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Thomas F. Darin
Sr. Director, Western State Affairs
American Clean Power Association
720.244.3153
tdarin@cleanpower.org
www.cleanpower.org

August 24, 2021

Chairman Peter Lake
Commissioner Will McAdams
Commissioner Lori Cobos
Commissioner Jimmy Glotfelty
Public Utility Commission of Texas
P.O. Box 13326
Austin, TX 78711-3326

Dear Commissioners,

The American Clean Power Association ("ACP"), on behalf of its 800 members representing manufacturers, owners, purchasers, and investors of renewable generation in Texas, submits this correspondence to express our support for the Public Utility Commission of Texas ("Commission") in their effort to improve the reliability and resilience of the Texas energy grid. Renewable energy, historically wind and increasingly solar, has long been an important and growing component of Texas' energy mix, supporting neighboring communities and landowners, and providing affordable clean power to all. Texas' energy shortage events in 2021 were truly devastating and demand swift and comprehensive policy solutions. However, as we weigh the options, it is important to start from a solid foundation of the evidence and data gathered.

While recent initiatives intend to create a more reliable grid, most primarily focus on incentivizing thermal generation by shifting costs onto renewable generation. Notably, these actions will not result in the reliable market that is envisioned for the Electric Reliability Council of Texas (ERCOT). We do, however, believe that the reliability of the grid can be improved, and the state's energy goals can be accomplished without pitting one generation resource against another. Texas benefits the most from a full portfolio of generation resources.

While ACP shares the desire to address the challenges faced by the Texas electric grid, we are concerned that focusing blame for the winter storm event inappropriately on renewable generation is based on incorrect information and data that will ultimately undermine the state purpose of improving grid reliability while also undermining existing investments in clean energy, deter future commitments, and forfeit the leadership role Texas has assumed in the global energy transition. We are in a period of strong economic growth within the State which has increased the demand for electricity. To reliably meet this growing demand at affordable prices, Texas will need to support diverse resources and encourage all technologies to compete in an open and level playing field and fully fair and transparent market.

Texas is a global energy leader thanks to a history of sound public policy and regulatory stability that allows Texas to demonstrate the benefits derived from a diverse array of energy resources capable of delivering reliable, affordable energy. Texas is also a proven leader in renewable energy investments with more than 38,000 MW of wind, solar, and storage capacity installed – more than any other state in the nation. Texas would have the 5th largest installed wind energy capacity in the world if the state were a separate country. Texas is also among the leading states in solar energy potential and investment. These strong solar and wind resources across vast distances create added benefits as complimentary technologies with geographic diversity. This level of renewable investment has driven Texas energy prices down and mitigates fuel-price risk exposure.

Recently there have been several policies proposed, targeting renewable generation in the name of reliability, such as allocating reliability costs to wind and solar power. This would significantly undermine the state goal of reliability by deterring additional investments in wind that will help strengthen Texas's diverse portfolio that combines the technological and geographic diversity benefits from a suite of generation sources. In addition, the discriminatory and misplaced polices would negatively impact more than $70 billion in current investment and deprive Texans of the cheap and clean energy, jobs, royalty payments, property tax revenue, and infrastructure to attract technology-centric companies to Texas. Targeting renewables will increase costs for consumers, upend existing contracts for power that have been executed by many of America's leading companies desiring renewable energy alternatives, and undercut the tax base of rural communities and schools, sending a chilling message to investors in all segments of Texas' electric market.

Renewable Energy Was Not the Sole or Primary Cause of Energy Shortages in 2021

It is incorrect to state that Texas' use of renewable energy sources, specifically wind or solar energy, are to blame for the energy shortage events that occurred in 2021. The ERCOT market has experienced two notable energy shortage events in 2021 – the February 2021 Winter Weather Event and the mid-June heat wave. In both instances, a failure by a variety of generation types – including significant amounts of thermal generation resources – overwhelmingly contributed to and were the major cause of the market's reliability challenges.

Winter Storm Uri brought record cold weather to Texas the week of February 14, 2021, which affected generation and transportation across all fuel types. Importantly, wind generation was not the root cause of the crisis. Rather, it was traditional thermal generation that suffered unprecedented fuel supply disruptions and forced outages. This is evidenced by the following outage data:

- Thermal: 14.1 GW shortfall in online capacity between the combination of the ERCOT Seasonal Assessment of Resource Adequacy (SARA) extreme cases of 56.7 GW[1] capacity online and actual 42.6 GW online with actual outages of 23.6 GW[2].
- Wind: 1.2 GW shortfall between expected SARA extreme case capacity of 1.8 GW[3] and actual generating capacity of 0.6 GW.

