

Missouri Public Service Commission

BALANCE

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Reliable • Affordable • Responsible

DAVID J. TUDOR, CEO AND GENERAL MANAGER

October 19, 2022

Today's presentation

- Associated overview
- Reliability for members
when it mattered
- Ensuring reliability in the future



Member-owned, member-governed

**MEMBER-
CONSUMERS 935K**

**Distribution
cooperatives 51**

**Transmission
cooperatives 6**

**Associated
Electric Cooperative**



Board of directors and service area

Northeast Missouri Electric Power Cooperative



Douglas H. Aeilts and Emery O. Geisendorfer, president

Central Electric Power Cooperative



Christopher M. Turner and Thomas W. Howard

NW Electric Power Cooperative Inc.



John B. Killgore, vice president, and David L. McDowell

M&A Electric Power Cooperative



John R. Bledsoe, treasurer, and Daryl R. Sorrell

KAMO Power

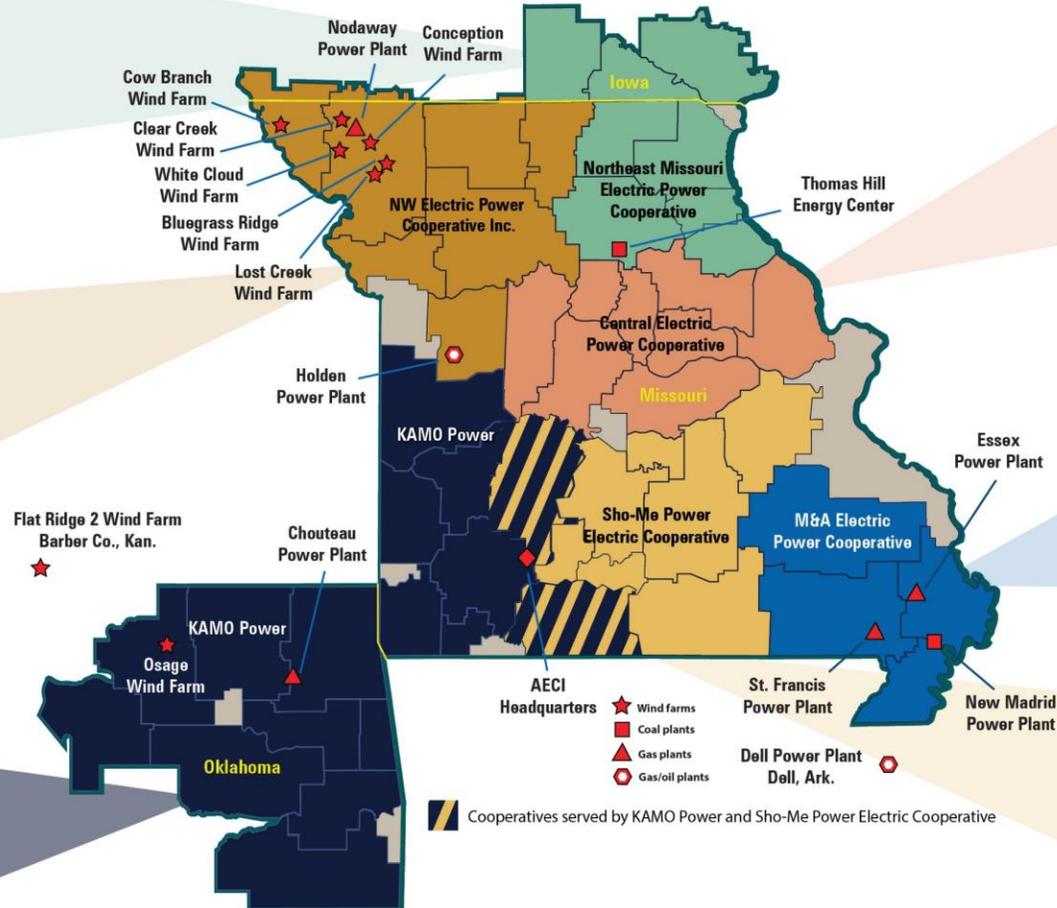


Theodore J. Hilmes and Larry E. Culwell, secretary

Sho-Me Power Electric Cooperative



John T. Richards and Dan A. Singletary



