

**Commonwealth of Kentucky
Before the Public Service Commission**

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)	
ELECTRIC COMPANY FOR A DECLARATORY)	Case No.
ORDER REGARDING THE PROPER METHOD)	2016-00317
OF MUNICIPAL FRANCHISE FEE RECOVERY)	

**DIRECT TESTIMONY OF
ALLEN R. NEALE
ON BEHALF OF THE
LOUISVILLE/JEFFERSON COUNTY METRO GOVERNMENT**

March 14, 2017

TABLE OF CONTENTS

I. QUALIFICATIONS AND SUMMARY OF TESTIMONY 1
II. KEY TERMS RELATED TO GAS FLOW 5
III. PRELIMINARY GAS FLOW EVALUATION 7
IV. CONCLUSION 10

1 **I. QUALIFICATIONS AND SUMMARY OF TESTIMONY**

2

3 **Q. Mr. Neale, please identify yourself for the record.**

4 A. My name is Allen R. Neale. I am a Consultant working in conjunction with Daymark
5 Energy Advisors (“Daymark”). My business address is Allen R. Neale c/o Daymark
6 Energy Advisors, One Washington Mall, 9th Floor, Boston, MA 02108.

7

8 **Q. On whose behalf are you testifying in this proceeding?**

9 A. I am submitting testimony on behalf of the Louisville/Jefferson County Metro
10 Government (“Louisville Metro”) to review the filing by Louisville Gas and Electric
11 Company (“LG&E” or the “Company”) with the Kentucky Public Service Commission
12 (the “KY PSC” or “Commission”) in the matter of the application for a Declaratory Order
13 Regarding the Proper Method of Municipal Franchise Fee Recovery, which has been
14 docketed as Case No. 2016-00317.

15

16 **Q. Please describe your educational background.**

17 A. I received a Master’s of Business Administration from Southern New Hampshire
18 College. I also have a Bachelor of Science in Engineering Technology in Mechanical
19 Engineering from Wentworth Institute.

20

21 **Q. Please summarize your experience and qualifications.**

22 A. I have over 25 years of experience in the natural gas distribution business in
23 Massachusetts. In 1973, I joined Essex County Gas Company (then Haverhill Gas) as a
24 Junior Engineer and subsequently held the following positions: Corrosion Engineer;
25 Supervisor of Distribution; Administrative Assistant; Vice President of Engineering,
26 Meter Shop and Production; and finally, Vice President of Gas Supply, Planning, Rates,
27 Regulatory, and Environmental Matters. As these various job titles indicate, I have a
28 broad range of experience at various levels within a gas distribution company, including
29 field work as a distribution system corrosion engineer and as a supervisor of distribution
30 overseeing main and service repair, replacement and new installations. Later, I was in

31 charge of Department of Transportation and Massachusetts Department of Public Utilities
32 Annual Reports for the company. My years as a Vice President provided substantial
33 management and executive decision making experience as well as involvement in rates
34 and regulatory affairs. In 1999, following regulatory approval of the merger involving
35 the Essex and the Boston Gas Companies, I became the President of ARN Enterprises
36 which owned and operated CRW Finishing Company, a metal finishing business. A copy
37 of my resume is attached as Exhibit ARN-1.

38

39 **Q. Have you testified before this Commission?**

40 A. No. However, I have offered testimony before other regulatory commissions on gas
41 distribution company accelerated capital replacement plans in numerous proceedings.
42 Recently, I testified in several cases before the Maryland Public Service Commission,
43 including: (1) Case No. 9335 where the Washington Gas Light Company filed an
44 application for approval to implement a Strategic Infrastructure Development and
45 Enhancement Plan (“STRIDE”) and an associated cost recovery mechanism; (2) Case
46 No. 9332 where Columbia Gas of Maryland filed an application for approval of a
47 STRIDE capital plan and rider; (3) Case No. 9417 where Columbia Gas of Maryland
48 filed an application for approval to increase rates and charges, and (4) Case No. 9331
49 where Baltimore Gas and Electric Company filed an application for approval of its
50 proposed first amendment under the Maryland STRIDE law and accompanying cost
51 recovery mechanism. In Massachusetts, I submitted testimony on Gas System
52 Enhancement Plans in six separate proceedings initiated by Massachusetts gas
53 distribution companies for review of accelerated replacement of targeted leak-prone
54 system components.

