

**GOVERNMENT OF THE DISTRICT OF COLUMBIA
OFFICE OF THE ATTORNEY GENERAL**

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**Public Advocacy Division
Housing and Environmental Justice Section**

PUBLIC VERSION

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October 14, 2025

Ms. Brinda Westbrook-Sedgwick
Secretary of the Public Service Commission
of the District of Columbia
1325 G Street, N.W., Suite # 800
Washington, DC 20005

**Re: Formal Case No. 1179 – In the Matter of the Investigation into Washington Gas
Light Company’s Strategically Targeted Pipe Replacement Program.**

Dear Ms. Westbrook-Sedgwick:

Enclosed, please find a public version of the Rejoinder Testimony of District of Columbia Government Witness Dr. Asa S. Hopkins in the above-captioned proceeding. A confidential version of Dr. Hopkins’ testimony is being filed under separate cover. If you have any questions regarding this filing, please contact the undersigned.

Sincerely,

BRIAN L. SCHWALB
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**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE DISTRICT OF COLUMBIA**

Formal Case No. 1179

IN THE MATTER OF THE INVESTIGATION INTO WASHINGTON
GAS LIGHT COMPANY'S STRATEGICALLY TARGETED PIPE
REPLACEMENT PROGRAM

Rejoinder Testimony of Dr. Asa S. Hopkins

On Behalf of the District of Columbia Government
Exhibit DCG (2A)

October 14, 2025

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q1 Please state your name, business address, and position.**

3 **A1**My name is Asa S. Hopkins. My business address is 485 Massachusetts Ave.,
4 Suite 3, Cambridge, Massachusetts 02139. I am the Senior Vice President,
5 Consulting, at Synapse Energy Economics, Inc (Synapse).

6 **Q2 Are you the same Dr. Hopkins who submitted Direct Testimony on behalf of**
7 **the District of Columbia Government (DCG) on December 10, 2024, and an**
8 **affidavit on August 11, 2025?**

9 **A2**Yes.

10 **Q3 What is the purpose of your testimony?**

11 **A3**The purpose of my testimony is to respond to the testimony of WGL Witness
12 Murphy filed on September 24, 2025 (Exhibit WG (3I)).

13 **Q4 How is your testimony organized?**

14 **A4**After this introduction, my testimony continues in Section 2 with a summary of
15 my conclusions and recommendations. Section 3 describes my review of WGL's
16 geospatial data. The following five sections address areas where WGL Witness
17 Murphy responded to my affidavit: project costs (4), project selection (5), work
18 compelled by others (6), scattered services (7), and dead-end segments (8).
19 Section 9 addresses updated conclusions and Section 10 contains updated
20 recommendations, including for next steps the Commission should take.

21 **Q5 Are there any exhibits attached to your testimony?**

22 **A5**Yes. Exhibit CONFIDENTIAL DCG (2A)-1 contains the data supporting a
23 calculation I conducted for my testimony.

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

2 **Q6 What conclusions do you draw in this testimony?**

3 **A6** The conclusions from my Direct testimony have not changed. But, in addition, I
4 also conclude that:

- 5 • WGL has not demonstrated that it selects pipe replacement projects in a
6 manner that optimizes risk-reduction per dollar spent.
- 7 • WGL has not thought through how the different components of its
8 approach to leak-prone pipe relate to each other over the course of decades
9 to work as a coherent plan.
- 10 • If WGL were conducting prudent long-term planning for its program to
11 address the risk of aging assets, it would be capable of going beyond the
12 self-imposed limits of the District SAFE proposal.
- 13 • There are numerous locations on WGL’s system where non-pipeline
14 alternatives could be pursued in a manner that would lower both cost and
15 risk compared with WGL’s replacement-only approach, while also being
16 consistent with District policy and WGL’s long-term sustainability.

17 **Q7 How do these findings relate to the requirements the Commission set for**
18 **WGL’s plan in Order 22003?**

19 **A7** These findings provide further confirmation that:

- 20 • WGL has not proposed a fundamentally different approach to addressing
21 the risk from leaks on its system, thereby disregarding the Commission’s
22 instruction to “change [the] focus [to] contract the scope of the work that
23 is necessary in addressing the District’s aging infrastructure with the

1 highest risk to help maintain the safety and reliability of the gas
2 distribution system.”¹

