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

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

DIRECT TESTIMONY OF

TOM SWEATMAN

INFRASTRUCTURE AND RELIABILITY DIVISION

PUBLIC UTILITY COMMISSION OF TEXAS

JUNE 12, 2019

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ATTACHMENTS

I. STATEMENT OF QUALIFICATIONS

Q. Please state your name, occupation and business address.

A. My name is Tom Sweatman. I am employed by the Public Utility Commission of Texas (PUC) as an Engineering Specialist in the Infrastructure and Reliability Division. My business address is 1701 North Congress Avenue, Austin, Texas 78701.

Q. Please briefly outline your educational and professional background.

A. I have a Bachelor of Science degree in Electrical Engineering from Texas A&M University. I was an engineer at Texas Electric Service Company (TESCO-now Oncor) for ten years, a Lieutenant in the U.S Army for two years, Director of Engineering for the Texas PUC for eight years, and Executive Director for the Electric Reliability Council of Texas (ERCOT) for 14 years. I have currently been employed by the PUC on a part time basis since February 2015. A more detailed summary of my experience is provided in Attachment TS-1.

Q. Are you a registered professional engineer?

A. I was a Registered Professional Engineer in the State of Texas, Serial Number 31083, from approximately 1968 to 2002. I allowed my license to expire following my retirement from ERCOT.

Q. Have you previously filed testimony before the Commission?

A. I provided written Staff testimony on two occasions since returning to the PUC. One was on May 23, 2016 in Docket 45787, *Application of AEP Texas Central Company for Approval of a Distribution Cost Recovery Factor.* The other was in docket 47691: *Joint Application of Brazos Electric Power Cooperative, Inc. and AEP Texas Inc. to Amend Certificates of Convenience and Necessity for the Gyp to Benjamin 138-kv Transmission*

in King and Knox Counties, Texas. I also provided staff testimony on a few occasions during my initial employment with the Commission during 1975 – 1983 in my position as Chief Engineer and Director of Engineering on the subjects of depreciation and natural gas as a boiler fuel. I supervised the engineers in the Engineering Division as they testified regarding service area certification, depreciation, rate design, service quality, transmission line certification and other electric, telephone and water utility issues. Attachment TS-3 is a list of additional PUC dockets for which I have provided testimony.

II. PURPOSE OF TESTIMONY

Q. Please briefly describe the application in this docket.

A. In this docket, CenterPoint Energy Houston Electric (CEHE) is seeking approval from the Commission to change its utility rates for its service area. CEHE provides service to customers in Houston, Texas and the outlying areas, and is a member of ERCOT.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to present recommendations concerning several project costs overruns CEHE is seeking to recover in this rate case.

Q. What regulations have you referred to in making your evaluation and arriving at your conclusions and recommendations?

A. I have referred to 16 Texas Administrative Code (TAC) § 25.231(c)(2)(A) and the Public Utility Regulatory Act (PURA) § 36.112(a)-(b) (Attachments TS-2 and TS-3, respectively).

Q. What else did you rely upon to reach your conclusions?

A. I have relied upon the CEHE's testimony, intervenor testimony, and CEHE's responses to requests for information (RFIs).

Q. What issues identified by the Commission in the Preliminary Order of this docket will you address?

A. In my testimony, I partially address the following issues that the Commission identified in the Preliminary Order:

Issue 10: What are the reasonable and necessary components of CenterPoint's rate base?

Issue 12: What amount of CenterPoint's invested capital has not previously been subject to a prudence review by the Commission? If there are any such amounts, what are the amounts, for what facilities, property, or equipment were the investments made, and were the amounts prudently incurred? What amount, if any, of allowance for funds used during construction (AFUDC) is being transferred to invested capital in this proceeding? If AFUDC is being transferred, for what facilities and at what rate was the AFUDC accrued?

Q. How is your testimony organized?

A. My testimony begins in Section I with a statement of my qualifications. In Section II, I discuss the purpose of my testimony, and in Section III, I discuss several transmission and substation projects that CEHE is attempting to include in the calculation of rates and why those particular projects, or portions of them, should not be included. A summary and conclusion of my testimony are found in Section IV.

Q. Have you prepared attachments related to your testimony?

A. Yes, Attachment TS-4 is a spreadsheet I created that lists several projects for which CEHE is seeking to capitalize and add to its rate base to obtain rate relief. These are projects that have been completed since the last rate case and experienced a greater than 10% difference in the estimated cost and the final cost. The attachment contains calculations I performed based on information provided by CEHE.

III. TRANSMISSION INVESTED CAPITAL

Q. Which projects are you addressing in your testimony?

A. I am addressing those projects listed in Attachment TS-4[1], which include the Alexander Island Substation, the La Marque Substation, the Sandy Point Substation, the Dow Substation, the Flewellen-Fort Bend Line, the Fort Bend- Rosenberg Line, the W.A. Parrish Substation, the Jones Creek Substation, the Springwood Station, and the Tanner Station.

Q. What is your recommendation?

A. I am recommending disallowance of the amount of cost overruns exceeding 10% of the estimated cost of the projects listed in Attachment TS-4. The amounts I am recommending for disallowance have been broken down by FERC accounts. The overall disallowance that I am recommending totals $20, 328,742.

Q. What is the basis for your recommendation of disallowance?

A. It may be reasonable for the final cost of major utility projects to be somewhat different than the estimate for obvious reasons. In this instance I recommend that a reasonable project cost overrun be limited to 10% of the estimate for ratemaking purposes, absent a well-substantiated justification. I base this recommendation on my own experience of project involvement and management. Additionally, this approach is consistent with my review of numerous Certificate of Convenience and Necessity dockets in which companies typically include a cost contingency for overruns of 10-15% and is the same as the PUC's rules regarding allowance for contingency for nuclear decommissioning costs in 16 TAC 25.304(h).

[1] The information in TS-4 was derived from CEHE's responses to PUC RFI's 1-38, 1-40, and 6-24.

Q. Please summarize your recommended disallowances.

A. For each of the nine projects listed on Attachment TS-4, I calculated the amount of the final cost greater than 110% of the estimate. It is these amounts for which I am recommending disallowance.

Q. Has CEHE addressed these cost overruns?

A. Yes, in response to PUC RFI 06-24. I will address CEHE's response for each project, and provide my opinion:

a) Alexander Island Substation: CEHE stated that the reason for the overrun was an error in which it, or its contractors, mistakenly located the foundations in the wrong place, which had to be removed and replaced. In my opinion, the cost for this mistake should not be paid by the CEHE's customers.

b) La Marque Substation: CEHE explained that tower designs and relocation were the reasons for the cost overrun. Again, CEHE should have foreseen these design errors earlier and corrected them. In my opinion, the cost for this mistake in siting should not be paid by CEHE's customers.

c) Sandy Point Substation: CEHE explained the substation site changed after the initial estimate, requiring more temporary work than expected and resulting in increased labor costs. In my opinion, better management and oversight should have caught this problem and compensated for it; thus, the cost for these mistakes should not be paid by CEHE's customers.

d) Dow Substation: In response to PUC RFI 1-38 CEHE stated, "The project carried a system wide benefit and was not specific to a single customer." Additionally, that response indicates that no Cost in Aid of

Construction was charged. In response to PUC RFI 6-24, CEHE stated that, "The final actual cost was paid in full by the customer for this project. The company is not seeking recovery of these costs in this case." These two answers are contradictory, making it unclear whether CEHE is seeking recovery of costs associated with the Dow Substation project. Consistent with my analysis of cost overruns presented for other projects in my testimony, I am recommending the disallowance of cost overruns in excess of 10% for this project.

e) Flewellen - Fort Bend: CEHE fails to explain the cost overrun for this project; thus, I am recommending the disallowance.

f) Fort Bend – Rosenberg: CEHE explains that following the initial filing of the project, significant changes in the line routing were made due to ROW "constraints," requiring negotiations with parties and requiring additional "bypass work" and increased labor costs following the filing of the project. In my opinion, better management and oversight should have caught this problem and compensated for it; thus, the cost for these changes should not be paid by the CEHE's customers.

