April 9, 2025

The Honorable Ken King, Chairman
House Committee on State Affairs
Texas Capitol, Room GW.17

***Via Hand Delivery***

***RE: HB 3278, relating to the study of and incentives for the use of solar and wind energy.***

Chairman King,

On behalf of the Advanced Power Alliance (APA) and the Texas Solar + Storage Association (TSSA), we respectfully submit the following comments in opposition to House Bill 3278 by Representative Don McLaughlin.

As proposed, the bill would direct the Texas Commission on Environmental Quality (TCEQ) — in coordination with the Public Utility Commission of Texas (PUCT), Texas Parks and Wildlife Department (TPWD), and other relevant agencies — to study the impacts of clean energy development on the environment, economy, and infrastructure. It would also impose a moratorium on state economic incentives for wind and solar through the end of the 90th Legislative Session.

The following memo outlines why much of the subject matter in the bill has already been thoroughly reviewed, most recently in a comprehensive study performed by the Bureau of Economic Geology at the University of Texas under contract with the TCEQ (and with contributions from the Natural Resources Institute, Texas A&M University) and submitted to the Legislature in December 2024.

As stated in the executive summary, ***"the State of Texas has an established regulatory framework to manage the environmental impacts of solar, wind, and energy storage systems on the environment."*** Many of the claims the bill seeks to study are based in theories that have been widely dismissed or debunked or that are readily addressed with existing, available data, requiring no detailed study. In short, the proposed study appears redundant, unnecessary, and an inefficient use of taxpayer resources. Meanwhile, the proposed moratorium would undoubtedly harm rural communities, private landowners, and continued economic growth across Texas while stripping local elected officials of the tools to indicate which types of investments they wish to attract to their communities.

| PROVISION FROM HB 3278 | EXPLANATION |
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| STUDY: Land use and habitat disruption, including the impact of large solar and wind generation facilities on agricultural land, native ecosystems, and wildlife habitats | This issue has already been addressed in a study conducted by TCEQ and the Bureau of Economic Geology, as required by SB 1290 (88-R).<br><br>The report acknowledges that, as with any large infrastructure project, installation activities can temporarily disrupt existing land uses and wildlife habitat. However, once operational, these projects have minimal ongoing impact. It also notes that such impacts can be effectively managed through |

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| | established Best Management Practices — including thoughtful site selection to avoid sensitive ecosystems, maintaining vegetation to reduce erosion, and designing projects to preserve wildlife movement corridors — all of which are routinely employed by developers in Texas. With proper planning and compliance with local, state, and federal requirements, the report affirms that clean energy projects can be responsibly developed without harming agricultural land, native ecosystems, or wildlife habitats. **The report did not recommend further study.** |
| STUDY: Decommissioning and disposal challenges related to solar and wind generation facilities, including a consideration of the life cycle of solar panels and wind turbines, hazardous waste risks, sustainability of recycling methods, and the disposal of components | This issue has already been thoroughly addressed in the TCEQ study.<br><br>Wind and solar projects follow some of the nation's most stringent decommissioning standards — prioritizing landowner protections and requiring full funding for facility removal and land restoration. **These standards apply exclusively to wind and solar power generation and have become a model for other states.**<br><br>Additionally, legislation this session — **HB 3228, HB 3229, and HB 3809** — strengthens recycling and disposal requirements, mandates financial assurances from recyclers, and extends these provisions to battery energy storage systems (BESS). All three bills have companion measures advancing in the opposite chamber and are strongly supported by industry, highlighting our commitment to responsible development and operations. |
| STUDY: Grid reliability and energy security, including any effects of an increased reliance on solar and wind energy on electric grid stability, energy storage needs, and grid reliability during periods of peak demand | This issue has been a major focus since Winter Storm Uri, with the Legislature, PUCT, and ERCOT studying and implementing significant reforms to improve grid reliability. **It's been the overwhelming conclusion that a diverse mix of energy resources, including wind, solar, and battery storage has made the grid more resilient, reduced exposure to correlated outages, and enhanced energy security.** The PUCT's recent review of ancillary service costs found no clear link between increased costs and the level of non-dispatchable generation on the system.<br><br>Solar is a predictable resource that performs well during peak summer demand, delivering lower |

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| | costs for consumers and setting new output records almost monthly. Wind has continued to deliver nearly one-quarter of the state's annual power consumption, is critical during shoulder seasons, and typically ramps up in the evening as solar declines. **Together, wind and solar often supply more than 50% of grid demand and have approached supplying 80% several times just this year.** Battery energy storage has emerged as a critical contributor to grid stability, particularly frequency response, due to its ability to discharge power instantaneously. BESS also participates in all ancillary services, enabling natural gas plants to remain active in the energy market instead of being held in reserve. Importantly, battery projects have consistently delivered reliability benefits and helped keep power costs low during the periods of highest demand. |
| STUDY: The economic impact of solar and wind generation facilities on rural communities, including changes in land value, tax revenue, or agricultural productivity in areas where solar generation facilities or wind generation facilities are established | The economic benefits of clean energy projects to rural Texas are significant and well-documented. **Over 75% of Texas counties are projected to receive tax revenue from wind, solar, or storage projects, which are expected to generate more than $20 billion in local tax revenue and nearly $30 billion in landowner payments.** These payments support schools, emergency services, and local infrastructure — especially in rural areas — and often help to alleviate the need to raise taxes. Policy changes that restrict renewable or storage deployment would reduce these economic lifelines. Additionally, a 2025 analysis projected that Texas **ratepayers could face $115 billion in additional ERCOT market costs over the next 15 years if laws are passed that delay or block clean energy and energy storage development.**<br><br>While some have raised concerns about land use, data shows these concerns are exaggerated. Solar currently occupies just **0.14% of Texas working lands — even if all late-stage proposed projects in the ERCOT queue are built, total land use would be only 0.18%.** Research from the USDA found that **85% of land around utility-scale solar projects remains in agricultural use.** A study from American Farmland Trust and recent comments from Texas Farm Bureau confirm that **the leading causes of agricultural land loss in Texas are urban sprawl, economic pressures, and labor shortages — not renewable energy.** |

