

Control Number: 35077



Item Number: 537

Addendum StartPage: 0

PUC Project No. 35077

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Ninth Amendment to

INTERCONNECTION AGREEMENT

Between

Guadalupe Valley Electric Cooperative, Inc.

and

LCRA Transmission Services Corporation

February 23, 2015

531

NINTH AMENDMENT TO INTERCONNECTION AGREEMENT

This Ninth Amendment ("Amendment") is made and entered into this <u>23</u> day of <u>155</u>, between the Guadalupe Valley Electric Cooperative, Inc. ("GVEC") and LCRA Transmission Services Corporation ("LCRA TSC") collectively referred to hereinafter as the Parties.

WHEREAS, LCRA TSC and GVEC entered into that certain Interconnect Agreement executed February 8, 2011; as amended by that certain Amendment No. 1, executed as of August 26, 2011; as amended by that certain Amendment No. 2, executed as of October 13, 2011; as amended by that certain Amendment No. 4, executed as of December 19, 2011, as amended by that certain Amendment No. 5, executed as of February 16, 2012, as amended by that certain Amendment No. 6, executed as of April 25, 2013, as amended by that certain Amendment No. 7, executed as of July 29, 2013, as amended by that certain Amendment No. 8, executed as of December 19, 2014 (collectively, as amended, the "Agreement"); and

WHEREAS, GVEC will install communications equipment on LCRA TSC's communications tower at Cuero Substation; and

WHEREAS, GVEC will remove the 69 kV transmission line to Nash Creek (Capote) Substation, remove auto transformer AT2, add a 138 kV transmission line to Deer Creek Substation from 138 kV bay 5 at Seguin Substation; and

WHEREAS, LCRA TSC will add a 138 kV ring bus at Pilot Grove Substation; and

WHEREAS, LCRA TSC will add a distribution bay for a new GVEC distribution line at Shiner 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 Ninth Amendment is hereby added to the Agreement in lieu thereof.
- 2. Facility Schedule No. 1 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 1 attached to this Ninth Amendment is hereby added to the Agreement in lieu thereof.
- 3. Facility Schedule No. 1 (including the diagrams attached thereto) attached to this Ninth Amendment will become effective upon execution of this Ninth Amendment by the Parties.
- 4. Facility Schedule No. 10 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 10 attached to this Ninth Amendment is hereby added to the Agreement in lieu thereof.
- 5. Facility Schedule No. 10 (including the diagrams attached thereto) attached to this Ninth Amendment will become effective upon execution of this Ninth Amendment by the Parties.
- 6. Facility Schedule No. 19 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 19 attached to this Ninth Amendment is hereby added to the Agreement in

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lieu thereof.

- 7. Facility Schedule No. 19 (including the diagrams attached thereto) attached to this Ninth Amendment will become effective upon execution of this Ninth Amendment by the Parties.
- 8. Facility Schedule No. 27 (including the diagrams attached thereto) is deleted in its entirety and Facility Schedule No. 27 attached to this Ninth Amendment is hereby added to the Agreement in lieu thereof.
- 9. Facility Schedule No. 27 (including the diagrams attached thereto) attached to this Ninth Amendment will become effective upon execution of this Ninth 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 Ninth Amendment to be executed in several counterparts, each of which shall be deemed an original but all shall constitute one and the same instrument.

GUADALUPE VALLEY ELECTRIC COOPERATIVE, INC.

Name: Sean Alvarez

Title: Chief Operating Officer and

Senior Executive, Engineering and Operations

Date: 2 23 15

LCRA TRANSMISSION SERVICES CORPORATION

Name: Ray Pfefferkorn, P.E.

