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**PUC DOCKET NO. 45624**  
**SOAH DOCKET NO. 473-16-2751**

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PUBLIC UTILITY COMMISSION  
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**APPLICATION OF THE CITY OF §  
GARLAND TO AMEND A §  
CERTIFICATE OF CONVENIENCE §  
AND NECESSITY FOR THE RUSK TO §  
PANOLA DOUBLE-CIRCUIT 345-KV §  
TRANSMISSION LINE IN RUSK AND §  
PANOLA COUNTIES §**

**PUBLIC UTILITY COMMISSION  
OF TEXAS**

**ORDER**

This Order addresses the application of the City of Garland to amend its certificate of convenience and necessity (CCN) for a double-circuit 345-kV transmission line in Rusk and Panola counties. This line will be used to interconnect the Electric Reliability Council of Texas (ERCOT) with the SERC Reliability Corporation using a high-voltage, direct-current tie owned by Southern Cross Transmission LLC (the Southern Cross DC tie). In particular, the transmission line will interconnect the Rusk substation, owned by Oncor Electric Delivery Company LLC, with the Panola substation, to be owned by Garland, which will then interconnect with the Southern Cross DC tie in Louisiana; in this Order, the term *Garland project* describes the transmission line and the Rusk and Panola substations. Certain parties entered into a non-unanimous but unopposed agreement concerning the transmission line's route. The focus of this proceeding then was the conditions that should be imposed regarding the Garland project. The administrative law judges (ALJs) at the State Office of Administrative Hearings (SOAH) issued a proposal for decision adopting the settled route and recommending a number of conditions.

The Commission adopts the proposal for decision, including findings of fact and conclusions of law, except as detailed in this Order. The Commission primarily adds additional conditions necessary to protect the public interest and the reliability of the ERCOT system.

Garland's application is novel in that the Commission must approve the application, but may prescribe reasonable conditions to protect the public interest.<sup>1</sup> These conditions must be consistent with the final order of the Federal Energy Regulatory Commission (FERC) in its Docket

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<sup>1</sup> Public Utility Regulatory Act, Tex. Util. Code § 37.051(c-2) (West 2016).

No. TX11-001.<sup>2</sup> Accordingly, Garland's application to amend its CCN is approved, and the Commission prescribes the conditions detailed in this Order to protect the public interest.

### I. Discussion

The ALJs proposed some conditions that they denoted as public interest conditions, others that they denoted as routing conditions, and several others that they denoted as ERCOT conditions. The ALJs also rejected several conditions proposed by the parties. While the Commission generally agrees with the conditions proposed by the ALJs, the Commission believes that more conditions, and some modifications, are required in order to protect the public interest. Before addressing the additional conditions, the Commission first addresses the nature of the conditions in this Order. The parties and the ALJs characterized the conditions as applying to the Commission's approval of the application. However, because PURA requires the Commission to approve this application, the Commission concludes that any reasonable conditions imposed by it cannot be conditions on approval. Rather, the conditions must be conditions on the construction, operation, management, and regulatory treatment of the Garland project and on participation in the ERCOT market. Thus, while the approval of the application is unconditional, this Order does prescribe conditions that will affect operations and regulatory treatment as well as participation in the ERCOT market. In accordance with this determination regarding the nature of the conditions, the Commission modifies proposed findings of fact 36, 37, 42, 44, 54, 60, 68, 83, 91, 102, 105, 116, 120, 121, 125, 132, 133, 138, 139, and 140.

The Commission further notes that while a certificate permits a utility to provide transmission service to the public, the manner in which such service is provided is not controlled by the application or certificate. The manner in which a utility provides transmission service is, and continues to be, conditioned on current and future requirements in PURA, Commission rules, and ERCOT protocols, operating guides, and other applicable standards. This docket has demonstrated that existing regulatory requirements, protocols, operating guides, and standards, and possibly systems, are inadequate to deal with the import and export of power at the levels proposed by Southern Cross Transmission. Accordingly, the public interest requires that ERCOT,

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<sup>2</sup> *Southern Cross Transmission LLC, Pattern Power Marketing LLC, Final Order Directing Interconnection and Transmission Service*, 147 FERC ¶ 61, 113, FERC Docket No. TX 11-1-00 (May 15, 2014).

and the Commission, immediately begin the process of updating their respective rules, protocols, operating guides, systems, and standards so that the reliability of the ERCOT system is not jeopardized and cost responsibilities are properly placed on market participants. That is the focus of the conditions prescribed by this Order.

The Commission determines that the public interest demands that ERCOT ratepayers should not bear any of the costs associated with the Garland project or the Southern Cross DC tie, unless otherwise required by Commission rules. Such costs include, but are not limited to, the following: (a) costs to construct, operate, maintain, upgrade, or decommission the facilities; (b) costs for the studies, protocol, operating guide, and system changes, and any other activities by ERCOT that are required because of the Garland project or the Southern Cross DC tie; and (c) any additional costs associated with the Garland project and the Southern Cross DC tie, including, but not limited to, costs of ancillary services, costs related to necessary transmission upgrades, and costs for negotiating and executing any coordination agreements with other independent system operators, regional transmission organizations, and reliability coordinators. To reflect this decision, the Commission modifies findings of fact 58, 59, 62, 70, 107, and 119; deletes findings of fact 57, 114, and 117; and adds new findings of fact 42A, 44A, 48B, 83A, 91A, and 119A-119E. The Commission also adds new finding of fact 36A regarding Garland's accounting and reporting responsibilities in order to ensure that costs associated with the Garland project and Southern Cross DC tie are not recovered in Garland's transmission rates.

The Commission also decides that Southern Cross Transmission must pay for its use of the ERCOT grid, irrespective of whether it is importing or exporting power. Rather than have the Southern Cross DC tie's exports treated as load and its imports treated as generation, all flows over the DC tie, whether import or export, should be accounted for in the assignment of transmission costs in ERCOT. The Commission adds new finding of fact 70A to reflect this decision. The Commission also finds it reasonable, protective of the public interest, and consistent with the FERC Order to require Southern Cross Transmission and Garland to back down or terminate temporarily exports if ERCOT determines such is necessary to avoid or mitigate a potential reliability issue. Accordingly, the Commission adds new finding of fact 70B.

The Commission also concludes that many of the proposed conditions depend on ERCOT completing studies or other activities that should be included in an order to ERCOT to undertake

and complete those activities. The Commission concludes that those directives to ERCOT should be accomplished in a separate project and specified in an order issued in that project. The project will afford the Commission more ability to oversee the activities that ERCOT must undertake and to ensure that those activities are completed in a timely fashion. Therefore the Commission modifies findings of fact 37, 42, 44, 54, 60, 68, 83, 91, 105, and 116 and adds new findings of fact 48A and 140B. Because ERCOT's responsibilities will not be mandated in this Order, conducting another contested case as a compliance docket is not appropriate. The oversight project will afford a more flexible approach that will ensure timely completion of these activities.

Further, while the proposal for decision mandated the use of the stakeholder process, the Commission recognizes that for some decisions, ERCOT may not need to use the stakeholder process. Therefore, details regarding what process ERCOT should use are deleted from this Order and will not be included in the order issued in the oversight project. This deletion does not mean that the stakeholder process will not be used in most, if not all, instances. Rather, the deletion affords ERCOT and the Commission more flexibility, understanding that the Commission oversees ERCOT and its compliance with the Commission's directives. To reflect this decision, the Commission modifies findings of fact 41, 48, 54, 58, 60, 61, 62, 68, 69, 70, 82, 83, 89, 91, 104, 105, 106, and 116; and deletes findings of fact 117 and 118. The Commission also modifies findings of fact 39, 41, 42, 54, 68, 80, 199 to specify some of the items ERCOT may need to address.

In its exceptions to the proposal for decision, ERCOT requested that the word *plenary* be added before the word *jurisdiction* in findings of fact 122, 124, and 125 for the sake of clarification. The Commission agrees with ERCOT's requested additions and changes findings of fact 122, 124, and 125 accordingly. Further, the Commission adds finding of fact 99A to reflect a commitment made by Southern Cross Transmission at the August 25, 2016 open meeting regarding primary-frequency-response capabilities.

The Commission adds language to findings of fact 39 and 42 in order to clarify that ERCOT may need to create a new market participant category for Southern Cross Transmission. Further, the Commission adds new finding of fact 48A to supplement findings of fact 45-48 and supply additional support for ordering paragraph 37. In order to provide greater flexibility, finding of fact

105 has been modified to specify that ERCOT and the Commission may make decisions regarding primary frequency response and voltage-support service.

The Commission adds new finding of fact 120A because it finds it reasonable to prevent condemnation of landowner property in Panola County until Southern Cross Transmission has secured all regulatory approvals in Louisiana necessary to construct the Southern Cross DC tie, the Southern Cross line, and all related interconnection facilities. Likewise, the Commission modifies finding of fact 120 to clarify that before there is condemnation of landowner property in Panola County, funding must be secured for the entire Southern Cross project, both inside and outside of Texas, including the transmission line heading east past the Southern Cross DC tie in Louisiana. The Commission also modifies finding of fact 121 to clarify that it is the completion of *all three* tasks in that finding that is unreasonable. Further, the Commission adds new finding of fact 140A because it finds it reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from upgrading the Garland project without prior Commission approval.

The Commission deletes finding of fact 128 and adds new finding of fact 128A because it finds it reasonable to prohibit any connections to the Garland project except for the ERCOT system and the Southern Cross DC tie, unless such other connection is authorized by the Commission. Likewise, the Commission adds new finding of fact 128B because it finds it reasonable to order that any connection other than one allowed under finding of fact 128A be immediately isolated or disconnected from the Garland project. These provisions are necessary to protect the ERCOT system and maintain ERCOT's independence from FERC's plenary jurisdiction. Moreover, the Commission determines that it would be reasonable and in the public interest to require Garland and Southern Cross Transmission to disconnect the Garland project if the Commission so orders to protect the public interest or the ERCOT system. Therefore finding of fact 133 is modified. The Commission also adds new findings of fact 83B and 83C because it finds it reasonable and in the public interest to prohibit Southern Cross Transmission or Garland from taking actions that might impair ERCOT's reliability or imperil ERCOT's thermal capacity.