55

56 I have also testified on numerous occasions before the Massachusetts Department of
57 Public Utilities during my tenure as an executive of the Essex Gas Company and more
58 recently in my capacity as a consultant.

59

60 **Q. What is the purpose of your testimony here?**

61 A. I have been asked by the Louisville Metro to provide my opinion whether the gas supply
62 received at the citygate interconnections between LG&E and the interstate pipeline

63 transmission system for redelivery to LG&E's customers located within Louisville Metro
64 also serves additional customers within LG&E's service territory.

65

66 **Q. What conclusions do you reach in your testimony?**

67 A. Based on my review and analysis to date, I conclude and recommend the following:

68 1. Gas supply received via the LG&E citygate interconnections with Texas Gas
69 Transmission System (Texas Gas):

70 i. utilize the right of way corridor (ROW) within Louisville Metro in order
71 to serve customers located in the counties of Jefferson, Bullitt, Nelson and
72 Shelby; and

73 ii. possibly utilize this same ROW in order to serve customers located in
74 Oldham, Marion and Anderson;

75 2. Gas supply received via the LG&E citygate interconnections with Tennessee Gas
76 Pipeline System (TGP) is likely to serve the counties of Marion, Washington,
77 Mercer, Green and Larue;

78 3. A review of the Company's network analysis (defined further below) for each
79 segment of its entire distribution system, the direction of gas flow, operating
80 pressure and all null points for its most recent winter peak day, should allow
81 substantiation of preliminary conclusions 1 and 2 above; and

82 4. The Commission should

83 i. require the Company to provide a copy of its network analysis for its
84 entire service territory at a sufficient level of detail to show the requested
85 direction of flow, operating pressure and null points on all major
86 distribution/transmission segments, mains and laterals, and identify the
87 citygate interconnections with interstate gas transmission systems and
88 storage facilities;

89 ii. allow Louisville Metro the opportunity to review this network analysis,
90 with technical assistance from LG&E if necessary, to interpret the
91 information contained therein; and

92 iii. provide additional time to ask discovery questions about LG&E's gas
93 distribution system, including but not limited to the network analysis
94 requested above, in order to ensure intervenors may gain a full

95 understanding of how gas supply flows through the Company's Louisville
96 Metro ROW.

97

98 **II. SCOPE OF REVIEW**

99

100 **Q. Have you reviewed the Company's filing and all discovery in this proceeding?**

101 A. I have reviewed the limited information I have been told is available at this time for this
102 proceeding, which includes the following non-confidential documents:

103 -

104 - Louisville Metro Complaint, Exhibit 1, Metro Council Districts in Jefferson
105 County

106 - Louisville Metro Complaint, Exhibit 2, Incorporated Cities in Jefferson County

107 - Louisville Metro Complaint, Exhibit 3, Incorporated Cities and Metro Council
108 Districts in Jefferson County (i.e., the information contained in Exhibits 1 and 2
109 shown on the same map)

110 - Louisville Metro Complaint, Exhibit 4, Natural Gas Distribution Service Areas
111 (within the state of Kentucky)

112 - Louisville Gas and Electric P.S.C. Gas No. 10, Original Sheet 90, Adjustment
113 Clause, Franchise Fee, Applicability and Monthly Charge

114

115 I also have reviewed, subsequent to executing a non-disclosure agreement, the following
116 two CONFIDENTIAL documents:

117 - Addendum to Louisville Metro Amended Complaint, Jefferson County Gas Mains
118 (LGE map.pdf), and

119 - Addendum to Louisville Metro Amended Complaint, Gas Transmission in
120 Kentucky, Kentucky Department of Economic Development, Frankfort, 1984
121 (Gas_Transmission_1984_Map.pdf)

122

123 **Q. Please describe the scope of review in this testimony.**

124 A. The scope of my review for my testimony is to evaluate whether the documents made
125 available to me for review, listed above, provide sufficient information to conclude that
126 gas supply received via the Company's citygate interconnections with Texas Gas

127 Transmission System (Texas Gas) flow through the Company's distribution/transmission
128 facilities located within the Louisville Metro ROW for further distribution to all
129 municipalities within Louisville Metro and to counties outside the confines of Louisville
130 Metro.