- 3 • A “new normal” approach based on “electrification and targeted
4 replacement as opposed to the complete replacement of over 400 miles of
5 aging, high risk pipelines”² is possible to implement, despite WGL’s
6 failure to propose a plan that addresses this “new normal.” The required
7 targeting could be achieved using the risk and cost estimates developed by
8 WGL (especially if the techniques behind that modeling and subsequent
9 project design and selection were transparent).
- 10 • WGL’s current actions do not, when implemented, optimize for risk cost-
11 effectiveness. WGL has not followed the Commission’s instruction to
12 “demonstrate greater cost effectiveness.”³

13 **Q8 What are your recommendations to the PSC based on these conclusions?**

14 **A8** I continue to support the recommendations from my Direct testimony. In addition,
15 I recommend that:

- 16 • The Commission should not grant WGL accelerated cost recovery before
17 it demonstrates that its processes actually optimize for risk-reduction per
18 dollar spent (including the use of all options, not just removal and
19 replacement). When WGL files rate cases it can include its recent
20 investments in the proposed new plant in service and the Commission can
21 fully evaluate the prudence of those investments.
- 22 • The Commission should oversee the development of a robust and
23 comprehensive planning process, as currently being contemplated in
24 Formal Case No. 1167. WGL should engage in good faith in that

¹ Formal Case No. 1179, *In the Matter of the Investigation into Washington Gas Light Company’s Strategically Targeted Pipe Replacement Program*, Order 22003, at para. 49, (rel. June 12, 2024).

²*Id.*

³*Id.*, at para. 50.

proceeding and develop planning tools, methods, and approaches aligned with the outcomes of that process. These tools, methods, and approaches should be transparent to the Commission, DCG, and other stakeholders and enable validation and verification.

- The Commission should establish clear expectations for WGL to provide information on its project selection process, including walking through its project selection process in detail at Commission-convened technical conferences. WGL should detail its steps from system-wide risk and cost-effectiveness ranking through final project selection, using specific examples and annual plans as illustration. In addition, in rate cases or any subsequent filing for accelerated cost recovery, the Commission should require WGL to provide project-level detail on all projects considered, whether they proceeded/were selected or not, and demonstrate alignment with the selection process.

III. REVIEW OF WGL GEOSPATIAL DATA

Q9 What was the purpose of your review of WGL's geospatial data?

A9 Through the discovery process, DCG requested access to the JANA risk information in geospatial form.⁴ After many months of delays while WGL and the District worked out how to allow my team access to this information, we were able to access the data on a WGL laptop under supervision by and assistance from a WGL employee. To the JANA risk scores WGL provided for each asset, we were able to add information about WGL's project list from Formal Case No. 1154 (FC 1154) and asset-level estimates of the cost to replace assets and the risk reduction that would come with such replacement. With this combined dataset in hand, the purpose of my analysis was to evaluate whether WGL's actions with respect to project selection in PROJECTpipes aligned with its proposed

⁴ DCG DR 2-1(A) to WGL (November 1, 2024).

1 methodology for project selection in the proposed District SAFE program. I also
2 had the objective of evaluating other statements from WGL regarding the
3 practicality of non-pipeline alternatives. These evaluations are important inputs to
4 the Commission's consideration of whether to approve the District SAFE
5 proposal before it in this docket, to modify the proposal, or to reject it.

6 **Q10 Why are the evaluations you conducted important for the Commission's**
7 **decision in this case?**

8 **A10** WGL claims that it conducted project selection for the extension of
9 PROJECTpipes 2 through 2025 by using the same methods that it is proposing to
10 use in District SAFE. These methods are primarily based on selecting projects
11 that offer the greatest reduction in risk, as estimated by JANA Lighthouse
12 software, per dollarspent. WGL also appears to use additional processes to screen,
13 combine, or otherwise change projects after initial ranking. By evaluating WGL's
14 real-world project selection in PROJECTpipes, therefore, I could inform the
15 Commission regarding WGL's actions and processes that would be applied under
16 District SAFE.

17 With regard to evaluating other WGL claims in this docket regarding non-pipeline
18 alternatives, my analysis informs the Commission regarding the practicality of
19 requiring WGL to conduct non-pipeline alternative analysis and work with other
20 organizations to pursue alternatives to pipeline replacement. I also demonstrated it
21 is possible and reasonable to identify services that may be targeted for
22 replacement more than 2 years in advance, thereby demonstrating that WGL has
23 the data required to conduct longer-term planning than it has stated is possible.

