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SOAH DOCKET NO. 473-21-0247
PUC DOCKET NO. 51023

APPLICATION OF THE CITY OF SAN ANTONIO TO AMEND ITS CERTIFICATE OF CONVENIENCE AND NECESSITY FOR THE SCENIC LOOP 138-KV TRANSMISSION LINE IN BEXAR COUNTY	§ § § § § §	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION'S SECOND REQUEST FOR INFORMATION

COMES NOW the City of San Antonio, acting by and through the City Public Service Board (CPS Energy) and files this Response to the Second Request for Information (RFI) of Anaqua Springs Homeowners' Association (Anaqua Springs HOA). This Response is timely filed. CPS Energy agrees and stipulates that all parties may treat these responses as if the answers were filed under oath.

Respectfully submitted,

/s/ Kirk D. Rasmussen

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ATTORNEYS FOR CPS ENERGY

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CERTIFICATE OF SERVICE

I certify that a copy of this document was served on all parties of record on this date via the Commission's Interchange in accordance with SOAH Order 3 in this proceeding.

/s/ Kirk D. Rasmussen
Kirk D. Rasmussen

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-1:

Please provide any and all documentation, notes, emails, calculations, etc. regarding CPS's evaluation of a substation located southwest of the location where Segments 16, 55 and 56 meet, as referenced in CPS's responses to Anaqua Springs RFI Nos. 1-21 & 1-22 and Jauer RFI No. 1-6.

Response No. 2-1:

Refer generally to the document provided in CPS Energy's response to Anaqua Springs Question No. 1-16. There are no additional documents responsive to this request.

Prepared By: George J. Tamez Title: Director of Grid Transformation and Planning
Sponsored By: George J. Tamez Title: Director of Grid Transformation and Planning

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-2:

Please provide a detailed description, including length and a representative sketch of how CPS proposes to interconnect 10-12 distribution circuits to the intersection of Toutant Beauregard Road and Scenic Loop Road from Substation Site 7, including estimated costs to do so. Please reference the notes to Anaqua Springs RFI 1-16, notes provided in response.

Response No. 2-2:

It is not CPS Energy's intent to have 10-12 circuits from Substation Site 7 connecting to the intersection of Toutant Beaurgard Road and Scenic Loop Road. Based on its preliminary evaluation of Substation Site 7, CPS Energy anticipates the ultimate buildout of a substation at Site 7 could involve up to four overhead circuits to the west along Toutant Beauregard Road (two on each side of the road), up to four overhead circuits to the northeast/east along Toutant Beauregard Road (two on each side of the road), and two or more circuits directly east out of the back of the property along existing easements eventually connecting to Scenic Loop Road. There are no documents responsive to this request showing a sketch of the circuits described above. Some of the circuits described in this response are in existence today in the locations described. CPS Energy has not calculated the cost to construct any new distribution facilities that might ultimately be required as described in this response.

Prepared By: George J. Tamez Title: Director of Grid Transformation and Planning
Sponsored By: George J. Tamez Title: Director of Grid Transformation and Planning

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-3:

Please provide a detailed description, including length and a representative sketch of how CPS proposes to interconnect 10-12 distribution circuits to the intersection of Toutant Beauregard Road and Scenic Loop Road from Substation Site 6, including estimated costs to do so. Please reference the notes to Anaqua Springs RFI 1-16, notes provided in response.

Response No. 2-3:

It is not CPS Energy's intent to have 10-12 circuits from Substation Site 6 connecting to the intersection of Toutant Beaurgard Road and Scenic Loop Road. Based on its preliminary evaluation of Substation Site 6, CPS Energy anticipates the ultimate buildout of a substation at Site 6 could involve up to four overhead circuits to the north along Scenic Loop Road (two on each side of the road), up to four overhead circuits to the south along Scenic Loop Road (two on each side of the road). If Substation Site 6 is ultimately approved for the Project, CPS Energy might be required to construct additional underground circuits along Scenic Loop Road for a short distance to the north or south where the circuits could then traverse east or west as necessary to serve load in the area or overhead right-of-way might be obtained traversing directly west or east out of the substation site. There are no documents responsive to this request showing a sketch of the circuits described above. Some of the circuits described in this response are in existence today in the locations described. CPS Energy has not calculated the cost to construct any new distribution facilities that might ultimately be required as described in this response.

Prepared By: George J. Tamez Title: Director of Grid Transformation and Planning
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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-4:

Please provide CPS's definition of engineering constraints as used in the Application.

Response No. 2-4:

CPS Energy notes that the term "engineering constraints" as used in 16 Texas Administrative Code (TAC) § 25.101 is not defined by the Public Utility Commission of Texas (Commission) and the Commission has heretofore declined to define the term "engineering constraint" in previous rulemaking proceedings (see Project 42740) and contested complaint dockets (see Docket 40953).

CPS Energy's reference to engineering constraints in this Project is reflective of its understanding of the Commission's use of the term within 16 TAC § 25.101. Specifically, CPS Energy's use of the term "engineering constraints" in this Project generally refers to legal, physical, or practical obstacles to the safe, efficient, and cost effective construction and operation of the transmission line facilities that are primarily resolved through routing or design of the proposed facilities. In this Project, such obstacles include, but are not limited to, rough terrain, permanent structures, cemeteries, registered historic areas, and the conservation easement involving a federal interest in the northern area of the Study Area. While not all "engineering constraints" observed in the Study Area must be avoided, CPS Energy attempted to identify route alternatives for the Project that avoided or minimized the impacts of engineering constraints on the ultimate permitting, design, construction, and operation of the Project.

Prepared By:	Lisa B. Meaux	Title:	Project Manager, POWER Engineers, Inc.
	Scott D. Lyssy	Title:	Manager Civil Engineering
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	Scott D. Lyssy	Title:	Manager Civil Engineering

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-5:

Regarding Segment 54, please provide the anticipated distance from the edge of the right-of-way to Habitable Structure Nos. 79, 178, 81, 85, 86, 87, 88 and 89 on the north side of Toutant Beauregard Road (EA Figure 4-1) and Habitable Structure Nos. 70, 72, 78, and 80 on the south side of Toutant Beauregard. Please provide a sketch or drawing showing anticipated ROW easement width, structure spacing and locations for Segment 54 given the need to follow the sharp curve in the road and proximity to housing. Is it accurate that in this stretch of 54, CPS plans to use a 75-foot right-of-way with structures spaced more closely together? If not, how will this segment be constructed?

Response No. 2-5:

The approximate distance from the edge of the right-of-way to the habitable structures identified above are as follows:

Habitable Structure No.	Approximate Distance (feet)
70	156
72	154
78	119
79	165
80	152
81	32
85	108
86	112
87	250
88	72
89	84
178	163

As stated in response to Question 6 of the Application and on page 1-1 of the Environmental Assessment, which is Attachment 1 to the Application, it is currently anticipated that the proposed

transmission line facilities will be constructed utilizing a right-of-way width of approximately 100 feet. The survey, geotechnical, and engineering work necessary to design the proposed transmission line facilities along Segment 54 have not yet been completed. Thus, CPS Energy cannot yet identify where pole structures will be located and whether narrower than anticipated right-of-way may be required in that area.

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	Scott D. Lyssy	Title:	Manager Civil Engineering
Sponsored By:	Lisa B. Meaux	Title:	Project Manager, POWER Engineers, Inc.
	Scott D. Lyssy	Title:	Manager Civil Engineering

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-6:

Regarding Segment 5, please provide the anticipated distance from the edge of the right-of-way to Habitable Structure No. 56 (EA Figure 4-1). Please provide a sketch or drawing showing anticipated ROW easement width, structure spacing and locations for Segment 5.

Response No. 2-6:

As currently proposed, the distance from the edge of the right-of-way to Habitable Structure 56 is approximately 292 feet. The survey, geotechnical, and engineering work necessary to design the proposed transmission line facilities along Segment 5 have not yet been completed. Thus, CPS Energy cannot yet identify where pole structures will be located and whether narrower than anticipated right-of-way may be required in that area.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-7:

How many transmission structures does CPS anticipate will be located on Segment 14? How many structures on Segment 54, 36, and 20? And what will the approximate distance be between each structure, given the 75-foot right-of-way?

Response No. 2-7:

As stated in response to Question 6 of the Application and on page 1-1 of the Environmental Assessment, which is Attachment 1 to the Application, it is currently anticipated that the proposed transmission line facilities will be constructed utilizing a right-of-way width of approximately 100 feet. The survey, geotechnical, and engineering work necessary to design the proposed transmission line facilities along Segments 14, 20, 36, and 54 have not yet been completed. Thus, CPS Energy cannot yet identify where pole structures will be located or the exact number of poles, nor whether narrower than anticipated right-of-way may be required along some portions of those segments. For preliminary estimating, the following structure count and span lengths were used.

Segment	Number of Structures	Estimated Average Span Length
14	4	550 feet
54	9	465 feet
36	6	500 feet
20	6	630 feet

Prepared By: Scott D. Lyssy Title: Manager Civil Engineering
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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-8:

Please provide the estimated structure heights and conductor arms lengths for the portions of Segments 14, 54, 20, and 36 that are planned to have a 75 foot right-of-way.

Response No. 2-8:

As stated in response to Question 6 of the Application and on page 1-1 of the Environmental Assessment, which is Attachment 1 to the Application, it is currently anticipated that the proposed transmission line facilities will be constructed utilizing a right-of-way width of approximately 100 feet. The survey, geotechnical, and engineering work necessary to design the proposed transmission line facilities along Segments 14, 20, 36, and 54 have not yet been completed. Thus, CPS Energy cannot yet identify the exact structure heights that may be required in that area. As stated in response to Question 5 of the Application, the heights of typical structures proposed for the Project range from 70 to 130 feet above ground. CPS Energy anticipates that most or all of the poles utilized for Segments 14, 20, 36, and 54 will likely fall within that range.

The length of the arms currently anticipated for use by CPS Energy for the Project (see Application Attachment 1, Figures 1-2 through 1-4) will extend approximately 12-15 feet from the center of the pole. For a single circuit dead end pole, there will not be arms extending from the pole (see Application Attachment 1, Figure 1-5).

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-9:

If the transmission line were to fail during a storm and fall towards the houses within a 75 foot right-of-way on Segments 14, 54, 36, 20, and any other portions along Toutant Beauregard with 75 foot rights-of-way, are any houses within the fall radius of either the structures or conductors, given due regard to conductor sag being extended towards the houses?

Response No. 2-9:

As stated in response to Question 6 of the Application and on page 1-1 of the Environmental Assessment, which is Attachment 1 to the Application, it is currently anticipated that the proposed transmission line facilities will be constructed utilizing a right-of-way width of approximately 100 feet. The transmission line proposed in this proceeding will be designed to meet or exceed all safety and clearance requirements applicable to the facilities, including the current version of the National Electrical Safety Code. The transmission line facilities proposed in this Project are not anticipated to ever fail during a storm and fall. However, as a general design principle, the transmission line, if it does fail, it will likely fail within the right-of-way.

Because the transmission line has not been designed and pole heights and conductor clearances have not yet been determined, CPS Energy cannot determine whether any structures are located within a theoretical fall radius of the proposed facilities.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-10:

What is the distance between the end of the nearest conductor arm and the closest edge of the houses, including the roof lines, on segments along Toutant Beauregard with 75 foot rights-ofway?

Response No. 2-10:

As stated in response to Question 6 of the Application and on page 1-1 of the Environmental Assessment, which is Attachment 1 to the Application, it is currently anticipated that the proposed transmission line facilities will be constructed utilizing a right-of-way width of approximately 100 feet. For purposes of answering this question, it is presumed that the conductor will extend approximately 15 feet from the pole centerline on conductor arms as described in CPS Energy's response to Anaqua Springs Question No. 2-8. Subtracting 15 feet (as an average) from the previously reported distances to habitable structures along Toutant Beauregard Road results in the following approximate distances between the end of the nearest conductor arm and the habitable structures along Toutant Beauregard Road:

Habitable Structure No.	Approximate Distance (feet)
17	199
18	147
55	289
58	214
67	217
69	193
70	191
71	236
72	189
73	229
74	213
75	215
76	245
77	252

78	154
79	200
80	187
81	67
82	236
83	192
84	199
85	143
86	147
88	107
89	119
90	269
91	208
92	249
93	185
94	209
95	264
96	265
97	180
98	226
99	226
100	229
101	250
102	251
103	248
104	196
105	240
178	198

Prepared By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.
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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-11:

What is the estimated mid-span height above ground for the lowest conductor along Toutant Beauregard where there are 75-foot rights-of-way?

Response No. 2-11:

As stated in response to Question 6 of the Application and on page 1-1 of the Environmental Assessment, which is Attachment 1 to the Application, it is currently anticipated that the proposed transmission line facilities will be constructed utilizing a right-of-way width of approximately 100 feet. The survey, geotechnical, and engineering work necessary to design the proposed transmission line facilities along Toutant Beauregard Road has not yet been completed. Thus, CPS Energy cannot yet identify the exact structure heights and clearances that may be required in that area. The transmission line proposed in this proceeding will be designed to meet or exceed all safety and clearance requirements applicable to the facilities, including the current version of the National Electrical Safety Code. At a minimum, the clearances above ground for the proposed transmission line facilities along Toutant Beauregard Road (and for all other proposed segments) will exceed 20.6 feet required by the NESC plus five feet of buffer utilized by CPS Energy in its standard design practices.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-12:

Please advise if homes, playground equipment, fences, metal roofing, gutters and downspouts, etc. along Toutant Beauregard where there is 75 foot right-of-way anticipated, including Segments 14, 54, 20, and 36, or any location where there is a planned 75 foot right-of-way would need cathodic protection grounding systems installed to protect inhabitants from induced currents?

Response No. 2-12:

As stated in response to Question 6 of the Application and on page 1-1 of the Environmental Assessment, which is Attachment 1 to the Application, it is currently anticipated that the proposed transmission line facilities will be constructed utilizing a right-of-way width of approximately 100 feet. No cathodic protection is required or will be installed to safely operate the proposed transmission line facilities along any segment proposed for the Project, including those identified in this question. As a prudent utility operator, CPS Energy will ensure appropriate grounding, if necessary, for any of the facilities proposed for construction of the Project.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-13:

Where has CPS included cathodic protection costs in its estimation of costs related to each transmission line segment proposed in this docket?

Response No. 2-13:

There are no cathodic protection costs included in CPS Energy's cost estimates for this Project.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-14:

If cathodic protection is deemed to be necessary in the 75-foot right-of-way areas along Toutant, and the cathodic protection fails, what dangers exist for the homeowners?

Response No. 2-14:

No cathodic protection is necessary for the transmission line facilities proposed in this Project.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-15:

Regarding CPS Energy's Response to Statements on Route Adequacy, Page 7, Paragraph No. 3, entitled "Segment 54," please describe in detail how CPS "avoids habitable structures to the extent reasonable" along Segment 54.

Response No. 2-15:

Where possible, CPS Energy and POWER avoided the habitable structures on Segment 54 by identifying the location for the segment across the road from the habitable structures. When necessary to be on the same side of the road as the habitable structures, Segment 54 parallels the roadway as opposed to being directly located over the habitable structures.

Prepared By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.
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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-16:

Regarding Substation Site 7, please provide a detailed sketch showing the dead-end transmission structure, the substation site, including fence and lights. Please describe the security lighting heights and wattage and the hours of illumination proposed for the Substation Site 7 or, if not yet proposed, typically used by CPS.

