Control Number: 49421

Item Number: 50

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SOAH DOCKET NO. 473-19-3864
PUC DOCKET NO. 49421

APPLICATION OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC FOR AUTHORITY TO CHANGE RATES	**§ § §**	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

April 26, 2019

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CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
2019 CEHE RATE CASE
DOCKET NO. 49421-SOAH DOCKET NO. 473-19-3864

PUBLIC UTILITY COMMISSION OF TEXAS
REQUEST NO.: PUC01-38

QUESTION:

MCPR - Monthly Construction Progress Reports filed with the Commission

For any new transmission lines that did not require a CCN, complete the following:

a. Explain the need for the new facility.

b. If the need was to connect a new single-point load customer or generation source, was a cost in aid of construction charged? If not, why not? If so,

   i. What was the amount?

   ii. How was the amount of the contribution calculated?

c. The first MCPR on which the project was reported (control number, item number, project numbers)

d. The final MCPR on which the project was reported (control number, item number, project numbers)

e. The initial estimated project cost from internal utility project approval, the percent of contingency cost included in the estimate, the final project cost, and the percent difference from the estimated cost

f. A breakdown by FERC account (and subaccount) for the total project costs booked to each account that were associated with the project.

ANSWER:

Please see PUC01-38 Attachment 1.

SPONSOR (PREPARER):
Martin Narendorf (Martin Narendorf)

RESPONSIVE DOCUMENTS:
PUC01-38 Attachment 1.xls

PUC01-38 Attachment 1

	a) explain the need for the project		b) If the need was to connect a single point load customer or genera		
Project Name	Description	Type of Project (New Customer Service, Network Improvement, Relocation)	Y/N	If not, why not?	If so, what was the amount?
Kirby Substation	138 kV service to Kirby Substation within one mile of Ckt 90A	Network Improvement	No	The project carried system wide benefit and was not specific to a single customer	n/a
W.A. Parish Substation	345 kV service to W.A. Parish Substation within one mile of Ckt. 64A and 72A	Network Improvement	No	The project carried system wide benefit and was not specific to a single customer	n/a
Fry Road Substation	138 kV service to Fry Road Substation within one mile of Ckts. 09J and 76A	Network Improvement	No	The project carried system wide benefit and was not specific to a single customer	n/a
Fort Bend Substation	69 kV service to Fort Bend Substation within one mile of Ckt. 49B	Network Improvement	No	The project carried system wide benefit and was not specific to a single customer	n/a
Fort Bend-Rosenberg	Partial Upgrade of 69 kV Ckt. 49B to 138 kV, Partial Rebuild and Partial Reconductor of 69 kV Ckt 49A, 138 kV service to Fort Bend Substation within one mile of Ckt. 49B	Network Improvement	No	The project carried system wide benefit and was not specific to a single customer	n/a
Flewellen-Fort Bend	Partial Upgrade of 69 kV Ckt 49A to 138 kV, *Partial Reconductor of 69 kV Ckt 49A, Installation, on* an existing transmission line, of an additional 138 kV circuit not previously certificated 138 kV service to Fort Bend Substation within one mile of Ckts. 49A and 09G	Network Improvement	No	*The project carried system wide* benefit and was not specific to a single customer	n/a
TEXAS_ Substation	138 kV service to TEXAS_ Substation within one mile of Ckt. 87E	New Customer Service	No	This service extension was part of a 69kV to 138kV conversion project.	n/a
CRSBAY Substation	138 kV service to CRSBAY substation within one mile of Ckt. 84A	New Customer Service	Yes	n/a	$1,357,000
DUNCAN Substation	138 kV service to DUNCAN substation within one mile of Ckt. 86D	New Customer Service	Yes	n/a	$2,950,000
SCRDLE Substation	138 kV service to SCRDLE substation within one mile of Ckt. 92A	New Customer Service	Yes	n/a	$5,885,000
DEPOT Substation	138 kV service to DEPOT Substation within one mile of Ckt. 84A	New Customer Service	Yes	n/a	$1,794,000
WINFRE Substation	138 kV service to WINFRE Substation within one mile of Ckt. 86C	New Customer Service	Yes	n/a	$1,848,500
BARNES Substation	138 kV service to BARNES Substation within one mile of Ckt. 88B	New Customer Service	Yes	n/a	$1,263,000
NORTON Substation	138 kV service to NORTON Substation within one mile of Ckt. 86C	New Customer Service	Yes	n/a	$5,698,898

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	a) explain the need for the project		b) If the need was to connect a single point load customer or genera		
Project Name	Description	Type of Project (New Customer Service, Network Improvement, Relocation)	Y/N	If not, why not?	If so, what was the amount?
TANKER Substation	138 kV service to TANKER Substation within one mile of Ckt. 94K	New Customer Service	Yes	n/a	$805,000
MILLER Substation	138 kV service to MILLER Substation within one mile of Ckt. 88Z	New Customer Service	Yes	n/a	$2,100,000
RALYND Substation	138 kV service to RALYND Substation within one mile of Ckt. 86C and 86F	New Customer Service	Yes	n/a	$2,380,000
SEADOC Substation	138 kV service to SEADOC Substation within one mile of Ckt. 02F, Installation, on an existing transmission line, of an additional 138 kV circuit not previously certificated	New Customer Service	Yes	n/a	$4,050,000
LNGSTN Substation	138 kV service to LNGSTN Substation within one mile of Ckts. 86C and 86K	New Customer Service	Yes	n/a	$4,207,000
CONNER Substation	138 kV service to CONNER Substation within one mile of Ckts. 86D and 86J	New Customer Service	Yes	n/a	$3,855,000
MCCABE Substation	138 kV service to MCCABE Substation within one mile of Ckt. 96B	New Customer Service	Yes	n/a	$951,000
RANGER Substation	138 kV service to RANGER Substation within one mile of Ckt 84G	New Customer Service	Yes	n/a	$12,780
ALKANE Substation	138 kV service to ALKANE Substation within one mile of Ckt. 96D	New Customer Service	Yes	n/a	$1,827,000
MARINE Substation	138 kV Service to MARINE Substation within one mile of Ckt. 47C	New Customer Service	Yes	n/a	$3,974,600
MOORE_ Substation	138 kV Service to MOORE_ Substation within one mile of Ckt 08F	New Customer Service	Yes	n/a	$3,747,255
FOSTER Substation	138 kV Service to FOSTER Substation within one mile of Ckt 25E	New Customer Service	Yes	n/a	$230,000
CAMDEN Substation	138 kV Service to CAMDEN Substation within one mile of Ckt. 26E	New Customer Service	Yes	n/a	$1,778,435
BUNKER Substation	138 kV Service to BUNKER Substation within one mile of Ckt 08B	New Customer Service	Yes	n/a	$2,648,765
COPPER Substation	138 kV Service to COPPER Substation within one mile of Ckt 02E	New Customer Service	Yes	n/a	$2,206,000
MIRAGE Substation	138 kV Service to MIRAGE Substation within one mile of Ckt. 96B, Partial Rebuild of 38 kV Ckts. 96B and 96F	New Customer Service	Yes	n/a	$1,469,000
CORTEZ Substation	138 kV Service to CORTEZ Substation within one mile of Ckts 59I and 59K	New Customer Service	Yes	n/a	$2,266,485
TEXWAL Substation	69 kV Service to TEXWAL Substation within one mile of Ckt. 10A	New Customer Service	Yes	n/a	$1,655,000
HUDSON Substation	138 kV Service to HUDSON Substation within one mile of Ckts. 04A	New Customer Service	Yes	n/a	$907,500

