
**STATE OF CONNECTICUT
PUBLIC UTILITIES REGULATORY AUTHORITY**

Docket No. 23-11-02

**APPLICATION OF CONNECTICUT NATURAL GAS CORPORATION
AND THE SOUTHERN CONNECTICUT GAS COMPANY
TO AMEND THEIR RATE SCHEDULES**

Surrebuttal Testimony of Dr. Asa S. Hopkins

Exhibit OCC-ASH-SURREBUTTAL-1

On Behalf of Connecticut Office of Consumer Counsel

March 13, 2024

Table of Contents

I.	INTRODUCTION.....	1
II.	CONNECTICUT’S PRIORITY CLIMATE ACTION PLAN	1
III.	RESPONSE TO THE GAS OPERATION PANEL	3
	A. Utility-level and statewide planning	3
	B. Leak prone pipe replacement programs	7
	C. Non-pipes alternatives	11
IV.	RESPONSE TO WITNESS ALLIS	12

1 **I. INTRODUCTION**

2 **Q1 Please state your name and position.**

3 **A1** My name is Asa S. Hopkins. I am a Vice President at Synapse Energy Economics,
4 Inc.

5 **Q2 Are you the same Asa Hopkins who submitted Direct Testimony in this case**
6 **on February 8, 2024?**

7 **A2** Yes.

8 **Q3 What is the purpose of your surrebuttal testimony?**

9 **A3** The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of
10 Connecticut Natural Gas/Southern Connecticut Gas’s (“the Companies”) Gas
11 Operation Panel (Exh. CNG/SCG-GOP-REBUTTAL-1) and the rebuttal
12 testimonies of Mr. Ned Allis (Exh. CNG-NWA-REBUTTAL-1 Depreciation and
13 Exh. SCG-NWA-REBUTTAL-1 Depreciation).

14 **Q4 How is this testimony organized?**

15 **A4** My testimony begins with a discussion of Connecticut’s recently filed Priority
16 Climate Action Plan and its implications for this case. I then respond to the
17 rebuttal testimony of Companies’ Gas Operations Panel. In the final section I
18 respond to the rebuttal testimony of Witness Allis, regarding depreciation.

19 **II. CONNECTICUT’S PRIORITY CLIMATE ACTION PLAN**

20 **Q5 Has Connecticut completed its Priority Climate Action Plan (“PCAP”), as**
21 **required by the U.S. EPA’s Climate Pollution reduction Grant program?**

22 **A5** Yes, it has. DEEP filed Connecticut’s PCAP with EPA on March 1, 2024.

1 **Q6 Does the PCAP include any statements of state policy and action that are**
2 **relevant to your testimony in this case?**

3 **A6** Yes. The PCAP identifies 14 “implementation-ready climate action measures.”
4 One of those measures is to “support adoption of heat pumps statewide.” This
5 measure is described as follows:¹

6 This climate action measure, if implemented, would support increased
7 adoption of heat pumps statewide through incentives for households to
8 install whole-home air- and ground-source [sic]. Heat pump water
9 heaters use similar technology to transfer heat in the air to water. Heat
10 pumps are highly efficient and can provide up to four units of heat
11 energy for every unit of energy input. Further, they can serve as an all-
12 electric replacement for fossil fuel heating equipment. Because
13 Connecticut law requires zero-carbon electric supply by 2040, electric
14 heat pumps can play a key role in reducing greenhouse gas (GHG) and
15 co-pollutant emissions.

16 The PCAP goes on to state that federal funds the state might receive from the
17 EPA program would be used to expand existing heat pump incentive programs in
18 the state. The PCAP further states that “Connecticut is part of the US Climate
19 Alliance coalition commitment to collectively reach 20 million heat pump
20 installations or quadrupling the number of heat pump installations across the
21 coalition by 2030, with the aim of ensuring at least 40 percent of benefits flow to
22 disadvantaged communities.”²

23 **Q7 What is particularly relevant about the PCAP for this proceeding?**

24 **A7** The PCAP serves as further evidence that the future of the energy sector in
25 Connecticut will not be the same as the past or present. The state is committed to
26 using electric heat pump technology to decarbonize buildings. The PCAP
27 explicitly states that the state intends to support the use of heat pumps for whole-
28 home heating and the replacement of fossil-fuel equipment, rather than only using
29 heat pumps to supplement and displace fossil-fueled heating. In this proceeding,

¹ PCAP, page 84

² Ibid.

