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APPLICATION OF THE CITY OF	- §	2016 AUG -9 PM 3: 00
GARLAND TO AMEND A	§	BEFORE THE PUBLIC UTILITY COMMISSION
CERTIFICATE OF CONVENIENCE	§	FILING CLERK
AND NECESSITY FOR THE RUSK TO	§	STATE OFFICE OF
PANOLA DOUBLE-CIRCUIT 345-KV	§ "	
TRANSMISSION LINE IN RUSK AND	§	ADMINISTRATIVE HEARINGS
PANOLA COUNTIES •	8	

SOUTHERN CROSS TRANSMISSION LLC'S REPLY TO EXCEPTIONS

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I. INTRODUCTION

Many of the arguments put forward by some parties in this case, and echoed by others, are incorrect because the premises upon which the arguments have been based are false, conveniently not articulated, or simply misstated. Here are the key premises upon which all arguments should be evaluated.

- The Texas legislature required approval of Garland's application, but authorized the Commission to impose reasonable conditions in the public interest that are consistent with the FERC Order, which order directed the rendering of interconnection and transmission services and found that the SCT Project will provide numerous benefits to consumers in both the ERCOT and SERC regions.
- SCT will not cause congestion on the ERCOT system, because it does not engage in the purchase or sale of energy.
- QSEs engaged in transactions over the SCT Tie will be responding to economic signals in the competitive ERCOT market. Under the nodal market protocols, ERCOT will deny any requested transaction that could cause unresolved congestion resulting in a thermal overload.
- No reliability upgrades in ERCOT will be required as a result of interconnecting the SCT
 Project other than reactive support that will be part of the interconnection facilities
 anticipated in the FERC Order and associated interconnection agreements.
- Economic upgrades to the ERCOT system will be made only if they meet the existing production cost savings test under Substantive Rule 25.101 and it is determined that the benefit to ERCOT consumers exceeds the cost of the upgrades.
- Under Substantive Rule 25.192(e), export transactions pay their share of ERCOT transmission costs on the same basis that ERCOT load pays such costs.
- Under existing ERCOT Protocols, importing and exporting QSEs are already responsible
 for paying all of the load settlement charge types that other ERCOT load pays, including
 the system administration fee, ancillary services, transmission and distribution losses,
 unaccounted for energy, and others.
- The SCT Project is a controllable transmission line, and it cannot provide Primary Frequency Response (PFR) or Voltage Support Service (VSS) as if it were a generator.
- Upon posting financial security, SCT has the right, pursuant to the FERC Order to give Garland and Oncor notice to proceed to construct the interconnection facilities approved by FERC, interconnect with the ERCOT system, and receive transmission service in ERCOT.

 Any conditions approved in this case must be reasonable, in the public interest and consistent with SCT's FERC order as required by PURA §37.051 (c-2); moreover, they may not be unreasonably discriminatory, confiscatory, or interfere with interstate commerce.

When the above key premises are properly considered, the reasonable and credible evidence establishes that the final order should:

- Order completion dates for ERCOT projects (and any PÜCT projects if their completion is tied to energization) that allow the SCT Project to progress toward obtaining project financing, completing construction, interconnecting, and energizing.
- Find that ERCOT consumers will receive annual customer energy benefits, production
 cost savings benefits, local economic development, revenues from export tariffs, and taxlike benefits as well as ERCOT system reliability benefits that result from mutual
 reliability support between ERCOT and SERC.
- Find that while current methods of managing congestion resulting from DC tie exports and imports have been adequate to date, ERCOT should study whether its current practices can be improved.
- Find that as a result of how the SCT Project will be operated, no transmission upgrades will be required; however, if congestion occurs in the future based on ongoing QSE requests, the production cost savings test dictates that an upgrade would be constructed only if the benefit to ERCOT consumers exceeds the cost of the upgrade.
- Find that Oncor's reliability study, which was reviewed by ERCOT and ERCOT transmission service providers, concluded that interconnection of the SCT Project to ERCOT would not cause any adverse impact on the continued reliability of the ERCOT grid, and that no party to the FERC proceeding, including TIEC, ERCOT, CenterPoint, and the Commission, objected.
- Find that QSEs using the SCT DC Tie will pay at least their fair share of ERCOT transmission costs and settlement charges associated with export transactions and that assessing specific ERCOT facility costs to SCT would violate PURA § 35.004(d)'s mandate to use the postage stamp method.
- Direct ERCOT to work with SCT and the balancing authority or other reliability entity at
 the eastern end of the SCT Project to determine what, if any, arrangements can be made
 to allow SCT to provide limited PFR and VSS support by drawing energy from
 generators in SERC.
- Conform to the condemnation language contained in the unopposed stipulation with landowners..

The facts and arguments presented by SCT in its testimony, briefs, and exceptions have been based on the above key principles and logically and reasonably lead to the recommendations put forward by SCT. Merely reciting that a proposed condition is in the public interest or that it is consistent with SCT's FERC Order, as the PFD and some parties have, does not make it so. Determining what is in the public interest requires a balancing of interests, including the interests of SCT. And being consistent with the FERC Order, as specifically required by the Texas legislature, means that relevant provisions of that order, as well as FERC's public interest obligations in approving an order under the Federal Power Act, may not be ignored. SCT respectfully urges the Commission to consider SCT's Exceptions and this Reply to Exceptions and approve an order consistent with the revised Findings of Fact, Conclusions of Law, and Ordering Paragraphs attached to this Reply to Exceptions, particularly as they relate to (1) a timeline for ERCOT projects, (2) transmission system improvements, and (3) ancillary services.

V. DISCUSSION

F. ERCOT Issues (Preliminary Order Issue No. 4)

- 3. Transmission Upgrades to Facilitate Exports (Preliminary Order Issue No. 4c)
- 9. Costs of Ancillary Services (Preliminary Order Issue No. 4i)

TIEC's Exceptions assert that ERCOT consumers should not be required to pay incremental transmission or ancillary services costs to support exports over the SCT Tie and that SCT should instead bear such costs.¹ Staff also urges the Commission to consider whether to directly assign costs to SCT.² SCT has already addressed this issue in its Exceptions, showing that:

- (1) No significant incremental reliability transmission upgrade costs will be incurred because the SCT Tie will operate only up to the point of unresolved congestion, making this issue as cast by TIEC moot (see SCT's Exceptions at 17-20);
- (2) Ancillary services costs are uncertain and require ERCOT study (see SCT's Exceptions at 33-34);

¹ TIEC Exceptions at 6-10.

² Staff's Exceptions at 6-7.

- (3) Exports over DC ties are treated like load and already pay their share of transmission and settlement charges, including ancillary services costs (see SCT's Exceptions at 20-21, 34-35);
- (4) Breaking from the long-standing method of recovering transmission and ancillary services costs from load would result in discriminatory treatment of the SCT Project, be bad policy, and, with respect to transmission costs, be inconsistent with PURA's requirement to charge postage stamp rates (see SCT's Exceptions at 21-23, 35); and
- (5) The substantial benefits of the SCT Project to ERCOT ratepayers will exceed any costs associated with exports (see SCT's Exceptions at 23-27 and the benefits listed above in the Introduction).

Rather than repeat its previous discussion here, SCT will respond to certain assertions in TIEC's, ERCOT's, and Staff's Exceptions concerning SCT project benefits, congestion, and allocation of transmission and ancillary services costs.

SCT Project Benefits

TIEC claims that the SCT Project is designed to export low-cost power out of ERCOT.³ In reality, the project will enable economic transfers of power between ERCOT and SERC in both directions. When prices are lower in ERCOT, the tie will export. When prices are higher in ERCOT, the tie will import. Under current market conditions, in which ERCOT power prices are usually low, the tie will export more than it imports, but this will change if market conditions change. When the tie was modeled in 2010 and prices in ERCOT were higher, it imported more than it exported.⁴ In both 2010 conditions and today's market conditions, ERCOT consumers would benefit.⁵ They would also benefit from the tie's contribution to reserve margins when the market is tight and its ability to make exchanges in emergencies.

TIEC's Exceptions contain a variety of inconsistent descriptions of the SCT project's benefits. At times TIEC asserts that the project will provide *no benefits* to ERCOT consumers.⁶ At other times the project promises "few if any benefits" or benefits that are "questionable" or

³ TIEC's Exceptions at 4.

⁴ SCT Ex. 3, Exhibit EW-2 at 3, 19 (Wolfe Direct).

⁵ Ellen Wolfe's economic study showed significant benefits to ERCOT both in current market conditions that favor exports from ERCOT and in 2010 market conditions that favored imports. SCT Ex. 3, Exhibit EW-2 at 3, 19 (Wolfe Direct).

⁶ TIEC's Exceptions at 7 ("There is overwhelming evidence in the record that the SCT Tie will not benefit ERCOT customers.")

⁷ TIEC's Exceptions at 4, 6.

"speculative." With respect to imports over the tie, TIEC recognizes that there are benefits to ERCOT consumers, albeit "meager." For example, TIEC states that "price reductions due to economic imports from other power pools are *one of the few benefits* ERCOT consumers receive from a DC tie." 10

In reality, imports over the tie will provide substantial benefits because import transactions will occur at times when power prices in ERCOT are relatively high, reserve margins are decreasing, and ERCOT needs the energy to offset costs otherwise incurred to run expensive generators. As TIEC conceded, "the additional power supply offered by the SCT Tie could, on occasion, prevent ERCOT consumers from being exposed to prices up to \$9,000/MWh."

Despite the allegedly meager benefits from imports over the SCT Tie, TIEC devotes a third of its Exceptions to opposing efforts by Luminant and Texas Competitive Power Advocates (TCPA) that TIEC asserts would "counteract savings from SCT Tie imports." The benefits to ERCOT consumers from SCT imports are apparently significant enough to TIEC that it devoted substantial effort to trying to retain them, while Luminant and TCPA devoted similar effort to trying to moderate them. It does not make sense that TIEC would need to devote such a large portion of its Exceptions to defending its ability to receive "meager" or "speculative" benefits from the SCT tie, much less "no benefits" as TIEC sometimes asserts. TIEC's own words disprove its assertion that "the SCT Tie will not benefit ERCOT customers." In light of TIEC's substantial effort to retain the benefits of SCT imports, its various characterizations of SCT benefits ring hollow.

TIEC also claims that exports provide no benefits to ERCOT consumers, ¹⁵ but it offered no independent economic studies, and its claim is flatly contradicted by the evidence. SCT witness Ellen Wolfe testified that exports over the SCT Tie will allow more production of zero-

⁸ TIEC's Exceptions at 7, 8.

⁹ TIEC's Exceptions at 5.

¹⁰ TIEC's Exceptions at 11, emphasis added.

¹¹ Tr. at 119-120 (Jun. 1, 2016).

¹² TIEC's Exceptions at 11.

¹³ TIEC's Exceptions at 10, emphasis added.

¹⁴ SCT Exceptions at 7.

¹⁵ TIEC's Exceptions at 4.

production cost wind energy in ERCOT that would otherwise be constrained, and that ERCOT consumers will receive some of the benefit of that reduction in energy costs. As a result, TIEC's unsupported assertion that exports over the tie will increase prices in ERCOT is not correct. Although TIEC's response to this evidence is to assert that these exports would have occurred over the existing ties if they had been modeled as Mr. Griffey suggests, it is difficult to understand TIEC's concern about SCT exports if those exports would occur over the existing ties anyway. As with QSE imports over the SCT DC Tie discussed above, TIEC's arguments about exports are internally inconsistent and do not hold together.

Staff's Exceptions assert that SCT's 2010 benefits study shows that its estimated benefits were overstated by \$539 million. This is apparently based on the difference between the \$701 million of annual consumer benefits shown in SCT's 2010 study and the \$162 million of annual consumer benefits shown in the current study. This difference is due to significant changes that occurred in the ERCOT market since 2010, such as the substantial increase in low-cost wind generation, the decrease in natural gas prices, and the build-out of transmission to relieve constraints. These changes caused a substantial softening of the ERCOT market and reduction of its power prices, which in turn results in fewer imports over the SCT Tie in the current study than in the 2010 study. Far from showing a flaw in the study, the change in study outcomes from 2010 to today is a reasonable and expected result of the change in ERCOT market conditions. What the change in study results from 2010 to today does show, however, is that the SCT Tie benefits ERCOT consumers in either market environment, and that the benefits shown in the current study will increase if ERCOT power prices increase in the future—as they are likely to do if the 2010 market conditions return.

Congestion

Despite its assertions about incremental transmission costs, TIEC's Exceptions barely discuss—much less cite any evidence about—whether exports over the SCT Tie will cause congestion that requires transmission upgrades. TIEC's Exceptions cite the PFD, which is tentative about whether the SCT Tie will cause congestion, stating merely that "operating the

¹⁶ SCT Ex. 7 at 11 (Wolfe Rebuttal); Tr. at 99-100.

¹⁷ Staff's Exceptions at 2.

¹⁸ Staff's Initial Brief at 18.

¹⁹ SCT Ex. 3 at 13 (Wolfe Direct).

