

GRID **BRIEF**

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Deep Dive: Who's Afraid of SPP?



In February, the **Southwest Power Pool** proposed a new capacity accreditation rubric to improve reliability. Like other RTOs, SPP sent this new rubric to the Federal Energy Regulatory Commission in response to Winter Storm Uri 2021, which blacked out Texas. SPP wanted their capacity accreditation—the way the grid operator measures and values a given resource’s ability to meet demand at a given time—to more closely reflect reality and to both reward the reliable power plants for performance in times of great need and punish those that don’t show up. But this week, several renewable energy trade groups and environmental organizations filed complaints with FERC about SPP’s proposal—we mentioned this in Wednesday’s “What’s Lights On?”. Today, we’re going to dive into what SPP’s proposing, what these groups are claiming, and weigh the merits of each. This spat between these groups and SPP reveals not just how power markets work, but the internecine politics and political assumptions that inflect their

So, let's start with SPP's capacity accreditation proposal. SPP wants to adopt two different accreditation methodologies. The first is called "effective load carrying capability" (ELCC), for renewable energy and storage resources. The second, called performance-based accreditation (PBA), is meant for thermal generators and other conventional resources, like hydropower. In other words, SPP feels that it needs to adopt two different ways to measure what different power generators bring to the grid. SPP explains that this rationale stems from a common problem in American power markets: load growth and the influx of renewable energy resources. "As SPP has learned," [it reads in the grid operator's FERC filing](#), "its existing accreditation methodology for both variable energy resources and conventional resources do not fully and accurately reflect the actual performance of such resources and their true contribution to reliability and resource adequacy. This makes sense on the face of it. Wind, solar, and batteries are fundamentally different from coal and other sources because renewables and storage are not dispatchable (you can't turn them on when you need them) and intermittent (you are not certain when they will produce power or how much). Renewables are judged via ELCC, a probabilistic model that measures their ability to produce power when the grid is mostly like to see shortfalls in electricity production. And traditional power resources are judged via PBA which uses "an analysis that considers demand equivalent forced outages" ("EFORD") during times resources are needed in the relevant season."

What could be wrong with SPP's approach?

This graph will go a long way to explaining why renewable energy groups and environmental organizations aren't happy with SPP's model. It's from SPP [report on its performance during 2020-2021](#)

