

Project No. 35077

Amendment No. 11

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PUBLIC UTILITY COMMISSION
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INTERCONNECTION AGREEMENT

Between

LCRA Transmission Services Corporation

and

Bluebonnet Electric Cooperative

February 23, 2017

ELEVENTH AMENDMENT TO INTERCONNECTION AGREEMENT

This Eleventh Amendment ("Amendment") is made and entered into this 23rd day of February, 2017, 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; and as amended by that certain Amendment No. 10, executed as of August 9, 2016 (collectively, as amended, the "Agreement");

WHEREAS, LCRA TSC will install 138 kV buswork, 138 kV insulators and remove switch 5341 at Bastrop City Substation;

WHEREAS, LCRA TSC will install a 138 kV ring bus, control house, PVT, CCVTs and LCRA TSC will provide for BBEC the site expansion, including gravel, fencing, and ground grid at Chappell Hill Substation;

WHEREAS, LCRA TSC will replace and relocate circuit switcher CS5385 with CS27355, switch 5361 with 27357 and add external CTs on T3 for bus differential and over current protection at Giddings Substation;

WHEREAS, a transmission line number changed at Manor Substation as a result of the circuit breaker addition at Shadow Glen Substation;

WHEREAS, LCRA TSC will replace circuit switcher CS9655 with a circuit breaker at McCarty Lane East Substation;

WHEREAS, LCRA TSC will install 138 kV buswork, 138 kV insulators, remove switches 6006 and 6016 at Smithville Substation;

WHEREAS, LCRA TSC will replace circuit switcher CS10675 with a circuit breaker at Webberville Substation;

WHEREAS, LCRA TSC will install a 138 kV ring bus, CCVTs, surge arresters, SUBWAN and firewall at Shadow Glen Substation;

WHEREAS, LCRA TSC will install a 138 kV ring bus, CCVTs, SUBWAN and firewall at Tahitian Village Substation, and;

WHEREAS, Seawillow Substation facility schedule is terminated because BBEC has determined that the project will not be needed.

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 Eleventh Amendment is hereby added to the Agreement in lieu thereof.
2. Exhibit "A" attached to this Eleventh Amendment will become effective upon execution of this Eleventh Amendment 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 Eleventh Amendment is hereby added to the Agreement in lieu thereof.
4. Facility Schedule No. 2 (including the diagrams attached thereto) attached to this Eleventh Amendment will become effective upon execution of this Eleventh Amendment 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 Eleventh Amendment is hereby added to the Agreement in lieu thereof.
6. Facility Schedule No. 8 (including the diagrams attached thereto) attached to this Eleventh Amendment will become effective upon execution of this Eleventh Amendment by the Parties.
7. Facility Schedule No. 13 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 13 attached to this Eleventh Amendment is hereby added to the Agreement in lieu thereof.
8. Facility Schedule No. 13 (including the diagrams attached thereto) attached to this Eleventh Amendment will become effective upon execution of this Eleventh Amendment by the Parties.
9. Facility Schedule No. 20 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 20 attached to this Eleventh Amendment is hereby added to the Agreement in lieu thereof.
10. Facility Schedule No. 20 (including the diagrams attached thereto) attached to this Eleventh Amendment will become effective upon execution of this Eleventh Amendment by the Parties.
11. Facility Schedule No. 21 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 21 attached to this Eleventh Amendment is hereby added to the Agreement in lieu thereof.
12. Facility Schedule No. 21 (including the diagrams attached thereto) attached to this Eleventh Amendment will become effective upon execution of this Eleventh Amendment by the Parties.
13. Facility Schedule No. 30 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 30 attached to this Eleventh Amendment is hereby added to the

Agreement in lieu thereof.

14. Facility Schedule No. 30 (including the diagrams attached thereto) attached to this Eleventh Amendment will become effective upon execution of this Eleventh Amendment by the Parties.

15. Facility Schedule No. 33 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 33 attached to this Eleventh Amendment is hereby added to the Agreement in lieu thereof.

16. Facility Schedule No. 33 (including the diagrams attached thereto) attached to this Eleventh Amendment will become effective upon execution of this Eleventh Amendment by the Parties.

17. Facility Schedule No. 37 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 37 attached to this Eleventh Amendment is hereby added to the Agreement in lieu thereof.

18. Facility Schedule No. 37 (including the diagrams attached thereto) attached to this Eleventh Amendment will become effective upon execution of this Eleventh Amendment by the Parties.

19. Facility Schedule No. 38 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 38 attached to this Eleventh Amendment is hereby added to the Agreement in lieu thereof.

20. Facility Schedule No. 38 (including the diagrams attached thereto) attached to this Eleventh Amendment will become effective upon execution of this Eleventh Amendment by the Parties.

21. Facility Schedule No. 42 (including the diagrams attached thereto) is terminated in its entirety.

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

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IN WITNESS WHEREOF, the Parties have caused this Eleventh 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 COÖPERATIVE

By: Eric Kocian

Name: Eric Kocian, P.E.

Title: Manager of Electric Operations and Engineering

Date: 2/23/17

LCRA TRANSMISSION SERVICES CORPORATION

By: Sergio Garza

Name: Sergio Garza, P.E.

Title: LCRA VP, Transmission Design and Protection

Date: 02/23/2017



EXHIBIT A
Amendment No. 11

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	Date of Amendment #11
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 (2)	138 kV	Date of Amendment #11
9	Colton (9)	12.5 kV	10/26/2011
10	Dale (8)	12.5 kV	8/9/2016
11	Lyle Wolz (7)	138 kV	8/9/2016
12	Fayetteville (1)	138 kV	11/17/2008
13	Giddings (15)	12.5 kV	Date of Amendment #11
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	8/9/2016
20	Manor (2)	138 kV	Date of Amendment #11
21	McCarty Lane East (9)	12.5 kV	Date of Amendment #11
22	Mendoza (9)	12.5 kV	8/9/2016
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	6/4/2015
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	Date of Amendment #11
31	Swiftex (12)	12.5 kV	11/17/2008
32	Warda (6)	24.9 kV	06/04/2015
33	Webberville (12)	24.9 kV	Date of Amendment #11
34	Welcome (1)	138 kV	11/17/2008
35	Wolf Lane (2)	138 kV	01/13/2011
36	Pooley Road (6)	12.5 kV	8/9/2016
37	Shadow Glen (2)	138 kV	Date of Amendment #11
38	Tahitian Village (2)	138 kV	Date of Amendment #11
39	Beback (1)	138 kV	01/13/2011

EXHIBIT A-(page 2)
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40	Wyldwood (1)	138 kV	8/9/2016
41	Clear Fork (1)	69 kV & 12.5 kV	04/19/2013
42	Seawillow (0)	Terminated	Date of Amendment #11
43			

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FACILITY SCHEDULE NO. 2
Amendment No. 11

1. **Name:** Bastrop City Substation
2. **Facility Location:** The Bastrop City Substation is located at 2500 Main Street, Bastrop, Bastrop County, Texas 78602.
3. **Points of Interconnection:** There are ten (10) Points of Interconnection in the Bastrop City Substation generally described as:
 - where the incoming distribution line connects to the tubular bus between switches BA101 and BA103 at breaker BA100.
 - where the jumper from breaker BA100, passing through CT16, connects to the 4 hole pad on switch BA99.
 - where the jumper from breaker BA100 connects to the 4 hole pad on switch BA101.
 - where the incoming distribution line connects to the tubular bus between switches BA111 and BA113 at breaker BA110.
 - where the jumper from breaker BA110, passing through CT11, connects to the 4 hole pad on switch BA109.
 - where the jumper from breaker BA110 connects to the 4 hole pad on switch BA111.
 - where the jumper from switch BA119 connects to the 12.5 kV operating bus at breaker BA120.
 - where the jumper from switch BA123 connects to the 12.5 kV transfer bus at breaker BA120.
 - where the jumper from switch BA129 connects to the 12.5 kV operating bus at breaker BA130.
 - where the jumper from switch BA133 connects to the 12.5 kV transfer bus at breaker BA130.
4. **Transformation Services Provided by LCRA TSC:** Yes, per Transformation Service Agreement between the Parties
5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Service Agreement between the Parties
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 total bay and in each distribution 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:**