SCT tie *could* cause congestion that *may* require additional transmission upgrades."²⁰ Aside from this one statement, TIEC's Exceptions do not contend that the SCT Tie will cause congestion in ERCOT. This equivocation is understandable, since as ERCOT noted, "ERCOT is unable to formulate any predictions about future flows across the Southern Cross tie."²¹ What is knowable is that SCT Tie exports will not result in ERCOT transmission upgrades unless the benefits of those upgrades exceed their cost under the Commission's economic benefit test. (This issue is discussed further below.)

In point of fact, ERCOT deals with potential congestion on the grid on a daily basis. The ERCOT transmission pricing design sends appropriate price signals when transactions cause congestion. There is nothing in the record to suggest that the pricing design is not adequate to address whatever congestion may be caused by QSEs scheduling power over the SCT Project. Like all other transactions, ERCOT's existing rules determine whether new transmission should be built to relieve congestion, and there is no reason not to apply those rules to transactions over the SCT Project.

Cost Allocation

TIEC's Exceptions cloud the issue over transmission upgrades by advancing the confusing and untenable argument that transmission and ancillary services charges currently assessed to export transactions cover only existing and not incremental costs. TIEC cannot and does not dispute that SCT's export transactions would make contributions to offset the transmission cost of ERCOT loads under Substantive Rule 25.192(e) and pay their full share, or more, of ERCOT ancillary services costs through ERCOT settlement charges. In fact, TIEC urges the Commission to ensure that Rule 25.192(e) is fully implemented so that all export charges contemplated by the Rule are collected and credited against ERCOT transmission cost of service (TCOS), as discussed below. These export charge revenue will reduce costs for other ERCOT consumers.

TIEC's notion that transmission rates and ancillary services charges cover only existing and not incremental costs is contrary to both PURA and the Commission's long-standing cost allocation policy in ERCOT. SCT's Exceptions explain that export charges under Rule

²⁰ TIEC's Exceptions at 8 (emphasis added).

²¹ ERCOT Exceptions at 3 (summarizing the testimony of ERCOT witness Warren Lasher).

²² TIEC's Exceptions at 9.

25.192(e) properly implement PURA § 35.004(c) and (d) while TIEC's proposal to directly assign incremental costs to SCT would violate those provisions.²³ SCT will not repeat that discussion here. However, TIEC's claim that rates for transmission facilities and charges for ancillary services do not address incremental costs is simply false. When an incremental transmission facility is completed, its costs are routinely rolled into the postage stamp rate, not assessed to a specific market participant. The same is true of incremental ancillary services costs, which are rolled into settlement charges rather than specifically assessed.

TIEC is proposing that SCT be the *only* market participant in ERCOT required to contribute *both* its load-ratio share (through export charges for transactions over the tie) *and* any incremental costs attributable to the tie. 'Although SCT has shown that this issue is moot because no incremental transmission costs will be attributable to the SCT Project, TIEC's proposal would change the Commission's long-standing allocation methodology to impose hypothetical future incremental costs on SCT, and only SCT. Such costs have never before been imposed on a DC tie, a facility that is the most severe single contingency (MSSC), or, to SCT's knowledge, any other ERCOT market participant. Such treatment is discriminatory on its face.

Finally, as former Commissioner Hudson testified, there is not any valid reason to presume that the revenues from transmission rates and ancillary services charges for exports will not be more than adequate to cover any incremental costs that might arise from the SCT Tie.²⁴ This question is never even asked for other incremental transmission-related costs or the facilities that may benefit from them. One thing is certain, however—as a result of revenues from export charges for transmission and ancillary services, export transactions will pay their share, or more, of those costs and will not be subsidized as TIEC and Staff incorrectly suggest.

TIEC's arguments in this case are inconsistent with the legislative policy set out in PURA § 39.001 favoring competitive market solutions. In section 39.001(a) the legislature found "that the production and sale of electricity is not a monopoly warranting regulation of rates, operations, and services and that the public interest in competitive electric markets requires that, except for transmission and distribution services and for the recovery of stranded costs, electric services and their prices should be determined by customer choices and the normal forces of competition." Section 39.001(c) and (d) direct that the Commission "may not discriminate

²³ See SCT's Exceptions at 21.

²⁴ SCT Ex. 11 at 14 (Hudson Rebuttal).

against any participant or type of participant . . . in the competitive market" and "shall authorize or order competitive rather than regulatory methods to achieve the goals of this chapter to the greatest extent feasible and shall adopt rules and issue orders that are both practical and limited so as to impose the least impact on competition." The SCT Tie is fundamentally a market-based, pro-competitive project that will enable trading between ERCOT and SERC market participants. Contrary to section 39.001, TIEC is asking the Commission to restrict competition and discriminate against not only SCT, but also the QSEs using the SCT DC Tie.

ERCOT, in its exceptions, responded to a suggestion in the PFD at page 65 that the issue of assessing the cost of ancillary services differently may be referred to ERCOT for study. ERCOT correctly observes that it is not the most suitable forum for deciding fundamental matters of cost allocation, a view shared by SCT, TIEC, and the Staff.²⁵ If the Commission does not delete FoF 117 as requested by SCT, then it should revise that finding of fact as requested by ERCOT."²⁶ SCT also supports ERCOT's request to delete FoF 115 on the grounds that it assumes some ancillary services might be required over the DC tie.²⁷

Proposed FoF 58 states that the question of who should pay for transmission upgrades, if any, that may be required by the SCT DC Tie should be left to the ERCOT stakeholder process. SCT supports ERCOT's exception to this proposed finding of fact. As discussed above, the Commission should not consider changing the existing allocation of transmission costs. ERCOT correctly excepts to the proposed finding that ERCOT should take up the issue.²⁸

In its exceptions, Staff reiterated its request that the Commission direct it to open projects to consider changing the cost allocation methods for transmission upgrades and additional ancillary services.²⁹ The PFD correctly declined to recommend opening the requested projects.³⁰ For the same reasons discussed above, the Commission should reject Staff's requests to have the Commission consider changing the current method of allocating transmission costs in violation of PURA. SCT simply reurges the Commission to reject these ill-considered requests to abandon

²⁵ ERCOT's Exceptions at 5; TIEC's Exceptions at 4, Staff's Exceptions at 7.

²⁶ ERCOT's Exceptions at 6.

 $^{^{27}}$ Id

²⁸ ERCOT Exceptions at 3.

²⁹ Staff's Exceptions at 6.

³⁰ PFD at 45-46 and 65.

the simple, effective recovery of transmission costs that has resulted in a robustly reliable ERCOT grid.³¹

For all of these reasons and the reasons discussed at pages 16-29 and 33-36 of SCT's Exceptions, the Commission should not consider whether to allocate transmission and ancillary services costs specifically to SCT.

Project Concerning Rule 25.192(e)

TIEC recommends that the Commission evaluate Rule 25.192(e) to ensure that transmission export charges are fully collected.³² SCT agrees that Rule 25.192(e) implementation should be reviewed, but believes that the goal is to ensure that all transmission service providers fully assess export charges. In addition, the Commission should evaluate the current rule's imposition of peak period export charges during all hours of the summer months rather than just peak hours, as that provision reduces the export charge revenue produced to offset ERCOT TCOS.³³

Completion date for ERCOT determinations

Both ERCOT and SCT noted an ambiguity in the PFD's ordering paragraphs that would require ERCOT to take certain actions before energization of the SCT Tie and the Garland Project. ERCOT acknowledges that, as worded, the ordering paragraphs may be interpreted to require it to take the required actions by the time that SCT intends to energize the project.³⁴ ERCOT reiterates the objection, first expressed in its post-hearing Initial Brief, to having its processes determined according to SCT's "idiosyncratic" timeline. SCT does not believe there is anything unusual about the estimated schedule for its project, and no party has questioned it. SCT has worked cooperatively with the ERCOT staff for many years and will continue to do so. SCT believes that its requested completion dates would allow ample time for ERCOT to complete the mandated tasks. Furthermore, the imposition of the 185 day deadline for the completion of this proceeding demonstrates the legislature's recognition that the regulatory process needs to be completed in accordance with a reasonable schedule.

³¹ SCT's Initial Brief at 11-14 and 26-27; SCT Reply Brief at 17-22.

³² TIEC Exceptions at 14.

Ms. Wolfe ran a sensitivity assuming full implementation of Rule 25.192(e)'s peak period export charge requirement, which showed a reduction of export charge revenues due to high peak period charges around the clock during summer months. SCT Ex. 3 at 25-26 (Wolfe Direct).

³⁴ ERCOT's Exceptions at 1.

As SCT noted in its Exceptions, its estimated schedule would allow the ERCOT stakeholder process nearly four years to make determinations for all of the mandated tasks except for one.³⁵ SCT cited the testimony of its witness Mark Bruce, who stated that these tasks were not complex and that ERCOT should be able to make a timely determination within the nearly four years suggested. As explained at some length in SCT's Exceptions, a meaningful approval of Garland's application requires ERCOT, by June 1, 2017, to determine a market participant category and market segment, revise its Standard Form Market Participant Agreement (SFMPA), and amend the related protocols and bylaws to the extent necessary for SCT to obtain financing.

Mr. Bruce testified that ERCOT has a successful history of developing and implementing revisions to its market rules to deal with reliability and other issues.³⁶ He testified about ramp rate limitations, for example, that were approved as a result of the Commission's directive to ERCOT in its Order on Rehearing in the CREZ case, Docket No. 33672.³⁷ There, the Commission directed ERCOT, through its stakeholder process, to study the system reliability and stability issues implicated by increased wind generation. The reliability and other issues in this case are the same as or similar to those raised by wind generation at that time. Only two years later, an ERCOT committee filed its Third Quarter 2010 TRIP Report to the PUCT,³⁸ which reported the approval of 15 Protocol Revision Requests, 5 Nodal Protocols Revision Requests, 6 Operating Guide Revision Requests, and 2 nodal Operating Guide Revision Requests, as well as wind-driven changes to procurements of Responsive Reserve Service, Regulation Service, and Non-Spinning Reserve Service. The market rules changes that ERCOT approved in two years also included ramp rate limitations, changes in ancillary services volumes and procurement methodologies, energy scheduling issues, and primary frequency response—issues that have

³⁵ SCT's Exceptions at 14-15.

³⁶ Rebuttal Testimony of Mark Bruce at 16.

³⁷ Commission Staff's Petition for Designation of Competitive Renewable-Energy Zones, Order on Rehearing at ¶ 7 (Oct. 7, 2008).

³⁸ ERCOT Technical Advisory Committee: Renewable Technologies Working Group, *Texas Renewables Integration Plan, Quarterly Update for the Period Ending September 30, 2010* (available at http://www.ercot.com/calendar/2010/11/16/34556-BOARD).

been raised in this case.³⁹ Except for determining a new market participant category and market segment, SCT's requested completion date would allow ERCOT nearly twice as long to make the determinations mandated in this case.

ERCOT does not cite evidence to support its objection to date-certain completion dates. Its objection, taken at face value in the PFD, ⁴⁰ is based solely on principle, without any evidence that its stakeholder process would be unable to determine a market participant category and market segment for SCT by next June or that it would require more than four years to complete the other mandated tasks. SCT respectfully requests that the Commission require ERCOT to complete mandated tasks on which energization of the line is conditioned by dates certain that will not unduly delay SCT's reasonable and customary project schedule.

Disconnection from SCT DC Tie

Proposed FoFs 122, 124, and 125 and OP 18 address the matter of Garland and Oncor disconnecting from the SCT DC Tie if necessary to prevent FERC from asserting jurisdiction over ERCOT and utilities in ERCOT. SCT supports ERCOT's recommendation⁴¹ that the language in these proposed findings of fact and ordering paragraph be changed to refer to FERC's *plenary jurisdiction*.

Economic Dispatch and Congestion Management

Proposed FoF 68 and OP 24 would require ERCOT to study and determine whether it should manage any congestion caused by the SCT DC Tie either by economic dispatch or by developing a Congestion Management Plan (CMP) or Special Protection Scheme (SPS). As explained above, the operating assumptions and resulting unwarranted concern about congestion that underlie proposed OP 24 are inconsistent with ERCOT's current operating protocols. SCT agrees with ERCOT that its study and determination should not be limited to only two options

³⁹ ERCOT's adoption of market rules to accommodate energy storage equipment and facilities is also instructive. Even though energy storage was arguably unlike anything else on the ERCOT system, the ERCOT board approve the required nodal protocols revision request about 19 months after legislation was passed allowing power generation companies to own and operate the equipment and only 10 months after the Commission adopted a rule addressing ERCOT settlement of wholesale storage load in Project No. 39917. The ERCOT board approval is available at http://www.ercot.com/mktrules/issues/NPRR461 #keydocs.

⁴⁰ PFD at 30.

⁴¹ ERCOT Exceptions at 2.

and therefore would accept ERCOT's proposed OP 24,⁴² but only if it is revised to require ERCOT to complete its determination by June 1, 2020.

