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SOAH DOCKET NO. 473-15-5258  
PUC DOCKET NO. 44837

RECEIVED

APPLICATION OF AEP TEXAS  
CENTRAL COMPANY TO AMEND  
ITS CERTIFICATE OF  
CONVENIENCE AND NECESSITY  
FOR THE TULETA TO EULER TO  
COLETO CREEK DOUBLE-  
CIRCUIT 138-KV TRANSMISSION  
LINE IN BEE AND GOLIAD  
COUNTIES

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BEFORE THE STATE OFFICE

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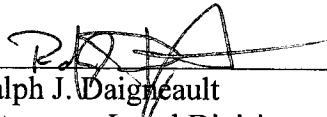
ADMINISTRATIVE HEARING

COMMISSION STAFF'S INITIAL BRIEF

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**SOAH DOCKET NO. 473-15-5258  
PUC DOCKET NO. 44837**

<b>APPLICATION OF AEP TEXAS CENTRAL COMPANY TO AMEND ITS CERTIFICATE OF CONVENIENCE AND NECESSITY FOR THE TULETA TO EULER TO COLETO CREEK DOUBLE- CIRCUIT 138-KV TRANSMISSION LINE IN BEE AND GOLIAD COUNTIES</b>	§ § § § § § § § §	<b>BEFORE THE STATE OFFICE  OF  ADMINISTRATIVE HEARINGS</b>
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**COMMISSION STAFF'S INITIAL BRIEF**

COMES NOW the Staff (Staff) of the Public Utility Commission of Texas (PUC or Commission), representing the public interest, and files this initial brief, and would show the following:

**I. INTRODUCTION AND SUMMARY**

**Introduction**

On July 1, 2015, AEP Texas Central Company (AEP TCC or Applicant) filed an application (Application) with the Commission to amend its certificate of convenience and necessity (CCN) for a proposed 138-kilovolt transmission line in Bee and Goliad Counties, Texas.<sup>1</sup> The proposed project is designated as the Tuleta to Euler to Coleta Creek Double-Circuit Transmission Line Project (Project). The Project is presented as two separate segments: the line extending from the new Tuleta Substation to the proposed Euler Substation and the line extending from the proposed Euler Substation to the existing Coleta Creek Substation.<sup>2</sup> Routes from Tuleta to Euler are identified as "TE" routes, and routes from Euler to Coleta Creek are identified as "EC" routes. In addition to the EC routes, alternative routes for the Euler to Coleta Creek segment of the Project are identified as "CPA" routes.<sup>3</sup>

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<sup>1</sup> AEP Texas Central Company (AEP CTT) Ex. 1 at 4 (Application).

<sup>2</sup> *Id.*

<sup>3</sup> Staff Ex. 1 at 4 (Righter Direct).

Staff has identified Routes TE-3 and CPA-3<sup>4</sup> as the routes that best addresses the requirements of the Public Utility Regulatory Act (PURA)<sup>5</sup> and the Commission's Substantive Rules.<sup>6</sup> Route TE-3 is composed of links B, VVVV, N, P, S and XXXX.<sup>7</sup> Route CPA-3 is composed of links XXXX, L, V, W, LL, SS, UU, BBB, DDDD, GGGG, MMM and TTTT.<sup>8</sup>

## Summary

A total of 29 alternate routes were proposed for the project: AEP TCC proposed seven TE routes and nineteen EC routes in its Application.<sup>9</sup> Intervenor the Coastal Prairie Alliance (CPA) proposed three alternative CPA routes in addition to the nineteen EC routes using only existing and noticed links.<sup>10</sup> All of the proposed alternate routes are viable.<sup>11</sup> While all the factors contained in PURA § 37.056(c) and 16 Tex. Admin. Code § 25.101(b)(3)(B) (TAC) are important and must be weighed, Staff believes that certain criteria deserve special attention for each segment of the Project, outlined below.

PURA and the Commission's substantive rules list the requirements for approving an application for a CCN and for approving a route for a proposed transmission line. "To approve an application to obtain or amend a CCN, the PUC [the Commission] must find that the proposed CCN is necessary for the service, accommodation, convenience, or safety of the public."<sup>12</sup> "The plain language of the rule grants the PUC [the Commission] authority to consider and weigh a variety of factors – engineering constraints, costs, grid reliability, and security, along with the criteria in PURA section 37.056 – in addition to use of existing rights-of-way in determining the

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<sup>4</sup> Righter Direct at 10.

<sup>5</sup> Public Utility Regulatory Act, Tex. Util. Code Ann. §§ 11.001-66.016 (West 2007 & Supp. 2014) (PURA).

<sup>6</sup> 16 Tex. Admin. Code § 25.101(b)(3)(B) (TAC).

<sup>7</sup> Application at Attachment 1, Table 4-2 (Bates 150).

<sup>8</sup> Righter Direct at 47.

<sup>9</sup> The proposed alternative routes for Tuleta to Euler are listed as TE Routes 1, 2, 3, 4, 5, 6, 7. The proposed routes for Euler to Coletto Creek are listed as EC Routes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18,. See Application at Attachment I, Table 4-2 (Bates 150).