Almost 95% of the shortfall between the SARA expected extreme case capacity of 63.3 GW and actual online capacity of 45 GW was due to outages of thermal and other resources, not wind generation.

During the week of June 14, 2021, ERCOT experienced above-normal temperatures with projected peak load of 71 GW. In response, ERCOT issued energy conservation alerts in response to low operating reserve margins. Although generation in general under-performed versus ERCOT's Seasonal Assessment of Resource Adequacy for Summer 2021, renewable generation provided 9 GW of supply during the load peak. During peak demand on the most stressed operating reserve margin day of June 14, ERCOT experienced the following:

- Thermal: 63 GW of the 72 GW of non-renewable Total Resources[4] were available due to 9 GW of thermal resource outages inclusive of 1.2 GW of nuclear outages. These outages exceeded ERCOT's High Forced Outage Risk Scenario by 3 GW.[5]
- Wind + Solar: Wind generation provided 3.7 GW of supply (almost twice the 2 GW low output forecast) and solar 5.1 GW at the peak allowing ERCOT to avoid load shed.

Similarly, on June 23, when load exceeded 70 GW, thermal resources experienced over 10 GW of outages and load shed was avoided due to the availability of 22.5 GW of electricity from renewable generation resources. As evidenced by ERCOT's data, renewable generation did not cause the energy shortages during the February 2021 Winter Weather Event and the mid-June heat wave.

Texas Benefits from an Open and Diverse Energy Market

The Texas energy market is designed to drive private investment into its grid, which encourages price competition and diverse energy options. Texans have enjoyed the benefit of this competitive, de-regulated market through lower electricity bills. Renewable generation is the catalyst behind the lower energy prices, derived from the absence of fuel costs. Renewable generation is somewhat variable, following natural energy sources to generate electricity, but is also becoming increasingly dispatchable thanks to energy storage and more advanced, ramp-able

[1] Final Winter 2020-21 Seasonal Assessment of Resource Adequacy for the ERCOT Region (SARA) Reserve Capacity Risk Scenarios include Typical Maintenance Outages of 4,074 MW and Typical Forced Outages of 4,542 MW.
[2] Wood Mackenzie: Breaking Down the Winter Blackouts
[3] Final Winter 2020-21 SARA Extreme Low Wind Output of 1,791 MW.
[4] Calculated based on Final Summer 2021 SARA by subtracting all renewable generation contributions from Total Resource
[5] Final Summer 2021 SARA Reserve Capacity Risk Scenarios include a High Forced Outage Adjustment, Thermal/Hydro scenario which adds an incremental 2,601 MW to the Typical Forced Outages of 3,617 MW for a total 6,218 MW

generation and invertor technologies. The fact that renewable generation is not tied to the same energy sources as thermal generation provides great benefits to Texas' energy markets by keeping costs low and reducing volatility associated with fuel prices. To take full advantage of renewables' low costs and keep prices low for consumers, ERCOT has itself encouraged renewables to prioritize maximized delivered energy over dispatchability and other services. To penalize renewable generation by assigning allocating reliability costs would not only hurt Texas consumers in the form of higher energy bills but could actually reduce reliability if these discriminatory changes result in an ERCOT generation mix that is less diversified than today. Indeed, this idea reflects a lack of understanding of the role that wind and solar resources play on the grid as part of a diverse portfolio of energy sources that all have different grid attributes that in combination provide Texans with reliability and low-cost power. Instead of burdening new renewable technologies with additional costs, as renewable generation increases in Texas, the Commission and ERCOT should look to take advantage of increasingly dispatchable invertor-based renewable energy projects and energy storage to further provide flexibility to the grid while still aiding in g keeping costs low.

The end goal for Texas is reliability. ACP agrees that the Commission and ERCOT should evaluate and identify solutions to improve reliability but re-allocating ancillary services costs from load to renewable generation would not improve reliability – it would just shift who bears the costs. To the contrary, re-allocating ancillary costs to renewable generation would have the opposite effect – it would *hurt* reliability. If the Commission decides to re-allocate ancillary services costs to renewable generation, it would disrupt the business case for renewable projects that previously relied on the State's reputation as stable market. Some renewable projects could decide to retire prematurely while investors and developers of future projects will increasingly look to other states with a more stable, pro-business environment. Such an outcome would decrease Texans' access to low-cost generation that reduces energy bills and could lead to resource adequacy concerns if the State struggles to keep up with increasing load growth.

Renewable Energy Has and Will Continue to Provide Substantial Benefits to Texas

It is in the best interest of Texas' electric customers, landowners, counties, and economy to continue providing an open business environment that fosters, rather than stifles, the development and operation of renewable energy.

