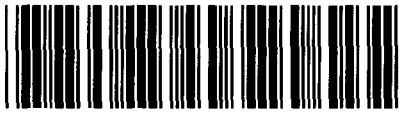
Control Number: 35077



Item Number: 754

Addendum StartPage: 0

Project No. 35077

Seventh Amendment

INTERCONNECTION AGREEMENT

Between

LCRA Transmission Services Corporation

and

San Bernard Cooperative

July 14, 2017

754

INTERCONNECTION AGREEMENT
AMENDMENT NO. 7

This Amendment No. 7 ("Amendment") is made and entered into this 14th day of July, 2017, between San Bernard Electric Cooperative ("SBEC") and LCRA Transmission Services Corporation ("LCRA TSC"), collectively referred to hereinafter as the Parties.

WHEREAS, LCRA TSC and SBEC entered into that certain Interconnection Agreement executed February 9, 2009, as amended by that certain Amendment No. 1 executed as of August 4, 2009, as amended by that certain Amendment No. 2 executed as of April 20, 2011, as amended by that certain Amendment No. 3 executed as of December 12, 2011, as amended by that certain Amendment No. 4 executed as of May 2, 2012, as amended by that certain Amendment No. 5 executed as of November 20, 2012, as amended by that certain Amendment No. 6 executed as of January 22, 2013 collectively, as amended, the "Agreement");

WHEREAS, LCRA TSC will implement the FY18 Physical Security project with physical security modifications at Bellville South Substation and Glidden Substation; and

WHEREAS, LCRA TSC will install an OPGW fiber optics network and remove radio equipment at the SBEC-owned Bernardo Substation as part of the Bellville South – Glidden Transmission Line Storm Hardening project.

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 the Exhibit "A" attached to this Amendment No. 7 is hereby added to the Agreement in lieu thereof.

2. Exhibit "A" attached to this Amendment No. 7 is effective upon execution of this Amendment No. 7 by the Parties.

3. Facility Schedule No. 2 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 2 attached to this Amendment No. 7 is hereby added to the Agreement in lieu thereof.

4. Facility Schedule No. 2 (including the diagrams attached thereto) attached to this Amendment No. 7 is effective upon execution of this Amendment No. 7 by the Parties.

5. Facility Schedule No. 3 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 3 attached to this Amendment No. 7 is hereby added to the Agreement in lieu thereof.

6. Facility Schedule No. 3 (including the diagrams attached thereto) attached to this Amendment No. 7 is effective upon execution of this Amendment No. 7 by the Parties.

7. Facility Schedule No. 6 (including the diagrams attached thereto) is deleted in its entirety

and Facility Schedule No. 6 attached to this Amendment No. 7 is hereby added to the Agreement in lieu thereof.

8. Facility Schedule No. 6 (including the diagrams attached thereto) attached to this Amendment No. 7 is effective upon execution of this Amendment No. 7 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. 7 to be executed in several counterparts, each of which shall be deemed an original but all shall constitute one and the same instrument.

SAN BERNARD ELECTRIC COOPERATIVE

By: _____

Name: Don Roberts

Title: SBEC Electric Systems Manager

Date: 7/14/17

LCRA TRANSMISSION SERVICES CORPORATION

By: _____

Name: Sergio Garza, P.E.