Finally, the Commission makes non-substantive changes to findings of fact and conclusions of law for such matters as capitalization, spelling, punctuation, style, grammar, consistency within the Order, and readability.

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

## **II. Findings of Fact**

### **General Project Background**

1. The City of Garland, Texas, doing business as Garland Power & Light, is a not-for-profit municipally-owned utility providing service under certificate of convenience and necessity (CCN) number 30063.
2. Garland filed an application with the Commission proposing, in conjunction with Rusk Interconnection LLC, an affiliate of Southern Cross Transmission LLC, to design and construct a new double-circuit 345-kilovolt (kV) transmission line connecting a proposed Rusk substation (the Rusk substation) to be built and owned by Oncor Electric Delivery Company LLC, located approximately eight miles northeast of Mount Enterprise in Rusk County, Texas, to a proposed Panola substation (the Panola substation), located on the eastern edge of Panola County adjacent to the Louisiana border, approximately nine miles north of Joaquin (the Garland project). The proposed transmission line would be approximately 37 to 40 miles in length.
3. The Panola substation, to be built by Rusk Interconnection and owned by Garland, will be interconnected to a new high-voltage, direct-current converter station, to be owned by Southern Cross Transmission, adjacent to the Panola substation but across the border in Louisiana (the Southern Cross DC tie). The Southern Cross DC tie will interconnect on the Louisiana side to a 400-mile transmission line (Southern Cross line) that will terminate at an as-yet-to-be-determined end point in the SERC Reliability Corporation transmission system.
4. Under a transmission line agreement between Garland and Rusk Interconnection, Garland and Rusk Interconnection will cooperate in implementing the Garland project. Garland will be the sole owner of the Garland project when it is placed in service. Rusk Interconnection will fund the Garland project during construction but will convey it to Garland before it is placed in service.

5. Garland's application was filed under §§ 37.051(c-1), (c-2), (g), and (i) of the Public Utility Regulatory Act (PURA).<sup>3</sup>
6. The Garland project will be constructed under interconnection agreements between Garland and Oncor Electric and Garland and Southern Cross Transmission, which were appended to the offer of settlement approved by the Federal Energy Regulatory Commission (FERC) in its final order issued in FERC Docket No. TX11-01-001. The final order in FERC Docket No. TX11-01-001 (the FERC Order) requires Garland to provide the interconnection with the Southern Cross DC tie in accordance with the interconnection agreements attached to the offer of settlement. FERC found that the interconnection is in the public interest and determined it would not cause any Electric Reliability Council of Texas, Inc. (ERCOT) utility or other utility that is not already a public utility under the Federal Power Act to become a public utility under the Federal Power Act.

**Procedural History**

7. Garland filed its application on February 25, 2016.
8. Southern Cross Transmission filed its motion to intervene and direct testimony supporting Garland's application on February 25, 2016.
9. The Commission referred this matter to the State Office of Administrative Hearings (SOAH) on February 29, 2016.
10. In SOAH Order No. 1, issued March 2, 2016, the administrative law judge (ALJ) concluded that the 185-day deadline for decision in this case is August 29, 2016, assumed jurisdiction, and convened a prehearing conference for March 9, 2016.
11. SOAH Order No. 2, issued March 15, 2016, memorialized the prehearing conference, established the procedural schedule, and provided notice that the hearing on the merits would occur on May 31-June 3, 2016. SOAH Order No. 2 also established discovery procedures; notified the parties of certain procedural requirements, including filing and document service, and other important actions necessary for parties to take before and during the hearing on the merits; approved and adopted a protective order; and granted the

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<sup>3</sup> Public Utility Regulatory Act, Tex. Util. Code Ann. § 37.051(c-1), (c-2), (g), and (i) (West 2016).



- interventions of Southern Cross Transmission; CenterPoint Energy Houston Electric, LLC; ERCOT; Texas Industrial Energy Consumers (TIEC); Jeb James; and Terry Hooper.
12. The Commission issued a preliminary order on March 22, 2016 identifying the issues to be addressed in this docket as well as issues not to be addressed.
  13. A settlement and technical conference was held at the Carthage Civic Center in Carthage, Texas on April 20, 2016.
  14. SOAH Order No. 4, issued on April 15, 2016, granted intervenor status to the following parties: Thomas Patten; Beverly Patten; Bobby LaVaughn Anderson II; Gloria Moffett; Luminant Generation Company, LLC and Luminant Energy Company, LLC (collectively, Luminant); Justin Wagstaff; Joe Beard; East Texas Area Council of the Boy Scouts of America; Andrew Brockett; Teresa Stein; Deep East Texas Electric Cooperative, Inc.; Sandra Stein; Amanda R. Choate; Billy Broadaway; Sharon Kirchner; John Davis (Daniel Heritage Farms); Panola-Harrison Electric Cooperative, Inc.; Denese McDaniel-Toler; Meredith Ingram-Gautier; Rusk County Electric Cooperative, Inc.; Wiley D. Boothe; William and Betty Lou Wood; Elizabeth Lane; Weldon Gray; Joann Miller; Connie Meschke; Jimmy D. Hutchinson; NRG Texas Power, LLC, Reliant Energy Retail Services, LLC, and NRG Power Marketing, LLC; Southwestern Electric Power Company; Texas Competitive Power Advocates; Mary Lillibridge on behalf of the W.M. Family Trust; Brian Lillibridge on behalf of the Esther B. Holmes LP; Kay Mauritzen; Sylvia Hunt; Jason Heinkel; Morris Howard; Kenneth Hazel; Tiffany and Stephen Hull; Carl Carswell; Mary Latham; David Langford; Riley Boothe; Jim Holder; Tom and Joan Williams; Bobby Muhlhauser; Billy Langford; Dennis Mark Langford; Vickie Langford Lacy; Craig and Joy Gibbs; Francis G. Gil Barker; Julia H. Greggs; John Carroll; Ed and Sandra Burrows; Danny Milan; Michael Lillibridge (individually and on behalf of W.M. Living Trust); Sue Ann McMillan Ware; Stella M. Johnson (Irrevocable Trust Life Estate); Gloriann Spiller; Fannie Watson (individually and on behalf of the Estate of Clarence C. Baldwin); Ruth Stephens (individually and on behalf of the Estate of Clarence C. Baldwin); Shirley Hamilton; Charles Spears; and Clive W. Fields.

15. SOAH Order No. 5, issued April 27, 2016, granted intervenor status to Sherri Waters, Johnny Holmes, and Jason Spiller.
16. SOAH Order No. 6, issued May 5, 2016, granted Larry Fields' request for reinstatement as an intervenor and dismissed Terry Hooper as an intervenor.
17. The hearing on the merits was held on May 31-June 3, 2016.
18. SOAH Order No. 8, issued June 3, 2016, dismissed certain intervenors who failed to file a statement of position or direct testimony pursuant to the procedural schedule and granted John Paul Davis's request to withdraw from the proceeding.
19. On June 8, 2016, the remaining intervening landowners, Garland, and Southern Cross Transmission filed an unopposed settlement agreement concerning the transmission line's route and a motion to admit the route settlement agreement into evidence.
20. On July 26, 2016, the ALJs issued SOAH Order No. 9, admitting the route settlement agreement into evidence.

**Notice**

21. Garland provided notice and hosted public open-house meetings as required under 16 Texas Administrative Code (TAC) § 22.52(a)(4).
22. On December 1 and 2, 2015, two open-house meetings were held at the Carthage Civic Center located at 1702 South Adams, Carthage, Texas.
23. Direct notice of Garland's application was mailed to 631 owners of approximately 1,078 properties within 500 feet of the centerline for each of Garland's proposed routes presented at the open-house meetings.
24. On February 25, 2016, Garland provided written notice of its application by first-class mail to the owners of land, as stated on the current county tax rolls in Rusk and Panola counties, who are directly affected by the Garland project.
25. Garland sent notices of its application to utilities providing similar service within five miles of the Garland project by priority mail on February 25, 2016.

26. Notice of Garland's application was sent to the county officials in Rusk and Panola counties and to the mayors of the cities within five miles of the Garland project by priority mail on February 25, 2016.
27. Written notice of Garland's application was sent to the Office of Public Utility Counsel (OPUC) on February 25, 2016.
28. A copy of the environmental assessment and alternative route analysis report for the Rusk-to-Panola 345-kV transmission-line project performed for the Garland project by Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) was delivered to the Texas Parks and Wildlife Department (TPWD) on February 25, 2016.
29. Garland caused notice of its application to be published in the *Henderson Daily News* and in the *Panola Watchman* on February 28, 2016. These are papers of general circulation in Rusk and Panola counties.
30. On March 22 and 23, 2016, Garland sent supplemental notice of its application to certain affected landowners after Garland was informed that those landowners did not receive the original notice.
31. Notice of Garland's application was published in the *Texas Register* on March 11, 2016.
32. On April 26, 2016, notice was provided under chapter 26 of the Texas Parks and Wildlife Code to the TPWD and the Sabine River Authority. Also, under chapter 26 of the Texas Parks & Wildlife Code, notice was published in the *Henderson Daily News* and *Panola Watchman* on May 8, May 15, and May 22, 2016.

**Adequacy of Application**

33. No party challenged the sufficiency of Garland's application, and the application is sufficient.
34. No party challenged the adequacy of Garland's proposed routes, and the routes are adequate.