24 **Q11 In what form were you able to examine WGL's geospatial data?**

25 **A11** A WGL employee came to Synapse's offices in Cambridge, Massachusetts on
26 July 23 and 24, 2025, to meet with me and my colleague Ellen Carlson, an
27 experienced GIS user. He showed us WGL's GIS implementation, including its
28 slow speed and limitations. He then showed us how data can be exported from

1 that system and imported into ArcGIS Pro. We identified the data fields from
2 WGL's GIS system that we needed to examine and provided him with data about
3 risk and asset-level cost from WGL's discovery responses, and he generated a
4 combined ArcGIS file we could use. After agreements between counsel clarified
5 that we needed to be able to work with the data ourselves (instead of providing
6 step-by-step instructions for WGL's employee to input into the laptop), we were
7 able to work directly with the data on WGL's laptop for a limited period of time.
8 The fields in the dataset were the location and extent of each main and service
9 line in the District of Columbia, along with asset-level data: material, age, size,
10 JANA-based risk, estimated cost to replace, and the identifiers FID and Business
11 Case Authorization (BCA) ID (for BCAs that WGL had mapped to assets in
12 discovery responses).

13 **Q12 Was it important and meaningful for you to be able to examine WGL's GIS**
14 **data?**

15 **A12** Yes. Without geospatial information it would have been impossible to evaluate
16 whether WGL was effectively using risk scores, along with costs, to target
17 clusters of assets. It took more than 8 months from when DCG submitted DCG 2-
18 1 requesting access to this data until we were able to actually access this data,
19 which resulted in a noticeable delay and extension of the process in this case. It is
20 possible, even likely, that if other parties had also been able to access this data,
21 and if I had been able to work with it for more than a limited period, additional
22 valuable evidence would have been developed that would have helped the
23 Commission understand and consider WGL's District SAFE proposal. I urge the
24 Commission to develop a rational process that allows parties to examine and
25 understand WGL's system within the normal bounds of evidentiary review,
26 without extended delays and limited time periods.

1 **IV. PROJECT COSTS**

2 **Q13 Were you able to identify potential locations for pipeline replacement that**
3 **would have been more cost-effective than the set of projects that WGL**
4 **proposed?**

5 **A13 Yes.** Witness Murphy’s description of my process is generally correct: I looked
6 for clusters of assets that would be relatively cost-effective to replace, based on
7 the data available to me. As described in my affidavit, I identified several clusters
8 with high risk-reduction per dollar. None of the assets in these locations had BCA
9 IDs, indicating none had been identified by WGL as potential projects for the
10 PROJECTpipes 2 program.

11 **Q14 What critique does WGL Witness Murphy level regarding your cost-**
12 **effectiveness analysis?**

13 **A14 Witness Murphy critiques my evaluation of the cost-effectiveness of the locations**
14 I identified because I did not conduct a Class 3 engineering cost estimate. Instead,
15 I relied on the cost estimates in the JANA data provided by WGL.

16 **Q15 Why did you not develop Class 3 cost estimates for these locations?**

17 **A15 I am not an engineer trained to develop Class 3 cost estimates. Even if I were,**
18 however, I do not have access to the information about WGL’s system required to
19 develop such estimates. Only WGL has this information and Witness Murphy’s
20 testimony does not identify specific factors that resulted in WGL not considering
21 the projects I identified. I found almost no evidence that these locations had been
22 considered by WGL, despite their cost-effectiveness.⁵ When DCG asked WGL,

⁵ One of the project locations I identified, which was a large project including both mains and service replacements with an estimated cost of about \$3.8 million and risk reduction of about \$180,000 (resulting in a risk cost-effectiveness of about 485), shares a street name with a project that WGL identified in its follow-up answers to DCG 2-1 (in Attachment 1). WGL’s project has a risk cost-effectiveness of greater than 2,700, yet is described as “not authorized” and was not on the list of the unselected projects from the top 75 by risk cost-effectiveness provided in Attachment 2 to the follow-up responses. I have no idea why such a highly cost-effective project was not authorized, and why WGL did not identify or analyze the larger area I found (if there is in fact overlap). With more access to WGL’s data and documentation of decisions, it would likely be possible to understand more.

1 through the discovery process, for information on the projects not selected for
2 inclusion in the project list, the information provided by WGL did not identify the
3 locations I found (aside from the potential example detailed in the footnote on the
4 previous sentence). Witness Murphy did not identify if or how WGL's Class 3
5 cost estimates may have caused the projects I identified to fall out of
6 consideration. While in theory DCG could use the discovery process to seek the
7 information required to conduct such an analysis, it is unlikely that WGL would
8 grant DCG access to the necessary information—at least not on a timescale that
9 would be practical for this kind of proceeding.

10 **Q16 Did WGL ask you for the information necessary to identify the potentially**
11 **more cost-effective locations you reference in your affidavit?**

12 **A16** No.