g) W. A. Parrish Substation: CEHE explained that a variety of small cost differences to labor and materials was the reason for this cost overrun. In my opinion, this explanation is insufficient. CEHE has not carried its burden of proving that these additional costs were prudent, and therefore, these costs should not be paid by CEHE's customers.

h) Jones Creek: CEHE explains that the project included in its response to PUC 1-38 covered only the transmission work to connect Jones Creek Substation for

which the cost overrun was less than 10% of the estimate. This does not explain the 89% in cost overruns for the entire project. Additionally, in response to PUC RFI 11-2, CEHE mentioned that part of the cost overruns was associated with the addition of a distribution substation, but no information regarding the need for this substation was included in CEHE's Application or discovery response. For these reasons, I am recommending the disallowance of the overrun costs associated with this project.

i) Springwood: The Company has indicated the 15.8% cost overrun reported is for the transmission construction only, and not the entire project. However, no explanation for the transmission cost overrun was provided in CEHE's Application or discovery response. Therefore, I am recommending disallowance for the overrun greater than 10%.

j) Tanner: CEHE has indicated the 16.3% cost overrun reported is for the transmission construction only, and not the entire project. However, no explanation for the transmission cost overrun was provided in CEHE's Application or discovery response. Therefore, I am recommending disallowance for the overrun greater than 10%.

k) Sandy Point: CEHE explained the substation site changed, requiring more temporary work than expected and increased labor costs. In my opinion, this oversight requires greater explanation, and I am therefore recommending disallowance for the overrun greater than 10%.

Q. Your worksheet lists Sandy Point twice with different information and disallowances. Please explain.

A. In its original response, Sandy Point was listed twice, as if it were two separate projects. I can only surmise that it was indeed two separate projects, or the sets of information are separate parts of the same project. Either way, I used both sets of CEHE's numbers to make my calculations and recommend disallowances for both.

Q. What information did you rely on for your recommendations?

A. I used the information provided by CEHE in its Application and in its responses to PUC RFIs 1-38, 1-40, 6-24, and 11-2, which are attached in TS-5.

IV. SUMMARY

Q. Please summarize your testimony.

A. I recommend that the aforementioned cost overruns be removed from CEHE's Transmission Invested Capital.

Q. Does this conclude your testimony?

A. Yes, it does.

ATTACHMENT TS-1

Qualifications of Tom Sweatman

TOM SWEATMAN
ENGINEERING SPECIALIST
Public Utility Commission of Texas
1701 North Congress Avenue
Austin, TX 78701
512-762-4646
Tom.Sweatman@puc.texas.gov

EDUCATION

Texas A&M University in College Station, Texas
B.S. Electrical Engineering

PROFESSIONAL EXPERIENCE

Public Utility Commission of Texas (February 1, 2015 – present):
Engineering Specialist, Engineering Section, Infrastructure and Reliability Division

***Electric Power Consultant* (2002 – 2014):**

August to November 2013
Submitted expert testimony for landowner client in Texas PUCT Docket 41606: Joint Application of Electric Transmission Texas, LLC and Sharyland Utilities, L.P. to Amend Their CCNs for the North Edinburg to Loma Alta Double-Circuit 345-kv Transmission Line in Hidalgo and Cameron Counties. The final order was favorable to client.
February to April 2013: Submitted expert testimony for landowner client in Texas PUCT Docket No. 40685: Application of SWEPCO to Amend its CCN for a Proposed 345kV Double-Circuit Transmission Line within Bowie County. The final order was favorable to the client.

September to November, 2010
Provided expert testimony for landowner clients in Texas PUC Docket 38354 – Amend CCN for 345-kv CREZ McCamey D to Kendall to Gillespie Transmission Line. Final order was favorable to the client.

July to November, 2010
Provided expert testimony for landowner clients in Texas PUC Docket 38290 – Amend CCN for 345-kv CREZ Hereford to White Deer Transmission Line. Final order was favorable to the client.

2008-2009
Successfully assisted Stirling Energy Systems in finding suitable land for a solar project near Marfa, TX.

Oct 2008 – Mar 2009
Provided expert testimony for Occidental Power Marketing, L.P. in Texas SOAH Docket 473-08-3165, PUC Docket 35690, Petition of Big Country Electric Cooperative, Inc. for a Cease and Desist Order

February 2006
Submitted written expert testimony for Franklin County Power of Illinois vs Sierra Club concerning status of construction of 600 MW Coal Fired Power Plant.

January and April, 2002
Provided expert testimony in Texas PUC Docket No. 24815, Complaint of Fayette Electric Cooperative, Inc. against The City of Schulenburg, Texas concerning service area boundary dispute re PUC Docket 17. Deposition in January, 2002. Live hearing testimony April 16, 2002.

***Electric Reliability Council of Texas* (1986 – 2002):**

December 1986 to January 1996
EXECUTIVE DIRECTOR: First and only individual to hold this position. Established a technical staff to support the ERCOT Board of Directors, committees, subcommittees, task forces and working groups. Provided liaison with ERCOT members to deal with competitive pressures in a regulated industry. Coordinated the transition of ERCOT from an all utility organization to one that included cogeneraters, independent power producers and power marketers. Performed duties as the ERCOT Regional Manager for the North American Electric Reliability Council (NERC).

January 1996 to July 2000
ADMINISTRATIVE DIRECTOR: Persuaded the Texas PUC to designate ERCOT to establish an Independent System Operator (ISO) for the region. Directed the reorganization of ERCOT to become the nation's first ISO, including assembling the initial 30 member ISO operating staff and leading the diverse selection committee to choose an ISO Director. This required intense coordination of the ERCOT Board, committees and working groups. Provided liaison with the PUC Chairman, Pat Wood, to insure a smooth transition to retail deregulation.

July 2000 to November 2002
DIRECTOR OF NEW FACILITIES: Represented ERCOT management to insure success in the design and construction of the facilities to house the ERCOT Primary and Backup ISO facilities in Taylor and Austin, Texas. Insured liaison between ERCOT personnel and architect/engineer, contractor and subs. Made design/cost decisions at the level below top management. Advised the project team concerning the electric power industry as necessary.

Utility Consultant (July 1984 - December 1986):

Provided managerial, rate and certification assistance to electric I.O.U.'s, municipalities, electric cooperatives, and private water utilities when dealing with regulatory authorities.

Texas Public Utility Commission (December 1975 to July 1984):

CHIEF ENGINEER AND DIRECTOR OF ENGINEERING: First individual to hold this position following the legislation creating a public utility commission for Texas. Established and supervised the Engineering Division of approximately 20 engineers and support staff which provided technical expertise and testimony in rate review, depreciation techniques and licensing of electric, telephone and water utilities. Reported directly to the three commissioners. Along with the commissioners and other directors, created the Substantive Rules governing pricing and service of electric, telephone and private water utilities. Personally testified in certification and rate cases and supervised other engineers in doing the same.

Texas Electric Service Co. (now TXU Energy) (May, 1963 to December 1975);

EXECUTIVE LEVEL SPECIAL PROJECTS TEAM: Followed legislation and provided presentations to mid and upper management.

MANAGER OF POWER PLANT CONSTRUCTION: Completed the successful construction of the Permian Basin Unit #6 540 megawatt gas-fired base load generating unit and the Handley Units #4 and #5 400 megawatt peaking units.

PLANT ELECTRIC MAINTENANCE ENGINEER: Inspected and approved all electrical work done by contractor in the construction of Eagle Mountain Unit #3 400 megawatt gas-fired peaking unit and Permian Basin Unit #6.

ELECTRIC DISTRIBUTION DESIGN ENGINEER: Designed relay systems commensurate with distribution system additions.

PROTECTIVE RELAY ENGINEER: Designed protective relay systems for the Odessa Transmission Division.

FACILITIES TESTING ENGINEER: Supervised and conducted oil, DC, ohm resistance and gas testing of high voltage transformers and circuit breakers.
(From May 1964 to May 1966, served as a Second and First Lieutenant in the U.S. Army Air Defense School at Fort Bliss, Texas as a Branch Chief and basic electricity instructor.)

FIELD INSPECTION ENGINEER: Provided field inspection of construction of the 90-mile Odessa-Big Spring 345kv transmission line.

