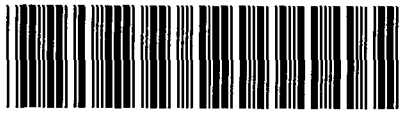

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PUC DOCKET NO. 45866
SOAH DOCKET NO. 473-16-4342

APPLICATION OF LCRA TRANSMISSION SERVICES CORPORATION TO AMEND A CERTIFICATE OF CONVENIENCE AND NECESSITY FOR THE ROUND ROCK - LEANDER 138-KV TRANSMISSION LINE IN WILLIAMSON COUNTY	§	**PUBLIC UTILITY COMMISSION OF TEXAS**

ORDER

This Order addresses the application of LCRA Transmission Services Corporation (LCRA) to amend a certificate of convenience and necessity (CCN) for the Round Rock-to-Leander 138-kilovolt (kV) transmission line in Williamson County. On March 22, 2017, the State Office of Administrative Hearings (SOAH) administrative law judges (ALJs) issued a proposal for decision (PFD) recommending that the Commission grant LCRA's application and approve the use of route COL-1. The Commission does not adopt the proposal for decision's route recommendation, and instead approves route LHO-1. Except as discussed in this Order, the Commission otherwise adopts the proposal for decision, including findings of fact and conclusions of law. The Commission grants LCRA's application to amend its CCN, as modified by this Order.

I. Discussion

A. Routing

The Commission disagrees with the ALJs' recommendation of route COL-1 as the route that best balances the factors set forth in PURA[1] § 37.056(c) and 16 Texas Administrative Code (TAC) § 25.101(b)(3)(B). The Commission instead finds that route LHO-1 best satisfies the routing criteria outlined in PURA and the Commission's rules. Route LHO-1 has fewer habitable structures within 300 feet of the centerline than does route COL-1. Furthermore, route LHO-1 avoids Williamson County Regional Park, and will therefore have a smaller impact on the community's enjoyment of local parks. Route LHO-1 also parallels Ronald Reagan Blvd. for

[1] Public Utility Regulatory Act, Tex. Util. Code §§ 11.001-58.303 (West 2016), §§ 59.001-66.017 (West 2007 & Supp. 2016) (PURA).

much of its length, unlike route COL-1, which parallels County Road (CR) 175. Ronald Reagan Blvd. is a significant retail and commercial corridor, with a speed limit of 65 miles per hour and with a road right-of-way of 200 to 400 feet. In contrast, CR 175 uses a road right-of-way of only 64 to 130 feet. The Commission finds that Ronald Reagan Blvd. is generally more compatible with the routing of a transmission line than CR 175. Finally, as discussed further below, the Commission finds that the agreement reached by the cities of Leander, Cedar Park and Round Rock to support route COL-1 is not a reflection of community values, and that the ALJs erred in assigning that agreement significant weight.

In accordance with the Commission's decision to approve route LHO-1 instead of route COL-1, the Commission deletes findings of fact 33A, 46, 57, 65, 67, 106, 110, and 112; modifies findings of fact 54, 56, 84 and 111 and conclusion of law 11; and adds new findings of fact 33B, 54A, 65A, 67A, 77A, 110A, and 112A.

B. Route Adequacy

No party in this case challenged route adequacy. The Commission finds that LCRA's application was sufficient with respect to route adequacy and that LCRA did provide an adequate number of reasonably differentiated alternative routes between the only two endpoints that were included in the application. However, the failure of LCRA to provide more than two possible endpoints in such a developed area unnecessarily limited the Commission's options. Had LCRA provided multiple endpoints, the Commission would have had more and better options for routing the line in accordance with the criteria laid out in PURA and the Commission's rules.

LCRA's application included only one eastern connection point: the Oncor's existing Round Rock substation. ERCOT conducted a study of the transmission system in the area of the proposed project to determine how to address load growth and reliability needs in the area. ERCOT studied 13 alternatives and recommended one option as the best choice based on cost effectiveness, load growth, and factors having to do with electrical performance. The transmission line project proposed by LCRA in its application adopted ERCOT's preferred option for the two connecting endpoints.[2] (One of the two new substations proposed was not in the original ERCOT-recommended scope. LCRA included the second substation in the application because the electric

[2] Application at 4.

load projected for the area grew faster than expected. ERCOT did not object to this change in the project's scope.)

The option ERCOT designated as its preferred option, which forms the basis of LCRA's application, performed the best from ERCOT's viewpoint. However, ERCOT does not consider the PURA factors in its analysis. There were other alternatives studied by ERCOT that may not have been superior but were reasonable and usable from an electrical standpoint, and that, if they had been included in the application, likely would have provided the Commission with additional route choices in this docket.[3]

LCRA provided no evidence that it was electrically necessary for LCRA to connect to the existing Round Rock substation as opposed to the other substations in the area or taps on an existing transmission line. The ERCOT study indicates that other alternatives were possible and reasonable. Other recent CCN applications in similar areas have provided multiple connection point options. For example, a recent CCN application by Brazos Electric Cooperative, Inc. included 24 alternative routes using 29 unique route segments to connect one of eight possible tap points along an existing Brazos Electric or Oncor 138-kV transmission line to one of three possible locations for a new substation.[4]

Only including two possible endpoints restricted the number of options available to the Commission in the eastern portion of the study area in particular. Because of environmental concerns and intervenor opposition to two of the three route corridors (N3 and O3), the only other available routing corridor is one paralleling FM 1431. However, choosing the corridor paralleling FM 1431 requires using segments G3 and I3 to reach the Round Rock Substation in the southeastern portion of the study area. These two segments cross existing residential areas and together account for the high number of affected habitable structures on all of the focus routes. Segment G3 has 115 affected habitable structures within 300 feet of the ROW centerline, and segment I3 has 184 affected habitable structures within 300 feet of the ROW centerline.