BBEC owns:

- Four (4) distribution circuits including dead end insulators that attach to the dead

- end structure, conductors, and hardware
- Four (4) distribution circuit breakers BA100, BA110, BA120, BA130 including jumpers and protective relay packages
- Six (6) low voltage disconnect switches (BA119, BA121, BA123, BA129, BA131 and BA133) in bays 12 and 13
- Two (2) surge arresters SA120 and SA130
- Four (4) distribution circuit breaker foundations in bays 10, 11, 12 and 13.
- One (1) modulation transformer MTU1 and associated surge arrester and fused disconnect F9

LCRA TSC owns:

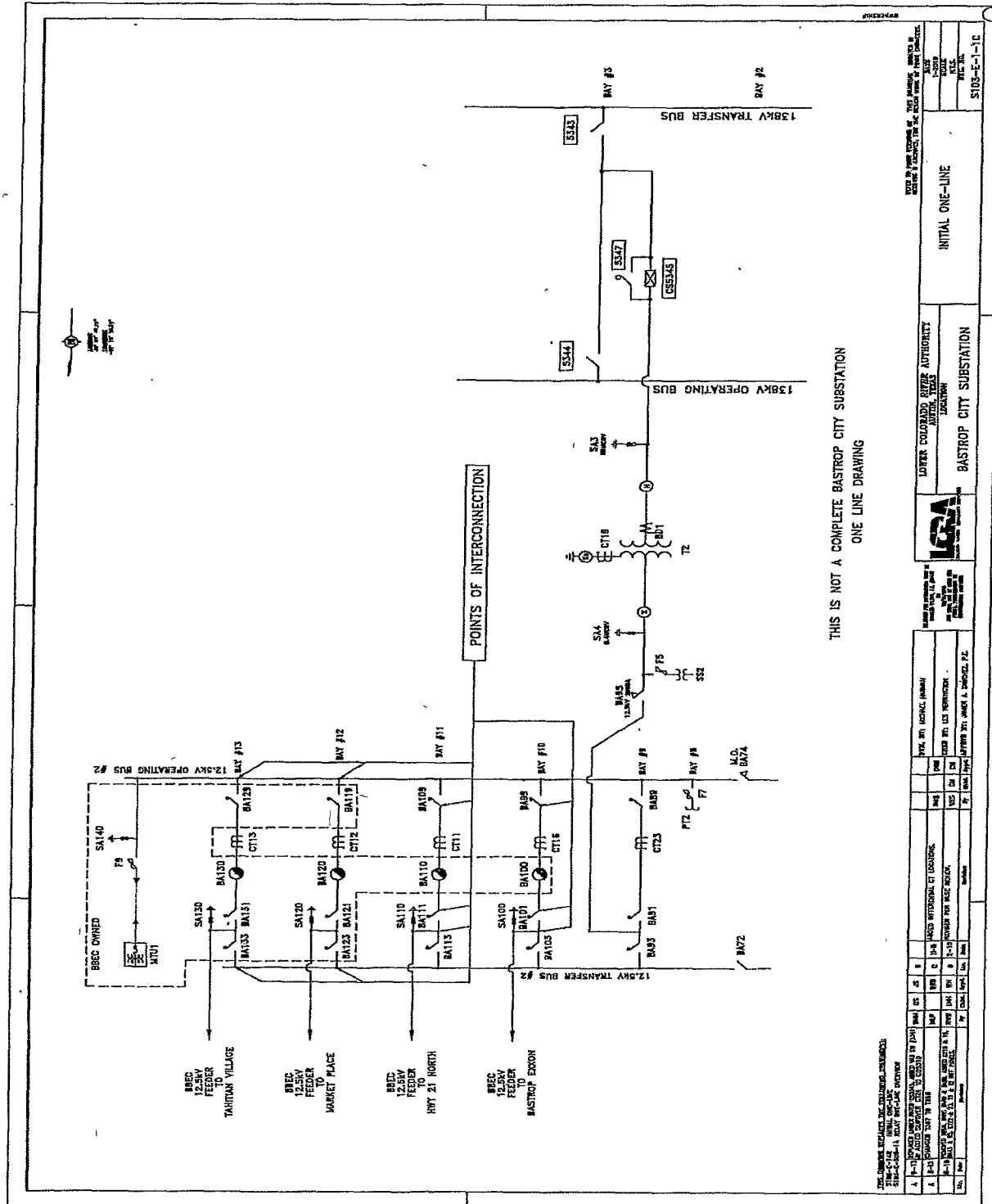
The Bastrop City Substation including, but not limited to, the following items:

- 138 kV bus including structures, foundations and jumpers
- One (1) circuit switcher CS5345 with associated disconnect switches 5343 and 5344 and bypass switch 5347
- One (1) power transformer T2 with associated surge arresters, foundation, jumpers and protective relaying
- One (1) T2 single phase current transformer CT19
- Six (6) distribution and total bays including A-frames, trusses, insulators, disconnect switches (except bays 12 and 13), surge arresters (except bays 12 and 13), 12.5 kV operating and transfer bus, bus potential transformer, metering current transformers and associated cabling
- One (1) transformer bus disconnect switch BA93
- One (1) 12.5 kV motor operated bus disconnect switch BA74
- One (1) 12.5 kV bus disconnect switch BA72
- Underfrequency relay panel
- Control house (20' x 38')
- Battery house/office building and battery bank (21' x 27')
- Substation property ground grid, gravel, fencing and other appurtenances
- One (1) meter package
- Station service

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.
 - LCRA TSC will provide BBEC with floor space (as necessary) in its control house for the installation of BBEC required relay panel boards and equipment.

BASTROP CITY ONE-LINE DIAGRAM

Amendment No. 11



FACILITY SCHEDULE NO. 8
Amendment No. 11

1. **Name:** Chappell Hill Substation
2. **Facility Location:** The Chappell Hill Substation is located at 4775 East US Highway 290, Brenham, Washington County, Texas 77833.
3. **Points of Interconnection:** There are two (2) Points of Interconnection in the Chappell Hill Substation generally described as:
 - where the 138 kV Operating Bus expansion terminal bolts to the four hole pad on switch 2004.
 - where the 138 kV Operating Bus expansion terminal bolts to the four hole pad on switch 2006.
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:** 138 kV
7. **Metered Voltage and Location:** The metering voltage is 24.9 kV. The metering current transformer is located inside transformer T1. The bus potential transformer is located on the 24.9 kV operating bus for T1.
8. **One Line Diagram Attached:** Yes
9. **Description of Facilities Owned by Each Party:**

BBEC owns:

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

- One (1) circuit switcher CS2005 with associated bypass and disconnect switches 2004 and 2017
- One (1) 138 kV mobile connection with disconnect switch 2006
- One (1) power transformer T1 and 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 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
- One (1) modulation transformer MTU1 and associated surge arrester and fuse

- Control house and battery bank
- Station service
- Substation property, ground grid, gravel, fencing and other appurtenances

LCRA TSC owns:

- Two (2) 138 kV dead-end structures, foundations, insulators and jumpers
- 138 kV ring bus including structures, foundations and jumpers
- Three (3) 138 kV circuit breakers 27470, 27480 and 27490 with foundations, jumpers and protective relaying
- Six (6) 138 kV switches 27469, 27471, 27479, 27481, 27489 and 27491
- Two (2) 138 kV capacitive coupled voltage transformers CCVT1 and CCVT2
- One (1) 138 kV bus differential and breaker failure relaying scheme
- Three (3) 138 kV surge arresters SA1, SA2 and SA3
- One (1) power voltage transformer PVT1
- One (1) control house with battery bank, battery charger, AC/DC distribution panels, and appurtenances
- Conduit between the existing BBEC control house and the new LCRA TSC control house
- One (1) meter package
- One (1) communications pole

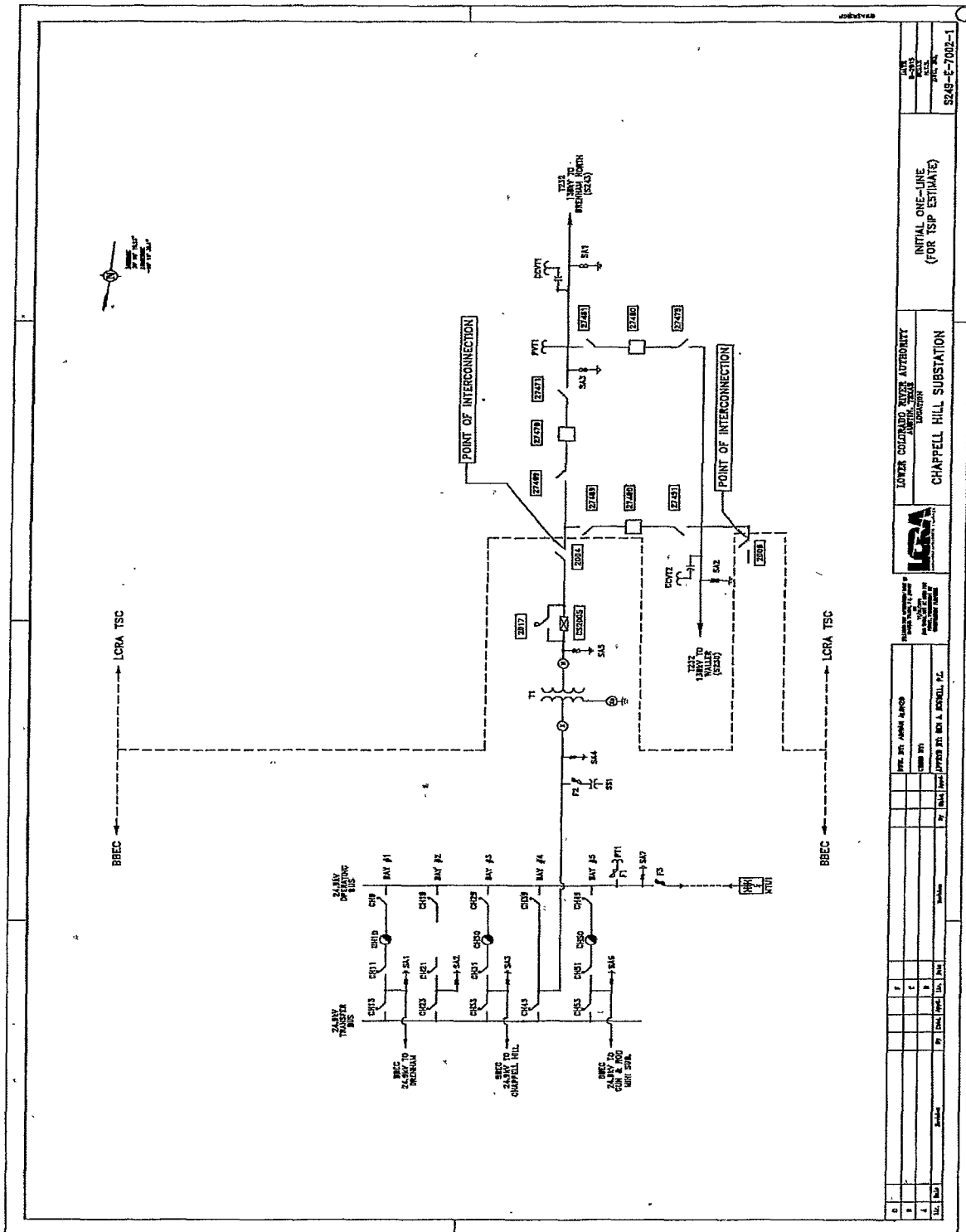
- 10. Operational Responsibilities of Each Party:** Each Party is responsible for the operation of the equipment it owns.
- 11. Maintenance Responsibilities of Each Party:** Each Party will be fully responsible for the maintenance of the equipment it owns.
- 12. Other Terms and Conditions:**
 - LCRA TSC will provide at no cost to BBEC the site expansion required for the 138 kV ring bus addition, including design, procurement, and construction to expand the site grading, ground grid, gravel, and fencing, but ownership and maintenance to be the responsibility of BBEC since BBEC owns the property gravel, fencing, and ground grid at Chappell Hill Substation
 - BBEC and LCRA TSC are to share access to the substation by LCRA TSC locks in the gate and in the BBEC and LCRA TSC control house doors.
 - BBEC will allow LCRA TSC use of a transformer T1 metering and relaying bushing current transformers for LCRA TSC's metering and 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 BBEC circuit switcher CS2005 relaying panel.
 - BBEC will provide breaker failure initiate contacts from its circuit switcher CS2005 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
 - LCRA TSC and BBEC shall coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
 - BBEC will allow LCRA TSC use of BBEC's 24.9 kV metering bus potential

transformer PT1 for LCRA TSC metering.

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

CHAPPELL HILL ONE-LINE DIAGRAM

Amendment No. 11



FACILITY SCHEDULE NO. 13
Amendment No. 11

1. **Name:** Giddings Substation
2. **Facility Location:** The Giddings Substation is located at 1398 West Austin Street, Giddings, Lee County, Texas 78942.
3. **Points of Interconnection:** There are fifteen (15) Points of Interconnection in the Giddings Substation generally described as:
 - where the incoming distribution line connects to the tubular bus between switches GD91 and GD93 at breaker GD90.
 - where the jumper from breaker GD90 connects to the 4 hole pad on switch GD89.
 - where the jumper from breaker GD90 connects to the 4 hole pad on switch GD91.
 - where the incoming distribution line connects to the tubular bus between switches GD101 and GD103 at breaker GD100.
 - where the jumper from breaker GD100 connects to the 4 hole pad on switch GD99.
 - where the jumper from breaker GD100 connects to the 4 hole pad on switch GD101.
 - where the incoming distribution line connects to the tubular bus between switches GD111 and GD113 at breaker GD110.
 - where the jumper from breaker GD110 connects to the 4 hole pad on switch GD109.
 - where the jumper from breaker GD110 connects to the 4 hole pad on switch GD111.
 - where the incoming distribution line connects to the tubular bus between switches GD121 and GD123 at breaker GD120.
 - where the jumper from breaker GD120 connects to the 4 hole pad on switch GD119.
 - where the jumper from breaker GD120 connects to the 4 hole pad on switch GD121.
 - where the incoming distribution line connects to the tubular bus between switches GD131 and GD133 at breaker GD130.
 - where the jumper from breaker GD130 connects to the 4 hole pad on switch GD129.
 - where the jumper from breaker GD130 connects to the 4 hole pad on switch GD131.
4. **Transformation Services Provided by LCRA TSC:** Yes, per Transformation Service Agreement between the Parties
5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Service Agreement between the Parties
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 total bay for transformer T3. 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:

- Five (5) distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware
- Five (5) distribution circuit breakers GD90, GD100, GD110, GD120, GD130 including jumpers, protective relay packages and foundations
- One (1) portable control house
- One (1) modulation transformer MTU1 and associated surge arrester and fuse

LCRA TSC owns:

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

- 138 kV operating and transfer bus including structures, insulators, hardware, foundations and jumpers
- One (1) 138 kV surge arrester SA3
- One (1) 138 kV bus potential transformer PT2
- One (1) circuit switcher CS27355 with bypass switch 27357 and associated disconnect switches 27354 and 5363
- One (1) power transformer T3 with associated surge arresters, foundation, jumpers and protective relaying
- Seven (7) distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 12.5 kV operating and transfer bus, bus potential transformer, metering current transformers and associated cabling
- One (1) single phase current transformer CT6
- One (1) 138 kV dual core current transformer CT9
- Underfrequency relay panel
- Control house and battery bank
- Two (2) station service SS4 and SS5
- One (1) meter 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.