<sup>10</sup> The proposed alternative routes for Euler to Coletto Creek are listed as CPA-1, CPA-2 and CPA-3. See Righter Direct at 47.

<sup>11</sup> Righter Direct at 35.

<sup>12</sup> *Dunn v. Public Util. Comm'n of Texas*, 246 S.W.3d 788, 791 (Tex. App.—Austin 2008, no pet.).

most reasonable route for a transmission line.”<sup>13</sup> In being given authority to consider and weigh the various routing factors, “the [Commission] may in some cases be required to adjust or accommodate the competing policies and interests involved.”<sup>14</sup> “[N]o one factor controls or is dispositive.”<sup>15</sup>

#### TE Routes:

For the Tuleta to Euler segment, the relevant criteria contained in PURA § 37.056(c) and 16 TAC § 25.101(b)(3)(B) are: (1) each route’s total length; (2) each route’s total cost; and (3) the number of habitable structures located within 300 feet of each route. Staff recommends Route TE-3 for the following reasons:

- Route TE-3 is the shortest route at 10.74 miles.<sup>16</sup>
- Route TE-3 is the least expensive route at \$13,766,000 or 14.7% cheaper than the next least expensive route (Route TE-4 at \$15,785,000).<sup>17</sup>
- Route TE-3 has the second lowest number of affected habitable structures (1) located within 300 feet of its centerline.<sup>18</sup>
- Route TE-3 has the second lowest distance across pasture/rangeland (2.2 miles).<sup>19</sup>
- Route TE-3 is the route recommended by Texas Parks and Wildlife Department (TPWD) as the route that would best minimize the impacts to wildlife habitat.<sup>20</sup>

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<sup>13</sup> *Dunn*, 246 S.W.3d at 795.

<sup>14</sup> *Public Util. Comm’n v. Texland Elec. Co.*, 701 S.W.2d 261, 266 (Tex. App.—Austin 1985, writ ref’d n.r.e.).

<sup>15</sup> *Dunn*, 246 S.W.3d at 795.

<sup>16</sup> *Righter Direct* at 13.

<sup>17</sup> *Id.* at 24.

<sup>18</sup> *Id.* at 34.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

Of the TE routes, Route TE-3 was supported or not opposed by all the parties. Staff recommends Route TE-3 because it is the shortest route at 10.74 miles, is the least expensive route at \$13,766,000 (or 14.7% cheaper than the next least expensive Route TE-4 at \$15,785,000), and affects the second lowest number of habitable structures (1) located within 300 feet of its centerline. In addition, Route TE-3 has the second lowest distance across pasture/rangeland (2.2 miles) and is the route recommended by the TPWD as the route that would best minimize the impacts to wildlife habitat. Route TE-3 has numerous advantages over the other TE routes and is the superior route overall when a comprehensive assessment is made. The table below summarizes how Route TE-3 compares to other relevant routes using these criteria:

	<u>Route TE-3</u>	<u>Average of all Tuleta to Euler routes</u>
<b>Total length</b>	10.74 miles, (shortest of all TE routes)	12.69 miles
<b>Cost (in millions)</b>	\$13,766,000 (least expensive of all TE routes, and 14.7% less expensive than the next least expensive route, Route TE-4 at \$15,785,000).	\$16,435,429
<b>Habitable structures</b>	1 (tied for second lowest of all TE routes)	1
<b>Length across upland pasture/rangeland</b>	2.2 miles (second shortest of all TE routes)	3.2 miles

The remaining discussion will focus on the EC routes.

EC Routes:

For the Euler to Coletto Creek segment, the relevant criteria contained in PURA § 37.056(c) and 16 TAC § 25.101(b)(3)(B) are: (1) avoidance of impacts to environmental integrity, specifically the Attwater's Greater Prairie Chicken (*Tympanuchus cupido attwateri*), a federal and state listed endangered species, including the U.S. Fish and Wildlife Service (USFWS) Attwater's Greater Prairie Chicken Core Area, and fragmentation of remnant coastal prairie communities such as the Vertisol Coastal Prairie Community; (2) paralleling of existing right-of-way (ROW); and (3) paralleling of property lines or other natural or cultural features. Staff recommends Route CPA-3 for the following reasons, among others:

- Route CPA-3 parallels the most existing ROW of any route (28.3 miles, 73.7% of its total length).<sup>21</sup>
- Route CPA-3 in combination with existing ROW, parallels the most property lines or other natural features of any route (32.7 miles, 85.1% of its total length)<sup>22</sup>
- Route CPA-3 is the second shortest distance affecting upland woodlands/brushlands (16.6 miles).<sup>23</sup>

The Euler to Coletto Creek segment is generally divided into routes progressing north of the City of Goliad and those progressing south. Of the northern EC routes, TPWD formally intervened and recommended Route EC-18<sup>24</sup> as the route that best minimizes the adverse impacts to natural resources.<sup>25</sup> Intervenor the Coastal Prairie Alliance recommended alternate Route CPA-

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<sup>21</sup> *Id.* at 28.

