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APPLICATION OF THE CITY OF	§	BEFORE THE STATE OFFICE
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CPS ENERGY'S RESPONSE TO BRAD JAUER'S & BVJ PROPERTIES, L.L.C.'S FIRST REQUESTS FOR INFORMATION TO THE CITY OF SAN ANTONIO ACTING BY AND THROUGH THE CITY PUBLIC SERVICE BOARD

COMES NOW the City of San Antonio, acting by and through the City Public Service Board (CPS Energy) and files this Response to Brad Jauer and BVJ Properties, L.L.C.'s First Requests for Information (RFI). 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

Kirk D. Rasmussen State Bar No. 24013374 Craig R. Bennett State Bar No. 00793325 Jackson Walker LLP 100 Congress Avenue, Suite 1100 Austin, Texas 78701 (512) 236-2000 (512) 691-4427 (fax)

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ATTORNEYS FOR CPS ENERGY

CERTIFICATE OF SERVICE

I certify	that a copy	of this	document	was	served	on a	ll parti	es of	f record	on	this	date	via
the Commissio	n's Interchar	nge in ac	cordance	with	SOAH	Orde	er 3 in	this 1	proceed	ing.			

/s/ Kirk D. Rasmussen
Kirk D. Rasmussen

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Brad Jauer & BVJ Properties Question No. 1-1:

What is the current status (e.g., length, orientation, etc.) of the road just south of Segment 26, including the extent it continues west from the point where Segment 26 turns from an east/west orientation to north/south?

Response No. 1-1:

As can be seen in Sheet 11 of Attachment 6 to the CPS Energy Application in this proceeding, the area described by this request is undergoing active subdivision and home construction. POWER Engineers, Inc. viewed this area on December 7, 2020 and determined that a route in the area described is not a viable alternative due to the property subdivision and residential home construction activities currently taking place in this 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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Brad Jauer & BVJ Properties Question No. 1-2:

Is there an existing distribution line along Segment 39? If so, how wide is the right-of-way (ROW) already obtained for it and any future distribution and/or transmission lines, and how does the distribution line and the associated ROW impact access, additional ROW acquisition and construction costs if Segment 39 or a portion thereof were selected?

Response No. 1-2:

Yes, CPS Energy currently owns an existing distribution easement in the area of Segment 39 that is approximately 28 feet in width. If Segment 39 is part of a route approved by the Public Utility Commission of Texas for the Project, CPS Energy will be required to acquire a new transmission line easement of approximately 100 feet in width. Although construction of transmission facilities in proximity to distribution facilities requires careful planning and coordination, the existing distribution line and right of way is not anticipated to have any significant substantive impacts on access, property acquisition, or construction costs either positively or negatively.

Prepared By: Adam R. Marin
Scott D. Lyssy
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Title: Manager Civil Engineering
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Brad Jauer & BVJ Properties Question No. 1-3:

Please provide the cost, length and habitable structure count on a modified Route Q as follows: Substation 6 to Segments 50, 15 and 26; then from the point where Segment 26 goes from east/west to north/south, continue due west to Segment 39 (possibly paralleling as much as possible the road referenced in RFI No. 1-1 that appears to head west from the point where Segment 26 turns to the north); then south down Segment 39 to Segment 44. Please also provide the associated transmission line cost savings compared to Route Q.

Response No. 1-3:

Please refer to CPS Energy's response to Brad Jauer & BVJ Properties Question No. 1-1. As a result of active property subdivision and residential home construction activities currently taking place in this area, CPS Energy cannot identify a viable modification to Segment 26 in the area described in this request. Accordingly, no cost, length, or habitable structure count data exist for a modification of Route Q in the manner described in this request.

