Control Number: 35077

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Project No. 35077

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Amendment No. 3 to

INTERCONNECTION AGREEMENT

Between

Pedernales Electric Cooperative, Inc.

and

LCRA Transmission Services Corporation

Dated
February 2, 2017

THIRD AMENDMENT TO
INTERCONNECTION AGREEMENT

This Third Amendment ("3rd Amendment") is made and entered into this 2ND day of FEBRUARY, 2017, between the Pedernales Electric Cooperative, Inc. ("PEC") and LCRA Transmission Services Corporation ("LCRA TSC") collectively referred to hereinafter as the Parties.

WHEREAS, LCRA TSC and PEC entered into that certain Interconnect Agreement executed April 12, 2010 , as amended by that certain Amendment No. 1 ("First Amendment") executed as of April 6, 2011, as amended by that certain Amendment No. 2 ("Second Amendment") executed as of October 14, 2014 collectively, as amended, (the "**Agreement**");

WHEREAS, LCRA TSC installed a capacitor bank at Bergheim Substation;

WHEREAS, PEC converted the distribution bus from 12.5 kV to 24.9 kV at E. Babe Smith Substation;

WHEREAS, PEC purchased distribution breaker GL70 at Glasscock Substation;

WHEREAS, PEC will upgrade the Lakeway PWT and convert from 12.5kV to 24.9kV;

WHEREAS, LCRA TSC will install circuit breakers at Sherwood Shores Substation;

WHEREAS, PEC will upgrade the PWT's and associated distribution at Sherwood Shores Substation;

WHEREAS, PEC converted the distribution bus from 12.5 kV to 24.9 kV at Spicewood Substation;

WHEREAS, LCRA TSC will install a 3 breaker ring bus at Starcke Substation;

WHEREAS, PEC will add T2 at Bertram Substation;

WHEREAS, PEC will upgrade the PWTs at Buda Substation;

WHEREAS, PEC will rebuild the Flatrock Substation to accommodate conversion to 24.9 kV;

WHEREAS, PEC upgraded the PWTs at Nameless Substation and converted the distribution voltage from 12.5 kV to 24.9 kV, and;

WHEREAS, PEC installed a 138kV Tie Breaker and distribution total and tie breakers at Whitestone Substation.

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 Third Amendment is hereby added to the Agreement in lieu thereof.

2. Exhibit "A" attached to this Third Amendment will become effective upon execution of this Third Amendment by the Parties.

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

4. Facility Schedule No. 5 (including the diagrams attached thereto) attached to this Third Amendment will become effective upon execution of this Third Amendment by the Parties.

5. Facility Schedule No. 12 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 12 attached to this Third Amendment is hereby added to the Agreement in lieu thereof.

6. Facility Schedule No. 12 (including the diagrams attached thereto) attached to this Third Amendment will become effective upon execution of this Third Amendment by the Parties.

7. Facility Schedule No. 18 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 18 attached to this Third Amendment is hereby added to the Agreement in lieu thereof.

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

9. Facility Schedule No. 25 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 25 attached to this Third Amendment is hereby added to the Agreement in lieu thereof.

10. Facility Schedule No. 25 (including the diagrams attached thereto) attached to this Third Amendment will become effective upon execution of this Third Amendment by the Parties.

11. Facility Schedule No. 35 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 35 attached to this Third Amendment is hereby added to the Agreement in lieu thereof.

12. Facility Schedule No. 35 (including the diagrams attached thereto) attached to this Third Amendment will become effective upon execution of this Third Amendment by the Parties.

13. Facility Schedule No. 36 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 36 attached to this Third Amendment is hereby added to the Agreement in lieu thereof.

14. Facility Schedule No. 36 (including the diagrams attached thereto) attached to this Third Amendment will become effective upon execution of this Third Amendment by the Parties.

15. Facility Schedule No. 40 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 40 attached to this Third Amendment is hereby added to the Agreement in lieu thereof.

16. Facility Schedule No. 40 (including the diagrams attached thereto) attached to this Third Amendment will become effective upon execution of this Third Amendment by the Parties.

17. The Meter Location Schedule (including the diagrams attached thereto) is deleted in its entirety and the Meter Location Schedule attached to this Third Amendment is hereby added to the Agreement in lieu thereof.

- Change to MLS
  -MLS Section 2 – Bertram
  -MLS Section 5 - Buda
  -MLS Section 12-Flatrock
  -MLS Section 20-Nameless
  -MLS Section 25 – Whitestone

18. The Meter Location Schedule (including the diagrams attached thereto) attached to this Third Amendment will become effective upon execution of this Third 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 Third Amendment to be executed in several counterparts, each of which shall be deemed an original but all shall constitute one and the same instrument.

PEDERNALES ELECTRIC COOPERATIVE, INC.

By: _____

Name: John D. Hewa

Title: Chief Executive Officer

Date: 2/2/17

LCRA TRANSMISSION SERVICES CORPORATION

By: _____

Name: Sergio Garza, P.E.

Title: LCRA Vice President, Transmission Design and Protection

Date: December 14, 2016

LEGAL ANH: SERVICES

EXHIBIT A
Third Amendment

FACILITY SCHEDULE NO.	LOCATION OF POINT(S) OF INTERCONNECTION (# of Points)	INTERCONNECTION VOLTAGE (KV)	EFFECTIVE DATE OF INTERCONNECTION
1	Andice (2)	138 kV	April 12, 2010
2	Antler (2)	138 kV	October 14, 2014
3	Avery Ranch (3)	138 kV	April 6, 2011
4	Bee Creek (2)	138 kV	October 14, 2014
5	Bergheim (4)	138 kV	Date of 3rd Amendment
6	Buda Split (1)	138 kV	April 12, 2010
7	Burnet (4)	12.5/69/138 kV	April 12, 2010
8	Buttercup (2)	138 kV	October 14, 2014
9	Camp Gary (9)	12.5 kV	April 12, 2010
10	Canyon (3)	138 kV	October 14, 2014
11	Copperas Cove (2)	138 kV	October 14, 2014
12	E. Babe Smith (1)	138 kV	Date of 3rd Amendment
13	Escarpment (2)	138 kV	April 12, 2010
14	Fairland (2)	138 kV	April 12, 2010
15	Fairoaks (2)	138 kV	April 12, 2010
16	Friendship (2)	138 kV	April 12, 2010
17	Gabriel (1)	138 kV	April 12, 2010
18	Glasscock (12)	24.9 kV	Date of 3rd Amendment
19	Goforth (2)	138 kV	April 12, 2010
20	Granite Mountain (2)	138 kV	April 12, 2010
21	Graphite Mine (1)	138 kV	April 12, 2010
22	Horseshoe Bay (2)	138 kV	April 12, 2010
23	Inks Dam (0) Terminated	12.5 kV	October 14, 2014
24	Lago Vista (4)	138 kV	October 14, 2014
25	Lakeway (1)	138 kV	Date of 3rd Amendment
26	Manchaca (2)	138 kV	October 14, 2014
27	Marshall Ford (6)	138 kV	October 14, 2014
28	Mc Carty Lane East (3)	138 kV	April 12, 2010
29	Miller Creek (1)	138 kV	April 12, 2010
30	Mountain Top (4)	138 kV	October 14, 2014
31	Phillips Johnson City (3)	12.5 kV	April 6, 2011
32	River Oaks (1)	138 kV	October 14, 2014
33	Rohr (1)	138 kV	April 12, 2010
34	Segovia (1)	69 kV	April 12, 2010
35	Sherwood Shores (2)	138 kV	Date of 3rd Amendment
36	Spicewood (2)	138 kV	Date of 3rd Amendment

EXHIBIT A

Third Amendment

(continued)

FACILITY SCHEDULE NO.	LOCATION OF POINT(S) OF INTERCONNECTION (# of Points)	INTERCONNECTION VOLTAGE (KV)	EFFECTIVE DATE OF INTERCONNECTION
37	Turnersville (4)	138 kV	April 6, 2011
38	Wirtz (6)	69/138 kV	October 14, 2014
39	Kent Street (2)	138 kV	October 14, 2014
40	Starcke (1)	138 kV	Date of 3rd Amendment
41	Dobyville (1)	138 kV	April 12, 2010
42	Buckner Boys Ranch (1)	138 kV	April 6, 2011
MLS Section 1	Balcones (0)		October 14, 2014
MLS Section 2	Bertram (0)		Date of 3rd Amendment
MLS Section 3	Blanco (0)		October 14, 2014
MLS Section 4	Blockhouse (0)		October 14, 2014
MLS Section 5	Buda (0)		Date of 3rd Amendment
MLS Section 6	Cedar Valley (0)		October 14, 2014
MLS Section 7	Centex (0)		October 14, 2014
MLS Section 8	Cranes Mill (0)		October 14, 2014
MLS Section 9	Devils Hill (0)		October 14, 2014
MLS Section 10	Dripping Springs (0)		October 14, 2014
MLS Section 11	Fischer (0)		October 14, 2014
MLS Section 12	Flatrock (0)		Date of 3rd Amendment
MLS Section 13	Henley (0)		October 14, 2014
MLS Section 14	Highway 32 (0)		October 14, 2014
MLS Section 15	Hunter (0)		October 14, 2014
MLS Section 16	Johnson City (0)		October 14, 2014