Reactive Power and Voltage Support Service

Proposed OP 25 would require ERCOT to study and determine whether SCT or any entity scheduling a transaction over the SCT DC Tie, should be required to provide or procure PFR or VSS. **ERCOT does not believe a formal study is required.** As noted above, as the operator of a transmission line, SCT will not be able to provide PFR or VSS. If the directive is made applicable to other DC ties, SCT can accept ERCOT's proposed revision to OP 25, which would direct ERCOT to determine the matter without conditioning the energization of the SCT and Garland projects on ERCOT making a determination.⁴³

ERCOT Costs

The PFD correctly rejected Staff's proposal that SCT be required to reimburse ERCOT for the cost of system reliability studies and other mandated tasks. ⁴⁴ The benefits of the SCT DC Tie to ERCOT consumers and other market participants will swamp the costs of any mandated tasks at ERCOT. ⁴⁵ Just as important, there is no reason to single out SCT for payment of the tasks, none of which differs from tasks routinely undertaken at ERCOT. There is no reason to depart from ERCOT's standing practice of recovering such costs with its administrative fee, which is, of course, paid by importing and exporting QSEs, just like all other loads. ⁴⁶

Inclusion of Project Facilities in TCOS .

The PFD correctly declined to adopt Staff's proposal that the Commission decide in this case that neither Garland nor Oncor be permitted to recover any transmission cost of service associated with the Rusk Substation and the Garland Project. ⁴⁷ Proposed OP 12, which would require Garland and SCT to honor their representation made at FERC, is acceptable to SCT. In accordance those representations, neither Garland nor SCT's affiliate Rusk may seek recovery of the referenced costs through TCOS rates. But it would make no sense for the Commission to

⁴² ERCOT Exceptions at 4.

⁴³ ERCOT Exceptions at 4-5.

⁴⁴ PFD at 50.

⁴⁵ SCT's Reply Brief at 18-20.

⁴⁶ See SCT's Initial Brief at 12 (noting the testimony of ERCOT witness Ted Hailu).

⁴⁷ PFD at 45.

determine in the abstract that Oncor—which is not even a party here—cannot recover its costs for the Rusk Substation. That question is properly reserved for a future rate case in which Oncor will presumably seek to recover the costs. The Commission will then have the necessary parties before it and a full record of evidence so that it can properly decide whether Oncor may recover the costs of the Rusk Substation.

X. CONCLUSION TO SCT'S REPLY TO EXCEPTIONS

Competitive markets are premised on innovators taking positions of risk. In this effort, SCT is developing a \$2 billion facility based solely on its ability to be a purveyor of transmission capacity, without a form of regulated return. SCT stands behind and is relying on the modeling it undertook, both in 2010 and the more recent study filed in this case, and it firmly believes that the SCT Project will provide substantial benefit to ERCOT consumers. SCT respectfully requests that the Commission grant SCT's exceptions, adopt SCT's proposed Findings of Fact, Conclusions of Law and Ordering Paragraphs and provide SCT with such other and further relief to which it may be entitled.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that a true and correct copy of this document was served to all parties on August 9, 2016 via the Public Utility Commission of Texas Interchange website pursuant to SOAH Order No. 3.

Robert A. Rima

PROPOSED REVISIONS TO THE FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDERING PARAGRAPHS

General Project Background

[No changes.]

Procedural History

[No changes.]

Notice

[No changes.]

Adequacy of Application

[No changes.]

Reasonable Conditions to Protect the Public Interest

Representations Made in Southern Cross

- 35. [No changes.]
- 36. [No changes.]

Market Participation Agreement

- 37. [No changes.]
- 38. [No changes.]
- 39. [No changes.]
- 40. [No changes.]
- 41. [No changes.]
- 42. Requiring ERCOT to, prior to the energization of the SCT DC Tie and the Garland Project: (a) determine the appropriate market participation category for SCT; (b) implement the necessary modifications to the SFMPA and its protocols, bylaws, and systems for SCT's participation; and (c) determine the appropriate market segment for SCT is a reasonable condition to approval of Garland's application, will protect the public interest, and is consistent with the FERC Order. Requiring ERCOT, by June 1, 2017, to: (a) determine the appropriate market participant category for SCT; (b) implement the necessary modifications to the SFMPA; and (c) determine the appropriate market segment for SCT is a reasonable condition to approval of Garland's application, will protect the public interest, and is consistent with the FERC Order.

Coordination Agreement

- 43. [No changes.]
- 44. Requiring negotiation and execution of a coordination agreement or agreements between ERCOT and the ISO/RTO and/or RC on the eastern end of the SCT Line prior to energization of the SCT DC Tie and the Garland Project is a reasonable condition to the approval of Garland's application. This condition will protect the public interest and is

eonsistent with the FERC Order. Requiring expeditious negotiation and execution of a coordination agreement or agreements between ERCOT and the ISO/RTO and/or RC on the eastern end of the SCT DC Tie before June 1, 2020, is a reasonable condition to the approval of Garland's application. This condition will protect the public interest and is consistent with the FERC Order.

Inclusion of SCT DC Tie in ERCOT Planning Models

- 45. [No changes.]
- 46. [No changes.]
- 47. [No changes.]
- 48. [No changes.]

Treatment of DC Ties in ERCOT Planning Models

- 49. [No changes.]
- 50. [No changes.]
- 51. [No changes.]
- 52. [No changes.]
- 53. [No changes.]
- 54. A condition to approval of Garland's application requiring ERCOT, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project, to study and determine how best to model the SCT DC Tie in its transmission planning cases and make any necessary standard revisions is reasonable, would protect the public interest, and is consistent with the FERC Order. A condition to approval of Garland's application requiring ERCOT, through its stakeholder process and by June 1, 2020, to expeditiously study and determine how best to model the SCT DC Tie in its transmission planning cases and make any necessary revisions to its standards and protocols is reasonable, would protect the public interest, and is consistent with the FERC Order.

Transmission Upgrades

- 55. Some degree of transmission upgrades may be necessary to accommodate electrical flows across the SCT DC Tie.SCT does not intend to operate the SCT tie, and does not expect to be able to operate the SCT tie, at a level that exceeds the capability of the ERCOT transmission system or that would cause the ERCOT transmission system to operate beyond its limits.
- To ensure reliability in the operation of the ERCOT system, it is necessary to determine what transmission upgrades will be needed, if any, to adequately address potential congestion caused by power flows over the SCT DC Tie. Because ERCOT will limit flows over the SCT tie if necessary to ensure that the ERCOT transmission grid does not exceed its operating limits, no grid upgrades will be required for reliability purposes as a result of flows on the SCT tie.

- 57. The record in this proceeding does not resolve the question of whether ERCOT ratepayers derive sufficient benefit from the SCT DC Tie and the Garland Project to include any necessary transmission upgrade costs as standard ERCOT transmission elements recoverable through the statewide transmission cost of service methodology eurrently in place. ERCOT should evaluate the appropriate methodology for assessing the need for economic upgrades to the ERCOT transmission grid in areas affected by the SCT tie.
- 58. Whether such transmission upgrades are necessary, and if so, who should pay for them, is best left to the ERCOT stakeholder process, where other potentially affected parties can weigh in and offer their input outside of the compressed time limits of this case. At the appropriate time after determination of the appropriate methodology, ERCOT should evaluate whether economic upgrades of the ERCOT transmission grid in areas affected by the SCT tie are justified under 16 TAC § 25.101(b)(3)(A)(i).
- 59. Depending on the level of benefits that inure to ERCOT ratepayers from the SCT DC Tie, the Commission and ERCOT must decide whether such benefits, if any, require amendment of the current methodology for recovering transmission costs in ERCOT, or whether any transmission upgrade costs should be directly assigned to SCT and entities using the SCT DC Tie. The postage stamp method effectively and efficiently recovers transmission costs without distorting or delaying build out of needed transmission facilities.
- 60. A condition to approval of Garland's application requiring ERCOT, through its stakeholder process and prior to energization of the SCT DC Tie and the Garland Project, to study and determine what transmission upgrades, if any, are necessary to facilitate exports over the SCT DC Tie is reasonable, protects the public interest, and is consistent with the FERC Order. Attempting to allocate the cost of specific transmission upgrades to specific customers could create substantial dispute over transmission cost allocation, introduce extra expense, and delay needed transmission expansion.
- 61. The ERCOT stakeholder process to determine what transmission upgrades may be necessary should not be tied to a date certain, but should be initiated and completed expeditiously to provide the Commission with the necessary data to protect the public interest and to ensure compliance with the FERC Order. The ERCOT marketplace is dynamic.
- 62. The costs of the ERCOT stakeholder process to determine what transmission upgrades may be necessary should not be directly assigned to SCT, but should be undertaken as part of ERCOT's standard practices, should include all interested stakeholders, and should involve the appropriate ERCOT committees and study groups. The evidence establishes that the SCT tie will provide significant production cost savings, economic benefits, and export charge revenues for the benefit of ERCOT customers under a variety of market conditions.

- 62A. The evidence establishes that the SCT tie will provide a significant additional power supply to ERCOT in emergencies.
- 62B. The evidence establishes that the SCT tie will provide significant economic benefits and revenues to local taxing authorities in east Texas counties where the Garland Project will be located and in wind generation areas in West Texas and the Panhandle.

Economic Dispatch and Congestion Management

- 63. [No changes.]
- 64. SCED is typically associated with generation assets, but when the SCT DC Tie is importing it appears as a generation resource on the ERCOT system, which differs from how current transmission assets owned by ERCOT TSPs appear on the system.[Deleted]
- 65. [No changes.].
- 66. [No changes.]
- 67. [No changes.]
- 68. It is reasonable, protective of the public interest, and consistent with the FERC Order to condition approval of Garland's application on a requirement that ERCOT, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project: (a) study and determine whether some or all DC ties should be economically dispatched through a SCED, or whether implementation of a CMP or SPS would more reliably and cost effectively manage congestion caused by DC tie flows; and (b) implement any necessary revisions to its protocols and standards as appropriate. ERCOT shall determine, by June 1, 2020, an appropriate means of managing congestion that may arise from the interconnection of the SCT DC Tie.
- 69. The ERCOT stakeholder process to study the use of SCED, a CMP, an SPS, or any other process to address congestion should not be tied to a date certain, but should be initiated and completed expeditiously. The ERCOT stakeholder process to study the use of SCED, a CMP, an SPS, or any other process to address congestion should be initiated and completed expeditiously.
- 70. [No changes.]

Ramp Rate Restrictions

- 71. [No changes.]
- 72. [No changes.]
- 73. [No changes.]
- 74. [No changes.]
- 75. [No changes.]
- · 76. [No changes.]
- 77. [No changes.]

- 78. [No changes.]
- 79. [No changes.]
- 80. [No changes.]
- 81. [No changes.]
- 82. [No changes.]
- 83. Requiring ERCOT, through its stakeholder process, to (a) determine what ramping restrictions will be necessary to accommodate the interconnection of the SCT DC Tie, and (b) implement those restrictions prior to the energization of the Garland Project is a reasonable condition to the approval of Garland's application that protects the public interest and is consistent with the FERC Order.Requiring ERCOT, through its stakeholder process and by June 1, 2020, to (a) expeditiously determine what ramping restrictions will be necessary to accommodate the interconnection of the SCT DC Tie, and (b) implement those restrictions is a reasonable condition to the approval of Garland's application that protects the public interest and is consistent with the FERC order.

Outage Coordination

- 84. [No changes.]
- 85. No changes.
- 86. [No changes.]
- 87. [No changes.]
- 88. [No changes.]
- 89. [No changes.]
- 90. [No changes.]
- 91. It would be reasonable and would protect the public interest for the Commission to condition its approval of Garland's application on ERCOT developing and implementing, through the ERCOT stakeholder process, a method for reliably and cost-effectively coordinating outages following the interconnection of the SCT DC Tie prior to the energization of the Garland Project. Such condition would be consistent with the FERC Order. It would be reasonable and would protect the public interest for the Commission to condition its approval of Garland's application on ERCOT expeditiously developing and implementing, through the ERCOT stakeholder process and by June 1, 2020, a method for reliably and cost-effectively coordinating outages following the interconnection of the SCT DC Tie. Such a condition would be consistent with the FERC order.

