

Control Number: 35077



Item Number: 138

Addendum StartPage: 0

# PUC Project No. 35077

Amendment No. 2 to the

INTERCONNECTION AGREEMENT

Between

**AEP Texas Central Company** 

and

LCRA Transmission Services Company

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November 1, 2008

# AMENDMENT NO. 2 TO THE INTERCONNECTION AGREEMENT BETWEEN AEP TEXAS CENTRAL COMPANY AND LCRA TRANSMISSION SERVICES CORPORATION

This Amendment No. 2 (this "Amendment") to the Interconnection Agreement between AEP Texas Central Company and LCRA Transmission Services Corporation (the "Interconnection Agreement") is made and entered into as of November 1, 2008, by and between AEP Texas Central Company and LCRA Transmission Services Corporation, each being referred to as a "Party" and both collectively referred to as the "Parties".

#### WITNESSETH:

WHEREAS, the Parties entered into the Interconnection Agreement on January 11, 2005 (including all Exhibits and Facility Schedules attached thereto) to restate and amend an earlier interconnection agreement between Central Power and Light Company (now known as AEP Texas Central Company ("AEP")) and the Lower Colorado River Authority (the assignor to LCRA Transmission Services Corporation ("LCRA")); and

WHEREAS, the Interconnection Agreement provides terms and conditions that allow a point of interconnection be added to or deleted from the Interconnection Agreement as mutually agreed by the Parties, whereby such addition or deletion be recorded in Exhibit A and a Facility Schedule be added or deleted in such a way that the numbering of the other Facility Schedules in the Interconnection Agreement is not changed; and

WHEREAS, the Parties have agreed to amend the Interconnection Agreement in accordance with its terms and conditions;

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants set forth herein, the Parties agree as follows:

#### I. CAPITALIZED TERMS.

Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Interconnection Agreement, as amended and supplemented by this Amendment.

#### II. AMENDMENTS.

Effective as of the date first written above, a) Facility Schedules numbered 1A, 1B, 4, 5 and 7 of the Interconnection Agreement are hereby amended, b) Facility Schedules numbered 33 through 68 are hereby added to the Interconnection Agreement, and c) Exhibit A of the Interconnection Agreement is hereby amended to record these changes. Such additional Facility Schedules, amended Facility Schedules and amended Exhibit A will be included in the Interconnection Agreement to form one consolidated and amended agreement.

# III. RATIFICATION OF OTHER TERMS.

All other terms and conditions of the Interconnection Agreement which are not specifically amended by this Amendment shall remain unchanged and are hereby ratified by the Parties and shall continue to be in full force and effect.

[The remainder of this page is intentionally left blank. The next page of this document is S-1] IN WITNESS WHEREOF, the Parties have caused this Amendment to be executed in two (2) counterparts, each of which shall be deemed an original but both shall constitute one and the same instrument.

# AEP TEXAS CENTRAL COMPANY

LCRA TRANSMISSION SERVICES CORPORATION

Name: Michael Heyeck
Title: Vice President

By \_\_\_\_\_\_ Name: Ray Pfefferkorn, P.E.

Title: LCRA Transmission Engineering

Manager

IN WITNESS WHEREOF, the Parties have caused this Amendment to be executed in two (2) counterparts, each of which shall be deemed an original but both shall constitute one and the same instrument.

AEP T	EXAS	CENTRAL
COMP	ANY	

Name: Michael Heyeck Title: Vice President

# LCRA TRANSMISSION SERVICES **CORPORATION**

Name:

Title:

Ray Pfofferkorn, P.E. LCRA Transmission Engineering

Manager



# **EXHIBIT A**

FACILITY SCHEDULE NO.	LOCATION OF POINT(S) OF INTERCONNECTION (# of Points)	INTERCONNECTION VOLTAGE (KV)	LAST DATE(S) OF AMENDMENT IN THIS OR PREVIOUS INTERCONNECTION AGREEMENT*
1 <b>A</b>	Luling 69 (0)	69	June 1, 1973 November 1, 2008
1B	Luling City 12.5 (4)	12.5	June 1, 1973 November 1, 2008
2	Yorktown (1)	12.5	June 1, 1973
3	Nordheim (1)	12.5	June 1, 1973
4	Glidden (0)	138	October 8, 1979 November 1, 2008
5	LCRA Cuero (1)	138	June 1, 1973 November 1, 2008
6	Campwood (1)	69	December 28, 1990 March 16, 2007
7	LCRA Nixon (0)	69	April 11,1994 November 1, 2008
8	Leakey (1)	12.5	December 10, 1998
9	Coleto Creek (1)	345	January 11, 2005
10	Citgo North Oak Park (3)	138	January 11, 2005
11	Lon C. Hill (2)	138	January 11, 2005
12	Highway 9 (1)	138	January 11, 2005 March 16, 2007
13	Nueces Bay (2)	138	January 11, 2005
14	Cantwell (2)	138	March 16, 2007
15	Weil Tract (2)	138	March 16, 2007
16	Rincon (1)	138	March 16, 2007
17	Rockport (3)	138	March 16, 2007
18	Fulton (2)	138	March 16, 2007
19	Roma (1)	138	March 16, 2007
20	Garceno (2)	138	March 16, 2007
21	Rio Grande City (2)	138	March 16, 2007

<sup>\*</sup> These dates do not reflect the date that the Point of Interconnection was established.

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# **EXHIBIT A Continued**

FACILITY SCHEDULE NO.	LOCATION OF POINT(S) OF INTERCONNECTION (# of Points)	INTERCONNECTION VOLTAGE (KV)	LAST DATE(S) OF AMENDMENT IN THIS OR PREVIOUS INTERCONNECTION AGREEMENT*
22	La Grulla (2)	138	March 16, 2007
23	Goodwin (2)	138	March 16, 2007
24	Frontera Switching Station 138 (1)	138	March 16, 2007
25	Asherton (1)	138	March 16, 2007
26	Conoco-Chittam Ranch Tap (2)	138	March 16, 2007
27	Pueblo (2)	138	March 16, 2007
28	Escondido Switching Station(1)	138	March 16, 2007
29	Uvalde (1)	138	March 16, 2007
30	Asphalt Mines (2)	138	March 16, 2007
31	Bracketville (2)	138	March 16, 2007
32	Hamilton Road (1)	138	March 16, 2007
33	Pharr (1)	138	November 1, 2008
34	North Alamo (2)	138	November 1, 2008
35	Weslaco Switching Station (2)	138	November 1, 2008
36	North Weslaco (2)	138	November 1, 2008
37	North Mercedes (2)	138	November 1, 2008
38	Harlingen Switching Station (1)	138	November 1, 2008
39	Naval Base (2)	69	November 1, 2008
40	Airline (2)	69	November 1, 2008
41	North Padre Tap (1)	69	November 1, 2008
42	Mustang Island (2)	69	November 1, 2008
43	Port Aransas (1)	69	November 1, 2008
44	Laguna (2)	69	November 1, 2008

<sup>\*</sup> These dates do not reflect the date that the Point of Interconnection was established.

