

Control Number: 35077



Item Number: 489

Addendum StartPage: 0

PUC Project No. 35077

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First Amendment to

INTERCONNECTION AGREEMENT

Between

Sharyland Utilities, L.P.

and

LCRA Transmission Services Corporation

September 15, 2014

FIRST AMENDMENT TO INTERCONNECTION AGREEMENT

WHEREAS, LCRA TSC and SU entered into that certain Interconnect Agreement executed as of July 16, 2012; and

WHEREAS, SU will take ownership of and begin operating several Cap Rock Energy Corporation (CREC) substations

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 First Amendment is hereby added to the Agreement in lieu thereof.
- 2. Exhibit "A" attached to this First Amendment will become effective upon execution of this First Amendment by the Parties.
- 3. Facility Schedules No. 2,3,4,5,6 and 7 are hereby added to the Agreement.
- 4. Facility Schedules No. 2,3,4,5,6 and 7 attached to this First Amendment will become effective upon execution of this First 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.

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IN WITNESS WHEREOF, the Parties have caused this First Amendment to be executed in several counterparts, each of which shall be deemed an original but all shall constitute one and the same instrument.

SHARYLAND UTILITIES, L.P.

Title: Vice President and General Manager

Date: 9/15/14

LCRA TRANSMISSION SERVICES CORPORATION

By: Kay Pferferlori, B.Z.

Title: LCRA Transmission Engineering Manager

Date: 8/29//4

Exhibit A
First Amendment

FACILITY	LOCATION OF	INTERCONNECTION	EFFECTIVE DATE
SCHEDULE	POINT(S) OF	VOLTAGE (KV)	OF
NO.	INTERCONNECTION		INTERCONNECTION
110.	(# of Points)		
1	Skywest (2)	138 KV	7/16/2012
2	Camp Bowie (6)	24.9 kV	Date of execution of 1 st
_			Amendment
3	Dutton (15)	12.5/69 kV	Date of execution of 1st
_			Amendment
4	Hext (6)	12.5 kV	Date of execution of 1st
			Amendment
5	San Saba Switchyard (1)	69 kV	Date of execution of 1 st
_			Amendment
6	Terry (2)	12.5/69 kV	Date of execution of 1 st
			Amendment
7	Camp San Saba (2)	24.9 kV	Date of execution of 1st
		,	Amendment
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- 1. Name: Camp Bowie Substation
- **2. Facility Location:** The Camp Bowie Substation is located at 7400 S. FM 45, Brownwood, Brown County, Texas 76801.
- 3. Points of Interconnection: There are six (6) Points of Interconnection in the Camp Bowie Substation generally described as:
 - where the incoming distribution line connects to the tubular bus between switches CA11 and CA13 at breaker CA10.
 - where the jumper from breaker CA10 connects to the 4 hole pad on switch CA9.
 - where the jumper from breaker CA10 connects to the 4 hole pad on switch CA11.
 - where the incoming distribution line connects to the tubular bus between switches CA21 and CA23 at breaker CA20.
 - where the jumper from breaker CA20 connects to the 4 hole pad on switch CA19.
 - where the jumper from breaker CA20 connects to the 4 hole pad on switch CA21.
- 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 transformer CT1 is located in the T1 transformer bus. The bus potential transformer PT1 is located on the 24.9 kV operating bus.
- 8. One Line Diagram Attached: Yes
- 9. Description of Facilities Owned by Each Party:

SU owns:

- Two (2) distribution circuits dead end insulators that attach to the dead end structure, conductors, and hardware
- Two (2) distribution circuit breakers CA10 and CA20 including jumpers and protective relay packages and foundations
- Two (2) 24.9 kV surge arresters SA3 and SA4

LCRA TSC owns:

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

- One (1) 138 kV switch 5624
- One (1) circuit switcher CS5625
- One (1) power transformer T1 with associated surge arresters