Response No. 2-16:

The line terminal structures that will be utilized if the proposed Project is connected to a substation at Substation Site 7 have not yet been designed. Typical CPS Energy line terminal structures can be seen in Appendix B to Attachment 1 to the Application (see Bates Pages 310, 311, 312, 313, 316, and 320).

The site layout for a substation at Substation Site 7 has not yet be designed. Figure 1-6 in Attachment 1 to the Application is the general proposed substation layout. Appendix B to Attachment 1 to the Application includes pictures of CPS Energy substations that will be generally similar to the substation facilities that are proposed to be constructed for this Project, (see Bates Pages 310, 311, 312, 313, 316, and 320).

The lighting design for the substation constructed as part of the Project will follow the City of San Antonio's guidance of exterior lighting for the International Dark Sky and the San Antonio Urban Lighting Master Plan. The height of security lighting for a substation constructed at Substation Site 7 has not yet been determined. Typically, CPS Energy installs security lighting approximately 10-20 feet in height. Typical substation security lighting for CPS Energy is 120 watts for the yard lights and 113 watts for the wall mounted lights and the hours of illumination are dawn to dusk. Images of typical substation lighting within CPS Energy substations can be seen in Appendix B to Attachment 1 to the Application (see e.g., Bates Page 320).

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-17:

Please identify each habitable structure within 300 feet of the boundaries of Substation Site 7, and the specific distance from the habitable structure to the closest boundary of Substation Site 7.

Response No. 2-17:

The facilities at Substation Site 7 have not been designed yet; therefore, the measurements provided below are from the property boundaries. Because the substation will be interior to the property boundaries for Substation Site 7 (and any of the other substation sites proposed for this Project), the actual distance from the operational area of the substation facilities to any habitable structures following design and construction of the substation facilies will exceed those presented below. The habitable structures within 300 feet of the property boundaries of Substation Site 7 and their specific distances are listed below.

Habitable Structure No.	Approximate Distance (feet)
77	274
78	197
79	196
80	212
178	279
Additional House 1	86
Additional House 2	179

There are two habitable structures at 28410 Pecan Lane that are not located within 300 feet of a primary alternative segment but which are within 300 feet of the property boundary of Substation Site 7. "Additional House No. 1" is approximately 86 feet and "Additional House No. 2" is approximately 179 feet from the southeastern property boundary for Substation Site 7.

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SOAH DOCKET NO. 473-21-0247
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APPLICATION OF THE CITY OF SAN ANTONIO TO AMEND ITS CERTIFICATE OF CONVENIENCE AND NECESSITY FOR THE SCENIC LOOP 138-KV TRANSMISSION LINE IN BEXAR COUNTY	§ § § § § §	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-18:

Is the parcel on which Substation Site 7 located (Parcel No. A-078) zoned for industrial use? If so, does CPS anticipate applying for a zoning variation for Substation Site 7 if that substation site is selected?

Response No. 2-18:

CPS Energy is not aware of any particular zoning status of the property at Substation Site 7 or any of the other substation sites proposed for the Project. Substation Site 7 is not within a municipality or jurisdiction that requires zoning for CPS Energy's use of the site for an electric substation.

Prepared By: Scott D. Lyssy Title: Manager Civil Engineering
Sponsored By: Scott D. Lyssy Title: Manager Civil Engineering

SOAH DOCKET NO. 473-21-0247
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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-19:

Regarding CPS's response to Brad Jauer & BVJ Properties RFI 1-6 and Anaqua Springs RFI 1-22, please provide any and all documentation, notes, emails, calculations, etc. regarding a potential substation site at the node where Segments 56 and 16 meet.

Response No. 2-19:

Refer generally to the document provided in CPS Energy's response to Anaqua Springs Question No. 1-16. There are no additional documents responsive to this request.

Prepared By: George J. Tamez Title: Director of Grid Transformation and Planning
Sponsored By: George J. Tamez Title: Director of Grid Transformation and Planning

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-20:

Please provide the cost, length, and habitable structure count on a modified Route W as follows: Segments 44, 53, 47, 27, 57, and 56 with a substation located southwest of the node where Segments 56 and 16 meet. Please also provide the associated transmission line cost savings compared to Route W given its shorter length from eliminating Segments 16 and 50.

Response No. 2-20:

CPS Energy has evaluated a potential substation site at the location indicated by this question and determined that the location is not a viable alternative substation site that sufficiently meets the need for the project. Accordingly, CPS Energy does not consider the segment combination proposed in this request to be a viable alternative route for the project. No route data exists for the segment combination in the manner requested.

Prepared By:	George J. Tamez	Title:	Director of Grid Transformation and Planning
	Lisa Barko Meaux	Title:	Project Manager, POWER Engineers, Inc.
Sponsored By:	George J. Tamez	Title:	Director of Grid Transformation and Planning
	Lisa Barko Meaux	Title:	Project Manager, POWER Engineers, Inc.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-21:

Regarding pre-open house Segment 45, EA paragraph 6.1.2 and Figures 2-2 and 6-15, please provide the specific engineering constraints that led to rerouting this segment.

Response No. 2-21:

The specific engineering constraints that led to the rerouting of Segment 45 were related to the terrain and creek crossings in that area.

Prepared By:	Scott D. Lyssy	Title:	Manager Civil Engineering
	Lisa B. Meaux	Title:	Project Manager, POWER Engineers, Inc.
Sponsored By:	Scott D. Lyssy	Title:	Manager Civil Engineering
	Lisa B. Meaux	Title:	Project Manager, POWER Engineers, Inc.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-22:

Please provide a cost estimate for pre-open house Segment 45 compared to post open house Segments 45, 51 and 47. Given the elimination of many running angle structures and shorter distance, any incremental construction access costs should be more than offset by the shorter and straighter configuration of pre-open house Segment 45. If landowner input was the reason for the changes, was any effort made to convey to the landowner that the revised configuration would cost significantly more to construct, any request made to contribute to extra costs? Please provide any and all correspondence, notes, etc. regarding this.

Response No. 2-22:

Refer to CPS Energy's response to Anaqua Springs Question 2-21 regarding the reasons for the modification of Segment 45. As a general matter, CPS Energy cannot necessarily agree that engineering, construction, and operation of a straighter segment over rough terrain and creek crossings will have a higher estimated cost than a slightly longer segment with more angle structures. CPS Energy has not performed any cost estimates for segments that are not included in the Application. There are no additional documents responsive to this request.

Prepared By:	Scott D. Lyssy	Title:	Manager Civil Engineering
	Lisa B. Meaux	Title:	Project Manager, POWER Engineers, Inc.
Sponsored By:	Scott D. Lyssy	Title:	Manager Civil Engineering
	Lisa B. Meaux	Title:	Project Manager, POWER Engineers, Inc.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-23:

Please provide the deliverables, including any and all related correspondence, associated with Power Engineers task 4.1, relating to a "composite opportunities and constraints map" that shows potentially significant changes to, among other things, human environment, along with any notes, reports or correspondence that further describes the identified opportunities and constraints.

Response No. 2-23:

All opportunities and constraints are shown on Figures 2-1 Amended and 2-2 Amended in the Environmental Assessment. CPS Energy is not aware of any other notes, reports, or correspondence that are responsive to this request.

Prepared By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.
Sponsored By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-24:

Please advise why Power Engineers task 7.6 initially only addressed the development of 6-10 primary alternative routes. Was it CPS's opinion that this was a sufficient quantity for this project? Please provide all correspondence, notes, change orders, etc. regarding how these initial 6-10 primary routes were determined?

Response No. 2-24:

Given the size of the study area and the length of the proposed project it was POWER's initial professional opinion, based on experience on previous projects of that length, that developing approximately 6-10 primary alternative routes would be sufficient for the Project. CPS Energy is not aware of any other notes, reports, or correspondence that are responsive to this request.

Prepared By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.
Sponsored By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.

SOAH DOCKET NO. 473-21-0247
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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-25:

Please provide the deliverables, including any and all related correspondence, associated with Power Engineers task 8.2 regarding mitigation planning and associated impact tables, including recommended mitigation measures to reduce project related impacts to acceptable levels.

Response No. 2-25:

All discussion regarding mitigation and impacts are provided in Sections 1.4, 1.5, 1.6, and throughout Section 4.0 of the Environmental Assessment, which is Attachment 1 to the Application.

Prepared By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.
Sponsored By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-26:

Please provide the deliverables, including any and all correspondence, associated with Power Engineers task 8.3 regarding identifying potential impacts of substations and any CPS mitigation measures.

Response No. 2-26:

The Agency Actions described in Section 1.6 of the Environmental Assessment are applicable to evaluation of the proposed substation sites. POWER did not identify potential impacts for substation sites specific to subtask 8.3.

Prepared By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.
Sponsored By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.

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APPLICATION OF THE CITY OF SAN ANTONIO TO AMEND ITS CERTIFICATE OF CONVENIENCE AND NECESSITY FOR THE SCENIC LOOP 138-KV TRANSMISSION LINE IN BEXAR COUNTY	§ § § § § §	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-27:

Please provide the CPS Scenic Loop project documents that CPS provided to Burns & McDonnell that formed the basis for Burns &McDonnell's scope of work. Please refer to CPS response to Brad Jauer & BVJ Properties RFI 1-17, where the Burns & McDonnell proposal refers to documents, presumably provided by CPS, upon which their estimate and scope of work were based on.

Response No. 2-27:

Burns & McDonnell was provided a copy of LCRA Transmission Services Corporations Application to Amend its Certificate of Convenience and Necessity for the Proposed Mountain Home 138-kV Transmission Line Project in Gillespie, Kerr & Kimble Counties, Texas, which is publicly available in Public Utility Commission of Texas Docket No. 49523. Additional documents responsive to this request are attached.

Attachment:

Attachment AS 2-27 - Project Scenic Loop Substation, 9 Pages, CPS Energy, February 2020

Prepared By: George J. Tamez Title: Director of Grid Transformation and Planning
Sponsored By: George J. Tamez Title: Director of Grid Transformation and Planning

Project Scenic Loop Substation

February 2020

Table of Contents

1. Introduction

The forecasted load growth in the Northwest part of Bexar County is currently served by long circuit length from the La Sierra (U1) and Fair Oaks Ranch (R0) substations. These long circuits with high numbers of customers have a large impact on power reliability in the area. The proposed new Scenic Loop substation will meet the forecasted load growth and improve the reliability of the area with shorter circuits, strong backbones and sufficient field ties that will prevent major loss of customer load in faulted conditions (i.e. equipment failures, tree contact, thunderstorms and vehicle accidents). The Scenic Loop substation should be designed as a four unit site to accommodate three transformers and a spare position. An estimated 20-25MW of load will be served by this new substation initially. The substation will be looped into the existing 138kV Ranchtown to LCRA (Menger Creek) transmission line.

2. Study Criteria

Distribution Planning studied various system conditions to determine the reliability need and to find a robust and cost-effective solution from both near-term and long-term perspectives. The study criteria, assumption, and methodology are described in this section and are consistent with the CPS Energy Planning Criteria.

The electric distribution supply to the CPS Energy service territory is adequate when the following criteria are met:

- No substation transformer is loaded above 80% of its Normal Rating during expected peak energy usage conditions.
- No backbone (The portion of the three phase primary distribution system characterized by having large conductor and most direct path(s) to adjacent substations) distribution feeder is loaded above 80% of its Normal Rating during expected peak energy usage conditions.
- For the extended outage of any substation transformer, no facility will be loaded in excess of its Emergency rating.
- Voltages are within the ANSI 84.1 voltage range A limits for normal conditions and range B for emergency conditions on primary distribution lines.
- Power Factors, or the ratio of the real power absorbed by the load to the apparent power flowing in the circuit, are greater than 97% at the secondary breakers on each substation transformer under normal conditions.

3. Project Need

The projected distribution circuit 2020 summer peak loads will exceed Distribution Planning criteria of 80% loading on the U114 circuit (98%) and U112 circuit (80%). The load growth along the IH10 corridor north of Loop 1604, La Cantera, Camp Bullis and the

RIM area along with the transition of the Fiesta Texas load from seasonal to year-round will begin to challenge the electrical infrastructure limits of the Scenic Loop area. Also, the University of Texas at San Antonio (UTSA) projected load growth due to the pursuit of their Main Campus Master Plan presented in February 2020 which more than doubles the Main Campus with the planned additional buildings. Consequently, the UTSA Area is targeted as a regional development center in the City of San Antonio's SA Tomorrow master plan and is one of the fastest growing areas of the City. A plan of action is essential to keep pace with this growth.

Projecting the growth and expected development mentioned above, the current La Sierra and Fair Oaks Substation (Fig. 1) will exceed its capacity and cannot adequately serve the area in 2024. A substation will need to be built to address growth (Fig. 2).

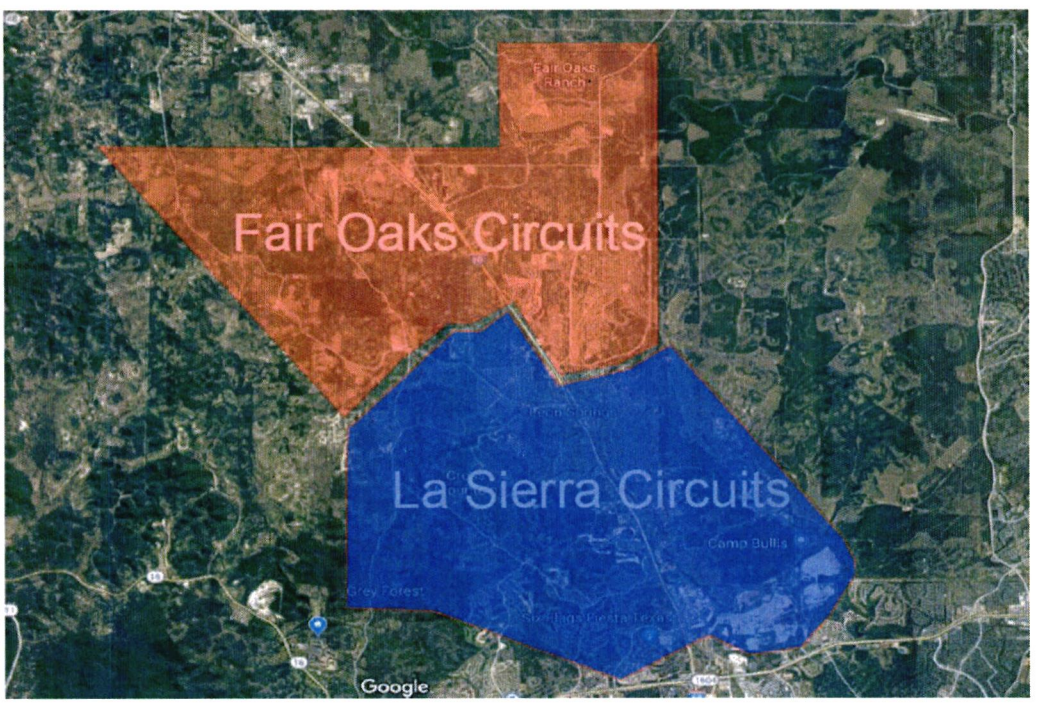


Fig. 1: Existing substation service boundaries

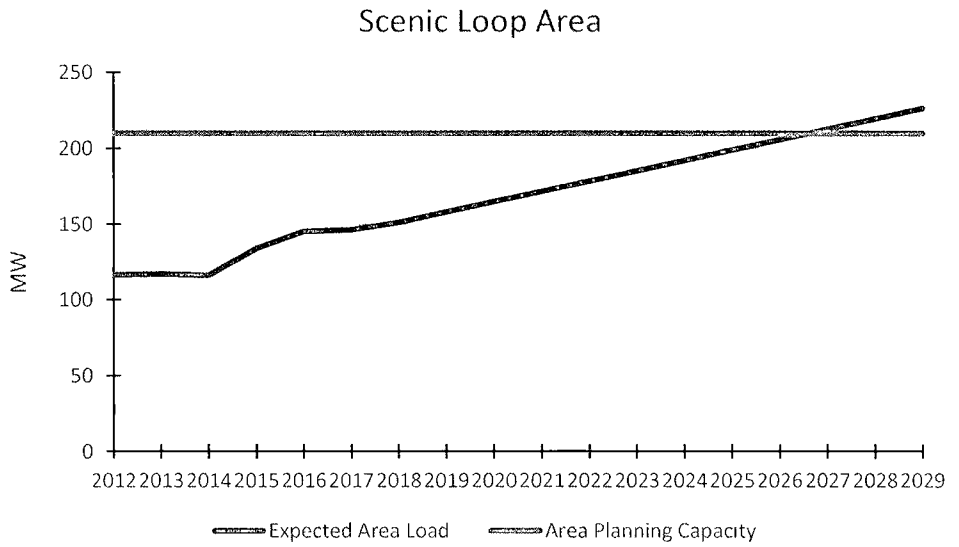


Fig. 2: Load forecast profile

4. Project Options:

Distribution Planning considered three options: Option A involved shifting load from existing circuits identified as overload. Option B involved the construction of a new Scenic Loop substation. Option C is to add a Distributed Generation power source as a non-wire solution to the load growth in the area. These three options are described as follows.

