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

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PUBLIC UTILITY COMMISSION
BEFORE THE FILING CLERK

STATE OFFICE

OF ADMINISTRATIVE HEARINGS

REPLY BRIEF OF SOUTHERN CROSS TRANSMISSION LLC

I.	INTRODUCTION	1
V.	DISCUSSION	5
A.	Application (Preliminary Order Issue No. 1).....	5
B.	Reasonable Conditions to Protect the Public Interest (Preliminary Order Issue No. 2)	5
E.	Application of PURA § 37.051(c-2) to Southern Cross (Preliminary Order Issue No. 3)	30
1.	Market Participant Agreement (Preliminary Order Issue No. 3a)	30
2.	Coordination Agreement (Preliminary Order Issue No. 3b).....	30
F.	ERCOT Issues (Preliminary Order Issue No. 4).....	30
1.	At what point of development should ERCOT include a proposed merchant DC tie project in the planning models?	30
2.	How should the uncertainty of whether DC ties will be exporting or importing be addressed in transmission planning?	31
3.	Should ERCOT ratepayers be financially responsible for transmission upgrades that are necessary to facilitate exports over DC ties, given that those improvements are made only to serve load in non-ERCOT areas?	31
4.	Should DC ties be subject to economic dispatch? If not, how should ERCOT manage congestion created by DC tie imports/exports?.....	31
5.	Should ERCOT rules impose ramp restrictions on imports/exports over the DC ties, given system ramp limitations?.....	32
6.	How should ERCOT address the greater complexity of coordinating outages and the additional cost of addressing that complexity, given the unpredictable nature of DC tie flows?	33

7.	How will ERCOT coordinate with other independent system operators (ISOs)/regional transmission operators (RTOs) and/or NERC balancing authorities (BAs) on imports or curtailments of exports during emergencies? In the event ERCOT is unable to reach agreeable terms with the other affected ISOs/RTOs and/or BAs, what measures may/should ECOT take to ensure reliability?	33
8.	Should either the DC Tie owner/operator or the qualified scheduling entity scheduling over the tie be required to supply reactive power or primary frequency response to the ERCOT system, consistent with ERCOT's treatment of generators?	34
9.	If the interconnection of a new DC Tie or other asset to the ERCOT system increases the most severe single contingency [MSSC], should the costs of any resulting increase in ancillary services procured be borne by the owner of that asset?	35
VI.	CONCLUSION.....	36

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CERTIFICATE OF CONVENIENCE	§	
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TRANSMISSION LINE IN RUSK AND	§	OF ADMINISTRATIVE HEARINGS
PANOLA COUNTIES	§	

REPLY BRIEF OF SOUTHERN CROSS TRANSMISSION LLC

I. INTRODUCTION

While in the first instance this is an application filed by the City of Garland (Garland) for an amendment to its certificate of convenience and necessity (CCN) for the new Rusk to Panola 345-kV transmission line, because it interconnects the Southern Cross Transmission LLC (SCT) privately held HVDC tie, the issue of reasonable conditions has attracted much attention. Proper consideration of any conditions, however, requires an understanding of the background of the SCT Project, a participant-funded, +\$2 billion project connecting ERCOT to the Eastern Interconnect (SCT Project) as well as SCT's four key development objectives.

The SCT Project was formally introduced to ERCOT at a Regional Planning Group (RPG) meeting in August, 2010. From the beginning, SCT has worked with ERCOT and ERCOT stakeholders collaboratively. When completed the SCT Project will benefit the ERCOT system by relieving peak periods of real-time wind energy penetration and providing access to additional capacity when the ERCOT grid needs it the most. The project will benefit ERCOT generators by providing secondary market access for energy sales, which could not otherwise occur and will benefit ERCOT consumers by tempering peak demand period pricing during ERCOT capacity scarcity events. Thus, it will improve reliability and provide valuable economic benefits to generators and consumers in both the ERCOT and SERC regions.

For context, SCT notes that the project was initially proposed when there were brewing ERCOT resource adequacy concerns and limited investment in dispatchable thermal generation. CREZ lines had only recently been approved, and there were lingering concerns that the CREZ build-out would be underutilized.

SCT's *first objective* was that any interconnection by the SCT Project to the Eastern Interconnect would protect the regulatory status quo and prevent FERC jurisdiction over ERCOT

utilities not otherwise subject to FERC jurisdiction. SCT took that issue very seriously, and worked for several years with stakeholders to address it. The SCT Project received its final FERC orders in 2014 with exactly the FERC disclaimer of jurisdiction that the Commission and ERCOT stakeholders wished. A FERC Order, issued pursuant to the requirements of the Federal Power Act (FPA), requires the utilization of an entity that both transmits and sells electricity to be the directly interconnecting counterparty. In ERCOT, this means a limited menu of interconnecting choices that includes municipal utilities like Garland, or certain electric cooperatives. Also, as a condition precedent to the final order, FERC required that a compliance filing be made that demonstrated that the SCT Project could interconnect reliably with ERCOT. Oncor delivered that evidence to FERC following an ERCOT process review of the reliability study Oncor performed. As required by FPA Section 210, FERC found that the order would encourage conservation of energy or capital, optimize the efficiency of use of facilities and resources, and/or improve the reliability of the electric systems to which the order applies.

SCT's *second objective* was to implement the SCT Project without direct costs to ERCOT customers. Agreements with Garland and Oncor initiated that effort. Regarding Garland, Rusk Interconnection LLC (Rusk), an affiliate of SCT, agreed to pay for the Panola switching station, the Garland line, and reasonable O&M costs during the SCT Project's life as well as decommissioning costs at the end of its life. In accordance with the agreement, the latter would be securitized at the beginning of the Project's life, and "topped" up if necessary every two years.

Oncor was ordered by FERC to provide transmission service for the SCT project and will apply to include the cost of the Rusk switching station in its rate base. However, the parties negotiated a backstop agreement that assured there would be no cost to ERCOT customers, unless a future Commission approved the cost in a rate case. As to potential cost impacts of the operation of the SCT Project on the ERCOT grid, for either imports or exports, SCT's intentions have always been, and continue to be, to operate the project economically, and subject to ERCOT's orders and approved schedules. That is, the capacity holders using the SCT Project would, during either import or export periods, adjust their flows to the point of price parity (net of export costs in either direction), as well as follow applicable ERCOT protocols and schedules approved or denied based on any ERCOT's congestion and reliability concerns. This means that thermal, stability and other limits within ERCOT would limit the project's operation when

necessary, just as is the case with generation presently in ERCOT. The result is that no transmission system upgrades are required due to SCT Project imports or exports.

SCT's *third objective* was to demonstrate that the SCT Project had economic benefits to ERCOT customers. In its efforts with ERCOT's RPG in 2010/2011, SCT commissioned the first economic benefits study, with the RPG stakeholders participating in the study's assumptions, and reviewing the results. That study, using ERCOT's 2015 case, and at the project's FERC approved size of 3,000 MW, demonstrated very favorable consumer benefits and production cost savings, with pronounced import flows, given the load, generation, topology and assumptions largely provided by ERCOT. The second study, using ERCOT's 2020 case with the project sized to deliver 2,000 MW in either direction in order that it would be below the 2,300 MW level of responsive reserves that ERCOT currently procures, also demonstrated favorable consumer benefits and production cost savings, with pronounced export flows, given the new load, generation, topology and assumptions provided by ERCOT and others.

The results of both economic studies demonstrated that there were significant benefits – several hundred million dollars of benefits to ERCOT customers **in each study year** - with two quite different grid topologies and market conditions. For the second, most recent study developed for this proceeding, SCT also requested a breakout of the payment by the capacity holders of the project for charges associated with exports. This breakout was significant in magnitude because it demonstrated the share that QSEs scheduling transactions over the SCT Project will pay for use of the ERCOT transmission system as well as for ancillary services, transmission losses, and ERCOT administration and other charges. The annual payments totaled over \$60 million. It was also clear that the SCT Project would cause a very important collateral contribution to two local economies in Texas. That is, landowners in Rusk and Panola counties will benefit from payment for rights-of-way, Rusk and Panola counties will benefit from payments made in lieu of taxes and the area economies in Rusk and Panola counties will benefit from the jobs during construction of the transmission line and the switching stations. Local benefits will also exist for increased wind generation in West Texas and the Panhandle as a result of the SCT Project.

SCT had a *fourth objective*: it wished to work with ERCOT and other stakeholders to determine, develop and document the various operating protocols and other processes under which the SCT Project will operate. In part, SCT decided to intervene in this proceeding and

support Garland's application to pursue that protocol/market rule development objective. SCT believed, in general, that the policy issues associated with the reasonable conditions that the Commission may attach to Garland's CCN amendment would likely tee up consideration of most integration matters associated with the SCT Project. That, in fact, has largely happened in this proceeding under the Preliminary Order heading of "ERCOT Issues." As noted in SCT's initial and reply briefs, a few other issues have been identified by SCT witness Mark Bruce. Over the years, SCT has had many discussions with ERCOT and others on many of these issues, and is pleased that a more focused discussion of them has begun.

While SCT is pleased with that aspect of this docket, SCT is disappointed that some parties, Texas Industrial Energy Consumers (TIEC) in particular, have urged conditions that are, in some instances, discriminatory and in others, based on misstatements and misrepresentations. However, after working through the rhetoric, the number of conditions that make sense (beyond those specifically directed to ERCOT for study and/or resolution) and are actually supported by record evidence is fairly limited.

With regard to the ERCOT Issues that were included in the Commission's Preliminary Order—at ERCOT's request—to be considered in this proceeding, most are technical and the parties generally agree that they are best addressed at ERCOT. The ERCOT Issues seem to be more about raising Commissioner awareness of the work ERCOT must do, rather than about resolving those issues in the instant docket. SCT does not disagree with the importance of the learning experience for all involved resulting from the discussion of the ERCOT Issues. If one examines the actual recommended Findings of Fact and Conclusions of Law submitted by the parties relating to the ERCOT Issues, there is significant agreement.

ERCOT suggested in its Statement of Position that the Commission may wish to identify a timeframe for resolving some of the proposed conditions that would accommodate the project timeline contemplated by Garland and SCT. SCT has identified two conditions that should include a specific completion date of June 1, 2017, that will accommodate closing financing for the SCT Project by the end of 2017. These items are (1) creating a new Independent DC Tie Operator market participant registration category and identification of the market segment to which the DC Tie Operator will belong and (2) that ERCOT negotiate and execute a coordination agreement with the balancing authority that connects the SCT Project in the southeast. The latter condition, of course, assumes that an interconnection point at the eastern

end of the line is determined in a timely fashion by SCT and SCT believes that it will have an interconnection agreement in place very soon.