PUBLICATIONS

"Progressive Test Program Pays Off", Transmission & Distribution magazine, December, 1968

"Automatic Carrier Testers Increase Transmission Line Reliability", Transmission & Distribution magazine, May, 1972

ATTACHMENT TS-2

16 TAC § 25.231(c)(2)(A)

16 TAC § 25.231(c)(2)(A)

(2) **Invested capital; rate base.** The rate of return is applied to the rate base. The rate base, sometimes referred to as invested capital, includes as a major component the original cost of plant, property, and equipment, less accumulated depreciation, used and useful in rendering service to the public. Components to be included in determining the overall rate base are as set out in subparagraphs (A)-(F) of this paragraph.

(A) Original cost, less accumulated depreciation, of electric utility plant used by and useful to the electric utility in providing service.

(i) Original cost shall be the actual money cost, or the actual money value of any consideration paid other than money, of the property at the time it shall have been dedicated to public use, whether by the electric utility which is the present owner or by a predecessor.

(ii) Reserve for depreciation is the accumulation of recognized allocations of original cost, representing recovery of initial investment, over the estimated useful life of the asset. Depreciation shall be computed on a straight line basis or by such other method approved under subsection (b)(1)(B) of this section over the expected useful life of the item or facility.

(iii) Payments to affiliated interests shall not be allowed as a capital cost except as provided in the Public Utility Regulatory Act §36.058.

ATTACHMENT TS-3

List of Dockets Containing Testimony of

Tom Sweatman

List of Dockets Containing Testimony of Tom Sweatman

Docket 24814: Complaint of Fayette Electric Cooperative, Inc., Against the City7 of Schulenburg, Texas

Docket 35690: Petition of Big Country Electric Cooperative, Inc., for a Cease and Desis Order Against Tenaska-Oxy Power REP Services, L.P. and TXU Energy

Docket 38354: Application of LCRA Transmission Services Corporation to Amend Its Certificate of Convenience and Necessity for the Proposed McCamey D to Kendall to Gillespie 345-kv CREZ Transmission Line in Schleicher, Sutton, Menard, Kimble, Mason Gillespie, Kerr, and Kendall Counties, Texas

Docket 40685: Application of Southwestern Electric Power Company to Amend its Certificate of Convenience and Necessity for a Proposed 345-kv Double-Circuit Transmission Line in Bowie County

Docket 45787: Application of AEP Texas Central Company for Approval of a Distribution Cost Recovery Factor

Docket 47691: Joint Application of Brazos Electric Power Cooperative, Inc. and AEP Texas Inc. to Amend Certificates of Convenience and Necessity for the Gyp to Benjamin 138-kv Transmission in King and Knox Counties, Texas

ATTACHMENT TS-4

Worksheet of Recommended Disallowances

ATTACHMENT TS-5

Selected RFI Responses

CenterPoint's Responses to PUC RFIs 1-38, 1-39, 1-40, 1-42, 6-24, 11-1, and 11-2

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

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Project Name	a) explain the need for the project Description	Type of Project (New Customer Service, Network Improvement, Relocation)	b) If the need was to connect a single point load customer or genera 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	The 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
SCROLL Substation	138 kV service to SCROLL 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. 86B	New Customer Service	Yes	n/a	$1,283,000
NORTON Substation	138 kV service to NORTON Substation within one mile of Ckt 86C	New Customer Service	Yes	n/a	$5,696,858

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	a) explain the need for the project			b) If the need was to connect a single point load customer or generat			
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	$825,000
MILLER Substation	138 kV service to MILLER Substation within one mile of Ckt. 84Z	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 98B	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 94D	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 - Jbstation	138 kV Service to BUNKER Substation within one mile of Ckt 08B	New Customer Service	Yes	n/a	$2 648,785
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 98B Partial Rebuild of 138 kV Ckts 86B and 98F	New Customer Service	Yes	n/a	$1,469 000
CORTEZ Substation	138 kV Service to CORTEZ Substation within one mile of Ckts 58I and 58K	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	$807,500

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	a) explain the need for the project			b) If the need was to connect a single point load customer or generat			
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 15A 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. 28B	New Customer Service	Yes	n/a	$1 725,000		
DALTON Substation	138 kV Service to DALTON Substation within one mile of Ckt. 88L Modification of 138 kV Ckt. 88I 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 86C 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 84E	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 97D	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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Project Name	a) explain the need for the project: Description	Type of Project (New Customer Service Network Improvement Relocation)	b) If the need was to connect a single point load customer or genera: 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. 64C and 68I	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 08H and 86A 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 58K. 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 56F	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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Project Name	a) explain the need for the project		b) If the need was to connect a single point load customer or gainers		
	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 final 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	08/15/15	614 0	$181 000	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%	
WNFRE 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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Project Name	Jon source, was a CIAC charged?	How was it Calculated?	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	
			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	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	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	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	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	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	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	The CIAC is the estimated cost for the facility extension	March 14, 2014	848 0	05/15/15	848 0	$961,000	0%
RANGER Substation	The CIAC is the estimated cost for the facility extension	The CIAC is the estimated cost for the facility extension	December 15, 2014	896 0	10/15/15	896 0	$12,780	0%
AI KANE Substation	The CIAC is the estimated cost for the facility extension	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	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	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	The CIAC is the estimated cost for the facility extension	November 15, 2015	853 8	06/15/16	853 8	$230,000	0%
CAMDEN Substation	The CIAC is the estimated cost for the facility extension	The CIAC is the estimated cost for the facility extension	November 15 2015	937 0	11/15/16	937 0	$1,779,435	0%
BUNKER Substation	The CIAC is the estimated cost for the facility extension	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	The CIAC is the estimated cost for the facility extension	November 15 2015	960 0	04/15/17	960 0	$2,206,000	0%
MIRAGE Substation	The CIAC is the estimated cost for the facility extension	The CIAC is the estimated cost for the facility extension	August 15 2016	978 0	06/15/17	978 0	$1,449,000	0%
CORTEZ Substation	The CIAC is the estimated cost for the facility extension	The CIAC is the estimated cost for the facility extension	September 15, 2016	885 0	07/15/18	885 0	$2,284,485	0%
TEXWAL Substation	The CIAC is the estimated cost for the facility extension	The CIAC is the estimated cost for the facility extension	June 15, 2017	993 0	02/15/19	993 0	$1,855,000	0%
HUDSON Substation	The CIAC is the estimated cost for the facility extension	The CIAC is the estimated cost for the facility extension	October 13 2017	1005 0		1005 0	$967,500	0%

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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	981.0		981.0	$1,850,000	0%
RUSSEL Substation	The CIAC is the estimated cost for the facility extension	March 15, 2018	1001.0		1001.0	$2,000,000	0%
SLIDAR Substation	The CIAC is the estimated cost for the facility extension	May 15, 2018	981.2		981.2	$4,385,000	0%
WINNIL Substation	The CIAC is the estimated cost for the facility extension	May 15, 2018	998.0		998.0	$1,725,000	0%
EATON 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	$2,188,000	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%

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 s from the estim

Non source was a CIAC charged?

