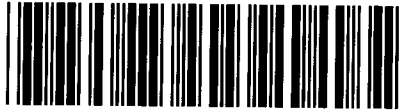




Control Number: 45624



Item Number: 166

Addendum StartPage: 0

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

RECEIVED

2016 MAR -4 11:2:00

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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BEFORE THE STATE OFFICE  
OF  
ADMINISTRATIVE HEARINGS

**TEXAS INDUSTRIAL ENERGY CONSUMERS' SECOND SET OF REQUESTS  
FOR INFORMATION TO SOUTHERN CROSS TRANSMISSION, LLC**

Pursuant to § 22.144 of the Commission's Procedural Rules and SOAH Order No. 2, Texas Industrial Energy Consumers (TIEC) requests that Southern Cross Transmission, LLC (SCT) provide all of the information requested in Exhibit "A" within ten (10) calendar days.

Pursuant to P.U.C. Proc. R. 22.144(c)(2), TIEC further requests that answers to the requests for information be made under oath. Each answer should identify the person responsible for preparing that answer (other than the purely clerical aspects of its preparation) and the name of the witness in this proceeding who will sponsor the answer and who can vouch for its accuracy. In producing documents pursuant to this request for information, please indicate the specific request(s) to which the document is being produced. These requests are continuing in nature, and should there be, for any reason, a change in circumstances which would modify or change an answer supplied by you, such changed answer should be submitted immediately as a supplement to your original answer pursuant to P.U.C. Proc. R. 22.144(i). Please answer each request and sub-request in the order in which they are listed and in sufficient detail to provide a complete and accurate answer to the request. TIEC further requests that each item of information be made available as it is completed, rather than upon compilation of all information requested.

All information responsive to the requests on the attached Exhibit "A" should be sent to the following persons via overnight courier, on a piecemeal basis as individual items become available:

Ms. Kellie Barahona  
Thompson & Knight LLP  
98 San Jacinto Blvd., Suite 1900  
Austin, Texas 78701  
(512) 469-6100  
(512) 469-6180 (fax)  
Kellie.Barahona@tklaw.com

### **DEFINITIONS AND INSTRUCTIONS**

A. “Southern Cross,” “SCT,” or “you” refers to Southern Cross Transmission, LLC, and their affiliates, subsidiaries, and any person acting or purporting to act on their behalf, including without limitation, attorneys, agents, advisors, investigators, representatives, employees or other persons.

B. The terms “document” or “documents” are used in their broadest sense to include, by way of illustration and not limitation, all written or graphic matter of every kind and description whether printed, produced, reproduced or stored by any process whether visually, magnetically, mechanically, electronically or by hand, whether final or draft, original or reproduction, whether or not claimed to be privileged or otherwise excludable from discovery, and whether in your actual or constructive possession, custody, or control. The terms include writings, correspondence, telegrams, memoranda, studies, reports, surveys, statistical compilations, notes, calendars, tapes, computer disks, data on computer drives, e-mail, cards, recordings, contracts, agreements, invoices, licenses, diaries, journals, accounts, pamphlets, books, ledgers, publications, microfilm, microfiche and any other data compilations from which information can be obtained and translated, by you if necessary, into reasonably usable form. The definition includes electronic information that has been deleted. “Document” or “documents” shall also include every copy of a document where the copy contains any commentary or notation of any kind that does not appear on the original or any other copy.

C. Pursuant to Rule 196.4 of the Texas Rules of Civil Procedure, TIEC specifically requests that any electronic or magnetic information (which is included in the definition of “document”) that is responsive to a request herein be produced on CD-ROM in a format that is compatible with Adobe Acrobat, Microsoft, Macintosh and/or Word Perfect and be produced with your response to these requests. If emails are responsive to these requests, please provide a searchable .pdf copy of the entire email string. Attachments to emails should be provided with the email in searchable .pdf form, unless it is stored in a different format, in which the attachment should be produced in its native format and provided on CD-Rom.

D. The terms “and” and “or” shall be construed both disjunctively and conjunctively as necessary to make the request inclusive rather than exclusive.