EXHIBIT A
Third Amendment
(continued)

FACILITY SCHEDULE NO.	LOCATION OF POINT(S) OF INTERCONNECTION (# of Points)	INTERCONNECTION VOLTAGE (KV)	EFFECTIVE DATE OF INTERCONNECTION
MLS Section 17	Kyle (0)		October 14, 2014
MLS Section 18	Leander (0)		October 14, 2014
MLS Section 19	Lehigh (0)		October 14, 2014
MLS Section 20	Nameless (0)		Date of 3rd Amendment
MLS Section 21	Paleface (0)		October 14, 2014
MLS Section 22	Rutherford (0)		October 14, 2014
MLS Section 23	Sattler (0)		October 14, 2014
MLS Section 24	Seward Junction (0)		October 14, 2014
MLS Section 25	Whitestone (0)		Date of 3rd Amendment
MLS Section 26	Wimberley (0)		October 14, 2014
MLS Section 27	Rocksprings (0)		October 14, 2014
MLS Section 28	New Barksdale (0)		October 14, 2014
MLS Section 29	Old Junction (0)		October 14, 2014
MLS Section 30	New Junction (0)		October 14, 2014
MLS Section 31	Purgatory Road (0)		October 14, 2014

FACILITY SCHEDULE NO. 5
Third Amendment

1. **Name:** Bergheim Substation **(PEC)**

2. **Facility Location:** The Bergheim Substation is located at 34001 Blanco Rd., Bulverde, Comal County, Texas 78163.

3. **Points of Interconnection:** There are four (4) Points of Interconnection in the Bergheim Substation generally described as:

   - where the 138 kV operating bus extension bolts to the 4 hole pad on circuit switcher CS5275 in bay 1
   - where the 138 kV transfer bus extension bolts to the 4 hole pad on switch 5277 in bay 1
   - where the 138 kV operating bus extension bolts to the 4 hole pad on switch 5299 in bay 4
   - where the 138 kV transfer bus extension bolts to the 4 hole pad on switch 5303 in bay 4

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 the total bay for 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:**

   PEC owns:

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

   - 138 kV dead-end structures in 138 kV bays #1 and #4, foundations, insulators and jumpers
   - One (1) 138 kV circuit breaker 5300 including foundation, jumpers and protective relay package
   - One (1) 138 kV circuit switcher CS5275 with associated disconnect switch 5276
   - One (1) 138 kV wave trap and tuner WT3
   - One (1) 138 kV coupling capacitors CC3
   - Four (4) 138 kV switches 5277, 5299, 5301 and 5303
   - One (1) 138 kV relaying current transformer CTX
   - One (1) power transformer T1 with associated surge arresters and protective relay package

- 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 and associated cabling
- One (1) 24.9 kV transformer bus disconnect switch BG1-5
- One (1) 24.9 kV bus potential transformer PT1 with associated fused disconnect switch
- One (1) modulation transformer MTU1 with associated surge arrester, fused disconnect switch and OMU units (not shown on one line)
- One (1) 24.9 kV station service SS1 with associated fused disconnect switch
- One (1) control house (24' x 36') with battery bank, battery charger and appurtenances
- Substation property, ground grid, gravel, fencing and other appurtenances

LCRA TSC owns:

- 138 kV dead-end structures in 138 kV bays #2 and #3, foundations, insulators and jumpers
- 138 kV operating and transfer bus including structures, insulators, foundations and jumpers
- Two (2) 138 kV circuit breakers 5280 and 5290 including foundation, jumpers and protective relay packages
- Seven (7) 138 kV switches 5279, 5281, 5283, 5289, 5291, 5293 and 25789
- Two (2) 138 kV wave trap and tuner WT1 and WT2
- One (1) 138 kV coupling capacitors CC2
- One (1) 138 kV coupling capacitor voltage transformer CCVT1
- Two (2) 138 kV current transformers CT2 and CT3
- One (1) 24.9 kV metering current transformer CT1
- One (1) 138 kV bus potential transformer PT2
- One (1) 138 kV surge arrester SA1
- One (1) meter panel with meters
- One (1) 138 kV bus differential & breaker failure relaying scheme
- One (1) capacitor bank 138 kV circuit breaker 25790 with foundation, jumpers and protective relay package
- One (1) capacitor bank CP1
- One (1) cap bank potential transformer PT3
- One (1) single phase cap bank current transformer CT4

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:

- PEC and LCRA TSC are to share access to the substation by PEC and LCRA

TSC locks in the substation entrance gate; along with control house owner's locks on the control house doors.

- PEC will supply and allow LCRA TSC use of its 24.9 kV bus potential transformer PT1 for metering.
- PEC will supply and allow LCRA TSC use of transformer T1, 2000:5 external relaying bushing current transformer CTX for its 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 PEC's circuit switcher CS5275 relaying panel.
- PEC will provide breaker failure initiate contacts from its circuit switcher CS5275 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
- PEC will supply and allow LCRA TSC use of circuit breaker 5300, 2000:5 MR relaying current transformer for its 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 PEC's circuit breaker 5300 relaying panel.
- PEC will provide breaker failure initiate contacts from its circuit breaker 5300 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
- LCRA TSC and PEC shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
- PEC 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 PEC (if space is available) or LCRA TSC.
- PEC 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.

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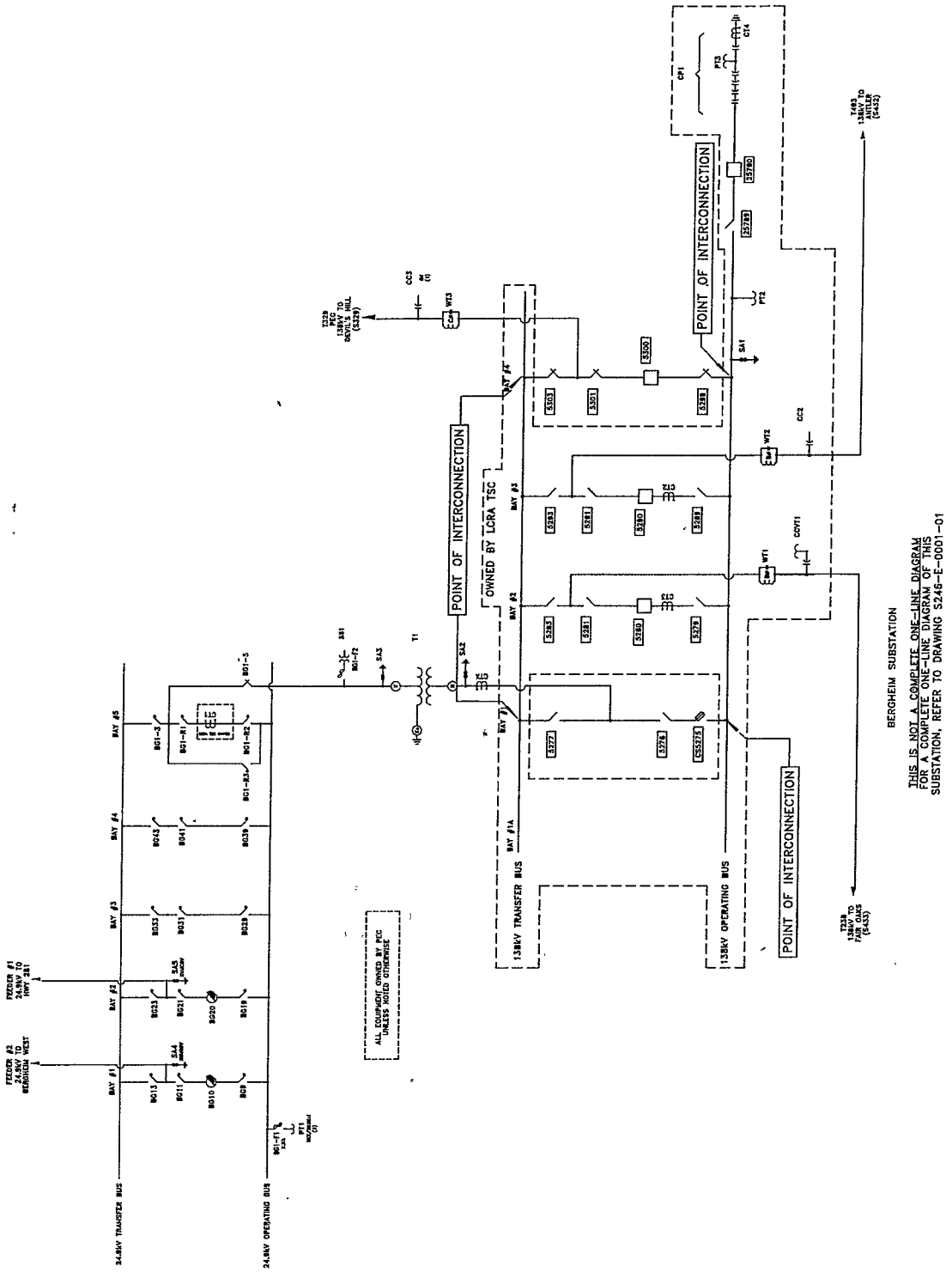
BERGHEIM ONE-LINE DIAGRAM

Third Amendment



FACILITY SCHEDULE NO. 12
Third Amendment

1. **Name:** E. Babe Smith Substation **(PEC)**

2. **Facility Location:** The E. Babe Smith Substation is located at 4734 S. US Hwy 281, Burnet, Burnet County, Texas 78611.

