

**STATE OF ILLINOIS**  
**ILLINOIS COMMERCE COMMISSION**

NORTH SHORE GAS COMPANY	)	
Proposed General increase in	)	Docket No. 23-0068
Rates for Gas Delivery Service	)	
	)	
THE PEOPLES GAS LIGHT AND COKE COMPANY	)	
Proposed General increase in	)	Docket No. 23-0069
Rates for Gas Delivery Service	)	(cons.)
	)	

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**DIRECT TESTIMONY OF DR. SOL DELEON**  
**ON BEHALF OF**  
**THE CITY OF CHICAGO**

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**CITY OF CHICAGO EXHIBIT 1.0**

**May 9, 2023**

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1 **I. INTRODUCTION AND WITNESS QUALIFICATIONS**

2 **Q Please provide your name, title, and business address.**

3 **A** My name is Dr. Sol Deleon. I am a Principal Associate at Synapse Energy Economics  
4 (“Synapse”), located at 485 Massachusetts Avenue, Suite 3, Cambridge, MA 02139.

5 **Q Please summarize your professional and educational experience.**

6 **A** I have over 20 years of experience in the energy industry, primarily in U.S. natural gas  
7 distribution utilities and international merchant electricity generation. I analyze gas utility  
8 applications and filings before state public service commissions, in addition to  
9 developing studies, reports, and other materials regarding gas utility investments,  
10 business models, ratemaking, depreciation, revenue requirements, and business risk.  
11 Prior to joining Synapse, I was a project manager at Washington Gas & Light Company,  
12 working on initiatives for corporate governance, renewable natural gas, and greenhouse  
13 gas (“GHG”) emissions reduction inventories. Before that, I worked for AES Corporation  
14 where I conducted commodity and financial risk analysis, derivative valuation, and  
15 project valuation for electric generating assets.

16 I completed my Masters in Business Administration and my Doctorate in Liberal Studies  
17 at Georgetown University. My doctorate focused on energy transition and energy justice.  
18 My complete CV is attached as City Exhibit 1.01.

19 **Q Please describe Synapse.**

20 **A** Synapse is a research and consulting firm specializing in electricity and gas industry  
21 regulation, planning, and analysis. Our work covers a range of issues, including economic  
22 and technical assessments of demand-side and supply-side energy resources; energy

23 efficiency policies and programs; integrated resource planning; electricity market  
24 modeling and assessment; renewable resource technologies and policies; and climate  
25 change strategies. Synapse works for a wide range of clients, including state attorneys  
26 general, offices of consumer advocates, trade associations, public utility commissions,  
27 environmental advocates, the U.S. Environmental Protection Agency, U.S. Department of  
28 Energy, U.S. Department of Justice, the Federal Trade Commission, and the National  
29 Association of Regulatory Utility Commissioners. Synapse has over 30 professional staff  
30 with extensive experience in the electric and gas utility industry.

31 **Q On whose behalf are you submitting testimony?**

32 **A** I am submitting testimony on behalf of the City of Chicago (the “City”).

33 **Q Have you testified before the Illinois Commerce Commission previously?**

34 **A** I have not.

35 **Q Are you sponsoring any exhibits?**

36 **A** Yes, I am sponsoring the following exhibits:

37 City Exhibit 1.01: Dr. Sol Deleon CV

38 City Exhibit 1.02: “Survey of Analysis of Gas Utility Futures: Insights, Gaps, and Best  
39 Practices”

40 City Exhibit 1.03: Illinois Decarbonization Study

41 City Exhibit 1.04: Company response to COC 4.34

42 City Exhibit 1.05: Company response to COC 4.36

43 City Exhibit 1.06: Company response to PIO 5.36

44 City Exhibit 1.07: Company response to CUB 2.16

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48 **Q What is the purpose and scope of your testimony?**

49 **A** The purpose of this testimony is to analyze the application for a general increase in rates  
50 filed by The Peoples Gas Light and Coke Company (“the Company” or “PGL”) before

51 the Illinois Commerce Commission (“ICC” or “Commission”) in the context of national,  
52 state, and city climate and decarbonization policies. My testimony sets forth  
53 recommendations the Commission can deploy to ensure that PGL’s gas infrastructure  
54 investment is aligned with energy transition and decarbonization policies.

55 **Q How is your testimony organized?**

56 **A** My testimony is organized as follows:

- 57 • Section I provides an introduction and overview of my qualifications.
- 58 • Section II presents a summary of my recommendations.
- 59 • Section III describes federal, state, and city climate commitments and electrification  
60 policies that are driving the energy transition.
- 61 • Section IV explains that we are in the midst of a massive energy transition and the  
62 implications this transition has on gas utilities. I explain what is meant by the term  
63 “future of gas” and provide examples of state commissions and gas utilities taking  
64 steps to address this transition.
- 65 • Section V provides a brief summary of PGL’s rate case requests.
- 66 • Section VI details the risk that a continued “business-as-usual” approach will have on  
67 the City and PGL ratepayers.
- 68 • Section VII provides a detailed explanation of my recommendations.

69 **Q What materials did you rely on to develop your testimony?**

70 **A** The sources for my testimony are the Company’s application; exhibits in support of the  
71 Company’s application; the Company’s workpapers to the extent produced in discovery;  
72 public documents; responses to discovery requests; and my personal knowledge,  
73 research, and experience.

74 **Q Was your testimony prepared by you or under your direction?**

75 **A** Yes.

76 **II. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS**

77 **Q Please describe your conclusions and recommendations.**

78 **A** I make the following recommendations in my testimony:

79 1. As part of PGL's next rate filing, the Commission should direct PGL to provide a

80 GHG emissions analysis of its scope 1, 2, and 3 emissions, supported by a

81 verification statement from a third-party consultant.

82 2. The Commission should direct PGL to provide an analysis of Non-Pipeline

83 Alternatives ("NPA") for investments in major capital projects.

84 3. The Commission should direct PGL to conduct a Joint Feasibility Assessment of a

85 portion of its service territory, working with interested and affected stakeholders,

86 including the City, to assess the potential for strategic electrification and retirement of

87 leak-prone pipe.

88 **III. FEDERAL, STATE, AND CITY CLIMATE POLICIES**

89 **Q Please provide a general overview of climate change policies and emission reduction**  
90 **targets.**

91 **A** The federal government, states, and other jurisdictions in the United States, including

92 Illinois and Chicago, are defining national, state, and municipal GHG emission reduction

93 targets. Some targets cover all GHG emissions, whereas others cover specific gases.

94 Some are sector-specific, whereas others are economy-wide. All aim to reduce emissions

95 by a specific percentage by a date certain.

96 **Q Has the federal government established GHG emission reduction goals?**

97 **A** Yes. In 2021, the Biden administration established a new national economy-wide  
98 emissions target reduction of 50–52 percent from the 2005 level by 2030. Pathways to  
99 achieving this target are set forth in the “Long-Term Strategy of the United States.”<sup>1</sup> One  
100 of the key technological transformations identified in that strategy is to “electrify most of  
101 the economy—from cars to buildings and industrial processes.”<sup>2</sup>

102 **Q Have other developments at the federal level impacted the pace of the technological**  
103 **and energy transformations identified in the Long-Term Strategy of the United**  
104 **States?**

105 **A** Yes. Passed in 2022, the *Inflation Reduction Act* (“IRA”) includes substantial investment  
106 in climate change mitigation actions. It includes tax code modifications to support private  
107 investment in renewable energy technology, energy efficiency and low-carbon materials  
108 and buildings, federal funding for rebate programs, and loan guarantees for GHG  
109 reduction projects.

110 The IRA created a home energy rebate program to support electrification, the *High-*  
111 *Efficiency Electric Home Rebate Act* (“HEEHRA”) program.<sup>3</sup> The HEEHRA program  
112 provides point-of-sale consumer rebates to help homeowners electrify their homes. These  
113 rebates are targeted at low- or moderate-income homeowners.<sup>4</sup> Governmental or  
114 commercial entities owning a multifamily building where the majority of residents make

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<sup>1</sup> U.S. Dep’t of State & U.S. Exec. Office of the President, *The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050* (Nov. 2021), <https://www.whitehouse.gov/wp-content/uploads/2021/10/US-Long-Term-Strategy.pdf>.