<sup>22</sup> *Id.* at 30.

<sup>23</sup> Righter Direct at 34.

<sup>24</sup> Route EC-18 is composed of links XXXX, L, V, X, Z, LL, SS, UU, AAA, FFFF, HHH, and OOO. *See* Application at Attachment I, Table 4-2 (Bates 150).

<sup>25</sup> TPWD Ex. 1 at 6 (Wicker Direct).



1, similar to EC-18,<sup>26</sup> as well as Routes CPA-2 and CPA-3.<sup>27</sup> Intervenor Holt and Floerke Entities opposed Route EC-7 and preferred EC-18 or CPA-3.<sup>28</sup>

Of the southern EC routes, the Environmental Assessment and Alternative Route Analysis (EA) prepared by POWER Engineers, Inc. identified EC-7 as the alternative route that best addresses the requirements of PURA and the Commission's Substantive Rules.<sup>29</sup> Based on the EA, AEP TCC recommended Route EC-8,<sup>30</sup> composed of many of the same links as Route EC-7.<sup>31</sup> Intervenor the Northern Alliance also recommended Route EC-7.<sup>32</sup>

<b>Northern Progressing Routes</b>	<b>Southern Progressing Routes</b>
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EC-18, CPA-1, CPA-2, CPA-3

EC-7, EC-8

Staff recommends a northern progressing route (Route CPA-3) because of the unique ecological and environmental circumstances presented in this case, specifically because the northern progressing routes minimize the environmental impact of the Project and avoid the USFWS Attwater's Greater Prairie Chicken Core Area and the Vertisol Coastal Prairie Community while the southern progressing routes do not.<sup>33</sup> Route CPA-3 has numerous advantages over the other routes and is the superior route overall when a comprehensive assessment is made. The table below summarizes how Route CPA-3 compares to other relevant routes using these and other criteria:

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<sup>26</sup> CPA Ex. 17 at 8 (Andrews Cross Rebuttal).

<sup>27</sup> Righter Direct at 40-49.

<sup>28</sup> Holt & Floerke Entities Ex. HF-2 at 31 (Schneider Direct).

<sup>29</sup> Route EC-7 is composed of links XXXX, L, Y, EE, FF, II, RRRR, VV, YY, JJJJ, VVV, YYY, NNNN, CCCC, DDDD, GGGG, MMM, SSSS, NNN, and OOO. See AEP TCC Ex. 8 at 67 (Revised Table 4-2).

<sup>30</sup> Route EC-8 is composed of links U, HH, II, RRRR, VV, YY, JJJJ, UUU, VVV, YYY, NNNN, CCCC, DDDD, EEEE, FFFF, HHH, and OOO. See Revised Table 4-2.

<sup>31</sup> The EA did not take into consideration the CPA routes or the Coastal Prairie Conservation Initiative ('CPCI') lands; See Tr. at 113: 21-23 (Knight Cross) (March 1, 2016).

<sup>32</sup> Northern Alliance Ex. 8 at 5 (Almon Direct).

<sup>33</sup> Righter Direct at 34.

	<u>Route</u> <u>CPA-3</u> <sup>34</sup>	<u>Route</u> <u>EC-7</u>	<u>Route</u> <u>EC-8</u>	<u>Route</u> <u>EC-18</u>	<u>Average of all</u> <u>Euler to Coleta</u> <u>Creek routes</u> <sup>35</sup>
<b>Parallels existing ROW</b>	28.3 miles, 73.7% of its total length (highest)	17.7 miles, 48.0% of its total length	22.8 miles, 60.6% of its total length	13.4 miles, 36.2% of its total length	18.7 miles
<b>Parallels property lines or other natural features in combination with existing ROW</b>	32.7 miles, 85.1% of its total length (highest)	27.7 miles, 75.1% of its total length	31.2 miles, 83.0% of its total length	26.7 miles, 72.2% of its total length	28.3 miles
<b>Length across upland woodlands/brushlands</b>	16.6 miles (second shortest of all EC routes)	22.6 miles	21.3 miles	21.4 miles	19.8 miles
<b>Cost (in millions)</b>	\$49.82 (only 10% more than the least expensive of these 4 routes)	\$45.69	\$46.08	\$47.96	\$47.68
<b>Length</b>	38.4 miles (only 4% longer than the shortest of these 4 routes)	36.9	37.6	37.0	37.4 miles
<b>Habitable structures</b>	6	5	6	3	9

Staff will further discuss these and other criteria in Section V (Evaluation of Proposed Routes) below.

<sup>34</sup> See Revised Table 4-2; Righter Direct at 17-35.

<sup>35</sup> *Id.*

## **II. PROCEDURAL HISTORY**

Staff is not addressing the procedural history in its initial brief.

## **III. JURISDICTION AND NOTICE**

The Commission has jurisdiction over this matter pursuant to PURA §§ 32.001, 37.053, 37.056, and 37.057, and 16 TAC § 25.101.<sup>36</sup> The State Office of Administrative Hearings (SOAH) has jurisdiction over this proceeding pursuant to PURA § 14.053 and Texas Government Code § 2003.049 and PURA § 14.053.<sup>37</sup>

AEP TCC provided proper notice of the application in compliance with PURA § 37.054 and 16 TAC § 22.52(a). On July 28, 2015, Staff filed a recommendation finding the notice sufficient.<sup>38</sup> No party recommended finding the notice insufficient. Thus, Staff continues to recommend that the notice be found sufficient and in compliance with the statute and Commission rules.

