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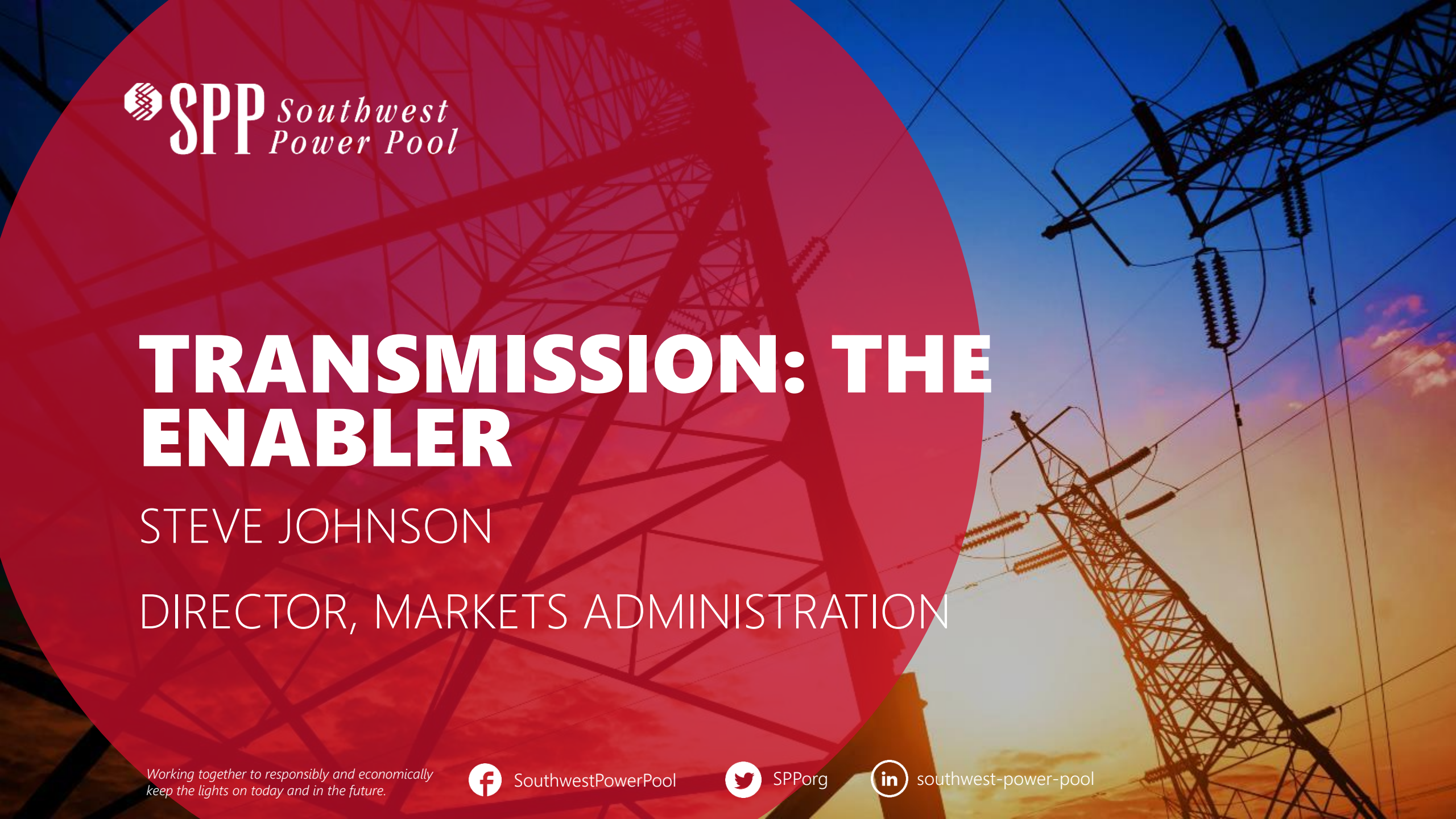