<sup>2</sup> *Id.* at 18.

<sup>3</sup> 42 U.S.C.A. § 18795a.

<sup>4</sup> *Id.* § 18795a(d)(1)(A).

115 under 150 percent of the area median income can also apply for rebates for electrification  
116 projects in their building.<sup>5</sup>

117 **Q Please discuss the climate goals and policies in the state of Illinois.**

118 **A** In 2019, Governor Pritzker joined the U.S. Climate Alliance, which is a collection of  
119 states committed to achieving the Paris Agreement’s goal of keeping global temperature  
120 increases below 1.5 degrees Celsius.<sup>6</sup> The U.S. Climate Alliance has committed to  
121 achieve this goal by reducing collective net GHG emissions at least 26–28 percent by  
122 2025 and 50–52 percent by 2030, both below 2005 levels, and achieving overall net-zero  
123 GHG emissions no later than 2050.<sup>7</sup> Simply put, this means that Illinois is aiming to  
124 follow the decarbonization pathways comparable to the United States as a whole. As  
125 discussed above, this includes electrification as the primary strategy to decarbonize the  
126 building sector.

127 **Q Please provide an overview of other statutory provisions that complement and**  
128 **amplify Illinois’ commitment to efficient use of clean energy resources and the**  
129 **reduced use of fossil fuels.**

130 **A** On September 15, 2021, Governor Pritzker signed the *Climate and Equitable Jobs Act*  
131 (“CEJA”).<sup>8</sup> CEJA focuses on decarbonization of the electric sector, growth in clean  
132 energy jobs, and equitable access to clean energy options. CEJA provides support for the

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<sup>5</sup> *Id.* § 18795a(c)(4)(C).

<sup>6</sup> Exec. Order Joining the US Climate Alliance and Committing to the Principles of the Paris Climate Agreement, No.2019-06 (Jan. 23, 2019), <https://www.illinois.gov/government/executive-orders/executive-order-executive-order-number-6.2019.html>

<sup>7</sup> United States Climate Alliance, <http://www.usclimatealliance.org/> (last visited May 5, 2023).

<sup>8</sup> Illinois Public Act 102-0662.



133 development of clean energy<sup>9</sup> resources in the state and supports the training of workers  
134 for employment in these industries. CEJA declares that it is a policy of the state of  
135 Illinois to “rapidly transition to 100% clean energy by 2050.”<sup>10</sup> CEJA requires the  
136 electricity industry to achieve zero-emissions by 2045 and allows an electric utility to  
137 “offer and promote measures that electrify space heating, water heating, cooling, drying,  
138 cooking, industrial processes, and other building and industrial end uses that would  
139 otherwise be served by combustion of fossil fuel at the premises provided that [it]  
140 reduce[s] total energy consumption at the premises.”<sup>11</sup>

141 **Q Are there other Illinois statutes that demonstrate the State’s commitment to clean**  
142 **energy and emissions reductions?**

143 A Yes. The following statutes also complement Illinois’ commitment to clean energy  
144 resources and GHG emissions reductions:

- 145 • The *Illinois Environmental Protection Act* defines clean energy<sup>12</sup> and establishes a  
146 time schedule for reducing and eliminating the use of fossil fuels for generating  
147 electricity.<sup>13</sup>
- 148 • The *Electric Vehicle Act* establishes a policy to improve health and environmental  
149 quality by increasing the adoption and use of electric vehicles,<sup>14</sup> and to advance  
150 beneficial electrification of current fossil fuel uses.<sup>15</sup>

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<sup>9</sup> “Clean energy” means energy generation that is substantially free (90% or greater) of carbon dioxide emissions. 415 ILCS 5/3.131.

<sup>10</sup> Illinois Public Act 102-0662 § 90-30; see 20 ILCS 3855/1-5.

<sup>11</sup> Illinois Public Act 102-0662 § 90-30; see 220 ILCS 5/8(B)(b-27).

<sup>12</sup> 415 ILCS 5/3.131.

<sup>13</sup> 415 ILCS 9.15(i).

<sup>14</sup> 20 ILCS 627/5.

<sup>15</sup> 20 ILCS 627/45.

151 • The *Energy Efficient Building Act* reflects legislative findings that efficient use of  
152 energy is essential to reduce pollution, moderate energy peak demands, ensure energy  
153 supply adequacy, ensure energy system reliability, and control energy services  
154 costs.<sup>16</sup>

155 **Q Does the City have any policy initiatives that are relevant to this proceeding?**

156 **A** Yes, the City has taken several major steps in support of goals of decarbonization, energy  
157 efficiency and conservation, equity and justice in resource usage and distribution, and  
158 planning for a fair transition from reliance on fossil fuels—especially in buildings. These  
159 steps include:

160 • In April 2022, the City published its updated *Climate Action Plan*,<sup>17</sup> which is “an  
161 inclusive, equitable, and ambitious plan for reduction of [GHG] emissions in the  
162 City[.]”<sup>18</sup> The *Climate Action Plan* sets out targets for decarbonization and building  
163 electrification, with a focus on energy justice and equity. Building decarbonization is  
164 identified in the *Climate Action Plan* as “the greatest opportunity to reduce the city’s  
165 emissions.”<sup>19</sup> Chicago’s emissions inventory shows that residential buildings and  
166 commercial and institutional buildings and facilities were the source of 52 percent of

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<sup>16</sup> 20 ILCS 3125/5.

<sup>17</sup> City of Chicago, *2022 Climate Action Plan*,  
<https://www.chicago.gov/content/dam/city/sites/climate-action-plan/documents/Chicago-CAP-071822.pdf> (“Climate Action Plan”).

<sup>18</sup> Office of the City Clerk, *Journal of the Proceedings of the City Council of the City of Chicago, Illinois*, 54951 (Nov. 7, 2022), [https://chicityclerk.s3.us-west-2.amazonaws.com/s3fs-public/reports/11072022\\_Journal\\_Final.pdf?VersionId=bBzjuFMDV6RtT3QCfj\\_W6gbJtOv4XAV8](https://chicityclerk.s3.us-west-2.amazonaws.com/s3fs-public/reports/11072022_Journal_Final.pdf?VersionId=bBzjuFMDV6RtT3QCfj_W6gbJtOv4XAV8) (the “City Council Climate Action Ordinance”).

<sup>19</sup> *Climate Action Plan* at 36.

167 Chicago’s emissions.<sup>20</sup> Natural gas use in the residential sector contributed 4.89  
168 million MTCO<sub>2</sub>e or more than half of residential energy GHG emissions in 2017, and  
169 these emissions have trended higher (with some variation) since 2005.<sup>21</sup> Thus, to meet  
170 the goals in the *Climate Action Plan*, the City will need to be “[a]ggressively  
171 accelerating energy efficiency in new and existing buildings, along with rapid  
172 building electrification[.]”<sup>22</sup> The *Climate Action Plan* identified a strategy of enabling  
173 building and personal vehicle electrification and further identified the following  
174 actions to support it:

- 175 A. Enact policies that support electrified renovations and new construction by 2023;
- 176 B. Electrify 30 percent of total existing residential buildings by 2035;
- 177 C. Electrify 20 percent of total existing industrial buildings by 2035;
- 178 D. Electrify 10 percent of total existing commercial buildings by 2035; and
- 179 E. Electrify 90 percent of total existing City-owned buildings by 2035.<sup>23</sup>

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- 181 • The City Council directed the City’s Chief Sustainability Officer and the Office of  
182 Climate and Environmental Equity (“OCEE”) to guide all City departments and sister  
183 agencies to achieve the results of the *Climate Action Plan*.<sup>24</sup> The City Council also  
184 directed the OCEE to “develop a coordinated and comprehensive energy policy and  
185 initiatives for the City to improve energy efficiency and decarbonization across the  
186 City and encourage innovation in renewable energy and affordability and access in  
187 the generation, storage, distribution, conversion, and consumption of energy[.]”<sup>25</sup>

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<sup>20</sup> City of Chicago, *Greenhouse Gas Inventory Report: Calendar Year 2017*, ix (Dec. 2019)  
[https://www.chicago.gov/content/dam/city/progs/env/GHG\\_Inventory/Chicago-2017-GHG-Report\\_Final.pdf](https://www.chicago.gov/content/dam/city/progs/env/GHG_Inventory/Chicago-2017-GHG-Report_Final.pdf) (“GHG Inventory”).