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

   - where the jumper from the tubular bus, connecting switches 3776 and 3778, bolts to the terminal connector on the 138 kV bus.

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 the 24.9 kV totalizing bay. 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:**
   PEC owns:
   The E. Babe Smith Substation including, but not limited to the following items:
   - One (1) 138 kV power fuse EB1-F3
   - One (1) 138 kV bus up to the Point of Interconnection
   - One (1) power transformer 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-Frame structure, foundations, trusses, insulators, disconnect switches, surge arresters, 24.9 kV operating and transfer buses and associated cabling
   - One (1) 24.9 kV bus potential transformer PT1 with associated fused disconnect switch
   - One (1) modulation transformer MTU1 with associated surge arrester, fused disconnect switch and OMU unit
   - Three (3) 24.9 kV single phase regulators REG1 with associated disconnect and bypass switches
   - Two (2) 24.9 kV station service SS1 and SS2 with fused disconnect switches
   - One (1) 29' x 10' metal roof

- Control House (8' X 12' metal)
- Substation property, ground grid, gravel, fencing and other appurtenances

LCRA TSC owns:

- Two (2) 138 kV dead-end A-frame structures, foundations, insulators and jumpers
- Three (3) 138 kV motor operated switches with interrupters MO3776, MO3777 and MO3778
- 138 kV buswork connecting motor operated switches
- One (1) 24.9 kV metering current transformer CT1
- Battery house (12' X 21') with battery bank
- One (1) 8' x 12' meter house (metal building) with MOS panel, meter panel, RTU 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:**

- PEC and LCRA TSC are to share access to the substation by PEC and LCRA TSC locks in the substation entrance gate; along with control house owner's locks on the control house doors.
- PEC will supply and allow LCRA TSC use of its 24.9 kV bus potential transformer PT1 for metering.
- LCRA TSC will provide PEC 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 PEC.

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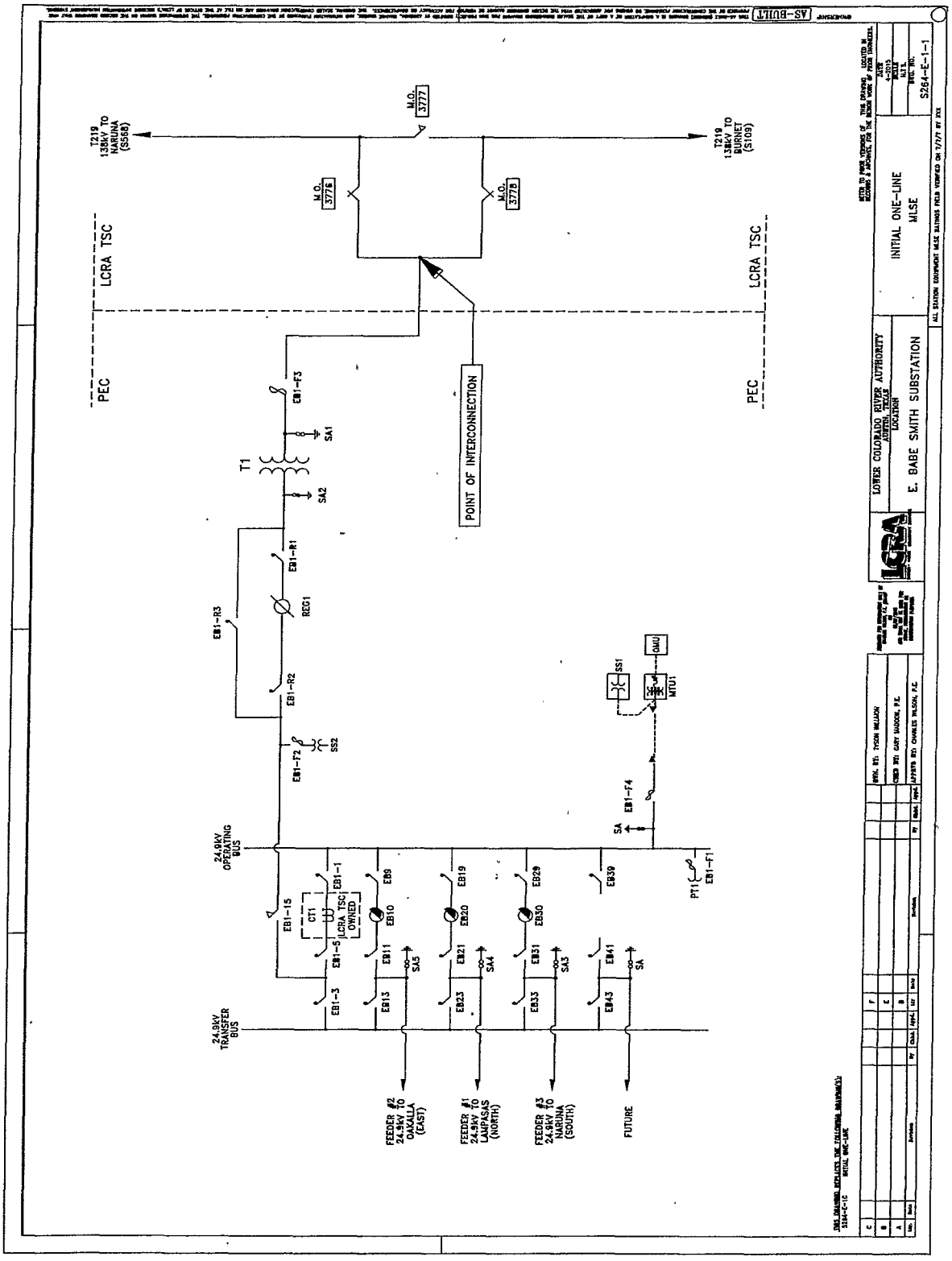
E. BABE SMITH ONE-LINE DIAGRAM

Third Amendment



FACILITY SCHEDULE NO. 18
Third Amendment

1. **Name:** Glasscock Substation **(LCRA)**

2. **Facility Location:** The Glasscock Substation is located at 3540 State Hwy 195, Georgetown, Williamson County, Texas 78628.

3. **Points of Interconnection:** There are twelve (12) Points of Interconnection in the Glasscock Substation generally described as:

   - where the incoming distribution line connects to the tubular bus between switches GL11 and GL13 at breaker GL10.
   - where the jumper from breaker GL10, passing through CT1, connects to the 4 hole pad on switch GL9.
   - where the jumper from breaker GL10 connects to the 4 hole pad on switch GL11.
   - where the incoming distribution line connects to the tubular bus between switches GL21 and GL23 at breaker GL20.
   - where the jumper from breaker GL20, passing through CT2, connects to the 4 hole pad on switch GL19.
   - where the jumper from breaker GL20 connects to the 4 hole pad on switch GL21.
   - where the incoming distribution line connects to the tubular bus between switches GL41 and GL43 at breaker GL40.
   - where the jumper from breaker GL40, passing through CT3, connects to the 4 hole pad on switch GL39.
   - where the jumper from breaker GL40 connects to the 4 hole pad on switch GL41.
   - where the incoming distribution line connects to the tubular bus between switches GL71 and GL73 at breaker GL70.
   - where the jumper from breaker GL70, passing through CT4, connects to the 4 hole pad on switch GL69.
   - where the jumper from breaker GL70 connects to the 4 hole pad on switch GL71.

4. **Transformation Services Provided by LCRA TSC:** Yes

5. **Metering Services Provided by LCRA TSC:** Yes

6. **Delivery Voltage:** 24.9 kV

7. **Metered Voltage and Location:** The metering voltage is 24.9 kV. The metering current transformers are inside transformer T1 and in each distribution bay. 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:**
   PEC owns:
   - Four (4) distribution circuit breakers GL10, GL20, GL40, GL70 including

jumpers and protective relay packages
- Five (5) distribution circuit breaker foundations in bays 1, 2, 4, 5 and 7
- One (1) modulation transformer MTU1 with associated surge arresters, fused disconnect switch and OMU unit

LCRA TSC owns:

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

- Two (2) 138 kV circuit switchers CS9465 and CS9475 with associated disconnect switches 9464, 9474 and bypass switches 9467, 9477
- Two (2) power transformers T1 and T2 with associated surge arresters and protective relay packages
- All distribution and total bays including A-frames, trusses, insulators, disconnect switches, bus tie switches, surge arresters, 24.9 kV operating and transfer bus, current transformers and associated cabling
- Two (2) 24.9 kV transformer bus disconnect switches GL8 and GL58
- Two (2) total circuit breakers GL30 and GL80 with jumpers and foundation
- Control house and battery bank
- Two (2) 24.9 kV station service SS1 and SS2 with associated fused disconnect switch
- Two (2) 24.9 kV bus potential transformer PT1 and PT4 with associated fused disconnect switch

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:**

- PEC and LCRA TSC are to share access to the substation by PEC and LCRA TSC locks in the substation entrance gate; along with control house owner's locks on the control house doors.LCRA TSC will provide PEC 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 PEC.
- LCRA TSC will provide PEC with floor space (as available and as necessary) in its control house for the installation of LCRA TSC required relay panel boards and equipment.