131

132 **Q. Please explain why your review is focused on gas supply flow through the**
133 **Company's Metro Louisville ROW.**

134 A. My understanding is that the Company currently only collects the franchise fee from a
135 portion of customers within Jefferson County, and no customers outside Jefferson
136 County. Additionally, the Commission has issued a decision, in KY PSC Case Nos.
137 2016-00317 and 2016-00347, stating its intention to review the Company's franchise fee
138 collection practices. As indicated above without the use of the ROW in Louisville Metro
139 gas would not be available for use by customers living in Jefferson, Bullitt, Nelson and
140 Shelby counties, and possibly not available for use in customers living in Oldham,
141 Marion and Anderson counties.

142

143 **Q. Does the scope of your testimony include an assessment of the appropriate allocation**
144 **of the City of Louisville's franchisee fee?**

145 A. No. I have been retained to make an evaluation of LG&E's utilization of the Louisville
146 Metro ROW from an engineering perspective only.

147 **II. KEY TERMS RELATED TO GAS FLOW**

148

149 **Q. Please provide a definition for the term "citygate" interconnection.**

150 A. A citygate interconnection is the point at which the LG&E distribution system, including
151 both mains and distribution segments, physically interconnect with the interstate gas
152 transmission pipeline system. Based on my review of CONFIDENTIAL exhibit Gas
153 Transmission in Kentucky, 1984, shows that LG&E has several citygate interconnections
154 with Texas Gas as well as two citygate interconnections with TGP.¹ The purpose of the

¹ I also confirmed these citygate interconnections currently exist by reviewing the more up-to-date publicly available system maps published on each interstate pipeline's electronic bulletin boards (EBBs).
http://www.txgt.com/uploadedFiles/Texas_Gas/About_Us/Texas%20Gas%20System%20Map_07.08.14.pdf

155 citygate interconnection is to allow the utility to receive gas supply being transported in
156 volume and under high pressure from production areas located far from the utility's
157 market area. The citygate interconnection facility is sized to meet the daily requirements
158 of the utility as well as to reduce the pressure at the receipt point to the utility's
159 distribution system operating pressure.

160

161 **Q. Please describe what is meant by the term "direction of gas flow".**

162 A. The term "direction of gas flow" refers to the path that natural gas flows on the utility's
163 distribution system, which in turn is determined by the operating pressure for a given
164 segment of that system. For example, when the interstate pipeline delivers gas supply at
165 high pressure to the utility's citygate station, the gas supply is assumed to move from the
166 interstate into the distribution system. How the gas supply travels from there to other
167 points on the utility's distribution system depends upon how the distribution system is
168 configured. If the citygate station is located at or immediate upstream of a specific
169 municipality, it is likely that the direction of flow is from the citygate station to
170 residential gas customers located via facilities located within that municipality's ROW.

171

172 **Q. What is meant by the term "null point"?**

173 A. The term null point refers to that point on a pipeline, whether an interstate transmission
174 system or a utility's distribution system, where gas supply flows under pressure from
175 both directions and reaches a point of equilibrium such that pressure is equalized and at
176 that point gas flow is stationary but the pipeline remains full.

177

178 **Q. What is "Network Analysis"?**

179 A. A system planner can see the effect load growth has on the system as the planner
180 reviews Network Analysis over time. As new load is added to the distribution system,
181 pressures drop. When those pressure drops become too severe, the remedy are larger
182 pipes, system looping and/or pressure regulation. Network Analysis tools allow a system
183 planner to optimize the length and diameter of the pipe that needs to be installed to

(Attached as Exhibit ARN-4), and <http://pipeportal.kindermorgan.com/PortalUI/DefaultKM.aspx?TSP=TGPD>, which requires selecting "informational Postings", then "Tariff" then a specific Zone; Kentucky is in Zone 2 (Attached as Exhibit ARN-3).