**Reasonable Conditions to Protect the Public Interest**

**Representations Made in Southern Cross**

35. In FERC Docket No. TX11-1-001, *Southern Cross Transmission LLC*, 147 FERC ¶ 61,113 (2014) (*Southern Cross*), Southern Cross Transmission represented that it would not seek to recover from ERCOT ratepayers and Garland represented that it would not seek to recover from wholesale or retail customers in Texas the costs incurred in the construction of the interconnection facilities identified in the interconnection agreement between Garland and Southern Cross Transmission.<sup>4</sup>
36. It is reasonable, protective of the public interest, and consistent with the FERC Order to require Garland and Southern Cross Transmission to give effect to their representations made in *Southern Cross*.
- 36A. It is reasonable, protective of the public interest, and consistent with the FERC Order to require Garland to account for and report any costs associated with the Garland project or the Southern Cross DC tie in any of its wholesale transmission rate requests and to bear the burden of establishing that none of the costs it seeks to recover for transmission are related to the Garland project or the Southern Cross DC tie.

**Market Participation Agreement**

37. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from energizing the Garland project until Southern Cross Transmission executes ERCOT's market-participant agreement.
38. Southern Cross Transmission does not currently meet the requirements to be defined as any one of the existing eight market participant types on ERCOT's standard-form market-participant agreement form.
39. ERCOT will need to revise and make modifications to its standard-form market-participant agreement and its bylaws, protocols, operating guides, and systems as necessary (creating a new market participant category if necessary) to allow Southern Cross Transmission to

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<sup>4</sup> Garland Ex. 1, Application, Att. 2 at 10, 54-55.

register as a market participant and execute the standard-form market-participant agreement.

40. Southern Cross Transmission will also need to be placed within one of the existing ERCOT market segments.
41. The determination of the appropriate market participation category for Southern Cross Transmission, the required modifications to ERCOT's protocols, bylaws, operating guides, and systems required for Southern Cross Transmission's participation, and the appropriate market segment for Southern Cross Transmission should be made by ERCOT.
42. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from energizing the Garland project until ERCOT (a) determines the appropriate market participation category for Southern Cross Transmission (creating a new one if necessary); (b) implements the necessary modifications to the standard-form market-participant agreement and its protocols, bylaws, operating guides, and systems for Southern Cross Transmission's participation; and (c) determines the appropriate market segment for Southern Cross Transmission. It is appropriate to order ERCOT in a separate project to complete these tasks.
- 42A. It is reasonable, protective of the public interest, and consistent with the FERC Order to require that all costs incurred by ERCOT in revising and making modifications to the standard-form market-participant agreement and its bylaws, protocols, operating guides, and systems because of the Garland project and Southern Cross DC tie shall be paid by Southern Cross Transmission.

**Coordination Agreement**

43. Coordination agreements between ERCOT and any necessary independent system operator, regional transmission organization, or reliability coordinator on the eastern end of the Southern Cross line are necessary to ensure reliable operations on the ERCOT grid when the Southern Cross DC tie is energized.
44. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from energizing the Garland project until ERCOT negotiates and executes a coordination agreement or agreements between itself and any necessary independent

system operator, regional transmission organization, or reliability coordinator on the eastern end of the Southern Cross line. It is appropriate to order ERCOT in a separate project to complete this task.

- 44A. It is reasonable, protective of the public interest, and consistent with the FERC Order that all costs incurred by ERCOT in negotiating and executing a coordination agreement or agreements with any necessary independent system operator, regional transmission organization, or reliability coordinator on the eastern end of the Southern Cross line be paid by Southern Cross Transmission.

**Inclusion of Southern Cross DC Tie in ERCOT Planning Models**

45. A DC tie of the size proposed by Southern Cross Transmission should be included in ERCOT's modeling for transmission planning when it reaches the point in its development when it is likely that it will be constructed and completed.
46. ERCOT's protocols do not currently include standards for determining the point in time for including such proposed DC-tie project in transmission modeling.
47. Determination of when to include a proposed DC-tie project in transmission planning models is important in order to accomplish the goals of transmission planning and to avoid unnecessary costs.
48. ERCOT should make the final determination as to the point at which the Southern Cross DC tie should be included in ERCOT's transmission planning models.
- 48A. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from energizing the Garland project until ERCOT determines at what point the Southern Cross DC tie should be included in ERCOT's transmission planning models. It is appropriate to order ERCOT in a separate project to complete this task.
- 48B. It is reasonable, protective of the public interest, and consistent with the FERC Order for all costs that ERCOT incurs in studying and determining when and how to include the Southern Cross DC tie in ERCOT's transmission planning models, as well as all implementation costs, to be paid by Southern Cross Transmission.

**Treatment of DC Ties in ERCOT Planning Models**

49. ERCOT performs transmission planning modeling to identify future system needs for improvements in grid infrastructure.
50. The assumptions made in transmission planning regarding whether DC ties will be exporting or importing, and at what levels, potentially results in different system needs.
51. ERCOT currently models DC ties in all planning studies using historical operations of those ties, assessing resulting constraints and other effects on the system.
52. The Southern Cross DC tie has no historical operations, and it is unclear whether the operational history of the much smaller DC ties in the ERCOT system are suitable for comparison to the Southern Cross DC tie, given its size and its different interconnection point.
53. ERCOT's current practices of modeling DC ties in its planning studies must be reviewed for needed revisions to account for the interconnection of the Southern Cross DC tie.
54. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from energizing the Garland project until ERCOT studies and determines how best to model the Southern Cross DC tie in its transmission planning cases and makes any necessary revisions to its protocols, operating guides, systems, or standards. It is appropriate to order ERCOT in a separate project to complete this task.

**Transmission Upgrades**

55. Some degree of transmission upgrades may be necessary to accommodate electrical flows across the Southern Cross DC tie.
56. To ensure reliability in the operation of the ERCOT system, it is necessary to determine what transmission upgrades will be needed, if any, to address in an adequate manner the potential congestion caused by electrical flows over the Southern Cross DC tie.
57. DELETED.
58. Whether such transmission upgrades are necessary is best left to ERCOT, where other potentially affected parties can participate and offer their input outside of the compressed time limits of this case.

59. Any transmission upgrade costs associated with the Garland project or Southern Cross DC tie should be assigned directly to Southern Cross Transmission and entities using the Southern Cross DC tie.
60. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from energizing the Garland project until ERCOT studies and determines what transmission upgrades, if any, are necessary to facilitate flows over the Southern Cross DC tie. It is appropriate to order ERCOT in a separate project to complete this task.
61. ERCOT's determination of what transmission upgrades may be necessary should not be tied to a date certain, but should be initiated and completed expeditiously in order to provide the Commission with the data necessary to protect the public interest and to ensure compliance with the FERC Order.
62. ERCOT's costs to determine what transmission upgrades may be necessary should be assigned directly to Southern Cross Transmission.

**Economic Dispatch and Congestion Management**

63. There are at least two methods for managing congestion attributable to Southern-Cross-DC-tie imports: (a) subjecting the Southern Cross DC tie to security-constrained economic dispatch (SCED); or (b) implementing a congestion management program, including the possible use of a special protection scheme.
64. SCED is typically associated with generation assets, but when the Southern Cross DC tie is importing it appears as a generation resource on the ERCOT system, which differs from how current transmission assets owned by ERCOT transmission service providers appear on the system.
65. There is insufficient evidence in the record to determine whether it is appropriate to subject the Southern Cross DC tie to SCED as a way to address congestion created by flows over the Southern Cross DC tie.
66. There is insufficient evidence in the record to determine whether a congestion management plan, including a special protection scheme, is an appropriate remedy to impose on the



Southern Cross DC tie to address congestion created by flows of the Southern Cross DC tie.

67. There is insufficient evidence in the record to preclude the use of any other appropriate method to address congestion associated with the Southern Cross DC tie if ERCOT determines that other measures may, or should, be taken to resolve congestion caused by flows over the Southern Cross DC tie.
68. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from energizing the Garland project until ERCOT (a) studies and determines whether some or all DC ties should be dispatched economically through SCED, or whether implementation of a congestion management plan or special protection scheme would more reliably and cost-effectively manage congestion caused by DC tie flows; and (b) implements any necessary revisions to its protocols, operating guides, systems, and standards as appropriate. It is appropriate to order ERCOT in a separate project to complete this task.
69. ERCOT's study of the use of SCED, a congestion management plan, a special protection scheme, or any other process to address congestion should not be tied to a date certain, but should be initiated and completed expeditiously.
70. The costs of ERCOT's study of SCED or a congestion management plan or special protection scheme and any implementation costs should be assigned directly to Southern Cross Transmission.
- 70A. All flows across the Southern Cross DC tie, whether exports or imports, should be accounted for in ERCOT's transmission cost assignment in order to ensure that Southern Cross Transmission pays for its use of the ERCOT grid.
- 70B. It is reasonable, protective of the public interest, and consistent with the FERC Order to require Southern Cross Transmission and Garland to back down or terminate temporarily exports if ERCOT determines such is necessary to avoid or mitigate a potential reliability issue.

