



a PPL company

Mr. Jeff DeRouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

December 7, 2015

**RE: *Revised Gas Line Tracker Filing
of Louisville Gas and Electric Company***
Case No. 2015-00360

Dear Mr. DeRouen:

Enclosed please find an original and ten copies of the Response of Louisville Gas and Electric Company to the Commission Staff's Initial Request for Information dated November 25, 2015, in the above-referenced docket.

Please contact me if you have any questions concerning this filing.

Sincerely,

Derek A. Rahn

RECEIVED

DEC 07 2015

PUBLIC SERVICE
COMMISSION

**Louisville Gas and
Electric Company**
State Regulation and Rates
220 West Main Street
PO Box 32010
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**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

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**PUBLIC SERVICE
COMMISSION**

In the Matter of:

**APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY FOR APPROVAL OF)
REVISED RATES TO BE RECOVERED)
THROUGH ITS GAS LINE TRACKER)
BEGINNING WITH THE FIRST BILLING)
CYCLE FOR JANUARY, 2016)**

**CASE NO.
2015-00360**

**RESPONSE OF
LOUISVILLE GAS AND ELECTRIC COMPANY
TO
COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION
DATED NOVEMBER 25, 2015**

FILED: DECEMBER 7, 2015

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)


Lonnie E. Bellar

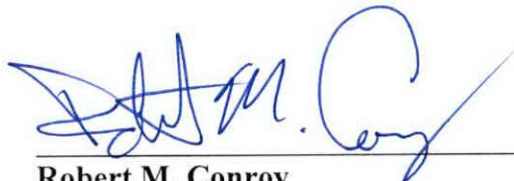
Judy Scholer (SEAL)
Notary Public

JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

VERIFICATION


COMMONWEALTH OF KENTUCKY)
) **SS:**
COUNTY OF JEFFERSON)

The undersigned, **Robert M. Conroy**, being duly sworn, deposes and says that he is Director - Rates for Louisville Gas and Electric Company and Kentucky Utilities Company, an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



Robert M. Conroy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 7th day of December 2015.

 (SEAL)

Notary Public

My Commission Expires:

JUDY SCHOOLER

Notary Public, State at Large, KY

My commission expires July 11, 2018

Notary ID # 512743

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Commission Staff's First Request for Information Dated November 25, 2015

Case No. 2015-00360

Question No. 1

Witness: Lonnie E. Bellar

Q-1. Refer to pages 3-4 of the application, specifically to the descriptions of three incidents that have occurred in the gas industry on Aldyl-A piping. The complete paragraph contains a sentence which indicates that DuPont Chemical Company was the manufacturer of Aldyl-A piping from 1965 to 1991. For each of the incidents, which occurred in 1994, 1996, and 2011, respectively, provide the year, or years, in which the piping associated with the incident was installed.

A-1. 1994 incident in Waterloo, Iowa

From NTSB report PAB9802 – The service pipeline in this incident was installed by Iowa Public Service Company on September 3, 1971 and markings on the plastic pipe indicated that it was a medium-density polyethylene material manufactured on June 11, 1970.

Note - The polyethylene plastic pipe in this incident was manufactured by Century Plastics using a Union Carbide resin. Additional information on this pipe can be found in the PHMSA safety advisory ADB-99-01 noted in footnote 4, third reference, on page 4 of the application and in a NTSB Special Investigative Report: PB98-917001, NTSB/SIR-98-01.

Source: <http://www.nts.gov/investigations/AccidentReports/Reports/PAB9802.pdf>

1996 incident in San Juan, Puerto Rico

From NTSB report PAR9701 – According to the San Juan Gas Company's records the pipe in the incident was installed in February 1985. The report did not specify when the pipe was manufactured.

Source: <http://www.nts.gov/investigations/AccidentReports/Reports/PAR9701.pdf>

2011 incidents in California

From a September 5, 2011 ABC 7 News article the pipe in the Cupertino incident was installed approximately 1971. The article did not specify when the pipe was manufactured.

Source: <http://abc7news.com/archive/8342881/>

From an Oct 18, 2011 Matcor article the pipe in the Roseville incident was installed in 1981. The article did not specify when the pipe was manufactured.

Source: <http://www.matcor.com/pge-to-replace-1200-miles-of-plastic-gas-pipe/>

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated November 25, 2015**

Case No. 2015-00360

Question No. 2

Witness: Lonnie E. Bellar

- Q-2. Refer to the second full paragraph on page 4 of the application, which refers to initiatives taken by utilities to replace Aldyl-A piping, with some utilities using accelerated, large-scale programs. Provide a list of the utilities undertaking these initiatives, the year in which the utility began its initiative, and the jurisdiction(s) in which the utility operates. Indicate the utilities with accelerated programs and the planned duration (number of years) of their accelerated programs.
- A-2. See the chart below.