LCRA TSC - SU-First Amendment

Page 4 of 22

- Three (3) distribution and total bays including A-frames, trusses, insulators, disconnect switches, 24.9 kV operating and transfer bus, bus potential transformer and associated cabling
- One (1) metering current transformer CT1
- Three (3) single phase regulators REG1 with associated disconnect and bypass switches, vertical switch structure, foundations, insulators and jumpers
- One (1) metering package
- Control house and battery bank
- Station service SS1 and fuse F1
- Substation property ground grid, gravel, fencing and other appurtenances

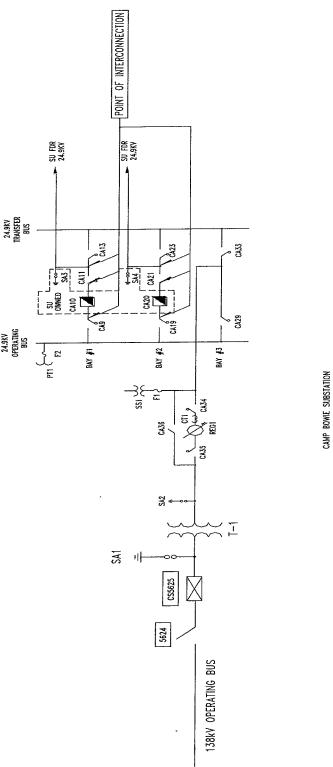
10. Operational Responsibilities of Each Party:

- SU will be responsible for the operation of all distribution circuit breakers serving the SU feeders.
- LCRA TSC will be responsible for the operation of all LCRA TSC owned equipment including circuit switcher CS5625, transformer T1 and regulator Reg1.
- 11. Maintenance Responsibilities of Each Party: Each Party will be fully responsible for the maintenance of the equipment it owns.

- SU 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 SU 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 SU.
- LCRA TSC will provide SU with floor space (as available and as necessary) in its control house for the installation of SU required panels and equipment.
- LCRA TSC will provide SU access to its station service if needed.

First Amendment

CAMP BOWIE ONE-LINE DIAGRAM



CAMP BOWER SUBSTATION
THIS IS NOT A COMPLETE ONE—LINE DIAGRAM
FOR A COMPLETE ONE—LINE DIAGRAM OF THIS
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- 1. Name: Dutton Substation
- **Facility Location:** The Dutton Substation is located at 362 E. US Hwy. 190, Brady, McCulloch County, Texas 76825.
- **Points of Interconnection:** There are fifteen (15) Points of Interconnection in the Dutton Substation generally described as:
 - where the copper bus from SU switch 942 attaches to fuse F1.
 - where the copper bus from the 69 kV transformer bus attaches to fuse F1.
 - where the 69 kV jumpers from the 69 kV transformer bus attaches to the 69 kV insulators on transformer T1.
 - where the jumper from the incoming distribution line connects to the jumper from switch DU21 with a PG connector at breaker DU20.
 - where the jumper from DU20 bolts to the four hole pad on switch DU19.
 - where the jumper from DU20 bolts to the four hole pad on switch DU21.
 - where the jumper from the incoming distribution line connects to the jumper from switch DU31 with a PG connector at breaker DU30.
 - where the jumper from DU30 bolts to the four hole pad on switch DU29.
 - where the jumper from DU30 bolts to the four hole pad on switch DU31.
 - where the jumper from the incoming distribution line connects to the jumper from switch DU41 with a PG connector at breaker DU40.
 - where the jumper from DU40 bolts to the four hole pad on switch DU39.
 - where the jumper from DU40 bolts to the four hole pad on switch DU41.
 - where the jumper from the incoming distribution line connects to the jumper from switch DU51 with a PG connector at breaker DU50.
 - where the jumper from DU50 bolts to the four hole pad on switch DU49.
 - where the jumper from DU50 bolts to the four hole pad on switch DU51.
- 4. Transformation Services Provided by LCRA TSC: Yes
- 5. Metering Services Provided by LCRA TSC: Yes
- 6. **Delivery Voltage:** 12.5/69 kV
- 7. **Metered Voltage and Location:** The metering voltage is 12.5 kV. The metering current transformer CT2 is located in the 12.5 kV transformer bus. The bus potential transformer PT2 is located on the 12.5 kV operating bus.
- 8. One Line Diagram Attached: Yes

9. Description of Facilities Owned by Each Party:

SU owns:

The Dutton Substation including, but not limited to, the following items.