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FACILITY SCHEDULE NO.	LOCATION OF POINT(S) OF INTERCONNECTION (# of Points)	INTERCONNECTION VOLTAGE (KV)	DATE INCLUDED OR EXCLUDED IN THIS OR PREVIOUS INTERCONNECTION AGREEMENT*
45	Kenedy Switching Station (2)	69	November 1, 2008
46	Runge (1)	69	November 1, 2008
47	Nordheim 69 (1)	69	November 1, 2008
48	Yorktown 69 (2)	69	November 1, 2008
49	Hochheim (1)	69	November 1, 2008
50	Malone (1)	69	November 1, 2008
51	Darst (2)	69	November 1, 2008
52	AEP Nixon (2)	69	November 1, 2008
53	Magnolia (1)	69	November 1, 2008
54	Columbus (2)	69	November 1, 2008
55	Stafford Hill (1)	69	November 1, 2008
56	Riverside Pump (1)	69	November 1, 2008
57	Prairie Pump (1)	69	November 1, 2008
58	Parker (1)	69	November 1, 2008
59	Eagle Lake (2)	69	November 1, 2008
60	Lakeside Pump (1)	69	November 1, 2008
61	Matthews (1)	69	November 1, 2008
62	Garwood Lonestar (1)	69	November 1, 2008
63	Garwood City (1)	69	November 1, 2008
64	El Campo (2)	69	November 1, 2008
65	B&B Gravel (1)	69	November 1, 2008
66	Garwood Pump (1)	69	November 1, 2008
67	Ideal Cement (1)	69	November 1, 2008
68	Garwood Relief Pump (1)	69	November 1, 2008

<sup>\*</sup> These dates do not reflect the date that the Point of Interconnection was established.

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Interconnection Agreement Amendment
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# FACILITY SCHEDULE NO. 1A Amendment No. 1

Luling 69

**TERMINATED** 

# FACILITY SCHEDULE NO. 1B Amendment No. 1

1. Name: Luling City

- 2. Location: The Luling City Substation is located in Luling, Texas in Caldwell County. (From the junction of Highway 183 and FM 2984 travel north on 2984 0.5 miles.) There are four Points of Interconnection at the Luling City station. Points of Interconnection for each of the 12 kV breakers are located at the connectors on the jumpers that connect to the 12 kV bus side disconnects and where the jumpers connect to the 12 kV transfer bus disconnects.
- 3. Transformation Services Provided by LCRA: Yes

4. Delivery Voltage: 12.5 kV

5. Normal Operation of Interconnection: Closed

6. One-Line Diagram Attached: Yes

7. Facility Ownership Responsibilities of the Parties:

# AEP owns the following facilities:

- the following facilities inside the Luling City Substation:
  - o two 12kV breakers LC10 & LC-20, and the associated jumpers, line side disconnect switches, associated relaying, and distribution feeder exits
  - o RTU for SCADA control and communication of 12 kV LC10 & LC20
  - o RTU communication circuit from the station to the AEP control center
- any under-built distribution voltage circuits attached to the 69 kV transmission lines listed below that terminate into the station

# LCRA owns the following facilities:

- the Luling City Substation, including all the facilities within it, except for the facilities owned by AEP
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware including:
  - Luling City to Malone 69 kV transmission line
  - Luling City to Hochheim 69 kV transmission line
- 8. Facility Operation and Maintenance Responsibilities of the Parties:

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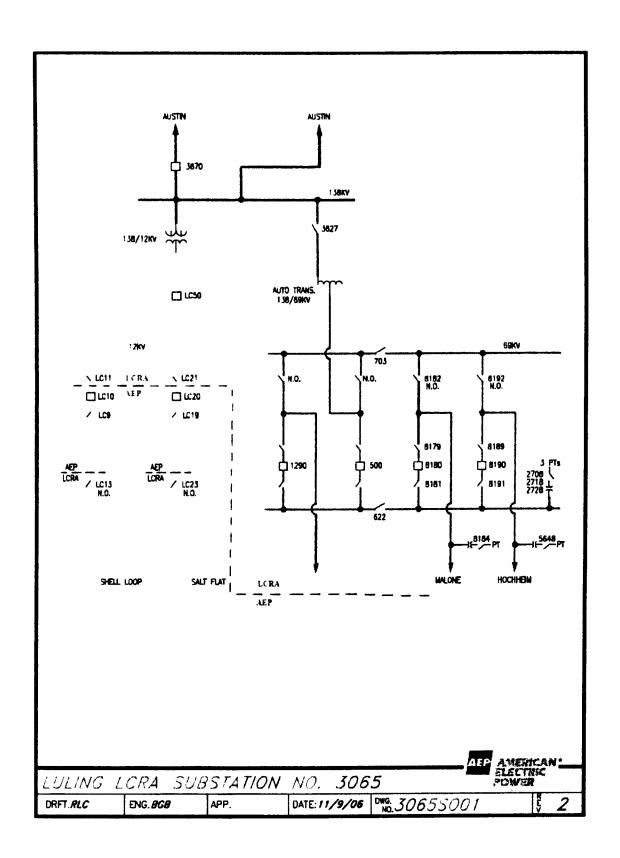
- LCRA controls and operates all transmission lines that terminate into the station, and all station equipment except for the following equipment that AEP will continue to operate until LCRA takes over operational control:
  - o 69 kV breaker 8180, associated switches 8179, 8181, 8182, and 69 kV transmission line to Malone
  - 69 kV breaker 8190, associated switches 8189, 8191, 8192, and 69 kV transmission line to Hochheim
  - AEP controls and operates the 12.5 kV facilities for circuits LC-10 & LC-20.
  - Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.

# 9. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

# 10. Other Terms and Conditions:

 LCRA will provide AEP with MV-90 master file information and dial-up access to net meter in 69 kV bus for net metering the 69 kV transmission lines to Hochheim and Malone.



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# FACILITY SCHEDULE NO. 4 Amendment No. 1

Glidden

**TERMINATED** 

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# FACILITY SCHEDULE NO. 5 Amendment No. 1

1. Name: LCRA Cuero

2. Location: The LCRA Cuero Substation is located in Cuero, Texas in De Witt County. The Point of Interconnection is located where the jumper conductors from the station equipment physically contact the connectors on the conductors of the 138 kV transmission line to the Victoria Substation.

