

Control Number: 35077



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Addendum StartPage: 0

Project No. 35077

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Amendment No. 10 to

INTERCONNECTION AGREEMENT

Between

Bluebonnet Electric Cooperative

and

LCRA Transmission Services Corporation

Dated

August 9, 2016

671

**TENTH AMENDMENT TO
INTERCONNECTION AGREEMENT**

This Tenth Amendment ("Amendment") is made and entered into this 9th day of August, 2016, between Bluebonnet Electric Cooperative ("BBEC") and LCRA Transmission Services Corporation ("LCRA TSC") collectively referred to hereinafter as the Parties.

WHEREAS, LCRA TSC and BBEC entered into that certain Interconnect Agreement executed November 17, 2008; as amended by that certain Amendment No. 1, executed as of October 13, 2009; as amended by that certain Amendment No. 2, executed as of January 13, 2011; as amended by that certain Amendment No. 3, executed as of October 26, 2011; as amended by that certain Amendment No. 4, executed as of January 31, 2012; as amended by that certain Amendment No. 5, executed as of April 19, 2013; as amended by that certain Amendment No. 6, executed as of June 17, 2013; as amended by that certain Amendment No. 7, executed as of March 4, 2014; as amended by that certain Amendment No. 8, executed as of November 18, 2014; as amended by that certain Amendment No. 9, executed as of June 4, 2015 (collectively, as amended, the "Agreement"); and

WHEREAS, a transrupter was installed at Dale Substation after the last amendment was executed, and:

WHEREAS, BBEC will install an additional power transformer and distribution at Lyle Wolz Substation, and;

WHEREAS, LCRA TSC will install a larger power transformer, circuit switcher and associated protection and controls, and BBEC will install an additional distribution circuit at Magnolia Mercer Substation, and;

WHEREAS, LCRA TSC will replace the circuit switcher at Mendoza Substation with a 138 kV circuit breaker, and:

WHEREAS, LCRA TSC will add two low voltage disconnect switches on the 12.5 kV operate and transfer buses at Pooley Road Substation, and;

WHEREAS, Several changes were made at Wyldwood Substation between conceptual design and construction phases that had not been documented in the Interconnection Agreement

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 Tenth Amendment is hereby added to the Agreement in lieu thereof.
2. Exhibit "A" attached to this Tenth Amendment will become effective upon execution of this Tenth Amendment by the Parties.

3. Facility Schedule No. 10 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 10 attached to this Tenth Amendment is hereby added to the Agreement in lieu thereof.
4. Facility Schedule No. 10 (including the diagrams attached thereto) attached to this Tenth Amendment will become effective upon execution of this Tenth Amendment by the Parties.
5. Facility Schedule No. 11 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 11 attached to this Tenth Amendment is hereby added to the Agreement in lieu thereof.
6. Facility Schedule No. 11 (including the diagrams attached thereto) attached to this Tenth Amendment will become effective upon execution of this Tenth Amendment by the Parties.
7. Facility Schedule No. 19 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 19 attached to this Tenth Amendment is hereby added to the Agreement in lieu thereof.
8. Facility Schedule No. 19 (including the diagrams attached thereto) attached to this Tenth Amendment will become effective upon execution of this Tenth Amendment by the Parties.
9. Facility Schedule No. 22 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 22 attached to this Tenth Amendment is hereby added to the Agreement in lieu thereof.
10. Facility Schedule No. 22 (including the diagrams attached thereto) attached to this Tenth Amendment will become effective upon execution of this Tenth Amendment by the Parties.
11. Facility Schedule No. 36 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 36 attached to this Tenth Amendment is hereby added to the Agreement in lieu thereof.
12. Facility Schedule No. 36 (including the diagrams attached thereto) attached to this Tenth Amendment will become effective upon execution of this Tenth Amendment by the Parties.
13. Facility Schedule No. 40 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 40 attached to this Tenth Amendment is hereby added to the Agreement in lieu thereof.
14. Facility Schedule No. 40 (including the diagrams attached thereto) attached to this Tenth Amendment will become effective upon execution of this Tenth Amendment 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 Tenth Amendment to be executed in several counterparts, each of which shall be deemed an original but all shall constitute one and the same instrument.

BLUEBONNET ELECTRIC COOPERATIVE

LCRA TRANSMISSION SERVICES CORPORATION

By: Eric Kocian

By: Sergio Garza

Name: Eric Kocian

Name: Sergio Garza, P.E.

Title: Manager of Electric Operations and Engineering

Title: LCRA Vice President
Transmission Design and Protection

Date: 8/9/16

Date: August 03, 2016



EXHIBIT A
Amendment No. 10

FACILITY SCHEDULE NO.	LOCATION OF POINT(S) OF INTERCONNECTION (# of Points)	INTERCONNECTION VOLTAGE (KV)	EFFECTIVE DATE OF INTERCONNECTION
1	Alum Creek (12)	12.5 kV	11/17/2008
2	Bastrop City (10)	12.5 kV	03/4/2014
3	Bastrop West (15)	12.5 kV	10/13/2009
4	Bluebonnet (2)	138 kV	01/13/2011
5	Brenham North (1)	138 kV	11/17/2008
6	Butler (1)	138 kV	11/17/2008
7	Cedar Hill (9)	12.5 kV	11/17/2008
8	Chappell Hill (1)	138 kV	11/17/2008
9	Colton (9)	12.5 kV	10/26/2011
10	Dale (8)	12.5 kV	Date of Amendment #10
11	Lyle Wolz (7)	138 kV	Date of Amendment #10
12	Fayetteville (1)	138 kV	11/17/2008
13	Giddings (15)	12.5 kV	01/13/2011
14	Harris Branch (18)	24.9 kV	10/13/2009
15	Lexington (7)	12.5 kV & 138 kV	01/13/2011
16	Lockhart (9)	12.5 kV	06/04/2015
17	Luling City (6)	12.5 kV	10/13/2009
18	Luling Magnolia (6)	12.5 kV	11/17/2008
19	Magnolia Mercer (6)	12.5 kV	Date of Amendment #10
20	Manor (2)	138 kV	01/13/2011
21	McCarty Lane East (9)	12.5 kV	11/17/2008
22	Mendoza (9)	12.5 kV	Date of Amendment #10
23	Paige (1)	138 kV	06/04/2015
24	Pisek (1)	138 kV	11/17/2008
25	Plum (4)	12.5 kV	10/26/2011
26	Red Rock (2)	138 kV	06/04/2015
27	Redwood (4)	12.5 kV	11/17/2008
28	Robert Brown Jr. (1)	69 kV	06/04/2015
29	Salem (1)	138 kV	11/17/2008
30	Smithville (10)	69 kV & 12.5 kV	11/17/2008
31	Swiftex (12)	12.5 kV	11/17/2008
32	Warda (6)	24.9 kV	06/04/2015
33	Webberville (12)	24.9 kV	11/17/2008
34	Welcome (1)	138 kV	11/17/2008
35	Wolf Lane (2)	138 kV	01/13/2011
36	Pooley Road (9)	12.5 kV	Date of Amendment #10
37	Shadow Glen (1)	138 kV	11/17/2008
38	Tahitian Village (1)	138 kV	01/13/2011
39	Beback (1)	138 kV	01/13/2011

