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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
FILING CLERK
OF TEXAS

ORDER ON REHEARING

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 Rusk-to-Panola transmission line (the Garland line) will interconnect the Rusk substation, owned by Oncor Electric Delivery Company LLC, (the Oncor substation) with the Panola substation, to be owned by Garland, (the Garland substation), which will then interconnect with the Southern Cross DC tie in Louisiana. Certain parties entered into a non-unanimous but unopposed agreement concerning the Garland line's route. The focus of this proceeding then was the reasonable conditions that should be imposed under Public Utility Regulatory Act § 37.051(c-2) and (i) (PURA). After an evidentiary hearing, 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 and addresses issues raised after issuance of the proposal for decision.

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Garland's application is novel in that the Commission must approve the application, but may prescribe reasonable conditions to protect the public interest.¹ These conditions must be consistent with the final order of the Federal Energy Regulatory Commission (FERC) in its Docket No. TX11-1-001.² 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

A. Procedural History

The City of Garland filed its application to amend its certificate of convenience and necessity (CCN) for the Garland line on February 25, 2016. The Commission referred the docket to the State Office of Administrative Hearings (SOAH) for a hearing, which was held on May 31-June 3, 2016. SOAH issued a proposal for decision on July 27, 2016.

The Commission issued its original order on September 8, 2016. On October 3, 2016, Texas Industrial Energy Consumers (TIEC) and Southern Cross Transmission each filed a motion for rehearing. On October 28, 2016, the Commission extended time to act on the motions for rehearing to the maximum extent allowed by law,³ and on November 10, 2016, the Commission granted rehearing to reconsider its decision,⁴ issuing an order to memorialize that decision on December 1, 2016.⁵ The Commission requested additional briefing from the parties on various topics, and on January 26, 2017, the Commission decided on rehearing to expound on the explanation and reasoning for its decisions. Additional findings to reflect this procedural history are added as findings of fact 32A-32F.

¹ Public Utility Regulatory Act, Tex. Util. Code § 37.051(c-2), (i) (West 2016) (PURA).

² Southern Cross Transmission LLC, Pattern Power Marketing LLC, Final Order Directing Interconnection and Transmission Service, 147 FERC ¶ 61,113, FERC Docket No. TX 11-1-001 (May 15, 2014).

³ Tex. Gov't Code § 2001.146(f) (An agency cannot extend the time to act on a motion for rehearing beyond the one-hundredth day after the order subject to the motion is signed.).

⁴ Open Meeting Tr. at 11-15 (Nov. 10, 2016).

⁵ Order Granting Rehearing (Dec. 1, 2016).

B. General Background on Jurisdiction

PURA grants jurisdiction and certain powers to the Public Utility Commission of Texas.⁶ Among those powers are a mandate to approve Garland's CCN application in this case but also the authority to "prescribe reasonable conditions to protect the public interest that are consistent with the [FERC's order]."⁷ Thus, the Texas Legislature has granted jurisdiction over this docket specifically to the Commission, and in this Order, the Commission is exercising the specific powers granted to it by approving Garland's application and by prescribing reasonable conditions to protect the public interest that are consistent with the FERC's order.

Federal law is also relevant to this docket. Article 1, section 8, clause 3 of the U.S. Constitution, commonly referred to as the commerce clause, gives Congress the power "[t]o regulate commerce . . . among the several states"⁸ The U.S. Congress exercised this power to regulate interstate commerce by enacting the Federal Power Act (FPA),⁹ which, among other things, specifically applies to "the transmission of electric energy in interstate commerce."¹⁰ FERC exercises the authority granted to it as a federal administrative agency under the FPA.¹¹ Under 16 U.S.C. § 824j, FERC may require a transmitting utility to provide transmission services, and under section 824k(k)(1), if such an order is issued to provide transmission services in ERCOT, the transmission ratemaking methodology of the Public Utility Commission of Texas controls to the extent that such is practicable and is consistent with section 824k(a). Thus, while FERC has final authority under section 824k(a), the Commission also has jurisdiction and specific authority over this docket under state and federal law. More regarding the statutory authority under state and federal law that is applicable to this docket is included below in the Commission's discussion of the challenges raised by Southern Cross on rehearing.

⁶ PURA § 12.001.

⁷ PURA § 37.051(c-2).

⁸ U.S. Const. art. 1, § 8, cl. 3.

⁹ 16 U.S.C. chapter 12, §§ 791-828c.

¹⁰ 16 U.S.C. § 824(a).

¹¹ 16 U.S.C. § 7172(a).

C. The Nature of the Additional Reasonable Conditions to Protect the Public Interest

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 to the proposed conditions, are required 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 or related to the construction, operation, management, and regulatory treatment of the Garland line and the Garland and Oncor substations and on or related to participation in the ERCOT market. Thus, while the approval of the application is unconditional, this Order does prescribe conditions that will affect construction, operations, management, 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,¹² the manner in which such service is provided is not controlled exclusively by the application or certificate. The manner in which a utility provides transmission service also is, and continues to be, conditioned on current and future requirements in PURA, the Commission's rules, and ERCOT's protocols, operating guides, and other applicable standards. This docket has demonstrated that existing regulatory requirements, protocols, operating guides, standards, and possibly systems, are inadequate to deal with the import and export of power at the

¹² PURA § 37.051(a) ("An electric utility or other person may not directly or indirectly provide service to the public under a franchise or permit unless the utility or other person first obtains from the commission a certificate that states that the public convenience and necessity requires or will require the installation, operation, or extension of the service.").

levels proposed by Southern Cross Transmission. Accordingly, the public interest requires that ERCOT, 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 and users of the ERCOT system. That is the focus of the conditions prescribed by this Order.

D. General Background Regarding the Commission's Modifications to the PFD

PURA § 37.051(c-2) and (i) dictate that the Commission shall approve Garland's application for a CCN but "may prescribe reasonable conditions to protect the public interest that are consistent with the final order of the [FERC]." These statutory provisions apply to only this specific CCN application and grant the Commission broad authority to prescribe reasonable conditions to protect the public interest. Contrary to Southern Cross Transmission's arguments, this specific grant to prescribe reasonable conditions is not limited by other express sections of PURA, either expressly or by implication.