## **IV. PRELIMINARY ORDER: ISSUES TO BE ADDRESSED**

### **A. Application (Preliminary Order Issue No. 1)**

Issue No. 1 of the Preliminary Order asks, in part:

Is AEP Texas Central Company's application to amend its CCN adequate? Does the application contain an adequate number of alternative routes to conduct a proper evaluation?<sup>39</sup>

Staff witness Brandon Righter evaluated AEP's application and found that it was adequate.<sup>40</sup> Additionally, Mr. Righter testified that AEP's application contains an adequate number of alternative routes to conduct a proper evaluation.<sup>41</sup> On September 21, 2015, Intervenor

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<sup>36</sup> See SOAH Order No. 1 at 2 (August 24, 2015).

<sup>37</sup> *Id.*

<sup>38</sup> See also Righter Direct at 10.

<sup>39</sup> Order of Referral and Preliminary Order at 3 (August 11, 2015) (Preliminary Order).

<sup>40</sup> Righter Direct at 10; See also Staff's Recommendation on Sufficiency and Notice (July 28, 2015).

<sup>41</sup> *Id.* at 13.

Greg Scherer filed a request for a review of route adequacy.<sup>42</sup> On September 23, 2015, AEP filed a response to the request.<sup>43</sup> Mr. Scherer's request was filed late.<sup>44</sup> SOAH Order No. 2 set a deadline of September 17, 2015, for filing testimony or a position statement challenging route adequacy.<sup>45</sup> Mr. Scherer did not file a request until September 21, 2015.<sup>46</sup> The ALJ found that Mr. Scherer's filing does not meet the requirements of a challenge to route adequacy, and denied the challenge.<sup>47</sup>

## **B. Need (Preliminary Order Issue Nos. 2-3)**

Issue No. 2 of the Preliminary Order asks:

Are the proposed facilities necessary for the service, accommodation, convenience, or safety of the public within the meaning of PURA § 37.056(a) taking into account the factors set out in PURA § 37.056(c)? In addition,

- a) How does the proposed facility support the reliability and adequacy of the interconnected transmission system?
- b) Does the proposed facility facilitate robust wholesale competition?
- c) What recommendation, if any, has an independent organization, as defined in PURA § 39.151, made regarding the proposed facility?
- d) Is the proposed facility needed to interconnect a new transmission service customer?<sup>48</sup>

Issue No. 3 of the Preliminary Order asks:

Is the transmission project the better option to meet this need when compared to employing distribution facilities? If AEP Texas Central Company is not subject to the unbundling requirements of PURA § 39.051, is the project the better option to meet the need when compared to a combination of distributed generation and energy efficiency?<sup>49</sup>

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<sup>42</sup> SOAH Order No. 4 at 1.

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

<sup>45</sup> *Id.*

<sup>46</sup> *Id.*

<sup>47</sup> *Id.* at 2.

<sup>48</sup> Preliminary Order at 3-4.

<sup>49</sup> Preliminary Order at 3-4.

As Mr. Righter testified, The Electric Reliability Council of Texas (ERCOT), an independent organization as defined in PURA § 39.151, conducted an independent review of reliability issues in the Sinton-Beeville-Kenedy area of Texas and concluded that the proposed Project is needed to assure reliability of service in this region and is the better option compared to employing distribution facilities.<sup>50</sup> ERCOT issued a letter to AEP TCC dated June 16, 2014, stating that the ERCOT Board of Directors had recommended the proposed Project.<sup>51</sup>

### **C. Route (Preliminary Order Issue Nos. 4-6)**

Issue No. 4 of the Preliminary Order asks:

Which proposed transmission line route is the best alternative weighing the factors set forth in PURA § 37.056(c) and [16 TAC §] 25.101(b)(3)(B)?<sup>52</sup>

Staff recommends approval of Route CPA-3 after weighing the factors set forth in PURA § 37.056(c)(4) and 16 TAC § 25.101(b)(3)(B).<sup>53</sup> Route CPA-3 best balances the factors referenced above and has numerous advantages over the other routes.<sup>54</sup> Section V (Evaluation of Proposed Routes) contains a full discussion of these advantages.

Issue No. 5 of the Preliminary Order asks:

Are there alternative routes or facilities configurations that would have a less negative impact on landowners? What would be the incremental cost of those routes?<sup>55</sup>

It is likely that a number of intervenors will seek to work with AEP to suggest modifications in order to minimize the impact of the transmission line on their land for any of the routes proposed.

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<sup>50</sup> Righter Direct at 16.

<sup>51</sup> The letter and a summary report of the ERCOT independent review are included in Attachment 4a-d of the Application.

<sup>52</sup> Preliminary Order at 4.

<sup>53</sup> Righter Direct at 10, 14-36.