**Ramp Rate Restrictions and General Reliability Issues**

71. The Southern Cross DC tie will have the ability to ramp up, ramp down, or change the direction of electrical flow in a short period of time.
72. Ramp rate limits on the Southern Cross DC tie will be needed to limit frequency deviations associated with these sudden changes in exports and imports of power over the Southern Cross DC tie and the inability of other resources on the system to match the rate of ramping on the Southern Cross DC tie.
73. Flows over the Southern Cross DC tie will not be controlled by ERCOT's market management tools, so other generators will have to be dispatched to address the impacts of flows over the Southern Cross DC tie.
74. To maintain proper frequency and balance between generation and load, the generators on the ERCOT system must ramp at the same rate as the Southern Cross DC tie.
75. Generating units cannot change their output instantaneously, and different units will change output at different rates depending on current operating conditions.
76. Without a ramp rate limit, ERCOT would have to procure and deploy ancillary services to compensate for the frequency variability in imports and exports of power resulting from ramping by the Southern Cross DC tie.
77. Currently, the system used to schedule flows on DC ties in the ERCOT system builds in a ten-minute ramp each hour, which encompasses the last five minutes and first five minutes of every hour, to accommodate flows from one hour to the next.
78. The current ramping rules may create operational issues in ERCOT given the amount of power that can flow across the Southern Cross DC tie.
79. To ensure reliability on the ERCOT system, revisions to ERCOT's current ramp rate restrictions will need to be made to account for the interconnection of the Southern Cross DC tie.
80. An extension of the current ten-minute ramping period could effectively achieve a ramp rate limit for the Southern Cross DC tie, but such extension would require a change to the scheduling process and other ERCOT systems.

81. DC ties could be integrated with ERCOT market tools to allow for more reliable management of DC-tie ramping behavior.
82. Analysis by ERCOT is necessary to determine the optimal solutions to resolve the ramp-rate limit issue concerning the Southern Cross DC tie.
83. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from energizing the Garland Project until ERCOT (a) determines what ramping restrictions will be necessary to accommodate the interconnection of the Southern Cross DC tie, and (b) implements those restrictions. It is appropriate to order ERCOT in a separate project to complete this task.
- 83A. The costs of ERCOT's study of ramp-rate restrictions and any implementation costs should be assigned directly to Southern Cross Transmission.
- 83B. It is reasonable, protective of the public interest, and consistent with the FERC Order that neither Garland nor Southern Cross Transmission operate the Garland project or the Southern Cross DC tie in a manner that would impair ERCOT's reliability.
- 83C. It is reasonable, protective of the public interest, and consistent with the FERC Order that neither Garland nor Southern Cross Transmission operate the Garland project or the Southern Cross DC tie in a manner that imperils the thermal capacity of the ERCOT system.

**Outage Coordination**

84. One of ERCOT's core functions is to coordinate generator and transmission outages to ensure continuous and reliable operation of the transmission system.
85. To coordinate generator and transmission outages properly, ERCOT must predict future DC-tie imports and exports as accurately as possible to determine whether requested outages of generators or transmission elements can be granted while maintaining system reliability.
86. Actual DC-tie flows cannot be known with reasonable certainty, especially with enough time to allow for outage scheduling.

87. Incorrect predictions of imports and exports over DC ties can result in necessary curtailments of flows over the ties or withdrawals of outage requests.
88. The interconnection of the Southern Cross DC tie to the ERCOT system will make ERCOT's coordination of generation and transmission outages significantly more challenging.
89. The interconnection of the Southern Cross DC tie to the ERCOT system will require ERCOT to conduct studies and analyses to determine what changes, if any, should be made to its processes and systems for coordinating outages.
90. ERCOT's determination of what changes may need to be made to its processes and systems for coordinating outages once the Southern Cross DC tie is interconnected is vital to ensuring the reliability of the ERCOT system.
91. It would be reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from energizing the Garland project until ERCOT develops and implements a method for reliably and cost-effectively coordinating outages. It is appropriate to order ERCOT in a separate project to complete this task.
- 91A. The costs of ERCOT's study of outage coordination and any implementation costs shall be assigned directly to Southern Cross Transmission.

**Reactive Power and Primary Frequency Response**

92. Primary frequency response is an automatic response that is used to stabilize ERCOT system frequency deviations.
93. Reactive power, also discussed as voltage-support service, is used to maintain transmission voltages on the ERCOT system within acceptable limits.
94. Primary frequency response and voltage-support service are services provided by generation sources in ERCOT.
95. The Southern Cross DC tie is a controllable transmission line, but when it imports power it looks like a generation resource on the ERCOT system.
96. Because of its duality, the Southern Cross DC tie is a unique entity because, while it is not a generator, when it imports it has many attributes of a generator. Similarly, when it is

importing, it may displace other ERCOT generators that are providing primary frequency response and voltage-support service.

97. If the Southern Cross DC tie displaces ERCOT generators that are providing primary frequency response or voltage-support service, ERCOT would have to procure those services from other generators, or could procure additional responsive-reserve service.
98. If the Southern Cross DC tie displaces ERCOT generation assets providing primary frequency response and voltage-support service at the time, that circumstance can cause reliability problems in ERCOT.
99. It may be possible for the Southern Cross DC tie to procure or borrow power from the balancing authority on the other side of the Southern Cross line to provide primary frequency response, if Southern Cross Transmission has sufficient advance notice so that it can design and construct the Southern Cross DC tie with sufficient technological controls to allow such a transfer.
- 99A. Southern Cross Transmission, through an authorized signatory, committed at the August 25, 2016 open meeting that primary-frequency-response capabilities will be built into the Garland project and Southern Cross DC tie facilities.
100. The Southern Cross DC tie cannot provide primary frequency response without the cooperation of the balancing authority on the other side of the Southern Cross line, and ERCOT would need to negotiate the ability of Southern Cross Transmission to import that service over the Southern Cross DC tie.
101. The Southern Cross DC tie may not be able to provide voltage-support service, but it may be possible to compensate by using reactive devices at the Rusk and Panola substations.
102. The Commission should not impose at this time a condition that the Southern Cross DC tie must provide primary frequency response and voltage-support service.
103. ERCOT should ensure the operation of the Southern Cross DC tie does not jeopardize the ERCOT system or ERCOT customers not using power imported over the Southern Cross DC tie by causing a situation where ERCOT must procure primary frequency response and voltage-support service within a short period of time.

104. The Commission should require ERCOT to determine whether the DC ties, particularly the Southern Cross DC tie, can provide primary frequency response and voltage-support service, or their technical equivalents, and if so, how that process should be performed.
105. It is reasonable, protective of the public interest, and consistent with the FERC Order for the Commission to require that Southern Cross Transmission (a) work with ERCOT to determine whether the DC ties, particularly the Southern Cross DC tie, can provide primary frequency response and voltage-support service, or their technical equivalents and (b) agree to abide by the decisions reached by ERCOT or the Commission as a result of the process. It is appropriate to order ERCOT in a separate project to complete this task.
106. ERCOT's study to determine whether the DC ties, particularly the Southern Cross DC tie, can provide primary frequency response and voltage-support service, or their technical equivalents, should be initiated and undertaken expeditiously, but should not be tied to a date certain.
107. The cost of the ERCOT primary frequency response and voltage-support service studies and any implementation costs should be assigned directly to Southern Cross Transmission.

**Cost of Ancillary Services and Costs Generally**

108. To comply with the North American Reliability Corporation (NERC) reserve requirements, ERCOT maintains enough reserves to cover the loss of the most severe single contingency.
109. Currently, the most severe single contingency in ERCOT is equivalent to the 1,375 MW associated with the loss of one of the nuclear units at the South Texas Project.
110. ERCOT maintains the NERC reserve-requirement standard by maintaining sufficient physical response capability through responsive reserve service.
111. If the Southern Cross DC tie becomes operational, it will become the new most-severe single contingency, requiring ERCOT to procure additional reserves to prepare for the contingency that power across the Southern Cross DC tie might be disrupted or the line might be taken out of service. The additional reserves would be necessary for ERCOT to maintain system frequency within acceptable limits if such an event occurred.

112. The Southern Cross DC tie will become the new most-severe single contingency in ERCOT whether it is importing or exporting.
113. ERCOT practice currently assigns ancillary service costs to loads based on load-ratio share based on ERCOT's fundamental cost-recovery philosophy that load pays.
114. DELETED.
115. It is physically possible for the Southern Cross DC tie to procure some form of ancillary services from the balancing authority on the other side of the DC tie. However, there are two impediments to that possibility. The first impediment is technical and would involve designing the Southern Cross DC tie to accommodate such transfers. The second impediment pertains to ERCOT's ability to negotiate an arrangement with the balancing authority on the other side of the Southern Cross line that would provide the transfer of power across the Southern Cross DC tie in the event of a sudden ERCOT emergency.
116. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from energizing the Garland project until ERCOT (a) evaluates what additional ancillary services, if any, are necessary for the reliable interconnection of the Southern Cross DC tie; and (b) implements any necessary modifications to ancillary service procurement practices or procedures. It is appropriate to order ERCOT in a separate project to complete this task.
117. DELETED.
118. DELETED.
119. The cost of the ERCOT study regarding the procurement of additional ancillary services, if any, and any implementation costs should be directly assigned to Southern Cross Transmission.
- 119A. It is reasonable, protective of the public interest, and consistent with the FERC Order to require Southern Cross Transmission to pay all costs incurred by ERCOT for the ERCOT studies, protocol and system revisions, and any other ERCOT activities required by the Garland project or the Southern Cross DC tie.

- 119B. It is reasonable, protective of the public interest, and consistent with the FERC Order for any additional associated costs that may arise because of the Garland project or the Southern Cross DC tie that would otherwise be borne by ERCOT ratepayers to be borne instead by Southern Cross Transmission, unless otherwise required by Commission rules. Such costs include, but are not limited to, transmission upgrade costs, ancillary services costs and the costs of negotiating and executing any coordination agreements with any independent system operator, regional transmission organization, or reliability coordinator.
- 119C. It is reasonable, protective of the public interest, and consistent with the FERC Order for any incremental transmission and ancillary-services costs required in order to support imports or exports over the Southern Cross DC tie to be assigned directly to those imports or exports.
- 119D. It is reasonable, protective of the public interest, and consistent with the FERC Order that no utility recover any costs associated with the Garland project or the Southern Cross DC tie, including any costs related to the Rusk or Panola substations or the Rusk-to-Panola line, in the utility's cost of service.
- 119E. It is reasonable, protective of the public interest, and consistent with the FERC Order that no utility recover any costs related to the Rusk or Panola substations or the Rusk-to-Panola line in its transmission cost of service.