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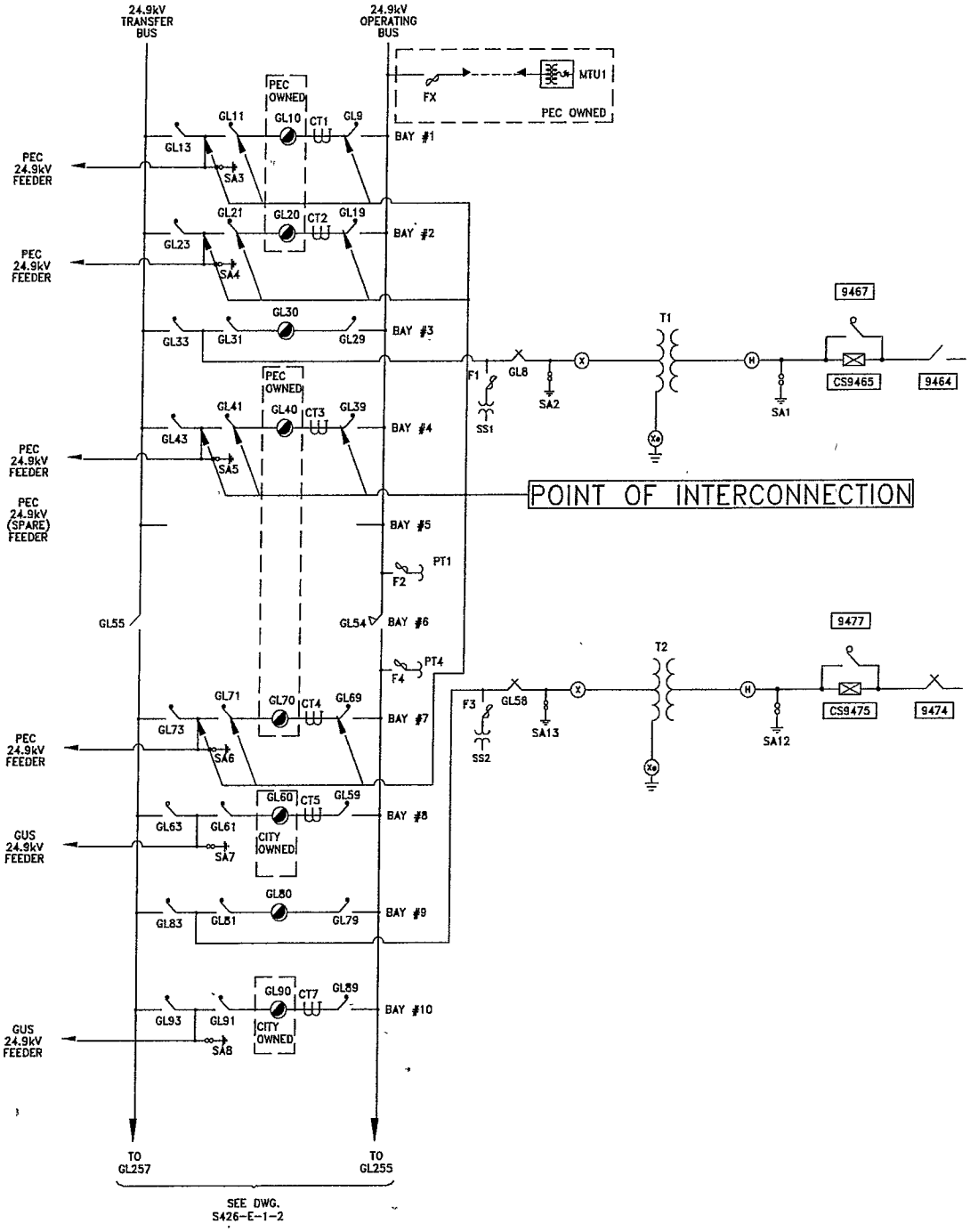
GLASSCOCK ONE-LINE DIAGRAM

Third Amendment



GLASSCOCK SUBSTATION

THIS IS A PARTIAL ONE LINE DRAWING
FOR A COMPLETE ONE LINE DRAWING SEE DWG S426-E-001-1

FACILITY SCHEDULE NO. 25
Third Amendment

1. **Name:** Lakeway Substation **(PEC/LCRA)**

2. **Facility Location:** The Lakeway Substation is located at 1213 Lohman's Crossing Rd., Lakeway, Travis County, Texas 78734.

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

   - where the jumper from the 138 kV operating bus connects to the 4 hole pad on switch 3424.

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 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:**
   PEC owns:
   The west side of the Lakeway Substation including, but not limited to, the following items:
   - 138 kV dead-end structures (PEC yard) , foundations, insulators and jumpers
   - One (1) circuit switcher CS3425 with associated disconnect switch 3424 and bypass switch 3427
   - One (1) power transformer T1 with associated surge arresters, foundations 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 and associated cabling
   - One (1) 24.9 kV transformer bus disconnect switch LW1-5
   - One (1) 24.9 kV bus potential transformer PT1 with associated fused disconnect switch
   - One (1) modulation transformer MTU1 with associated surge arrester, fused disconnect switch and OMU unit
   - Control house

- Battery house and battery
- One (1) 24.9 kV station service SS1 with associated fused disconnect switch
- Substation property, ground grid, gravel, fencing and other appurtenances

LCRA TSC owns:

The ease side of the Lakeway Substation including, but not limited to, the following items (some of this equipment is in the PEC yard)

- 138 kV dead-end structures (LCRA TSC yard) , foundations, insulators and jumpers
- Conductors, insulators and jumpers connecting bays #3, #4 and #5 in the LCRA TSC yard to bays #3, #4 and #5 in the PEC yard.
- 138 kV operating bus including structures, insulators, foundations and jumpers
- Two (2) 138 kV circuit breakers 13390 and 13400 including foundation, jumpers and protective relay packages
- One (1) 138 kV bus differential and breaker failure relaying scheme
- Two (2) 138 kV coupling capacitor voltage transformers CCVT1 and CCVT2
- Two (2) 138 kV surge arresters SA8 and SA9
- Four (4) 138 kV switches 13389, 13391, 13399 and 13401
- One (1) metering panel with meters
- 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:**

- PEC and LCRA TSC are to share access to the substation by PEC and LCRA TSC locks in the substation entrance gate; along with control house owner's locks on the control house doors.
- PEC will supply and provide a 24.9 kV potential transformer for LCRA TSC metering.
- PEC will supply and provide a metering current transformer from T1 for LCRA TSC metering.
- LCRA TSC will provide tripping and close inhibit contacts from its 138 kV bus differential & breaker failure relaying panels to PEC's circuit switcher CS3425 relaying panel.
- PEC will provide breaker failure initiate contacts from its circuit switchers CS3425 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panels.
- PEC 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 PEC (if space is available) or LCRA TSC.
- PEC 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.

- PEC will provide LCRA TSC access to its station service as needed.
- LCRA TSC and PEC shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.