Reactive Power and Primary Frequency Response

- 92. [No changes.]
- 93. [No changes.]
- 94. [No changes.]
- 95. The SCT DC Tie is a controllable transmission line, but when it imports power it looks

- like a generation resource on the ERCOT system. The SCT DC Tie is a controllable transmission line.
- 96. Because of its duality. SCT 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 PFR and VSS. The SCT DC Tie is not a generator and cannot provide PFR and VSS as if it were a generator.
- 97. If the SCT DC Tie displaces ERCOT generators that are providing PFR or VSS, ERCOT would have to procure those services from other generators, or could procure additional Responsive Reserve Service. [Deleted]
- 98. If the SCT DC Tie-displaces ERCOT generation assets providing PFR and VSS at the time, that circumstance can cause reliability problems in ERCOT.[Deleted]
- 99. [No changes.]
- 100. [No changes.]
- 101. [No changes.]
- 102. [No changes.]
- 103. ERCOT should ensure the operation of the SCT DC Tie does not jeopardize the ERCOT system or ERCOT customers not using power imported over the SCT DC Tie by causing a situation where ERCOT must procure PFR and VSS within a short period of time. The Commission should require ERCOT to study whether DC Tie imports cause situations where ERCOT must procure PFR and VSS within a short period of time.
- 104. The Commission should require ERCOT to initiate and undertake a stakeholder process to determine whether the DC ties, particularly the SCT DC Tie, can provide PFR and VSS, or their technical equivalents, and if so, how that process should be performed. The Commission should require ERCOT to initiate and undertake a stakeholder process to determine whether DC Ties can provide PFR and VSS, or their technical equivalents, and if so, how such service could be provided.
- The Commission should require, as a condition of its approval of Garland's application, that SCT: (a) work with ERCOT in the ERCOT stakeholder process to determine whether the DC ties, particularly the SCT DC Tie, can provide PFR and VSS, or their technical equivalents; and (b) agree to abide by the decisions reached by ERCOT as a result of the process. Such a condition is reasonable, would protect the public interest, and is consistent with the FERC Order.[Deleted]
- 106. The ERCOT stakeholder process to determine whether the DC ties, particularly the SCT DC Tie, can provide PFR and VSS, or their technical equivalents, should be initiated and undertaken expeditiously, but should not be tied to a date certain. The ERCOT stakeholder process to determine whether DC Ties can provide PFR and VSS, or their technical equivalents, should not be tied to a date certain but rather should be undertaken at such time as ERCOT determines the study would prove useful.

107. [No changes.]

Cost of Ancillary Services

- 108. [No changes.]
- 109. [No changes.]
- 110. [No changes.]
- 111. If the SCT DC Tie becomes operational, it will become the new MSSC, requiring ERCOT to procure additional reserves to prepare for the contingency that power across the SCT 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. If the SCT DC Tie becomes operational, it may become the new MSSC, and may require ERCOT to procure additional reserves to prepare for the contingency that power across the SCT DC Tie might be disrupted or the line might be taken out of service. The additional reserves may be necessary for ERCOT to maintain system frequency within acceptable limits if such an event occurred.
- 112. The SCT DC Tie will become the new MSSC in ERCOT whether it is importing or exporting. The SCT DC Tie may become the new MSSC in ERCOT whether it is importing or exporting.
- 113. [No changes.]
- 114. If the operation of the SCT DC Tie causes ERCOT to have to procure additional ancillary services, it may be unreasonable to expect ERCOT loads to pay their load ratio share of ERCOT's costs to procure additional ancillary services if they do not benefit from the SCT DC Tie in a measurable way. Transactions over DC ties pay their share of ERCOT ancillary services charges by paying all load settlement charge types that any other load would pay.
- 115. [Deleted.]
- 116. It is reasonable, protective of the public interest, and consistent with the FERC Order to condition approval of Garland's application on a requirement that ERCOT, through its stakeholder process and prior to the interconnection of the SCT DC Tie and the Garland Project: (a) evaluate what additional ancillary services, if any, are necessary for the reliable interconnection of the SCT DC Tie; and (b) implement any necessary modifications to ancillary service procurement practices or procedures. It is reasonable, protective of the public interest, and consistent with the FERC Order to condition approval of Garland's application on a requirement that ERCOT, through its annual process for review of ancillary services procurement and by June 1, 2020: (a) evaluate what additional ancillary services, if any, are necessary for the reliable interconnection of the SCT DC Tie; and (b) implement any necessary modifications to ancillary service procurement practices or procedures.

- 117. The stakeholder process should also investigate whether the current ERCOT cost-recovery practice should be amended to accommodate conclusions that the ERCOT stakeholder process may reach. If ERCOT cannot internally implement any resulting changes resulting from its investigation, it should be required to inform the Commission as soon as practicable in the event recommended changes must be implemented through a rule change. [Deleted]
- 118. The ERCOT stakeholder process should be initiated and undertaken expeditiously but should not be tied to a date certain. The ERCOT stakeholder process should be initiated and undertaken expeditiously and completed with a determination by ERCOT by June 1, 2020.
- 119. [No changes.]

Condemnation of Easements

120. It is reasonable and will protect the public interest for the Commission to prescribe a condition to its approval of Garland's application that prohibits Garland. SCT, Rusk, and their affiliates, from seeking condemnation of any landowner's land in Panola County for the Garland Project, so long as the landowner provides access to the land for surveying and design purposes, until SCT provides the Commission with evidence that it has secured the funding to construct the complete interconnection project, including the Garland Project, the SCT DC Tie, and all related interconnection facilities. It is reasonable and will protect the public interest for the Commission to prescribe a condition to its approval of Garland's application that prohibits Garland, SCT, Rusk, and their affiliates, from seeking condemnation of any landowner's land in Panola County for the Garland Project, so long as the landowner provides access to the land for surveying and design purposes, until SCT provides the Commission with evidence that it has secured the funding to construct the complete interconnection project, including the Garland Project and the Southern Cross Transmission Project.

121. [No changes.]

Disconnection from the SCT DC Tie

- The interconnection agreements between Garland and Oncor and Garland and SCT give the parties the right to immediately disconnect the Garland Project from the SCT DC Tie if such action is necessary to prevent FERC from asserting <u>plenary</u> jurisdiction over ERCOT or an ERCOT utility. However, the agreements do not require the parties to disconnect under these circumstances.
- 123. [No changes.]

- 124. Garland will disconnect the Garland Project if necessary to prevent (a) FERC from asserting plenary jurisdiction over ERCOT or an ERCOT utility, or (b) ERCOT or ERCOT members from becoming a "public utility" subject to FERC rules.
- 125. A condition for the Commission's approval of Garland's application requiring Garland and SCT to immediately disconnect the Garland Project from the SCT DC Tie if necessary to avoid ERCOT or any ERCOT utility becoming subject to FERC rules and plenary jurisdiction is reasonable to protect the public interest and is consistent with the FERC Order.
- 126. There is insufficient evidence in the record to prove that a synchronous connection could not be made with the Garland Project transmission line outside of Texas. [Deleted or revised as follows.] The Garland Project will be located entirely within Texas, and a synchronous connection with the Garland Project transmission line outside of Texas will therefore not be possible.
- 127. There is insufficient evidence in the record to prove that the Garland Project could not be disconnected from the SCT DC Tie if a synchronous connection was made with the transmission line outside of Texas, or that such disconnection would be unreasonable.

 [Deleted or revised as follows.] It will not be feasible to make a synchronous connection with the SCT DC Tie at the interconnection point and outside of Texas.
- 128. A condition to the Commission's approval of Garland's application requiring Garland and SCT to disconnect the Garland Project from the SCT DC Tie if a synchronous connection is made with the transmission line outside of Texas is reasonable to protect the public interest and consistent with the FERC Order. [Deleted or revised as follows.] A condition to the Commission's approval of Garland's application requiring Garland and SCT to disconnect the Garland Project from the SCT DC Tie if a synchronous connection is made with the transmission line outside of Texas is not necessary to protect the public interest.

129-140. [No changes.]

Routing Issues

[No changes.]

Texas Parks & Wildlife Issues

[No changes.]

VIII. CONCLUSIONS OF LAW

- 1-15. [No changes.]
- 16. PURA § 35.004(d) requires use of the postage stamp method for recovery of ERCOT-transmission costs and does not permit allocation of specific transmission facility costs to specific customers.
- 17 16 TAC § 25.192(e) and (f) properly implement PURA § 35.004(c) and (d) by

establishing charges for export transactions based on the postage stamp method and crediting revenues from such charges against the ERCOT transmission cost of service.

IX. ORDERING PARAGRAPHS

1-12. [No changes.]

- 13. SCT must execute the ERCOT SFMPA prior to energization of the SCT DC Tie and the Garland Project, after ERCOT determines, through its stakeholder process, the appropriate market participation category for SCT, implements the modifications to the SFMPA and its protocols; bylaws, and systems required for SCT's participation, and determines the appropriate market segment for SCT. SCT shall execute the ERCOT SFMPA prior to energization of the SCT DC Tie and the Garland Project, and ERCOT shall determine, through its stakeholder process and by June 1, 2017, the appropriate market participant category for SCT, implement the modifications to the SFMPA and its protocols and bylaws required for SCT's participation, and determine the appropriate market segment for SCT.
- 14. Prior to energization of the SCT DC Tie and the Garland Project. ERCOT must execute a coordination agreement or agreements with the ISO/RTO and/or RC on the eastern end of the SCT Line, consulting SCT as needed during negotiations of such agreement(s) for technical input and guidance. Before January 21, 2021. ERCOT shall execute a coordination agreement or agreements with the ISO/RTO and/or RC on the eastern end of the SCT DC Tie, consulting SCT as needed during negotiations of such agreement(s) for technical input and guidance.
- 15. ERCOT must, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project, determine what ramp rate restrictions will be necessary to accommodate the interconnection of the SCT DC Tie and implement those restrictions. ERCOT shall, through its stakeholder process and by June 1, 2020, expeditiously determine what ramping restrictions will be necessary to accommodate the interconnection of the SCT DC Tie, and implement those restrictions.
- 16. ERCOT must, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project, develop and implement a methodology to reliably and cost-effectively coordinate outages following the interconnection of the SCT DC Tie. ERCOT shall, through its stakeholder process and by June 1, 2020, expeditiously develop and implement a method for reliably and cost-effectively coordinating outages following the interconnection of the SCT DC Tie.
- 17. SCT must provide the Commission with evidence that it has secured the funding to construct the Garland Project, the SCT DC Tie, and all related interconnection facilities before Garland, SCT, and Rusk, and their affiliates, are permitted to seek condemnation of any landowner's land in Panola County for the Garland Project, so long as the landowner provides access to the land for surveying and design purposes: SCT must provide the Commission with evidence that it has secured the funding to construct the

Garland Project, and the Southern Cross Transmission Project before Garland, SCT, Rusk, and their affiliates, are permitted to seek condemnation of any landowner's land in Panola County for the Garland Project, so long as the landowner provides access to the land for surveying and design purposes.

- 18. Garland and SCT must immediately disconnect the Garland Project from the SCT DC Tie if necessary to prevent ERCOT or any ERCOT utility from becoming subject to FERC rulesplenary jurisdiction.
- 19. Garland and SCT must disconnect the Garland Project from the SCT DC Tie if a synchronous connection is made with the transmission line outside of Texas.[Deleted]
- 20. SCT and Garland must obtain approval from the Commission pursuant to PURA § 37.054 prior to any transfer of the CCN for the Garland Project to Rusk.[Deleted.]
- 21. [No changes:]
- 21A. ERCOT, through its stakeholder process, shall expeditiously make a final determination as to when the SCT DC Tie should be included in ERCOT's transmission planning models and implement any needed change by June 1, 2020.
- 22. ERCOT, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project, must study and determine how best to model the SCT DC Tie in its transmission planning cases and make any necessary revisions to its standard and protocols as appropriate. ERCOT, through its stakeholder process and by June 1, 2020, shall expeditiously study and determine how best to model the SCT DC Tie in its transmission planning cases and make any necessary revisions to its standard and protocols as appropriate.
- 23. ERCOT must, through its stakeholder process and prior to energization of the SCT DC Tie and the Garland Project, study and determine what transmission upgrades, if any, are necessary to maintain congestion resulting from power flows over the SCT DC Tie. [Deleted or revised as follows.] ERCOT must, by June 1, 2020, study and determine what economic transmission upgrades, if any, are necessary to relieve congestion resulting from power flows on the SCT DC Tie.
- 24. ERCOT must, through its stakeholder process and prior to energization of the SCT DC Tie and the Garland Project: (a) study and determine whether some or all DC ties should be economically dispatched or whether implementation of a CMP or SPS would more reliably and cost effectively manage congestion caused by DC tie flows; and (b) implement any necessary revisions to its protocols and standards as appropriate. ERCOT shall, through its stakeholder process and by June 1, 2020, an appropriate means of managing congestion that may arise from the interconnection of the SCT DC Tie.

- 25. ERCO must, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland project, study and determine whether SCT or any other entity scheduling flows across the SCT DC Tie should be required to provide or procure VSS or PFR, or their technical equivalents, and implement any necessary standard revisions as appropriate. ERCOT shall determine whether SCT, or any entity scheduling a transaction over the SCT DC Tie, should be required to provide or procure Voltage Support Service or Primary Frequency Response, or the technical equivalent of either service. ERCOT shall adopt and implement any standard revisions necessary to effectuate any such requirement.
- 26. ERCOT must, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project, (a) evaluate what additional ancillary services, if any, are necessary for the reliable interconnection of the SCT DC Tie and (b) implement any needed modifications to ancillary services procurement. ERCOT shall, through its stakeholder process and by June 1, 2020, (a) expeditiously evaluate what additional ancillary services, if any, are necessary to reliably interconnect the SCT DC Tie and (b) implement any necessary modifications to ancillary services procurement.
- 27. [No changes.]

