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PUBLIC UTILITY COMMISSION

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	§ § § § § § § § §	BEFORE THE STATE OFFICES  OF  ADMINISTRATIVE HEARINGS
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**COMMISSION STAFF'S INITIAL BRIEF**

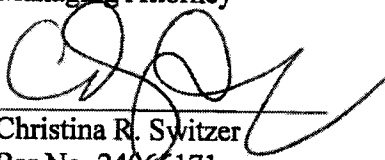
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Respectfully Submitted,

**PUBLIC UTILITY COMMISSION OF TEXAS  
LEGAL DIVISION**

Margaret Uhlig Pemberton  
Division Director

Karen S. Hubbard  
Managing Attorney

  
Christina R. Switzer  
Bar No. 24066171  
512-936-7216  
Jessica Morgan  
Bar No. 24079023  
Landon J. Lill  
Bar No. 24066171  
1701 N. Congress Avenue  
P.O. Box 13326  
Austin, Texas 78711-3326  
(512) 936-7268 (facsimile)

**DATE: JUNE 10, 2016**

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<b>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</b>	<b>§ § § § § § § §</b>	<b>BEFORE THE STATE OFFICES  OF  ADMINISTRATIVE HEARINGS</b>
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**COMMISSION STAFF'S INITIAL BRIEF**

**I. INTRODUCTION**

On February 25, 2016, the City of Garland (Garland) filed an application to amend its certificate of convenience and necessity (CCN) for the Rusk to Panola double-circuit 345-kV transmission line in Rusk and Panola Counties (Garland Project). The proposed Garland Project will interconnect a new Rusk Switching Station (Rusk Substation) in Rusk County to a new Panola Switching Station (Panola Substation) in Panola County at the Texas-Louisiana border. The new Rusk Substation, which is to be constructed and owned by Oncor, will interconnect with the Electric Reliability Council of Texas, Inc. (ERCOT) transmission system and the new Panola Substation will interconnect to a new high-voltage direct current converter station to be owned by Southern Cross Transmission LLC (Southern Cross) located across the border in Louisiana (Southern Cross DC Tie). The Southern Cross DC Tie will interconnect on the Louisiana side to a 400-mile transmission line that will terminate at a yet to be determined end point in the South Eastern Reliability Council (SERC) transmission system (Southern Cross Line).

According to Southern Cross, the Southern Cross DC Tie will accept approximately 2,100 MW in either direction, and after losses, deliver 2,000 MW in either direction.<sup>1</sup> The Southern Cross DC Tie will be privately funded and operated as a merchant transmission line

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<sup>1</sup> Direct Testimony of David Parquet, Southern Cross Ex. 1 at 3:20-23 (Parquet Direct) (February 25, 2016).

subject to Federal Energy Regulatory Commission (FERC) regulation. Capacity on the Southern Cross Line will be sold under Southern Cross's FERC tariff.

## II. LEGAL AUTHORITY

Garland filed its application under the Public Utility Regulatory Act, Tex. Util. Code Ann. §§ 37.051(c-1), (c-2), (g) and (i) (West 2007 & Supp. 2015) (PURA). Subsections (c-1) and (g) require a certificate of convenience and necessity for a facility that enables power to be imported into, or exported out of, the ERCOT transmission system and a municipally-owned transmission facility located outside the boundaries of the municipality. However, subsections (c-2) and (i) direct the Commission, not later than the 185<sup>th</sup> day after the application is filed, to approve an application under (c-1) or (g) for a facility that is to be constructed under an offer of settlement approved in a final FERC order that directs physical connection between the ERCOT and SERC regions. The subsections specifically reference FERC Docket No. TX11-01-001. The Garland Project and Southern Cross DC Tie are the subject of the FERC order referenced in 37.051(c-2) and (i) of PURA.

Although subsections 37.051(c-2) and (i) of PURA require the Commission to approve the City of Garland's CCN application, the subsections preserve the Commission's authority to prescribe reasonable conditions to protect the public interest that are consistent with the FERC order. Nothing in the subsections alters the Commission's authority under PURA to maintain reliability and protect Texas ratepayers.<sup>2</sup> Staff has suggested certain conditions<sup>3</sup> to be a part of the approval process that are designed to protect the public interest by ensuring that ERCOT has the tools and agreements in place to maintain reliability before the Southern Cross DC Tie is interconnected and that ERCOT ratepayers are not forced to subsidize the cost of the Southern Cross DC Tie.

These conditions are also consistent with the FERC Order.<sup>4</sup> The FERC Order directed the City of Garland, Oncor, and CenterPoint to provide interconnection and transmission services

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<sup>2</sup> PURA §§ 14.001, 31.001, 36.001, 36.003, 38.001, & 38.002.

<sup>3</sup> See Public Version of Staff Statement of Position at 5 (May 25, 2016).

<sup>4</sup> *Southern Cross Transmission LLC, et. al*, 147 FERC ¶ 61,113 (2014) (FERC Order).

to Southern Cross consistent with the terms and conditions of the settlement.<sup>5</sup> In a preliminary order, FERC required Southern Cross to make a compliance filing confirming that reliability and interconnection studies had been completed and providing a list of the facilities necessary to safely and reliably interconnect the Southern Cross DC Tie to ERCOT.<sup>6</sup> There is no evidence in the FERC Order that FERC considered or required studies to determine whether ERCOT would need to make any changes to its Protocols, computer systems, or operations in order to reliably interconnect the Southern Cross DC Tie. FERC focused instead on identifying facilities needed to safely and reliably interconnect the Southern Cross DC Tie. In addition, in the Offer of Settlement at FERC, Southern Cross and Garland agreed to operate the interconnection in compliance with all applicable ERCOT and PUC requirements.<sup>7</sup> The Settlement was incorporated by reference in the FERC Order.<sup>8</sup> To the extent that the Commission or ERCOT changes existing requirements, Southern Cross and Garland are required to comply with those changes pursuant to the FERC Order. Thus, Staff's recommended conditions of approval as set forth in its Statement of Position and further discussed herein are not inconsistent with the FERC Order.

### III. Argument

#### A. Summary of the Argument

**Staff's recommended conditions are warranted because the Southern Cross Project is in the early stages of development and there are many pending questions regarding the effects of interconnecting the proposed Southern Cross DC Tie to the ERCOT transmission system.**

As will be discussed in later sections, ERCOT will need to conduct a number of studies, modify operations, and negotiate agreements in order for the Southern Cross DC Tie to reliably interconnect to ERCOT and for the Southern Cross DC Tie to offer the full range of potential benefits alleged by Southern Cross. The full cost of interconnecting the Southern Cross DC Tie

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<sup>5</sup> *Id.* at P 14.

<sup>6</sup> *Id.* at 13.

<sup>7</sup> Offer of Settlement at 12, Garland Ex. 1 at Attachment 2.

<sup>8</sup> FERC Order, 147 FERC ¶ 61,113, at Ordering Paragraph (C), Garland Ex. 1 at Attachment 4.

remains an unknown factor because ERCOT has not studied all the changes that will need to be made, and many will depend on stakeholder discussions and recommendations.

Yet, whether the Southern Cross Project will even be able to proceed is debatable. Southern Cross does not have financing for the project.<sup>9</sup> [REDACTED]

[REDACTED]

Southern Cross does not even know where the end point will be for the Southern Cross Line.<sup>11</sup> Furthermore, as Southern Cross's Witness Mark Bruce admitted, Southern Cross has not posted the required financial security to Oncor for Oncor to begin construction on the Rusk Substation, or as Mr. Bruce put it, Southern Cross has not put real money at risk yet.<sup>12</sup>

**The novel operational issues introduced by the interconnection of the proposed Southern Cross DC Tie should be addressed in this docket through the imposition of conditions and the institution of a compliance docket.**

Currently, there are five DC ties that interconnect ERCOT to neighboring regions, the largest of which is 600 MW.<sup>13</sup> ERCOT's Protocols have successfully managed these smaller DC ties. But the Southern Cross DC Tie is meaningfully different than the existing DC ties. It is capable of importing and exporting 2000 MW into, and out of, ERCOT, and is thus significantly larger than the other DC ties. It will be privately owned, and the capacity will be sold under Southern Cross's FERC tariff to market participants that will presumably make import and export decisions based on economic arbitrage opportunities between ERCOT and the SERC region. Simply put, it presents novel reliability and policy challenges that did not exist when the existing DC ties interconnected to ERCOT.

It is essential that many of these issues are addressed before the Garland Project is energized so that ERCOT can maintain the same level of reliable service if the Southern Cross

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<sup>9</sup> Southern Cross's Response to Staff RFI 1-9, Staff Ex. 26.

<sup>10</sup> Southern Cross's Response to Staff RFI 2-2, Staff Ex. 28.

<sup>11</sup> See, e.g. Direct Testimony of Ellen Wolfe, Southern Cross Ex. 3 at 4:7 (Wolfe Direct) (referring to the endpoints of the Southern Cross DC Tie as the Rusk Substation and "the Mississippi/Alabama 500-kV system"). See also Southern Cross Response to TIEC's Motion to Compel on TIEC RFI 1-15.

<sup>12</sup> Supplemental Direct Testimony of Mark Bruce, Southern Cross Ex. 5 at 10:7-10 (Bruce Supp. Direct); Tr. at 218:9-11 (Bruce Cross) (June 1, 2016).