- One (1) 69 kV switch 942
- Copper bus from switch 942 to fuse F1 and from fuse F1 to 69 kV transformer bus
- 1/0 conductor used as 69 kV transformer bus from 69 kV dead end structure to LCRA TSC's 69 kV bus support including dead end insulators
- One (1) 69 kV surge arrester SA1
- Four (4) 12.5 kV surge arresters SA2, SA3, SA4 and SA5
- All distribution circuits including dead end insulators that attach to the box structure, conductors, and hardware
- Distribution box structure (steel only)
- All distribution circuit breakers including jumpers and protective relay packages
- Substation property ground grid, gravel, fencing and other appurtenances

LCRA TSC owns:

- One (1) 28 foot 3 phase bus support with 8 foot static bayonet (located between T1 and 12.5 kV box structure)
- One (1) power transformer T1 with associated surge arresters
- One (1) 69 kV fuse F1
- 500 mcm conductor used as 12.5 kV transformer bus, 4/0 neutral conductor and dead end insulators from 69 kV dead end structure to 12.5 kV box structure
- All distribution and total bays including insulators, disconnect switches, 12.5 kV operating bus, bus potential transformer PT2 with fuse F2 and associated cabling (excludes box structure steel)
- Metering current transformer CT2
- Three (3) metering current transformer 12.5 kV disconnect and bypass switches DU9, DU11 and DU13
- One (1) metering package
- Control house and battery bank
- Station Service SS1 with fuse F3

10. Operational Responsibilities of Each Party:

- SU will be responsible for the operation of all distribution circuit breakers serving the SU feeders.
- SU will be responsible for the operation of 69 kV switch 942.
- LCRA TSC will be responsible for the operation of transformer T1
- 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:

- SU 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 SU access to 125 VDC and 120 VAC power. Circuits

LCRA TSC - SU-First Amendment

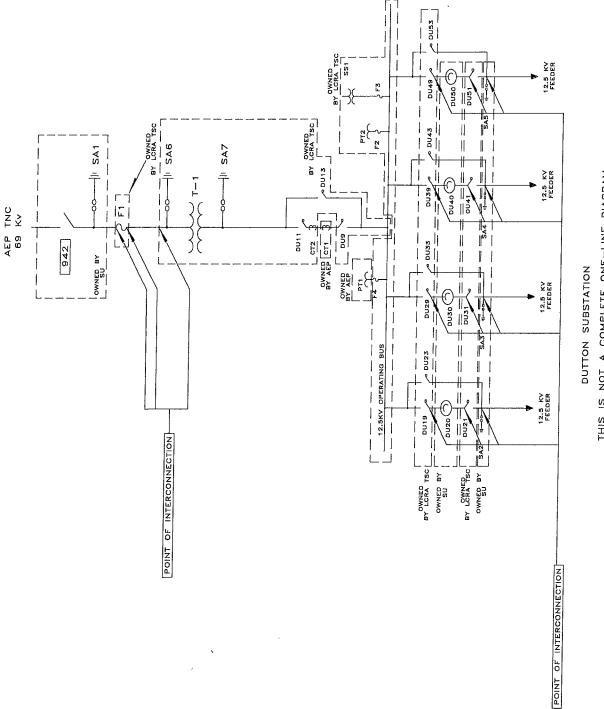
Page 8 of 22

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 SU.