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| | Wind energy's footprint is even smaller, with **only 2%** directly occupied by project infrastructure, allowing continued farming and ranching with no land use conversion.<br><br>Further, 2023 studies showed no meaningful impact on nearby land or residential property values from operational wind or solar projects. |
| STUDY: Potential fire risks associated with lithium-ion battery storage and the capability of rural emergency services to effectively respond to a fire at a battery facility | This issue is already being addressed through legislation filed this session — **HB 3824 and SB 1825** — which aim to ensure the safe installation and operation of BESS across Texas. The bills incorporate national best practices and close a key gap in safety oversight for this growing technology. They require the state to adopt and update safety standards, mandate third-party engineering reviews, include site-specific emergency operations plans, and provide annual first responder training — all funded by battery developers. These actions align with recommendations from the TCEQ study, and the industry is actively supporting the legislation. |
| STUDY: Risks of soil and water contamination from solar generation facilities, including risks associated with water usage, long-term soil degradation, and the disposal of solar panel materials | This issue has already been thoroughly addressed in the TCEQ study.<br><br>Rainfall is typically sufficient to keep solar panels clean and, in rare cases where additional cleaning is needed, operators use soft brushes and distilled water — never chemical agents, which could void manufacturer warranties. Solar does not use water in normal operations.<br><br>**Solar panels are made up of more than 90% glass and aluminum**. TCEQ's interim study concluded that even in the event of storm damage, contamination risk is "minimal," and the aforementioned legislation already considered by this committee ensures proper recycling and disposal of panels.<br><br>Solar projects are also built to meet strict local, state, and federal standards for stormwater, erosion, and sediment control. In many cases, solar farms improve soil health by reducing erosion, increasing moisture retention, and enhancing organic matter. Agrivoltaics—where land is shared for farming, grazing, or pollinator habitat—is an increasingly adopted practice. |

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| STUDY: Wildlife and avian mortality related to the production of wind energy, including the effects of wind turbines on migratory birds, bats, and other wildlife populations | Neither wind nor solar projects have been found to cause population-level impacts to birds or other wildlife species. Developers follow rigorous, science-based protocols to evaluate potential risks to species and habitats before construction. These protocols include compliance with key federal laws such as the Endangered Species Act, the Migratory Bird Treaty Act, and others which are administered by the U.S. Fish and Wildlife Service (USFWS) — often in coordination with TPWD.<br><br>As part of this process, developers work with engineers and wildlife biologists to conduct studies that confirm project compliance with federal requirements. These reviews frequently lead to site-specific mitigation measures, technology solutions and operational adjustments designed to minimize potential impacts.<br><br>According to USFWS, wind energy is one of the least impactful causes of avian mortality:<br>• Buildings, power lines, and cats: ~82%<br>• Vehicles: 8%<br>• Pesticides: 7%<br>• Communication towers: 0.5%<br>• **Wind turbines: 0.003%**<br><br>Wind energy impacts to bats are primarily seasonal in nature and can be mitigated with both operational changes and technology solutions—such as an acoustic deterrence—that are being tested. |
| STUDY: The noise created by and potential health effects of wind generation facilities, including the potential effects of wind turbine noise, infrasound, and shadow flicker on nearby communities | No authoritative research has found a causal link between wind energy facilities and human health effects. **Wind turbine noise levels are typically well within accepted community standards and are quieter than most common household appliances** at typical distances from nearby homes.<br><br>Claims regarding infrasound—low-frequency sound below the range of human hearing—have been thoroughly studied and reveal no physiological or psychological effects, including a 2023 randomized control trial exposing participants to infrasound for 72 hours. |

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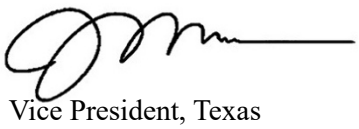
| | Similarly, concerns about shadow flicker—when rotating turbine blades cast intermittent shadows—have not been supported by evidence and studies show no link to health effects, including epilepsy. |
| MORATORIUM: On any state economic incentives for solar and wind from the effective date of the bill to the final day of the 90th Legislative Session | A moratorium on state incentives for wind and solar would directly undermine local control and limit rural economic development. Programs like Chapters 312, 380, and 381 were designed to let communities decide what's best for their local economies — whether that's attracting jobs or expanding the tax base through high-revenue, low-impact renewable energy facilities.<br><br>Additionally, **such a measure would be discriminatory and have an outsized impact on rural communities,** which often lack access to large scale capital investments besides clean energy projects. And, at a time of record load growth, clean energy and energy storage are critical to meeting the state's surging demand. Recent reports show that turbine supply constraints are pushing lead times for new dispatchable generation out by several years—making the fast, flexible deployment of solar, wind, and storage projects more important than ever. |

The clean energy industry remains committed to responsible development and operates fully within established local, state, and federal regulatory frameworks to address the topics outlined in this memo. Clean energy projects are strengthening local economies, supporting Texas families, and playing a critical role in enhancing grid reliability. For these reasons, we respectfully urge you to vote no on House Bill 3278.

Thank you for your time and consideration. If you have any questions or would like to discuss these matters further, please don't hesitate to contact us.

Respectfully submitted,

**Judd Messer**



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