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

APPLICATION OF THE CITY OF	§	
GARLAND TO AMEND A	§	BEFORE THE
CERTIFICATE OF CONVENIENCE	§	
AND NECESSITY FOR THE RUSK TO	§	STATE OFFICE OF
PANOLA DOUBLE-CIRCUIT 345-KV	§	
TRANSMISSION LINE IN RUSK AND	§	ADMINISTRATIVE HEARINGS
DANOLA COUNTIEC	ě	

SOUTHERN CROSS TRANSMISSION LLC'S REPLY TO EXCEPTIONS

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I. INTRODUCTION

Many of the arguments put forward by some parties in this case, and echoed by others, are incorrect because the premises upon which the arguments have been based are false, conveniently not articulated, or simply misstated. Here are the key premises upon which all arguments should be evaluated.

- The Texas legislature required approval of Garland's application, but authorized the Commission to impose reasonable conditions in the public interest that are consistent with the FERC Order, which order directed the rendering of interconnection and transmission services and found that the SCT Project will provide numerous benefits to consumers in both the ERCOT and SERC regions.
- SCT will not cause congestion on the ERCOT system, because it does not engage in the purchase or sale of energy.
- QSEs engaged in transactions over the SCT Tie will be responding to economic signals in the competitive ERCOT market. Under the nodal market protocols, ERCOT will deny any requested transaction that could cause unresolved congestion resulting in a thermal overload.
- No reliability upgrades in ERCOT will be required as a result of interconnecting the SCT Project other than reactive support that will be part of the interconnection facilities anticipated in the FERC Order and associated interconnection agreements.
- Economic upgrades to the ERCOT system will be made only if they meet the existing production cost savings test under Substantive Rule 25.101 and it is determined that the benefit to ERCOT consumers exceeds the cost of the upgrades.
- Under Substantive Rule 25.192(e), export transactions pay their share of ERCOT transmission costs on the same basis that ERCOT load pays such costs.
- Under existing ERCOT Protocols, importing and exporting QSEs are already responsible
 for paying all of the load settlement charge types that other ERCOT load pays, including
 the system administration fee, ancillary services, transmission and distribution losses,
 unaccounted for energy, and others.
- The SCT Project is a controllable transmission line, and it cannot provide Primary Frequency Response (PFR) or Voltage Support Service (VSS) as if it were a generator.
- Upon posting financial security, SCT has the right, pursuant to the FERC Order to give Garland and Oncor notice to proceed to construct the interconnection facilities approved by FERC, interconnect with the ERCOT system, and receive transmission service in ERCOT.

 Any conditions approved in this case must be reasonable, in the public interest and consistent with SCT's FERC order as required by PURA §37.051 (c-2); moreover, they may not be unreasonably discriminatory, confiscatory, or interfere with interstate commerce.

When the above key premises are properly considered, the reasonable and credible evidence establishes that the final order should:

- Order completion dates for ERCOT projects (and any PUCT projects if their completion is tied to energization) that allow the SCT Project to progress toward obtaining project financing, completing construction, interconnecting, and energizing.
- Find that ERCOT consumers will receive annual customer energy benefits, production cost savings benefits, local economic development, revenues from export tariffs, and tax-like benefits as well as ERCOT system reliability benefits that result from mutual reliability support between ERCOT and SERC.
- Find that while current methods of managing congestion resulting from DC tie exports and imports have been adequate to date, ERCOT should study whether its current practices can be improved.
- Find that as a result of how the SCT Project will be operated, no transmission upgrades
 will be required; however, if congestion occurs in the future based on ongoing QSE
 requests, the production cost savings test dictates that an upgrade would be constructed
 only if the benefit to ERCOT consumers exceeds the cost of the upgrade.
- Find that Oncor's reliability study, which was reviewed by ERCOT and ERCOT transmission service providers, concluded that interconnection of the SCT Project to ERCOT would not cause any adverse impact on the continued reliability of the ERCOT grid, and that no party to the FERC proceeding, including TIEC, ERCOT, CenterPoint, and the Commission, objected.
- Find that QSEs using the SCT DC Tie will pay at least their fair share of ERCOT transmission costs and settlement charges associated with export transactions and that assessing specific ERCOT facility costs to SCT would violate PURA § 35.004(d)'s mandate to use the postage stamp method.
- Direct ERCOT to work with SCT and the balancing authority or other reliability entity at
 the eastern end of the SCT Project to determine what, if any, arrangements can be made
 to allow SCT to provide limited PFR and VSS support by drawing energy from
 generators in SERC.
- Conform to the condemnation language contained in the unopposed stipulation with landowners.

The facts and arguments presented by SCT in its testimony, briefs, and exceptions have been based on the above key principles and logically and reasonably lead to the recommendations put forward by SCT. Merely reciting that a proposed condition is in the public interest or that it is consistent with SCT's FERC Order, as the PFD and some parties have, does not make it so. Determining what is in the public interest requires a balancing of interests, including the interests of SCT. And being consistent with the FERC Order, as specifically required by the Texas legislature, means that relevant provisions of that order, as well as FERC's public interest obligations in approving an order under the Federal Power Act, may not be ignored. SCT respectfully urges the Commission to consider SCT's Exceptions and this Reply to Exceptions and approve an order consistent with the revised Findings of Fact, Conclusions of Law, and Ordering Paragraphs attached to this Reply to Exceptions, particularly as they relate to (1) a timeline for ERCOT projects, (2) transmission system improvements, and (3) ancillary services.

V. DISCUSSION

F. ERCOT Issues (Preliminary Order Issue No. 4)

- 3. Transmission Upgrades to Facilitate Exports (Preliminary Order Issue No. 4c)
- 9. Costs of Ancillary Services (Preliminary Order Issue No. 4i)

TIEC's Exceptions assert that ERCOT consumers should not be required to pay incremental transmission or ancillary services costs to support exports over the SCT Tie and that SCT should instead bear such costs.¹ Staff also urges the Commission to consider whether to directly assign costs to SCT.² SCT has already addressed this issue in its Exceptions, showing that:

- (1) No significant incremental reliability transmission upgrade costs will be incurred because the SCT Tie will operate only up to the point of unresolved congestion, making this issue as cast by TIEC moot (see SCT's Exceptions at 17-20);
- (2) Ancillary services costs are uncertain and require ERCOT study (see SCT's Exceptions at 33-34);

¹ TIEC Exceptions at 6-10.

² Staff's Exceptions at 6-7.

- (3) Exports over DC ties are treated like load and already pay their share of transmission and settlement charges, including ancillary services costs (see SCT's Exceptions at 20-21, 34-35);
- (4) Breaking from the long-standing method of recovering transmission and ancillary services costs from load would result in discriminatory treatment of the SCT Project, be bad policy, and, with respect to transmission costs, be inconsistent with PURA's requirement to charge postage stamp rates (see SCT's Exceptions at 21-23, 35); and
- (5) The substantial benefits of the SCT Project to ERCOT ratepayers will exceed any costs associated with exports (see SCT's Exceptions at 23-27 and the benefits listed above in the Introduction).

Rather than repeat its previous discussion here, SCT will respond to certain assertions in TIEC's, ERCOT's, and Staff's Exceptions concerning SCT project benefits, congestion, and allocation of transmission and ancillary services costs.

SCT Project Benefits

TIEC claims that the SCT Project is designed to export low-cost power out of ERCOT.³ In reality, the project will enable economic transfers of power between ERCOT and SERC in both directions. When prices are lower in ERCOT, the tie will export. When prices are higher in ERCOT, the tie will import. Under current market conditions, in which ERCOT power prices are usually low, the tie will export more than it imports, but this will change if market conditions change. When the tie was modeled in 2010 and prices in ERCOT were higher, it imported more than it exported.⁴ In both 2010 conditions and today's market conditions, ERCOT consumers would benefit.⁵ They would also benefit from the tie's contribution to reserve margins when the market is tight and its ability to make exchanges in emergencies.

TIEC's Exceptions contain a variety of inconsistent descriptions of the SCT project's benefits. At times TIEC asserts that the project will provide *no benefits* to ERCOT consumers.⁶ At other times the project promises "few if any benefits" or benefits that are "questionable" or

³ TIEC's Exceptions at 4.

⁴ SCT Ex. 3, Exhibit EW-2 at 3, 19 (Wolfe Direct).

⁵ Ellen Wolfe's economic study showed significant benefits to ERCOT both in current market conditions that favor exports from ERCOT and in 2010 market conditions that favored imports. SCT Ex. 3, Exhibit EW-2 at 3, 19 (Wolfe Direct).

⁶ TIEC's Exceptions at 7 ("There is overwhelming evidence in the record that the SCT Tie will not benefit ERCOT customers.")

⁷ TIEC's Exceptions at 4, 6.

"speculative." With respect to imports over the tie, TIEC recognizes that there are benefits to ERCOT consumers, albeit "meager." For example, TIEC states that "price reductions due to economic imports from other power pools are *one of the few benefits* ERCOT consumers receive from a DC tie."

In reality, imports over the tie will provide substantial benefits because import transactions will occur at times when power prices in ERCOT are relatively high, reserve margins are decreasing, and ERCOT needs the energy to offset costs otherwise incurred to run expensive generators.¹¹ As TIEC conceded, "the additional power supply offered by the SCT Tie could, on occasion, prevent ERCOT consumers from being exposed to prices up to \$9,000/MWh."¹²

Despite the allegedly meager benefits from <u>imports</u> over the SCT Tie, TIEC devotes a third of its Exceptions to opposing efforts by Luminant and Texas Competitive Power Advocates (TCPA) that TIEC asserts would "counteract savings from SCT Tie imports." The benefits to ERCOT consumers from SCT imports are apparently significant enough to TIEC that it devoted substantial effort to trying to retain them, while Luminant and TCPA devoted similar effort to trying to moderate them. It does not make sense that TIEC would need to devote such a large portion of its Exceptions to defending its ability to receive "meager" or "speculative" benefits from the SCT tie, much less "no benefits" as TIEC sometimes asserts. TIEC's own words disprove its assertion that "the SCT Tie will not benefit ERCOT customers." In light of TIEC's substantial effort to retain the benefits of SCT imports, its various characterizations of SCT benefits ring hollow.

TIEC also claims that <u>exports</u> provide no benefits to ERCOT consumers, ¹⁵ but it offered no independent economic studies, and its claim is flatly contradicted by the evidence. SCT witness Ellen Wolfe testified that exports over the SCT Tie will allow more production of zero-

⁸ TIEC's Exceptions at 7, 8.

⁹ TIEC's Exceptions at 5.

¹⁰ TIEC's Exceptions at 11, emphasis added.

¹¹ Tr. at 119-120 (Jun. 1, 2016).

¹² TIEC's Exceptions at 11.

¹³ TIEC's Exceptions at 10, emphasis added.

¹⁴ SCT Exceptions at 7.

¹⁵ TIEC's Exceptions at 4.

production cost wind energy in ERCOT that would otherwise be constrained, and that ERCOT consumers will receive some of the benefit of that reduction in energy costs. As a result, TIEC's unsupported assertion that exports over the tie will increase prices in ERCOT is not correct. Although TIEC's response to this evidence is to assert that these exports would have occurred over the existing ties if they had been modeled as Mr. Griffey suggests, it is difficult to understand TIEC's concern about SCT exports if those exports would occur over the existing ties anyway. As with QSE imports over the SCT DC Tie discussed above, TIEC's arguments about exports are internally inconsistent and do not hold together.

Staff's Exceptions assert that SCT's 2010 benefits study shows that its estimated benefits were overstated by \$539 million.¹⁷ This is apparently based on the difference between the \$701 million of annual consumer benefits shown in SCT's 2010 study and the \$162 million of annual consumer benefits shown in the current study.¹⁸ This difference is due to significant changes that occurred in the ERCOT market since 2010, such as the substantial increase in low-cost wind generation, the decrease in natural gas prices, and the build-out of transmission to relieve constraints.¹⁹ These changes caused a substantial softening of the ERCOT market and reduction of its power prices, which in turn results in fewer imports over the SCT Tie in the current study than in the 2010 study. Far from showing a flaw in the study, the change in study outcomes from 2010 to today is a reasonable and expected result of the change in ERCOT market conditions. What the change in study results from 2010 to today does show, however, is that the SCT Tie benefits ERCOT consumers in either market environment, and that the benefits shown in the current study will increase if ERCOT power prices increase in the future—as they are likely to do if the 2010 market conditions return.

Congestion

Despite its assertions about incremental transmission costs, TIEC's Exceptions barely discuss—much less cite any evidence about—whether exports over the SCT Tie will cause congestion that requires transmission upgrades. TIEC's Exceptions cite the PFD, which is tentative about whether the SCT Tie will cause congestion, stating merely that "operating the

¹⁶ SCT Ex. 7 at 11 (Wolfe Rebuttal); Tr. at 99-100.

¹⁷ Staff's Exceptions at 2.

¹⁸ Staff's Initial Brief at 18.

¹⁹ SCT Ex. 3 at 13 (Wolfe Direct).