SPP Southwest Power Pool

TRANSMISSION: THE ENABLER

STEVE JOHNSON

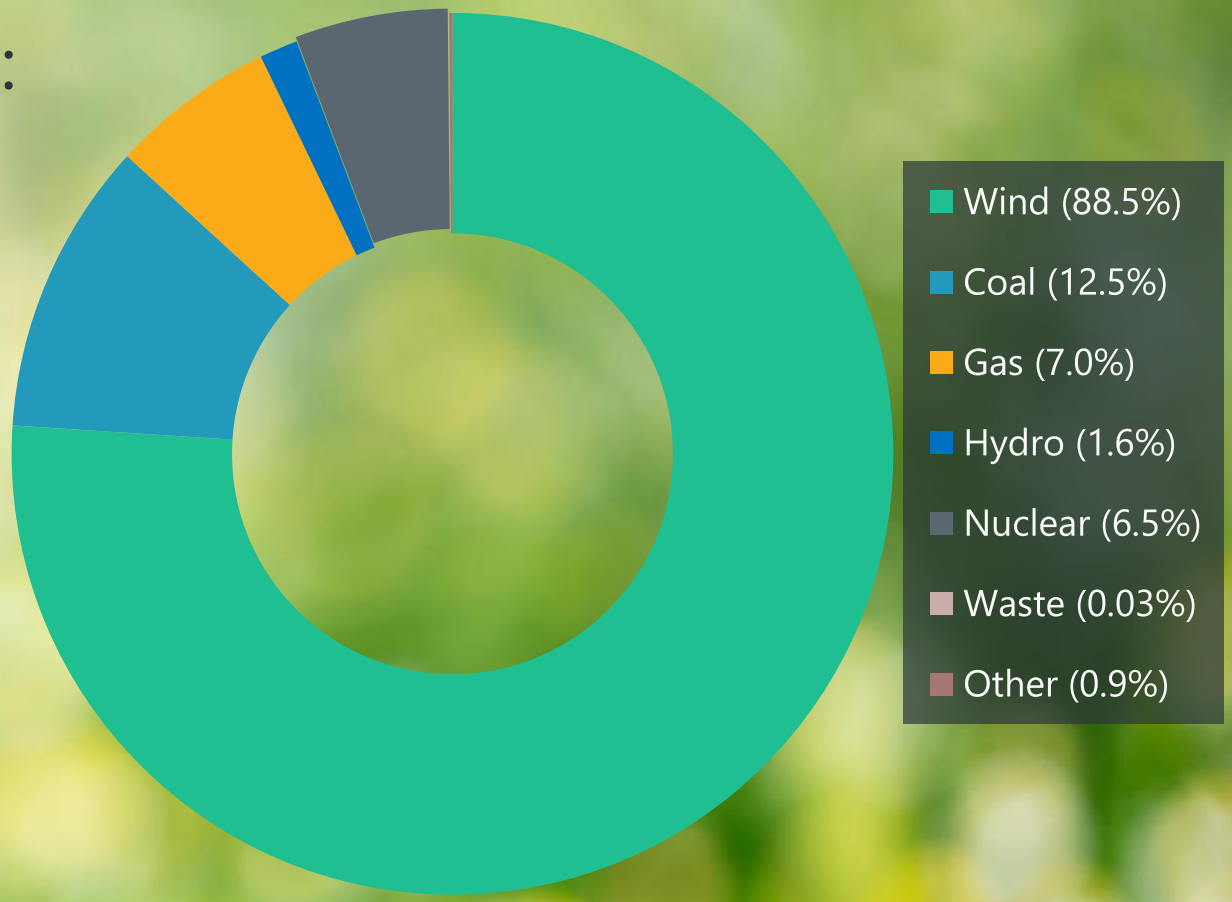
DIRECTOR, MARKETS ADMINISTRATION

Working together to responsibly and economically keep the lights on today and in the future.

SouthwestPowerPool SPPorg southwest-power-pool

SPP RENEWABLE PENETRATION

- Renewable penetration record: 90.2% of load
  - 2:42 a.m. on 3/29/22
  - 22,351 MW of 24,787 MW of load served by renewables
  - **90.17% of total generation** at that time was renewables