Associated's evolving resource mix

Total Generation



COAL
2,353 MW



GAS
2,753 MW



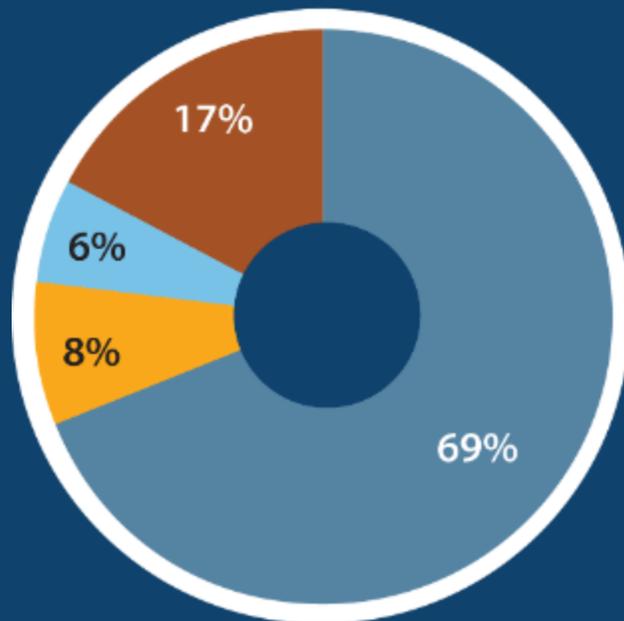
HYDROELECTRIC
478 MW



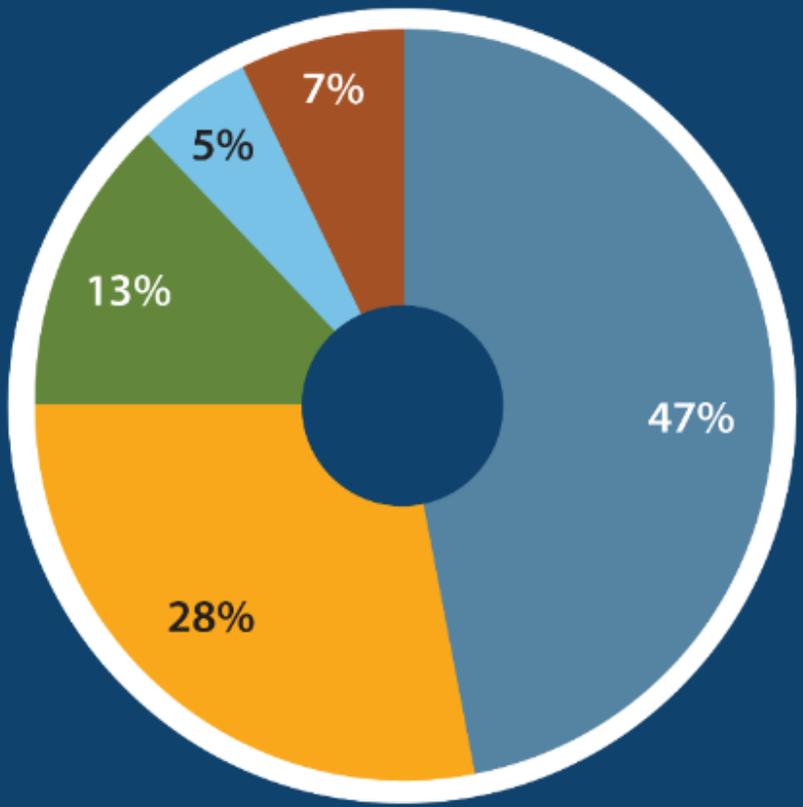
WIND
1,240 MW

TOTAL NAMEPLATE – 6,824 MW
TOTAL CAPACITY – 5,703 MW

2005



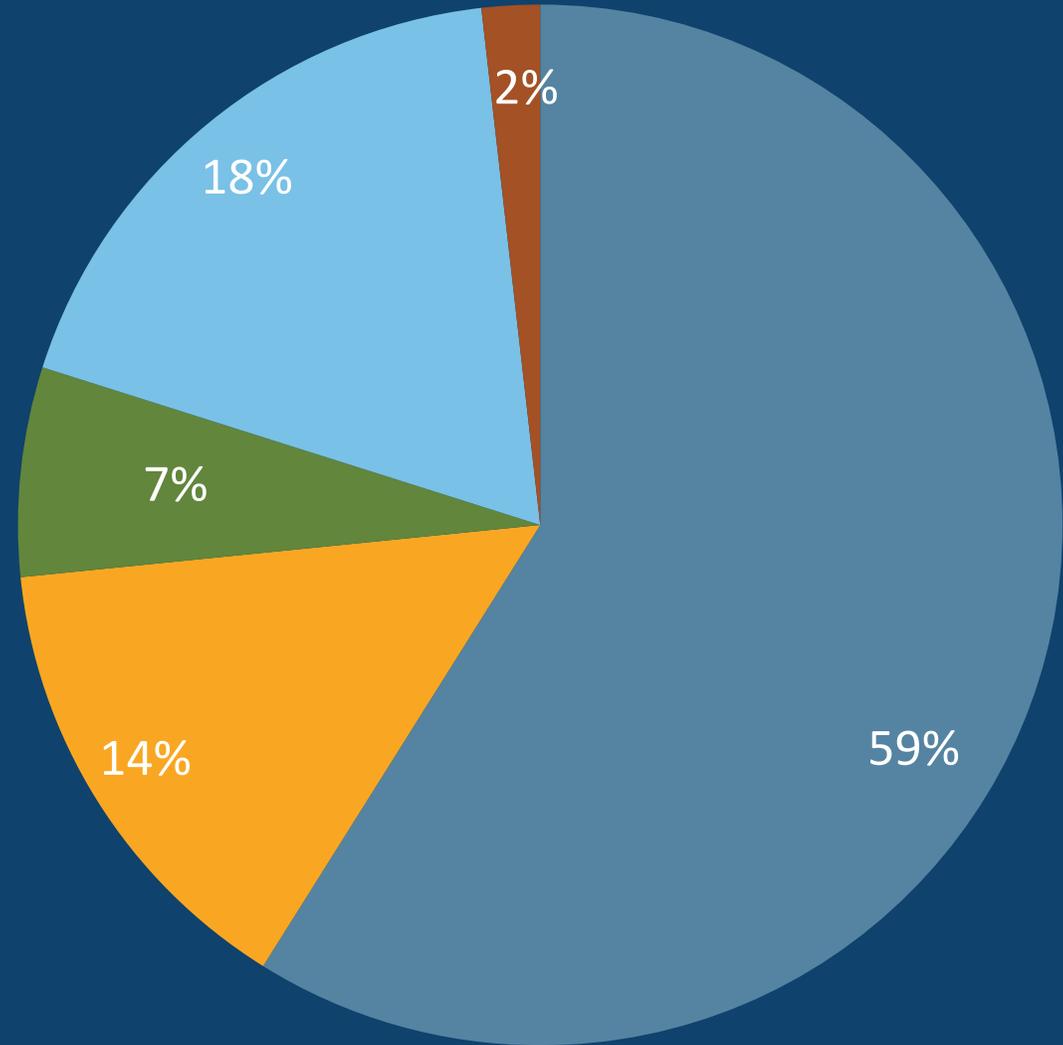
2021



COAL • GAS • HYDRO • WIND • PURCHASES

