

Control Number: 38307



Item Number: 39

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#### **DOCKET NO. 38307**

APPLICATION OF CENTERPOINT	§	PUBLIC UTILITY COMMISSION
ENERGY HOUSTON ELECTRIC,	§	
LLC TO AMEND A CERTIFICATE	§	OF TEXAS
OF CONVENIENCE AND NECESSITY	§	
FOR A PROPOSED TRANSMISSION	§	
LINE WITHIN HARRIS COUNTY	§	

## COMMISSION STAFF'S RECOMMENDATION ON FINAL DISPOSITION

**COMES NOW** the Staff (Staff) of the Public Utility Commission of Texas (Commission), representing the public interest and files this Recommendation on Final Disposition and would show the following:

Order No. 3 established August 13, 2010 as the deadline for intervenors to request a hearing on the merits or to file comments regarding the application if not requesting a hearing. No intervenor requested a hearing or filed comments. Order No. 3 further established August 20, 2010 as the deadline for Staff to request a hearing or to file its recommendation on final disposition if not requesting a hearing. Staff does not request a hearing in this docket and hereby files this recommendation on final disposition pursuant to Order No. 3.

Based upon the attached Memorandum of Jolie Mathis, Infrastructure & Reliability Division, Staff recommends that the Commission approve CenterPoint Energy Houston Electric, LLC's (CenterPoint) application for construction of the proposed 138 kilovolt (kV) transmission line in Harris County along the preferred route (Route 1). Staff further recommends that CenterPoint be ordered to comply with the reporting requirements of P.U.C. SUBST. R. 25.83 and follow the Measures to Mitigate Construction Impacts as addressed in Ms. Mathis' Memorandum.

Dated: August 20, 2010

Respectfully Submitted,

Thomas S. Hunter Division Director Legal Division

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## **CERTIFICATE OF SERVICE**

I certify that a copy of this document will be served on all parties of record on this 20<sup>th</sup> day of August, 2010 in accordance with P.U.C. Procedural Rule 22.74,

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# Public Utility Commission of Texas

## Memorandum

TO:

Brennan Foley Legal Division

FROM:

Jolie Mathis J. M.
Infrastructure and Reliability Division

DATE:

August 20, 2010

RE:

STAFF RECOMMENDATION

Docket No. 38307, Application of CenterPoint Energy Houston Electric, LLC to Amend a Certificate of Convenience and Necessity (CCN) for a Proposed

Transmission Line within Harris County

CenterPoint Energy Houston Electric, LLC (CenterPoint Energy) filed an application to amend a certificate of convenience and necessity (CCN) for a proposed 138-kV transmission line in Harris County, Texas. The following are my conclusions and recommendations regarding this application.

### RECOMMENDATIONS

I recommend that the Commission:

- Approve the application for construction of approximately 4.88 miles of new transmission line on the proposed preferred route (Route 1).
- Order CenterPoint Energy to comply with the reporting requirements of P.U.C. Substantive Rule 25.83; and
- Order CenterPoint Energy to follow the below-listed Measures to Mitigate Construction Impacts.

## MEASURES TO MITIGATE CONSTRUCTION IMPACTS

- (1) In the event CenterPoint Energy or its contractors encounter any 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). CenterPoint Energy shall take action as directed by the THC.
- (2) CenterPoint Energy shall follow the procedures described 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.

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- (3) CenterPoint Energy 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.
- (4) CenterPoint Energy shall minimize the amount of flora and fauna disturbed during construction of the transmission line, except to the extent necessary to establish appropriate right-of-way clearance for the transmission line. In addition, the utility shall re-vegetate using native species and shall consider landowner preferences in doing so. Furthermore, to the maximum extent practicable, the utility shall avoid adverse environmental impacts to sensitive plant and animal species and their habitats as identified by Texas Parks and Wildlife Department and the United States Fish and Wildlife Service.
- (5) CenterPoint Energy shall implement erosion control measures as appropriate. Also, CenterPoint Energy shall return each affected landowner's property to its original contours and grades unless otherwise agreed to by the landowner.
- (6) CenterPoint Energy 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 who received notice of the transmission line in accordance with P.U.C. Rule 22.52(a)(3) and shall directly affect only those landowners that have agreed to the minor deviation.

