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Amendment No. 6

PUBLIC UTILITY COMMISSION
FILING CLERK

INTERCONNECTION AGREEMENT

Between

LCRA Transmission Services Corporation

and

Bandera Electric Cooperative, Inc.

December 10, 2018

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**AMENDMENT NO. 6 TO
INTERCONNECTION AGREEMENT**

This Amendment No. 6 ("Amendment") is made and entered into this 10th day of December 2018, between Bandera Electric Cooperative, Inc. ("BEC") and LCRA Transmission Services Corporation ("LCRA TSC") collectively referred to hereinafter as the Parties.

WHEREAS, LCRA TSC and BEC entered into that certain Interconnection Agreement executed January 19, 2010, as amended by that certain Amendment No. 1 executed as of December 19, 2010, as amended by that certain Amendment No. 2 executed as of September 24, 2011, as amended by that certain Amendment No. 3 executed as of March 6, 2012, as amended by that certain Amendment No. 4 executed as of June 12, 2012, as amended by that certain Amendment No. 5 executed as of September 27, 2017 (collectively, as amended, the "Agreement");

WHEREAS, LCRA TSC will install a 138-kV circuit breaker in the ring bus, install a new Power Transformer and a new distribution bay to serve the BEC load, at Menger Creek Substation; and

WHEREAS, LCRA TSC will install a 138-kV, 4 breaker ring bus at the Turtle Creek Substation. BEC and LCRA TSC will have their equipment installed in separate control houses.

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" is deleted in its entirety and the Exhibit "A" attached to this Amendment No. 6 is hereby added to the Agreement in lieu thereof.
2. Exhibit "A" attached to this Amendment No. 6 is effective upon execution of this Amendment No. 6 by the Parties.
3. Facility Schedule No. 6 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 6 attached to this Amendment No. 6 is hereby added to the Agreement in lieu thereof.
4. Facility Schedule No. 6 (including the diagrams attached thereto) attached to this Amendment No. 6 is effective upon execution of this Amendment No. 6 by the Parties.
5. Facility Schedule No. 8 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 8 attached to this Amendment No. 6 is hereby added to the Agreement in lieu thereof.
6. Facility Schedule No. 8 (including the diagrams attached thereto) attached to this Amendment No. 6 is effective upon execution of this Amendment No. 6 by the Parties.

Except as otherwise expressly provided for herein, the Agreement will continue in full force and effect in accordance with its terms.

IN WITNESS WHEREOF, the Parties have caused this Amendment No. 6 to be executed in several counterparts, each of which shall be deemed an original but all shall constitute one and the same instrument.

BANDERA ELECTRIC COOPERATIVE, INC.

By: [Signature]

Name: Bill Hetherington

Title: CEO/General Manager

Date: Dec 10, 2018

LCRA TRANSMISSION SERVICES CORPORATION

By: [Signature]

Name: Sergio Garza, P.E.

Title: LCRA Vice President, Transmission Design and Protection

Date: 10/31/2018



FACILITY SCHEDULE NO. 6

1. **Name:** Menger Creek Substation
2. **Facility Location:** The Menger Creek Substation is located at 33115 IH 10, Boerne, Kendall County, Texas 78006.
3. **Points of Interconnection:** There are twelve (12) Points of Interconnection in the Menger Creek Substation generally described as:
 - where the incoming distribution line attaches to the tubular bus between switch MK61 and switch MK63 at breaker MK60.
 - where the jumper from breaker MK60 connects to the four hole pad on switch MK59.
 - where the jumper from breaker MK60 connects to the four hole pad on switch MK61.
 - where the incoming distribution line attaches to the tubular bus between switch MK71 and switch MK73 at breaker MK70.
 - where the jumper from breaker MK70 connects to the four hole pad on switch MK79.
 - where the jumper from breaker MK70 connects to the four hole pad on switch MK71
 - where the incoming distribution line attaches to the tubular bus between switch MK81 and switch MK83 at breaker MK80.
 - where the jumper from breaker MK80 connects to the four hole pad on switch MK79.
 - where the jumper from breaker MK80 connects to the four hole pad on switch MK81.
 - where the incoming distribution line attaches to the tubular bus between switch MK101 and switch MK103 at breaker MK100.
 - where the jumper from breaker MK100 connects to the four hole pad on switch MK99.
 - where the jumper from breaker MK100 connects to the four hole pad on switch MK101.
4. **Transformation Services Provided by LCRA TSC:** Yes
5. **Metering Services Provided by LCRA TSC:** Yes
6. **Delivery Voltage:** 12.5-kV
7. **Metered Voltage and Location:** The metering voltage is 12.5-kV. The metering current transformers are located inside T1, T2 and in the 12.5-kV operating bus. The bus potential transformer is located on the 12.5-kV operating bus.