The unique characteristics of this docket justify the conditions imposed by the Commission in this Order. The size of the DC tie to which the Garland line in this docket will be connected is unprecedented. If the Southern Cross DC tie becomes operational, it will become the newest, most-severe single contingency in ERCOT. This is one of the reasons this facility is unique. The fact that the DC tie may appear to be a load when exporting electricity does not preclude that characterization. The loss of this "load" could cause a critical imbalance on the ERCOT system. And, when the DC tie may appear as a resource, at least one study shows that, at certain levels of importing power over this DC tie, "there would be thermal overloads on the ERCOT system."¹³ Thus, the Southern Cross DC tie poses serious reliability questions, and it is uncertain the degree to which the Commission's current rules and ERCOT's protocols, bylaws, operating guides, standards, and systems may need to be revised to address these concerns—although there is little doubt some revision is required. Some of the conditions imposed by this Order are required to address this reliability issue.

¹³ PFD at 44, *citing* Rebuttal Testimony of Stan Gray, Southern Cross Exhibit 10, at Ex. 4.1-1; Tr. at 276:10-14 (Lasher Cross) (June 1, 2016).

These serious reliability concerns lead to questions of cost: How much will it cost, and who should be responsible for the costs, to minimize the effects of, or to be prepared to deal with, this new contingency? The current market structure in ERCOT assigns cost responsibility to the customers in ERCOT, who are the ultimate users of the system. This structure most likely will need to be adjusted to ensure that all users of the ERCOT system will pay their fair share of system costs. This is especially true because no party met the burden of proof in proving what benefits, if any, ERCOT ratepayers will gain from the Southern Cross DC tie. Some of the conditions imposed by this Order are required to address this cost-responsibility issue.

Despite the uncertainty caused by this project, it is certain that Congress has passed the Federal Power Act to address these DC tie situations. The Act states, in relevant part, as follows:

“Any order under section 824j of this title requiring provision of transmission services in whole or in part within ERCOT shall provide that any ERCOT utility which is not a public utility and the transmission facilities of which are actually used for such transmission service is entitled to receive compensation based, insofar as practicable and consistent with subsection (a), on the transmission ratemaking methodology used by the Public Utility Commission of Texas.”¹⁴

“Rates, charges, terms, and conditions for transmission services provided pursuant to an order under section 824j of this title shall ensure that, to the extent practicable, costs incurred in providing the wholesale transmission services, and properly allocable to the provision of such services, are recovered from the applicant for such order and not from a transmitting utility’s existing wholesale, retail, and transmission customers.”¹⁵

It is clear that cost causation is the basis for cost allocation in the Federal Power Act. The Commission issues this order in accordance with the Federal Power Act and imposes reasonable conditions under PURA § 37.051(c-2) and (i) that are consistent with FERC’s final order issued on May 15, 2014 in its Docket No. TX11-1-001. Further, there is nothing in either the Federal Power Act or the FERC’s order that states that these rate methodologies cannot—or even should not—be modified to address new and unique situations as they arise.

The Commission has ordered ERCOT to study the effects of the Southern Cross DC tie on the ERCOT market and system and to implement any necessary modifications to its protocols,

¹⁴ Federal Power Act, 16 U.S.C. § 824k(k).

¹⁵ 16 U.S.C. § 824k(a).

bylaws, operating guides, and systems.¹⁶ Specifically, the Commission has ordered ERCOT to study and take action with regard to the following: 1) an appropriate market-participant category and market segment for Southern Cross Transmission LLC; 2) a coordination agreement with any necessary entity on the eastern end of the Southern Cross line; 3) ramp-rate restrictions; 4) outage coordination; 5) DC-tie modeling; 6) transmission upgrades; 7) a congestion-management plan or special protection scheme; 8) voltage-support service or primary frequency response, or their technical equivalents; 9) ancillary services; and 10) price-formation issues.¹⁷ If necessary, the Commission will also adopt new rules or modify existing rules on these issues.

The cost responsibilities imposed in this Order arise, at least in part, because this docket could not adequately address all of the operational, reliability, and market issues. The Commission expects that the studies ERCOT must undertake will lead to revisions of ERCOT's protocols and operational standards and the Commission's rules to address the issues identified in this docket. Thus, the conditions established by this Order will likely be superseded by subsequent rulemakings and protocol revisions.

The Commission modifies finding of fact 112 and adds findings of fact 113A-113H to reflect these facts.

E. Reasonable Conditions Regarding Cost Allocation

The current market design in ERCOT primarily places the responsibility for system costs on ERCOT customers. This docket has revealed that the Southern Cross DC tie will result in additional costs to ERCOT, which include extraordinary costs that arise specifically from the Southern Cross DC tie, the Garland line, and the Garland or Oncor substations. Because the customers of exported power are not ERCOT customers, under the current market design and rules, they will not bear any responsibility for the extraordinary costs specific to the Southern Cross DC tie, Garland line, and Garland or Oncor substations that they impose on the ERCOT system. Southern Cross believes that those customers—and therefore Southern Cross—should get a free ride as to these extraordinary costs. The Commission disagrees and determines that the public

¹⁶ *Oversight Proceeding Regarding ERCOT Matters Arising Out of Docket No. 45624*, Project No. 46304, Order Creating and Scoping Project (Sept. 8, 2016).

¹⁷ *Id.*

interest demands that ERCOT ratepayers should not bear any of the costs associated with the Garland line, the Oncor substation, the Garland substation, or the Southern Cross DC tie that are properly borne by others.

The costs that a user of the ERCOT system causes cannot be determined simply by focusing on the costs of the facilities on the last forty miles of a multi-thousand-mile network. There is little doubt that additional facilities will be required in ERCOT because of the electricity flowing over the Southern Cross DC tie. Southern Cross believes that the costs of those facilities should be borne by customers in ERCOT, not the out-of-ERCOT customers that cause those costs.¹⁸ And Southern Cross opposed even an investigation into whether revisions to the current ERCOT cost-allocation method were needed.¹⁹ Southern Cross attempts to justify this free-ride position based on theoretical benefits that this project will provide to ERCOT.²⁰

The Commission agrees, however, that no party met the burden of proof to prove what benefits, if any, Texas ratepayers will enjoy as a result of the Garland line and the Southern Cross DC tie and concurs with the ALJs that any benefits are questionable.²¹ This is one of the issues that will be evaluated by ERCOT and if subsequent investigations show any benefits, then any such benefits could be reflected in the new market-design rules. The record in this case does not justify a free ride for these questionable benefits.²² Texans are in the process of paying billions of dollars for the newly constructed CREZ transmission lines, and for substantial other facilities, that are integral to transmitting electricity to the Garland line and the Southern Cross DC tie. As proposed by Southern Cross Transmission, the Garland line would simply interconnect with these CREZ lines and reap benefits without paying its fair share of costs.