Associated's evolving resource mix

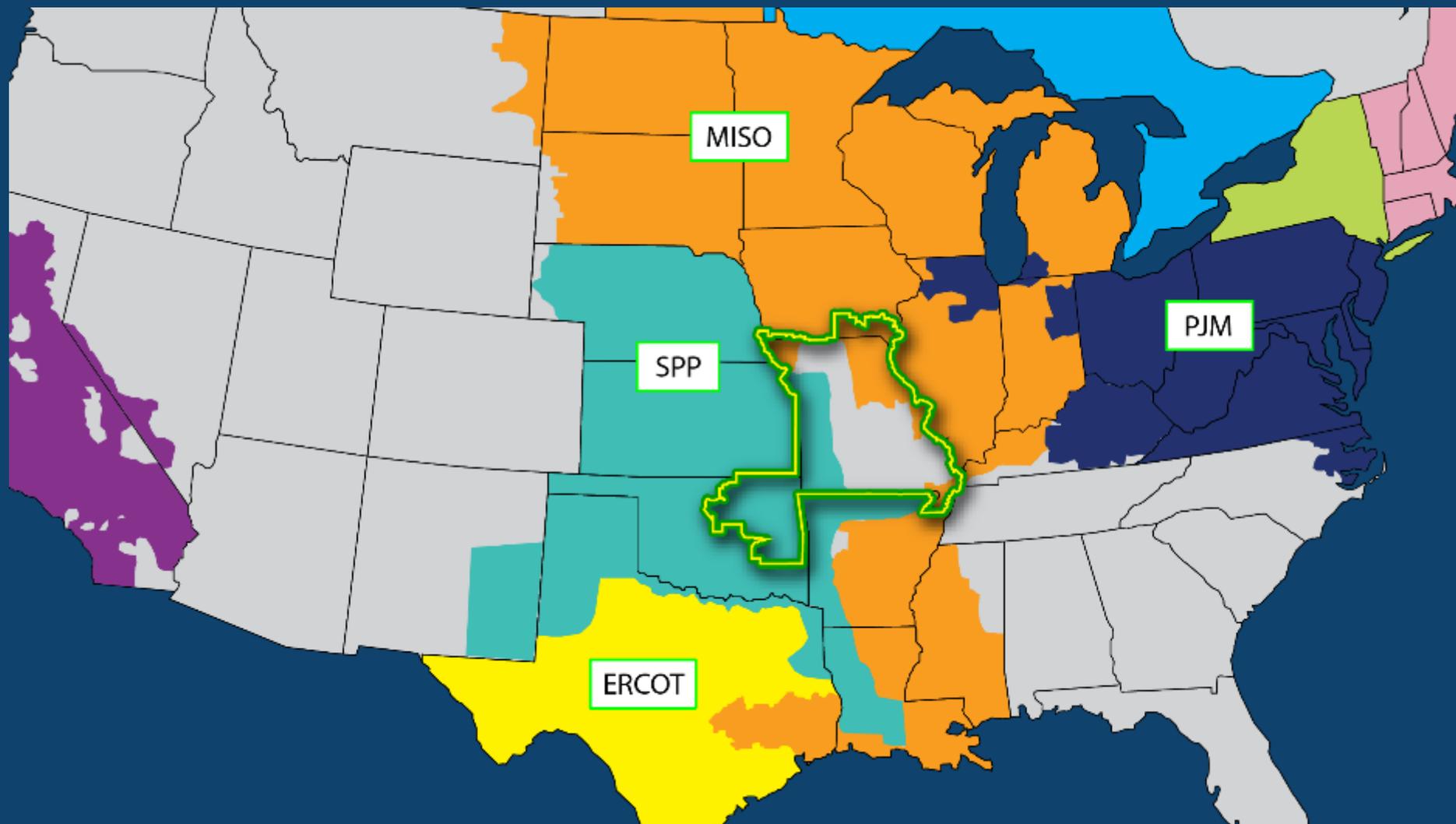
**Total Generation
- YTD September**

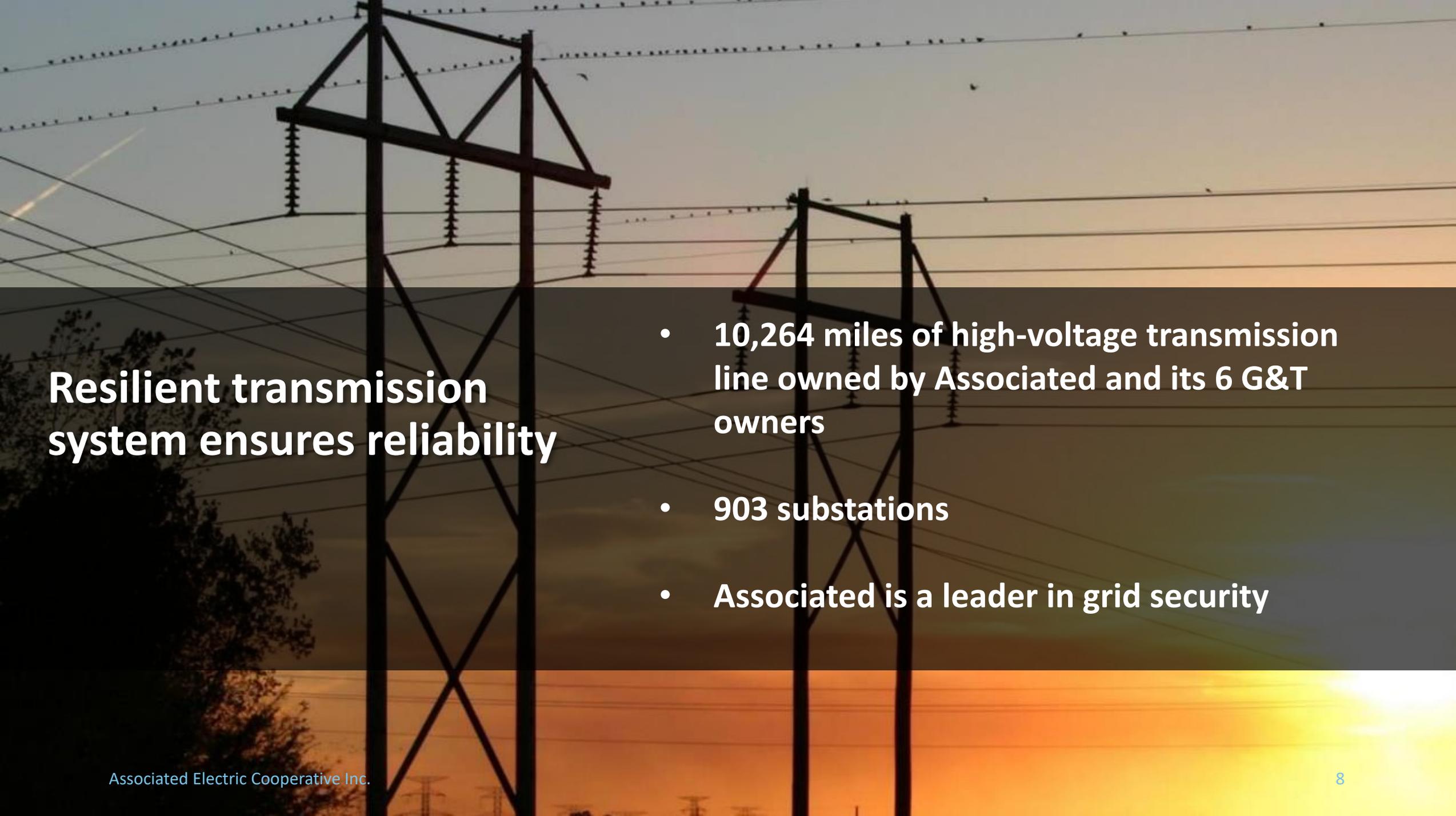


COAL • GAS • HYDRO • WIND • PURCHASES

Today's RTO environment

AECI service area in green



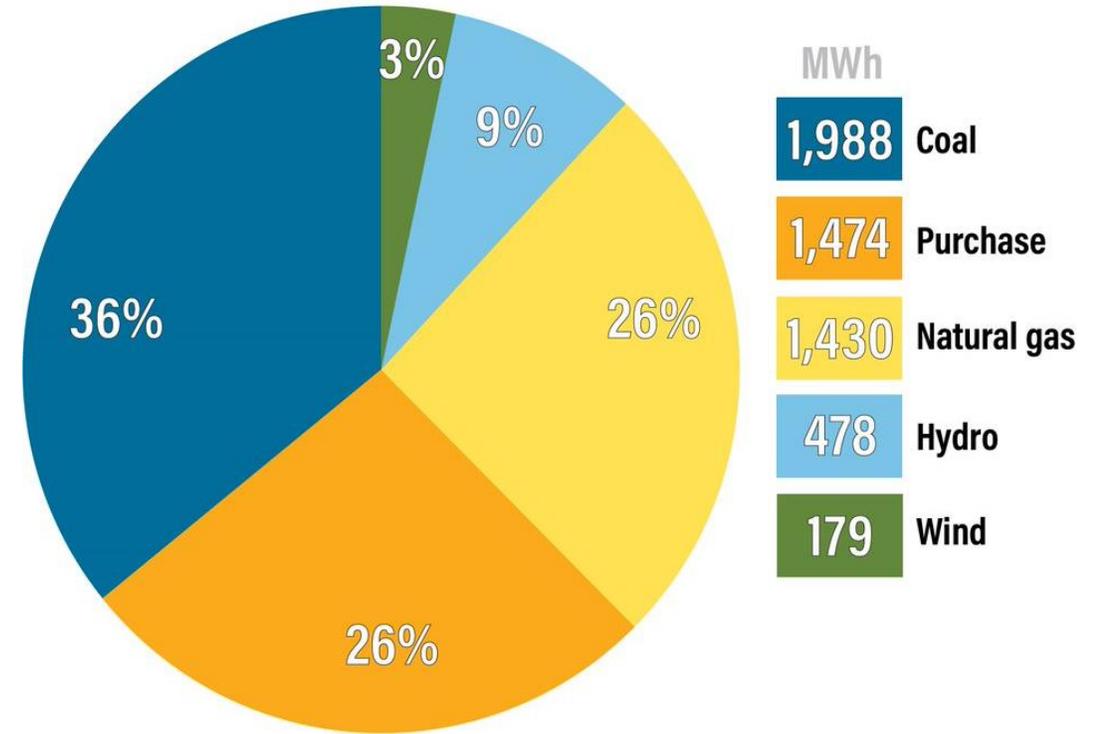
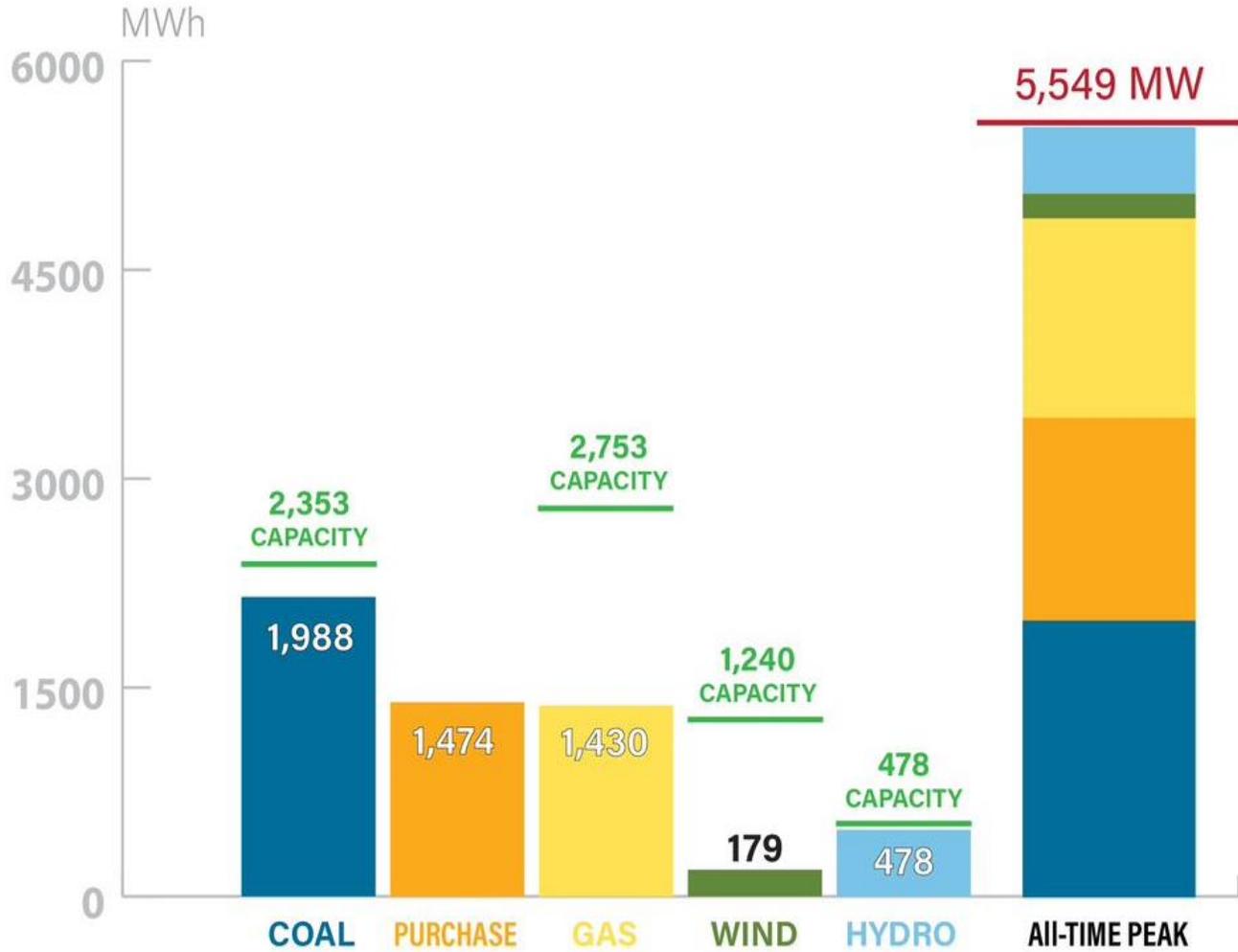


