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PUBLIC UTILITY COMMISSION OF TEXAS

David Smeltzer, Division Director, Rules and Projects

**Regarding the Commission's Questions
for Comment related to cost recovery for
service to Distributed Energy Resources
(DERs)**

**COMMENTS of SOLAR UNITED
NEIGHBORS**

**Project No. 54224 - *Cost Recovery for
Service to Distributed Energy Resources
(DERs)***

Thursday, November 17, 2022

Solar United Neighbors (SUN) of Texas appreciates the opportunity to provide these comments regarding cost recovery for service to distributed energy resources (DERs), in response to the memorandum filed on October 24, 2022¹.

Solar United Neighbors is a national non-profit organization dedicated to creating a clean, equitable, resilient energy system that benefits everyone. In Texas, we have run 13 solar co-ops to help people learn about solar and go solar together at a discounted group price. We have educated thousands of Texans about solar and storage, and have helped homes and small businesses install 1.8 MW of solar and 987 kW of battery storage combined. We have also helped more than 2,300 Texans select the best Retail Electricity Provider (REP) plan from available options.

DERs – including small-scale solar and battery storage, electric vehicles, energy efficiency measures and demand response – deliver measurable value and savings to all electric customers, the power grid and the transmission and distribution service providers (TDSPs) that operate it, and to Texas communities. They can improve grid reliability and community resilience while reducing costs for both customers and utilities. With increased

¹ Public Utility Commission of Texas. October 24, 2022. Questions for Comment - Item No. 2: Project No. 54224 - *Cost Recovery for Service to Distributed Energy Resources (DERs)*. Filing Receipt. https://interchange.puc.texas.gov/Documents/54224_2_1247730.PDF

incorporation of DERs onto the Texas grid, TDSPs can expect significant savings in the form of reduced and deferred grid maintenance and upgrade costs. Texas Advanced Energy Business Alliance has estimated this value alone at \$344 million annually, or nearly \$2.5 billion over ten years.²

SUN advocates that customers and aggregators who share the benefits of their DERs with their neighbors and grid operators should be compensated fairly for the value they provide to the grid, grid operators, and other grid users. They should not be charged additional fees for doing so. Unique charges targeting customers or aggregators with DERs would be both unfounded and discriminatory. We encourage the Public Utility Commission, as the body charged with protecting utility customers and promoting quality infrastructure in Texas, to focus on improving market rules and incentives so that the state can better leverage DERs for the benefit of all Texans and the Texas grid.

The following are our answers to questions from the Commission to which we can offer expertise:

Question: (1.) Is it appropriate for some amount of capital and/or operations and maintenance costs incurred by the distribution service provider (DSP) to be uplifted to transmission cost of service (TCOS)? Why or why not? Does a distributed energy storage resource (DESR) provide the same congestion relief and reliability to the transmission system as a resource connected at transmission voltage? Please explain.

Response: Since DERs reduce, rather than increase, operations and maintenance costs incurred by DSPs, there is no need for additional such costs to be uplifted to TCOS to account

² Texas Advanced Energy Business Alliance. November 2019. *The Value of Integrating Distributed Energy Resources in Texas*. [https://www.texasadvancedenergy.org/hubfs/TAEBA%20\(2019\)/Valuing%20DERs%20in%20ERCOT%20final.11.13.19.pdf](https://www.texasadvancedenergy.org/hubfs/TAEBA%20(2019)/Valuing%20DERs%20in%20ERCOT%20final.11.13.19.pdf)

for DER integration. If TCOS is to be adjusted in any way on account of DERs, it would be due to operations and maintenance savings that would be reflected in reduced TCOS.

DESRs provide unique and enhanced benefits, including congestion relief and reliability, compared to storage resources connected at transmission voltage. Please see our response to the following question (below) for more detail regarding how these benefits of DESRs and transmission-connected storage resources differ.

Question: (1.a.) How do congestion relief and reliability benefits differ depending on the type of resource?