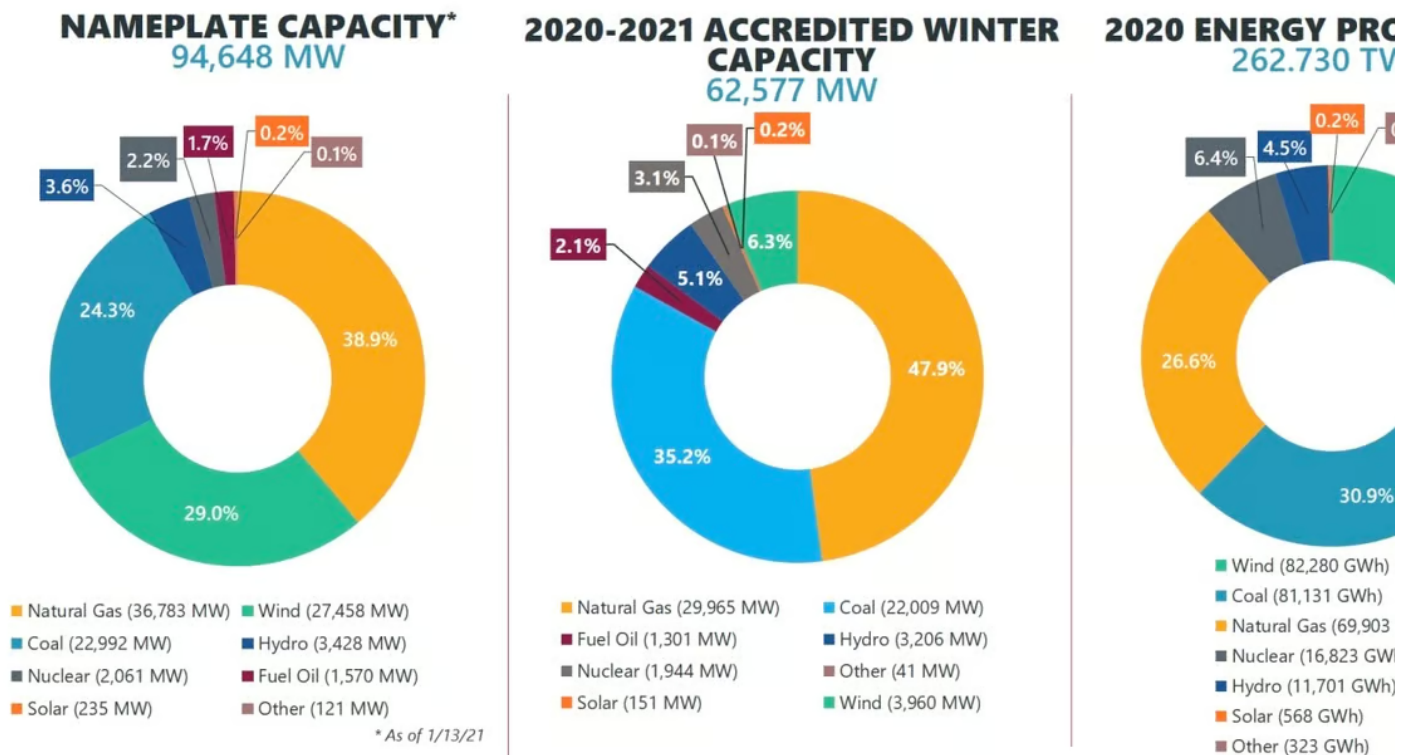


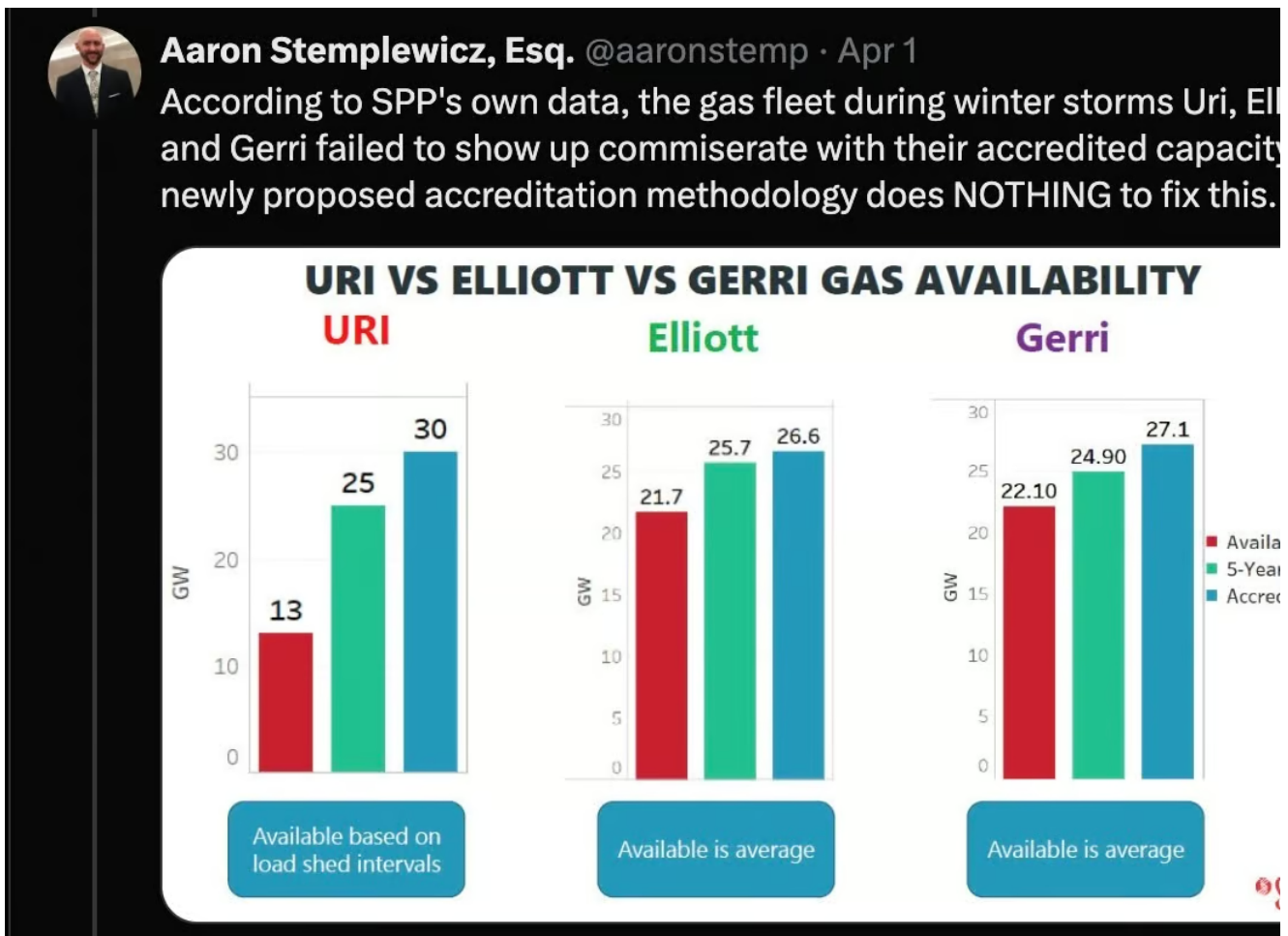
Figure 21: SPP generating capacity overview