Title: LCRA Transmission Engineering Manager

Date: 1/28/15



Exhibit A
Amendment No. 9

FACILITY SCHEDULE	LOCATION OF POINT(S) OF INTERCONNECTION	INTERCONNECTION	EFFECTIVE DATE OF
NO.	(# of Points)	VOLTAGE (KV)	INTERCONNECTION
1	Cuero (18)	12.5 kV	Date of 9 th Amendment
2	Geronimo (4)	138 kV	7/29/2013
3	Gonzales (2)	138 kV	2/8/2011
4	Hallettsville (2)	138 kV	12/19/2014
5	FM 237 Yorktown (1)	138 kV	12/19/2014
6	Marion (2)	138 kV	8/26/2011
7	LCRA Nixon (1)	138 kV	12/19/2014
8	Parkway (6)	138 kV	2/8/2011
9	Schumansville (1)	138 kV	2/8/2011
10	Seguin (6)	138 kV	Date of 9th amendment
11	Seguin West (6)	138 kV	2/8/2011
12	Sweet Home (6)	24.9 kV	2/8/2011
13	Thompsonville (3)	4.16 kV	2/8/2011
14	Waelder (6)	12.5 kV	2/8/2011
15	Weiderstein (2)	138 kV	2/8/2011
16	Yoakum-Gartner (11)	12.5 kV	2/8/2011
17	York Creek (1)	138 kV	2/8/2011
18	Cheapside (2)	138 kV	2/8/2011
19	Pilot Grove (3)	138 kV	Date of 9th amendment
20	Nordheim West (1)	138 kV	12/19/2014
21	Lost Creek (2)	138 kV	12/19/2014
22	Mont (1)	138 kV	2/16/2012
23	Lindenau (1)	138 kV	2/16/2012
24	Highway 123 (4)	138 kV	4/25/2013
25	Gillett (1)	138 kV	12/19/2014
26	Deer Creek (2)	69 kV/138 kV	12/19/2014
27	Shiner (3)	12.5 kV	Date of 9th amendment
28			
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Amendment No 9

- 1. Name: Cuero Substation
- **2. Facility Location:** The Cuero Substation is located at 1022 E. FM 1447, Cuero, Dewitt County, Texas 77954.
- **Points of Interconnection:** There are eighteen (18) Points of Interconnection in the Cuero Substation generally described as:
 - where the incoming distribution line connects to the tubular bus between switches CU311 and CU313 at breaker CU101.
 - where the jumper from breaker CU101 connects to the 4 hole pad on switch CU309.
 - where the jumper from breaker CU101 connects to the 4 hole pad on switch CU311.
 - where the incoming distribution line connects to the tubular bus between switches CU321 and CU323 at breaker CU201.
 - where the jumper from breaker CU201 connects to the 4 hole pad on switch CU319.
 - where the jumper from breaker CU201 connects to the 4 hole pad on switch CU321.
 - where the incoming distribution line connects to the tubular bus between switches CU341 and CU343 at breaker CU401.
 - where the jumper from breaker CU401 connects to the 4 hole pad on switch CU339.
 - where the jumper from breaker CU401 connects to the 4 hole pad on switch CU341.
 - where the incoming distribution line connects to the tubular bus between switches CU351 and CU353 at breaker CU501.
 - where the jumper from breaker CU501 connects to the 4 hole pad on switch CU349.
 - where the jumper from breaker CU501 connects to the 4 hole pad on switch CU351.
 - where the incoming distribution line connects to the tubular bus between switches CU361 and CU363 at breaker CU601.
 - where the jumper from breaker CU601 connects to the 4 hole pad on switch CU359.
 - where the jumper from breaker CU601 connects to the 4 hole pad on switch CU361.
 - where the incoming distribution line connects to the tubular bus between switches CU371 and CU373 at breaker CU701.
 - where the jumper from breaker CU701 connects to the 4 hole pad on switch CU369.