13 **Q17 Should it be the District's role in this proceeding to provide project lists or**
14 **demonstrate why particular projects should be selected?**

15 **A17** No. The burden should be on WGL to demonstrate how its process of project
16 selection in the District SAFE program will result in selection of the most cost-
17 effective projects -- particularly in the face of evidence that it failed at that goal
18 in developing its 2025 PROJECTpipes project list.

19 **Q18 How do WGL's cost estimates used for project selection compare to the cost**
20 **estimates developed using the JANA software?**

21 **A18** While there is considerable project-by-project scatter, on average WGL's cost
22 estimates presented with its FC1154 extension project list are about 3 percent
23 different from the JANA-based estimates for those same projects, when
24 considering projects that are primarily replacement (rather than abandonment)
25 projects. (See CONFIDENTIAL Exhibit DCG (2A)-1 for the data supporting this
26 calculation.) I therefore believe it is reasonable to use the JANA-based estimates
27 for the purpose of evaluating WGL's project selection process.

1 **V. PROJECT SELECTION**

2 **Q19 What critique does Witness Murphy make of your affidavit regarding**
3 **project selection?**

4 **A19** Witness Murphy states that I “wholly ignore” the “breadth and depth of the
5 integrated, sequential process to select, design, develop cost for, and finalize a
6 replacement project.”

7 **Q20 Does Witness Murphy describe the process of project selection?**

8 **A20** Yes. Witness Murphy implies that project selection is a complex process with
9 great breadth and depth requiring integration of a great deal of information. He
10 describes a process in which projects are first ranked based on cost-effectiveness
11 using the JANA-based risk scores and cost estimates. Promising projects from this
12 list are then subject to project design and a Class 3 cost estimate, before projects
13 are re-ranked and selected from the top down. As described, this is a
14 straightforward process.

15 **Q21 Does WGL always complete its “integrated, sequential process” prior to**
16 **selecting projects?**

17 **A21** No. WGL presented 21 projects for inclusion in the 2025 project list extension
18 without completing their Class 3 cost estimates, including 18 of 75 projects with
19 start dates in 2025. WGL proposed 12 projects with 2025 start dates with the note
20 “Project Scope and estimated units are not based upon a completed design,”
21 indicating that WGL selected these projects without even knowing their full
22 scope, much less completing the described process.

23 **Q22 Did you “wholly ignore” the “breadth and depth of [this] integrated,**
24 **sequential process”?**

25 **A22** No. As previously discussed, I did not develop project designs or Class 3 cost
26 estimates for the alternative projects I identified. I executed the best version of
27 this process that I was capable of with the data that WGL made available to me.

1 Based on Witness Murphy's description of the process, I believe my approach is
2 sufficient for identifying potential cost-effective replacement projects missed by
3 WGL's process.

4 **VI. WORK COMPELLED BY OTHERS**

5 **Q23** **Witness Murphy says you are either unaware of or overlooked Program 10**
6 **when considering WGL's project selection. Is this true?**

7 **A23** No, this is not true. I specifically excluded projects from my cost-effectiveness
8 analysis that were listed as part of Program 10. I included only projects which list
9 as their "project origination" that selection was "risk/leak based."

10 **Q24** **In your affidavit, you cited to the low cost-effectiveness of seven projects**
11 **selected by WGL. Which projects are these?**

12 **A24** These are projects with the BCAs 307146 (Program 4), 309617 (Program 4),
13 309624 (Program 4), 309629 (Program 2), 309634 (Program 4), 309640 (Program
14 4), and 309641 (Program 4).

15 **VII. SCATTERED SERVICES**

16 **Q25** **Please summarize the concern you raised in your affidavit regarding how**
17 **service replacement costs are recovered.**

18 **A25** In my affidavit, I pointed out that eight of the projects that ranked highly in terms
19 of risk cost-effectiveness, but that were not pursued under PROJECTpipes, were
20 service-only projects described in DCG Follow Up DR 2-1, Attachment 02 as
21 "Services are being replaced under individual work orders, not a BCA." I
22 interpreted this description to mean that these replacements were happening
23 outside of PROJECTpipes, because all projects in PROJECTpipes have BCAs.

