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RULEMAKING TO ESTABLISH ELECTRIC WEATHERIZATION STANDARDS	**§ § §**	**PUBLIC UTILITY COMMISSION OF TEXAS**

COMMENTS OF THE SOLAR ENERGY INDUSTRIES ASSOCIATION

COMES NOW the Solar Energy Industries Association ("SEIA") and files these Comments to the Commission Staff's Discussion Draft and Questions for Comments filed in this proceeding on July 19, 2021.

Introduction

SEIA is the national trade association of the solar energy industry. Through advocacy and education, SEIA and its members are building a strong solar industry to power America. As the voice of the industry, SEIA works to make solar a mainstream and significant energy source by expanding markets, removing market barriers, strengthening the industry, and educating the public on the benefits of solar energy. SEIA represents solar companies across a variety of solar energy technologies, including photovoltaic ("PV"), solar water heating, and concentrating solar power ("CSP").

Executive Summary

1. The Commission should clarify parameters of the proposed weather study process.
2. The Commission should define the phrase "resource's applicable rated capability" since this is undefined in the Utilities Code, the Commission's Substantive Rules, and ERCOT's Protocols.
3. The Commission should clarify the deadline by which a generation entity must meet any revised weather reliability standard that is adopted after January 1, 2022.

4. The Commission should only require compliance studies conducted by a qualified professional engineer who is not an employee of the generation entity or affiliate from generation resources that intend to provide a higher level of weather reliability service or Black Start Service or generation resources that ERCOT has identified as not in compliance with subsection (d) and that seek to demonstrate that the violation has been cured.

5. The Commission should grant ERCOT flexibility and authority to grant good cause exceptions to allow generation resources that are not able to fully comply with subsection (d) to continue to operate in the ERCOT region.

Comments

In general, solar generation resources are remarkably resilient in adverse weather. While there is no doubt than an accumulation of ice or snow on the face of a panel can adversely impact the panel's production capability, as soon as solar radiance becomes available, the heat generated by a solar panel will naturally cause ice or snow to slide off the panel. For installations that allow the tilting of panels, this removal process may be expedited, but this is not a capability that exists in all solar installations. These capabilities enabled solar generation to quickly restore their output during Winter Storm Uri.

Aside for from the impact of a large weather event like a snow or ice storm, the occurrence of events in which an entire solar generation resource is unexpectedly unable to generate is not common, especially in ERCOT. To the contrary, in the event there is a failure of a component of a solar generation resource, the failure generally has a localized effect, and only a portion of the resource is impacted but generation from the whole installation is not lost.

Response to Questions:

2. Do existing market-based mechanisms provide sufficient opportunity for cost recovery to meet the weather reliability standards proposed in the discussion draft? If not, what cost recovery mechanisms should be included in the proposed rule?

While the current energy-only market coupled with the Operating Reserve Demand Curve (ORDC) is intended to provide an adequate opportunity for cost recovery to maintain and weatherize generation resources, there is no way to determine at this point whether the current market structure could provide an adequate opportunity to recover the costs to comply with the proposed weatherization standards in this discussion draft since there are too many uncertainties. As discussed below, more certainty regarding the specific elements of the weather scenarios that constitute the 95th, 98th, and 99th percentile probabilities are required in order to determine whether compliance can be achieved with commercially available, affordable, and effective technologies to address each element of the weather scenarios studied by ERCOT. Moreover, as reflected in prior comments in this proceeding, some suggested weatherization requirements just cannot be met, and their imposition would lead to the premature retirement of existing resources and discourage construction of new resources. Similarly, discriminatory market designs can have a direct negative impact on the ability of a generation resource to comply with weatherization requirements. As a result, in the absence of much more certainty and specificity regarding the actual standards that resources must engineer to meet, as well as the market structure that will impact the financial viability of current and future generation resources, one cannot determine whether there are or will be market-based mechanisms that provide sufficient opportunity for cost recovery to meet the weather reliability standards proposed in the discussion draft.

Comments Regarding Discussion Draft:

(c) Weather study.

In proposed §25.55(c), the Commission proposes to require ERCOT's weather study to include "statistical probabilities for a range of weather scenarios in the 95th, 98th, and 99th percentile probabilities". It is unclear whether the discussion draft is proposing that ERCOT develop a single weather scenario that meets each probability level for each weather zone or multiple weather scenarios for each level of probability for each weather zone. Clearly, the more weather scenarios studied for each level of probability, the more variables that generation resources will have to plan and engineer for to address those scenarios, the less likely solutions will be technologically or economically achievable, and the less reliable the grid will become as resources prematurely retire and fewer new resources are constructed. In order for generation resources to meet any weatherization standard, it is critical that is clarity regarding the combined parameters that must be satisfied. Moreover, this same clarity will be critical to enable ERCOT and the Commission to inspect compliance by generation resources and the Commission to enforce the applicable standards. To provide this additional clarity, the Commission could add the following at the end of subsection (c)(1): "For each percentile probability, the weather study shall specify all applicable parameters with specificity."