- where the jumper from breaker CU701 connects to the 4 hole pad on switch CU-371.
- 4. Transformation Services Provided by LCRA TSC: Yes
- 5. Metering Services Provided by LCRA TSC: Yes
- 6. Delivery Voltage: 12.5 kV
- 7. **Metered Voltage and Location:** The metering voltage is 12.5 kV. The metering current transformers are located inside T4 and in the 12.5 kV tie bay 1-1 (CT13). 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:

GVEC owns:

- Six (6) distribution circuits including dead end insulators that attach to the dead end structure, conductors, and hardware
- Six (6) distribution circuit breakers CU101, CU201, CU401, CU501, CU601 and CU701 including jumpers and protective relay packages
- Four (4) distribution circuit breaker foundations in bays 3-1, 3-2, 3-4 and 3-5
- One (1) load management system LM with fuse F6
- One (1) resource management system RM with fuse F10
- One (1) modulation transformer MTU1 with fuses F12 and F13
- Communications equipment on LCRA TSC communications tower

LCRA TSC owns:

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

- 138 kV dead-end structures, foundations, insulators and jumpers
- 138 kV operating bus #1 and transfer bus #1 and #2 including structures, insulators, foundations and jumpers
- Two (2) power transformers T1 and T4 with associated surge arresters, foundations and protective relay packages
- Two (2) single phase current transformers CT21 and CT10
- One (1) relaying current transformer CT23
- Three (3) circuit switchers CS4255, CS4277 and CS4285 with associated bypass switch 4258
- Five (5) 138 kV switches 4254, 4257, 4276, 4284 and 4287
- One (1) multi core current transformer CT9
- One (1) capacitor bank CP1
- One (1) capacitor bank potential transformer PT4

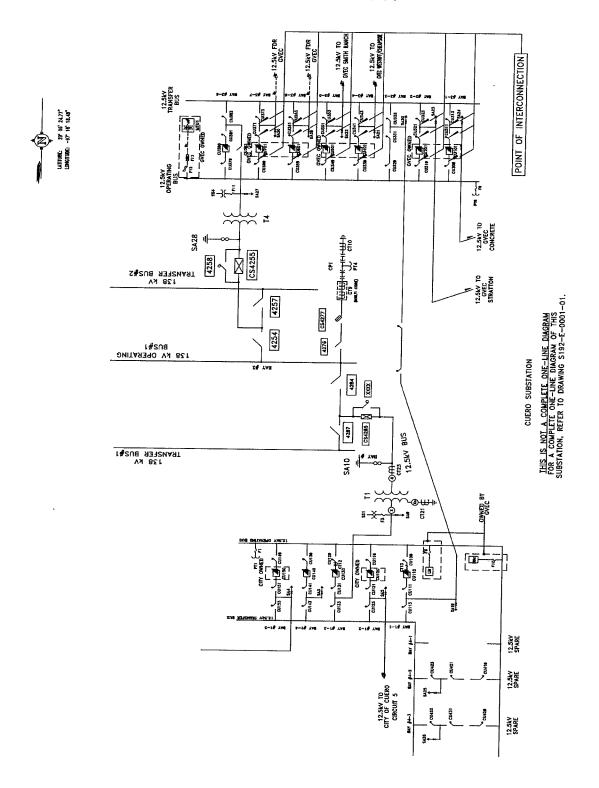
- All T4 distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 12.5 kV operating and transfer bus and bus potential transformer
- One (1) total circuit breaker CU380 including foundation, jumpers and protective relaying
- Two (2) distribution circuit breaker foundations in bays # 3-6 and # 3-7
- All T1 distribution and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 12.5 kV operating and transfer bus, bus potential transformer, metering current transformers and associated cabling
- One (1) total circuit breaker CU130 with jumpers, protective relaying and foundation
- One (1) bus tie circuit breaker CU110 including foundation, jumpers and protective relaying
- Two (2) meter panels (1 for GVEC metering)
- Relay, RTU and SIP panels
- Underfrequency relay panel (not in operation)
- Two (2) station service SS1 with fuse F3 and SS4 with fuse F11
- Control house with batteries and battery charger
- 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.