<sup>21</sup> GHG Inventory at 23.

<sup>22</sup> Climate Action Plan at 44.

<sup>23</sup> *Id.* at 42.

<sup>24</sup> City Council Climate Action Ordinance at 54952.

<sup>25</sup> *Id.*

- 188           • In February 2023, the Chicago Plan Commission adopted its first comprehensive  
189           citywide plan since 1996, titled “We Will Chicago,” as a citywide planning tool for  
190           the next 10 years.<sup>26</sup> The Environment, Climate & Energy pillar of We Will Chicago  
191           addresses, among other things, structural climate and energy injustice,  
192           decarbonization, and urban heat islands.<sup>27</sup>
- 193           • Mayor Lightfoot’s Chicago Building Decarbonization Working Group, charged with  
194           recommending equitable solutions to address the approximately 70 percent of  
195           Chicago emissions associated with buildings, issued its recommendations in October  
196           2022.<sup>28</sup> The Working Group’s recommendations included multiple policies and  
197           actions to decarbonize, *i.e.*, end the use of fossil fuels, in connection with new and  
198           existing buildings.
- 199           • The City has an Energy Transformation Code as part of its Building Code. The intent  
200           of the Chicago Energy Transformation Code is to “regulate the design and  
201           construction of [residential and commercial] buildings for the effective use and  
202           conservation of energy over the useful life of each building and for the reduction of  
203           carbon emissions caused by use and occupancy of buildings built and renovated under

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<sup>26</sup> Chicago Plan Commission, *We Will Chicago: A framework plan for the city’s future* (2023),  
<https://wewillchicago.com/plan>.

<sup>27</sup> *Id.* at 61-74.

<sup>28</sup> Chicago Building Decarbonization Working Group, *Developing an Equitable Building  
Decarbonization Strategy for Chicago: Recommendations Report of the Chicago Building  
Decarbonization Policy Working Group* (Oct. 2022),  
[https://www.chicago.gov/content/dam/city/progs/env/2022/Final-2022-Building-Decarb-City-  
Document.pdf](https://www.chicago.gov/content/dam/city/progs/env/2022/Final-2022-Building-Decarb-City-Document.pdf).

204 this code. This code is intended to provide flexibility to allow the use of innovative  
205 and cost-effective approaches and techniques to achieve these objectives.”<sup>29</sup>

206 • The City is a member of the National Building Performance Standards Coalition,<sup>30</sup>  
207 organized by the White House. The coalition consists of state and local governments  
208 that have committed to inclusively design and implement building performance  
209 policies and programs in their jurisdictions to achieve climate action goals, with a  
210 goal of adoption of local building performance standards and complementary  
211 programs and policies by Earth Day, 2024.

212 • Mayor-elect Brandon Johnson issued his “Plan for Environmental Justice.” This plan  
213 indicates his commitment to continue and strengthen the City’s focus on an equitable  
214 transition away from reliance on fossil fuels, and also his commitment to work with  
215 labor and environmental justice leaders to pass a Clean and Healthy Buildings  
216 Ordinance that focuses on “standards for new developments and a just transition for  
217 existing buildings.”<sup>31</sup>

218 **Q In addition to these policies, how else has the City made progress to advance climate**  
219 **objectives?**

220 **A** On April 25, 2023, the U.S. Department of Energy (“DOE”) Geothermal Technologies  
221 Office announced the recipients of its Community Geothermal Heating and Cooling  
222 Design Initiative.<sup>32</sup> This initiative “will enable communities to design and eventually

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<sup>29</sup> Municipal Code of Chicago §§ 14N-C1-C101.3, 14N-R1-R101.3.

<sup>30</sup> National BPS Coalition, <https://nationalbpscoalition.org/> (last visited May 5, 2023).

<sup>31</sup> The Plan for Environmental Justice, Brandon Johnson for Chicago, <https://www.brandonforchicago.com/issues/environmental-justice> (last visited May 5, 2023).

<sup>32</sup> Office of Energy Efficiency & Renewable Energy, *Community Geothermal Heating and Cooling Design and Deployment*, U.S. Dep’t of Energy,

223 deploy community-scale geothermal heating and cooling systems.”<sup>33</sup> DOE states that  
224 “[u]sing clean geothermal energy for heating and cooling can help American cities across  
225 the country meet their energy needs, drive down costs, create jobs, and reduce [GHG]  
226 emissions.”<sup>34</sup> Local nonprofit Blacks in Green, in partnership with the City and Citizens  
227 Utility Board, will receive DOE funding to support “[a] shared community geothermal  
228 network across four city blocks containing more than 100-multi-family and single-family  
229 residential buildings, as part of the community’s Sustainable Square Mile effort.”<sup>35</sup>

230 **IV. “FUTURE OF GAS”**

231 **Q Please explain how climate policies can impact gas utility operations and decisions.**

232 **A** Policies that support energy efficiency and building decarbonization can result in  
233 throughput or gas consumption that is lower than historical averages or can affect  
234 customer growth or customer retention numbers. Gas utilities will need to assess the  
235 implications of and manage the impacts of policies that will reduce gas consumption and  
236 place assumptions regarding new customers and customer retention into question. In  
237 addition, the capital investment decisions made by gas utilities and approved by  
238 regulators have long-term implications, because natural gas assets such as transmission  
239 and distribution pipelines have useful lives that span decades. Thus, decisions regarding

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<https://www.energy.gov/eere/geothermal/community-geothermal-heating-and-cooling-design-and-deployment> (“Geothermal Design and Deployment”).

<sup>33</sup> *Id.*

<sup>34</sup> Dep’t of Energy, *DOE Announces \$13 Million to Support Community Geothermal Heating and Cooling Solutions* (Apr. 25, 2023), <https://www.energy.gov/articles/doe-announces-13-million-support-community-geothermal-heating-and-cooling-solutions>.

<sup>35</sup> Geothermal Design and Deployment.

240 these asset investments should factor in climate and decarbonization targets and the  
241 resulting policies and impacts on gas utilization.

242 **Q What is meant by the term “future of gas”?**

243 **A** Decarbonization of buildings and industrial sectors will transform gas utilities and require  
244 changes in regulation and business models. This transition is in its early stages, and there  
245 are numerous competing visions for how to resolve the resulting challenges. The form of  
246 resolution will vary between states and utilities; it will be driven by history, climate, the  
247 state of the gas system, and public policy choices. In a growing number of states,  
248 policymakers, regulators, and utilities are conducting analyses of building and industrial  
249 decarbonization and the resulting impact on gas utilities and their customers.

250 **Q Can you provide some illustrative examples of the tools gas utilities could utilize to  
251 decarbonize?**

252 **A** Broadly speaking, there are both “supply-side” and “demand-side” strategies. Supply-  
253 side strategies focus on lower emission alternatives to natural gas such as biomethane or  
254 hydrogen. Demand-side strategies include energy efficiency, demand response,  
255 electrification, and geothermal loops.

256 **Q Are there states that have initiated proceedings that discuss the role of natural gas  
257 in a decarbonized energy system?**

258 **A** Yes, below I note a sample of the regulatory proceedings that have been opened across  
259 the country to address the “future of gas.” Additional proceedings and further details  
260 about the dockets described below are provided in the white paper entitled, “Survey of  
261 Analysis of Gas Utility Futures: Insights, Gaps, and Best Practices,” attached to this  
262 testimony as City Exhibit 1.02.