Resilient transmission system ensures reliability

- 10,264 miles of high-voltage transmission line owned by Associated and its 6 G&T owners
- 903 substations
- Associated is a leader in grid security

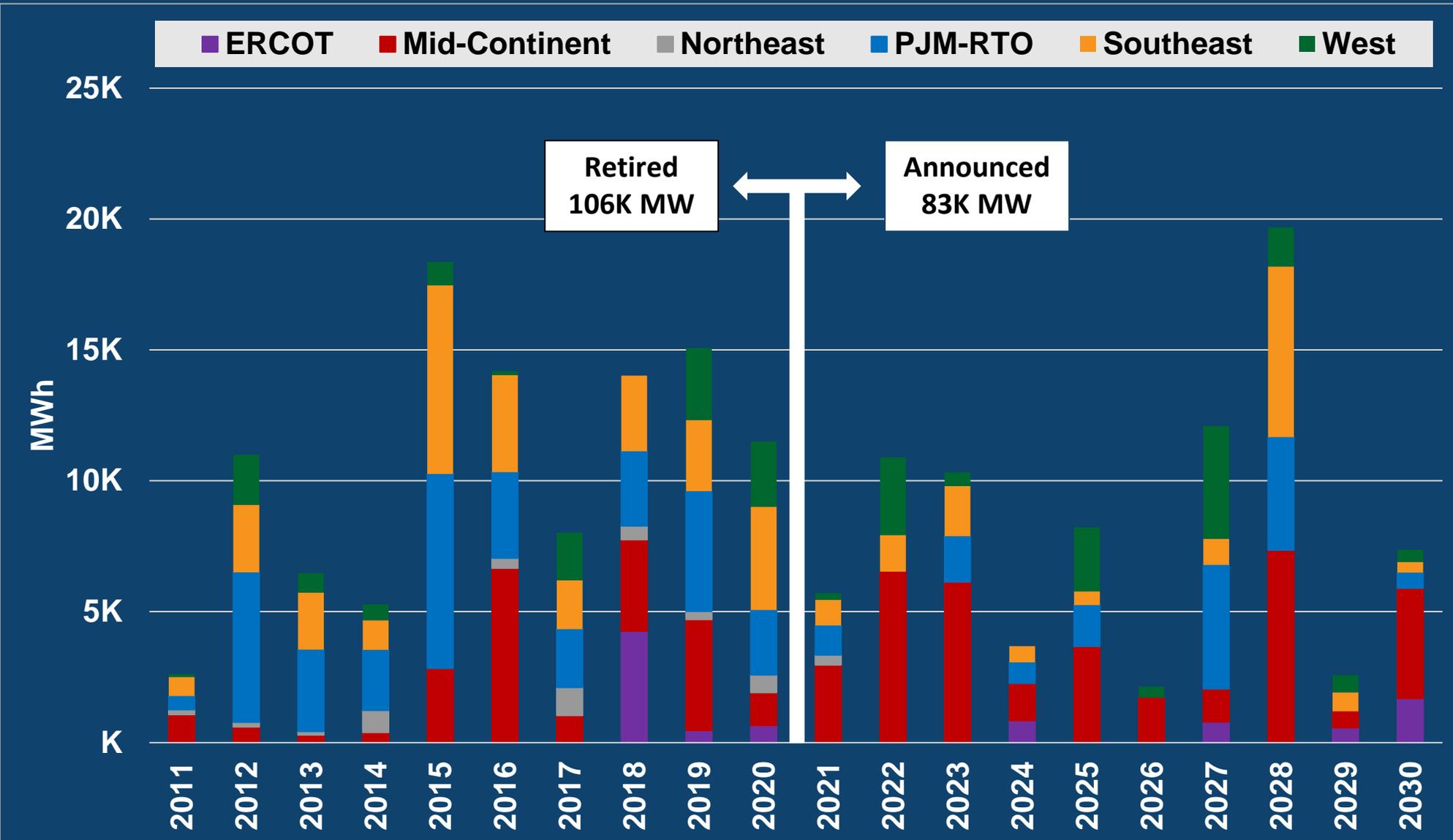
Reliability for Members when it Mattered