<sup>13</sup> Tr. at 284:14-18 (Woodfin Cross) (June 1, 2016); see also Rebuttal Testimony of Ellen Wolfe, Southern Cross Ex. 7 at EW-2-R (Figure 1) (Wolfe Rebuttal).



DC Tie is interconnected to the ERCOT transmission system. The statute requires approval of this application within 185 days of filing, thus there simply is not sufficient time for ERCOT, and for that matter, any of the other interested parties, to fully study or answer the ERCOT issues raised in the Preliminary Order. Therefore, Staff's recommended conditions primarily focus on ERCOT studying these issues and making any appropriate changes to its operations and planning prior to the Garland Project being energized. To ensure that the conditions are satisfied, Staff recommends that a compliance docket be opened. This will allow the Commission to not only ensure that the conditions are met, but to monitor progress and provide guidance as necessary.

**Southern Cross has not shown that the Southern Cross DC Tie will provide sufficient benefits to Texas ratepayers that would justify forcing Texas ratepayers to subsidize costs of the tie.**

It is unclear if the Southern Cross project will actually benefit the ERCOT transmission system. While Southern Cross claims that its project will generate hundreds of millions of dollars annually in production cost and consumer savings,<sup>14</sup> Southern Cross admits that these alleged benefits "are based on assumptions."<sup>15</sup> In particular, the benefit calculations require the accurate projection of natural gas prices five years into the future.<sup>16</sup>

The last time Southern Cross made a similar projection, it turned out to be drastically wrong. In 2010, Southern Cross completed a similar study to model the effects the proposed tie would have in 2015. Southern Cross estimated \$701 million in consumer benefits.<sup>17</sup> Now Southern Cross is estimating consumer cost savings of only \$162 million.<sup>18</sup> This a \$539 million revision. A revision of similar magnitude to the current estimate would more than eliminate any consumer cost benefits. The gigantic swing between calculated benefits in 2010 and 2015 emphasizes that these alleged benefits are at best speculative.

Additionally, it is important to note that the supposed benefits that Southern Cross has identified have not been adjusted to reflect the costs that ERCOT will incur in order to

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<sup>14</sup> Wolfe Direct, Southern Cross Ex. 3 at 4:14-22.

<sup>15</sup> Tr. 150:6-7 (Parquet Cross) (June 1, 2016).

<sup>16</sup> Wolfe Direct, Southern Cross Ex. 3 at 23:23-19.

<sup>17</sup> *Id.* at 21:4.

<sup>18</sup> *Id.* at 13:5.

interconnect the Southern Cross DC Tie.<sup>19</sup> Notably, Southern Cross's estimate of benefits does not include any costs incurred by ERCOT to revise the ERCOT Protocols and modify operations.<sup>20</sup> The estimate also does not account for any of the necessary infrastructure upgrades located outside of ERCOT that are needed to interconnect the Southern Cross DC Tie, such as the Rusk Substation and the 138-kV Tyler Grande to Tyler GE line.<sup>21</sup> Thus, these alleged benefits are gross benefits not net benefits.

Finally, Southern Cross's model only looks at 2020.<sup>22</sup> The effects of the proposed Southern Cross DC Tie in 2021 and thereafter are completely unknown. As it is likely that the Southern Cross DC Tie, if built, will operate for decades, it is not clear what benefits, if any, will occur to ERCOT for the vast majority of the time the Southern Cross DC Tie would be in service. In light of these uncertainties, Staff takes issue with Southern Cross's assertion that its project offers "real and substantial, not theoretical, benefits."<sup>23</sup>

**B. Conditions to address the unique operational issues that, if not resolved prior to the Garland Project being energized, could have negative reliability impacts on the ERCOT transmission system.**

**1. Southern Cross must execute ERCOT's standard market participant agreement before the Garland Project is energized. (Preliminary Order Issue No. 3a)**

All parties have agreed that it is necessary for Southern Cross to execute ERCOT's standard market participant agreement because, among other benefits, the agreement will legally bind Southern Cross to comply with the ERCOT Protocols.<sup>24</sup> In order for Southern Cross to execute the standard market participant agreement, however, Southern Cross must be able to

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<sup>19</sup> Tr. 115:16-20 (Wolfe Cross) (June 1, 2016).

<sup>20</sup> Tr. at 115:16-20, 116:12-17 (Wolfe Cross) (June 1, 2016) (acknowledging that the study did not consider the costs and only studied the benefits side of the equation).

<sup>21</sup> Rebuttal Testimony of Stan Gray, Southern Cross Ex. 10 at 4:2-10 (May 24, 2016) (Gray Rebuttal).

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

<sup>23</sup> Rebuttal Testimony of David Parquet, Southern Cross Ex. 6 at 7:12 (May 24, 2016) (Parquet Rebuttal).

<sup>24</sup> Bruce Supp. Direct, Southern Cross Ex. 5 at 5; Direct Testimony of Ted Hailu, ERCOT Ex. 3 at 4 (Hailu Direct) (April 27, 2016); Direct Testimony of Amanda J. Frazier, Luminant Ex. 2 at 5-6 (April 27, 2016) (Frazier Direct); Direct Testimony of Charles Griffey, TIEC Ex. 1 at 29 (April 27, 2016) (Griffey Direct); Public Version of Staff Statement of Position at 5 (May 25, 2016).

meet the definition of one of the market participant types listed in the standard market participant agreement.<sup>25</sup> But Southern Cross does not meet the definition of any of the existing market participant types.<sup>26</sup> Therefore, ERCOT is placed in the position where it must either revise the existing categories so that Southern Cross can meet one, or create a new category specifically for Southern Cross.

Parties have disagreed about what type of market participant Southern Cross should be, and whether a new type of market participant should be created for Southern Cross.<sup>27</sup> Southern Cross Witness Mark Bruce has testified that the Commission should decide in this docket that ERCOT must create a new type of market participant that would apply to Southern Cross.<sup>28</sup> Southern Cross would be the only market participant that would meet this category.

ERCOT Witness Ted Hailu, on the other hand, has identified existing market participant categories that Southern Cross could meet if ERCOT revised one of the categories. He explained, however, that it is premature at this time to determine the appropriate market participant category for Southern Cross. He explained that ERCOT needs to know how Southern Cross will be categorized under the NERC functional registration model and whether Southern Cross will operate similarly to other DC ties.<sup>29</sup> Mr. Hailu also noted that ERCOT could create a new market participant type for Southern Cross but that it could be expensive.<sup>30</sup> He therefore recommended that it would be best if ERCOT, through the stakeholder process, decided whether to revise an existing market participant category or create a new one for Southern Cross.<sup>31</sup>

Staff agrees with Mr. Hailu that it would be premature to decide in this docket that a new market participant type should be created for Southern Cross. Additional information is necessary and should be considered by the ERCOT stakeholder process before deciding whether ERCOT should create a new market participant type that would apply solely to Southern Cross.

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<sup>25</sup> See Tr. at 219:23-220:1 (Bruce Cross) (June 1, 2016).

<sup>26</sup> See Tr. at 277:21-278:2 (Hailu Cross) (June 1, 2016).

<sup>27</sup> Bruce Supp. Direct, Southern Cross Ex. 5 at 5; Hailu Direct, ERCOT Ex. 3 at 4; Frazier Direct, Luminant Ex. 2 at 5-6; Griffey Direct at 29; Public Version of Staff Statement of Position at 5.

<sup>28</sup> Bruce Supp. Direct, Southern Cross Ex. 5 at 5:17-6:5.

<sup>29</sup> Hailu Direct, ERCOT Ex. 10 at 5.

<sup>30</sup> *Id.* at 9:4-13.

<sup>31</sup> *Id.* at 10:2-6.

As for timing, Staff disagrees with Southern Cross that the Commission should require execution of the standard market participant agreement by June 1, 2017. Southern Cross has indicated that it needs to execute the standard market participant agreement by June 1, 2017 in order to secure financing.<sup>32</sup> Mr. Bruce testified that this should not be a complex issue to resolve, yet also testified that it is a “fundamental question for all of the stakeholders involved” and that the agreement will establish the rules and compliance obligations that will apply to Southern Cross as well as set out Southern Cross’s rights and responsibilities.<sup>33</sup>

Staff agrees that these are fundamental questions that may be complex. While ERCOT may be able to decide what type of market participant Southern Cross should be and make the appropriate revisions to the market participant agreement by June 1, 2017, ERCOT should not be forced to decide these issues on Southern Cross’s timeline. Doing so could force ERCOT to forgo or reprioritize other projects in order to meet Southern Cross’s timeline.

However, Staff agrees that Southern Cross must execute the market participant agreement before it can interconnect to ERCOT. Therefore, Staff recommends conditioning approval of the CCN application on Southern Cross having executed the market participant agreement before the Garland Project is energized. Staff also notes that the Commission would have the opportunity to provide additional guidance on the market participant category issue if a compliance docket is opened.

