



Control Number: 35077



Item Number: 686

Addendum StartPage: 0

**Project No. 35077**

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PUBLIC UTILITY COMMISSION  
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**Amendment No. 6**

**INTERCONNECTION AGREEMENT**

**Between**

**LCRA Transmission Services Corporation**

**and**

**City of Georgetown, Georgetown Utility Systems**

**October 1, 2016**

686

**SIXTH AMENDMENT TO  
INTERCONNECTION AGREEMENT**

This Sixth Amendment ("Amendment") is made and entered into this 1<sup>st</sup> day of October, 2016, between the City of Georgetown, Georgetown Utility Systems ("City") and LCRA Transmission Services Corporation ("LCRA TSC"), collectively referred to hereinafter as the Parties.

**WHEREAS**, LCRA TSC and City entered into that certain Interconnection Agreement executed January 29, 2009, as amended by that certain Amendment No. 1, executed as of March 11, 2014, as amended by that certain Amendment No. 2, executed as of March 25, 2014, as amended by that certain Amendment No. 3, executed as of July 30, 2014, as amended by that certain Amendment No. 4, executed as of November 03, 2014, as amended by that certain Amendment No. 5, executed as of September 28, 2015 (collectively, as amended, the "Agreement");

**WHEREAS**, pursuant to the Electric Substation Purchase Agreement dated December 13, 2013 between the Parties, LCRA TSC will remove transformer T3 and sell transformer T2, distribution facilities associated with T2 and T3, and certain 138 kV assets to City at Gabriel Substation;

**WHEREAS**, City sold distribution circuit breaker GL70 to Pedernales Electric Cooperative at Glasscock Substation;

**WHEREAS**, LCRA TSC will add circuit breakers in a 4 breaker ring bus configuration at the Georgetown South Substation;

**WHEREAS**, the transmission line number will change at Georgetown East Substation as a result of the addition of circuit breakers at Georgetown South Substation;

**WHEREAS**, Amendment No. 2 to the Agreement had removed certain sections of the Agreement because they were being addressed in the Transmission Operating Agreement executed between the Parties on July 25, 2011; and

**WHEREAS**, the Parties now wish to add back in those certain sections to the Agreement because the Transmission Operating Agreement between the Parties has not been renewed and expired on July 24, 2016.

**NOW, THEREFORE**, in consideration of the mutual promises and undertakings herein set forth, the Parties agree to amend the Agreement as follows:

1. The following Sections, previously removed by Amendment No.2, are being added to the Agreement:
  - a. Section 6.5 The City designates LCRA TSC to perform the functions of an "ERCOT Transmission Operator" on the City's behalf as described in the ERCOT Protocols. As the ERCOT Transmission Operator acting on behalf of the City,

LCRA TSC shall have full authority to perform any necessary load shedding, switching, and other transmission activities that are deemed necessary to reliably maintain the electric system.

- b. Section 6.6 The City shall ensure that its operators designated to carry out dispatch instructions from LCRA TSC are properly authorized and trained to comply with all reliability directives issued by LCRA TSC, including shedding firm load, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances, the City's operators shall immediately inform LCRA TSC of the inability to perform the directive so that LCRA TSC can implement alternate remedial actions.
  - c. Section 6.9 The City's requirement for under-frequency relaying, as described in the ERCOT Protocols, is accomplished through its participation within the LCRA TSC under-frequency load shed (UFLS) program, however, each Party that owns UFLS equipment must individually comply with ERCOT requirements and NERC Reliability Standards pertaining to UFLS equipment ownership, including but not limited to relay testing and maintenance documentation.
  - d. Section 9.3 The City's requirement (if any) to supply real-time telemetry data to ERCOT, as described in the ERCOT Protocols and referred to in the NERC Reliability Standards, is accomplished through the LCRA TSC as it performs the functions of the City's ERCOT Transmission Operator.
- 2. Exhibit "A" attached to the Agreement is deleted in its entirety and the Exhibit "A" attached to this Sixth Amendment is hereby added to the Agreement in lieu thereof.
  - 3. Exhibit "A" attached to this Sixth Amendment will become effective upon execution of this Sixth Amendment by the Parties.
  - 4. Facility Schedule No. 1 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 1 attached to this Sixth Amendment is hereby added to the Agreement in lieu thereof.
  - 5. Facility Schedule No. 1 (including the diagrams attached thereto) attached to this Sixth Amendment will become effective upon execution of this Sixth Amendment by the Parties.
  - 6. Facility Schedule No. 5 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 5 attached to this Sixth Amendment is hereby added to the Agreement in lieu thereof.
  - 7. Facility Schedule No. 5 (including the diagrams attached thereto) attached to this Sixth Amendment will become effective upon execution of this Sixth Amendment by the Parties.

