POWER SHIFT: Markets & Transmission Considerations for Clean Energy Integration Carrie Zalewski, American Clean Power Association Vice President of Markets and Transmission January 2024

ACP is the largest and most influential association representing interests like yours.

We are stronger together by using our collective voice to drive the clean energy industry forward.

Influence: Change demands engagement.



Advance our industry's future by joining our committees and engaging in our advocacy work.

Intelligence: Knowledge empowers decisions.



Access our market outlooks, proprietary data, and regulatory breakdowns to inform your strategic decisions.

Involvement: Relationships drive business.



Shape the national clean energy narrative, drive bipartisan solutions, and convene at premiere events.



We represent more than 800 members from the energy storage, wind, utility-scale solar, green hydrogen and transmission sectors.

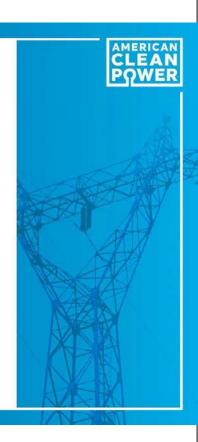
Learn More: cleanpower.org

WHY we need well-run markets and well-planned transmission:

- 1. Extreme weather
- 2. Rate and volume of load increase
- 3. Increasing market share of clean energy
- 4. Aging grid infrastructure
- 5. Grid reliability and stability
- 6. Increased National Security
- 7. Non-market benefits of clean energy
- 8. Clean Energy Economy
- 9. Lower cost energy

Extreme weather is now the norm

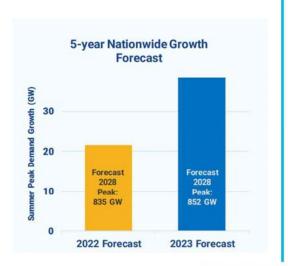
- "Record-breaking heat waves on land and in the ocean, drenching rains, severe floods, years-long droughts, extreme wildfires, and widespread flooding during hurricanes are all becoming more frequent and more intense." — NASA website
- "Extreme weather could cripple the US electrical grid" Energy Monitor, July 31, 2023
- "Extreme weather events are expanding the U.S. power grid is not" Utility Dive Article, Barbara Tyran, March 16, 2023



Load is increasing at astronomical rates

"The Era of Flat Power Demand is Over" Clean Grid Initiative Study, December 2023. According to the study:

- The U.S. forecast of electricity demand shot up from 2.6% to 4.7%.
- Experts agree that this is a massive underestimate



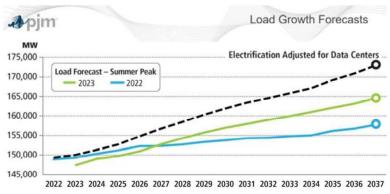
Source: National-Load-Growth-Report-2023.pdf (gridstrategiesllc.com)



Load is increasing at astronomical rates

"The Era of Flat Power Demand is Over" Clean Grid Initiative Study, December 2023. According to the study:

- Biggest drivers = Data
 Centers!! + manufacturing
 facilities (but also
 electrification + hydrogen fuel
 plants + extreme weather)
- Data Center = small 1-5 MW, large = 20-100+ MW, hyperscale = 100-300 MW



Source: National-Load-Growth-Report-2023.pdf (gridstrategiesllc.com)







Find the full text of this and thousands of other resources from leading experts in dozens of legal practice areas in the <u>UT Law CLE eLibrary (utcle.org/elibrary)</u>

Title search: Market Reform and Redesign to Remove Barriers of Entry for Clean Energy and the Build Out a Robust Transmission Grid

Also available as part of the eCourse

<u>Permitting, Regulatory and Environmental Considerations for Renewable Energy Projects</u>

First appeared as part of the conference materials for the 19th Annual Renewable Energy Law Institute session "Market Reform and Redesign to Remove Barriers of Entry for Clean Energy and the Build Out a Robust Transmission Grid"