**2. ERCOT must execute a coordination agreement with any Regional Transmission Organization, Independent System Operator, or Balancing Authority on the eastern end of the Southern Cross DC Tie. (Preliminary Order Issue No. 3b and 4g)**

ERCOT has stated that it will likely need a coordination agreement with the Independent System Operator (ISO), Regional Transmission Organization (RTO), or Balancing Authority (BA) for the corresponding system on the eastern end of the tie.<sup>34</sup> According to ERCOT, the coordination agreement should address issues such as emergency coordination, inadvertent

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<sup>32</sup> Supp. Direct Bruce, Southern Cross Ex. 5 at 6:10-18.

<sup>33</sup> Tr. at 222:14-25 (Bruce Cross) (June 1, 2016).

<sup>34</sup> ERCOT Statement of Position at 5 (April 27, 2016).

energy transfers, and compensation for any emergency imports or exports.<sup>35</sup> Southern Cross Witness David Parquet stated in his testimony that Southern Cross would agree to this condition.<sup>36</sup>

Staff disagrees, however, with Mr. Parquet's recommendation that ERCOT be required to have negotiated an agreement by June 1, 2017. Mr. Parquet testified that it needs ERCOT to have negotiated an agreement to allow Southern Cross to close financing.<sup>37</sup> There is no evidence that June 1, 2017 is the actual date that Southern Cross will close on financing, or that financing is conditioned on ERCOT having negotiated any coordination agreements. Moreover, ERCOT cannot even start negotiating coordination agreements until Southern Cross identifies an endpoint for the Southern Cross Line. ERCOT should not be forced to act on Southern Cross's theoretical timeline. Therefore, Staff recommends the condition be tied to when the Garland Project is energized.

**3. Require ERCOT to evaluate whether ERCOT needs to establish new ramp restrictions for the Southern Cross DC Tie, and adopt any appropriate changes, before the Garland Project is energized. (Preliminary Order Issue No. 4e)**

ERCOT Witness Dan Woodfin explained that the Southern Cross DC Tie presents a significant challenge to the ramp capability of the ERCOT transmission system.<sup>38</sup> If the Southern Cross DC Tie were to ramp from zero transfer in one hour to 2100 MW export in the next, then the other generation on the ERCOT transmission system must increase by 2100 MW within 10 minutes.<sup>39</sup> This would exceed the ramping capability of the ERCOT transmission system and likely require immediate operator actions.<sup>40</sup> ERCOT could deny the request, but NERC standards allow Southern Cross to provide as little as fifteen minutes notice of its intent to import or export. This leaves ERCOT little time to evaluate whether the schedule can be accommodated, and not enough time to dispatch generation to accommodate such a drastic

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

<sup>36</sup> Parquet Rebuttal, Southern Cross Ex. 6 at 5:1-4.

<sup>37</sup> *Id.* at 4:18-22.

<sup>38</sup> Direct Testimony of Dan Woodfin, ERCOT Ex. 2 at 12:2-8 (April 27, 2016) (Woodfin Direct).

<sup>39</sup> *Id.* at 12:1-4.

<sup>40</sup> *Id.* at 12:4-6.

change to the system.<sup>41</sup> ERCOT Witness Dan Woodfin explained that ERCOT would need to implement additional tools and processes to ensure sufficient review can occur within the necessary time frame.<sup>42</sup>

Southern Cross acknowledged that there may need to be some ramp limitation placed on the Southern Cross DC Tie, and that it is an issue that may involve coordination with the RTO, ISO, or BA on the other end of the Southern Cross DC Tie.<sup>43</sup> However, at the present, there is no agreement with any RTO, ISO or BA.

While Southern Cross did not agree to this condition, Staff notes that Mr. Bruce testified that he “believe[s] this issue can be timely addressed through the normal course of business in the ERCOT stakeholder process.”<sup>44</sup> Accordingly, Staff recommends the Commission condition approval of the application on ERCOT having determined whether it needs to establish new ramp rate restrictions for the Southern Cross DC Tie, and adopt any appropriate changes, prior to the Garland Project being energized.

**4. Require ERCOT to study and implement any new systems or tools necessary to coordinate outages before the Garland Project is energized. (Preliminary Order Issue No. 4f)**

ERCOT Witness Dan Woodfin testified that incorporating the Southern Cross DC tie into outage coordination will require ERCOT “to substantially expand its analytical capabilities.”<sup>45</sup> ERCOT also explained that the extent and cost of the changes depend on the resolution of certain policy issues that would benefit from stakeholder discussion.<sup>46</sup> While Southern Cross Witness Mark Bruce testified that DC flows should be predictable because they should adhere to market principles, he conceded that “additional DC [t]ies do increase the complexity of outage coordination” and that the issue should be addressed through the ERCOT stakeholder process.<sup>47</sup>

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<sup>41</sup> *Id.* at 9-14.

<sup>42</sup> *Id.* at 12:14-16; *see also* ERCOT Response to Staff RFI 2-5, Staff Ex. 17 (describing the types of tools and revisions to ERCOT’s procedures).

<sup>43</sup> Bruce Supp. Direct, Southern Cross Ex. 5 at 14:12-20.

<sup>44</sup> Rebuttal Testimony of Mark Bruce, Southern Cross at 16:6-8.

<sup>45</sup> Woodfin Direct, ERCOT Ex. 2 at 14.

<sup>46</sup> Bruce Rebuttal, Southern Cross Ex. 9 at WP/MB 1, ERCOT Response to Staff RFI 2-6.

<sup>47</sup> Bruce Supp. Direct, Southern Cross Ex. 5 at 15.

Staff agrees with Mr. Bruce and ERCOT that ERCOT should address this additional complexity through the ERCOT stakeholder process. Given that outage coordination relates to ERCOT's ability to maintain reliability, Staff recommends that the Commission condition approval of the application on ERCOT having studied and, to the extent necessary, implemented any new systems or tools necessary to coordinate outages before the Garland Project is energized.

**5. If required by ERCOT, Southern Cross must provide or procure Primary Frequency Response and reactive power to the ERCOT transmission system. (Preliminary Order Issue No. 4h)**

Southern Cross Witness Mark Bruce argues that Southern Cross should not be required to provide Primary Frequency Response or reactive power because the Southern Cross DC Tie is not a generator.<sup>48</sup> While technically true, when the Southern Cross DC Tie is importing, it may displace generation on the ERCOT transmission system that provides Primary Frequency Response and Voltage Support Service.<sup>49</sup> This would have reliability implications and ERCOT would need to take steps to secure Primary Frequency Response from other generators.<sup>50</sup>

In his rebuttal testimony, Southern Cross Witness Stan Gray explained that the Southern Cross DC Tie could be designed to provide primary frequency response assuming that the necessary contracts or agreements are in place. He further explained that it is better to define in the early stages of the design process what capabilities the Southern Cross DC Tie should or must have because it is expensive to make changes later.<sup>51</sup> However, it appears that Southern Cross has begun designing the Southern Cross DC Tie.<sup>52</sup> Mr. Gray also testified that the issue should be addressed through the ERCOT stakeholder process but that it is "fairly late for that."<sup>53</sup>

Staff recommends that ERCOT determine whether Southern Cross should be required to provide or procure Primary Frequency Response or reactive power. Given the questions surrounding timing and technical capability, Staff recommends that ERCOT consider whether it

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<sup>48</sup> *Id.* at 16:16-19.

<sup>49</sup> See Woodfin Direct, ERCOT Ex. 2 at 16:16-19. Mr. Bruce agreed that when importing, the Southern Cross DC Tie may displace generation that is located in ERCOT. Tr. at 227:8-11 (Bruce Cross) (June 1, 2016).

<sup>50</sup> Bruce Supp. Direct, Southern Cross Ex. 5 at 16:16-19.

<sup>51</sup> Gray Rebuttal, Southern Cross Ex. 10 at 9:9-13.

<sup>52</sup> Tr. at 206:8-10 (Gray Cross) (June 1, 2016).

<sup>53</sup> *Id.* at 206:22-24.

would be appropriate for Southern Cross to procure the services, or their technical equivalent, rather than require that the DC tie directly provide the services.

**C. The Southern Cross DC Tie presents policy issues that should be considered if the Garland Project is approved.**

Besides the reliability-related issues identified above, Staff has also identified certain policy issues that should be considered by ERCOT and Staff. Staff recommends that the Commission condition approval of the application on these issues being studied before the Garland Line is energized. Staff further recommends that ERCOT and Staff be required to report their findings and any recommended changes in a subsequent compliance docket.

**1. ERCOT should be required to study price formation issues during emergencies when ERCOT takes out-of-market actions to import or export power over the Southern Cross DC Tie. (Preliminary Order Issue No. 4d)**

While the coordination agreement will govern compensation for emergency imports or exports between ERCOT and the ISO, RTO, or BA on the eastern end of the tie, there remains a question of price formation in the ERCOT market during these periods. In emergency situations, ERCOT may take so-called “out-of-market reliability actions” that include importing power over the Southern Cross DC Tie in an emergency, or exporting power over the Southern Cross DC Tie to assist a neighboring region.<sup>54</sup> Such actions will impact pricing in the ERCOT market by either lowering the price when power is imported or increasing the price when exporting.<sup>55</sup> Because ERCOT is taking the action out-of-market by injecting power or exporting power to preserve reliability during emergencies, ERCOT’s actions may move prices away from the competitive level that would otherwise be determined by market forces. Staff recommends that the Commission require, as a condition, that ERCOT study this issue to determine whether any changes to pricing within the ERCOT market during emergencies is necessary and provide any recommendation in the compliance docket prior to the Garland Project being energized.