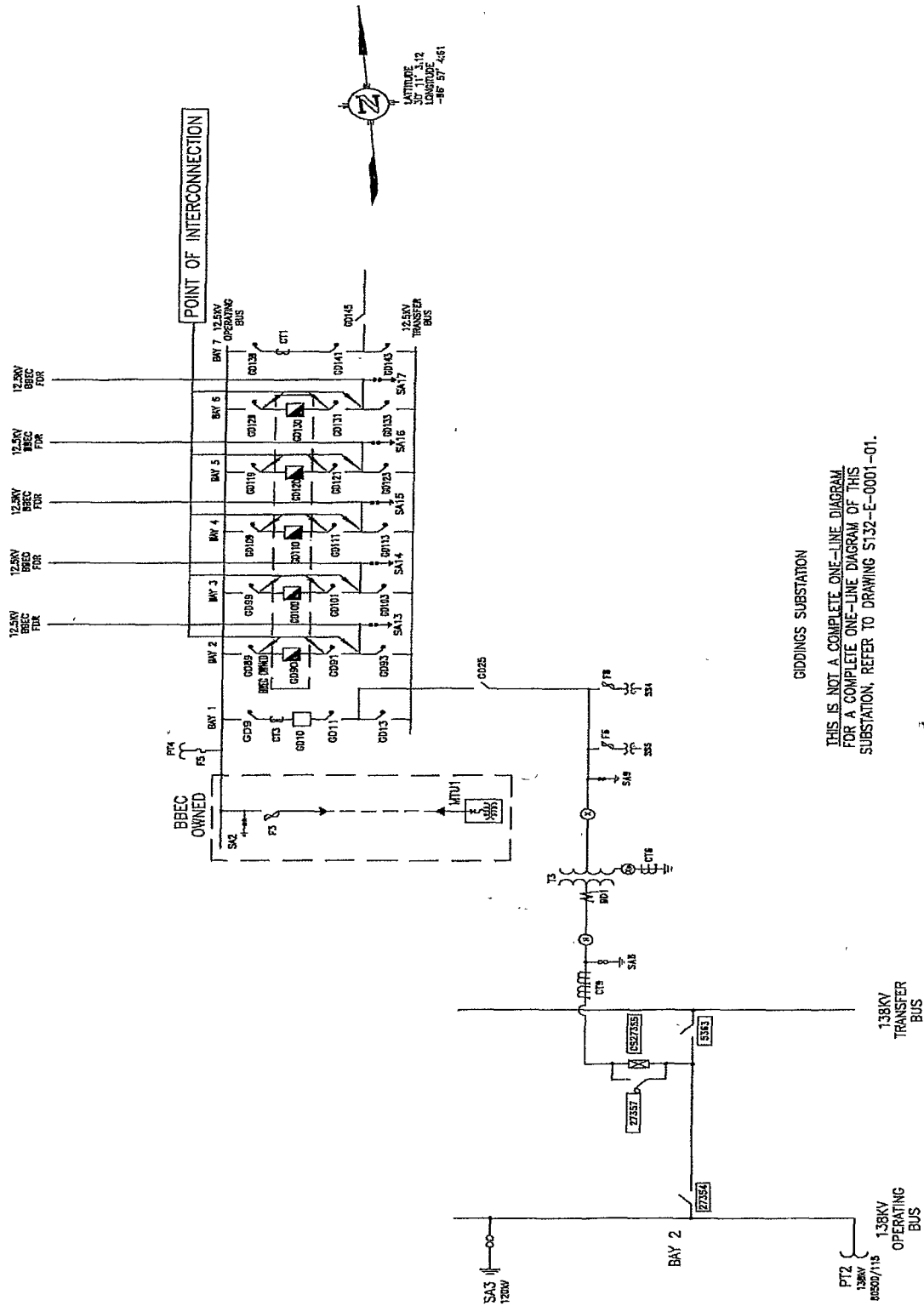
11. Maintenance Responsibilities of Each Party: Each Party will be fully responsible for the maintenance of the equipment it owns.

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.
- LCRA TSC will provide BBEC with floor space (as necessary) in its control house for the installation of BBEC required relay panel boards and equipment.

GIDDINGS ONE-LINE DIAGRAM

Amendment No. 11



FACILITY SCHEDULE NO. 20
Amendment No. 11

1. **Name:** Manor Substation
2. **Facility Location:** The Manor Substation is located at 13711 East US Highway 290, Manor, and Travis County, Texas 78653.
3. **Points of Interconnection:** There are two (2) Points of Interconnection in the Manor Substation generally described as:
 - where the 138 kV Operating Bus #1 expansion terminal bolts to the four hole pad of switch 1504.
 - where the 138 kV Operating Bus #2 expansion terminal bolts to the four hole pad of switch 12964.
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:** 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:**

BBEC owns:

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

 - One (1) circuit switcher CS1505 with associated disconnect and bypass switches 1504 and 1507
 - One (1) power transformer T1 and associated surge arresters
 - One (1) 138 kV switch 12964
 - 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
 - One (1) modulation transformer MTU1 and associated fuse
 - One (1) mobile transformer hook-up

- Control house (small) and battery bank
- Two (2) station service SS1 and SS2
- Substation property, ground grid, gravel, fencing and other appurtenances