Title: LCRA Vice President, Transmission Design and Protection

Date: 07/10/2017

EXHIBIT A

Amendment No. 7

FACILITY SCHEDULE NO.	LOCATION OF POINT(S) OF INTERCONNECTION (# of Points)	INTERCONNECTION VOLTAGE (KV)	EFFECTIVE DATE OF INTERCONNECTION
1	Bellville North (12)	12.5 kV	2/9/2009
2	Bellville South (3)	69 kV	Date of 7th amendment
3	Bernardo (1)	69 kV	Date of 7th amendment
4	Colorado (2)	138 kV	1/22/2013
5	Frelsburg (1)	138 kV	3/8/2012
6	Glidden (3)	69/138 kV	Date of 7th amendment
7	Hallettsville City (6)	12.5 kV	4/20/2011
8	Macedonia(3)	24.9 kV/138 kV	3/8/2012
9	New Bremen (12)	12.5 kV	4/20/2011
10	Prairie View (4)	138 kV	3/8/2012
11	Quanex (2)	12.5 kV/69 kV	2/9/2009
12	Quanex Switch Structure (3)	69 kV	2/9/2009
13	Sheridan Switch Structure (0) (deleted)	69 kV	1/22/2013
14	Thorstenburg Switch Structure (0) (deleted)	69 kV	11/20/2012
15	Waller (5)	12.5 kV/138 kV	11/20/2012
16	Rock Island (0) (deleted)		3/8/2012
17	Seaway (0) (deleted)		3/8/2012
18	Sheridan (0) (deleted)		3/8/2012
19	Sunnyside (0) (deleted)		3/8/2012
20	Thorstenburg #2 (0) (deleted)		3/8/2012
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FACILITY SCHEDULE NO. 2
Amendment 7

1. **Name:** Bellville South Substation

2. **Facility Location:** The Bellville South Substation is located at 1099 Shumann Rd., Bellville, Austin County, Texas 77418.

3. **Points of Interconnection:** There are three (3) Points of Interconnection in the Bellville South Substation generally described as:

   - where the incoming 69 kV SBEC transmission line from the Bellville Tap terminates at the dead end structure in the substation.
   - where the jumper from breaker 1860 bolts to the four hole pad on switch 1859.
   - where the jumper from breaker 1860 bolts to the four hole pad on switch 1861.

4. **Transformation Services Provided by LCRA TSC:** No

5. **Metering Services Provided by LCRA TSC:** No

6. **Delivery Voltage:** 69 kV

7. **Metered Voltage and Location:** N/A

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

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

   SBEC owns:
   - One (1) 69 kV circuit breaker 1860 including jumpers, foundation and protective relaying

   LCRA TSC owns:
   The Bellville South Substation including, but not limited to, the following items:
   - One (1) auto transformer AT2 with associated surge arresters, foundation, jumpers and protective relaying
   - One (1) 138 kV transformer disconnect switch 11722
   - 69 kV operating and transfer bus #2 including structures, insulators, foundations and jumpers
   - One (1) 69 kV bus differential and breaker failure relaying scheme
   - One (1) 69 kV circuit breaker 1870 including foundation, jumpers and protective relaying
   - Six (6) 69 kV switches 1859, 1861, 1863, 1869, 1871 and 1873
   - One (1) 69 kV surge arrester SA7
   - One (1) 69 kV bus potential transformer PT3
   - One (1) station service SS2 with fuse F4

- One (1) control house (20' x 41') with appurtenances
- One (1) battery house (12' x 21') and batteries
- Substation property, ground grid, gravel, fencing and other appurtenances