3. Delivery Voltage: 138 kV

4. Normal Operation of Interconnection: Closed

5. One-Line Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

LCRA owns the following facilities:

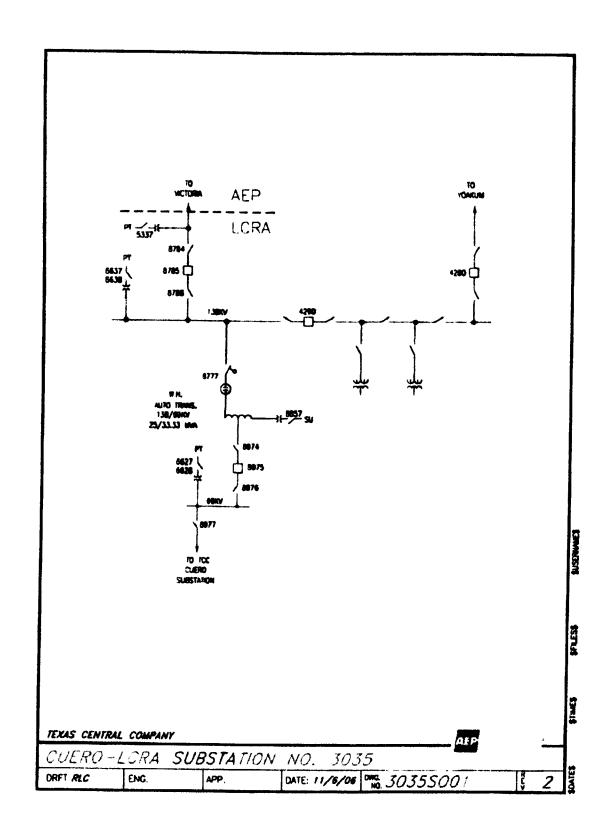
- the LCRA Cuero Substation, including all the facilities within it
- the jumpers from the 138 kV vertical bus to the 138 kV transmission line to Victoria
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware:
  - LCRA Cuero to Yoakum 138 kV transmission line
  - LCRA Cuero to Gonzales 138 kV transmission line
  - Cuero (Hydro) to Hochheim 69 kV transmission line
  - Cuero (Hydro) to Yorktown 69 kV transmission line
  - LCRA Cuero to Cuero (Hydro) 69 kV transmission line

# AEP owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission line from the Victoria Substation to the jumpers from the station equipment
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware:
  - o LCRA Cuero to Victoria 138 kV transmission line
- 7. Facility Operation and Maintenance Responsibilities of the Parties:

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- LCRA controls and operates the LCRA Cuero Substation except for the following equipment that AEP will continue to operate until LCRA takes over operational control:
  - o 138 kV breaker 8785, associated switches 8784, and 8786
  - o 138 kV circuit switcher 8777 and associated 138-69 kV autotransformer
  - o 69 kV breaker 8975, associated switches 8974, 8976, and associated 69 kV transmission line to Cuero
- AEP controls and operates its LCRA Cuero to Victoria 138 kV transmission line.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.
- 8. Cost Responsibilities of the Parties:
  - Each Party will be fully responsible for the liabilities related to the facilities it owns.
  - Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.
- 9. Other Terms and Conditions:
  - LCRA will provide AEP with MV-90 master file information and dial-up access
    to net meter from CB 4290 for net metering the 138 kV line to Victoria and the 69
    kV transmission line to Cuero (Hydro).



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# FACILITY SCHEDULE NO. 7 Amendment No. 1

**LCRA Nixon** 

**TERMINATED** 

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#### **FACILITY SCHEDULE NO. 33**

1 Name: Pharr

- 2. Location: The Pharr Substation is located in Pharr, Texas in Hidalgo County. The Point of Interconnection is at the termination of the 138 kV transmission line from the North Alamo Substation where the jumper conductors from the substation equipment physically contact the connectors on the 138 kV transmission line conductors.
- 3. Delivery Voltage: 138 kV

4. Normal Operation of Interconnection: Closed

5. One-Line Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

## AEP owns the following facilities:

- Pharr Substation, including all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the AEP portion of the station
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware:
  - O Pharr to Polk 138 kV transmission line
  - o Pharr to MVEC Pharr 138 kV transmission line
- any under-built distribution voltage circuits and OPGW shield/fiber aerial cable and fiber optic communications circuits attached to the transmission lines that terminate into the station

# LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission line from the North Alamo Substation
- the following transmission line(s) comprised of easements, licenses, structures, conductors, insulators, and connecting hardware:
  - Pharr to North Alamo 138 kV transmission line
- 7. Facility Operation and Maintenance Responsibilities of the Parties:
  - AEP controls and operates the Pharr Substation, including all facilities within it.

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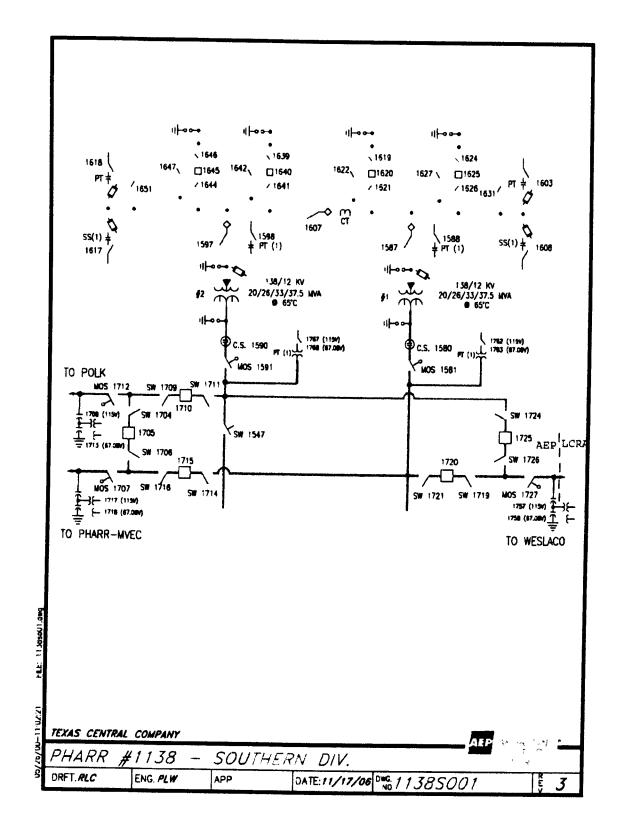
- AEP controls and operates all transmission lines that terminate into the AEP portion of the station.
- AEP coordinates, directs, and performs all control center and field operation
  activities on the transmission line(s) owned by AEP and LCRA. These activities
  shall include, but are not limited to, switching, clearances, and outages for
  planned maintenance and operations, emergency service restoration, and overall
  coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.

# 8. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule

## 9. Other Terms and Conditions:

 AEP will poll the AEP RTU installed inside the station and LCRA will have access to the RTU data via a direct Inter-control Center Communications Protocol (ICCP) communication circuit between the Parties' control centers. The Parties will coordinate the analog and digital point list and communications protocol issues.



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#### **FACILITY SCHEDULE NO. 34**

1. Name: North Alamo

2. Location: The North Alamo Substation is located in Alamo, Texas in Hidalgo County. There are two Points of Interconnection at the North Alamo Substation. One is at the termination of the 138 kV transmission line from the North Pharr Substation and the other is at the termination of the 138 kV transmission line from the Weslaco Switching Station. Both Points of Interconnection are at the point where the jumper conductors from the substation equipment physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Normal Operation of Interconnection: Closed

5. One-Line Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

#### AEP owns the following facilities:

- North Alamo Substation, including all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- any under-built distribution voltage circuits and OPGW shield/fiber aerial cable and fiber optic communications circuits attached to the transmission lines that terminate into the station

#### LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission lines from the North Pharr station and Weslaco switching station
- the following transmission line(s) comprised of easements, licenses, structures, conductors, insulators, and connecting hardware:
  - o North Alamo to North Pharr 138 kV transmission line
  - North Alamo to Weslaco Switching Station 138 kV transmission line
- 7. Facility Operation and Maintenance Responsibilities of the Parties:
  - AEP controls and operates the North Alamo Substation, including all facilities within it.
  - AEP controls and operates all transmission lines that terminate into the station.