Immediately, you'll noticed that natural gas *underperformed* during Uri and wind *overperfo* you see SPP's ELCC accreditation calculations "underestimating" wind and solar and the operator's PBA calculations "overestimating" resources like gas, you might cry discriminat that's exactly what these groups have done.

[Earthjustice](#), a lawfare spin-off from the Sierra Club, was first on the scene. As soon as SF its accreditation methodologies, Aaron Stemplewicz an attorney with Earthjustice, [said](#), "S proposal fails to accurately assess the vulnerabilities of aging coal and gas plants — which again and again during recent extreme weather events — and continues to discriminate a cleaner wind and solar resources."

He [doubled down this week](#) after the Sierra Club, the Natural Resources Defense Council FERC, and trade groups like the Solar Energy Industries Association [filed their complaints](#) they're going after both the NEW accreditation process at SPP *and* its current process).

Here's the crux of their complaint in two tweets from Stemplewicz's thread:





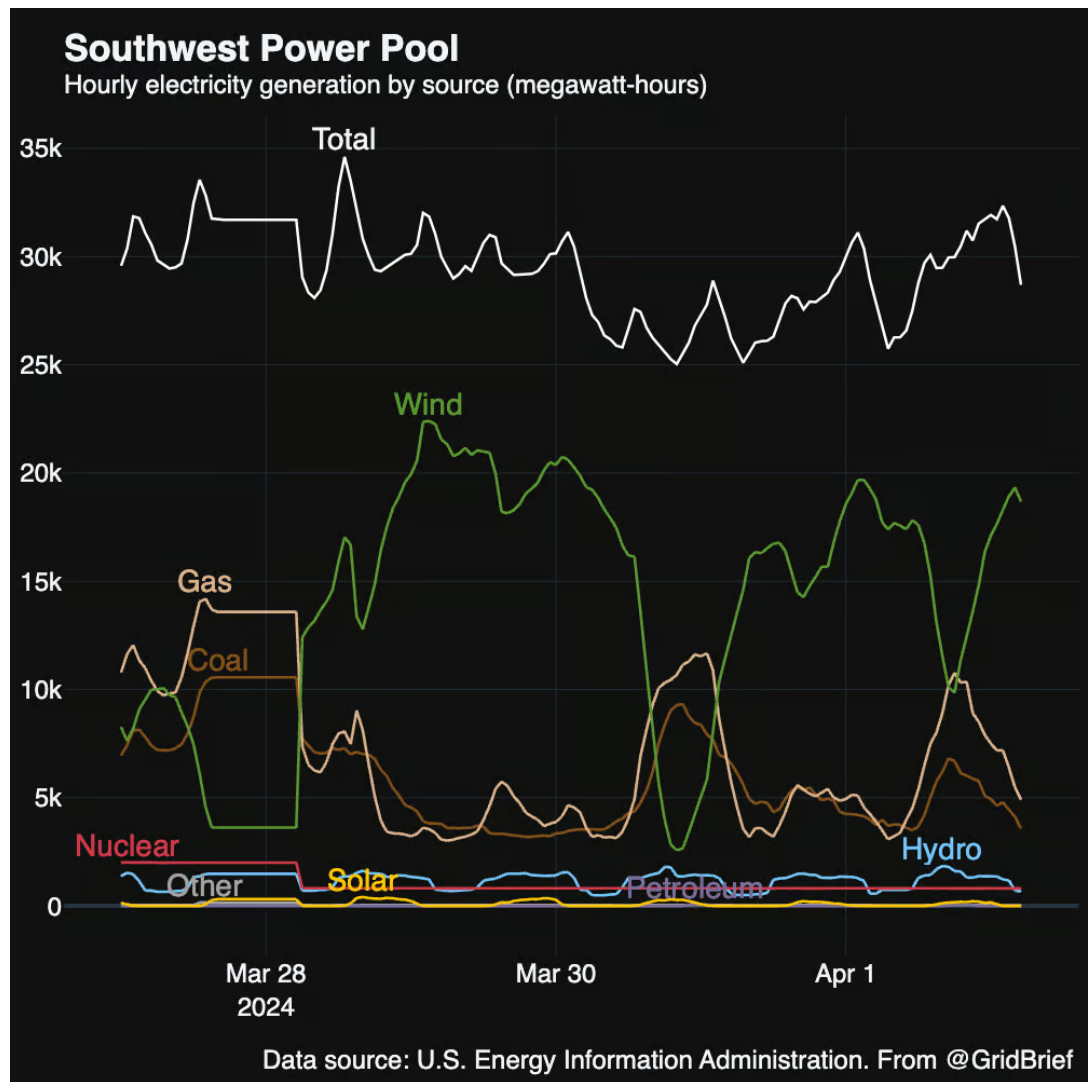
Aaron Stemplewicz, Esq. @aaronstemp · Apr 1