<sup>54</sup> *Id.*

<sup>55</sup> Preliminary Order at 4.

Mr. Righter recommends that the Commission adopt the standard ordering language that would allow the utility company to make deviations under certain conditions.<sup>56</sup>

Issue No. 6 of the Preliminary Order asks:

If alternative routes or facility configurations are considered due to individual landowner preference:

- a) Have the affected landowners made adequate contributions to offset any additional costs associated with the accommodations?
- b) Have the accommodations to landowners diminished the electric efficiency of the line or reliability?<sup>57</sup>

Staff is not aware of any landowner who has made or has committed to making financial contributions to offset any incremental cost associated with alternative routes or facility configurations.

**D. Texas Parks and Wildlife Department (Preliminary Order Issue No. 7)**

Issue No. 7 of the Preliminary Order asks:

On or after September 1, 2009, did the Texas Parks and Wildlife Department provide any recommendations or informational comments regarding this application pursuant to Section 12.0011(b) of the Texas Parks and Wildlife Code? If so, please address the following issues:

- a) What modifications, if any, should be made to the proposed project as a result of any recommendations or comments?
- b) What conditions or limitations, if any, should be included in the final order in this docket as a result of any recommendations or comments?
- c) What other disposition, if any, should be made of any recommendations or comments?
- d) If any recommendation or comment should not be incorporated in this project or the final order, or should not be acted upon, or is otherwise inappropriate or incorrect in light of the specific facts and circumstances

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<sup>56</sup> Righter Direct at 11-12.

<sup>57</sup> Preliminary Order at 4.

presented by this application or the law applicable to contested cases, please explain why that is the case.<sup>58</sup>

Staff witness Brandon Righter recommends several mitigation measures that he finds sufficient to address most of TPWD's concerns.<sup>59</sup> These measures include:

1. In the event AEP TCC or its contractors encounter any archeological artifacts or other cultural resources during project construction, work shall cease immediately in the vicinity of the resource and the discovery shall be reported to the Texas Historical Commission (THC). In that situation, AEP TCC shall take action as directed by the THC.
2. AEP TCC shall follow the procedures described in the following publications for protecting raptors: *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006*, Avian Power Line Interaction Committee (APLIC) (2006), and the *Avian Protection Plan Guidelines* published by APLIC in April, 2005. Also, AEP TCC should consult *Reducing Avian Collisions with Power Lines: State of the Art in 2012*.
3. AEP TCC shall exercise extreme care to avoid affecting non-targeted vegetation or animal life when using chemical herbicides to control vegetation within the right-of-way (ROW) and such herbicide shall comply with rules and guidelines established in the *Federal Insecticide, Fungicide and Rodenticide Act* and with Texas Department of Agriculture regulations.
4. AEP TCC shall minimize the amount of flora and fauna disturbed during construction of the proposed transmission project, except to the extent necessary to establish appropriate right-of-way clearance for the transmission line. In addition, AEP TCC shall revegetate using native species and shall consider landowner preferences in doing so. Furthermore, to the maximum extent practicable, AEP TCC shall avoid adverse environmental impacts to sensitive plant and animal species and their habitats as identified by TPWD and the United States Fish and Wildlife Service (USFWS).
5. AEP TCC shall implement erosion control measures as appropriate. Also, AEP TCC shall return each affected landowner's property to its original contours and grades unless otherwise agreed to by the landowner. AEP TCC shall not be required to restore original contours and grades where different

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<sup>58</sup> Preliminary Order at 4-5.

<sup>59</sup> Righter Direct at 35 ("I conclude that the concerns expressed by TPWD in its recommendations and informational comments regarding AEP TCC's Application are sufficiently addressed by the mitigation measures provided in Items 2, 3, and 4 and 6 on Pages 9 and 10 of my testimony. I also conclude that AEP TCC has the resources and the procedures in place for accommodating the recommendations and comments by TPWD.").

contour or grade is necessary to ensure the safety or stability of the project's structures or the safe operation and maintenance of the line.

6. AEP TCC shall use best management practices to minimize the potential impact to migratory birds and threatened or endangered species.
7. AEP TCC shall cooperate with directly affected landowners to implement minor deviations in the approved route to minimize the impact of the transmission line. Any minor deviation to the approved route shall only directly affect landowners that received notice of the transmission line under 16 TAC § 22.52(a)(3) and that have agreed to the minor deviation.
8. AEP TCC shall be permitted to deviate from the approved route in any instance in which the deviation would be more than a minor deviation, but only if the following two conditions are met. First, AEP TCC shall receive consent from all landowners who would be affected by the deviation regardless of whether the affected landowner received notice of or participated in this proceeding. Second, the deviation shall result in a reasonably direct path towards the terminus of the line and not cause an unreasonable increase in cost or delay the project. Unless these two conditions are met, this paragraph does not authorize AEP TCC to deviate from the approved route except as allowed by the other ordering paragraphs in this Order.