Further, Southern Cross argues that the DC tie will not cause a substantial increase in ancillary services needed in ERCOT, and that no change in the current manner that ancillary costs

¹⁸ PFD at 40-41 (“it is appropriate for ERCOT ratepayers to be financially responsible”); Supplemental Direct Testimony of Mark Bruce, Southern Cross Ex. 4, at 12-13.

¹⁹ PFD at 41, *citing* Rebuttal Testimony of Paul Hudson, Southern Cross Ex. 11, at 4, 8.

²⁰ *See* PFD at 40-42.

²¹ PFD at 42-43, *citing* Direct Testimony of Charles Griffey, TIEC Ex. 1, at 10, 13; PFD at 45.

²² PFD at 45.

are assigned is necessary.²³ Southern Cross argues that the DC tie should get a free ride on these extraordinary costs also. The Commission agrees that this is a highly technical question and has requested ERCOT to evaluate this matter. The Commission also agrees, however, with ERCOT and other parties that additional ancillary services will likely be required to support the operation of the DC tie, and at certain levels, that requirement may be significant.²⁴ And, as with the other extraordinary costs discussed in this Order, it is appropriate that the cost causer be responsible for the costs, not for ERCOT customers to bear the costs of others. The Commission does note that Southern Cross softened its position some by agreeing that it could and would provide reactive-power service through the DC tie.

One benefit offered by Southern Cross is the lowering of the price of electricity in ERCOT during high-load periods.²⁵ However, Southern Cross Transmission's analysis does not appropriately account for the effect on the ERCOT energy market, which sends market signals through scarcity pricing when electricity resources are becoming scarce. Distortions to ERCOT's market signals could prevent the energy-only market from appropriately responding to shortages, leading to inadequate resources in this market. This risk to ERCOT's market structure and the grid's reliability must be assessed and addressed through recommended changes.

The actual effects on and risks to the ERCOT system and market structure cannot be understood adequately on the basis of the record in this docket. The studies that ERCOT has been ordered to undertake will allow this Commission to gain a better understanding of the effect of this tie and allow the Commission to identify the necessary changes to the ERCOT market and operations of the network to minimize risks and appropriately identify and assign costs, including any extraordinary costs that are specific to the Garland line, Southern Cross DC tie, and Garland or Oncor substations. Such risks justify the Commission taking various preliminary precautions, including adjusting cost allocation in this docket. The cost allocation in this Order is subject to change after completion of the ERCOT studies and adoption of new ERCOT protocols and

²³ *Id.* at 64.

²⁴ *Id.* at 60-61, *citing* Direct Testimony of Dan Woodfin, ERCOT Ex. 2, at 17 ("ERCOT will have to plan to procure additional reserves to prepare for the contingency that the [Southern Cross] DC tie could be taken out of service through lightning strikes or other catastrophic disasters."); 61, *citing* ERCOT Ex. 2 at 17-18 ("ERCOT currently does not have any ancillary service designed to address the magnitude of this problem").

²⁵ Direct Testimony of Ellen Wolfe, Southern Cross Ex. 7, Ex. EW-2 at 3.

standards and Commission rules. Thus, these cost allocations will remain in place until any new rules, protocols, or standards are effective. Additional findings of fact 113A-113H reflect these factual justifications for the Commission's decision.

Based on the record, the costs that ERCOT ratepayers should not bear 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 line, the Oncor or Garland substations, or the Southern Cross DC tie; and (c) any additional costs associated with the Garland line, the Garland or Oncor substations, or the Southern Cross DC tie that are specific to the import or export of power over the Southern Cross DC tie and therefore should not be uplifted to the ERCOT market or that cannot be recovered from end-use customers under the current billing system. Such additional costs include 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 to ensure that costs associated with the Garland line, the Oncor or Garland substations, and the Southern Cross DC tie are not recovered in Garland's transmission rates.

The Commission also decides that this case should comport with the general principle that cost causers should pay for their use of the ERCOT grid. In ERCOT's current regulatory scheme, end users generally pay for system costs. When power is imported over the Southern Cross DC tie, the current regulatory scheme still captures most of the ordinary and usual ERCOT system costs and passes them on to end users. However, because of the unique circumstances (including the large size) of the Southern Cross DC tie, there may be some additional import-related costs that are not captured by the current regulatory scheme (e.g., the transmission upgrades discussed above); these costs, if any, are allocated to Southern Cross in this Order. Further, when power is exported over the Southern Cross DC tie, the current regulatory scheme does not allocate costs properly to end users because there is no market participant to which these costs can be directed,

and these costs are therefore allocated to Southern Cross in this Order. Furthermore, additional costs that may be incurred because of the unique circumstances (including the large size) of the Southern Cross DC tie may not be properly accounted for and, therefore, are allocated to Southern Cross in this Order. The Commission adds findings of fact 113E and 113F to capture these concepts. As always, the Commission can reassign those costs in a future rulemaking or other proceeding if it is demonstrated that such is appropriate. In ERCOT's separate project, ERCOT will need to identify the additional extraordinary costs that may be incurred because of the unusual circumstances (including the large size) of the Southern Cross DC tie. In addition, ERCOT will need to identify an appropriate market participant to stand in the stead of the non-ERCOT end-use customer when power is exported over the Southern Cross DC tie. As discussed in section I.D. of this Order, any cost responsibility assigned in this Order will likely be superseded by subsequent rulemakings and protocol revisions.

The Commission also finds it reasonable, protective of the public interest, and consistent with the FERC's order to require Southern Cross Transmission and Garland to back down or temporarily terminate exports if ERCOT determines that such is necessary to avoid or mitigate a potential reliability issue. Accordingly, the Commission adds new finding of fact 70A.

