

Control Number: 42087



Item Number: 513

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#### **PUC DOCKET NO. 42087**

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APPLICATION OF ONCOR ELECTRIC DELIVERY COMPANY LLC TO AMEND A CERTIFICATE OF CONVENIENCE AND NECESSITY FOR A PROPOSED 138 KV TRANSMISSION LINE IN DENTON, TARRANT, AND WISE COUNTIES, TEXAS

BEFORE THE

PUBLIC UTILITY COMMISSION

OF TEXAS

# RESPONSE OF ONCOR ELECTRIC DELIVERY COMPANY LLC TO GOAL'S SIXTH REQUEST FOR INFORMATION

TO THE PUBLIC UTILITY COMMISSION OF TEXAS:

Oncor Electric Delivery Company LLC ("Oncor") files this Response to the aforementioned requests for information.

## I. <u>Written Responses</u>

Attached hereto and incorporated herein by reference are Oncor's written responses to the aforementioned requests for information. Each such response is set forth on or attached to a separate page upon which the request has been restated. Such responses are also made without waiver of Oncor's right to contest the admissibility of any such matters upon hearing. Oncor hereby stipulates that its responses may be treated by all parties exactly as if they were filed under oath.

## II. Inspections

In those instances where materials are to be made available for inspection by request or in lieu of a written response, the attached response will so state. For those materials that a response indicates may be inspected at the Austin voluminous room, please call at least 24 hours in advance for an appointment in order to assure that there

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is sufficient space and someone is available to accommodate your inspection. To make an appointment at the Austin voluminous room, located at 1005 Congress, Suite B-50, Austin, Texas, or to review those materials that a response indicates may be inspected at their usual repository, please call Teri Smart at 214-486-4832. Inspections will be scheduled so as to accommodate all such requests with as little inconvenience to the requesting party and to company operations as possible.

Respectfully submitted,

ONCOR ELECTRIC DELIVERY COMPANY LLC

By: \

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ATTORNEYS FOR ONCOR ELECTRIC DELIVERY COMPANY LLC

# **CERTIFICATE OF SERVICE**

It is hereby certified that a copy of the foregoing has been filed with the Commission, served on the movant via email or traditional service, and served on all other parties via the PUC Interchange pursuant to SOAH Order No. 1 entered in this docket, on this the 20th day of May, 2014.

Winston P. Skinner

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-01 Page 1 of 1

## **REQUEST:**

Satellite images show considerable empty space within the Roanoke substation. Please admit or deny that it is possible to install a third 750 MVA 345:138 kV autotransformer at Roanoke. If your response is a denial, please fully explain the bases for your response with a copy of all supporting documentation that your response relies upon.

#### **RESPONSE:**

The following response was prepared by or under the direct supervision of Thomas J. Yamin, the sponsoring witness for this response.

Deny. It is not possible to install a third 750 MVA 345:138 kV autotransformer at Roanoke Switching Station. Installing an autotransformer requires other equipment to support the transformer as well as the transformer itself. It is not possible to fit all this equipment in the existing station.

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## **REQUEST:**

Does Oncor own any space around the existing substation that could be used to expand the facility? If so, please identify the dimensions of the area that could be included in such an expansion.

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Thomas J. Yamin, the sponsoring witness for this response.

No, Oncor does not own any space around the existing substation that could be used to expand the facility.

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## **REQUEST:**

Please identify the dimensions of the largest contiguous space within the Roanoke Switching Station where equipment such as an autotransformer could be installed.

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Thomas J. Yamin, the sponsoring witness for this response.

There is no contiguous space within the Roanoke Switching Station where equipment such as an autotransformer could be installed.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-04 Page 1 of 1

# **REQUEST:**

Has Oncor completed load flow studies with three 750 MVA autotransformers at Roanoke?

#### **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

No.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-05 Page 1 of 1

# **REQUEST:**

If the answer to 6-4 is in the affirmative, please state what advantages were found for utilizing three transformers at Roanoke rather than the installation of a transformer at Hicks and construction of the Hicks/Elizabeth Creek line.

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

The answer was not affirmative.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-06 Page 1 of 1

## **REQUEST:**

If the answer to 6-4 is negative, please state why a load flow study was not done for this case.

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

A load flow study was not performed because installing three 345/138 kV autotransformers at Roanoke Switching Station is not a viable alternative to the proposed project.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-07 Page 1 of 1

## **REQUEST:**

Has Oncor completed load flow studies with two 750MVA autotransformers at Roanoke and one autotransformer with a smaller capacity? If so, please provide a copy. If not, why not?

#### **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

No. Installing three 345/138 kV autotransformers at Roanoke Switching Station is not a viable alternative to the proposed project.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-08 Page 1 of 1

## **REQUEST:**

Has Oncor completed load flow studies with the Hicks/Elizabeth Creek line configured as proposed in this proceeding and applying each contingency contemplated by Oncor's application and testimony?

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

Yes.

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## **REQUEST:**

If the answer to 6-8 is in the affirmative, please answer the following: A) what were the maximum circulating currents found in the studies? B) At what transformer load at Roanoke did such maximum circulating currents occur? C) Did each such instance of maximum circulating current occur with one or two autotransformers in service at Roanoke?

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

Oncor did not observe any circulating currents in the studies.

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## **REQUEST:**

If the answer to 6-8 is negative, please state why the load flow studies were not done.

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

The response was not negative.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-11 Page 1 of 1

#### **REQUEST:**

When analyzing the contingencies that assume one of the Roanoke autotransformers would not be operational, did Oncor consider the failure rates of 750 MVA 345:138 kV autotransformers? If not, why not?