SCT tie *could* cause congestion that *may* require additional transmission upgrades."²⁰ Aside from this one statement, TIEC's Exceptions do not contend that the SCT Tie will cause congestion in ERCOT. This equivocation is understandable, since as ERCOT noted, "ERCOT is unable to formulate any predictions about future flows across the Southern Cross tie."²¹ What is knowable is that SCT Tie exports will not result in ERCOT transmission upgrades unless the benefits of those upgrades exceed their cost under the Commission's economic benefit test. (This issue is discussed further below.)

In point of fact, ERCOT deals with potential congestion on the grid on a daily basis. The ERCOT transmission pricing design sends appropriate price signals when transactions cause congestion. There is nothing in the record to suggest that the pricing design is not adequate to address whatever congestion may be caused by QSEs scheduling power over the SCT Project. Like all other transactions, ERCOT's existing rules determine whether new transmission should be built to relieve congestion, and there is no reason not to apply those rules to transactions over the SCT Project.

Cost Allocation

TIEC's Exceptions cloud the issue over transmission upgrades by advancing the confusing and untenable argument that transmission and ancillary services charges currently assessed to export transactions cover only existing and not incremental costs.²² TIEC cannot and does not dispute that SCT's export transactions would make contributions to offset the transmission cost of ERCOT loads under Substantive Rule 25.192(e) and pay their full share, or more, of ERCOT ancillary services costs through ERCOT settlement charges. In fact, TIEC urges the Commission to ensure that Rule 25.192(e) is fully implemented so that all export charges contemplated by the Rule are collected and credited against ERCOT transmission cost of service (TCOS), as discussed below. These export charge revenue will reduce costs for other ERCOT consumers.

TIEC's notion that transmission rates and ancillary services charges cover only existing and not incremental costs is contrary to both PURA and the Commission's long-standing cost allocation policy in ERCOT. SCT's Exceptions explain that export charges under Rule

²⁰ TIEC's Exceptions at 8 (emphasis added).

²¹ ERCOT Exceptions at 3 (summarizing the testimony of ERCOT witness Warren Lasher).

²² TIEC's Exceptions at 9.

25.192(e) properly implement PURA § 35.004(c) and (d) while TIEC's proposal to directly assign incremental costs to SCT would violate those provisions.²³ SCT will not repeat that discussion here. However, TIEC's claim that rates for transmission facilities and charges for ancillary services do not address incremental costs is simply false. When an incremental transmission facility is completed, its costs are routinely rolled into the postage stamp rate, not assessed to a specific market participant. The same is true of incremental ancillary services costs, which are rolled into settlement charges rather than specifically assessed.

TIEC is proposing that SCT be the *only* market participant in ERCOT required to contribute *both* its load-ratio share (through export charges for transactions over the tie) *and* any incremental costs attributable to the tie. Although SCT has shown that this issue is moot because no incremental transmission costs will be attributable to the SCT Project, TIEC's proposal would change the Commission's long-standing allocation methodology to impose hypothetical future incremental costs on SCT, and only SCT. Such costs have never before been imposed on a DC tie, a facility that is the most severe single contingency (MSSC), or, to SCT's knowledge, any other ERCOT market participant. Such treatment is discriminatory on its face.

Finally, as former Commissioner Hudson testified, there is not any valid reason to presume that the revenues from transmission rates and ancillary services charges for exports will not be more than adequate to cover any incremental costs that might arise from the SCT Tie.²⁴ This question is never even asked for other incremental transmission-related costs or the facilities that may benefit from them. One thing is certain, however—as a result of revenues from export charges for transmission and ancillary services, export transactions will pay their share, or more, of those costs and will not be subsidized as TIEC and Staff incorrectly suggest.

TIEC's arguments in this case are inconsistent with the legislative policy set out in PURA § 39.001 favoring competitive market solutions. In section 39.001(a) the legislature found "that the production and sale of electricity is not a monopoly warranting regulation of rates, operations, and services and that the public interest in competitive electric markets requires that, except for transmission and distribution services and for the recovery of stranded costs, electric services and their prices should be determined by customer choices and the normal forces of competition." Section 39.001(c) and (d) direct that the Commission "may not discriminate

²³ See SCT's Exceptions at 21.

²⁴ SCT Ex. 11 at 14 (Hudson Rebuttal).

against any participant or type of participant . . . in the competitive market" and "shall authorize or order competitive rather than regulatory methods to achieve the goals of this chapter to the greatest extent feasible and shall adopt rules and issue orders that are both practical and limited so as to impose the least impact on competition." The SCT Tie is fundamentally a market-based, pro-competitive project that will enable trading between ERCOT and SERC market participants. Contrary to section 39.001, TIEC is asking the Commission to restrict competition and discriminate against not only SCT, but also the QSEs using the SCT DC Tie.

ERCOT, in its exceptions, responded to a suggestion in the PFD at page 65 that the issue of assessing the cost of ancillary services differently may be referred to ERCOT for study. ERCOT correctly observes that it is not the most suitable forum for deciding fundamental matters of cost allocation, a view shared by SCT, TIEC, and the Staff.²⁵ If the Commission does not delete FoF 117 as requested by SCT, then it should revise that finding of fact as requested by ERCOT."²⁶ SCT also supports ERCOT's request to delete FoF 115 on the grounds that it assumes some ancillary services might be required over the DC tie.²⁷

Proposed FoF 58 states that the question of who should pay for transmission upgrades, if any, that may be required by the SCT DC Tie should be left to the ERCOT stakeholder process. SCT supports ERCOT's exception to this proposed finding of fact. As discussed above, the Commission should not consider changing the existing allocation of transmission costs. ERCOT correctly excepts to the proposed finding that ERCOT should take up the issue.²⁸

In its exceptions, Staff reiterated its request that the Commission direct it to open projects to consider changing the cost allocation methods for transmission upgrades and additional ancillary services.²⁹ The PFD correctly declined to recommend opening the requested projects.³⁰ For the same reasons discussed above, the Commission should reject Staff's requests to have the Commission consider changing the current method of allocating transmission costs in violation of PURA. SCT simply reurges the Commission to reject these ill-considered requests to abandon

²⁵ ERCOT's Exceptions at 5; TIEC's Exceptions at 4, Staff's Exceptions at 7.

²⁶ ERCOT's Exceptions at 6.

 $^{^{27}}$ Id

²⁸ ERCOT Exceptions at 3.

²⁹ Staff's Exceptions at 6.

³⁰ PFD at 45-46 and 65.

the simple, effective recovery of transmission costs that has resulted in a robustly reliable ERCOT grid.³¹

For all of these reasons and the reasons discussed at pages 16-29 and 33-36 of SCT's Exceptions, the Commission should not consider whether to allocate transmission and ancillary services costs specifically to SCT.

Project Concerning Rule 25.192(e)

TIEC recommends that the Commission evaluate Rule 25.192(e) to ensure that transmission export charges are fully collected.³² SCT agrees that Rule 25.192(e) implementation should be reviewed, but believes that the goal is to ensure that all transmission service providers fully assess export charges. In addition, the Commission should evaluate the current rule's imposition of peak period export charges during all hours of the summer months rather than just peak hours, as that provision reduces the export charge revenue produced to offset ERCOT TCOS.³³

Completion date for ERCOT determinations

Both ERCOT and SCT noted an ambiguity in the PFD's ordering paragraphs that would require ERCOT to take certain actions before energization of the SCT Tie and the Garland Project. ERCOT acknowledges that, as worded, the ordering paragraphs may be interpreted to require it to take the required actions by the time that SCT intends to energize the project. ³⁴ ERCOT reiterates the objection, first expressed in its post-hearing Initial Brief, to having its processes determined according to SCT's "idiosyncratic" timeline. SCT does not believe there is anything unusual about the estimated schedule for its project, and no party has questioned it. SCT has worked cooperatively with the ERCOT staff for many years and will continue to do so. SCT believes that its requested completion dates would allow ample time for ERCOT to complete the mandated tasks. Furthermore, the imposition of the 185 day deadline for the completion of this proceeding demonstrates the legislature's recognition that the regulatory process needs to be completed in accordance with a reasonable schedule.

³¹ SCT's Initial Brief at 11-14 and 26-27; SCT Reply Brief at 17-22.

³² TIEC Exceptions at 14.

³³ Ms. Wolfe ran a sensitivity assuming full implementation of Rule 25.192(e)'s peak period export charge requirement, which showed a reduction of export charge revenues due to high peak period charges around the clock during summer months. SCT Ex. 3 at 25-26 (Wolfe Direct).

³⁴ ERCOT's Exceptions at 1.

As SCT noted in its Exceptions, its estimated schedule would allow the ERCOT stakeholder process nearly four years to make determinations for all of the mandated tasks except for one.³⁵ SCT cited the testimony of its witness Mark Bruce, who stated that these tasks were not complex and that ERCOT should be able to make a timely determination within the nearly four years suggested. As explained at some length in SCT's Exceptions, a meaningful approval of Garland's application requires ERCOT, by June 1, 2017, to determine a market participant category and market segment, revise its Standard Form Market Participant Agreement (SFMPA), and amend the related protocols and bylaws to the extent necessary for SCT to obtain financing.

Mr. Bruce testified that ERCOT has a successful history of developing and implementing revisions to its market rules to deal with reliability and other issues.³⁶ He testified about ramp rate limitations, for example, that were approved as a result of the Commission's directive to ERCOT in its Order on Rehearing in the CREZ case, Docket No. 33672.³⁷ There, the Commission directed ERCOT, through its stakeholder process, to study the system reliability and stability issues implicated by increased wind generation. The reliability and other issues in this case are the same as or similar to those raised by wind generation at that time. Only two years later, an ERCOT committee filed its Third Quarter 2010 TRIP Report to the PUCT,³⁸ which reported the approval of 15 Protocol Revision Requests, 5 Nodal Protocols Revision Requests, 6 Operating Guide Revision Requests, and 2 nodal Operating Guide Revision Requests, as well as wind-driven changes to procurements of Responsive Reserve Service, Regulation Service, and Non-Spinning Reserve Service. The market rules changes that ERCOT approved in two years also included ramp, rate limitations, changes in ancillary services volumes and procurement methodologies, energy scheduling issues, and primary frequency response—issues that have

³⁵ SCT's Exceptions at 14-15.

³⁶ Rebuttal Testimony of Mark Bruce at 16.

³⁷ Commission Staff's Petition for Designation of Competitive Renewable-Energy Zones, Order on Rehearing at ¶ 7 (Oct. 7, 2008).

³⁸ ERCOT Technical Advisory Committee: Renewable Technologies Working Group, *Texas Renewables Integration Plan, Quarterly Update for the Period Ending September 30, 2010* (available at http://www.ercot.com/calendar/2010/11/16/34556-BOARD).

been raised in this case.³⁹ Except for determining a new market participant category and market segment, SCT's requested completion date would allow ERCOT nearly twice as long to make the determinations mandated in this case.

ERCOT does not cite evidence to support its objection to date-certain completion dates. Its objection, taken at face value in the PFD, ⁴⁰ is based solely on principle, without any evidence that its stakeholder process would be unable to determine a market participant category and market segment for SCT by next June or that it would require more than four years to complete the other mandated tasks. SCT respectfully requests that the Commission require ERCOT to complete mandated tasks on which energization of the line is conditioned by dates certain that will not unduly delay SCT's reasonable and customary project schedule.

Disconnection from SCT DC Tie

Proposed FoFs 122, 124, and 125 and OP 18 address the matter of Garland and Oncor disconnecting from the SCT DC Tie if necessary to prevent FERC from asserting jurisdiction over ERCOT and utilities in ERCOT. SCT supports ERCOT's recommendation⁴¹ that the language in these proposed findings of fact and ordering paragraph be changed to refer to FERC's *plenary jurisdiction*.

Economic Dispatch and Congestion Management

Proposed FoF 68 and OP 24 would require ERCOT to study and determine whether it should manage any congestion caused by the SCT DC Tie either by economic dispatch or by developing a Congestion Management Plan (CMP) or Special Protection Scheme (SPS). As explained above, the operating assumptions and resulting unwarranted concern about congestion that underlie proposed OP 24 are inconsistent with ERCOT's current operating protocols. SCT agrees with ERCOT that its study and determination should not be limited to only two options

ERCOT's adoption of market rules to accommodate energy storage equipment and facilities is also instructive. Even though energy storage was arguably unlike anything else on the ERCOT system, the ERCOT board approve the required nodal protocols revision request about 19 months after legislation was passed allowing power generation companies to own and operate the equipment and only 10 months after the Commission adopted a rule addressing ERCOT settlement of wholesale storage load in Project No. 39917. The ERCOT board approval is available at http://www.ercot.com/mktrules/issues/NPRR461 #keydocs.

⁴⁰ PFD at 30.

⁴¹ ERCOT Exceptions at 2.

and therefore would accept ERCOT's proposed OP 24,⁴² but only if it is revised to require ERCOT to complete its determination by June 1, 2020.