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

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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Brad Jauer & BVJ Properties Question No. 1-4:

Please provide the cost, length and habitable structure count on a modified Route Q as follows: Substation 6 to Segments 50, 15 and 26; then from the point where Segment 26 goes from east/west to north/south, continue due west to the southernmost point of Segment 43. This would have Segments 26 and 43 remaining wholly on the south side of the creek currently transecting Segment 43 (as per Figure 4-1 of Attachment 1 of the Application) and following land contours as necessary and appropriate. Please also provide the associated transmission line cost savings compared to Route Q.

Response No. 1-4:

Please refer to CPS Energy's response to Brad Jauer & BVJ Properties Question No. 1-1. As a result of active property subdivision and residential home construction activities currently taking place in this area, CPS Energy cannot identify a viable modification to Segment 26 in the area described in this request. Accordingly, no cost, length, or habitable structure count data exist for a modification of Route Q in the manner described in this request.

Prepared By:	Lisa B. Meaux	Title:	Project Mana	ger, POW	ER Engineers, Inc.
	~				

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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Brad Jauer & BVJ Properties Question No. 1-5:

Regarding the Environmental Field Maps provided in response to *Anaqua Springs* RFI 1-9, which delineate the "general substation siting boundary, represented by an orange line," we note that the study area extends north of the intersection of Scenic Loop and Toutant Beauregard approximately 10,600', but extends to the south of that intersection only about 6,600', representing more than 1/3 less area to the south. Was an equidistant area to the south ever included within the general substation siting boundary? If not, why not? If so, what other distribution routes and/or substations were considered to serve projected load from the more equidistant study area extending to the south?

Response No. 1-5:

In response to Anaqua Springs Question No. 1-9, CPS Energy produced an early preliminary field map that was utilized by POWER Engineers, Inc. (POWER) to identify initial potential substation locations for the Project. That map was a general guide to POWER for the area in which to look for potential substation sites. The "substation siting boundary" was never intended to be an equidistant area surrounding the intersection of Scenic Loop Road and Toutant Beauregard Road. Nor does CPS Energy agree that any location equidistant north, south, east or west of that intersection is necessarily a viable location for the short- and long-term electric reliability needs of the area.

In order to present the Public Utility Commission of Texas with a number of geographically diverse endpoint (substation) alternatives, POWER initially identified five possible substation locations in general proximity to that intersection. After further evaluation and interaction with the community, one possible location (Substation Site 1) was moved further south and two additional locations were added, including Substation Site 7 to the west, and Substation Site 6 significantly further south than the previously furthest south substation site (Substation Site 5).

Each substation site initially presented to the public at the open house meeting held in October 2019 and included in the Application in this proceeding has been evaluated by the CPS Energy planning group to determine the viability of that specific site to meet the short- and long-term needs of the Project.

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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Brad Jauer & BVJ Properties Question No. 1-6:

Please provide the cost, length, and habitable structure count on a modified Route W as follows: Segments 44, 53, 47, 27, 57, to 56 with a substation located southwest of the node where Segments 55 and 56 meet. Please also provide the associated transmission line cost savings compared to Route W given its shorter length. (This substation site would have been within an equidistant "general substation siting boundary" referenced above in RFI 1-5.)

Response No. 1-6:

Please refer to CPS Energy's response to Brad Jauer & BVJ Properties Question No. 1-5 regarding the "general substation siting boundary" designation on early field maps used by POWER Engineers, Inc.

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
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Brad Jauer & BVJ Properties Question No. 1-7:

Please provide the Excel version of the \$/square foot file that was referenced during the Technical Conference during the discussion of substation property costs. (Our assumption is this is detailed down to the property tract ID number and grouped by Segment and substation location).

Response No. 1-7:

Documents responsive to this request are being made available electronically in their native format to the requesting party. An index of responsive documents is provided below.

Document Index:

Route Other Costs.v2.xlsx Scenic Loop CE Spreadsheet Final 7-8-2020.xlsx Scenic Loop Cost Estimates 07102020.xlsx

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

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Brad Jauer & BVJ Properties Question No. 1-8:

Please provide all documents relating to consideration of "Study Option 2" as described in the CCN Application, Table 15-1, page 24. This relates to tapping into and looping the La Sierra to UTSA Tap B transmission line to the proposed substation site(s), including load flow and other electrical studies.

