

Control Number: 35077



Item Number: 807

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**Project No. 35077**

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**Amendment No. 21**

PUBLIC UTILITY BOARD  
FILED CLERK

**INTERCONNECTION AGREEMENT**

**Between**

**LCRA Transmission Services Corporation**

**and**

**Oncor Electric Delivery Company LLC**

**March 8, 2018**

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**AMENDMENT TO  
INTERCONNECTION AGREEMENT**

This Amendment No. 21 ("Amendment") is made and entered into this 8<sup>TH</sup> day of MARCH, 2018, between Oncor Electric Delivery Company LLC ("Oncor"), and LCRA Transmission Services Corporation ("LCRA TSC"), hereinafter individually referred to as "Party" and collectively referred to as "Parties".

**WHEREAS**, LCRA TSC and Oncor entered into that certain Interconnection Agreement executed October 17, 1997, as amended (the "Agreement");

**WHEREAS**, the Brown Switching Station Point of Interconnection found in Facility Schedule No. 9 of the Agreement describes, among other things, LCRA TSC's 345 kV circuit ("Red Creek Line") between Oncor's Brown Switching Station and the American Electric Power Company ("AEP") Red Creek Switching Station;

**WHEREAS**, on October 14, 2015 Rattlesnake Power, LLC ("Generator"), under ERCOT generation interconnection request number 16INR0087, entered into that certain ERCOT Standard Generation Interconnection Agreement with LCRA TSC to connect the RTS Wind Power Project to LCRA TSC's Red Creek Line through the new LCRA TSC Bow Wood Substation;

**WHEREAS**, LCRA TSC agrees to provide Oncor with security for Oncor's modifications at Oncor's Brown Switching Station due to this generation interconnection; and

**WHEREAS**, Oncor has completed the upgrade of its Hutto Switching Station to Gilleland Creek Substation (via the Oncor Pflugerville Substation) 138 kV transmission line including the installation of OPGW on the line which LCRA TSC will use for line relaying.

**NOW, THEREFORE**, in consideration of the mutual promises and undertakings herein set forth, the Parties agree to amend the Agreement as follows:

1. Exhibit A attached to the Agreement is deleted in its entirety and Exhibit A attached to this Amendment is hereby added to the Agreement in lieu thereof.
2. Exhibit A attached to this Amendment will become effective upon execution of this Amendment by the Parties.
3. Facility Schedule No. 7 attached to the Agreement is deleted in its entirety and Facility Schedule No. 7 attached to this Amendment is hereby added to the Agreement in lieu thereof.
4. Facility Schedule No. 7 attached to this Amendment will become effective upon execution of this Amendment by the Parties.
5. Facility Schedule No. 9 attached to the Agreement is deleted in its entirety and Facility

Schedule No. 9 attached to this Amendment is hereby added to the Agreement in lieu thereof.

6. Facility Schedule No. 9 attached to this Amendment will become effective upon execution of this Amendment by the Parties.

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IN WITNESS WHEREOF, the Parties have caused this Amendment No. 21 to be executed in several counterparts, each of which shall be deemed an original but all shall constitute one and the same instrument.

ONCOR ELECTRIC DELIVERY COMPANY  
LLC

By: 

Name: Robert Holt

Title: Director – Transmission Services

Date: 3/8/18

LCRA TRANSMISSION SERVICES  
CORPORATION

By: 

Name: Sergio Garza, P.E.