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<sup>54</sup> Direct Testimony of Dr. Shams Siddiqi, Luminant Ex. 1 at 6-10 (April 27, 2016) (Siddiqi Direct).

<sup>55</sup> *Id.* at 8.



**2. ERCOT should be required to study whether changes should be made to planning assumptions/criteria to identify transmission upgrades that may address congestion related to power flows over the Southern Cross DC Tie in a cost-effective manner. (Preliminary Order Issue No. 4b and 4c)**

Staff agrees with parties that argue that ERCOT may need to adjust its planning assumptions and criteria for DC ties to ensure that ERCOT identifies needed transmission upgrades.<sup>56</sup> ERCOT's current reliability and economic planning studies model DC ties using assumptions based on historical usage of each of the DC ties but there may be other ways to model DC ties that more accurately capture the actual power flows across DC ties.<sup>57</sup> While this has not been a significant issue with the smaller DC ties, it could become a major issue if Southern Cross begins importing or exporting large amounts of power. For instance, ERCOT's economic studies could fail to identify transmission upgrades that could relieve congestion caused by exports over the Southern Cross DC Tie. Therefore, Staff recommends that the Commission require, as a condition, that ERCOT study whether changes should be made to planning assumptions or criteria to identify transmission upgrades that may address congestion related to power flows over the Southern Cross DC Tie in a cost-effective manner and report its findings in a compliance docket prior to the Garland Project being energized.

**3. Staff should be required to open a project to consider whether changes should be made to the cost allocation method for transmission upgrades built to facilitate imports/exports over the Southern Cross DC Tie. (Preliminary Order Issue No. 4c)**

To date, ERCOT has not identified any transmission upgrades needed in ERCOT to accommodate the Southern Cross DC Tie.<sup>58</sup> However, if future upgrades are identified that are only necessary to accommodate the Southern Cross DC Tie, then it may be appropriate for Southern Cross to pay for those necessary transmission upgrades. Requiring Southern Cross to pay for transmission upgrades would be a departure from the cost incidence currently associated

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<sup>56</sup> See Direct Testimony of Warren Lasher, ERCOT Ex. 1 at 9:20-10:6 (April 27, 2016); Texas Competitive Power Advocates Statement of Position at 1-2 (April 27, 2016). See also Bruce Supp. Direct, Southern Cross Ex. 5 at 11:10-22 (noting that there could be modifications to ERCOT's current assumptions that could lead to better modeling).

<sup>57</sup> Tr. at 271:9-272:10 (Lasher Cross) (June 1, 2016).

<sup>58</sup> ERCOT Response to Staff RFI 1-3, Staff Ex. 4.

with reliability and economic transmission upgrades, which effectively results in a 4-Coincident Peak Demand (4CP) cost incidence for wholesale transmission customer load within ERCOT and to a cost incidence on an energy basis for entities scheduling exports of energy from ERCOT. But it may be appropriate to do so because the interconnection of the Southern Cross DC Tie is causing the need for the transmission upgrades. Staff recommends that the Commission direct Staff to consider in a project whether changes should be made to the cost allocation method for transmission upgrades built to facilitate imports/exports over the Southern Cross DC Tie.<sup>59</sup>

**4. Require ERCOT to study ways to manage congestion caused by imports and exports over the Southern Cross DC Tie and then, to the extent necessary, implement a plan to address congestion in a cost-effective manner before the Garland Project is energized. (Preliminary Order Issue No. 4d)**

The addition of 2000 MW on the ERCOT transmission system through the Southern Cross DC Tie raises the possibility that there will be a significant increase in congestion when the tie is importing power.<sup>60</sup> ERCOT Witness Dan Woodfin discussed ways to manage the congestion, including modifying ERCOT's Security Constrained Economic Dispatch system (SCED) to include DC tie transfers or implementing a congestion management plan.<sup>61</sup> Staff agrees with ERCOT and Southern Cross that this issue is better resolved through the ERCOT stakeholder process.<sup>62</sup> Therefore, Staff recommends that the Commission require ERCOT to study ways to manage congestion caused by imports over the Southern Cross DC Tie and then, to the extent necessary, implement a plan to address congestion in a cost-effective manner before the Garland Project is energized. Staff further recommends that the Commission include a condition that Southern Cross be required to pay ERCOT for the study, and to the extent necessary, implementing a plan to address congestion.<sup>63</sup>

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<sup>59</sup> Staff notes that this is a general issue in an open project, ERCOT Planning and System Costs Associated with Renewable Resources and New Large DC Ties, Project No. 42647.

<sup>60</sup> Woodfin Direct, ERCOT Ex. 2 at 8:19-9:6; Siddiqi Direct, Luminant Ex. 1 at 10-14.

<sup>61</sup> Woodfin Direct, ERCOT Ex. 2 at 9:8-10:1. Southern Cross Witness Mark Bruce also suggests that there may be ways to approximate economic dispatch. See *also* Bruce Supp. Direct, Southern Cross Ex. 5 at 13:20-22.

<sup>62</sup> Woodfin Direct, ERCOT Ex. 2 at 10:2-3; Bruce Supp. Direct, Southern Cross Ex. 5 at 13:20-14:7.

<sup>63</sup> Currently, amending the ERCOT protocols and subsequent system changes to modify Security Constrained Economic Dispatch or create a Congestion Management Plan for the Southern Cross DC Tie would be

**5. Require Staff to study whether changes to the cost allocation method for ancillary services is necessary. (Preliminary Order Issue No. 4i)**

As explained by ERCOT Witness Dan Woodfin, NERC standards require ERCOT to maintain sufficient contingency reserve to cover the loss of the most severe single contingency (MSSC).<sup>64</sup> ERCOT's current MSSC is 1375 MW, which represents the loss of a nuclear unit at the South Texas Project.<sup>65</sup> The Southern Cross DC Tie will have the ability to import and export up to 2000 MW, and thus 2000 MW will become the MSSC.<sup>66</sup> The NERC standards require planning as though the Southern Cross DC Tie will import and export at full capacity, and thus ERCOT will be required to obtain additional ancillary services to cover the potential loss.<sup>67</sup>

The current rules require load to bear the cost of ancillary services, and thus, Southern Cross would not be required to pay for the incremental cost of procuring additional ancillary service. Under a cost causation analysis, however, it may be appropriate for Southern Cross to bear at least some of the incremental cost of procuring ancillary services as it is driving the need. Staff takes no position at this time on whether Southern Cross should be required to pay for the incremental amount of ancillary services that will be required if the Southern Cross DC Tie is interconnected to the ERCOT transmission system. However, Staff recommends that the Commission direct Staff to open a project to consider whether there should be changes to the method for allocating and collecting the cost of ancillary services.

**D. ERCOT ratepayers should not be forced to subsidize the Southern Cross Project.**

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paid from ERCOT's annual budget, which is funded through the system administration feed approved by the Commission. ERCOT Response to Staff RFI 2-2, Staff Ex. 14; ERCOT Response to Staff RFI 2-3, Staff Ex. 15.

<sup>64</sup> Woodfin Direct, ERCOT Ex. 2 at 17:1-14 (citing NERC Standard BAL-002-1 R3 (Disturbance Control Performance)).

<sup>65</sup> *Id.*

<sup>66</sup> *Id.*

<sup>67</sup> NERC Standard BAL-002-1 R3 (Disturbance Control Performance), Staff Ex. 35.

**1. Southern Cross should fund ERCOT's studies and modifications to the ERCOT Protocols, rules, procedures, and processes that are necessary to protect reliability. (Preliminary Order No. 2)**

Staff recommends that Southern Cross be required to pay ERCOT's costs to (1) study and modify ERCOT's Protocols and systems to reflect Southern Cross's addition to a market participant category; (2) negotiate an agreement with other RTOs/ISOs/BAs; (3) study congestion management and the cost of implementing a congestion management plan; (4) create tools to coordinate outages; (5) study to determine what reactive power services Southern Cross should provide. Traditionally, ERCOT would pay these costs out of its annual budget, which is funded through the administrative fee approved by the Commission.<sup>68</sup> This fee is eventually passed on to ratepayers in ERCOT.

But an exception is warranted here. As discussed above, the interconnection of the Southern Cross DC Tie may require major and potentially costly changes to ERCOT's Protocols, operations, and computer systems. Yet, as discussed previously, there is scant evidence that ERCOT will benefit from the interconnection. Furthermore, no other market participant or potential market participant is requesting these changes. The changes are only necessary because Southern Cross proposes to interconnect ERCOT to SERC through a large, privately-owned DC tie. For issues such as Primary Frequency Response, requiring Southern Cross to provide the service ensures that it is treated like other utilities that inject power into ERCOT's transmission system.

Furthermore, Southern Cross has requested that ERCOT be required to revise the standard market participant agreement and negotiate a coordination agreement with the BA, RTO, or ISO on the other end of the line before Southern Cross has even demonstrated that the Southern Cross Project is highly likely to be completed.<sup>69</sup> ERCOT market participants and

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<sup>68</sup> See ERCOT Response to Staff RFI 2-1, Staff Ex. 13; ERCOT Response to Staff RFI 2-2, Staff Ex. 14; ERCOT Response to Staff RFI 2-3, Staff Ex. 15; ERCOT Response to Staff RFI 2-5, Staff Ex. 17; Bruce Rebuttal, Southern Cross Ex. 9 at WP/MB 1, ERCOT Response to Staff RFI 2-6; and ERCOT Response to Staff RFI, 2-7, Staff Ex. 19.