Response No. 1-8:

Documents responsive to this request are being made available electronically in their native format to the requesting party. Some of the documents responsive to this request are confidential and will be produced subject to the terms of the Protective Order issued in this docket. An index of responsive documents is provided below.

Document Index:

Scenic Loop Draft Study.docx

Confidential Document Index

Scenic Loop.zip - Confidential

Prepared By: George J. Tamez

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Brad Jauer & BVJ Properties Question No. 1-9:

Relative to the cost estimate of Study Option 2, which is referenced above in RFI No. 1-8, was the cost of routing a loop from the La Sierra to UTSA Tap B to Substation 6 ever considered? If so, please provide all documentation regarding this evaluation. Please provide the cost estimate, length and habitable structure count related to Study Option 2. (Based on CPS response to *Anaqua Springs* RFI No. 1-12, the straight line distance is 4.6 miles; using the same methodology as the previously cited Table 15-1, adding 30% for routing inefficiencies, the length might be estimated to be 5.98 miles; multiplying 5.98 miles times \$6.9 million/mile equals \$41.262 million, which would be a lower cost Route than Routes P through W which interconnect from the Ranchtown to Menger Creek line terminating at Substation 6.

Response No. 1-9:

During the Project development stage, CPS Energy evaluated connection of the new proposed substation to transmission lines to the north, south, and west. The analysis performed is detailed on pages 23-25 of the Application and pages 30-36 of Attachment 13 to the Application. The analysis showed the shortest, lowest estimated cost alternatives were connections to the west to the existing Ranchtown to Menger Creek 138 kV transmission line. The cost estimates used during that Project evaluation were straight line distances with a simple 30 percent adder for routing contingencies. Note that the cost estimates used early in the process to compare Project alternatives are not appropriately comparable to calculated route cost estimates used in the Application for comparison of delineated routes.

Following the determination to pursue Option 1 for the Project, which provided opportunity for a number of geographically diverse route alternatives to the area of need for a new substation, CPS Energy proceeded to identify potential alternative substation endpoints and potential route alignments that were ultimately presented to the public for comment and consideration on October 3, 2019. After the open house meeting and receipt of significant public input, additional substation locations were identified that met the need for the Project, including alternative Substation Site 6. Identification of Substation Site 6, which is approximately 0.9 miles south of the intersection of Scenic Loop Road and Toutant Beauregard Road brought a potential endpoint of the Project closer to the existing La Sierra to UTSA B Tap transmission line than the original analysis performed in selecting Option 1. A review of the distances, however, shows that

alternative Substation Site 6 is still over a half mile farther from the existing La Sierra to UTSA B Tap 138 kV transmission line (approximately 4.6 miles) than it is to the existing Ranchtown to Menger Creek 138 kV transmission line (approximately 4.0 miles).

CPS Energy was able to identify a number of geographically diverse alternative routes to alternative Substation Site 6. In fact, the Application contains more alternative routes proposed to connect to Substation Site 6 (eight) than any of the other alternative substation sites (the next highest is Substation Sites 3 and 7 with six apiece). Furthermore, two of the five shortest alternative routes proposed in the Application connect to Substation Site 6 (Routes P and R at 4.89 miles and 4.75 miles in length, respectively). Thus, the Application contains at least two routes proposed to interconnect at Substation Site 6 that are practically the same estimated length as the straight line distance to the La Sierra to UTSA B Tap 138 kV transmission line (approximately 4.6 miles) and significantly shorter than the straight line distance plus 30 percent for routing contingency (approximately 6.0 miles). In addition, as can be seen on Attachment 4 to the Application, tapping the La Sierra to UTSA B Tap 138 kV transmission line would require the new transmission line to cross under the existing CPS Energy Cagnon to Hill Country 345 kV transmission line in order to connect. (Note that the legend on Attachment 4 has the 138 kV and 345 kV transmission lines identified incorrectly – red is 138 kV and blue is 345 kV).