- GVEC 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 GVEC 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 GVEC.
- LCRA TSC will provide GVEC with floor space (as available and as necessary)
 in its control house for the installation of GVEC required relay panel boards and
 equipment.
- LCRA TSC and GVEC shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.
- GVEC is permitted to install, operate and maintain, a Microwave Link (MW)-consisting of a Motorola PTP 400 Bridge along with the associated hardware and electronics at approximately 80 foot elevation on the existing LCRA TSC 103' Tower at the Northeast corner of the control house, operating in the RF band of 5.470 GHz-5.725 GHz or 5.725GHz 5.85 GHz, under the following conditions:

- a. GVEC's final MW design is reviewed and approved by LCRA TSC prior to installation.
- b. GVEC's installation does not interfere with LCRA TSC operations.
- c. GVEC's installation is for the sole purpose of electric utility operations associated with the substation and GVEC's distribution equipment.
- d. If LCRA TSC in the future needs the communication tower space (at the sole discretion of LCRA TSC), then GVEC will relocate their facilities upon written notice from LCRA TSC.
- e. Changes in equipment elevation, azimuth, transmit power, or operating frequency must be preapproved by LCRA TSC
- f. GVEC shall operate the RF equipment under all FCC requirements

CUERO ONE-LINE DIAGRAM

Amendment No 9



Amendment No. 9

- 1. Name: Seguin Substation
- **Facility Location:** The Seguin Substation is located at 806 E. Martindale Dr., Seguin, Guadalupe County, Texas 78155.
- 3. **Points of Interconnection:** There are six (6) Points of Interconnection in the Seguin Substation generally described as:
 - where the jumper from the 138 kV operating bus bolts to the 4 hole pad on switch 3659.
 - where the jumper from the 138 kV transfer bus bolts to the 4 hole pad on switch 3663.
 - where the jumper from the 138 kV operating bus bolts to the 4 hole pad on switch 3589.
 - where the jumper from the 138 kV transfer bus bolts to the 4 hole pad on switch 3593.
 - where the jumper from the 138 kV operating bus bolts to the 4 hole pad on switch 19399.
 - where the jumper from the 138 kV transfer bus bolts to the 4 hole pad on switch 19403.
- 4. Transformation Services Provided by LCRA TSC: No
- 5. Metering Services Provided by LCRA TSC: N/A
- 6. Delivery Voltage: 138 kV
- 7. Metered Voltage and Location: N/A
- 8. One Line Diagram Attached: Yes
- 9. Description of Facilities Owned by Each Party:

GVEC owns:

- Three (3) 138 kV dead-end structures (bays #5, #6 and #12), foundations, insulators and jumpers
- Three (3) 138 kV circuit breakers 3590, 3660 and 19400 including foundations, jumpers and protective relay packages
- Nine (9) 138 kV switches 3589, 3591, 3593, 3659, 3661, 3663, 19399, 19401 and 19403 including foundations and jumpers
- Two (2) 138 kV surge arresters SA15, SA6
- One (1) coupling capacitor CC-2
- One (1) wave trap and tuner WT2
- Four (4) 69 kV dead-end structures, foundations, insulators and jumpers (out of service)
- 69 kV operating and transfer bus including structures, insulators, foundations and jumpers (out of service)
- Three (3) 69 kV circuit breakers 360, 390 and 470 including jumpers and protective relay packages (out of service)
- Three (3) 69 kV circuit breaker structures (out of service)
- Ten (10) 69 kV switches 359, 361, 363, 389, 391, 393, 469, 471, 473 and 476 including foundations and jumpers (out of service)
- One (1) 69 kV surge arrester SA16 (out of service)
- One (1) current transformer CT1 (out of service)

 One (1) 69 kV bus potential transformer PT2 including bus tower and foundation (out of service)

