



Control Number: 45624



Item Number: 170

Addendum StartPage: 0

RECEIVED

2016 APR 15 PM 2:01

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

§
§
§
§
§
§
§

BEFORE THE
FILING CLERK

STATE OFFICE OF
ADMINISTRATIVE HEARINGS

**RESPONSE OF SOUTHERN CROSS TRANSMISSION LLC TO TEXAS INDUSTRIAL
ENERGY CONSUMERS' MOTION TO COMPEL A RESPONSE TO TIEC 1-18**

Southern Cross Transmission LLC (SCT) file this Response to the Motion to Compel filed by Texas Industrial Energy Consumers (TIEC) and respectfully shows as follows:

I. BACKGROUND

On March 16, 2016, TIEC served SCT with its First Set of Requests for Information. SCT served its responses on TIEC on March 28, 2016. Pursuant to an agreement of the parties, TIEC's Motion to Compel was timely filed on April 4, 2016. TIEC seeks a "complete response" to TIEC 1-18. This response to the Motion to Compel is timely filed two working days after receipt of TIEC's motion.

II. ARGUMENT

TIEC'S Motion to Compel seeks an Excel file from SCT containing hourly data for 10 metrics. TIEC's request and SCT's response are attached. SCT has provided all the information responsive to TIEC 1-18 that it has. TIEC claims that SCT has information responsive to its request that SCT has not provided. TIEC complains that SCT "selectively" provided some of the requested information and in other instances SCT only provided aggregated data by month or year. These assertions are not correct.

TEX. R. CIV. P. 193.1 states that the duty to respond to written discovery is to provide a complete response based on all of *the information reasonably available* to the responding party. [Emphasis added].

Except for hourly flows on the SCT project [requested items (e) and (f)] and hourly related charges resulting from the SCT project flows [requested item (j)], an Excel file with hourly data sought by TIEC does not exist.¹ This is confirmed in the attached affidavit of Ms. Ellen Wolfe.

¹ SCT has already provided the hourly data requested in items (e), (f) and (j).

170

Ms. Wolfe is the President of Resero Consulting and the person responsible for the economic study that gave rise to TIEC's RFI. As Ms. Wolfe explains in her affidavit, some hourly information was calculated by the computers during intermediate processing steps. However, in order to end up with manageable information at the end of processing, decisions must be, and were, made before the processing occurred regarding what information is reported out as well as what information is even retained in the resultant database.

The effort involved to attempt to report out the additional information requested by TIEC would be far more than making a simple query as suggested by TIEC. The simulation created to produce the information in Ms. Wolfe's study is so large that Ms. Wolfe does not know if the hourly information buried within the ERCOT side of the resultant database could be successfully retrieved because the database was not designed to report out the requested hourly information. Ms. Wolfe estimates the cost to be at least \$10,000. For the Eastern Interconnect, the simulation would have to be re-run, which could take days of computer time, if it would run at all. Ms. Wolfe estimates the cost to re-run the simulation would be \$50,000. In any event, additional information responsive to TIEC's request not only does not exist, but may not exist even if SCT undertook significant additional effort, at a significant cost, to create a new work product – an obligation not required under the discovery rules. *Smith v. O'Neal* 850 S.W. 2d 797, 799 (Tex. App. – Houston 1993) (A request for information does not require a party to create documents to satisfy the request.²)

TIEC argues that the requested hourly data should be viewed as within SCT's possession, custody or control. It is not. As noted above, a request for information does not require a party to create documents to satisfy the request.

TIEC suggests that asking for a spreadsheet with live formulas is commonplace in PUC proceedings and SCT does not disagree. However, the simplicity of TIEC's statements does not even remotely anticipate the complexity of the answer in the instant matter. If hourly nodal data could be provided, it would consist of over one billion records because over 4,000 load nodes in ERCOT and over 70,000 load nodes in the Eastern Interconnect were modeled.

III. CONCLUSION

An Excel file with hourly nodal data requested by TIEC does not exist. Further, SCT should not be required to create a new work product to satisfy TIEC's request. SCT respectfully requests that TIEC's Motion to Compel a further response to TIEC 1-18 be denied and that SCT be granted such additional and further relief to which it may be entitled.