Because CPS Energy had numerous geographic diverse route options to connect to the closer tap point (Ranchtown to Menger Creek 138 kV transmission line), it was not necessary to significantly further expand the study area to develop additional longer routes to connect to the La Sierra to UTSA B Tap 138 kV transmission line to the south (which would also require crossing under the existing Cagnon to Hill Country 345 kV transmission line). There are no additional documents responsive to this request.

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Lisa Barko Meaux Title: Project Manager, POWER Engineers, Inc.

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

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Brad Jauer & BVJ Properties Question No. 1-10:

The EA, page 2-1, states "Feasible and geographically diverse alternative routes" were considered. How can the routes evaluated be considered geographically diverse given there is only one power source which is based on the Ranchtown to Menger Creek line, and the La Sierra to UTSA B Tap line, which may be closer to the southern Substation Sites, has been excluded?

Response No. 1-10:

Please refer to CPS Energy's response to Brad Jauer & BVJ Properties Question No. 1-9 regarding the adequate number of reasonably differentiated alternative routes identified in the Application. The existing Ranchtown to Menger Creek 138 kV transmission line is located (in straight line distance) approximately 4 miles from Substation Site 6 (the southernmost substation site presented in the Application). The existing La Sierra to UTSA B Tap 138 kV transmission line is approximately 4.6 miles (straight line distance) from Substation Site 6.

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Brad Jauer & BVJ Properties Question No. 1-11:

Please provide all documentation regarding consideration given to tapping into the 345kV line that is closest to a proposed Scenic Loop Substation site, name the Owner of this line, and provide the corresponding straight-line distance to the closest site. This was a transmission alternative discussed in the CCN, page 22, regarding 345 kV transmission lines in the vicinity of the proposed Scenic Loop Substation.

Response No. 1-11:

There are two 345 kV transmission lines in the area of the Project, the Cagnon to Kendall 345 kV transmission line and the Cagnon to Hill Country 345 kV transmission line, both of which are owned and operated by CPS Energy. The Cagnon to Kendall 345 kV transmission line is located adjacent to the Ranchtown to Menger Creek 138 kV transmission line on the west side of the right of way. Thus, the Cagnon to Kendall line is slightly farther than 4 miles from Substation Site 6. The Cagnon to Hill Country 345 kV transmission line is located on the north side of the right of way of the La Sierra to UTSA B Tap 138 kV transmission line between the existing 138 kV line and the Scenic Loop substation sites. Thus, the Cagnon to Hill Country line is slightly closer than 4.6 miles from Substation Site 6. The existing 345 kV transmission lines in the Project area are shown in blue on Attachment 4 to the Application. (It should be noted that the Legend on Attachment 4 has the color scheme reversed. On that attachment, the 345 kV transmission lines are blue and the 138 kV transmission lines are red.)

As indicated on page 22 of the Application, tapping the existing 345 kV transmission lines in the area of the Project was not reasonably considered as a viable Project alternative. As described on pages 23-25 of the Application and pages 30-36 of Attachment 13 to the Application, connections to existing 138 kV transmission lines are available in the area. Construction of a significant 345 kV to 138 kV switching station would require approximately 15 acres of property for operation of the station as well as two 345 kV to 138 kV autotransformers, which could easily double or triple the estimated cost of the Project. As a result, this alternative was not reasonably considered or evaluated as a viable Project alternative.

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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Brad Jauer & BVJ Properties Question No. 1-12:

Please provide all documents regarding the consideration and/or the submittal of an interconnection request to the owner of the nearest 345 kV line to the nearest Scenic Loop Substation site.