F. Challenges Raised by Southern Cross on Rehearing

1. Dormant Commerce Clause

In its motion for rehearing, Southern Cross raised the allegation that provisions of the Commission's order violate the dormant commerce clause of the U.S. Constitution.

The commerce clause gives Congress the power "[t]o regulate commerce . . . among the several states" ²⁶ The U.S. Supreme Court has interpreted this grant of authority to be exclusive and has struck down state and local laws that unduly burden interstate commerce even if Congress has not passed legislation on the particular issue. This is commonly referred to as the dormant commerce clause. ²⁷ However, the Supreme Court has also recognized that if Congress

²⁶ U.S. Const. art. 1, § 8, cl. 3.

²⁷ *Comptroller of Treasury of Maryland v. Wynne*, 135 S.Ct. 1787, 1794, 191 L.Ed.2d 813 (2015).

does not legislate in an area, the state retains some power to legislate in a way that may affect, or even regulate, interstate commerce.²⁸

Nevertheless, the dormant commerce clause applies only when Congress has not acted with regard to a particular matter.²⁹ Once Congress acts, that legislation is the controlling law, not the courts' judgment under the dormant commerce clause.³⁰ Further, the U.S. Supreme Court has ruled that "[i]f Congress ordains that the States may freely regulate an aspect of interstate commerce, any action taken by a State within the scope of the congressional authorization is rendered invulnerable to Commerce Clause challenge."³¹

In this case, Congress has acted through the Federal Power Act, which allows the FERC to order transmission interconnection and transmission. The FERC ordered the interconnection at issue in this docket in its order TX 11-1-001. The Federal Power Act specifically recognizes the Commission's authority to make ratemaking decisions for transmission services in ERCOT.³² Congress even explicitly addressed the issue of cost allocation. The Federal Power Act specifies that costs incurred in providing wholesale transmission service under these circumstances must be borne by the entity applying for interconnection and should not be borne by a transmitting ERCOT utility's existing wholesale, retail, and transmission customers.³³ Specifically, the Federal Power Act states that "rates, charges, terms, and conditions for transmission services provided pursuant to an order under section 824j of this title shall ensure that, to the extent practicable, costs incurred in providing the wholesale transmission services, and properly allocable to the provision of such services, are recovered from the applicant for such order and not from a transmitting utility's existing wholesale, retail, and transmission customers".³⁴ In light of Congress's clear legislative action, there is no dormant commerce clause issue here. Further, the Commission's cost-allocation determinations follow the Federal Power Act's framework.

²⁸ *Pacific Co. v. Arizona*, 325 U.S. 761, 766-67 (1945).

²⁹ *See, e.g., id.* at 769; *Merrion v. Jicarilla Apache Tribe*, 455 U.S. 130, 154-55 (1982).

³⁰ *Merrion*, 455 U.S. at 154-155.

³¹ *W. & S. Life Ins. Co.*, 451 U.S. 648, 652-53 (1981).

³² 16 U.S.C. § 824k(k).

³³ *Id.* at § 824k(a).

³⁴ *Id.*

Moreover, even if the dormant commerce clause were implicated, there is no discrimination against interstate commerce in this case. The Commission's reasoning and holdings would apply equally to Texas or non-Texas entities and is aimed solely at appropriate cost allocation based on cost causation. Further, any different treatment of the Southern Cross DC tie specifically is due to its unprecedented size and the fact that it is not similarly situated to any other facility or entity currently in the ERCOT market. This project does not merely involve another entity seeking access to the market but an attempt potentially to alter the regulated market's structure.

Consequently, even if one were to assume, though it is not the case, that this Order does discriminate against interstate commerce, the Commission is only taking the measures necessary—as it is charged with doing—to ensure that ERCOT's reliability is preserved and that the ERCOT electricity market remains intact. This Order does not violate the dormant commerce clause.

2. The Commission's Statutory Authority under PURA § 37.051(c-2), (i)

PURA § 37.051(c-2) and (i) require the Commission to approve Garland's application for the Garland line but grant the Commission authority to "prescribe reasonable conditions to protect the public interest that are consistent with the [FERC's order]." In its motion for rehearing, Southern Cross argued that these statutory provisions do not grant additional regulatory authority to the Commission beyond what is granted in other provisions of PURA. According to Southern Cross, the other provisions of PURA limit the authority granted in sections 37.051(c-2) and (i). The Commission disagrees.

PURA § 37.051(c-2) and (i) apply specifically—and only—to this docket. While the public interest standard is broad, its application is the most specific possible: It applies only to this docket. Clearly, the Texas Legislature recognized that this is a unique situation requiring conditions tailored to this specific set of facts. The only constraints on the broad powers granted to the Commission to protect the public interest are reasonableness and compliance with the FERC's order. There is no requirement that PURA § 37.051(c-2) or (i) must conform to other provisions of PURA or the Commission's rules that apply to other situations. Any other reading

of PURA § 37.051(c-2) and (i) would render those provisions superfluous and meaningless. The Commission cannot read the statute in such a manner.³⁵

The Commission is well within its statutory authority to prescribe the conditions in this Order for this specific case that involves a DC tie of unprecedented size and that presents great uncertainty for ERCOT. The Commission is only imposing conditions that are necessary to protect ERCOT's reliability and market structure. Further, as discussed elsewhere, the cost-allocation provisions comport with the Federal Power Act and the FERC's order. The Commission adds conclusions of law 4A and 4B to state its authority under PURA § 37.051(c-2) and (i).

3. The FERC's Order

In its motion for rehearing, Southern Cross Transmission also claims that the Commission's order violates the FERC's order.

PURA § 37.051(c-2) and (i) require that any conditions prescribed by the Commission to protect the public interest are consistent with the FERC's order. Paragraphs 9, 19, and 20 of the FERC's final order specify that Southern Cross, not ERCOT ratepayers, will bear the costs of constructing the Garland line and the Garland substation.³⁶ However, the FERC's order does not address the other specific cost-allocation issues addressed in this Order (e.g., ancillary services, ERCOT's costs, transmission upgrades, etc.).