8. Facility Schedule No. 6 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 6 attached to this Sixth Amendment is hereby added to the Agreement in lieu thereof.
9. Facility Schedule No. 6 (including the diagrams attached thereto) attached to this Sixth Amendment will become effective upon execution of this Sixth Amendment by the Parties.
10. Facility Schedule No. 7 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 7 attached to this Sixth Amendment is hereby added to the Agreement in lieu thereof.
11. Facility Schedule No. 7 (including the diagrams attached thereto) attached to this Sixth Amendment will become effective upon execution of this Sixth Amendment by the Parties.

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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 Sixth Amendment to be executed in several counterparts, each of which shall be deemed an original but all shall constitute one and the same instrument.

CITY OF GEORGETOWN  
GEORGETOWN UTILITY SYSTEMS

By: \_\_\_\_\_

Name: Jim Briggs

Title: ACM – Utility Operations

Date: \_\_\_\_\_

9-30-16

LCRA TRANSMISSION SERVICES  
CORPORATION

By: \_\_\_\_\_

Name: Sergio Garza, P.E.

Title: LCRA Vice President, Transmission  
Design and Protection

Date: \_\_\_\_\_

10/03/2016



**EXHIBIT A - Amendment No 6**

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## **FACILITY SCHEDULE NO. 1**

### **Amendment No. 6**

1. **Name:** Gabriel Substation
2. **Facility Location:** The Gabriel Substation is located at 200 County Road 151, Georgetown, Williamson County, Texas 78626.
3. **Points of Interconnection:** There are four (4) Points of Interconnection in the Gabriel Substation generally described as:
  - where the LCRA TSC jumper from the 138 kV Operating Bus #1 attaches to the four hole pad on City switch 5456
  - where the LCRA TSC jumper from the 138 kV Operating Bus #1 attaches to the four hole pad on City switch 5464
  - where the LCRA TSC jumper from the 138 kV Transfer Bus #1 attaches to the four hole pad on City switch 5457
  - where the LCRA TSC jumper from the 138 kV Transfer Bus #1 attaches to the four hole pad on City switch 5463
4. **Transformation Services Provided by LCRA TSC:** No
5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Services Agreement between the Parties
6. **Delivery Voltage:** 138 kV
7. **Metered Voltage and Location:** The metered voltage is 24.9 kV. The metering current transformer is in the total bay for T2. 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:**

City of Georgetown owns:

  - One (1) power transformer T2 with foundation, jumpers and protective relaying
  - Two (2) circuit switchers CS5455 and CS5465 with disconnect switches 5454, 5456, 5461, 5464; bypass switches 5458 and 5467; foundation and protective relaying
  - Two (2) 138 kV transfer bus switches 5457 and 5463
  - All T2-24.9 kV distribution circuits including dead-end insulators that attach to the dead-end structure, conductor, and hardware
  - All T2 distribution equipment including A-frames, trusses, insulators, surge arresters, disconnect switches, bus potential transformer PT3
  - The T2-24.9 kV operating and transfer bus, including, trusses, insulators, and



- surge arresters
- All T2-24.9 kV distribution circuit breakers including jumpers and protection relay packages
- All 24.9 kV distribution circuit breaker foundations (1 of which is not in use)
- Underfrequency relay panel
- Station Service SS2

LCRA TSC owns:

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

- One (1) 138 kV potential transformer PT1
- One (1) 138 kV surge arrester SA8
- 138 kV Operating Bus #1 and 138 kV Transfer Bus #1
- One (1) 138 kV bus differential and breaker failure relaying scheme
- One (1) metering panel with meters
- One (1) metering current transformer CT5
- One (1) control house with batteries and battery charger
- Substation property, ground grid, gravel, fencing and other appurtenances

**10. Operational Responsibilities of Each Party:**

- The City will be responsible for the operation of all distribution circuit breakers serving the City feeders, transformer T2 and both its circuit switchers.
- LCRA TSC will be responsible for the operation of the equipment it owns.