² The Court cites TEX. R. CIV. P. 167, which has been renumbered as TEX. R. CIV. P. 196.3(a).

Respectfully submitted,

R.A. Rima

Robert A. Rima
State Bar No. 16932500
Law Offices of Robert A. Rima
7200 N. MoPac Expy, Suite 160
Austin, TX 78731-2560
512-349-3449 Telephone
512-349-9339 Fax
bob.rima@rimalaw.com

ln w/ permission

Attorney for Southern Cross Transmission LLC

CERTIFICATE OF SERVICE

I certify that a true and correct copy of this document was served on all parties of record in this proceeding, pursuant to SOAH Order No. 2, on April 5, 2016 by electronic mail, facsimile, hand-delivery, overnight delivery, or First Class U.S. Mail.

R.A. Rima

Robert A. Rima

ln w/ permission

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

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

**SOUTHERN CROSS TRANSMISSION LLC RESPONSE TO TEXAS INDUSTRIAL
ENERGY CONSUMERS' FIRST SET OF REQUESTS FOR INFORMATION
TO SOUTHERN CROSS TRANSMISSION LLC
QUESTION NOS. TIEC 1-1 THROUGH TIEC 1-36**

Question No. TIEC 1-18

For the economic study in Ms. Wolfe's testimony, please provide an excel file showing, by the hour, the:

- a. LMPs for generation, load nodes, and hubs;
- b. Generation by plant;
- c. Load by node;
- d. Load by zone;
- e. Exports;
- f. Imports;
- g. Calculated benefit to customers;
- h. Calculated benefit to producers;
- i. Total benefit; and
- j. A calculation of export-related charges.

Response No. TIEC 1-18

Metrics for the economic assessment were predominately provided by LCG's algorithms annually.

In response to subpart (a), TIEC1-18attachment1.xls provides monthly average TOU prices by hub and zone for the simulation cases and monthly average load zone weighted prices by simulation case.

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

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

**SOUTHERN CROSS TRANSMISSION LLC RESPONSE TO TEXAS INDUSTRIAL
ENERGY CONSUMERS' FIRST SET OF REQUESTS FOR INFORMATION
TO SOUTHERN CROSS TRANSMISSION LLC
QUESTION NOS. TIEC 1-1 THROUGH TIEC 1-36**

In response to subparts (b), (c), and (d), hourly bus generation and load were not reported from UPLAN for the purposes of this benefits study.

In response to items (e) and (f), TIEC1-18attachment1.xls contains the hourly flows on the SCT project.

In response to items (g) and (h), benefits were derived from UPLAN over the entire year's run and were not reported hourly.

In response to item (i), it is unclear to what "Total Benefits" refers. Notwithstanding that, the benefits that were derived were done so for the entire year's run and not reported hourly.

In response to item (j), EW-1, page 33, shows a compilation of the charges associated with ERCOT exports over the SCT project. TIEC1-18attachment1.xls includes the hourly export related charges resulting from the SCT project flows for the two change cases.

Prepared by: Ellen Wolfe
Sponsored by: Ellen Wolfe

Title: President – Resero Consulting
Title: President – Resero Consulting

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

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

AFFIDAVIT OF ELLEN WOLFE

STATE OF CALIFORNIA §

COUNTY OF PLACER §

On April 4, 2016 before me Justin Meert Notary Public [print name and title of notary] personally appeared Ellen Wolfe who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity and that by her signature on the instrument the person, or entity upon behalf of which the person acted, executed the instrument.