E. “Each” shall be construed to include the word “every” and “every” shall be construed to include the word “each.”

F. “Any” shall be construed to include “all” and “all” shall be construed to include “any.”

G. The term “concerning,” or one of its inflections, includes the following meanings: relating to; referring to; pertaining to; regarding; discussing; mentioning; containing; reflecting; evidencing; describing; showing; identifying; providing; disproving; consisting of; supporting; contradicting; in any way legally, logically or factually connected with the matter to which the term refers; or having a tendency to prove or disprove the matter to which the term refers.

H. The term “including,” or one of its inflections, means and refers to “including but not limited to.”

I. Words used in the plural shall also be taken to mean and include the singular. Words used in the singular shall also be taken to mean and include the plural.

J. The present tense shall be construed to include the past tense, and the past tense shall be construed to include the present tense.

K. If any document is withheld under any claim of privilege, please furnish a list identifying each document for which a privilege is claimed, together with the following information: date, sender, recipients of copies, subject matter of the document, and the basis upon which such privilege is claimed.

L. Pursuant to P.U.C. Proc. R. 22.144(h)(4), if the response to any request is voluminous, please provide a detailed index of the voluminous material.

M. If the information requested is included in previously furnished exhibits, workpapers, and responses to other discovery inquiries or otherwise, in hard copy or electronic format, please furnish specific references thereto, including Bates Stamp page citations and detailed cross-references.

N. The term “emails” includes the entire email string and all attachments found anywhere within the email string. Please refer to paragraph “D.” regarding specific instructions for producing such items.

O. “Communications” refers to correspondence of any kind, including emails.

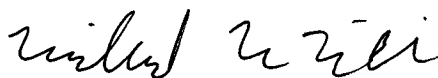
P. “Identify” and “describe” shall have the meaning set forth below according to the context in which the term is used:

- i. When used in reference to an individual, shall mean to state his or her full name, present or last known residence address, business affiliation and business address, and residence and business telephone number;
- ii. When used in reference to a corporation, shall mean to state its full name, its state of incorporation, its address and its principal place of business;

- iii. When used in reference to any entity other than an individual or corporation, shall mean to state its official name, its organizational form and its address;
- iv. When used in reference to a document, shall mean to state the type of document, date, author, addressee, title, its present location, the name and address of its custodian, and the substance of the contents thereof. In lieu of identifying any document, copies thereof may be furnished; and
- v. When used in reference to a communication, shall mean to state the form of the communication (e.g., telephone conversation, letter, telegram, teletype, telecopy, written memorandum, face to face conversation, or any other form), the date of the communication or the dates on which the communication was sent and/or received if not the same, the parties to the communication, the party who initiated it, the substance of the communication, and the present location and the name and address of the custodian if the communication was non-verbal and/or of any written memorialization of the communication.

Respectfully submitted,

THOMPSON & KNIGHT LLP



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Phillip Oldham

State Bar No. 00794392

Katie Coleman

State Bar No. 24059596

Michael McMillin

State Bar No. 24088034

98 San Jacinto Blvd., Suite 1900

Austin, Texas 78701

(512) 469.6100

(512) 469.6180 (fax)

ATTORNEYS FOR TEXAS INDUSTRIAL  
ENERGY CONSUMERS

### **CERTIFICATE OF SERVICE**

I, Michael McMillin, Attorney for TIEC, hereby certify that a copy of the foregoing document was served on all parties of record in this proceeding on this 4<sup>th</sup> day of April, 2016 by facsimile, electronic mail and/or First Class, U.S. Mail, Postage Prepaid.

A handwritten signature in cursive script, appearing to read "Michael McMillin", written in black ink.

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Michael McMillin

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

<b>APPLICATION OF THE CITY OF</b>	§	
<b>GARLAND TO AMEND A</b>	§	
<b>CERTIFICATE OF CONVENIENCE</b>	§	<b>BEFORE THE STATE OFFICE</b>
<b>AND NECESSITY FOR THE RUSK TO</b>	§	<b>OF</b>
<b>PANOLA DOUBLE-CIRCUIT 345-KV</b>	§	
<b>TRANSMISSION LINE IN RUSK AND</b>	§	<b>ADMINISTRATIVE HEARINGS</b>
<b>PANOLA COUNTIES</b>	§	