1 **Q26 How did Witness Murphy clarify this statement?**

2 **A26** Witness Murphy states that “The work Witness Hopkins refers to has been
3 designed at an individual work order level, as opposed to a BCA level, and the
4 work was included on the updated project list as scattered service replacements
5 under Programs 1, 3, and 5.”⁶

6 **Q27 Does the witness’s clarification mitigate your concern?**

7 **A27** I am pleased to learn that these cost-effective projects are proceeding. I am
8 concerned, however, that this example illustrates how convoluted WGL’s process
9 is. All projects that WGL sought pre-approval for under the extension request in
10 FC1154 had BCA IDs. Witness Murphy claims that the services represented by
11 the highly cost-effective “bundles” listed in Attachment 2 are integrated in
12 WGL’s plans for the extension period as “scattered service replacements under
13 Programs 1, 3, and 5.” All projects in those programs have BCAs. This means the
14 projects listed in Attachment 2 are somehow both highly cost-effective standalone
15 projects not included in the project list, and also part of projects that are on the
16 project list but not identified as such. The work is not part of a BCA, yet also
17 included in a list of projects each of which has a BCA. WGL’s project ranking
18 lists are therefore either internally inconsistent, duplicative, or both.

19 **Q28 Does it concern you that WGL’s rankings are inconsistent or duplicative?**

20 **A28** It does. It is impossible for the DCG and the Commission to evaluate WGL’s
21 execution of its claimed prioritization if the data it provides are inconsistent.
22 Either WGL does not have a clear internal system for tracking and prioritizing
23 projects without mixing them up on its own lists, or it has failed to provide a clear
24 picture of its decision-making process to the Commission and parties in this
25 proceeding. The Commission should require WGL to increase transparency and
26 clarity of ranking and review, for itself and stakeholders. It should require clear

⁶ Exh WG (3I) at 9:13-16.

1 lists of all projects considered, identification of those projects selected, and
2 explanations as to why WGL rejected or deferred higher-ranked projects.

3 **Q29 What other concern does Witness Murphy express with respect to your**
4 **affidavit's statement about scattered services?**

5 **A29** Witness Murphy states that he does not have sufficient information to validate my
6 finding but proposes that I may have included services not eligible for defined
7 programs, the services may have been disqualified as ineligible based on records
8 research or site-specific assessment, or the services may be attached to eligible
9 main. He specifically discusses the third point.

10 **Q30 Do you agree that the services you identified may be attached to eligible**
11 **main?**

12 **A30** Yes. I specifically looked for services connected to cast-iron main that is
13 relatively cost-*ineffective* to replace. These are services that Witness Murphy
14 states WGL would not replace because they are connected to eligible main.

15 **Q31 Why did you look for these types of services?**

16 **A31** I looked for these types of services because they are likely to be good candidates
17 for a service-only project, due to the low cost-effectiveness of replacing the
18 associated main.

19 **Q32 Why does Witness Murphy say that WGL does not replace services on**
20 **eligible main?**

21 **A32** Witness Murphy states that such choices would "drive up overall construction
22 cost, increase required restoration, and subject customers to avoidable outages."
23 He states that by replacing services and mains together, WGL minimizes
24 disruptions.

1 **Q33 Is it reasonable for WGL to replace services on eligible main only in a project**
2 **where that main is also replaced?**

3 **A33** No, it is not. WGL's approach increases risk relative to an approach that focuses
4 on risk-reduction per dollar. I specifically sought services connected to cast iron
5 mains that have low risk-reduction per dollar. At the pace at which WGL is
6 replacing mains, if WGL prioritizes mains replacement on cost-effectiveness it
7 will be many decades before these mains rise to the top of the priority list.
8 Replacing these services now would disrupt these customers—and then their
9 children or grandchildren would be disrupted by the associated main replacement.
10 If all the building owners on that street or neighborhood electrify their energy
11 uses during the many decades before these mains would finally be addressed,
12 these mains may never be replaced. In the meantime, under WGL's approach,
13 District residents who live or work in the vicinity of these services would
14 continue to face the risk that these services present, with no assistance from
15 WGL. As WGL illustrates in Figures 18 and 19 of the District SAFE Plan,⁷ WGL
16 could be on track to retire or replace leak-prone services decades before it is done
17 with leak-prone mains. It would be impossible to achieve this outcome without
18 replacing services on leak-prone mains separately from the mains themselves.

19 **Q34 Does WGL's response on this issue concern you?**

20 **A34** Yes, it does. It illustrates that WGL has not thought through how the different
21 components of its approach to leak-prone pipe relate to each other over the course
22 of decades to work as a coherent plan.

⁷ Exh. WG(A)-1, at 40 - 41.