- LCRA TSC will provide SU with floor space (as available and as necessary) in its control house for the installation of SU required panels and equipment.
- LCRA TSC will provide SU access to its station service if needed.

First Amendment

DUTTON ONE-LINE DIAGRAM



LCRA TSC - SU-First Amendment

Page 10 of 22

- 1. Name: Hext Substation
- **2. Facility Location:** The Hext Substation is located at 250 Pope Ln., Hext, Menard County, Texas 76848.
- 3. Points of Interconnection: There are six (6) Points of Interconnection in the Hext Substation generally described as:
 - where the incoming distribution line connects to the tubular bus between switches HX11 and HX13 at breaker HX10.
 - where the jumper from breaker HX10 connects to the 4 hole pad on switch HX9.
 - where the jumper from breaker HX10 connects to the 4 hole pad on switch HX11.
 - where the incoming distribution line connects to the tubular bus between switches HX21 and HX23 at breaker HX20.
 - where the jumper from breaker HX20 connects to the 4 hole pad on switch HX19.
 - where the jumper from breaker HX20 connects to the 4 hole pad on switch HX21.
- 4. Transformation Services Provided by LCRA TSC: Yes
- 5. Metering Services Provided by LCRA TSC: Yes
- 6. Delivery Voltage: 12.5 kV
- 7. **Metered Voltage and Location:** The metering voltage is 12.5 kV. The metering current transformer CT1 is located in the 12.5 kV transformer bus. The bus potential transformer PT1 located on the 12.5 kV operating bus.
- 8. One Line Diagram Attached: Yes
- 9. Description of Facilities Owned by Each Party:

SU owns:

- All distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware
- All distribution circuit breakers including jumpers, surge arresters and protective relay packages

LCRA TSC owns:

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

- 69 kV dead-end structure, foundations, insulators and jumpers
- 69 kV bus including structures, foundations and jumpers
- One (1) 69 kV switch 9424
- One (1) 69 kV fuse F1

- One (1) power transformer T1 with associated surge arresters
- Three (3) single phase regulators REG1 with associated disconnect and bypass switches, vertical switch structure, foundations, insulators and jumpers
- One (1) metering current transformer CT1
- One (1) metering package
- All distribution and total bays including A-frames, trusses, insulators, disconnect switches, 12.5 kV operating and transfer bus, bus potential transformer PT1 with fuse F3 and associated cabling
- Control house and battery bank
- Station Service SS1 with fuse F2
- Substation property ground grid, gravel, fencing and other appurtenances

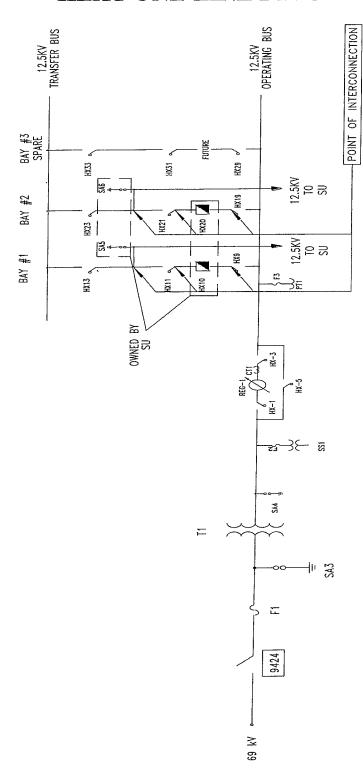
10. Operational Responsibilities of Each Party:

- SU will be responsible for the operation of all distribution circuit breakers serving the SU feeders.
- LCRA TSC will be responsible for the operation of all LCRA TSC owned equipment including switch 9424, transformer T1, and regulator REG1
- 11. Maintenance Responsibilities of Each Party: Each Party will be fully responsible for the maintenance of the equipment it owns.