Title: LCRA Vice President, Transmission  
Design and Protection

Date: 02/28/2018



## EXHIBIT A

### LIST OF FACILITY SCHEDULES AND POINTS OF INTERCONNECTION

| FACILITY<br>SCHEDULE<br>NO. | LOCATION OF POINT(S) OF<br>INTERCONNECTION<br>(# of Points) | INTERCONNECTION<br>VOLTAGE (kV) | EFFECTIVE DATE OR<br>SUBSEQUENT<br>AMENDMENT IN THE<br>INTERCONNECTION<br>AGREEMENT* |
|-----------------------------|---|---------------------------------|--|
| 1                           | Round Rock-Chief Brady (1)                                  | 138                             | October 17, 1997   |
| 2                           | Round Rock-Wells Branch (2)                                 | 138                             | October 29, 2012   |
| 3                           | Copperas Cove Substation (1)                                | 138                             | October 27, 2000   |
| 4                           | Elgin Substation (1)  | 138                             | November 19, 1999  |
| 5                           | Round Rock South-Wells Branch (1)                           | 138                             | October 29, 2012   |
| 6                           | Camp Bowie Substation (1)                                   | 138                             | October 27, 2000   |
| 7                           | Gilleland Creek Substation (2)                              | 138                             | Date of this Amendment   |
| 8                           | Mitchell-Sterling County (1)                                | 345                             | April 28, 2008   |
| 9                           | Brown Switching Station (2)                                 | 345                             | Date of this Amendment   |
| 10                          | Spraberry (1)   | 138                             | March 3, 2016  |
| 11                          | Midkiff (2)   | 138                             | Nov 22, 2013   |
| 12                          | Upton (1)   | 138                             | January 3, 2017  |
| 13                          | Crane (1)   | 138                             | October 5, 2004  |
| 14                          | Arco Substation (1)   | 138                             | October 18, 2016   |
| 15                          | Odessa EHV (1)  | 138                             | October 5, 2004  |
| 16                          | Bitter Creek Substation (2)                                 | 345                             | October 31, 2003   |
| 17                          | Brownwood-Firerock (1)                                      | 138                             | October 29, 2012   |
| 18                          | South Abilene-Eskota (1)                                    | 138                             | October 5, 2004  |
| 19                          | Crane East Substation (2)                                   | 138                             | October 27, 2006   |
| 20                          | Hutto Switching Station (2)                                 | 345                             | October 29, 2012   |
| 21                          | Gabriel Substation (2)                                      | 138                             | October 29, 2012   |
| 22                          | Pleasant Farms Substation (1)                               | 138                             | July 22, 2015  |
| 23                          | Benedum Substation (2)                                      | 138                             | March 3, 2016  |
| 24                          | Georgetown East Substation (2)                              | 138                             | March 3, 2016  |
| 25                          | Georgetown South Substation (2)                             | 138                             | January 3, 2017  |
| 26                          | Camp Bowie Substation (6)                                   | 24.9                            | November 10, 2017  |
| 27                          | Dutton Substation (15)                                      | 69 (3)/12.5 (12)                | November 10, 2017  |
| 28                          | Hext Substation (6)   | 12.5                            | November 10, 2017  |
| 29                          | San Saba Switch (1)   | 69                              | November 10, 2017  |
| 30                          | Terry Substation (2)  | 69 (1)/12.5 (1)                 | November 10, 2017  |
| 31                          | Camp San Saba Substation (2)                                | 24.9                            | November 10, 2017  |

**FACILITY SCHEDULE NO. 7**  
**Amendment No. 21**

1. **Name:** Gilleland Creek Substation Point of Interconnection (“Point of Interconnection”)
2. **Facility Location:** The Point of Interconnection is located in LCRA TSC’s Gilleland Creek Substation 138 kV switchyard located at 16275 Cameron Road, Pflugerville, Travis County Texas, 78660.
3. **Point of Interconnection:** The Point of Interconnection consists of two (2) 138 kV interconnections and shall be defined as the points:
  - (a) where LCRA TSC’s jumpers connect to the Oncor 138 kV transmission line which extends from LCRA TSC’s Gilleland Creek Substation to Oncor’s Hutto Switching Station (via the Oncor Round Rock SE Substation) at LCRA TSC’s deadend structure in the bay for breaker #10160; and
  - (b) where LCRA TSC’s jumpers attach to the Oncor 138 kV transmission line which extends from LCRA TSC’s Gilleland Creek Substation to Oncor’s Hutto Switching Station (via the Oncor Pflugerville Substation) at LCRA TSC’s deadend structure in the bay for breaker #10170 (See attached One Line Diagram).
4. **Transformation Services Provided:** No
5. **Metering Services Provided:** No
6. **Delivery Voltage:** 138 kV
7. **Metered Voltage and Location:** N/A
8. **One line diagram attached:** Yes
9. **Description of Facilities Owned by Each Party:**

LCRA TSC owns all facilities in the Gilleland Creek Substation 138 kV switchyard (except as otherwise specified below), including but not limited to the following facilities.