1 **Q35** Witness Murphy addresses the potential relationship between WGL’s
2 **proposed Choice Program and your proposed approach to identifying**
3 **scattered services to replace or electrify. How do you respond to his**
4 **characterization?**

5 **A35** Witness Murphy states that “Witness Hopkins’s proposal is consistent with the
6 Company’s Choice Program, but his approach looks further into the future to
7 target prospective customers for electrification. I see nothing new in Witness
8 Hopkins’s Affidavit on this issue. He has simply applied risk data to identify
9 specific customers to target for electrification.”⁸ Witness Murphy is overstepping
10 the limits on the Choice Program that were firmly established by his fellow
11 witnesses and WGL’s proposal. By looking out further than two years, I have
12 “simply” done what WGL Witness Rogers said goes “farther in advance than a
13 standard safety program would do” and “defies the boundaries of the existing
14 District SAFE Plan.”⁹ In short, my proposal is not “consistent with the
15 Company’s Choice Program” (per Witness Murphy’s claim) and I did offer
16 something new beyond what WGL has proposed. If WGL were conducting
17 prudent long-term planning for its program to address the risk of aging assets, it
18 would be capable of going beyond the self-imposed limits of the District SAFE
19 proposal.

20 **Q36** Is the information you gathered regarding scattered services consistent with
21 **your previous recommendations regarding the Customer Choice program?**

22 **A36** Yes. In my Direct Testimony, I suggested that a more effective program “which
23 identified which services were going to be replaced a number of years in advance,
24 and worked with other electrification programs, ... could have a greater impact on
25 stranded asset risk.”¹⁰ Using WGL’s geospatial data, I was able to identify a set of
26 services that could be good candidates for such early reach-out, and put them in
27 order based on when WGL is likely to seek to replace them. Using the data I
28 examined, it would also have been possible to identify services that are

⁸ Exh WG (3I) at page 12:13-17.

⁹ Exh. WG (2A), at page 47:16-22.

¹⁰ Exh. DCG (A) at page 9:22-24.

1 particularly expensive to replace, yet have substantial risk; these would be an
2 additional universe of services that could be prime targets to save money and
3 lower both safety and stranded asset risk through service-line non-pipeline
4 alternatives using electrification.

5 **VIII. DEAD-END SEGMENTS**

6 **Q37 What is Witness Murphy's testimony regarding the potential for non-**
7 **pipeline alternatives targeting one-way feeds or dead ends?**

8 **A37** Witness Murphy highlights WGL's authorization to continue service to customers
9 that desire continued service and states that WGL's proposed Choice Program
10 could provide a rationale for the Commission to approve abandonment of these
11 dead-end segments. He further states that I did not use Class 3 cost estimates and
12 made no reference to WGL's practice of including abandonment opportunities in
13 the project selection process.

14 **Q38 What was the purpose of your work identifying dead-end segments?**

15 **A38** The purpose of this analysis was to evaluate the veracity of Witness Jacas's
16 testimony that "there are relatively few locations on the Washington Gas system
17 in the District, and particularly those areas served by vintage materials, that would
18 meet the criteria required for Witness Lyman's scenario to be applicable (i.e.,
19 isolated pipe segments, radial lines, and dead-ends that are not interconnected and
20 would not impact flow)."¹¹ I looked for locations that would meet this criteria for
21 Witness Lyman's scenario to be applicable as defined by Witness Jacas. I found
22 314 such locations. As I explained in my affidavit,¹² if activities to encourage
23 electrification were undertaken in these locations at a cost of less than an average

¹¹ Exh. WG (2C), at 62:18-63:7.

¹² Affidavit of Dr. Asa S. Hopkins, at para 23 (filed Aug. 11, 2025).

1 of \$90,740 per service (using WGL's asset-based replacement cost estimates),
2 District residents would be financially better off.¹³

3 **Q39 Do you propose that WGL disconnect customers on dead-ends without their**
4 **permission?**

5 **A39** No. However, the potential savings from avoiding these pipe replacements could
6 justify a substantial incentive that would be likely to encourage a substantial
7 number of these customers to voluntarily electrify their buildings.

8 **Q40 Would a non-pipeline alternatives program addressing these assets address**
9 **the same segments of pipe that WGL's proposed District SAFE program**
10 **would replace?**

11 **A40** This is unlikely, especially if a non-pipeline alternatives program focused on
12 segments that are particularly non-cost-effective to replace. Of the 314 dead ends
13 I found on WGL's system, 214 have risk reduction per \$10,000 below 400, and
14 are thus unlikely to be featured in WGL's near-term replacement plans. This
15 means that non-pipeline alternative actions in these areas would save money in
16 the longer term while also increasing risk reduction.