263 **Massachusetts**

264 The Massachusetts Department of Public Utilities (“MA DPU”) opened Docket 20-80  
265 following a request by the Massachusetts Attorney General’s Office to investigate “the  
266 impact on the continuing business operations of local gas distribution companies as the  
267 Commonwealth achieves its target 2050 climate goals.”<sup>36</sup> The MA DPU recast this  
268 request and opened the docket “to examine the role of Massachusetts gas local  
269 distribution companies (‘LDCs’) in helping the Commonwealth to achieve its 2050  
270 climate goals.”<sup>37</sup> The MA DPU directed the state’s gas utilities to contract with a  
271 consultant who would analyze strategies to achieve net-zero emissions, adding greater  
272 detail and alternative approaches to those captured in the state’s roadmap study. The  
273 consultant’s pathways analysis<sup>38</sup> included recommendations for new business models and  
274 associated regulatory frameworks, analysis of rate base and revenue requirements over  
275 time, customer costs and qualitative discussion of impacts on choices, and quantification  
276 of the impacts of targeted electrification to allow asset retirement.

277 **New York**

278 The NY Public Service Commission (“PSC”) initiated Case 20-G-0131 pertaining to a  
279 modernized gas planning process that links gas planning to the state’s climate legislation.  
280 In a May 2022 order, the PSC ordered gas utilities to file long-terms plans, proposals for

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<sup>36</sup> AGO Gas Investigation Petition, MA DPU Docket No. 20-80 (June 4, 2020) at 1.

<sup>37</sup> Order Opening Investigation, MA DPU Docket No. 20-80 (Oct. 29, 2020) at 1.

<sup>38</sup> Energy and Environmental Economics & Scott Madden, *The Role of Gas Distribution Companies in Achieving the Commonwealth’s Climate Goals Independent Consultant Report: Technical Analysis of Decarbonization Pathways* (Mar. 18, 2022), <https://thefutureofgas.com/content/downloads/2022-03-21/3.18.22%20-%20Independent%20Consultant%20Report%20-%20Decarbonization%20Pathways.pdf>.



281 non-pipe alternative screening criteria and non-pipe alternative suitability criteria, non-  
282 pipe cost recovery procedures and incentive mechanisms, and depreciation studies.<sup>39</sup>

283 **Colorado**

284 In June 2021, the Colorado Governor signed into law SB21-264, which, among other  
285 requirements, mandates that gas distribution utilities file a “clean heat plan” with the  
286 Colorado Public Utilities Commission (“Colorado PUC”) demonstrating how the utilities  
287 will use clean heat resources to meet specific GHG reduction targets by 2030.<sup>40</sup> As part  
288 of that process, the Colorado PUC initiated a rulemaking proceeding to address gas utility  
289 planning. Specifically, in Decision C22-0760, the Colorado PUC directed gas utilities to  
290 file Clean Heat Plans starting in 2023. These plans are to include a mix of supply-side  
291 and demand-side resources such as energy efficiency programs, recovered methane,  
292 green hydrogen, and beneficial electrification.<sup>41</sup> In addition, noting that SB21-264 and the  
293 clean heat plan rules “will not address all of the issues that gas utilities and its customers  
294 will face through the transitions required to meet Colorado’s goals,” the Colorado PUC  
295 also proposed new Gas Infrastructure Planning Rules “to improve the Commission’s  
296 visibility into a gas utility’s future projects and expenditures.”<sup>42</sup>

297 **Minnesota**

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<sup>39</sup> Order Adopting Gas System Planning Process, NY PSC Docket No. 20-G-0131, 64-67 (May 12, 2022), <https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=20-G-0131&CaseSearch=Search>.

<sup>40</sup> CO LEGIS 328 (2021), 2021 Colo. Legis. Serv. Ch. 328 (S.B. 21-264), <https://leg.colorado.gov/bills/sb21-264>.

<sup>41</sup> Decision No. C22-0760, Colorado PUC Proceeding No. 21R-0449G (Nov. 2022), [https://www.dora.state.co.us/pls/efi/EFI\\_Search\\_UI.Show\\_Decision?p\\_session\\_id=&p\\_dec=29605](https://www.dora.state.co.us/pls/efi/EFI_Search_UI.Show_Decision?p_session_id=&p_dec=29605).

<sup>42</sup> *Id.* at 71.

298 In response to the *Minnesota Natural Gas Innovation Act*,<sup>43</sup> the Minnesota Public  
299 Utilities Commission created two dockets: *In the Matter of a Commission Evaluation of*  
300 *Changes to Natural Gas Utility Regulatory and Policy Structures to Meet State*  
301 *Greenhouse Gas Reduction Goals*<sup>44</sup> and *Establishing Frameworks to Compare Lifecycle*  
302 *Greenhouse Gas Emissions Intensities of Various Resources, and to Measure Cost-*  
303 *Effectiveness of Individual Resources and of Overall Innovative Plans.*<sup>45</sup> Utilities are  
304 encouraged to file Innovation Plans to show how they can contribute to meeting the  
305 state’s climate goals. These plans are to include system report and forecasts, projected  
306 capital and fuel investments, carbon emissions, and incentive programs. The first of these  
307 Innovation Plans are expected in the spring of 2023.

308 **Q Are you aware of any gas utilities taking steps to address the “future of gas”?**

309 **A** Yes.

310 **Q Please provide a few examples.**

311 **A** The following list is not exhaustive but demonstrates the range of programs and  
312 initiatives that gas utilities are exploring or have deployed.

313 **Washington Gas & Light Company**

314 Washington Gas & Light Company filed with the District of Columbia Public Service  
315 Commission in Formal Case No. 1142 a long-term business plan on how it can evolve its  
316 business model to support and serve the District’s 2050 climate goals (e.g., providing

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<sup>43</sup> Minn. Stat. Ann. § 216B.2427.

<sup>44</sup> Minnesota PUC, Docket No. G-999/CI-21-565.

<sup>45</sup> Minnesota PUC, Docket No. G-999/CI-21-566.

317 innovative and new services and products instead of relying only on selling natural gas).<sup>46</sup>

318 **Central Hudson Gas & Electric Corporation**

319 In a filing with the New York PSC in Case 17-G-0460, Central Hudson Gas & Electric  
320 Corporation proposed transportation mode alternatives projects that are designed for  
321 strategic abandonment of leak-prone pipe through electrification where it is more cost-  
322 effective than replacement and system reliability is not negatively impacted.<sup>47</sup>

323 **Consolidated Edison Company of New York, Inc.**

324 In Case 17-G-0606 before the New York PSC, Consolidated Edison Company of New  
325 York, Inc. (“Con Edison”) proposed the Smart Solutions for Natural Gas Customers  
326 Program (“Smart Solutions”) to address increased demand and limited pipeline capacity  
327 for natural gas in its service territory. This integrated, multi-solution proposal sought to  
328 decrease gas usage and procure alternative resources to meet customer heating and other  
329 thermal needs. As part of the Smart Solutions portfolio, Con Edison established a Gas  
330 Demand Response Pilot that aims to reduce net customer gas demand during the entirety  
331 of a peak gas demand day during the coldest winter days.<sup>48</sup>

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<sup>46</sup> Climate Business Plan, DC PSC, Formal Case No. 1142 (Mar. 16, 2020),  
<https://edocket.dcpsec.org/public/search/details/fc1142/597;%20nypsc%20case%20no.%2019-g-0678=>.

<sup>47</sup> Non-Pipeline Alternatives Annual Report, NY PSC Docket No. 17-G-0460 (Dec. 1, 2022),  
<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7bF7B5D1BA-9DCA-4004-AE02-E3F777CEF76C%7d>.

<sup>48</sup> Gas Demand Response Report on Pilot Performance, NY PSC Docket No. 17-G-0606 (July 15, 2022),  
<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7bAD51AA7B-5BD2-4A9B-AE57-720C636ED6C0%7d>.