#### **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

No. The Electric Reliability Council of Texas ("ERCOT") has developed a Transmission Planning Criteria which Transmission Service Providers such as Oncor are required to use in planning the transmission system. One of the system conditions to be used in assessing the reliability of the transmission system is the unavailability of a 345/138 kV autotransformer followed by the outage of a double-circuit transmission line. Failure rates of autotransformers or transmission lines are not a consideration in the reliability assessment.

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#### **REQUEST:**

What are the failure rates of 750 MVA 345:138 kV autotransformers expressed as failures per year per transformer? Please identify the source you relied upon for your response and the years and sample it is based upon.

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Thomas J. Yamin, the sponsoring witness for this response.

The failure rates of 750 MVA 345:138 kV autotransformers is not tracked or possessed by Oncor.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-13 Page 1 of 1

# **REQUEST:**

Did Oncor consider the replacement of a failed 750 MVA 345:138 kV autotransformer with a spare autotransformer?

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

No.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-14 Page 1 of 1

# **REQUEST:**

Are spare 750 MVA 345:138 kV autotransformers owned by or available to Oncor?

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Thomas J. Yamin, the sponsoring witness for this response.

Yes, limited spare 750 MVA 345:138 kV autotransformers are owned and available to Oncor.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-15 Page 1 of 1

#### **REQUEST:**

What is the average time to replace a failed 750 MVA 345:138 kV autotransformer with a spare?

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Thomas J. Yamin, the sponsoring witness for this response.

The average time to replace a failed 750 MVA 345:138 kV autotransformer with a spare is not tracked or possessed by Oncor.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-16 Page 1 of 1

## **REQUEST:**

In your contingency analysis, did you assume loss of both circuits of the Liggett-Euless double-circuit line? If so, which contingency events included this assumption?

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

Yes. The loss of both circuits of this double-circuit line during the unavailability of one of the 345/138 kV autotransformers at Roanoke Switching Station was a contingency event analyzed.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-17 Page 1 of 1

# **REQUEST:**

Did Oncor consider the rate of failure of both circuits of the Liggett-Euless double-circuit 138 kV line?

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

No.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-18 Page 1 of 1

## **REQUEST:**

What is the rate of failure of both circuits of the Liggett-Euless double-circuit line? Please identify the years your response is based upon.

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Thomas J. Yamin, the sponsoring witness for this response.

The rate of failure of both circuits of the Liggett-Euless double-circuit line is not tracked or possessed by Oncor.

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## **REQUEST:**

What is the average time to repair at least one circuit of the Liggett-Euless line when both circuits are lost?

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Thomas J. Yamin, the sponsoring witness for this response.

The average time to repair at least one circuit of the Liggett-Euless line when both circuits are lost is not tracked or possessed by Oncor.

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# **REQUEST:**

Did Oncor in their contingency analysis consider the loss of one circuit of the Liggett-Euless double-circuit line?

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

Yes.

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# **REQUEST:**

If the answer to 6-20 is affirmative, what is the resultant loading of the Roanoke transformer in 2017?

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

The resultant loading was 108 percent of the emergency rating of the Roanoke Switching Station autotransformer.

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# **REQUEST:**

What is the rate of failure of one circuit of the Liggett-Euless double-circuit line? Please identify the years your response is based upon.

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Thomas J. Yamin, the sponsoring witness for this response.

The rate of failure of one circuit of the Liggett-Euless double-circuit line is not tracked or possessed by Oncor.

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## **REQUEST:**

What is the average time to repair one circuit of the Liggett-Euless double-circuit line when one circuit is lost?

## **RESPONSE:**

The following response was prepared by or under the direct supervision of Thomas J. Yamin, the sponsoring witness for this response.

The average time to repair one circuit of the Liggett-Euless double-circuit line when one circuit is lost is not tracked or possessed by Oncor.

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# **REQUEST:**

Please see Juricek's testimony at page 6. Did Oncor, in their contingency analysis, consider all trains of the Jack County Combined Cycle Generator to be in service prior to loss of one train?

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

Yes.

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# **REQUEST:**

Did Oncor, in their contingency analysis, consider the rate of failure of one train of the combined cycle unit?

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

No.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-26 Page 1 of 1

## **REQUEST:**

What is the rate of failure of one train of the combined cycle unit? Please identify the source you relied upon for your response and the years and sample it is based upon.

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

Oncor does not possess the requested rate of failure.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-27 Page 1 of 1

# **REQUEST:**

Did Oncor, in their contingency analysis, consider the average time to restore service from the failed train of the combined cycle unit?

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

No.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-28 Page 1 of 1

## **REQUEST:**

What is the average time to restore service from a failed train of the combined cycle unit? Please identify the source you relied upon for your response and the years and sample it is based upon.

#### **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

Oncor does not know the average time to restore service from a failed train of the combined cycle unit.

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# **REQUEST:**

Did Oncor, in their contingency analysis, consider the load duration curve of the load carried by the Roanoke transformer assuming contingency conditions?

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

No.

Oncor- Docket No. 42087 GOAL RFI Set No. 06 Question No. 6-30 Page 1 of 1

## **REQUEST:**

What is the load duration curve (showing the percentage of time that load is at or above a given level) for the load carried by the Roanoke transformer under contingency conditions? Please identify the source you relied upon and the years and sample it is based upon.

#### **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

Oncor did not calculate a load duration curve for the Roanoke Switching Station autotransformer.

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## **REQUEST:**

What are the load duration curves for area loads for each of the years shown in Exhibit MJJ-3?

#### **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

Oncor did not calculate load duration curves for the area loads.

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# **REQUEST:**

For what years did Oncor conduct load flow studies in their analysis of contingency conditions?

# **RESPONSE:**

The following response was prepared by or under the direct supervision of Michael J. Juricek, the sponsoring witness for this response.

Oncor conducted load flow studies for 2015 and 2017.