**Condemnation of Easements**

120. It is reasonable, protective of the public interest, and consistent with the FERC Order for the Commission to prohibit Garland, Southern Cross Transmission, Rusk Interconnection, and their affiliates, from seeking condemnation of any landowner's land in Panola County for the Garland project, so long as the landowner provides access to the land for surveying and design purposes, until Southern Cross Transmission provides the Commission with evidence that it has secured the funding to construct the complete interconnection project, including the Garland project, the Southern Cross DC tie, the Southern Cross line, and all related interconnection facilities.
- 120A. It is also reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland, Southern Cross Transmission, Rusk Interconnection, and their



affiliates from seeking condemnation of any landowner's land in Panola County for the Garland project, so long as the landowner provides access to the land for surveying and design purposes, until Southern Cross Transmission provides evidence that it has obtained all regulatory approvals in Louisiana necessary to construct the Southern Cross DC tie, the Southern Cross line, and all related interconnection facilities.

121. A condition prohibiting condemnation until Southern Cross Transmission provides the Commission proof that it has completed all three of the following tasks: (a) secured financing for the Southern Cross line; (b) obtained all necessary regulatory approvals in Louisiana for the Southern Cross DC tie; and (c) constructed at least 75% of the Southern Cross DC tie would protect the public interest, but is not reasonable.

**Disconnection from the Southern Cross DC Tie**

122. The interconnection agreements between Garland and Oncor Electric Delivery Company and between Garland and Southern Cross Transmission give the parties the right to disconnect immediately the Garland project from the Southern Cross DC tie if such action is necessary to prevent FERC from asserting plenary jurisdiction over ERCOT or an ERCOT utility. However, the agreements do not require the parties to disconnect under these circumstances.
123. ERCOT bylaws prohibit ERCOT members from taking action to cause ERCOT or an ERCOT member to become a public utility subject to FERC rules, but do not require ERCOT members to take action to prevent ERCOT or ERCOT members from becoming a public utility subject to FERC rules.
124. Garland will disconnect the Garland project if necessary to prevent (a) FERC from asserting plenary jurisdiction over ERCOT or an ERCOT utility, or (b) ERCOT or ERCOT members from becoming a public utility subject to FERC rules.
125. It is reasonable, protective of the public interest, and consistent with the FERC Order to require Garland and Southern Cross Transmission to disconnect immediately the Garland project from the Southern Cross DC tie if necessary to avoid ERCOT or any ERCOT utility becoming subject to FERC rules and plenary jurisdiction.

126. It was not conclusively established that a synchronous connection from outside ERCOT could not be made with the Garland project.
127. It was not conclusively established that the Garland project could not be disconnected from the Southern Cross DC tie if a synchronous connection from outside ERCOT was made with the Garland project, or that such disconnection would be unreasonable.
128. DELETED.
- 128A. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit connections to the Garland project except for the ERCOT system and the Southern Cross DC tie, unless such other connection is authorized by the Commission.
- 128B. It is reasonable, protective of the public interest, and consistent with the FERC Order to order immediate isolation or disconnection from the Garland project of any connection that is made to the Garland project other than those allowed under finding of fact 128A.
129. Garland will not wait until all appeals have run before complying with a Commission order to disconnect.
130. Garland and Southern Cross Transmission understand that a Commission order is effective during the pendency of an appeal absent a stay or other order suspending its effectiveness.
131. Garland and Southern Cross Transmission will comply immediately with an effective Commission order to disconnect the Garland project from the Southern Cross DC tie.
132. It is reasonable, protective of the public interest, and consistent with the FERC Order to require Southern Cross Transmission and Garland to disconnect immediately the Garland project from the Southern Cross DC tie pursuant to a Commission order to do so.
133. It is reasonable, protective of the public interest, and consistent with the FERC Order to require Southern Cross Transmission and Garland to disconnect immediately the Garland project from the Southern Cross DC tie pursuant to a Commission order to do so in order to protect the public interest or the ERCOT system.
134. There is no evidence in the record that conditioning the Commission's approval of Garland's application on disconnection by Garland or Oncor Electric in the event Southern

Cross Transmission challenges Commission jurisdiction or ERCOT protocols would protect the public interest.

135. If Southern Cross Transmission challenges a Commission rule or ERCOT protocol at some point in the future, the Commission at that time will make a decision based on the facts and the law whether such a challenge has merit.

**Put and Call Options under the Transmission Line Agreement**

136. The transmission line agreement between Garland and Rusk Interconnection allows Garland to transfer ownership of the Garland project back to Rusk Interconnection and for Rusk Interconnection to require such a transfer, under certain circumstances and for certain payments.
137. Southern Cross Transmission and Garland agree that a transfer of the Garland project from Garland to Rusk Interconnection would require Commission approval under PURA § 37.054 and would not automatically provide Rusk Interconnection with a CCN for the facilities.
138. A condition requiring that Rusk Interconnection meet the requirements of PURA § 37.051(e) in the event a transfer of the Garland project is sought under the transmission line agreement is not reasonable because (a) a transfer has not yet been sought, (b) Garland agrees to a condition that a transfer of the Garland project to Rusk Interconnection requires Commission approval under PURA § 37.054, and (c) it is not clear whether such a transfer would be subject to the requirements of PURA § 37.051(e).
139. It is reasonable, protective of the public interest, and consistent with the FERC Order to require any transfer of the CCN for the Garland project to Rusk Interconnection be approved by the Commission under PURA § 37.054.

**Treatment of Garland as Affiliate of Southern Cross Transmission and the Pattern Companies**

140. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Rusk Interconnection from requesting Garland to upgrade the Garland project under the transmission line agreement.

140A. It is reasonable, protective of the public interest, and consistent with the FERC Order to prohibit Garland from upgrading the Garland project without prior Commission approval.

**Separate ERCOT Oversight Project**

140B. It is reasonable, protective of the public interest, and consistent with the FERC Order to establish a project to direct and monitor the activities of ERCOT that are necessary to allow the Garland project to be energized under this Order.

**Routing Issues**

141. Garland retained Burns & McDonnell to conduct the environmental assessment and alternative-route analysis and prepare a report for the Rusk-to-Panola 345-kV transmission line project for the Garland project.
142. The environmental assessment and alternative-route analysis evaluated routes using routing criteria addressing factors such as land use, aesthetics, cultural resources, the number of potentially affected habitable structures, and potential environmental impacts for each of the alternative routes. Garland balanced its environmental and land-use analysis with engineering and construction constraints, costs, public input, and community values.

**Route Settlement Agreement**

143. On June 8, 2016, the intervening landowners, Garland, and Southern Cross Transmission filed an unopposed settlement agreement concerning the transmission-line route supporting selection of route RP9 by the Commission.
144. Route RP9 is comprised of noticed segments that were not changed or modified from the segments as filed in the application.
145. Route RP9 is a viable, feasible, and reasonable route considering the environmental, engineering, and land-use constraints in the Garland project area.
146. Route RP9 also satisfies the other criteria the Commission considers in selecting a transmission-line route, as reflected in these findings of fact.
147. The Garland project should be constructed on route RP9.

**Effect of Granting the CCN**

148. Garland has been providing service to its ratepayers since 1923, owns and operates both high-voltage transmission lines and electric generating stations, is a qualified scheduling entity within ERCOT, and has strong bond ratings.
149. Garland has the capability to operate the Garland project reliably and effectively.
150. No existing facilities of other utilities will be utilized for the Garland project.
151. Oncor Electric conducted several studies that analyzed the Garland project's effects on other utilities and the ERCOT grid; and based on those studies, the FERC Order found that nothing in the application indicated that the requested interconnection and transmission service would impair the continued reliability of the affected electric systems.
152. Existing utilities within the study areas include existing 115-kV, 138-kV, and 345-kV electric transmission lines and associated substations primarily owned and operated by Oncor Electric and Southwestern Electric Power Company (SWEPCO). Cooperative utilities, including Deep East Texas Electric Cooperative, Inc., Panola Electric Cooperative, and Rusk Electric Cooperative, also own and operate transmission lines, distribution lines, and substations within the study area.
153. Garland and Rusk Interconnection have executed agreements with SWEPCO, Deep East Texas Electric Cooperative, Inc., Panola Electric Cooperative, and Rusk Electric Cooperative that provide for Garland to keep each utility informed about the Garland project; to coordinate with each utility concerning paralleling or crossing of facilities, and to avoid or mitigate impacts on their facilities.
154. Garland and Rusk Interconnection have committed to make reasonable efforts to coordinate with these neighboring utilities to mitigate impacts of the Rusk-to-Panola line on their facilities.
155. The FERC Order also stated that compliance with that order and the offer of settlement will not cause ERCOT, Oncor Electric, CenterPoint Energy Houston Electric, or any other ERCOT utility or other entity that is not already a public utility to become a public utility,

as that term is defined by section 201 of the Federal Power Act, and subject to FERC jurisdiction.

**Community Values**

156. Garland executed a public involvement program to engage potentially impacted landowners, elected officials, and other stakeholders. The program consisted of one-on-one meetings with the county judges of both counties in which the Garland project will be constructed, county commissioners who represent the majority of the area, and local electric cooperatives who provide service in the area.
157. Garland also held two public open-house meetings within the community to solicit comments, concerns, and input from residents, landowners, public officials, and other interested parties concerning the proposed Garland project, the preliminary alternative routes, and the overall transmission-line-routing process.
158. The preliminary alternative routes identified by Burns & McDonnell were presented at the open-house meetings. Participants at the open-house meetings received a written questionnaire to communicate their opinions and provide input into the routing process. Burns & McDonnell also provided computer stations at the open-house meetings, as well as an online option for landowners to provide input on their issues of greatest concern related to the Garland project.
159. Following the open-house meetings, Burns & McDonnell modified the existing segments and identified a total of 96 primary routes. After evaluating the 96 primary routes, 12 proposed routes were selected to carry forward through the rest of the evaluation process and to submit to the Commission.
160. Based on information gathered at the open-house meetings, several segments were modified to reduce impacts to habitable structures and other land-use features to the extent feasible, and some new segments were added and others deleted.
161. Local, state, and federal agencies and officials were contacted by letter in October and November 2015 to solicit comments, concerns, and information regarding the potential impact of the proposed transmission line.