332 **Niagara Mohawk**

333 In Case 20-G-0381 before the New York PSC, Niagara Mohawk filed a study on the  
334 potential depreciation impacts of climate change policies and laws on its gas assets. The  
335 study includes an examination of the potential impacts of climate change policies and  
336 laws on the following: average service lives, reserve deficiency/surplus, salvage value,  
337 cost of removal, depreciation rates, and customer bills, and an assessment of the  
338 appropriate survivor curve to help inform the Company's next base rate filing.<sup>49</sup>

339 **National Grid**

340 Before the New York PSC in Case 19-G-0309, National Grid committed to provide in its  
341 next rate case an emissions analysis and analysis of Non-Pipeline Alternatives. The  
342 Company also committed to developing an Enhanced High Emitter Methane Detection  
343 Program that will target leaks of 10 standard cubic feet per hour or greater for repair or  
344 replacement to reduce methane emissions from the distribution system and prevent lost  
345 gas.<sup>50</sup>

346 **NSTAR Gas Company d/b/a Eversource Energy**

347 Eversource's geothermal pilot project, approved by the MA DPU in October 2020, will  
348 demonstrate the potential for networked geothermal in a mixed-use urban neighborhood,  
349 using public ways to serve customers with diverse heating and cooling profiles

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<sup>49</sup> Depreciation Study: Potential Impacts of Climate Change Policies and Laws, NY PSC Docket No. 0381 (Nov. 7, 2022), <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7bD0CA0587-0000-C33C-86EA-A2D64FDF8831%7d>

<sup>50</sup> Joint Proposal, NY PSC Docket No. 19-G-0309 (May 14, 2021), <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7b049A7777-4BE8-41FC-B958-6D9EE1C13DD3%7d>.

350 (residential and commercial/industrial customers). The MA DPU found the company's  
351 proposal to be in line with the Commonwealth's aggressive climate goals and directed the  
352 company to study the scalability of networked geothermal to serve the company's  
353 existing natural gas customers.<sup>51</sup>

354 **Q Why are you highlighting these examples for the Commission?**

355 **A** These examples demonstrate the broad range of programs, plans, and initiatives gas  
356 utilities are deploying to address the future of gas. Some take a high-level and strategic  
357 view, such as those utilities who are trying to identify future business models. Some are  
358 focused on the actions that utilities can take to meet GHG emission reduction targets.  
359 Others are focused on rate implications, attempting to understand impacts of policies on  
360 key utility characteristics such as service life, salvage value, and depreciation rates. In  
361 sum, with these efforts, the utilities are trying to understand and scope out future  
362 scenarios and begin to plan for a future that will look different from today.

363 **Q Has the Illinois Governor acknowledged that gas utilities in Illinois will need to**  
364 **address the “future of gas”?**

365 **A** Yes, on March 8, 2023, Governor Pritzker announced his priorities for regulation of gas  
366 utilities to make them more accountable to customers and the State of Illinois.<sup>52</sup> Noting  
367 that gas utility rate increases are driven by, among other factors, “outsized spending”  
368 from gas utilities, the Governor called for new laws requiring infrastructure spending

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<sup>51</sup> Order, MA DPU Docket No. 19-120 (Oct. 30, 2020),  
<https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/12834214>.

<sup>52</sup> Governor J.B. Pritzker, Op-Ed., *Make Natural Gas Utilities More Accountable to Customers and the State*, Chicago Sun-Times (Mar. 8, 2023),  
<https://chicago.suntimes.com/2023/3/8/23631191/natural-gas-utilities-illinois-commerce-commission-ceja-prices-rate-increases>.

369 audits, better distribution planning, energy efficiency programs, low-income customer  
370 discount rates, performance-based regulation, and other customer protections. The  
371 Governor further observed that “[t]his problem isn’t just an economic one for consumers.  
372 It is also an environmental issue, as natural gas distribution causes emissions of GHGs  
373 and other pollutants.”<sup>53</sup> The Governor further stated that this fact “requires us to explore  
374 decarbonizing the way we heat our homes and businesses.”<sup>54</sup>

375 **Q Has anyone else called for additional study of the future of gas in Illinois?**

376 **A** Yes, as part of its pending multi-year grid and rate plan before the ICC, Commonwealth  
377 Edison Company (“ComEd”) has submitted an *Illinois Decarbonization Study* authored  
378 by Energy and Environmental Economics (“E3”). The goals of the *Illinois*  
379 *Decarbonization Study* are to (1) determine the impact that CEJA and the IRA will have  
380 on GHG emissions in Illinois, and (2) identify what additional measures are needed to  
381 achieve net-zero emission in the State.<sup>55</sup> The Study analyzes three scenarios: business-as-  
382 usual, moderate electrification, and high electrification.

383 **Q Why is that study relevant to the PGL rate case?**

384 **A** The *Illinois Decarbonization Study* recognizes key challenges that the State—as well as  
385 both electric and gas utilities—will need to grapple with to achieve a net-zero goal. One  
386 of those challenges is affordability. In all scenarios studied, there is reduced utilization of  
387 the State’s gas infrastructure and consequences for low- and moderate-income customers:

388       Given the relatively fixed nature of gas infrastructure costs, declining  
389       utilization leads to higher unit costs, particularly on a dollars per therm and, to  
390       a lesser extent, a dollars per customer basis. Those higher unit costs in turn

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<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> City Ex. 1.03 at 1.

391 translate to higher bills for gas customers over time, particularly in the High  
392 Electrification scenario due to its higher levels of gas customer departures.  
393 Those bill impacts are likely to be prohibitive for both low- and moderate-  
394 income customers, motivating the need for a more thorough investigation of  
395 the future of gas utilities in Illinois.<sup>56</sup>

396 A second challenge is understanding the interconnection between the gas and electric  
397 systems. The *Illinois Decarbonization Study* finds that “further work is needed to  
398 investigate how to best balance use of electric and gas infrastructure to meet customers  
399 energy needs cost-effectively and reliably”<sup>57</sup> and notes that a “gas transition study could  
400 also consider new business models for gas utilities such as networked geothermal, as well  
401 as explore opportunities to pursue targeted electrification to enable decommissioning of  
402 some gas infrastructure.”<sup>58</sup>

403 **V. OVERVIEW OF PGL’S RATE CASE**

404 **Q Please provide an overview of PGL’s proposed rate increase.**

405 **A** PGL is proposing a revenue increase of \$194.7 million. As illustrated by the chart taken  
406 from Mr. Eidukas’ testimony,<sup>59</sup> a significant amount of the increase, \$128.2 million, is  
407 attributed to capital investments: investment in distribution system; new service and  
408 training facilities; and upgrades to systems supporting PGL customer communications,  
409 customer service, and billing and payment functions.<sup>60</sup>

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<sup>56</sup> *Id.* at 49.