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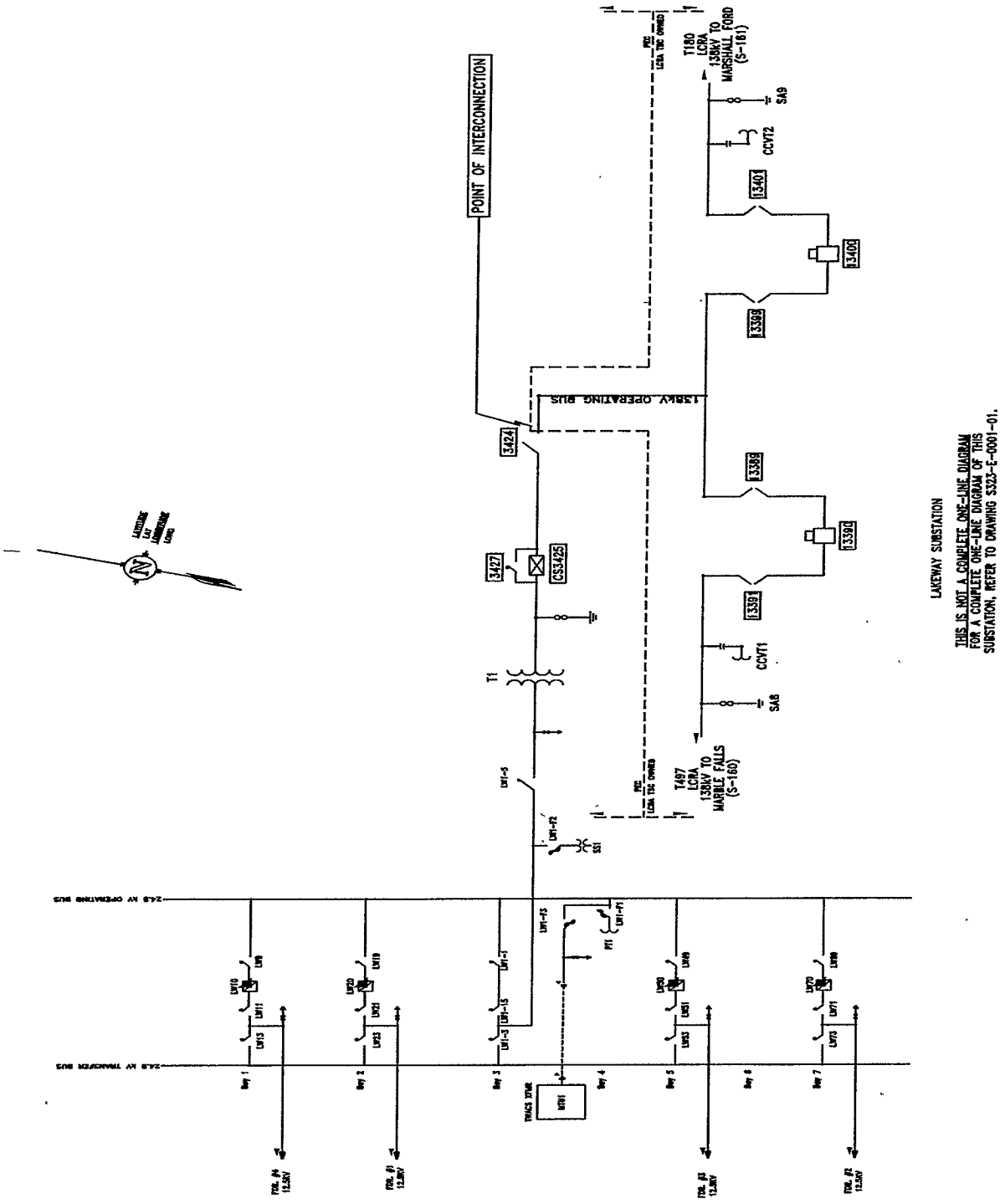
LAKEWAY ONE-LINE DIAGRAM

Third Amendment



FACILITY SCHEDULE NO. 35
Third Amendment

1. **Name:** Sherwood Shores Substation **(PEC)**

2. **Facility Location:** The Sherwood Shores Substation is located at 8905 W. FM 1431, Marble Falls, Burnet County, Texas 78654.

3. **Points of Interconnection:** There are two (2) Points of Interconnection in the Sherwood Shores Substation generally described as:

   - where the jumper from LCRA TSC's 138 kV ring bus attaches to the 4 hole pad on switch 27234.
   - where the jumper from LCRA TSC's 138 kV ring bus attaches to the 4 hole pad on switch 27244.

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 12.5 kV. The metering current transformers are located in PEC total breaker SS30, and in PEC total breaker SS140. The bus potential transformers are located on the 12.5 kV operating buses.

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

9. **Description of Facilities Owned by Each Party:**
   PEC owns:
   The Sherwood Shores Substation including, but not limited to, the following equipment:
   - Two (2) 138 kV circuit switchers CS27235 and CS27245 with bypass switches 27237 and 27247, and protective relaying
   - Two (2) 138 kV switches 27234 and 27244
   - One (1)138 kV mobile disconnect switch 27168
   - Two (2) power transformers T1 and T2 with associated surge arresters and protective relay packages
   - All distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware
   - All distribution, bus tie and total circuit breakers including jumpers, protective relay packages and foundations
   - All distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 12.5 kV operating and transfer bus and associated cabling
   - Two (2) 12.5 kV bus potential transformers PT1 and PT2 with associated fused disconnect switches
   - Two (2) modulation transformers MTU1 and MTU2 with associated surge arresters, fused disconnect switches and OMU units

- One (1) control house (24' x 42') and battery
- Two (2) 12.5 kV station service SS1 and SS2 with associated fused disconnect switches
- Substation property, ground grid, gravel, fencing and other appurtenances

LCRA TSC owns:

- 138 kV dead-end structures, foundations, insulators and jumpers
- 138 kV dead-end A-frame, foundations, poles and conductors for mobile disconnect switch connection (PEC owns switch only)
- 138 kV ring bus including structures, insulators, foundations and jumpers
- Four (4) 138 kV circuit breakers 27130, 27140, 27150 and 27160 including foundation, jumpers and protective relay packages
- Eight (8) 138 kV switches 27129, 27131, 27139, 27141, 27149, 27151, 27159 and 27161
- One (1) 138 kV bus differential & breaker failure relaying scheme
- Two (2) 138 kV coupling capacitor voltage transformers CCVT1 and CCVT2
- Two (2) 138 kV surge arresters SA7 and SA8
- One (1) control house (21' x 27') with batteries, battery charger and 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:**

- PEC and LCRA TSC are to share access to the substation by PEC and LCRA TSC locks in the substation entrance gate; along with control house owner's locks on the control house doors.
- PEC will supply and allow LCRA TSC use of its 12.5 kV bus potential transformers PT1 and PT2 for metering.
- PEC will supply and allow LCRA TSC use of transformer T1 and T2 relaying bushing current transformers for its bus differential relaying scheme.
- PEC will supply and allow LCRA TSC use of total breakers SS30 and SS140 metering current transformers for its metering.
- LCRA TSC will provide tripping and close inhibit contacts from its 138 kV bus differential & breaker failure relaying panels to PEC's circuit switchers CS27235 and CS27245 relaying panels.
- PEC will provide breaker failure initiate contacts from its circuit switchers CS27235 and CS27245 relaying panels to LCRA TSC's 138 kV bus differential & breaker failure relaying panels.
- PEC 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 PEC (if space is available) or LCRA TSC.
- PEC 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.

- PEC will provide LCRA TSC access to its station service as needed.
- LCRA TSC and PEC shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.

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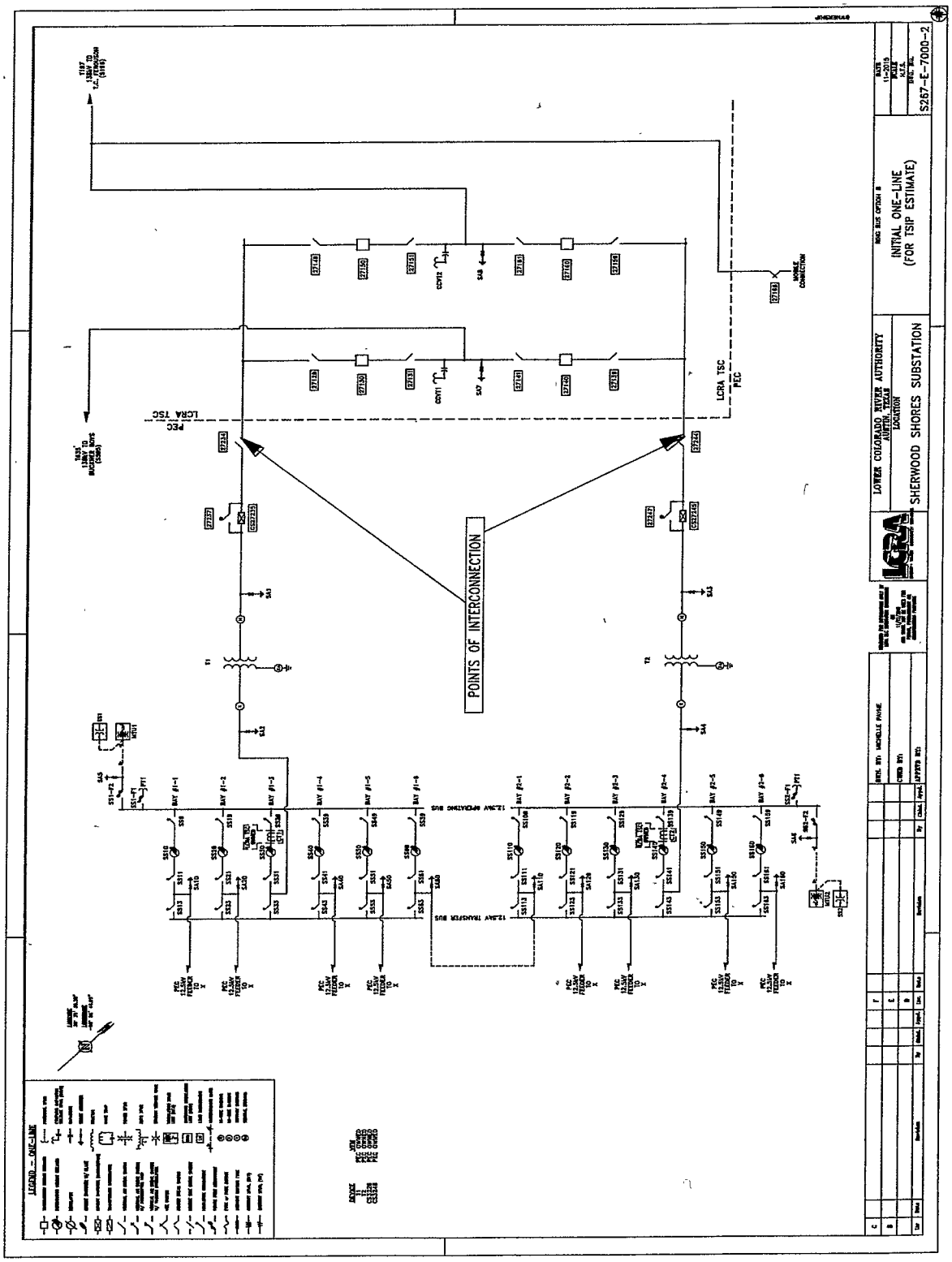
SHERWOOD SHORES ONE-LINE DIAGRAM

Third Amendment



FACILITY SCHEDULE NO. 36
Third Amendment

1. **Name:** Spicewood Substation **(PEC)**

2. **Facility Location:** The Spicewood Substation is located at 9011 Old Lampasas Trail, Austin, Travis County, Texas 78750.