<sup>69</sup> See Parquet Rebuttal, Southern Cross Ex. 6 at 4:19-5:4 (stating that Southern Cross needs ERCOT to have negotiated a coordination agreement with the balancing authority in the southeast and revised the standard market participant agreement before Southern Cross closes on financing around June 1, 2017); Tr. at 217:23-218:11 (Bruce Cross) (June 1, 2016) (explaining that, once Southern Cross has given notice to Oncor to begin construction, the project is "highly likely because you're putting real money at risk").

ratepayers should not be forced to pay for revisions and agreements that benefit Southern Cross, especially when these revisions and agreements may not even be necessary.

The existing DC ties did not require ERCOT to make extensive changes. For instance, the other DC tie owners were able to execute the market participant agreement without any changes to the market participant types because they qualified as transmission service providers.<sup>70</sup> Southern Cross is not an existing market participant type and therefore cannot execute the market participant agreement absent changes. The existing DC ties are also significantly smaller,<sup>71</sup> and therefore did not present the same operational challenges when interconnected to the ERCOT transmission system. As Mr. Woodfin testified, congestion and outages would be more difficult to coordinate than the existing DC ties because, as proposed, the Southern Cross DC Tie will be significantly larger than the existing DC ties.<sup>72</sup> For instance, Mr. Woodfin explained that 2,000 MW makes “a much bigger difference in flows on the system potentially than any of the existing ties ...”<sup>73</sup> and that it “will affect[] flows on more parts of the system or a broader area of the system.”<sup>74</sup> Thus, it would not be discriminatory to treat the Southern Cross DC Tie different than the other DC ties.

**2. No costs related to the Rusk Substation or the Garland Project shall be allowed in a Transmission Cost of Service under any circumstances. (Preliminary Order Issue No. 2)**

Garland and Rusk Interconnection LLC (Rusk), a Southern Cross affiliate, entered into a Transmission Line Agreement that sets out Southern Cross’s responsibility for funding the construction of the Garland Project and its subsequent operations.<sup>75</sup> The Transmission Line Agreement requires Rusk to design and construct the Garland Project and, after it is complete, to convey it to Garland for \$1 in return for Garland assuming certain liabilities associated with the

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<sup>70</sup> Tr. at 278:3-21 (Hailu Cross) (June 1, 2016).

<sup>71</sup> The largest of the existing DC ties is 600 MW. Tr. at 284:14-18 (Woodfin Cross) (June 1, 2016). *See also* Wolfe Rebuttal, Southern Cross Ex. 7 at EW-2-R (Figure 1).

<sup>72</sup> Tr. at 284:11-18; 285:18-24 (Woodfin Cross) (June 1, 2016).

<sup>73</sup> Tr. at 284:15-17 (Woodfin Cross) (June 1, 2016).

<sup>74</sup> Tr. at 285:23-24 (June 1, 2016).

<sup>75</sup> *See* Direct Testimony of Darrell W. Cline, Garland Ex. 2 at 10:16-20 (February 25, 2016) (Cline Direct).

Project.<sup>76</sup> The Transmission Line Agreement also provides that Rusk will “pay for construction and reasonable operation and maintenance costs of the facilities” in addition to establishing an escrow fund to cover decommissioning costs.<sup>77</sup> But there is a possibility that Rusk could default on its obligation in the future and leave Garland to pay for operation, maintenance, and decommissioning expenses. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

As it is not clear that Texas ratepayers will benefit from the Southern Cross DC Tie, Texas ratepayers should not be forced to assume this risk on Garland’s behalf. Based on the unique nature of this case, Staff recommends that the Commission include a condition that Garland not be able to seek reimbursement for any construction, operation, maintenance, decommissioning or upgrade costs incurred because of the Southern Cross project, and that Garland be required to clearly account for and report any associated costs in any of its wholesale transmission rate requests.. If Garland is to gamble, let it do so with its own money.

Similarly, ratepayers should not be responsible for the construction of the Rusk Substation. In order to interconnect Southern Cross DC Tie to ERCOT, Oncor must construct the Rusk Substation.<sup>79</sup> Under the settlement agreement filed in the FERC docket, Rusk agreed to reimburse Oncor for its investment in the Rusk Substation in the event that the Commission does not allow Oncor to include the costs for this substation in its rate base.<sup>80</sup> As the Rusk Substation will exist solely to serve Southern Cross, Texas ratepayers should not be forced to subsidize it. Thus, based on the unique nature of this case, Staff recommends that the Commission order include as a condition of approval that Oncor’s investment in, and other costs related to, the Rusk

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<sup>76</sup> *Id.* at 11:2-8.

<sup>77</sup> Rebuttal Testimony of Darrel W. Cline, Garland Ex. 8 at 2:18-21 (May 24, 2016).

<sup>78</sup> Cline Direct, Garland Ex. 2 at Confidential Ex. DWC-2, 9-10 (Transmission Line Agreement).

<sup>79</sup> CCN Application Form and Attachments, Garland Ex. 1 at Attachment 2 page 2.

<sup>80</sup> Direct Testimony of Charles S. Griffey, TIEC Ex. 1 at 9:8-10 (April 27, 2016) (citing Southern Cross’s Response to TIEC 1-13) (Griffey Direct).

Substation will not be included in Oncor's rates, and that Oncor be required to clearly account for and report any associated costs in any of its rate requests that involve transmission or distribution system invested capital costs.

**E. Staff recommends conditions regarding routing and construction of the Garland Project.**

**1. Staff has reviewed the Stipulation regarding routing and offers that Route RP9 is a satisfactory alternative. (Preliminary Order Issue No. 2a)**

Under the Preliminary Order, an issue to be addressed in this proceeding is whether it would be appropriate for the Commission to specify a route as a reasonable condition.<sup>81</sup> Staff recommends that it would be a reasonable condition for the Commission to specify the route. Although the FERC Order requires Southern Cross to complete interconnection and reliability studies as well as identify the necessary interconnection facilities, FERC did not consider or otherwise specify a route for the Garland Project. The Commission also is in the best position to determine the route using the factors set forth in PURA § 37.056 and 16 Tex. Admin. Code § 25.101 (TAC). In addition, no party in this docket has argued that it would be unreasonable for the Commission to specify a route. Therefore, Staff recommends that the Commission specify a route for the Garland Project.

In its application, Garland proposed 12 potential routes for the Garland Project and identified Route RP5 as the preferred route.<sup>82</sup> As explained by Staff Witness Kevin Mathis, Staff also recommends Route RP5 as the proposed route that best meets the requirements of PURA § 37.056 and 16 TAC § 25.101.<sup>83</sup> Several intervenors, Garland, and Southern Cross have signed a Stipulation agreeing that Route RP9 is the route the Commission should approve.<sup>84</sup> Staff is unopposed to Route RP9 as it is a satisfactory alternative when weighing the criteria in the statute and Commission rules.<sup>85</sup>

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<sup>81</sup> *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*, Preliminary Order at 2 (March 22, 2016).

<sup>82</sup> Cline Direct, Ex. 2 at 9.

<sup>83</sup> Direct Testimony of Kevin Mathis, Staff Ex. 1 at 16, 32.

<sup>84</sup> Stipulation Concerning Transmission Line Route, Garland Ex. 12 (June 8, 2016) (Stipulation).

<sup>85</sup> Staff Witness Kevin Mathis reviewed RP9 and found it to be a reasonable alternative. Direct Testimony of Kevin Mathis, Staff Ex. 1 at 25:3-7 (May 11, 2016) (Mathis Direct).

In addition to specifying a route in this proceeding, Staff Witness Kevin Mathis also recommended several conditions that could mitigate the impact of the Garland Project:<sup>86</sup>

a. In the event Garland or its contractors encounter any archeological artifacts or other cultural resources during project construction, work shall cease immediately in the vicinity of the resource and the discovery shall be reported to the Texas Historical Commission (THC). Garland shall take action as directed by the THC.

b. Garland 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 should consult *Reducing Avian Collisions with Power Lines: State of the Art in 2012*.

c. Garland 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.

d. Garland 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 shall revegetate using native species and shall consider landowner preferences in doing so. Furthermore, to the maximum extent practicable, Garland shall avoid adverse environmental impacts to sensitive plant and animal species and their habitats as identified by the Texas Parks and Wildlife Department (TPWD) and the United States Fish and Wildlife Service.

e. Garland shall implement erosion control measures as appropriate. Also, Garland shall return each affected landowner's property to its original contours and grades unless otherwise agreed to by the landowner. Garland shall not be required to restore original contours and grades where different contouring or grading is necessary to ensure the safety or stability of the project's structures or the safe operation and maintenance of the line.

f. Garland shall cooperate with directly affected landowners to implement minor deviations in the approved route to minimize the impact of the proposed transmission line. Any

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<sup>86</sup> *Id.* at 12:4-14:10.



minor deviations to the approved route shall directly affect only landowners that received notice of the transmission line in accordance with 16 TAC § 22.52(a)(3) and that have agreed to the minor deviations.

g. Garland 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 shall receive consent from all landowners who would be affected by the deviation regardless of whether the affected landowner received notice or participated in this proceeding. Second, the deviation shall result in a reasonably direct path towards the terminus of the line and not cause unreasonable increase in cost or delay the project. Unless these two conditions are met, this paragraph does not authorize Garland to deviate from the approved route except as allowed by the other ordering paragraphs in this Order.

h. Garland 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.