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[3] Application at Attachment 2 (ERCOT Independent Review of the Leander – Parmer – Round Rock Project) at 15.

[4] *Application of Brazos Electric Cooperative, Inc. to Amend its Certificate of Convenience and Necessity for a 138-kV Double Circuit Transmission Line in Collin and Denton Counties, Texas*, Docket No. 43878, Application (Dec. 22, 2014).

Barring electrical necessity, including only two possible endpoints in a CCN application for such a highly developed area unduly limits the range of route choices available to the Commission. To better allow consideration of all relevant factors, the Commission expects that future filings will incorporate the approach discussed above in order to provide the Commission with more options. To reflect its discussion of route adequacy in this docket, the Commission adds findings of fact 17A, 17B, 17C, and 17D.

C. Proposed Road Expansion

On April 3, 2016, LCRA filed exceptions to the proposal for decision. In its exceptions, LCRA stated that after the hearing on the merits and the closing of the evidentiary record, LCRA learned all or portions of segments E, K, and S4, as they are currently aligned, will be within the proposed road right-of-way of a proposed expansion of Hero Way and Leander Road if the expansion is constructed in accordance with TxDOT's current designs. Segments E, K and S4 are all used by route LHO-1. LCRA stated that the specific timeline for acquisition of the right-of-way and construction of the expansion of Hero Way and Leander Road has not yet been finalized.

LCRA requested in its exceptions that the Commission add two ordering paragraphs to address the concerns raised by the roadway expansion. LCRA's first proposed ordering paragraph would provide an exception to the Commission's standard requirement that LCRA obtain landowner consent in the case that a minor deviation is designed to use land that is within right-of-way owned or acquired by a roadway authority for public use. LCRA's second proposed ordering paragraph would direct LCRA to engage in discussions with TxDOT, Williamson County and the City of Leander to reach an agreement to site the line adjacent to or within public right-of-way where the line parallels the road. If no agreement is reached by June 1, 2018, however, LCRA's proposed ordering provision would direct LCRA to proceed with construction of the project on the approved route.

The Commission declines to adopt LCRA's proposed ordering paragraphs. Allowing LCRA to make minor deviations without landowner consent would permit LCRA to construct the transmission line within the roadway easement, even if as a result the line traversed land owned by a landowner who did not receive notice of that potential placement for the line. Furthermore, even if a minor deviation did not require an easement on a new tract of land, the proposed ordering

paragraph would allow LCRA to construct the line several hundred feet closer to a landowner's property than the original notice indicated. The Commission finds these potential scenarios unacceptable and contrary to Commission policy with respect to minor deviations. Accordingly, the Commission declines to adopt LCRA's first proposed ordering paragraph.

The Commission also declines to adopt LCRA's second proposed ordering paragraph, in part because it suggests that LCRA should proceed with construction of the line even if LCRA is unable to reach an agreement with TxDOT, Williamson County and the City of Leander. As advised at the open meeting, the Commission expects LCRA to work with the City of Leander, TxDOT and Williamson County to ensure that the line is sited to avoid needing to be relocated at a later date, which should not be at the expense of ERCOT ratepayers. Accordingly, the Commission declines to adopt LCRA's second proposed ordering paragraph or to impose a deadline for construction to begin.

D. Prudent Avoidance and EMF

In their discussion on pages 56-58 of the proposal for decision, the ALJs discussed the evidence given by LCRA witnesses regarding electro-magnetic fields (EMF). For example, the ALJs noted that LCRA witness Jessica Melendez remarked at the hearing that EMF drops off quickly at the edge of the right-of-way and becomes indistinguishable from the ambient EMF.[5] Additionally, the ALJs noted that LCRA witness Christian Powell stated in written testimony that EMF is found everywhere, and that there is no scientific evidence to conclude that EMF causes or contributes to adverse health effects, and the ALJs included finding of fact 114 on this point.[6] Subsequent to this discussion, the ALJs, on page 57 of the PFD, relied on LCRA's testimony for their conclusion that there is not a direct correlation between the 300-foot notice requirement and the Commission's policy of prudent avoidance.[7] None of LCRA's witnesses established themselves as competent to testify on the health effects of EMF. Furthermore, the discussion contained in the PFD and finding of fact 114 both contradict longstanding Commission policy

[5] Proposal for Decision (PFD) at 56 (Mar. 22, 2017).

[6] *Id.*

[7] *Id.* at 57.

concerning EMF and prudent avoidance. For these reasons, the Commission does not adopt the discussion in the PFD related to EMF and deletes finding of fact 114.

E. Newly Affected Habitable Structures

The Commission has previously found that the concept of "newly affected habitable structures" does not exist under PURA or the Commission's rules, and that the number of newly affected habitable structures is not a factor that should be considered in CCN applications for transmission lines.