### II. PROJECT JUSTIFICATION

## A. Description of the Project

CenterPoint Energy is requesting to amend its certificate of convenience and necessity (CCN) to construct and operate a new 138-kV double-circuited transmission line in Harris County, Texas.

The proposed project will involve several different construction efforts as follows:

- CenterPoint Energy proposes to construct new transmission facilities to provide electric transmission service to the Zenith Substation in Harris County. The new transmission facilities consist of a double-circuit, 138 kV transmission line utilizing lattice towers, concrete poles, or single steel poles, or a combination of these structures as route conditions necessitate.
- The Preferred Route begins at the location of the Zenith Substation, located northwest of Houston, Texas, and approximately 2.32 miles southeast of the Katy Hockley and House Hahl Road intersection in Harris County, Texas. From

Page 2 of 8 Docket No. 38307 the Zenith Substation, the Preferred Route proceeds north within the Zenith Substation property along Segment A for approximately .20 miles, to a point located 100 feet south of an existing 345 kV transmission line within the existing T.H. Wharton – Zenith Corner transmission ROW. This point is the intersection of Route Segments A and D. From this angle point, the Preferred Route proceeds east along Segment D for approximately 2.55 miles, centered on a line 100 feet south of the existing 345 kV transmission line and 35 feet north of the south boundary of the existing T.H. Wharton - Zenith Corner transmission ROW, crossing Langham Creek. This point is the intersection of Route Segments D and E. From this point, the Preferred Route proceeds east along Segment E for approximately 0.96 miles within the existing T.H. Wharton – Zenith Corner transmission ROW, crossing Fry Road to a point located approximately 0.64 miles east of Fry Road. This point is the intersection of Route Segments E, I, and J. From the is point, the Preferred Route proceeds east along Segment I within the existing T.H. Wharton - Zenith Corner transmission ROW, crossing Greenhouse Road, for approximately 1.17 miles, where it intersects the existing 138 kV transmission lines serving the Gertie Substation (the project tie point). The tie point is located approximately 0.43 miles north of West Road and 0.30 mile east of Greenhouse Road.

- 3. There is an existing 345 kV Zenith Substation that will be utilized to add a new 138 kV switching station with the proposed new transmission line. The proposed 138 kV switching station will be connected to the existing 345 kV switching station located at the Zenith Substation site through one 345/138 kV autotransformer.
- 4. The proposed transmission line project is located within a rapidly expanding area in the northwestern portion of Harris County, Texas. The land use within the western half of the study is comprised primarily of rice farms that have been converted to pastures for cattle grazing. The eastern half of the study area is rapidly expanding to the north and west with residential subdivisions, public schools, roadway projects, and other required infrastructure to support these developments. The preferred route and the three alternate routes are located in Harris County. The Preferred Route and Alternate Route 1 are not within any municipal boundaries. Portions of Alternate Routes 2 and 3 are within the municipal boundaries of the City of Houston.

CenterPoint Energy is planning to energize the proposed facilities on February 14, 2012.

Based on Staff's recommendations the Application was deemed sufficient and materially complete in Order No. 3, and CenterPoint Energy was found to have

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complied with the notice requirements of P.U.C. PROC. Rule 22.52(a) and Order No. 1.

## B. Need for the Project

The proposed project is part of an interrelated set of improvements that are needed to maintain the reliability of CenterPoint Energy's service in the northwest Houston area as a portion of an overall set of plans to improve reliability of the transmission system in CenterPoint Energy's service territory.

The northwest Houston area is expected to experience overloading of its 345/138 kV autotransformers and 138 kV lines in the near future. CenterPoint Energy proposed the Northwest Houston Reliability Project to eliminate these system reliability issues and to meet the transmission system design criteria. For example, the 138 kV circuit 76 from Addicks to Kluge and 138 kV circuit 21 from Kluge to CAMRON share common towers for approximately 14 miles. Loss of one of these common towers, including both circuits, results in the loss of both CenterPoint Energy distribution substations Gertie and Cyfair. This project, along with the related set of improvements recommended in the CenterPoint Energy Northwest Houston Reliability Project eliminates this common mode loss of both Gertie and CyFair Substations.