SCT is interested in timely reaching resolution of all of the ERCOT Issues and the other issues discussed by Mark Bruce. While SCT agrees with the use of the stakeholder process to address many of the technical issues, guidance to ERCOT by the Commission certainly helps to focus that process and will hopefully speed up stakeholder deliberations. Further, SCT recognizes that, as part of the financing process, financing counterparties will be reviewing conditions in the Commission's order to determine which, if any, unresolved matters involve risk to a lender. SCT respectfully urges the Administrative Law Judges and the Commission to be sensitive to the wording of each condition, taking care to clearly articulate what specific action, if any, the Commission expects as a result of the condition. If a compliance docket is determined to be necessary to confirm the status or completion of the ERCOT-related matters, or that SCT has completed its project financing (and SCT does not believe that one is necessary), specificity as to the limited scope and clarity as to the ministerial nature of the compliance filing requirements are important.

V. DISCUSSION

A. Application (Preliminary Order Issue No. 1)

B. Reasonable Conditions to Protect the Public Interest (Preliminary Order Issue No. 2)

Benefits and Costs of the SCT Project

Several parties propose conditions that would impose various costs on SCT, such as a transmission upgrade, ancillary services, and ERCOT administration costs, or would at least initiate a Commission project to consider imposing such costs. These parties also argue that there is no basis to conclude that SCT will provide benefits to ERCOT or Texas, and that potentially substantial incremental costs related to the SCT Project should not be subsidized by ERCOT customers. As discussed below, the benefits of the project are substantial, while any potential costs are uncertain and small in comparison. In addition, exporters over DC ties contribute to ERCOT system costs on the same basis that ERCOT customers do. Proposals to impose costs on SCT not imposed on any other ERCOT market participant should be rejected.

Benefits of the SCT Project

1. Introduction

SCT presented evidence that the SCT Project will provide more than \$170 million per year of production cost savings, more than \$160 million per year of consumer energy benefits, and more than \$300 million of consumer energy benefits and production cost savings if 2,000 MW of new wind is added.¹ In addition, the tie will produce more than \$60 million per year in export charge revenues to ERCOT,² millions of dollars in local benefits to the community and taxing authorities near the Garland facilities in Rusk and Panola Counties,³ economic benefits to the wind energy producing areas across the Panhandle and West Texas,⁴ and significant reliability benefits by making a substantial additional power supply available to ERCOT during emergencies.⁵ TIEC challenges the production cost savings and consumer energy benefits shown by SCT's economic analysis, while Staff asserts that SCT's economic analysis addresses only one year and is based on assumptions that could turn out to be wrong. TIEC and Staff stop just short of saying there will be no benefits but argue, mistakenly, that there is no basis to conclude the SCT tie will benefit ERCOT customers.

TIEC's and Staff's initial briefs focus on the production cost and consumer energy benefits shown by the economic modeling of SCT witness Ellen Wolfe, and do not specifically contest the export charge benefits, reliability benefits of an emergency power supply, benefits to areas around the Garland facilities, and benefits to wind producing areas, and the benefits found by FERC from the SCT Project. TIEC presented testimony by Charles Griffey on this issue while Staff did not present a witness to address the SCT Project.

TIEC and Staff make several arguments concerning the SCT Project's benefits: 1) that SCT's analysis addressed only one year and is based on assumptions that could turn out to be wrong; 2) that the consumer energy benefits shown by Ms. Wolfe's study should be disregarded because she did not retain underlying data; 3) that Ms. Wolfe modeled the existing DC ties incorrectly; and 4) that production cost savings are inappropriately based on locational marginal

¹ Direct Testimony of Ellen Wolfe, SCT Ex. 3, Exhibit EW-2 at 3, 19.

² SCT Ex. 3, Exhibit EW-2 at 3, 19.

³ Direct Testimony of Darrell Cline, Garland Ex. 2 at 10.

⁴ SCT Ex. 3 at 15 and Ex. EW-2 at 21-22 (Wolfe Direct).

⁵ SCT Ex. 6, Rebuttal Testimony of David Parquet at 13.

prices (LMPs) and would not benefit ERCOT customers. SCT will respond to each of Staff's and TIEC's arguments in turn.

Both TIEC and Staff have shifted positions on the benefit issue in this case. For example, TIEC's brief does not mention Mr. Griffey's previous claim in testimony that SCT's benefits analysis is not meaningful because the SCT Project's eastern endpoint has not been determined. Although Staff's Statement of Position relied on Mr. Griffey's testimony about the eastern endpoint to conclude that benefits have not been shown, Staff's brief makes an entirely different argument about benefits and does not refer to Mr. Griffey's discussion of the eastern endpoint issue.

TIEC's brief makes a number of inaccurate claims about SCT's economic analysis that need to be addressed at the outset. For example, TIEC repeatedly asserts that exports over the SCT Project do not benefit ERCOT consumers,⁶ when in fact consumers will benefit from exports.⁷ He also has chosen to ignore FERC's findings. SCT's analysis shows that the SCT Project produces more than \$170 million per year of production cost savings, and that some of those savings arise because the SCT Project allows for more low-cost renewable energy production than could be accommodated in the base case.⁸ The record is clear that the SCT Project would allow additional zero-cost wind generation – which would otherwise be curtailed – to access the grid and serve customers at a lower cost.⁹ The study shows more than \$160 million of annual consumer energy benefits – benefits resulting solely from a reduction in energy prices within ERCOT. The consumer energy benefits increase to more than \$300 million and the production cost savings increase to more than \$360 million if 2,000 MW of additional wind is added.¹⁰ Exports over the tie also produce more than \$60 million per year in export charge revenues that are applied to ERCOT system costs.¹¹

⁶ TIEC's Initial Brief at 8-9, 17-19.

⁷ Tr. at 99-100 (Ms. Wolfe explaining how the SCT tie opens up the ERCOT system and allows more production of zero production cost wind generation onto the system to serve customers) (Jun. 1, 2016).

⁸ Rebuttal Testimony of Ellen Wolfe at 19.

⁹ Tr. at 99-100 (Jun. 1, 2016).

¹⁰ SCT Ex. 3, Exhibit EW-2 at 3, 19 (Wolfe Direct).

¹¹ SCT Ex. 3, Exhibit EW-2 at 3, 19 (Wolfe Direct).

In addition, TIEC wrongly dismisses the benefits resulting from imports over the SCT Project as minimal, although TIEC recognizes that ERCOT customers will benefit from imports.¹² In fact, imports would occur at a time when ERCOT needed the energy most and such imports could offset a large amount of costs that would otherwise have been incurred on the ERCOT system to produce energy from expensive generators.¹³ TIEC presented no economic analysis of its own, and has not established that import benefits are minimal. In reality, they are substantial.

Finally, TIEC's brief repeatedly refers to what Resero "did" or what Resero "claims." To be clear, what Resero "did" was run the widely-accepted UPLAN model using inputs and assumptions primarily provided by ERCOT or drawn from publicly-available sources for the eastern interconnect, then report the results of the model. Those results are not "claims" by Resero, they are model outputs like those used for transmission system planning throughout the United States.

2. The Significance of SCT's Economic Benefits Analysis

Staff's brief asserts that SCT modeled only one year based on assumptions that could turn out to be wrong.¹⁴ Staff overlooks the fact that studies like Ms. Wolfe's are used extensively throughout the electric industry, including by ERCOT, as the accepted method for evaluating new transmission projects.¹⁵ These tools are widely relied on by regional transmission organizations (RTOs) including ERCOT, regulatory commissions including this Commission, and utilities to make significant decisions about market design and billions of dollars of transmission investment throughout the United States. The UPLAN model used by Ms. Wolfe is used throughout the industry and the regulatory arena to provide a meaningful indication of the benefits that can be expected from a particular change or addition to the electric network. Staff's position unreasonably dismisses the method extensively used to plan and analyze the benefits of changes to the electric system.

¹² TIEC's Initial Brief at 5-6.

¹³ Tr. at 123-124 (Jun. 1, 2016).

¹⁴ Staff's Initial Brief at 8-9.

¹⁵ SCT Ex. 3 at 6 (Wolfe Direct).

In 2005, the Commission relied on a similar economic analysis led by Ms. Wolfe to adopt a nodal market design for ERCOT. In recommending adoption of the nodal market, Chairman Smitherman cited the analysis led by Ms. Wolfe:

Those who do not like the Cost-Benefit Analysis findings have quibbled extensively about methodologies and assumptions, *but they have never produced affirmative numbers of their own*. And frankly, although I believe the Cost-Benefit Analysis to be sound, it could wildly overestimate the expected nodal benefits – by fifty percent or more – and nodal would *still* produce significant savings for loads.¹⁶

These words could be applied almost verbatim to Ms. Wolfe's analysis for SCT in this case.

Both Ms. Wolfe and LCG, the developer of UPLAN, are recognized throughout the electric industry as respected and capable experts in modeling electric systems. In addition to the cost-benefit study for ERCOT to assess the merits of forming a nodal market, Ms. Wolfe also led similar studies for western utilities to assess the benefits of joining a regional transmission organization, for the Regional State Commissions of the Southwest Power Pool (SPP) on the benefits of implementing a nodal energy imbalance market, and for the FERC on the benefits of Entergy and Cleco joining the SPP, among numerous other studies.¹⁷ LCG is a widely recognized leader in performing electric industry restructuring studies and a pioneer in developing energy simulation tools, with more than 30 years of experience in the electric and gas utility industry. LCG developed the simulation package UPLAN, used by many utilities, market participants, and RTOs throughout the country, including ERCOT.¹⁸ ERCOT has licensed UPLAN since 2003, and its Regional Planning Group continues to use LCG's UPLAN for transmission planning and economic analysis.¹⁹

Staff also asserts that SCT's economic benefits analysis is speculative because the results are different from the previous analysis performed in 2010.²⁰ However, as Ms. Wolfe explained,

¹⁶ *Activities Related to the Implementation of a Nodal Market for the Electric Reliability Council of Texas*, Project No. 28500, Memorandum from Chairman Smitherman to fellow Commissioners at 3 of 5 (emphasis in original) (citing the cost-benefit analysis led by Ms. Wolfe as a basis for his recommendation to adopt a nodal market) (Jul. 28, 2005). The nodal study for ERCOT led by Ms. Wolfe was filed in Project No. 28500 on Dec. 21, 2004.

¹⁷ SCT Ex. 3 at 3, Exhibit EW-1 (Wolfe Direct).

¹⁸ SCT Ex. 3 at 6 (Wolfe Direct).

¹⁹ SCT Ex. 3 at 10 (Wolfe Direct).