Despite this guidance from the Commission, in the PFD's discussion on page 57, the ALJs discussed data presented by LCRA in terms of newly affected habitable structures. Although the ALJs acknowledged that the number of newly affected habitable structures is not a consideration under Commission rule or statute, they nevertheless discuss it in the context of prudent avoidance. While the ALJs conceded that the consideration of data related to newly affected habitable structures may only be relevant to the consideration of aesthetics, they were persuaded by LCRA's testimony that the Commission has considered this data in relation to prudent avoidance. To the contrary, the Commission has explicitly stated that the concept of newly affected habitable structures is not to be considered in the context of prudent avoidance. As noted by the Commission in Docket No. 45622, in the absence of evidence that a second (or third, etc.) line will not increase or enhance exposure to electro-magnetic fields, excluding or discounting the number of habitable structures already in proximity to a transmission line for purposes of evaluating the prudent-avoidance performance of a proposed transmission line is contrary to the Commission's prudent avoidance policy.[8] Accordingly, the Commission modifies finding of fact 111 to remove the reference to newly affected habitable structures.

F. The Cities' Agreement and Community Values

At no less than eleven junctures in the PFD,[9] the ALJs make clear that they treated the agreement of the cities of Leander, Cedar Park, and Round Rock as a factor that weighed very heavily in their decision to ultimately recommend route COL-1. The ALJs' main justification for

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[8] *Application of Sharyland Utilities, L.P. to Amend Its Certificate of Convenience and Necessity for the CREZ Second Circuit Upgrade Project in Briscoe, Carson, Castro, Deaf Smith, Oldham, Potter, and Swisher Counties*, Docket No. 45622, Order on Rehearing at 1-2 (Sep. 15, 2016).

[9] Exceptions of Land Home Owners of CR175 at 13-15 (Apr. 3, 2017).

weighing the cities' agreement so heavily was their estimation that the agreement was an accurate reflection of the community values of the signatory cities.[10] The ALJs also analogized the cities' agreement in this docket to landowner agreements in previous Commission dockets that the Commission has looked to as the basis for adopting an agreed route.

The Commission finds that the ALJs erred in assigning significant weight to the agreement reached by the cities of Leander, Cedar Park and Round Rock. The agreement was not the result of a give-and-take process between parties with disparate interests of the sort the Commission has generally favored in the past. The cities' agreement did not include all parties in this case, and therefore it is more akin to a non-unanimous stipulation opposed by multiple parties, including, in this docket, Commission Staff.

Many of the residents living along CR 175 are not residents, or have only recently become residents, of the cities who signed the agreement. Because many of the residents who would be affected by the Commission's selection of COL-1 are not residents, or have only recently become residents, of the municipalities that signed the agreement, any assertion that the agreement represented the community values of the totality of the residents potentially affected by the routing of this transmission line is insufficiently supported by the evidence.

Two of the community values expressed by attendees of the open-house meetings held by LCRA included maximizing distances from residences and maximizing distances from parks and recreational areas. The Commission finds that when the cities' agreement is weighed appropriately, community values favor using route LHO-1, which affects fewer habitable structures than route COL-1 and avoids the Williamson County Regional Park entirely.

To reflect its decision, the Commission deletes finding of fact 48 and adds finding of fact 48A.

G. Future Development

Historically, the Commission has been reluctant to consider hypothetical future development in making its transmission line routing decisions. However, the ALJs in this case gave at least some weight to prospects for future development, as evidenced by Leander's

[10] PFD at 14.

development plans in particular. In order to reiterate the Commission's policy regarding future development in the context of siting an electric transmission line, the Commission adds conclusion of law 11A.

H. AC Interference Mitigation Costs

On April 3, 2017, Atmos Energy Corp., Mid-Tex Division filed exceptions to the PFD to address the limited issue of the treatment of alternating-current (AC) interference mitigation costs. Atmos requested that the Commission delete findings of fact 102 and ordering paragraph 9. The Commission denies Atmos's exceptions in part and grants them in part.

The Commission adopts finding of fact 102, which it finds to be consistent with Commission precedent on AC interference mitigation costs. The Commission declines to adopt the PFD's recommended ordering paragraph number 9, which would prohibit LCRA from performing mitigation or reimbursing pipeline owners or operators for costs relating to assessment or mitigation of possible AC induction ramifications of the project on pipeline facilities. Such a prohibition would be a departure from the position the Commission has taken in previous CCN proceedings with respect to AC interference mitigation costs. The Commission includes a new ordering paragraph addressing AC interference mitigation that is consistent with Commission precedent on this issue.

I. Non-Substantive Changes to the Proposal for Decision

In addition to the changes described above, the Commission makes non-substantive changes to findings of fact and conclusions of law for such matters as capitalization, spelling, punctuation, style, grammar, and readability. The Commission also adds findings of fact 13A, 13B, 13C, 13D, 13E, 13F, 13G, 13H and 13I to address the procedural history of this docket after the close of the evidentiary record at SOAH.

The Commission adopts the following findings of fact and conclusions of law:

II. Findings of Fact

Procedural History, Notice, Jurisdiction, and Project Background

1. LCRA is a non-profit corporation providing service under CCN No. 30110.

2. On April 28, 2016, LCRA filed with the Commission an application to amend its CCN for a new 138-kV transmission line that will connect two new substations (Substation 1 and

Substation 2) to the electric grid at the existing Pedernales Electric Cooperative, Inc. (PEC) Leander substation and the existing Oncor Electric Delivery Company LLC (Oncor) Round Rock substation (this proposed infrastructure is referred to as the project). Substation 1 will directly connect to Substation 2 and Oncor's Round Rock substation; Substation 2 will directly connect to Substation 1 and PEC's Leander substation.