Ironically, during those storms, wind resources DID show up equal to, or beyond, their predicted capacity accreditation, which does take into account correlated outages. In other words, UNDER-accredited wind resources largely saved SPP during those storms. 7/11

URI VS ELLIOTT VS GERRI WIND AVAILABILITY



I want to steelman Stemplewicz's argument to really appreciate what he's getting at. If you read our WKTLO series, you'll know that wind is often a prolific power producer in SPP. To memory, here's what this week's SPP power mix graph from WKTLO looked like:



If wind is such a boon to SPP’s power system and has a better track record during extrem weather events, why is it being given short shrift by SPP? Shouldn’t it expect better perfor wind than natural gas? Is SPP just trying to “artificially entrench fossil fuel resources at the clean reliable renewable resources,” as Stemplewicz puts it? Sustainable FERC came to a conclusion [in their Twitter thread](#): “If approved by FERC, SPP’s plan would slow the shift fi fuels to cleaner resources and increase the build-out of gas-fired generators.”

And because of the wind performances during the winter storms, the groups were able to concerns as a reliability issue to boot. “The over-accreditation of thermal resources in SPF thermal methodology, if not corrected by the Commission, will impose undue costs on rate presents a long-term risk to the reliability of the RTO’s grid,” the groups said in their filing. Now, it could be that SPP’s accreditations aren’t fit for purpose. Its previous attempt at pro accreditation process was [rejected by FERC for procedural errors](#). And there may be meri reject SPP’s proposal beyond the bounds of the green groups’ complaints, as evidenced b Golden Spread Electric Cooperative’s [filing](#), which raised issues of stakeholder approval a investment incentives.

So, my point isn’t that all of these groups have no right to criticize SPP’s proposal. Rather, look back up at our SPP graph from this week. Notice the moments when wind drops off—

ramp up to maintain reliability. Should SPP bet the farm on wind never dropping off out of the most extreme moments? After all, you can't turn the wind up. Advocates for wind may wind fleet performance during a storm in SPP as an edge-case, but the consequences for Texas's wind fleet didn't fare the best during Uri either, often when the storm was at its worst. Likely why SPP wants to use ELCC for wind and solar, which conservatively estimates what to expect from those resources during moments of shortfall.

From an operational standpoint, I think SPP is right for apply different methodologies to different resources—[and I've written about how fragility in our gas system worries me](#). The availability of time fuel for natural gas turbines via pipelines is a legitimate reliability concern. Yet dispatching gas is no substitute in a synchronous system. We can't hope to catch megawatts like manna in the desert—they must be made when and where they're needed *at all times*.

When I see these groups like the Sierra Club and the NRDC and Earthjustice who aren't really focused on delivering molecules or megawatts try to inch the markets toward their all renewables case, it is an impossible dream, I might add—it becomes clear that the task of keeping the lights on during a storm has been fully politicized, and politicized in a way that is far from the public eye and difficult for the uninitiated to understand. This is an oblique struggle amongst the managerial class that has significant implications for everyday life, however it shakes out.

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