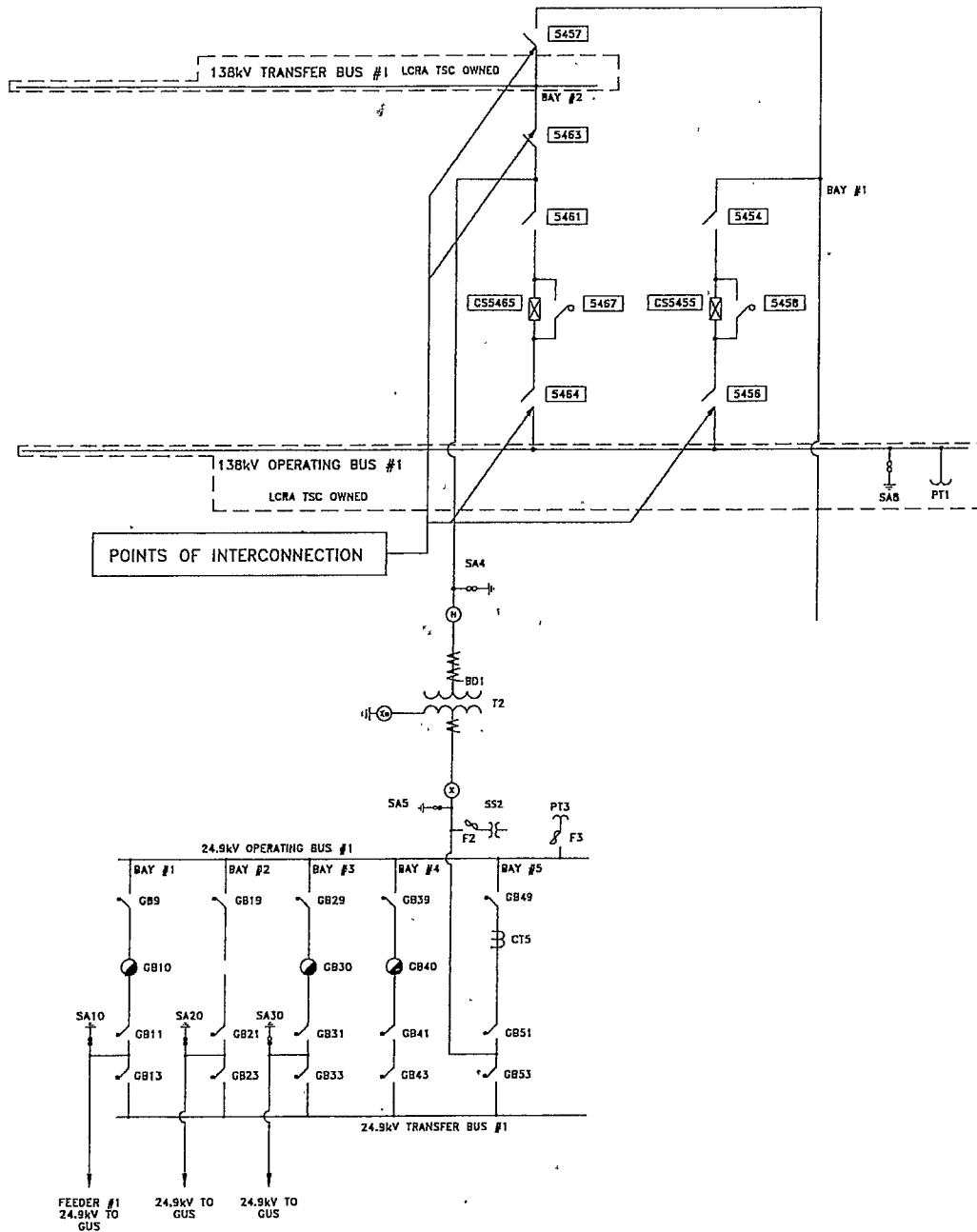
**11. Maintenance Responsibilities of Each Party:** Each Party will be fully responsible for the maintenance of the equipment it owns.