Response No. 1-12:

Please refer to CPS Energy's response to Brad Jauer & BVJ Properties Question No. 1-11. Connection to the existing 345 kV transmission lines in the area of the Project was not considered a reasonable viable alternative. There are no additional documents responsive to this request.

Prepared By: George J. Tamez

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Brad Jauer & BVJ Properties Question No. 1-13:

Please describe the impacts to CPS Energy, if any, of adding the capability to serve the distribution system load from a 345 kV system.

Response No. 1-13:

Transformation of electricity from 345 kV to 34.5 kV (or another primary distribution voltage) to serve the distribution system would cost significantly more than any reasonable Project alternative, would result in significant operational transformation challenges, and would make the CPS Energy system less reliable. CPS Energy does not have any existing 345 kV to distribution voltage stations in its system.

A 345 kV to distribution voltage station at the location of the existing 345 kV transmission lines would result in the virtually the same distribution feeder lengths (and reliability problems) currently existing in the Project area. Thus, that alternative would not meet the needs for the Project. That is, construction of a 345 kV to distribution station four or five miles from the current area proposed for the Scenic Loop Substation would result in significant length distribution feeders remote from the area loads.

In the alternative, construction of a 345 kV transmission line approximately five miles from the existing 345 kV transmission lines to the area of the Scenic Loop Substation sites would result in significantly greater expense in the transmission construction and significantly greater impacts to the community values, aesthetics, environmental resources, and other factors considered by the Public Utility Commission of Texas, with the resulting need to then transform the voltage from 345 kV to 34.5 kV at the new Scenic Loop Substation. In addition to the significantly increased cost and community impact of such an alternative, it would be considered a lower reliability alternative due to the significant operational difficulties associated with 345 kV to 34.5 kV transformation and the lack of suitable available replacement equipment in the event of an equipment malfunction.

The 345 kV system within the Electric Reliability Council of Texas serves as a backbone to transfer power over long distances and to distribute bulk power to 138 kV transmission substations. CPS Energy serves its distribution load via the 138 kV transmission system.

Connecting 345 kV transmission lines into a distribution station would result in many challenges, including:

- The cost to build a 345 kV station is approximately three times more expensive than a 138 kV substation with a similar configuration.
- The 345 kV station would need more than twice the acreage compared to a 138 kV alternative making potential viable sites much more difficult to identify.
- The cost of 345 kV transmission line is approximately twice the cost of the 138 kV transmission line.
- A 345 kV transmission line requires wider additional right of way than a 138 kV transmission line, making potential available corridors much more limited.
- 345/34.5 kV step down transformers with a 50 MVA rating would be <u>very</u> atypical within the industry and will have to be specially designed. As a result, CPS Energy will not have existing spare transformers in the event of an outage or equipment malfunction.
- The existing Cagnon to Kendal 345 kV transmission line is west of the Ranchtown to Menger Creek 138 kV transmission line.
- Tapping into the 345 kV transmission line will result in 345 kV outages that will result in a lower reliable backbone system to transfer power over long distances.

Prepared By: George J. Tamez

Title: Director of Grid Transformation and Planning

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Brad Jauer & BVJ Properties Question No. 1-14:

Please provide the cost, length, and habitable structure count on a modified Route X as follows: 46, 41, 34, 30, 28, 17. Please also provide the associated transmission line cost savings compared to Route X given its shorter length.

Response No. 1-14:

Please refer to CPS Energy's response to Anaqua Springs Question No. 1-14.

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

Lisa Barko Meaux Title: Project Manager, POWER Engineers, Inc.

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Brad Jauer & BVJ Properties Question No. 1-15:

Please provide the estimated cost to acquire and locate a substation near the node Routes 28 and 17 connect, on either of parcels A 085, A 137 or A 132, whichever would have the lowest total cost.

Response No. 1-15:

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 have the right-of-way or land acquisition cost for a substation at the location indicated. CPS Energy does not have information responsive to this request.