162. Responses from governmental agencies were considered in the selection and evaluation of alternative routes.
163. Route RP9 is supported by all of the intervening landowners in the case and therefore best reflects community values.

**Recreational and Park Areas**

164. Two of the proposed routes cross a park or recreational area—RP28 and RP82. Route RP28 (a central route) crosses the George W. Pirtle Scout Reservation and route RP82 (a southern route) crosses land managed by the Sabine River Authority and identified by TPWD as unit number 630 hunting area. Both proposed routes appear to cross in areas of the properties that are not developed and are heavily wooded. Route RP82 does not have any park and recreational area within 1000 feet (excluding unit number 630 hunting area). Route RP16 (a northern route) is the only proposed route that does not cross any park and has no identified park and recreational area within 1000 feet. All of the remaining proposed routes each have one park and recreational area located within 1000 feet of the route.
165. No significant impacts to the use or enjoyment of the parks and recreation facilities located within the study area are anticipated from any of the primary alternative routes.
166. No adverse impacts are anticipated for any of the fishing or hunting areas from any of the primary alternative routes.
167. Route RP9 does not cross any recreational or park areas and has one recreational and park area located within 1,000 feet, like most of the other proposed routes.

**Historical and Aesthetic Values**

168. Cultural resources are sites, features, structures, or properties that are 50-years old or older and that may hold significant cultural, historical, or scientific value.
169. High-probability areas are locations that are usually identified as having a high probability for the occurrence of prehistoric sites and include areas where the proposed Garland project crosses water, stream confluences, drainages, alluvial terraces, wide floodplains, upland knolls, and areas where lithics (workable stone) could be found.

170. The Texas Historical Commission, on November 4, 2015, indicated that previous surveys in the area have resulted in identification of archeological sites that could be affected by the Garland project.
171. The Texas Historical Commission indicated that an archeological survey may be required for portions of the study area and that a project archeologist performing such a survey must first obtain an antiquities permit from the Texas Historical Commission's office.
172. Garland and Rusk Interconnection will coordinate with the Texas Historical Commission to determine whether significant cultural, historical, or archeological sites will be affected and what mitigation efforts could be required to limit impacts.
173. Garland's proposed routes cross between 57,740 feet and 102,100 feet of high-probability areas and would be located within 1,000 feet of between one and five recorded cultural sites.
174. Route RP9 crosses 70,690 feet of high-probability areas, crosses no recorded cultural sites, and would be located within 1,000 feet of one recorded cultural site.

**Environmental Integrity**

175. Garland, through Burns & McDonnell, engaged in an extensive multi-step process to determine potential environmental impacts, and used the information gathered to engage in substantial mitigation of potential impacts through that process. The environmental-study process involved delineating a study area, collecting agency input, gathering data regarding the study area, performing constraints mapping, identifying preliminary alternative routes, and reviewing and adjusting alternative routes following field reconnaissance. Garland reviewed the preliminary alternative routes with regard to cost, construction, engineering, right-of-way (ROW) maintenance issues, and constraints. Burns & McDonnell and Garland solicited information and comments from a variety of local offices and officials with interest in the Garland project area.
176. Land use throughout the study area is dominated by timberland and oil and gas production, with some smaller areas for pastureland. The pastureland is fairly evenly dispersed throughout the study area, except for the area along the Sabine River, which is mostly forested. The developed land is found around the various towns in the study area, but there



is also scattered residential development throughout the study area. The largest percentage (74%) of the land found in the study area is forested land.

177. Construction of the Garland project is not anticipated to have any significant adverse effects on the physiographic or geologic features and resources in the area.
178. Construction and operation of the transmission line would not result in any significant impacts to the existing physiography, surface water features, groundwater and aquifers.
179. Construction and operation of the transmission line could result in some temporary adverse impacts to wildlife, primarily from the removal of large trees within or near the proposed Garland project that could provide feeding, shelter, or nesting habitat for some species.
180. Impacts to most species would be temporary and short-term during construction and would consist primarily of displacement and disturbance.
181. Any potential impact to topography would be minimal and temporary in nature and would be from the use of heavy construction equipment and excavation required for the construction of new foundations and support structures.
182. The Garland project would result in temporary, minor impacts to the soils within the ROWs during construction activities.
183. No significant long-term impacts to soils are anticipated along any of the proposed routes.
184. Upon approval of a final route by the Commission, Garland and Rusk Interconnection will conduct detailed environmental surveys along the proposed transmission line to identify any potential wildlife, water, or vegetation concerns and develop management measures to minimize adverse impacts.
185. Garland and Rusk Interconnection will obtain permits and coordinate with the federal, local, and state agencies when appropriate.

#### **Engineering Issues**

186. Garland and Rusk Interconnection proposed using self-supporting tubular-steel monopole structures for the Garland project. Depending on the selected route, the Garland project could require tangent, double-circuit dead-end, and single-circuit dead-end structures. Lattice structures could be used in some places.

187. Design criteria will be in compliance with applicable statutes, the appropriate edition of the National Electrical Safety Code, and acceptable engineering design practice.
188. No long-term impacts are anticipated to the transportation system of the study area due to the construction of the proposed Garland project. Short-term impacts may occur during construction, which could result in a temporary disruption of traffic service.
189. The proposed routes all cross 2 state or federal highways and between 24 and 30 other public roads. Routes RP28 (a central route) and RP82 (a southern route) cross the fewest other public roads (24 each).
190. Route RP9 crosses 2 state or federal highways and 26 other public roads.
191. Two of the northern routes (RP16 and RP93) are within 20,000 feet of the Panola County-Sharpe Field, which is an FAA-registered airport with a runway greater than 3,200 feet in length.
192. No proposed routes are within 10,000 feet of any FAA-registered airstrips or airports with runways less than 3,200 feet in length.
193. One new private airstrip (Hilltop Springs Airport) was identified within 10,000 feet of the centerline of routes RP5, RP8, and RP16 (northern routes); RP10, RP28, RP41 (central routes); and RP50, RP53, and RP82 (southern routes).
194. No heliports were identified within 5,000 feet of any proposed route.
195. FAA notification will not be required for any airstrip as a result of the Garland project. The proposed routes in proximity of a private airstrip are approximately 4,400 feet away (and lower in elevation), and the proposed routes are not anticipated to impact the airstrip, using a 20:1 approach slope.
196. Route RP9 is not within 10,000 feet of any FAA-registered airstrips or airports with runways less than 3,200 feet in length or within 5,000 feet of a heliport.

#### **Costs**

197. Garland's estimated cost includes the costs of engineering, acquiring ROWs, procurement of materials and supplies, construction labor and transportation, and administration. The total estimated cost for the Garland project ranges from approximately \$103.8 million to

\$109.9 million, depending on the route selected. These costs are only estimates as of the time of the filing of the application. Once the final route has been approved by the Commission, Garland will survey the approved line route and final engineering design will be performed. After the final engineering design is completed, costs to construct the approved route will then be re-estimated based on material and construction bids.

198. The estimated cost of route RP9 is approximately \$109 million.
199. Garland will not seek to recover the costs of developing, constructing, interconnecting, or financing the Garland project or the Panola substation through transmission service rates, but will own and operate those facilities as open-access transmission facilities subject to Commission rules, NERC standards, and ERCOT protocols and guidelines applicable to such transmission facilities.

**Moderation of Impact**

200. Garland has identified a comparatively high number of the northern routes (16-25.7 percent) and a moderate amount of the central route RP10 (11.1 percent) that will parallel existing transmission lines. The remaining central routes and all of the southern routes would not parallel any existing transmission line.
201. All of the proposed routes would parallel some property lines, and most of the proposed routes would also parallel roads (except route RP82).
202. The study area contains a large number of oil and gas wells, as well as associated collection lines, pump stations, and compressor stations owned and operated by a number of different pipeline companies.
203. To the extent feasible, the proposed routes avoid being parallel or adjacent (within 500 feet) to existing oil and gas pipelines in an effort to avoid induction and to meet the requirement for cathodic protection on the pipelines, although the density of oil and gas pipelines in the study area made it difficult not to parallel them for at least some length.
204. The proposed transmission line, when paralleling existing utility corridors, will not share any ROWs with the existing utilities but instead will be located immediately adjacent to the existing ROWs.

**Prudent Avoidance**

205. The routes and route links proposed in the application for the Garland project conform to the Commission's policy of prudent avoidance in that they reflect reasonable investments of money and effort in order to limit exposure to electric and magnetic fields.
206. The number of habitable structures located within 500 feet of the proposed route centerlines ranges from 13 to 27.
207. Route RP9 has 13 habitable structures within 500 feet of the centerline.
208. Route RP9 and the routes and route segments proposed in the Garland project reflect reasonable investments of money and effort to limit exposure to electric and magnetic fields.

**Alternative Routes and Configurations**

209. There are no alternative routes that would have a less negative impact on landowners. The routing and constraints mapping process employed by Burns & McDonnell for the alternative routes was designed to identify and reduce the impact to land use and environmentally sensitive areas, including individual residences, rural subdivisions, airstrips, mobile irrigation systems, cemeteries, known historic and archaeological sites, wetlands, parks, churches and schools, among others.
210. The routing process involved the delineation of numerous alternative routes. Information of the same general type on community values, parks and recreation areas, archeological and historic sites, aesthetics, and environmental integrity is presented for the alternative routes in the environmental-assessment and alternative-route-analysis report. These alternatives were selected to minimize landowner impact in accordance with the criteria specified in PURA and the Commission's substantive rules.