**12. Other Terms and Conditions:**

- The City 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 supply and provide tripping and close inhibit contacts from its 138 kV bus differential and breaker failure panel to City's circuit switchers CS5455 and CS5465 relaying panels.
- City will supply and provide breaker failure initiate contacts from its circuit switchers CS5455 and CS5465 relaying panels to LCRA TSC's 138 kV bus differential and breaker failure panel.
- City will supply relaying current transformers from its transformer T2 for use by LCRA TSC in LCRA TSC's 138 kV bus differential relaying scheme.
- City will supply and allow LCRA TSC use of its 24.9 kV bus potential transformer PT3 for LCRA TSC's metering.
- City will supply and allow LCRA TSC use of City's metering current transformer CT5 for LCRA TSC's metering.
- LCRA TSC and City shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.

# GABRIEL ONE-LINE DIAGRAM

Amendment No. 6



GABRIEL SUBSTATION

THIS IS NOT A COMPLETE ONE LINE DIAGRAM.  
For a complete one line diagram see drawing

S238-E-0001-01

## FACILITY SCHEDULE NO. 5

### Amendment No. 6

1. **Name:** Glasscock Substation
2. **Facility Location:** The Glasscock Substation is located at 3540 State Hwy 195., Georgetown, Williamson County, Texas 78626.
3. **Points of Interconnection:** There are nine (9) Points of Interconnection in the Glasscock Substation generally described as:
  - where the incoming distribution line connects to the tubular bus between switches GL91 and GL93 at breaker GL90.
  - where the jumper from breaker GL90, passing through CT7, connects to the 4 hole pad on switch GL89.
  - where the jumper from breaker GL90 connects to the 4 hole pad on switch GL91.
  - where the incoming distribution line connects to the tubular bus between switches GL71 and GL73 at breaker GL60.
  - where the jumper from breaker GL60, passing through CT5, connects to the 4 hole pad on switch GL69.
  - where the jumper from breaker GL60 connects to the 4 hole pad on switch GL71.
  - where LCRA TSC's double 1033 ACSR conductor connects to the 4 hole pad on City's 24.9 kV switch GL257
  - where LCRA TSC's double 1033 ACSR conductor connects to the 4 hole pad on City's 24.9 kV switch GL255
  - where LCRA TSC's 138 kV bus connects to the four hole pad on City's 138 kV switch 9504
4. **Transformation Services Provided by LCRA TSC:** Yes (T2 only), per Transformation Services Agreement between the Parties
5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Services Agreement between the Parties
6. **Delivery Voltage:** 24.9 kV and 138 kV
7. **Metered Voltage and Location:** The metered voltage is 24.9 kV. The metering current transformers are located in CB#GL455, distribution bays 8 and 10, LCRA TSC transformer T2 and City's transformer T4. The bus potential transformers are located on the 24.9 kV T2 and T4 operating bus.
8. **One Line Diagram Attached:** Yes
9. **Description of Facilities Owned by Each Party:**

PEC assets are not described in this facility schedule.

City owns:

On LCRA TSC transformer T2

- Two (2) distribution circuits including dead-end insulators that attach to the dead-end structure, conductor, and hardware
- Two (2) 24.9 kV distribution circuit breakers GL60, and GL90 including jumpers and protective relay packages
- Two (2) distribution circuit breaker foundations

On City's transformer T4

- One (1) 138 kV switch 9504
- One (1) 138 kV circuit switcher CS9505 including foundation, jumpers and protective relay package
- One (1) 138 kV circuit switcher bypass switch 9507
- One (1) transformer T4 with associated foundation, surge arresters, jumpers and protective relay package
- One (1) 24.9 kV bus potential transformer PT6 with fuse F5
- All transformer T4 distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 24.9 kV operating and transfer bus and bus potential transformer
- All 24.9 kV distribution and total circuit breakers including foundations, jumpers and protective relay packages
- One (1) 24.9 kV operating bus tie breaker GL455 including foundation, jumpers and protective relay package
- Three (3) 24.9 kV operating bus tie disconnect switches GL255, GL454 and GL456
- Two (2) 24.9 kV transfer bus tie disconnect switches GL257 and GL457
- 24.9 kV operating and transfer tie bus from City's 24.9 kV switches GL255 and GL257 to the City's T4 distribution bays including structures, insulators and foundations
- One (1) communications interface controller (RTAC)

LCRA TSC owns:

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

- The following 138 kV transmission lines comprised of conductors, insulators and connecting hardware:
  - Glasscock to Gabriel 138 kV transmission line, T359
  - Glasscock to Andice 138 kV transmission line, T413
- Two (2) 138 kV coupling capacitor voltage transformers CCVT1 and CCVT2
- Two (2) 138 kV surge arresters SA10 and SA11
- Two (2) 138 kV transmission line disconnect switches 9482 and 9492
- 138 kV ring bus including structures, insulators, foundations
- Seven (7) 138 kV circuit breakers 9460, 9470, 9480, 9490, 9500, 9510, and 10340 including foundations, jumpers and protective relay packages

- Sixteen (16) 138 kV disconnect switches 9459, 9461, 9464, 9466, 9469, 9471, 9474, 9479, 9481, 9489, 9491, 9499, 9501, 9509, 9511 and 10339
- Four (4) 138 kV Transformer Buses No. 1, No. 2, No. 3 and No. 4 (to the Point of Interconnection at City's 138 kV switch 9504) including structures, insulators and foundations
- One (1) capacitor bank CP1
- One (1) coupling capacitor voltage transformer CCVT3 for capacitor bank CP1
- One (1) single phase current transformer CT17 for capacitor bank CP1
- One (1) potential transformer PT5 for capacitor bank CP1
- Two (2) circuit switchers CS9465 and CS9475 with foundations, jumpers and protective relay packages
- Two (2) circuit switcher bypass switches 9467 and 9477.
- Two (2) power transformer T1 and T2 with associated foundations, surge arresters and protective relay packages
- Two (2) 24.9 kV transformer bus T1 and T2 disconnect switches GL8 and GL58
- Two (2) total breakers GL30 and GL80 and associated foundations, jumpers and protective relay packages
- All transformer T1 and T2 distribution and total bays including A-frames, trusses, insulators, disconnect switches, T1 and T2 24.9 kV operating and transfer bus tie switches, surge arresters, 24.9 kV operating and transfer buses, bus potential transformers, and metering current transformers
- 1033 ACSR conductor from the 24.9 kV T2 operating and transfer buses to the Points of Interconnection at the City's switches GL255 and GL257
- Three (3) metering panels
- SIP and RTU
- Three (3) 138 kV bus differential and breaker failure relaying schemes
- One (1) telecom panel
- Other panels and appurtenances
- Two (2) station service SS1, SS2 with associated fuses F1, F3; fused disconnect switches and conductors into the control house
- Control house with battery bank, battery charger and other appurtenances
- Substation property, ground grid, gravel, fencing and other appurtenances

**10. Operational Responsibilities of Each Party:**

- The City will be responsible for the operation of the equipment it owns.
- LCRA TSC will be 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:**