²⁰ Staff's Initial Brief at 8.

the ERCOT market changed significantly from assumptions made in 2010 to 2015, primarily because of the introduction of large amounts of low-cost wind energy and the substantial drop in the price of natural gas fuel for gas-fired plants²¹ due to rapid growth of hydraulic fracturing (fracking). This confluence of events caused power prices in ERCOT to decline substantially, which altered the economics of trading between ERCOT and SERC in the model. None of these changes undermines the integrity of Ms. Wolfe's models based on the circumstances expected at the time they were performed. In fact, the models worked exactly as they were supposed to.

The real significance of Ms. Wolfe's 2010 and 2015 models is that they show the SCT Project will provide large benefits to ERCOT customers under two very different sets of market conditions. Whether the SCT Project is primarily importing under market conditions like those expected in 2010 or is primarily exporting under market conditions like those expected today, in *either* case the SCT Project produces well above \$100 million per year in benefits to ERCOT customers.²²

Finally, Staff asserts that SCT's model only looked at a single year, and that the effects of the SCT Project thereafter are unknown.²³ However, Ms. Wolfe testified that the study results could reasonably be extrapolated to reflect a multiyear study.²⁴ Although the impact of the SCT Project many years in the future is beyond the scope of any realistic model, that does not change the fact that the industry relies on models like Ms. Wolfe's as the accepted tools for determining the benefits of additions to the electric grid. Moreover, as discussed above, the combination of Ms. Wolfe's 2010 and 2015 models indicates that the SCT Project will benefit ERCOT in a variety of market conditions.

SCT's economic analysis cannot simply be dismissed as Staff suggests. To do so would reject the very method that is relied on throughout the industry, including by the Commission and ERCOT, to determine the benefits of new transmission projects and to evaluate expansion of the grid. Staff's argument is much like saying it is unreasonable to consider weather forecasts because they are not always right. (Weather forecasts are also relied on by ERCOT to forecast

²¹ SCT Ex. 3 at 13 (Wolfe Direct).

²² SCT Ex. 3, Exhibit EW-2 at 3, 19 (Wolfe Direct).

²³ Staff's Initial Brief at 9.

²⁴ SCT Ex. 3 at 21 (Wolfe Direct).

system load and wind energy production.)²⁵ SCT's economic analysis provides persuasive evidence of the scope of the benefits SCT will provide to ERCOT customers.

3. Consumer Energy Benefits of the SCT Project

TIEC asserts that SCT's consumer savings analysis is a more appropriate way to measure the impact of the SCT Project on ERCOT customers than a production cost calculation,²⁶ and SCT agrees that consumer benefits are important. SCT's study shows \$162 million per year of consumer energy benefits to ERCOT customers, and \$306 million per year of such benefits if an additional 2,000 MW of wind is added to the ERCOT system.²⁷ TIEC's only challenge to these consumer energy benefits is to argue that they should be ignored because SCT did not retain certain underlying modeling data.²⁸ Aside from this one argument, all of TIEC's challenges to SCT's economic analysis address production costs savings, not consumer energy benefits. TIEC's argument about underlying data provides no basis for ignoring \$162 million per year or more of consumer energy benefits, TIEC's favored criteria for assessing consumer impact.

TIEC's claim about underlying data relates to a discovery dispute over TIEC RFI 1-18, which requested hourly data for all nodes modeled by UPLAN. In response, SCT explained that UPLAN is capable of generating an almost unlimited amount of data and that modelers direct UPLAN to report out the data they seek for their study.²⁹ In the case of TIEC's request for hourly nodal data, TIEC was seeking almost 2 *billion* records of intermediate data that UPLAN used to calculate the cumulative results. Those 2 billion records were not retained and probably could not have been retained without consuming the large capacity of LCG's computers. Moreover, the fact that the 2 billion records were not reported by the model provides no reason to think that UPLAN is not capable of accurately cumulating the intermediate data into final results, something the software routinely does.³⁰

²⁵ For example, *see* ERCOT Nodal Protocols Sections 3.12.1(2)(a) and 3.13(1).

²⁶ TIEC's Initial Brief at 19; *see also* Cross-Rebuttal Testimony of Charles Griffey, TIEC Ex. 2 at nn. 1, 7.

²⁷ SCT Ex. 3 at 4, 20; Exhibit EW-2 at 3, 19 (Wolfe Direct).

²⁸ TIEC's Initial Brief at 19-20.

²⁹ Response of Southern Cross Transmission LLC to Texas Industrial Energy Consumers' Motion to Compel a Response to TIEC 1-18 at Affidavit of Ellen Wolfe (Apr. 5, 2016).

³⁰ *Id.*

TIEC's claim about the impact of not having 2 billion records of intermediate data is not accurate or valid. Although TIEC asserts that it was prevented from reviewing the "assumptions" used in the model,³¹ the 2 billion records were not assumptions – they were intermediate data results for each of the 74,000 nodes in ERCOT and the eastern interconnect for every hour of the year modeled. In fact, none of the contested requests in RFI 1-18 related to model assumptions. As Ms. Wolfe testified, the assumptions used in the model were primarily provided by ERCOT for the ERCOT market and were based on publicly available and LCG-generated assumptions for the eastern interconnect.³² TIEC requested assumptions for the model in its discovery requests 1-25 through 1-30 and 1-34, and was provided substantial information in response. TIEC did not complain about any of those discovery responses. The discovery dispute over TIEC 1-18 had nothing to do with assumptions used in the model as TIEC asserts.

At best, TIEC's argument is that they were not able to confirm that UPLAN processed the 2 billion pieces of intermediate hourly data correctly, not that they were denied the ability to examine the assumptions used in the model. An argument that UPLAN cannot correctly process data is not credible, given the widespread use of the model throughout the electric industry, including at ERCOT. This is simply another example of TIEC trying to create reasons to dispute the economic analysis, despite having provided no evidence to challenge the consumer energy benefits or conducting any modeling of their own. TIEC provides no legitimate basis for dismissing \$162 million or more of annual consumer savings in ERCOT.

4. Treatment of Existing DC Ties

TIEC's brief continues TIEC's unfortunate tendency to impugn Ms. Wolfe's character, arguing that SCT "artificially manufactured" production cost benefits by using inappropriate assumptions concerning the existing DC ties.³³ As discussed in SCT's initial brief, Ms. Wolfe modeled the existing ties the way she understood that ERCOT did, *i.e.*, as importing. With respect to the SPP ties, she was right about ERCOT's modeling approach, which treats those ties as an efficient generator that imports when it is economic to do so.³⁴ With the benefit of second-guessing, TIEC now asserts that the SPP ties should have been modeled differently—that is

³¹ TIEC's Initial Brief at 19.

³² SCT Ex. 3 at 4; Exhibit EW-2 at 5-7 (Wolfe Direct).

³³ TIEC's Initial Brief at 13.

³⁴ Tr. at 69, 122 (Jun. 1, 2016); Direct Testimony of Warren Lasher, ERCOT Ex. 1 at 8-9.

economically—although if Ms. Wolfe had modeled them differently from ERCOT TIEC would likely have criticized that too. TIEC’s goal to discredit Ms. Wolfe’s analysis by any means available has been apparent throughout this case.

TIEC apparently believes it was unreasonable for Ms. Wolfe to model the SPP tie as ERCOT does.³⁵ Several times in its brief, TIEC asserts that SCT’s modeling of the SPP ties as import-only—as ERCOT models them—was improper or unreasonable.³⁶ SCT submits that the decision to model the SPP does as ERCOT does was neither improper nor unreasonable.

TIEC’s arguments about the effect of modeling the SPP ties as importing – like ERCOT does – are unsupported and inconsistent with its own arguments elsewhere in its brief. For example, TIEC argues that SCT’s modeling “effectively attributed exports that *may have* flowed over the SPP ties to the SCT Project instead,”³⁷ but does not establish that a different modeling approach *would have* reduced the production cost benefits shown by SCT’s analysis. TIEC’s suggestion that exports may have occurred over the SPP ties instead of the SCT Project is also inconsistent with its emphasis on SCT Project exports elsewhere in its brief³⁸ and its statement that the SCT Project will “drain cheap power from ERCOT.”³⁹ TIEC appears to be simultaneously complaining about exports over the SCT Project and arguing that those exports may occur over the SPP ties anyway.

SCT’s modeling of the existing Mexico ties is largely addressed in Ms. Wolfe’s rebuttal testimony and in SCT’s initial brief, which explain why those ties did not measurably affect the production cost analysis.⁴⁰ TIEC’s brief does little to refute Ms. Wolfe’s explanation, other than asserting that imports over the Mexico ties will impact ERCOT system generation, including curtailed wind in low-load hours.⁴¹ This claim is flatly disproved by Ms. Wolfe’s and LCG’s shift factor analysis, which shows that there is no measurable electrical relationship between the

³⁵ TIEC’s Initial Brief at 13-14.

³⁶ TIEC’s Initial Brief at 13-14.

³⁷ TIEC’s Initial Brief at 14 (emphasis added).

³⁸ TIEC’s Initial Brief at 8 (emphasizing the level of exports shown by SCT’s analysis).

³⁹ TIEC’s Initial Brief at 6.

⁴⁰ SCT’s Initial Brief at 7-8; *see also* SCT Ex. 7 at 18-25 (Wolfe Rebuttal).

⁴¹ TIEC’s Initial Brief at 16.

Mexico ties and the curtailed wind as well as by her analysis that the Mexico ties were not exporting during times of significant wind curtailment in ERCOT.⁴²

Instead of addressing Ms. Wolfe's discussion of the Mexico ties, TIEC asserts that Ms. Wolfe's shift factor analysis for those ties should also apply to the SCT Project because it is also geographically distant from the curtailed Panhandle and West Texas wind.⁴³ There are several reasons why this is not true. First, as Ms. Wolfe explained in her rebuttal testimony and at hearing, shift factors are based on *electrical* separation, not geographical separation.⁴⁴ While geographical distance is a factor in electrical separation, other factors can have a stronger impact.⁴⁵ For example, the strength of the transmission system between the locations is important, as TIEC's counsel acknowledged in her question to Ms. Wolfe at the hearing.⁴⁶ As can be seen on Exhibit EW-2-R, Figure 3c to Ms. Wolfe's rebuttal testimony, there is a strong 345-kV transmission system (shown as orange lines) between the curtailed wind areas in the Panhandle/West Texas and the SCT Project. Figure 3c shows that many of the transmission lines from the wind areas in the Panhandle and West Texas feed into the DFW area in north Texas, and the 345-kV ties between the DFW area and east Texas around the SCT Project are also strong. By contrast, there is very little 345-kV transmission to the Mexico ties. TIEC's focus on geographical distance misstates the issue.