- **Option A**

With the area growing at 4.5% per year (Fig. 2), design tie points and load shift from La Sierra station to surrounding available circuits to create circuit capacities to pick up loads in the Scenic Loop area is shown in (Table 1). The Fair Oaks Ranch circuits can only shift load with La Sierra circuits which would further deplete the capacity in the Scenic Loop area. With respect to Option A, load shifts would have to be brought in from the Fair Oaks Ranch circuits to the La Sierra Circuits and then to the surrounding circuits which over time load the existing circuits in excess of 80%, leaving little capacity available to serve future load growth in other regional areas. The Option A load shift solution will not improve the circuit reliability issues experienced in the Scenic Loop area which has been a major concern for customers in the area. CPS Energy had to meet with a group of customers in the area on two separate occasions in 2019 to address the frequent and sustained outages experienced by the customers due to the long circuits from La Sierra and Fair Oaks substations.

From				To				Load Shift					Scenic Loop
Circuit 1	Circuit 1-KW	Circuit 1-Nominal KW	Circuit 1-%	Circuit 2	Circuit 2-KW	Circuit 2-Nominal KW	Circuit 2-%	Load Shift-KW	Circuit 1-New KW	Circuit 1-New %	Circuit 2-New KW	Circuit 2-New %	Available KW
U132	14803	34554	43%	K023	5681	31040	18%	4272	10531	30%	9953	32%	24023
U133	8599	30507	22%	M421	5429	24683	34%	5013	3586	12%	10442	42%	26921
U134	16652	31217	53%	V531	17029	27840	61%	4319	12333	40%	21348	77%	18884

Table 1: Load Shift Design

- **Option B**

The new substation (Fig. 3) will improve reliability for this area with shorter circuits that reduce exposure and the number of customers affected during an outage. The new circuits also create strong backbones and sufficient field ties to adjacent substation circuits that will prevent major loss of customer load in emergency conditions. This additional infrastructure will support the development and requirements of existing and future critical load customers. Initially, an estimated 20-25MW of load will be served by this new substation. If this project is not completed, the current planning capacity in the Scenic Loop area will be exceeded by 2024 and adjacent substations will be at increased reliability concerns as development increases. Also, some contingency conditions may lead to customer load at risk to lengthy outages due to exceeding emergency capacity limits.

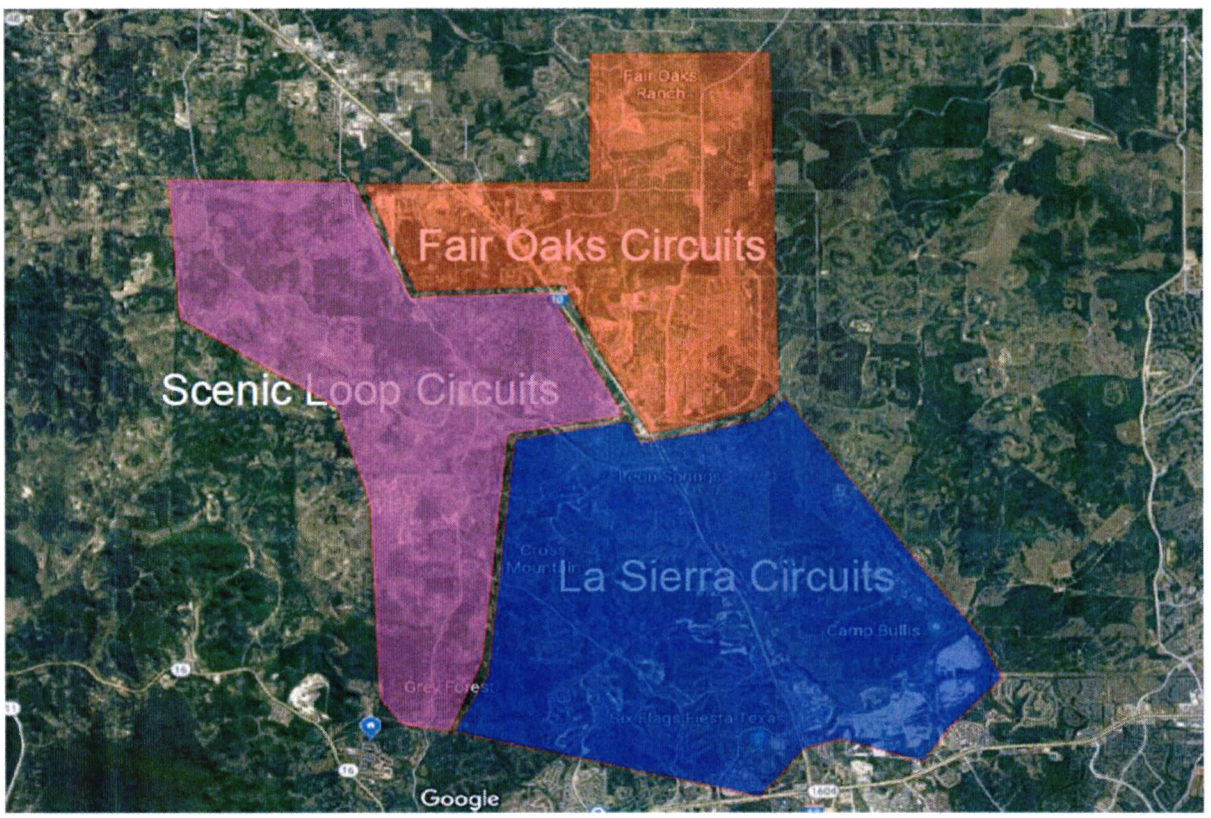
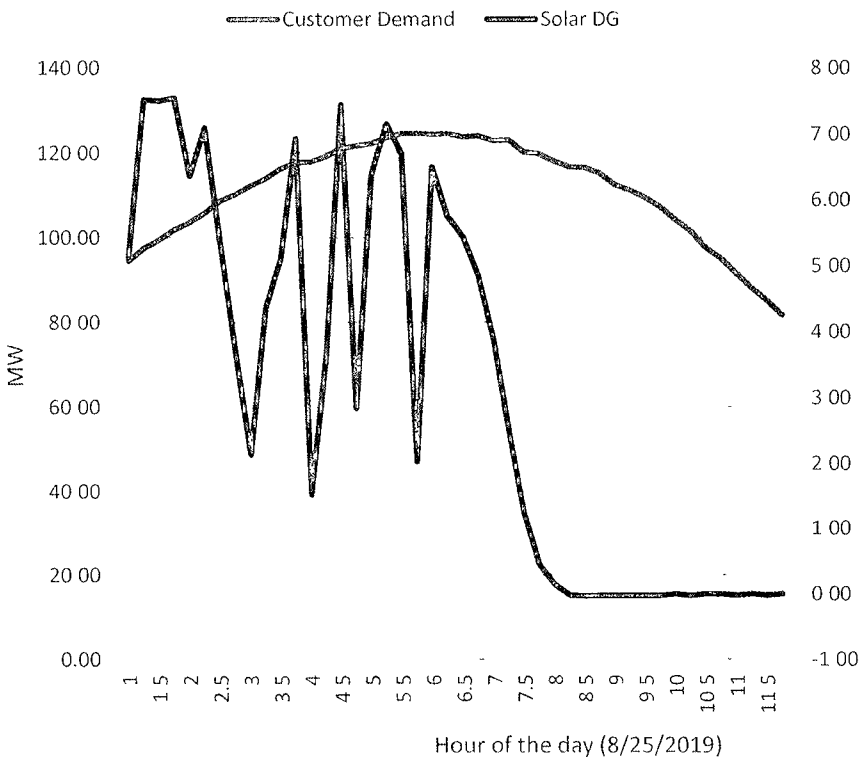


Fig. 3: Future substation service boundaries

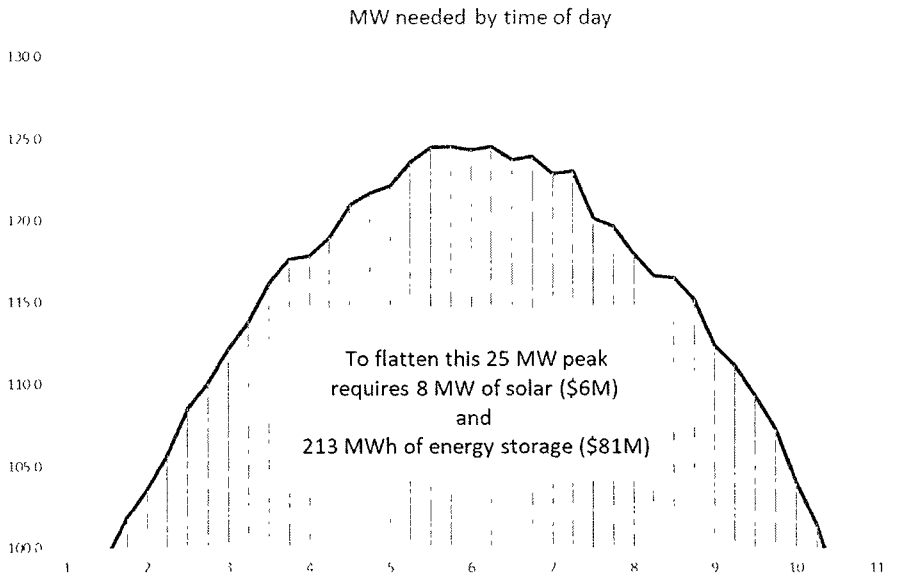
- **Option C**

Non-wire solutions are ways in which utilities are deferring traditional distribution grid investments with investments in Distributed Energy Resources (DER). The hope is these will ultimately result in savings for ratepayers as utilities are able to contract with DER providers for more cost-effective solutions, and policymakers can develop tariffs that support DER to offset or relieve grid needs.

Power density, or watt per square foot, is essential when looking at how much solar power can be derived from a certain area of real estate. In San Antonio 18 acres of solar should provide the 8 MW and 161 MWh of energy to reduce the area substation load by 25 MW however some type of storage must be included to provide the solar energy during the evening when demand is the highest.



This figure is the La Sierra substation Peak day demand in August 2019 with the same day solar output of an 8 MW site.



This figure shows the demand peak that will be flattened by applying option C. Costs are 8 MW of single axis tracking solar panels at $1.11M/MW ($6M) and 213 MWh (161+32 base reserve+1.1* for high side buffer) at $0.38 M/MWh ($81M).

https://www.nrel.gov/docs/fy19osti/71714.pdf

5. Evaluation of the Options

Distribution Planning performed studies to ensure that the three options address the identified reliability issues.

Options	Provide adequate capacity and sufficient voltage to serve future load growth
Option A	The circuits will reach a point at which shifting load will lead to circuit overload and no alternate source during maintenance or emergency condition. The circuit reliability will not improve for the customers in the area.
Option B	Addition of this new substation will increase system capacity and improve reliability and support for La Sierra and Fair Oaks Ranch substations.
Option C	This option does not improve the reliability issues for La Sierra, Fair Oaks Ranch substations and cost prohibitive.

6. Conclusion and Recommendation

As redevelopment and electric demands increase, Distribution Planning has identified reliability criteria violations in the Scenic Loop area in 2024. If additional capacity is not

added, it will become difficult to provide adequate service, sufficient voltage support for normal Summer load and no capacity for load shifts during maintenance or emergency conditions. The system will reach a point at which connection of new customers will lead to unacceptable levels of reliability. The addition of this substation in this part of the service area will support long-term load growth redevelopment plans, increase system capacity and infrastructure support circuit ties, and improve reliability and outage durations. It will also reduce transformer loading at adjacent substations, providing for additional load growth in the regional area.

The reliability need is the primary driven by continued load growth in the area, based on the review, Distribution Planning recommends Option B as the preferred option.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-28:

Please provide the CPS Scenic Loop project documents that CPS provided to Power Engineers that formed the basis for their scope of work tasks and estimated costs. If there was a Request for Proposal, please provide that as well.

Response No. 2-28:

Documents responsive to this request are attached. Pursuant to agreement with the requesting party, confidential pricing information and confidential information related to other projects have been redacted from the documents provided in this response.

Attachments:

Attachment AS 2-28 - Correspondence, 5 pages, Various Authors, Various Dates
Attachment AS 2-28 - Study Area V6 Scenic A1 Midtown, 2 pages, CPS Energy, Undated
Attachment AS 2-28 - Company/Vendor: POWER Engineers, Inc. Routing and Siting Services Statement of Work # 10518434 Purchase Order # 2172200, 48 pages, CPS Energy, October 17, 2017

Prepared By: Adam R. Marin Title: Regulatory Case Manager
Sponsored By: Adam R. Marin Title: Regulatory Case Manager

From: Sandoval, Juan A.
To: Casey, Sheila M.
Cc: Meaux, Lisa; Reid, Rob
Subject: RE: R&S - Substation Study Area
Date: Thursday, January 17, 2019 7:18:47 AM

Power Engineers is going to need more information before they can provide a proposal. We might have to wait until after the meeting.

Juan Sandoval, P.G.
Env Program Manager| Env Planning, Compliance & Sustainability
CPS Energy|145 Navarro San Antonio, Texas 78205 |MD: 100406
Office: 210.353.6510 | Mobile: 210.623.0187

From: Casey, Sheila M.
Sent: Thursday, January 17, 2019 6:59 AM
To: Sandoval, Juan A. <JASandoval@CPSEnergy.com>
Cc: lisa.barko@powereng.com; rob.reid@powereng.com
Subject: RE: R&S - Substation Study Area

Juan,
We will need to route and site transmission route and substation site for both Midtown and Scenic Loop. Scenic Loop will loop into the Ranchtown to LCRA Menger Creek t-line and will tap into the Five Points and Olmos 138kV T-line.