EXHIBIT A-(page 2)
Amendment No. 10

40	Wyldwood (1)	138 kV	Date of Amendment #10
41	Clear Fork (1)	69 kV & 12.5 kV	04/19/2013
42	Seawillow (12)	24.9 kV	11/18/2014

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FACILITY SCHEDULE NO. 10
Amendment No 10

1. **Name:** Dale Substation
2. **Facility Location:** The Dale Substation is located at 3051 FM 1854, Dale, Caldwell County, Texas 78616.
3. **Points of Interconnection:** There are eight (8) Points of Interconnection in the Dale Substation generally described as:
 - where the incoming distribution line connects to the tubular bus between switches DA11 and DA13 at breaker DA10.
 - where the jumper from breaker DA10 connects to the 4 hole pad on switch DA9.
 - where the jumper from breaker DA10 connects to the 4 hole pad on switch DA11.
 - where the incoming distribution line connects to the tubular bus between switches DA41 and DA43 at breaker DA40.
 - where the jumper from breaker DA40 connects to the 4 hole pad on switch DA39.
 - where the jumper from breaker DA40 connects to the 4 hole pad on switch DA41.
 - where the jumper from switch DA29 connects to the 12.5 kV operating bus at breaker DA30.
 - where the jumper from switch DA33 connects to the 12.5 kV transfer bus at breaker DA30.
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 transformer is located in the 12.5 kV regulator bay. The bus potential transformer is located on the 12.5 kV operating bus for T1.
8. **One Line Diagram Attached:** Yes
9. **Description of Facilities Owned by Each Party:**

BBEC owns:

 - Three (3) distribution circuits including dead-end insulators that attach to the dead-end structure, conductor, and hardware
 - Three (3) distribution circuit breakers DA10, DA30 and DA40 including jumpers, protective relay packages and foundations
 - One (1) distribution bay including A-frame (1), trusses, insulators and associated foundations, mounting hardware and jumpers
 - Three (3) 12.5 kV switches DA29, DA31 and DA33

- One (1) 12.5 kV surge arrester SA4
- One (1) modulation transformer MTU1 with associated surge arrester and fused disconnect F4 including all hardware up to the connection at the 12.5 kV operating bus

LCRA TSC owns:

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

- One (1) 69 kV switch 1004
- One (1) 69kV mobile disconnect with switch 1008
- One (1) transrupter TR1005 with bypass switch 1007
- Four (4) single phase power transformers T1 with associated surge arresters
- Three (3) distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 12.5 kV operating and transfer bus, current metering transformer, bus potential transformer and associated cabling
- One (1) single phase T1 neutral current, current transformer CT3
- One (1) 69 kV relay current transformer CT2
- Three (3) single phase regulators REG1 and associated bypass switches
- One (1) 12.5 kV transformer bus disconnect switch DA63
- One (1) metering package
- One (1) station service SS1 with fuse F2
- Substation property ground grid, gravel, fencing and other appurtenances
- One (1) control house (12' x 10') with battery and battery charger

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.

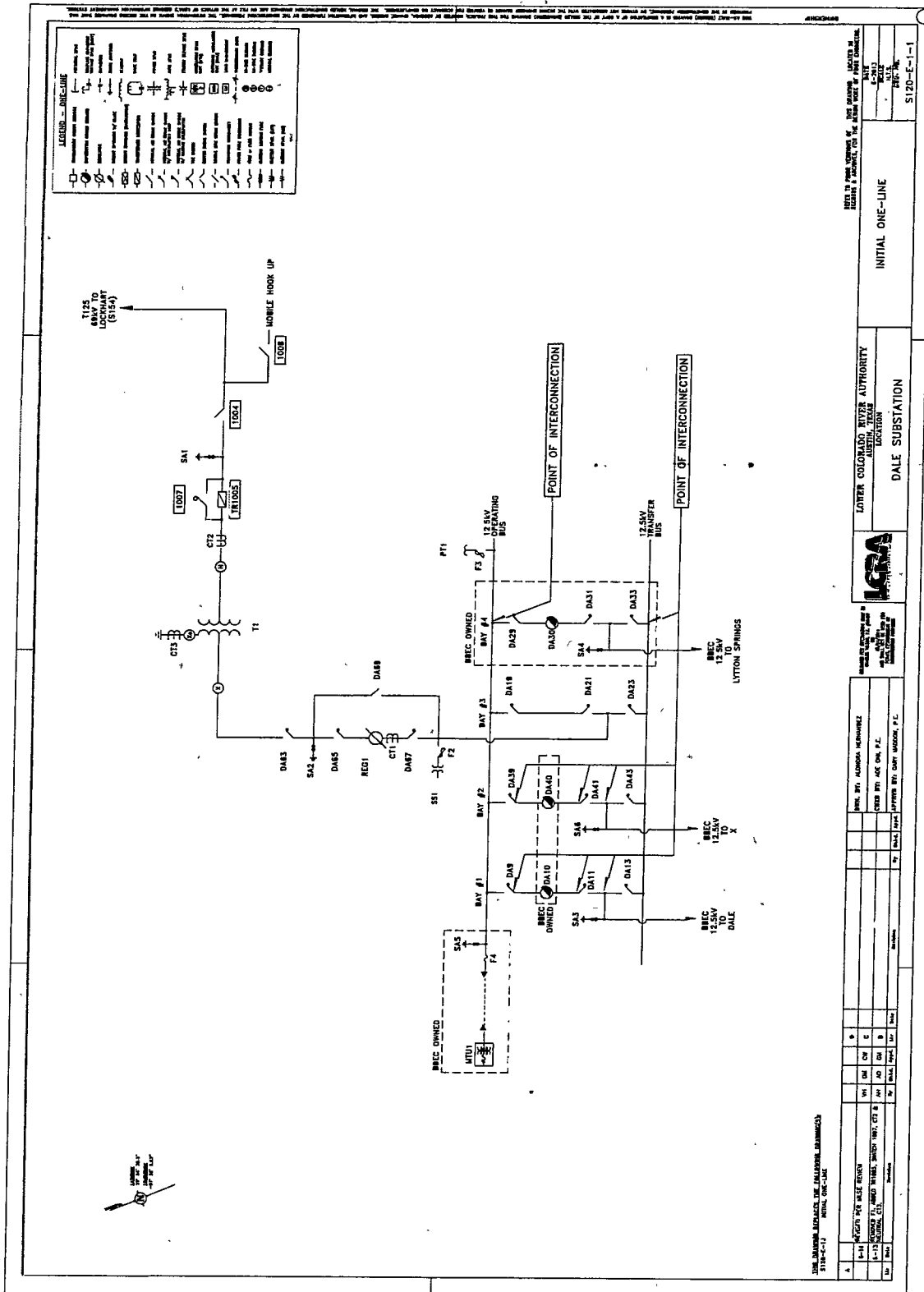
12. Other Terms and Conditions:

- BBEC 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 BBEC access to 125 VDC and 120 VAC power. Circuits must have over current protection devices (OCPD) sized according to NEC standards. Panel boards containing the OCPD may belong to either LCRA TSC (if space is available) or BBEC.
- LCRA TSC will provide BBEC with floor space (as available and as necessary) in its control house for the installation of BBEC required relay panel boards and equipment.

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DALE ONE-LINE DIAGRAM

Amendment No 10



FACILITY SCHEDULE NO. 11

Amendment No. 10

1. **Name:** Lyle Wolz Substation
2. **Facility Location:** The Lyle Wolz Substation is located at 10227 W, State Highway 21 West, Deanville, Burleson County, Texas 77852.
3. **Points of Interconnection:** There are seven (7) Points of Interconnection in the Lyle Wolz Substation generally described as:
 - where the incoming 138 kV BBEC transmission line from Lexington terminates at the dead end structure in the substation.
 - where the bridle jumper from the 138 kV operating bus connects to switch 8146 at circuit switcher CS8145.
 - where the bridle jumper from the 138 kV transfer bus connects to switch 8147 at circuit switcher CS8145.
 - where the bridle jumper from the 138 kV operating bus connects to switch 8156 at circuit switcher CS8155.
 - where the bridle jumper from the 138 kV transfer bus connects to switch 8153 at circuit switcher CS8155.
 - where the bridle jumper from the 138 kV operating bus connects to switch 8159 at breaker 8160.
 - where the bridle jumper from the 138 kV transfer bus connects to switch 8163 at breaker 8160.
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 metered voltage is 24.9 kV. LCRA TSC's metering current transformer CT1 is in the 24.9 kV total bay. Transformer T2's metering uses a metering current transformer inside T2. BBEC's metering bus potential transformer PT1 is on BBEC's 24.9 kV T1 operating bus and PT4 is on BBEC's 24.9 kV T2 operating bus.
8. **One Line Diagram Attached:** Yes
9. **Description of Facilities Owned by Each Party:**

BBEC owns:

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

 - The following transmission lines comprised of conductors, insulators and connecting hardware:
 - Lyle Wolz Substation to Lyons Substation 138 kV transmission line
 - Lyle Wolz Substation to Lexington Substation 138 kV transmission line

- Two (2) 138 kV circuit switchers CS8145 and CS8155 with associated bypass switches 8137 and 8157, foundations, and protective relay packages
- Two (2) power transformers T1 and T2 and associated surge arresters, foundations and jumpers
- One (1) 138 kV circuit breaker 8160 including foundation, jumpers and protective relay package
- Four (4) 138 kV bays (# 2, #4, # 5, # 6) including A-frames, trusses, insulators, conductors, hardware and foundations
- Nine (9) 138 kV switches 8144, 8146, 8147, 8153, 8154, 8156, 8159, 8161, and 8163
- One (1) 138 kV mobile transformer connection point with disconnect switch 8158
- One (1) 138 kV wave trap and tuner WT3
- One (1) 138 kV coupling capacitor CC3
- 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 metering potential transformers and associated cabling
- Two (2) modulation transformers MTU1 and MTU2 with associated surge arresters and fuses including all hardware up to the connection at the 24.9 kV operating bus
- One (1) control house (20' x 36') with battery bank and battery charger
- Two (2) station service SS1 and SS2 with associated fuses, bypass switches, and disconnects
- Substation property ground grid, gravel, fencing and other appurtenances

LCRA TSC owns:

- 138 kV wire bus including structures, insulators, hardware, foundations and bridle jumpers
- Line protection equipment for BBEC owned Lyle Wolz to Lexington transmission line, including but not limited to CC1, WT1, tuner, relay and circuit breaker 8140 (listed below also)
- One (1) 138 kV bus differential & breaker failure relaying scheme
- One (1) circuit switcher CS8165 with associated disconnect switch 8164
- One (1) 138 kV circuit breaker 8140 including foundation, jumpers and protective relay package
- Two (2) 138 kV bays (# 1, # 3) including A-frames, trusses, insulators, conductors, hardware and foundations
- Two (2) A-frames trusses and foundations in bay #4
- Three (3) 138 kV switches 8139, 8141, 8143
- One (1) capacitor bank CP1 including structures, insulators, hardware, foundations, jumpers and protective relay package
- Three (3) current transformers CT1 (metering), CT3 (single phase) and CT4
- Two (2) potential transformers PT2 and PT3
- One (1) 138 kV surge arrester SA3

- One (1) meter package
- Underfrequency relay panel
- Telecom house (12' x 28') with equipment
- One communications tower

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.