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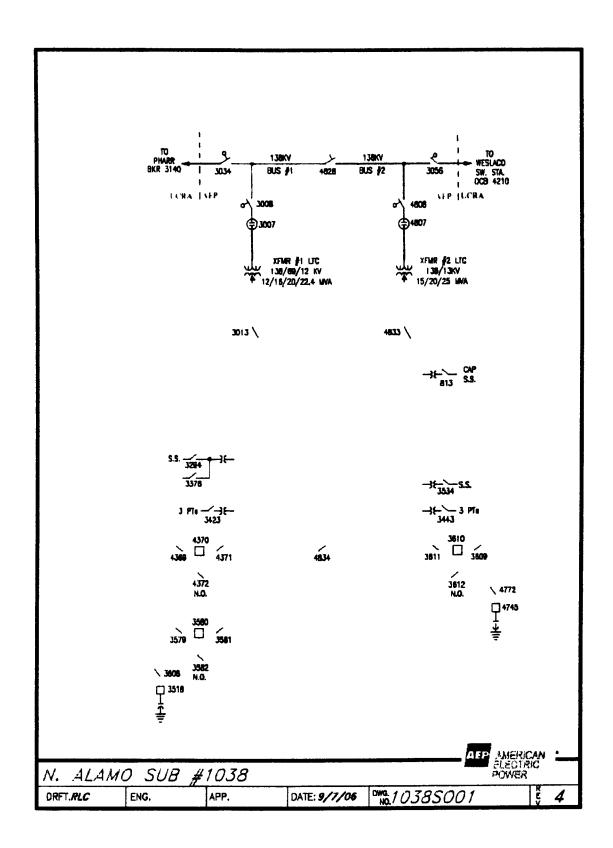
- AEP coordinates, directs, and performs all control center and field operation
  activities on the transmission line(s) owned by AEP and LCRA. These activities
  shall include, but are not limited to, switching, clearances, and outages for
  planned maintenance and operations, emergency service restoration, and overall
  coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.

#### 8. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

#### 9. Other Terms and Conditions:

AEP will poll the AEP RTU installed inside the substation and LCRA will have
access to the RTU data via a direct Inter-control Center Communications Protocol
(ICCP) communication circuit between the Parties' control centers. The Parties
will coordinate the analog and digital point list and communications protocol
issues.



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## **FACILITY SCHEDULE NO. 35**

1. Name: Weslaco Switching Station

2. Location: The Weslaco Switching Station is located in Weslaco, Texas in Hidalgo County. There are two Points of Interconnection at the Weslaco Switching Station. One is at the termination of the 138 kV transmission line from the North Alamo Substation and the other is at the termination of the 138 kV transmission line from the North Weslaco Substation. Both Points of Interconnection are at the point where the jumper conductors from the substation equipment physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Normal Operation of Interconnection: Closed

5. One-Line Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- Weslaco Switching Station, including all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- a four-wire RTU communication circuit from the station to the AEP control center
- any under-built distribution voltage circuits and OPGW shield/fiber aerial cable and fiber optic communications circuits attached to the transmission lines that terminate into the station

LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission lines from the North Alamo and North Weslaco substations
- the following transmission line(s) comprised of easements, licenses, structures, conductors, insulators, and connecting hardware:
  - Weslaco Switching Station to North Alamo 138 kV transmission line
  - Weslaco Switching Station to North Weslaco 138 kV transmission line
- 7. Facility Operation and Maintenance Responsibilities of the Parties:
  - AEP controls and operates the Weslaco Switching Station, including all facilities

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within it.

- AEP controls and operates all transmission lines that terminate into the substation.
- AEP coordinates, directs, and performs all control center and field operation
  activities on the transmission line(s) owned by AEP and LCRA. These activities
  shall include, but are not limited to, switching, clearances, and outages for
  planned maintenance and operations, emergency service restoration, and overall
  coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.

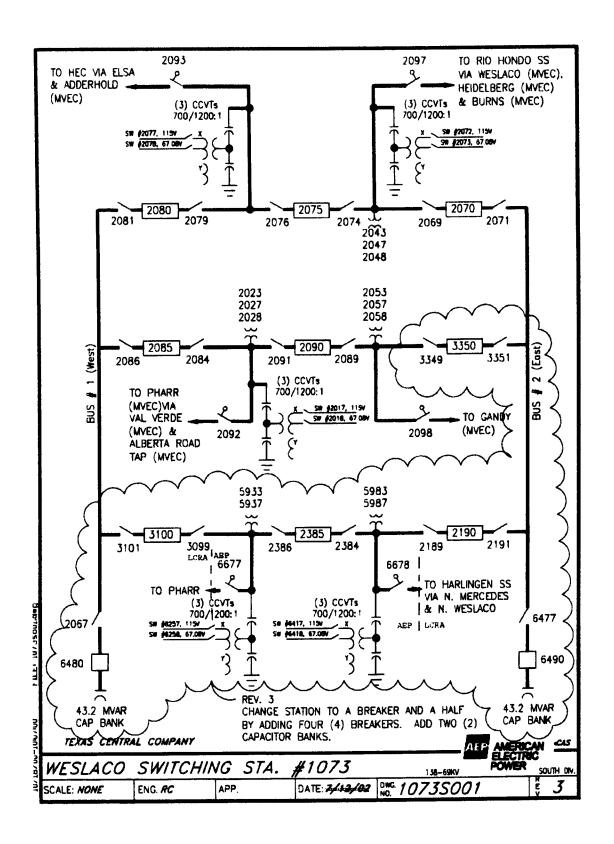
### 8. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

#### 9. Other Terms and Conditions:

AEP will poll the AEP RTU installed inside the substation and LCRA will have
access to the RTU data via a direct Inter-control Center Communications Protocol
(ICCP) communication circuit between the Parties' control centers. The Parties
will coordinate the analog and digital point list and communications protocol
issues.