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Project Name	Non source was a CIAC charged?	How was it Calculated?	c) The first MCPR on which the project was reported and the project number: Initial MCPR Date	c) The first MCPR on which the project was reported and the project number: Utility's Project Number	d) The final MCPR on which the project was reported and the project number: Final MCPR Date	d) The final MCPR on which the project was reported and the project number: Utility's Project Number	e) The initial estimated project cost from inter contingency cost included in the estimate, the fi from the estim: Filed Initial Estimated Project Cost	% Contingency Cost
Lyondell Substation	n/a	n/a	August 15 2015	948.0	07/14/17	948.0	$295,000	0%
Redwood Substation (Phase 2)	n/a	n/a	January 15 2016	900.1	08/15/16	900.1	$534,000	0%
Tanner Substation	n/a	n/a	April 15 2015	894.0	02/15/17	894.0	$7,417,000	0%
Orchard Substation	n/a	n/a	November 15 2015	952.0	08/15/16	952.0	$204,000	0%
Tiki Island Substation	n/a	n/a	November 15 2015	912.1	11/15/16	912.1	$187,000	0%
La Marque Substation	n/a	n/a	November 15, 2015	912.0	01/15/17	912.0	$1,446,000	0%
Bailey Substation	n/a	n/a	November 15 2015	949.0	01/16/17	949.0	$2,115,000	0%
Franz Substation	n/a	n/a	September 15 2015	1183.0	11/15/17	1183.0	$2,867,000	0%
Jones Creek Substation	n/a	n/a	April 15 2016	840.0	10/13/17	840.0	$15,021,000	0%
Sandy Point Substation	n/a	n/a	October 15, 2015	857.0	09/15/17	857.0	$2,619,000	0%
Binghurst Substation	n/a	n/a	February 15 2017	1157.0	06/15/18	1157.0	$1,385,000	0%

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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%

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

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		tal utility project approval, the percent of tal project cost and the percent difference ated cost						
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	$77 426 35	-59 5%						
Fort Bend Substation	$449,400 23	-7 9%						
Fort Bend-Rosenberg	$2 680 282 08	-40 1%			3,800 44	2 205 271 14		
Flewellen-Fort Bend	$758 533 95	49 0%				80 538 35		
TEXAS_ Substation	$961 482 64	-7 0%				218 114 76		
CROSBY Substation	$321,000 00	-78 3%				106 41		
DUNCAN Substation	$ 1 128 123 00	-61 8%				138 168 89		
SORRE Substation	$3 078 855 78	-47 7%				186 856 04		
SEPCO Substation	$448 646 00	75 0%				38 387 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%				1 928 067 98		

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	nal utility project approval the percent of nal project cost and the percent difference ated cost							
					D A breakdown by FERC account (and subs			
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	$575 239 01	-38 4%				(27 447 38)		
RANGER Substation	$972 364 33	7508 5%				(181 873 59)		
ALKANE Substation	$741,359 97	-58 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	-46 9%				(175 508 22)		
BUNKER Substation	$1 440 758 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%				(6 884 24)		
CORTEZ Substation	$1 394 853 92	-38 5%				(284 755 92)		
TEXAS Substation	$892,402 66	-46 1%			(290,098 19)	642 599 57		
HUDSON Substation		-100 0%			452 357 11			

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Project Name | Final Actual Project Cost | % Difference | E35001 | E35101 | E35201 | E35401

f) A breakdown by FERC account (and subs

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%			786 238.98	
WAMIL Substation		-100.0%			495 832.65	
[illegible]		-100.0%			658,350.85	
Rothwood Substation	$1 342,765.00	-43.2%				1 256,217.30
Meadow Substation	$1 142,247.00	-45.2%				1 122 337.00
Dow Substation	$72 483.00	-51.0%				
Atascocita Substation	$78 506.00	-48.1%				
Crabb River Substation	$250 283.00	-46.4%				
Jordan Substation	$7 577 877.00	-2.6%			[illegible]	6 757 403.04
Alexander Island Substation	$732,051.52	-24.5%				606 549.38
Rothwood Substation	$962 079.84	-40.6%				779 184.83
Fort Bend S. tation	$330 482.11	-23.1%				
Evergreen Substation	$3 [illegible]042.01	19.1%				2,46 804.12

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Project Name	Final Actual Project Cost	% Difference	E35001	E35101	E35201	E35401
	hal utility project approval, the percent of hal project cost, and the percent difference ired cost			n A breakdown by FERC account (and subs		
Lyondell Substation	$104,926 26	-84 4%				
Rothwood Substation (Phase 2)	$875,744 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 8%				
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%			8 303 51	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	60 3%				3 897 366 56
Bringhurst Substation	$1 115 337 24	-20 0%				956 745 89

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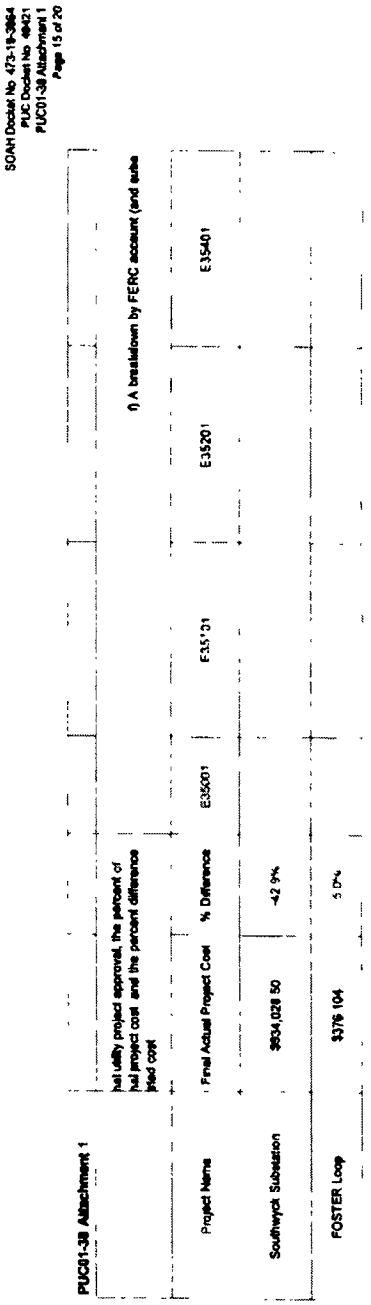

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Project Name | Final Actual Project Cost | % Difference | E35001 | E35101 | E35201 | E35401

Southwyck Substation | $834,029.50 | -42.9%

FOSTER Loop | $376,104 | 5.0%

final utility project approval, the percent of final project cost and the percent difference listed cost

f) A breakdown by FERC account (and subs

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(CONT) for the total project costs booked to each account that were associated with the project

Project Name	E35501	E35601	F35801	E36201	RMP
Kirby Substation	179 507 01	67 824 23			
W.A. Parish Substation	1 324 39	22 867 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 84	500 265 92			
TEXAS_ Substation	426 703 26	445 687 30			
[illegible] Substation		30 59			
[illegible] Substation		(136,168 69)			
[illegible] Substation	(24,795 70)	(61,167 22)		(100 895 12)	
[illegible] Substation		(38,387 81)			
[illegible] Substation		(6,845 99)			
BARNES Substation	2,804 47	11,124 15			
NORTH Substation	227 082 10	802,826 56			

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account) for the total project costs booked to each account that were associated with the project

Project Name	E35501	E35601	E35901	E36201	RWP
TANKER Substation	(2 265 99)	(15 404 60)			
MILLER Substation		331 300 98			
RALPHO Substation	(19 096 10)	(7 732 82)			
SEABOOK Substation	(13 954 47)	(393 480 36)			
NOSTRAND Substation	(8 163 42)	(78 361 86)			
CONNER Substation	(15 406 84)	(56 090 70)			
MCCABE Substation		(14 643 49)			
RANGER Substation	20 563 50	35 532 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		119 044 23			
MIRAGE Substation	(31 953 07)	(37 141 54)			81 506 24
CORTEZ Substation		58 371 13			
TEXMAL Substation	30,777 99	94 900 67			
HUDSON Substation					

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[count] 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					
WINMR 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			
Cable River Substation	167 875 19	82 506 85			
Jordan Substation	138 271 81	681 065 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
Elington Substation	19 670 81	53 367 04			