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	a) explain the need for the project		b) If the need was to connect a single point load customer or genera		
Project Name	Description	Type of Project (New Customer Service, Network Improvement, Relocation)	Y/N	If not, why not?	If so, what was the amount?
PATRIK Substation	138 kV Service to PATRIK Substation within one mile of Ckt 06J, Partial Rebuild of 69 kV Ckts. 16A and 23A	New Customer Service	Yes	n/a	$1,850,000
RUSSEL Substation	138 kV Service to RUSSEL Substation within one mile of Ckt. 84F	New Customer Service	Yes	n/a	$2,099,000
GLOBAL Substation	138 kV Service to GLOBAL Substation within one mile of Ckt. 82D	New Customer Service	Yes	n/a	$4,385,000
WINMIL Substation	138 kV Service to WINMIL Substation within one mile of Ckt. 26B	New Customer Service	Yes	n/a	$1,725,000
DALTON Substation	138 kV Service to DALTON Substation within one mile of Ckt 86I, Modification of 138 kV Ckt. 86I for fiber optics cable.	New Customer Service	Yes	n/a	$3,760,000
Rothwood Substation	138 kV and 345 kV service to Rothwood Substation within one mile of Ckts. 66C and 74B	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Meadow Substation	345 kV service to Meadow Substation within one mile of Ckt. 99A	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Dow Substation	345 kV service to Dow Substation within one mile of Ckt. 18A	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Atascocita Substation	138 kV service to Atascocita Substation within one mile of Ckt. 66E	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Crabb River Substation	138 kV service to Crabb River Substation within one mile of Ckt. 80B	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Jordan Substation	138 kV and 345 kV service to Jordan Substation within one mile of Ckts. 86C, 86D, and 99G	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Alexander Island Substation	138 kV service to Alexander Island Substation within one mile of Ckts. 84B and 87D	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Rothwood Substation	345 kV service to Rothwood Substation within one mile of Ckts. 74H and 75B	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Fort Bend Substation	69 kV service to Fort Bend Substation within one mile of Ckt. 49B	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Ellington Substation	138 kV service to Ellington Substation within one mile of Ckts. 06K, 07A, and 91A	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a

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	a) explain the need for the project		b) If the need was to connect a single point load customer or genera		
Project Name	Description	Type of Project (New Customer Service, Network Improvement, Relocation)	Y/N	If not, why not?	If so, what was the amount?
Lyondell Substation	138 kV Service to Lyondell Substation within one mile of Ckt. 03G	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Rothwood Substation (Phase 2)	138 kV Service to Rothwood Substation within one mile of Ckts. 66C and 66I	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Tanner Substation	138 kV Service to Tanner Substation within one mile of Ckts. 24A and 76A	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Orchard Substation	138 kV Service to Orchard Substation within one mile of Ckt. 60A	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Tiki Island Substation	138 kV Service to Tiki Island Substation within one mile of Ckt 01B	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
La Marque Substation	Partial Rebuild and Partial Reconductor of 138 kV Ckt. 01B, 138 kV Service to La Marque Substation within one mile of Ckts. 63D, 63E, and 93B	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Bailey Substation	345 kV Service to Bailey Substation within one mile of Ckt. 72C	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Franz Substation	138 kV Service to Franz Substation within one mile of Ckts. 09H and 66A, Partial Rebuild of 345 kV Ckts. 71D and 99F	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Jones Creek Substation	138 kV Service to Jones Creek Substation within one mile of Ckts. 02F, 48F, and 59K, 345 kV Service to Jones Creek Substation within one mile of Ckt. 18A	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Sandy Point Substation	138 kV Service to Sandy Point Substation within one mile of Ckt 96F	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
Bringhurst Substation	69 kV Service to Bringhurst Substation within one mile of Ckt. 12A, Partial Rebuild of 69 kV Ckt. 12A	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a

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	a) explain the need for the project		b) If the need was to connect a single point load customer or genera		
Project Name	Description	Type of Project (New Customer Service, Network Improvement, Relocation)	Y/N	If not, why not?	If so, what was the amount?
Southwyck Substation	138 kV Service to Southwyck Substation within one mile of of Ckt. 26A, Installation, on an existing transmission line, of an additional 138 kV circuit not previously certificated	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a
FOSTER Loop	Installation, on an existing transmission line, of an additional 138 kV circuit not previously certified.	Service to a Substation	No	The project carried system wide benefit and was not specific to a single customer	n/a

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	tion source, was a CIAC charged?	c) The first MCPR on which the project was reported and the project number		d) The final MCPR on which the project was reported and the project number		e) The initial estimated project cost from inter contingency cost included in the estimate, the fi from the estim	
Project Name	How was it Calculated?	Initial MCPR Date	Utility's Project Number	Final MCPR Date	Utility's Project Number	Filed Initial Estimated Project Cost	% Contingency Cost
Kirby Substation	n/a	November 15, 2011	770.0	07/15/12	770.0	$565,000	0%
W A. Parish Substation	n/a	July 15, 2012	805.0	11/15/13	805.0	$380,000	0%
Fry Road Substation	n/a	June 15, 2014	614.0	06/15/15	614.0	$191,000	0%
Fort Bend Substation	n/a	March 14, 2014	853.2	04/15/16	853.2	$488,000	0%
Fort Bend-Rosenberg	n/a	July 15, 2014	853.3	11/15/15	853.3	$1,913,000	0%
Flewellen-Fort Bend	n/a	November 15, 2014	853.5	11/15/15	853.5	$509,000	0%
TEXAS_ Substation	n/a	October 15, 2010	718.0	05/15/12	718 0	$1,034,000	0%
CRSBAY Substation	The CIAC is the estimated cost for the facility extension	January 7, 2011	763.0	10/15/11	763.0	$1,357,000	0%
DUNCAN Substation	The CIAC is the estimated cost for the facility extension	January 17, 2011	781.0	09/15/11	781.0	$2,950,000	0%
SCRDLE Substation	The CIAC is the estimated cost for the facility extension	September 15, 2011	793.0	08/15/12	793.0	$5,885,000	0%
DEPOT Substation	The CIAC is the estimated cost for the facility extension	February 15, 2012	799.0	12/14/12	799.0	$1,794,000	0%
WINFRE Substation	The CIAC is the estimated cost for the facility extension	June 15, 2012	812.0	08/15/13	812.0	$1,848,500	0%
BARNES Substation	The CIAC is the estimated cost for the facility extension	May 15, 2012	792.0	08/15/13	792 0	$1,263,000	0%
NORTON Substation	The CIAC is the estimated cost for the facility extension	September 15, 2012	813.0	04/15/14	813.0	$5,698,898	0%