Reactive Power and Voltage Support Service

Proposed OP 25 would require ERCOT to study and determine whether SCT or any entity scheduling a transaction over the SCT DC Tie, should be required to provide or procure PFR or VSS. **ERCOT does not believe a formal study is required.** As noted above, as the operator of a transmission line, SCT will not be able to provide PFR or VSS. If the directive is made applicable to other DC ties, SCT can accept ERCOT's proposed revision to OP 25, which would direct ERCOT to determine the matter without conditioning the energization of the SCT and Garland projects on ERCOT making a determination.⁴³

ERCOT Costs

The PFD correctly rejected Staff's proposal that SCT be required to reimburse ERCOT for the cost of system reliability studies and other mandated tasks. ⁴⁴ The benefits of the SCT DC Tie to ERCOT consumers and other market participants will swamp the costs of any mandated tasks at ERCOT. ⁴⁵ Just as important, there is no reason to single out SCT for payment of the tasks, none of which differs from tasks routinely undertaken at ERCOT. There is no reason to depart from ERCOT's standing practice of recovering such costs with its administrative fee, which is, of course, paid by importing and exporting QSEs, just like all other loads. ⁴⁶

Inclusion of Project Facilities in TCOS.

The PFD correctly declined to adopt Staff's proposal that the Commission decide in this case that neither Garland nor Oncor be permitted to recover any transmission cost of service associated with the Rusk Substation and the Garland Project. ⁴⁷ Proposed OP 12, which would require Garland and SCT to honor their representation made at FERC, is acceptable to SCT. In accordance those representations, neither Garland nor SCT's affiliate Rusk may seek recovery of the referenced costs through TCOS rates. But it would make no sense for the Commission to

⁴² ERCOT Exceptions at 4.

⁴³ ERCOT Exceptions at 4-5.

⁴⁴ PFD at 50.

⁴⁵ SCT's Reply Brief at 18-20.

⁴⁶ See SCT's Initial Brief at 12 (noting the testimony of ERCOT witness Ted Hailu).

⁴⁷ PFD at 45.

determine in the abstract that Oncor—which is not even a party here—cannot recover its costs for the Rusk Substation. That question is properly reserved for a future rate case in which Oncor will presumably seek to recover the costs. The Commission will then have the necessary parties before it and a full record of evidence so that it can properly decide whether Oncor may recover the costs of the Rusk Substation.

X. CONCLUSION TO SCT'S REPLY TO EXCEPTIONS

Competitive markets are premised on innovators taking positions of risk. In this effort, SCT is developing a \$2 billion facility based solely on its ability to be a purveyor of transmission capacity, without a form of regulated return. SCT stands behind and is relying on the modeling it undertook, both in 2010 and the more recent study filed in this case, and it firmly believes that the SCT Project will provide substantial benefit to ERCOT consumers. SCT respectfully requests that the Commission grant SCT's exceptions, adopt SCT's proposed Findings of Fact, Conclusions of Law and Ordering Paragraphs and provide SCT with such other and further relief to which it may be entitled.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that a true and correct copy of this document was served to all parties on August 9, 2016 via the Public Utility Commission of Texas Interchange website pursuant to SOAH Order No. 3.

Robert A. Rima

PROPOSED REVISIONS TO THE FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDERING PARAGRAPHS

General Project Background

[No changes.]

Procedural History

[No changes.]

Notice

[No changes.]

Adequacy of Application

[No changes.]

Reasonable Conditions to Protect the Public Interest

Representations Made in Southern Cross

- 35. [No changes.]
- 36. [No changes.]

Market Participation Agreement

- 37. [No changes.]
- 38. [No changes.]
- 39. [No changes.]
- 40. [No changes.]
- 41. [No changes.]
- 42. Requiring ERCOT to, prior to the energization of the SCT DC Tie and the Garland Project: (a) determine the appropriate market participation category for SCT; (b) implement the necessary modifications to the SFMPA and its protocols, bylaws, and systems for SCT's participation; and (c) determine the appropriate market segment for SCT is a reasonable condition to approval of Garland's application; will protect the public interest, and is consistent with the FERC Order. Requiring ERCOT, by June 1, 2017, to: (a) determine the appropriate market participant category for SCT; (b) implement the necessary modifications to the SFMPA; and (c) determine the appropriate market segment for SCT is a reasonable condition to approval of Garland's application, will protect the public interest, and is consistent with the FERC Order.

Coordination Agreement

- 43. [No changes.]
- 44. Requiring negotiation and execution of a coordination agreement or agreements between ERCOT and the ISO/RTO and/or RC on the eastern end of the SCT Line prior to energization of the SCT DC Tie and the Garland Project is a reasonable condition to the approval of Garland's application. This condition will protect the public interest and is

eonsistent with the FERC Order. Requiring expeditious negotiation and execution of a coordination agreement or agreements between ERCOT and the ISO/RTO and/or RC on the eastern end of the SCT DC Tie before June 1, 2020, is a reasonable condition to the approval of Garland's application. This condition will protect the public interest and is consistent with the FERC Order.

Inclusion of SCT DC Tie in ERCOT Planning Models

- 45. [No changes.]
- 46. [No changes.]
- 47. [No changes.]
- 48. [No changes.]

Treatment of DC Ties in ERCOT Planning Models

- 49. [No changes.]
- 50. [No changes.]
- 51. [No changes.]
- 52. [No changes.]
- 53. [No changes.]
- 54. A condition to approval of Garland's application requiring ERCOT, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project, to study and determine how best to model the SCT DC Tie in its transmission planning cases and make any necessary standard revisions is reasonable, would protect the public interest, and is consistent with the FERC Order. A condition to approval of Garland's application requiring ERCOT, through its stakeholder process and by June 1, 2020, to expeditiously study and determine how best to model the SCT DC Tie in its transmission planning cases and make any necessary revisions to its standards and protocols is reasonable, would protect the public interest, and is consistent with the FERC Order.

<u>Transmission Upgrades</u>

- Some degree of transmission upgrades may be necessary to accommodate electrical flows across the SCT DC Tie. SCT does not intend to operate the SCT tie, and does not expect to be able to operate the SCT tie, at a level that exceeds the capability of the ERCOT transmission system or that would cause the ERCOT transmission system to operate beyond its limits.
- 56. To ensure reliability in the operation of the ERCOT system, it is necessary to determine what transmission upgrades will be needed, if any, to adequately address potential congestion caused by power flows over the SCT DC Tie. Because ERCOT will limit flows over the SCT tie if necessary to ensure that the ERCOT transmission grid does not exceed its operating limits, no grid upgrades will be required for reliability purposes as a result of flows on the SCT tie.

- 57. The record in this proceeding does not resolve the question of whether ERCOT ratepayers derive sufficient benefit from the SCT DC Tie and the Garland Project to include any necessary transmission-upgrade costs as standard ERCOT transmission elements recoverable through the statewide transmission cost-of service methodology currently in place. ERCOT should evaluate the appropriate methodology for assessing the need for economic upgrades to the ERCOT transmission grid in areas affected by the SCT tie.
- Whether such transmission upgrades are necessary, and if so, who should pay for them, is best left to the ERCOT stakeholder process, where other potentially affected parties can weigh in and offer their input outside of the compressed time limits of this case. At the appropriate time after determination of the appropriate methodology, ERCOT should evaluate whether economic upgrades of the ERCOT transmission grid in areas affected by the SCT tie are justified under 16 TAC § 25.101(b)(3)(A)(i).
- 59. Depending on the level of benefits that inure to ERCOT ratepayers from the SCT DC Tie, the Commission and ERCOT must decide whether such benefits, if any, require amendment of the current methodology for recovering transmission costs in ERCOT, or whether any transmission upgrade costs should be directly assigned to SCT and entities using the SCT DC Tie. The postage stamp method effectively and efficiently recovers transmission costs without distorting or delaying build out of needed transmission facilities.
- 60. A condition to approval of Garland's application requiring ERCOT, through its stakeholder process and prior to energization of the SCT DC Tie and the Garland Project, to study and determine what transmission upgrades, if any, are necessary to facilitate exports over the SCT DC Tie is reasonable, protects the public interest, and is consistent with the FERC Order. Attempting to allocate the cost of specific transmission upgrades to specific customers could create substantial dispute over transmission cost allocation, introduce extra expense, and delay needed transmission expansion.
- 61. The ERCOT stakeholder process to determine what transmission upgrades may be necessary should not be tied to a date certain, but should be initiated and completed expeditiously to provide the Commission with the necessary data to protect the public interest and to ensure compliance with the FERC Order. The ERCOT marketplace is dynamic.
- 62. The costs of the ERCOT stakeholder process to determine what transmission upgrades may be necessary should not be directly assigned to SCT, but should be undertaken as part of ERCOT's standard practices, should include all interested stakeholders, and should involve the appropriate ERCOT committees and study groups. The evidence establishes that the SCT tie will provide significant production cost savings, economic benefits, and export charge revenues for the benefit of ERCOT customers under a variety of market conditions.

- 62A. The evidence establishes that the SCT tie will provide a significant additional power supply to ERCOT in emergencies.
- 62B. The evidence establishes that the SCT tie will provide significant economic benefits and revenues to local taxing authorities in east Texas counties where the Garland Project will be located and in wind generation areas in West Texas and the Panhandle.

Economic Dispatch and Congestion Management

- 63. [No changes.]
- 64. SCED is typically associated with generation assets, but when the SCT DC Tie is importing it appears as a generation resource on the ERCOT system, which differs from how current transmission assets owned by ERCOT TSPs appear on the system.[Deleted]
- 65. [No changes.]
- 66. [No changes.]
- 67. [No changes.]
- 68. It is reasonable, protective of the public interest, and consistent with the FERC Order to condition approval of Garland's application on a requirement that ERCOT, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project: (a) study and determine whether some or all DC ties should be economically dispatched through a SCED, or whether implementation of a CMP or SPS would more reliably and cost-effectively manage congestion caused by DC tie flows; and (b) implement any necessary revisions to its protocols and standards as appropriate. ERCOT shall determine, by June 1, 2020, an appropriate means of managing congestion that may arise from the interconnection of the SCT DC Tie.
- 69. The ERCOT stakeholder process to study the use of SCED, a CMP, an SPS, or any other process to address congestion should not be tied to a date certain, but should be initiated and completed expeditiously. The ERCOT stakeholder process to study the use of SCED, a CMP, an SPS, or any other process to address congestion should be initiated and completed expeditiously.
- 70. [No changes.]

Ramp Rate Restrictions

- 71. [No changes.]
- 72. [No changes.]
- 73. [No changes.]
- 74. [No changes.]
- 75. [No changes.]
- 76. [No changes.]
- 77. [No changes.]

- 78. [No changes.]
- 79. [No changes.]
- 80. [No change's.]
- 81. [No changes.]
- 82. [No changes.]
- Requiring ERCOT, through its stakeholder process, to (a) determine what ramping restrictions will be necessary to accommodate the interconnection of the SCT DC Tie, and (b) implement those restrictions prior to the energization of the Garland Project is a reasonable condition to the approval of Garland's application that protects the public interest and is consistent with the FERC Order Requiring ERCOT, through its stakeholder process and by June 1, 2020, to (a) expeditiously determine what ramping restrictions will be necessary to accommodate the interconnection of the SCT DC Tie, and (b) implement those restrictions is a reasonable condition to the approval of Garland's application that protects the public interest and is consistent with the FERC order.

Outage Coordination

- 84. [No changes.]
- 85. [No changes.]
- 86. [No changes.]
- 87. [No changes.]
- 88. [No changes.]
- 89. [No changes.]
- 90. [No changes.]
- 91. It would be reasonable and would protect the public interest for the Commission to condition its approval of Garland's application on ERCOT developing and implementing, through the ERCOT stakeholder process, a method for reliably and cost effectively coordinating outages following the interconnection of the SCT DC Tie prior to the energization of the Garland Project. Such condition would be consistent with the FERC Order. It would be reasonable and would protect the public interest for the Commission to condition its approval of Garland's application on ERCOT expeditiously developing and implementing, through the ERCOT stakeholder process and by June 1, 2020, a method for reliably and cost-effectively coordinating outages following the interconnection of the SCT DC Tie. Such a condition would be consistent with the FERC order.