17 **Q41 Would WGL's proposed Choice Program address these dead-end segments?**

18 **A41** No. As I just discussed, WGL's proposed replacement program is unlikely to
19 address many of these segments for a number of years. The proposed Choice
20 Program would only work less than two years ahead and therefore not identify or
21 allow other organizations to target these customers during the many years prior to
22 eventual replacement.

¹³ The comparison cost threshold would be even higher if the funds were not capitalized ratepayer funds, since ratepayer funding requires paying the cost of capital and taxes as well as the direct capital cost.

1 **Q42 Are Witness Murphy’s concerns about cost estimates or abandonment**
2 **relevant to this topic?**

3 **A42** No. The cost to replace these segments and associated services is not relevant to
4 Witness Jacas’s claim that there are “relatively few locations” where non-pipeline
5 alternatives of this sort could be pursued. I have assumed that WGL would
6 identify and retire the abandoned segments that occur when customers depart
7 from these dead ends, consistent with Witness Murphy’s claim.

8 **IX. CONCLUSIONS**

9 **Q43 Have your geospatial analysis and Witness Murphy’s testimony changed**
10 **your conclusions in this case?**

11 **A43** No. My conclusions from my Direct Testimony stand unchanged. I found that:

- 12 • WGL has not met the requirements set out by the PSC in Order 22003. It
13 merely proposed a program that is very similar to previous programs,
14 instead of one responding to the PSC’s call for a “new normal.”
15 Specifically, WGL’s application is not responsive to the PSC’s
16 requirements on minimizing stranded asset risk, incorporation of the
17 District’s climate laws, accounting for electrification, cost-effectiveness,
18 and identifying alternatives for reducing leak rates and risk.
- 19 • WGL’s approach to addressing gas safety risk through a replacement-
20 based approach is not financially or competitively sustainable and could
21 lead to increased safety and financial risk on the gas system over time.
- 22 • WGL’s approach does not reduce risk from gas once it passes the meter
23 and enters buildings and it does not reduce excavation-related risk.
- 24 • Alternative approaches that incorporate retirement and repair alongside
25 targeted replacement reduce safety risk more than WGL’s approach while
26 being less expensive and reducing financial and competitive risk.

- 1 • WGL’s current gas system planning processes are insufficient to the task
2 of planning and managing through the energy transition and are not
3 sufficient to meet the confidence threshold required to approve accelerated
4 cost recovery.

5 **Q44 Have you developed additional conclusions based on your geospatial analysis**
6 **and Witness Murphy’s testimony?**

7 **A44 Yes. I have also found that:**

- 8 • WGL has not demonstrated that it selects pipe replacement projects in a
9 manner that optimizes risk-reduction per dollar spent.
- 10 • WGL has not thought through how the different components of its
11 approach to leak-prone pipe relate to each other over the course of decades
12 to work as a coherent plan.
- 13 • If WGL were conducting prudent long-term planning for its program to
14 address the risk of aging assets, it would be capable of going beyond the
15 self-imposed limits of the District SAFE proposal.
- 16 • There are numerous locations on WGL’s system where non-pipeline
17 alternatives could be pursued in a manner that would lower both cost and
18 risk compared with WGL’s replacement-only approach, while also being
19 consistent with District policy and WGL’s long-term sustainability.

20 **Q45 How do these findings relate to the requirements the Commission set for**
21 **WGL’s plan in Order 22003?**

22 **A45 These findings provide further confirmation that:**

- 23 • WGL has not proposed a fundamentally different approach to addressing
24 the risk from leaks on its system, thereby disregarding the Commission’s
25 instruction to “change [the] focus [to] contract the scope of the work that
26 is necessary in addressing the District’s aging infrastructure with the

1 highest risk to help maintain the safety and reliability of the gas
2 distribution system.”¹⁴

- 3 • A “new normal” approach based on “electrification and targeted
4 replacement as opposed to the complete replacement of over 400 miles of
5 aging, high risk pipelines”¹⁵ is possible to implement, despite WGL’s
6 failure to propose a plan that addresses this “new normal.” The required
7 targeting could be achieved using the risk and cost estimates developed by
8 WGL (especially if the techniques behind that modeling and subsequent
9 project design and selection were transparent).
- 10 • WGL’s current actions do not, when implemented, optimize for risk cost-
11 effectiveness. WGL has not followed the Commission’s instruction to
12 “demonstrate greater cost effectiveness.”¹⁶

13 X. RECOMMENDATIONS

14 Q1 Have you changed your recommendations in this case?

15 A46 No. As stated in my Direct testimony, I recommend that the PSC:

- 16 • Reject the accelerated cost recovery in WGL’s proposed District SAFE
17 plan.
- 18 • Reiterate its requirement that WGL take all necessary capital and
19 operational actions to maintain a safe and reliable gas system, and that
20 WGL may request incorporation of prudently incurred costs through rate
21 cases.
- 22 • Order WGL to develop an alternative gas safety capital plan that is
23 consistent with District policy and takes financial sustainability and

¹⁴ F.C. 1179, Order 22003, at para. 49.