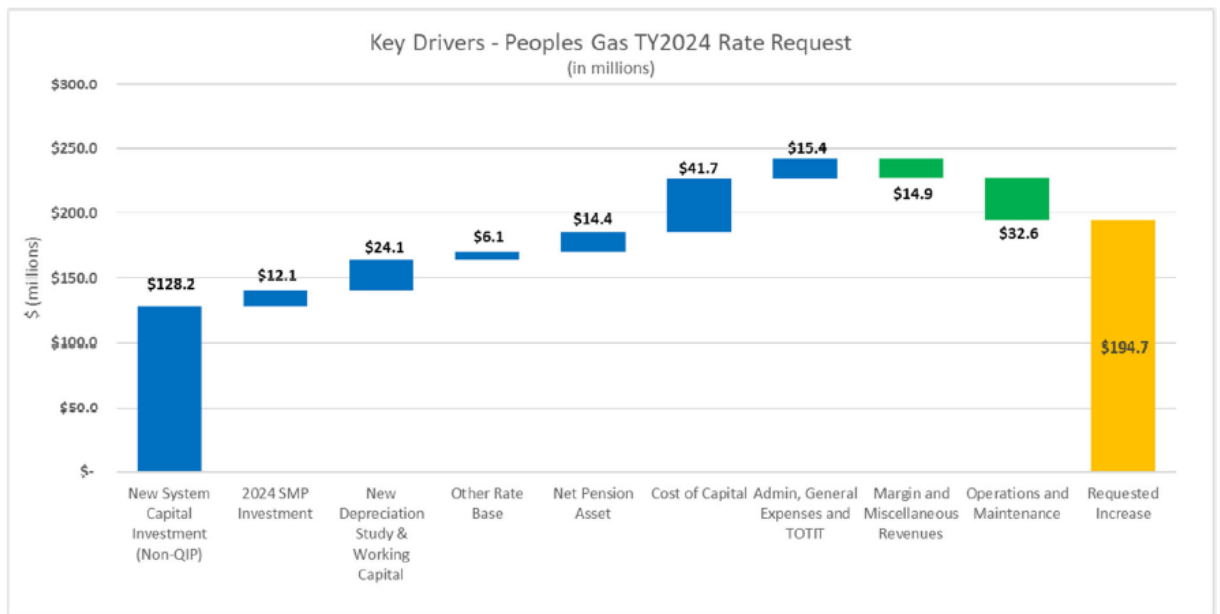
<sup>57</sup> *Id.* at 48.

<sup>58</sup> *Id.* at 49.

<sup>59</sup> Eidukas revised direct testimony, PGL Ex 1.0 REV at 12:255.

<sup>60</sup> *Id.* at 13:258-263.

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PGL’s average rate base increased by \$3.1 billion<sup>61</sup> from 2015 to a proposed \$4.782 billion in 2024.<sup>62</sup> This is significant because the return of and return on these investments, contribute to the revenue deficiency, in the form of increased depreciation expenses and return requirement.

PGL is proposing to move into rate base the Qualified Infrastructure Plant (“QIP”) Rider of approximately \$1.857 billion.<sup>63</sup> Notably, the impact of QIP Rider balances on the 2024 revenue requirement is not included in the chart identifying the key drivers of the 2024 rate request. However, PGL states that, “a significant portion of Peoples Gas’s overall revenue deficiency is driven by moving Rider QIP costs out of the rider and into rate

<sup>61</sup> Zgonc revised direct testimony, PGL Ex 2.0 REV at 39:861.

<sup>62</sup> *Id.* at 38:850.

<sup>63</sup> Eidukas revised direct testimony, PGL Ex 1.0 REV at 11:234.



421 base.”<sup>64</sup> Further, PGL notes that customers will not see an incremental bill increase, as  
422 they are already seeing these amounts in the bill through the rider.<sup>65</sup>

423 **Q Please describe the Safety Modernization Program (“SMP”).**

424 **A** PGL describes the SMP as “work necessary to fully modernize Chicago’s natural gas  
425 distribution system.”<sup>66</sup> These are divided into four categories of work: (1) the  
426 Neighborhood Replacement Program, (2) Public Improvement/System Improvement  
427 Program (“PI/SI”), (3) the High Pressure Installation Program, and (4) the Transmission  
428 Upgrades Program.<sup>67</sup>

429 **Q Please further explain each of these programs.**

430 **A** The neighborhood replacement program uses a risk-ranking approach on a neighborhood-  
431 by-neighborhood basis, to retire and replace leak-prone natural gas facilities, as identified  
432 by the Pipeline Hazardous Materials and Safety Administration (“PHMSA”) and the  
433 Commission. The program also includes activities such as moving meters outside of  
434 customers’ houses or businesses and upgrading the distribution system to medium  
435 pressure. The PI/SI program replaces at-risk mains in the system, typically in  
436 coordination with third parties either working in the streets or with customers that require  
437 upgrades. It also addresses most Class 1 or Class 2 leaks.<sup>68</sup> The High Pressure Installation

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<sup>64</sup> Eldringhoff revised direct testimony, PGL Ex 3.0 REV at 51:1036-1037.

<sup>65</sup> *Id.* at 51:1038-1039.

<sup>66</sup> Final Order, ICC Docket No. 16-0376 (Jan. 10, 2018) at 8.

<sup>67</sup> *Id.*

<sup>68</sup> PGL adheres to PHMSA’s definitions of Class 1 and Class 2 leaks. Final Order, ICC Docket No. 16-0376 (Jan. 10, 2018) at 9. Class 1 leaks are hazardous and must be repaired immediately, and Class 2 leaks are potentially hazardous and should be repaired within one year. PHMSA, Interpretation Response #PI-78-017, <https://www.phmsa.dot.gov/regulations/title49/interp/PI-78->



455 **Q What is PGL’s rationale for continuing investments in SMP?**

456 **A** PGL seeks to continue with the SMP investments to improve reliability and safety. PGL  
457 references an ICC-ordered independent study by Kiefner Engineering to argue that “this  
458 work is improving public and customer reliability and safety and should be accelerated as  
459 more than 80% of the remaining cast and ductile iron pipes in Peoples Gas’s system have  
460 a remaining life of less than 15 years.”<sup>73</sup>

461 **Q If the SMP spending continues as planned, what would be the impact on future**  
462 **ratepayers?**

463 **A** Continuing with the planned gas infrastructure investments will affect ratepayers for  
464 years, until well after the target year for achieving net-zero emissions. If left unaddressed,  
465 ratepayers will pay billions of dollars in return on and return of investment for gas  
466 infrastructure that PGL proposes to install at present. This has significant ramifications to  
467 ensuring just and reasonable rates and efficient utility services.

468 **Q How has PGL responded to the State and City’s goal of decarbonization?**

469 **A** PGL states that it “supports the goal of decarbonization” and notes that “while there are  
470 numerous policy challenges associated with the planning, design, engineering,  
471 implementation, and economics of decarbonization in Chicago, having a modern pipe  
472 distribution infrastructure system in place is important both to reduce methane emissions  
473 from leaking vintage pipe while ensuring Chicagoans are safely and reliably able to heat  
474 their homes today, as well as to preserve the ability to take advantage of low- or zero-  
475 carbon fuels in the future such as renewable natural gas or hydrogen.”<sup>74</sup>

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<sup>73</sup> Eidukas revised direct testimony, PGL Ex. 1.0 REV at 9:177-180.

<sup>74</sup> Company response to COC 4.34 at 2, attached as City Ex. 1.04.

476 **Q PGL mentions “the ability to take advantage of” low-carbon fuels such as renewable**  
477 **natural gas or hydrogen. Do you have any concerns regarding that strategy?**

478 **A** The role of natural gas delivery systems for low-carbon fuels is uncertain. There are  
479 many remaining questions about low-carbon fuels, including availability and  
480 environmental impact. One of the key takeaways of the E3 *Illinois Decarbonization*  
481 *Study* is that renewable fuels will have a “limited, but complementary, role alongside  
482 electrification” in Illinois.<sup>75</sup> A singular focus on low-carbon fuels therefore ignores the  
483 role of electrification, which has already been identified as a key strategy to achieving  
484 decarbonization objectives at the national, state, and local levels.

485 **Q Has PGL conducted any analysis of how low-carbon fuels will operate on its system?**

486 **A** When asked whether any of the plant that has been or is planned to be replaced or  
487 modified by the Company’s SMP will need to be further replaced or modified to allow  
488 the Company to deliver “renewable natural gas, hydrogen, synthetic natural gas and other  
489 low-carbon fuels,” the Company stated that it “believes that the improved infrastructure  
490 can be used with renewable natural gas and synthetic natural gas.”<sup>76</sup> However, the  
491 Company has not conducted a study on hydrogen’s use in the new SMP facilities being  
492 deployed.<sup>77</sup>

493 **Q Has PGL conducted any analysis on the costs associated with low-carbon fuels?**

494 **A** When asked whether the Company has included, or is planning to include in the future,  
495 the cost of any renewable natural gas fuel or connection costs, any costs for hydrogen

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<sup>75</sup> City Ex. 1.03 at 47.