I should've have mentioned before but we may not need to do a full routing and siting for Converse since we have substation property and transmission easement. We typically don't do routing and siting when this is the case. But due to the changes in the routing and siting process, we may have to do a modified routing and siting. But we will discuss this further at the kickoff meeting.

Thanks,
Sheila

From: Sandoval, Juan A.
Sent: Wednesday, January 16, 2019 1:57 PM
To: Casey, Sheila M. <SMCasey@cpsenergy.com>
Cc: lisa.barko@powereng.com; rob.reid@powereng.com
Subject: RE: R&S - Substation Study Area

Hello Sheila,

Do you have additional information on how these substations will be connected and whether we might need transmission? Thanks.

Juan Sandoval, P.G.

Env Program Manager| Env Planning, Compliance & Sustainability
CPS Energy|145 Navarro San Antonio, Texas 78205 |MD: 100406
Office: 210.353.6510 | Mobile: 210.623.0187

From: rob.reid@powereng.com [mailto:rob.reid@powereng.com]
Sent: Tuesday, January 15, 2019 9:54 AM
To: Sandoval, Juan A. <JASandoval@CPSEnergy.com>
Cc: lisa.barko@powereng.com
Subject: [InternetMail]RE: R&S - Substation Study Area

Thanks Juan. Do any of these include new transmission lines to connect the new stations? We can discuss the particulars at the January 30 meeting.

ROB R. REID
VICE PRESIDENT
ENVIRONMENTAL DIVISION MANAGER
7600 N. Capital of Texas Hwy.
Bldg. B, Suite 320
Austin, Texas 78731

512-735-1800 main office
512-735-1808 direct line
512-964-1963 cell

POWER Engineers, Inc.
www.powereng.com

From: Sandoval, Juan A. [mailto:JASandoval@CPSEnergy.com]
Sent: Tuesday, January 15, 2019 8:53 AM
To: Reid, Rob
Cc: Stoker, Kim; Malone, Michael M.; Casey, Sheila M.
Subject: FW: R&S - Substation Study Area

Hello Rob,

Attached are the general locations of where we will be routing new substation sites. Please let us know what other information you may to provide proposals for each site. We will provide more information at our January 30th meeting.

Thanks,

Juan Sandoval, P.G.

Env Program Manager| Env Planning, Compliance & Sustainability
CPS Energy|145 Navarro San Antonio, Texas 78205 |MD: 100406
Office 210 353.6510 | Mobile· 210 623 0187

From: Casey, Sheila M
Sent: Monday, January 14, 2019 3:57 PM
To: Sandoval, Juan A. <JASandoval@CPSEnergy.com>
Subject: R&S - Substation Study Area

Juan,
Please see attachment for the study area for the three substation we will be kicking off. Can you please ask Power Engineers for a proposal? Please note as we discuss the study area, it may change

Thanks,
Sheila

From: Casey, Sheila M.
Sent: Thursday, January 17, 2019 6:59 AM
To: Sandoval, Juan A.
Cc: lisa.barko@powereng.com; rob.reid@powereng.com
Subject: RE: R&S - Substation Study Area

Juan,
We will need to route and site transmission route and substation site for both Midtown and Scenic Loop. Scenic Loop will loop into the Ranchtown to LCRA Menger Creek t-line and will tap into the Five Points and Olmos 138kV T-line.

[redacted]

Thanks,
Sheila

From: Sandoval, Juan A.
Sent: Wednesday, January 16, 2019 1:57 PM
To: Casey, Sheila M.
Cc: lisa.barko@powereng.com; rob.reid@powereng.com
Subject: RE: R&S - Substation Study Area

Hello Sheila,

Do you have additional information on how these substations will be connected and whether we might need transmission? Thanks.

Juan Sandoval, P.G.
Env Program Manager| Env Planning, Compliance & Sustainability
CPS Energy|145 Navarro San Antonio, Texas 78205 |MD: 100406
Office: 210.353.6510 | Mobile: 210.623.0187

From: rob.reid@powereng.com [mailto:rob.reid@powereng.com]
Sent: Tuesday, January 15, 2019 9:54 AM
To: Sandoval, Juan A. <JASandoval@CPSEnergy.com>
Cc: lisa.barko@powereng.com
Subject: [InternetMail]RE: R&S - Substation Study Area

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ROB R. REID
VICE PRESIDENT
ENVIRONMENTAL DIVISION MANAGER
7600 N. Capital of Texas Hwy.
Bldg. B, Suite 320
Austin, Texas 78731

512-735-1800 main office
512-735-1808 direct line
512-964-1963 cell

POWER Engineers, Inc.
www.powereng com

From: Sandoval, Juan A. [mailto:JASandoval@CPSEnergy.com]
Sent: Tuesday, January 15, 2019 8:53 AM
To: Reid, Rob
Cc: Stoker, Kim; Malone, Michael M.; Casey, Sheila M.
Subject: FW: R&S - Substation Study Area

Hello Rob,

Attached are the general locations of where we will be routing new substation sites. Please let us know what other information you may to provide proposals for each site. We will provide more information at our January 30th meeting.

Thanks,

Juan Sandoval, P.G.
Env Program Manager| Env Planning, Compliance & Sustainability
CPS Energy|145 Navarro San Antonio, Texas 78205 |MD: 100406
Office: 210.353.6510 | Mobile: 210.623.0187

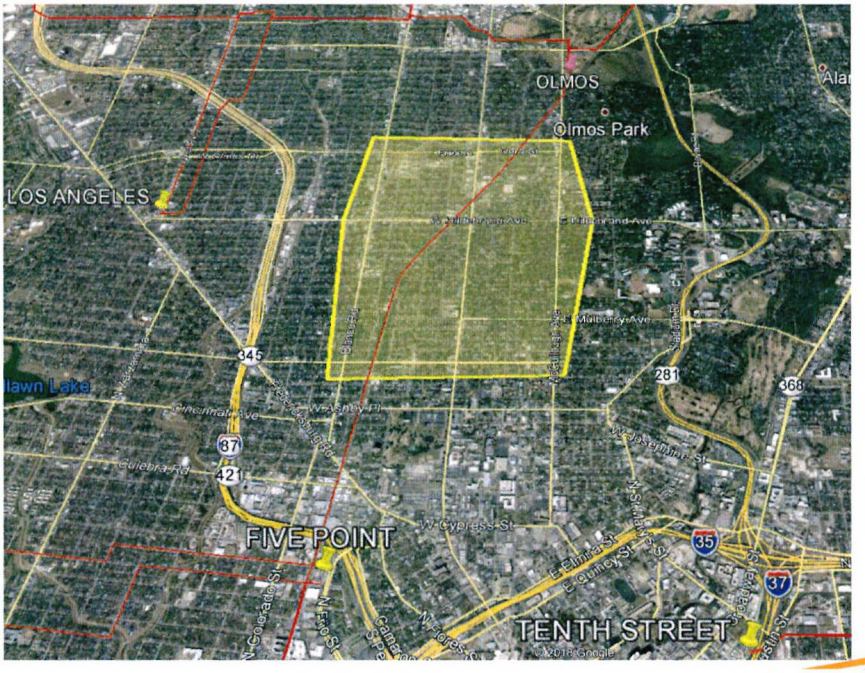
From: Casey, Sheila M.
Sent: Monday, January 14, 2019 3:57 PM
To: Sandoval, Juan A. <JASandoval@CPSEnergy.com>
Subject: R&S - Substation Study Area

Juan,
Please see attachment for the study area for the three substation we will be kicking off. Can you please ask Power Engineers for a proposal? Please note as we discuss the study area, it may change.

Thanks,
Sheila

SCENIC LOOP STUDY AREA

MIDTOWN STUDY AREA



Company/Vendor: POWER Engineers, Inc.
Routing and Siting Services

Statement of Work # 10518434
Purchase Order # 2172200

STATEMENT OF WORK NO. 10518434

This Statement of Work No. 10518434 ("**SOW**") is between POWER Engineers, Inc. ("**Company**") and the City of San Antonio, acting by and through City Public Service Board ("**CPS Energy**") issued pursuant to the Service Agreement dated May 16, 2017 (the "**Agreement**").

Capitalized terms not defined in this SOW have the meaning provided in the Agreement. This SOW defines the specific requirements, work effort, milestones and schedule for the Services that Company provides to CPS Energy related to the Project (defined herein).

The terms of the Agreement shall control unless this SOW clearly indicates otherwise. Notwithstanding the immediately preceding sentence, in the event that this SOW expressly provides that certain provision therein shall control over specified provisions of the Agreement ("**Special Terms**") and such Special Terms are agreed to by duly authorized representatives from both parties, then, to the extent that such Special Terms conflict or are inconsistent with the specified provisions of the Agreement, any such Special Terms shall control, but only for the purposes of this particular SOW.

1. **Introduction/Background.** The following is a general description of the Project and highlights the Project's background and what is to be gained by the Project (the "**Project**"):

   CPS Energy constructs new substations and transmission lines in order to improve system reliability as the City of San Antonio population increases. In addition, transmission lines are rebuilt and substations modified in order to upgrade aging infrastructure.

2. **Services.** Company agrees to provide the following Services (the "**Services**"):

   Company shall provide consulting services on an as-needed basis to include analysis and environmental-related studies that pertain to routing and siting for new sites. The environmental-related studies shall include an environmental assessment, endangered species surveys, cultural resource surveys, and land use studies. Company must become familiar with CPS Energy's Electric Transmission Line Routing/Substation Siting General Process ("**Process**") Manual (attached herein as Attachment A) and provide Services, as requested, to support the Process. As requested by CPS Energy, consulting services to support the Project may include, but are not limited to:

   - Aid in defining appropriate study areas;
   - Interpretation of aerial photography;
   - Field surveys;
   - Agency notification;
   - Land use and environmental constraints mapping;
   - Recommendations for sites and routes;
   - Organize and conduct public meetings to explain the Process and to solicit public input;

- Environmental assessments, and Phase I environmental site assessments;
- Provide final recommendations with supporting documentation and report;
- Provide expert testimony;
- Conduct endangered species habitat identification, protection, and migratory-bird habitat assessments;
- Provide conservation or mitigation plans, produce reports on an as needed basis;
- Assist with regulatory agency consultations, which may include the department of U.S. Fish and Wildlife;
- Assist with and provide recommendations for the Edwards Aquifer Recharge Zone and endangered karst invertebrate issues in Bexar County and surrounding areas;
- Provide reports, consultation and cultural surveys in compliance with Section 106 of The National Historic Preservation Act, which includes the City of San Antonio, Texas Commission on Environmental Quality (TCEQ) and the Texas Historical Commission. Emphasis will be placed on compliance with the Texas Antiquities Code;
- Provide the necessary personnel, supervision, equipment and materials to conduct project management, report writing, sampling, analytical and general environmental services;
- Provide U.S. Army Corp of Engineers permitting, wetland delineation and restoration, geological assessments, tree surveys/delineations, and historic preservation determinations;
- Provide guidance on other issues involving Section 404 of the Clean Water Act, and specifically, the Texas Pollution Discharge Elimination System;
- Company shall have teleconference capacities for meetings as requested by CPS Energy Representatives;
- Company shall only be required to come onsite into into the office building upon request by CPS Energy or when a site visit is required.

3. **Availability of Services**. Subject to the terms and conditions of the Agreement and this SOW, Company shall use best-efforts to provide Services, as requested by CPS Energy, 8 hours per day, 5 days per week throughout the term of this SOW. Unless otherwise provided for herein, all work will be performed off-site and on-site at CPS Energy's locations in San Antonio, TX during normal business hours, Monday through Friday, 8:00 a.m. – 5:00 p.m. excluding CPS Energy, federal or state holidays.

4. **Project Schedule**.

   To be determined by the parties

5. **Location of Services**. The Services shall be provided at the following location(s):

   On CPS Energy premises and off-site

6. **Deliverables**. In addition to the Services, the Company shall deliver each of the following (the "**Deliverables**") within the phase or time frame stated below:

Deliverable	Description	Phase / Time Frame
Routing and Siting Analysis	• Conduct environmental related studies • Environmental Assessments • Endangered species surveys • Cultural resources surveys and land use surveys • Defining appropriate study areas • Interpretation of aerial photography • Land use and environmental constraints mapping • Recommendations for sites/routes • Critical selection • Organizing and conducting public meetings to explain the 12-Step process and specifics of each project, and to solicit public input • Environmental assessments, and Phase I Environmental Site Assessments • Final recommendations with supporting documentation and report • Providing expert testimony	As needed basis

All final reports and documents pertaining to the routing and siting of electrical tramission and substances shall be ONLY reviewed by one designee. Company must provide final reports and/or documents as requested by CPS Energy.

7. **Acceptance Criteria**. In addition to the requirements set forth in the Agreement, the Services and/or Deliverables are subject to the following Acceptance Criteria:
   a. Company shall provide response times as identified during initial project meetings in order to avoid delays.
   b. Company shall provide a draft report on the Environmental and Cultural Reporting documentation. The draft report shall cover all items as identified throughout the project development process. No additional fees associated with Company error correction will be accepted.
   c. Company shall provide a final report on the Environmental and Cultural Reporting documentation within two (2) days of written approval.

8. **Acceptance Process**. Unless otherwise agreed by both parties in writing, CPS Energy will accept Deliverables following this process:
   a. Company will present the Deliverables to CPS Energy for review and approval.

b. CPS Energy will review the Deliverables and provide Company feedback within five (5) business days.

c. Company will revise the Deliverables and re-submit the updated Deliverables to CPS Energy within two (2) business days.

d. CPS Energy will approve the Deliverables within two (2) business days.

9. **Fees**. The fees for the Services and the Deliverables are as follows:

Company shall provide hourly rates as Exhibit A, "Fees" to this SOW. Company shall include all personnel classifications with roles responsibilities and qualifications who will provide Services under this SOW.

No additional fees shall be included into the cost of project work *(e.g.*, communication fees). No additional terms and conditions will be considered. CPS Energy may request Company to provide an upfront estimated rate of all travel fees and/or expenses anticipated with providing the Services.

10. **Company Mini-Bid Process**. (if applicable)

a. Process. In the event that multiple companies are engaged with CPS Energy for the same Services, a mini-bid may be conducted by the CPS Energy Environmental Program Manager ("**PM**") set forth in Section 17 below, in order to determine the Company providing the best value to CPS Energy for those particular Services. The PM will notify all qualified companies of a request for mini-bids via email, and if required a mandatory pre-bid meeting date. The PM will provide documentation outlining the scope, schedule and requirements of the Services.

b. Pre-Bid Meeting. If a mandatory pre-bid meeting is determined to be necessary by the PM, companies will be notified three (3) days in advance of the meeting.

c. Submission Requirements. Company will submit a mini-bid for the Services utilizing the information provided by the PM, at competitive rates that will, in no event, exceed the rates set forth in Exhibit A.

d. Deadline. The mini-bid submittal deadline will be submitted on the scope of work document. CPS Energy reserves the right to reject any bids received after the stated deadline.

e. Commencement of Services. If there is a successful respondent company, Services will commence as requested by CPS Energy. CPS Energy will notify all respondent companies of the successful bid.

f. Consecutive Failure to Submit. If Company fails to submit three (3) consecutive mini-bids, the Company may be removed from the pre-qualified list and will not have an opportunity to submit mini-bids under this SOW.

11. **Payment Schedule**. Company shall submit monthly invoices based on the Fees provided in Exhibit A. CPS Energy shall only accept one invoice per month.