1 the Companies have stated that they do not see a need to change any of their
2 planning or operational practices because fuel use patterns have not yet changed
3 and because there is no statewide framework for gas system transition in place.
4 The PCAP serves as further evidence that the Companies are taking a short-
5 sighted approach that increases risk for future ratepayers as well as its own
6 investors.

7 **III. RESPONSE TO THE GAS OPERATION PANEL**

8 **Q8 What aspects of the Companies' Gas Operation Panel's ("GOP") rebuttal**
9 **testimony are you addressing here?**

10 **A8** The GOP's testimony addresses my direct testimony in several areas, and I
11 respond to those areas here:

- 12 • The need for utility-level vs. statewide planning
- 13 • Lessons to take from the People's Gas case in Illinois, and other states'
14 analysis of leak-prone pipe programs
- 15 • Non-pipes alternatives (NPAs)

16 **A. Utility-level and statewide planning**

17 **Q9 What does the GOP argue regarding the utility-level and statewide planning?**

18 **A9** The GOP states that the Companies fully support "the promulgation of a
19 comprehensive statewide framework for addressing the nexus of climate change
20 policies and the gas delivery business."³ It further states that "any actions taken by
21 the Companies in advance of a statewide framework would be premature and
22 defined by the attributes of individual near term instances, (versus solutions that
23 are more comprehensive and inclusive) and limited by the existing ratemaking

³ Exhibit CNG/SCG-GOP-REBUTTAL-1, at 5.

1 mechanisms (versus ones that are purpose driven, like those of a statewide
2 framework). In such scenarios, the Companies (and their customers) would be at
3 risk of deploying resources in a way that may be more costly or less effective than
4 what would be available under a statewide framework.”⁴

5 **Q10 Is it prudent for the Companies to refuse to develop energy transition plans**
6 **or take actions informed by such plans without a statewide framework?**

7 **A10** No. The Companies have an ongoing obligation to conduct prudent utility
8 management, operations, and planning, regardless of the existence of a statewide
9 framework for the future of the natural gas system in light of the energy
10 transition. Utility management at the respective Companies have obligations to
11 their customers and shareholders to take appropriate and prudent actions in
12 managing the Companies, including to investigate and understand the forces
13 shaping the future of their businesses and how those forces will affect the
14 Companies’ ability to fulfill their obligations to provide safe and reliable service.
15 It could happen that, once the Companies developed this understanding, the
16 actions they chose to take would be exactly the same as those documented and
17 proposed in this proceeding. But absent any investigation or study of these issues
18 by the Companies, there is no evidence on the record in this proceeding that the
19 Companies' past and proposed actions are, in fact, those that would be consistent
20 with a comprehensive and policy-aware review.

21 **Q11 Are you able to develop specific proposed changes in utility investments**
22 **driven by consideration of the energy transition?**

23 **A11** No. Neither intervenors nor regulators have the information and tools required to
24 conduct this analysis on behalf of the Companies and propose alternative actions
25 consistent with the energy transition. Instead, the Companies need to undertake
26 the necessary studies and share the results to inform the regulatory process.

⁴ Id., at 6-7.

1 **Q12** As both the GOP and you have pointed out, gas utilities in other states that
2 have undertaken energy transition analysis have done so in the context of
3 state-level processes (such as Case No. 20-80 in Massachusetts and the gas
4 planning proceeding in New York). Is a state-level process required to
5 appropriately consider these issues?

6 **A12** No. The state-level processes that have been conducted have been valuable and
7 provided insights that utilities in both the implementing states and other states can
8 use. However, the analyses conducted and presented in those proceedings are
9 similar to the kinds of analysis that have been conducted by gas utilities
10 themselves. If these state-level processes had not been opened, it is likely that
11 similar issues would have been addressed at the utility level through rate cases or
12 other proceedings.