ERCOT performed an independent review analysis of the Northwest Houston Reliability Project and determined that "with the lower load forecast projections, the upgrades will be needed by summer peak 2014 to ensure that the transmission system for the area will meet NERC and ERCOT planning criteria. If, in the future, the projected load forecast increases in the area, the project may be needed in 2012 or 2013. The timing of the upgrade in the 2012 to 2014 time frame is at the discretion of CenterPoint Energy." By comparison, the total load for this subset of substations reached a total of 2051 MW during the summer of 2009. Therefore, the actual 2009 load was only 55MW less than the 2012 load projection.

## C. Project Alternatives

CenterPoint Energy considered several options to solve the reliability issues in the northwest Houston area. The alternative options included: installing a new 345/138 kV autotransformer at various locations; building a new 345/138 kV substation in the northwest Houston area; replacing substation equipment and installing a capacitor bank at Klein Substation; building new 138 kV circuits in the northwest Houston area; and reconfiguring existing 138 kV transmission lines to create additional 138 kV circuits. According to CenterPoint, distribution alternatives

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cannot resolve the reliability issues identified in the CenterPoint Energy 2012 Northwest Houston Reliability Project Report.

CenterPoint Energy is an unbundled utility; therefore, it did not consider distributed generation as an alternative to the proposed project. Of the leading options, CenterPoint Energy identified Option 2 in the 2012 Northwest Houston Reliability Project as providing the best combination of long-term performance, reliability, and cost-effectiveness. This option consists of a comprehensive set of improvements that include the facilities proposed in this application to address the reliability concerns.

I believe that the proposed transmission line is the most reasonable option to address the need.

#### III. ROUTING

#### A. Recommendation

In brief, the study area was defined by the western and eastern boundaries based on the location of the project end points (the Zenith Substation Site and the existing 138 kV circuits), and include a large enough area to accommodate additional alternative routes. CenterPoint Energy and the POWER planning team conducted site visits, reviewed aerial photographs and topographic maps, initiated coordination with various state and federal agencies, and met with affected landowners to identify potential routing constraints. Ten alternative routes were identified and examined, but the preferred route (Route 1) was chosen by CenterPoint Energy because it impacted fewer newly affected landowners, was a shorter route, was the least expensive of the four alternative routes, was within an existing transmission ROW, and did not require the purchase of additional right-of-way (except the required 9,200 square foot aerial easement at the tie point). Route selection methodology was in accordance with PURA §37.056 and P.U.C. SUBST.R. 25.101.

I concur with CenterPoint Energy's route selection and recommend construction of the proposed project on the preferred alternative Route 1. The basis for my recommendation is discussed in more detail below, and the order of discussion corresponds to the order that routing criteria appear in PURA §37.056 and P.U.C. SUBST. R. 25.101.

## **B.** Community Values

Notice of the application for this project was published in the *Houston Chronicle*, a newspaper of general circulation in Harris County.

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CenterPoint Energy personnel held a public meeting for landowners affected by the proposed routes; a total of 49 people signed in. A total of 43 questionnaires were submitted at the meeting. Four additional questionnaires were received by mail after the meeting; therefore, a total of 47 questionnaires were received. Eighteen (18) parties filed comments in this docket. Four (4) parties requested status as intervenors.

There are 7 commercial AM radio transmitters located within 10,000 feet of the centerline of the proposed preferred route (Route 1). The route is located within 2,000 feet of two (cellular) communication towers.

There are two (2) FAA-registered airports with a runway longer than 3200 feet within 20,000 feet of the Preferred Route. There is one heliport located within 5,000 feet of the Preferred Route.

I conclude that CenterPoint Energy's Preferred Route 1 will have minimal impact on community values.