- (a) Two (2) 138 kV deadend structures to terminate the Oncor 138 kV transmission line which extends from LCRA TSC’s Gilleland Creek Substation to Oncor’s Hutto Switching Station (via the Oncor Round Rock SE Substation) and the Oncor 138 kV transmission line which extends from LCRA TSC’s Gilleland Creek Substation to Oncor’s Hutto Switching Station (via the Oncor Pflugerville Substation) (collectively, the “Oncor Transmission Lines”)
- (b) Jumpers at LCRA TSC’s deadend structures to connect to the Oncor Transmission Lines at the Point of Interconnection

- (c) Two (2) 138 kV circuit breakers #10160 (Round Rock SE line) and #10170 (Pflugerville line) and associated facilities located in LCRA TSC's Gilleland Creek Substation 138 kV switchyard

Facilities owned by Oncor:

- (a) A 7.618 acres tract of land occupied by LCRA TSC's Gilleland Creek Substation 138 kV switchyard (see Other Terms and Conditions concerning LCRA TSC's easement for this tract of land)
- (b) The Oncor Transmission Lines and associated insulator strings and attachment hardware to terminate the Oncor Transmission Lines on LCRA TSC's deadend structures located in LCRA TSC's Gilleland Creek Substation 138 kV switchyard
- (c) Two (2) 138 kV circuit breakers #7480 (Round Rock SE line) and #7485 (Pflugerville line) and associated facilities located in Oncor's Hutto Switching Station 138 kV switchyard
- (d) The OPGW from Oncor's Hutto Switching Station to LCRA TSC's fiber splice box located at the base of LCRA TSC's deadend tower within LCRA TSC's Gilleland Creek Substation.

10. **Operational Responsibilities of Each Party:** Each Party will be fully responsible for the operation of the facilities it owns.

11. **Maintenance Responsibilities of Each Party:** Each Party will be fully responsible for the maintenance of the facilities it owns.