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	tion source, was a CIAC charged?	c) The first MCPR on which the project was reported and the project number		d) The final MCPR on which the project was reported and the project number		e) The initial estimated project cost from inter contingency cost included in the estimate, the fi from the estim	
Project Name	How was it Calculated?	Initial MCPR Date	Utility's Project Number	Final MCPR Date	Utility's Project Number	Filed Initial Estimated Project Cost	% Contingency Cost
TANKER Substation	The CIAC is the estimated cost for the facility extension	January 15, 2013	844.0	12/15/13	844.0	$805,000	0%
MILLER Substation	The CIAC is the estimated cost for the facility extension	December 15, 2012	833.0	02/14/14	833 0	$2,100,000	0%
RALYND Substation	The CIAC is the estimated cost for the facility extension	March 15, 2013	846.0	04/15/14	846.0	$2,380,000	0%
SEADOC Substation	The CIAC is the estimated cost for the facility extension	June 15, 2013	850 0	05/15/15	850.0	$4,050,000	0%
LNGSTN Substation	The CIAC is the estimated cost for the facility extension	July 15, 2013	852.0	05/15/15	852.0	$4,207,000	0%
CONNER Substation	The CIAC is the estimated cost for the facility extension	September 15, 2013	849.0	05/15/15	849.0	$3,855,000	0%
MCCABE Substation	The CIAC is the estimated cost for the facility extension	March 14, 2014	848.0	05/15/15	848.0	$951,000	0%
RANGER Substation	The CIAC is the estimated cost for the facility extension	December 15, 2014	895.0	10/15/15	895.0	$12,780	0%
ALKANE Substation	The CIAC is the estimated cost for the facility extension	December 15, 2014	917.0	07/14/17	917.0	$1,827,000	0%
MARINE Substation	The CIAC is the estimated cost for the facility extension	February 15, 2015	904.0	02/15/17	904.0	$3,974,600	0%
MOORE_ Substation	The CIAC is the estimated cost for the facility extension	May 15, 2015	855 0	11/15/16	855.0	$3,747,255	0%
FOSTER Substation	The CIAC is the estimated cost for the facility extension	November 15, 2015	853.8	08/15/16	853.8	$230,000	0%
CAMDEN Substation	The CIAC is the estimated cost for the facility extension	November 15, 2015	937.0	11/15/16	937.0	$1,778,435	0%
BUNKER Substation	The CIAC is the estimated cost for the facility extension	January 15, 2016	965.0	03/15/17	965.0	$2,648,765	0%
COPPER Substation	The CIAC is the estimated cost for the facility extension	November 15, 2015	960.0	04/16/17	960 0	$2,206,000	0%
MIRAGE Substation	The CIAC is the estimated cost for the facility extension	August 15, 2016	978.0	06/15/17	978 0	$1,469,000	0%
CORTEZ Substation	The CIAC is the estimated cost for the facility extension	September 15, 2016	865 0	07/15/18	865.0	$2,266,485	0%
TEXWAL Substation	The CIAC is the estimated cost for the facility extension	June 15, 2017	993.0	02/15/19	993.0	$1,655,000	0%
HUDSON Substation	The CIAC is the estimated cost for the facility extension	October 13, 2017	1005.0		1005.0	$907,500	0%

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	tion source, was a CIAC charged?	c) The first MCPR on which the project was reported and the project number		d) The final MCPR on which the project was reported and the project number		e) The initial estimated project cost from inter contingency cost included in the estimate, the fi from the estim	
Project Name	How was it Calculated?	Initial MCPR Date	Utility's Project Number	Final MCPR Date	Utility's Project Number	Filed Initial Estimated Project Cost	% Contingency Cost
PATRIK Substation	The CIAC is the estimated cost for the facility extension	November 15, 2017	991.0		991.0	$1,850,000	0%
RUSSEL Substation	The CIAC is the estimated cost for the facility extension	March 15, 2018	1001.0		1001.0	$2,099,000	0%
GLOBAL Substation	The CIAC is the estimated cost for the facility extension	May 15, 2018	981.2		981.2	$4,385,000	0%
WINMIL Substation	The CIAC is the estimated cost for the facility extension	May 15, 2018	996 0		996.0	$1,725,000	0%
DALTON Substation	The CIAC is the estimated cost for the facility extension	January 15, 2018	1132.0		1132.0	$3,760,000	0%
Rothwood Substation	n/a	April 15, 2009	707 0	09/15/10	707.0	$2,366,000	0%
Meadow Substation	n/a	September 15, 2009	665.0	11/15/10	665.0	$2,250,000	0%
Dow Substation	n/a	February 15, 2012	764 0	07/15/12	764.0	$48,000	0%
Atascocita Substation	n/a	January 15, 2013	836.0	09/16/13	836.0	$153,000	0%
Crabb River Substation	n/a	January 15, 2013	842.0	04/15/14	842.0	$267,000	0%
Jordan Substation	n/a	June 15, 2013	811.1	01/15/15	811.1	$7,367,000	0%
Alexander Island Substation	n/a	November 15, 2014	903.0	05/15/16	903 0	$358,000	0%
Rothwood Substation	n/a	November 15, 2014	900.0	01/15/16	900 0	$2,186,000	0%
Fort Bend Substation	n/a	December 15, 2014	853.6	11/15/15	853.6	$430,000	0%
Ellington Substation	n/a	October 15, 2014	902.0	09/15/15	902.0	$345,000	0%

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	tion source, was a CIAC charged?	c) The first MCPR on which the project was reported and the project number		d) The final MCPR on which the project was reported and the project number		e) The initial estimated project cost from inter contingency cost included in the estimate, the fi from the estim	
Project Name	How was it Calculated?	Initial MCPR Date	*Utility's* Project Number	Final MCPR Date	*Utility's* Project Number	Filed Initial Estimated Project Cost	% Contingency Cost
Lyondell Substation	n/a	August 15, 2015	948.0	07/14/17	948.0	$295,000	0%
Rothwood Substation (Phase 2)	n/a	January 15, 2016	900.1	09/15/16	900.1	$834,000	0%
Tanner Substation	n/a	April 15, 2015	894.0	02/15/17	894.0	$7,417,000	0%
Orchard Substation	n/a	November 15, 2015	952.0	08/15/16	952 0	$204,000	0%
Tiki Island Substation	n/a	November 15, 2015	912.1	11/15/16	912.1	$197,000	0%
La Marque Substation	n/a	November 15, 2015	912.0	01/16/17	912.0	$1,446,000	0%
Bailey Substation	n/a	November 15, 2015	949 0	01/16/17	949.0	$2,115,000	0%
Franz Substation	n/a	September 15, 2016	1183.0	11/15/17	1183 0	$2,867,000	0%
Jones Creek Substation	n/a	April 15, 2016	840.0	10/13/17	840.0	$15,021,000	0%
Sandy Point Substation	n/a	October 15, 2016	857.0	09/15/17	857.0	$2,619,000	0%
Bringhurst Substation	n/a	February 15, 2017	1157.0	06/15/18	1157.0	$1,395,000	0%

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	tion source, was a CIAC charged?	c) The first MCPR on which the project was reported and the project number		d) The final MCPR on which the project was reported and the project number		e) The initial estimated project cost from inter contingency cost included in the estimate, the fi from the estim	
Project Name	How was it Calculated?	Initial MCPR Date	*Utility's* Project Number	Final MCPR Date	*Utility's* Project Number	Filed Initial Estimated Project Cost	% Contingency Cost
Southwyck Substation	n/a	January 15, 2018	954.3	9/27/2018	954 3	$1,635,000	0%
FOSTER Loop	n/a	April 15, 2015	853.7		853.7	$396,000	0%