Penetration of Load by Fuel Type

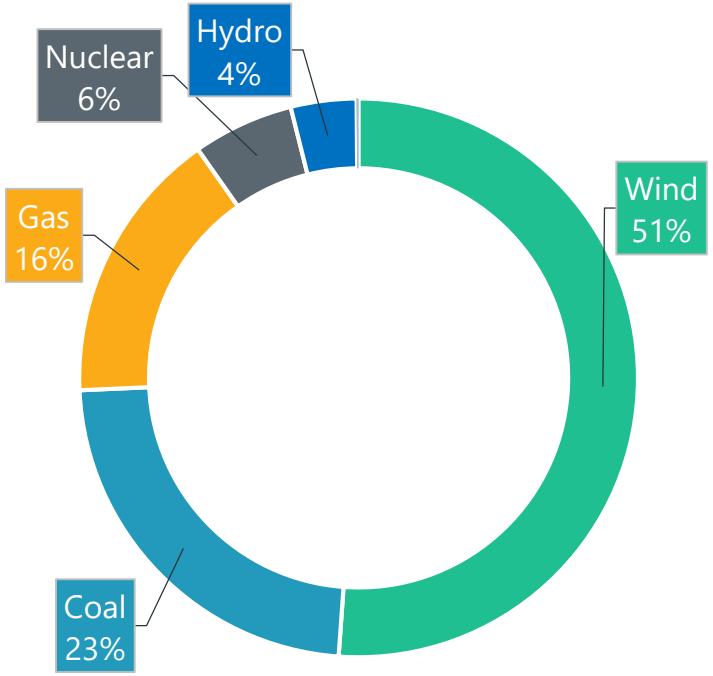
WIND PENETRATION IN THE SPP SYSTEM

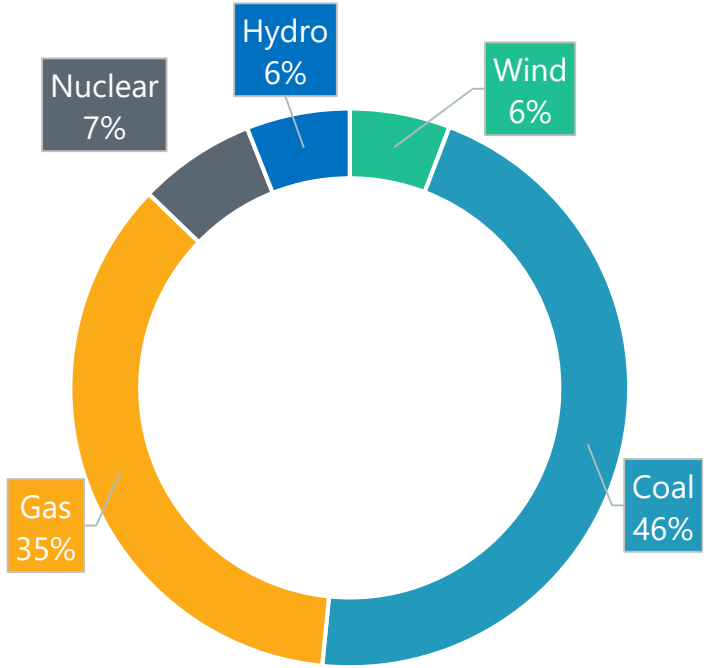
- Maximum wind output: 22,915 MW (3/28/22)
- Minimum wind output (last 12 mos.):
  378.8 MW (6/2/21 @ 2:27 p.m.)
- Maximum wind penetration: 88.51% (3/29/22)
- Average wind penetration (2021): 36.5%
- Max wind swing in one day: >16 GW on Dec. 11-12, 2019
  (17.9 GW to 1.7 GW in 21 hours)
- Max 1-hour ramp: 3,700 MW

THE DIFFERENCE A DAY MAKES

- On Dec. 11, 2019, 17.9 GW of wind power served 51% of our load. Less than 21 hours later, wind shrank to 6% of our generation mix, and other sources like coal and gas ramped up to serve load. This illustrates the value of a diverse fuel mix able to accommodate a wide variety of operational circumstances!