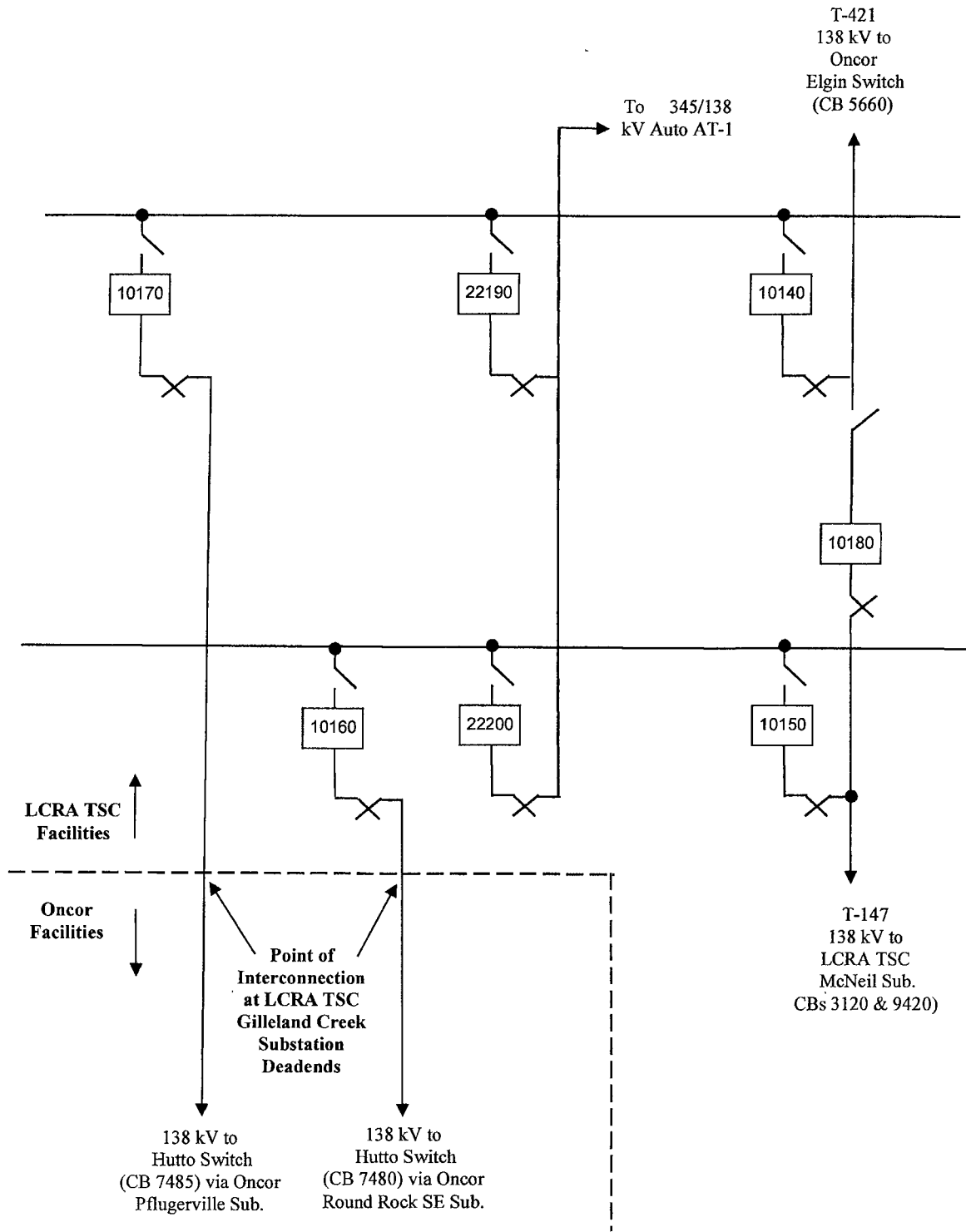
12. **Other Terms and Conditions:**

- (a) Oncor and LCRA TSC will each be responsible for all costs it incurs in connection with constructing, operating, and maintaining its facilities at the Point of Interconnection provided, however, that this Paragraph 12(a) is subject to any other provisions of this Agreement with respect to liability and indemnification and this Paragraph 12(a) shall not relieve either Party of its respective obligations under those provisions.
- (b) LCRA TSC has an Electric Substation Easement and Right of Way from Texas Utilities Electric Co. (predecessor to Oncor) for the 7.618 acres tract of land occupied by the Gilleland Creek Substation 138 kV switchyard.

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**FACILITY SCHEDULE NO. 7**  
**ONE LINE DIAGRAM**  
**GILLELAND CREEK SUBSTATION POINT OF INTERCONNECTION**



**FACILITY SCHEDULE NO. 9**  
**Amendment No. 21**

1. **Name:** Brown Switching Station Point of Interconnection (“Point of Interconnection”)
2. **Facility Location:** The Point of Interconnection is located in Brown County, Texas near the county line between Coleman and Brown counties. The Point of Interconnection is located outside the west fence at the Oncor Brown Switching Station. The Oncor Brown Switching Station is located at 12416 CR 222, Brookesmith, Texas 76827.
3. **Point of Interconnection location:** The Point of Interconnection consists of two (2) line to line interconnections and shall be defined as the points at LCRA TSC’s 345 kV transmission structure #328 where:
  - (a) LCRA TSC’s jumpers from LCRA TSC’s 345 kV transmission circuit which extends from LCRA TSC’s Bow Wood Substation to LCRA TSC’s structure #328 connect to the Oncor 345 kV transmission circuit which extends approximately 350’ from the Oncor Brown Switching Station deadend structure to LCRA TSC’s transmission structure #328; and
  - (b) LCRA TSC’s jumpers from LCRA TSC’s 345 kV transmission circuit which extends from LCRA TSC’s Twin Buttes Switching Station to LCRA TSC’s structure #328 connect to the Oncor 345 kV transmission circuit which extends approximately 350’ from the Oncor Brown Switching Station deadend structure to LCRA TSC’s structure #328 (See attached One Line Diagram).
4. **Transformation Services Provided:** No
5. **Metering Services Provided:** No
6. **Delivery voltage:** 345kV
7. **Metered Voltage and Location:** N/A
8. **One line diagram attached:** Yes
9. **Description of Facilities Owned by Each Party:**