**TEXAS INDUSTRIAL ENERGY CONSUMERS' SECOND SET OF REQUESTS  
FOR INFORMATION TO SOUTHERN CROSS TRANSMISSION, LLC**

- |           |  |
|-----------|--|
| TIEC 2-1  | Please state the percentage of Pattern Energy Group, LP's (Pattern's) common stock that is owned by Riverstone Holdings, LLC (Riverstone). |
| TIEC 2-2  | Please state what percentage of Talen Energy is owned by Riverstone.   |
| TIEC 2-3  | Please state the percentage of Pattern Energy's common stock that is owned by Carlyle Group, LP (Carlyle).                                 |
| TIEC 2-4  | Please state what percentage of Talen Energy is owned by Carlyle.  |
| TIEC 2-5  | Please identify all generating plants that Talen Energy owns in ERCOT.   |
| TIEC 2-6  | Please identify all generating plants in ERCOT that Riverstone controls or in which Riverstone owns more than a 5% interest.               |
| TIEC 2-7  | Please identify all generating facilities in SERC or TVA that Riverstone controls or in which Riverstone owns more than a 5% interest.     |
| TIEC 2-8  | Please identify all generating plants in ERCOT that Carlyle controls or in which Carlyle owns more than a 5% interest.                     |
| TIEC 2-9  | Please identify all generating facilities in SERC or TVA that Carlyle controls or in which Carlyle owns more than a 5% interest.           |
| TIEC 2-10 | Please identify and list any generating plant in ERCOT which Pattern controls or in which it owns more than a 5% interest.                 |
| TIEC 2-11 | Please identify each generating facility in SERC or TVA which Pattern controls or in which it owns more than a 5% interest.                |

TIEC 2-12 Please provide all documents and communications exchanged between or among Pattern, Resero Consulting (Resero), and LCG Consulting (LCG) regarding this project, including interim reports.

**The following questions relate to SCT's responses to TIEC's First Set of RFIs:**

TIEC 2-13 In reference to the organizational chart attached to SCT's response to TIEC 1-10, please provide an organizational chart that lists:

- a. The specific entities and facilities that comprise the "Renewable Energy Business," including identifying all generation facilities owned by the "Renewable Energy Business" and the size of that generation in megawatts;
- b. Any owners of more than 5% of Pattern's equity; and
- c. Any generation subsidiaries of any entity that owns more than 5% of Pattern's equity, including identifying the specific generation facilities and the size of those facilities in megawatts.

TIEC 2-14 Please refer to SCT's response to TIEC 1-19. Is it Ms. Wolfe's contention that a production cost simulation does not report production costs by the hour? If such costs are not reported by the hour, what is the smallest increment of time for which they are reported by the model (e.g., daily, weekly)? Please provide all data related to production costs by this smallest reported increment.

TIEC 2-15 Please refer to SCT's response to TIEC 1-20. Please provide all data related to the hours of wind curtailment and the associated amount of wind curtailment for each of the cases studied. If hourly results were not reported, please provide the results based on the smallest increment of time reported.

TIEC 2-16 Please refer to SCT's response to TIEC 1-20. Describe in detail how "LCG and Resero considered the level of wind curtailment, investigated the apparent root causes of the curtailment need, and considered possible resolutions to the observed wind curtailment." Provide all workpapers, communications, and other documents associated with this consideration and investigation.

TIEC 2-17 Please refer to SCT's response to TIEC 1-22. Please provide all data related to the "hour-by-hour nodal loads" referenced in that response. Additionally, please provide the hourly load forecast used in the model runs (i.e., the summation of the "hour-by-hour nodal loads") both by load zone and for ERCOT as a whole.

TIEC 2-18 Please refer to SCT's response to TIEC 1-24. Please provide all workpapers and underlying calculations that led to the annual estimated price reduction of \$0.42 per megawatt hour. Please provide all supporting data starting from the smallest time interval reported by the model (hourly, daily, etc.).

TIEC 2-19 Please refer to SCT's response to TIEC 1-26. Please provide all data, workpapers, calculations, and "algorithms" that underlie the results referenced in



this response, starting with the simulation case results on the smallest time interval reported by the model (hourly, daily, etc.).