Ms. Wolfe also explained to TIEC's counsel at the hearing why it was not accurate to say that she did not know the relationship between the curtailed wind generation and the SCT Project.⁴⁷ As Ms. Wolfe noted, she modeled the SCT Project in detail so she had a lot of information about the relationship between the wind curtailment and the tie. In fact, the study results specifically address that relationship, showing that introduction of the SCT Project significantly reduces the curtailment of wind generation.⁴⁸ TIEC's attempt to create doubt about

⁴² SCT Ex. 7 at 20-25 (Wolfe Rebuttal).

⁴³ TIEC's Initial Brief at 16.

⁴⁴ SCT Ex. 7 at 22-25 (Wolfe Rebuttal); Tr. at 81-82, 122 (Jun. 1, 2016).

⁴⁵ Tr. at 122 (Jun. 1, 2016).

⁴⁶ Tr. at 81-82 ("*Assuming you have a relatively robust transmission network, the further away geographically from the location, you would expect the shift factors to decrease?*") (emphasis added) (Jun. 1, 2016).

⁴⁷ Tr. at 85 (Jun. 1, 2016).

⁴⁸ SCT Ex. 3 at 23-24; Exhibit EW-2 at 21-22 (Wolfe Direct).

SCT's analysis, instead of providing any economic analysis of its own, should be rejected. As Chairman Smitherman noted with respect to the ERCOT nodal cost-benefit analysis led by Ms. Wolfe, "Those who do not like the Cost-Benefit Analysis findings have quibbled extensively about methodologies and assumptions, *but they have never produced affirmative numbers of their own.*"⁴⁹

5. Consideration of LMPs in Production Cost Savings from Exports

In attempting to cast doubt on the production cost benefits of the SCT Project, TIEC's brief largely ignores the benefits attributable to imports over the SCT Project. As noted above, imports would occur at a time when ERCOT needed the energy and could offset a large amount of costs that would otherwise have been incurred on the ERCOT system to produce energy from expensive generators.⁵⁰ Instead of addressing the benefits associated with imports, TIEC makes a convoluted argument that SCT inappropriately counted export revenue as production cost savings based on LMPs, which provided no actual benefit to ERCOT customers.⁵¹ This argument, although difficult to follow, rests on assuming the truth of unsupported and unrealistic assumptions contained in hypothetical questions at the hearing and on the true but pointless observation that production cost savings are not the same as consumer benefits.

Much of TIEC's argument in this section of its brief is based on lengthy, unproven and unrealistic hypothetical questions asked of Mr. Wolfe at hearing.⁵² For example, citing a hypothetical question asked at the hearing, TIEC assumes hypothetical LMPs and a change in SCT Project exports with no other changes to the model, then draws conclusions without regard to whether the assumptions are factual or realistic.⁵³ In fact, it is not accurate or realistic to assume hypothetical changes to one aspect of the model and that everything else will stay the same.⁵⁴ TIEC's counsel even admitted that the hypothetical was not factually accurate.⁵⁵ TIEC

⁴⁹ Project No. 28500, Memorandum from Chairman Smitherman to fellow Commissioners at 3 of 5 (emphasis in original) (Jul. 28, 2005).

⁵⁰ Tr. at 123-124 (Jun. 1, 2016).

⁵¹ TIEC's Initial Brief at 16-19.

⁵² Tr. at 111-113 (Jun. 1, 2016).

⁵³ TIEC's Initial Brief at 17, n. 87.

⁵⁴ Tr. at 119-120 (Ms. Wolfe testifying that TIEC's hypothetical assumptions were not reasonable) (Jun. 1, 2016).

also asserts that the vast majority of the production cost savings for the SCT Project came from importing power from SPP and then exporting it over the SCT Project at a higher price,⁵⁶ another completely unsupported assertion derived from a hypothetical question.⁵⁷ These assertions establish only TIEC's willingness to create arguments without evidence.

TIEC also claims that it is improper to consider LMPs in determining production cost benefits,⁵⁸ a claim that reflects a lack of understanding or unwillingness to understand why the LMP adjustments to production cost savings were made. Imports or exports over the SCT Project change the production cost of generation in ERCOT, but the amount of energy produced in ERCOT also changes.⁵⁹ This exchange of energy between ERCOT and the southeast must be accounted for to get a meaningful comparison between the system with and without the SCT Project. This is why Ms. Wolfe and LCG adjusted production costs based on LMPs at the border between ERCOT and the southeast and the amount of power that flowed over the tie. TIEC does not suggest how an accurate comparison could be made between the base case (without SCT) and the SCT case, without accounting for the change in ERCOT production resulting from flows on the SCT Project. The study's adjustment for changes in imports and exports is a necessary part of the production cost analysis.

TIEC's other assertion in this section of its brief is the unremarkable observation that production cost savings are not the same thing as consumer benefits.⁶⁰ As TIEC notes, production cost savings are the change in the total fuel and O&M expense of all generators required to serve load.⁶¹ Some of these savings may be passed on to customers while others may be retained by generators. That is the nature of production cost savings. As TIEC notes, it may be more appropriate to focus on consumer savings to assess the SCT Project's impact on consumers. But as discussed previously, TIEC offers no legitimate basis for questioning the

⁵⁵ Tr. at 111 ("Assuming that you had constrained wind right next to the SCT Tie, okay. *I know that's not factually accurate*, but assume you had constrained wind, curtailed wind that is directly electrically connected to that tie....") (emphasis added) (Jun. 1, 2016).

⁵⁶ TIEC's Initial Brief at 18.

⁵⁷ Tr. at 94 (Jun. 1, 2016).

⁵⁸ TIEC's Initial Brief at 17-18.

⁵⁹ Tr. at 96-97, 101 (Jun. 1, 2016).

⁶⁰ TIEC's Initial Brief at 17.

⁶¹ TIEC's Initial Brief at 17.

\$162 million or more of annual consumer energy benefits determined by SCT's economic analysis.

6. Conclusion Concerning SCT Project Benefits

TIEC and Staff make strained arguments about SCT's economic analysis that do not support their conclusion that no benefits have been shown. Staff's argument that the analysis is a forecast and only covers one year overlooks the fact that such studies are widely used throughout the electric industry, including by ERCOT and under the Commission's own rules, to evaluate the benefits of transmission system additions. TIEC's brief recognizes the significance of consumer benefits like those studied by SCT, but its only response to the \$162 million of annual consumer energy benefits shown by SCT's study is to assert, incorrectly, that it was denied the ability to meaningfully review the analysis. TIEC offers no meaningful response to Ms. Wolfe's testimony about the existing Mexico ties and makes assertions about modeling the existing SPP ties that are unsupported, contrary to ERCOT practice, and inconsistent with other parts of its brief. TIEC's other claims about SCT's economic analysis are not based on evidence, such as its arguments derived from unrealistic hypothetical questions and its claim – in the face of evidence to the contrary – that the shift factors for the Mexico ties must also apply to the SCT Project.

Despite TIEC's and Staff's efforts, no persuasive reason has been shown to discount SCT's evidence that the SCT Project will produce more than \$160 million or more of annual consumer energy benefits and \$170 million of production cost savings in ERCOT, as well as more than \$60 million of annual export charge revenues. These results are based on a credible analysis by well-respected experts, employing the UPLAN model widely used by utilities and RTOs throughout the United States, including ERCOT, to analyze the benefits of electric system changes. In addition, other benefits of the SCT Project are largely unchallenged, such as providing a significant additional power supply to ERCOT during an emergency, providing economic benefits to the area around the Garland project, and supporting the local economies in wind-producing areas of the Panhandle and West Texas.

Proposals to Allocate Costs to SCT

Several parties suggest that SCT will cause significant costs to be incurred by the ERCOT system that should be allocated to SCT, but no evidence supports their claims. For example, Texas Competitive Power Advocates (TCPA) asserts that adding the SCT Project will require additional transmission upgrades to support deliverability of imports and exports over the

tie and that there will be a large impact on ERCOT's ancillary services needs,⁶² but cites no evidence for either claim. Similarly, Luminant claims that SCT would cause the ERCOT transmission system to experience thermal overloads.⁶³ Staff suggests that some of the ERCOT study and system modification costs could be major and potentially costly.⁶⁴

The evidence does not support claims that the SCT Project will cause large costs to the ERCOT system. For example, Oncor's interconnection study concluded that no new transmission lines or line upgrades were needed for SCT to export up to 1,500 MW,⁶⁵ and SCT witness Stan Gray confirmed that Oncor's conclusion would also apply to a 2,000 MW project.⁶⁶ Although some reactive support would be required, SCT will itself as part of the SCT Project cost provide reactive support by adding capacitors near the Panola substation.⁶⁷ In addition, ERCOT will manage the grid so that the system is reliable without any network upgrades.⁶⁸ Staff's brief acknowledges that to date ERCOT has not identified any transmission upgrades needed in ERCOT to accommodate the SCT Project.⁶⁹ After the SCT Project is operating, ERCOT can approve additional grid upgrades under 16 Tex. Admin. Code (TAC) § 25.101(b)(3)(A)(i) if it concludes that the economic benefits of those upgrades exceed the costs.

Similarly, there is no evidence the SCT Project will cause substantial ancillary services or ERCOT administrative costs, particularly in comparison to the scope of the project's benefits. ERCOT has indicated that the amount of any increase in ancillary services costs that might result from the operation of the SCT Project has not been determined,⁷⁰ while evidence from previous ERCOT process and system revisions similar to those contemplated for SCT suggests that the costs have been modest.⁷¹

⁶² TCPA's Initial Brief at 7, 8.

⁶³ Luminant's Initial Brief at 4.

⁶⁴ Staff's Initial Brief at 19.

⁶⁵ Rebuttal Testimony of Stan Gray, SCT Ex. 10, Exhibit SG-1-R (Oncor Study) at 2 of 71.

⁶⁶ SCT Ex. 10 at 4 (Gray Rebuttal); Tr. at 168 (Jun. 1, 2016).

⁶⁷ SCT Ex. 10 at 5 (Gray Rebuttal).

⁶⁸ SCT Ex. 10 at 6 (Gray Rebuttal).

⁶⁹ Staff's Initial Brief at 16.

⁷⁰ ERCOT's response to Staff RFI 2-8, Staff Ex. 20.

⁷¹ SCT Ex. 13 through 16.