3. **Points of Interconnection:** There are two (2) Points of Interconnection in the Spicewood Substation generally described as:

   - where the jumper from the 138 kV operating bus bolts to the 4 hole pad on switch 5254.
   - where the jumper from the 138 kV operating bus bolts to the 4 hole pad on switch 5264.

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 transformers are internal to transformers T1 and T2. The bus potential transformers are located on the 24.9 kV operating bus.

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

9. **Description of Facilities Owned by Each Party:**
   PEC owns:
   The Spicewood Substation including, but not limited to, the following items:
   - Two (2) 138 kV circuit switchers CS5255 and CS5265 with protective relaying and associated bypass and disconnect switches 5257, 5267, 5254 and 5264
   - Two (2) power transformers T1 and T2 with associated surge arresters and protective relaying
   - All distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware
   - All distribution and total 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 buses and associated cabling
   - Two (2) 24.9 kV bus potential transformers PT1 and PT2 with fused disconnect switches
   - Two (2) modulation transformers MTU1 and MTU2 with associated surge arresters, fused disconnect switches
   - Two (2) 24.9 kV station service SS1 and SS2
   - Control house

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

LCRA TSC owns:

- 138 kV dead-end structures, foundations, insulators and jumpers
- Two (2) 138 kV circuit breakers 5250 and 5260 including foundation, jumpers and protective relay packages
- 138 kV operating and transfer bus including structures, insulators, foundations and jumpers
- One (1) 138 kV bus differential & breaker failure relaying scheme
- One (1) 24.9 kV metering package
- One (1) 138 kV mobile transformer connection
- Six (6) 138 kV switches 5249, 5251, 5253, 5259, 5261 and 5263
- Two (2) 138 kV coupling capacitors CC1 and CC2
- Two (2) 138 kV wave trap and tuner WT1 and WT2
- One (1) 138 kV surge arrester SA1
- One (1) 138 kV bus potential transformer PT3

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:**

- PEC and LCRA TSC are to share access to the substation by PEC and LCRA TSC locks in the substation entrance gate; along with control house owner's locks on the control house doors.
- PEC will supply and allow LCRA TSC use of its 24.9 kV bus potential transformers PT1 and PT2 for metering.
- PEC will supply and allow LCRA TSC use of transformers T1 and T2 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 PEC's circuit switchers CS5255 and CS5265 relaying panel.
- PEC will provide breaker failure initiate contacts from its circuit switchers CS5255 and CS5265 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panels.
- LCRA TSC and PEC shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
- PEC 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 PEC (if space is available) or LCRA TSC.
- PEC 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.

- PEC will provide LCRA TSC access to its station service as needed.

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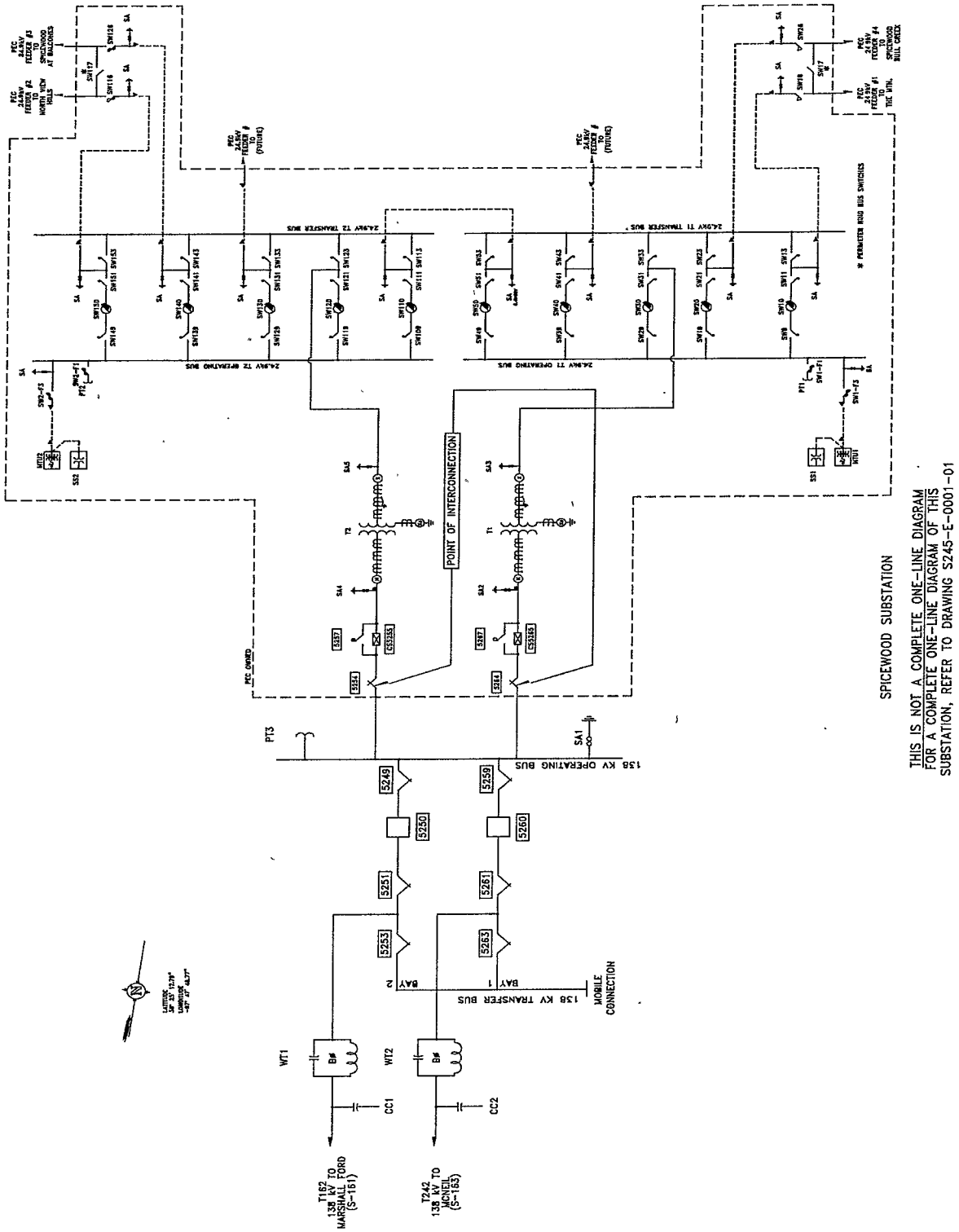
SPICEWOOD ONE-LINE DIAGRAM

Third Amendment



FACILITY SCHEDULE NO. 40

1. **Name:** Starcke Substation **(LCRA)**

2. **Facility Location:** The Starcke Substation is located at 1125 Max Starke Dam Road, Marble Falls, Burnet County, TX 78654.

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

   - where the jumper from switch 21054 bolts to the 4 hole pad on the 138 kV operating bus.

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 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:**
   PEC owns:
   - One (1) 3-pole steel structure on the easement, but outside of the substation fence
   - Two (2) single pole steel structures on the easement, but outside of the substation fence
   - One (1) 138 kV circuit switcher CS21055 with protective relaying, associated disconnect switch 21054 and bypass switch 21057
   - One (1) power transformer T1 with associated surge arresters and protective relaying
   - One (1) metering current transformer CT1 (internal to transformer T1)
   - One (1) 138 kV switch 21064 including foundation, stand and jumpers
   - All distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware
   - All distribution and total circuit breakers including jumpers, protective relay packages and foundations.
   - All distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 12.5 kV operating and transfer bus and associated cabling
   - One (1) 12.5 kV bus potential transformer PT1 with associated fused disconnect switches
   - One (1) modulation transformer MTU1 with associated surge arresters, fused disconnect switch and OMU unit

- One (1) 12.5 kV station service SS1

LCRA TSC owns:

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

- An easement from LCRA for the 5.25 acre tract of land on which the Starcke Substation is located.
- Two (2) 138 kV dead-end structures, foundations, insulators and jumpers
- One (1)138 kV ring bus including support structures, foundations and jumpers
- Three (3) 138 kV circuit breakers 21050, 21060, and 21070 including foundation, jumpers and protective relaying
- Six (6) 138 kV switches 21049, 21051, 21059, 21061, 21069 and 21071 including foundation, stand and jumpers
- Two (2) 138 kV coupling capacitor voltage transformers CCVT1 and CCVT2
- Two (2) 138 kV surge arresters SA8 and SA9
- One (1) 138 kV bus differential and breaker failure relaying scheme
- One (1) control house (24'x 42') with batteries, battery charger and appurtenances
- Ground grid, gravel, fencing and other appurtenances

LCRA owns:

- The 5.25 acre tract of land occupied by the Starcke Substation.