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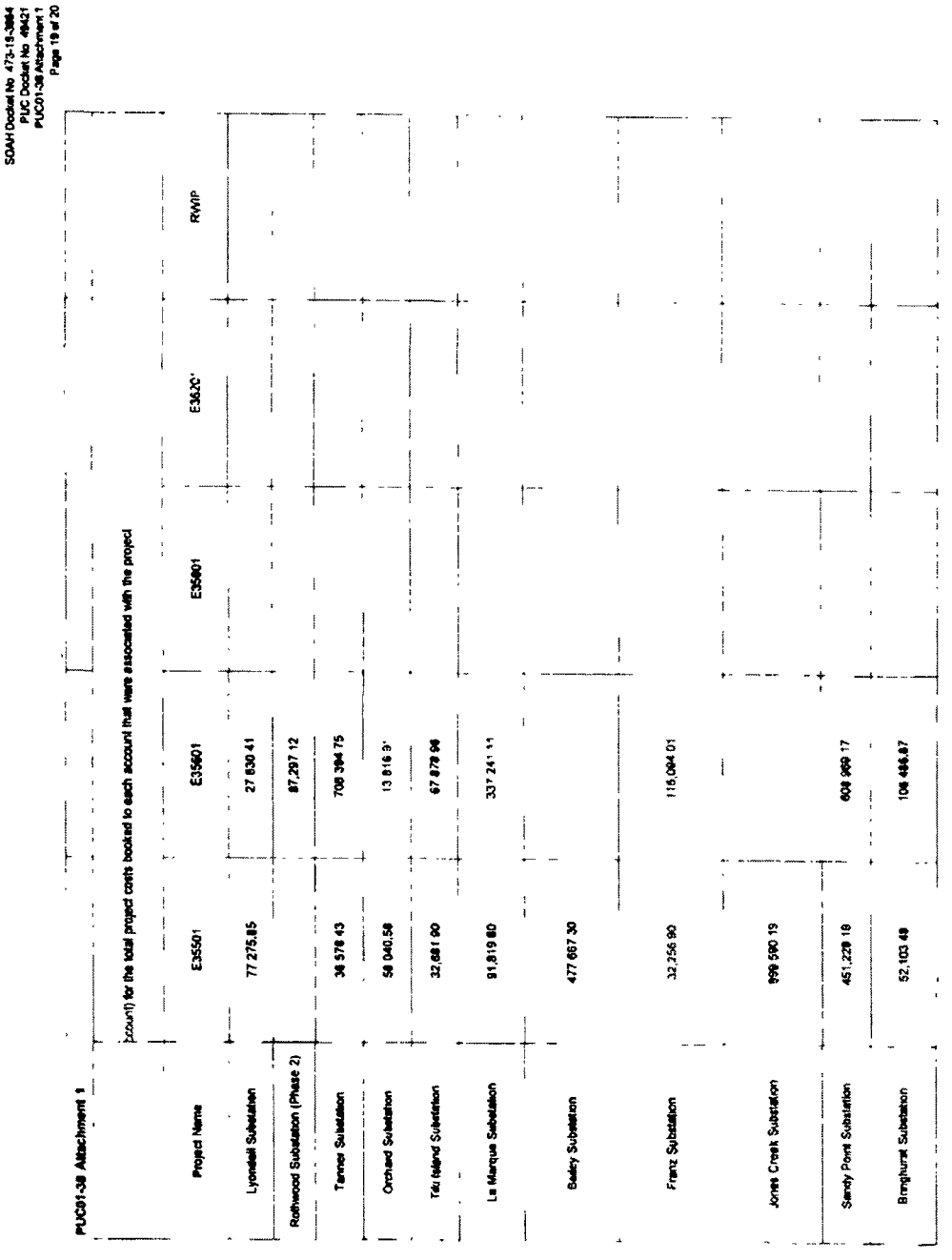

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Account) for the total project costs booked to each account that were associated with the project

Project Name	E35501	E35601	E35901	E3620	RWIP
Lyonelei 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	13 816.9			
Tiki Island Substation	32,681.90	67 879.69			
La Marque Substation	91,819.80	337 241.11			
Bailey Substation	477 667.30				
Frantz Substation	32,256.90	116,084.01			
Jones Creek Substation	996 590.19				
Sandy Point Substation	451,228.18	608 969.17			
Bringhurst Substation	52,103.48	106 466.87			

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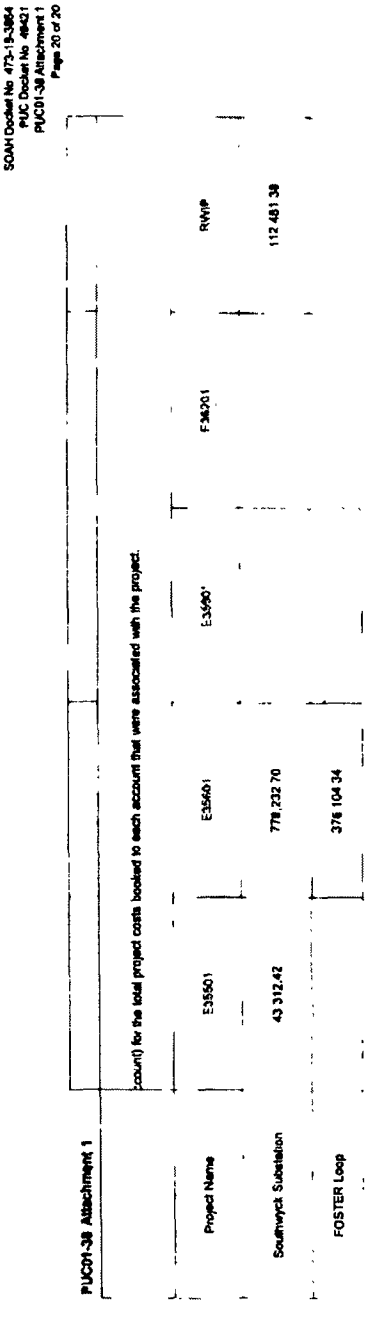

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count) for the total project costs booked to each account that were associated with the project.

Project Name	E35501	E35601	E3560'	F34201	RWIP
Southwyck Substation	43,312.42	778,232.70			112,481.38
FOSTER Loop		376,104.34			

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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.: PUC01-39

QUESTION:

For any new substation or high voltage switching stations for which the utility seeks rate recovery please complete the following table for the completed station costs

Project Portion	Cost	FERC Accounts
Design, Planning, Engineering		
Land, Land rights, and other common costs (if T and D)		
Labor		
Total Components		
Transformers (total units and cost per unit)		
Control House and Communications		
Bus and Breakers, and Switches		
Total		n/a

ANSWER:

Please see attachment titled "PUC01-39 Attachment 1.xlsx"

SPONSOR (PREPARER):
Martin Narendorf (Martin Narendorf)

RESPONSIVE DOCUMENTS:
PUC01-39 Attachment 1 xlsx

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Cost shown are "inside the Substation fence only".
"Other" includes Overheads, Employee Expenses, A&G, Rental, Contribution in Aid of Construction(CIAC), etc.

Substation Name	Springwoods				
Project Portion			Cost		FERC Accounts
Design,Planning, Engineering			272,529 91		E36101/E36201
Land,Land Rights, and other common costs (d T and D)			1,442,038.85		E35001
Labor			4,891,749 78		E36101/E36201
Total Components			5,207,280 18		E36101/E36201
Transformers	2 Units @ 1,780,041.35 ea		3,560,082 70		E36201
Control House and Communications			75,446 27		E36101/E36201
Bus and Breakers, and Switches			453,090 49		E36101/E36201
Other			882,769 38		E36101/E36201
Total excluding AFUDC			12,835,368.11		N/A
Total including AFUDC			13,505,896.38		

Substation Name	Fry Road				
Project Portion			Cost		FERC Accounts
Design,Planning, Engineering			188,744 72		E36101/E36201
Land,Land Rights, and other common costs (d T and D)			678,578.12		E36001
Labor			2,683,936 25		E36101/E36201
Total Components			4,980,739 76		E36101/E36201
Transformers	2 Units @ 1,780,041.35 ea		3,560,082 70		E36201
Control House and Communications			61,587 93		E36101/E36201
Bus and Breakers, and Switches			325 276 84		E36101/E36201
Other			644,804 72		E36101/E36201
Total excluding AFUDC			9,176,883.57		N/A
Total including AFUDC			9,533,912.09		

Substation Name	Tanner				
Project Portion			Cost		FERC Accounts
Design,Planning, Engineering			166,961 21		E36101/E36201/E39701
Land,Land Rights, and other common costs (d T and D)			3,334,676 77		E36001
Labor			3,256,459 32		E36101/E36201/E39701
Total Components			4,897,583 05		E36101/E36201/E39701
Transformers	2 Units @ 1,814,548 20 ea		3,629,096 40		E36201
Control House and Communications			70,434.21		E36101/E36201/E39701
Bus and Breakers, and Switches			298,429.87		E36201
Other			877,268 10		E36101/E36201/E39701
Total excluding AFUDC			12,532,866.45		N/A
Total including AFUDC			12,798,474.13		