12. **Additional Warranties**. In addition to any warranties stated in the Agreement for Deliverables or Services, Company gives the following additional warranties, if any, specific

to this SOW:

To be determined by the parties

13. **Term**. The Initial Term of this SOW shall commence on the date of the last signature below and continue for a term of three (3) years. The parties, in writing, may agree to renew the SOW for a successive term, the length of which shall be mutually agreed upon by the parties, but in no event shall exceed three (3) years.

14. **Termination for Cause**. If Company fails to perform the Services or deliver the Deliverables and does not cure the failure within ten (10) calendar days of CPS Energy's written notice, CPS Energy may terminate this SOW for breach. Company acknowledges that repeated failures may constitute a material breach even if any failure taken individually does not constitute a breach or has been cured.

15. **Termination at Will**. CPS Energy may terminate this SOW, in whole or in part, by giving Company thirty (30) calendar days' written notice. In the event of such termination, Company shall immediately stop work as to the terminated portion of the SOW, notify all suppliers, subcontractors and sub-suppliers to stop work on contracts for performance hereunder and to protect and preserve property in its possession in which CPS Energy has or may acquire an interest. In order to entitle the Company to any termination payment, Company shall, within thirty (30) days after receipt of said notice to terminate, advise CPS Energy in writing whether any termination charges will be submitted in connection with the termination. Company shall be paid a reasonable termination charge consisting of a percentage of the SOW price reflecting the percentage of the work completed in compliance prior to the notice of termination, plus reasonable, actual direct costs for uncompleted work in progress. Company shall not be paid for any work done after receipt of the notice of termination, nor for any costs incurred by its suppliers or sub-suppliers which Company could reasonably have avoided. In no event shall the aggregate of all termination payments plus all other payments made for goods under this SOW exceed the total sum due under the SOW.

16. **Limitation of Liability.**

NEITHER PARTY (NOR ITS EMPLOYEES, AGENTS, SUPPLIERS OR AFFILIATES) SHALL BE LIABLE TO THE OTHER FOR ANY LOST PROFITS OR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL LOSS OR DAMAGE OF ANY KIND ARISING IN CONNECTION WITH THE AGREEMENT, EVEN IF THE PARTY HAS BEEN ADVISED OR SHOULD BE AWARE OF THE POSSIBILITY OF SUCH DAMAGES. NOTHING IN THE AGREEMENT LIMITS OR EXCLUDES EITHER PARTY'S LIABILITY FOR LOSS OR DAMAGE RESULTING FROM DEATH OR PERSONAL INJURY CAUSED BY ITS GROSS NEGLIGENCE, OR ANY FRAUD OR FRAUDULENT MISREPRESENTATION. THIS PARAGRAPH CONTROLS OVER SECTION 10 OF THE SERVICESAGREEMENT.

NOTWITHSTANDING SECTION 10 OR ANY OTHER PROVISION OF THE AGREEMENT TO THE CONTRARY, CPS ENERGY AGREES TO LIMIT COMPANY'S LIABILITY TO CPS ENERGY TO THE TOTAL FEE OR COMPENSATION RECEIVED

BY COMPANY FOR THE PURCHASE ORDER OR SOW UNDER WHICH THE LIABILITY ARISES, HOWEVER NOTHING CONTAINED IN THE FOREGOING IS INTENDED TO LIMIT OR EXCLUDE COMPANY'S LIABILITY FOR LOSS OR DAMAGE CAUSED BY ITS GROSS NEGLIGENCE, WILLFUL MISCONDUCT, FRAUD OR FRAUDULENT MISREPRESENTATION, OR ANY TYPE OF DAMAGE OR LOSS TO THE EXTENT IT IS COVERED BY THE PROCEEDS OF INSURANCE COMPANY IS REQUIRED TO CARRY HEREUNDER.

17. **Insurance.**

Minimum Insurance Requirements. Company agrees to carry and keep insurance in full force during the Term of this SOW sufficient to fully protect CPS Energy from all damages, claims, suits and/or judgments including, but not limited to, errors, omissions, violations, fees and penalties caused or claimed to have been caused by, or in connection with the performance or failure to perform under the Agreement by Company, Company's agents or employees, a Company Subcontractor, or its agents or employees. The minimum amount of insurance as required shall be in accordance with Addendum A titled "Minimum Insurance Requirements." Company's insurance shall be primary to and non-contributory with any self-insurance and/or insurance maintained by CPS Energy. Should the Minimum Insurance Requirements of CPS Energy change, Company shall be notified in writing and Company shall have sixty (60) days to meet the new requirements. Should the new requirements add materially to Company's cost, Company should notify CPS Energy and request adjustment in Company's compensation.

18. **Expenses**. Unless otherwise approved by CPS Energy in writing in advance, Company shall bear all of its expenses in connection with the performance of the Services and development and delivery of the Deliverables. Notwithstanding the foregoing, the following expenses shall be deemed pre-approved:

Travel Related Expenses as set forth in Addendum D.

19. **Primary Contacts**. The following persons will be the primary contacts for the Parties as it relates to this SOW.

CPS ENERGY

Environmental Analyst/ Field Representative		**Environmental Program Manager**	
Name:	Caroline Johnson	Name:	Juan Sandoval
Phone Number:	210-353-2780	Phone Number:	210-623-0187
Email Address:	csjohnson@cpsenergy.com	Email Address:	jasandoval@cpsenergy.com

COMPANY

Project Director/ Environmental Division Manager		**Project Manager/ Environmental Department Manager**	
Name:	Rob Reid	Name:	Lisa Meaux
Phone Number:	512-735-1808	Phone Number:	281-765-5507
Email Address:	Rob.Reid@powereng.com	Email Address:	Lisa.Meaux@powereng.com

20. **Amendment**. All changes to the terms of this SOW, including any change in the scope of Deliverables or Services, modification of the description or due date of the Deliverables or Services, or a change in fees due shall be subject to the Change Authorization Order process set forth in the Agreement.

21. **Authorization**. Each party represents and warrants that all consents or approvals required of third parties (including, but not limited to, its Board of Directors or partners) for the execution, delivery and performance of this SOW have been obtained and that each Party has the right and authority to enter into and perform its covenants contained in this SOW.

22. **Addenda.** The following selected addenda shall be attached hereto, if applicable, and incorporated herein by reference:

Addendum A:	Minimum Insurance Requirements	Addendum A -Minimum Insurance
Addendum B:	Business Questionnaire	
Addendum C:	Subcontracting	Addendum C - Subcontracting Plan p
Addendum D:	Guideline for Business Travel Expenses	Addendum D- Guidelines for Business Travel Expenses pdf

23. **Exhibits.** The following exhibit(s) shall be attached hereto and incorporated herein by reference:

Exhibit A	Fees/Rate Sheet	Exhibit A - Fees_Rate Sheet.pdf

24. <u>Attachments.</u> The following attachment(s) shall be attached hereto and incorporated herein by reference:

Attachment A:	CPS Energy Electric Transmission Line Routing/Substation Siting General Process Manual	Attachment A - CPS Energy Electric Trans

[Signature Page Follows]

The City of San Antonio, Texas acting by and through City Public Service Board	**POWER Engineers, Inc.**
Karen T Smith	Rob R. Reid
Signature	Signature
Karen T. Smith	Rob R. Reid
Printed Name	Printed Name
Procurement Manager	Environmental Division Manager
Title	Title
10.17.17	October 9, 2017
Date	Date

ADDENDUM A
MINIMUM INSURANCE REQUIREMENTS
(CLASS 2)

1. Company shall purchase and maintain in full force and effect, at its own expense, the following minimum insurance coverages and limits:

   a. Statutory Worker's Compensation and Employer's Liability Insurance with minimum limits of not less than indicated below. The policy must be in the name of the Company or contain an endorsement naming CPS Energy as the Alternate Employer.

      Required Limits – Statutory limits, with Employer's Liability Coverage as follows:

Bodily Injury by Accident	[redacted]
Bodily Injury by Disease Each Employee	[redacted]
Bodily Injury by Disease Policy Limit	[redacted]

   b. Commercial General Liability Insurance, including the coverages identified below, with minimum limits indicated below.

Each Occurrence	[redacted]
General Aggregate	[redacted]

      The Commercial General Liability Policy will include the following coverage's where applicable:
      i. Bodily injury & Property damage on an "Occurrence" basis
      ii. Premises & Operations
      iii. Independent Contractors
      iv. Contractual Liability
      v. Personal Injury Liability

   c. Business Automobile Insurance for all owned, non-owned, and hired vehicles.

Combined Single Limit BI & PD	[redacted]

   d. Professional Liability [redacted]

2. Each of Company's liability insurance policies shall be **primary to and non-contributing** with, any other insurance carried by, or for the benefit of the CPS Energy. Insurance may be provided under a single limit policy, or two or more policies with combined limits for the required amount of coverage.

3. Company's workers' compensation, employers' liability, commercial automobile liability, commercial general liability, and excess liability insurance policies shall be endorsed to waive all rights of subrogation in favor of CPS Energy and its affiliates, and their shareholders, directors, officers, members, employees and agents.

4. CPS Energy and its employees, officers, directors, owners, advisors, consultants and agents shall be included as additional insureds without limitation on all policies (except workers' compensation), under

the form of additional insured endorsement providing the maximum protection to CPS Energy allowed by applicable law. Further, Company represents and warrants that:

a. All such policies will be endorsed to reflect thirty (30) days notice of cancellation to CPS Energy. Company shall not cause or permit its insurance to be canceled, reduced, restricted, limited, or invalidated.
b. Upon request by CPS Energy, Company shall provide true copies of the insurance policies and policy endorsements as required in this Addendum A from issuing insurance company(s).

5. All Company's insurance shall be issued by insurance carriers licensed to do business in Texas at the time the policy is issued and rated by A.M. Best Company as A-VII or better, confirmed by one or more insurance certificates listing CPS Energy's name and address as a Certificate Holder, and list the name of Project as described in this Agreement and the name and phone number of the broker who prepared the certificate. Certificates of insurance shall be prepared on an Acord form 25-S.

6. With respect to any coverage maintained on a "claims-made" policy form, Company shall maintain such coverage for two (2) years following termination of this Agreement or completion of all Services associated with this Agreement, whichever is later; provided that, if a "claims-made" policy is maintained, the retroactive date must precede the date of commencement of Services under this Agreement

7. Company shall not commence Services under this Agreement until Company has obtained all required insurance and until such insurance has been received and approved by CPS Energy. Company's failure to fulfill these insurance requirements within ten (10) days after receipt of CPS Energy's notice to proceed shall not be considered cause for any adjustment to Company's compensation or schedule. CPS Energy's approval of Company's insurance shall not relieve or decrease the liability of Company hereunder.

8. If Company fails to obtain or renew the above required insurance and furnish to the CPS Energy acceptable evidence thereof, CPS Energy shall have the right, but not the obligation, to: (1) procure such insurance and reduce the Agreement amount by the cost thereof; or (2) deem as material breach of this Agreement the Company's failure to do so.

9. Nothing herein shall reduce or alter any obligation Company has to indemnify, defend or hold harmless identified parties as provided in the Agreement.

10. In the event Company enters into a subcontract with a Subcontractor, the Company will require the Subcontractor to procure at a minimum all insurance specified to be carried by the Company, in the like form specified herein.

11. Company and, as applicable, its Subcontractors shall bear all risks and be responsible for any uninsured loss due to policy deductibles, self-insured retentions, exclusions, limitation inadequacy and/or absence of coverage, whether such policies are purchased by Company, Subcontractor and/or CPS Energy.

Company Name: Power Engineers Inc.
Purchase Order (PO) Number: 2172200

CPS ENERGY
SUBCONTRACTING DOCUMENTS

It is the policy of CPS Energy to ensure that small, veteran, service-disabled veteran, HUBZone, minority and woman owned businesses have the maximum practicable opportunity to participate as contractors and suppliers. It is CPS Energy's policy to assist these businesses to overcome barriers that may have, in the past, kept them from full and equal participation in the mainstream of the American Business Enterprise System.

In response to its belief of equality of opportunity, CPS Energy has extended the concept of equal opportunity and affirmative action to include efforts toward increasing the amount of business conducted with small, veteran, service-disabled veteran, HUBZone, minority and woman owned businesses.

A policy and formal program have been created for this purpose, and all CPS Energy employees involved with the program are responsible and accountable for the attainment of these goals and objectives.

IMPORTANT PLEASE READ

Contractors classified by CPS Energy as a **large** business are required to furnish the subcontracting goals when their awarded contract is expected to meet or exceed $700,000 or $1,500,000 for construction of a public facility at the time the bid or proposal award. Failure to provide these documents may result in the award being cancelled.

Subcontracting opportunities exist when **any** part of the services to be performed or goods to be provided entail the use of any other business other than the business contracted to perform the work directly with CPS Energy.

Contractors are asked to contact Supplier Diversity Office at (210) 353-2474 or via email at cpsenergysubcontracting@cpsenergy.com for assistance when needed in determining when subcontracting opportunities may or may not exist and completing any of the attached documents.

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THIS DOCUMENT MUST BE COMPLETED AND RETURNED AT THE TIME OF AWARD

Please select one of the following options and complete the applicable requirements:

1. ___X___ **Contractor is submitting a plan**

2. _____ **Contractor is a small business, so no plan is required.** To qualify as a small business, a contractor must be classified as a small business by CPS Energy. If a contractor is a small business, select one of the two following statements.

   _____ A contractor has previously been classified as a small business by CPS Energy.

   _____ A contractor is enclosing a completed CPS Energy questionnaire certifying that it is a small business.

3. _____ **This contract is for construction of a public facility and is estimated below $1,500,000, so no plan is required.**

4. _____ **This contract does not offer subcontracting possibilities, so no plan is required.**

A contractor must state below the specific reasons why the contract does not offer subcontracting possibilities and that all work will be performed by awarded contractor.

N/A.

Contractors submitting a Subcontracting Plan must also prepare and submit either Summary Subcontract Report Standard Form 294 or 295 semi-annually or annually respectively to CPS Energy and the General Services Administration, upon request (see Section F.) at the commencement of the contract. Copies of these forms will be provided at the time they are due.

Standard Form 295 is required to be submitted if the contractor sells or otherwise provides **"commercial products"** to CPS Energy. Standard Form 294 is required to be submitted by all other contractors.

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"**Commercial products**" are products or services sold

1.) In substantial quantities
2.) To the general public and/or industry
3.) At established catalog prices or at established market prices

1. **Sold in substantial quantities.** Products are considered to be **"sold in substantial quantities"** only when the quantities regularly sold are sufficient to constitute a real commercial market. Thus, models, samples, prototypes, experimental units, and products specially made only for CPS Energy (i.e., to CPS Energy specifications) do not meet this requirement. For services to be considered **"sold in substantial quantities,"** they must be customarily provided by the contractor, using personnel regularly employed and equipment (if any is necessary) regularly maintained solely or principally to provide the services.

2. **To the general public or industry.** A product or service is considered to be sold **to the general public or industry** if there are a significant number of buyers of the product or service other than CPS Energy.

3. **Established catalog and market prices. Established catalog prices** are prices that are recorded in a form regularly maintained by the contractor. This form (a) must be a verifiable and established record, such as a catalog, price list, schedule, or rate tariff; (b) must be published or available for customer inspection; and (c) must state current or last sales prices to the general public.

   Established market prices are current prices that (a) are established in the course of ordinary and usual trade between buyers and sellers free to bargain; and (b) can be substantiated by data from sources independent from the contractor.

Any questions regarding this aforementioned information, please contact Supplier Diversity Office at (210) 353-2474.