Company	Jurisdiction	Year started	Accelerated	Duration (Years)
AGL Resources - Approximately 750 miles of early vintage plastic pipe installed from 1965 - 1983	Georgia Public Service Commission	2013	X	4 to 5
SEMCO Energy - Approximately 300 miles of pre-1978 Aldyl-A pipe.	Michigan Public Service Commission	2007	X, in 2013	14
Avista Energy - Approximately 700 miles of selected mains installed pre- 1984 Aldyl-A	Washington Utilities and Transportation Commission	2012		20
Avista Energy (Transition Pipe from steel service tees, approximately 16,000)	Washington Utilities and Transportation Commission	2012	X	5 to 7
Pacific Gas and Electric - they do have a recovery mechanism for replacement program, priority	California Public Utilities Commission	2012		na
Southwest Gas - Early Vintage Plastic Pipe	Public Utilities Commission of Nevada	2015	X	5
Piedmont Natural Gas - Aldyl A pipe is included in a Integrity Management Rider. This is a prioritization program. Aldyl A is included with other materials and facilities being prioritized.	North Carolina Utilities Commission	2013		na
National Grid - 889 miles, replacing on a priority basis	New York State Public Service Commission, Massachusetts Department of Public Utilities, Rhode Island Public Utilities Commission	2013		na
New Jersey Natural Gas - 3 miles, replace on a priority basis	New Jersey Board of Public Utilities	1980's		na
Entergy (mechanism, Aldyl-A included with Cast Iron)	Louisiana Public Service Commission	2015	X	10

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Commission Staff's First Request for Information Dated November 25, 2015

Case No. 2015-00360

Question No. 3

Witness: Lonnie E. Bellar

Q-3. Refer to the third full paragraph on page 4 of the application, which shows the miles of Aldyl-A mains and the number of Aldyl-A services on the LG&E system. Identify the decade (1960s, 1970s, etc.) in which these Aldyl-A facilities were installed.

A-3.

LG&E Aldyl-A Replacement – Original In-Service Date

Decade of Installation	Main (Miles)	Associated Services *
1960	1.2	96
1970	8.0	1013
1980	2.3	17

* The Aldyl-A services referred to in the application are the associated services with targeted Aldyl-A mains to be replaced, the services will be replaced regardless of material type or date of installation as part of the program. The table lists the number of services associated with the Aldyl-A mains that were installed for that decade.

With a relatively low inventory of Aldyl-A pipe LG&E treats all ages of Aldyl-A pipeline the same in regards to operation, maintenance, and risk evaluation. The LG&E proposed replacement plan includes 8.35 miles (73%) of Aldyl-A main which was installed prior to 1973. This vintage of Aldyl-A is particularly susceptible to Low Ductile Inner Wall (LDIW) related failures. The remaining inventory of pipe proposed to be replaced was installed between 1973 and 1987. PHMSA issued an advisory bulletin ADB-99-02 stating older plastic pipe installed between the 1960's and early 1980's could exhibit brittle characteristics leading to brittle cracking. DuPont made a change in their plastic resin improving the brittle characteristics of Aldyl-A for pipe manufactured in and after 1984. With 9.2 miles of the 11.5 miles proposed to be replaced having been installed prior to 1984 and the remainder no later than 1987 LG&E proposes replacing Aldyl-A in the scope of this proposal will efficiently eliminate the risk associated with this type of pipe.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated November 25, 2015**

Case No. 2015-00360

Question No. 4

Witness: Lonnie E. Bellar

- Q-4. Refer to the first paragraph on page 5 of the application, which refers to how the planned replacement of Aldyl-A piping will follow the same process as "LG&E's Large Scale Main Replacement program." Explain if replacement of the Aldyl-A piping will differ in any way from the Large Scale Main Replacement program regarding whether the old piping will be buried or be excavated.
- A-4. The pipe being replaced in the proposed Aldyl-A program will be handled in a manner consistent with pipe being replaced in the Large Scale Main replacement program. It is anticipated most of the replaced pipe will be abandoned in place unless it is necessary to remove for reasons including facility tie-ins or underground facility (including other utility infrastructure) congestion.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated November 25, 2015**