Feb. 15, 2021, 7 p.m. peak: Resources to service member load



Ensuring Reliability in the Future

Retired and announced coal retirements by region



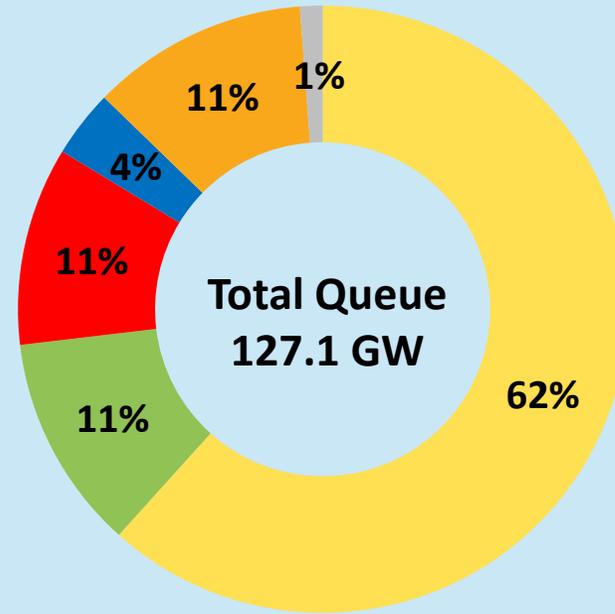
Region	MW
ERCOT	9K
Mid-Continent	58K
Northeast	5K
PJM-RTO	49K
Southeast	43K
West	25K
2011-2030 Total	189K

MISO/SPP GI queues by resource

119,867 MW of
solar will use
958,936 acres
of land

MISO Generator Interconnection Queue

March 2, 2022

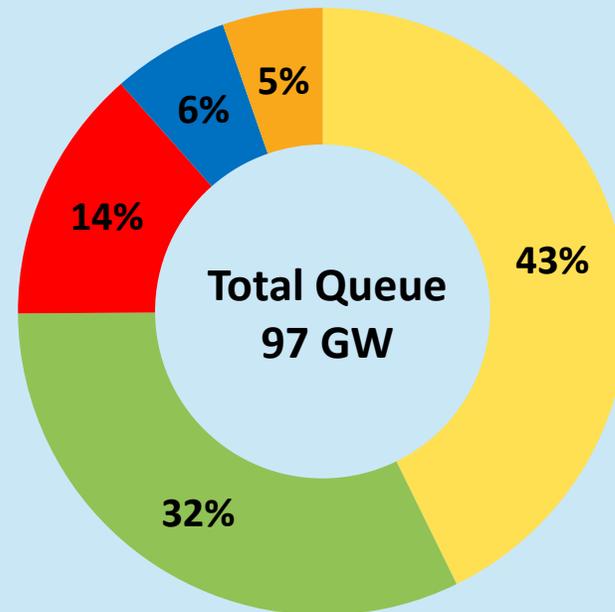


Fuel Type

- Solar (78,289 MW)
- Wind (14,550 MW)
- Storage (13,424 MW)
- Gas/Thermal (4,552 MW)
- Hybrid (14,633 MW)
- Other (1,519 MW)