3. The project will be constructed on double-circuit capable structures with one circuit to be installed initially and the second circuit to be installed at a later date.

4. LCRA will design, operate, maintain, and own all of the proposed transmission line facilities including conductors, wires, structures, hardware, and easements. LCRA will also design, operate, maintain, and own the two new electric load-serving substations that will be constructed as part of the project. To connect each end of the new transmission line to the existing electric grid, PEC will expand its 138-kV electrical bus, LCRA will install and own a circuit breaker in the existing PEC Leander Substation, and Oncor will install and own a circuit breaker in its existing Round Rock Substation.

5. LCRA filed 31 alternate routes composed from 160 route segments.

6. During the course of the proceeding, seven additional routes utilizing the existing route segments presented in LCRA's application were identified: routes LHO-1, LHO-2, LHO-3, and LHO-4, identified by Land and Homeowners of CR 175 (LHO of CR 175); route COL-1, identified by the City of Leander; route RR-1, identified by Riverside Resources; and route Staff-3M (3M), identified by Commission Staff.

7. On April 28, 2016, LCRA (a) mailed or hand-delivered written notice of the application to municipal authorities for the cities of Austin, Cedar Park, Georgetown, Leander and Round Rock, and to Williamson County officials; (b) mailed notice of the application to Austin Energy, Georgetown Utility Systems, Oncor, and PEC, neighboring utilities providing the same utility service within five miles of the requested facilities; (c) mailed written notice of the application by first class mail to each landowner that will be directly affected if the requested CCN amendment is granted, as indicated by current county tax rolls; (d) mailed written notice of the application to the Office of Public Utility Counsel (OPUC); and (e)

hand-delivered a copy of the application to the Texas Parks and Wildlife Department (TPWD).

8. On May 2, 2016, LCRA published notice of the application in the *Austin American Statesman*, a newspaper of general circulation in Travis and Williamson counties, Texas. On May 5, 2016, LCRA published notice of the application in the *Hill Country News*, a newspaper of general circulation in Travis and Williamson Counties, Texas. On May 5, 2016, LCRA published notice of the application in the *Round Rock Leader*, a newspaper of general circulation in Travis and Williamson Counties, Texas. On May 4, 2016, LCRA published notice of the application in the *Williamson County Sun*, a newspaper of general circulation in Williamson County, Texas.

9. Over 990 parties were initially granted intervention. Subsequently, approximately 530 were dismissed from the docket prior to the hearing on the merits.

10. The notice of the hearing on the merits was issued on August 15, 2016. It informed the parties of the time and place of the hearing.

11. Approximately 20 parties actively participated in the hearing on the merits.

12. The hearing on the merits was held from November 14-18, 2016.

13. The record closed on January 26, 2017, following LCRA's submission of technical corrections.

13A. The SOAH ALJs issued a proposal for decision on March 22, 2017.

13B. Parties filed exceptions to the proposal for decision on April 3, 2017.

13C. On April 3, 2017, LHO of CR 175 filed a request for oral argument, which the Commission granted.

13D. Parties filed replies to exceptions on April 13, 2016.

13E. On April 25, the SOAH ALJs filed their response to the exceptions and replies and made certain changes and clarifications to the proposal for decision.

13F. The Commission heard oral argument in this docket at the May 4, 2017 open meeting.

13G. On May 12, 2017, the City of Cedar Park filed a request for oral argument, which the Commission denied.

13H. On May 17, 2017, Commissioner Brandy Marty Marquez filed a memorandum in this docket.

13I. The Commission approved, with modifications, the application on May 18, 2017.

Sufficiency of the Application and Route Adequacy

14. No party challenged sufficiency of the application.

15. On May 27, 2016, the Commission issued Order No. 4 deeming the application sufficient and materially complete.

16. LCRA initially developed and evaluated 31 geographically diverse alternative routes (routes 1-31), comprising 160 primary alternative route segments, which can be combined into hundreds of alternate routes. Ultimately, seven additional routes (routes LHO-1, LHO-2, LHO-3, LHO-4, COL-1, RR-1, and 3M) were identified from combinations of alternative route segments presented in the application.

17. No party raised a route adequacy challenge.

17A. The study area is a fast-growing suburban area with areas of dense residential development.

17B. The Electric Reliability Council of Texas (ERCOT) studied 13 possible endpoint combinations. ERCOT's preferred endpoint combination used Oncor's Round Rock substation and PEC's Leander substation.

17C. All of LCRA's proposed routes used Oncor's Round Rock substation and PEC's Leander substation and omitted other electrically viable endpoint options.

17D. The Commission finds that barring electrical necessity, including only two possible endpoints in a CCN application for a developed area unduly limits the range of route choices available to the Commission.

Need for the Project

18. The project is needed to serve load growth within southwestern Williamson County.

19. The ERCOT Board of Directors recommended the project to support the reliability of the ERCOT regional transmission system in southwestern Williamson County.

20. Any of the 38 routes under consideration in this docket, including the 31 presented in the application and the seven additional routes identified by Commission Staff and intervening parties, will satisfy the need for the project.

21. Electric customers within the project area and other customers in the ERCOT system will benefit from the improved transmission system reliability and capacity provided by the project.

22. By 2020, 42 percent of the transformers in southwestern William County are predicted to exceed their rated capacities.