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	hal utility project approval, the percent of hal project cost, and the percent difference ated cost		f) A breakdown by FERC account (and suba			
Project Name	Final Actual Project Cost	% Difference	E35001	E35101	E35201	E35401
Kirby Substation	$247,331.00	-56.2%				
W.A Parish Substation	$420,531 00	10 7%				254,440.44
Fry Road Substation	$77,428.35	-59.5%				
Fort Bend Substation	$449,400.23	-7.9%				
Fort Bend-Rosenberg	$2,680,262.08	40.1%			3,600.44	2,205,071.14
Flewellen-Fort Bend	$758,533.95	49 0%				80,638.35
TEXAS_ Substation	$961,482.94	-7 0%				218,114.76
CRSBAY Substation	$321,000 00	-76.3%				106 41
DUNCAN Substation	$1,128,123.00	-61.8%				138,168 89
SCRDLE Substation	$3,078,895.78	-47 7%				186,858 04
DEPOT Substation	$448,646 00	-75.0%				39,387.81
WINFRE Substation	$486,137 13	-73.7%				(31,461.62)
BARNES Substation	$445,587.60	-64.7%				14,513.59
NORTON Substation	$4,250,800.00	-25.4%				1,928,087.98

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	nal utility project approval, the percent of nal project cost, and the percent difference ated cost		f) A breakdown by FERC account (and suba			
Project Name	Final Actual Project Cost	% Difference	E35001	E35101	E35201	E35401
TANKER Substation	$224,246.01	-72 1%				
MILLER Substation	$1,387,645.00	-33.9%				(432,660 31)
RALYND Substation	$367,322 00	-84.6%				0.00
SEADOC Substation	$3,308,263 77	-18.3%				165,785.60
LNGSTN Substation	$2,715,905.82	-35.4%				(113,855.68)
CONNER Substation	$1,557,730.57	-59.6%				(42,285.42)
MCCABE Substation	$576,239 01	-39.4%				(27,447.38)
RANGER Substation	$972,364.33	7508.5%				(181,873.59)
ALKANE Substation	$741,359.97	-59.4%				(158,005.80)
MARINE Substation	$5,130,533 00	29.1%				(313,486 06)
MOORE_ Substation	$2,445,679.00	-34.7%				(306,555.96)
FOSTER Substation	$127,036 00	-44.8%				
CAMDEN Substation	$1,051,627.00	-40.9%				(175,508.22)
BUNKER Substation	$1,440,768 00	-45.6%				(262,408.16)
COPPER Substation	$1,465,769.00	-33.6%				(314,719.64)
MIRAGE Substation	$1,061,200.00	-27 8%				(6,684.24)
CORTEZ Substation	$1,394,853.92	-38 5%				(284,755.92)
TEXWAL Substation	$892,402.66	-46.1%			(280,098.19)	662,599.57
HUDSON Substation		-100.0%			462,357.11	

PUC01-38 Attachment 1						
	nal utility project approval, the percent of nal project cost, and the percent difference ated cost		f) A breakdown by FERC account (and suba			
Project Name	Final Actual Project Cost	% Difference	E35001	E35101	E35201	E35401
PATRIK Substation		-100 0%			132,338.19	
RUSSEL Substation		-100.0%			209,518 82	
GLOBAL Substation		-100.0%			796,238.98	
WINMIL Substation		-100.0%			495,932.65	
DALTON Substation		-100.0%			658,350.95	
Rothwood Substation	$1,342,765.00	-43.2%				1,256,217.30
Meadow Substation	$1,142,247.00	-49.2%				1,122,337.00
Dow Substation	$72,463.00	51.0%				
Atascocita Substation	$78,505.00	-48.7%				
Crabb River Substation	$250,283.00	-6 3%				
Jordan Substation	$7,577,677.00	2.9%			916.10	6,757,403.04
Alexander Island Substation	$732,051 52	104.5%				606,549.38
Rothwood Substation	$862,079.84	-60.6%				779,194.93
Fort Bend Substation	$330,462.11	-23.1%				
Ellington Substation	$310,042 01	-10.1%				236,804.12

PUC01-38 Attachment 1						
	nal utility project approval, the percent of nal project cost, and the percent difference ated cost		f) A breakdown by FERC account (and suba			
Project Name	Final Actual Project Cost	% Difference	E35001	E35101	E35201	E35401
Lyondell Substation	$104,906.26	-64.4%				
Rothwood Substation (Phase 2)	$675,744.00	-19 0%			0.05	588,447.16
Tanner Substation	$6,641,378.00	-10 5%				5,697,300.17
Orchard Substation	$71,858.00	-64.8%				
Tiki Island Substation	$100,761.00	-48 9%				
La Marque Substation	$2,773,369.00	91.8%				2,344,308.16
Bailey Substation	$2,154,166.00	1.9%				1,676,498.43
Franz Substation	$1,831,542.84	-36.1%			8,003.53	1,745,905.75
Jones Creek Substation	$13,320,426.60	-11.3%			(7,814.61)	12,320,836 41
Sandy Point Substation	$4,957,564.92	89 3%				3,897,366 56
Bringhurst Substation	$1,115,337.24	-20.0%				956,746.89

PUC01-38 Attachment 1						
	nal utility project approval, the percent of nal project cost, and the percent difference ated cost		f) A breakdown by FERC account (and suba			
Project Name	Final Actual Project Cost	% Difference	E35001	E35101	E35201	E35401
Southwyck Substation	$934,026.50	-42.9%				
FOSTER Loop	$376,104	-5 0%				

PUC01-38 Attachment 1					
	ccount) for the total project costs booked to each account that were associated with the project				
Project Name	E35501	E35601	E35901	E36201	RWIP
Kirby Substation	179,507.01	67,824.23			
W.A. Parish Substation	1,324.39	22,967.73	141,798.00		
Fry Road Substation	49,902.56	27,525.79			
Fort Bend Substation	369,489.95	79,696.84			
Fort Bend-Rosenberg	136,748.75	338,442.19			
Flewellen-Fort Bend	177,629.68	500,265.92			
TEXAS_ Substation	426,703 26	445,887.30			
CRSBAY Substation		30.59			
DUNCAN Substation		(138,168.89)			
SCRDLE Substation	(24,795.70)	(61,167 22)		(100,895.12)	
DEPOT Substation		(39,387.81)			
WINFRE Substation		(6,845 99)			
BARNES Substation	2,804.47	11,124 15			
NORTON Substation	227,082 10	602,826.56			

PUC01-38 Attachment 1					
	ccount) for the total project costs booked to each account that were associated with the project.				
Project Name	E35501	E35601	E35901	E36201	RWIP
TANKER Substation	(2,265.99)	(15,404.60)			
MILLER Substation		331,300.98			
RALYND Substation	(19,098 10)	(7,732.62)			
SEADOC Substation	(13,954.47)	(393,480.36)			
LNGSTN Substation	(8,163.42)	(76,361.86)			
CONNER Substation	(15,406.94)	(56,090 70)			
MCCABE Substation		(14,643.49)			
RANGER Substation	20,563.50	25,532 12			
ALKANE Substation	19,792.69	34,691.88			
MARINE Substation	(309,911.12)	(93,014.69)			
MOORE_ Substation	35,339.93	92,573.56			
FOSTER Substation		127,035.74			
CAMDEN Substation		15,120.04			
BUNKER Substation	3,124.73	58,099.05			135,445.83
COPPER Substation		110,044.23			
MIRAGE Substation	(31,953.07)	(37,141.54)			81,506.24
CORTEZ Substation		58,371.13			
TEXWAL Substation	30,777.99	94,900.57			
HUDSON Substation					

PUC01-38 Attachment 1

	ccount) for the total project costs booked to each account that were associated with the project.				
Project Name	E35501	E35601	E35901	E36201	RWIP
PATRIK Substation					
RUSSEL Substation					
GLOBAL Substation					
WINMIL Substation					
DALTON Substation					
Rothwood Substation		86,394.47	35,076.90		
Meadow Substation		43,477.00			
Dow Substation		72,453.00			
Atascocita Substation	41,524.77	36,979.89			
Crabb River Substation	167,875.19	82,506 85			
Jordan Substation	138,271.81	681,085.99			
Alexander Island Substation	53,730.50	72,269 62			
Rothwood Substation		82,884 91			
Fort Bend Substation	181,395.39	95,354 26			53,712.46
Ellington Substation	19,870 81	53,367.08			