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

Scott D. Lyssy Title: Manager Civil Engineering

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

Scott D. Lyssy Title: Manager Civil Engineering

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Brad Jauer & BVJ Properties Question No. 1-16:

Please provide all documentation regarding determining the Scope of Work for Power Engineers' work on the Scenic Loop project, both prior to and after award of contract. It is not our intent to look at hourly rates or other budgetary numbers.

Response No. 1-16:

See Attachments. Pursuant to the clarification in the request, information regarding hourly rates and other budgetary numbers has been redacted. Documents responsive to this request are voluminous and are being made available to the requesting party electronically. Pursuant to 16 TAC § 22.144(h), a hard copy can be viewed at the offices of counsel for CPS Energy in Austin, Texas by appointment.

Voluminous Index:

Attachment BVJ 1-16 Redacted: Correspondence w/ Attachments, 336 Pages, Various Authors, Various Dates

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

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Brad Jauer & BVJ Properties Question No. 1-17:

Please provide all documentation regarding determining the Scope of Work for Burns & McDonnell's work on the Scenic Loop project, both prior to and after award of contract. It is not our intent to look at hourly rates or other budgetary numbers.

Response No. 1-17:

See Attachment. Pursuant to the clarification in the request, information regarding hourly rates and other budgetary numbers has been redacted.

Attachment:

Attachment BVJ 1-17 Redacted: Proposal for studies and report to support a CCN for the

Scenic Loop Substation, 3 Pages, Ravikanth Varanasi,

March 2, 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



March 2nd, 2020

Trieu Vo, PE Manager | Distribution Planning CPS Energy 145 Navarro San Antonio, TX 78205

Re: Proposal for studies and report to support a CCN for the Scenic Loop Substation

Dear Mr. Vo,

Burns & McDonnell is pleased to provide this proposal for the necessary analysis and documentation required to support the CCN application for the Scenic Loop Substation project.

Based on the review of the Scenic Loop project documents, it may be necessary to conduct additional analysis on the justification of the substation as it relates to providing load service, improvements in reliability and providing necessary costs related to any alternatives considered. We will plan to review the selected substation sites to develop the Scenic Loop Substation to understand the ability to pick up additional loads and improve reliability within the Scenic Loop, Fair Oaks and La Sierra circuits. This analysis will include a preferred route for the new 138-kV to connect the proposed Scenic Loop substation to interconnect into existing 138-kV Ranchtown to Menger Creek transmission line.

We believe that a report with necessary description of the various items discussed in Chapter 37, Subchapter B of Public Utility Regulatory Act of Texas will have to be developed and included to support the development of the proposed project.

Our staff will work side-by-side with the CPS Energy staff as an integrated team, to identify and evaluate the appropriate alternatives for the Scenic Loop Substation and to evaluate the impact and benefit of the proposed substation for additional load service along with many items expected as a part of the CCN submission. Our approach is based upon our vast experience in conducting power flow analysis and especially transmission and distribution system planning and cost estimates.

Scope

Burns & McDonnell anticipates having a project kick off meeting via conference call. The purpose of the kick-off meeting will be to introduce the Burns & McDonnell team, discuss the past similar study reports, review proposed substation sites, preferred transmission line route, review completed studies and review of alternatives. We anticipate CPS Energy to provide completed studies in Cyme and PSS/E prior to or shortly after the project kick-off meeting to aid in our analysis.

Data Collection

- CPS Energy shall provide any available study reports as a justification for the proposed scenic loop substation project along with studies with any alternatives considered including the following:
 - o One-line diagram of the proposed substation



Mr Trieu Vo CPS Energy

- o Load Forecast and anticipated feeders served of the new substation.
- Other project additions on the distribution that may be linked to the purpose and need for the new substation.
- o Routing Maps, project maps to help determine alternatives.
- o Additional information as necessary to help conduct our analysis.