- SU 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 SU 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 SU.
- LCRA TSC will provide SU with floor space (as available and as necessary) in its control house for the installation of SU required panels and equipment.
- LCRA TSC will provide SU access to its station service if needed.

First Amendment

HEXT ONE-LINE DIAGRAM



HEXT SUBSTATION

THIS IS NOT A COMPLETE ONE—LINE DIAGRAM FOR A COMPLETE ONE—LINE DIAGRAM OF THIS SUBSTATION, REFER TO DRAWING \$428—E—0003.

- 1. Name: San Saba Switchyard
- **2.** Facility Location: From intersection of Hwy 16 and Hwy 190 in San Saba, go north on Hwy 16 4.2 miles to C.R. 188. Go south on C.R. 188 1.6 miles in San Saba County, Texas.
- **Points of Interconnection:** There is one (1) Point of Interconnection in San Saba Switchyard generally described as:
 - where LCRA TSC jumper from the box structure attaches to the incoming 69 kV transmission line from Terry Substation.
- 4. Transformation Services Provided by LCRA TSC: No
- 5. Metering Services Provided by LCRA TSC: No
- 6. Delivery Voltage: 69 kV
- 7. Metered Voltage and Location: N/A
- 8. One Line Diagram Attached: Yes
- 9. Description of Facilities Owned by Each Party:

SU owns:

- The following transmission lines comprised of conductors, insulators, and connecting hardware:
 - o San Saba Switchyard to Terry Substation 69 kV transmission line

LCRA TSC owns:

The San Saba Switchyard including, but not limited to, the following items:

- The following transmission lines comprised of conductors, insulators, and connecting hardware:
 - o San Saba Switchyard to Goldthwaite Substation 69 kV transmission line
 - o San Saba Switchyard to San Saba Substation 69 kV transmission line
- 69 kV dead-end box structure, foundations, insulators (except dead end insulator on SU transmission line to Terry Substation) and jumpers
- One (1) 69 kV circuit breaker 1170 including jumpers and protective relay package
- One (1) breaker 1170 control panel located in yard
- Six (6) 69 kV switches 1152, 1154, 1158, 1169, 1171, and 1173
- One (1) 69 kV surge arrester SA1
- One (1) 69 kV fuse F1
- 69 kV bus including box structure, foundations and jumpers

LCRA TSC - SU-First Amendment

Page 14 of 22

- One (1) power transformer T1
- One (1) metering device MU1 (decommissioned)
- Control house and battery bank
- Station Service SS1 with fuse F2
- Substation property ground grid, gravel, fencing and other appurtenances

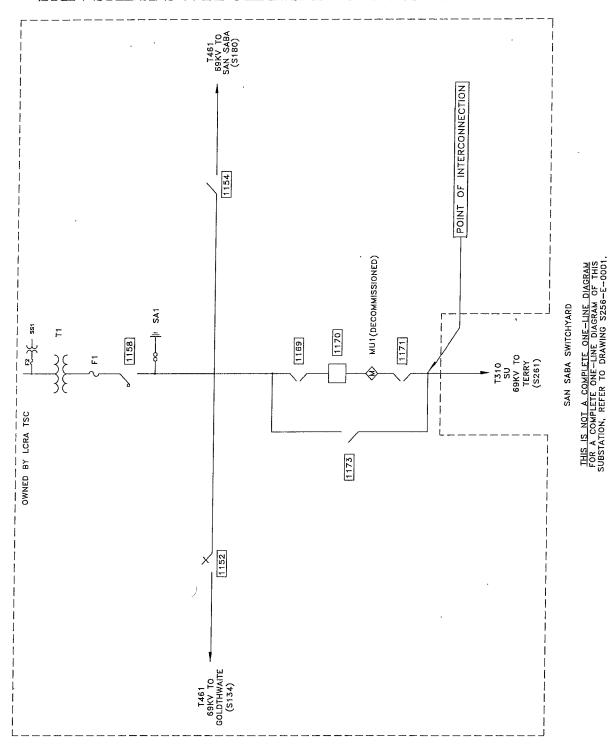
10. Operational Responsibilities of Each Party:

- LCRA TSC will be responsible for the operation of all 69 kV equipment including circuit breaker 1170.
- 11. Maintenance Responsibilities of Each Party: Each Party will be fully responsible for the maintenance of the equipment it owns.