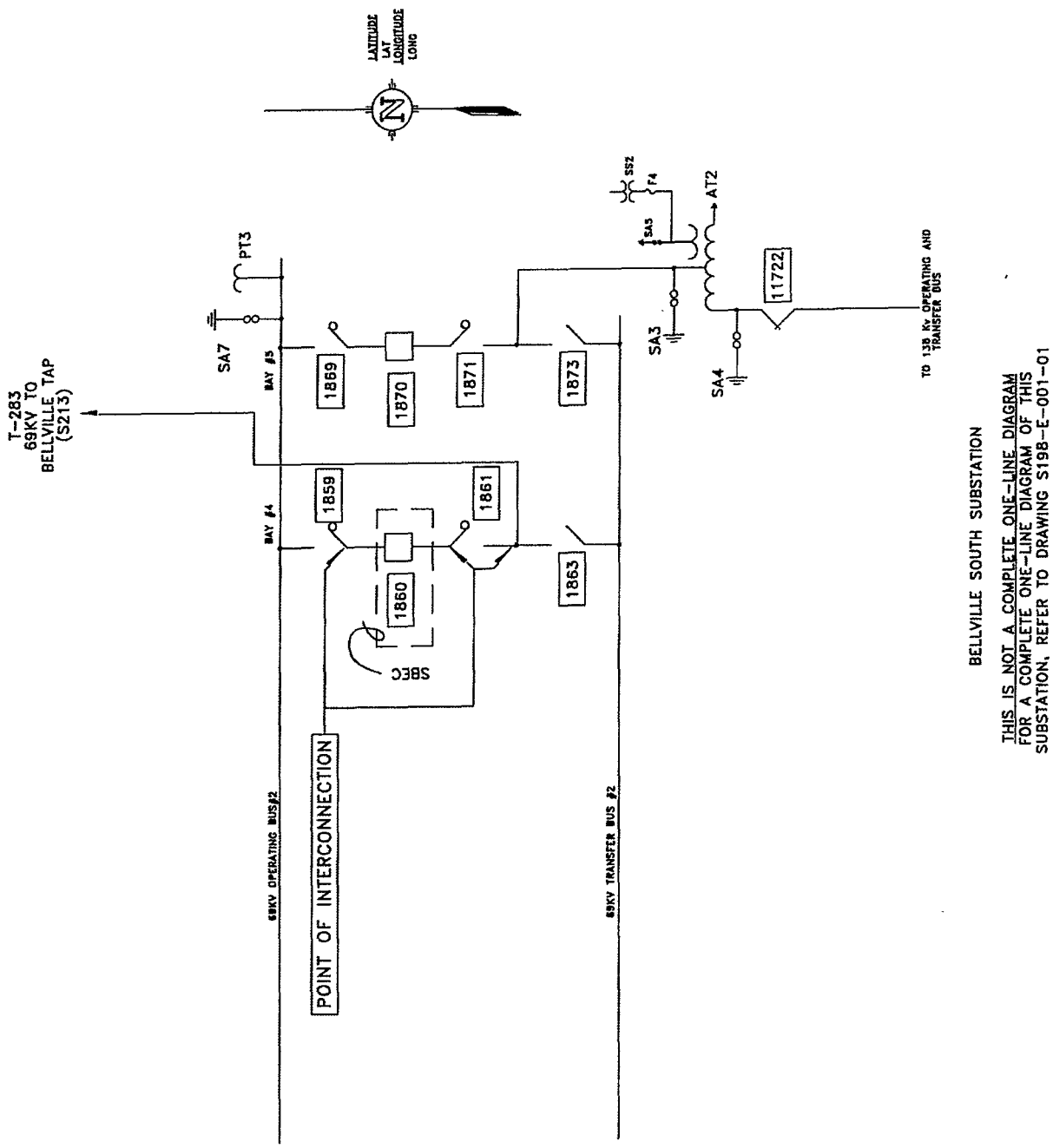
10. **Operational Responsibilities of Each Party:** Each Party is responsible for the operation of the equipment it owns.

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:**
    - LCRA TSC will share access to the substation by allowing SBEC to place a hardened lock in series with LCRA TSC's lock in the chain securing the gate.
    - LCRA TSC will share access to the control house. Access is obtained by calling LCRA TSC's System Operations Control Center using the intercom at the door of the control house.
    - SBEC will supply and allow LCRA TSC use of circuit breaker 1860 relaying bushing current transformer for its 69 kV bus differential relaying scheme.
    - LCRA TSC will provide tripping and close inhibit contacts from its 69 kV bus differential & breaker failure relaying panel to SBEC's circuit breaker 1860 relaying panel.
    - SBEC will provide breaker failure initiate contacts from its circuit breaker 1860 relaying panel to LCRA TSC's 69 kV bus differential & breaker failure relaying panel.
    - LCRA TSC and SBEC shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
    - LCRA TSC will provide SBEC 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 SBEC with floor space (as available and as necessary) in its control houses for the installation of SBEC required relay panel boards and equipment.
    - Bellville South Substation access and physical security will be in accordance with LCRA TSC standards which includes:
        - An 8' tall ½" mesh security fence topped with 1'6" concertina wire
        - Intrusion detection
        - Perimeter lighting
        - Hardened chains and locks at access points
        - Yard and control house surveillance (cameras)
        - Card reader control house access with intercom to SOCC
        - RTU/Security cabinet card access only
        - No control house windows (houses with existing windows will have them blocked)
        - 120 db sirens and flashing lights inside and outside of control house

BELLVILLE SOUTH ONE-LINE DIAGRAM

Amendment 7



FACILITY SCHEDULE NO. 3
Amendment No. 7

1. **Name:** Bernardo Substation

2. **Facility Location:** The Bernardo Substation is located at 1003 Dietrich Lane, Cat Springs, Colorado County, Texas 78933.