## **V. EVALUATION OF PROPOSED ROUTES**

### **A. Routing Criteria Under PURA § 37.056(c)(4)**

#### **1. Community Values**

In order to facilitate community involvement, AEP TCC held three open house meetings on August 19 and 21, and October 23, 2014.<sup>60</sup> Based on the questionnaires completed by open house attendees, the respondents indicated that “maintain[ing] reliable electric service” was of primary importance, discussed in the Need Section IV.B above. Also of primary importance were “maximiz[ing] the distance from residences” and “minimiz[ing] loss of trees.”<sup>61</sup> These criteria are discussed below in Subsections B.6 (Prudent Avoidance) and A.4 (Environmental Integrity), respectively.

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<sup>60</sup> Application at 13-14; Righter Direct at 18.

<sup>61</sup> See Application at Attachment I, Appendix B, Section 3.3.2 (Bates 132-139).



Moreover, environmental integrity and prudent avoidance notwithstanding, Mr. Righter concluded that Route CPA-3 would mitigate as many of the specific concerns expressed by the community at the open houses as would construction of any of the other alternative routes, if not more. The table below summarizes the criteria that Mr. Righter discussed concerning community values in his testimony. As the table shows, Route CPA-3 is similar to the other routes in each category.<sup>62</sup>

	<u>Route CPA-3</u>	<u>Route EC-7</u>	<u>Route EC-8</u>	<u>Route EC-18</u>	<u>Average</u>
AM commercial radio transmitters	0	0	0	0	0
FM radio transmitters, microwave towers, or other electrical installations	2	3	1	1	1
Airports with a runway > 3,200 ft.	1	1	1	1	1
Airports with a runway ≤ 3,200 ft.	0	0	0	0	0
Heliports	0	0	0	0	0
Private airstrips	5	3	2	6	4

## 2. Park and Recreational Areas

As the table below shows, Route CPA-3 would have a no effect on park and recreational areas, as opposed to other routes.<sup>63</sup>

	<u>Route CPA-3</u>	<u>Route EC-7</u>	<u>Route EC-8</u>	<u>Route EC-18</u>	<u>Average</u>
Park or recreational areas crossed	0	0	0	0	0
Park or recreational areas within 1,000 feet of ROW centerline	0	0	1	0	<1

<sup>62</sup> Revised Table 4-2.

<sup>63</sup> *Id.*

### 3. Historical and Aesthetic Values

All proposed TE, EC, and CPA routes have some portion of right-of-way that will cross areas of high archeological potential.<sup>64</sup> Furthermore, 10 of the 19 proposed EC routes and all of the CPA routes cross the San Antonio River Valley Rural Historic District, which is listed in the National Register of Historic Places. The table below summarizes the cultural resources criteria for the routes.<sup>65</sup> As this table demonstrates, Routes CPA-3 would have a minimal impact on potential sites of historical significance as compared to the other routes. Staff recommends the standard ordering language to mitigate these potential impacts.<sup>66</sup>

	<u>Route CPA-3</u>	<u>Route EC-7</u>	<u>Route EC-8</u>	<u>Route EC-18</u>	<u>Average</u>
<b>Recorded archeological sites crossed</b>	0	0	0	0	0
<b>Additional archeological sites within 1,000 feet of ROW centerline</b>	0	0	1	2	2
<b>Length of ROW across areas of high prehistoric and historic site potential</b>	23.5 miles	20.5 miles	19.6 miles	25.7 miles	23.8 miles

Route CPA-3 compares favorably to other routes in terms of aesthetic values because CPA-3 avoids the roadside park located on U.S. Highway 59 and parallels existing transmission line ROW for the longest distances (21.2 miles), minimizing the effects of the aesthetics in the study area. The table below summarizes the aesthetic factors for the routes.<sup>67</sup> As the table below shows, Route CPA-3 would have a similar impact on aesthetic values as other routes.

<sup>64</sup> Righter Direct at 20.

<sup>65</sup> Revised Table 4-2.

<sup>66</sup> Righter Direct at 10 ("In the event AEP TCC or its contractors encounter any archeological artifacts or other cultural resources during project construction, work shall cease immediately in the vicinity of the resource and the discovery shall be reported to the Texas Historical Commission (THC). In that situation, AEP TCC shall take action as directed by the THC.").

<sup>67</sup> Revised Table 4-2.

	<u>Route</u> <u>CPA-3</u>	<u>Route</u> <u>CPA-3</u>	<u>Route</u> <u>CPA-3</u>	<u>Route</u> <u>CPA-3</u>	<u>Average</u>
<b>ROW within foreground visual zone of US and state highways</b>	4.8 miles	10.4 miles	14.4 miles	2.5 miles	7.9 miles
<b>ROW within foreground visual zone of parks/recreational areas</b>	0.0 miles	0.0 miles	1.1 miles	0.0 miles	0.2 miles
<b>Number of U.S. or State Highways crossed by the route</b>	2	4	4	2	3
<b>Number of Farm-to-Market (FM), county roads, or other streets crossed by the route</b>	3	3	5	4	4