¹⁵ *Id.*

¹⁶ *Id.* at para. 50.

1 competition risks into account. Such a plan could justify accelerated cost
2 recovery.

3 **Q2 Has your analysis of WGL's project selection and planning processes helped**
4 **you refine these recommendations?**

5 **A47** Yes.

6 **Q3 Should WGL cease to take action to reduce risk from leak-prone assets on its**
7 **system?**

8 **A48** Absolutely not. WGL has an obligation to maintain a safe and reliable system.
9 WGL can and should maintain, repair, replace, or retire pipe that would interfere
10 with this obligation through its normal operations, maintenance, and capital
11 expenditure procedures.

12 **Q4 Should the Commission allow WGL accelerated cost recovery for its pipe**
13 **replacement efforts, as proposed in the District SAFE plan?**

14 **A49** No. WGL has not demonstrated that it is conducting prudent and cost-effective
15 project selection and planning processes. Until such time as WGL demonstrates
16 that its processes actually optimize for risk-reduction per dollar (including the use
17 of all options, not just removal and replacement) it should not receive accelerated
18 recovery. When WGL files rate cases it can include its recent investments in the
19 proposed new plant in service and the Commission can fully evaluate the
20 prudence of those investments.

21 **Q5 How can WGL develop a planning process that could receive Commission**
22 **approval to use for justifying accelerated recovery?**

23 **A50** The Commission should oversee the development of a robust and comprehensive
24 planning process, as currently being contemplated in Formal Case 1167. WGL
25 should engage in good faith in that proceeding and develop planning tools,
26 methods, and approaches aligned with the outcomes of that process. These tools,

1 methods, and approaches should be transparent to the Commission, DCG, and
2 other stakeholders and enable validation and verification.

3 **Q6 Do you have further recommendations regarding transparency of project**
4 **selection?**

5 **A51** It has not been straightforward to develop a clear picture from WGL of the precise
6 steps it takes to select projects. There has been substantial evidence in this case
7 regarding the JANA risk model, provided by Witness Oliphant, and I applaud
8 representatives of JANA for their commitment to transparency regarding the
9 working of their model. I expect that stakeholders will continue to have many
10 questions regarding the model in the months and years to come, and I hope that
11 JANA remains collaborative. What has become clearer in the latter stages of this
12 case, however, is that WGL's processes for using the JANA results (for
13 likelihood, consequence, and estimated replacement cost), along with other
14 internal information and resources, to select projects are not a transparent or
15 clearly understood process.

16 WGL presumably documents its processes and keeps records of its decisions,
17 because it has been able to provide some data on those aspects when questioned in
18 this docket—although not all answers have been clear. The Commission should
19 establish clear expectations for WGL to provide information on its process in
20 future dockets (or the potential extension of this docket after it rejects WGL's
21 proposal). In either the gas planning proceeding or the continuation of this docket,
22 the Commission should convene technical conferences at which it would require
23 WGL to walk through its project selection process in detail, from system-wide
24 risk and cost-effectiveness ranking through final project selection, using specific
25 examples and annual plans as illustration. In addition, in rate cases or any
26 subsequent filing for accelerated cost recovery, the Commission should require
27 WGL to provide project-level detail on all projects considered, whether they
28 proceeded/were selected or not, and demonstrate alignment with the selection
29 process.

1 WGL's pace of mains replacement has slowed, and its costs have risen. WGL's
2 system risk is increasing faster than WGL is acting to reduce it.¹⁷ In this context,
3 the Commission and stakeholders all need to understand the options available to
4 WGL to reduce cost and increase risk reduction, including non-pipeline
5 alternatives and selection of more cost-effective replacements, and how WGL can
6 adapt its project selection processes to obtain safer and lower cost outcomes.

7 **Q7 Does this conclude your testimony at this time?**

8 **A52** Yes, it does.

¹⁷ Exh. DCG(A)-8

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EXHIBIT DCG (2A)-1

CERTIFICATE OF SERVICE

I hereby certify that on this 14th day of October 2025, I caused true and correct copies of the public version of the Rejoinder Testimony of Government of the District of Columbia Witness Dr. Asa S. Hopkins to be delivered to the following:

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