

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)	
ELECTRIC COMPANY FOR APPROVAL OF)	CASE NO.
STATE WAIVER OF THE REASSESSMENT)	2016-00386
INTERVAL REQUIRED BY 49 C.F.R. § 192.939)	

RESPONSE OF
LOUISVILLE GAS AND ELECTRIC COMPANY
TO
STAFF'S FIRST REQUEST FOR INFORMATION
DATED FEBRUARY 17, 2017

FILED: MARCH 3, 2017

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00386

**Response to Staff's First Request for Information
Dated February 17, 2017**

Question No. 1

Responding Witness: Peter Clyde

- Q-1. Provide the following information regarding the Ballardsville Pipeline located in high consequence areas ("HCA"), as described in 49 C.F.R. § 192.903:
- a. Describe the number of miles, or portion thereof, of the Ballardsville Pipeline located in HCAs.
 - b. Describe the total number of non-contiguous segments of the Ballardsville Pipeline located in HCAs. For each such segment, provide the total length in miles, or portion thereof.
 - c. Describe the total number of non-contiguous 12-inch segments of the Ballardsville Pipeline located in HCAs.
 - d. Describe the total number of non-contiguous 16-inch segments of the Ballardsville Pipeline located in HCAs.

A-1.

- a. There are 4.12 miles of the Ballardsville West pipeline in HCA as identified in the LG&E analysis which was completed in early 2016.
- b. There are 16 non-contiguous HCA segments. A list of the HCA lengths are shown in the following table.

HCA length (miles)
0.40
0.31
0.14
0.34
0.22
0.38
0.23
0.14
0.17
0.15
0.12
1.10
0.19
0.23
0.003
0.003

- c. All HCAs are associated with the 12-inch diameter pipe.
- d. None of the 16-inch diameter pipe is in HCA.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00386

**Response to Staff's First Request for Information
Dated February 17, 2017**

Question No. 2

Responding Witness: Peter Clyde

- Q-2. Provide the following information regarding integrity reassessment of the Ballardsville Pipeline using an in-line inspection ("ILI") tool, as described in 49 C.F.R. § 192.939:
- a. State whether LG&E has received any written assurance from the Rosen Group ("Rosen") or from any other vendor, that an ILI tool capable of performing the integrity reassessment of the entire Ballardsville Pipeline will be available to LG&E by a specific date.
 - i. If so, provide all such documentation.
 - ii. If not, describe why LG&E is confident that an ILI tool will be available for the reassessment of the entire Ballardsville Pipeline no later than 2018.
 - iii. Describe LG&E's costs incurred to date to Rosen, or to any other vendor for the development or use of an ILI tool capable of reassessing the entire Ballardsville Pipeline. Provide documentation of these costs.
 - iv. Describe any additional expected cost to Rosen, or to any other vendor, for the development or use of an ILI tool capable of reassessing the entire Ballardsville Pipeline. Provide the basis of LG&E's expected cost.
 - v. Describe the current availability of an ILI tool capable of reassessing the Ballardsville Pipeline located in HCAs, from Rosen or from any other vendor.
 - b. If it is determined that the ILI tool would not be available in time to perform the inspection by August 2018, explain whether LG&E would consider proceeding with alternative assessment methods to comply with the regulation, or would continue to postpone the assessment until an ILI tool was available. Explain what length of time that LG&E would consider it reasonable to continue to postpone the assessment.

A-2.

a.

- i. LG&E has not received written assurance from Rosen Group or any other vendor that an ILI tool capable of performing the integrity reassessment of the entire Ballardsville Pipeline will be available to LG&E by a specific date. Rosen had placed LG&E on their schedule to run the 12-inch x 16-inch magnetic flux leakage (“MFL”) tool the week of September 11, 2017. This tool currently does not exist and is under development. As designed, the tool should be able to assess the entire Ballardsville West pipeline. However, should issues occur during tool development, the inspection date could be delayed. One company has the tool scheduled to be used after development is complete, but prior to the tool being used in LG&E’s pipeline. Should complications, such as tool damage, occur during the inspection of the other company’s pipeline, the schedule would be delayed. In addition, there is the potential that complications could occur during the inspection of LG&E’s pipeline.

Furthermore, LG&E would not run the MFL tool in the Ballardsville West pipeline between October 1, 2017 and April 15, 2018. This is due to gas flow rates during that period being projected to be less ideal for inline inspection using the new tool and due to risk of gas supply interruption to customers during cold weather months. Localized weather conditions and other construction/outage activities could also impact when a postponed tool run could be executed.