#### 4. Environmental Integrity

TPWD formally intervened and filed a letter and testimony<sup>68</sup> rejecting the notion that southern progressing Routes EC-7 and EC-8 best minimize the impacts to natural resources.<sup>69</sup> As an intervenor in the case, TPWD's concerns and recommendations should be given significant weight.<sup>70</sup> TPWD's greatest concern was the potential impact to the Attwater's Greater Prairie Chicken and the USFWS Attwater's Greater Prairie Chicken Core Area, the Fish and Wildlife Service's Core Management Zone, and the Vertisol Coastal Prairie Community.<sup>71</sup> TPWD was also concerned with the potential long-term impacts resulting from habitat modifications and/or fragmentation to the Vertisol Coastal Prairie.<sup>72</sup> While recommending Route EC-18, TPWD does not oppose CPA-3.<sup>73</sup> TPWD recommended selection of any route that best minimizes these impacts to natural resources.<sup>74</sup>

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<sup>68</sup> Tr. at 250: 7-8 ("It's actually kind of unusual that TPWD intervenes and files testimony in a case."); *See also* Tr. at 254: 1-3 ("Often if something is really controversial Parks & Wildlife comes and testifies...").

<sup>69</sup> Wicker Direct at 12, Tr. at 218: 12-15.

<sup>70</sup> Tr. at 217: 9-25, 218: 1-4.

<sup>71</sup> Wicker Direct at 6.

<sup>72</sup> Tr. at 89: 7-17.

<sup>73</sup> Tr. at 220:6-8.

<sup>74</sup> Wicker Direct at 16 ("TPWD recommends the PUC select a route that would minimize adverse impacts to natural resources, such as Alternative Route EC-18.").

Staff recommends Route CPA-3 a northern progressing route, because it avoids the specific impacts to natural resources outlined by TPWD above. Selection of Route CPA-3 would also preserve the already-reduced portions of the Nature Conservancy Refugio-Goliad Prairie Conservation Area and the Vertisol Coastal Prairie located to the southeast of where EC-7 and EC-8 are proposed, and avoid the long term costs of fragmentation.<sup>75</sup> In turn, one of the most critically endangered species in the U.S. could occupy and spread out in the area, potentially eliminating the need for future releases of Attwater's Prairie Chickens.<sup>76</sup>

Additionally, southern progressing routes like EC-7 are considerably more likely to have greater adverse impacts to Texas rare resources such as woodland habitats through the clearing and loss of mature trees, habitat fragmentation associated with the loss of trees, loss of grasslands, and higher probability of archeological impacts.<sup>77</sup> Staff gave great weight to minimizing the loss of trees because it was identified as the second most important community value by respondents at the open meetings.<sup>78</sup> Unlike EC-7,<sup>79</sup> CPA-3 is considerably less likely to impact natural resources and infringe upon the community values of respondents affected by the proposed routes, notably minimalizing the loss of trees.<sup>80</sup> To illustrate this point, the table below demonstrates that Route CPA-3 is the shortest distance of the relevant routes, and second shortest overall for Euler to Coleta Creek routes affecting upland woodlands/brushlands.<sup>81</sup>

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<sup>75</sup> Tr. at 115:17-116:10 (“...the priority management area contains about, you know, a fraction of a percent of what the original range of the bird was.... continuing to reduce, reduce, reduce, reduce...”).

<sup>76</sup> *Id.* at 116: 16-22.

<sup>77</sup> Schneider Direct at 31

<sup>78</sup> Righter Direct at 18; Tr. at 206: 14-18; *See* Application at Attachment I, Appendix B, Section 3.3.2 (Bates 132-139).

<sup>79</sup> Tr. at 206: 16-24 (“...cutting down trees...it’s not in the community values part of it.”)

<sup>80</sup> Righter Direct at 18.

<sup>81</sup> Revised Table 4-2; Righter Direct at 34.

	<u>Route CPA-3</u>	<u>Route EC-7</u>	<u>Route EC-8</u>	<u>Route EC-18</u>	<u>Average of all Euler to Coleta Creek routes</u>
<b>Length across upland woodlands/brushlands</b>	16.6 miles (second shortest of all EC routes)	22.6 miles	21.3 miles	21.4 miles	19.8 miles

Moreover, Staff recommends that the final order approving any route contain certain mitigation measures, as included in Mr. Righter's direct testimony and reproduced above in Section IV.D (Texas Parks and Wildlife Department).<sup>82</sup>

## **B. Routing Criteria under 16 Tex. Admin. Code § 25.101(b)(3)(B)**

### **1. Engineering Constraints**

Mr. Righter testified that engineering constraints may exist, but that these possible constraints are not severe or uncommon and can be adequately addressed by utilizing design and construction practices and techniques usual and customary in the electric utility industry.<sup>83</sup>

### **2. Cost**

The cost of the Euler to Coleta Creek routes range from \$45,293,000 to \$53,015,000.<sup>84</sup> When compared with the total cost estimates for all routes, Route CPA-3's cost of \$49,824,000 would be at the median of the range.<sup>85</sup> The table below summarizes the costs for the relevant routes.<sup>86</sup> As this table shows, the difference in costs would be minimal. This summary does not take into account the estimated costs associated with substation upgrades, which are common to all routes.