- TIEC 2-20 Please refer to SCT's response to TIEC 1-26. Please provide the spreadsheet underlying the attachment to this response and all workpapers or linked spreadsheets that underlie the entries in that attachment.
- TIEC 2-21 Please refer to SCT's response to TIEC 1-29. Did the model always maintain the assumed amount of ancillary reserves, or were there instances where those ancillary reserves were deployed (i.e., used to provide energy)? Please identify and describe the instances where the model assumed that ancillary services would be deployed.
- TIEC 2-22 Please refer to the response to TIEC 1-34. Given that the Houston Import Project was included, please describe the constraints that Ms. Wolfe believes the SCT would relieve "in the south and in and around Houston." In what conditions and/or hours do those constraints occur? Describe in detail how a DC converter station 200 miles from Houston can relieve these constraints and provide any underlying documents supporting this analysis.

**The following questions relate to Ms. Wolfe's Direct Testimony:**

- TIEC 2-23 Please provide the input and output data files for all production cost model runs performed by or under the supervision of Ms. Wolfe in connection with this project.
- TIEC 2-24 Please provide all of the data, workpapers, and calculations that underlie the results shown on pages 3, 10, 11, 12, 13, 14, 15, 17, 19, 20, 21, 22, and 25 of Exhibit EW-2.
- TIEC 2-25 For Ms. Wolfe's base case, please provide a list of the generators included, the zone in which each generator is located, and the associated capacity for each.
- TIEC 2-26 Did Ms. Wolfe assume that any currently mothballed generation capacity was operational in 2020? If so, please identify and list the mothballed generation and the amount of capacity assumed available.
- TIEC 2-27 Please explain in detail the assumptions Ms. Wolfe employed regarding imports and exports. Specifically, were they economically dispatched in all hours? If not, please specify the amount of capacity assumed to be imported or exported in each hour and how this was determined. If so, please provide the amounts of imports and exports in a format consistent with the results for the SCT DC tie as reported on page 10 of Exhibit EW-2.
- TIEC 2-28 For the SCT + 2000 MW wind case, please describe in detail Ms. Wolfe's assumptions regarding the capacity contribution of this additional wind in a given hour. For example, were the operating characteristics based on National

Renewable Energy Laboratory (NREL) data? Were they based on some other assumption(s)? Please describe those assumptions in detail and provide any supporting documentation.

- TIEC 2-29 Please state the amount of unserved energy in each of the three cases modeled by Ms. Wolfe.
- TIEC 2-30 Please refer to page 16, lines 15-18 of Ms. Wolfe's testimony. Please specifically describe the nature and purpose of the adjustment referenced in this sentence and provide all data, workpapers, and calculations associated with the referenced adjustment.
- TIEC 2-31 Please refer to page 10 of Exhibit EW-2.
- a. Provide all data, calculations, and workpapers underlying the ERCOT customer energy benefits for the months without imports shown on that page.
  - b. What are the production costs from each of the model runs in the months referenced in (a)? Please provide all underlying data, calculations, and workpapers.
  - c. What are the megawatt hours of load in each of the months referenced in (a)? Please provide all underlying data, calculations, and workpapers.
  - d. Please refer to the imports shown for July, August, and September. It appears that for July, on-peak imports are greater in the SCT+2000 MW wind case than they are in the SCT Only case. Additionally, for September, both on-peak and off-peak imports are greater in the SCT+2000 MW wind case than they are in the SCT Only case. Please explain how adding 2000 MW of zero-cost generation results in higher imports in those months compared to the SCT Only case.
- TIEC 2-32 On page 6 of Exhibit EW-2, Ms. Wolfe states that the gas price forecast is an LCG forecast and that the delivered price is \$3.12/MMBtu. This forecast is attached as Attachment 1 to TIEC 1-27. However, Attachment 2 to TIEC 1-27 shows a different LCG forecast for Texas. What was the date that each of these forecasts was prepared? Please explain the discrepancy between these forecasts, and specifically describe the adjustments made between the amounts for ERCOT and Texas in Attachments 1 and 2 to TIEC 1-27.
- TIEC 2-33 Please specifically describe how each of the load resources providing reserves, load emergency response services, and TDSP standard offer load management programs were dispatched in the model. Were they subtracted from load in certain hours, economically dispatched using assumed dispatched prices, or

ignored? Was some other approach used to dispatch these resources in the model?