**Texas Parks & Wildlife Issues and Recommendations**

211. The Texas Parks and Wildlife Department (TPWD) provided comments and recommendations regarding the Garland project on November 24, 2015 and April 27, 2016. These comments and recommendations addressed potential impacts on sensitive fish and wildlife resources, habitats, or other sensitive natural resources in the routing, construction, and operation of the Garland project. Overall, the concerns,

comments, and recommendations are those typically provided by TPWD with regard to proposed transmission line projects.

212. TPWD did not file testimony or present a witness in this proceeding.
213. TPWD's recommendations focused on a single issue, protecting fish and natural wildlife resources, and did not take into consideration other routing factors included in PURA § 37.056 or 16 Texas Administrative Code § 25.101.
214. Garland and Burns & McDonnell have already taken into consideration many of the comments and recommendations offered by TPWD.
215. After route selection, Garland and Rusk Interconnection will perform surveys to identify any potential wildlife, water, or vegetation concerns and develop management measures to minimize adverse impacts.
216. Garland and Rusk Interconnection will comply with TPWD's recommendations to the extent possible, consistent with the need to complete the Garland project in a timely and cost-effective manner.
217. Garland has the resources and the procedures in place for accommodating the recommendations and comments by TPWD.
218. The routing conditions recommended by Commission Staff are typically included in the Commission's ordering paragraphs in transmission-line certification proceedings and are sufficient to address TPWD's concerns.
219. No modifications to the Garland project are required as a result of the recommendations and comments made by TPWD.
220. Garland and Rusk Interconnection will implement TPWD's recommendations that state-listed threatened species observed during construction be allowed to leave the site or be relocated by a permitted individual to a suitable nearby area.
221. Garland and Rusk Interconnection will coordinate with the U.S. Fish and Wildlife Service, TPWD, and other agencies; as needed, once a route has been selected by the Commission.

222. It is appropriate that Garland and Rusk Interconnection will use best management practices to minimize the potential impact to migratory birds and threatened species. If any rule or regulation requires Garland or Rusk Interconnection to develop a mitigation plan and provide compensatory mitigation, Garland and Rusk Interconnection will work with the respective agencies to determine the appropriate measures and mitigation ratio(s), if applicable.
223. If Garland, Rusk Interconnection, or their 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. Garland and Rusk Interconnection will take actions as directed by the Texas Historical Commission.
224. Garland and Rusk Interconnection shall follow the procedures outlined 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, Garland and Rusk Interconnection will consult *Reducing Avian Collisions with Power Lines: State of the Art in 2012*.
225. Garland and Rusk Interconnection shall exercise extreme care to avoid affecting non-targeted vegetation or animal life when using chemical herbicide to control vegetation within the ROWs 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.
226. Garland and Rusk Interconnection shall minimize the amount of flora and fauna disturbed during construction of the proposed transmission line, except to the extent necessary to establish appropriate ROW clearance for the transmission line. In addition, Garland and Rusk Interconnection shall revegetate using native species and shall consider landowner preferences in doing so. Furthermore, to the maximum extent practicable, Garland and Rusk Interconnection shall avoid adverse environmental impacts to sensitive plant and

animal species and their habitats as identified by TPWD and the U.S. Fish & Wildlife Service.

227. To avoid erosion created during construction or as the result of operation of the transmission line, Garland and Rusk Interconnection shall implement erosion control measures as appropriate. Also, Garland and Rusk Interconnection will return each affected landowner's property to its original contours unless otherwise agreed to by the landowner. Garland and Rusk Interconnection shall not be required to restore original contours and grades where different contour or grades are necessary to ensure the safety or stability of the project's structures or the safe operation and maintenance of the transmission line.

**Texas Parks & Wildlife Code Chapter 26**

228. One of the line segments proposed for the Garland project, Segment 39, crosses the Sabine River Authority's unit number 630 recreational hunting area.
229. On April 26, 2016, Garland representatives sent notice of the hearing on the merits in this case via Federal Express to the executive director of the TPWD and the executive vice-president and general manager of the Sabine River Authority.
230. Garland representatives published notice of the hearing in the *Henderson Daily News* and *Panola Watchman*, on May 8, 15, and 22, 2016; both the *Henderson Daily News* and *Panola Watchman* are qualifying newspapers.
231. Route RP9 does not cross any public land implicated by chapter 26 of the Texas Parks & Wildlife Code. As a result, route RP9 is a feasible and prudent alternative to the use or taking of public land which is designated and used as a park, recreation area, scientific area, wildlife refuge, or historic site.
232. Garland included all reasonable planning to minimize any harmful impact on the study area by the proposed transmission-line route.
233. Garland has conducted an adequate evaluation of potential environmental impacts of the proposed transmission facilities and committed to take the appropriate mitigation measures to protect the environmental integrity of the area.

### III. Conclusions of Law

1. The Commission has jurisdiction over this case under PURA § 37.051.
2. SOAH has jurisdiction to conduct a hearing on the merits and to prepare a proposal for decision under PURA § 14.053 and Texas Government Code §§ 2003.021(b)(2) and 2003.049.
3. PURA § 37.051(c-1) and (g) require filing of a CCN application for a facility that enables additional power to be imported into or exported out of the ERCOT power grid and for a municipally owned transmission facility located outside the boundaries of the municipality.
4. PURA § 37.051(c-2) and (i) direct the Commission, not later than the 185th day after the application is filed, to approve an application under subsections (c-1) or (g) for a facility that is to be constructed under an interconnection agreement appended to an offer of settlement approved in a final order of FERC issued in FERC Docket No. TX11-01-001, directing physical connection between the ERCOT and SERC regions under Sections 210, 211, and 212 of the Federal Power Act.
5. Garland applied for a facility that is to be constructed under an interconnection agreement appended to the offer of settlement approved by FERC in its final order in Docket No. TX11-01-001; therefore, Garland's application is governed by PURA § 37.051(c-2) and (i).
6. PURA § 37.051(c-2) authorizes the Commission, in approving Garland's application, to prescribe reasonable conditions to protect the public interest that are consistent with the FERC Order, and the conditions prescribed in this Order are reasonable, protective of the public interest, and consistent with the FERC Order.
7. Proper notice of Garland's application was provided in compliance with PURA § 37.054 and 16 Texas Administrative Code § 22.52(a).
8. Proper notice of the hearing on Garland's application was provided in accordance with Texas Government Code § 2001.051 and Texas Parks & Wildlife Code § 26.002.
9. Garland's application is sufficient and complete.



10. Garland presented an adequate number of reasonably differentiated routes in its application to conduct a proper evaluation.
11. 16 Texas Administrative Code § 25.101 does not require that habitable structures be avoided in deciding prudent avoidance issues, but does require the limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort.
12. The routes proposed by Garland in its application conform to the Commission's policy on prudent avoidance.
13. Garland's application does not fall within the Coastal Management Program boundary; therefore, no notice was necessary under 16 Texas Administrative Code § 25.102.
14. Garland is entitled to approval of its application for the Garland project as described in the findings of fact.
15. Garland's application complies with 16 Texas Administrative Code § 25.101, and the requested certificate of convenience and necessity should be issued, consistent with the following ordering paragraphs.

#### **IV. Ordering Paragraphs**

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

1. The City of Garland's application to amend its certificate of convenience and necessity is approved.
2. Garland shall construct the Garland project along route RP9 (comprising segments 1, 7, 9, 13, 23, 24, 28, 31, 34, 41, and 43), the route agreed to by the intervening landowners, Garland, and Southern Cross Transmission LLC in the unopposed route settlement agreement.
3. If Garland, Rusk Interconnection LLC, or any of their contractors encounter any artifacts or other cultural resources during construction of the Garland project, work shall cease immediately in the vicinity of the resource, and the discovery shall be reported to the Texas

Historical Commission. Garland, Rusk Interconnection, and their contractors will take action as directed by the Texas Historical Commission.

4. Garland, Rusk Interconnection, and their contractors shall follow the procedures outlined 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, Garland, Rusk Interconnection, and their contractors should consult *Reducing Avian Collisions with Power Lines: State of the Art in 2012*.
5. Garland, Rusk Interconnection, and their contractors 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 use shall comply with rules and guidelines established in the *Federal Insecticide Fungicide and Rodenticide Act* and with the Texas Department of Agriculture regulations.
6. Garland, Rusk Interconnection, and their contractors shall minimize the amount of flora and fauna disturbed during construction of the proposed transmission line, except to the extent necessary to establish appropriate ROW clearance for the transmission line. In addition, Garland, Rusk Interconnection, and their contractors shall revegetate using native species and shall consider landowner preferences in doing so. Furthermore, to the maximum extent practicable, Garland, Rusk Interconnection, and their contractors shall avoid adverse environmental impacts to sensitive plant and animal species and their habitats as identified by the TPWD and the United States Fish and Wildlife Service.
7. Garland, Rusk Interconnection, and their contractors shall implement erosion control measures as appropriate. Also, Garland, Rusk Interconnection, and their contractors shall return each affected landowner's property to its original contours and grades unless otherwise agreed to by the landowner. Garland, Rusk Interconnection, and their contractors shall not be required to restore original contours and grades where different 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.