Case No. 2015-00360

Question No. 5

Witness: Robert M. Conroy

- Q-5. Refer to Exhibit 2 of the original and amended applications, specifically, the pages identified as Exhibit A, page 1 of 1.
- a. On Exhibit A to the original application, the total shown on line 6 of the column headed "Revenue Requirement" is \$25,558,398. Confirm that the amount of revenue generated using (1) the number of bills and (2) the year 2016 monthly rate per bill amounts on this exhibit is \$25,575,325, approximately \$17,000 greater than the amount of the revenue requirement.
 - b. On Exhibit A to the amended application, line 1 in the "Year 2016 Monthly Rate Per Bill" shows the rate for Rate RGS as \$4.88. Clarify whether this rate is intended to be \$4.89 rather than \$4.88.
 - c. The revenue requirement for Rate RGS on Exhibit A to the original application is \$17,235,938, while the corresponding amount on Exhibit A to the amended application is \$17,254,632. Confirm that the resulting rates, based on the number of bills of 3,535,390, are \$4.875 using the revenue requirement in the original application and \$4.881 using the revenue requirement in the amended application.
 - d. On Exhibit A to the amended application, the total shown on line 6 of the column headed "Revenue Requirement" is \$25,586,119.
 - (1) Confirm that the amount of revenue generated using (1) the number of bills and (2) the year 2016 monthly rate per bill amounts on this exhibit (if rate RGS is \$4.89) is \$25,620,226, approximately \$34,000 greater than the amount of the revenue requirement.
 - (2) Confirm that if Rate RGS is \$4.88, the revenue generated is \$25,584,872, which results in an approximate \$1,250 revenue shortfall.
 - (3) Confirm that increasing Rate IGS from \$246.48 to \$246.49 increases the revenue generated to \$25,587,891, exceeding the revenue requirement.

- A-5. a. Pursuant to the calculation shown below the Company can confirm that applying the rate in Column 7, Year 2016 Monthly Rate Per Bill to the Number of Bills in Column 6 does result in a Revenue Requirement of \$25,575,325. The difference between this result and the revenue requirement in Exhibit A in the original application is \$16,927.

Rate Schedule	Number of Bills	Year 2016 Monthly Rate Per Bill	Revenue Generated
RGS	3,535,390	\$4.88	\$17,252,703
CGS	284,365	\$26.00	\$7,393,490
IGS	3,019	\$246.21	\$743,308
AAGS	69	\$2,693.10	\$185,824
DGGS	0	\$0.00	\$0
Total	3,822,843		\$25,575,325

The revenue generated by the proposed rates varies from the proposed revenue requirement because the proposed charges are rounded to two decimal places. If the charges are carried out to the full decimal range and applied to the number of bills, the result is the original revenue requirement of \$25,558,398.

The Company will experience a variation in the number of customers each month, therefore no rate design would exactly replicate the proposed revenue requirement in practice. In recognition of this fact, the Company makes a filing in February of each year which is designed to true up the difference between the proposed revenue requirement and the actual revenues received during the previous year. Accordingly, only actual costs are recovered over the period of the program.

- b. The intended rate for RGS customers is \$4.88 per customer per month.
- c. The Company can confirm that the expanded rate for Column 7, Year 2016 Monthly Rate Per Bill for RGS customers is \$4.875 in the original application and \$4.881 in the amended application.
- d. (1) Pursuant to the calculations shown below, the Company can confirm that the revenue generated by increasing the amended RGS rate by 1 cent and applying the rates to the number of bills results in revenue generated of \$25,620,226. The resulting revenue is \$34,107 more than the proposed revenue requirement in the Company's amended application.

Rate Schedule	Number of Bills	GLT Charge	Revenue Generated
RGS	3,535,390	\$4.89	\$17,288,057
CGS	284,365	\$26.03	\$7,402,021
IGS	3,019	\$246.48	\$744,123
AAGS	69	\$2,696.02	\$186,025
DGGS	0	\$0.00	\$0
Total	3,822,843		\$25,620,226

(2) Pursuant to the calculations shown below, the Company can confirm that the revenue generated under the proposed amended rates is \$25,584,872, which is \$1,247 less than the revenue requirement presented in the amended application.

Rate Schedule	Number of Bills	GLT Charge	Revenue Generated
RGS	3,535,390	\$4.88	\$17,252,703
CGS	284,365	\$26.03	\$7,402,021
IGS	3,019	\$246.48	\$744,123
AAGS	69	\$2,696.02	\$186,025
DGGS	0	\$0.00	\$0
Total	3,822,843		\$25,584,872

The revenue generated by the proposed rates varies from the proposed revenue requirement because the proposed charges are rounded to two decimal places. If the charges are carried out to the full decimal range and applied to the number of bills, the result is the original revenue requirement of \$25,586,119.

