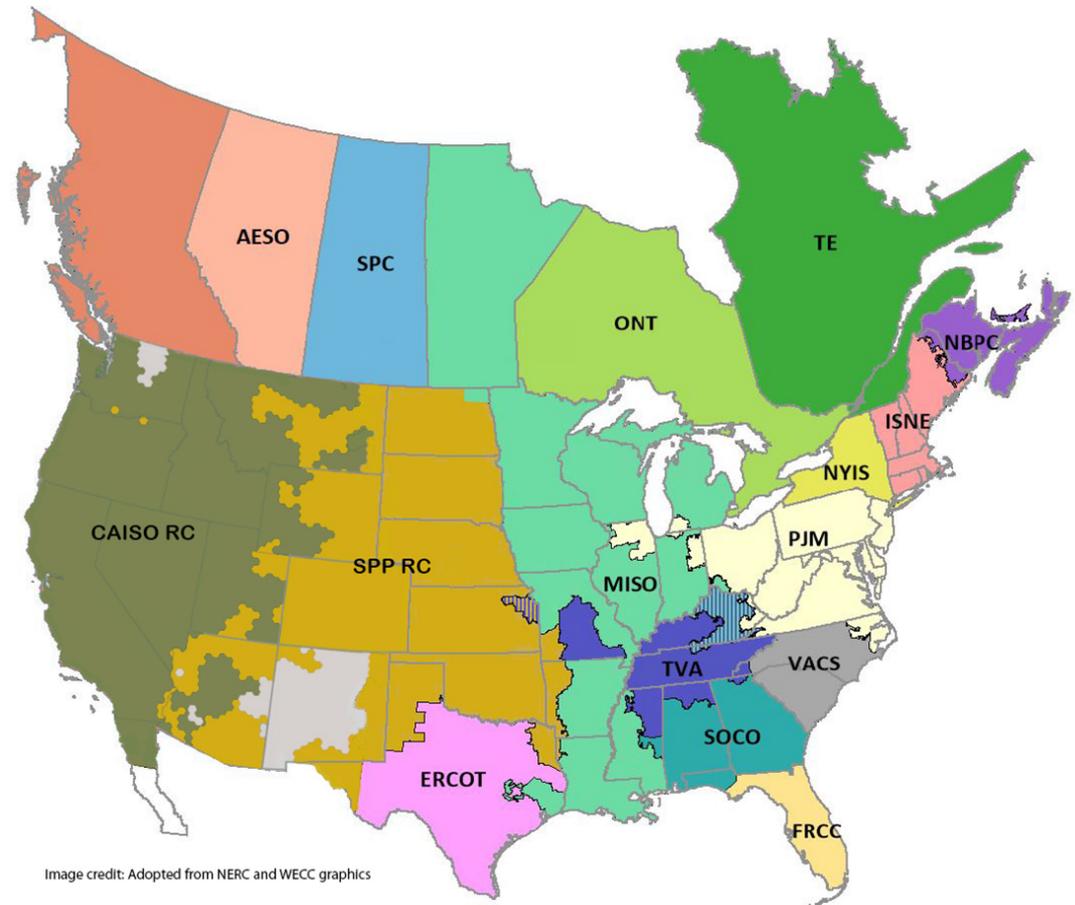
- Ensure reliable delivery of our hydropower while adjusting to a changing energy mix
- Respond to customer feedback requesting WAPA lead organized market discussions
- Address WAPA BA limitations
- Facilitate integration of renewable resources
- Enable participants who want to optimize their resources

Market status timeline



RC transition

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



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.



Contact/follow me

Mark Gabriel

720.962.7705

gabriel@wapa.gov



wapa.gov



[@westernareapowr](https://twitter.com/westernareapowr)



[Mark Gabriel](https://www.linkedin.com/in/markgabriel)



[WesternAreaPower1](https://www.youtube.com/channel/UC...)



[westernareapower](https://www.instagram.com/westernareapower)



[wapa.gov](https://www.facebook.com/wapa.gov)