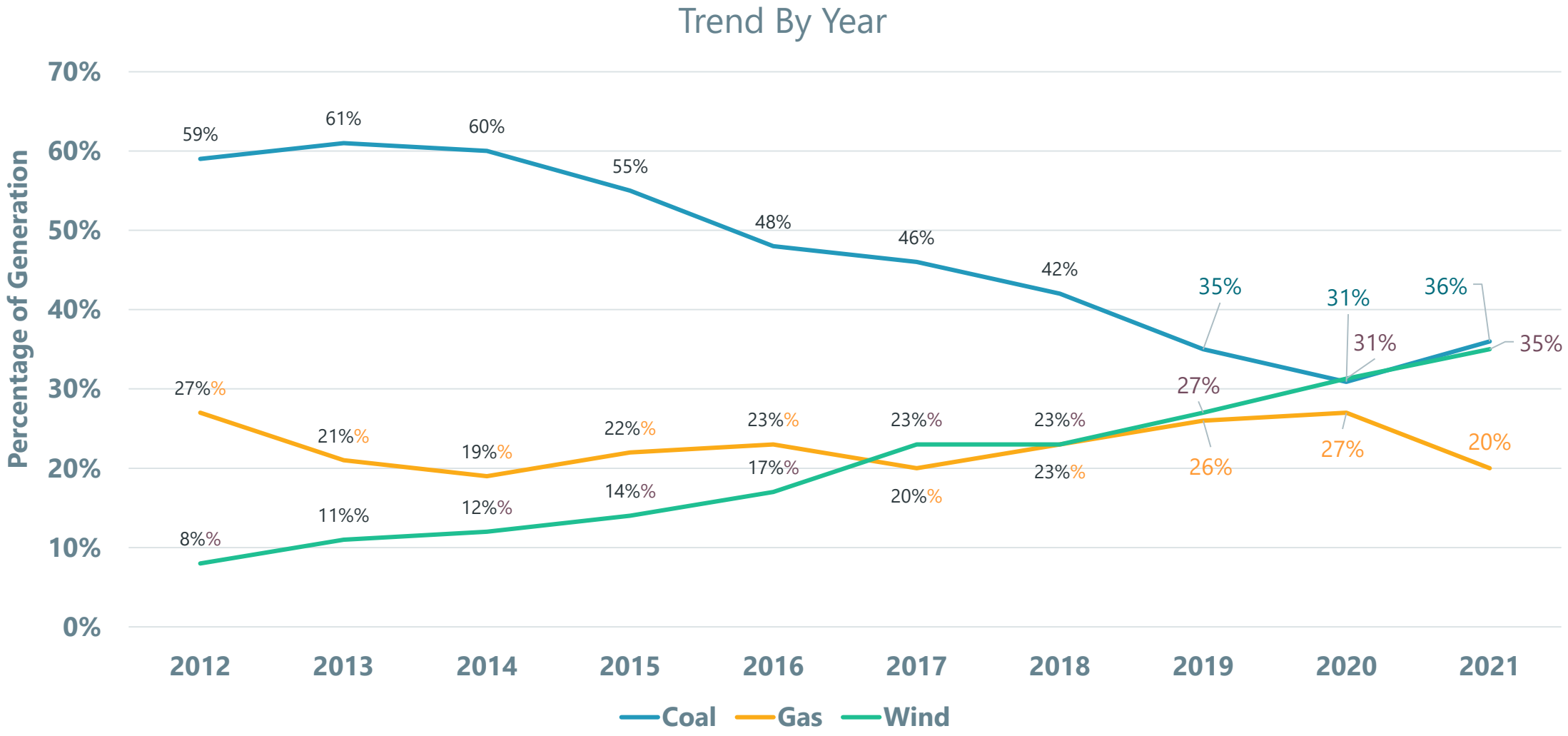
Dec. 11@ 20:10



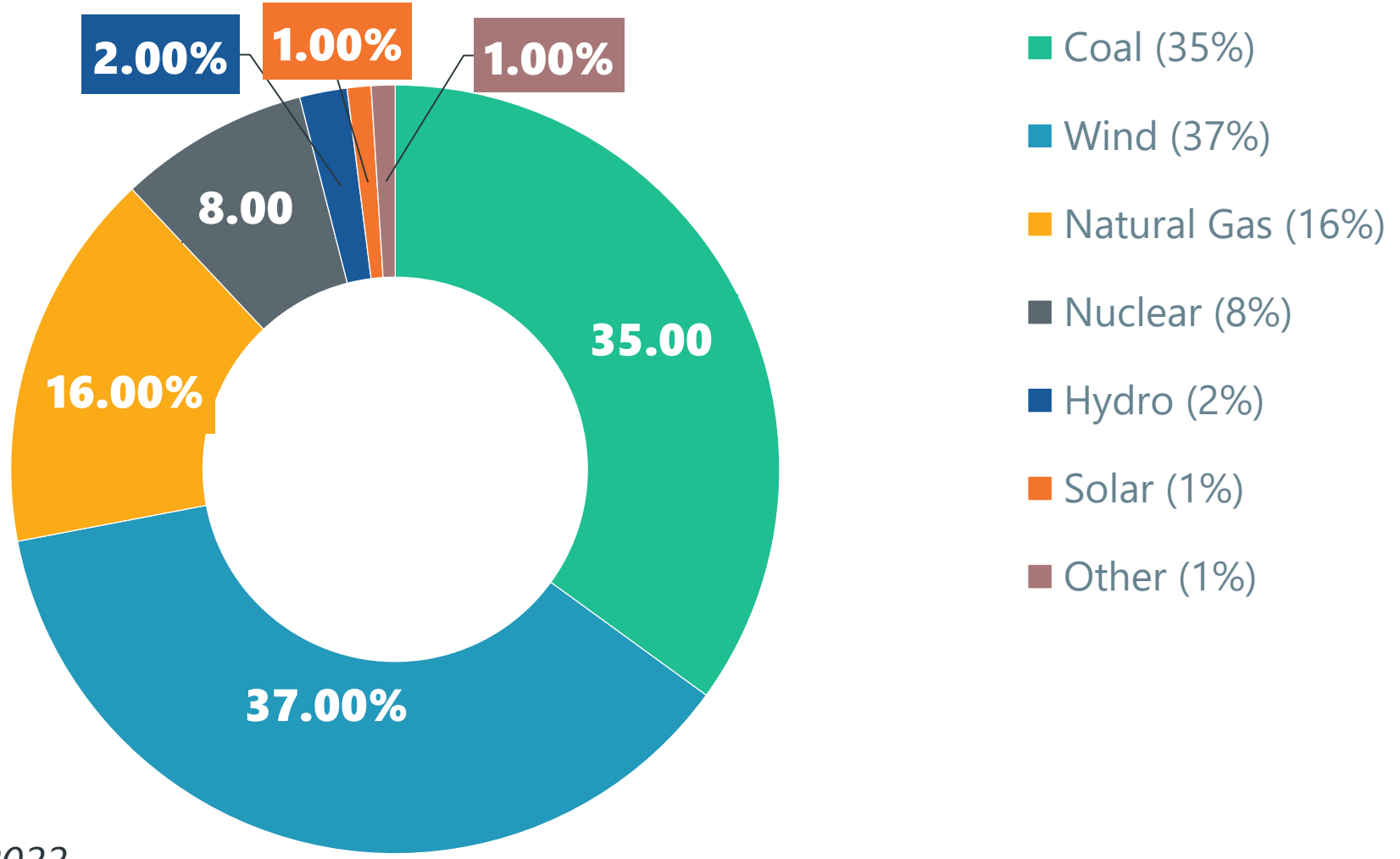


Approx. 21 hours later

OUR EVOLVING ENERGY MIX



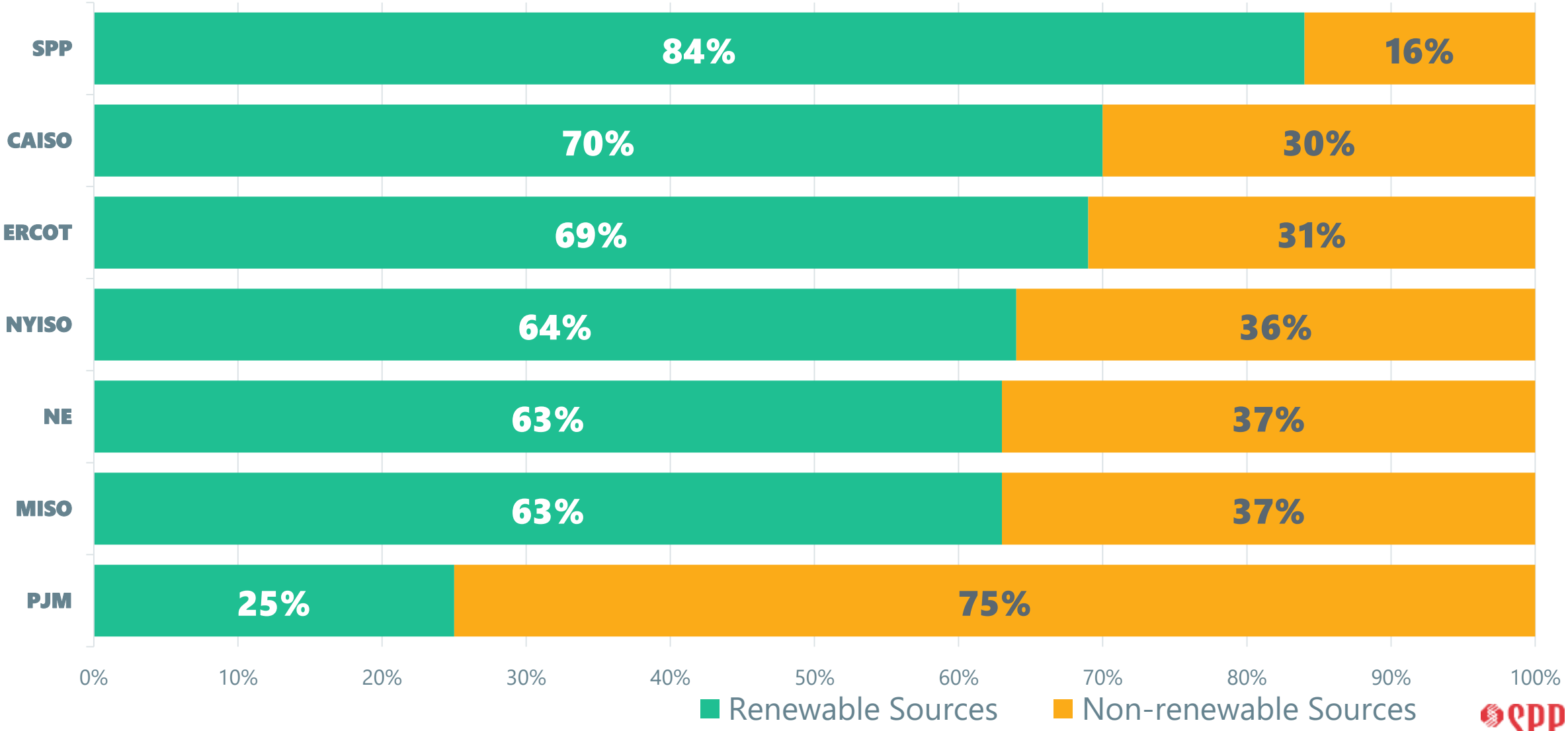
YTD GENERATION: 24,192,961 MWH