**2. Rusk should be permitted to condemn land and begin construction on the Garland Project only after the Southern Cross DC Tie meets certain milestones. (Preliminary Order No. 2)**

It is unknown at this time whether the Southern Cross DC Tie and Line will ultimately be completed. Southern Cross has yet to identify the eastern end point of its DC tie, obtain the over two billion dollars in requisite financing, and [REDACTED]

[REDACTED]. In short, there is a real possibility that the DC tie might not ever be completed.

In the Stipulation, the Signatories<sup>87</sup> included a provision that in part satisfies Staff's concern.<sup>88</sup> Specifically, the Signatories agreed that Garland, Southern Cross, and Rusk will not

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<sup>87</sup> The Signatories include Jo Campbell on behalf of Jeb Stuart James; Justin Wagstaff; Venita Judice on behalf of Weldon and Jane Gray; Joe Beard; Tiffany Hull on behalf of Tiffany and Stephen Hull; Julia H. Greggs; Bobby Milhauser; Jim Holder; Frances Gilbert Barker; Meredith Gautier; Fannie Watson; Ruth Stephens; Jim Hutchinson; Carl Carlswell, Jr.; William Mark Wood; Betty Lou Wood; Charles Spears; John P. Carroll; Sandra Stein; Danny Milam; Thomas Patten; Billy Broadway; Kartreba Denese McDaniel Toler; Jason Heinkel; Craig Gibbs; Joy Gibbs; Jason Spiller; Johnny Holmes; Tom Williams; Riley Booth; Sharon Kirchner; Vickie Lacy Langford; Mark Langford; Billy Langford; Brian Lillibridge; Mary Lillibridge; Michael Lillibridge; Elizabeth Lane; Glorianne Spiller; and James S. Robertson on behalf of the East Area Council of the Boy Scouts of America; City of Garland; Southern Cross; Jo Ann Orr Miller; Clive W. Fields; Larry W. Fields; Sylvia Hunt; and Sherri Waters.

<sup>88</sup> Stipulation at 2-3.

seek to condemn any landowner's land in Panola County for the Garland Project until Southern Cross provides evidence that it has secured the funding to construct the complete interconnection of project, including the Garland Project and the Southern Cross Transmission Project. Staff still recommends that the Commission include a condition that Garland can condemn land and begin construction only after Garland, or Southern Cross, files evidence that Southern Cross: (1) has obtained all necessary regulatory approvals in Louisiana where the Southern Cross DC Tie is to be built; (2) has secured funding for the full cost of the Southern Cross DC Tie, Southern Cross Line, and Garland Project, and (3) has constructed at least 75% of the Southern Cross DC Tie in Louisiana.

**3. Potential for mutual coupling between the proposed Garland Project and SWEPCO's existing transmission lines. (Preliminary Order Issue No. 2)**

The paralleling and/or crossing of other high voltage transmission lines creates a risk of an electromagnetic mutual coupling effect, which could cause relay misoperations on the existing SWEPCO lines, which could in turn lead to outages.<sup>89</sup> While mutual coupling is a well-known phenomenon in the power industry, coupling between asynchronous lines is not well understood.<sup>90</sup> In Staff Witness Kevin Mathis's testimony, he recommended that the Commission order Garland to (1) conduct a study together with any affected utilities to ensure that the necessary mitigation measures are taken to ensure safety and reliability and (2) to pay for the entire study. Staff further recommends that as a condition of approval the Commission order that Garland may not seek to include these costs in rates.

During the hearing on the merits, Garland introduced an agreement between Garland, Rusk, and SWEPCO that addresses how Garland and Rusk will coordinate with SWEPCO to determine the impact of mutual coupling on certain SWEPCO transmission lines and potentially compensate SWEPCO in the event SWEPCO must relocate, modify, or otherwise be adversely impacted by the Garland Project.<sup>91</sup> In light of the agreement between Garland, Rusk, and SWEPCO, this issue appears to have been addressed.

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<sup>89</sup> Mathis Direct, Staff Ex. 1 at 28:3-12.

<sup>90</sup> *Id.* at 29:4-8

<sup>91</sup> SWEPCO Letter Agreement, Garland Ex. 10.

4. **Garland should be required to disconnect from the Southern Cross DC Tie if (1) FERC asserts jurisdiction over ERCOT due to the line; (2) a synchronous connection is ever made to the line outside the State of Texas; or (3) Southern Cross fails to follow any ERCOT Protocol or Commission rule and, as a result, the Commission orders the disconnection. (Preliminary Order Issue No. 2)**

Staff agrees with TIEC witness Charles Griffey that the Commission should condition approval of the application on a requirement that Garland disconnect from the Southern Cross DC Tie if the connection results in FERC asserting jurisdiction over ERCOT or a synchronous connection is ever made to the line outside the State of Texas.<sup>92</sup> Staff also recommends that the Commission clarify in its order that a potential consequence of Southern Cross failing to abide by ERCOT Protocols or Commission rules is that the Commission could order the disconnection of the line.

#### **IV. CONCLUSION**

Southern Cross, through Garland's CCN application, is asking the Commission to allow it to eventually interconnect its proposed DC tie to ERCOT. There is much that is unknown about the proposed Southern Cross DC Tie because the project is in the early stages of development. It is unknown where it will interconnect on the eastern end. It is unknown exactly what ability the DC tie will have to provide reactive power and Primary Frequency Response. It is unknown which BAs, ISOs, or RTOs ERCOT will need to negotiate a coordination agreement with. It is unknown if Southern Cross will be able to secure financing and obtain regulatory approvals in other states. It is unknown whether the Southern Cross DC Tie will provide the benefits Southern Cross claims. But it is known that the proposed Southern Cross DC Tie will be privately owned and significantly larger than the existing DC ties, and therefore, will create novel policy and operational challenges that ERCOT did not face when interconnecting the existing DC ties. Given the uncertainties surrounding the proposed Southern Cross DC Tie, Staff's conditions are essential to protect the ERCOT transmission system and ratepayers from any potential negative consequences of interconnecting ERCOT to SERC through the proposed Southern Cross DC Tie. These conditions are therefore reasonable conditions that are in the public interest and consistent with the FERC Order.

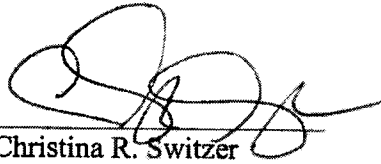
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<sup>92</sup> Griffey Direct at 13:23-14:2.

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

**CERTIFICATE OF SERVICE**

I certify that a copy of this document will be served on all parties of record on June 10, 2016, in accordance with 16 TAC § 22.74.



Christina R. Switzer

# Attachment A

## **STAFF'S PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW**

### **I. Findings of Fact**

#### **General Project Background**

1. The City of Garland (Garland) operates a municipally-owned electric utility (MOU) as Garland Power & Light providing service under certificate of convenience and necessity (CCN) No. 30063.
2. On February 25, 2016, Garland filed an application to amend its certificate of convenience and necessity (CCN) CN to construct a double-circuit 345-kV transmission line in Rusk and Panola Counties, Texas (Garland Project) pursuant to PURA §§ 37.051(c-1), (c-2), (g) and (i).
3. The proposed Garland Project will interconnect a new Rusk Switching Station (Rusk Substation) in Rusk County to a new Panola Switching Station (Panola Substation) in Panola County at the Texas-Louisiana border. The new Rusk Substation, which is to be constructed and owned by Oncor, will interconnect with Electric Reliability Council of Texas, Inc. (ERCOT) transmission system and the new Panola Substation will interconnect to a new high-voltage direct current converter station to be owned by Southern Cross Transmission LLC (Southern Cross) located across the border in Louisiana (Southern Cross DC Tie). The Southern Cross DC Tie will interconnect on the Louisiana side to a 400-mile transmission line that terminates at a yet to be determined end point in the South Eastern Reliability Council (SERC) transmission system (Southern Cross Line).

#### **Procedural History**

4. PURA § 37.051 (c-2) and (i), as enacted during the 2015 Texas Legislature, direct the Commission to act on such an application not later than the 185<sup>th</sup> day after the application is filed, or by August 29, 2016.
5. On February 25, 2016, Southern Cross filed its motion to intervene and direct testimony supporting Garland's application on the day the application.
6. On February 29, 2016, the Commission referred this matter to the State Office of Administrative Hearings (SOAH).
7. On March 2, 2016, the Administrative Law Judge (ALJ) issued SOAH Order No. 1 concluding 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.