Submitted by:

Printed Name	Title
Email address	Phone Number
Signature	Date

Company Name: Power Engineers Inc.
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THE FOLLOWING DOCUMENTS DO NOT NEED TO BE COMPLETED IF THE CONTRACTOR HAS DETERMINED NO SUBCONTRACTING OPPORTUNITIES EXIST OR IF THE COMPANY IS A SMALL BUSINESS.

SUBCONTRACTING PLAN

The following Subcontracting Plan is hereby submitted to CPS Energy, Gas and Electric Utility of San Antonio, Texas, by POWER Engineers, Inc. *(Contractor)* in conjunction with CPS Energy's Purchase Order (PO) No. 7000145932.

1. Policy Statement

The Contractor will provide a competitive opportunity for suppliers who are small, veteran, service-disabled veteran, HUBZone, non-minority, minority and woman owned businesses, to qualify for and earn a share of the business current or long-term purchase volume, commensurate with the merits of their offerings and their proven qualifications or demonstrated performance as suppliers.

The Contractor has and will continue to utilize small, veteran, service-disabled veteran, HUBZone, non-minority, minority and woman owned businesses to the greatest extent practicable consistent with efficient performance of all contracts or subcontracts.

2. Measures to Promote Equal Opportunities

In order to ensure that small, veteran, service-disabled veteran, HUBZone, non-minority, minority and woman owned businesses owned and controlled by socially and economically disadvantaged individuals will have an equitable opportunity to compete for subcontracts, the Contractor will:

2.1 Maintain a program designed to locate capable small, veteran, service-disabled veteran, HUBZone, non-minority, minority and woman owned businesses for current and future subcontracting opportunities.

2.2 Review company policies and procedures to assure and encourage equitable opportunity to small, veteran, service-disabled veteran, HUBZone, non-minority, minority and woman owned businesses in letting subcontracts.

2.3 Coordinate inquiries and requests for advice from small, veteran, service-disabled veteran, HUBZone, non-minority, minority and woman owned businesses.

2.3 Assure that participation of both large and small, veteran, service-disabled veteran, HUBZone, non-minority, minority and woman owned businesses are accurately reported.

2.5 Review acquisition programs for possible breakout of items suitable for acquisition from both large and small, veteran-owned businesses, service-disabled veteran-owned businesses, HUBZone businesses, non-minority, minority and woman owned businesses.

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3. Small, Service-Disabled Veteran, Veteran, HUBZone, Non-Minority, Minority and Woman Owned Businesses

View the Supplier Classification List on www.cpsenergy.com to review CPS Energy registered suppliers to identify small, veteran, service-disabled veteran, HUBZone, minority and woman owned businesses.

For an approved listing of CPS Energy Suppliers by products or capabilities email your request to cpsenergysubcontracting@cpsenergy.com

Which of the following sources listed were used to identify small, veteran-owned small businesses, service-disabled veteran-owned small businesses, HUBZone small businesses, minority and woman owned businesses, only those marked were used in this contract:

____	Company resource lists
____	Referrals by other small business firms
____	CPS Energy, Supplier Listings
____	CPS Energy, Supplier Classification List
X	Other _____

The administrator of this Subcontracting Plan who is responsible for compiling data for the Plan and for the regular reviewing, updating and implementation of this Subcontracting Plan throughout the duration of this contract is:

Name of Administrator: Jose Perales
Address of Administrator: 16825 Northchase Drive, Suite 1200
City/ST/Zip: Houston, Texas 77060
Phone No. of Administrator: 281-765-5507
Email Address of Administrator: jose.perales@powereng.com

Company Name: Power Engineers, Inc.
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4. **Estimated subcontracting goals for this contract**

Total estimated subcontracting for this
Contract ***(only that portion of the overall contract that offers subcontracting opportunities)***

$ TBD 100%

Estimated subcontracting Large Businesses:	**Amount**	**Percentage**
Large Non-Minority Owned	$ TBD based upon receipt of detailed scope of work.	
Large Minority Owned	$	
Large Woman Owned	$	
Large Service-Disabled Veteran Owned	$	
Large Veteran Owned	$	
HUBZone Large Business	$	
Estimated subcontracting Small Businesses:		
Small Non-Minority Owned	$ TBD based upon receipt of detailed scope of work.	
Small Minority Owned	$	
Small Woman Owned	$	
Small Service-Disabled Veteran Owned	$	
Small Veteran Owned	$	
HUBZone Small Business	$	

5. **Principal Subcontractors -**

View the Supplier Classification List on www.cpsenergy.com to review CPS Energy registered suppliers to identify small, veteran-owned small businesses, service-disabled veteran-owned small businesses, HUBZone small businesses, minority and woman owned businesses.

1. Name of Subcontractor: Zephyr Environmental Corporation

Address of Subcontractor: 2600 Via Fortuna, Suite 450

City/ST/Zip: Austin, Texas 78746

Phone No. of Subcontractor: 281-668-7358

Email Address of Subcontractor: jblackmore@zephyrenv.com

Type of material/service to be provided: Phase I ESA's, water resources, air quality, noise

Dollars estimated to be subcontracted: TBD - contingent on receipt of detailed scope of work.

Company Name: Power Engineers Inc.
Purchase Order (PO) Number: 2172200

Check one of the following for each question:

Size: X Small Business or _____ Large Business

Non-Minority Owned	_____	Yes	or	_____ No
Minority Owned	_____	Yes	or	_____ No
Woman Owned	_____	Yes	or	_____ No
Veteran Owned	_____	Yes	or	_____ No
Service-Disabled Veteran Owned	_____	Yes	or	_____ No
HUBZone Business	_____	Yes	or	_____ No

2. Name of Subcontractor: _____

Address of Subcontractor: _____

City/ST/Zip: _____

Phone No. of Subcontractor: _____

Email Address of Subcontractor: _____

Type of material/service to be provided: _____

_____

Dollars estimated to be subcontracted: _____

Check one of the following for each question:

Size: _____ Small Business or _____ Large Business

Non-Minority Owned	_____	Yes	or	_____ No
Minority Owned	_____	Yes	or	_____ No
Woman Owned	_____	Yes	or	_____ No
Veteran Owned	_____	Yes	or	_____ No
Service-Disabled Veteran Owned	_____	Yes	or	_____ No
HUBZone Business	_____	Yes	or	_____ No

Company Name: Power Engineers Inc.
Purchase Order (PO) Number: 2172200

3. Name of Subcontractor: _____
Address of Subcontractor: _____
City/ST/Zip: _____
Phone No. of Subcontractor: _____
Email Address of Subcontractor: _____
Type of material/service to be provided: _____

Check one of the following for each question:

Size: _____ Small Business or _____ Large Business

Non-Minority Owned	_____ Yes	or	_____ No
Minority Owned	_____ Yes	or	_____ No
Woman Owned	_____ Yes	or	_____ No
Veteran Owned	_____ Yes	or	_____ No
Service-Disabled Veteran Owned	_____ Yes	or	_____ No
HUBZone Business	_____ Yes	or	_____ No

Dollars estimated to be subcontracted: _____

4. Name of Subcontractor: _____
Address of Subcontractor: _____
City/ST/Zip: _____
Phone No. of Subcontractor: _____
Email Address of Subcontractor: _____
Type of material/service to be provided: _____

Check one of the following for each question:

Size: _____ Small Business or _____ Large Business

Non-Minority Owned	_____ Yes	or	_____ No
Minority Owned	_____ Yes	or	_____ No
Woman Owned	_____ Yes	or	_____ No
Veteran Owned	_____ Yes	or	_____ No
Service-Disabled Veteran Owned	_____ Yes	or	_____ No
HUBZone Business	_____ Yes	or	_____ No

Dollars estimated to be subcontracted: _____

Company Name: Power Engineers Inc.
Purchase Order (PO) Number: 2172200

(Please use additional sheets if necessary)

5. Records to be Maintained

The Contractor, in regard to this Subcontracting Plan, will maintain the following records:

1. Small, veteran, service-disabled veteran, HUBZone, non-minority, minority and woman owned businesses source lists, guides and other data identifying small, veteran, service-disabled veteran, HUBZone, non-minority, minority and woman owned businesses contractors and suppliers.
2. Organizations contacted for small, veteran-owned businesses, service-disabled veteran-owned businesses, HUBZone businesses, non-minority, minority and woman owned businesses sources.
3. On a contract-by-contract basis, records to support award data submitted to CPS Energy, to **include name and address of subcontractor(s)** and General Service Administration upon request.

Submitted by: Lisa Boto Meaux
Signature

Lisa Meaux — Project Manager/Environmental Department Manager
Printed Name — Title

Date: September 25, 2017

Accepted by: _____
Signature

Rebecca A. Bailey — Director of Supply Chain
Printed Name — Title

Date: _____

Guidelines for Business Travel Expenses

CPS Energy may reimburse Company for certain travel related expenses. The following list is a guide of reimbursable expenses. The terms for reimbursement according to the Agreement shall govern all reimbursable expenses. CPS Energy reserves the right to decline reimbursement of any expense not pre-approved by CPS Energy in writing. The following guide does not serve as pre-approval. Airline travel, hotels, rental cars, and restaurants should be appropriate for business travel.

1. **Reasonable Meal Costs.** Include itemized meal receipts for reimbursement to show what was ordered.
2. **Alcohol**. CPS Energy will not reimburse for alcoholic beverages.
3. **Hotel Rates** CPS Energy has been offered reduced rates for its business clients in several downtown San Antonio hotels. CPS Energy will reimburse Company for the contract reduced rates for hotels in San Antonio, Texas. If Company stays in a more expensive hotel in San Antonio, Company should expect to pay the difference between the CPS Energy rate and that of the more expensive hotel. CPS Energy will reimburse Company for reasonable hotel rates outside of San Antonio, Texas in the performances of Services pursuant to the Agreement.
4. **Hotel Services**. CPS Energy will not reimburse for premium hotel service expenses such as laundry service, shoe shines, pay-per-view movies, in-room mini-bar items, etc.
5. **Rental Cars**. CPS Energy will reimburse for a mid-size or smaller-class rental car. CPS Energy will not reimburse for luxury rental car rates; however, free upgrades are acceptable as long as CPS Energy incurs no additional cost We expect Company to use reasonable efforts to find the best value for CPS Energy.
6 **Mileage**. If Company uses his/her personal car to travel for CPS Energy business, only the standard IRS mileage expense may be claimed.
7. **Airfare**. We expect Company to use reasonable efforts to find the best airfare value with minimal premium costs. If you are asked to make last-minute reservations, please inform CPS Energy of the rates in advance of the booking so that steps may be taken to find alternative means of transportation, if possible.
8 **Cancellation**. If Company's trip is cancelled at CPS Energy's request after it has been booked and Company has a non-refundable ticket, Company is expected to seek opportunities for a voucher to be issued by the airline for future travel to CPS Energy by Company. Company will be expected to use the travel credit the next time he/she travels for CPS Energy business.
9. **Airfare Receipt Required**. Company must retain the airfare receipt in order to be reimbursed for airfare An itinerary or boarding pass will not be considered acceptable as a receipt. If the receipt does not include the appropriate flight information, including the airline, flight numbers, dates and times, then Company must submit an itinerary or additional documentation that provides this information. If there is a ticket number, the ticket number should also be included.
10. **Flight Change**. If work for CPS Energy ends earlier than expected, and there is an earlier airline flight available that can be switched to for a reasonable extra charge, CPS Energy will reimburse the added cost upon receipt for the extra charge. Company is cautioned to use good judgment when incurring the additional cost by making the change (e.g , a $75 fee for a flight that is 30 minutes earlier would not be considered reasonable).
11. **Spouse / Guest**. CPS Energy will not reimburse any expenses associated with spouses or other guests who accompany Company on trips for CPS Energy business. In the event a spouse or guest accompanies Company and the hotel room rate increases from single-occupancy to double-occupancy for the guest, Company will be expected to deduct the extra expenses from the final hotel bill prior to claiming the hotel expenses for reimbursement.
12. **Authorized Personnel**. CPS Energy will only reimburse travel for the number of authorized personnel, agents, or subcontractors approved to travel for any project. Company must coordinate the number of authorized employees for travel with CPS Energy prior to making travel plans.
13. **Receipts Required**. Company shall submit all receipts for reimbursable expenses with the invoice. Any expenses for which receipts are not submitted will not be reimbursed.
14 **Additional Documentation**. Company shall be expected to provide any additional documentation as reasonably requested by CPS Energy. This may include contacting airlines, hotels, etc. to acquire the requested information
15. **Special Circumstances**. Company is urged to contact a CPS Energy representative to get prior approval when specific circumstances create a need to vary from these Guidelines.

Respondent Name	POWER Engineers, Inc.

Exhibit A - Rates

Personnel Classification	Role/Responsibilities/Qualifications	Rates ($/Hr)
[redacted]	[redacted]	[redacted]
9	[redacted]	[redacted]
8	[redacted]	[redacted]
7	[redacted]	[redacted]
6	[redacted]	[redacted]
5	[redacted]	[redacted]
4	[redacted]	[redacted]
3	[redacted]	[redacted]
2	[redacted]	[redacted]
1	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

ATTACHMENT A

CPS ENERGY

ELECTRIC TRANSMISSION LINE ROUTING/SUBSTATION SITING GENERAL PROCESS MANUAL

January 2001 (revised 2011)

CPS ENERGY
ELECTRIC TRANSMISSION LINE ROUTING/SUBSTATION SITING
GENERAL PROCESS MANUAL

INTRODUCTION

On December 27, 1999, the City Public Service (CPS) Board of Trustees approved a CPS Facility General Routing/Siting Process for Electric Transmission Lines and Substations, which is presented in Appendix A. The purpose of this manual is to provide annotations for the General Routing/Siting Process which can be utilized by CPS staff for future projects. This manual is intended to be a dynamic document, to allow for new data sources and for changes and revisions necessary to accomplish future projects.

ANNOTATED GENERAL ROUTING/SITING PROCESS

1. **NEED FOR PROJECT** - CPS Planners/Engineers will determine/establish the need for the project. The following needs will be determined:
   A. Transmission line voltage needs
   B. Substation needs

2. **STUDY AREA DELINEATION** - The study area will be delineated based on end points for the proposed transmission line and/or the electrical load area for the substation. The substation vicinity will be selected based on load and system requirements. The study area will be large enough to allow flexibility in transmission line routing/substation siting. The study area will be depicted in a way to show any obvious natural or human- made obstacles.

3. **DATA GATHERING/CONSTRAINTS MAPPING** - Following the delineation of the study area will be the data-gathering phase and the development of land use and environmental constraints maps.
   A. Letters will be sent to federal, state, and local agencies/officials requesting information/ concerns about the study area and the project. An example agency contact list is shown in Appendix B.
   B. Aerial photographs of the study area will be obtained. If recent existing aerial photography is not available (i.e., 1-2 years old), new photography will be ordered. The minimum resolution should be 1" = 1,000' in order to determine locations of habitable structures, vegetation boundaries, and other important land use and environmental features.
   C. Information regarding sensitive/important natural, cultural, and human resources will be obtained and mapped as constraints. Sources of information may include, but not be limited to, the following list.