PUC01-38 Attachment 1

	ccount) for the total project costs booked to each account that were associated with the project				
Project Name	E35501	E35601	E35901	E36201	RWIP
Lyondell Substation	77,275.85	27,630.41			
Rothwood Substation (Phase 2)		87,297.12			
Tanner Substation	36,578 43	708,394.75			
Orchard Substation	58,040.58	13,816.91			
Tiki Island Substation	32,881.90	67,878.96			
La Marque Substation	91,819.80	337,241.11			
Bailey Substation	477,667.30				
Franz Substation	32,256.90	116,094.01			
Jones Creek Substation	999,590.19				
Sandy Point Substation	451,229.19	608,969.17			
Bringhurst Substation	52,103.48	106,486.87			

PUC01-38 Attachment 1					
	ccount) for the total project costs booked to each account that were associated with the project.				
Project Name	E35501	E35601	E35901	E36201	RWIP
Southwyck Substation	43,312.42	778,232.70			112,481.38
FOSTER Loop		376,104 34			

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
2019 CEHE RATE CASE
DOCKET NO. 49421-SOAH DOCKET NO. 473-19-3864

PUBLIC UTILITY COMMISSION OF TEXAS
REQUEST NO.: PUC01-40

QUESTION:

For any new substation or high voltage switching stations for which the utility seeks rate recovery, provide the following.

a. Whether the station was included as part of a project discussed in Questions 1-37 or 1-38, above.

b. The first MCPR on which the project was reported (control number, item number, project numbers)

c. The final MCPR on which the project was reported (control number, item number, project numbers)

d. The initial estimated project cost from internal utility project approval, the percent of contingency cost included in the estimate, the final project cost, and the percent difference from the estimated cost

e. A breakdown by FERC account (and subaccount) for the total project costs booked to each account that were associated with the project.

ANSWER:

a. The new substations and high voltage switching stations for which the utility seeks rate recovery may have been part of a project discussed in Questions 1-37 and 1-38, but the costs for the actual substation construction are not included in the estimates or final cost reports.

b. New substation construction is not filed on the MCPR, only the transmission work to interconnect the new substation.

c. New substation construction is not filed on the MCPR, only the transmission work to interconnect the new substation.

d. See attached PUC1-40 Attachment 1

e. See attached PUC1-40 Attachment 1

SPONSOR (PREPARER):
Martin Narendorf (Martin Narendorf)

RESPONSIVE DOCUMENTS:
PUC01-40 Attachment 1.xlsx

Substation Name	Estimated Cost	Actual Cost	% Contingency	% Difference	FERC Account E35001	E352001	E353001	E35601	E36001	E36101	E36201	E39701	CWIP/RWIP	Total
Meadow	$ 7,000,000	$ 6,324,083	0%	-9.66%	0 00	262,580.75	6,061,502 52	0.00	0 00	0 00	0.00	0.00	0.00	6,324,083.27
Rothwood	$ 21,500,000	$ 22,185,442	0%	3.19%	4,343,111.96	3,490,297.44	14,352,032.82							22,185,442 22
Zenith 345kv	$ 15,400,000	$ 15,163,971	0%	-1.53%		4,602,554 43	10,561,416.09							15,163,970 52
Zenith 138kv	$ 16,800,000	$ 7,546,157	0%	-55.08%		135,726.99	7,088,332.04	9,373.70			312,724 59			7,546,157.32
Jordan	$ 30,750,000	$ 27,090,599	0%	-11.90%		3,953,653.20	14,086,698.45		2,541,402 99		6,132,155.23	376,688 86		27,090,598.73
Jones Creek	$ 52,900,000	$ 68,422,609	0%	29.34%	0 00	31,196,835.90	37,140,121 95	0.00	0 00	0 00	0 00	85,651 09	0.00	68,422,608.94
Bailey	$ 13,630,000	$ 11,129,294	0%	-18 35%	0.00	91,822.41	10,964,586.35	0.00	0.00	0.00	0.00	0.00	72,884 78	11,129,293 54
Oyster Creek	$ 13,500,000	$ 7,872,586	0%	-41 68%	0 00	285,772 09	8,537,637.26	0.00	0 00	0 00	0.00	0.00	(950,823 19)	7,872,586.16
Springwoods	$ 11,660,000	$ 13,505,096	0%	15.82%	1,557,633.98					3,769,176.22	8,178,286 18			13,505,096.38
Fry Road	$ 8,745,000	$ 9,533,912	0%	9.02%					733,910.72	2,030,108 96	6,769,892 35			9,533,912.03
Tanner	$ 11,000,000	$ 12,790,474	0%	16.28%	0.00	0.00	0.00	0.00	3,636,192.11	1,402,786.64	7,687,318 89	15,020.72	49,156.13	12,790,474 49
Sandy Point	$ 6,160,000	$ 11,042,088	0%	79.25%	0 00	0.00	0.00	0.00	0.00	2,335,805.63	6,911,089.57	0 00	1,795,192 50	11,042,087.70
Village Creek	$ 11,880,000	$ 12,783,585	0%	7.61%	0.00	0.00	0.00	0 00	1,255,612.20	671,309.65	10,414,457 83	0.00	442,205.10	12,783,584.78
Jordan 35KV	$ 6,434,799	$ 6,906,746	0%	7.33%	0.00	62,192.07	6,840,688.52	0.00	0.00	0.00	0.00	366.38	3,498.86	6,906,745.83

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
2019 CEHE RATE CASE
DOCKET NO. 49421-SOAH DOCKET NO. 473-19-3864

PUBLIC UTILITY COMMISSION OF TEXAS
REQUEST NO.: PUC01-41

QUESTION:

Please provide your most recent load planning study and the company's policy for evaluating system needs.

ANSWER:

Please see attached 2018 Transmission Planning Annual Assessment and all the documents referenced in the assessment. Refer to page 24-30 of Dale Bodden's testimony for a description of the Company's planning process and policy for evaluating system needs. Also see response to PUC 01-42 for distribution planning studies.

PROTECTED MATERIALS (PM) AND HIGHLY SENSITIVE PROTECTED MATERIALS (HSPM), INCLUDING CRITICAL ENERGY INFRASTRUCTURE INFORMATION (CEII), ARE BEING PROVIDED SEPARATELY UNDER SEAL PURSUANT TO THE PROTECTIVE ORDER ISSUED IN DOCKET NO. 49421.

These attachments (PUC01-41 Attachment 18, PUC01-41 Attachment 19 and PUC01-41 Attachment 20) are PROTECTED MATERIAL PROVIDED PURSUANT TO PROTECTIVE ORDER ISSUE IN DOCKET NO. 49421.

The requested information is voluminous and is being provided electronically.