SPP Generator Interconnection Queue

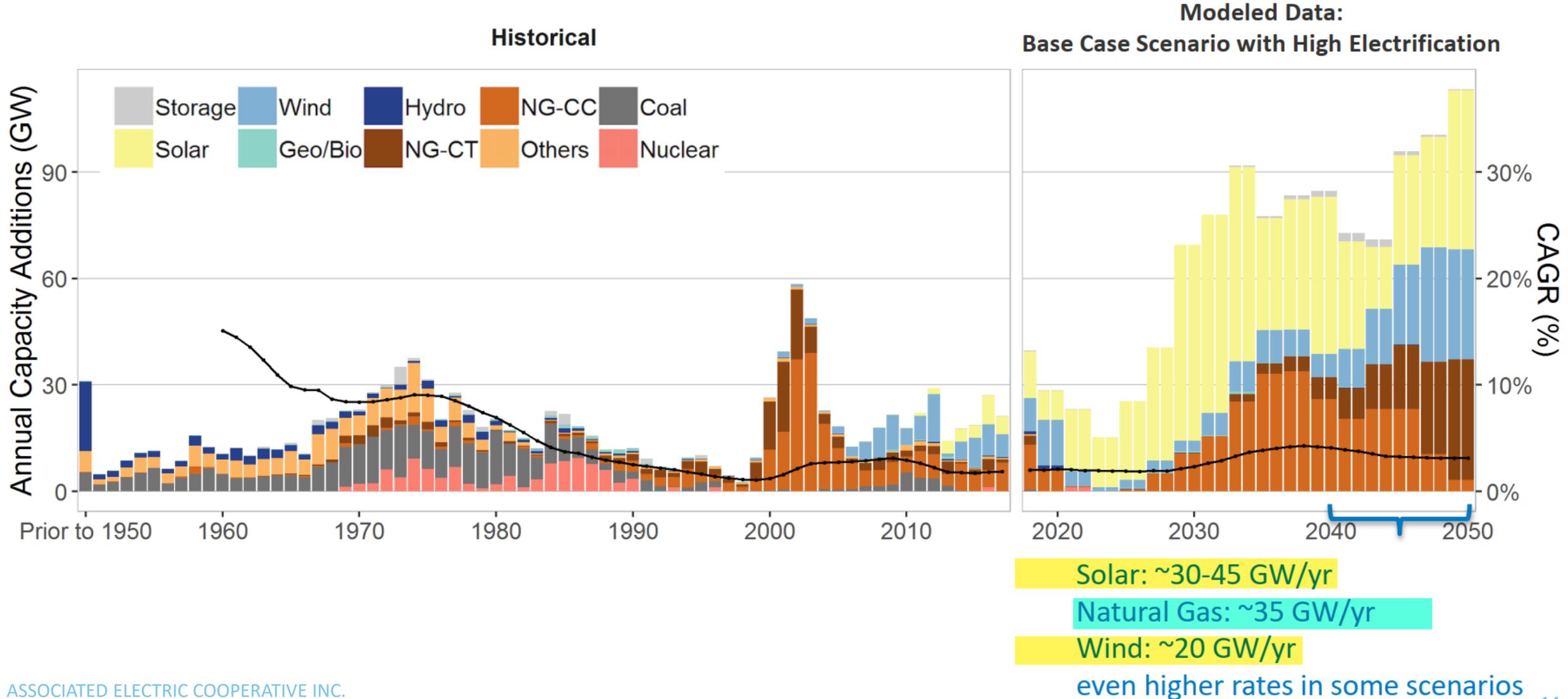
January 28, 2022



Fuel Type

- Solar (41,578 MW)
- Wind (31,257 MW)
- Storage (13,214 MW)
- Gas/Thermal (6,038 MW)
- Hybrid (5,163 MW)

Electrification drives total installed capacity in 2050 to be 58% greater than 2018 levels



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by Sonal Patel

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by Sonal Patel

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Associated's Generation Strategy

- **Preserve existing generation**

 - Continue coal operation – no announced retirement dates

- **Improve reliability of existing generation**

 - Add capacity at existing plants

 - Add natural gas generation

 - Add options to improve gas pipeline reliability

- **Study zero carbon technologies**

 - Monitor developments in nuclear, wind, solar and batteries

To meet aggressive carbon proposals...

- **Technology:** Potential solutions are being studied that may one day be reliable and affordable for member-owners. It is not a reality today or near-term.
- **Transmission:** Roadblocks can only be addressed with expensive and extensive upgrades to the existing transmission system.
- **Time:** Both technology development and transmission system upgrades will take significant time.



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