- ii. Due to the level of uncertainty associated with the development of the new 12-inch x 16-inch tool, LG&E now intends to run Rosen Group’s existing low flow, low pressure 12-inch tool. This will help ensure the assessment of all HCAs on the pipeline are completed as early as possible. The assessment is expected to be completed in second quarter 2017. However, LG&E requests the extension be granted until September 30, 2017 to allow for follow up actions should complications occur during the ILI. This reduction of time in the extension request relative to the waiver application is due to LG&E’s determination that running the existing 12-inch low flow, low pressure tool is the path that will allow complete inspection of the HCA in a timely manner.
- iii. Rosen Group is the only ILI vendor LG&E has paid to inspect the Ballardsville West pipeline. LG&E has not paid any vendor, including the Rosen Group, to develop a new ILI tool for use in the Ballardsville West pipeline. LG&E has successfully run a gauge plate tool and high resolution geometry tool through the Ballardsville West pipeline to determine internal pipe clearances. In 2016, LG&E attempted to run a 12-inch MFL tool with a 12-inch x 16-inch pull unit. The tool did not

successfully navigate the line and broke into multiple pieces that were recovered from the pipeline. The timeline of these activities is outlined in LG&E's Request for Waiver Reassessment Interval. The invoices from the Rosen Group for this work are included in the attachment and are being filed pursuant to a Petition for Confidential Protection.

- iv. LG&E entered into a contract with the Rosen Group on January 27, 2017 to inspect the Ballardsville West pipeline using a low pressure, low flow MFL tool. Based on the contract in place, LG&E expects to pay the Rosen Group \$190,625 to complete the work using a 12-inch tool. This tool will not inspect the entire Ballardsville West pipeline. However, it will run through 17.25 miles of the pipeline including all HCA. The above-referenced price is being provided pursuant to a Petition for Confidential Protection.
 - v. Rosen Group currently has a 12-inch low flow, low pressure MFL tool which should be capable of inspecting the portion of the Ballardsville West pipeline in HCA. All HCAs on the Ballardsville West pipeline are on a contiguous 12-inch diameter pipeline section which is about 17.25 miles long. A temporary field trap will be installed on the pipeline in a suitable location. At least 1.6 miles of non-HCA pipe will not be inspected at this time. However, a more in-depth review will be completed of the data from the July 12, 2016 attempted MFL tool run in which the tool broke apart in the pipeline. The goal will be to see if usable data can be recovered on any portion of the 1.6 miles of non-HCA pipe which will be excluded from the 2017 ILI.
- b. Rosen has confirmed the 12-inch tool is available to be run in 2017.

ROSEN USA
14120 Interdrive East · Houston · Texas 77032 · USA
Phone +1-281-442-8282 · Fax +1-281-442-8866
rosen-houston@rosen-group.com · www.rosen-group.com



CONFIDENTIAL INFORMATION REDACTED

ROSEN USA · 14120 Interdrive East · Houston · Texas 77032 · USA

Company
Louisville Gas & Electric Company
Accounts Payable - John Griffin
P.O Box 32020
820 West Broadway
Louisville KY 40214

INVOICE

Invoice	██████████	Contact	Phuong Bui	Customer number	██████████
Date	07/30/2015	Phone	██████████	Project	██████████
Reference no.	██████████	Fax	-	Cust. Purchase Order	██████████
Contact at ROSEN	Joey Trevino	Email	██████████		

Line: Ballersville West

Contract No. ██████████

Ln	Description	Perc	Curr	Unit price	Total
1	Gauging Service	100%	USD	██████████	██████████
2	Standard Inline Cleaning-Foam-Brush Pigs	100%	USD	██████████	██████████
3	High Res. Geom. Inspection w. XYZ Mapp.	60 %	USD	██████████	██████████
4	Pig Tracking	100%	USD	██████████	██████████
Subtotal items					██████████
Tax Total					0.00
Total amount					██████████

Terms of Payment: Within 30 days Due net

For Electronic Payment
Bank name · Bank of America, N.A
Acct.No. · ██████████
Swift/BIC · ██████████
ACH Routing No. · ██████████

ROSEN USA
14120 Interdrive East · Houston · Texas 77032 · USA
Phone +1-281-442-8282 · Fax +1-281-442-8866
rosen-houston@rosen-group.com · www.rosen-group.com



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ROSEN USA · 14120 Interdrive East · Houston · Texas 77032 · USA

Company
LG&E and KU Services Co.
Accounts Payable Department
P.O Box 32020
820 West Broadway
Louisville KY 40214

