

Joint Hearing of House State Affairs – House Energy Resources
2/25/21

Testimony of Charlie Hemmeline on behalf of the Texas Solar Power Association

Thank you Mr. Chairman and members

My name is Charlie Hemmeline and I am the executive director the Texas Solar Power Association, the statewide trade association for the solar industry in Texas, serving customers in both wholesale and retail markets.

Last week was a terrible tragedy, unprecedented and unacceptable. I appreciate this body coming together to make sure we prevent it from happening again and the solar industry stands ready to assist you in any way we can.

Like many others, we are still gathering data on the events of the past week and I am happy to share what we know so far as it pertains to solar performance.

As of this month, the current wholesale solar fleet in ERCOT totals 3,974 MW of completed solar projects with another 2,222 MW built and nearing commercial operation, some of which was able to provide power to the grid last week.

While solar power has grown to make a sizeable contribution to resource adequacy in the summer when our electricity demand peaks during hot July and August afternoons, solar plays a lesser role in the winter when peak demand tends to occur in the early morning hours before the sun has reached full strength.

For this winter, the various planning scenarios in ERCOT's Seasonal Assessment of Resource Adequacy included 269 MW of solar being available to help meet the expected winter peak demand, representing 0.5% of the total need.

Since Texas ended up having essentially a 5-day long winter demand peak event, solar output ultimately exceeded ERCOT's SARA projection.

Average solar output during the daytime 8am-6pm hours exceeded the ERCOT's projection each day of the event, and ranged from 1.0%-6.6% of system demand (compared to 0.5% as was in the SARA report).

That said, like all generators, solar power plant operators did experience multiple challenges in coping with the extreme winter weather.

ERCOT's data shows that outages or other output reductions approximating 1,500 MW occurred on Monday, roughly 25% of our total capacity, but tapered down from there as the impacts were mitigated.

Initial feedback from plants in commercial operation highlighted the following challenges:

- Several solar sites were intermittently offline, as rolling blackouts resulted in no voltage on site, forcing an outage.
- One site had an inverter trip offline due to the weather event, and the transportation conditions were not safe for a technician to travel to the site for several days.
- One solar site was placed into forced outage by the utility due to ice on the transmission lines connecting it to the grid.
- At one site, 200 inverters had to be manually reset by the operators on site in the ice and snow.
- One site had issues with communications to the grid, due to power outages to communication towers in area.

We will continue to gather additional feedback on other specific challenges in the coming weeks.

Although today's discussion is focused mainly on the wholesale market, I do also want to point out that customer-sited solar generation from rooftop systems also made a contribution. Currently, ERCOT estimates that there is more than 725 MW of customer-sited solar generation online, an amount basically the size of a very large power plant. Relevant to last week, customer solar generation reduced the burden on wholesale power plants and customers with on-site storage were able to keep their homes powered last week even under rolling outage situations.

Electricity is critical to Texas and the solar industry is committed to providing safe, reliable power that all Texans can count on. We look forward to working with you all to further strengthen our grid and market in the coming months. I appreciate the opportunity to be here today and am happy to take any questions.