1. My name is Ellen Wolfe. I am the President of Resero Consulting (Resero). I am the same Ellen Wolfe that prefiled direct testimony and responded to requests for information from Texas Industrial Consumers (TIEC), specifically TIEC 1-18 through TIEC 1-36, in PUCT Docket No. 45624. I am fully competent to make this affidavit and each statement of fact herein is true of my own personal knowledge.
2. I have read TIEC's Motion to Compel filed on April 1, 2016. TIEC's Motion seeks an Excel file containing certain hourly data related to the economic study filed with my direct testimony. I do not have an Excel file containing the requested hourly data. As described below, it would require significant effort to prepare such information, if it could be prepared at all.
3. My direct testimony and the report attached as an exhibit to my testimony was largely based on the information reported out from a complex and comprehensive software suite, developed and owned by LCG Consulting (LCG), called "UPLAN". UPLAN is an integrated LMP (locational marginal price)-based production cost model used to provide insight into the physical and financial operations of electricity networks. UPLAN is widely used by many utilities, market participants, and regional transmission operators (RTOs) throughout the country, including ERCOT.
4. To perform the work requested by Southern Cross Transmission LLC (SCT) for use in Docket No. 45624, it was necessary to model both the ERCOT system and the Eastern Interconnect, including the SERC region. The integrated ERCOT/Eastern Interconnect is the most complex and largest production cost model ever created and used by Resero and LCG Consulting. It was an unprecedented accomplishment to formulate the combined model and to get the simulation to run in a reasonable amount of processing time. The demands of the simulation were so great that

it required the use of a distributed computing environment that allowed several computers to process disaggregated data at the same time and produce results in a workable period of time.

5. UPLAN is capable of reporting out an almost unlimited amount of simulation-based information. However, because of its vast capabilities, decisions must be made at the time the modeling is initiated so that the information reported out is manageable.
6. It was not practical to report out all of the hour data from the computer simulations, particularly because of the complexity of simulating the integrated ERCOT/Eastern Interconnect. There are over 4,000 load nodes in ERCOT and over 70,000 load nodes in the Eastern Interconnect. Therefore, for any one nodal metric, there would be more than 500 million records to store to keep hourly nodal data. Storing this level of data would significantly slow the processing time and quickly consume the large storage capacity of the modelers' computer systems. Instead, the modeling team and I worked together to define what data and which summary metrics should be reported out. Hourly data was reported for some of the variables, such as flows on the SCT project, but hourly data was not reported for many data strings. Instead, for those data strings, the computer was asked to compute aggregate metrics and report the summary results.
7. During its computations UPLAN had the hourly nodal data to which TIEC 1-18 refers. UPLAN developed and used various pieces of hourly data in intermediate computing steps to generate the aggregated results. Except for the specific queries made at the modeling design stage, UPLAN either does not retain the hourly underlying data or it does not retain the hourly data in a manner that can be easily accessed. Those data that were expected to be needed to perform the study requested by SCT were reported and have been made available to TIEC in response to their request for information.
8. To provide the additional hourly nodal data sought in TIEC's Motion to Compel would require creating a significant new incremental effort. The database structure for the ERCOT side of the simulation was configured differently from that of the Eastern Interconnect side. For the ERCOT system more data fields were "flagged" than were reported out of UPLAN. This means that within the depths of the resultant database hourly data should exist. However, it was not used directly for the SCT study; it is spread across several computers; and, since neither Resero nor LCG have queried or used the data, there has been no quality assurance performed to ensure the data recorded properly and can be retrieved properly from the resultant database.
9. To attempt to extract additional ERCOT hourly nodal data would require coding of queries to pull the data from a large database that was not created to provide access to such data. Resero and LCG estimate that it would cost approximately \$10,000 in labor to produce additional hourly nodal information for the ERCOT portion of the simulation if it can be successfully recovered at all. Additionally, such an effort would significantly burden LCG's processing computers preventing them from simultaneously doing other simulation work, which creates an added financial burden. The data would have to be recompiled and thereafter checked by human beings. There is a chance that the resulting data set will have problems. If the effort was undertaken and did not produce a useful data set then the simulations would have to be re-run with modified settings such that the data set is reported in a useable format and significant additional costs, including the cost of significant additional computer time, would be incurred.
10. For the Eastern Interconnect portion of the model, hourly nodal data was not even flagged for retention within the raw simulation database itself. To produce hourly nodal data for the Eastern Interconnect would require rerunning the simulations. It is not currently known if the computational power of the computers would support an hourly nodal data reporting. The cost to re-run the simulation model, whether it was successful or not, would be approximately \$50,000.

11. It would be challenging and potentially unworkable for someone to use the more than one billion records that would result if an hourly nodal data set could be collected over all the load nodes modeled.
12. I am fully competent to make this affidavit, and each statement of fact herein is true of my own personal knowledge.



Ellen Wolfe



(Notary Public Seal)


Notary Public Signature