23. The electrical load on 27 distribution lines coming out of the eight existing substations are predicted to exceed rated capacity by 2020.

24. Two additional substations are needed to handle the load growth.

25. Commission Staff agrees that the project is needed.

26. Distribution alternatives are not adequate to resolve the need for the project.

27. LCRA is subject to unbundling.

Route

General

28. LCRA retained POWER Engineers, Inc. to prepare an Environmental Assessment and Routing Study for the Project (EA). POWER Engineers used a project team with expertise in different disciplines (geology/soils, hydrology, terrestrial ecology, wetland ecology, land use/aesthetics, socioeconomics, karst, endangered species, and cultural, archaeological, and historical resources) to delineate and evaluate potential alternative routes for the project based on environmental and land use conditions present along each potential route, reconnaissance surveys, and the public involvement process.

29. LCRA held public open-house meetings in Cedar Park, Texas on October 13, 2015, and Leander, Texas on October 14, 2015, to discuss the project and solicit comments from

landowners, public officials, and other interested residents regarding preliminary alternative segments.

30. Notice of the open-house meetings was mailed to approximately 2,558 landowners who owned property within 350 feet of each preliminary alternative routing link, elected officials, and interested parties.

31. Notice of the open-house meetings was additionally published in the *Austin American-Statesman* on October 5 and October 12, 2015, the *Hill Country News* on October 1 and October 8, 2015, the *Round Rock Leader* on October 1 and October 8, 2015, and the *Williamson County Sun* on September 30 and October 7, 2015.

32. Based on information received from the public open-house meetings and from local, state, and federal agencies, POWER Engineers' evaluation of the 160 primary alternative route segments, engineering constraints, and costs, LCRA identified 31 geographically diverse alternative routes (routes 1-31) that were included in the application.

33. Seven additional routes were placed into consideration by the City of Leander, Riverside Resources, LHO of CR 175, and Commission Staff.

33A. [Deleted.]

33B. Route LHO-1 consists of the following segments and substation sites: D-E-K-S4-C6-F6-(Substation Site 2-8)-G6-H6-U4-O-D1-G1-R1-L5-B2-E2-(Substation Site 1-4)-F2-G2-H2-N2-O2-R2-S2-Y2-Z2-P5-B3-C3-E3-G3-I3-J4.

34. The 38 routes under consideration in this proceeding are viable, feasible, and reasonable from environmental, engineering, and cost perspectives.

35. Electric utilities serving the proximate area of the project include PEC, Oncor, Georgetown Utility Systems, and Austin Energy.

36. Oncor owns the existing Round Rock Substation and will install one circuit breaker for interconnection of the initial circuit of the project to the existing electrical grid.

Community Values

37. The term "community values" is not formally defined by statute or in Commission rules. However, the Commission has viewed community values as a shared appreciation of an

area or other natural or human resource by members of a national, regional, or local community. Adverse effects upon community values consist of those aspects of a proposed project that would significantly alter the use, enjoyment, or intrinsic value attached to an important area or resource by a community.

38. To address and consider community values, LCRA solicited input from a wide range of federal, state, and local government agencies, participated in numerous meetings with homeowners associations and other groups of interested landowners, and conducted public open-house meetings. LCRA considered expressions of community values in its review of the questionnaires, letters, emails, meetings, phone calls, and other public input it received.

39. The general concerns expressed by questionnaire respondents regarding the project most commonly included maximizing the distance from residences, maintaining reliable electric service, and maximizing distances from parks and recreational areas.

40. A significant number of the over 3,500 e-mail comments expressed concern about Segment N3.

41. LCRA reviewed and evaluated the thousands of emails and letters filed in PUC Project No. 45364, the comment docket opened prior to the filing of the application.

42. LCRA participated in many additional meetings with homeowners' associations and other groups of interested landowners.

43. LCRA communicated with local elected officials and city and county staff throughout the process.

44. The cities of Leander, Round Rock, and Cedar Park submitted coordinated resolutions expressing their common routing corridor preferences.

45. Leander, Round Rock, and Cedar Park all support route COL-1, which runs south along CR 175.

46. [Deleted.]

47. Because the project is located in a densely populated and rapidly growing area, all proposed routes affect numerous habitable structures.

48. [Deleted.]

48A. Route LHO-1 best meets the community values of the area.

Alternate Routes

49. In addition to the 38 routes identified during the proceeding, Leander Independent School District (Leander ISD) suggested some route modifications to avoid property it owns.

50. The record contains no evidence regarding the cost of Leander ISD's proposed modifications, or whether those modifications are feasible.

51. The record contains no other evidence regarding specific reconfigurations to accommodate specific landowner preferences or associated costs.

52. LCRA has agreed to cooperate with directly affected landowners to implement minor deviations in the approved route to minimize the impact of the project.

Recreational and Park Areas

53. LCRA and POWER Engineers identified the park and recreational areas within the study area.

54. All routes under consideration in this proceeding have parks and recreational areas within 1,000 feet of the centerline. Route COL-1 has 17 parks and recreational areas within 1,000 feet of its centerline. Route LHO-1 has 15 parks and recreational areas within 1,000 feet of its centerline.

55. None of the preferred routes use Segment N3, which parallels Brushy Creek Regional Trail, received numerous negative comments, and is opposed by most of the intervenors.