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Substation Name	Sandy Point				
Project Portion			Cost		FERC Accounts
Design,Planning, Engineering			121,939 97		E36101/E36201
Land,Land Rights, and other common costs (if T and D)			1,019,697 33		E36001
Labor			4,716,734 58		E36101/E36201
Total Components			3,502,141 35		E36101/E36201
Transformers	1 Unit @ 1,153,896.29 1 Unit @ 1,133,828 90		2,287,725 19		E36201
Control House and Communications			68,488 61		E36201
Bus and Breakers, and Switches			229,248 77		E36201
Other			1,373,609 52		E36101/E36201
Total excluding AFUDC			10,734,122.75		N/A
Total Including AFUDC			11,042,087.70		

Substation Name	Village Creek				
Project Portion			Cost		FERC Accounts
Design,Planning, Engineering			276,089 30		E36101/E36201
Land,Land Rights, and other common costs (if T and D)			1,255,612 00		E36001
Labor			5,072,180 02		E36101/E36201
Total Components			4,523,808 71		E36101/E36201
Transformers	2 Unit @ $1,656,589 80		3,313,176 60		E36201
Control House and Communications			51,511 14		E36201
Bus and Breakers, and Switches			357,844 52		E36201
Other			1,087,513 11		E36101/E36201
Total excluding AFUDC			12,215,203.14		N/A
Total Including AFUDC			12,783,584.78		

Substation Name	Jordan 35 KV				
Project Portion			Cost		FERC Accounts
Design,Planning, Engineering			73,932 00		E35301
Land,Land Rights, and other common costs (if T and D)			0 00		N/A
Labor			1,432,304.46		E35201/E35301/E39701
Total Components			4,587,895 21		E35201/E35301/E39701
Transformers	2 @ 1,766,168 03 ea		3,532,336 06		E35301
Control House and Communications			52,273 92		E35201
Bus and Breakers, and Switches			300,096 63		E35201/E35301
Other			438,006 93		E35201/E35301/E39701
Total excluding AFUDC			6,532,138.68		N/A
Total Including AFUDC			6,906,745.83		

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Substation Name	Meadow				
Project Portion			Cost		FERC Accounts
Design, Planning, Engineering			293,173 23		E35201/E35301
Land, Land Rights, and other common costs (d T and D)			0 00		N/A
Labor			1 505,500 57		E35201/E35301
Total Components			3,365,024 67		E35201/E35301
Transformers			0 00		N/A
Control House and Communications			109,932 08		E35201/E35301
Bus and Breakers, and Switches			1,054,884 73		E35301
Other			799,712 33		E35201/E35301
Total excluding AFUDC			5,963,410.80		N/A
Total including AFUDC			6,324,883.52		

Substation Name	Rothwood				
Project Portion			Cost		FERC Accounts
Design, Planning, Engineering			548,699 44		E35001/E35201/E35301
Land, Land Rights, and other common costs (d T and D)			3,820,518 08		E35001
Labor			5,152,848 45		E35001/E35201/E35301
Total Components			9,566,784 03		E35201/E35301
Transformers	1 @ $4,659,990 35		4,659,990 35		E35301
Control House and Communications			87,776 38		E35201/E35301
Bus and Breakers, and Switches			1,467,164 10		E35201/E35301
Other			1,681,230 98		E35001/E35201/E35301
Total excluding AFUDC			20,770,060.98		N/A
Total including AFUDC			22,185,442.22		

Substation Name	Zenith 345kV				
Project Portion			Cost		FERC Accounts
Design, Planning, Engineering			303,108 31		E35201/E35301
Land, Land Rights, and other common costs (d T and D)			0 00		N/A
Labor			5,992,373 24		E35201/E35301
Total Components			5,706,185 82		E35201/E35301
Transformers			0 00		N/A
Control House and Communications			82,870 00		E35201
Bus and Breakers, and Switches			2,008,419 63		E35201/E35301
Other			2,105,134 62		E35201/E35301
Total excluding AFUDC			14,196,801.99		N/A
Total including AFUDC			15,163,979.50		

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Substation Name	Zenith 138KV				
Project Portion			Cost		FERC Accounts
Design,Planning, Engineering			26,464 68		E35201/E35301
Land,Land Rights, and other common costs (if T and D)					N/A
Labor			2,958,655 86		E35201/E35301/E35601
Total Components			3,367,252.07		E35201/E35301/E35601
Transformers			0 00		N/A
Control House and Communications			7,273 98		E35301
Bus and Breakers, and Switches			1,806,389 17		E35301
Other			743,746 35		E35201/E35301/E35601
Total excluding AFUDC			7,896,118.98		N/A
Total including AFUDC			7,548,157.87		

Substation Name	Jordan 345/138KV				
Project Portion			Cost		FERC Accounts
Design,Planning, Engineering			543,333.47		E35001/E36001/E35201/E35301/E39701
Land,Land Rights, and other common costs (if T and D)			2,014,000 00		E35001/E36001
Labor			8,548,331 46		E35001/E36001/E35201/E35301/E39701
Total Components			12,486,604 21		E35201/E35301/E39701
Transformers	1 @ 5,579,205 00		5,579,205 00		E35201
Control House and Communications			246,473 24		E35201/E35301/E39701
Bus and Breakers, and Switches			2,590,946 16		E35201/E35301
Other			1,877,704 10		E35001/E36001/E35201/E35301/E39701
Total excluding AFUDC			25,469,973.24		N/A
Total including AFUDC			27,090,598.73		

Substation Name	Jones Creek				
Project Portion			Cost		FERC Accounts
Design,Planning, Engineering			579,206 36		E35201/E35301/E39701
Land,Land Rights, and other common costs (if T and D)			0 00		N/A
Labor			44,043,172 88		E35201/E35301/E39701
Total Components			16,345,603 94		E35201/E35301/E39701
Transformers	2 @ 4,276,957 50 ea		8,553,915 00		E35301
Control House and Communications			186,535 84		E35201/E35301/E39701
Bus and Breakers, and Switches			2,240,792 33		E35201/E35301
Other			5,227,059 94		E35201/E35301/E39701
Total excluding AFUDC			66,196,842.12		N/A
Total including AFUDC			68,422,606.94		

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Substation Name	Bailey				
Project Portion			Cost		FERC Account
Design,Planning, Engineering			492,513 96		E35301
Land,Land Rights, and other common costs (d T and D)			0 00		N/A
Labor			6,698,737 35		E35201/E35301
Total Components			4,175,039 57		E35301
Transformers			0 00		N/A
Control House and Communications			82,138 51		E35301
Bus and Breakers, and Switches			1,361,235 01		E35301
Other	includes (1,500,000) CIAC		(519,488 35)		E35201/E35301
Total excluding AFUDC			10,846,801 98		N/A
Total including AFUDC			11,129,293 54		

Substation Name	Oyster Creek				
Project Portion			Cost		FERC Accounts
Design,Planning, Engineering			82,733 14		E35201/E35301
Land,Land Rights, and other common costs (d T and D)			0 00		N/A
Labor			3,974,939 42		E35201/E35301
Total Components			3,574,889 35		E35201/E35301
Transformers			0 00		N/A
Control House and Communications			342,286 69		E35301
Bus and Breakers, and Switches			654,049 54		E35301
Other	includes (3,030,000) CIAC		22,375 55		E35201/E35301
Total excluding AFUDC			7,654,927 46		N/A
Total including AFUDC			7,872,586 16		

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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.: PUC01-40

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

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Substation Name	Estimated Cost	Actual Cost	% Contingency	% Difference	E35001	E352001	E353001	E35401	E36001	FERC Account E36101	E36201	E39701	CWIP/RWIP	Total
Meadow	$ 7,000,000	$ 6,324,083	0%	-9.68%	0.00	252,580.75	6,061,502.52	0.00	0.00	0.00	0.00	0.00	0.00	6,324,083.27
Redwood	$ 21,500,000	$ 22,185,442	0%	3.19%	4,845,111.96	3,480,297.44	14,352,031.82							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	14,096,698.45		2,541,402.99		6,132,155.23	376,488.86		27,090,598.73
Jones Creek	$ 52,900,000	$ 66,422,409	0%	29.34%	0.00	31,196,835.90	33,140,121.95	0.00	0.00	0.00	0.00	85,651.09	0.00	66,422,608.94
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	285,772.06	8,537,637.24	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%					731,910.72	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	3,696,192.11	1,402,786.84	7,687,318.89	15,020.72	49,156.13	12,790,474.69
Sandy Pond	$ 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	1,755,612.20	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	166.38	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.: PUC01-42

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

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Undated	PUC01-42 - Springwoods Adjacent Circuits 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

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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.