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#### **FACILITY SCHEDULE NO. 36**

1. Name: North Weslaco

2. Location: The North Weslaco Substation is located in Weslaco, Texas in Hidalgo County. There are two Points of Interconnection at the North Weslaco Substation. One is at the termination of the 138 kV transmission line from the Weslaco Switching Substation and the other is at the termination of the 138 kV transmission line from the North Mercedes Substation. Both Points of Interconnection are at the point where the jumper conductors from the substation equipment physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Normal Operation of Interconnection: Closed

5. One-Line Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- North Weslaco Substation, including all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- a four-wire RTU communication circuit from the station to the AEP control center
- any under-built distribution voltage circuits and OPGW shield/fiber aerial cable and fiber optic communications circuits attached to the transmission lines that terminate into the station

# LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission lines from the Weslaco Switching Station and North Mercedes substation
- the following transmission line(s) comprised of easements, licenses, structures, conductors, insulators, and connecting hardware:
  - North Weslaco to Weslaco Switching Station 138 kV transmission line
  - North Weslaco to North Mercedes 138 kV transmission line
- 7. Facility Operation and Maintenance Responsibilities of the Parties:

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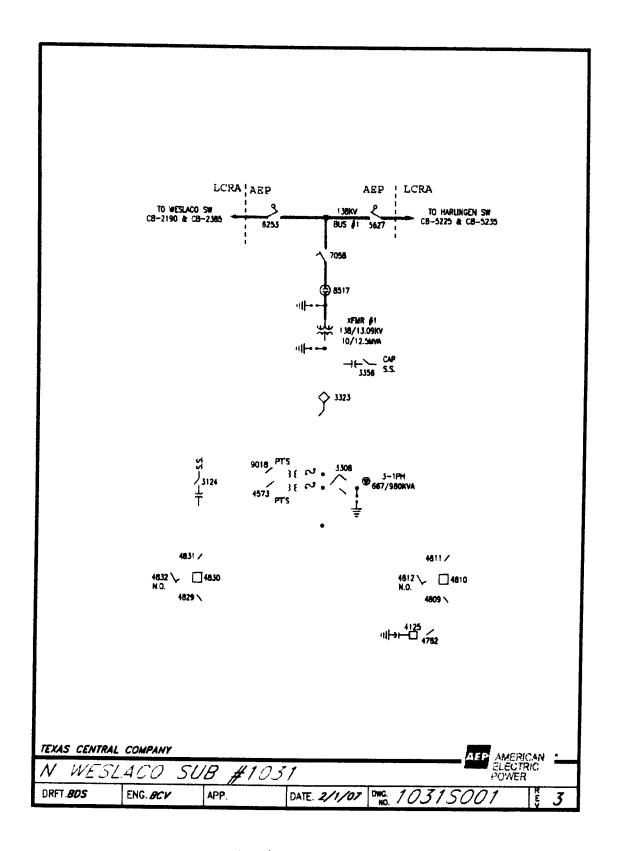
- AEP controls and operates the North Weslaco Substation, including all facilities within it.
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation
  activities on the transmission line(s) owned by AEP and LCRA. These activities
  shall include, but are not limited to, switching, clearances, and outages for
  planned maintenance and operations, emergency service restoration, and overall
  coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.

#### 8. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

#### 9. Other Terms and Conditions:

AEP will poll the AEP RTU installed inside the substation and LCRA will have
access to the RTU data via a direct Inter-control Center Communications Protocol
(ICCP) communication circuit between the Parties' control centers. The Parties
will coordinate the analog and digital point list and communications protocol
issues.



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#### **FACILITY SCHEDULE NO. 37**

1. Name: North Mercedes

2. Location: The North Mercedes Substation is located in Mercedes, Texas in Hidalgo County. There are two Points of Interconnection at the North Mercedes Substation. One is at the termination of the 138 kV transmission line from the North Weslaco Substation and the other is at the termination of the 138 kV transmission line from the Harlingen Switching Station. Both Points of Interconnection are at the point where the jumper conductors from the substation equipment physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Normal Operation of Interconnection: Closed

5. One-Line Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- North Mercedes Substation, including all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- a four-wire RTU communication circuit from the station to the AEP control center
- any under-built distribution voltage circuits and OPGW shield/fiber aerial cable and fiber optic communications circuits attached to the transmission lines that terminate into the station

# LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission lines from the North Weslaco station and Harlingen switching station
- the following transmission line(s) comprised of easements, licenses, structures, conductors, insulators, and connecting hardware:
  - North Mercedes to North Weslaco 138 kV transmission line
  - North Mercedes to Harlingen Switching Station 138 kV transmission line
- 7. Facility Operation and Maintenance Responsibilities of the Parties:

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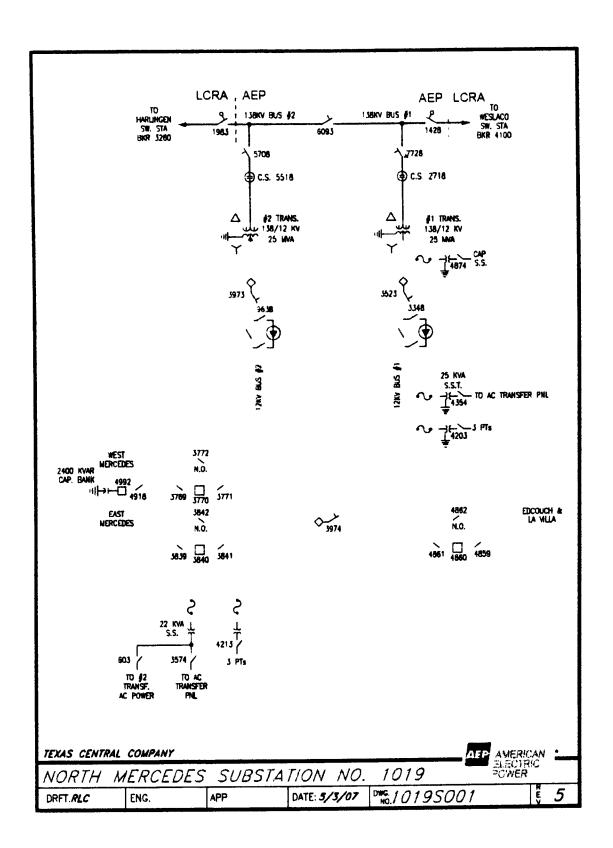
- AEP controls and operates the North Mercedes Substation, including all facilities within it.
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation
  activities on the transmission line(s) owned by AEP and LCRA. These activities
  shall include, but are not limited to, switching, clearances, and outages for
  planned maintenance and operations, emergency service restoration, and overall
  coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.

#### 8. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

#### 9. Other Terms and Conditions:

AEP will poll the AEP RTU installed inside the substation and LCRA will have
access to the RTU data via a direct Inter-control Center Communications Protocol
(ICCP) communication circuit between the Parties' control centers. The Parties
will coordinate the analog and digital point list and communications protocol
issues.