As of March 29, 2022

% OF NEW ELECTRICITY GENERATION IN U.S. RTOS

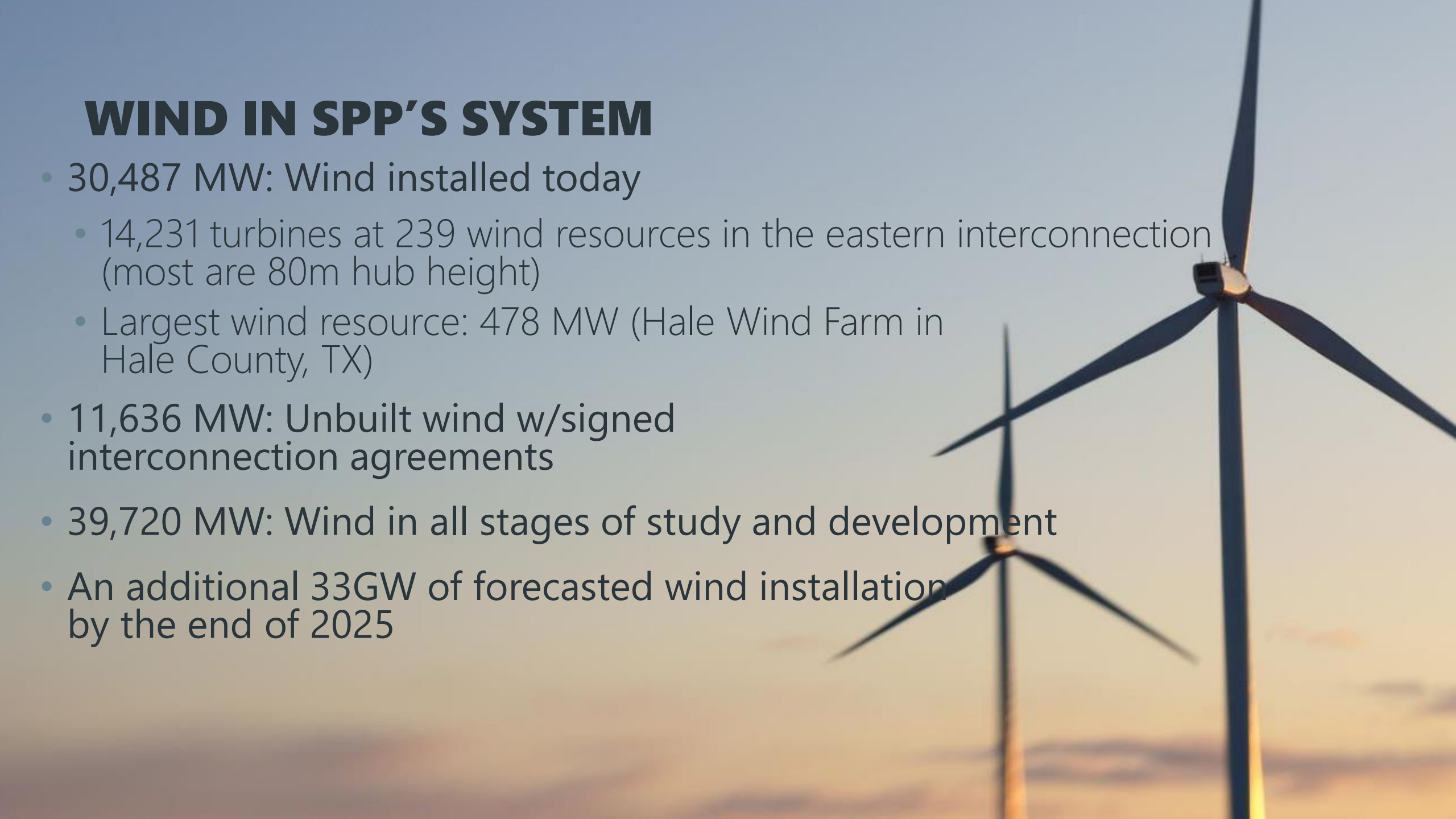
New generation built in each RTO since 2012 including what will be built through 2022