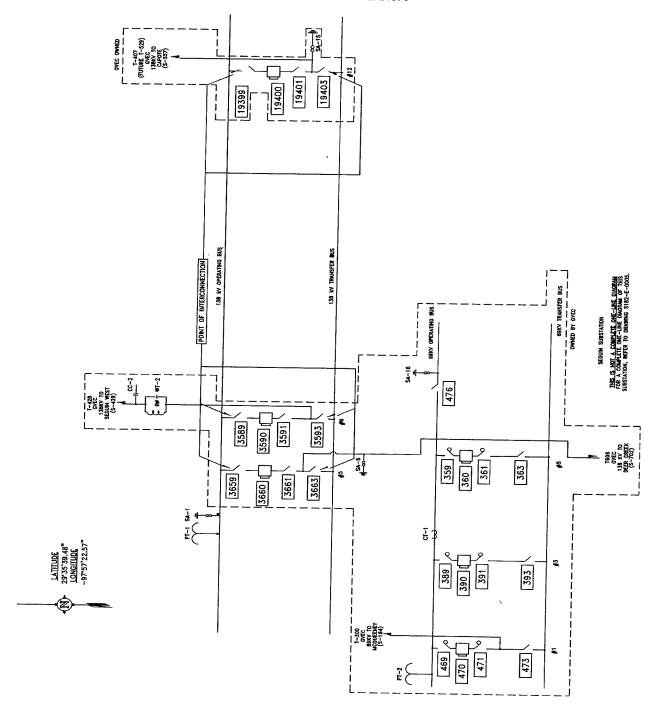
LCRA TSC owns:

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

- 138 kV operating and transfer bus including structures, insulators, foundations and jumpers
- One (1) 138 kV bus potential transformer PT1
- One (1) 138 kV bus differential and breaker failure relaying scheme
- One (1) surge arrester SA1
- Station service equipment (not shown on one-line diagram)
- Relay, RTU and SIP panels
- Control house with batteries and battery charger
- 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.

- GVEC 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 differential & breaker failure relaying panel to GVEC's circuit breakers 3590, 3660 and 19400 relaying panels.
- GVEC will provide breaker failure initiate contacts from its 138 kV circuit breakers 3590, 3660 and 19400 relaying panels to LCRA TSC's 138 kV bus differential & breaker failure relaying panel.
- GVEC will supply and provide relaying current transformers from its 138 kV circuit breakers 3590, 3660 and 19400 for use by LCRA TSC in LCRA TSC's bus differential relaying scheme.
- LCRA TSC will provide GVEC 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 GVEC.
- LCRA TSC will provide GVEC with floor space (as available and as necessary)
 in its control house for the installation of GVEC required relay panel boards and
 equipment.
- LCRA TSC and GVEC shall design, provide, and coordinate their respective protection system equipment so that adjacent zones of protection overlap, in accordance with ERCOT Nodal Operating Guides.

SEGUIN ONE-LINE DIAGRAM Amendment No. 9



Amendment No 9

- 1. Name: Pilot Grove Substation
- Facility Location: The Pilot Grove Substation is located at 4490 FM 318 East, Sweet Home, Lavaca County, Texas 77987.
- **Points of Interconnection:** There are three (3) Points of Interconnection in the Pilot Grove Substation generally described as:
 - where the LCRA TSC 138 kV bus extension bolts to the four hole pad on GVEC's 138 kV switch 23769.
 - where the LCRA TSC 138 kV bus extension bolts to the four hole pad on GVEC's 138 kV switch 23799.
 - where the LCRA TSC 138 kV bus extension bolts to the four hole pad on GVEC's 138 kV switch 25599.
- 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 located inside T1 and T2. The bus potential transformers are located on the 24.9 kV operating buses.
- 8. One Line Diagram Attached: Yes
- 9. Description of Facilities Owned by Each Party:

Note: Not all items are shown on attached one-line diagram.

GVEC owns:

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

- Four (4) 138 A-Frame structures, foundations, insulators, jumpers and conductor between GVEC A-Frame structures
- 138 kV buswork between switch 23799 and A-Frame structure
- 138 kV buswork between switch 25599 and A-Frame structure
- 138 kV buswork between switch 23769 and A-Frame structure
- Eight (8) 138 kV disconnect switches 23769, 23774, 23784, 23799, 23809, 23839, 25599 and 25609
- Two (2) circuit switchers CS23775 and CS23785 with associated foundations and protective relay packages
- Two (2) power transformers T1 and T2 with associated surge arresters, foundations and protective relay packages
- All distribution, bus tie and total bays including A-frames, trusses, insulators, disconnect switches, surge arresters, 24.9 kV operating and transfer bus and bus potential transformers