56. Route LHO-1 does not use a substation site in Williamson County Southwest Regional Park.

57. [Deleted.]

58. LCRA is experienced at constructing and operating transmission lines along and within recreational parkland and trail systems.

59. All of the route segments identified within recreational areas can be safely and reliably designed, constructed, operated, and maintained in a manner that accommodates recreational activities.

Cultural, Aesthetic, and Historical Values

Aesthetics

60. Aesthetic impacts to visual resources exist when the right-of-way, lines and/or structures of a transmission line system create an intrusion into, or substantially alter, the character of the existing view. The significance of the impact is directly related to the quality of the view in natural scenic areas, the importance of the existing setting in the use and enjoyment of an area, and in valued community resources in recreational areas.

61. The land in the study area is primarily composed of rapidly developing suburban areas along the major roads. The northern part of CR 175 is more rural in character with some farms and larger homesteads.

62. During construction, some temporary aesthetic effects will occur from the presence of construction equipment, recent disturbance from clearing and construction, debris, and construction materials.

63. Following construction, the right of way will be revegetated, construction equipment and material will be used or removed, and debris and trash will be disposed of.

64. Permanent aesthetic impacts from the project will be the views of the towers and lines.

65. [Deleted.]

65A. Route LHO-1 has approximately 7.1 miles of its length within the foreground visual zone of Farm to Market (FM) roads.

66. LCRA appropriately considered and minimized the aesthetic impacts of the project to the extent possible.

Cultural and Historical Values

67. [Deleted.]

67A. Route LHO-1 has three recorded historic or prehistoric site crossed by the right-of-way and 20 additional recorded historic or prehistoric sites within 1,000 feet of the centerline of the right of way.

68. There are no National Register-listed sites crossed by or located within 1,000 feet of the centerline of any route.

69. LCRA has agreed to the report the discovery of any artifacts or other cultural resources to the Texas Historical Commission (THC) and cease work immediately in the vicinity of the resource.

Environmental Integrity

70. POWER Engineers studied and analyzed potential impacts to water resources, ecology (including endangered/threatened vegetation and fish and wildlife), and land use within the study area for the project.

71. With respect to overall environmental integrity, the project will cause short term impacts to soil, water, and ecological resources.

72. LCRA is able to mitigate the environmental impacts of stream crossings by (1) crossing the streams at right angles (where feasible), which minimizes clearing; (2) crossing the streams at their narrowest points (where feasible); (3) using taller than typical structures to minimize required clearing adjacent to streams; and (4) installing erosion control measures.

73. POWER Engineers contacted the U.S. Fish & Wildlife Service (USFWS) and Texas Parks and Wildlife (TPWD) to obtain information regarding the possibility of encountering any endangered or threatened species in the area affected by the project.

74. POWER Engineers performed an evaluation of the potential impacts of the project on endangered and threatened species.

75. Each of the 38 considered routes has the potential to impact threatened and endangered species, including two federally listed songbirds (golden-cheeked warbler and black-capped vireo) and two federally listed karst invertebrates (Bone Cave harvestman and Coffin Cave mold beetle).

76. Of the 38 routes, 34 cross modeled potential golden-cheeked warbler breeding habitat.

77. Among the preferred routes, routes COL-1 and 31 cross the least amount of modeled golden-cheeked warbler habitat with approximately zero acres.

77A. Route LHO-1 crosses 8.1 acres of modeled golden-cheeked warbler habitat.

78. Modeling potential black-capped vireo habitat is difficult and generally inaccurate. If necessary, a pedestrian field study will be completed after Commission approval of a route.

79. The Jollyville Plateau salamander and the Georgetown salamander are threatened species with critical habitat designated by the USFWS within the project area.

80. None of the parties' preferred routes crosses Jollyville Plateau salamander critical habitat.

81. LCRA will utilize design considerations and best management practices to avoid potential project-related impacts to the Jollyville Plateau salamander and Georgetown salamander.

82. All of the routes considered in this project cross karst zones 1 and 2.

83. Karst zone 1 refers to areas that are known to contain endangered cave species, and karst zone 2 refers to areas with a high probability of endangered cave species or endemic cave fauna.

84. Route LHO-1 crosses karst zones 1 and 2 for 7.4 miles of its length.

85. None of the parties' preferred routes crosses the Bone Cave Harvestman Preserve.

86. POWER Engineers contracted with Cambrian Environmental to review and evaluate karst features within the study area.

87. The Step-Down Cave is not located within any right of way proposed for the project.

88. The project can be constructed and operated in a manner that will not negatively impact the Step-Down Cave.

89. Construction of the project will have no significant impact on karst or other geological features or resources of the area.

90. Before construction, LCRA will conduct a natural resources assessment to consider threatened and endangered wildlife and plant species along the approved route.

91. LCRA may be able to mitigate the environmental impacts on endangered or threatened species by using the Williamson County Regional Habitat Conservation Plan.

92. LCRA will comply with the Migratory Bird Treaty Act, the Endangered Species Act, and the Commission's ordering language, including appropriate consultation with TPWD and USFWS.

93. No significant impacts to wetland resources, ecological resources, endangered and threatened species, or land use are anticipated as a result of the construction of the project.

Engineering Constraints

94. There are no Federal Aviation Administration-registered airstrips within 20,000 feet of the centerline of any route.

95. No significant impact to airports, airstrips, or heliports is anticipated from the construction of any route.

96. Engineering constraints in the area of the project can be adequately addressed by using design and construction practices and techniques that are usual and customary in the electric utility industry.