- SU and LCRA TSC are to share access to the switchyard by LCRA TSC locks in the gate and in the control house doors.
- LCRA TSC will provide SU 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 SU.
- LCRA TSC will provide SU with floor space (as available and as necessary) in its control house for the installation of SU required panels and equipment.
- LCRA TSC will provide SU access to its station service if needed.

First Amendment

SAN SABA SWITCHYARD ONE-LINE DIAGRAM



LCRA TSC - SU-First Amendment

Page 16 of 22

- 1. Name: Terry Substation
- **2. Facility Location:** The Terry Substation is located at 1710 CR 122, Richland Springs, San Saba County, Texas 76871.
- **Points of Interconnection:** There are two (2) Points of Interconnection in the Terry Substation generally described as:
 - where the jumper from F1 bolts to the four hole pad on switch 1178.
 - where the jumper from T1; 12.5 kV bushing attaches to the tee connector on the 12.5 kV wire transformer bus.
- 4. Transformation Services Provided by LCRA TSC: Yes
- 5. Metering Services Provided by LCRA TSC: Yes
- 6. **Delivery Voltage:** 12.5/69 kV
- 7. Metered Voltage and Location: The metering voltage is 12.5 kV. The metering current transformer is located in the 12.5 kV transformer bus. The bus potential transformer is located on 12.5 kV transformer bus.
- 8. One Line Diagram Attached: Yes
- 9. Description of Facilities Owned by Each Party:

SU owns:

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

- 69 kV dead-end structures, foundations, insulators and jumpers
- One (1) 69 kV switch 1178
- One (1) 69 kV surge arrester SA3
- One (1) 12.5 kV surge arrester SA2
- 12.5 kV transformer bus with fuses F3, F4, bus potential transformer PT1 and bypass switch TR8
- Three (3) single phase regulators REG1 with associated disconnect and bypass switches, vertical switch structure, foundations, insulators and jumpers
- One (1) 12.5 kV distribution circuit including structure, dead end insulators that attach to the dead end structure, conductors, and hardware
- Station service SS1 with fuse F2
- Substation property ground grid, gravel, fencing and other appurtenances

LCRA TSC owns:

• One (1) 69kV fuse F1

LCRA TSC - SU-First Amendment

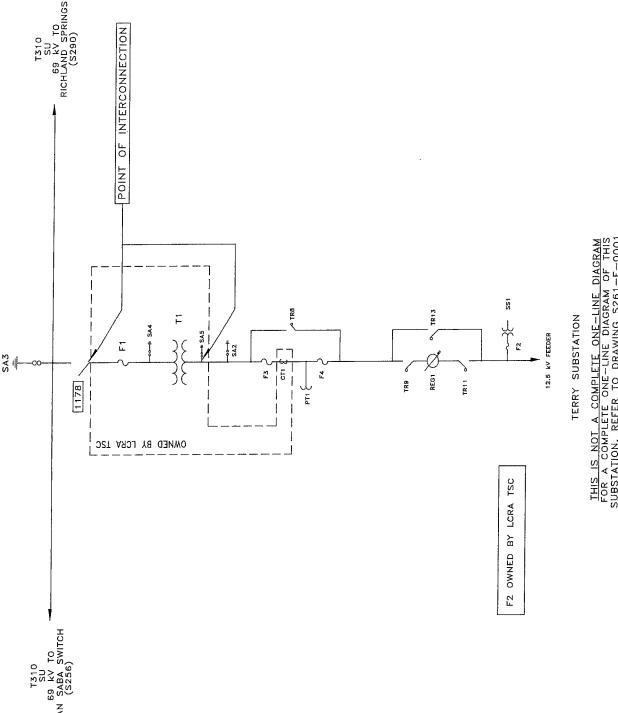
- One (1) power transformer T1 with associated surge arresters
- One (1) metering package
- One (1) metering current transformer CT1
- Control house and battery bank