Response: DESRs are located closer to (and often at the site of) the load they serve compared to utility-scale storage resources, which connect to the transmission system. That proximity results in both avoided transmission and avoided distribution, and therefore greater congestion relief than can be achieved with transmission-connected resources.

Similarly, while both DESRs and transmission-connected storage resources provide reliability benefits, those of DESRs are greater due to their distributed nature. The temporary failure of DESRs are less likely to cause widespread grid impacts than the temporary failure of concentrated storage resources. It is highly unlikely that many DESRs would fail at once, and the disruption caused by any individual DESR would be minimal given their comparatively small capacity.

Question: (1.b.) How does location of the DESR affect congestion on the transmission system?

Response: The power that DESRs discharge to the grid always serves the nearest point of demand on the distribution system. So, regardless of where they are located on the distribution system, DESRs result in avoided demand on the transmission system. Strategic placement of DESRs in areas that are further from centralized generation resources – such as utility-scale solar and wind farms as well as fossil fuel-powered resources – can amplify this congestion

relief benefit by reducing the amount of power that must be transmitted across long distances from centralized resources to distant loads. Similarly, placing DESRs in areas where the transmission system is already under stress or approaching maximum capacity can have an outsized impact on transmission costs by enabling transmission service providers (TSPs) and TDSPs to avoid upgrades that would otherwise be necessary to serve growing populations and load.

Question: (1.c.) In the current market, are energy and ancillary service prices adequately compensating distributed energy resources (DERs) for the benefits they provide? Please explain.

Response: Since the end of 2021, customers with DERs including solar and solar plus storage in the retail choice market lost the option to switch to a Retail Electricity Provider (REP) offering one-for-one buyback plans. Those customers have lacked access to fair compensation for their excess generation and associated benefits. The current market is not adequately compensating these customers, and for that reason more than 600 individual Texans have signed SUN's pledge stating their interest in switching to a REP that offers fair compensation, including a 1:1 buyback rate, the ability to roll over credits month to month, and plans that do not include additional fees targeting DER owners.³ While we have held an open request for proposals (RFP) with the goal of identifying REPs that could meet these customers' needs, none offered a program that met all demands. This failure represents a clear example of the current market's inability to adequately compensate DERs, and speaks to the need for systemic and programmatic improvements that recognize the full value they provide.

Demand response programs for DESRs - such as the Aggregate Distributed Energy Resource (ADER) ERCOT Pilot Project currently under development (Project No. 53911) - offer

³ Solar United Neighbors. "Show your support for fair credit for Texas solar" (web). <https://www.solarunitedneighbors.org/solar-advocacy/show-your-support-for-fair-credit-for-texas-solar/>

another potential solution. If well designed, these programs can enable customers with DESRs to be compensated fairly for the benefits they provide by sharing their stored power at times when it is needed most. The Commission will need to enable more of these programs and scale them beyond the pilot phase to meet the needs of the state's growing DESR customer base.

Question: (2.) Is it appropriate for a DESR to pay some level of distribution charges? Do DESRs affect congestion and capacity availability on the distribution system? Please explain.

Response: DESRs deliver power via the distribution system to the nearest point of demand at the time of need. When that point of demand is co-located at the sight of the DESR – e.g. when a homeowner with onsite solar and storage draws directly from their battery during a peak demand window – the DESR results in avoided distribution load and therefore reduced congestion and increased available capacity on the distribution system. When the point of demand is not co-located at the sight of the DESR – e.g. when a battery discharges onto the grid and powers a neighbor's home – the resulting distribution load can be seen as replacing load that otherwise would have been traveling through the distribution system toward that same point of demand at that same time. The only difference is that power from a DESR may need to travel a shorter distance than power from the nearest transformer. So, in both cases, DESRs can only reduce overall congestion and increase capacity available on the distribution system.

