



Control Number: 51603



Item Number: 69

# Public Utility Commission of Texas

## Commissioner Memorandum

RECEIVED  
OCT -5 PM 2:55  
PUBLIC UTILITY COMMISSION  
FILING CLERK

**TO:** Chairman Peter M. Lake  
Commissioner Lori Cobos  
Commissioner Kathleen Jackson

**FROM:** Commissioner Will McAdams  
Commissioner Jimmy Glotfelty

**DATE:** October 5, 2022

**RE:** October 6, 2022 Open Meeting – Item No. 27  
Project No. 51603 – *Review of Distributed Energy Resources*

---

### Introduction

As previously discussed in the September 15, 2022 Open Meeting, energy storage resources connecting at distribution voltage are a fast growing segment of the market that can provide much needed benefits to the grid. Through discussions with various market participants, it has become clear that the Commission should act to ensure that its policies are nondiscriminatory and provide transparency, predictability, and flexibility to energy storage resource developers while reinforcing reliability of the grid.

In 2012, the Commission adopted 16 Texas Administrative Code (TAC) § 25.501, relating to Wholesale Market Design for the Electric Reliability Council of Texas. Subsection 25.501(m) addresses energy storage issues but only contemplates connections at transmission voltage. ERCOT lifted the Distributed Generation Resource (DGR) moratorium at the beginning of 2022, and ERCOT now has 350 MW of Distributed Energy Storage Resources (DESRs) participating in the market. While there is still opportunity to develop more assets at the distribution level, variability in timelines and costs across the various DSPs are slowing down progress.

In Project No. 52373, Hunt Energy, Jupiter Power, and Broad Reach Power requested a project for the Commission to “determine appropriate policies necessary for nondiscriminatory interconnection and operation of battery energy storage systems at distribution voltage . . . including (i) development of clear and consistent interconnection policies and timelines and (ii) determination of appropriate cost recovery mechanisms.” (Item No. 353, March 18, 2022) In subsequent informal discussions, Commission Staff requested that the major transmission and distribution utilities (TDUs) and the three developers begin formulating a draft interconnection process and agreement that could be used as a guideline for a Commission rulemaking. These discussions resulted in a negotiated interconnection process, interconnection agreement, and strawman rule language. The group has made great strides in clarifying timelines and obligations to ensure a more predictable interconnection schedule and approach for interconnection, and we ask that the participating parties file those documents in this project.

Cost recovery remains an open issue that will require guidance from the Commission. In its order adopting 16 TAC § 25.501, the Commission determined that the withdrawal of energy used to charge a storage facility is a wholesale transaction. This determination was not explicitly extended to resources connected at the distribution voltage level. The Commission's order further stated that "wholesale storage load would be subject to any applicable tariffs or charges if it connects and receives service at the distribution level." The Distribution Service Providers' (DSPs) recent practices are to request a contribution-in-aid-of-construction (CIAC) from the DESR to cover the capital cost for additional interconnection facilities and to apply a monthly distribution service charge to recover the costs for ongoing use of the distribution system. The developers have claimed that these costs are discriminatory compared with other generation resources participating in the ERCOT market connecting at the transmission level as many of these costs are socialized across all power consumers through the transmission cost of service (TCOS).

### **Discussion Summary of TDU and Developer Strawman**

We understand that cost recovery mechanism alternatives are under discussion among the interested parties. These are important policy questions that should be addressed in a Commission rulemaking.

- (1) How should the upfront capital costs of interconnection facilities be allocated?
  - a. The DESR pays a CIAC to the DSP consistent with the current practice;
  - b. The DESR pays a portion of the CIAC to the DSP and a fixed allowance is included in a Transmission Service Provider (TSP) or DSP's TCOS;
  - c. The DESR does not pay a CIAC and all costs are included in a TSP or DSP's TCOS;
  - d. The DESR pays a CIAC to the DSP for the interconnection facilities from the point of interconnection to the substation and the costs for interconnection facilities inside the substation are included in TCOS; or
  - e. The DESR pays a CIAC to the DSP for the interconnection facilities from the point of interconnection to the substation and pays a substation rental fee.
- (2) For the wholesale transmission service at distribution voltage, the TDUs have agreed that DESRs will not be charged for *exporting* energy to the utility system. When the DESR is *importing* energy, how should the charges be determined?
  - a. The DESR is charged pursuant to a tariff approved by the Commission;
  - b. The DESR is not charged; or
  - c. The DESR pays a rental fee for substation service analogous to the rental service some utilities provide to industrial customers connected at distribution voltage, consistent with cost causation to non-coincident peak which is how distribution systems are generally designed to.
- (3) How should the amounts that would be included in TCOS be calculated for interconnecting new DESRs?
  - a. The TCOS is based on actual monthly DESR wholesale transmission charges.