3. **Points of Interconnection:** There is one (1) Point of Interconnection in the Bernardo Substation generally described as:

    - where the jumper from Fuse F1 attaches to the tubular bus running between switch 1766 and switch 1767.

4. **Transformation Services Provided by LCRA TSC:** No

5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Service Agreement between the Parties.

6. **Delivery Voltage:** 69 kV

7. **Metered Voltage and Location:** The metering voltage is 12.5 kV. The metering current transformer is located in the total bay. 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:**
SBEC owns:
The Bernardo Substation including, but not limited to, the following items:
    - One (1) fuse F1
    - One (1) power transformer T1 with associated surge arresters, foundation, jumpers and protective relaying
    - All distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware
    - All distribution circuit breakers including jumpers, protective relaying and foundations
    - All distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 12.5 kV operating and transfer bus, bus potential transformer and associated cabling
    - Three (3) single phase regulators REG1 with associated disconnect and bypass switches
    - underfrequency relay equipment
    - One (1) station service SS1 with fuse F2
    - One (1) control house (16' x 20') and batteries, battery charger, and appurtenances
    - Substation property, ground grid, gravel, fencing and other appurtenances

LCRA TSC owns:

- One (1) 138 kV in-line A-frame structure
- Three (3) 138 kV motor operated switches 1765 (with interrupter), 1766 and 1767
- One (1) metering current transformer CT1
- One (1) meter panel with meters
- One (1) OPGW fiber optics network

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:**
    - SBEC and LCRA TSC are to share access to the substation and control house by SBEC and LCRA TSC locks in the gate and in the control house doors.
    - SBEC will provide and allow LCRA TSC use of 12.5 kV metering potential transformer PT1 for its metering.
    - LCRA TSC will make the following modifications inside the Bernardo Substation associated with amendment 7.
        a. Install conduit, facility entry, OPGW fiber optics network and telecommunications equipment
        b. Remove 900MHz iNet radio hop and associated telecommunications equipment
    - SBEC will provide LCRA TSC access to 48 VDC and 120 VAC power. Circuits must have over current protection devices (OCPD) sized according to NEC standards.
    - SBEC will provide LCRA TSC with floor space (as available and as necessary) in its control houses for the installation of LCRA TSC required relay panel boards and equipment.