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<sup>82</sup> Righter Direct at 10-11.

<sup>83</sup> *Id.* at 23.

<sup>84</sup> AEP TCC Ex. 1.D at 5 (Errata dated January 4, 2016).

<sup>85</sup> *Id.*, See also CPA Ex. 21 at 10 -14 (AEP TCC's Corrected Responses to CPA's First and Second Request for Information).

<sup>86</sup> *Id.*

	<u>Route</u> <u>CPA-3</u>	<u>Route</u> <u>EC-7</u>	<u>Route</u> <u>EC-8</u>	<u>Route</u> <u>EC-18</u>	<u>Average of all</u> <u>Euler to Coleta</u> <u>Creek routes</u>
<b>Cost (in millions)</b>	\$49.82 (only 10% more than the least expensive of these 4 routes)	\$45.69	\$46.08	\$47.96	\$47.68

### 3. Moderation of Impact of Affected Community and Landowners

As discussed above in Section V.A.1 (Community Values), the landowners indicated that they are interested in maintaining reliable electric service, maximizing the distance from residences, minimizing the loss of trees.<sup>87</sup> Route CPA-3 accommodates all of these interests, as discussed throughout. Intervening landowners along CPA-3 expressed a preference to utilize and parallel the preexisting open circuit 345 kV line for 21 miles along links W, LL, SS, UU, BBB, DDDD, GGGG, and TTTT.<sup>88</sup> However that line is owned by the Lower Colorado River Authority Transmission Services Corporation and cannot be utilized in the manner preferred by the intervenors.<sup>89</sup>

Moreover, Staff recommends that the Commission adopt the standard ordering paragraph language to require the utility to work with affected landowners in order to minimize any impacts.<sup>90</sup>

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<sup>87</sup> See Application at Attachment I, Appendix B, Section 3.3.2 (Bates 132-139).

<sup>88</sup> Righter Direct at 26-27.

<sup>89</sup> Righter Direct at 27.

<sup>90</sup> *Id.* at 12:7-12.

#### 4. Use of Compatible Rights-of-Way, Paralleling Existing Rights-of-Way

The table below compares the routes' use of existing compatible ROW.<sup>91</sup> As shown, Route CPA-3 parallels the most existing compatible ROW of any route (28.3 miles, 73.7% of its total length).

	<u>Route</u> <u>CPA-3</u>	<u>Route</u> <u>EC-7</u>	<u>Route</u> <u>EC-8</u>	<u>Route</u> <u>EC-18</u>	<u>Average</u>
<b>Parallels existing compatible ROW</b>	28.3 miles, 73.7% of its total length (highest)	17.7 miles, 48.0% of its total length	22.8 miles, 60.6% of its total length	13.4 miles, 36.2% of its total length	18.7 miles

#### 5. Paralleling of Property Lines or Other Natural or Cultural Features

The table below further compares the routes' use of existing corridors and apparent property lines.<sup>92</sup> As shown, Route CPA-3 parallels the most property lines or other natural features of any route in combination with existing ROWs (32.7 miles, 85.1% of its total length).

	<u>Route</u> <u>CPA-3</u>	<u>Route</u> <u>EC-7</u>	<u>Route</u> <u>EC-8</u>	<u>Route</u> <u>EC-18</u>	<u>Average of all</u> <u>Euler to Coledo</u> <u>Creek routes</u>
<b>Parallels property lines or other natural features</b>	32.7 miles, 85.1% of its total length (highest)	27.7 miles, 75.1% of its total length	31.2 miles, 83.0% of its total length	26.7 miles, 72.2% of its total length	28.3 miles

<sup>91</sup> Revised Table 4-2; Righter Direct at 28-29.

<sup>92</sup> Revised Table 4-2; Righter Direct at 30-31.

## 6. Prudent Avoidance

Prudent avoidance was a significant concern to landowners who attended the open house meetings and provided written comments.<sup>93</sup> The Commission has defined prudent avoidance under 16 TAC § 25.101(a)(4) as: “The limiting of exposure to electric and magnetic fields that can be avoided with reasonable investments of money and effort.” The table below summarizes the number of habitable structures that are located within 500 feet of Route CPA-3, as compared to the other relevant routes.<sup>94</sup> As shown, Route CPA-3 impacts a similar number habitable structures than other routes.<sup>95</sup>

	<u>Route CPA-3</u>	<u>Route EC-7</u>	<u>Route EC-8</u>	<u>Route EC-18</u>	<u>Average of all Euler to Coleta Creek routes</u>
<b>Habitable structures within 500 feet of ROW centerline</b>	6	5	6	3	9

## VI. CONCLUSION

For the reasons discussed above, Routes TE-3 and CPA-3 best address the criteria of PURA and the Substantive Rules

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<sup>93</sup> See *supra* at Section V.A.1 (Community Values).


<sup>94</sup> Revised Table 4-2.

<sup>95</sup> *Id.*



### **CERTIFICATE OF SERVICE**

I certify that a copy of this document will be served on all parties of record on April 1, 2016, in accordance with 16 TAC § 22.74.

  
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Ralph J. Daigneault