<sup>76</sup> Company response to COC 4.36, attached as City Ex. 1.05.

<sup>77</sup> *Id.*

496 blending, or any other costs associated with reducing the GHG emissions associated with  
497 the fuel it sells to its customers, the Company stated that it “has not conducted such a  
498 calculation.” The Company merely noted that the interconnection costs are the  
499 responsibility of the renewable natural gas producer and explained that the proposed  
500 renewable natural gas tariff contemplates the sale of the renewable natural gas output to a  
501 wholesale entity, rather than a customer or utility.<sup>78</sup>

502 **Q Has PGL taken any measures to reduce GHG emissions pursuant to the City’s**  
503 **Climate Action Plan?**

504 **A** The Company highlights its efforts to implement its SMP Program and energy efficiency  
505 program.<sup>79</sup> However, the Company has conducted no analysis of the total contribution  
506 PGL expects to make to achieve the *Climate Action Plan’s* 2040 GHG reduction target.<sup>80</sup>  
507 It also has conducted no analysis of how implementation of the *Climate Action Plan*  
508 could impact PGL customer count, usage volume, and the required capacity and  
509 maintenance of PGL’s gas distribution system.<sup>81</sup>

510 **Q When asked to provide a forecast of its annual operational emissions (including**  
511 **methane and other emissions) for 2023 and each of the five years following 2023,**  
512 **how did the Company respond?**

513 **A** The Company objected to this request and declined to answer.<sup>82</sup>

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<sup>78</sup> Company response to PIO 5.36, attached as City Ex. 1.06.

<sup>79</sup> Company response to CUB 2.16, attached as City Ex. 1.07.

<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

<sup>82</sup> Company response to PIO 1.13, attached as City Ex. 1.08.

514 **Q Did PGL conduct any studies or other activities regarding non-pipeline**  
515 **alternatives?**

516 **A** No, the Company states it “has not conducted any studies or other activities regarding the  
517 identification of ‘non-pipeline solutions/alternatives,’ to the extent the Company  
518 understands the meaning of that term.”<sup>83</sup>

519 **Q What conclusions can you draw from PGL’s efforts to address “future of gas” in**  
520 **this case?**

521 **A** From the responses to data requests, PGL’s efforts to address “future of gas” appear to be  
522 limited to consideration of potential “supply-side” actions. It seems that the Company is  
523 in the very early stages of assessment and has not conducted the analysis needed to  
524 determine the operational and financial feasibility of these strategies. In addition, PGL’s  
525 efforts to address the “future of gas” will be hindered by the fact that it has not conducted  
526 assessments of available alternatives to pipe replacement, such as strategic electrification.

527 **VI. RISKS OF FAILING TO ADDRESS THE “FUTURE OF GAS”**

528 **Q What are the risks for PGL in a period of energy transition and policy supporting**  
529 **building decarbonization?**

530 **A** The policy and market context for natural gas distribution is changing. Throughput will  
531 likely be lower, and the distribution of pipeline gas use among different types of  
532 customers is likely to change. With lower throughput, per-unit costs for gas delivery will  
533 increase, exacerbating rate increases from infrastructure investment. Customers can and

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<sup>83</sup> Company response to COC 4.27 Supp., attached as City Ex. 1.09.

534 will respond to the federal incentives for electrification and increases in gas rates by  
535 further reducing gas demand.

536 PGL is setting out on a course that involves continuing large and unjustified  
537 investments, without a thorough consideration of alternatives. The Company is setting  
538 ratepayers up to pay for those investments over an accelerated timeframe resulting in  
539 even higher rates. By taking this course in a policy and market context where  
540 electrification is accelerating and being driven by public policy, PGL is increasing the  
541 risk of uncontrolled or rapid customer departures, thereby increasing its own stranded  
542 cost risk and risk of cost disallowance.

543 **Q What are the implications for the City and its residents?**

544 In a scenario where customers shift away from natural gas to electricity, encouraged by  
545 policies supporting full electrification, there will be fewer customers to support expenses  
546 associated with the return of and return on capital. If the risk of stranded assets increases  
547 and PGL responds by changing depreciation policy and implementing accelerated  
548 depreciation methods, a higher amount of deprecation will be incurred in earlier years.  
549 This will put further upward pressure on rates and raise serious affordability concerns.

550 **Q In addition to increases in rates and affordability concerns, have you identified**  
551 **additional risks that are relevant here?**

552 **A** Yes, PGL's failure to provide a complete emissions analysis makes it difficult to  
553 determine whether it is on track to achieve Illinois' and the City's decarbonization goals.  
554 To meet its GHG emission reduction goals, the City needs information on  
555 decarbonization actions, projected GHG emission reductions, and the feasibility of these  
556 actions.

557 **Q What does this mean for the City’s ability to achieve the goals articulated in its**  
558 ***Climate Action Plan*?**

559 **A** Without a complete assessment of emissions associated with PGL’s operations and a  
560 realistic vision for how PGL will contribute to a net-zero economy, PGL will move  
561 further out of alignment with the City’s objectives set forth in the *Climate Action Plan*.

562 **Q Do you have any final observations on this topic?**

563 **A** Yes, I have observed two competing visions for the future of energy in Chicago. On the  
564 one hand, the E3 *Illinois Decarbonization Study* calls for a gas transition study to analyze  
565 “decommissioning” some gas infrastructure.<sup>84</sup> On the other hand, PGL is asserting that its  
566 existing pipeline network is “irreplaceable.”<sup>85</sup> The Commission needs to set forth a  
567 process to resolve this disconnect.

## 568 **VII. RECOMMENDATIONS**

569 **Q Please provide an overview of your recommendations to address the deficiencies you**  
570 **have identified.**

571 **A** I first recommend that the Commission direct PGL to provide an emissions analysis.  
572 Second, I recommend that the Commission direct PGL to conduct a Non-Pipeline  
573 Alternatives (“NPA”) assessment. Both the emissions analysis and NPA assessment  
574 should be provided in PGL’s next rate case or no later than two years from the  
575 Commission’s order in this rate case, whichever comes first. Third, I recommend that the  
576 Commission direct PGL to conduct a Joint Feasibility Assessment of a portion of its  
577 service territory, working with interested and affected stakeholders (including the City) to

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<sup>84</sup> City Ex. 1.03 at 49.

<sup>85</sup> Company response to COC 4.35, attached as City Ex. 1.10.



578 assess the potential for strategic electrification and retirement of leak-prone pipe. The  
579 assessment process should begin no later than 60 days after the Commission issues its  
580 order in this rate case.

581 **Q Let's discuss each of these recommendations in turn. Please explain the scope of the**  
582 **emissions analysis you recommend.**

583 **A** The emissions analysis should include the Company's entire GHG inventory, including  
584 scope 1, 2, and 3 emissions, as well as a baseline emissions analysis and a description of  
585 how the baseline was developed. The analysis should also include an assessment of the  
586 impact that new investments in the gas system will have on the Company's total GHG  
587 emissions. The Commission should direct that the analysis also be verified by a third-  
588 party independent consultant.

589 **Q Please explain why it is appropriate for PGL to conduct an emissions analysis.**

590 **A** In order to assess whether utility proposals are consistent with GHG emission reduction  
591 objectives, the Commission needs a comprehensive current baseline of emissions in each  
592 regulated utility service territory. Once a baseline is established, the Commission then  
593 needs information to assess actual progress being made towards GHG emissions  
594 reductions on an annual basis. This analysis is critical for future planning and decision-  
595 making by the Commission and stakeholders, including regarding whether and how  
596 PGL's continued investment in new gas infrastructure (including billions of dollars  
597 associated with SMP) are aligned with the State and the City's climate and energy  
598 objectives.