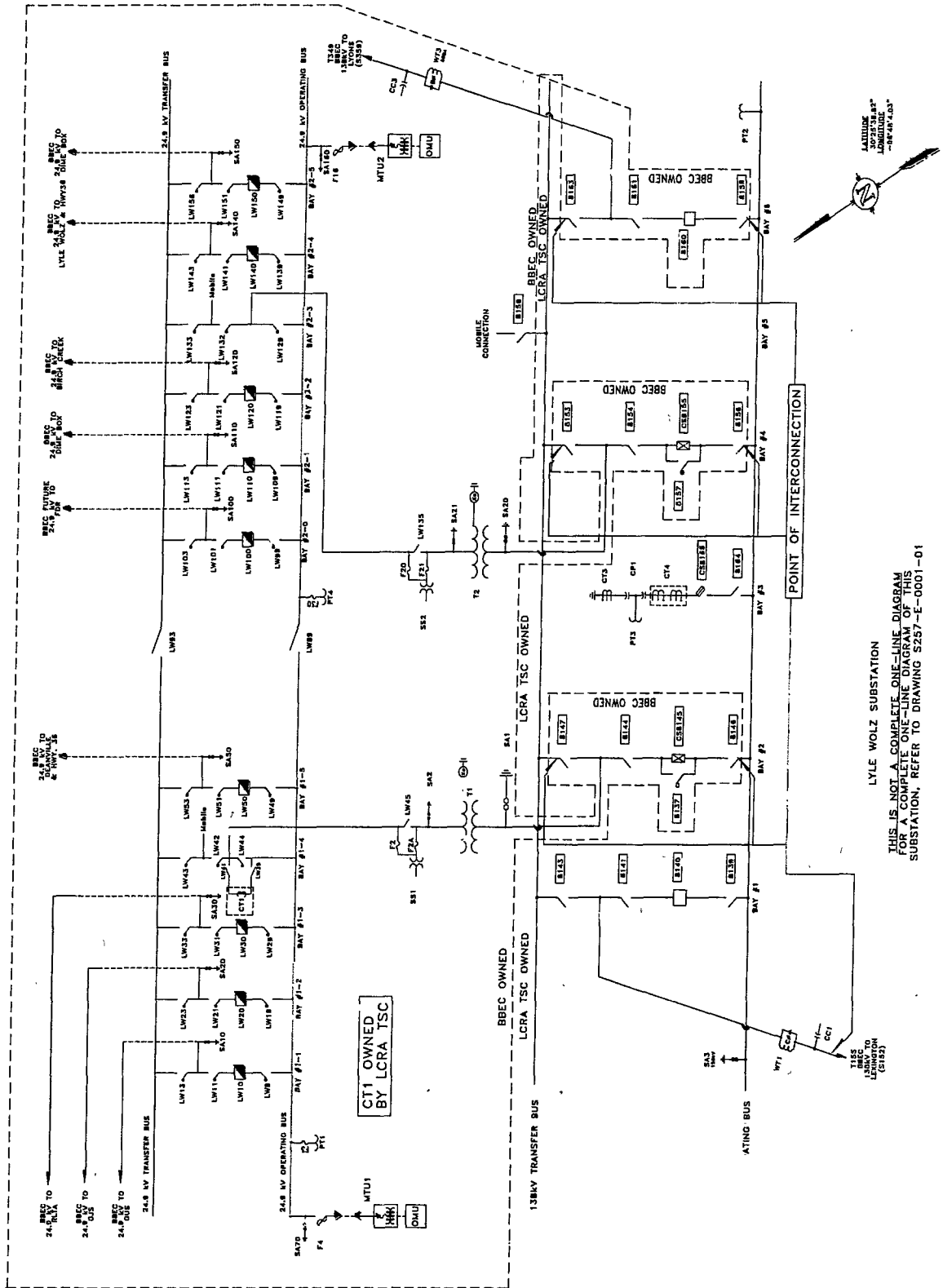
12. Other Terms and Conditions:

- BBEC and LCRA TSC are to share access to the substation by LCRA TSC locks in the gate and in the control house doors.
- BBEC will supply and allow LCRA TSC use of transformers T1, T2 and circuit breaker 8160, relaying bushing current transformers for use in LCRA TSC's 138 kV bus differential relaying scheme
- BBEC will supply and allow LCRA TSC use of transformer T2 metering bushing current transformer in for LCRA TSC metering
- BBEC will supply and allow LCRA TSC use of BBEC's 24.9 kV metering bus potential transformer PT1 and PT4 for LCRA TSC metering.
- LCRA TSC will provide tripping and close inhibit contacts from its 138 kV bus differential & breaker failure relaying panel to BBEC'S circuit switchers CS8145, CS8155, and circuit breaker 8160 relaying panels.
- BBEC will provide breaker failure initiate contacts from its circuit switchers CS8145, CS8155 and circuit breaker 8160 relaying panels to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
- LCRA TSC and BBEC shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
- BBEC will provide LCRA TSC access to 125 VDC and 120 VAC power. Circuits must have over current protection devices (OCPD) sized according to NEC standards. Panel boards containing the OCPD may belong to either BBEC (if space is available) or LCRA TSC
- BBEC will provide LCRA TSC with floor space (as available and as necessary) in its control house for the installation of LCRA TSC required panels and equipment.
- BBEC will provide LCRA TSC access to its station service as needed.

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LYLE WOLZ ONE-LINE DIAGRAM

Amendment No. 10



LYLE WOLZ SUBSTATION
 THIS IS NOT A COMPLETE ONE-LINE DIAGRAM
 FOR A COMPLETE ONE-LINE DIAGRAM OF THIS
 SUBSTATION, REFER TO DRAWING S257-E-0001-01

FACILITY SCHEDULE NO. 19
Amendment No. 10

1. **Name:** Magnolia Mercer Substation
2. **Facility Location:** Magnolia Mercer Substation is located at 4942 FM 671, Prairie Lea, Caldwell County, Texas 78648.
3. **Points of Interconnection:** There are six (6) Points of Interconnection in Magnolia Mercer Substation generally described as:
 - where the incoming distribution line connects to the dead end insulator, along with the jumpers from switches MM11 and MM13, at breaker MM10.
 - where the jumper from breaker MM10 connects to the 4 hole pad on switch MM9.
 - where the jumper from breaker MM10 connects to the 4 hole pad on switch MM11.
 - where the incoming distribution line connects to the dead end insulator, along with the jumpers from switches MM21 and MM23, at breaker MM20.
 - where the jumper from breaker MM20 connects to the 4 hole pad on switch MM19.
 - where the jumper from breaker MM20 connects to the 4 hole pad on switch MM21.
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 in the 12.5 kV transformer 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:**

BBEC owns:

 - Two (2) distribution circuits including dead end insulators that attach to the dead end structure, conductors and hardware
 - Two (2) distribution circuit breakers MM10 and MM20 including jumpers, protective relay package and foundation
 - One (1) load acting as a resource LAARS (Underfrequency relay panel)

LCRA TSC owns:

Magnolia Mercer Substation including, but not limited to, the following items:

 - Two (2) 69 kV transmission line switches 1265 and 1267
 - One (1) 69 kV switch 1266
 - One (1) 69 kV surge arrester SA1
 - One (1) 145 kV circuit switcher CS25825 with bypass switch 25827

- One (1) power transformer T1 with foundations, jumpers and protective relay package
- One (1) 15 kV disconnect switch MM5
- One (1) metering current transformer CT2 with disconnect and bypass switches MM1, MM3 AND MM4.
- One (1) 15 kV surge arrester SA2
- One (1) distribution box structure, insulators, disconnect switches, 12.5 kV operating bus, bus potential transformer, and associated cabling
- One (1) 12' x 21' control house
- One (1) 12' x 21' battery house and battery bank
- One (1) station service SS1 with fuse F2
- One (1) metering package
- 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.