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#### **FACILITY SCHEDULE NO. 38**

1. Name: Harlingen Switching Station

2. Location: The Harlingen Switching Station is located in Harlingen, Texas in Cameron County. The Point of Interconnection is at the termination of the 138 kV transmission line from the North Mercedes Substation where the jumper conductors from the substation equipment physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Normal Operation of Interconnection: Closed

5. One-Line Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

## AEP owns the following facilities:

- Harlingen Switching Station, including all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware:
  - o Harlingen Switching Station to Rio Hondo 138 kV transmission line
  - o Harlingen Switching Station to La Palma 138 kV transmission line
  - o Harlingen Switching Station to Harlingen No.1 69 kV transmission line
  - o Harlingen Switching Station to Raymondville No. 2 69 kV transmission line
- any under-built distribution voltage circuits and OPGW shield/fiber aerial cable and fiber optic communications circuits attached to the transmission lines that terminate into the station

## LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission line from the North Mercedes station
- the following transmission line(s) comprised of easements, licenses, structures, conductors, insulators, and connecting hardware.
  - Harlingen Switching Substation to North Mercedes 138 kV transmission line

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# 7. Facility Operation and Maintenance Responsibilities of the Parties:

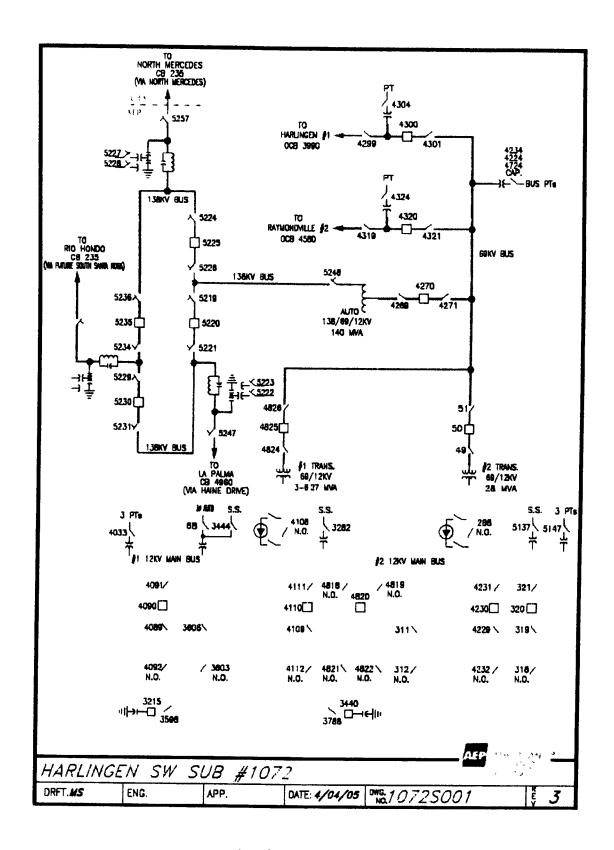
- AEP controls and operates the Harlingen Switching Station, including all facilities within it.
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation
  activities on the transmission line(s) owned by AEP and LCRA. These activities
  shall include, but are not limited to, switching, clearances, and outages for
  planned maintenance and operations, emergency service restoration, and overall
  coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.

# 8. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

# 9. Other Terms and Conditions:

 AEP will poll the AEP RTU installed inside the substation and LCRA will have access to the RTU data via a direct Inter-control Center Communications Protocol (ICCP) communication circuit between the Parties' control centers. The Parties will coordinate the analog and digital point list and communications protocol issues.



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1. Name: Naval Base

- 2. Location: The Naval Base Substation is located in Corpus Christi, Texas in Nueces County. There are two Points of Interconnection at the Naval Base Substation. One is at the termination of the 69 kV transmission line from the Laguna Substation and another is at the termination of the 69 kV transmission line from the Airline Substation. All Points of Interconnection are at the point where the jumper conductors from the substation equipment physically contact the connectors on the 69 kV transmission line conductors.
- 3. Delivery Voltage: 69 kV

4. Normal Operation of Interconnection: Closed

5. One-Line Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

## AEP owns the following facilities:

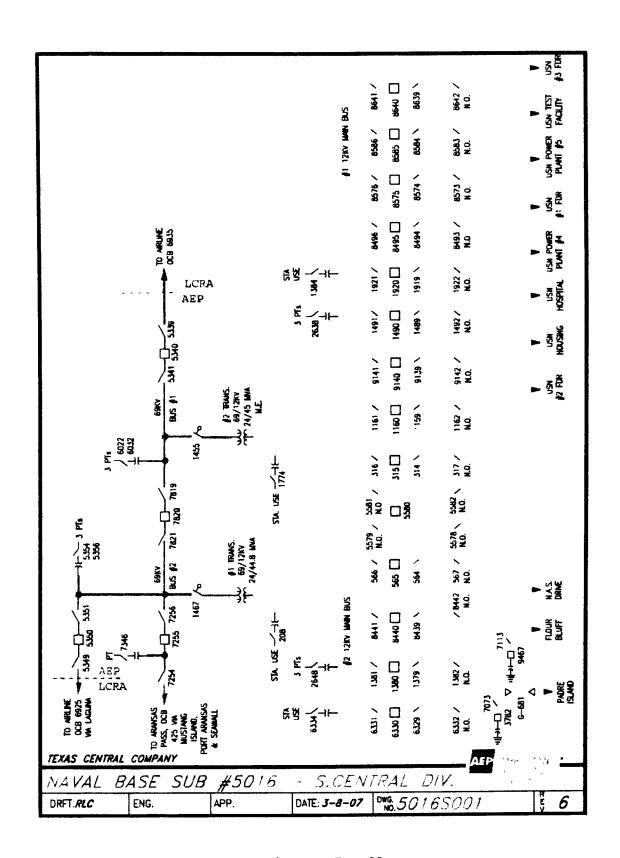
- Naval Base Substation, including all the substation facilities within it
- substation deadend structures that terminate all transmission lines into the station
- jumper conductors from the station facilities to the Point(s) of Interconnection
- the following transmission line(s) comprised of right-of-way, licenses, structures, conductors, insulators, connecting hardware and any attached OPGW shield/fiber aerial cable and fiber optic communications circuits
  - o the 69 kV transmission line from Naval Base to North Padre Island
  - o the 69 kV transmission line from North Padre Tap to North Padre Island
- a four-wire RTU communication circuit from the station to the AEP control center
- any under-built distribution voltage circuits attached to AEP transmission lines that terminate into the station

## LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 69 kV transmission line from the Laguna and Airline Substations
- the following transmission line(s) comprised of easements, licenses, structures, conductors, insulators and connecting hardware:
  - Naval Base to Airline 69 kV transmission line
  - Naval Base to Laguna 69 kV transmission line

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- 7. Facility Operation and Maintenance Responsibilities of the Parties:
  - AEP controls and operates the Naval Base Substation, including all facilities within it.
  - AEP controls and operates all transmission lines that terminate into the station.
  - AEP coordinates, directs, and performs all control center and field operation
    activities on the transmission line(s) owned by AEP and LCRA. These activities
    shall include, but are not limited to, switching, clearances, and outages for
    planned maintenance and operations, emergency service restoration, and overall
    coordination of such activities with ERCOT.
  - Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.
- 8. Cost Responsibilities of the Parties:
  - Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
  - Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.
- 9. Other Terms and Conditions:
  - AEP will poll the AEP RTU installed inside the substation and LCRA will have
    access to the RTU data via a direct Inter-control Center Communications Protocol
    (ICCP) communication circuit between the Parties' control centers. The Parties
    will coordinate the analog and digital point list and communications protocol
    issues.