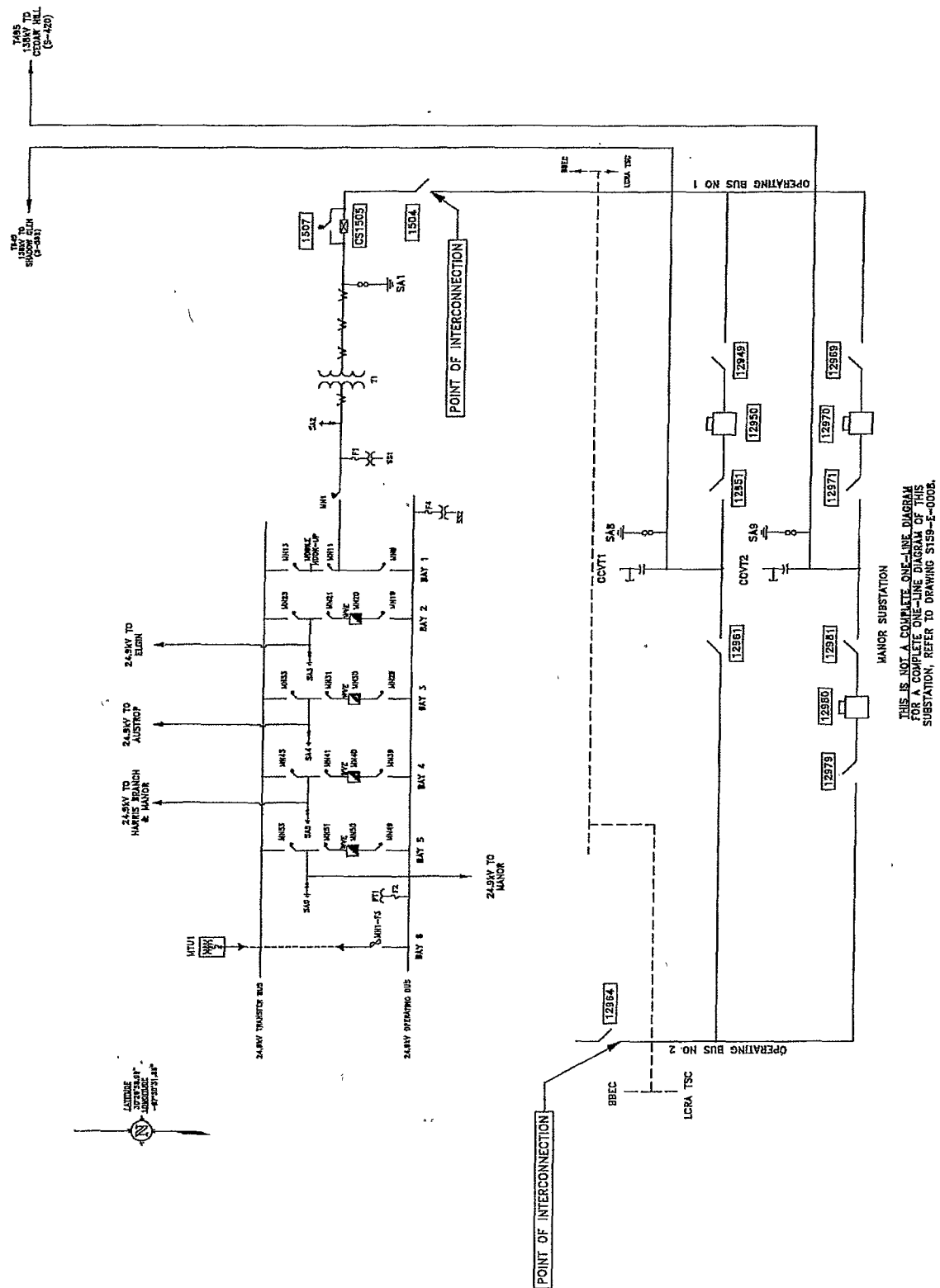
LCRA TSC owns:

- One (1) 2-bay 138 kV dead-end structure, foundations, insulators and jumpers
- 138 kV Operating Bus #1 and Operating Bus #2 including structures, insulators, hardware, foundations and jumpers
- Three (3) 138 kV circuit breakers 12950, 12970 and 12980 including jumpers and protective relay packages
- Seven (7) 138 kV switches 12949, 12951, 12961, 12969, 12971, 12979 and 12981
- Two (2) 138 kV surge arresters SA8 and SA9
- Two (2) 138 kV coupling capacitor voltage transformers CCVT1 and CCVT2
- One (1) 138 kV bus differential and breaker failure relaying scheme
- Control house (large) with battery
- One (1) meter 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 allow LCRA TSC use of a transformer T1 metering and relaying bushing current transformers for LCRA TSC's metering and 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 BBEC circuit switcher CS1505 relaying panel.
 - BBEC will provide breaker failure initiate contacts from its circuit switcher CS1505 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
 - LCRA TSC and BBEC shall coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
 - BBEC will allow LCRA TSC use of BBEC's 24.9 kV metering bus potential transformer PT1 for LCRA TSC metering.
 - 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. Likewise, LCRA TSC will provide BBEC similar access to LCRA TSC owned VDC and VAC.
 - BBEC will provide LCRA TSC with floor space (as necessary) in its control house for the installation of LCRA TSC required relay panel boards and

equipment. Likewise, LCRA TSC will provide BBEC similar access to LCRA TSC owned control house floor space.

Amendment No. 11



FACILITY SCHEDULE NO. 21
Amendment No. 11

1. **Name:** McCarty Lane East Substation
2. **Facility Location:** The McCarty Lane East Substation is located at 1502 E. McCarty Lane, San Marcos, Hays County, Texas 78666.
3. **Points of Interconnection:** There are nine (9) Points of Interconnection in the McCarty Lane East Substation generally described as:
 - where the incoming distribution line connects to the tubular bus between switches ML51 and ML53 at breaker M50.
 - where the jumper from breaker ML50, passing through CT9, connects to the 4 hole pad on switch ML49.
 - where the jumper from breaker ML50 connects to the 4 hole pad on switch ML51.
 - where the incoming distribution line connects to the tubular bus between switches ML61 and ML63 at breaker ML60.
 - where the jumper from breaker ML60, passing through CT7 connects to the 4 hole pad on switch ML59.
 - where the jumper from breaker ML60 connects to the 4 hole pad on switch ML61.
 - where the incoming distribution line connects to the tubular bus between switches ML71 and ML73 at breaker ML70.
 - where the jumper from breaker ML70, passing through CT8, connects to the 4 hole pad on switch ML69.
 - where the jumper from breaker ML70 connects to the 4 hole pad on switch ML71.
4. **Transformation Services Provided by LCRA TSC:** Yes, per Transformation Service Agreement between the Parties
5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Service Agreement between the Parties
6. **Delivery Voltage:** 12.5 kV
7. **Metered Voltage and Location:** The metering voltage is 12.5 kV. The metering current transformers for T1 are located inside T1 and in each distribution 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:**

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 ML50, ML60, ML70 including jumpers and

- protective relay packages
- Four (4) distribution circuit breaker foundations in bays 1,5,6 and 7
- One (1) modulation transformer MTU1 and associated surge arrester and fuse

LCRA TSC owns:

The McCarty Lane East Substation including, but not limited to, the following items:

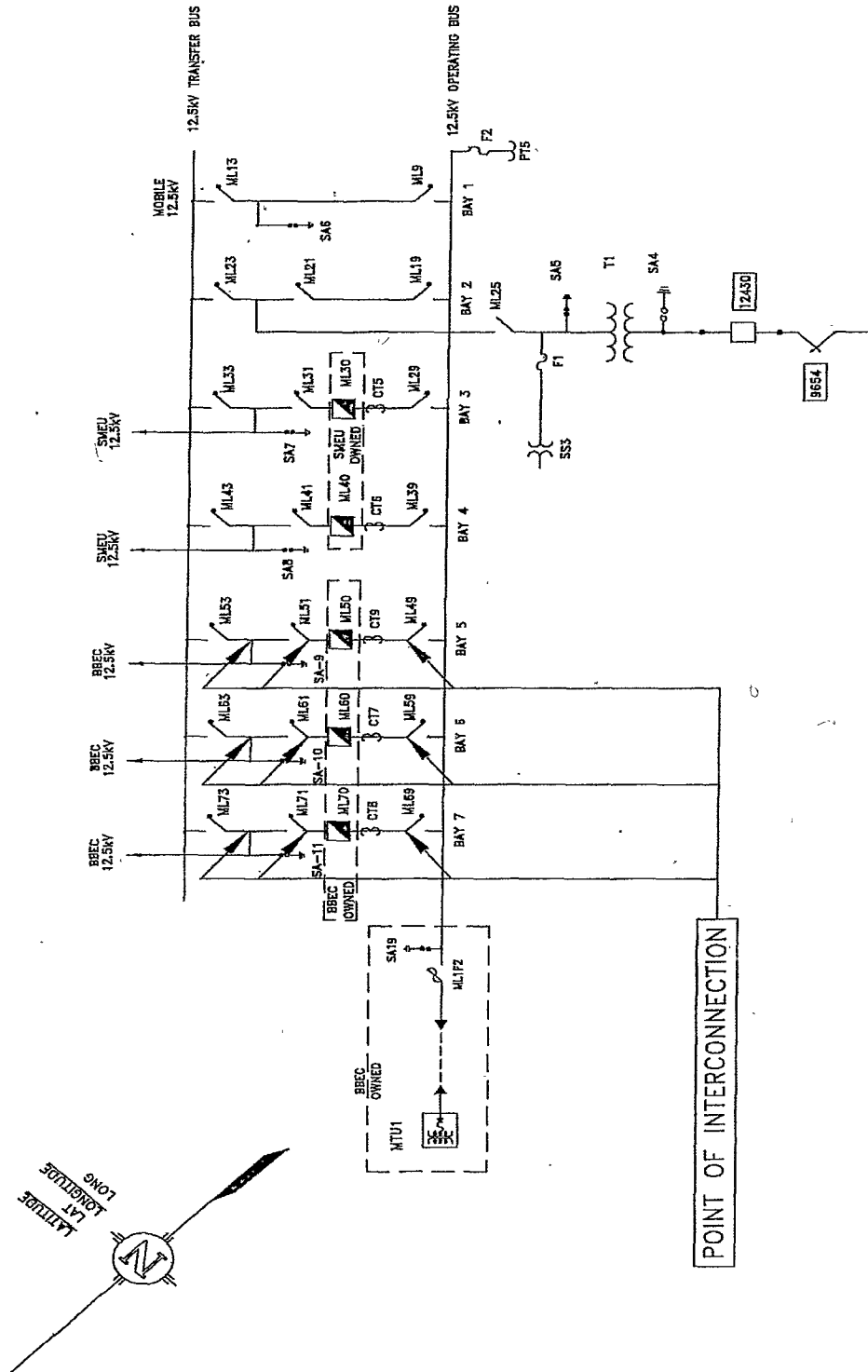
- One (1) power transformer T1 with associated surge arresters, foundation, jumpers and protective relaying
- One (1) circuit breaker 12430 and associated switch 9654 with foundations, jumpers and protective relaying
- Seven (7) distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 12.5 kV operating and transfer bus, bus potential transformer, metering current transformers and associated cabling
- One (1) control house
- One (1) battery bank and charger
- One (1) station service SS3
- One (1) meter 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.
 - LCRA TSC will provide BBEC with floor space as necessary) in its control house for the installation of BBEC required relay panel boards and equipment.

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MCCARTY LANE EAST ONE-LINE DIAGRAM

Amendment No. 11



FACILITY SCHEDULE NO. 30
Amendment No. 11

1. **Name:** Smithville Substation
2. **Facility Location:** The Smithville Substation is located at 196 American Legion Road, Smithville, Bastrop County, Texas 78957.
3. **Points of Interconnection:** There are ten (10) Points of Interconnection in the Smithville Substation generally described as:
 - where the incoming 69 kV BBEC transmission line from Rosanky terminates at the dead end structure in the substation.
 - where the incoming distribution line connects to the tubular bus between switches SL61 and SL63 at breaker SL60.
 - where the jumper from breaker SL60, passing through CT8, connects to the 4 hole pad on switch SL59.
 - where the jumper from breaker SL60 connects to the 4 hole pad on switch SL61.
 - where the incoming distribution line connects to the tubular bus between switches SL81 and SL83 at breaker SL80.
 - where the jumper from breaker SL80, passing through CT10, connects to the 4 hole pad on switch SL79.
 - where the jumper from breaker SL80 connects to the 4 hole pad on switch SL81.
 - where the incoming distribution line connects to the tubular bus between switches SL101 and SL103 at breaker SL100.
 - where the jumper from breaker SL100, passing through CT9, connects to the 4 hole pad on switch SL99.
 - where the jumper from breaker SL100 connects to the 4 hole pad on switch SL101.
4. **Transformation Services Provided by LCRA TSC:** Yes, per Transformation Service Agreement between the Parties
5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Service Agreement between the Parties
6. **Delivery Voltage:** 12.5 kV
7. **Metered Voltage and Location:** The metering voltage is 12.5 kV. Metering current transformers are located on the inside T2 and in each distribution bay. The bus potential transformer is PT2 on the 12.5 kV operating bus for T2.
8. **One Line Diagram Attached:** Yes

9. Description of Facilities Owned by Each Party:

BBEC owns:

- The following transmission lines comprised of conductors, insulators, and connecting hardware:
 - Smithville to Rosanky 69 kV transmission line
- Three (3) distribution circuits including dead end insulators that attach to the dead end structure, conductors and hardware
- Three (3) distribution circuit breakers SL60, SL80 and SL100 including jumpers, protective relay packages and foundations
- One (1) modulation transformer MTU1 and associated surge arrester and fuse
- One (1) 12.5 kV bus potential transformer PT4, and associated fuse F8, on the T2 12.5 kV operating bus.

LCRA TSC owns:

The Smithville Substation including but not limited to the following items:

- Line protection equipment for BBEC owned Smithville to Rosanky transmission line
- 138 kV dead-end structure, foundations, insulators and jumpers
- 138 kV operating and transfer bus including structures, insulators, hardware, foundations and jumpers
- One (1) power transformer T2 with associated surge arresters, foundation, jumpers and protective relaying
- One (1) circuit switcher CS6015 and associated bypass switch 6012
- One (1) 138 kV circuit breaker 6000 including jumpers and protective relay package
- Five (5) 138 kV disconnect switches 5999, 6001, 6003, 6014 and 6017
- One (1) 138 kV bus potential transformer PT5
- One (1) 138 kV surge arrester SA14
- One (1) 69 kV box structure including insulators, hardware, foundations and jumpers
- One (1) auto transformer AT3 with associated surge arresters, foundation, jumpers and protective relaying
- One (1) 138 kV bus differential and breaker failure relaying scheme
- One (1) 69 kV surge arrester SA15
- One (1) 69 kV bus potential transformer PT6
- One (1) 69 kV circuit breaker 6030 including jumpers and protective relay packages
- Seven (7) 69 kV disconnect switches 6026, 6027, 6028, 6029, 6031, 6033 and 6043
- Four (4) distribution and total bays including A-frames, trusses, insulators, disconnect switches (bays 4 thru 7), surge arresters, bus potential transformer PT2 with associated fuse, current metering transformers and associated cabling
- One (1) total breaker SL70 including jumpers and protective relay package and foundation
- Underfrequency relay panel
- Two (2) Control houses (1 is empty) 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.