13 **Q13** Could you provide examples of utility-led energy transition analyses?

14 **A13** Of course. Two examples come immediately to mind. The first is Enbridge Gas
15 Distribution, North America’s largest gas distribution utility which serves the
16 province of Ontario. As Enbridge states in its testimony in its 2022-23 rate case,
17 “In 2020, Enbridge Gas identified the need to undertake an analysis of the impact
18 of climate policies on the gas distribution system under a range of possible
19 scenarios. The [Energy Transition Scenario Analysis] Project was intended to
20 inform the Company’s energy transition strategies, forecasting and planning, and
21 to assess potential scope 3 GHG reductions that the Company could support.”⁵
22 Enbridge hired the Posterity Group to conduct this analysis, which helped
23 Enbridge conclude that current and anticipated government policies would not be
24 sufficient to achieve the province’s net zero objective, and therefore that more
25 transformative scenarios would be required. These included both a “diversified”
26 case where the gas system remained in active use, and an “electrified” case in
27 which gas system use declines. Enbridge then hired another consultant,
28 Guidehouse Canada, in 2021 to conduct a “Pathways to Net-Zero Study” to

⁵ Enbridge Gas Distribution. Application for 2024-28 Natural Gas Distribution Rates. Ontario Energy Board Case No. EB-2022-0200. Exhibit 1, Tab 10, Schedule 5, Page 3. Available in <https://www.rds.oeb.ca/CMWebDrawer/Record/759839/File/document>.

1 inform Enbridge’s internal planning. This study built from the two
2 transformational scenarios from the earlier study and evaluates their costs,
3 benefits, and risks.

4 **Q14 What is the second example?**

5 **A14** The second example is Baltimore Gas & Electric (“BGE”). BGE hired Energy
6 and Environmental Economics (“E3”) to conduct a study of pathways to achieve
7 Maryland’s policy goals and identify implications for BGE’s customers and
8 service area.⁶ This study evaluated cases with different usage patterns for gas, as
9 part of economy-wide decarbonization pathways. BGE is using this study to
10 support its proposal to decarbonize building using a dual-fuel approach wherein
11 buildings would retain gas heating while getting most of their heat from electric
12 heat pumps.⁷

13 **Q15 What insights do you draw from Enbridge and BGE’s processes to study the**
14 **energy transition?**

15 **A15** Neither Enbridge nor BGE required a regulatory order or statewide process to
16 begin to examine the impact of the energy transition on gas demand and therefore
17 their businesses. Enbridge explicitly states that the purpose of these studies was to
18 inform its internal planning, and neither utility conducted these studies for the
19 primary purpose of supporting testimony in a rate case. These utilities acted
20 independently to create knowledge and insights for use by their management to
21 guide corporate planning.

⁶ Clark, et al. *BGE Integrated Decarbonization Strategy*. October 2022. Energy and Environmental Economics on behalf of Baltimore Gas and Electric. Available at https://www.ethree.com/wp-content/uploads/2022/10/BGE-Integrated-Decarbonization-White-Paper_2022-11-04.pdf.

⁷ Mark Case. “BGE Comments on the Climate Change Mitigation Working Group (MWG) Draft Recommendations for 2022” and attachment entitled “Supporting Maryland’s GHG reduction goals”. October 12, 2022. Available at https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/MWG/BGE%20Comments_Path%20to%20Clean%20Summary.pdf.

1 **Q16 Do you support the development of a state-level framework for the future of**
2 **the gas distribution system in Connecticut?**

3 **A16** Absolutely. I recommended such a process in my direct testimony, and I am glad
4 that the Companies agree that such a process should be conducted. A state-level
5 framework can be very helpful, and a centralized process can provide an
6 opportunity to raise a wide range of issues and focus stakeholder and regulatory
7 attention while making efficient use of limited resources.