The Federal Power Act, under which FERC issued its final order, clearly states that “[the r]ates, charges, terms, and conditions for transmission services provided pursuant to an order under section 824j of this title shall ensure that, to the extent practicable, costs incurred in providing the wholesale transmission services, and properly allocable to the provision of such services, are recovered from the applicant for such order and not from a transmitting utility's existing wholesale, retail, and transmission customers.”³⁷ In this case, the applicant is Southern Cross. Further, the Federal Power Act specifically grants to the Commission the authority to make ratemaking decisions for transmission services in ERCOT.³⁸ While the FERC's order does not specifically

³⁵ *Columbia Med. Ctr. of Las Colinas, Inc. v. Hogue*, 271 S.W.3d 238, 256 (Tex. 2008).

³⁶ 147 FERC ¶ 61,113, PP 9, 19, 20 (2014).

³⁷ 16 U.S.C. § 824k(a).

³⁸ *Id.* at § 824k(k).

address the non-construction cost-allocation issues that are addressed in this Order, the FERC's order must be read in light of the plain language of the Federal Power Act. Therefore, the Commission finds the conditions prescribed in this Order to be consistent with the FERC's order. Contrary to Southern Cross's assertions, the FERC's order cannot be read to mean that the Commission and ERCOT cannot amend its respective rules and protocols, as necessary to protect reliability and the market structure.

The Commission adds conclusions of law 4C-4F to reflect the above discussion regarding the Federal Power Act.

G. Other Reasonable Conditions and Other Modifications

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 it deletes findings of fact 117 and 118. The Commission also modifies findings of fact 39, 41, 42, 54, 68, 80, and 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, 41, and 42 in order to clarify that ERCOT likely will need to create a new market-participant category for Southern Cross Transmission and for any other entity associated with the Southern Cross DC tie for which a new market-participant category may be appropriate. 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 and modifies ordering paragraph 20 because it finds it reasonable to prevent condemnation of landowner property in Panola County until Southern Cross Transmission has secured all regulatory approvals, if any, required by the Louisiana Public Service Commission that are 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 and ordering paragraph 19 to clarify that before any landowner property in Panola County is condemned, 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 deletes finding of fact 121 as unnecessary. Further, the Commission adds new finding of fact 140A because it finds it reasonable, protective of the public interest, and consistent with the FERC's order to prohibit Garland from upgrading the Garland line or the Garland substation 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 line or the Oncor or Garland substations 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 line and the Oncor and Garland substations. 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 line, the Garland substation, or the Oncor substation 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.

In its motion for rehearing, TIEC requests that finding of fact 112 be modified to reflect that the Southern Cross DC tie will become the new most-severe single contingency in ERCOT only when it is importing, not when it is exporting. The Commission agrees that this correction more accurately reflects the facts in the record and therefore modifies finding of fact 112.

The PFD used the defined term *Garland project*. The Commission finds the term potentially confusing and, at times, inaccurate. It is more precise to specify the facilities being referenced in each part of the Order. Therefore, throughout the PFD, the Commission has replaced the term with references to specific facilities, depending on the context. As a result, the Commission modifies conclusion of law 14 and findings of fact 2, 4, 6, 24, 25, 26, 28, 37, 42, 44, 54, 59, 60, 68, 83, 91, 116, 120, 122, 124, 125, 126, 127, 131, 132, 133, 136, 137, 138, 139, 140, 141, 145, 147, 149, 150, 151, 153, 156, 157, 158, 169, 170, 175, 177, 179, 182, 186, 188, 195, 197, 199, 205, 208, 211, 216, 219, and 228.

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 Oncor 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 Garland substation), located on the eastern edge of Panola County adjacent to the Louisiana border, approximately nine miles north of Joaquin. The proposed Garland line would be approximately 37 to 40 miles in length.
3. The Garland 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 Garland 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 interconnecting their transmission facilities. Garland will be the sole owner of the Garland line and the Garland substation when they are placed in service. Rusk Interconnection will fund the Garland line and the Garland substation during construction but will convey them to Garland before they are 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).³⁹
6. The Garland line, the Garland substation, and the Oncor substation 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. TX11-1-001. The final order in FERC Docket No. TX11-1-001 (the FERC's 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

³⁹ Public Utility Regulatory Act, Tex. Util. Code Ann. § 37.051(c-1), (c-2), (g), and (i) (West 2016).

during the hearing on the merits; approved and adopted a protective order; and granted the 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 line, the Garland substation, and the Oncor substation.
25. Garland sent notices of its application to utilities providing similar service within five miles of the Garland line, the Garland substation, and the Oncor substation 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 line, the Garland substation, and the Oncor substation 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 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.
- 32A. The Commission issued its initial order in this docket on September 8, 2016.
- 32B. On October 3, 2016, Texas Industrial Energy Consumers (TIEC) and Southern Cross Transmission each filed a motion for rehearing.
- 32C. On October 28, 2016, the Commission extended time to act on the motions for rehearing to the maximum extent allowed by law.
- 32D. On November 10, 2016, the Commission granted rehearing to reconsider its decision.
- 32E. The Commission issued an order granting rehearing on December 1, 2016.

32F. The Commission requested additional briefing from the parties on various topics, which the Commission considered at its January 26, 2017 open meeting.

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.⁴⁰
36. It is reasonable, protective of the public interest, and consistent with the FERC's 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's order to require Garland to account for and report any costs associated with the Garland line, the Garland substation, the Oncor substation, 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 line, the Garland substation, the Oncor substation, or the Southern Cross DC tie.

Market-Participant Agreement

37. It is reasonable, protective of the public interest, and consistent with the FERC's order to prohibit Garland from energizing the Garland line or the Garland substation until Southern

⁴⁰ Garland Ex. 1, Application, Att. 2 at 10, 54-55.

Cross Transmission executes ERCOT's market-participant agreement. It is appropriate to order ERCOT in a separate project to complete these tasks.