DATE	TITLE	PREPARER	PAGE NO(S)
Undated	PUC01-41 Attachment 3	Dale Bodden	1-10
Undated	PUC01-41 Attachment 14	Dale Bodden	11-53
Undated	PUC01-41 Attachment 15	Dale Bodden	54-72
Undated	PUC01-41 Attachment 16	Dale Bodden	73-80
Undated	PUC01-41 Attachment 17	Dale Bodden	81-85
Undated	PUC01-41 Attachment 21	Dale Bodden	86-166

SPONSOR (PREPARER):
Dale Bodden (Dale Bodden)

RESPONSIVE DOCUMENTS:
PUC01-41 Attachment 1 CEii (HSPM).pdf
PUC01-41 Attachment 2 CEII (HSPM).xlsx
PUC01-41 Attachment 3.pdf
PUC01-41 Attachment 4 Changes Made to ERCOT SSWG Cases (CEii) (HSPM).pdf
PUC01-41 Attachment 5 CEII (HSPM).xlsx
PUC01-41 Attachment 6 CEII (HSPM).xlsx
PUC01-41 Attachment 7 CEII (HSPM).xlsx
PUC01-41 Attachment 8 CEII (HSPM).xlsx
PUC01-41 Attachment 9 CEII (HSPM).xlsx
PUC01-41 Attachment 10 CEII (HSPM).xlsx
PUC01-41 Attachment 11 CEII (HSPM).xlsx
PUC01-41 Attachment 12 CEII (HSPM).pdf
PUC01-41 Attachment 13 CEII (HSPM).pdf

PUC01-41 Attachment 14.pdf
PUC01-41 Attachment 15.pdf
PUC01-41 Attachment 16.pdf
PUC01-41 Attachment 17.pdf
PUC01-41 Attachment 18 ERCOT TPIT Database October Submittal Final [Privileged and Confidential].pdf
PUC01-41 Attachment 19 Summary of CenterPoint Energy 2018 Completed Projects [Privileged and Confidential].pdf
PUC01-41 Attachment 20 Summary of CenterPoint Energy 2018 Future Projects [Privileged and Confidential].pdf
PUC01-41 Attachment 21 2016 Long-Term System Assessment for the ERCOT Region [Public].pdf
PUC01-41 Attachment 22 (CEII) (HSPM).xlsm
PUC01-41 Attachment 23 (CEII) (HSPM).pdf
PUC01-41 Attachment 24 (CEII) (HSPM).pdf
PUC01-41 Attachment 25 (CEII) (HSPM).pdf
PUC01-41 Attachment 26 (CEII) (HSPM).doc

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
2019 CEHE RATE CASE
DOCKET NO. 49421-SOAH DOCKET NO. 473-19-3864

PUBLIC UTILITY COMMISSION OF TEXAS
REQUEST NO.: PUC01-42

QUESTION:

For any new substations or high voltage switching stations for which the utility seeks rate recovery. answer the following regarding the need for the facility.

a. Is the facility providing service?

b. When was it energized?

c. What was the need for the facility?

   i. Does the project meet a need identified in the studies you provided in response to Question 1-41?

d. Was the project reviewed by ERCOT?

   i. If so, provide the ERCOT's recommendation regarding the facility.

e. For any facilities that transform voltage between transmission and distribution voltages, which were not endorsed by the ERCOT, provide the following:

   i. Historic growth rates for load in the project area (or county) for that past 5 years

   ii. Load growth rates in the area (or county) since the facility was energized

   iii. The planning study that supports the need for the facility

   iv. The type of load the facility is expected to serve (industrial, commercial, residential, etc.)

f. For any facilities that transforms voltage between transmission and distribution voltages, which were not endorsed by the ERGOT: if the service area is dually certificated with another utility, how did you determine which portion of expected load growth that you will serve as opposed to your sister utility?

ANSWER:

The response includes a number of attachments, some of which are voluminous as indicated below and are being provided electronically.

DATE	TITLE	PREPARER	PAGE NO(S)
Undated	PUC01-42 - Response Attachment 1	Dale Bodden	1-7
Undated	PUC01-42 - Jordan EPJCS Attachment 2	Dale Bodden	8-9

Undated	PUC01-42 - Springwoods Adjacent Gircuits Attachment 3	Dale Bodden	10-397
Undated	PUC01-42 - Springwoods Adjacent Feeders Attachment 4	Dale Bodden	398-399
Undated	PUC01-42 - Fry Road Adjacent Circuits Attachment 5	Dale Bodden	400-664
Undated	PUC01-42 - Fry Road Adjacent Feeders Attachment 6	Dale Bodden	665-666
Undated	PUC01-42 - Tanner Adjacent Circuits Attachment 7	Dale Bodden	667-1005
Undated	PUC01-42 - Tanner Adjacent Feeders Attachment 8	Dale Bodden	1006-1008
Undated	PUC01-42 - Village Creek Adjacent Circuits Attachment 9	Dale Bodden	1009-1413
Undated	PUC01-42 Village Creek Adjacent Feeders Attachment 10	Dale Bodden	1414-1416
Undated	PUC01-42 - Sandy Point Adjacent Circuit Attachment 11	Dale Bodden	1417-1465
Undated	PUC01-42 - Sandy Point Adjacent Feeders Attachment 12	Dale Bodden	1466
Undated	PUC01-42 - Jordan Adjacent Circuits Attachment 13	Dale Bodden	1467-1604
Undated	PUC01-42 - Jordan Adjacent Feeders Attachment 14	Dale Bodden	1605-1606

SPONSOR (PREPARER):
Dale Bodden (Dale Bodden)

RESPONSIVE DOCUMENTS:
PUC01-42 Response Attachment 1.pdf
PUC01-42 Jordan EPJCS Attachment 2.pdf
PUC01-42 Springwoods Adjacent Circuits Attachment 3.pdf
PUGO 1-42 Springwoods Adjacent Feeders Attachment 4.pdf
PUC01-42 Fry Road Adjacent Circuits Attachment 5.pdf
PUC01-42 Fry Road Adjacent Feeders Attachment 6.pdf
PUC01-42 Tanner Adjacent Circuits Attachment 7.pdf
PUC01-42 Tanner Adjacent Feeders Attachment 8.pdf
PUC01-42 Village Creek Adjacent Circuits Attachment 9.pdf
PUC01-42 Village Creek Adjacent Feeders Attachment 10.pdf
PUC01-42 Sandy Point Adjacent Circuits Attachment 11.pdf
PUC01-42 Sandy Point Adjacent Feeders Attachment 12.pdf
PUC01-42 Jordan Adjacent Circuits Attachment 13.pdf
PUC01-42 Jordan Adjacent Feeders Attachment 14.pdf

Staff 1-42 Response Attachment 1 R1.docx

For new distribution substations:

Springwoods Substation

a) Yes, the facility is providing service.
b) It was energized in 2014.
c) The substation was needed to relieve overloading of adjacent substations and to help provide service to 94 MW of new load in the area. The loading on the adjacent substations was: Kuykendahl substation – 132MW, Rayford substation – 127MW, Louetta substation – 143MW, Westfield substation – 240MW, and Treaschwig substation – 116MW.
   i. This project was not identified in the studies provided in response to Question 1-41.
d) The project was not reviewed by ERCOT since this project is considered a Neutral Project per ERCOT Protocol 3.11.4.3. However, the project was included in the ERCOT Transmission Project and Information Tracking (TPIT) report.
e) This facility transforms voltage from transmission to distribution
   i. The historical annual growth rate for the area is 3.9%/year for the 5 years prior to energization.
   ii. The growth rate since energization is 2.8%/year for 4 years.
   iii. The need for this substation is discussed on page 21 of Dale Bodden's testimony and the Engineering Project Justification and Construction Summary is provided as Exhibit DB-5. Also attached is the Adjacent Circuit Loadings Report (see Attachment 3) for the GROWN case and the Adjacent Feeder Loading Report (see Attachment 4) for the study for this new substation. All adjacent circuit sections that indicate a voltage below 120 volts is a violation of the design criteria. All adjacent feeders that are loaded greater than approximately 28 MVA for a 35KV circuit present circuit switching challenges because loading above this threshold prevents switching under contingency conditions. Loading under normal conditions should not exceed 80% of the normal rating so that 120% of the normal rating is not exceeded when a circuit's load is switched onto adjacent circuits under contingency conditions.
   iv. The facility is expected to serve residential and commercial loads.
f) This facility is not in a duly certified area.