97. LCRA will design the project to meet or exceed nationally recognized guidelines and specifications for operating the transmission facilities in a safe and reliable manner, including the Rural Utilities Service "Design Manual for High Voltage Transmission Lines." The project will also be designed to meet or exceed requirements of the applicable version of the National Electrical Safety Code.

98. LCRA currently operates hundreds of miles of electric transmission line that cross and parallel existing natural gas pipelines, some owned by Atmos Energy Corp., Mid-Tex Division.

99. Atmos owns and operates 13 miles of natural gas pipeline facilities in the study area.

100. LCRA has not paid a pipeline owner to install and operate mitigation measures related to potential AC interference that may be caused by operation of LCRA's electric transmission line system.

101. It may be necessary for LCRA to coordinate with pipeline owners or operators in the vicinity of the approved route regarding the pipeline owner's or operator's assessment of the need to install measures to mitigate the effects of alternating-current (AC) interference on existing natural gas pipelines that are paralleled by the proposed electric transmission facilities.

102. The Commission in this docket should not require LCRA to perform mitigation or to reimburse pipeline owners or operators for costs relating to assessment or mitigation of possible AC induction impacts of the project on pipeline facilities.

103. The two new substations that will be constructed in conjunction with the project need to be located at least 1.5 miles apart.

104. The following substation combinations cannot be utilized in a route selection: Sites 1-1 and 2-7; Sites 1-1 and 2-2; Sites 1-2 and 2-7; Sites 1-6 and 2-7; Sites 1-6 and 2-2; Sites 1-8 and 2-7.

105. LCRA identified 16 possible alternative substation sites in its application, eight each for Substation 1 and Substation 2. LCRA and POWER Engineers used the following needs and preferences in identifying possible alternative substation sites to be included in the application: located in substation siting areas 1 and 2 that were developed in association with the need for the project; five to seven acres in size; preference for more level terrain; ease of access and proximity to paved roads; consideration of habitat, floodplain, and the Edwards Aquifer Contributing Zone and Recharge Zone; existence of electrical distribution located nearby for use at the site; avoidance of buried utility infrastructure (*e.g.* pipelines) on the site; and single parcel/tract rather than multiple parcels/tracts.

106. [Deleted.]

107. All 16 substation sites are viable, feasible sites for the substations.

Costs, Compatible ROW, and Prudent Avoidance

108. LCRA's estimated costs for all routes range from $66.8 million to $98.6 million, as follows:

Route	Total Cost Estimate
25	$66,823,200

18	$68,772,000
13	$69,243,000
COL-1	$69,286,200
31	$71,242,000
27	$73,818,200
8	$73,898,300
26	$74,200,200
11	$74,417,000
LHO-1	$74,479,900
RR-1	$76,004,000
19	$76,149,000
9	$76,223,300
12	$76,847,000
20	$77,210,000
21	$77,884,000
LHO-3	$77,992,900
2	$78,658,000
10	$78,686,300
LHO-2	$78,723,900
14	$80,384,000
17	$80,786,300
22	$80,948,000
28	$81,195,200
29	$81,446,200
15	$81,956,000
LHO-4	$82,236,900
24	$82,832,300
Staff-3M	$83,808,500
7	$85,594,500
4	$86,159,500
23	$87,471,300
1	$88,582,200
30	$89,734,200
3	$92,809,500
16	$93,833,300
5	$95,409,000
6	$98,592,800

109. Route 31, which LCRA determined best meets the statutory and rule criteria, would cost approximately $71,242,200 million. Route COL-1 would cost approximately $69,286,200 million. Route LHO-1 would cost approximately $74,479,900 million. TWPD's preferred

route 29 would cost approximately $81,446,200 million. Route 3M would cost approximately $83,808,500 million.

110. [Deleted.]

110A. Route LHO-1 parallels compatible right-of-way for approximately 84% of its length.

111. There are 428 habitable structures within 300 feet of the right-of-way centerline of route LHO-1.

112. [Deleted.]

112A. Route LHO-1 complies with the Commission's policy on prudent avoidance.

113. LCRA's proposed alternative routes reflect reasonable investments of money and effort in order to limit exposure to electro-magnetic fields (EMF).

114. [Deleted.]

TPWD Comments and Recommendations

115. TPWD provided comments and recommendations regarding the project in a letter dated July 15, 2016 and through the testimony of a witness.

116. The TPWD letter and evidence addressed issues related to ecology and the environment. TPWD did not consider other factors that the Commission and utilities must consider and balance in CCN applications, including the numerous routing criteria that involve direct effects on people.

117. POWER Engineers and LCRA have taken into consideration several of the recommendations offered by TPWD.

118. LCRA does not gain access to private property until after a route is approved by the Commission; thus, LCRA identified known/occupied areas of endangered or threatened species habitat based on information in the Texas Natural Diversity Database and other available information.

119. Once a route is approved by the Commission, LCRA can undertake on-the-ground measures to identify potential endangered or threatened species habitat and respond appropriately.

120. LCRA will use avoidance and mitigation procedures to comply with laws protecting federally listed species.

121. LCRA will revegetate the new right of way as necessary and according to LCRA's vegetation management practices, the storm water pollution prevention plan developed for construction of the project, and, in many instances, landowner preferences or requests.