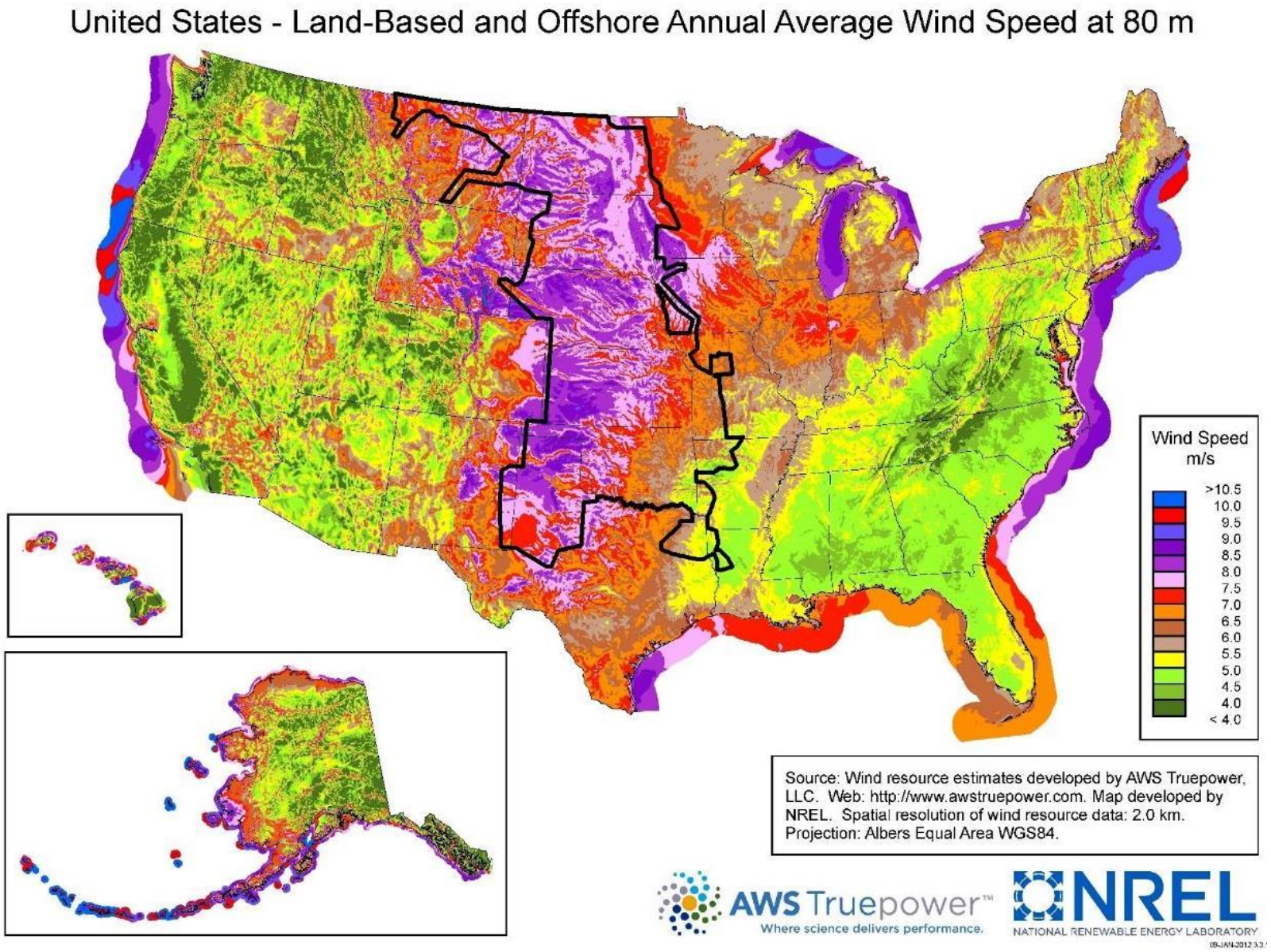
Source: NRDC analysis of S&P Global Market Intelligence data