**The following questions relate to the documents that Garland produced in response to Staff's RFI 1-9:**

- TIEC 2-34 Please refer to Article 4 of the Asset Purchase agreement between Garland and Rusk Interconnection, LLC ("Rusk") (attachment 2 to Garland's response to Staff 1-9).
- a. Please explain why Rusk requested the ability to call the project back to Rusk from Garland. Under what circumstances would Rusk expect to exercise this option?
  - b. Does Rusk believe exercising this call option would provide Rusk with a CCN under PURA's transfer provision (PURA § 37.154)? Does Rusk believe this would require PUC approval? Please explain.
  - c. In Rusk's opinion, would exercise of the call option make Rusk an electric utility in Texas?
  - d. Would Garland's commitment to not put the cost of the line in TCOS be imputed to Rusk if Rusk exercised the call option?
- TIEC 2-35 Please refer to Article 9.1 of the Asset Purchase agreement between Garland and Rusk.
- a. Please provide all executed financing documents related to this agreement.
  - b. Please provide all documents and communications exchanged between Garland and Rusk pertaining to how the lender or equity financing entity could exercise its security interest in the line if Rusk were to default.
- TIEC 2-36 Please refer to Article 5.5 of the Interconnection Agreement (attachment 3 to Garland's Response to Staff 1-9). Therein, SCT seeks to prevent a situation where it would be subject to the jurisdiction of the PUCT or ERCOT as a transmission service provider. To what aspects of the jurisdiction of the PUCT or ERCOT does SCT object? How does SCT seeking to be an ERCOT market participant differ from those aspects of PUCT and ERCOT jurisdiction to which it objects?

**The following questions relate to Mr. Bruce's Supplemental Direct Testimony:**

- TIEC 2-37 Please refer to page 3, lines 6-8 of Mr. Bruce's supplemental direct testimony. In Mr. Bruce's opinion, what issues related to the addition of a new DC tie are ripe for resolution? In Mr. Bruce's opinion, what issues related to the addition of a new DC tie are well-suited to be addressed in this proceeding?
- TIEC 2-38 Does Mr. Bruce believe that the PUC has authority to impose reasonable conditions on SCT pursuant to PURA 37.051(c-2)? Does SCT agree with Mr. Bruce's opinion? Please explain your answers.
- TIEC 2-39 Please refer to page 5, lines 5-7 of Mr. Bruce's supplemental direct testimony. According to Mr. Bruce and SCT, what aspect of the definition of transmission service provider (TSP) does SCT not meet? Please specifically address each aspect of that definition that SCT and Mr. Bruce contend that SCT does not meet.
- TIEC 2-40 Does SCT object to being classified as a TSP? If so, please explain the reasons for this objection in detail.
- TIEC 2-41 Please refer to page 7, lines 3-11 of Mr. Bruce's supplemental direct testimony. What are the consequences if ERCOT cannot reach a coordination agreement with the system operator with whom SCT will interconnect?
- TIEC 2-42 Please refer to page 10, lines 4-10 of Mr. Bruce's supplemental direct testimony. Please provide the most current timeline(s) for when SCT will provide financial security for the construction of the Rusk substation, the Garland line, the Panola substation, the actual DC line, and the interconnection facilities on the eastern end of the DC line.
- TIEC 2-43 Please refer to page 11, lines 1-7 of Mr. Bruce's supplemental direct testimony. Please provide all documentation underlying Mr. Bruce's beliefs regarding how ERCOT treats DC ties for purposes of transmission planning focused on reliability, transmission planning focused on economics, and generation planning.
- TIEC 2-44 Please refer to page 15, lines 5-10 of Mr. Bruce's supplemental direct testimony.
- a. Please identify the "certain economic principles" Mr. Bruce references.
  - b. Will SCT agree to condition its sale of capacity across the DC tie such that the owners of that capacity will adhere to those "certain economic principles?" If not, why not?
  - c. Will SCT agree to not sell capacity across its system to counterparties who wish to export power from ERCOT regardless of economic conditions (e.g.-

fixed sales of solar or wind energy such that the utility in the Eastern Interconnect can claim it is receiving renewable energy)?