184 remedy the peak day low pressure issues. Just as the Company arrays gas supplies to
185 meet the peak day distribution system needs, the system itself must be designed to deliver
186 those supplies to the customer.

187
188 The Company's distribution system configuration is made up of a combination of large
189 diameter mains, operating at a relatively high pressure, and narrower diameter
190 distribution pipelines, operating at a lower pressure, that ultimately deliver gas supply to
191 individual service lines connected to homes and businesses. Because the volume of gas
192 that can be delivered over a given segment, subsystem or system is a function of interior
193 pipe diameter and pressure, direction of gas flow can vary by main versus distribution
194 segments and where these segments are located in relation to citygate interconnections.
195 Network Analysis shows the effects on deliverable gas from citygate interconnections
196 depending on the configuration of mains and distribution facilities and the change in the
197 amount and location of customer demand over time.

198
199 Thus, Network Analysis is an important step in the evaluation of whether the Company's
200 facilities located in a municipality's ROW are used to deliver supply to gas customers
201 located elsewhere within the Company's service territory.

202 **III. PRELIMINARY GAS FLOW EVALUATION**

203
204 **Q. Did the information you reviewed for this testimony include the Company's**
205 **Network Analysis or information on direction of gas flow?**

206 A. No it did not. Even though one of the Confidential documents I reviewed presented a
207 map showing some detail indicating the location and diameter of pipeline segments
208 within the entire state, the pipelines all had the same color, so it was difficult to
209 distinguish which one belonged to an interstate pipeline and which one to a utility.²
210 Further, it appeared to be missing direction of gas flow and operating pressure, and
211 certainly provided no indication of the location of any null points.

212

² See CONFIDENTIAL Gas Transmission in Kentucky, Kentucky Department of Economic Development, Frankfort, 1984 (Gas_Transmission_1984_Map.pdf).

213 I did find some information on the location of interstate gas transmission system citygate
214 station interconnections with LG&E on a public document presenting a map of LG&E's
215 Gas System overlaying a map of towns served and the counties in which these towns are
216 located, as well as the location of citygate interconnections with Texas Gas and TGP,
217 which allowed me to draw a preliminary conclusion.³

218

219 **Q. What are the major differences between these two documents?**

220 A. The Confidential document is dated 1984, while the public document was filed only
221 recently, in the Company's rate case filed in Case No. 2016-00371. In addition, the
222 public document more clearly shows the location of citygate interconnections with Texas
223 Gas versus TGP.

224

225 **Q. What is the significance of being able to see the location of citygate interconnections**
226 **with Texas Gas and TGP?**

227 A. I am relying upon my review of the public LG&E Gas System Map, provided in Exhibit
228 LEB-1, for my conclusion about the significance of the locations of LG&E's citygate
229 interconnections. These locations are important because Texas Gas traverses Jefferson
230 County, which is geographically identical to Louisville Metro, while TGP does not.
231 Further, LG&E has only two citygate interconnections with TGP, which are located far
232 away from Jefferson County at the end of LG&E laterals that terminate in Marion and
233 Metcalfe counties.

234

235 **Q. Please provide your preliminary conclusion based on your review of these two**
236 **documents?**

237 A. Based on my review of these two documents, it appears that the counties of Jefferson,
238 Bullitt, Nelson and Shelby are served by gas supply received at three citygate
239 interconnections with Texas Gas shown on the public document, Exhibit LEB-1, as being
240 located in Jefferson County. For the same reason, it appears that all LG&E gas
241 customers located within Jefferson County are likely to be served by gas supply from
242 these three citygate stations. Since these citygate stations appear to be located within

³ Case No. 2016-00371, Testimony of Lonnie E. Bellar, Exhibit LEB-1, page 1 of 1, filed November 23, 2016. Attached as Exhibit ARN-2.