TIEC and Staff advocate that costs should be assigned to SCT, although their approaches differ. TIEC proposes that SCT bear incremental grid upgrade and ancillary services costs required to export power out of ERCOT,⁷² while Staff recommends that SCT pay costs incurred by ERCOT to conduct studies or modify systems related to interconnection of SCT.⁷³ Staff also recommends that allocation of grid upgrade and ancillary services costs to SCT be studied, but does not take a position on such allocation at this time.⁷⁴ Both TIEC and Staff repeatedly state that ratepayers should not be required to subsidize SCT, and attempt to explain why singling out SCT to bear costs not assessed to any other market participant would not be discriminatory.⁷⁵

TCPA also suggests that imposition of costs on DC ties should be considered, but cites no evidence in support of its position.⁷⁶ TCPA asserts that its generator members fully support competition,⁷⁷ but that generators should be given priority over DC ties competing for access to the transmission system.⁷⁸

Although TIEC and Staff repeat the word “subsidize” like an incantation, they do not establish that SCT will create significant costs that will be subsidized by ERCOT ratepayers. As discussed above, costs to the ERCOT system associated with the SCT Project are limited and uncertain, while the benefits are substantial. In addition, SCT demonstrated in its initial brief that export transactions pay full freight for their share of the transmission grid and for ancillary services, as does load in ERCOT when SCT is importing.⁷⁹ Although TIEC and Staff recognize that the principle in ERCOT is “load pays,”⁸⁰ they refuse to acknowledge that existing rules apply that principle equally to load outside ERCOT served by DC tie exports, or, “DC Tie Loads” as they are defined in the protocols.⁸¹ SCT’s economic analysis shows that exports over

⁷² TIEC’s Initial Brief at 7.

⁷³ Staff’s Initial Brief at 19-20.

⁷⁴ Staff’s Initial Brief at 16, 18.

⁷⁵ Staff Initial Brief at 19-20, TIEC’s Initial Brief at 7-8.

⁷⁶ TCPA’s Initial Brief at 7-9.

⁷⁷ TCPA’s Initial Brief at 2.

⁷⁸ TCPA’s Initial Brief at 4.

⁷⁹ SCT’s Initial Brief at 11-12.

⁸⁰ SCT’s Initial Brief at 7-8; Staff Initial Brief at 16-17 (noting that transmission upgrade costs are currently allocated to load).

⁸¹ ERCOT Nodal Protocols Section 2.1.

the SCT Project will contribute more than \$60 million per year to ERCOT transmission, ancillary services, administrative and other system expenses.⁸² There is no basis for TIEC's and Staff's assertion that ERCOT customers may subsidize exports over the SCT Project, because export transactions pay the same charges as ERCOT customers.

TIEC does not propose that SCT bear any costs that might arise from imports over the SCT Project, and for good reason. Imports benefit customers in ERCOT just like any other power supply. The "load pays" principle already applies to ERCOT load served by imports, which is why there is no specific charge like that assessed on export transactions under 16 TAC § 25.192(e).

TIEC and Staff both acknowledge that export transactions pay transmission grid costs under existing rules.⁸³ TIEC specifically recognizes that export fees for DC tie transactions are intended to recover the costs of the existing transmission system, although not all TSPs have implemented such charges.⁸⁴ SCT agrees with TIEC that Staff should open a project to consider and fully implement appropriate export charges under 16 TAC § 25.192(e).⁸⁵ However, notwithstanding this implementation issue, the fact remains that the rules in place today provide for collection of transmission grid costs, ancillary services costs, ERCOT administrative costs and other system costs from export transactions.

That is why TIEC and Staff are wrong when they argue that singling out SCT, unlike any other market participant, to pay *additional* charges beyond those already assessed to exports, is not discriminatory. As TIEC and Staff both acknowledge, transmission costs, ancillary services costs, ERCOT administrative costs, and other such costs are socialized to users of the transmission grid. This includes users of the grid who make exports over DC ties.

TIEC's argument that these export charges are only for existing grid costs rather than incremental costs is simply sleight-of-hand.⁸⁶ 16 TAC § 25.192(e), which governs export charges, states that a transmission service customer shall be assessed a transmission service

⁸² SCT Ex.3, Exhibit EW-2 at 3, 19 (Wolfe Direct).

⁸³ Staff's Initial Brief at 16-17; TIEC's Initial Brief at 11-12.

⁸⁴ TIEC's Initial Brief at 11-12.

⁸⁵ Issues to consider in such a project could include implementation of export charge tariffs by transmission service providers, access to information necessary to bill for export charges, and scope and duration of peak period pricing under such tariffs.

⁸⁶ TIEC's Initial Brief at 8.

charge “for the use of the ERCOT transmission system in exporting power from ERCOT.” It does not say “for the use of the *existing* ERCOT transmission system” as TIEC would have it. In fact, the Commission’s TCOS rate mechanism, on which the export charge is based, does not distinguish between existing and new transmission facilities. Incremental transmission costs are included in the system-wide TCOS when new projects are completed. They are not and never have been assigned to specific market participants. The same is true for recovery of ancillary services costs, ERCOT administrative costs, and other system expenses. TIEC’s claimed distinction between existing and new system costs has no basis in Commission or ERCOT rules or practice.

TIEC’s and Staff’s proposal would break from longstanding practice and assign costs to SCT that have never been assigned to other DC ties, have never been assigned to the existing most severe single contingency (MSSC), have never been assigned to the beneficiaries of specific grid upgrades, and have never been assigned to the beneficiaries of specific ERCOT system charges. TIEC and Staff are wrong that their recommendation to impose incremental costs on SCT in addition to the charges that will be paid for exports over the tie is not discriminatory.

TIEC’s intent to single out SCT for costs not imposed on other market participants is particularly apparent. TIEC promotes an ERCOT “island” theory, based solely on the word of Charles Griffey, to justify imposing incremental costs on exports.⁸⁷ TIEC’s theory that “load pays” only applies to people on the island and not to exports from the island ignores the fact that export beneficiaries pay their share of grid costs, ancillary services costs, ERCOT administrative costs, and other system expenses. And despite asserting that exports should pay incremental costs, TIEC reveals in a footnote that it really means only exports over the SCT tie, not exports over any other DC tie.⁸⁸ At the same time, TIEC argues elsewhere in its brief, when it suits its purpose, that the existing Mexico DC ties export most of the time.⁸⁹ TIEC is transparently attempting to impose costs on SCT and only SCT, rather than to apply any consistent set of cost

⁸⁷ TIEC’s Initial Brief at 7-8.

⁸⁸ TIEC’s Initial Brief at 9, n. 40.

⁸⁹ TIEC’s Initial Brief at 15.

allocation principles. To apply export charges in that fashion would indeed be discriminatory and contrary to both SCT's FERC Order and PURA.

Staff's effort to justify imposing costs only on SCT also comes up short. For example, Staff asserts several times that the SCT Project is privately-owned,⁹⁰ but overlooks that all of the existing ERCOT DC ties are privately-owned. Although Staff may be referring to the fact that SCT will charge negotiated rates under a FERC order rather than cost-based rates,⁹¹ this distinction has little bearing on this case and means only that SCT will recover its costs from willing subscribers to its transmission capacity rather than captive ratepayers.⁹² Staff also suggests that SCT could be required to bear the cost to provide primary frequency response (PFR) and reactive power,⁹³ although none of the existing DC ties have such requirements and no basis is shown to treat SCT differently in this respect. Like TIEC, Staff does not justify its proposals to impose costs on SCT not assessed to any other market participants.

Finally, TIEC's proposal that SCT pay any incremental costs attributable to exports over the SCT Project ignores that the SCT Project will operate based on market economics and consistent with approved ERCOT schedules and orders. In the first instance, there will be no incremental costs attributable to the SCT Project. Should some costs be found that could logically increase, for example, ancillary services as a result of changes in the MSSC, TIEC's proposal raises all of the concerns former Commissioner Hudson warned about in breaking with the existing system of cost recovery in favor of a thankless and unproductive inquiry into who benefits from grid-related costs. As he testified, the longstanding ERCOT postage stamp method is a simple, effective way for recovering transmission costs that has resulted in a robustly reliable ERCOT grid, in contrast to other areas of the United States where stakeholders spend significant resources arguing over transmission cost allocation and needed transmission projects are sometimes mired in stakeholder arguments.⁹⁴ If TIEC's and Staff's proposals were adopted, it would not be hard to foresee future controversies over who benefits from and should bear the costs of transmission upgrades, ancillary services, or ERCOT system changes. For example, an

⁹⁰ Staff's Initial Brief at 7, 19.

⁹¹ See Staff's Initial Brief at proposed Finding of Fact (FoF) No. 37.

⁹² *Southern Cross LLC*, 137 FERC ¶61,207, p.1, note 1, and p. 6 (Dec. 15, 2011).

⁹³ Staff's Initial Brief at 14-15.

⁹⁴ Rebuttal Testimony of Paul Hudson, SCT Ex. 11 at 8-10.

argument could readily be made that a new \$300 million transmission line parallel to the Mexico border in the Lower Rio Grande Valley⁹⁵ provides no benefit to most ERCOT customers and that local beneficiaries should bear those costs. Similar arguments could be made about many transmission facilities. But that is not how it is done in ERCOT. The existing postage stamp system in ERCOT completely avoids such controversies, in stark contrast to other parts of the country where they are fought incessantly and impair the ability to build needed transmission.

Discussion of proposed conditions other than those relating to the ERCOT Issues.

In the following discussion of conditions proposed by various parties, SCT has not addressed that part of several proposals to assign cost to SCT. That issue has been collectively discussed above.

Staff Proposed Condition. *SCT must execute ERCOT's Standard Market Participant Agreement before the Garland Project is energized.* (Staff Brief at 9–11.)

TIEC Proposed Condition. *The Commission should require SCT to register as a new category of market participant at ERCOT and to abide by ERCOT orders and protocols.* (TIEC Brief at 20–21.)

There is general agreement that SCT must execute ERCOT's market participant agreement before Garland may interconnect the SCT Project, and SCT accepts this proposed condition.⁹⁶ SCT has requested that the condition include a deadline of June 1, 2017, for ERCOT to determine a market participant category for SCT and to make any necessary changes to the Standard Form Market Participation Agreement (SFMPA).

In its initial brief, SCT proposed a condition that would direct ERCOT to create an Independent DC Tie Operator market participant type within one of the existing market segments. ERCOT's Finding of Fact Nos. 6 and 7 and its Ordering Paragraph No. 1 accomplish the same result and would be acceptable to SCT if they are modified in two respects.⁹⁷ One, the findings and ordering paragraph must require ERCOT to determine not only SCT's market participant category, but also which one of the market segments it will belong to. Two, ERCOT must make these determinations by June 1, 2017.