Keeping that benefit in mind, it may be appropriate for a customer with DESR(s) to contribute to distribution charges for energy they draw from the distribution grid to the same extent as any other customer. However, it would not be appropriate for that customer to pay *additional* distribution charges for either the stored power they self-consume or any they share with their neighbors. Those activities reduce shared costs and provide shared benefits. Any charges disincentivizing those activities would be discriminatory and counter-productive to clean energy goals.

Question: (2.b.) Should a DSP be required to implement a DESR--specific tariff for transmission service at distribution voltage? Why or why not?

i. If so, what is the appropriate rate structure for a DESR to pay for transmission service at distribution voltage?

ii. If the rate paid by a DESR does not fully recover costs related to that service, how should the DSP allocate the remaining costs? Should the costs be reallocated to other customers or uplifted to TCOS?

Response: SUN's view is that DSPs should be required to implement a tariff specific to customers with solar and solar plus storage that recognizes the substantial value of transmission infrastructure savings that these particular DER/DESRs bring to the grid. This would reduce the transmission service charges that REPs are passing along to solar and solar plus storage customers. In the absence of a statewide net metering policy, these customers are forced to navigate the market of REPs and the plans they offer are constantly changing. One reason for the disappearance of one to one buyback plans or, "net-metering-like" options, are the rising costs of transmission service charges that REPs are facing and passing onto solar and solar plus storage customers, despite the fact that those customers are providing benefits and savings to the transmission system. Since both customers with distributed solar (a type of DER) and solar plus storage (a type of DESR) provide these benefits, this tariff should apply to both groups of customers.

Question: (3) Should other distribution customers bear costs caused from interconnecting DESRs in their DSP's territory? Why or why not?

Response: Interconnecting DESRs is a necessary step in ensuring that private investment in these resources can provide value and cost savings for all grid users. Since these benefits are shared by all grid users, it is appropriate for any costs associated with their interconnection to be shared as well. Further, given that DESRs are increasingly the least-cost path to improving

the Texas grid,⁴ it is reasonable and appropriate for such interconnection costs to be considered part of a DSP's responsibility to maintain a functional grid.

Question: (3.a.) Should other distribution customers bear the costs caused from interconnecting DERs in their DSP' s territory?

Response: SUN's view is that the interconnection costs associated with other DERs should be treated similarly as those of DESRs, for the same reasons stated above.

⁴ Coalition for Community Solar Access, Vibrant Clean Energy, Vote Solar, and Local Solar for All. *Why Local Solar for All Costs Less: A New Roadmap for the Lowest Cost Grid*. December 2020. <https://static1.squarespace.com/static/5f4637895cfc8d77860d0dbc/t/5fd39999439c7c5ec221499b/1607702942515/Local+Solar+Roadmap+White+Paper+as+PPT+FINAL.pdf> (summary); https://www.vibrantcleanenergy.com/wp-content/uploads/2020/12/WhyDERs_TR_Final.pdf (full)

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Executive Summary

These comments of Solar United Neighbors (SUN) of Texas and our answers to the Commission's questions regarding cost recovery for service to distributed energy resources (DERs) include the following substantive recommendations. These recommendations stem from our interest in increasing DER integration to the benefit of the Texas grid and all who use it:

- Customers and aggregators who share the benefits of their distributed resources should be compensated fairly for the value they provide. As the current market is failing to adequately compensate DERs and DESRs, the Commission should consider:
 - Enabling more demand response programs for DESRs, such as the Aggregate Distributed Energy Resource (ADER) ERCOT Pilot Project currently under development (Project No. 53911), and scaling them beyond the pilot phase.
 - Requiring DSPs to implement a tariff specific to customers with solar and solar plus storage that recognizes the transmission infrastructure savings that these DER/DESRs provide. Similarly, ensuring any adjustments to TCOS reflect savings due to DERs.
- Customers and aggregators with DERs and DESRs should not be charged additional fees, such as additional distribution charges for either the stored power they self-consume or any they share with their neighbors, as such fees would be unfounded and discriminatory.
- Costs associated with DER/DESR interconnection should be shared among all grid users, reflecting the shared nature of the benefits and savings these resources provide.