243 Louisville Metro, it is likely that LG&E' distribution/transmission facilities that extend
244 from these citygate stations are located within the Louisville Metro's ROW.
245

246 **Q. Can you determine from your review whether LG&E gas customers in these three**
247 **counties would receive gas service if LG&E were unable to take gas supply at these**
248 **three citygate stations?**

249 A. On the basis of my necessarily preliminary review of limited data, it appears to me that
250 without the ability to take receipts from these three citygate stations off of Texas Gas in
251 Jefferson County, these three counties, Bullitt, Nelson and Shelby, as well as Jefferson
252 County, would not receive gas service. Furthermore, I conclude that without access to
253 the LG&E facilities located in the Louisville Metro ROW, gas may not be able to arrive
254 in the adjacent counties of Oldham, Spencer, Marion and Anderson.
255

256 **Q. Do you conclude that other counties shown on Exhibit LEB-1 also received service**
257 **due to the use of the Company's distribution facilities located in the Metro**
258 **Louisville ROW?**

259 A. On the basis of my preliminary review, I conclude that it is not as likely that certain cities
260 and towns served by LG&E would receive gas supply via the distribution facilities
261 located in the Metro Louisville ROW. These counties may include Marion and Metcalfe
262 as well as possibly Hardin, Larue, and Meade.
263

264 **Q. Why do you conclude that the counties mentioned above are less likely to receive gas**
265 **supply via the distribution facilities located in the Metro Louisville ROW?**

266 A. My conclusion in this regard is best illustrated by noting the location of the Company's
267 two citygate interconnections with TGP in Marion and Metcalfe counties. The location
268 of these two citygate stations at the end of two laterals extending to the farthest reaches of
269 the Company's service territory, suggests that the Company is relying upon the delivery
270 pressure on TGP to push gas up each of those laterals, effectively becoming the primary
271 source of gas supply for the towns served in Marion and Metcalfe counties. The
272 likelihood of towns located in Hardin and Larue counties is dependent upon the operating
273 pressure on these two laterals flowing south and where any null points are located. The
274 likelihood that towns in Meade county will be served depends on the delivery pressure on

275 Texas Gas on the west side of LG&E's system as well as how much gas supply may be
276 delivered from the two storage facilities located in the same area

277

278 **Q. Please explain why you emphasize that your conclusions are preliminary.**

279 A. As summarized above and below, my conclusions are preliminary because they are
280 necessarily contingent upon my ability to substantiate my observations with additional
281 information that can be obtained only from a review of the network analysis I have
282 requested above.

283

284 **IV. CONCLUSION**

285

286 **Q. Please summarize your conclusions and recommendations?**

287 A. Based on my review of the limited information available to me in this case, I conclude
288 that

- 289 1) Gas supply received via three LG&E citygate interconnections with Texas Gas utilize
290 and rely upon the Metro Louisville ROW in order to serve customers located in the
291 counties of Jefferson, Bullitt, Nelson and Shelby, and possibly the counties of
292 Oldham, Spencer, Marion and Anderson, as discussed in greater detail above;
- 293 2) A review of the Company's network analysis for each segment of its entire
294 distribution system showing the direction of gas flow, operating pressure and all null
295 points for its most recent winter peak day, should allow substantiation of my
296 preliminary conclusions.

297

298 And I recommend that the Commission:

- 299 3) require the Company to provide a copy of its network analysis for its entire service
300 territory including the detail identified in conclusion 2) above;
- 301 4) allow intervenors the opportunity to review this network analysis, with technical
302 assistance from LG&E if necessary, to interpret the information contained therein;
303 and
- 304 5) provide additional time to ask discovery questions about LG&E's gas distribution

305 system, including but not limited to the network analysis requested above, in order to
306 ensure intervenors may gain a full understanding of how much gas supply flows
307 through the Company's Louisville Metro ROW.

308

309 **Q. Does that conclude your testimony?**

310 A. Yes, it does, however, I may amend my testimony based on any new information
311 provided by the Company in pending data requests.