10. Operational Responsibilities of Each Party:

- SU will be responsible for the operation of the distribution circuit serving the SU feeder.
- SU will be responsible for the operation of regulator REG1
- SU will be responsible for the operation of all 69 kV equipment up to the 69kV Point of Interconnection.
- LCRA TSC will be responsible for the operation of transformer T1
- 11. Maintenance Responsibilities of Each Party: Each Party will be fully responsible for the maintenance of the equipment it owns.

- SU and LCRA TSC are to share access to the substation by LCRA TSC locks in the gate and in the control house doors.
- SU will provide and allow LCRA TSC use of bus potential transformer PT1 for metering.
- LCRA TSC will provide SU 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 SU.
- LCRA TSC will provide SU with floor space (as available and as necessary) in its control house for the installation of SU required panels and equipment.
- SU will provide LCRA TSC access to its station service if needed.

First Amendment TERRY ONE-LINE DIAGRAM



LCRA TSC - SU-First Amendment

Page 19 of 22

- 1. Name: Camp San Saba
- 2. **Facility Location:** The Camp San Saba Substation is located at 137 CR 206 in McCulloch County, Texas.
- 3. **Points of Interconnection:** There are two (2) Points of Interconnection in the Camp San Saba Substation generally described as:
 - where the jumper from the switch CSS19 attaches to the 24.9 kV operating bus
 - where the jumper from the switch CSS29 attaches to the 24.9 kV operating bus
- 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 transformer is located in the 24.9 kV transformer bus. The bus potential transformer is located on the 24.9 kV transformer bus.
- 8. One Line Diagram Attached: Yes
- 9. Description of Facilities Owned by Each Party:

LCRA TSC owns the following facilities:

The Camp San Saba Substation including, but not limited to, the following:

- One (1) box structure
- One (1) circuit switcher CS925 with associated disconnect and bypass switches 922, 926 and 927
- One (1) power transformer T1 and associated surge arresters, foundation and structure
- Three (3) single phase voltage regulators REG1 with associated disconnect and bypass switches
- One (1) metering current transformer CT2
- One (1) bus potential transformers PT2 with fuse F3
- One (1) control house (21' x 27') w/air conditioner and other appurtenances.
- Station service SS1 with fuse F2
- One (1) metering package
- RTU
- Substation property ground grid, gravel, fencing and other appurtenances

SU owns the following facilities:

These items are in distribution bay #1 and bay #2

- Two (2) distribution circuits including dead end insulators that attach to the box structure, conductors, and hardware
- Two (2) distribution circuit breakers CSS10 and CSS20 including jumpers, protective relay packages and foundations.
- Four (4) low voltage disconnect switches CSS19, CSS21, CSS29 and CSS31
- Two (2) surge arresters SA2 and SA6
- Two (2) fuses CSS23 (decommissioned) and CSS33 (decommissioned)

10. Operational Responsibilities of Each Party:

- SU will be responsible for the operation of all distribution circuit breakers serving the SU feeders.
- LCRA TSC will be responsible for the operation of all 69 kV equipment and 24.9 kV equipment up to the Point of Interconnection.
- 11. **Maintenance Responsibilities of Each Party:** Each Party will be fully responsible for the maintenance of the equipment it owns.

- SU 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 SU 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 SU.
- LCRA TSC will provide SU with floor space (as available and as necessary) in its control house for the installation of SU required panels and equipment.
- SU will provide LCRA TSC access to its station service if needed.

First Amendment CAMP SAN SABA ONE LINE DRAWING