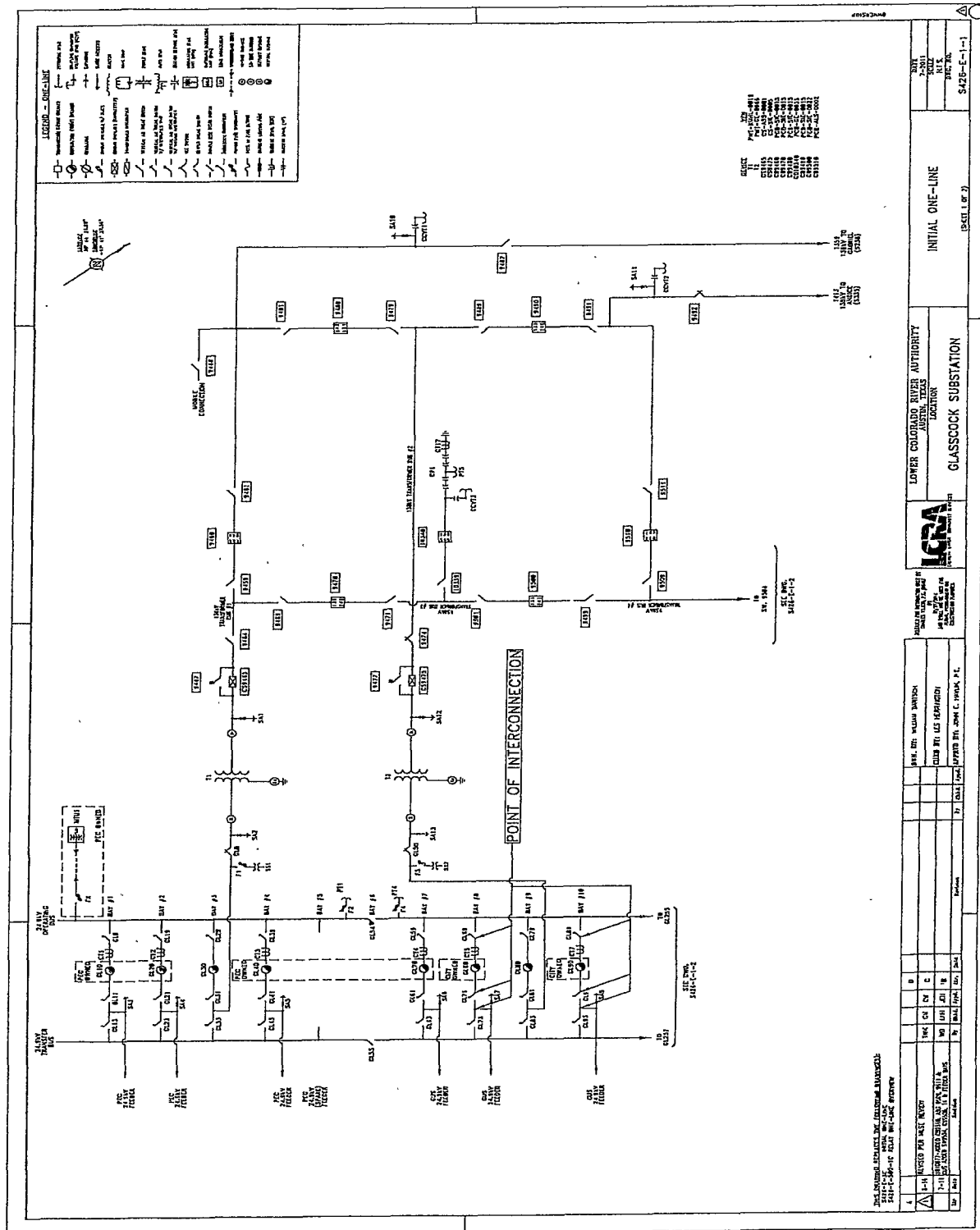
- City and LCRA TSC are to share access to the substation by LCRA TSC locks in the gate and in the control house doors.
- City will supply and provide metering current transformers from City's transformer T4, and 24.9kV GL455 and metering potential transformers from City

24.9 kV T4 operating bus for use by LCRA TSC's metering.

- LCRA TSC will provide tripping and close inhibit contacts from its 138 kV transformer bus no. 4 differential and breaker failure relaying panel to City's circuit switcher CS9505 relaying panel.
- City will provide breaker failure initiate contacts from its 138 kV circuit switcher CS9505 relaying panel to LCRA TSC's 138 kV Transformer Bus No. 4 bus differential and breaker failure relaying panel.
- City will supply and provide relaying current transformers from City transformer T4 for use by LCRA TSC in LCRA TSC's 138 kV Transformer Bus No. 4 bus differential and breaker failure relaying scheme.
- LCRA TSC will provide City 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 City.
- LCRA TSC will provide City with floor space (as available and as necessary) in its control house for the installation of City required relay panel boards and equipment.
- LCRA TSC and City shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.

# GLASSCOCK ONE-LINE DIAGRAM

Amendment No. 6







## **FACILITY SCHEDULE NO. 6**

### **Amendment No. 6**

1. **Name:** Georgetown East Substation
2. **Facility Location:** The Georgetown East Substation is located at 2911 S.E. Inner Loop Drive, just northeast of the intersection of Inner Loop Drive and CR 110 in the city of Georgetown, Texas.
3. **Points of Interconnection:** There are two (2) Points of Interconnection in the Georgetown East Substation generally described as:
  - where the jumper from the 138 kV ring bus connects to switch MO19854.
  - where the jumper from the 138 kV ring bus connects to switch MO19864
4. **Transformation Services Provided by LCRA TSC:** No
5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Services Agreement between the Parties
6. **Delivery Voltage:** 138 kV
7. **Metered Voltage and Location:** 138 kV. The metering current transformers and metering potential transformers are located in/on the 138 kV LCRA TSC ring bus between the ring bus and the City's motor operated switches.
8. **One Line Diagram Attached:** Yes
9. **Description of Facilities Owned by Each Party:**