INVOICE

Invoice	██████████	Contact	Phuong Bui	Customer number	██████████
Date	12/21/2015	Phone	██████████	Project	██████████
Reference no.	██████████	Fax	-	Cust. Purchase Order	██████████
Contact at ROSEN	Joey Trevino	Email	██████████		

Line: Ballersville West

LG&E Contact: John Griffin

Final Report 12/18/2015

Ln	Description	Perc	Curr	Unit price	Total
1	High Res. Geom. Inspection w. XYZ Mapp.	40 %	USD	██████████	██████████
	Subtotal items				██████████
	Tax Total				0.00
	Total amount				██████████

Terms of Payment: Within 30 days Due net

For Electronic Payment
Bank name · Bank of America, N.A
Acct.No. · ██████████
Swift/BIC · ██████████
ACH Routing No. · ██████████

CONFIDENTIAL INFORMATION REDACTED

ROSEN USA · 14120 Interdrive East · Houston · Texas 77032 · USA

Company
 Louisville Gas & Electric Compay
 Attn: Accounts Payable/ John Griffin
 820 West Broadway
 P.O. Box 32020
 Louisville KY 40202

INVOICE

Invoice	██████████	Contact	Liliana Ibanez	Customer number	██████████
Date	11/29/2016	Phone	██████████	Project	██████████
Reference no.	██████████	Fax	-	Cust. Purchase Order	n/a
Contact at ROSEN	Joey Trevino	Email	████████████████████		

Line: Ballerdsville West

Ln	Description	Perc	Curr	Unit price	Total
1	Gauging Pig	100%	USD	██████████	██████████
	Subtotal items				██████████
	Tax Total				0.00
	Total amount				██████████

Terms of Payment: Within 30 days Due net

For Electronic Payment
 Bank name · Bank of America, N.A
 Acct.No. · ██████████
 Swift/BIC · ██████████
 ACH Routing No. · ██████████

CONFIDENTIAL INFORMATION REDACTED

ROSEN USA · 14120 Interdrive East · Houston · Texas 77032 · USA

Company
 Louisville Gas and Electric Company
 John Griffin
 820 West Broadway
 Louisville KY 40202

INVOICE

Invoice	██████████	Contact	Liliana Ibanez	Customer number	██████████
Date	11/30/2016	Phone	██████████	Project	██████████
Reference no.	██████████	Fax	-	Cust. Purchase Order	n/a
Contact at ROSEN	Joey Trevino	Email	██████████		

Line: Ballerdsville West

Ln	Description	Perc	Curr	Unit price	Total
1	Mobilization charge for MFL run	100%	USD	██████████	██████████
2	Geophone Rental (4 days)	100%	USD	██████████	██████████
3	Transmitter Rental (2 days)	100%	USD	██████████	██████████
Subtotal items					██████████
Tax Total					0.00
Total amount					██████████

Terms of Payment: Within 30 days Due net

For Electronic Payment
 Bank name · Bank of America, N.A
 Acct.No. · ██████████
 Swift/BIC · ██████████
 ACH Routing No. · ██████████

CONFIDENTIAL INFORMATION REDACTED

ROSEN USA · 14120 Interdrive East · Houston · Texas 77032 · USA

Company
 Louisville Gas and Electric Company
 John Griffin
 820 West Broadway
 Louisville KY 40202

INVOICE

Invoice	██████████	Contact	Liliana Ibanez	Customer number	██████████
Date	11/30/2016	Phone	██████████	Project	██████████
Reference no.	██████████	Fax	-	Cust. Purchase Order	n/a
Contact at ROSEN	Joey Trevino	Email	████████████████████		

Line: Ballersville West

Ln	Description	Perc	Curr	Unit price	Total
1	Tool Damages to MFL	100%	USD	██████████	██████████
Subtotal items					██████████
Tax Total					0.00
Total amount					██████████

Terms of Payment: Within 30 days Due net

For Electronic Payment
 Bank name · Bank of America, N.A
 Acct.No. · ██████████
 Swift/BIC · ██████████
 ACH Routing No. · ██████████

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00386

Response to Staff's First Request for Information

Dated February 17, 2017

Question No. 3

Responding Witness: Peter Clyde

- Q-3. Provide the following information regarding integrity reassessment of the Ballardsville Pipeline using direct assessment, as described in 49 C.F.R. § 192.939:
- a. Describe the expected cost to reassess the entire Ballardsville Pipeline using direct assessment.
 - b. Describe the expected length of time required to reassess the entire Ballardsville Pipeline using direct assessment.
 - c. Describe the earliest date that reassessment of the entire Ballardsville Pipeline could begin. Using this same start date, describe when this reassessment using direct assessment could be completed.
 - d. Describe the total expected cost to reassess the Ballardsville Pipeline located in HCAs using direct reassessment.
 - e. Describe the expected length of time required to reassess the Ballardsville Pipeline located in HCAs using direct assessment.
 - f. Describe the earliest date that reassessment of the Ballardsville Pipeline located in HCAs using direct assessment could begin. Using this same start date, describe when reassessment using direct reassessment could be completed.