WIND IN SPP'S SYSTEM

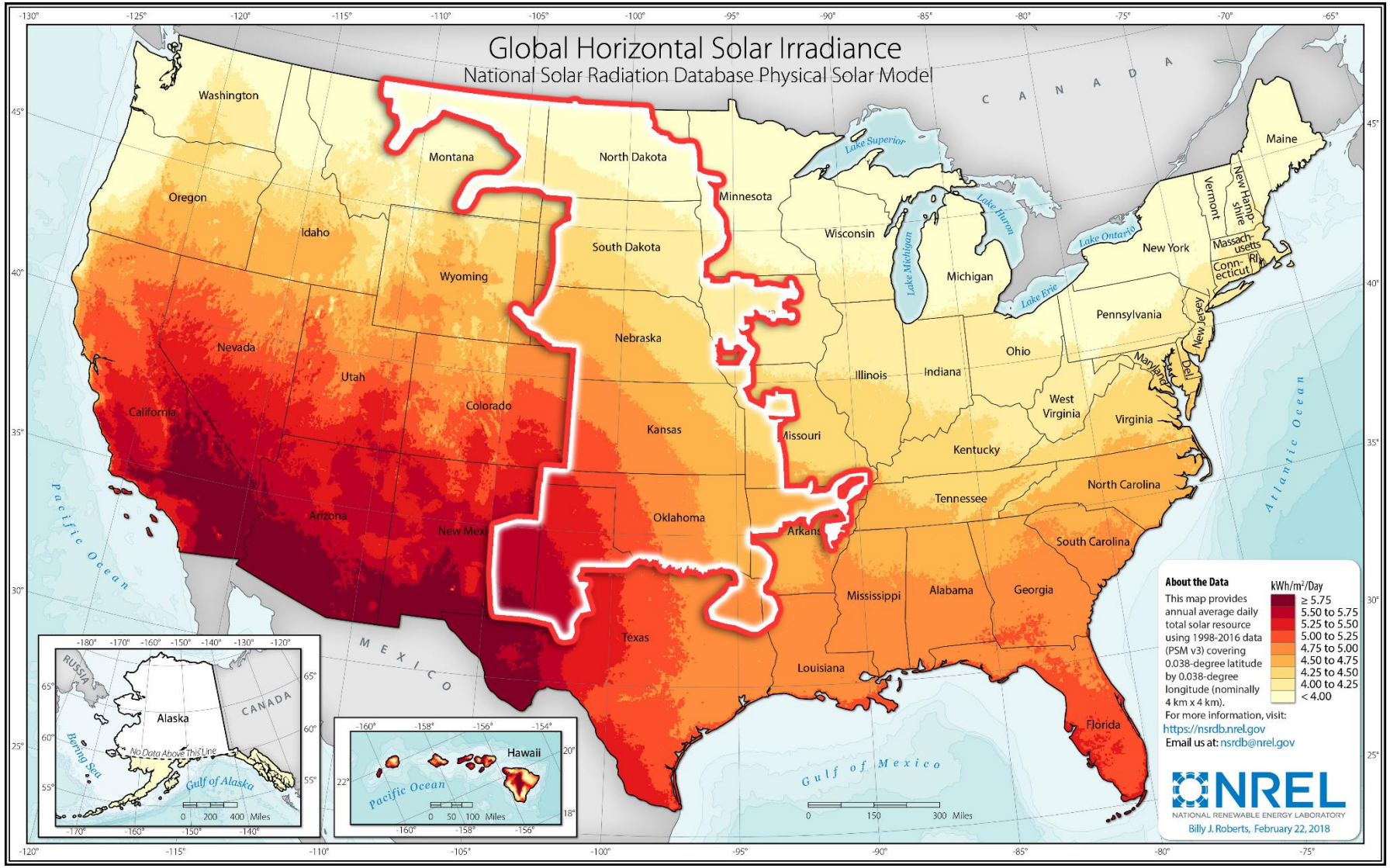
- 30,487 MW: Wind installed today
  - 14,231 turbines at 239 wind resources in the eastern interconnection (most are 80m hub height)
  - Largest wind resource: 478 MW (Hale Wind Farm in Hale County, TX)
- 11,636 MW: Unbuilt wind w/signed interconnection agreements
- 39,720 MW: Wind in all stages of study and development
- An additional 33GW of forecasted wind installation by the end of 2025