City owns:

  - Two (2) circuit switchers CS19855 and CS19865 with associated disconnect switches MO19854 and MO19864 and bypass switches 19857 and 19867
  - Two (2) power transformers T1 and T2 with associated foundations, surge arresters and protective relaying.
  - Two (2) 12.5 kV bus breakers GE15 and GE25 including foundations, jumpers and protection packages
  - Two (2) 12.5 kV transformer bus potential transformers PT3 and PT4
  - Four (4) bus disconnect switches GE15-1, GE15-2, GE25-1 and GE25-2
  - One (1) 12.5 kV operating bus tie breaker GE55 with disconnect switches GE55-T1 and GE55-T2, including foundation, jumpers and protection package
  - All distribution circuits including dead-end insulators that attach to the dead-end structure, conductor, and hardware
  - All distribution circuit breakers including jumpers and protection packages
  - All distribution circuit breaker foundations

- All distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, operating and transfer buses, and bus potential transformers PT5 and PT6
- Two (2) station service SS1 and SS2 with primary and alternate feeds from 12.5 kV operating buses T1 and T2 with fused switches SS1 and SS2 and surge arresters SA7 and SA8
- One (1) control building (11.5' x 24/5') with battery bank and battery charger, and ac and dc panelboards

**LCRA TSC owns:**

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

- Two (2) 138 kV dead end structures
- 138 kV ring bus including structures, foundations and jumpers to City switches at the Points of Interconnection
- Two (2) 138 kV bus differential and breaker failure relaying schemes
- Two (2) coupling capacitor voltage transformers CCVT1 and CCVT2
- Eight (8) 138 kV disconnect switches 19849, 19851, 19859, 19861, 19869, 19871, 19879, and 19881
- Four (4) 138 kV circuit breakers 19850, 19860, 19870 and 19880 including foundations, jumpers and protective relay packages
- Two (2) 138 kV metering potential transformer PT1 and PT2 with stands and foundations
- Two (2) 138 kV surge arrester SA1 and SA2 with stands and foundations
- Two (2) 138 kV metering current transformers CT1 and CT2 with stands and foundations
- One (1) meter panel
- Control house (24' x 42') with battery bank and battery charger, and ac and dc panelboards
- Substation property, ground grid, gravel, fencing and other appurtenances

**10. Operational Responsibilities of Each Party:**

- City will be responsible for the operation of the equipment it owns.
- LCRA TSC will be 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:**

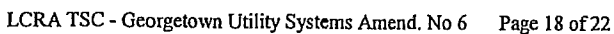
- City and LCRA TSC are to share access to the substation by LCRA TSC locks in the gate and in the control house doors.
- LCRA TSC will provide tripping and close inhibit contacts from its 138 kV bus No. 1 bus differential & breaker failure relaying panel to City's circuit switcher CS19855 relaying panel.
- City will provide breaker failure initiate contacts from its 138 kV circuit switcher CS19855 relaying panel to LCRA TSC's 138 kV bus No. 1 bus differential &

breaker failure relaying panel.

- City will supply and provide 2000:5 MR relaying current transformers from transformer T1 for use by LCRA TSC in LCRA TSC's bus No. 1 bus differential relaying scheme for 138 kV Bus No. 1.
- LCRA TSC will provide tripping and close inhibit contacts from its 138 kV bus No. 2 bus differential & breaker failure relaying panel to City's circuit switcher CS19865 relaying panel.
- City will provide breaker failure initiate contacts from its 138 kV circuit switcher CS19865 relaying panel to LCRA TSC's 138 kV bus No. 2 bus differential & breaker failure relaying panel.
- City will supply and provide 2000:5 MR relaying current transformers from transformer T2 for use by LCRA TSC in LCRA TSC's bus No. 2 bus differential relaying scheme for 138 kV Bus No. 2.
- City will provide access to its primary and alternate station service power for LCRA TSC to use in LCRA TSC's control house.
- LCRA TSC will utilize City fiber for its relay communications in accordance with the fiber sharing agreement.
- LCRA TSC will provide conduit and wiring for LCRA TSC interface with City resources.
- LCRA TSC and City 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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## Amendment No. 6