It also should be noted that the proposed language does not define the time horizon for the determination of these probabilities or the extent to which the time horizon being studied should be forward-looking and backward-looking. The length of the time horizon applied and the extent to which the study focuses on historical weather versus predicting future events may impact what ERCOT determines to be a 95th percentile scenario and whether there will be commercially available, affordable, and effective technologies to address every element of that scenario. As a

result, the Commission should specify the applicable time horizon for the weather study and the determination of the probabilities applicable to each weather zone.

(d) Weather reliability standard for a resource.

In proposed §25.55(d), the Commission proposes to require a generation entity to maintain weather preparation measures that reasonably ensure that its resource can provide service "at the resource's applicable rated capability" as defined by ERCOT under different weather scenarios. The phrase "at the resource's applicable rated capability" is not currently defined in the Utilities Code, the Commission's Substantive Rules, or ERCOT's Protocols. What appears to be the closest concept to the discussion draft is the seasonal peak average capacity that ERCOT calculates for each resource type for when developing its Capacity, Demand and Reserves (CDR) Report. (See Protocol § 3.2.6.2 et seq.) If this is the Commission's intent, then a definition that reflects that should be used. In addition, clarity regarding the duration of performance "at the resource's applicable capability" is needed. For example, a solar generation resource is not able to generate electricity at its seasonal peak average capacity at night, so a requirement to perform 24 hours a day, seven days a week even in adverse weather will not be reasonable. In light of the fact that violations of this rule could be subject to a penalty of as much as $1 million per day per violation, there should be no ambiguity as to the meaning of every requirement that a resource must satisfy to comply.

(e) Implementation of weather reliability standards for a generation entity.

In proposed §25.55(e), the Commission includes a schedule by which a resource must implement weatherization preparations to meet the applicable reliability standard under subsection (d) following the Commission's approval of the first weather study. At this time, SEIA is not able

to opine on the reasonableness of the proposed deadlines since there is no clarity on the standards that must be met.

In the discussion draft, the Commission also proposes that ERCOT prepare, and the Commission approve, subsequent studies at least every five years. It is important to recognize that, in the absence of grandfathering provisions, the potential for design and engineering modifications that may be required to comply with frequently changing weatherization requirements will have a significant chilling effect on the continued operation of existing resources in the ERCOT region and investment in new generation resources. For new construction projects where turbines and equipment are specified and purchased at least two years in advance, they may face changed rules when they are ready to start commercial operation. This level of uncertainty will have a chilling effect on capital investments in ERCOT – especially for longer lead time projects.

However, even if the modifications can be satisfied with commercially available, affordable, and effective technologies, the discussion draft does not provide clarity regarding the deadline by which such modifications must be implemented. This is a necessary clarification if updated studies are applied at all to existing resources as well as provide notice of the new requirements to new resources.

(f) Compliance with weather reliability standards for a generation entity.

In this section, the Commission proposes to require a study performed by a third party qualified professional engineer be submitted to ERCOT for every generation resource in the region. Rather than impose this cost on all generators, the Commission should allow generators to initially self-certify compliance with the basic weather reliability standard. This would allow the Commission to reserve the requirement for studies performed by independent engineers for

those generation resources seeking qualification to a higher weather reliability standard or in instances where a generator that ERCOT has identified through its inspection process as failing to meet the weatherization reliability standard is confirming that it has cured the deficiencies ERCOT identified.

(h) Violations of weather reliability standards by a generation entity.

As discussed above, the approach to weather emergency preparedness that the Commission has proposed in this discussion draft would lead to a significant degree of uncertainty for generators in the ERCOT region. There is uncertainty regarding the parameters of the scenarios in the weather study, including what specific weather events will be included and how the probabilities will be determined. There is not a clear standard that generators and their vendors can engineer equipment to meet or even determine whether there are commercially available, affordable, and effective technologies to address every element of a 95th percentile scenario at the minimum. As the Commission's draft language recognizes, there may be instances in which a generation resource may violate a requirement necessary to meet the 95th percentile scenario. But the Commission has limited itself to allowing these resources to continue to continue to participate in the ERCOT market only if ERCOT "determines that the resource is needed for reliability reasons". In light of the significant uncertainty that is inherent in this rule, SEIA recommends that the Commission provide ERCOT more flexibility and the authority to grant good cause exceptions to allow resources that are not able to achieve compliance with subsection (d) to continue to operate in the market lest the end result be that significant generation capacity is disqualified from participation and ERCOT finds itself unable to serve demand in the region.

Conclusion

SEIA appreciates the opportunity to provide these Comments and looks forward to working with the Commission and other interested parties on these issues.

Respectfully submitted,

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