THE COUNTRY'S HIGHEST WIND SPEEDS ARE IN THE SPP BALANCING AUTHORITY

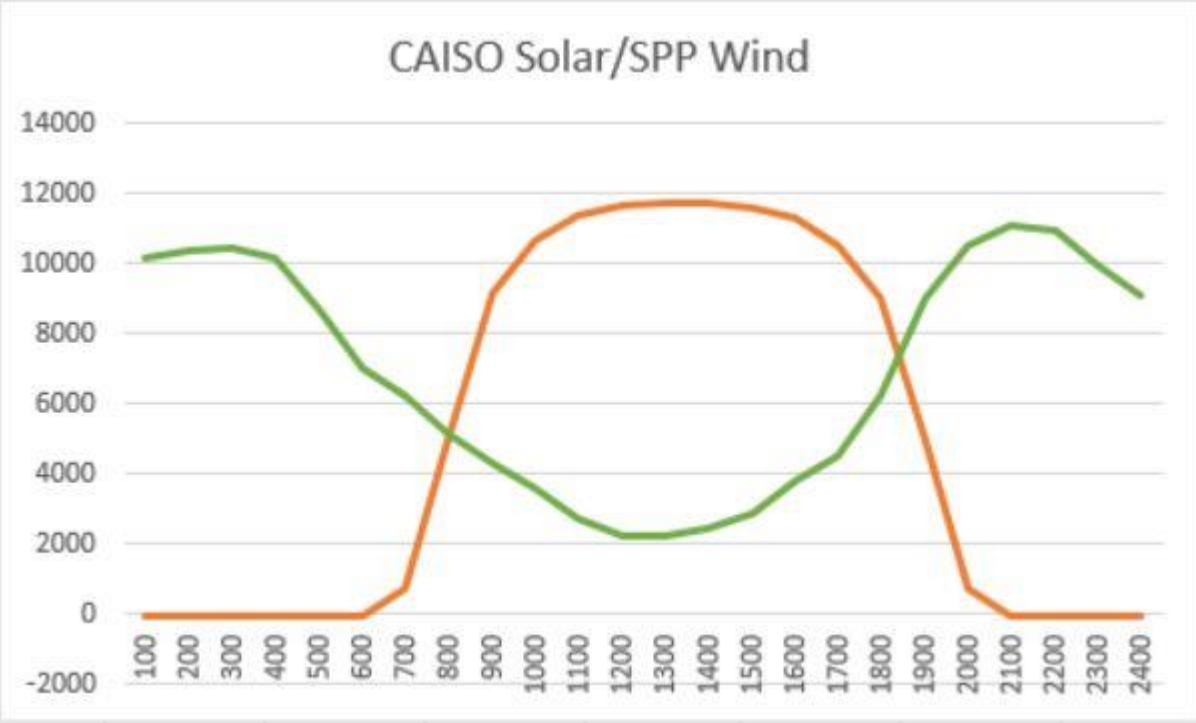


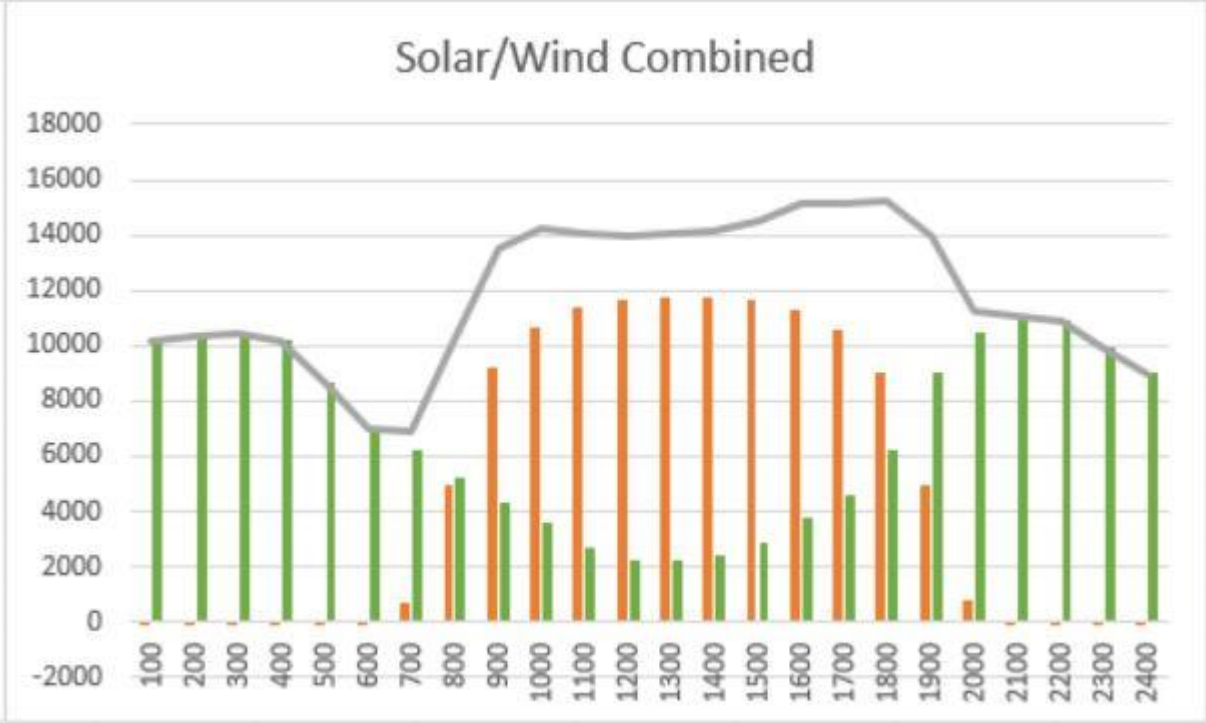
SOLAR IN THE U.S.



STRATEGIC OPPORTUNITY

- Midwest wind and southwest solar are extremely complimentary, especially with time zone diversity





TAKEAWAYS

- The energy transition our nation is currently undertaking requires out of the box thinking, collaboration and coordination not previously envisioned
- By engaging in a passionate and collaborative manner we can achieve far more together than we will ever be able to on our own

Transmission is the enabler