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l Name: Airline

- 2. Location: The Airline Substation is located in Corpus Christi, Texas in Nueces County. There are two Points of Interconnection at the Airline Substation. One is at the termination of the 69 kV transmission line from the Naval Base Substation and the other is at the termination of the 69 kV transmission line from the Laguna Substation. Both Points of Interconnection are at the point where the jumper conductors from the substation equipment physically contact the connectors on the 69 kV transmission line conductors.
- 3. Delivery Voltage: 69 kV
- 4. Normal Operation of Interconnection: Closed
- One-Line Diagram Attached: Yes
- 6. Facility Ownership Responsibilities of the Parties:

# AEP owns the following facilities:

- Airline Substation, including all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware:
  - Airline to Pharaoh 138 kV transmission line
  - Airline to Wooldridge 138 kV transmission line
  - O Airline to Barney M. Davis Power Plant 138 kV transmission line
  - Airline to Holly 138 kV transmission line
- a four-wire RTU communication circuit from the station to the AEP control center
- any under-built distribution voltage circuits and any OPGW shield/fiber aerial cable and attached fiber optic communications circuits attached to AEP's transmission lines that terminate into the station

## LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 69 kV transmission lines from the Naval Base and Laguna stations
- the following transmission line(s) comprised of easements, structures, conductors, insulators, and connecting hardware:

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- o Airline to Naval Base 69 kV transmission line
- o Airline to Laguna 69 kV transmission line

# 7. Facility Operation and Maintenance Responsibilities of the Parties:

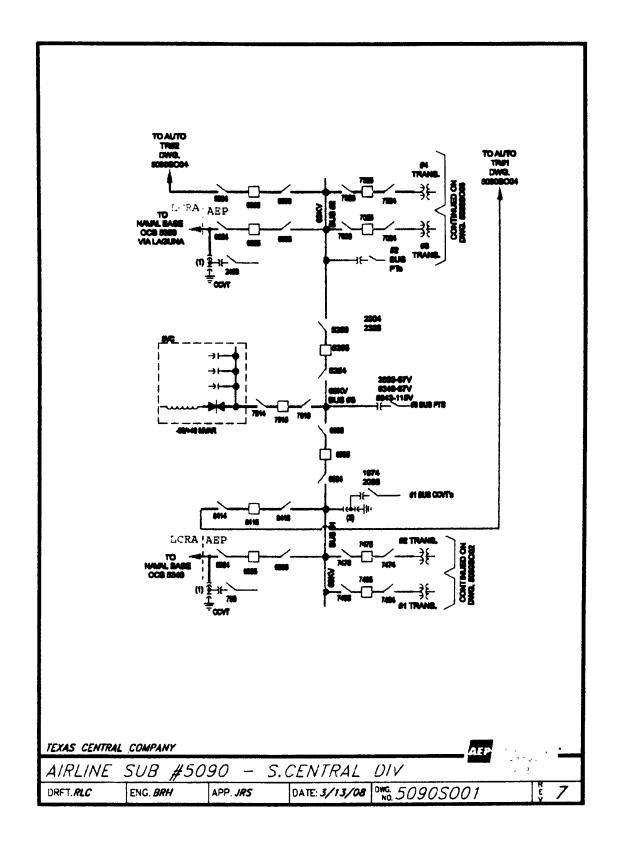
- AEP controls and operates the Airline Substation, including all facilities within it.
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation activities on the transmission line(s) owned by AEP and LCRA. These activities shall include, but are not limited to, switching, clearances, and outages for planned maintenance and operations, emergency service restoration, and overall coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.

# 8. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

### 9. Other Terms and Conditions:

AEP will poll the AEP RTU installed inside the substation and LCRA will have
access to the RTU data via a direct Inter-control Center Communications Protocol
(ICCP) communication circuit between the Parties' control centers. The Parties
will coordinate the analog and digital point list and communications protocol
issues.



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1. Name: North Padre Tap

2. Location: The North Padre Tap is located 3.8 miles from the North Padre Island Substation in Corpus Christi, Texas in Nueces County. The Point of Interconnection is on the south side of LCRA's single-circuit dead-end transmission structure ("Tap Structure") where AEP's 69 kV transmission line from North Padre Island Substation to the Tap Structure interconnects with LCRA's 69 kV transmission line from the Tap Structure to Mustang Island Substation and is defined as the points where LCRA's jumpers at the Tap Structure connect to AEP's Transmission Line.

3. Delivery Voltage: 69 kV

4. Normal Operation of Interconnection: Closed

5. Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

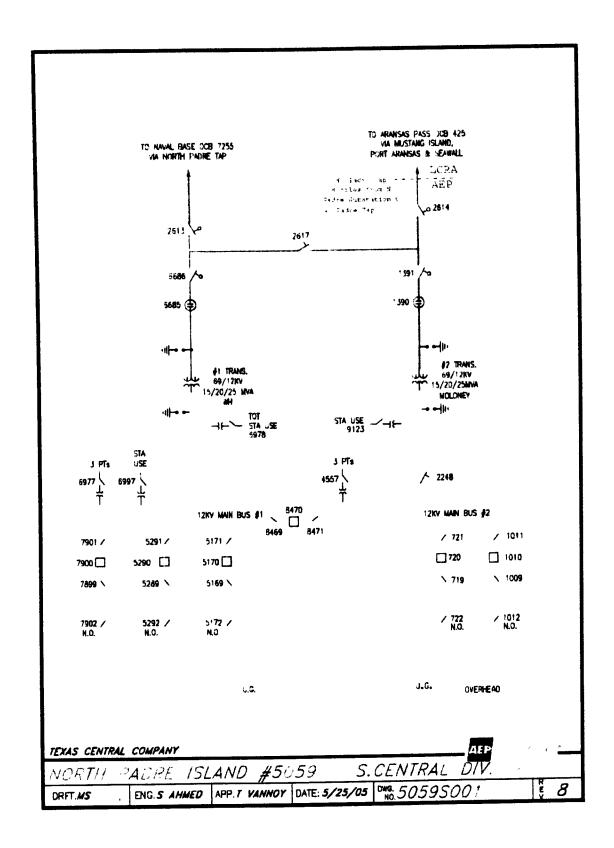
AEP owns the following facilities:

- 69 kV transmission line from the North Padre Island Substation to the Tap Structure including dead-end insulator string and line termination hardware
- transmission line easements, OPGW shield/fiber aerial cable and fiber optic communications circuits and any under-built distribution voltage circuits attached to the Mustang Island to Naval Base 69 kV transmission line

LCRA owns the following facilities:

- 69 kV transmission line from the Mustang Island Substation to the Tap Structure
- Tap Structure and line jumpers
- 7. Facility Operation and Maintenance Responsibilities of the Parties:
  - AEP controls and operates the North Padre Island Substation, including all facilities within it.
  - AEP controls and operates the Naval Base to Mustang Island 69 kV transmission line.