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 new market-participant categories if necessary) to allow Southern Cross Transmission and any other entity associated with the Southern Cross DC tie for which a new market-participant category may be appropriate to 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. ERCOT should make the determination of the appropriate market-participant category for Southern Cross Transmission and any other entity associated with the Southern Cross DC tie, the required modifications to ERCOT's protocols, bylaws, operating guides, and systems required for Southern Cross Transmission and any other entity's participation, and the appropriate market segment for Southern Cross Transmission and any other entity.
42. It is reasonable, protective of the public interest, and consistent with the FERC's order to prohibit Garland from energizing the Garland line or the Garland substation until ERCOT (a) determines the appropriate market-participant category for Southern Cross Transmission and for any other entity associated with the Southern Cross DC tie for which a new market-participant category may be appropriate (creating new ones 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 and any other entity's participation; and (c) determines the appropriate market segment for Southern Cross Transmission and any other entity. 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's 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 line, the Garland substation, the Oncor substation, or the Southern Cross DC tie will 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's order to prohibit Garland from energizing the Garland line or the Garland substation 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's 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's order to prohibit Garland from energizing the Garland line or the Garland substation 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's 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's order to prohibit Garland from energizing the Garland line or the Garland substation 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, if any, will be needed 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 line, the Garland substation, the Oncor substation, or the 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's order to prohibit Garland from energizing the Garland line or the Garland substation 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's 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's order to prohibit Garland from energizing the Garland line or the Garland substation 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. It is reasonable, protective of the public interest, and consistent with the FERC's order to require Southern Cross Transmission and Garland to back down or temporarily terminate 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's order to prohibit Garland from energizing the Garland line or the Garland substation 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's order that neither Garland nor Southern Cross Transmission operate the Garland line or the Garland substation 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's order that neither Garland nor Southern Cross Transmission operate the Garland line, the Garland substation, 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's order to prohibit Garland from energizing the Garland line or the Garland substation 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. It is appropriate that the costs of ERCOT's study of outage coordination and any implementation costs 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 line, the Garland substation, and the Southern Cross DC tie's 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 Garland and Oncor 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's 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 Electric 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. The size of the Southern Cross DC tie is unprecedented. No other DC tie or other facility in ERCOT is similarly situated to this DC tie.
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.
- 113A. ERCOT's current market design assigns costs to cost causers by assigning cost responsibility to ERCOT's customers, who are the ultimate users of the system. The Commission maintains this overall principle by modifying some of the specific implementation mechanisms for this docket to ensure that cost causers pay their fair share of the costs.
- 113B. No party met the burden of proof to demonstrate that interconnection with the DC tie will provide meaningful benefits to customers in Texas.

- 113C. The Southern Cross DC tie poses a great deal of uncertainty for the ERCOT market and system and for the grid's reliability.
- 113D. Because of the failure to demonstrate meaningful benefits to Texas customers and the uncertainty caused by the Southern Cross DC tie, it is in the public interest not to allow any additional associated costs that may arise because of the Garland line, the Garland substation, the Oncor substation, and the Southern Cross DC tie that are specific to the import or export of power over the Southern Cross DC tie or that cannot be recovered from end-use customers under the current billing system to be uplifted to ERCOT ratepayers. 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.
- 113E. In accordance with the Commission's general policy of allocating system costs to end users, it is reasonable and in the public interest for any additional costs associated with importing power across the Southern Cross DC tie and the Garland line that are not captured in ERCOT's current regulatory scheme to be assigned to Southern Cross.
- 113F. In accordance with the Commission's general policy of allocating system costs to end users, it is reasonable and in the public interest for all costs associated with exporting power across the Southern Cross DC tie that are specific to the Southern Cross DC tie or that cannot be recovered from end-use customers under the current billing system to be assigned to Southern Cross.
- 113G. The Southern Cross DC tie and Garland's transmission line create risks to the ERCOT market structure and the grid's reliability. In light of the uncertainty, it is reasonable for the Commission to take various preliminary precautions, including not allowing certain costs to be uplifted to ERCOT ratepayers.
- 113H. The cost allocation principles followed in this Order comport with the Federal Power Act, 16 USC § 824k(a), and the FERC's order.
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's order to prohibit Garland from energizing the Garland line and the Garland substation 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's order to require Southern Cross Transmission to pay all costs incurred by ERCOT for the ERCOT studies, ERCOT protocol and system revisions, and any other ERCOT activities required by the Garland line, the Garland substation, the Oncor substation, or the Southern Cross DC tie.
- 119B. It is reasonable, protective of the public interest, and consistent with the FERC's order to require Southern Cross to pay any additional associated costs that may arise because of the Garland line, the Garland substation, the Oncor substation, or the Southern Cross DC tie and that are specific to the import or export of power over the Southern Cross DC tie and therefore should not be uplifted to the ERCOT market or that cannot be recovered from the end-use customer under the current billing system. 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. As is standard, nothing prevents the Commission from changing this allocation of costs in a future rulemaking. Also, the Commission has directed ERCOT to study and report regarding the putative benefits of these facilities and the appropriate cost allocation.

- 119C. It is reasonable, protective of the public interest, and consistent with the FERC's order for any incremental transmission and ancillary-services costs required in order to support imports or exports over the Southern Cross DC tie that are specific to the import or export of power over the Southern Cross DC tie or that cannot be recovered from end-use customers under the current billing system to be assigned directly to those imports or exports.
- 119D. It is reasonable, protective of the public interest, and consistent with the FERC's order that no utility recover any costs associated with the Garland line, the Garland substation, the Oncor substation, or the Southern Cross DC tie in the utility's cost of service.
- 119E. It is appropriate to modify the system of cost allocation through revisions to ERCOT's protocols, bylaws, operating guides, standards, and systems and to the Commission's rules if such modification is shown to be necessary by the studies ERCOT has been ordered to perform. It is appropriate to order ERCOT in a separate project to complete this task.

Condemnation of Easements

120. It is reasonable, protective of the public interest, and consistent with the FERC's 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 line, the Garland substation, or the Oncor substation, so long as the landowner provides access to the land for surveying and design purposes, until Garland provides the Commission with evidence that funding to construct the complete interconnection project has been secured, including to construct the Garland line, the

Garland substation, the Oncor substation, 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's order to prohibit condemnation of any landowner's land in Panola County for the Garland line, the Garland substation, or the Oncor substation, so long as the landowner provides access to the land for surveying and design purposes, until Garland provides evidence that all regulatory approvals, if any, required by the Louisiana Public Service Commission that are necessary to construct the Southern Cross DC tie, the Southern Cross line, and all related interconnection facilities have been obtained.