Reactive Power and Primary Frequency Response

- 92. [No changes.]
- 93. [No changes.]
- 94. [No changes.]
- 95. 'The SCT DC Tie is a controllable transmission line, but when it imports power it looks

- like a generation resource on the ERCOT system. The SCT DC Tie is a controllable transmission line.
- 96. Because of its duality, SCT 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 PFR and VSS. The SCT DC Tie is not a generator and cannot provide PFR and VSS as if it were a generator.
- 97. If the SCT DC Tie displaces ERCOT generators that are providing PFR or VSS, ERCOT would have to procure those services from other generators, or could procure additional Responsive Reserve Service. [Deleted]
- 98. If the SCT DC Tie displaces ERCOT generation assets providing PFR and VSS at the time, that circumstance can cause reliability problems in ERCOT.[Deleted].
- 99. [No changes.]
- 100. [No changes.]
- 101. [No changes.]
- 102. [No changes.]
- 103. ERCOT should ensure the operation of the SCT DC Tie does not jeopardize the ERCOT system or ERCOT customers not using power imported over the SCT DC Tie by causing a situation where ERCOT must procure PFR and VSS within a short period of time. The Commission should require ERCOT to study whether DC Tie imports cause situations where ERCOT must procure PFR and VSS within a short period of time.
- The Commission should require ERCOT to initiate and undertake a stakeholder process to determine whether the DC ties, particularly the SCT DC Tie, can provide PFR and VSS, or their technical equivalents, and if so, how that process should be performed. The Commission should require ERCOT to initiate and undertake a stakeholder process to determine whether DC Ties can provide PFR and VSS, or their technical equivalents, and if so, how such service could be provided.
- 105. The Commission should require, as a condition of its approval of Garland's application, that SCT: (a) work with ERCOT in the ERCOT stakeholder process to determine whether the DC ties, particularly the SCT DC Tie, can provide PFR and VSS, or their technical equivalents; and (b) agree to abide by the decisions reached by ERCOT as a result of the process. Such a condition is reasonable, would protect the public interest, and is consistent with the FERC Order. [Deleted]
- 106. The ERCOT stakeholder process to determine whether the DC ties, particularly the SCT DC Tie, can provide PFR and VSS, or their technical equivalents, should be initiated and undertaken expeditiously, but should not be tied to a date certain. The ERCOT stakeholder process to determine whether DC Ties can provide PFR and VSS, or their technical equivalents, should not be tied to a date certain but rather should be undertaken at such time as ERCOT determines the study would prove useful.

107. [No changes.]

Cost of Ancillary Services

- 108. [No changes.]
- 109. [No changes.]
- 110. [No changes.]
- 111. If the SCT DC Tie becomes operational, it will become the new MSSC, requiring ERCOT to procure additional reserves to prepare for the contingency that power across the SCT 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. If the SCT DC Tie becomes operational, it may become the new MSSC, and may require ERCOT to procure additional reserves to prepare for the contingency that power across the SCT DC Tie might be disrupted or the line might be taken out of service. The additional reserves may be necessary for ERCOT to maintain system frequency within acceptable limits if such an event occurred.
- 112. The SCT DC Tie will become the new MSSC in ERCOT whether it is importing or exporting. The SCT DC Tie may become the new MSSC in ERCOT whether it is importing or exporting.
- 113. [No changes.]
- 114. If the operation of the SCT DC Tie causes ERCOT to have to procure additional ancillary services, it may be unreasonable to expect ERCOT loads to pay their load ratio share of ERCOT's costs to procure additional ancillary services if they do not benefit from the SCT DC Tie in a measurable way. Transactions over DC ties pay their share of ERCOT ancillary services charges by paying all load settlement charge types that any other load would pay.
- 115. [Deleted.]
- 116. It is reasonable, protective of the public interest, and consistent with the FERC Order to condition approval of Garland's application on a requirement that ERCOT, through its stakeholder process and prior to the interconnection of the SCT DC Tie and the Garland Project: (a) evaluate what additional ancillary services, if any, are necessary for the reliable interconnection of the SCT DC Tie; and (b) implement any necessary modifications to ancillary service procurement practices or procedures. It is reasonable, protective of the public interest, and consistent with the FERC Order to condition approval of Garland's application on a requirement that ERCOT, through its annual process for review of ancillary services procurement and by June 1, 2020: (a) evaluate what additional ancillary services, if any, are necessary modifications to ancillary service procurement practices or procedures.

- 117. The stakeholder process should also investigate whether the current ERCOT cost-recovery practice should be amended to accommodate conclusions that the ERCOT stakeholder process may reach. If ERCOT cannot internally implement any resulting changes resulting from its investigation, it should be required to inform the Commission as soon as practicable in the event recommended changes must be implemented through a rule change. [Deleted]
- 118. The ERCOT stakeholder process should be initiated and undertaken expeditiously but should not be tied to a date certain. The ERCOT stakeholder process should be initiated and undertaken expeditiously and completed with a determination by ERCOT by June 1, 2020.

119. [No changes.]

Condemnation of Easements

120. It is reasonable and will protect the public interest for the Commission to prescribe a condition to its approval of Garland's application that prohibits Garland. SCT, Rusk, and their affiliates, from seeking condemnation of any landowner's land in Panola County for the Garland Project, so long as the landowner provides access to the land for surveying and design purposes, until SCT provides the Commission with evidence that it has secured the funding to construct the complete interconnection project, including the Garland Project, the SCT DC Tie, and all related interconnection facilities. It is reasonable and will protect the public interest for the Commission to prescribe a condition to its approval of Garland's application that prohibits Garland, SCT, Rusk, and their affiliates, from seeking condemnation of any landowner's land in Panola County for the Garland Project, so long as the landowner provides access to the land for surveying and design purposes, until SCT provides the Commission with evidence that it has secured the funding to construct the complete interconnection project, including the Garland Project and the Southern Cross Transmission Project.

121. [No changes.]

Disconnection from the SCT DC Tie

- The interconnection agreements between Garland and Oncor and Garland and SCT give the parties the right to immediately disconnect the Garland Project from the SCT DC Tie if such action is necessary to prevent FERC from asserting <u>plenary</u> jurisdiction over ERCOT or an ERCOT utility. However, the agreements do not require the parties to disconnect under these circumstances.
- 123. [No changes.]

- Garland will disconnect the Garland Project if necessary to prevent (a) FERC from asserting <u>plenary</u> jurisdiction over ERCOT or an ERCOT utility, or (b) ERCOT or ERCOT members from becoming a "public utility" subject to FERC rules.
- 125. A condition for the Commission's approval of Garland's application requiring Garland and SCT to immediately disconnect the Garland Project from the SCT DC Tie if necessary to avoid ERCOT or any ERCOT utility becoming subject to FERC rules and plenary jurisdiction is reasonable to protect the public interest and is consistent with the FERC Order.
- There is insufficient evidence in the record to prove that a synchronous connection could not be made with the Garland Project transmission line outside of Texas. [Deleted or revised as follows.] The Garland Project will be located entirely within Texas, and a synchronous connection with the Garland Project transmission line outside of Texas will therefore not be possible.
- 127. There is insufficient evidence in the record to prove that the Garland Project could not be disconnected from the SCT DC Tie if a synchronous connection was made with the transmission line outside of Texas, or that such disconnection would be unreasonable. [Deleted or revised as follows.] It will not be feasible to make a synchronous connection with the SCT DC Tie at the interconnection point and outside of Texas.
- 128. A condition to the Commission's approval of Garland's application requiring Garland and SCT to disconnect the Garland Project from the SCT DC Tie if a synchronous connection is made with the transmission line outside of Texas is reasonable to protect the public interest and consistent with the FERC Order. [Deleted or revised as follows.] A condition to the Commission's approval of Garland's application requiring Garland and SCT to disconnect the Garland Project from the SCT DC Tie if a synchronous connection is made with the transmission line outside of Texas is not necessary to protect the public interest.

129-140. [No changes.]

Routing Issues

[No changes.]

Texas Parks & Wildlife Issues

[No changes.]

VIII. CONCLUSIONS OF LAW

- 1-15. [No changes.]
- 16. PURA § 35.004(d) requires use of the postage stamp method for recovery of ERCOT transmission costs and does not permit allocation of specific transmission facility costs to specific customers.
- 17 16 TAC § 25.192(e) and (f) properly implement PURA § 35.004(c) and (d) by

establishing charges for export transactions based on the postage stamp method and crediting revenues from such charges against the ERCOT transmission cost of service.

IX. ORDERING PARAGRAPHS

1-12. [No changes.]

- 13. SCT must execute the ERCOT SFMPA prior to energization of the SCT DC Tie and the Garland Project, after ERCOT determines, through its stakeholder process, the appropriate market participation category for SCT, implements the modifications to the SFMPA and its protocols, bylaws, and systems required for SCT's participation, and determines the appropriate market segment for SCT. SCT shall execute the ERCOT SFMPA prior to energization of the SCT DC Tie and the Garland Project, and ERCOT shall determine, through its stakeholder process and by June 1, 2017, the appropriate market participant category for SCT, implement the modifications to the SFMPA and its protocols and bylaws required for SCT's participation, and determine the appropriate market segment for SCT.
- 14. Prior to energization of the SCT DC Tie and the Garland Project. ERCOT must execute a coordination agreement or agreements with the ISO/RTO and/or RC on the eastern end of the SCT Line, consulting SCT as needed during negotiations of such agreement(s) for technical input and guidance. Before January 21, 2021, ERCOT shall execute a coordination agreement or agreements with the ISO/RTO and/or RC on the eastern end of the SCT DC Tie, consulting SCT as needed during negotiations of such agreement(s) for technical input and guidance.
- 15. ERCOT must, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project, determine what ramp rate restrictions will be necessary to accommodate the interconnection of the SCT DC Tie and implement those restrictions. ERCOT shall, through its stakeholder process and by June 1, 2020, expeditiously determine what ramping restrictions will be necessary to accommodate the interconnection of the SCT DC Tie, and implement those restrictions.
- 16. ERCOT must, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project, develop and implement a methodology to reliably and cost effectively coordinate outages following the interconnection of the SCT DC Tie. ERCOT shall, through its stakeholder process and by June 1, 2020, expeditiously develop and implement a method for reliably and cost-effectively coordinating outages following the interconnection of the SCT DC Tie.
- 17. SCT must provide the Commission with evidence that it has secured the funding to construct the Garland Project, the SCT DC Tie, and all related interconnection facilities before Garland, SCT, and Rusk, and their affiliates, are permitted to seek condemnation of any landowner's land in Panola County for the Garland Project, so long as the landowner provides access to the land for surveying and design purposes. SCT must provide the Commission with evidence that it has secured the funding to construct the

- Garland Project, and the Southern Cross Transmission Project before Garland, SCT, Rusk, and their affiliates, are permitted to seek condemnation of any landowner's land in Panola County for the Garland Project, so long as the landowner provides access to the land for surveying and design purposes.
- 18. Garland and SCT must immediately disconnect the Garland Project from the SCT DC Tie if necessary to prevent ERCOT or any ERCOT utility from becoming subject to FERC rulesplenary jurisdiction.
- 19. Garland and SCT must disconnect the Garland Project from the SCT DC Tie if a synchronous connection is made with the transmission line outside of Texas. [Deleted]
- 20. SCT and Garland must obtain approval from the Commission pursuant to PURA § 37.054 prior to any transfer of the CCN for the Garland Project to Rusk. [Deleted.]
- 21. [No changes.]
- 21A. ERCOT, through its stakeholder process, shall expeditiously make a final determination as to when the SCT DC Tie should be included in ERCOT's transmission planning models and implement any needed change by June 1, 2020.
- 22. ERCOT, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project, must study and determine how best to model the SCT DC Tie in its transmission planning cases and make any necessary revisions to its standard and protocols as appropriate. ERCOT, through its stakeholder process and by June 1, 2020, shall expeditiously study and determine how best to model the SCT DC Tie in its transmission planning cases and make any necessary revisions to its standard and protocols as appropriate.
- 23. ERCOT must, through its stakeholder process and prior to energization of the SCT DC Tie and the Garland Project, study and determine what transmission upgrades, if any, are necessary to maintain congestion resulting from power flows over the SCT DC Tie. [Deleted or revised as follows.] ERCOT must, by June 1, 2020, study and determine what economic transmission upgrades, if any, are necessary to relieve congestion resulting from power flows on the SCT DC Tie.
- 24. ERCOT must, through its stakeholder process and prior to energization of the SCT DC Tie and the Garland Project: (a) study and determine whether some or all DC ties should be economically dispatched or whether implementation of a CMP or SPS would more reliably and cost effectively manage congestion caused by DC tie flows; and (b) implement any necessary revisions to its protocols and standards as appropriate. ERCOT shall, through its stakeholder process and by June 1, 2020, an appropriate means of managing congestion that may arise from the interconnection of the SCT DC Tie.

- 25. ERCO must, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland project, study and determine whether SCT or any other entity scheduling flows across the SCT DC Tie should be required to provide or procure VSS or PFR, or their technical equivalents, and implement any necessary standard revisions as appropriate. ERCOT shall determine whether SCT, or any entity scheduling a transaction over the SCT DC Tie, should be required to provide or procure Voltage Support Service or Primary Frequency Response, or the technical equivalent of either service. ERCOT shall adopt and implement any standard revisions necessary to effectuate any such requirement.
- 26. ERCOT must, through its stakeholder process and prior to the energization of the SCT DC Tie and the Garland Project, (a) evaluate what additional ancillary services, if any, are necessary for the reliable interconnection of the SCT DC Tie and (b) implement any needed modifications to ancillary services procurement. ERCOT shall, through its stakeholder process and by June 1, 2020, (a) expeditiously evaluate what additional ancillary services, if any, are necessary to reliably interconnect the SCT DC Tie and (b) implement any necessary modifications to ancillary services procurement.
- 27. [No changes.]