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:**

- PEC and LCRA TSC are to share access to the substation by PEC and LCRA TSC locks in the substation entrance gate; along with control house owner's locks on the control house doors.
- PEC will supply and allow LCRA TSC use of transformer T1 metering and relaying bushing current transformers for LCRA TSC's metering and 138 kV bus differential relaying scheme.
- PEC will supply and allow LCRA TSC use of PEC's 12.5 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 PEC's circuit switcher CS21055 relaying panel.
- PEC will provide breaker failure initiate contacts from its circuit switcher CS21055 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
- LCRA TSC and PEC 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 PEC 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 PEC.

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

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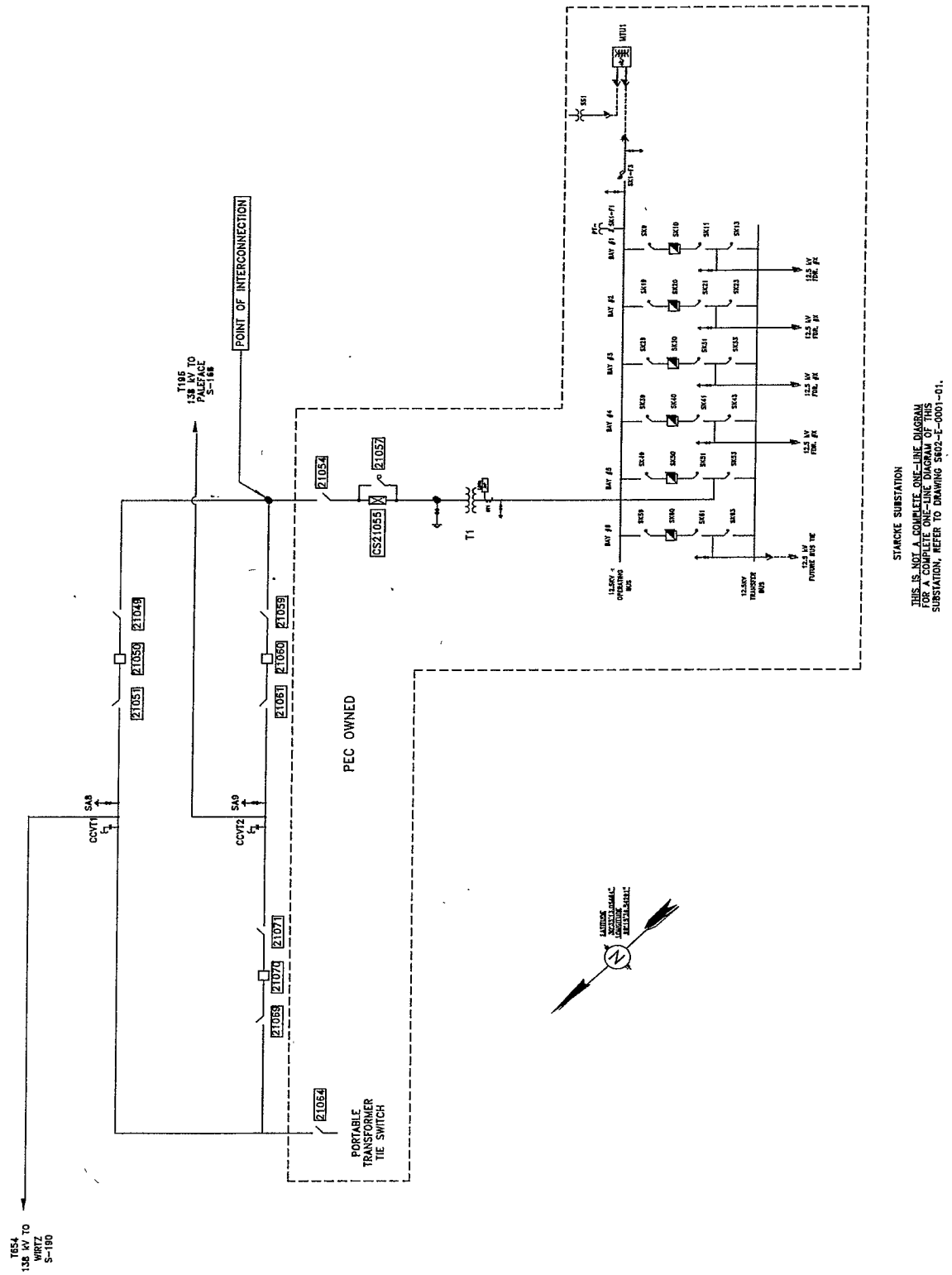
STARCKE ONE-LINE DIAGRAM



METERING LOCATION SCHEDULE
Third Amendment

(The purpose of this schedule is only to identify metering equipment ownership at locations where there are no Points of Interconnection)
At all substations where LCRA TSC is providing metering services using PEC supplied metering current transformers or potential transformers, it does so with the full permission of PEC.

1 **Balcones Substation (S-331):**

a. PEC owns the Balcones Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) Underfrequency and DDIO-1 panel 1 in control house #1
- One (1) SIP panel 5 in control house #2
- One (1) RTU panel 6 in control house #2
- One (1) Metering panel 13 in control house #2
- One (1) DDIO-2 in panel 5 in control house #3 (panel also contains PEC SEL-2030)
- One (1) Metering panel 15 in control house #3
- One (1) INET communications radio, power supply and console
- One (1) Communications antenna and mounting
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT5 and PT-6 for LCRA TSC metering
- Two (2) 12.5 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
- Four (4) metering bushing current transformers from transformers T1, T2, T3 and T4 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

2 **Bertram Substation (S-339):**

a. PEC owns the Bertram Substation, and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) Telecom panel 221
- One (1) RTU panel 222
- One (1) SIP panel 223

- One (1) Meter panel 225
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
   - One (1) 24.9 kV bus potential transformer PT-1 for LCRA TSC metering
   - One (1) transformer T1 metering bushing current transformer for LCRA TSC metering
   - Access to 125 VDC and 120 VAC power
   - Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
   - Access to PEC's station service as needed

3 Blanco Substation (S-324)

a. PEC owns the Blanco Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
   - One (1) RTU panel 21
   - One (1) SIP panel 22
   - One (1) Telecom panel 23
   - One (1) Metering panel 24
   - Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
   - Two (2) 12.5 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
   - One (1) transformer T2 metering bushing current transformer for LCRA TSC metering
   - One (1) circuit breaker BN20 metering bushing current transformer for LCRA TSC metering
   - Access to 125 VDC and 120 VAC power
   - Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
   - Access to PEC's station service as needed

4 Blockhouse Substation (S-471)

a. PEC owns the Blockhouse Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
   - One (1) metering panel 26
   - One (1) underfrequency panel 27

- One (1) supervisory interface panel, panel 29
- One (1) RTU panel 30
- One (1) communications terminal board
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT1 and PT3 for LCRA TSC metering
- Two (2) metering bushing current transformers from transformers T1and T2 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

5 Buda Substation (S-242):

a. PEC owns the Buda Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) RTU panel L3
- One (1) SIP panel L4
- One (1) SIP panel L5
- One (1) Jem II metering panel L6
- One (1) Telecom panel L7
- One (1) Jem I metering panel M
- Communications terminal board
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT1 and PT3 for LCRA TSC metering
- Two (2) 24.9 kV metering current transformers from T1 and T3
- One (1) circuit breaker 5480, 138 kV metering bushing current transformer for LCRA TSC net metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

6 Cedar Valley Substation (S-338)

a. PEC owns the Cedar Valley Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) meter panel, Panel 29
- One (1) RTU panel 30
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
- Two (2) metering bushing current transformers from transformers T1and T2 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

7 **Centex Substation (S-327):**

a. PEC owns the Centex Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) billing metering wall panel with SEL-734 meters 1 and 2
- Four (4) metering current transformers CT1, CT2, CT3 and CT4
- One (1) Polnet line sharing switch for meter communications
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 4.16 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
- Four (4) metering current transformers CT1, CT2, CT3 and CT4 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

8 **Cranes Mill Substation (S-330):**

a. PEC owns the Cranes Mill Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering current transformer CT1
- One (1) metering panel 7

- One (1) underfrequency equipment mounted in panel 1
- One (1) RTU panel 13
- One (1) SIP panel 14
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
   - Two (2) 12.5 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
   - One (1) metering bushing current transformer from transformer T2 for LCRA TSC metering
   - One (1) circuit breaker CM50 metering bushing current transformer for LCRA TSC metering
   - Access to 125 VDC and 120 VAC power
   - Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
   - Access to PEC's station service as needed