8 ***B. Leak prone pipe replacement programs***

9 **Q17 Why did you reference the Illinois Commerce Commission (ICC) ruling in**
10 **the Peoples Gas (PGL) rate case in your Direct Testimony?**

11 **A17** In my testimony, I referenced proceedings and commission orders in
12 Massachusetts, New York, Maryland, Illinois, and Ontario to highlight the
13 extensive discussion of energy transition and findings that are relevant to this
14 proceeding. Of particular relevant in Illinois, the commission ordered a new
15 investigation of the utility’s leak-prone pipe replacement program (called the
16 Safety Modernization Program or SMP), a pause in the SMP, a new requirement
17 to file a long-term infrastructure plan every two years, and the opening of a future
18 of gas proceeding.

19 **Q18 What claims did the GOP make related to the ICC’s ruling?**

20 **A18** The GOP made several claims about my discussion of the Illinois Commerce
21 Commission’s ruling on PGL’s SMP. First, the GOP claimed that “ICC’s position
22 is yet another example of [the ICC’s] emphasis on a traditional approach for
23 mitigating the risks inherent to leak prone mains.”⁸

⁸ GOP Surrebuttal Testimony, p. 16.

1 **Q19 Is this a correct characterization of the ruling in the PGL rate case?**

2 **A19** No. With respect to the SMP, the ICC explained its rationale for the program’s
3 suspension: “it appears neighborhood by neighborhood modernization has failed
4 to adequately prioritize the replacement of high-risk pipe as directed by PHMSA,
5 the Kiefner Study and the Commission.”⁹ The ICC continued by saying that the
6 Commission must determine whether the program’s approach of “grouping
7 critical safety measures with modernization measures is the most practical, cost-
8 effective and expedient method to retire all [cast and ductile iron] pipe.”¹⁰ The
9 Commission then directed PGL to “reconsider its priorities and provide more
10 detailed, disaggregated cost information in the SMP proceeding to enable the
11 Commission to determine the reasonableness and prudence of the Company’s
12 next iteration of the SMP. Balancing course-correction with timely retirement of
13 high-risk pipe, the Commission directs Staff to assist the Commission in initiating
14 a proceeding by February 1, 2024, which should not exceed twelve months.”¹¹

15 **Q20 What did the GOP claim about your comments in your Direct Testimony?**

16 **A20** The GOP commented that I “imply [my] assertions align with the Illinois
17 Commerce Commission’s ruling in that proceeding.”¹²

18 **Q21 Is this a correct characterization of your assertions related to the ICC ruling**
19 **in the PGL rate case?**

20 **A21** No. The Companies attribute arguments and conclusions to me that I did not make
21 in my Direct Testimony. I did not claim that the ICC’s ruling and my conclusions
22 were aligned. In references to the ICC ruling in the PGL rate case, I highlighted
23 the issues relevant to the present case such as the pause on the SMP, the new

⁹ Final Order, The Peoples Gas Light and Coke Company Proposed general increase in rates and revisions to service classifications, riders, and terms and conditions of service. (“People’s Gas Order”) ICC 23-0069, p.121.

November 16, 2023.

¹⁰ People’s Gas Order at 30.

¹¹ People’s Gas Order at 30.

¹² GOP Surrebuttal Testimony, p. 14.

1 reporting requirements, and the opening of a gas-planning docket. Then later in
2 my Direct Testimony, I summarized key takeaways derived from reviewing
3 commission orders across all of the states that I reviewed throughout my
4 testimony, including Illinois. I noted: “Business-as-usual approaches to
5 accelerated leak-prone pipe replacement are not justified. Capital investments
6 should not be made until they are shown to be superior to alternatives that
7 incorporate repair, efficiency, electrification, and retirement. (*Massachusetts, New*
8 *York, Maryland, Illinois*).”¹³ The ICC’s ruling is one of many commission orders
9 that contribute to the overall shift toward a more cautious review of gas utility
10 capital investments, revisiting business-as-usual approaches, and more stringent
11 requirements for and review of planning going forward.