According to the U.S. Energy Information Administration (EIA), renewable energy fueled more than one-fifth of all utility-scale net generation in Texas in 2020. Since 1999 when the Commission adopted 16 Tex. Admin. Code § 25.173 setting a Goal for Renewable Energy, Texans have benefited from the State's forward-thinking approach toward encouraging renewable energy investment. Texas is transitioning from traditional energy resources to a more diversified market that includes clean, low-cost energy by leveraging its renewable solar and wind resources, energy storage, and natural gas resources. Texas consumers, industry, and the environment are well-served by sound policy decisions that encourage this transition and those policies should not be reversed.

To be clear, the investments made in renewable energy stimulate local economies and generate millions of dollars in rent and royalty payments to Texas landowners along with property tax payments benefitting Texas school districts and other economic development benefits, particularly in rural areas of Texas. Over its lifetime, the current fleet of utility-scale wind and solar projects in Texas is expected to generate between $4.7 billion and $5.7 billion in new tax revenue to local communities and schools.[6] In many rural school districts and counties wind or solar projects rank as the top ad valorem taxpayers, and school districts across the renewable power footprint use this infusion of revenue to improve facilities and instruction. These entities also issue bonds based on anticipated revenue from these capital-intensive projects.

If all projects with interconnection agreements are built, after accounting for reasonable attrition, combined existing and planned utility-scale wind and solar projects will pay between $8.1 billion and $10 billion in total tax revenue over their lifetimes.[7] Additionally, existing utility-scale solar and wind projects in Texas will pay Texas landowners between $4.8 billion and $7.3 billion over the lifetime of the projects.[8] And, if all of the projects with signed interconnection agreements are built, Texas landowners will directly receive lease and rent payments totaling between $8 billion and $13.1 billion over the existing and planned project lifetimes.[9] Of these taxes and landowner payments, over 70% are paid to rural counties.[10] This infusion of tax revenue and landowner payments are vital to rural Texas and will be placed at risk if changes to the energy market are made that discriminate against the more than $70 billion of renewable generation investment already made in Texas, but also discourage future investment in renewable energy projects.

Beyond investing in local communities, renewables provide the lowest-cost source of power to customers and serve to mitigate the fuel price risk of traditional sources of generation. While thermal generation continues to play an active role in Texas' grid, renewables reduce the overall cost of energy, which helps lower the electricity bill for Texans. Without renewables, Texans would experience higher bills through the resulting increased reliance on higher-cost thermal generators.

Renewables offer the opportunity to expand employment opportunities across the state and attract further business growth to the Texas economy, particularly as the technology industry turns to renewable energy investment to reduce the impact of their operations and achieve their publicly stated carbon-free energy initiatives. The information and communications technology sector is one of the fastest growing market sectors and is expected to account for 20% of all electricity consumption by 2030, according to a report from the Institute of Energy Economics and Financial Analysis. Leading tech companies in the United States including Amazon, Apple, Facebook, Google, Microsoft, and Samsung are increasingly signing Purchase Power Agreements with the aim of expanding their renewable power consumption and reducing their carbon footprint. In Texas, they are joined by many other leading manufacturers including General Motors, Mars Global, and Toyota.

[6] The Economic Impact of Renewable Energy in Rural Texas, Joshua D. Rhodes, PhD, August 2020.
[7] Id.
[8] Id.
[9] Id.
[10] Id.

The Commission should also recognize that the trend of transitioning to clean energy sources is expected to continue over the next few years as the rapid growth in the data centers market expands their power requirements. Given these facts, it would be economically and fiscally irresponsible to take actions that would undermine these opportunities and diminish the positive returns that renewables are generating for the State of Texas.

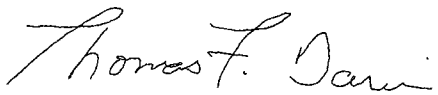
Straying from Texas' Tradition of Equal Treatment of Technologies Jeopardizes Existing Investment and Contractual Rights

Any material change in the treatment of renewable generation within the ERCOT market would severely harm the economic viability of these projects and jeopardize the existing contracts and power purchase agreements that have funded the tens of billions of dollars invested in the Texas renewable energy generation fleet. It will also send a strong message to future investors that Texas can no longer be depended on as a state that can provide the regulatory certainty to the businesses that invest in the State. Such action is contrary to the Texas pro-business spirit and inconsistent with Texas' competitive energy market design that necessarily depends on a diverse portfolio of generation resources to function efficiently for consumers.

Conclusion

In closing, the ACP and its members are eager to participate in the stakeholder process and will work collaboratively with other stakeholders to develop a more resilient, reliable, and affordable electric grid to serve the people of Texas. As we work together to achieve those ends, the ACP urges the Commission to adopt solutions that are rational, non-discriminatory, and continue to foster investment in the Texas grid and economy.

Sincerely,



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