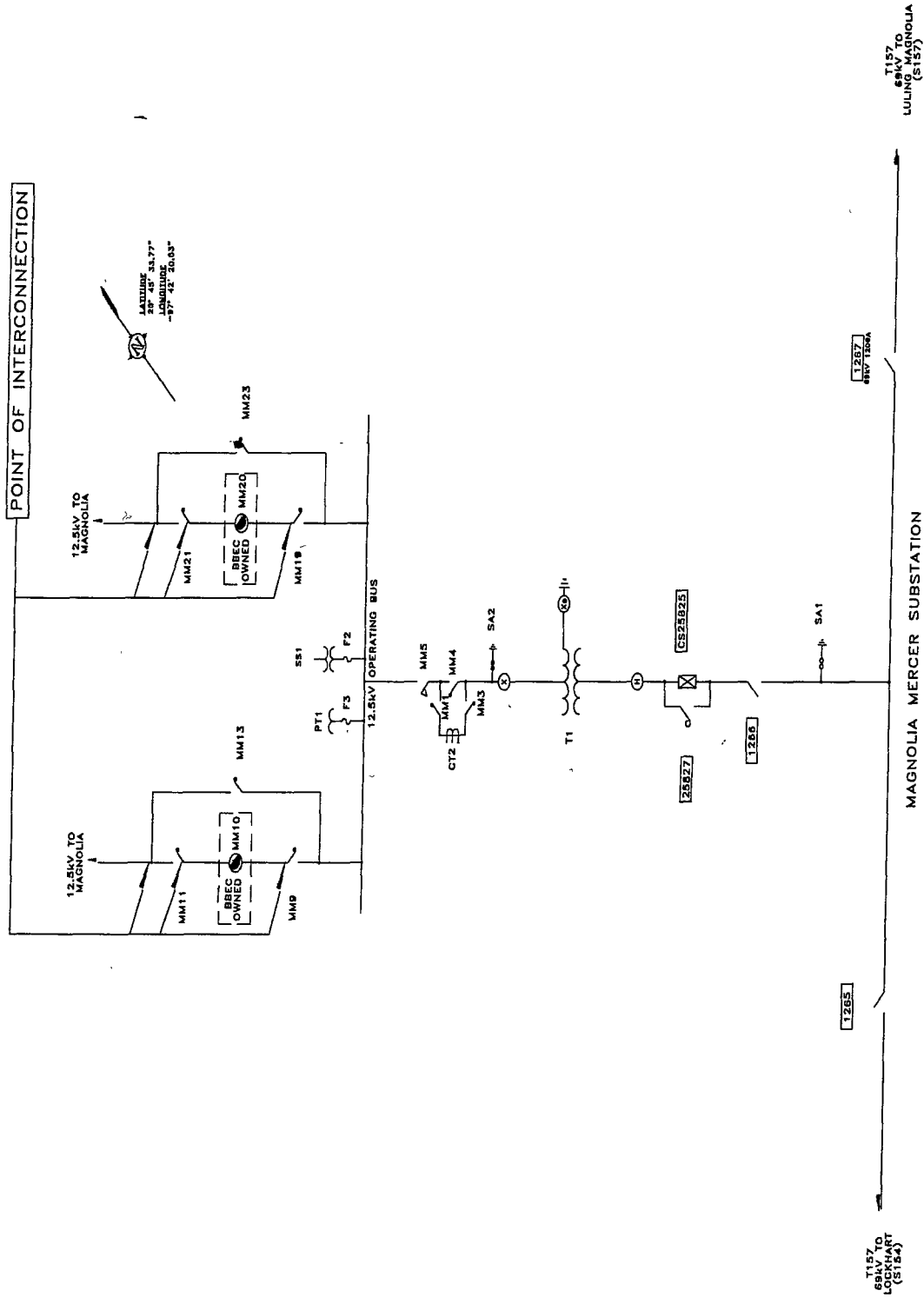
12. Other Terms and Conditions:

- BBEC 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 BBEC access to 125 VDC and 120 VAC power. Circuits must have over current protection devices (OCPD) sized according to NEC standards. Panel boards containing the OCPD may belong to either LCRA TSC (if space is available) or BBEC.
- LCRA TSC will provide BBEC with floor space (as available and as necessary) in its control houses for the installation of BBEC required relay panel boards and equipment.

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MAGNOLIA MERCER ONE-LINE DIAGRAM

Amendment No. 10



THIS IS NOT A COMPLETE ONE-LINE DIAGRAM
FOR A COMPLETE ONE-LINE DIAGRAM OF THIS
SUBSTATION, REFER TO DRAWING S158-E-0001-01.

FACILITY SCHEDULE NO. 22
Amendment No. 10

1. **Name:** Mendoza Substation
2. **Facility Location:** The Mendoza Substation is located at 1194 Williamson Road, Lockhart, Caldwell County, Texas 78644.
3. **Points of Interconnection:** There are nine (9) Points of Interconnection in the Mendoza Substation generally described as:
 - here the incoming distribution line connects to the tubular bus between switches MZ31 and MZ33 at breaker MZ30.
 - where the jumper from breaker MZ30 connects to the 4 hole pad on switch MZ29.
 - where the jumper from breaker MZ30 connects to the 4 hole pad on switch MZ31.
 - where the incoming distribution line connects to the tubular bus between switches MZ41 and MZ43 at breaker MZ40.
 - where the jumper from breaker MZ40 connects to the 4 hole pad on switch MZ39.
 - where the jumper from breaker MZ40 connects to the 4 hole pad on switch MZ41.
 - where the incoming distribution line connects to the tubular bus between switches MZ61 and MZ63 at breaker MZ60.
 - where the jumper from breaker MZ60 connects to the 4 hole pad on switch MZ59.
 - where the jumper from breaker MZ60 connects to the 4 hole pad on switch MZ61.
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 transformer for T1 is located inside T1. 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:**

BBEC owns:

 - Three (3) distribution circuits including dead end insulators that attach to the dead end structure, conductors and hardware
 - Three (3) distribution circuit breakers MZ30, MZ40, MZ60 including jumpers and protective relay packages
 - Four (4) distribution circuit breaker foundations in bays 3,4,6 and 7
 - One (1) modulation transformer MTU1 and associated surge arrester including all hardware up to the connection at the 12.5 kV operating bus

LCRA TSC owns:

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

- One (1) power transformer T1 with associated surge arresters
- One (1) 12.5 kV transformer bus disconnect switch MZ52
- One (1) 138 kV circuit breaker 8725 and associated switch 8734 with foundation, jumpers and protective relaying package
- Five (5) 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
- Underfrequency relay panel
- Control house and battery bank
- Two (2) station service SS1 and SS2
- One (1) metering package
- 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.