⁹⁵ See *Joint Application of Electric Transmission Texas, LLC and Sharyland Utilities, L.P. to Amend Their Certificate of Convenience and Necessity for the North Edinburg to Loma Alta Double-Circuit 345-kV Transmission line in Hidalgo and Cameron Counties*, Docket No. 41606, Order (Apr. 11, 2014).

⁹⁶ Staff's Initial Brief at 9; ERCOT's Initial Brief at 10; TIEC's Initial Brief at 20; TCPA's Initial Brief at 5; Luminant's Initial Brief at 10.

⁹⁷ ERCOT's Initial Brief at 10.

Staff opposes SCT's requested deadline and proposes the possibility of delaying the execution of the SFMPA until the line is ready to be energized.⁹⁸ But the SFMPA must be ready for execution by the requested deadline of June 1, 2017, for SCT to be able to interconnect and energize the SCT Project in 2020. Additionally, SCT witness David Parquet testified that meeting the deadline is necessary to enable SCT to secure project financing by the end of 2017.⁹⁹ Mark Bruce testified that the issues ERCOT must resolve by then are not complex and that knowing SCT's classification is essential to financiers because it determines SCT's obligations.¹⁰⁰ Staff offered no evidence that delaying the agreement would not substantially delay the line, when it would, or that the requested deadline would interfere with other ERCOT projects. No other party has opposed including the deadline in the proposed condition. The Commission should adopt the condition with the requested deadline, requiring ERCOT to determine a market participation category and market segment for SCT by June 1, 2017.

As a market participant, SCT recognizes that it will be subject to ERCOT's orders and protocols the same as any other market participant. In addition, as ERCOT pointed out in its brief, SCT and Garland are bound by their commitment at FERC to comply with ERCOT and Commission requirements.¹⁰¹ Because the commitment will be effective without a Commission order, a condition that purports to require SCT to abide by orders and protocols adds nothing to the Commission's authority or to ERCOT's. TIEC's condition is unnecessary, ineffective, and there is no reason for the Commission to adopt it.

TIEC proposed several variations on the condition that are either unnecessary, inappropriate, or both. One, it urges the Commission to require Garland and Oncor to disconnect from the SCT Project if SCT were to challenge a Commission rule or ERCOT protocol on the grounds that it would affect or modify SCT's obligations or duties under a FERC rule or order.¹⁰² The Commission should ignore TIEC's proposed condition, which would violate several provisions of PURA that require any conditions imposed on Garland's certificate and any rules

⁹⁸ Staff's Initial Brief at 11.

⁹⁹ Tr. at 157-158 (Jun. 1, 2016).

¹⁰⁰ Tr. at 222-223 (Jun. 1, 2016).

¹⁰¹ ERCOT's Initial Brief at 4.

¹⁰² TIEC's Initial Brief at 20-21.

directed at SCT—and other market participants subject to federal jurisdiction—to be consistent with applicable federal rules and orders.¹⁰³

SCT must be able to assert its legal rights without facing an automatic “death penalty” provision in the order in this case. All market participants in ERCOT enjoy the legal benefits of due process. There is no reason that SCT should be singled out to not have the same due process rights accorded others. The condition requested by TIEC would make an SCT challenge of Commission jurisdiction grounds, in and of itself, for ordering SCT to immediately disconnect its DC Tie—without regard to the real issues in dispute and even if it turns out that SCT’s interpretation of the law is upheld on appeal. If SCT ever challenges an ERCOT protocol or a Commission rule, the Commission will be able at that time to make a reasoned decision about the appropriate action to take, based on the facts and applicable federal and state law. Adopting TIEC’s requested condition will not enhance the Commission’s oversight of the ERCOT market.

Two, TIEC would have the Commission condition Garland’s CCN on SCT’s backing down exports at ERCOT’s request. Such a condition would be redundant and unwarranted. SCT will operate the SCT Project based on market economics, under ERCOT orders and ERCOT-approved schedules. As such, it will be a market participant and the ERCOT protocols are enforceable against it, including SCT’s obligation to follow all ERCOT operator instructions. Executing the ERCOT SFMPA will bind SCT to specific duties and obligations spelled out in the protocols and other binding documents of ERCOT, just as similar agreements bind the other market participants.

Three, TIEC proposed a related condition that would require SCT to register as a new category of market participant at ERCOT and abide by ERCOT orders and protocols.¹⁰⁴ This condition would be redundant because once SCT executes a market participant agreement, the Commission will have jurisdiction and authority over SCT to enforce provisions of PURA, Commission rules and orders, and ERCOT protocols and bylaws.

¹⁰³ See PURA § 37.051(c-2) (authorizing the Commission to prescribe reasonable conditions on Garland’s CCN that are consistent with the FERC final order that directed Garland and SCT to interconnect); PURA § 39.151(d) (providing that Commission rules relating to ERCOT may not impose a requirement contrary to a federal law or rule); PURA § 39.157(c) (providing that a Commission-promulgated code of conduct may not modify obligations apply to a utility under FERC orders or regulations).

¹⁰⁴ TIEC’s Initial Brief at 20.

ERCOT protocols are enforceable as Commission orders because ERCOT adopts them pursuant to authority delegated to it by the Commission under § 39.151(d) of PURA. The Commission has authority under § 15.023 to impose an administrative penalty on any “person regulated under this title” (i.e., PURA). As a market participant, SCT will thus be subject to ERCOT’s protocols, regulated under PURA, and subject to the Commission’s jurisdiction. The Commission will have authority under § 15.023 to impose an administrative penalty against SCT for violations of PURA or a rule or order adopted under PURA. And under § 15.022, the Commission will have authority to file a court action for contempt against SCT if it fails to comply with a lawful Commission order. The Commission should reject the conditions as requested by TIEC.

TIEC Proposed Condition. *The Commission should include a condition prohibiting Rusk from requesting that Garland upgrade the Rusk to Panola Line under the provisions of the Transmission Line Agreement.*¹⁰⁵

SCT and Rusk have agreed that Rusk will not ask Garland to upgrade the Rusk to Panola line under the Transmission Line Agreement.¹⁰⁶

TIEC Proposed Condition. *The Commission should condition this CCN on Garland and Rusk committing to disconnect the line in order to prevent FERC from exercising jurisdiction over ERCOT, and in other circumstances as the Commission dictates.* (TIEC Brief at 22-23.)

Staff Proposed Condition. *Garland should be required to disconnect from the SCT DC Tie if (1) FERC asserts jurisdiction over ERCOT due to the line; (2) a synchronous connection is ever made to the line outside of Texas; or (3) SCT fails to follow any ERCOT protocol or Commission rule and the Commission orders the disconnection.* (Staff Brief at 26.)

With respect to the response to FERC’s asserting jurisdiction, TIEC and Staff ignore the provision in the Interconnection Agreements between Garland and Oncor and between Garland and SCT that give the parties the right to immediately disconnect if disconnection is necessary to prevent the Garland, Oncor, ERCOT, CenterPoint, or other ERCOT utilities from becoming subject to FERC jurisdiction.¹⁰⁷ In addition, the ERCOT bylaws prohibit any members from taking any action that would cause a member who is not a public utility under the FPA to become a public utility under FERC rules or become subject to FERC jurisdiction.¹⁰⁸ As

¹⁰⁵ TIEC’s Initial Brief at 21.

¹⁰⁶ SCT Ex. 6 at 13-14 (Parquet Rebuttal); Tr. at 136 (Jun. 1, 2016).

¹⁰⁷ CCN Application, Garland Ex. 1, Attachment 2 at 21 (Interconnection Agreement § 5.6).

¹⁰⁸ Amended and Restated Bylaws of Electric Reliability Council of Texas, Inc. § 9.3(i) (Aug. 17, 2015).

members of ERCOT, Garland and Oncor would therefore be required to immediately disconnect from the SCT Project if FERC asserted jurisdiction over ERCOT due to the line. The conditions proposed by Staff and TIEC are unnecessary.¹⁰⁹

Staff's second requested condition addresses an event that cannot occur. It will not be physically possible to make a synchronous connection between Garland's Panola switching station and SCT's western converter station outside of Texas because the connection, called a rigid bus, is not a transmission line and the distance it covers is not adequate to access the area to make a connection. Staff's proposed condition addresses an impossibility, and should be rejected.

According to Staff, it recommends that the Commission order "clarify" its authority to order Garland to disconnect from the SCT DC Tie if SCT fails to abide by ERCOT protocols or Commission rules.¹¹⁰ The condition appears to be premised on the proposition that the Commission may order disconnection for any violation of a protocol or rule by SCT. That proposition almost certainly misstates the law. SCT does not here dispute that the Commission has the authority, in the abstract, to order a disconnection. SCT realizes also that, absent a stay or other order suspending the order, Commission orders are effective while an appeal is pending, and it will comply with the Commission's lawful orders. But the Commission's authority to order disconnection in a particular situation will not depend on adopting the condition recommended by the Staff. The condition fails to "clarify" Commission authority and should not be adopted.

TIEC Proposed Condition. *The Commission should preclude attempts to create a new utility in ERCOT through the "put" or "call" options under the Transmission Line Agreement.* (TIEC Brief at 23–26.)

Contrary to TIEC's insinuation, there has been no attempt by SCT or Garland to circumvent PURA by creating a new utility through the put or call options in the Transmission Line Agreement. The provisions of the agreement in question simply give each party the option of conveying the transmission line to or from the other party if unknown circumstances in the future should warrant a change in ownership. Completely lost on TIEC is the requirement in section 9.3 of the agreement that Rusk obtain a CCN from the Commission as part of a put or

¹⁰⁹ Garland's FoF No. 97.

¹¹⁰ Staff's Initial Brief at 26.

call closing. Indeed, section 9.3 requires that in any transfer of the CCN, the transferee obtain Commission approval.

Section 37.154 or PURA requires a utility to obtain the Commission's approval before selling or assigning a certificate. It's clear application to any exercise of the put and call options should not be in dispute in this case. TIEC contends at considerable length that portions of section 37.051 would apply to such a transfer. Placing a condition on Garland's CCN would not change the underlying statutory law. Without taking a position on that issue, SCT simply observes that there is no reason to argue about the issue in this case, where no proposed transfer of the certificate has been submitted to the Commission for approval.

The condition requested by TIEC is unnecessary. The Transmission Line Agreement already requires Garland and Rusk to seek Commission approval for any transfer of the CCN pursuant to § 37.154 of PURA.

Luminant Proposed Condition. *The Commission should impose conditions to address transmission congestion resulting from imports over the SCT Project.* (Luminant Brief at 6–7.)

Luminant Proposed Condition. *The Commission should impose conditions to mitigate price reversal and suppression caused by ERCOT-directed DC Tie imports and curtailment of exports over DC ties during emergencies.* (Luminant Brief at 7–9.)