8. SOAH Order No. 2, issued March 15, 2016, memorialized the prehearing conference and established the procedural schedule. SOAH Order No. 2 also approved and adopted a Protective Order; and granted the interventions of Southern Cross; Centerpoint Energy Houston Electric, LLC (Centerpoint); the Electric Reliability Council of Texas, Inc. (ERCOT); Texas Industrial Energy Consumers (TIEC); Jeb James; and Terry Hooper.
9. On March 22, 2016, the Commission issued a Preliminary Order.
10. On March 28, 2016, pursuant to the procedural schedule, Southern Cross filed its supplemental direct testimony on Preliminary Order Issues.
11. SOAH Order No. 4, issued on April 15, 2016, among other things, clarified that no route adequacy hearing would be held, and granted intervention status to the following parties: Thomas Patten; Beverly Patten; Bobby LaVaughn Anderson II; Gloria Moffett; Luminant Generation Company, LLC; Luminant Energy Company, LLC; 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; the NRG Companies (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.

12. SOAH Order No. 5, issued April 27, 2016, granted intervenor status to Sherri Waters, Johnny Holmes, and Jason Spiller and denied intervenor status to Larry Fields.
13. On April 27, 2016, certain intervenors filed 28 statements of position and 33 direct testimonies.
14. SOAH Order No. 6, issued May 5, 2016, among other things, granted Larry Fields' request for reinstatement as an intervenor and dismissed Terry Hooper as an intervenor.
15. On May 11, 2016, Commission Staff filed its direct testimony.
16. On May 16, 2016, two direct testimonies from intervenors were filed late.
17. On May 24, 2016, Garland filed rebuttal testimony and intervenors filed cross-rebuttal testimony.
18. The hearing on the merits was held on May 31-June 3, 2016.
19. 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' request to withdraw from the proceeding.
20. On June 8, 2016, the intervening landowners, Garland and Southern Cross filed an unopposed Stipulation Concerning Transmission Line Route (Route Stipulation) and a motion to admit the Route Stipulation into evidence.
21. On June   8  , 2016, the ALJs issued SOAH Order No. 9, admitting the Route Stipulation into evidence.

**Notice**

22. Garland provided notice and hosted public open-house meetings as required under 16 Tex. Admin. Code (TAC) § 22.52(a)(4).
23. On December 1 and 2, 2015, Garland held two open houses at the Carthage Civic Center located at 1702 South Adams, Carthage, Texas.
24. On February 25, 2016, Garland provided written notice by first class mail to the owners of land, as stated on the current county tax rolls in Rusk and Panola Counties, Texas, who are directly affected by the Garland Project.
25. On February 25, 2016, Garland sent notices of the application to utilities providing similar service within five miles of the Garland Project by priority mail, to the county officials in Rusk and Panola Counties by priority mail, to the Mayors of the cities within five miles of the Garland Project by priority mail, and written notice was sent to the Office of Public Utility Counsel (OPUC).



26. A copy of the Environmental Assessment and Alternative Route Analysis (EA) was delivered to the Texas Parks and Wildlife Department (TPWD) on February 25, 2016.
27. On February 28, 2016, Garland published notice of the application in the *Henderson Daily News* and in the *Panola Watchman* within one week after it filed the application with the Public Utility Commission of Texas (Commission).
28. On March 11, 2016, notice of Garland's application was published in the *Texas Register*.<sup>1</sup>
29. On March 13, 2016, Garland filed Proof of Notice.
30. On March 22 and 23, 2016, Garland sent supplemental notice to certain affected landowners after Garland was informed that those landowners did not receive the original notice.
31. On April 26, 2016, notice was provided pursuant to Chapter 26 of the Texas Parks and Wildlife Code to the Texas Parks & Wildlife Department and the Sabine River Authority. Also, pursuant to Ch. 26 of the of the Texas Parks and Wildlife Code, notice was published in the *Henderson Daily News* and *Panola Watchman* on May 8, May 15, and May 22, 2016.

**Description of the Garland Project**

32. Garland plans to construct a double-circuit 345-kV transmission line from the new Rusk Switching Station in Rusk County, Texas to the new Panola Switching Station in Panola County, Texas.
33. The Rusk Switching Station will be constructed and owned by Oncor and the Panola Switching Station will be constructed by Rusk and owned by Garland.
34. The Panola Switching Station will be owned by Garland and will connect at the Texas-Louisiana border with the Southern Cross DC Tie.
35. The transmission line is approximately 37-40 miles in length, depending upon the final route selected.
36. The Southern Cross DC Tie will interconnect on the Louisiana side to a 400-mile transmission line that terminates at a yet to be determined end point in the SERC transmission system.
37. The Southern Cross DC Tie will be privately funded and operated as a merchant transmission line subject to Federal Energy Regulatory Commission (FERC) regulation. Capacity on the Southern Cross Line will be sold under Southern Cross's FERC tariff.

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<sup>1</sup> 41 TexReg 2033.

38. Garland entered into a Transmission Line Agreement (Agreement) with Rusk Interconnection LLC (Rusk), a Southern Cross affiliate that will oversee and fund construction of the Garland Project.
39. Under the Agreement, Garland designates Rusk to design and construct the project facilities in compliance with and along the route identified by this order.
40. Rusk will pay for construction and reasonable operation and maintenance costs of the facilities.
41. Rusk will establish an escrow fund to cover decommissioning costs.
42. After the facilities are completed and ready to be placed into service, Rusk will convey the facilities to Garland for \$1.
43. Garland will not seek to recover the costs of developing, constructing, interconnecting or financing the project of the Panola Switching Station through transmission service rates established by the Commission.
44. Garland will operate the facilities as an open access facility subject to the Commission's rules, NERC standards, and ERCOT protocols applicable to such transmission facilities.
45. Garland will also maintain the facilities.

**The Application**

46. Based on the evidence, the Application is sufficient.

**Need**

47. The need for the Garland Project is driven by PURA §§ 37.051(c-2) and (i), which require the Commission to approve the City of Garland's CCN application.

**Routing**

48. In its application, Garland proposed 12 potential routes for the Garland Project.
49. Garland identified Route RP5 as the route that best meets the requirements of PURA § 37.056 and 16 TAC § 25.101.
50. Garland considered and submitted an adequate number of geographically diverse routes.
51. All routes are viable, feasible, and reasonable from an environmental, engineering, and cost perspective.
52. The landowner intervenors, Garland and Southern Cross entered into a Stipulation agreeing that Route RP9 should be the Commission approved route.
53. Route RP9 is unopposed by Staff and non-landowner intervenors.

54. The Stipulation Route, RP9, is comprised of segments 1, 7, 9, 13, 23, 24, 28, 31, 34, 41, and 43 as described in the application.
55. The Stipulation Route is comprised of existing route segments, and complies with the Commission's routing factors.
56. The Stipulation Route is 38 miles in length and has an estimated cost of \$108,979,664.
57. There are no significant impacts to any airports, airstrips, or heliports anticipated from the construction of the Stipulation Route.
58. There are no AM radio transmitters located within 10,000 feet of the centerline of the Stipulation Route and no FM radio transmitters, microwave towers, or other electronic installations within 2,000 feet of the centerline of the Stipulation Route.
59. Commission Staff recommends that Garland cooperate with directly affected landowners to implement minor deviations in the approved route to minimize the impact of the project.
60. No parks or recreational areas are crossed by the right-of-way of the Stipulation Route.
61. There are no recorded historic or prehistoric sites located within the right-of-way of the Settlement Route, and no additional recorded historic or prehistoric site within 1,000 feet of the centerline of the Settlement Route.
62. No National Register-listed sites are located within the right-of-way of the Stipulation Route, and no additional National Register-listed sites are within 1,000 feet of the centerline of the Settlement Route.
63. The Settlement Route does not cross any area with high archeological site potential.
64. No significant adverse impacts to historical or archeological sites are expected as a result of the construction of the Project along the Stipulation Route.
65. During construction, some temporary impacts to aesthetics may occur. These would result from the presence of construction equipment, recent disturbance from clearing and construction, clearing debris, and construction materials along the right-of-way. However, following construction, the right-of-way would be revegetated, construction equipment and material used or removed, and debris and trash disposed. The Project right-of-way would not present a view dissimilar to other linear rights-of-way throughout the area following completion of construction and restoration activities.

66. Aesthetic impacts of the proposed transmission line have been considered and minimized to the extent possible.
67. TPWD was contacted to obtain information regarding the possibility of encountering any endangered or threatened species in the area affected by the Project.
68. Potential impacts to water resources, ecology (including endangered/threatened vegetation and fish and wildlife), and land use within the study area for the Project have been studied.
69. No significant impacts to wetland resources, ecological resources, endangered and threatened species, or land use are anticipated as a result of the construction of the Project.
70. Construction of the Project will have no significant impact on geological features or resources of the area.
71. For purposes of this Order, an "engineering constraint" shall be construed as any physical condition or physical obstacle to construction along the Commission-approved route that would be impossible, unsafe, or unreasonably cost-prohibitive to overcome with design and construction solutions alone.
72. Using the best information available to it without access to the subject properties, Garland has not identified any engineering constraints along the Stipulation Route that cannot be resolved with additional consideration during the design and construction phase of the proposed transmission-line project.

***Prudent Avoidance***

73. Prudent avoidance is achieved by minimizing, to the extent reasonable, the number of habitable structures located in close proximity to the routes.
74. Garland considered the Commission's policy of prudent avoidance in developing the proposed alternative routes.
75. All proposed alternative routes comply with the Commission's policy of prudent avoidance.
76. The Stipulation Route has been routed in accordance with the Commission's policy of prudent avoidance.
77. There is one habitable structures within 300 feet of the centerline of the Stipulation Route.