121. DELETED.

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 substation, the Garland line, and the Oncor substation 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's bylaws prohibit ERCOT's members from taking action that causes ERCOT or an ERCOT member to become a public utility subject to FERC's rules, but the bylaws do not require ERCOT's members to take action to prevent ERCOT or ERCOT's members from becoming a public utility subject to FERC's rules.

124. Garland will disconnect the Garland substation and the Garland line if necessary to prevent (a) FERC from asserting plenary jurisdiction over ERCOT or an ERCOT utility, or (b) ERCOT or ERCOT's members from becoming a public utility subject to FERC's rules.

125. It is reasonable, protective of the public interest, and consistent with the FERC's order to require Garland and Southern Cross Transmission to disconnect immediately the Garland line and the Garland substation from the Southern Cross DC tie if necessary to avoid ERCOT or any ERCOT utility becoming subject to FERC's rules and plenary jurisdiction.

126. It was not conclusively established that a synchronous connection from outside ERCOT could not be made with the Garland substation or the Garland line.
127. It was not conclusively established that the Garland substation or the Garland line could not be disconnected from the Southern Cross DC tie if a synchronous connection from outside ERCOT was made with them, or that such disconnection would be unreasonable.
128. DELETED.
- 128A. It is reasonable, protective of the public interest, and consistent with the FERC's order to prohibit connections to the Garland or Oncor substations or the Garland line 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's order to order immediate isolation or disconnection from the Garland or Oncor substations or the Garland line of any connection that is made to the Garland or Oncor substations or the Garland line 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 line or the Garland substation from the Southern Cross DC tie.
132. It is reasonable, protective of the public interest, and consistent with the FERC's order to require Southern Cross Transmission and Garland to disconnect immediately the Garland line or the Garland substation 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's order to require Southern Cross Transmission and Garland to disconnect immediately the Garland

line or the Garland substation 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 if Southern Cross Transmission challenges the Commission's 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 substation and the Garland line 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 substation and the Garland line from Garland to Rusk Interconnection would require the Commission's 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 substation and the Garland line 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 substation and the Garland line to Rusk Interconnection requires the Commission's 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's order to require any transfer of the CCN for the Garland substation and the Garland line 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's order to prohibit Rusk Interconnection from requesting Garland to upgrade the Garland substation or the Garland line under the transmission line agreement.

140A. It is reasonable, protective of the public interest, and consistent with the FERC's order to prohibit Garland from upgrading the Garland substation or the Garland line without prior Commission approval.

Separate ERCOT Oversight Project

140B. It is reasonable, protective of the public interest, and consistent with the FERC's order to establish a project to direct and monitor the activities of ERCOT that are necessary to allow the Garland substation or the Garland line 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.

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 area of the Garland substation and the Garland line.

146. Route RP9 also satisfies the other criteria that the Commission considers in selecting a transmission-line route, as reflected in these findings of fact.

147. The Garland line 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 line and the Garland substation reliably and effectively.

150. No existing facilities of other utilities will be utilized for the Garland line or the Garland substation.

151. Oncor Electric conducted several studies that analyzed the Garland line, the Garland substation, the Oncor substation, and the Southern Cross DC tie's effects on other utilities and the ERCOT grid, and based on those studies, the FERC's 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 transmission facilities 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 substation and the Garland line, 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 Garland line on their facilities.
155. The FERC's 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's 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 line and the Garland substation 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 line and Garland substation, 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 substation and Garland line.
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 line 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 the identification of archeological sites that could be affected by the Garland line.
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 area of the Garland line.

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 line and Garland substation 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 line and Garland substation 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 line and Garland substation 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 line. Depending on the selected route, the Garland line 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 line or Garland substation. Short-term impacts may occur during construction, which could result in a temporary disruption of traffic service.
189. The proposed routes all cross two 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 two 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 line or Garland substation. 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 line 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 line or the Garland substation through transmission service rates, but will own and operate those facilities as open-access transmission facilities subject to the Commission's 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 line 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 line 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 line 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 line. 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 line and the Garland substation in a timely and cost-effective manner.

217. Garland has the resources and the procedures in place for accommodating the recommendations and comments submitted 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 line or the Garland substation 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. It is appropriate that, if Garland, Rusk Interconnection, or their contractors encounter any archeological artifacts or other cultural resources during project construction, work will cease immediately in the vicinity of the resource and the discovery will be reported to the Texas Historical Commission. It is appropriate that Garland and Rusk Interconnection will take actions as directed by the Texas Historical Commission.
224. It is appropriate that Garland and Rusk Interconnection will 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, it is appropriate that Garland and Rusk Interconnection will consult *Reducing Avian Collisions with Power Lines: State of the Art in 2012*.

225. It is appropriate that Garland and Rusk Interconnection will exercise extreme care to avoid affecting non-targeted vegetation or animal life when using chemical herbicide to control vegetation within the ROWs and it is appropriate that such herbicide use comply with rules and guidelines established in the Federal Insecticide Fungicide and Rodenticide Act and with the Texas Department of Agriculture's regulations.
226. It is appropriate that Garland and Rusk Interconnection will 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, it is appropriate that Garland and Rusk Interconnection will revegetate using native species and will consider landowner preferences in doing so. Furthermore, it is appropriate that, to the maximum extent practicable, Garland and Rusk Interconnection will 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, it is appropriate that Garland and Rusk Interconnection will implement erosion control measures as appropriate. Also, it is appropriate that Garland and Rusk Interconnection will return each affected landowner's property to its original contours unless otherwise agreed to by the landowner. It is appropriate that Garland and Rusk Interconnection will 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 line, 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. TX11-1-001, directing physical connection between the ERCOT and SERC regions under Sections 210, 211, and 212 of the Federal Power Act.
- 4A. PURA § 37.051(c-2) and (i) apply to only this specific CCN.