As a starting point in the discussion, it should be clear to all—as SCT has stated repeatedly—that the SCT Project will operate on an economic basis, under ERCOT orders and approved schedules. That means imports will occur only when prices are higher in ERCOT than in the Eastern Interconnect, net of export charges in either direction. Moreover, they will be scheduled into the ERCOT market only so long as ERCOT approves the schedules. Since ERCOT will deny or curtail any requested import transaction that causes unresolvable congestion, there should be no persistent or meaningful congestion as a result of imports over the SCT DC Project.

Although Luminant's conditions address distinct issues, SCT has the same objection to both of them: namely, that they ask the Commission either to determine a solution to a technical problem or to limit the possible solutions that ERCOT can evaluate. SCT recommends that both proposed conditions be referred to ERCOT. SCT agrees with Staff and others that such matters should be addressed at ERCOT without any restrictions on the potential solutions to be

considered.¹¹¹ As ERCOT points out in its brief, “it is important in all cases that the solution appropriately reflect input from all interested parties through the appropriate process at the Commission or, if appropriate, at ERCOT, without unnecessarily restricting the range of possible solutions to those identified in testimony or briefing submitted by a select few parties in this contested case.”¹¹²

Staff Proposed Condition. *Garland can condemn land and begin construction only after Garland, or Southern Cross, files evidence that Southern Cross: (1) has obtained all necessary regulatory approvals in Louisiana where the Southern Cross DC Tie is to be built; (2) has secured funding for the full cost of the Southern Cross DC Tie, Southern Cross Line, and Garland Project, and (3) has constructed at least 75% of the Southern Cross DC Tie in Louisiana.* (Staff Brief at 25).

Garland, SCT and the Panola Landowners Group have reached an agreement in the unopposed Stipulation Concerning Transmission Line Route (Route Stipulation) that restricts condemnation of easements for the Garland line until SCT secures funding for the Garland facilities and the SCT Project.¹¹³ This provision of the Route Stipulation was negotiated between Garland, SCT and the intervening landowners, and the resulting agreement meets each of their interests and concerns. Staff does not oppose the Route Stipulation and indicates that it “in part” satisfies Staff’s concern about condemnation of easements.¹¹⁴ However, Staff continues to propose that the additional conditions listed above be imposed on condemnation of easements beyond those agreed to by the landowner intervenors in this case.

Staff’s proposed additional conditions are not reasonable or workable. Staff’s proposed requirement that at least 75% of the Southern Cross DC Tie has been constructed before condemnation occurs should be rejected. First, no rationale has been provided by Staff or any party to support this condition. Second, it is unreasonable to impose the requirement where the construction schedule for facilities and the lead time for the delivery of equipment is unknown. Third, for all practical purposes, it would make financing of the project impossible. Fourth, landowners are fully and adequately protected by the relevant provisions in the Route

¹¹¹ Staff proposed a condition to require ERCOT to study price formation issues, as opposed to Luminant’s request for a Commission determination of the issue. Staff’s Initial Brief at 15–16. This brief discusses Staff’s proposed condition in the section that addresses ERCOT issues.

¹¹² ERCOT’s Initial Brief at 1.

¹¹³ See Garland’s Initial Brief at 10.

¹¹⁴ Staff’s Initial Brief at 24.

Stipulation. The ALJs and the Commission should approve the restrictions on condemnation provided in the Route Stipulation and reject Staff's effort to expand those restrictions.

E. Application of PURA § 37.051(c-2) to Southern Cross (Preliminary Order Issue No. 3)

1. Market Participant Agreement (Preliminary Order Issue No. 3a)

This issue is addressed by SCT under the subheading "Discussion of proposed conditions other than those relating to the ERCOT Issues" above.

2. Coordination Agreement (Preliminary Order Issue No. 3b)

This issue is addressed by SCT in numbered paragraph 8 under "ERCOT Issues" below.

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

1. At what point of development should ERCOT include a proposed merchant DC tie project in the planning models?

The only parties that briefed this issue were ERCOT and SCT. In its brief, ERCOT recommends that the Commission direct ERCOT to determine at what point of development a proposed merchant DC Tie project should be included in the ERCOT planning models.¹¹⁵ In testimony, however, ERCOT witness, Warren Lasher, was fairly specific and stated: "they [DC tie projects] should be included in transmission planning models when they reach a milestone indicating that they are likely to be completed. This milestone could be tied to collateralization of the necessary transmission system upgrades for interconnecting the project and a notice to proceed with construction of the interconnection facilities, consistent with the treatment of generation resources."¹¹⁶ SCT noted that Mr. Bruce agreed with Mr. Lasher's analysis that the SCT Project should be considered highly likely to be developed and included in the ERCOT planning process once SCT posts the required financial security and issues notice to Oncor to proceed with the construction of the Rusk switching station.¹¹⁷ Neither Staff nor the other intervenors addressed this matter. No Commission action is requested or required. SCT supports the adoption of ERCOT Finding of Fact Nos. 9 and 10 and Ordering Paragraph No. 3.

¹¹⁵ ERCOT's Initial Brief at 5.

¹¹⁶ ERCOT Ex. 1 at 5-6 (Lasher Direct).

¹¹⁷ SCT's Initial Brief at 23.

2. How should the uncertainty of whether DC ties will be exporting or importing be addressed in transmission planning?

ERCOT observes that (1) a new large DC Tie has no historical performance record to assist planners in modeling the tie; (2) the profiles of the existing DC Ties in ERCOT may not be a suitable proxy for a new DC Tie; and, (3) that the SCT Project will interconnect to the Eastern Interconnect instead of SPP or Mexico. Because the assumptions ERCOT must make need to be carefully considered in light of their impact on publicly funded transmission improvements, ERCOT recommends that the Commission include an ordering paragraph that directs ERCOT to determine how a new DC Tie should be modeled in the planning studies.¹¹⁸ Luminant and Staff agreed that the Commission should provide ERCOT with specific guidance, but their positions were more focused on congestion than ERCOT's broader modeling needs.¹¹⁹ SCT, pointing to the Direct and Rebuttal Testimony of Mark Bruce, agreed with ERCOT that ERCOT can best frame and resolve these planning matters. SCT supported the Findings of Fact and Conclusions of Law filed by Garland. Garland's Proposed Finding No. 84 addresses this matter, but that finding is not as specific as ERCOT's recommendation.¹²⁰ SCT does not object to revising proposed Finding No. 84, or including a Conclusion of Law that more closely tracks ERCOT's recommendation. No other party addressed this issue.

3. Should ERCOT ratepayers be financially responsible for transmission upgrades that are necessary to facilitate exports over DC ties, given that those improvements are made only to serve load in non-ERCOT areas?

This issue is addressed in response to Preliminary Order No. 2, above, relating to proposed conditions in this proceeding.

4. Should DC ties be subject to economic dispatch? If not, how should ERCOT manage congestion created by DC tie imports/exports?

There appears to be at least a general agreement among the parties briefing this issue that the issue is best addressed at ERCOT. The record evidence reflects two alternatives, modifying SCED to make DC ties dispatchable on an economic basis and the use of a Congestion

¹¹⁸ ERCOT's Initial Brief at 6; Staff's Initial Brief at 16.

¹¹⁹ Luminant's Initial Brief at 11.

¹²⁰ ERCOT's Initial Brief, FoF No. 11, and Ordering Paragraph No. 4.

Management Plan (CMP), including the use of a Special Protection Scheme (SPS).¹²¹ The alternatives are complicated and require study. SCT believes that using SCED to dispatch DC ties may be technically infeasible where flows over the SCT Project necessarily affect the balancing authority at the eastern end of the SCT transmission line.¹²² TCPA argues that generation resources within ERCOT should be given a dispatch priority over DC ties, but their proposed condition suggests only that DC Ties should be subject to economic dispatch.¹²³ SCT supports the exploration of the two alternatives discussed above, as well as Mr. Bruce's suggestions that ERCOT should explore moving the DC Tie scheduling window closer to the operating hour and consider the use of a proxy offer curve in a SCED workaround to approximate economic dispatch.¹²⁴ Luminant would go further and have the Commission direct ERCOT to implement an appropriate CMP in this proceeding.¹²⁵ The record evidence does not support the implementation of any solution in this proceeding, although SCT supports ERCOT evaluation of a CMP or SPS as a method of more fully utilizing the transmission grid in the area around the SCT Project for the benefit of ERCOT customers, generators in the area, and SCT. Luminant's implementation recommendation should be rejected, but the issue should be explored further through the ERCOT stakeholder process. Garland's proposed Findings of Fact Nos. 69-71 should be recommended for adoption, however, SCT does not object to the adoption of ERCOT Finding of Fact Nos. 12 and 13 and Ordering Paragraph No. 5.

5. Should ERCOT rules impose ramp restrictions on imports/exports over the DC ties, given system ramp limitations?

The short answer is yes; ramp rate restrictions will need to be developed for the SCT Project. Despite some parties' unnecessary effort to imply that differences of opinion may exist, SCT recognizes that the SCT Project will have the ability to ramp up, down, or even change the direction of the power flows very quickly. However, SCT would not take any action that would intentionally harm the ERCOT system, or the system on the eastern end of the SCT Project. Staff recommends that a ramp rate condition be included in the Commission's order, but it is

¹²¹ SCT's Initial Brief at 27.

¹²² *Id.*

¹²³ TCPA's Initial Brief at 6-7.

¹²⁴ SCT's Initial Brief at 27-28.

¹²⁵ Luminant's Initial Brief at 9.

unnecessary.¹²⁶ Just as the identical issue for wind resources was addressed at ERCOT in a very straightforward manner,¹²⁷ this issue can, and will, be resolved for the SCT Project in the normal of business at ERCOT.¹²⁸ No Commission action is required. SCT supports the adoption of ERCOT Finding of Fact No. 14 and Ordering Paragraph No. 6.

6. How should ERCOT address the greater complexity of coordinating outages and the additional cost of addressing that complexity, given the unpredictable nature of DC tie flows?

ERCOT recommends that the Commission specifically order ERCOT to identify a method for reliably and cost-effectively coordinating outages.¹²⁹ Staff agrees.¹³⁰ SCT agrees with ERCOT and Staff that the matter requires attention and points out that ERCOT will likely need to expand its outage coordination capabilities to address increasingly variable components of the modern ERCOT grid even without the SCT Project.¹³¹ ERCOT and Staff recommend that the Commission require ERCOT to complete this task before Garland completes construction and energizes the Rusk to Panola transmission line. While SCT believes that a Commission directive and deadline are unnecessary, SCT does not object to ERCOT's proposed Finding of Fact No. 15 and Ordering Paragraph No. 7.