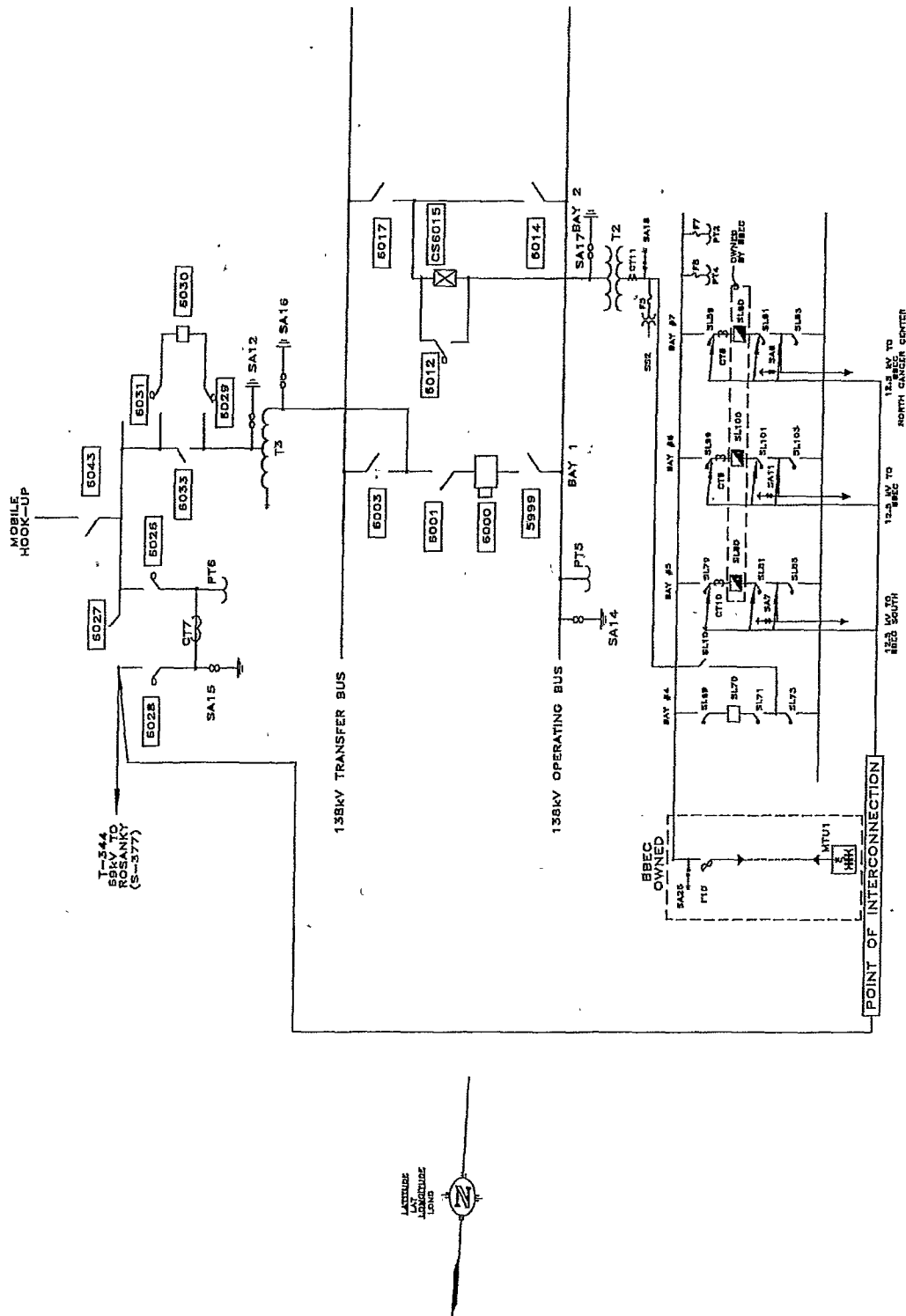
12. Other Terms and Conditions:

- 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.
- LCRA TSC will provide BBEC with floor space (as necessary) in its control houses for the installation of BBEC required relay panel boards and equipment.

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SMITHVILLE ONE-LINE DIAGRAM

Amendment No. 11



SMITHVILLE SUBSTATION
THIS IS NOT A COMPLETE ONE-LINE DIAGRAM
FOR A COMPLETE ONE-LINE DIAGRAM OF THIS
SUBSTATION, REFER TO DRAWING S185-E-0001-01.

FACILITY SCHEDULE NO. 33
Amendment No. 11

1. **Name:** Webberville Substation
2. **Facility Location:** The Webberville Substation is located at 400 Webberville Church Road, Manor, Travis County, Texas 78653.
3. **Points of Interconnection:** There are twelve (12) Points of Interconnection in the Webberville Substation generally described as:
 - where the incoming distribution line connects to the tubular bus between switches WV21 and WV23 at breaker WV20.
 - where the jumper from breaker WV20 connects to the 4 hole pad on switch WV19.
 - where the jumper from breaker WV20 connects to the 4 hole pad on switch WV21.
 - where the incoming distribution line connects to the tubular bus between switches WV31 and WV33 at breaker WV30.
 - where the jumper from breaker WV30 connects to the 4 hole pad on switch WV29.
 - where the jumper from breaker WV30 connects to the 4 hole pad on switch WV31.
 - where the incoming distribution line connects to the tubular bus between switches WV71 and WV73 at breaker WV70.
 - where the jumper from breaker WV70 connects to the 4 hole pad on switch WV69.
 - where the jumper from breaker WV70 connects to the 4 hole pad on switch WV71.
 - where the incoming distribution line connects to the tubular bus between switches WV81 and WV83 at breaker WV80.
 - where the jumper from breaker WV80 connects to the 4 hole pad on switch WV79.
 - where the jumper from breaker WV80 connects to the 4 hole pad on switch WV81.
4. **Transformation Services Provided by LCRA TSC:** Yes, per Transformation Service Agreement between the Parties
5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Service Agreement between the Parties
6. **Delivery Voltage:** 24.9 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:

BBEC owns:

- Four (4) distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware
- Four (4) distribution circuit breakers WV20, WV30, WV70 and WV80 including jumpers and protective relay packages
- Five (5) distribution circuit breaker foundations (bays 2,3,4,7,and 8)
- One (1) modulation transformer MTU1 and associated surge arrester and fuse

LCRA TSC owns:

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

- One (1) circuit breaker 10670 with foundation, jumpers and protective relaying
- One (1) power transformer T1 with associated surge arresters
- Eight (8) distribution and total bays including A-frames, trusses, insulators, disconnect switches, interrupter, surge arresters, 24.9 kV operating and transfer bus, bus potential transformer and associated cabling
- Underfrequency relay panel
- Control house and battery bank
- Station service
- One (1) meter 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.

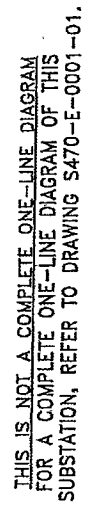
11. Maintenance Responsibilities of Each Party: Each Party will be fully responsible for the maintenance of the equipment it owns.

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.
- LCRA TSC will provide BBEC with floor space (as necessary) in its control houses for the installation of BBEC required relay panel boards and equipment.

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Amendment No. 11



FACILITY SCHEDULE NO. 37
Amendment No. 11

1. **Name:** Shadow Glen Substation
2. **Facility Location:** The Shadow Glen Substation is located at County, Texas
3. **Points of Interconnection:** There are two (2) Points of Interconnection in the Shadow Glen Substation generally described as:
 - where the 138 kV ring bus expansion terminal bolts to the four hole pad of switch 21004.
 - where the 138kV ring bus attaches to mobile switch 21008.
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:** 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:**

BBEC owns:

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

- One (1) circuit switcher CS21005 with associated disconnect switch 21004 and bypass switch 21007
- One (1) 138 kV switch 21008
- One (1) power transformer T1 with associated surge arresters
- One (1) low voltage transformer bus disconnect switch SG01
- 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
- All distribution and total bays including foundations, A-frames, trusses, insulators, disconnect switches, 24.9 kV operating and transfer bus, bus potential transformer and associated cabling
- One (1) modulation transformer MTU1 and foundation with associated , jumpers and fuse
- Control house and battery bank
- Two (2) station service SS1 and SS3