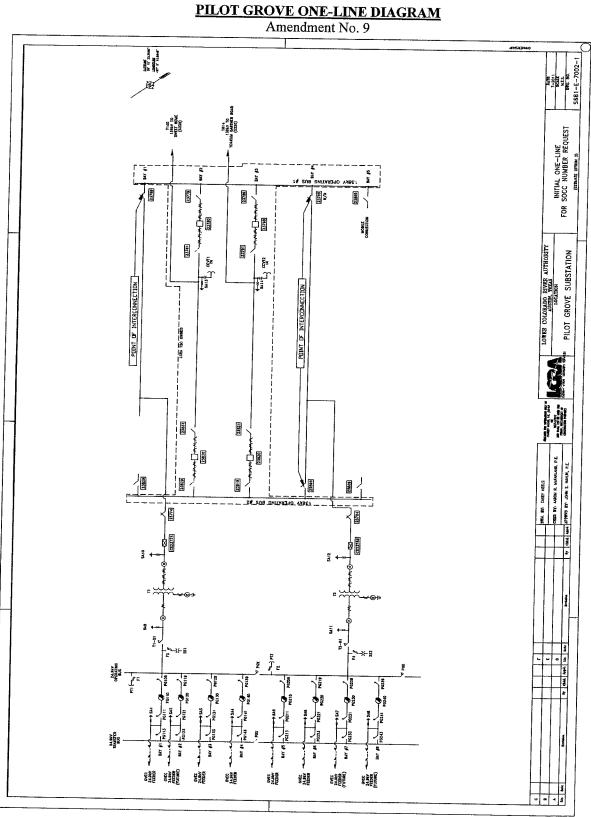
- All distribution and total circuit breakers including jumpers, foundations and protective relay packages
- Two (2) station service SS1 with fuse F3 and SS2 with fuse F4
- Control house and battery bank and battery charger
- Substation property, ground grid, gravel, fencing and other appurtenances

LCRA TSC ownership includes but is not limited to the following items:

- Three (3) 138 kV transmission line structures No's 8/2G, 8/2H and 8/2I
- Two (2)138 kV dual A-Frame structures, foundations, insulators and jumpers
- 138 kV operating buses No. 1 and No. 2 including structures, insulators, foundations, A-Taps, extensions from A-Taps to Points of Interconnection
- Eight (8) 138 kV disconnect switches 23779, 23781, 23789, 23791, 23819, 23821, 23829 and 23831
- Four (4) 138 kV circuit breakers 23780, 23790, 23820 and 23830 with foundations, jumpers and protective relay packages
- Two (2) 138 kV three phase coupling capacitor voltage transformers CCVT1 and CCVT2
- Two (2) 138 kV surge arresters SA13 and SA14
- One (1) metering panel
- One (1) RTU panel
- One (1) SIP panel
- One (1) telecom panel
- Two (2) 138 kV bus differential and breaker failure relaying panels
- Four (4) 138 kV circuit breaker line panels
- One (1) annunciator/PT distribution panel
- 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.

- GVEC 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 GVEC's circuit switcher CS23775 relaying panel.
- GVEC will provide breaker failure initiate contacts from its 138 circuit switcher CS23775 relaying panel to LCRA TSC's 138 kV bus No. 1 bus differential & breaker failure relaying panel for.
- GVEC will supply and provide 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 Operating 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 GVEC's circuit switcher CS23785 relaying panel.
- GVEC will provide breaker failure initiate contacts from its 138 circuit switcher CS23785 relaying panel to LCRA TSC's 138 kV bus No. 2 bus differential &

- breaker failure relaying panel for.
- GVEC will supply and provide 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 Operating Bus No. 2.
- GVEC will supply and provide metering current transformers from transformers T1 and T2 for use in LCRA TSC's metering.
- GVEC will supply and provide 24.9 kV metering potential transformers for use in LCRA TSC's metering.
- GVEC 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 GVEC (if
 space is available) or LCRA TSC.
- GVEC will provide LCRA TSC with floor space (as available and as necessary) in its control house for the installation of LCRA TSC required relay panel boards and equipment. (LCRA TSC's current list of panel boards may not be all that are required).
- LCRA TSC and GVEC 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 - GVEC-9th Amendment