122. Vegetation removal will be limited to necessary removals to establish appropriate access and clearances.

123. LCRA's standard vegetation removal, construction, and maintenance practices adequately mitigate concerns expressed by TPWD.

124. LCRA will implement a storm water pollution prevention plan to minimize erosion and sedimentation.

125. LCRA will use appropriate avian protection procedures.

126. LCRA must comply with all applicable environmental laws and regulations governing erosion control, endangered species, storm water pollution prevention, and all other environmental concerns.

127. The recommended ordering paragraphs are sufficient to address TPWD's recommendations or requests.

III. Conclusions of Law

1. LCRA is an electric utility. PURA §§ 11.004, 31.002(6).

2. The Commission has jurisdiction over this matter. PURA §§ 14.001, 32.001, 37.001, 37.053, and 37.056.

3. SOAH has jurisdiction over this proceeding. PURA § 14.053; Tex. Gov't Code § 2003.049.

4. This docket was processed in accordance with the requirements of PURA, the Administrative Procedure Act, Texas Government Code Chapter 2001, and the Commission's rules.

5. LCRA provided proper notice of the application. PURA § 37.054 and 16 Tex. Admin. Code (TAC) § 22.52(a).

6. LCRA provided proper notice of the public open-house meetings. 16 TAC § 22.52(a)(4).

7. The parties were provided proper and adequate notice of the hearing on the merits.

8. LCRA's application is adequate, sufficient and materially complete, and provided an adequate number of alternative routes to conduct a proper evaluation.

9. The project is necessary for the service, accommodation, convenience or safety of the public. PURA § 37.056(a), (c); 16 TAC § 25.101.

10. All of the routes under consideration comply with routing factors to be considered as well as the Commission's policy on prudent avoidance. PURA § 37.056; 16 TAC § 25.101.

11. LCRA is entitled to approval of the application, as described in the findings of fact, using route LHO-1, having demonstrated that the proposed transmission line facilities are necessary for the service, accommodation, convenience, or safety of the public. PURA § 37.056(a), (c).

11A. While route segments may be modified based on landowner input, alleged future development that has not been initiated will not be granted the same consideration as existing constraints.

12. The application is reasonable and should be granted.

IV. Ordering Paragraphs

In accordance with these findings of fact and conclusions of law, the Commission issues the following orders:

1. LCRA's application to amend its CCN to build a new 138-kV double-circuit transmission line that extends from the Leander substation to the Round Rock substation is approved. The project will follow the route described as route LHO-1.

2. LCRA shall implement erosion control measures as appropriate. LCRA shall return each affected landowner's property to its original contours and grades except to the extent

necessary to establish appropriate right of way, structure sites, setup sites, and access for the transmission line or unless otherwise agreed to by the landowner.

3. In the event LCRA or its contractors encounter any archaeological artifacts or other cultural resources during construction of the project, LCRA shall cease work immediately in the vicinity of the resource and report the discovery to the THC and take action as directed by the THC.

4. LCRA shall follow the procedures outlined in the following publications for protecting raptors: *Suggested Practices for Avian 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.

5. LCRA shall minimize the amount of flora and fauna disturbed during construction of the project, except to the extent necessary to establish appropriate right-of-way clearance for the transmission line. LCRA shall re-vegetate using native species considering landowner preferences and avoid adverse environmental impacts to sensitive plant and animal species and their habitats as identified by TPWD and USFWS.

6. LCRA shall exercise extreme care to avoid affecting non-targeted vegetation or animal life when using chemical herbicides for controlling vegetation within the right of way and such herbicide use shall comply with rules and guidelines established in the *Federal Insecticide, Fungicide and Rodenticide Act* and with the Texas Department of Agriculture regulations.

7. LCRA shall cooperate with directly affected landowners to implement minor deviations in the approved route to minimize the impact of the project. Any minor deviations in the approved route shall only directly affect landowners who received notice of the transmission line in accordance with 16 TAC § 22.52(a)(3) and shall directly affect only those landowners that have agreed to the minor deviation.

8. LCRA shall coordinate with pipeline owners or operators in the vicinity of the approved route regarding the pipeline owner's or operator's assessment of the need to install measures to mitigate the effects of AC interference on existing natural gas pipelines that are paralleled by the proposed electric transmission facilities.

9. LCRA shall conduct surveys to identify pipelines that could be affected by the proposed transmission line, if not already completed, and coordinate with pipeline owners in modeling and analyzing potential hazards because of AC interference affecting pipelines being paralleled.

10. LCRA shall work with the City of Leander, TxDOT and Williamson County to ensure that the portions of the project potentially affected by the expansion and connection of Hero Way and Leander Road are sited and constructed so that project facilities do not need to be relocated at a later date due to the road expansion and so as to avoid any associated costs being passed on to ratepayers.

11. LCRA shall update the reporting of this project on their monthly construction progress report prior to the start of construction to reflect final estimated cost and schedule in accordance with 16 TAC § 25.83(b). In addition, LCRA shall provide final construction costs, with any necessary explanation for cost variance, after completion of construction and when all charges have been identified.

12. All other motions, requests for entry of specific findings of fact and conclusions of law, and any other requests for general or specific relief, if not expressly granted, are denied.

Signed at Austin, Texas the 16th day of June 2017.

PUBLIC UTILITY COMMISSION OF TEXAS

KENNETH W. ANDERSON, JR., COMMISSIONER

BRANDY MARTY MARQUEZ, COMMISSIONER