- b. The TCOS is based on an annualized amount based on the maximum nameplate charging demand of the DESR.
- c. The TCOS is based on an annualized amount based on maximum nameplate charging demand of the DESR and any applicable costs not include in the CIAC.

In addition to cost allocation mechanisms above, the following topics should also be addressed.

- (1) Will the ERCOT Protocol Section 2's definition of DESR need to be updated?
- (2) What provisions of 16 TAC §§ 25.211 and 25.212, if any, are applicable to the DESR interconnection process?
- (3) Should a new impact study be performed only if the change is requested by the DESR?
- (4) Should modifications to the standard DESR interconnection agreement only be allowed if it does not complicate the goal of expeditious, non-discriminatory interconnection and is not otherwise inconsistent with the principles underlying the agreement?
- (5) Should the security be returned within 5 business days consistent with the transmission interconnection process? How are the costs secured? Is there a cash deposit, and if so, should it be returned with interest?
- (6) Should the DESR developers have the option to construct and pay for interconnection facilities directly in lieu of paying a CIAC? Should the DSP be required to provide a reasonably detailed breakdown of the costs that comprise the CIAC? What other options are available to provide cost transparency?

### **Direction to ERCOT Regarding Protocol Section 3.8.6**

Another open issue relates to ERCOT Protocol Section 3.8.6 for managing DGRs and DESRs in the ERCOT system. Some DSPs currently interpret that section to require a dedicated feeder to interconnect DGRs, which can be a substantial cost for new resources. This protocol section also excludes existing onsite generation resources located on load shed circuits from participating in the ancillary service market. Paragraph (1) states:

As a condition for the interconnection of a DGR or DESR, the affected Resource Entity, after consultation with the relevant Distribution Service Provider (DSP), shall provide documentation from the DSP to ERCOT stating that the interconnecting distribution circuit will not be disconnected as part of an Energy Emergency Alert (EEA) Level 3, an under-frequency Load shedding event, or an under-voltage Load shedding event, unless required for DSP local system maintenance or during a DSP local system emergency.

We recommend that the Commission request feedback from ERCOT on the following questions:

- (1) Are dedicated feeders required for DGRs and DESRs to provide ancillary services, given the non-curtable circuit requirement?
- (2) (a) What Protocol changes would be necessary to allow DGRs and DESRs to provide certain ancillary services on curtable circuits without causing reliability risks to the ERCOT system?

(b) Are there any other technical, compliance, or policy considerations that the Commission needs to consider on this issue?

### **Rulemaking**

We recommend that the Commission open a rulemaking to address the topics discussed in this memo and issue a discussion draft by December 15, 2022 based on the following principles:

- (1) It is appropriate for some amount of capital or operations and maintenance costs incurred by the DSP be uplifted to TCOS as it has been stated by ERCOT that the DESRs provide the same congestion relief and reliability to the transmission system as the resources connected at the transmission voltage.
- (2) It is appropriate for the DESR to pay some level of distribution charges since they do effect congestion and capacity availability on the distribution system.
- (3) Other distribution customers should not be the primary bearers of the costs caused from interconnecting DESRs in their DSP territory.
- (4) In so far as cost allocation necessitates transmission level allocation, non opt-in entities (NOIES) must comply consistent with PURA Chapter 35 and Sections 40.055 and 41.055.
- (5) For all DGRs (not just DESRs), technical requirements based on IEEE 1547-2018 and other pertinent standards should be required to ensure ongoing bulk power system reliability.

We look forward to discussing this matter with you at the upcoming open meeting.