8. **One Line Diagram Attached:** Yes

9. **Description of Facilities Owned by Each Party:**

BEC owns:

- Four (4) distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware
- Four (4) distribution circuit breakers MK60, MK70, MK80 and MK100 including jumpers, protective relay packages and foundations
- Four (4) 12.5-kV surge arresters SA7, SA8, SA9 and SA14
- Four (4) 12.5-kV current transformers CT6, CT7, CT8 and CT9
- One (1) MTU and associated fuse F5

LCRA TSC owns:

The Menger Creek Substation including, but not limited to, the following items:

- Two (2) circuit switchers, CS18985 with associated bypass switch 18987 and CS30625 with associated bypass switch 30627.
- Two (2) power transformers, T1 with associated surge arresters and T2 with associated surge arresters.
- Eleven (11) distribution and total bays including A-frames, trusses, insulators, bus tie switches and disconnect switches, 12.5-kV operating and transfer bus, bus potential transformer, and metering current transformers
- Station services
- Control house with battery

10. **Operational Responsibilities of Each Party:** Each Party is responsible for the operation of the equipment it owns.

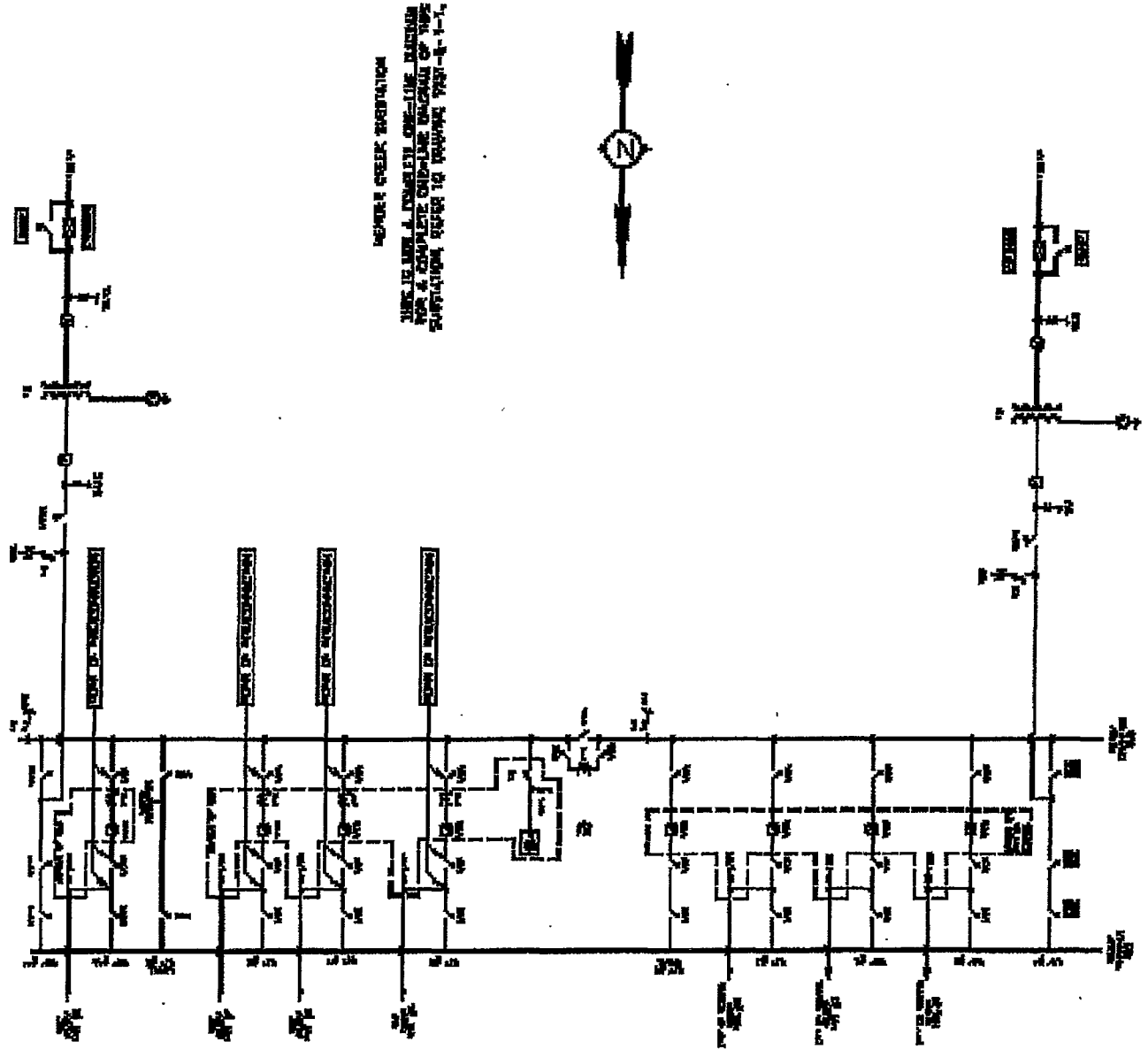
11. **Maintenance Responsibilities of Each Party:** Each Party will be fully responsible for the maintenance of the equipment it owns.