Burns & McDonnell will make relevant assumptions on the data required to be modeled, if detailed or preliminary models are unavailable at the time of study. All relevant assumptions will be documented and included in the final report.

Study and Documentation Scope Effort:

- 1. Burns & McDonnell will review the powerflow model of the area impacted by the addition of the new proposed Substation for the year 2021 and a relevant future year.
 - This review will include a thorough analysis of the system load information and power flows under normal and selected contingencies. Burns & McDonnell will conduct analysis and reviews on the distribution power flows under normal and contingencies to evaluate reliability. The analysis and reviews will be compared against CPS planning criteria along with any requirements and will be documented.
 - Additional power flow type analysis and reviews will be conducted to assess any other viable alternatives.
 - A table with high level cost estimates for the proposed project and alternatives considered will be included.
 - The results and justification will be coordinated with the routing and environmental assessment based priority to be consistent with the substation and line route selection.
- 2. A report will be compiled that includes a recommendation, scope of the project (including maps and one lines), benefits of the proposed project. Information on analysis that includes load projections, power flow analysis, alternatives considered, reliability improvements, costs of the alternatives etc will be compiled to justify the need and purpose of the proposed project along with a relevant conclusion.

Deliverables

Burns & McDonnell will prepare a study report that will include the project description, relevant findings discussed in the scope along with a recommendation.

Schedule

Burns & McDonnell will deliver the draft report within 4 weeks of project execution and receiving all required study data.

Compensation

The proposed scope of work will be conducted based on the current approved "Engineering Services for Distribution Planning" (Statement of Work # 10613880) that describes our cost



Mr Trieu Vo CPS Energy

to conduct necessary studies described in this proposal. All tasks will be performed as time and material basis according to the 'Schedule of Hourly Professional Service Billing Rates' also included at the proposal and for the not to exceed value of Labor and expenses will be invoiced monthly in accordance with the contract.

Burns & McDonnell appreciates the opportunity to present this. If you have any questions as you review this proposal, please contact Ravikanth Varanasi, at (832) 925-5573 (rvaranasi@burnsmcd.com) or Michael Cote at (832) 786-7901 (mdcote@burnsmcd.com).

Sincerely,

Ravikanth Varanasi, PE*

Department Manager Utility Consulting o 832-925-5573 \ m 832-206-9198
*Registered in State of Washington

Accepted:	
Burns & McDonnell Engineering Company, INC.	CPS Energy
Engineering Company, nvc.	C13 Energy
BY:	BY:
NAME:	NAME:
TITLE:	TITLE:
DATE:	DATE:

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Brad Jauer & BVJ Properties Question No. 1-18:

Scott Lyssy testifies that CPS is not planning to construct the transmission line over existing distribution lines because of "CPS practice." What locations, if any, would it be possible to under-hang existing distribution lines?

Response No. 1-18:

CPS Energy has some distribution circuits within the right of way and connected to transmission line poles in limited areas of its system. Generally, however, CPS Energy avoids "under building" distribution lines on transmission structures unless there are no other viable alternatives. Construction and operation of distribution circuits that are connected to transmission line structures results in larger/taller transmission poles, poses greater safety risks for CPS Energy's construction and maintenance crews, and is ultimately a less reliable system configuration (with multiple circuits on single structures). In designing the routes for the Project at issue in this proceeding, CPS Energy does not presently intend to under build distribution along any of the proposed alternative routes. In some areas, the existing distribution lines may be co-located in the same right of way space (i.e., with the distribution line utilizing the edge of the 100 foot transmission line easement). During the design and construction phases of the Project, there may be instances where under building is reasonable or necessary.

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

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Brad Jauer & BVJ Properties Question No. 1-19:

If the easement for Segment 42 had not been donated, how would it have changed the analysis of the best meets route?

Response No. 1-19:

CPS Energy cannot determine how an evaluation of the routes included in the Application would have changed in its response to Question 17 in the Application if the right of way <u>for a portion of Segment 42</u> had not been donated.

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