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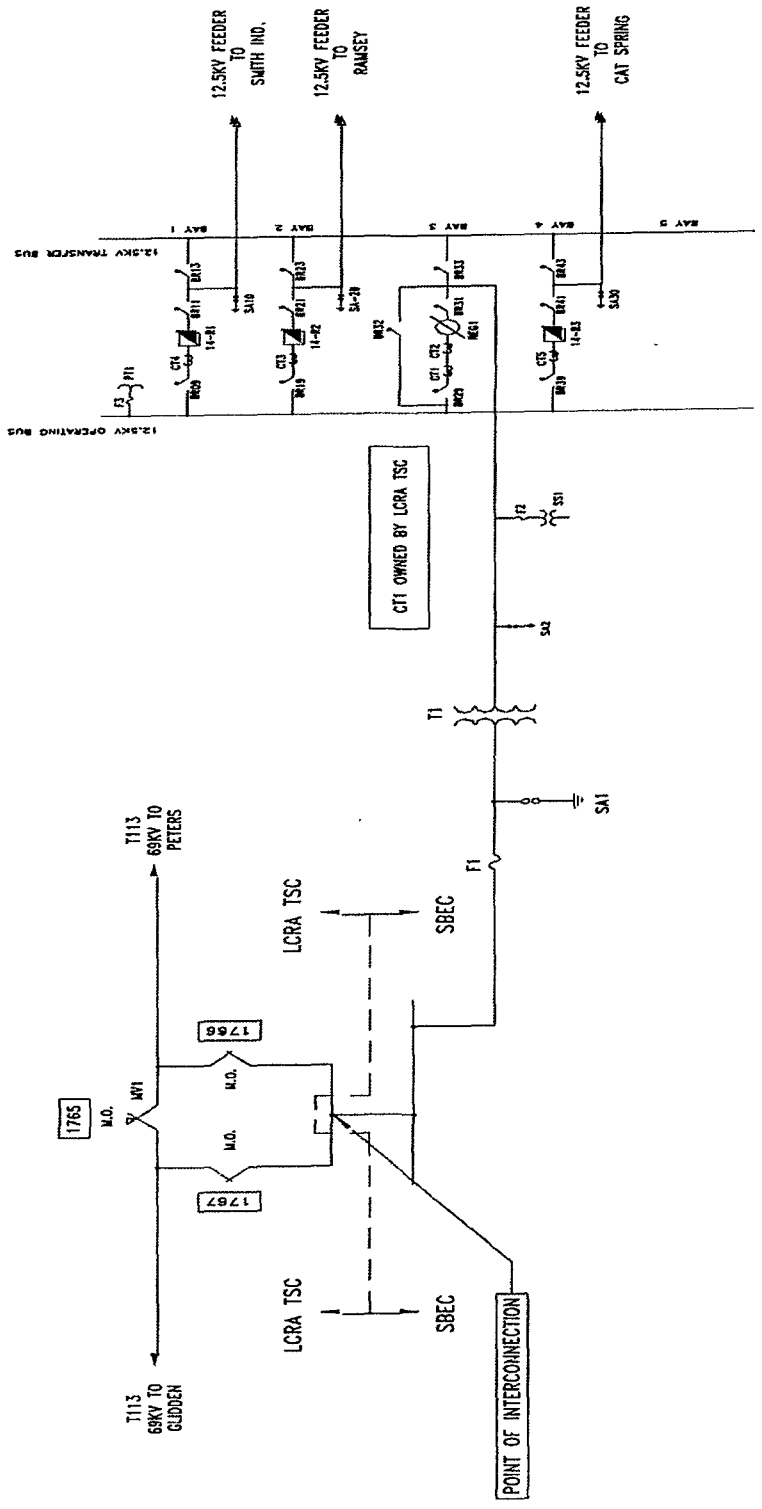
BERNARDO ONE-LINE DIAGRAM

Amendment No. 7



FACILITY SCHEDULE NO. 6

Amendment No. 7

1. **Name:** Glidden Substation

2. **Facility Location:** The Glidden Substation is located at 2058 Montezuma, Columbus, Colorado County, Texas 78934.

3. **Points of Interconnection:** There are three (3) Points of Interconnection in the Glidden Substation generally described as:

   - where the incoming 69 kV SBEC operating bus terminates at the dead end structure in 69 kV bay #1.
   - where the jumper from SBEC switch 24669 terminates at the LCRA TSC 138 kV operating bus.
   - where the jumper from SBEC switch 24673 terminates at the LCRA TSC 138 kV transfer bus.

4. **Transformation Services Provided by LCRA TSC:** No

5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Service Agreement between the Parties.

6. **Delivery Voltage:** 69 kV and 138 kV

7. **Metered Voltage and Location:** The metering voltage is 12.5 kV. The metering current transformers are located in the T3 12.5 kV transformer bus. The bus potential transformer is on the 12.5 kV operating bus.