12. **Other Terms and Conditions:**

- BEC and LCRA TSC are to share access to the substation by LCRA TSC locks in the gate and in the control house doors.
- LCRA TSC will provide BEC access to 125 VDC and 120 VAC power. Circuits must have over current protection devices (OCPD) sized according to NEC standards.
- LCRA TSC will provide BEC with floor space (as necessary) in its control house for the installation of BEC required panels and equipment.
- Menger Creek Substation (LCRA TSC yard) substation access and physical security will be in accordance with LCRA TSC physical security standards.

MENGER CREEK ONE-LINE DIAGRAM

Amendment No. 6



FACILITY SCHEDULE NO. 8
Amendment No. 6

1. **Name:** Turtle Creek Substation
2. **Facility Location:** The Turtle Creek Substation is located at 111 FM 1273, Kerrville, Kerr County, Texas 78028.
3. **Points of Interconnection:** There is one (1) Point of Interconnection in the Turtle Creek Substation generally described as:
 - where the jumper from the circuit switcher CS8835 bolts to the four hole pad on switch 8834.
4. **Transformation Services Provided by LCRA TSC:** No
5. **Metering Services Provided by LCRA TSC:** Yes
6. **Delivery Voltage:** 138-kV
7. **Metered Voltage and Location:** The metering voltage is 24.9-kV. The metering current transformer is located inside T1. The bus potential transformer is located on the 24.9-kV operating bus.
8. **One Line Diagram Attached:** Yes
9. **Description of Facilities Owned by Each Party:**

BEC owns:

The Turtle Creek Substation including, but not limited to, the following items:

- One (1) circuit switcher CS8835 with associated bypass switch 8837;
- One (1) power transformer T1 and associated surge arresters;
- All distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware;
- All distribution circuit breakers including jumpers, protective relay packages and foundations;
- All distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 24.9-kV operating and transfer bus, bus potential transformer and associated cabling;
- Station service.

LCRA TSC owns:

- 138-kV dead-end structures, foundations, insulators and jumpers;
- One (1) 138-kV, ring bus including structures, insulators, foundations and jumpers;
- Four (4) 138-kV circuit breakers 30430, 30440, 30450, and 30460 with foundation; jumpers and protective relaying;
- Eight (8) 138-kV disconnect switches 30429, 30431, 30441, 30439, 30449, 30541, 30459, and 30461;
- Three (3) 138-kV coupling capacitor voltage transformers CCVT1, CCVT2 and CCVT3;
- Four (4) 138-kV surge arresters SA15, SA16, SA17 and SA18;
- One (1) 138-kV power voltage transformer, PVT1;
- One (1) 138-kV wave trap, WT4
- Control house (24 X 39) and batteries, battery charger and appurtenances;
- Underfrequency relay panel;
- One (1) meter panel with primary and backup meters;
- One (1) control house (21' x 27') with batteries, battery charger and appurtenances;
- One (1) 138-kV transformer bus differential and breaker failure relaying scheme;

10. Operational Responsibilities of Each Party: Each Party is responsible for the operation of the equipment it owns.

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

12. Other Terms and Conditions:

- BEC and LCRA TSC are to share access to the substation by LCRA TSC locks in the gate and in the control house doors.
- LCRA TSC will share access to the Turtle Creek Substation control house. Access is obtained by calling LCRA TSC's System Operations Control Center using the intercom at the door of the control house.
- BEC will supply and allow LCRA TSC use of its 12.5-kV bus potential transformer PT1 and PT2 for metering.
- BEC will supply and allow LCRA TSC use of transformer T1 relaying and metering bushing current transformers for LCRA TSC's 138-kV transformer bus differential relaying and breaker failure scheme and for metering.
- LCRA TSC will provide tripping and close inhibit contacts from its 138-kV bus differential & breaker failure relaying panel to BEC's circuit switcher CS8835 relaying panel.
- BEC will provide breaker failure initiate contacts from its circuit switcher CS8835 relaying panel to LCRA TSC's 138-kV transformer bus differential & breaker failure relaying panel.
- Turtle Creek Substation access and physical security will be in accordance with

LCRA TSC physical security standards.

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