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1 Name: Mustang Island

2. Location: The Mustang Island Substation is located in Corpus Christi, Texas in Nueces County. There are two Points of Interconnection at the Mustang Island Substation. One is at the termination of the 69 kV transmission line from the North Padre Island Substation and the other is at the termination of the 69 kV transmission line from the Port Aransas Substation. Both Points of Interconnection are at the point where the jumper conductors from the substation equipment physically contact the connectors on the 69 kV transmission line conductors.

3. Delivery Voltage: 69 kV

4. Normal Operation of Interconnection: Closed

5. One-Line Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- Mustang Island Substation, including all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- a four-wire RTU communication circuit from the station to the AEP control center
- transmission line easements, OPGW shield/fiber aerial cable and attached fiber optic communications circuits, and any under-built distribution voltage circuits attached to the transmission lines that terminate into the station

# LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 69 kV transmission lines from the North Padre Island and Port Aransas stations
- the following transmission line(s) comprised of structures, conductors, insulators, and connecting hardware:
  - 69 kV transmission line from Mustang Island to Port Aransas
  - o transmission line from Mustang Island to the North Padre Tap in the Mustang Island to North Padre Island 69 kV transmission line
- 7. Facility Operation and Maintenance Responsibilities of the Parties:

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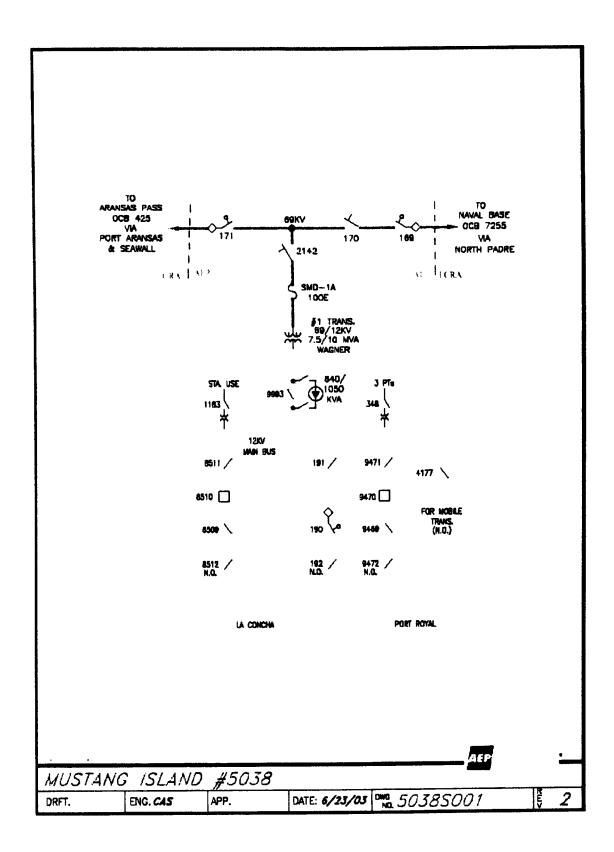
- AEP controls and operates the Mustang Island Substation, including all facilities within it.
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation
  activities on the transmission line(s) owned by AEP and LCRA. These activities
  shall include, but are not limited to, switching, clearances, and outages for
  planned maintenance and operations, emergency service restoration, and overall
  coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.

### 8. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

#### 9. Other Terms and Conditions:

AEP will poll the AEP RTU installed inside the substation and LCRA will have
access to the RTU data via a direct Inter-control Center Communications Protocol
(ICCP) communication circuit between the Parties' control centers. The Parties
will coordinate the analog and digital point list and communications protocol
issues.



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1. Name: Port Aransas

- 2. Location: The Port Aransas Substation is located in Port Aransas, Texas in Aransas County. The Point of Interconnection is at the termination of the 69 kV transmission line from The Mustang Island Substation where the jumper conductors from the substation equipment physically contact the connectors on the 69 kV transmission line conductors.
- 3. Delivery Voltage: 69 kV

4. Normal Operation of Interconnection: Closed

5. One-Line Diagram Attached: Yes

6. Facility Ownership Responsibilities of the Parties:

### AEP owns the following facilities:

- Port Aransas Substation, including all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- deadend structures that terminate all transmission lines into the station
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware:
  - Port Aransas to Seawall 69 kV transmission line and cable
- a four-wire RTU communication circuit from the station to the AEP control center
- transmission line easements, OPGW shield/fiber aerial cable and attached fiber optic communications circuits, and any under-built distribution voltage circuits attached to the transmission lines that terminate into the station

### LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 69 kV transmission line from the Mustang Island station
- the following transmission line(s) comprised of structures, conductors, insulators, and connecting hardware:
  - o 69 kV transmission line from Port Aransas to Mustang Island
- 7. Facility Operation and Maintenance Responsibilities of the Parties:
  - AEP controls and operates the Port Aransas Substation, including all facilities within it.

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Interconnection Agreement Amendment
Doc #378393

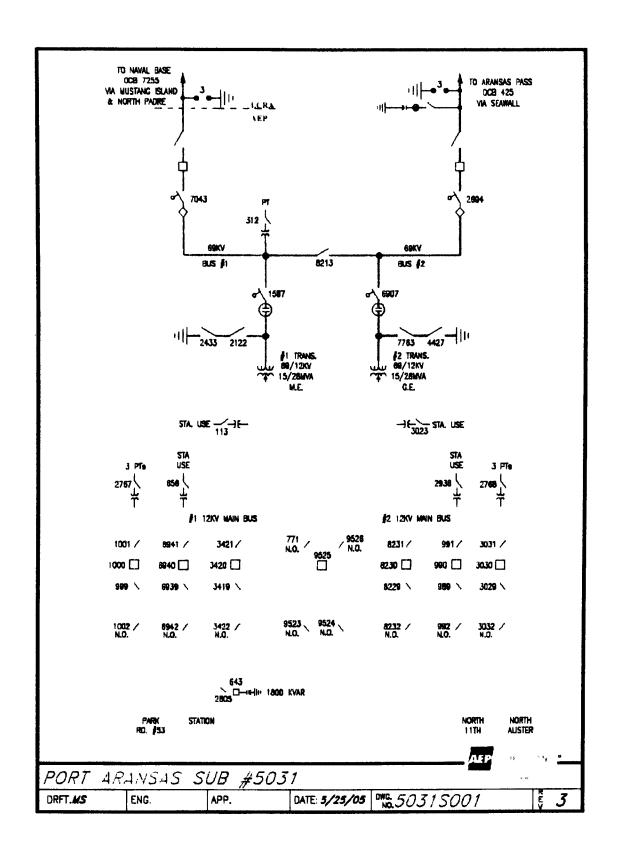
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation activities on the transmission line(s) owned by AEP and LCRA. These activities shall include, but are not limited to, switching, clearances, and outages for planned maintenance and operations, emergency service restoration, and overall coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party, will be subject to review and approval by the other Party.

### 8. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

#### 9. Other Terms and Conditions:

AEP will poll the AEP RTU installed inside the substation and LCRA will have
access to the RTU data via a direct Inter-control Center Communications Protocol
(ICCP) communication circuit between the Parties' control centers. The Parties
will coordinate the analog and digital point list and communications protocol
issues.



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