7. How will ERCOT coordinate with other independent system operators (ISOs)/regional transmission operators (RTOs) and/or NERC balancing authorities (BAs) on imports or curtailments of exports during emergencies? In the event ERCOT is unable to reach agreeable terms with the other affected ISOs/RTOs and/or BAs, what measures may/should ECOT take to ensure reliability?

Commenting parties agree that a coordination agreement with the balancing authority on the eastern end of the SCT Project should be negotiated and executed by ERCOT. ERCOT has experience with such agreements and SCT believes they tend to be fairly straight forward. It is not anticipated that a problem will exist in reaching an agreement acceptable to both parties.¹³²

¹²⁶ Staff's Initial Brief at 13.

¹²⁷ SCT Ex. 13; Tr. at 261-263 (Jun. 1, 2016).

¹²⁸ ERCOT's Initial Brief at 7.

¹²⁹ ERCOT's Initial Brief at 7-8.

¹³⁰ Staff's Initial Brief at 13-14.

¹³¹ SCT's Initial Brief at 32-33.

¹³² SCT's Initial Brief at 33.

However, interconnection of the SCT Project should not be conditioned on completion of negotiations between reliability coordinators or the balancing authorities in the southeast, as ERCOT and Staff essentially—but perhaps inadvertently—advocate, where the primary purpose of the agreement is mutual support. Power can flow over the SCT Project with ERCOT accepting or rejecting e-Tags and, if necessary, restricting or terminating tie flows in an EEA event without the agreement in place just as it will with it in place. The fundamental difference is the mutual assistance commitment and settlement obligations for actions taken pursuant to that commitment. SCT disagrees with ERCOT's recommendation that the coordination agreement must be completed before interconnection of the SCT Project is allowed. And, SCT certainly disagrees with Staff's suggestion that timing related to project financing is unimportant and should be ignored.¹³³ SCT recommends a more functional requirement that ERCOT negotiate and execute the coordination agreement by June 1, 2017 so that the matter is fully resolved before SCT seeks project financing. Please see Garland's proposed Finding of Fact No. 68 or ERCOT's Finding of Fact No. 16 and Ordering Paragraph No. 8.

8. Should either the DC Tie owner/operator or the qualified scheduling entity scheduling over the tie be required to supply reactive power or primary frequency response to the ERCOT system, consistent with ERCOT's treatment of generators?

ERCOT recommends that it be directed to determine whether any or all of the DC Ties should be required to provide or procure Voltage Support Service (VSS) or Primary Frequency Response (PFR) and to adopt and implement any necessary standard revision.¹³⁴ Staff moved beyond the generic issue addressed by ERCOT to specifically urging that ERCOT simply consider whether SCT should procure VSS and PFR services.¹³⁵ Staff's position appears to be based on its misunderstanding of Mr. Gray trying to explain that the SCT converter station could have some limited ability to provide PFR if such ability is part of the equipment design and that trying to impose an equipment-based PFR requirement after the converter station is constructed

¹³³ Staff's Initial Brief at 12. Staff argues that there is no evidence in the record that SCT will close financing on June 1, 2017. That is an untrue statement for two reasons. The date for financial closing is in the record evidence as the end of 2017. The June 1, 2017 date is in the record evidence as the date when certain activities should be completed to allow them to be included in the financing package that will be submitted to lenders by the end of 2017. SCT Ex. 6, Parquet Rebuttal, at 4. Further, common sense should be adequate to recognize that financing must occur before construction and construction must occur before the 2020 in service date.

¹³⁴ ERCOT's Initial Brief at 9.

¹³⁵ Staff's Initial Brief at 14-15.

would be unreasonably expensive. What was intended to be an offer to assist ERCOT with the PFR issue seems to have gotten lost in Staff's effort to nail down a precise time that a decision must be made in the design phase of the project. The answer Mr. Gray provided was that preliminary design efforts are under way and the window is rapidly closing, but not closed, on including some PFR capability at the SCT converter station. The SCT project is a controllable transmission line and not a generator. SCT is certainly willing to discuss its ability to provide limited low frequency PRF by borrowing energy from SERC generators, but that would require an agreement be negotiated with the balancing authority on the eastern end of the tie to allow such action. The Commission should decline to adopt a condition requiring SCT to provide VSS or PFR support to the ERCOT system. Instead, the Commission should direct ERCOT to coordinate with SCT in the same productive and collaborative spirit with which ERCOT and SCT have identified and resolved issues related to this project over the past six years to evaluate whether and to what degree SCT could provide PFR or other services. The Commission should adopt either Garland's Findings of Fact Nos. 69-80 or ERCOT's Findings of Fact No. 17 and Ordering Paragraph No. 9.

9. If the interconnection of a new DC Tie or other asset to the ERCOT system increases the most severe single contingency [MSSC], should the costs of any resulting increase in ancillary services procured be borne by the owner of that asset?

This issue is addressed in response to Preliminary Order Issue No. 2, above, relating to conditions proposed by parties in this proceeding.

Despite Staff's recommendation that a project should be opened to address the assignment of ancillary services costs to the facility designated as the Most Severe Single Contingency (MSSC), the record evidence in this case provides no support for such a major change in Commission policy. There are several reasons why the change would be unprecedented and undesirable.¹³⁶ ERCOT took no position on the assignment of cost issue, but recommended that the Commission direct ERCOT to evaluate and implement any modifications to ancillary services procurement as a condition for the interconnection of the SCT Project. SCT agrees that there is a major difference between the current MSSC, a nuclear plant that basically runs at maximum capacity 8760 hours a year and a DC Tie that might only be the MSSC in rare

¹³⁶ SCT's Initial Brief at 36 citing SCT Ex. 11 at 8-12 (Hudson Rebuttal) and SCT Ex. 4 at 17-20 (Bruce Supp. Direct).

instances when it is importing more than 1375 MW.¹³⁷ While the current MSSC is 1375 MW, ERCOT currently procures ancillary services to withstand the loss of two nuclear units simultaneously, or 2750 MW, an amount well above that required if the 2,000/2100 MW if the SCT DC Tie becomes the MSSC. The bottom line is that it is unknown at this time what impact the SCT DC Tie will have if it becomes the MSSC. SCT recommends that the Commission decline to open a project that would potentially move away from the current cost allocation methodology for ancillary services. ERCOT is already obligated to designate a MSSC under its NERC obligations and ERCOT already assesses its ancillary services procurement methodologies at least annually and frequently modifies the methodologies to reflect evolving system conditions and reliability requirements. While SCT believes that no action is in this docket is required by the Commission regarding the designation of the MSSC, SCT does not object to adopting ERCOT's Finding of Fact No. 18 and Ordering Paragraph No. 10.

VI. CONCLUSION

The record in this case demonstrates that the SCT Project will benefit the ERCOT market by providing ERCOT customers with millions of dollars in benefits annually, wind generators with an outlet for their energy during peak period and the ERCOT grid with access to additional capacity when it needs it the most. The ability to move power between ERCOT and SERC will improve reliability to the benefit of generators and customers in both regions. The area around the Garland Project in Rusk and Panola Counties will also benefit, as will wind generating regions in the Panhandle and West Texas.

The record in this case further demonstrates that SCT has achieved its four objectives:

- First, SCT has preserved the regulatory status quo by obtaining an appropriate order from FERC.
- Second, SCT will develop its entire project without direct costs to ERCOT customers for the construction, decommissioning, operation or maintenance of the Garland Project, and the Commission will decide whether the cost of the Rusk switching station will be included in Oncor's rate base or addressed by the backup agreement between SCT and Oncor.

¹³⁷ SCT's Initial Brief at 37-38.

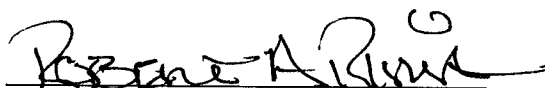
- Third, the SCT Project will provide significant economic benefit to ERCOT customers. Economic studies done in 2010 and 2015 show that, under two very different sets of market conditions, the project will provide far more than \$100 million annually in consumer energy benefits and production cost savings to ERCOT, in addition to millions of dollars in export charge revenues. In addition, the project will provide substantial benefits to the local economies in Rusk and Panola Counties and in wind energy regions in the Panhandle and West Texas. In achieving these benefits, the SCT Project will operate economically in response to ERCOT orders and schedules that are approved or denied based on ERCOT's judgments about system congestion and reliability. Beyond the Garland line and the Rusk and Panola stations, no transmission upgrades are required to interconnect the SCT Project.
- Fourth, SCT can work with ERCOT and key stakeholders to develop the operating protocols and other processes under which the SCT project will operate. This proceeding has been helpful in identifying those issues and allowing discussion, and significant agreement, on a path forward to resolution of these issues.

SCT has been disappointed that some parties have viewed this case as an opportunity to attempt to impose costs on SCT that are not imposed on any other market participant. Those parties have strained to challenge the benefits shown in SCT's economic analysis while producing no analysis of their own. They have overstated potential costs associated with the SCT Project when any such costs are limited and uncertain. They reluctantly recognize that DC tie exports contribute to ERCOT system costs like ERCOT customers do, but nonetheless suggest that the Commission should depart from its well-established and effective principle that load pays for such costs and instead allocate additional costs to SCT. Such an approach would open the door to extended and fruitless disputes about who benefits from and should pay for ERCOT system costs, a problem that does not exist in ERCOT but does plague the rest of the country and impair the ability to complete needed transmission projects.

In its Statement of Position, ERCOT suggested the Commission should specify a timeline for resolving several of the proposed conditions. SCT urges the Commission to set a deadline of June 1, 2017, for (1) creating a market participant category and market segment for SCT and (2) ERCOT's negotiating and executing a coordination agreement with the balancing authority that the SCT Project will connect with in the Southeast. While SCT will work with ERCOT and

other stakeholders to achieve a timely resolution of all the ERCOT issues, an early determination of these two issues is important to SCT's ability to close financing by the end of 2017 and keep the project on a timeline to be energized in 2020. The Commission should also be aware that the financing counterparties will be carefully reviewing every condition in the Commission's final order to determine whether there is any uncertainty in SCT's ability to complete the project without further Commission action. SCT believes that counterparties will accept oversight in compliance dockets for projects such as this one, but not conditions that would allow reconsideration of the Commission's decision in this case. Specificity and clarity as to the limited scope of any compliance filing requirements is critical to being able to close financing.

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 June 17, 2016 via the Public Utility Commission of Texas Interchange website pursuant to SOAH Order No. 3.



Robert A. Rima