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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

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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

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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.

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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.

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

PUBLIC UTILITY COMMISSION OF TEXAS
REQUEST NO.: PUC06-24

QUESTION:

In CenterPoint's response to the Staffs first RFI, PUC01-38 Attachment 1, pages 12-15 CenterPoint provides a list of projects and the percentages of cost overruns from the original project cost estimates to the actual project cost. Provide a detailed explanation of, and reasons for, the cost overruns that are greater than 10% of the estimated cost of each of the following projects. Include and break down the estimated and actual costs into the appropriate FERC accounts.

Project	Cost Overrun
a. W. A. Parrish Sub	10.7%
b. Fort Ben- Rosenberg	40 I %
c. Flewellen- Rosenberg	49%
d. Ranger Sub	7508%
e. Marine Sub	29%
f. Dow Sub	51%
g. Alexander Island Sub	104%
h. La Marque Sub	92%
i. Sandy Point Sub	89%
j. Jones Creek Sub	29%
k. Springwoods Sub	16%
l. Tanner Sub	16%

ANSWER:

CenterPoint Houston's response to PUC01-38 provided, among other things, the percent difference between the Filed Initial Estimated Project Cost and the Final Actual Project Cost for the listed projects. For some of those projects the cost decreased between the Filed Initial Estimated Project Cost and the Final Actual Project Cost, and for other projects, the cost increased. In addition, the Filed Initial Estimated Project Costs are developed prior to detailed engineering or construction analysis. CenterPoint Houston's final construction reports compare the final actual cost to the final estimate, rather than the initial estimate. For the projects identified in PUC06-24, CenterPoint Houston provides the following responses regarding the differences between the Filed Initial Estimated Project Cost and the Final Actual Project Cost:

a. **W. A. Parrish Sub - 10.7%:** There were no major scope changes to this project, but a variety of small cost differences to labor and materials resulted in a 10.7% cost difference.

b. **Fort Bend - Rosenberg - 40.1 %:** After the Company initially filed this project, the route was significantly modified due to ROW constraints and negotiations with parties such as the Railroad Museum in Rosenberg. While a small amount of bypass work was in included in the initial estimate, additional bypass work was needed. Crews were mobilized and demobilized more than expected due to the scope changes, resulting in increased labor costs

c. **Flewellen- Rosenberg - 49%:** This project converted 69kV circuits to 138kV while the substation was also being upgraded. The transmission work needed to be done in parallel with substation work ensure continuity of service Scheduling parallel work required additional mobilization and demobilization that was not planned for in the initial estimates.

d. **Ranger Sub - 7508%:** The final actual project cost was paid in full by the customer for this project The company is not seeking recovery of these costs in this case.

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e. **Marine Sub - 29%:** The final actual project cost was paid in full by the customer for this project. The company is not seeking recovery of these costs in this case

f **Dow Sub - 51%:** The final actual project cost was paid in full by the customer for this project. The company is not seeking recovery of these costs in this case

g. **Alexander Island Sub - 104%:** Foundations were staked with the wrong line pull orientation which wasn't discovered until after the foundations were built. Foundations were removed and reconstructed. Structures had to be modified and some additional material had to be ordered.

h **La Marque Sub - 92%:** Tower design and location changed during detailed engineering phase which led to some material errors. One angle structure had to be removed and replaced

i. **Sandy Point Sub - 89%:** The substation site changed after the initial estimate requiring more temporary work than expected. Crews were mobilized and demobilized more than expected do the schedule changes, resulting in increased labor costs.

j. **Jones Creek Sub – 29%:** The Jones Creek substation project included in the Company s response to PUC 1-38 covered only the transmission work to connect Jones Creek Substation. No substation construction costs were included. The initial filed estimate for the project was $15,021,000 and the final actual project cost was $13 320,426, representing a -11 3% difference.

k. **Springwoods Sub – 16%:** The Springwoods substation project included in the Company's response to PUC 1-37 covered only the transmission work to connect Springwoods Substation. No substation construction costs were included. The initial filed estimate for the project was $9,547,000 and the final actual project cost was $8,593,292 representing a -10% difference.

l **Tanner Sub – 16%:** The Tanner substation project included in the Company s response to PUC 1-38 covered only the transmission work to connect Tanner Substation No substation construction costs were included. The initial filed estimate for the project was $7,417,000 and the final actual project cost was $6,641,378 representing a -10.5% difference

SPONSOR (PREPARER):
Martin Narendorf (Martin Narendorf)

RESPONSIVE DOCUMENTS:
None

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

PUBLIC UTILITY COMMISSION OF TEXAS
REQUEST NO.: PUC11-01

QUESTION:

For the following projects which were reviewed and approved by ERCOT, please indicate the total cost that the company spent for the project and show a comparison to the estimated cost at the time of ERCOT approval Please identify by PUC docket number any CCNs, which were approved by the Commission in association with the project Additionally identify all the Monthly Construction Progress Reports that were filed with the Commission that report the completion of the project (either the entire project or each of the total project's component projects) and the final costs associated with these projects. If the project has not yet been completed and the company is not seeking inclusion of any associated costs for the project then please indicate so.

a. CNP Mount Belvieu Area Upgrade Project

b. CNP Freeport Area Upgrade Project

c. CNP Fort Bend Area Uprade Project

d. CNP Katy Area Upgrades

e. CenterPoint Energy Jones Creek Project

f. CNP Houston Region Import Capacity Project

g. CNP Dow-Velasco Project

h. Houston Import RPG Project

i. CenterPoint Energy Angleton to Petson to Monsan Ckt 04 Rebuild Project

j. CenterPoint Energy Southwyck — Algoa Corner Rebuild Project

k. CenterPoint Energy-Fort Bend to West Columbia 69 kV to 138Kv Circuit 45 Conversion Project

l CenterPoint Energy-Freeport Master Plan Project

ANSWER:

For these projects that were reviewed and approved by ERCOT, please reference PUC11-01 Attachment 1 page 1 for a table showing the estimated cost at the time of ERCOT approval, the total cost that the company spent for the project a comparison of the two, and any PUC dockets for CCNs associated with these projects

For a list of all Monthly Construction Progress Report projects associated with the projects listed above, please refer to PUC11-01 Attachment 1 page 2-4

SPONSOR (PREPARER):
Martin Narendorf (Martin Narendorf)