#### C. Recreational and Park Areas

Three park or recreational areas are located within 1,000 feet of the centerline of the proposed preferred route.

#### D. Historical Values

No recorded historical and archaeological sites are within 1,000 feet of the Preferred Route.

#### E. Aesthetic Values

On the preferred route, 5,009 feet are within foreground visual zone of park and recreational areas. The proposed route will have a minimal impact on aesthetic values.

## F. Environmental Integrity

The major impacts to soils are the potential for erosion and soil compaction. Construction (and any required clearing) of the proposed project shall be conducted to minimize, to the extent possible, these impacts. The hazard of erosion will be greatest during and immediately following construction and any required clearing. CenterPoint Energy or its contractor shall control soil erosion associated with construction activity by re-vegetating erosion-prone, disturbed areas as soon as possible following construction. Transmission structures shall be located outside of

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designated floodways. Construction of the proposed transmission line shall proceed in such a manner as to have minimal impact on water resources within the transmission corridor.

CenterPoint Energy considered the information and recommendations provided by the Texas Parks and Wildlife Department to avoid impacts to the riparian habitat, potential for bird collisions, Land and Water Conservation Fund or Local Parks Fund projects. To the maximum extent practicable, CenterPoint Energy shall avoid adverse environmental impacts to sensitive plant and animal species and their habitats as identified by the Texas Parks and Wildlife Department and the United States Fish and Wildlife Service, as stated in Section I, of this RECOMMENDATION.

## G. Engineering Constraints

The proposed project crosses no pasture or cropland irrigated by traveling irrigation systems, either rolling or center-pivot types.

#### H. Costs

At present, the estimated cost of the project is \$6,091,000 for construction of approximately 4.88 miles of new transmission line on the proposed preferred route (Route 1). The construction costs for the new substation facilities are estimated to be \$15,016,000.

The total estimated project cost of the proposed project on preferred Route 1 is the least expensive of all the alternative routes. The cost of Route 1 is approximately \$3,143,000 less than the next lowest alternative route. With the exception of the required 9,200 square foot aerial easement at the tie point, no new ROW will be required for construction of this route, which should result in improved landowner acceptance.

I believe that the estimated costs for the proposed transmission facilities on proposed preferred route (Route 1) are within an acceptable range of cost (per distance) for this type of project.

# I. Moderation of Impact on the Affected Community and Landowners

To the best of my knowledge, no affected landowners have suggested or requested any changes to the proposed preferred route (Route 1).

#### J. Right-of-Way

#### 1. Use of Existing, Compatible Right-of-Way

The project makes use of an existing compatible right-of-way for 99% of the proposed preferred route. Route 1 would be constructed within CenterPoint Energy's existing T.H. Wharton – Zenith Corner transmission line ROW for 4.88 miles. Approximately 0.5 miles of ROW will be needed for a 9,200 square foot aerial easement at the 138 kV transmission line tie point.

## 2. Paralleling Existing, Compatible Right-of-Way

None of the ten alternative routes proposed by CenterPoint Energy parallel existing compatible right-of-way (public roads/highways or existing easements).

## 3. Paralleling of Property lines or Other Natural or Cultural Features

The proposed preferred route (Route 1) is not parallel or adjacent to any apparent property boundaries. The other proposed alternative routes parallel, or are adjacent to, apparent property boundaries for approximately 2,764 to 7,982 feet. No natural or cultural features will be significantly impacted by the proposed project area.

#### K. Prudent Avoidance

There are thirty-seven (37) habitable structures within 300 feet of the centerline of the proposed preferred route (Route 1). As previously mentioned, the project proposes to make use of existing compatible right-of-way for 99% of its entire length.

I believe that the proposed preferred route (Route 1) will minimally impact the affected habitable structures.

#### IV. CONCLUSION

I conclude that CenterPoint Energy has adequately addressed the factors described in §37.056 of the Public Utility Regulatory Act and P.U.C. SUBST. R. 25.101. Therefore, I recommend approval of CENTERPOINT ENERGY's Application, subject to the conditions stated above in Section I of this RECOMMENDATION.

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