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Amendment No. 9

- 1. Name: Shiner Substation
- 2. Facility Location: The Shiner Substation is located at 1915 CR 355, Shiner, Lavaca County, Texas 77984.
- 3. **Points of Interconnection:** There are three (3) Points of Interconnection in the Shiner Substation generally described as:
 - where the incoming distribution line connects to the jumper, at the dead end insulator, between switches SH-61 and SH-63 at breaker GVEC-SH-40.
 - where the jumper from breaker GVEC-SH-40 connects to the 4 hole pad on switch SH-61.
 - where the jumper from breaker GVEC-SH-40, passing through CT4, connects to the 4 hole pad on switch SH-59.
- 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 metered voltage is 12.5 kV. The metering current transformers are located inside T1 and in each distribution bay. The metering 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:

GVEC owns:

- One (1) distribution circuit including dead-end insulators that attach to the dead-end structure, conductor, and hardware
- One (1) distribution circuit breakers GVEC-SH-40 including jumpers and relay protection package
- One (1) distribution circuit breaker foundations
- One (1) AMR transformer (MTU) and associated equipment (not shown on one line drawing)

LCRA TSC owns:

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

- Three (3) 138 kV A-frame structures and foundations
- 138 kV operating bus with bus supports and foundations
- Three (3) 138 kV disconnect switches 982, 984 and 988 (disconnect for 138 kV mobile connection)
- Two (2) 138 kV motor operated switches with interrupters MO979 and MO989
- One (1) power transformer T1 with associated surge arresters, foundation and protective

- relay package
- One (1) circuit switcher CS805 with bypass switch 817, foundation and protective relay package
- Six (6) distribution and total bays including A-frames, trusses, insulators, disconnect and bus transfer switches, surge arresters, 12.5 kV operating and transfer bus, bus potential transformer, metering current transformers and associated cabling
- One (1) T1 low side bus disconnect switch SH-65
- Station Service SS2 with fuse F3
- Control house (24' x 30') with batteries and battery charger
- One (1) meter panel
- Relay, RTU and SIP panels
- Substation property, ground grid, fence, gravel and other appurtenances
- 10. Operational Responsibilities of Each Party: Each Party will be fully 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.

- GVEC 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 GVEC 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 GVEC.
- LCRA TSC will provide GVEC with floor space (as available and as necessary) in its
 control house for the installation of GVEC required relay panel boards and equipment.
- GVEC is permitted to install, operate and maintain, a Microwave Link (MW)- consisting of a Cambium Networks PTP 500 *Bridge* along with the associated hardware and electronics at approximately 50 foot elevation on a GVEC installed pole, operating in the RF band of 5.470 GHz-5.725 GHz or 5.725GHz 5.85 GHz, under the following conditions:
 - a. GVEC's final MW design is reviewed and approved by LCRA TSC prior to installation
 - b. GVEC's installation does not interfere with LCRA TSC operations.
 - c. GVEC's installation is for the sole purpose of electric utility operations associated with the substation and GVEC's distribution equipment.
 - d. Changes in equipment elevation, azimuth, transmit power, or operating frequency must be preapproved by LCRA TSC
 - e. GVEC shall operate the RF equipment under all FCC requirements

SHINER ONE-LINE DIAGRAM Amendment No. 9 INITIAL ONE-LINE (FOR ESTIMATE) LOWER COLORADO RIVER ALTHORITY
AMERICA INCATION
LOCATION SHINER SUBSTATION WORKE THE SHEET SMECK 12.5kV CATY OWNED DISTRIBUTION SHAIR SHAIR 12.5kv CITY OWNED STRIBUTION 87.8 2.0 SHEER SHEER 72.56V 12.5kV 12.5W TRANSFER BUS 12.5VV OPERATING BUS T134 1385 T0 MDULTOK (\$141) POINT OF INTERCONNECTION

LCRA TSC - GVEC-9th Amendment

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