9 Devil's Hill Substation (S-329):

a. PEC owns the Devil's Hill Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
   - One (1) RTU panel 29
   - Two (2) SIP panels 30 and 31
   - One (1) Telecom panel 32
   - One (1) Meter panel 33
   - Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
   - Two (2) 24.9 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
   - Two (2) metering bushing current transformers from transformers T1 and T2 for LCRA TSC metering
   - Access to 125 VDC and 120 VAC power
   - Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
   - Access to PEC's station service as needed

10 Dripping Springs Substation (S-325):

a. PEC owns the Dripping Springs Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:

- One (1) metering panel 21
- One (1) RTU panel 23
- One (1) SIP panel 22
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
- Two (2) metering bushing current transformers from transformers T1 and T2 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

11 Fischer Substation (S-328):

a. PEC owns the Fischer Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering panel 16
- One (1) RTU panel 8
- One (1) SIP panel 7
- One (1) Communications terminal board
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
- Two (2) metering bushing current transformers from transformers T1 and T2 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

12 Flatrock Substation (S-345):

a. PEC owns the Flatrock Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering panel with one primary and one backup meter
- One (1) GE IBOX RTU with SIP

- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
   - One (1) 24.9 kV bus potential transformer PT1 for LCRA TSC metering
   - Access to 125 VDC and 120 VAC power
   - Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
   - Access to PEC's station service as needed

13 Henley Substation (S-468):

a. PEC owns the Henley Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
   - One (1) metering panel 26
   - One (1) RTU panel 20
   - One (1) SIP, panel 19
   - Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
   - One (1) 12.5 kV bus potential transformer PT1 for LCRA TSC metering
   - One (1) metering bushing current transformer from transformer T1 for LCRA TSC metering
   - Access to 125 VDC and 120 VAC power
   - Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
   - Access to PEC's station service as needed

14 Highway 32 Substation (S-317):

a. PEC owns the Highway 32 Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
   - One (1) metering panel 5 (Control house #1)
   - One (1) Remote Access panel 11 (Control house #1)
   - One (1) RTU panel 14 (Control house #2)
   - Two (2) SIP panels 12 and 13 (Control house #2)
   - Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
   - One (1) 24.9 kV bus potential transformer PT1 for LCRA TSC metering

- One (1) metering bushing current transformer from transformer T1 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

15 Hunter Substation (S-326):

a. PEC owns the Hunter Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC and 12.5 kV recloser HT60 which is owned by NBU.

b. LCRA TSC owns:
- One (1) metering panel 15
- Two (2) metering current transformers CT1 and CT2
- Four (4) current transformer disconnect and bypass switches HT65, HT69, HT71 and HT73
- One (1) RTU panel 14
- One (1) SIP panel 13
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- One (1) 12.5 kV bus potential transformer PT1 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

16 Johnson City Substation (S-332):

a. PEC owns the Johnson City Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering panel 28
- One (1) SIP panel 29
- One (1) RTU panel 30
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 12.5 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
- Two (2) metering current transformers from breakers JC40 and JC130 for LCRA TSC metering

- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

17 Kyle Substation (S-318):

a. PEC owns the Kyle Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering panel 13
- One (1) RTU panel 11
- –One (1) SIP panel 12
- One (1) communications panel 14
- One (1) communications terminal board
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- One (1) 24.9 kV bus potential transformer PT1 for LCRA TSC metering
- One (1) 24.9 kV metering current transformer in breaker KY10 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

18 Leander Substation (S-283):

a. PEC owns the Leander Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering current transformer CT1
- Two (2) metering panels 13 & 22
- One (1) SIP panel 21
- One (1) RTU panel 20
- One (1) INET radio system in panel 19
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Three (3) 24.9 kV bus potential transformers PT1, PT4 and PT6 for LCRA TSC metering
- Three (3) metering bushing current transformers from transformer T2, T3 and T4 for LCRA TSC metering

- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

19 Lehigh Substation (S-581):

a. PEC owns the Lehigh Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering panel 35
- Two (2) SIP panels 32 and 33
- One (1) RTU panel 31
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT2 and PT3 for LCRA TSC metering
- Two (2) metering bushing current transformers from transformers T1and T3 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

20 Nameless Substation (S-431):

a. PEC owns the Nameless Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
-
- One (1) metering panel 8
- One (1) SIP panel 18
- One (1) RTU panel 19
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
- Two (2) metering bushing current transformers from transformers T1 (1 per each phase) and T2 (1 per each phase) for LCRA TSC metering
- Access to 125 VDC and 120 VAC power

- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

21 Paleface Substation (S-168):

a. PEC has a perpetual easement for 1.659 acres of land from LCRA TSC upon which it owns all equipment therein (including the following), except for the equipment listed as being owned by LCRA TSC.
   - 138 kV operating and transfer bus support structure between the PEC bus and the LCRA TSC bus

b. LCRA TSC owns the Paleface Substation and all equipment therein except for the equipment owned by PEC on the 1.659 acre of land for which LCRA TSC has granted a perpetual easement and owns the following:
   - One (1) metering panel 8 in PEC Control House #1
   - Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
   - Two (2) 24.9 kV bus potential transformers PT4 and PT5 for LCRA TSC metering
   - Two (2) metering bushing current transformers from transformers T1 and T2 for LCRA TSC metering
   - Access to 125 VDC and 120 VAC power
   - Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
   - Access to PEC's station service as needed

22 Rutherford Substation (S-310):

a. PEC owns the Rutherford Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
   - One (1) metering panel 4
   - One (1) RTU panel 221
   - One (1) SIP panel 222
   - Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
   - Two (2) 24.9 kV bus potential transformers PT1 and PT3 for LCRA TSC metering
   - Two (2) metering bushing current transformers from transformers T1 and T2 for LCRA TSC metering
   - Access to 125 VDC and 120 VAC power

- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

23 Sattler Substation (S-320):

a. PEC owns the Sattler Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- Metering/Underfrequency panel 1
- One (1) metering current transformer CT1
- One (1) current transformer disconnect switch SA25
- One (1) RTU panel 13
- One (1) SIP panel 12
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- One (1) 12.5 kV bus potential transformer PT2 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

24 Seward Junction Substation (S-543):

a. PEC owns the Seward Junction Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering panel 35
- One (1) panel 31
- One (1) SIP panel 32
- One (1) telecommunications panel 37
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT1and PT2 for LCRA TSC metering
- One (1) metering bushing current transformer from transformers T1 for LCRA TSC metering
- One (1) 24.9 kV metering bushing current transformer CT2 from total breaker SJ110 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power

- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

25 Whitestone Substation (S-319):

a. PEC owns the Whitestone Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering panel 11
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
- Two (2) 24.9kV metering bushing current transformers from total breakers WS-70 and WS-80
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

26 Wimberley Substation (S-322):

a. PEC owns the Wimberley Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering panel 27
- One (1) RTU panel 30
- One (1) SIP panel 28
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Two (2) 24.9 kV bus potential transformers PT1 and PT2 for LCRA TSC metering
- Two (2) metering bushing current transformers from transformers T1 and T2 for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

27 Rocksprings Substation (S-438):

a. PEC owns the Rocksprings Substation and all other equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering panel, Panel 13
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- One (1) 24.9 kV bus potential transformer PT1 for LCRA TSC metering
- One (1) distribution circuit breaker RS10 metering bushing current transformer for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

28 New Barksdale Substation (S-694):

a. PEC owns the New Barksdale Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC or owned by ETT.

b. LCRA TSC owns:
- One (1) metering panel 4
- One (1) metering current transformer CT1
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- One (1) 24.9 kV bus potential transformer PT1for LCRA TSC metering
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

29 Old Junction MP (S-416):

a. PEC owns nothing at this site.

b. LCRA TSC owns:
- One (1) pole mounted meter box
- One (1) metering current transformer CT1
- One (1) metering potential transformer PT1
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

30 New Junction Substation (S-370):

a. PEC owns the New Junction Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC or owned by AEP.

b. LCRA TSC owns:
- One (1) metering panel 1
- One (1) 24.9 kV metering current transformer CT1
- One (1) 24.9 kV metering potential transformer PT1

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- Access to 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

31 Purgatory Road Substation (S-705):

a. PEC owns the Purgatory Road Substation and all equipment therein except for the equipment listed as being owned by LCRA TSC.

b. LCRA TSC owns:
- One (1) metering panel 24
- One (1) telecom panel 25
- One (1) RTU panel 21
- One (1) SIP panel 22
- Cable and conduit and other appurtenances to connect LCRA TSC equipment

c. PEC will provide and share the following facilities and equipment with LCRA TSC:
- One (1) 12.5 kV bus potential transformer PT1 for LCRA TSC metering
- One (1) metering current transformer from transformer T1
- Access to 125 VDC and 120 VAC power
- Floor space (as available and as necessary) in PEC's control house for the installation of LCRA TSC required meter panel and equipment
- Access to PEC's station service as needed

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