- 4B. The Commission has broad authority to prescribe reasonable conditions to protect the public interest that is not limited by other express sections of PURA.
- 4C. Congress has exercised its authority under the commerce clause of the U.S. Constitution through the Federal Power Act.
- 4D. Congress has specified in the Federal Power Act, 16 U.S.C. § 824k(a), the manner in which costs incurred in providing transmission services under a FERC order like in this case shall be recovered.
- 4E. 16 U.S.C. § 824k(a) recognizes Congress's intent that costs incurred in providing wholesale transmission service provided pursuant to an order under section 824j should generally be recovered from the applicant for such an order. In this case, Southern Cross was the applicant at FERC.
- 4F. The conditions specified in this Order comport with the requirements 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. TX11-1-001; 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's order, and the conditions prescribed in this Order are reasonable, protective of the public interest, and consistent with the FERC's 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 line and Garland substation 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 line 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 line or Garland substation, 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 line. 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. TX11-1-001, 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 line or the Garland substation until Southern Cross Transmission executes ERCOT's standard-form market-participant agreement.

15. Garland shall not energize the Garland line or the Garland substation 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-participant category for Southern Cross Transmission and for any other entity associated with the Southern Cross DC tie for which a new market-participant category may be appropriate (creating new ones 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 and any other entity's participation, and determined the appropriate market segment for Southern Cross Transmission and any other entity.
16. Garland shall not energize the Garland line or the Garland substation 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 line or the Garland substation 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 line or the Garland substation 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. Garland must provide the Commission with evidence that the funding to construct the Garland line, the Garland substation, the Oncor substation, the Southern Cross DC tie, and all related interconnection facilities has been secured before any landowner's land in Panola County may be condemned for the Garland line, the Garland substation, or the

Oncor substation, so long as the landowner provides access to the land for surveying and design purposes.

20. Garland must provide evidence that all regulatory approvals, if any, required by the Louisiana Public Service Commission that are necessary to construct the Southern Cross DC tie, the Southern Cross line, and all related interconnection facilities have been obtained before any landowner's land in Panola County may be condemned for the Garland line, the Garland substation, or the Oncor substation, 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 line and the Garland substation from the Southern Cross DC tie, and Oncor must immediately disconnect the Oncor substation from the Garland line, 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 line or the Garland or Oncor substations 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 line or the Garland or Oncor substations, that connection will be immediately isolated or disconnected from the Garland line and the Garland and Oncor substations.
24. Garland and Southern Cross Transmission must disconnect the Garland line and the Garland substation from the Southern Cross DC tie, and Oncor must disconnect the Oncor substation from the Garland line, 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 line and the Garland substation to Rusk Interconnection LLC.
28. Rusk Interconnection is prohibited from requesting Garland to upgrade the Garland line or the Garland substation under the transmission line agreement between Garland and Rusk Interconnection.
29. Garland may not upgrade the Garland line or the Garland substation without prior Commission approval.
30. Garland must account for and report any costs associated with the Garland line, the Garland substation, 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 line, the Garland substation, 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. Consistent with Conclusion of Law No. 4E, no utility may recover any costs related to the Oncor or the Garland substations or the Garland line in its transmission cost of service.
33. Southern Cross Transmission must pay all costs incurred by ERCOT for the ERCOT studies, ERCOT protocol revisions, and any other ERCOT activities required by the Garland line, the Garland substation, or the Southern Cross DC tie.
34. Any additional costs associated with the Garland line, the Garland substation, the Oncor substation, or the Southern Cross DC tie that would otherwise be borne by ERCOT ratepayers and that are specific to the import or export of power over the Southern Cross DC tie or that cannot be recovered from the end-use customer under the current billing system shall be borne by Southern Cross Transmission. 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. The cost responsibilities identified and assigned in this Order shall remain in effect until any modifications to ERCOT's protocols and standards or the Commission's rules that properly address those costs are adopted and effective.
36. Any incremental transmission and ancillary-services costs required in order to support imports or exports over the Southern Cross DC tie that are specific to the import or export of power over the Southern Cross DC tie or that cannot be recovered from the end-use customer under the current billing system shall be directly assigned to those imports or exports.
37. No utility shall recover any costs associated with the Garland line, the Garland substation, or the Southern Cross DC tie in the utility's cost of service.
38. Garland shall not energize the Garland line or the Garland substation 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.
39. Garland shall not energize the Garland line or the Garland substation 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.
40. Garland shall not energize the Garland line or the Garland substation 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.
41. Garland shall not energize the Garland line or the Garland substation 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.

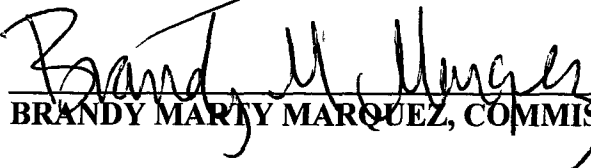
42. Garland shall not energize the Garland line or the Garland substation until ERCOT certifies to the Commission in Project No. 46304, *Oversight Proceeding Regarding ERCOT Matters Arising out of Docket No. 45624*, that it has (a) evaluated what additional ancillary services, if any, are necessary for the reliable interconnection of the Southern Cross DC tie and (b) implemented any needed modifications to ancillary-services procurement.
43. 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. Any import-related costs that are not captured by the current regulatory scheme shall be allocated to Southern Cross. Further, any export-related costs that are specific to the Southern Cross DC tie or that cannot be recovered from the end-use customer under the current billing system shall be allocated to Southern Cross.
44. Neither Garland nor Southern Cross Transmission shall operate the Garland line, the Garland substation, or the Southern Cross DC tie in a manner that would impair ERCOT's reliability.
45. Neither Garland nor Southern Cross Transmission shall operate the Garland line, the Garland substation, or the Southern Cross DC tie in a manner that imperils the thermal capacity of the ERCOT system.
46. Any conditions that apply to Garland, Southern Cross Transmission, or Rusk Interconnection shall be transferred and assigned to any successor-in-interest.
47. Southern Cross Transmission and Garland shall abide by all of the Commission's rules and ERCOT's protocols, including those promulgated after the issuance of this Order.

48. 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.
49. All ordering paragraphs in this Order are deemed severable, and, if a court of competent jurisdiction or other binding authority deems any ordering paragraph unenforceable, the remaining ordering paragraphs shall be valid and enforceable.

Signed at Austin, Texas the 23rd day of May 2017.

PUBLIC UTILITY COMMISSION OF TEXAS


KENNETH W. ANDERSON, JR., COMMISSIONER


BRANDY MARTY MARQUEZ, COMMISSIONER

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