8. Garland, Rusk Interconnection, and their contractors shall cooperate with the directly-affected landowners to implement minor deviations in the approved route to minimize the impact of the transmission line. Any minor deviations to the approved route shall only directly affect landowners that received notice of the transmission line in accordance with 16 Texas Administrative Code § 22.52(a)(3) and that have agreed to the minor deviations.
9. Garland, Rusk Interconnection, and their contractors 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, Garland, Rusk Interconnection, or their contractors 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 Garland project. Unless these two conditions are met, this paragraph does not authorize Garland, Rusk Interconnection, or their contractors to deviate from the approved route except as allowed by the other ordering paragraphs in this Order.
10. Garland, Rusk Interconnection, and their contractors 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 alternating-current interference affecting pipelines being paralleled.
11. Garland, Rusk Interconnection, and their contractors shall use best management practices to minimize the potential impact to migratory birds and threatened or endangered species.
12. Garland shall comply with the reporting requirements of 16 Texas Administrative Code § 25.83.
13. Garland and Southern Cross Transmission shall give effect to and honor their representations made in FERC Docket No. TX11-01-001, and, specifically, Southern Cross Transmission cannot seek to recover from ERCOT ratepayers, and Garland cannot seek to recover from wholesale or retail customers in Texas, the costs incurred in the construction of the interconnection facilities identified in the interconnection agreement between Garland and Southern Cross Transmission.

14. Garland shall not energize the Garland project until Southern Cross Transmission executes ERCOT's standard-form market-participant agreement.
15. Garland shall not energize the Garland project until ERCOT certifies to the Commission in Project No. 46304, *Oversight Proceeding Regarding ERCOT Matters Arising out of Docket No. 45624*, that it has determined the appropriate market participation category for Southern Cross Transmission (creating a new one if necessary), implemented the modifications to the standard form market participant agreement and its protocols, bylaws, operating guides, and systems required for Southern Cross Transmission's participation, and determined the appropriate market segment for Southern Cross Transmission.
16. Garland shall not energize the Garland project until ERCOT executes a coordination agreement or agreements with any necessary independent system operator, regional transmission organization, or reliability coordinator, as appropriate, on the eastern end of the Southern Cross line, consulting Southern Cross Transmission as needed during negotiations of such agreement(s) for technical input and guidance.
17. Garland shall not energize the Garland project until ERCOT certifies to the Commission in Project No. 46304, *Oversight Proceeding Regarding ERCOT Matters Arising out of Docket No. 45624*, that it has determined what ramp rate restrictions will be necessary to accommodate the interconnection of the Southern Cross DC tie and has implemented those restrictions.
18. Garland shall not energize the Garland project until ERCOT certifies to the Commission in Project No. 46304, *Oversight Proceeding Regarding ERCOT Matters Arising out of Docket No. 45624*, that it has developed and implemented a methodology to coordinate outages reliably and cost-effectively following the interconnection of the Southern Cross DC tie.
19. Southern Cross Transmission must provide the Commission with evidence that it has secured the funding to construct the Garland project, the Southern Cross DC tie, and all related interconnection facilities before Garland, Southern Cross Transmission, and Rusk Interconnection, and their affiliates, are permitted to seek condemnation of any

landowner's land in Panola County for the Garland project, so long as the landowner provides access to the land for surveying and design purposes.

20. Southern Cross Transmission must provide evidence that it has obtained all necessary regulatory approvals in Louisiana for the Southern Cross DC Tie and all related interconnection facilities before Garland, Southern Cross Transmission, Rusk Interconnection, and their affiliates are permitted to seek condemnation of any landowner's land in Panola County for the Garland project, so long as the landowner provides access to the land for surveying and design purposes.
21. Garland and Southern Cross Transmission must immediately disconnect the Garland project from the Southern Cross DC tie if necessary to prevent ERCOT or any ERCOT utility from becoming subject to FERC's plenary jurisdiction.
22. The only connections allowed to the Garland project are the ERCOT system and the Southern Cross DC tie, unless such other connection is authorized by the Commission.
23. Should any connection other than those allowed under ordering paragraph 22 be made to the Garland project, that connection will be immediately isolated or disconnected from the Garland project.
24. Garland and Southern Cross Transmission must disconnect the Garland project from the Southern Cross DC tie if the Commission so orders in order to protect the public interest or the ERCOT system.
25. If the Commission orders disconnection, the disconnection must occur upon issuance of a final Commission order and not after rights to appeal have been exhausted.
26. If ERCOT requires exports to be backed down or terminated temporarily to avoid or mitigate a potential reliability issue, Southern Cross Transmission and Garland shall comply.
27. Southern Cross Transmission and Garland must obtain approval from the Commission under PURA § 37.054 before any transfer of the CCN for the Garland project to Rusk Interconnection LLC.

28. Rusk Interconnection is prohibited from requesting Garland to upgrade the Garland project under the transmission line agreement between Garland and Rusk Interconnection.
29. Garland may not upgrade the Garland project without prior Commission approval.
30. Garland must account for and report any costs associated with the Garland project or the Southern Cross DC tie in any of its wholesale transmission rate requests and shall bear the burden of establishing that none of the costs it seeks to recover for transmission are related to the Garland project or the Southern Cross DC tie.
31. Garland shall not recover costs paid by Rusk Interconnection, Southern Cross Transmission's subsidiary, in its transmission cost of service.
32. No utility may recover any costs related to the Rusk or Panola substations or the Rusk-to-Panola line in its transmission cost of service.
33. Southern Cross Transmission must pay all costs incurred by ERCOT for the ERCOT studies, protocol revisions, and any other ERCOT activities required by the Garland project or the Southern Cross DC tie.
34. Any additional costs associated with the Garland project or the Southern Cross DC tie that would otherwise be borne by ERCOT ratepayers shall instead be borne by Southern Cross Transmission, unless otherwise required by Commission rules. Such costs include, but are not limited to, transmission upgrade costs, ancillary services costs, and the costs of negotiating and executing any coordination agreements with any necessary independent system operator, regional transmission organization, or reliability coordinator.
35. Any incremental transmission and ancillary services costs required in order to support imports or exports over the Southern Cross DC tie shall be directly assigned to those imports or exports.
36. No utility shall recover any costs associated with the Garland project or the Southern Cross DC tie in the utility's cost of service.
37. Garland shall not energize the Garland project until ERCOT certifies to the Commission in Project No. 46304, *Oversight Proceeding Regarding ERCOT Matters Arising out of Docket No. 45624*, that it has studied and determined how best to model the Southern Cross

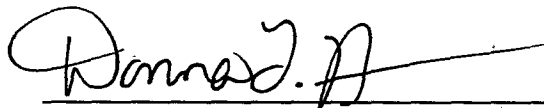
DC tie in its transmission planning cases and made any necessary revisions to its operating guides and protocols as appropriate.

38. Garland shall not energize the Garland project until ERCOT certifies to the Commission in Project No. 46304, *Oversight Proceeding Regarding ERCOT Matters Arising out of Docket No. 45624*, that it has studied and determined what transmission upgrades, if any, are necessary to manage cost-effectively congestion resulting from electrical flows over the Southern Cross DC tie.
39. Garland shall not energize the Garland project until ERCOT certifies to the Commission in Project No. 46304, *Oversight Proceeding Regarding ERCOT Matters Arising out of Docket No. 45624*, that it has (a) studied and determined whether some or all DC ties should be dispatched economically or whether implementation of a congestion management plan or special protection scheme would more reliably and cost-effectively manage congestion caused by DC tie flows; and (b) implemented any necessary revisions to its protocols and operating guides as appropriate.
40. Garland shall not energize the Garland project until ERCOT certifies to the Commission in Project No. 46304, *Oversight Proceeding Regarding ERCOT Matters Arising out of Docket No. 45624*, that it has studied and determined whether Southern Cross Transmission or any other entity scheduling flows across the Southern Cross DC tie should be required to provide or procure voltage-support service or primary frequency response, or their technical equivalents; and has implemented any necessary revisions to its standards, guides, systems, and protocols, as ERCOT or the Commission deems appropriate.
41. Garland shall not energize the Garland project until ERCOT certifies to the Commission in Project No. 46304, *Oversight Proceeding Regarding ERCOT Matters Arising out of Docket No. 45624*, that it has (a) evaluated what additional ancillary services, if any, are necessary for the reliable interconnection of the Southern Cross DC tie and (b) implemented any needed modifications to ancillary services procurement.
42. All flows across Garland's transmission line that pass through the Southern Cross DC tie, whether exports or imports, shall be accounted for in ERCOT's transmission-cost

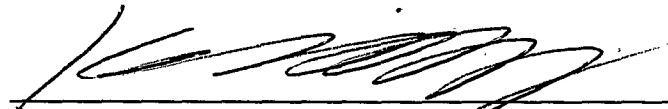
- assignment in order to ensure that Southern Cross Transmission pays for its use of the ERCOT grid.
43. Neither Garland nor Southern Cross Transmission shall operate the Garland project or the Southern Cross DC tie in a manner that would impair ERCOT's reliability.
  44. Neither Garland nor Southern Cross Transmission shall operate the Garland project or the Southern Cross DC tie in a manner that imperils the thermal capacity of the ERCOT system.
  45. Any conditions that apply to Garland, Southern Cross Transmission, or Rusk Interconnection shall be transferred and assigned to any successor-in-interest.
  46. Southern Cross Transmission and Garland shall abide by all Commission rules and ERCOT protocols, including those promulgated after the issuance of this Order.
  47. All other motions, requests for entry of specific findings of fact or conclusions of law, and any other requests for general or specific relief, if not expressly granted herein, are denied.

Signed at Austin, Texas the 8<sup>th</sup> day of September 2016.

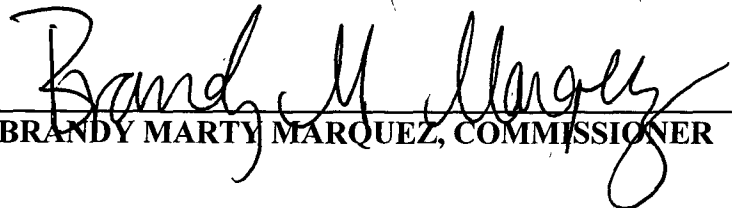
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