Fry Road Substation

a) Yes, the facility is providing service.
b) It was energized in 2014.
c) The substation was needed to relieve overloading of adjacent substations and to help provide service to 40 MW of new load in the area. The loading on the adjacent substations was: Gertie substation – 227MW, CyFair substation – 231MW, and Franz substation – 237MW.
   i. This project was not identified in the studies provided in response to Question 1-41.
d) The project was not reviewed by ERCOT since this project is considered a Neutral Project per ERCOT Protocol 3.11.4.3. However, the project was included in the ERCOT Transmission Project and Information Tracking (TPIT) report.
e) This facility transforms voltage from transmission to distribution

i. The historical annual growth rate for the area is 4.9%/year for the 5 years prior to energization.
ii. The growth rate since energization is 3.8%/year for 4 years.
iii. The need for this substation is discussed on page 21 of Dale Bodden's testimony and the Engineering Project Justification and Construction Summary is provided as Exhibit DB-5. Also attached is the Adjacent Circuit Loadings Report (see Attachment 5) for the GROWN case and the Adjacent Feeder Loading Report (see Attachment 6) for the study for this new substation. All adjacent circuit sections that indicate a voltage below 120 volts is a violation of the design criteria. All adjacent feeders that are loaded greater than approximately 28 MVA for a 35KV circuit present circuit switching challenges because loading above this threshold prevents switching under contingency conditions. Loading under normal conditions should not exceed 80% of the normal rating so that 120% of the normal rating is not exceeded when a circuit's load is switched onto adjacent circuits under contingency conditions.
iv. The facility is expected to serve residential and commercial loads.

f) This facility is not in a duly certified area.

Tanner Substation

a) Yes, the facility is providing service.
b) It was energized in 2016.
c) The substation was needed to relieve overloading of adjacent substations and to help provide service to 159 MW of new load in the area. The loading on the adjacent substations was: Addicks substation – 168MW, Satsuma substation – 301MW, and Fairbanks substation – 216MW.
i. This project was not identified in the studies provided in response to Question 1-41.
d) The project was not reviewed by ERCOT since this project is considered a Neutral Project per ERCOT Protocol 3.11.4.3. However, the project was included in the ERCOT Transmission Project and Information Tracking (TPIT) report.
e) This facility transforms voltage from transmission to distribution
i. The historical annual growth rate for the area is 2.2%/year for the 5 years prior to energization.
ii. The growth rate since energization is -4.8%/year for 2 years.
iii. The need for this substation is discussed on page 21 of Dale Bodden's testimony and the Engineering Project Justification and Construction Summary is provided as Exhibit DB-5. Also attached is the Adjacent Circuit Loadings Report (see Attachment 7) for the GROWN case and the Adjacent Feeder Loading Report (see Attachment 8) for the study for this new substation. All adjacent circuit sections that indicate a voltage below 120 volts is a violation of the design criteria. All adjacent feeders that are loaded greater than approximately 28 MVA for a 35KV circuit present circuit switching challenges because loading above this threshold prevents switching under contingency conditions. Loading under normal conditions should not exceed 80% of the normal rating so that 120% of the normal rating is not exceeded when a circuit's load is switched onto adjacent circuits under contingency conditions.

iv. The facility is expected to serve residential and commercial loads.

f) This facility is not in a duly certified area.

Village Creek Substation

a) Yes, the facility is providing service.
b) It was energized in 2017.
c) The substation was needed to relieve overloading of adjacent substations and to help provide service to 359 MW of new load in the area. The loading on the adjacent substations was: Katy substation – 187MW, Franz substation – 241MW, Gertie substation – 198MW, and Fry Road substation – 139MW.
   i. This project was not identified in the studies provided in response to Question 1-41.
d) The project was not reviewed by ERCOT since this project is considered a Neutral Project per ERCOT Protocol 3.11.4.3. However, the project was included in the ERCOT Transmission Project and Information Tracking (TPIT) report.
e) This facility transforms voltage from transmission to distribution
   i. The historical annual growth rate for the area is 5.4%/year for the 5 years prior to energization.
   ii. The growth rate since energization is 8.6%/year for one year.
   iii. The need for this substation is discussed on page 22 of Dale Bodden's testimony and the Engineering Project Justification and Construction Summary is provided as Exhibit DB-5. Also attached is the Adjacent Circuit Loadings Report (see Attachment 9) for the GROWN case and the Adjacent Feeder Loading Report (see Attachment 10) for the study for this new substation. All adjacent circuit sections that indicate a voltage below 120 volts is a violation of the design criteria. All adjacent feeders that are loaded greater than approximately 28 MVA for a 35KV circuit present circuit switching challenges because loading above this threshold prevents switching under contingency conditions. Loading under normal conditions should not exceed 80% of the normal rating so that 120% of the normal rating is not exceeded when a circuit's load is switched onto adjacent circuits under contingency conditions.
   iv. The facility is expected to serve residential and commercial loads.
f) This facility is not in a duly certified area.

Sandy Point Substation

a) Yes, the facility is providing service.
b) It was energized in 2017.
c) The substation was needed to relieve overloading of adjacent substations and to help provide service to 20 MW of new load (the Port of Houston) in the area. The loading on the adjacent LaPorte substation was 49MW.
   i. This project was not identified in the studies provided in response to Question 1-41.
d) The project was not reviewed by ERCOT since this project is considered a Neutral Project per ERCOT Protocol 3.11.4.3. However, the project was included in the ERCOT Transmission Project and Information Tracking (TPIT) report
e) This facility transforms voltage from transmission to distribution

i. The historical annual growth rate for the area is 3.5%/year for the 5 years prior to energization.
ii. The growth rate since energization is 0.6%/year for one year.
iii. The need for this substation is discussed on page 22 of Dale Bodden's testimony and the Engineering Project Justification and Construction Summary is provided as Exhibit DB-5. Also attached is the Adjacent Circuit Loadings Report (see Attachment 11) for the GROWN case and the Adjacent Feeder Loading Report (see Attachment 12) for the study for this new substation. All adjacent circuit sections that indicate a voltage below 120 volts is a violation of the design criteria. All adjacent feeders that are loaded greater than approximately 10 MVA for a 12KV circuit present circuit switching challenges because loading above this threshold prevents switching under contingency conditions. Loading under normal conditions should not exceed 80% of the normal rating so that 120% of the normal rating is not exceeded when a circuit's load is switched onto adjacent circuits under contingency conditions.
iv. The facility is expected to serve residential and commercial loads.

f) This facility is not in a duly certified area.