78. TPWD filed its comments and recommendations regarding the Environmental Assessment and Alternative Route Analysis on April 27, 2016. TPWD did not submit testimony in this proceeding.
79. No modifications to the Project are required as a result of the recommendations and comments made by TPWD.
80. Garland will comply with TPWD's April 27, 2016 recommendations where reasonable and possible, consistent with the need to complete the Project in a timely and cost-effective manner.
81. Garland will implement TPWD 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.
82. It is appropriate that Garland will use best management practices to minimize the potential impact to migratory birds and threatened or endangered species.
83. In the event Garland or its contractors encounter any archeological artifacts or other cultural resources during project construction, work shall cease immediately in the vicinity of the resource and the discovery shall be reported to the Texas Historical Commission (THC). Garland shall take action as directed by the THC.
84. Garland 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 should consult *Reducing Avian Collisions with Power Lines: State of the Art in 2012*.
85. Garland 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.
86. Garland 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 shall revegetate using native species and shall consider landowner preferences in doing so. Furthermore, to the maximum extent practicable, Garland 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.

87. Garland 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.
88. Garland shall implement erosion control measures as appropriate. Also, Garland shall return each affected landowner's property to its original contours and grades unless otherwise agreed to by the landowner. Garland 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.
89. Garland shall cooperate with directly affected landowners to implement minor deviations in the approved route to minimize the impact of the proposed transmission line. Any minor deviations to the approved route shall directly affect only landowners that received notice of the transmission line in accordance with 16 TAC § 22.52(a)(3) and that have agreed to the minor deviations.
90. Garland 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 shall receive consent from all landowners who would be affected by the deviation regardless of whether the affected landowner received notice or participated in this proceeding. Second, the deviation shall result in a reasonably direct path towards the terminus of the line and not cause unreasonable increase in cost or delay the project. Unless these two conditions are met, this paragraph does not authorize Garland to deviate from the approved route except as allowed by the other ordering paragraphs in this Order.
91. Garland 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.
92. No condemnation of land shall occur until Garland and/or Southern Cross files evidence that Southern Cross has obtained all necessary regulatory approvals in states where the Southern Cross DC Tie is to be built.

93. No condemnation of land shall occur until Garland and/or Southern Cross files evidence that funding for the full costs of the Southern Cross DC Ties, Southern Cross Line, and Garland Project has been secured.
94. No condemnation of land shall occur until at least 75% of the Southern Cross DC Tie in Louisiana has been constructed.

#### **Requirements to interconnect with ERCOT**

95. The Southern Cross DC Tie presents unique operational issues that may have negative reliability impacts on the ERCOT transmission system.

#### ***Market Participant Agreement***

96. All market participants in ERCOT execute a market participant agreement.
97. Southern Cross must execute ERCOT's market participant agreement before the Garland Project is energized.
98. Southern Cross shall be responsible for those expenses related to revising an existing market participant type or creating a new market participant type for Southern Cross to be able to execute the market participant agreement.

#### ***Coordination Agreement***

99. A coordination agreement with any Regional Transmission Organization (RTO), Independent System Operator (ISO), or Balancing Authority (BA) assists in emergency coordination, inadvertent energy transfers, and compensation for any emergency imports.
100. ERCOT must execute a coordination agreement with any RTO, ISO, or BA on the eastern end of the Southern Cross DC Tie before the Garland Project is energized.

#### ***ERCOT Planning & Operations***

101. The interconnection of the Southern Cross DC Tie may challenge ERCOT's ramp capability.
102. ERCOT must evaluate whether it needs to establish new ramp restrictions for the Southern Cross DC Tie, and adopt any appropriate changes, before the Garland Project is energized.
103. The interconnection of the Southern Cross DC Tie will introduce additional complexity to coordinating outages.
104. ERCOT must study, and to the extent necessary, adopt appropriate changes to ensure that ERCOT can coordinate outages before the Garland Project is energized.

105. Although the Southern Cross DC Tie is not a generator, it has the capability to import power onto the ERCOT transmission system that may replace power that provides Primary Frequency Response or reactive power.
106. ERCOT must study whether and how Southern Cross should provide Primary Frequency Response and reactive power to the ERCOT transmission system before the Garland Project is energized.
107. If ERCOT determines that Southern Cross must provide Primary Frequency Response or reactive power, then Southern Cross must provide or procure it.
108. Imports and exports during emergency situations can impact pricing in the ERCOT market.
109. The Southern Cross DC Tie can import or export up to 2000 MW during emergency situations.
110. ERCOT will study price formation issues that occur during emergencies when ERCOT takes out-of-market actions to import or export power over the Southern Cross DC Tie.
111. ERCOT will study whether changes should be made to planning assumptions and or criteria to identify transmission upgrades that may address congestion related to power flows over the Southern Cross DC Tie in a cost-effective manner.
112. Commission Staff will open a project to consider whether changes should be made to the cost allocation methods for transmission upgrades built to facilitate imports/exports over the Southern Cross DC Tie.
113. ERCOT will study a study for ways to manage congestion caused by imports and exports over the Southern Cross DC Tie.
114. If necessary, ERCOT will implement a plan to address congestion in a cost-effective manner before the Garland Project is energized.
115. Commission Staff will open a project to consider whether there should be changes to the method for allocating and collecting the cost of ancillary services.

*Cost Responsibility*

116. ERCOT must study price formation issues during emergencies when ERCOT takes out-of-market actions to import or export power over the Southern Cross DC Tie.
117. Southern Cross must pay for ERCOT's cost to study and modify ERCOT's protocols and systems to reflect Southern Cross's addition to the market participant category,
118. Southern Cross must pay ERCOT to negotiate an agreement with other RTOs/ISOs/BAs.



119. Southern Cross must pay ERCOT to study congestion management and the cost of implementing a congestion management plan.
120. Southern Cross must pay ERCOT to create tools to coordinate outages.
121. Southern Cross must pay ERCOT to conduct a study to determine what reactive power services Southern Cross must provide.
122. Garland will not recover any costs related to the design and construction of the Garland Project in a Transmission Cost of Service in the event Rusk Interconnection LLC defaults on its obligation to Garland to pay for it.
123. Oncor will construct the Rusk Substation.
124. The Rusk Substation will exist solely to serve Southern Cross.
125. Based on the unique circumstances in this case, Oncor will not include the Rusk Substation in its rate base.
126. Rusk Interconnection LLC will reimburse Oncor for its investment in the Rusk Substation.
127. Oncor will account for and report any associated costs in any of its rate requests that involve transmission or distribution system invested capital costs that relate to the Rusk Substation or the Garland Project.

#### *FERC Jurisdiction*

128. Garland must be able to disconnect from the Southern Cross DC Tie if FERC asserts jurisdiction over ERCOT due to the line or if a synchronous connection is every made to the line outside of the State of Texas.
129. If Southern Cross fails to abide by ERCOT Protocols or Commission rules then the Commission can order the disconnection of the line.

#### **II. Conclusions of Law**

1. The Commission has jurisdiction over this proceeding under PURA §§ 37.051 and 37.056. SOAH has jurisdiction over this proceeding under PURA § 14.053 and Tex. Gov't Code Ann. § 2003.049 (West 2008 & Suppl. 2015).
2. Garland is required under PURA § 37.051(c-1) to obtain a CCN for the Garland Project prior to interconnecting to the Southern Cross DC Tie.
3. Garland provided adequate notice of its application, as required by PURA § 37.054 and 16 TAC § 22.52(a).

4. Garland's application is adequate, sufficient, and materially complete. Garland has proposed an adequate number of alternative routes that allows the Commission to conduct a proper evaluation of the Garland Project.
5. This proceeding was processed in accordance with the requirements in PURA, Tex. Gov't Code Ann. §§ 2001.001 and 2001.902 (West 2008 & Suppl. 2015), and 16 TAC § 25.101.
6. The Commission is required under PURA § 37.051(c-2) to approve Garland's application by August 29, 2016, the 185th day from the February 25, 2016 filing date. In approving Garland's application, the Commission has authority under PURA § 37.051(c-2) to prescribe reasonable conditions in order to protect the public interest.
7. Garland is entitled to approval of its application, subject to the conditions detailed in this Order.
8. Consistent with the Route Stipulation, Garland is entitled to construct the Garland Project using the Stipulation Route.
9. The Stipulation Route adheres to the requirements of § 37.056(c) and the Commission's policy on prudent avoidance, as defined in 16 TAC § 25.101(a)(4).
10. The Commission has the authority to enforce the commitments set forth in this Order against both Garland and Southern Cross. To the extent that either Garland and Southern Cross fail to comply with a Commission order, the Commission can take necessary actions to remedy such noncompliance, including seeking a court order requiring compliance with this Order under PURA § 15.021, filing a court action for contempt for failure to comply with this Order under PURA § 15.022, or imposing administrative penalties under PURA § 15.023.
11. The conditions detailed in this Order are reasonable, protect the public interest, and are consistent with the Commission's authority under PURA § 37.051(c-2), only if all conditions and commitments described in this Order are met.