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

9. **Description of Facilities Owned by Each Party:**
   SBEC owns:
   - 69 kV dead-end box structure, foundations, conductors, insulators and jumpers
   - 69 kV operating bus including conductors and insulators from 69 kV box structure to 69 kV bay #1
   - Two (2) 69 kV switches 122 and 124
   - One (1) 69 kV surge arrester SA8
   - One (1) 69 kV power fuse F6
   - One (1) power transformer T3 with foundation, jumpers and protective relaying
   - Three (3) single phase regulators REG1 with associated disconnect switches, bypass switch and foundation
   - One (1) low voltage transformer bus disconnect switch CL54
   - 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 box structure, insulators, disconnect switches, surge arresters, 12.5 kV operating bus, bus potential transformer, current transformer and associated cabling
- One (1) station service SS4 with fuse F7
- One (1) 138 kV Glidden to Rock Island transmission line
- One (1) 138 kV circuit breaker 24670 including foundations, jumpers and protective relaying
- Three (3) 138 kV switches 24669, 24671 and 24673
- One (1) 138 kV wave trap and tuner WT1
- One (1) 138 kV coupling capacitor CC1
- Jumpers from SBEC switches to LCRA TSC 138 kV operating and transfer bus
- Underfrequency relay equipment
- One (1) 48VDC battery and battery charger

LCRA TSC owns:

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

- 69 kV operating and transfer bus including structures, insulators, foundations and jumpers
- One (1) 69 kV bus differential and breaker failure relaying scheme
- One (1) 69 kV circuit breaker 1230 including foundation, jumpers and protective relay package
- Five (5) 69 kV switches 1201, 1203, 1229, 1231 and 1233
- One (1) 69 kV surge arrester SA1
- One (1) 69 kV bus potential transformer PT1
- One (1) auto transformer AT1 with associated surge arresters, foundation, jumpers and protective relaying
- One (1) 138 kV dead end structure and foundations (for SBEC's transmission line to Rock Island)
- 138 kV operating bus and transfer bus including structures, insulators, foundations and jumpers
- One (1) 138 kV bus differential and breaker failure relaying scheme
- One (1) 138 kV circuit breaker 5100 including foundation, jumpers and protective relaying
- Three (3) 138 kV switches 5099, 5101 and 5103
- One (1) 12.5 kV metering current transformer CT4
- One (1) 138 kV surge arrester SA5
- One (1) 138 kV bus potential transformer PT3
- One (1) 138 kV relaying current transformer CT6
- One (1) station service SS1 with fuse F1
- One (1) control house (24' x 36') with batteries, battery charger and appurtenances
- Substation property, ground grid, gravel, fencing and other appurtenances

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:**
    - LCRA TSC will share access to the substation by allowing SBEC to place a hardened lock in series with LCRA TSC's lock in the chain securing the gate.
    - LCRA TSC will share access to the control house. Access is obtained by calling LCRA TSC's System Operations Control Center using the intercom at the door of the control house.
    - SBEC will provide and allow LCRA TSC use of SBEC's 12.5 kV bus potential transformer PT5 for metering.
    - SBEC will supply and allow LCRA TSC use of circuit breaker 24670 relaying bushing current transformer for LCRA TSC's 138 kV bus differential relaying scheme.
    - LCRA TSC will provide tripping and close inhibit contacts from its 138 kV bus differential & breaker failure relaying panel to SBEC circuit breaker 24670 relaying panel.
    - SBEC will provide breaker failure initiate contacts from its circuit breaker 24670 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
    - SBEC will supply and allow LCRA TSC use of SBEC's transformer T3 bushing relaying current transformer for LCRA TSC's 69 kV bus differential relaying scheme.
    - LCRA TSC and SBEC shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
    - LCRA TSC will provide SBEC 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 SBEC with floor space (as available and as necessary) in its control houses for the installation of SBEC required relay panel boards and equipment.
    - Glidden Substation access and physical security will be in accordance with LCRA TSC standards which includes:
        - An 8' tall ½" mesh security fence topped with 1'6" concertina wire
        - Intrusion detection
        - Perimeter lighting
        - Hardened chains and locks at access points
        - Yard and control house surveillance (cameras)
        - Card reader control house access with intercom to SOCC
        - RTU/Security cabinet card access only
        - No control house windows (houses with existing windows will have them blocked)
        - 120 db sirens and flashing lights inside and outside of control house

GLIDDEN ONE-LINE DIAGRAM

Amendment No. 7