A-3.

- a. LG&E estimates it will cost \$234,000 to perform direct assessment of the entire Ballardsville West pipeline.
- b. LG&E estimates it would take six months to complete a direct assessment of the Ballardsville West pipeline assuming vendors have personnel available.
- c. The direct assessment of the entire Ballardsville West pipeline could begin as early as March 10, 2017. The first phase of a direct assessment is called pre-assessment. It includes records reviews and planning work. The assessment would likely be completed by September 10, 2017.
- d. LG&E estimates it will cost \$170,000 to perform direct assessment of just HCAs on the Ballardsville West pipeline. Due to the mobilization cost for vendors, the reduction in cost is not proportionate to the reduction in mileage assessed.
- e. LG&E estimates it would take four and a half months to complete a direct assessment of only the Ballardsville West pipeline HCAs, assuming vendors have personnel available. Due to the time involved in setting up contracts, waiting on vendor mobilization, and general requirements associated with a direct assessment of any length, the reduction in time is not proportionate to the reduction in mileage assessed.
- f. The direct assessment of the Ballardsville West pipeline HCAs could begin as early as March 10, 2017. The first phase of a direct assessment is called pre-assessment. It includes records reviews and planning work. The assessment would likely be completed by July 24, 2017.

LG&E believes running an ILI tool when possible rather than performing a direct assessment is consistent with National Transportation Safety Board and PHMSA preferences.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00386

Response to Staff's First Request for Information

Dated February 17, 2017

Question No. 4

Responding Witness: Peter Clyde

- Q-4. Provide the following information regarding integrity reassessment of the Ballardsville Pipeline using pressure testing as described in 49 C.F.R. § 192.939:
- a. Describe the expected cost to reassess the entire Ballardsville Pipeline using pressure testing.
 - b. Describe the expected length of time to reassess the entire Ballardsville Pipeline using pressure testing.
 - c. Describe the earliest date that reassessment of the entire Ballardsville Pipeline using pressure testing could begin. Using this same start date, describe when the reassessment using pressure testing could be completed.
 - d. Describe the expected cost to reassess the Ballardsville Pipeline located in HCAs using pressure testing.
 - e. Describe the expected length of time to reassess the Ballardsville Pipeline located in HCAs using pressure testing.
 - f. Describe the earliest date that reassessment of the Ballardsville Pipeline located in HCAs using pressure testing could begin. Using this same start date, describe when the reassessment using pressure testing could be completed.
- A-4.
- a. LG&E estimates it would cost approximately \$9.5M to pressure test the entire Ballardsville West pipeline. This does not include additional costs that would be incurred to maintain service to customers when feasible. There may be cases in which some customers could be without service for an extended period of time.
 - b. LG&E estimates it would take 57 weeks to pressure test the entire Ballardsville West pipeline. Any failures experienced during the test could cause the duration to be extended. These tests would likely only be performed between

May and October, but the window of time might be expanded based on local weather forecasts.

- c. The earliest date a pressure test of the Ballardsville West pipeline could begin would likely be May 2018. Extensive planning and public communications work would need to be performed. The pressure tests would likely be completed in June 2020.
- d. LG&E estimates it would cost approximately \$4.9M to pressure test the portion of the Ballardsville West pipeline which contains HCAs. This does not include additional costs that would be incurred to maintain service to customers when feasible. There may be cases in which some customers are without service for an extended period of time. From a practical standpoint, pipe between HCAs would be included in the tests. Therefore, about 9.7 miles of pipeline would actually be pressure tested under this scenario.
- e. LG&E estimates it would take 30 weeks to pressure test 9.7 miles of the Ballardsville West pipeline. This includes the HCAs and the piping between HCAs. Any failures experienced during the test could cause the duration to be extended. These tests would likely only be performed between May and October, but the window of time might be expanded based on local weather forecasts.
- f. The earliest date a pressure test of the Ballardsville West pipeline HCAs could begin would likely be May 2018. Extensive planning and public communications work would need to be performed. The pressure tests would likely be completed in June 2019.

Note that pressure tests do not provide data about wall loss, dents or other pipeline conditions. Pressure tests simply tell you the pipeline did not fail at a given pressure.