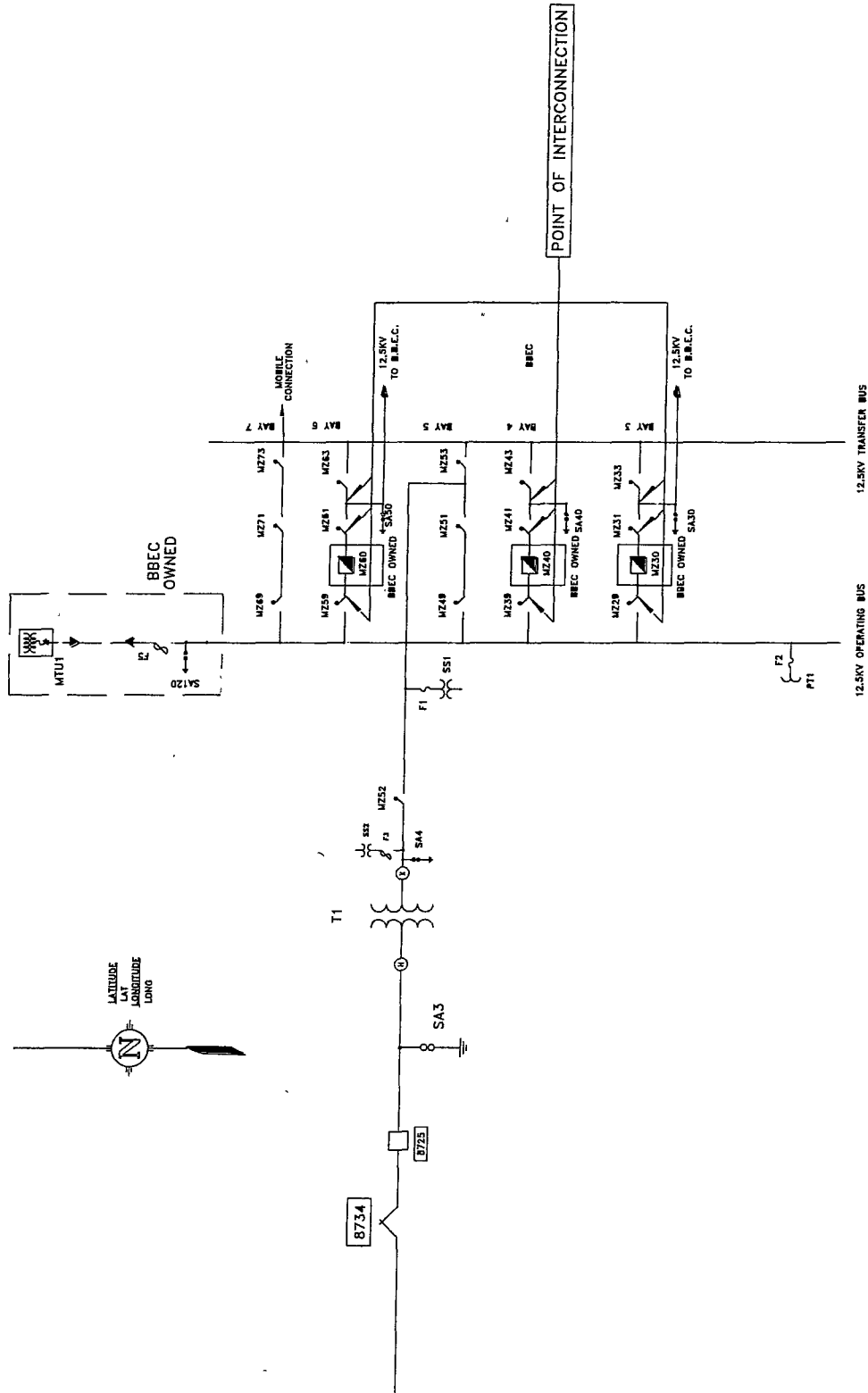
12. Other Terms and Conditions:

- BBEC 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 BBEC access to 125 VDC and 120 VAC power. Circuits must have over current protection devices (OCPD) sized according to NEC standards. Panel boards containing the OCPD may belong to either LCRA TSC (if space is available) or BBEC.
- LCRA TSC will provide BBEC with floor space (as available and as necessary) in its control house for the installation of BBEC required relay panel boards and equipment.

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MENDOZA ONE-LINE DIAGRAM

Amendment No. 10



MENDOZA SUBSTATION

THIS IS NOT A COMPLETE ONE-LINE DIAGRAM
FOR A COMPLETE ONE-LINE DIAGRAM OF THIS
SUBSTATION, REFER TO DRAWING S393-E-1-1

FACILITY SCHEDULE NO. 36
Amendment No. 10

1. **Name:** Pooley Road Substation
2. **Facility Location:** The Pooley Road Substation is located at 4520 Gander Slough Rd., Kingsbury, Guadalupe County, Texas 78638
3. **Points of Interconnection:** There are Nine (9) Points of Interconnection in the Pooley Road Substation generally described as:
 - where the incoming distribution line connects to the tubular bus between switches PR21 and PR23 at breaker PR20.
 - where the jumper from breaker PR20 connects to the 4 hole pad on switch PR21.
 - where the jumper from breaker PR20 connects to the 4 hole pad on switch PR19.
 - where the incoming distribution line connects to the tubular bus between switches PR41 and PR43 at breaker PR40.
 - where the jumper from breaker PR40 connects to the 4 hole pad on switch PR41.
 - where the jumper from breaker PR40 connects to the 4 hole pad on switch PR39.
 - where the incoming distribution line connects to the tubular bus between switches PR51 and PR53 at breaker PR50.
 - where the jumper from breaker PR50 connects to the 4 hole pad on switch PR51.
 - where the jumper from breaker PR50 connects to the 4 hole pad on switch PR49.
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 transformer is located inside T1. 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:**

BBEC owns:

 - All distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware
 - All distribution circuit breakers including foundations, surge arresters, jumpers and protective relay packages
 - One (1) modulation transformer MTU1 and foundation with associated surge arrester, jumpers and fuse including all hardware up to the connection at the 12.5 kV operating bus.
 - One (1) load acting as a resource LAARS panel

LCRA TSC owns:

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

- 138 kV dead-end structures, foundations, insulators and jumpers
- One (1) 138 kV switch 21194
- Two (2) 138 kV motor operated switches with interrupters MO21179 and MO21189
- One (1) circuit switcher CS21185 with associated disconnect switch 21184 and bypass switch 21187
- One (1) power transformer T1 with associated surge arresters
- All distribution and total bays including A-frames, trusses, insulators, disconnect switches, 12.5 kV operating and transfer bus, mobile transformer connections, bus potential transformer and associated cabling
- One (1) low voltage transformer bus disconnect switch PR1
- Control house and battery bank
- Station service
- One (1) metering package
- 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.

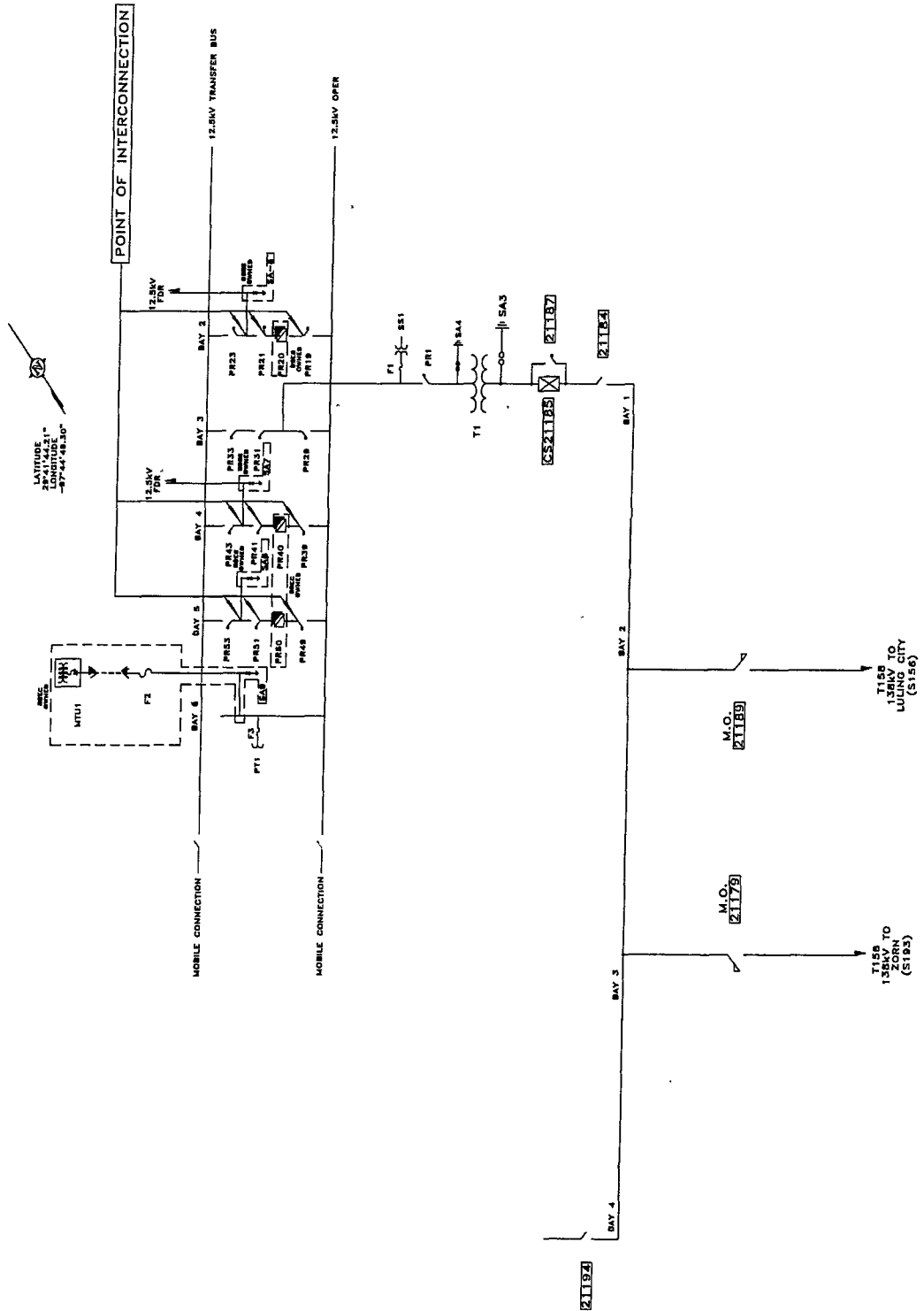
12. Other Terms and Conditions:

- BBEC 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 BBEC access to 125 VDC and 120 VAC power. Circuits must have over current protection devices (OCPD) sized according to NEC standards. Panel boards containing the OCPD may belong to either LCRA TSC (if space is available) or BBEC.
- LCRA TSC will provide BBEC with floor space (as available and as necessary) in its control house for the installation of BBEC required relay panel boards and equipment.

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POOLEY ROAD ONE-LINE DIAGRAM

Amendment No. 10



POOLEY ROAD SUBSTATION

THIS IS NOT A COMPLETE ONE-LINE DIAGRAM
FOR A COMPLETE ONE-LINE DIAGRAM
SUBSTATION, REFER TO DRAWING S8B4-E-001-01.