## FACILITY SCHEDULE NO. 7

### Amendment No. 6

1. **Name:** Georgetown South Substation
2. **Facility Location:** The Georgetown South Substation is located at 950 Rabbit Hill Road, Georgetown, Williamson County, Texas 78626.
3. **Points of Interconnection:** There is one (1) Point of Interconnection in the Georgetown South Substation generally described as:
  - where the jumper from the 138 kV ring bus connects to switch 19884.
4. **Transformation Services Provided by LCRA TSC:** No
5. **Metering Services Provided by LCRA TSC:** Yes, per Wholesale Metering Services Agreement between the Parties
6. **Delivery Voltage:** 138 kV
7. **Metered Voltage and Location:** 24.9 kV. The metering current transformers are located in the total breaker GS15 and metering potential transformers are located on the City's 24.9 kV Operating Bus.
8. **One Line Diagram Attached:** Yes
9. **Description of Facilities Owned by Each Party:**

City owns:

- One (1) circuit switcher CS19885 with associated disconnect switch MO19884
- One (1) Normally Open disconnect switch MO19894 (for mobile or future transformer)
- One (1) power transformer T1 with associated foundation, surge arresters and protective relaying
- One (1) power transformer T1 24.9 kV bus breaker GS15 with operating bus potential transformer PT5 and two bus disconnect switches GS15-1 and GS15-2
- One (1) potential transformer PT6 on T2 operating bus (T2 is not installed)
- One (1) 24.9 kV operating bus tie breaker GS55 with disconnect switches GS55-T1 and GS55-T2, including foundation, jumpers and protection package
- All distribution circuits including dead-end insulators that attach to the dead-end structure, conductor, and hardware
- All distribution circuit breakers including jumpers and protection packages
- All distribution circuit breaker foundations
- All distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, operating and transfer buses

- One (1) station service with primary and alternate feeds from 24.9 kV operating buses T1 and T2 with fused switches SS1 and SS2
- One (1) control building (24.5' x 11.5') with battery bank and battery charger, and ac and dc panelboards

**LCRA TSC owns:**

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

- Two (2) 138 kV dead end structures
- 138 kV ring bus including structures, foundations and jumpers to City switches at the Point of Interconnection and mobile/future connection
- One (1) 138 kV bus differential and breaker failure relaying scheme
- Four (4) 138 kV circuit breakers 27420, 27430, 27440 and 27450 with foundations, jumpers and protective relaying
- Eight (8) 138 kV switches 27419, 27421, 27429, 27431, 27439, 27441, 27449 and 27451
- Two (2) coupling capacitor voltage transformers CCVT1 and CCVT2
- One (1) wave trap WT1 with carrier panel
- Two (2) 138 kV metering potential transformer PT1 and PT2 with stands and foundations
- Five (5) 138 kV surge arrester SA1, SA2, SA5, SA6 and SA7 with stands and foundations
- One (1) 138 kV power voltage transformer PVT1
- One (1) meter panel with meters
- 24.9 kV metering current transformers
- One (1) metering current transformer CT3
- One (1) control house (24' x 42') with batteries, battery charger and appurtenances
- Substation property, ground grid, gravel, fencing and other appurtenances

**10. Operational Responsibilities of Each Party:**

- City will be responsible for the operation of the equipment it owns.
- LCRA TSC will be 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:**

- City and LCRA TSC are to share access to the substation by LCRA TSC locks in the gate:
- City will supply and provide LCRA TSC 24.9 kV metering potential transformers for LCRA TSC metering.
- City will supply and provide LCRA TSC with metering current transformers in total breaker GS15.
- LCRA TSC will provide tripping and close inhibit contacts from its 138 kV bus differential & breaker failure relaying panel to City's circuit switcher CS19885

relaying panel.

- City will provide breaker failure initiate contacts from its 138 kV circuit switcher CS19885 relaying panel to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
- City will supply and provide relaying current transformers from transformer T1 for use by LCRA TSC in LCRA TSC's 138 kV bus differential relaying scheme.
- City will provide access to its station service power for LCRA TSC to use in LCRA TSC's control house.
- LCRA TSC will utilize City fiber for its relay communications in accordance with the fiber sharing agreement.
- LCRA TSC will provide conduit and wiring for LCRA TSC interface with City resources.
- LCRA TSC will move all equipment from City's existing control house to LCRA TSC's new control house.
- LCRA TSC and City shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.

## Amendment No. 6