      1. Natural resources
         a. geological formations - sources include Bureau of Economic Geology-

University of Texas at Austin, Geologic Atlas Sheets. ....karst features can be included here and/or with endangered and threatened species and sensitive habitats - sources include Veni and Associates reports (for karst information)

b. topographical formations - sources include U.S. Geological Survey (USGS) quads (7.5 minute series)

c. soil formations - sources include Soil Surveys (U.S.D.A. Natural Resources Conservation Service (NRCS, formerly the Soil Conservation Service)).
   (1) prime farmland soils , defined by the Secretary of Agriculture in 7 CFR 657 (Federal Register, Vol. 43, No. 21) as land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, or oilseed and is also available for these uses (i.e., the land could be used as cropland, pasturelands, rangeland, forestland, but not land that is developed or under water). Source of county information in Texas is Texas Prime and Potential Prime Farmland Soils Inventory (NRCS, 1979).
   (2) hydric soils - one of three criteria (vegetation, soil, hydrology), which the U.S. Army Corps of Engineers (USACE) uses to determine if a site is a jurisdictional wetland. Lists of these soils are available from NRCS local offices.

d. mineral resources - sources include Mineral Resources of Texas (BEG, 1979)

e. energy resources - sources include Energy Resources of Texas (BEG, 1976)

f. surface water - sources for information about the watershed and/or stream segments include the Texas Natural Resource Conservation Commission (TNRCC, 1996, 1997), the Texas Water Commission (TWC, 1992) and the Environmental Protection Agency (EPA) Web Site.

g. ground water formations - sources include Ashworth and Hopkins (1995), the Texas Water Development Board (1995, 2000), and TNRCC (undated).

h. vegetative regions including wetlands and other sensitive habitats - sources of information include the National Wetland Inventory quads (7.5 minute series), and Texas Parks and Wildlife Department's (TPWD) Biological and Conservation Data System (TXBCD) by USGS quad (Austin TPWD office).

i. ecological resources - biotic provinces of Texas including wildlife communities are described by Blair (1950).

j. sensitive and/or endangered and threatened plant and wildlife species and critical habitats (endangered, threatened, species of concern)
   (1). state - TXBCD by USGS 7.5 minute quad and county lists (available at TPWD office, Austin, TX, state-wide list available also on TPWD web site)
   (2) federal - U.S. Fish and Wildlife Service county lists

k. areas with high aesthetic values - determined from miscellaneous published documents and/or general reconnaissance of the study area.

2. Human resources - sources of data for following include the Texas Workforce

Commission (TWC), Texas State Data Center (TSDC), Texas Department of Agriculture, Texas Water Development Board, National Oceanic and Atmospheric Administration (NOAA, 1998, 2000), Federal Aviation Administration (FAA), Texas Department of Transportation, Texas Outdoor Recreation Plan (TORP), Texas Outdoor Recreation Inventory (TORI), various maps, and site reconnaissance.

a. socio-economic
b. population, population trends, and population housing characteristics
c. area income data, labor force, and unemployment
d. economic indicators
e. agriculture -- cropland, livestock, non-agricultural sectors
f. forestry, trade, tourism
g. oil and gas production
h. political subdivisions and transportation network
i. major (public or military) and private airfields and other FAA-controlled facilities
j. microwave and communication towers (AM, FM, cellular, etc.)
k. churches, schools, and cemeteries
l. utility systems
m. parks and recreation facilities

3. Cultural resources - Previously recorded cultural resources sites will be located based upon a review of information from the Texas Archaeological Research Laboratory (TARL) at the University of Texas and the Texas Historical Commission (THC). Other sources of information will vary depending on project location.
   a. Cultural history of the area
   b. cultural resources, backgrounds, previous investigations, and results of investigations

D. Property boundary information obtained (not specific land ownership)
   1. City, county, state, and federal lands
   2. Private lands (boundary information from County Appraisal District office)

4. **DEVELOP PRELIMINARY ALTERNATIVE TRANSMISSION LINE ROUTES/SUBSTATION SITES** - Preliminary alternative transmission line routes/substation sites will be developed, considering:

A. Environmental/land use constraints, avoidance/exclusion areas, and opportunity areas.
   1. Transmission lines
      a. Existing residential areas and subdivisions will be avoided when possible. Habitable structures will be avoided wherever feasible.
      b. Alternative routes will utilize or parallel existing transmission line, distribution line, highway, roadway, or railroad right-of-way, etc., whenever feasible.

c. The delineation of alternative transmission line routes will be done to preserve the natural landscape and minimize conflict with present and known planned uses of the land
d. Routes will avoid heavily wooded areas, steep slopes, and scenic areas, where possible.
e. Known locations of endangered/threatened species, significant cultural resource sites, wetlands, and parks/recreation areas will be avoided whenever possible.
f. Where feasible, the use of natural screens (vegetation and/or terrain) to minimize the view of the transmission facilities from highways and other areas of public view, will be considered.
g. To avoid silhouetting transmission towers against the sky, they will not be constructed on top of hills, along ridgelines, or other high points, if possible. Instead, routes will be placed below the crest of a hill or in a saddle to carry the line over the ridge or hill.
h. When crossing wooded canyons, long-span towers will be considered to keep the conductors above the trees and to minimize the need to clear all vegetation from below the lines. Clearing in the canyon will be limited to that which is necessary to string the conductors.
i. Routing the transmission line across open expanses of water and marshland and particularly those used as flight lanes by migratory waterfowl and other birds will be avoided.
j. The types of vegetation, soil, geological formations, and topography will be considered to minimize the level of disturbance, cost, and/or maintenance. Factors include:
   (1) soil/rock stability which may contribute to erosion problems and/or increased turbidity/silting of streams
   (2) difficulty or expense in ROW creation (need for blasting) or maintenance (difficulty in establishing vegetative cover)
   (3) methods of clearing/grading that will minimize disturbance
      (i) Use of brush blades in place of dirt blades on bulldozers will preserve ground cover and avoid scarring and associated erosion
      (ii) Limit clearing to only those plants and features that pose a hazard to the transmission line (leave ground cover and low vegetation), i.e., clear only when necessary to provide clearance for transmission line reliability or suitable access.
      (iii) Areas that require grading will be contoured so as to minimize erosion. As a general rule, bulldozing will not be done on slopes which exceed 35%.
      (iv) Mechanized clearing and construction activities will not be performed within 100' of a stream bed. All activities will minimize damage to the natural condition of these areas.

(v) Protection of adjacent resources including avoiding fragmentation of larger natural areas that serve as wildlife habitat will be considered.

k. Consideration will be given to multiple uses of ROWs. Possible uses include nurseries/orchards for various economic plants such as Christmas trees, native plants for wildlife forage, wildlife management areas, general agriculture, and hike/bike trails.

2. Substations

a. General Area Selection - The general area for a new substation will be determined by the Planning Division based upon load and system requirements. Within this general area, the Substation Design Section will locate preliminary alternative sites.

b. Accessibility - The substation site requires public roadway access of sufficient quality to allow for normal operation and maintenance vehicle access during bad weather conditions and to allow for large construction vehicles during good weather conditions. A minimum of one access will not cross a floodplain.

c. Size - The minimum fenced dimensions for a four-unit substation is 420' x 420' (approximately 4 acres). Additional areas may be required for substation entrances, landscaping, buffering, etc.

d. Conditions

(1) Location - The substation site will not be located in existing defined flood hazard areas and will be located sufficiently above existing flood levels so that future development will not cause the flood plain to encroach upon the substation.

(2) Terrain - The substation site should be relatively flat, but be adequately sloped to allow for drainage of precipitation and evacuation of spill containment facilities.

(3) Soil - The substation site will be in a natural state, void of fill material unacceptable for construction activities.

e. Transmission Access - Where possible, the substation site will be located and oriented such that transmission line entrances are direct and do not require additional transmission structures to be located near or within the substation.

f. Distribution Access - Most substations are designed to support 16 distribution circuits. It is advantageous to locate the substation near a major intersection to facilitate access to the distribution system.

g. Environmental Issues - The substation site will be free from contaminants, will not contain any known historic or prehistoric features, will not be habitat to any endangered species, will not have any evidence of aquifer recharge features, and should have minimal vegetation that requires removal.

h. Neighborhood Impact - The substation site will be located to minimize impact on churches, schools, parks, residences, etc.

i. Land use - The substation site will be located adjacent to existing transmission

easements, where possible. The site will not overlie any existing non-CPS easements or rights-of-way. The substation site will not infringe on evident future public developments such as roadways, waterways, etc.

j. Land Availability - Acquisition of property from a willing seller is preferred over condemnation.

k. Substations will be located with consideration to both their basic function and the preservation of public views of scenic, historic, natural, and recreation areas, parks, etc. Where possible, they will be located where they can be naturally or artificially screened (vegetation and/or terrain).

l. Where possible, locations near existing or proposed interstate or state primary highways will be avoided, except in commercial/industrial areas.

m. If possible, locations will avoid population areas, particularly scenic areas, wildlife refuges, hilltops, and historic man-made structures.

n. Potential noise will be considered when the location of substations is being determined.

o. The proposed location, layout, and design parameters will be coordinated with appropriate local planning agencies to assure maximum compatibility between the facilities and present and future land use.

B. Routing/siting opportunities
   1. The use of existing transmission line, distribution line, highway, roadway, and railroad ROW will be considered whenever possible.
   2. Paralleling existing ROWs will be considered whenever possible.
   3. The placement of routes/sites within commercial/industrial areas will be considered whenever feasible.

C. Engineering/right-of-way concerns
   1. To reduce the number of transmission lines constructed, the joint use of existing electric transmission facilities will be considered when feasible.
   2. Access roads will be located in a manner that will preserve natural beauty and minimize erosion. Existing roads will be used to the maximum extent possible.

D. Evaluation of structure types
   1. When possible, existing lower voltage transmission lines will be upgraded to allow the construction of higher voltage lines on the existing ROW instead of adding or widening the ROW.
   2. The materials used to construct transmission towers will harmonize with the natural surroundings, where possible. Self-protecting bare (rusted) steel may be appropriate in areas. Towers constructed of galvanized steel, concrete, and wood will also be considered.
   3. Choice of conductor material will be carefully considered so as to avoid sheen or too strong a silhouette and to provide the best selection for blending the conductors into any given setting through which the line must pass. Standard aluminum wire will dull with time as it oxidizes in the atmosphere.

4. The use of high strength conductors will be considered, particularly at road, waterway and canyon crossings to pick up the line sag and allow for straighter line profiles.
5. When lines are adjacent to highways, the use of guyed towers will be avoided, where possible.
6. In scenic areas and along roadways, lower structure heights and reduced structure spacing will be considered for aesthetic purposes.
7. In situations where there is a conflict between adherence to safety regulations and any of the above considerations, the safety regulations shall govern.

5. **PUBLIC INVOLVEMENT PROGRAM** - a public involvement program will be implemented for each new project. Landowners and interested parties will be notified by letter and/or newspaper advertisements (legal and metro sections) of the proposed project two (2) times; once two weeks prior to the event and once one week prior to the event. At a minimum, notification shall include landowners whose property is within 300'for a 138kV project and 500' for a 345kV project. A public, open-house meeting(s) will be held to explain the need for the project and to solicit input on preliminary alternative routes/sites.

   A series of information stations/booths will be set up which will include, but not be limited to, the following:

   - Welcome/Sign-in
   - Project Planning, Purpose and Need
   - Environmental/Routing and Siting
   - Transmission Engineering
   - Substation Engineering
   - Right-of-way

   An information handout and questionnaire to solicit public input will be developed for each project. The public open house meeting(s) will be held in the late afternoon/early evening at an appropriate location within or near the study area, and will generally be at least two hours in length.

6. **REFINE ALTERNATIVES** - The preliminary alternative routes/sites will be refined down to the primary alternative routes/sites. The public and agency input will be evaluated and used to modify alternative routes, if appropriate.

7. **ADDITIONAL PUBLIC MEETINGS** - An additional public meeting(s) will be held to

review revised routes with the public, if necessary. Individual meetings may also be held with neighborhood associations, special interest groups and public officials, as appropriate. These meetings may be held in a variety of formats, including open houses, presentation/question and answer, focus groups, and/or workshops. Additional information may be shared and exchanged with the public through newsletters, mailouts, project-based websites, and/or other medias.

8. **EVALUATION OF PRIMARY ALTERNATIVE ROUTES/SITES** - The primary alternative routes/sites will be evaluated/ranked by the consultant using a list of environmental criteria to build a matrix (table) comparing each of the criteria for each alternative route/site. An example list of the 25-35 environmental/land use criteria used to evaluate/compare alternatives is shown in Appendix C.

9. **PREFERRED ROUTE/SITE RECOMMENDED BY CONSULTANT**
   A. Based on environmental/land use factors present, the consultant will evaluate each primary alternative using staff with expertise in several different environmental disciplines (e.g., terrestrial ecology, land use, planning, cultural resources). Each person will independently analyze the routes from the perspective of their discipline. The consultant's environmental/land use project team will then discuss their independent results with one another in a meeting of the whole group. The relationship and relative sensitivity among the major environmental criteria will be determined by the group as a whole. An environmental/land use preferred route, and any ranked alternatives, will be determined by a consensus of the group, which will be presented to CPS in a draft environmental assessment report.

10. **PREPARATION OF ENVIRONMENTAL ASSESSMENT REPORT** - The consultant will prepare the final environmental assessment report, which will include a discussion of:
    A. Purpose and need for project
    B. Description of proposed design and construction
    C. Existing environment
    D. Alternative analysis
    E. Public/agency input
    F. Impacts of each alternative
    G. Local/state/federal permitting requirements
    H. Mitigation (if necessary)
    I. Costs for each alternative (as provided by CPS).

    An example Table-of-Contents for an Environmental Assessment/Alternative Route Analysis Report is shown in Appendix D.

11. **CPS SELECTION OF OVERALL PREFERRED ROUTE/SITE** - CPS will select the overall preferred route based on factors including, but not limited to:

A. Public input
B. Engineering criteria
C. Cost
D. Right-of-way considerations
E. Maintenance
F. Environmental impacts
G. Land use impacts

12. **PUBLIC NOTIFICATION OF FINAL ROUTE/SITE SELECTED** - CPS will notify interested persons of the final route/site selected and the date for start of construction. This will be accomplished by individual letter and/or newspaper advertisements.

MODIFIED PROCESS FOR OTHER ELECTRIC FACILITIES

In the course of providing safe and reliable electric service to its customers, CPS must plan for and construct electric transmission and substation facilities other than totally new electric transmission lines and related new substations. These projects include, but are not limited to the following facilities.

- New Substations Not Associated With A New Transmission Line
- Substation Relocations/Expansions
- Use of Existing Right-of-Way/Right-of-Widening for Reconstruction of Electric Transmission Lines
- Re-Conductoring/Adding New Conductors on Existing Transmission Structures
- Minor Line Alterations/Relocations

During the planning process, each of these types of projects will be evaluated by CPS staff on a case by case basis to determine the components of a "Modified Process." The level of detail and components comprising the "Modified Process" for a particular project will be selected based upon the nature, extent, and location of the project; engineering; safety; environmental issues/regulations; project costs; right-of-way; and public/stakeholder/agency input, as necessary. A general discussion of the components of the "Modified Process" for each type of project is presented below.

1. NEW SUBSTATION NOT ASSOCIATED WITH A NEW TRANSMISSION LINE

Depending on the location, a new substation siting project may involve most of the steps presented above in this General Routing/Siting Process Manual. This is especially true if the

new substation is located in a previously developed area. If the new substation is to be located in a more rural/remote area, the modified process may include the following items.