Facilities owned by Oncor:

- (a) Two (2) 345 kV deadend structures located in the Oncor Brown Switching Station
- (b) Approximately 350 feet of double-circuit 345 kV transmission line from the Oncor Brown Switching Station deadend structures to LCRA TSC’s structure #328 and associated insulator strings and attachment hardware
- (c) Four (4) 345 kV breakers #10835 and #10840 (Twin Buttes line) and #10850 and #10855 (Bow Wood line) and associated facilities located in the Oncor Brown Switching Station 345 kV switchyard

Facilities owned by LCRA TSC:

- (a) 345 kV transmission structure #328
- (b) One (1) 345 kV transmission circuit extending from LCRA TSC's Twin Buttes Switching Station to LCRA TSC's structure #328 and associated insulator strings and attachment hardware
- (c) One (1) 345 kV transmission circuit extending from LCRA TSC's Bow Wood Substation to LCRA TSC's structure #328 and associated insulator strings and attachment hardware
- (d) Jumpers at LCRA TSC structure #328 to connect LCRA TSC's double-circuit 345 kV transmission line to the Oncor double-circuit 345 kV transmission line at the Point of Interconnection
- (e) Two (2) 345 kV breakers #22090 and #22100 and associated facilities located in LCRA TSC's Twin Buttes Switching Station
- (f) Two (2) 345 kV breakers #21710 and #21740 and associated facilities for the Oncor Brown Switching Station line located in LCRA TSC's Bow Wood Substation

10. **Operational Responsibilities of Each Party:** Each Party will be fully responsible for the operation of the facilities it owns.

11. **Maintenance Responsibilities of Each Party:** Each Party will be fully responsible for the maintenance of the facilities it owns.

12. **Other Terms and Conditions:**

- (a) Oncor will make power and energy flows, device status, and bus voltage at Brown Switching Station available to ERCOT such that LCRA TSC's control center can access the data from ERCOT and LCRA TSC will make energy flows, device status, and bus voltage at Twin Buttes Switching Station and the Bow Wood Substation available to ERCOT such that the Oncor control center can access the data from ERCOT.
- (b) Except as otherwise specified in 12(d) below, Oncor and LCRA TSC will each be responsible for all costs it incurs in connection with constructing, operating, and maintaining its facilities at the Point of Interconnection, provided, however, that this Paragraph 12(b) is subject to any other provisions of this Agreement with respect to liability and indemnification and this Paragraph 12(b) shall not relieve either Party of its respective obligations under those provisions.
- (c) LCRA TSC agrees to design and construct LCRA TSC's interconnection facilities in accordance with the version of Oncor's facility connection requirements in effect at the time LCRA TSC begins the design of its facilities. Those facility connection requirements are as specified in Oncor's "500-252 Guideline - Facility Connection Requirements for Bi-Directional Points of Interconnection at Transmission Voltages with Electric Utilities".
- (d) Due to the generator interconnection in LCRA TSC's Red Creek Line, LCRA TSC shall provide Oncor with security in the amount of \$20,000.00 for Oncor's modifications at Brown Switching Station. If the generator interconnection is not energized by April 15, 2019 (one year after Generator's scheduled commercial operation date), Oncor may

invoice LCRA TSC for the cost incurred by Oncor for the modifications at Brown Switching Station. The estimated amount of Oncor's modifications is \$20,000.00. If Oncor invoices LCRA TSC pursuant to this paragraph, LCRA TSC shall pay the invoice within 30 days of receipt of the invoice.

**FACILITY SCHEDULE NO. 9**  
**ONE LINE DIAGRAM**  
**BROWN SWITCHING STATION POINT OF INTERCONNECTION**