Jordan Substation

a) Yes, the facility is providing service.
b) It was energized in 2014.
c) The substation was needed to relieve overloading of adjacent substations and to help provide service to 29 MW of new load in the area. The loading on the adjacent substations was: Mont Belvieu Substation – 70MW, Haney Substation – 34MW, Trinity Bay Substation – 30MW.
i. This project was not identified in the studies provided in response to Question 1-41.
c) The project was not reviewed by ERCOT since this project is considered a Neutral Project per ERCOT Protocol 3.11.4.3. However, the project was included in the ERCOT Transmission Project and Information Tracking (TPIT) report.
d) This facility transforms voltage from transmission to distribution
i. The historical annual growth rate for the area is 5.7%/year for the 5 years prior to energization.
ii. The growth rate since energization is 5.1%/year for 4 years.
iii. This substation was located in the yard of the existing transmission substation so no siting study was required. The Engineering Project Justification and Construction Summary is attached to this RFI response (see Attachment 2). Also attached is the Adjacent Circuit Loadings Report (see Attachment 13) for the GROWN case and the Adjacent Feeder Loading Report (see Attachment 14) for the study for this new substation. All adjacent circuit sections that indicate a voltage below 120 volts is a violation of the design criteria. All adjacent feeders that are loaded greater than approximately 28 MVA for a 35KV circuit present circuit switching challenges because loading above this threshold prevents switching under contingency conditions. Loading under normal conditions should not exceed 80% of the normal

rating so that 120% of the normal rating is not exceeded when a circuit's load is switched onto adjacent circuits under contingency conditions.

iv. The facility is expected to serve residential and commercial loads.

e) This facility is not in a duly certified area.

For new high voltage switching stations:

Meadow Substation

a) Yes, the facility is providing service.
b) It was energized in 2010.
c) The substation was needed to facilitate an interconnection with Texas New Mexico Power Company for reliability concerns in the TNMP system.
   i. This project was not identified in the studies provided in response to Question 1-41 since this project was studied prior to the most recent system study provided in response to Question 1-41.
d) The project was studied by CNP and TNMP, and was submitted by TNMP to ERCOT RPG for review per the ERCOT Protocol rules at the time.
   i. The ERCOT Independent Review, dated November 7, 2006 recommended the proposed Option 6, which included the new 345 kV Meadow Substation amongst other projects.
e) This facility does not transform voltage from transmission to distribution.

Rothwood Substation

a) Yes, the facility is providing service.
b) It was energized in 2010.
c) The substation was identified in ERCOT's 2007 Five Year Plan as a project to serve load that cannot be served, post-contingency in 2010, without overloading two transmission lines.
   i. This project was not identified in the studies provided in response to Question 1-41 since this project was studied prior to the most recent system study provided in response to Question 1-41.
d) The project was submitted to ERCOT RPG for review.
   i. The Rothwood Substation project was recommended by ERCOT as part of the 2007 ERCOT 5-Year Plan and was subsequently approved by the ERCOT Board of Directors on May 20, 2008.
e) This facility does not transform voltage from transmission to distribution.

Zenith 345kV Substation

a) Yes, the facility is providing service.
b) It was energized in 2011.
c) The substation was justified as an economic project needed to reduce congestion on the ERCOT system.

i. This project was not identified in the studies provided in response to Question 1-41 since this project was studied prior to the most recent system study provided in response to Question 1-41.

d) The project was identified during the ERCOT Independent Review of CenterPoint Houston's Area Constraint Mitigation Phase II project.
   i. The Zenith 345 kV Substation project was recommended as part of the ERCOT Independent Review of the CenterPoint Energy Houston Area Constraint Mitigation Phase II project and was approved by the ERCOT Board of Directors on August 21, 2007.

e) This facility does not transform voltage from transmission to distribution.

Zenith 138kV Substation

a) Yes, the facility is providing service.
b) It was energized in 2012.
c) The substation was needed to resolve reliability issues in northwest Houston.
   i. This project was not identified in the studies provided in response to Question 1-41 since this project was studied prior to the most recent system study provided in response to Question 1-41.
d) The project was submitted to ERCOT RPG for review as part of the 2012 Northwest Houston Reliability Project.
   i. ERCOT recommended Option II in the Independent Review, which included expanding Zenith by building a 138 kV substation, on September 3, 2009.
e) This facility does not transform voltage from transmission to distribution.

Jordan Substation

a) Yes, the facility is providing service.
b) It was energized in 2014.
c) The substation was needed to support load growth and resolve reliability concerns on the transmission system.
   i. This project was not identified in the studies provided in response to Question 1-41 since this project was studied prior to the most recent system study provided in response to Question 1-41.
d) The project was submitted to ERCOT RPG for review as part of the Mont Belvieu Area Upgrade Project.
   i. The Mont Belvieu Area Upgrade Project, which included building the Jordan 345/138 kV substation, was reviewed by the RPG as a Tier 3 project in accordance with the ERCOT Protocol Section 3.11.4. CenterPoint Energy received an acceptance letter from ERCOT on March 13, 2012.
e) This facility does not transform voltage from transmission to distribution.

Jones Creek Substation

a) Yes, the facility is providing service.
b) It was energized in 2017.
c) The substation was needed to support load growth and resolve reliability concerns on the transmission system.

i. This project was not identified in the studies provided in response to Question 1-41 since this project was studied prior to the most recent system study provided in response to Question 1-41.

d) The project was submitted to ERCOT RPG for review as part of the Jones Creek Project.
   i. The Jones Creek 345/138 kV Substation was recommended as part of the ERCOT Independent Review of the CenterPoint Energy Jones Creek Project and was approved by the ERCOT Board of Directors on February 10, 2015.

e) This facility does not transform voltage from transmission to distribution.

Bailey Substation

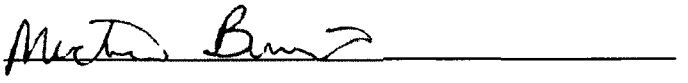
a) Yes, the facility is providing service.
b) It was energized in 2016.
c) The substation was needed to connect a new generation interconnection project.
   i. This project was not identified in the studies provided in response to Question 1-41 since this project was studied prior to the most recent system study provided in response to Question 1-41.
d) The project was reviewed as part of the ERCOT Generator Interconnection process.
   i. The Bailey Substation was included as part of the interconnection facilities needed to serve the Colorado Bend Phase II generator interconnection. ERCOT reviewed the Full Interconnection Study that recommended the addition of Bailey substation to connect the new generator. Per ERCOT Protocol 3.11.4.3, projects associated with the direct interconnection of new generation are Neutral Projects, thus the new substation does not need ERCOT RPG review.
e) This facility does not transform voltage from transmission to distribution.

Oyster Creek Substation

a) Yes, the facility is providing service.
b) It was energized in 2016.
c) The substation was needed to connect a new generation interconnection project.
   i. This project was not identified in the studies provided in response to Question 1-41 since this project was studied prior to the most recent system study provided in response to Question 1-41.
d) The project was reviewed as part of the ERCOT Generator Interconnection process.
   i. The Oyster Creek Substation was included as part of the interconnection facilities needed to serve the Freeport LNG generator interconnection. ERCOT reviewed the Full Interconnection Study that recommended the addition of Oyster Creek substation to connect the new generator. Per ERCOT Protocol 3.11.4.3, projects associated with the direct interconnection of new generation are Neutral Projects, thus the new substation does not need ERCOT RPG review.
e) This facility does not transform voltage from transmission to distribution.

CERTIFICATE OF SERVICE

I hereby certify that on this 26th day of April 2019, a true and correct copy of the foregoing document was served on all parties of record in accordance with 16 Tex. Admin. Code § 22.74.



CEHE'S RESPONSES TO
STAFF'S 1st RFI, NOS. 01-41 and 01-42

VOLUMINOUS ATTACHMENTS

The attachments to CEHE's responses to Staff's 1st RFI, Nos. 01-41 and 01-42 are voluminous and are being provided in electronic format on the attached CD.