- Substation property, ground grid, gravel, fencing and other appurtenances

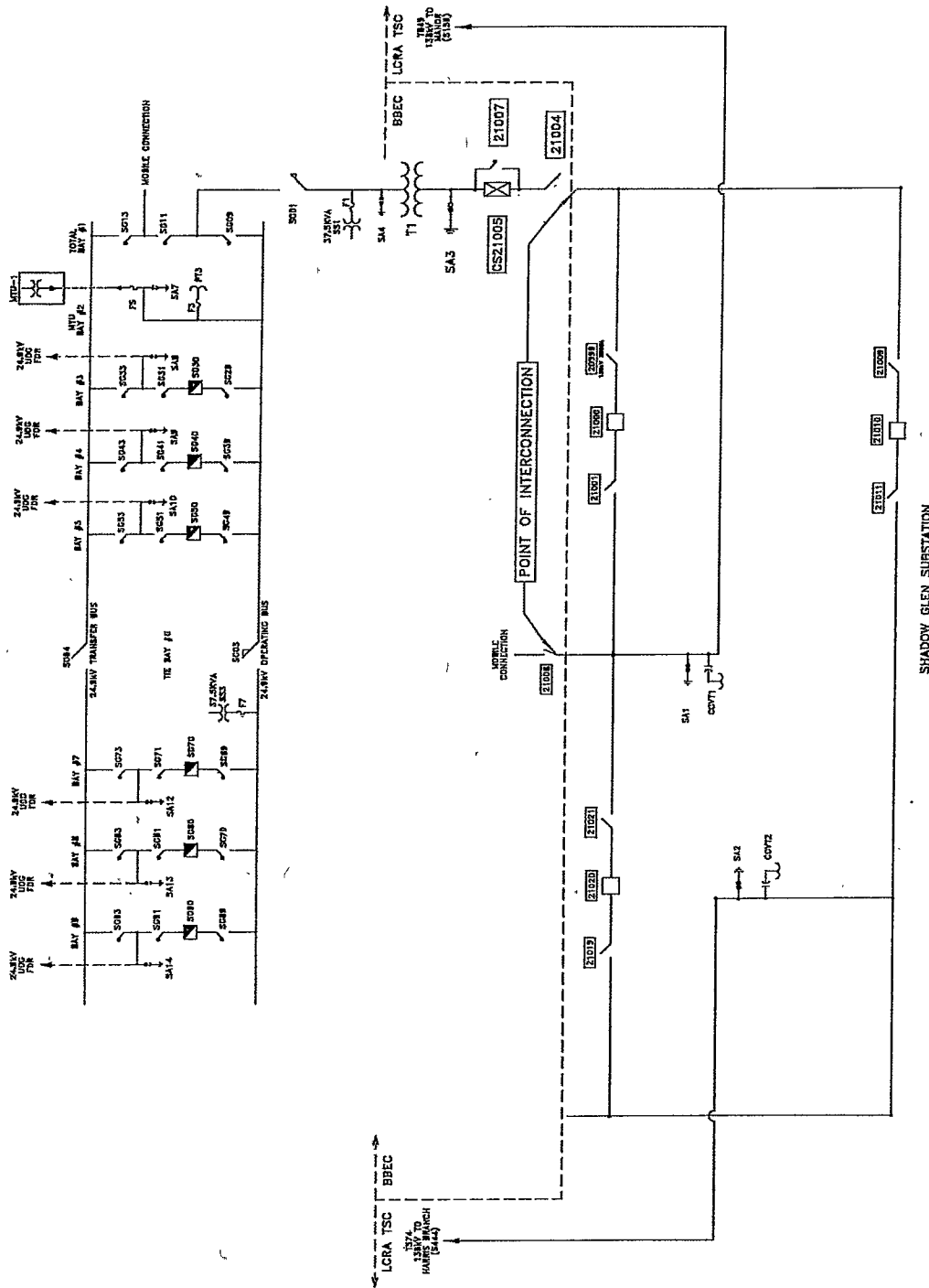
LCRA TSC owns:

- Two (2) 138 kV dead-end structures, foundations, insulators and jumpers
- 138 kV ring bus including structures, insulators, foundations and jumpers
- Six (6) 138 kV switches 20999, 21001, 21009, 21011, 21019 and 21021
- Three (3) 138 kV circuit breakers 21000, 21010 and 21020 with foundations, jumpers and protective relaying
- One (1) 138 kV bus differential and breaker failure relaying scheme
- Two (2) coupling capacitor voltage transformers CCVT1 and CCVT2
- Two (2) 138 kV surge arresters SA1 and SA2
- One (1) meter 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 allow LCRA TSC use of a transformer T1 metering and relaying bushing current transformers for its metering and 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 BBEC circuit switcher CS21005 relaying panel.
 - BBEC will provide breaker failure initiate contacts from its circuit switcher CS21005 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
 - LCRA TSC and BBEC shall coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
 - BBEC will allow LCRA TSC use of BBEC's 24.9 kV metering bus potential transformer PT3 for LCRA TSC metering.
 - 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.
 - BBEC will provide LCRA TSC with floor space (as necessary) in its control houses for the installation of LCRA TSC required relay panel boards and equipment.

SHADOW GLEN ONE-LINE DIAGRAM

Amendment No. 11



FACILITY SCHEDULE NO. 38
Amendment No. 11

1. **Name:** Tahitian Village Substation
2. **Facility Location:** The Tahitian Village Substation is located at 420 Mauna Loa Lane, Bastrop, Bastrop County Texas 78602.
3. **Points of Interconnection:** There are two (2) Points of Interconnection in the Tahitian Village Substation generally described as:
 - where the jumper from the LCRA TSC 138 kV ring bus attaches to the four hole pad on switch 22424.
 - where the 138kV ring bus attached to mobile switch 22434.
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:** 138 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:**

BBEC owns:

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

- One (1) circuit switcher CS22425 with associated disconnect and bypass switches 22424 and 22427
- One (1) 138 kV disconnect switch 22434
- One (1) power transformers T1 with associated surge arresters, foundations, jumpers and protective relaying
- One (1) 138 kV, 3-phase, external bushing relaying current transformer CT3
- 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, 12.5 kV operating and transfer buses, bus potential transformer and associated cabling
- One (1) single phase current transformer CT1
- One (1) modulation transformer MTU1 with associated surge arrester and fuse

- Two (2) station service SS2 and SS3
- Control house (24' x 42')
- Batteries
- Substation property, ground grid, gravel, fencing and other appurtenances

LCRA TSC owns:

- 138 kV ring bus including structures, insulators, hardware, foundations and jumpers
- Two (2) 138 kV bays including A-frames, trusses, insulators, conductors, hardware and foundations
- Three (3) 138 kV circuit breakers 22420, 22430 and 27460 with foundations, jumpers and protective relaying
- Six (6) 138 kV switches 22419, 22421, 22429, 22431, 27459 and 27461
- Two (2) 138 kV coupling capacitor voltage transformers CCVT1 and CCVT2
- Two (2) 138 kV surge arresters SA7 and SA8
- One (1) 138 kV bus differential and breaker failure relaying scheme
- One (1) 12.5 kV metering current transformer CT2
- One (1) communications tower
- One (1) meter 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.
 - LCRA TSC will provide tripping and close inhibit contacts from its 138 kV circuit protection & breaker failure relaying panel to BBEC circuit switcher CS22425 relaying panel.
 - BBEC will provide breaker failure initiate contacts from its circuit switcher CS22425 relaying panel to LCRA TSC's 138 kV circuit protection & breaker failure relaying panel.
 - LCRA TSC and BBEC shall coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
 - BBEC will allow LCRA TSC use of BBEC's 12.5 kV metering bus potential transformer PT1 for LCRA TSC metering.
 - 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.
 - BBEC will provide LCRA TSC with floor space (as necessary) in its control houses for the installation of LCRA TSC required relay panel boards and equipment.

Amendment No. 11



FACILITY SCHEDULE NO. 42
Amendment No. 11

1. **Name:** Seawillow Substation TERMINATED