599 **Q Have other gas utilities committed to provide such an emissions analysis?**

600 **A** Yes, I am aware that National Grid committed to providing the following information in  
601 its next rate case before the New York PSC:

602 Unless required to do so earlier by the Commission, in their next rate filings, the  
603 Companies will provide the following information:

604 (a) A 1990 GHG emissions baseline (including Scope 1, 2 and 3 emissions) for  
605 its gas network and a description of the methodology used to calculate or  
606 otherwise develop the baseline;

607 (b) A calculation of annual GHG emissions for each Company at the time of filing  
608 – a current GHG emissions baseline (including Scope 1, 2 and 3 emissions) – and  
609 a description of the methodology used to calculate the emissions;

610 (c) An assessment of the impact that investments, programs, and initiatives  
611 described in the rate case filings will have on the Companies' GHG emissions  
612 from their gas networks, including a breakdown of the emissions impact of  
613 specific programs and investments proposed in the rate filing; and

614 (d) An analysis of [Non-Pipeline Alternatives "NPAs"] considered for each  
615 investment, program, or initiative, including an explanation if an NPA option was  
616 not selected.<sup>86</sup>

617 **Q Please explain your recommendation that PGL be directed to conduct an NPA  
618 assessment.**

619 **A** Non-Pipeline Alternatives generally refer to any "targeted investment or activity that is  
620 intended to defer, reduce, or remove the need to construct or upgrade components of a  
621 natural gas system or 'pipeline investment.'"<sup>87</sup> Because of the potential for NPAs to  
622 greatly reduce costs and avoid costly infrastructure upgrades, they are an important tool  
623 for gas utilities to deploy. Other state commissions have recognized that NPAs should be

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<sup>86</sup> Order Adopting Terms of Joint Proposal, Establishing Rate Plans and Reporting Requirements, Case Nos. 20-E-0380, 20-G-0381, 19-M-0133 (Jan. 20, 2022) at 120-121 (18.1.6).

<sup>87</sup> National Grid, *What is an NPA?*, <https://www.nationalgridus.com/Business-Partners/Non-Pipeline-Alternatives/What-is-an-NPA> (last visited May 7, 2023).

624 “explored as a universal practice as an alternative to traditional investments.”<sup>88</sup> PGL  
625 should be directed to conduct an NPA assessment for all of its major capital projects as  
626 defined in Title 83 Section 285.6100 of the Illinois Administrative Code. In the event  
627 PGL does not pursue the NPA in place of the major capital project, it should also include  
628 an explanation of why it did not select the NPA.

629 **Q Please further explain your recommendation that PGL pilot a “Joint Feasibility**  
630 **Assessment.”**

631 **A** As I have detailed in my testimony, electrification initiatives at the federal, state, and city  
632 levels are driving change. These developments must be considered as PGL’s continues to  
633 invest in its gas network generally and main replacement specifically. The competing  
634 visions of the future energy system set forth in the E3 *Illinois Decarbonization Study* and  
635 the data responses PGL has provided in this proceeding further underscore the  
636 importance of this effort.

637 **Q What would the pilot Joint Feasibility Assessment address?**

638 **A** I suggest that the Joint Feasibility Assessment first select a geography served by both  
639 PGL and ComEd. Given the State’s emphasis on equity, this geography could be an  
640 Equity Investment Eligible Community as that term is used in CEJA.<sup>89</sup> Within that  
641 defined geography, the plan would analyze the opportunities to electrify and the potential  
642 for strategic retirement of leak-prone pipe. It would also consider the “low-hanging fruit”

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<sup>88</sup> Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plan, Case Nos. 17-E-0459, 17-G-0460 (June 14, 2018) at 75.

<sup>89</sup> Public Act 102-0662 § 5-5; *see* Energy Equity for Illinois, Equity Investment Eligible Community Map, <https://energyequity.illinois.gov/resources/equity-investment-eligible-community-map.html> (last visited May 7, 2023).

643 opportunities for electrification, as well as identify buildings and industrial applications  
644 that might be more difficult to electrify.

645 **Q Please explain why you are suggesting that this assessment be “joint.”**

646 **A** The Joint Feasibility Assessment must be developed with meaningful input and  
647 engagement from all stakeholders, including the City and interested community  
648 members and organizations. The engagement should begin early, starting with the  
649 various site selections.

650 **Q Why is it appropriate for the City and other stakeholders to be included?**

651 **A** The decision to transition the gas system to an alternative energy approach, such as  
652 electrification, requires an assessment of a multitude of issues. These include costs,  
653 customer acceptance, affordability, GHG emissions reductions, site feasibility, and gas  
654 infrastructure topology, among others. Such assessments would benefit from stakeholder  
655 input and joint decision-making.

656 **Q Do you suggest that the Commission structure this assessment as a pilot?**

657 **A** Yes. Testing this concept as a pilot allows for the appropriate balance between innovation  
658 and accountability. It also allows for interested stakeholders to have a voice in the design  
659 of the project’s scope, including metrics to measure its success. If the Joint Feasibility  
660 Assessment proves successful, it could be scaled to other parts of PGL’s service territory.  
661 Exploring this idea as a pilot also allows the Commission to test the program’s impact on  
662 advancing equity and reducing GHG emissions.

663 **Q Have other jurisdictions explored this idea?**

664 **A** Yes, as I noted above, Central Hudson Gas & Electric Corporation has proposed  
665 transportation mode alternatives projects that are designed for strategic abandonment of

666 leak-prone pipe through electrification where it is more cost-effective than replacement  
667 and system reliability is not negatively impacted.<sup>90</sup> The New York PSC’s Order Adopting  
668 a Gas System Planning Process requires this type of planning for all gas utilities in New  
669 York, noting the benefits:

670 The Commission agrees with Staff’s proposal and requires that [Local  
671 Distribution Companies (“LDCs”)] identify, in the annual reports required  
672 by this Order, the locations of specific segments of [leak prone pipe  
673 (“LPP”)] that could be abandoned in favor of NPAs and where  
674 infrastructure projects may be needed in the near future to maintain  
675 reliability. The Commission encourages LDCs to take a “neighborhood  
676 approach” and work with local groups and State agencies on a  
677 comprehensive program that simultaneously removes leaking or leak-prone  
678 infrastructure and employs programs such as weatherization and demand  
679 response along with electrification. We further encourage the LDCs to  
680 combine this effort with special programs for LMI customers or  
681 disadvantaged communities. We agree that LDCs should be strategic when  
682 planning the removal of LPP and plan in a cost-effective manner that  
683 reduces unnecessary investments.<sup>91</sup>

684 **Q Please explain the benefits of a Joint Feasibility Assessment.**

685 A A Joint Feasibility Assessment is a logical first step in addressing the most plausible  
686 electrification scenarios. By working together with interested and affected stakeholders,  
687 the assessment could allow for joint problem-solving to promote the most efficient  
688 investments in the system, while at the same time ensuring reliability, affordability, and  
689 GHG reductions.

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<sup>90</sup> Non-Pipeline Alternatives Annual Report, NY PSC Docket No. 17-G-0460 (Dec. 1, 2022),  
<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7bF7B5D1BA-9DCA-4004-AE02-E3F777CEF76C%7d>.

<sup>91</sup> Order Adopting Gas System Planning Process, NY PSC Docket No. 20-G-0131, 39 (May 12, 2022).

690 **Q Are these the only steps that PGL can take to address the energy transition and best**  
691 **serve the City and PGL customers?**

692 **A** No. This is not an exhaustive list, and there are a host of other issues PGL could  
693 undertake. My recommendations are merely a starting place for how PGL should start to  
694 address a decarbonized future. The Commission to direct PGL, at a minimum, to  
695 undertake three foundational steps: (1) a GHG emissions analysis; (2) an NPA  
696 assessment; and (3) inclusive and concrete planning to address the decarbonized future  
697 and the electrification initiatives at the federal, state, and city levels that are driving  
698 change. PGL acknowledges that planning for and implementing a decarbonized future is  
699 an enormous task, and it should be directed to seriously begin that task now as part of this  
700 rate case and for the future.

701 **Q Does this conclude your testimony?**

702 **A** Yes.