FACILITY SCHEDULE NO. 40
Amendment No. 10

1. **Name:** Wyldwood Substation
2. **Facility Location:** The Wyldwood Substation is located at approximately 200 Still Forest Drive, Wyldwood, Bastrop County, Texas
3. **Points of Interconnection:** There is one (1) Point of Interconnection in the Wyldwood Substation generally described as:

where the jumper from the LCRA TSC 138kV operating bus attaches to the four hole pad on switch 22634
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 in 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:**

BBEC owns:

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

- One (1) circuit switcher CS22635 with associated disconnect and bypass switches 22634 and 22637
- One (1) 138 kV disconnect switch 22644
- One (1) power transformers T1 with 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, bus tie switches, surge arresters, 24.9 kV operating and transfer buses, bus potential transformer and associated cabling
- One (1) modulation transformer MTU1 with associated surge arrester and fuse including all hardware up to the connection at the 24.9 kV operating bus.
- Two (2) station service SS1 and SS2
- One (1) control house (24' x 42') with batteries and battery charger
- Substation property, ground grid, gravel, fencing and other appurtenances

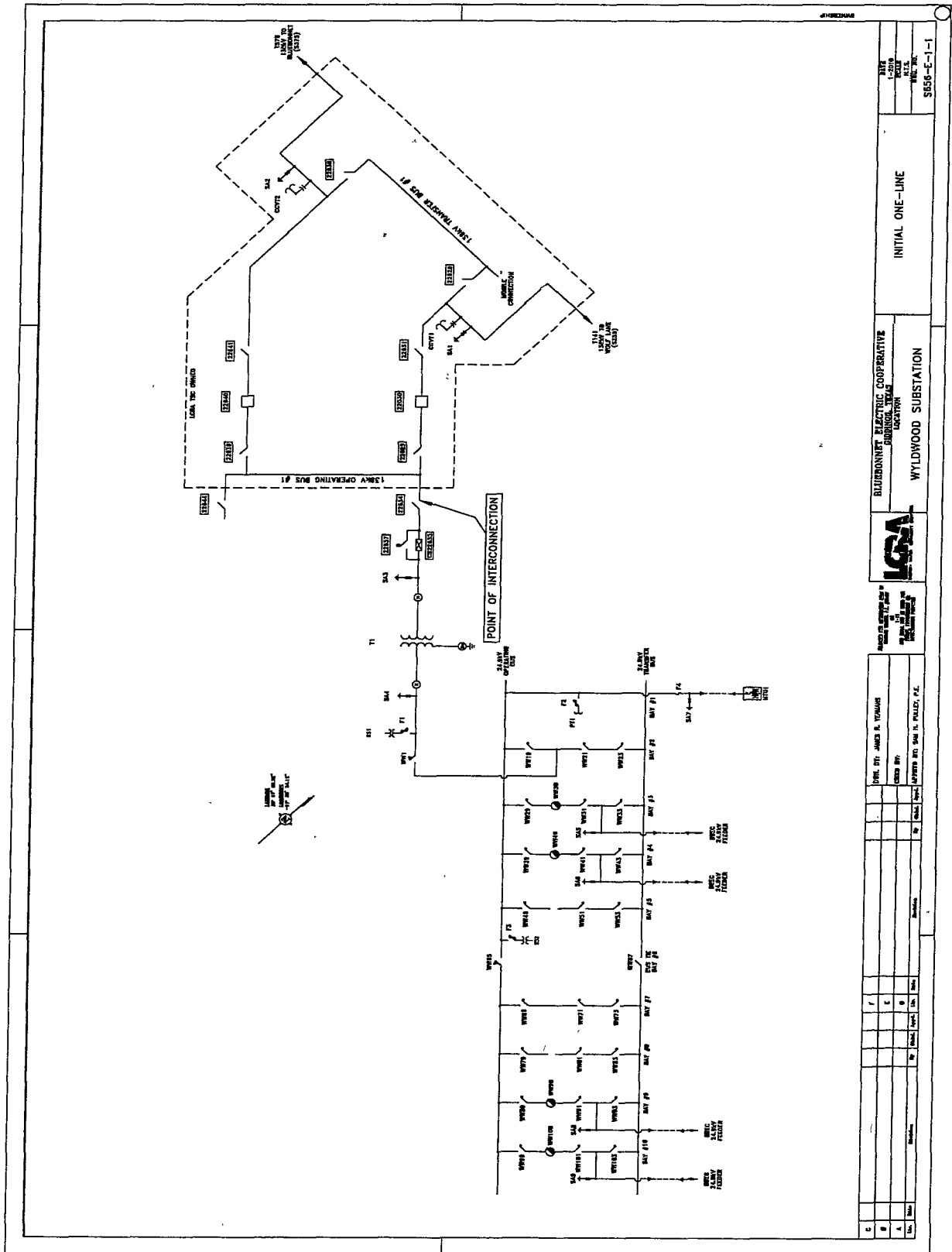
LCRA TSC owns:

- 138 kV operating and transfer buses including structures, insulators, hardware, foundations and jumpers
- Two (2) 138 kV bays including A-frames, trusses, insulators, conductors, hardware and foundations
- Two (2) 138kV circuit breakers 22630 and 22640 with disconnect switches 22629, 22631, 22639 and 22641
- Two (2) 138 kV mobile disconnect switches 22628 and 22638 with mobile connection point
- Two (2) coupling capacitor voltage transformers CCVT1 and CCVT2
- Two (2) 138 kV surge arresters SA1 and SA2
- One (1) 138 kV bus differential and breaker failure relaying scheme
- One (1) metering package

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:**
 - BBEC and LCRA TSC are to share access to the substation by LCRA TSC locks in the gate and in the control house doors.
 - BBEC will supply and allow LCRA TSC use of transformer T1 relaying and metering bushing current transformers for use in LCRA TSC's metering and 138 kV bus differential relaying scheme.
 - BBEC will supply and allow LCRA TSC use of BBEC's 24.9 kV metering bus potential transformer PT1 for LCRA TSC metering.
 - LCRA TSC will provide tripping and close inhibit contacts from its 138 kV bus differential & breaker failure relaying panel to BBEC'S circuit switchers CS22635 relaying panel.
 - BBEC will provide breaker failure initiate contacts from its circuit switcher CS22635 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
 - LCRA TSC and BBEC shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
 - BBEC will provide LCRA TSC access to 125 VDC and 120 VAC power. Circuits must have over current protection devices (OCPD) sized according to NEC standards. Panel boards containing the OCPD may belong to either BBEC (if space is available) or LCRA TSC.
 - BBEC will provide LCRA TSC with floor space (as available and as necessary) in its control house for the installation of LCRA TSC required relay panel boards and equipment.

WYLDWOOD ONE-LINE DIAGRAM

Amendment No. 10



DATE: 01-15-10 DRAWN BY: J. H. F. / J. H. F. CHECKED BY: J. H. F. / J. H. F. APPROVED BY: J. H. F. / J. H. F.	PROJECT NO: 5858-E-1-1
BLUEDONNET ELECTRIC COOPERATIVE FUNDING MEMBER LOCKPORT	INITIAL ONE-LINE WYLDWOOD SUBSTATION
IGA INTEGRATED GAS AND ENERGY SERVICES	
DATE: 01-15-10 DRAWN BY: J. H. F. / J. H. F. CHECKED BY: J. H. F. / J. H. F. APPROVED BY: J. H. F. / J. H. F.	
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