A. Determine General Substation Location Area
B. Alternative Site Selection/Engineering and Environmental Constraint Analysis
C. Records Check/Site Inspection for Threatened and Endangered Species
D. Site Inspection for Wetlands and Karst Features
E. Records Check/Site Survey for Cultural Resources
F. Floodplain Evaluation
G. Land Use/Aesthetics Evaluation
H. Noise Analysis for Nearest Residence (as deemed necessary)
I. Draft Report Documenting the Results up to this point in Process
J. Landowner/Public/Homeowner Associations Input/ Meetings as Necessary
K. Utility selects best site
L. Brief Final Report Documenting the Results of the Process/Results

2. SUBSTATION RELOCATIONS/EXPANSIONS

The relocation of an existing substation will require most of the components discussed above for new substations. The expansion of an existing substation may only require a brief engineering and environmental overview/constraint analysis and landowner input.

3. USE OF EXISTING RIGHT-OF-WAY/RIGHT-OF-WAY WIDENING FOR RECONSTRUCTION OF ELECTRIC TRANSMISSION LINES

The reconstruction of transmission lines within existing right-of-way and widening of existing right-of-way may include the following modified process components.

A. Landowner Contract/Input (Meetings as Necessary)
B. Threatened and Endangered Species Records Check/Site Survey
C. Cultural Resources Records Check/Site Survey
D. Site Survey for Wetlands and Karst Features if Right-of-way Requires Clearing or Widening
E. Aesthetic Analysis for Change of Structure Type
F. Brief Report Documenting the Results

4. RE-CONDUCTORING /ADDING NEW CONDUCTORS ON EXISTING TRANSMISSION STRUCTURES

If existing lines are re-conductored or new conductors are added, no additional investigations beyond engineering analyses and landowner contact should be required.

5. MINOR LINE ALTERATIONS/RELOCATIONS

The relocation or alteration of minor lengths of line (a few spans) should require minimal investigations beyond engineering analyses and right-of-way acquisition. Investigations could include the following components.

A. Landowner/Stakeholder Input
B. Brief Environmental/Land Use Analysis (Habitable Structures, Threatened & Endangered Species, Wetlands/Karst Features, Cultural Resources)
C. Brief Report Documenting the Results of the Analyses

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APPENDIX A

CPS FACILITY GENERAL ROUTING/SITING PROCESS

CPS ENERGY GENERAL ROUTING/SITING PROCESS

1. Utility Planners/Engineers determine/establish need for project
   - Transmission line voltage needs
   - Substation needs
2. Study Area delineated based on end points for transmission line and/or electrical load area for substation
   - Study area large enough to allow flexibility in transmission line routing/substation location
3. Data Gathering Phase and Development of Constraints Map
   - Letters sent to federal, state, and local agencies requesting information/concerns about study area
   - Aerial photographs of study area obtained
   - Information regarding sensitive/important natural, cultural, human resources mapped as constraints
   - Property boundary information obtained (not land ownership)
4. Preliminary alternative transmission line routes/substation sites developed, considering
   - Environmental/land use constraints or avoidance/exclusion areas
   - Routing/siting opportunities
   - Engineering/right-of-way concerns
   - Evaluation of structure types
5. Public Involvement Program
   - Landowner and interested party notification and newspaper notices for public meetings
   - Public Open House meetings held to explain need for the project and to solicit input on preliminary alternative routes/sites
6. Alternatives refined
   - Public and agency input evaluated and used to modify alternative routes, if appropriate
7. Additional public meetings
   - Review revised routes with public, if necessary
8. Primary alternative routes/sites evaluated using list of environmental criteria
   - 25-35 environmental/land use criteria used to evaluate/compare alternatives
9. Preferred route/site recommended
   - Based on environmental/land use factors
   - One or more viable alternatives identified
10. Environmental assessment report prepared, including discussion of:
    - Purpose and need for project
    - Description of proposed design and construction
    - Existing environment
    - Alternative analysis
    - Public/Agency input
    - Impacts of each alternative
    - Local/state/federal permitting requirements
    - Mitigation (if necessary)
    - Costs for each alternative
11. Utility selects overall preferred route based on factors such as.
    - Public input
    - Engineering
    - Cost
    - Right-of-way considerations
    - Maintenance
    - Environmental
    - Land Use
12. Public notified of final route/site selected and date for start of construction

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APPENDIX B

EXAMPLE LIST OF LOCAL, STATE, AND FEDERAL AGENCY CONTACTS

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1. Local
   a. City of San Antonio
   b. Alamo Area Council of Governments
   c. Edwards Aquifer Authority
   d. Alamo Soil and Water Conservation District
   e. San Antonio River Authority
   f. Bexar County Judge
   g. Bexar County Commissioners
   h. Bexar County Floodplain Administrator
   i. Other Counties/Cities/Towns
2. State
   a. Texas Department of Transportation
      (1) Aviation Division
      (2) Environmental Affairs
   b. Texas Water Development Board
   c. Texas Parks and Wildlife Department
   d. Texas Historical Commission
   e. Texas Natural Resource Conservation Commission
3. Federal
   a. Natural Resources Conservation Service
   b. U.S. Army Corps of Engineers, Ft. Worth District
   c. U.S. Environmental Protection Agency
   d. Federal Emergency Management Agency
   e. Federal Aviation Administration
   f. U.S. Fish and Wildlife Service

   (note: if Federally-owned property is involved with any routing/siting alternatives, then the agency owning the property, as well as the National Park Service will be contacted)

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APPENDIX C
EXAMPLE LIST OF ENVIRONMENTAL/LAND USE CRITERIA

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Land Use
Length of alternative route (new ROW)
Additional length of route in existing transmission line ROW
Length of ROW paralleling property lines
Length of ROW parallel to existing ROW (transmission line, pipeline, roads, etc.)
Length of ROW along proposed highway
Number of habitable structures[1] within 200 ft of ROW centerline
Length of ROW through developed areas
Length of ROW through undeveloped areas
Length of ROW through recreational areas
Number of parks and/or recreational areas within 1,000 ft of TOW centerline
Length of ROW through cropland
Length of ROW trough grazing land
Length of ROW through irrigated pasture or cropland
Length of ROW across prime farmland soils
Length of ROW across gravel pits, mines or quarries
Number of pipeline crossings
Number of transmission line crossings
Number of U.S. and state highway crossings
Number of FM and county road crossings
Number of FAA-listed airfields within 10,000 ft of ROW centerline
Number of commercial AM radio transmitters within 10,000 ft of ROW centerline
Number of FM radio transmitters microwave towers, etc. within 2.000 ft of ROW centerline
Aesthetics
Estimated length of ROW within foreground visual zone[2] of U.S. and State highways
Estimated length of ROW within foreground visual zone[2] of FM roads
Estimated length of ROW within foreground visual zone[2] of recreational or park areas
Estimated length of ROW within foreground visual zone[2] of churches, schools, hospitals and cemeteries
Ecology
Length of ROW through upland woodland
Length of ROW through bottomland/riparian woodland
Length of ROW across wetlands
Length of ROW across known habitat of endangered/threatened species
Length of ROW across open water (lakes, ponds)
Number of stream crossings
Length of ROW over Edwards Aquifer Recharge Zone
Length of ROW parallel (within 100 ft) to streams

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[1] Residences, businesses, schools, churches, cemeteries, hospitals, nursing homes, etc

[2] One-half mile, unobstructed

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Length of ROW across 100-year floodplain
Cultural Resources
Number of recorded historic or prehistoric sites crossed
Number of recorded historic or prehistoric sites within 1,000 ft of ROW centerline
Number of National Register listed or determined-eligible sites crossed
Number of National Register listed or determined-eligible sites within 1,000 ft of ROW centerline
Length of ROW through areas of predicted high archaeological/historic site potential

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APPENDIX D

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ENVIRONMENTAL ASSESSMENT/ALTERNATIVE ROUTING ANALYSIS REPORT

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-29:

Please update any discovery responses that have changed due to the December 2020 Application Amendment.

Response No. 2-29:

Refer to CPS Energy's Supplemental Response to Patrick Cleveland's First Request for Information, Question 9. CPS Energy is not aware of any additional discovery responses or changes that are required as a result of the filing of the Amended Application. In accordance with 16 Texas Administrative Code § 22.144(i), CPS Energy will continue to supplement discovery responses in this proceeding as appropriate.

Prepared By: Adam R. Marin Title: Regulatory Case Manager
Sponsored By: Adam R. Marin Title: Regulatory Case Manager

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-30:

Please provide the identity and mailing addresses of the fee simple owners of the land in the study area that is impacted by the Ranchtown 139 kV transmission line.

Response No. 2-30:

Information regarding the identity and mailing addresses of the fee simple owners of land within the Study Area that is crossed by the existing Ranchtown to Menger Creek 138 kV transmission line can be found in Attachment 8 to the Application, tract IDs A-165, A-170, B-023, B-003, F-029, F-025, and L-005.

Prepared By: Adam R. Marin Title: Regulatory Case Manager
Sponsored By: Adam R. Marin Title: Regulatory Case Manager

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-31:

Please provide the approximate time period during which the right-of-way was first cleared for the distribution line that runs parallel to Segment 39.

Response No. 2-31:

Any partial clearing that was performed in conjuction with the construction of the distribution line that runs parallel to Segment 39 was completed in approximately April 2013 when the line was originally constructed. Other clearing or right-of-way maintenance activities may have occurred subsequent to that date as part of CPS Energy's regular right-of-way maintenance activities.

Prepared By: Adam R. Marin Title: Regulatory Case Manager
Sponsored By: Adam R. Marin Title: Regulatory Case Manager

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-32:

Please provide a copy of any and all written agreements made with any intervenors in this docket.

Response No. 2-32:

Refer to CPS Energy's response to Patrick Cleveland Question No. 1-6. There are no additional documents responsive to this request.

Prepared By: Adam R. Marin Title: Regulatory Case Manager
Sponsored By: Adam R. Marin Title: Regulatory Case Manager

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-33:

Please provide the exact location of the boundaries of the historical site shown across Toutant Beauregard from Segment 36.

Response No. 2-33:

The approximate boundaries of the Heidemann Ranch, a National Register of Historical Places site, are represented on Figures 2-4 Amended and 4-1 Amended in Attachment 2 of the Application Amendment by the outline of the blue hatching.

Prepared By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.
Sponsored By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-34:

Are there any engineering constraints that would prevent Segment 36 from being routed on the other (north) side of Toutant Beauregard from the node at Segments 20 and 32? If so, please provide supporting documentation.

Response No. 2-34:

Refer to CPS Energy's response to Anaqua Springs Question Nos. 2-4 and 2-33 regarding the location and treatment of the Heidemann Ranch as an "engineering constraint" due to its registration status as a National Register of Historical Places (NHRP) site.

When routing transmission lines, POWER considers known NRHP sites as constraints and, if possible, avoids identifying route segments across such sites. For this Project, because there is available potential right-of-way for the transmission facilities across the road from the NHRP site, POWER identified Segment 36 in a manner that avoided crossing the NRHP site.

Consultation with the Texas Historical Commission (THC) may be required prior to construction of the transmission line. Consultation with the THC will include assessing the potential for the project to affect State Antiquities Landmarks or cultural resources that may qualify for such a designation, including NRHP properties, consistent with the Texas Antiquities Code. Archeological surveys for the project would require a permit from the THC.

Crossing the NRHP property is likely to result in increased scrutiny from the THC, potentially resulting in delays, increased survey budgets, and assessment of impacts to the NRHP property beyond the survey level (testing or mitigation, for instance, at pole locations where direct impacts will be the greatest).

Prepared By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.
Sponsored By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-35:

Would any habitable structures be located within 300 feet of the centerline of Segment 36 if Segment 36 were routed on the other side of Toutant Beauregard?

Response No. 2-35:

POWER did not identify Segment 36 on the north side of Toutant Beauregard so as to avoid crossing the Heidemann Ranch, a National Register of Historical Places site. If Segment 36 were located generally parallel with the northeast side of Toutant Beauregard Road, it does not appear that any habitable structures would be located within 300 feet of that segment location. There is one habitable structure, a commercial guard house associated with the Anaqua Springs neighborhood, that is within 300 feet of the location of Segment 36 on the southwestern side of Toutant Beauregard Road.

Prepared By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.
Sponsored By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-36:

Please advise what contingency plans are in place and what risks were considered when placing Segment 54 in such close proximity to Toutant Beauregard Road, including any safety features to protect the transmission poles and traveling public from vehicle/transmission pole accidents and the potential widening or other expansion of the roadway.

Response No. 2-36:

CPS Energy transmission poles are designed and located in compliance with applicable local, state, and federal safety requirements. Pole placement is typically (but not always) closest to the property lines to allow the greatest amount of horizontal clearance to the roadway as to not interfere or obstruct road traffic. As reasonably necessary, CPS Energy will employ guardrails, reflectors, and other safety devices as required or requested by the controlling agency. In the event of any future civic improvements, CPS Energy is contacted and participates in all public improvement projects. During the initial stages of a project, specific conflicts to any CPS Energy facilities are identified by affected parties and mitigation of the conflicts is identified, which may include but not limited to, additional safety devices, relocation/adjustment of the roadway, or relocation/adjustments of transmission facilities. Each improvement project is handled on a case by case basis.

Prepared By:	Adam R. Marin	Title:	Regulatory Case Manager
	Scott D. Lyssy	Title:	Manager Civil Engineering
Sponsored By:	Adam R. Marin	Title:	Regulatory Case Manager
	Scott D. Lyssy	Title:	Manager Civil Engineering

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-37:

Regarding pre-open house Segment 27, please provide the specific engineering constraints that led to rerouting this segment.

Response No. 2-37:

The terrain in the area of Segment 27 resulted in modifications to the location of the segment from that presented at the open house meeting.

Prepared By:	Scott D. Lyssy	Title:	Manager Civil Engineering
	Lisa B. Meaux	Title:	Project Manager, POWER Engineers, Inc.
Sponsored By:	Scott D. Lyssy	Title:	Manager Civil Engineering
	Lisa B. Meaux	Title:	Project Manager, POWER Engineers, Inc.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-38:

Please indicate whether there are any engineering constraints that would prohibit amended Segment 26 from being routed through the preserved green space platted for development in the Canyons and then running to the west to join Segment 43. Please provide any documentation regarding those constraints. For reference, please see the attached plat map from the Bexar County Central Appraisal District website with hand-drawn line.

Response No. 2-38:

In general, electric transmission lines can be located within designated "green spaces." The "preserved green space" identified in the exhibit provided in association with this question does not extend as far west as the arrow drawn on the exhibit. POWER and CPS Energy did not evaluate placing Segment 26 through the preserved green space platted for development in the Canyons and then running west to join Segment 43; as such, CPS Energy and POWER do not know of, nor are they aware of, any engineering constraints in the subject area.

Prepared By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.
Sponsored By: Lisa B. Meaux Title: Project Manager, POWER Engineers, Inc.

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CPS ENERGY'S RESPONSE TO ANAQUA SPRINGS HOMEOWNERS' ASSOCIATION SECOND REQUEST FOR INFORMATION

Anaqua Springs Question No. 2-39:

Were the current landowners of properties within 300 feet of the centerline of amended Segment 26 provided notice of the amended application if those landowners are different individuals than the owners were at the time CPS filed its initial application?

Response No. 2-39:

According to Bexar County Tax Appraisal District public records (as of January 13, 2021), there have been no changes in the ownership of properties directly affected by the amended Segment 26.

Prepared By: Adam R. Marin Title: Regulatory Case Manager
Sponsored By: Adam R. Marin Title: Regulatory Case Manager