RESPONSIVE DOCUMENTS:
PUC11-01 Attachment 1 xlsx

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PUC DOCKET NO 49421
PUC 13-01 Attachment 1
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	Estimate Submitted to ERCOT			Final Actual Costs			% Difference	CCN Docket
	Transmission	Substation	Total	Transmission	Substation	Total		
a) CNP Mont Belvieu area Upgrade Project	$ 13,170,000	$ 28,905,000	$ 42,075,000	$ 13,281,571	$ 27,787,786	$ 41,069,357	-2.39%	n/a
b) CNP Prospect Area Upgrade Projects	$ 31,950,000	$ 15,225,000	$ 47,175,000	$ 68,048,673	$ 18,334,574	$ 87,383,247	85.26%	n/a
c) CNP Fort Bend Area Upgrade Project	$ 7,630,000	$ 9,284,000	$ 16,914,000	$ 13,604,991	$ 7,371,413	$ 20,976,304	24.00%	n/a
d) CNP Katy Area Upgrades	$ 7,400,000	$ 12,967,000	$ 20,367,000	$ 13,845,835	$ 10,779,147	$ 24,624,382	20.90%	46242 Zenith to Franz
e) CenterPoint Energy Jones Creek Project [1]	$ 25,650,000	$ 54,150,000	$ 79,780,000	$ 40,743,579	$ 72,559,354	$ 113,302,933	42.04%	n/a
f) CNP Houston Region Import Capacity Project [2]			$ 196,270,000	$ 284,833,657	$ 13,617,598	$ 298,451,255	0.74%	46547 Brazos Valley Connection
g) CNP Deer - Holman Project	$ 17,825,000	$ 1,035,000	$ 18,860,000	$ 3,077,291	$ 16,394,533	$ 19,401,824	2.87%	n/a
h) Houston Import Total Project	This project is the same as f) CNP Houston Region Import Capacity Project							
i) CenterPoint Energy Upgrades to Prevent to Minimize Risk of Rolling Blackouts Projects	$ 35,300,000	$ -	$ 35,300,000	Project is not yet complete			n/a	
j) CenterPoint Energy Substations - Aldine Center Rebuild Project	$ 20,080,000	$ -	$ 20,080,000	Project is not yet complete			n/a	
k) CenterPoint Energy - Fort Bend to West Columbia 69kV to 138kV Circuit 48 Conversion Project	$ 23,700,000	$ 28,000,000	$ 51,700,000	Project is not yet complete			n/a	
l) CenterPoint Energy - Prospect Master Plan Project [3]	$214.4 for 6x lay to Jones Creek and $32.3M for Bridge the Gap Upgrades			Project is not yet complete			-	48629 Bailey to Jones Creek

[1] One Transmission sub-project of the Jones Creek Project has not been finalized, therefore the Company is not seeking inclusion of approximately $22M of the $113.3M reported on the table above. Per the Monthly Construction Progress Report, we are 99% complete, and there will only be minimal charges, if any, added to the total amount.

[2] $296,270,000 was the estimated amount for the route approved by the PUC in the CCN process. The ERCOT review of Houston Region Import Capacity Project included the entire project's cost of $550M and did not breakout CenterPoint's portion of the project.

[3] In December 2018, ERCOT reaffirmed their recommendation for the Bailey to Jones Creek project at an updated estimate of $481M - $495M.

Monthly Construction Progress Report Information					
	Date Filed with PUC-T	Utility's Project Number	Project Name	Location (City/County)	Description
a) CNP Mont Belvieu area Upgrade Project	January 15, 2013	811	Crosby-Mont Belvieu	Mont Belvieu, Chambers, Liberty, Harris	Partial Reconductor and Partial Rebuild of 138 kV Ckt 86
	June 15, 2013	811.1	Jordan Substation	Mont Belvieu, Chambers	138 kV and 345 kV service to Jordan Substation within one mile of Ckts. 86C 86D and 99G
	September 15, 2013	811 2	Crosby Corner-CONNER Corner	Chambers, Harris, Liberty	Modification of 138 kV Ckt. 86D for new conductor testing
b) CNP Freeport Area Upgrade Projects	June 15, 2013	810	Velasco-SURFSI	Freeport, Brazoria	Rebuild, Reconductor, Bundling, and Upgrade of 69 kV Ckt 10B to 138 kV
	November 15, 2013	810 1	Velasco-Freeport (Phase 1)	Freeport, Brazoria	Upgrade of 69 kV Ckt 47B to 138 kV, Rebuild, Bundling and Partial Reconductor of 69 kV Ckt 47B
	March 14, 2014	810 2	QNTANA-SURFSI (Phase 1)	Freeport, Brazoria	Upgrade of 69 kV Ckt 47C to 138 kV, Partial Rebuild, Bundling, and Partial Reconductor of 69 kV Ckt. 47C
	March 14, 2014	810 3	Freeport-BRYAN_ (Phase 1)	Freeport, Brazoria	Upgrade of 69 kV Ckt. 47B to 138 kV, Partial Rebuild and Partial Reconductor of 69 kV Ckt 47B
	May 15 2014	810 4	Freeport-BRYAN_ (Phase 2)	Freeport, Brazoria	Upgrade of 69 kV Ckt 47B to 138 kV, Partial Rebuild and Partial Reconductor of 69 kV Ckt 47B
	August 15, 2014	810 5	QNTANA-SURFSI (Phase 2)	Freeport, Brazoria	Upgrade of 69 kV Ckt 47C to 138 kV, Partial Rebuild and Partial Reconductor of 69 kV Ckt 47C
	January 15, 2015	810 6	Velasco-Freeport (Phase 2)	Freeport, Brazoria	Upgrade of 69 kV Ckt 47B to 138 kV Rebuild and Reconductor of 69 kV Ckt 47B

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PUC 11-1 Attachment 1
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c] CNP Fort Bend Area Upgrade Project	January 15, 2014	853	Fort Bend Upgrade (Flewellen-FOSTER)	Fort Bend	Upgrade of 69 kV Ckt 49A to 138 kV; Partial Rebuild and Partial Reconductor of 69 kV Ckt 49A
	February 14, 2014	853 1	Fort Bend Upgrade (Brazos Valley-Fort Bend-Orchard)	Rosenberg, Fort Bend	Partial Rebuild of 138 kV Ckts 60A and 09G
	March 14, 2014	853 2	Fort Bend Substation	Rosenberg, Fort Bend	69 kV service to Fort Bend Substation within one mile of Ckt 49B
	July 15, 2014	853 3	Fort Bend-Rosenberg	Rosenberg, Fort Bend	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
	July 15, 2014	853 4	Orchard-Rosenberg	Rosenberg, Fort Bend	Partial Upgrade of 69 kV Ckt 49A to 138 kV, Partial Rebuild and Partial Reconductor of 69 kV Ckt 49A
	November 15, 2014	853 5	Flewellen-Fort Bend	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
	December 15, 2014	853 6	Fort Bend Substation	Rosenberg, Fort Bend	69 kV service to Fort Bend Substation within one mile of Ckt 49B
	April 15 2015	853 7	FOSTER Loop	Fort Bend	Installation on an existing transmission line, of an additional 138 kV circuit not previously certified
	November 15, 2015	853 8	FOSTER Substation	Fort Bend	138 kV Service to FOSTER Substation within one mile of Ckt. 25E
d] CNP Katy Area Upgrades	October 15, 2013	864	Katy-Franz	Katy, Waller, Harris	Partial Reconductor and Partial Rebuild of 138 kV Ckt. 09H
	March 15 2015	864	138 kV Zenith-Franz Project	Harris	Construct a new single-circuit 138 kV transmission line

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e) CenterPoint Energy Jones Creek Project	April 15, 2016	840	Jones Creek Substation	Freeport, Brazoria	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
	August 15, 2016	840.3	SEADOC-Velasco	Brazoria	Partial Rebuild of 138 kV Ckt. 02F
	August 15, 2016	840 7	Freeport-CORTEZ	Freeport, Quintana, Brazoria	Partial Rebuild and Partial Reconductor of 138 kV Ckts 59H, 59I, and 59K
f) CNP Houston Region Import Capacity Project	May 15, 2015	872	Brazos Valley Connection	Houston, Waller, Prairie View, Pine Island, Grimes, Harris, Waller	Construct a new double-circuit 345 kV transmission line
g) CNP Dow - Velasco Project	November 15, 2014	896	Velasco-DOW	Freeport, Brazoria	Partial Reconductor of 138 kV Ckts 82D, 82E, and 26E, 138 kV service to DOW Substation within one mile of Ckt 82D
	July 15, 2015	896.1	Velasco-DOW (Phase 2)	Brazoria	Partial Rebuild of 138 kV Ckt 82D
h) Houston Import RPG Project	This project is the same as f) CNP Houston Region Import Capacity Project				
i) CenterPoint Energy Angleton to Petson to Monsan Ckt 04 Rebuild Project	This project has not yet been completed and the Company is not seeking inclusion of any associated costs for the project				
j) CenterPoint Energy Southwyck - Algoa Corner Rebuild Project	This project has not yet been completed and the Company is not seeking inclusion of any associated costs for the project				
k) CenterPoint Energy - Fort Bend to West Columbia 69kV to 138kV Circuit 45 Conversion Project	This project has not yet been completed and the Company is not seeking inclusion of any associated costs for the project				
l) CenterPoint Energy - Freeport Master Plan Project	This project has not yet been completed and the Company is not seeking inclusion of any associated costs for the project				