The Company will experience a variation in the number of customers each month, therefore no rate design would exactly replicate the proposed revenue requirement in practice. In recognition of this fact, the Company makes a filing in February of each year which is designed to true up the difference between the proposed revenue requirement and the actual revenues received during the previous year. Accordingly, only actual costs are recovered over the period of the program.

(3) Pursuant to the calculations shown below, the Company cannot confirm that the revenue generated with a 1 cent increase in the IGS charge is \$25,587,891.

Rate Schedule	Number of Bills	GLT Charge	Revenue Generated
RGS	3,535,390	\$4.88	\$17,252,703
CGS	284,365	\$26.03	\$7,402,021
IGS	3,019	\$246.49	\$744,153
AAGS	69	\$2,696.02	\$186,025
DGGS	0	\$0.00	\$0
Total	3,822,843		\$25,584,903

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated November 25, 2015**

Case No. 2015-00360

Question No. 6

Witness: Robert M. Conroy

- Q-6. Refer to the Application. Provide an electronic copy of the Application in Excel format with all formulas intact and cells unprotected.
- A-6. See the attached compact disc for an electronic copy of the amended Exhibits in Excel format.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated November 25, 2015**

Case No. 2015-00360

Question No. 7

Witness: Lonnie E. Bellar

- Q-7. Refer to the Testimony of Lonnie E. Bellar in Case No. 2012-00222, Bellar Exhibit 1, at page 6. Provide this same schedule, which is named GLT Form 1.5, showing forecasted projects for 2016.
- A-7. See Attachment 1 for GLT Form 1.5.

LOUISVILLE GAS AND ELECTRIC COMPANY
GAS LINE TRACKER
FORECASTED PROJECT DETAILS AS OF (JANUARY 2016 TO DECEMBER 2016)

Project Description	MAINS				SERVICES				RISERS			
	Feet of Main	Installation Cost	Cost of Removal	Retirements	No. of Services	Installation Cost	Cost of Removal	Retirements	No. of Risers	Installation Cost	Cost of Removal	Retirements
Downtown Main Replacement *	42,240	\$ 8,550,530	\$ 368,470									
Large Scale Main Replacement *	36,960	\$ 7,781,243	\$ 180,759									
Priority Main Replacement *	26,400	\$ 6,842,627	\$ 163,378									
Aldyl-A Main Replacement *	30,360	\$ 3,421,312	\$ 208,568									
Riser Replacement									45,800	\$ 23,520,066		\$ 3,375,560
Replace Company Services					1,450	\$ 2,050,716	\$ 352,536					
Replace Customer Services					950	\$ 2,268,334						
Install Customer Services					1,350	\$ 3,017,892						
TOTAL FORECASTED 2016 PROJECTS	135,960	\$ 26,595,712	\$ 921,174		3,750	\$ 7,336,943	\$ 352,536		45,800	\$ 23,520,066		\$ 3,375,560

* Costs for the main replacement projects include replacement of associated services. Service replacements for these projects are not budgeted separately from mains.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated November 25, 2015**

Case No. 2015-00360

Question No. 8

Witness: Lonnie E. Bellar

- Q-8. Identify generally the locations of the major main replacements that have occurred in 2015 and describe how those specific projects were selected and prioritized.
- A-8. Refer to attached map. Major large scale main replacement work in 2015 has been taking place in Downtown and Old Louisville areas. The large scale replacement areas are located between Beargrass Creek and 15th St from the Ohio River to the University of Louisville Belknap Campus. The large scale main replacement targets the replacement of cast iron, wrought iron, and bare steel. 2015 work areas were selected based upon being able to efficiently complete targeted replacements by 2017 while also taking into consideration such factors as operational needs, customer impact, and the retirement of targeted/vintage piping. Much emphasis has been placed on coordinating work with customers as well as other agencies. For example, all work within the University of Louisville's Belknap Campus was coordinated with the university and was able to take place during the summer semester, disrupting as few students as possible.

The priority main replacement work locations for 2015 have included Camp Taylor, Tyler Lane & Gardiner Lane, Preston Highway, and Baxter Avenue. Priority main replacement areas are evaluated via a ranking database. The ratings calculations are based on the criteria deemed most important in determining how critical replacement is for a section of main. The current ratings are based on length, size, material, coating, protection status and pressure class of the main, as well as the density of services and leaks on the section of main (services per foot and leaks per foot). As this program draws to a close, the work areas have become smaller and more dispersed throughout the distribution territory.

2015 Main Replacement Work Area

County:Jefferson

Centre:(2005201,13863719) usfeet

KY - LOUISVILLE EAST NW 1 D A