12 **Q22 Did the ICC enact other requirements in that ruling that contributed to your**
13 **ultimate assertions?**

14 **A22** Yes. The ICC also opined on the utility’s investment planning, noting that the
15 lack of a public long-term system plan creates an information asymmetry between
16 the gas utilities and the ICC. Stating that the gas utilities’ “lack of transparent
17 planning processes makes it challenging for the Commission, customers, and
18 other stakeholders to determine whether the Companies are prioritizing just,
19 reasonable, and prudent investments that are likely to be used and useful.”¹⁴ The
20 ICC therefore reasoned that “capital spending (and associated planning,
21 budgeting, and project selection processes) merits careful consideration in this
22 and future rate cases.”¹⁵ The ICC provided a list of items required in the long-
23 term gas infrastructure plan, including a description of the lowest societal cost gas
24 distribution system investments necessary to meet customer demand and comply
25 with public policy objectives, a demonstration that the program or project will
26 minimize rate impacts on customers, particularly low-income and equity

¹³ Direct Testimony of Asa Hopkins, p. 31.

¹⁴ People’s Gas Order at 119.

¹⁵ People’s Gas Order at 119.

1 investment eligible communities, and a scenario and sensitivity analysis to test
2 robustness of utility’s portfolio and investments under various parameters.¹⁶

3 It is also evident that the ICC recognizes the need for further investigation of
4 issues to “provide the information needed to develop an informed plan for future
5 investments and policies”¹⁷ By directing staff to develop a plan for Future of Gas
6 proceeding to “fully explore the issues involved with decarbonization of the gas
7 distribution system,”¹⁸ with a list of issues including:¹⁹

8 • “Potential for decarbonization of the existing gas system, including
9 identification of technical constraints, hard to decarbonize end-uses, and
10 methodologies for achieving decarbonization;”

11 • “Stranded assets of the gas distribution system and planning methods to
12 mitigate the issue, including non-pipeline alternatives;” and

13 • “Evaluation of strategies for identifying and managing infrastructure that
14 is nearing the end of its useful life or is no longer used and useful.”²⁰

15 **Q23 How do these elements of the ICC ruling contradict the GOP’s assertions?**

16 **A23** Taking these elements together, it is a stretch for the GOP to assert that the ICC’s
17 ruling has “an emphasis on a traditional approach for mitigating the risks of leak
18 prone mains.” Though the ICC discussed the need to address and retire leak-prone
19 pipe, the ICC is clear that more detailed information on planned investments is
20 required from the gas utilities and that the decarbonization of the gas distribution
21 system merits further investigation and thought.

¹⁶ People’s Gas Order at 120.

¹⁷ People’s Gas Order at 121.

¹⁸ *Ibid.*

¹⁹ *Ibid.*

²⁰ People’s Gas Order at 122.

1 **Q24 Do you have anything further to say regarding the GOP’s critique of your**
2 **testimony on the People’s Gas case?**

3 **A24** Yes. The GOP correctly points out that I mis-transcribed the word “retired” as
4 “required.” However, this correction does not change my conclusions and insights
5 from the ICC’s actions in the People’s Gas case. If the point of leak-prone pipe
6 programs is to retire leak-prone pipe, then investing in new pipe without quickly
7 retiring the leak-prone pipe produces additional and unnecessary costs without
8 commensurate safety benefits.

9 *C. Non-pipes alternatives*

10 **Q25 What does the GOP argue regarding NPAs?**

11 **A25** The GOP argues that it would be inappropriate for the Companies to plan for
12 NPAs because “NPAs are a unique feature mandated in other jurisdictions, and
13 have not been enacted in Connecticut.”²¹

14 **Q26 Are NPAs a feature of prudent and least-cost energy system planning?**

15 **A26** Yes. When a prudent utility is considering a capital investment to meet a system
16 need, it must consider whether there are lower-cost ways to meet that need. In a
17 competitive market environment, a firm that overspends to meet its needs will
18 suffer in the marketplace. Prudent utility management and regulation must
19 replicate this feature. The need to consider NPAs, therefore, is not built upon
20 unique features mandated in specific jurisdictions, but instead built on the
21 fundamentals of the regulation of monopoly utilities. Some states have been
22 explicit about setting up frameworks for the consideration of NPAs (and their
23 electric equivalent, non-wires alternatives), in order to provide a common
24 structure for such consideration, but the prudence of NPA evaluation exists
25 separately from these frameworks.

²¹ Exhibit CNG/SCG-GOP-REBUTTAL-1, at 13.

1 **Q27** **Would it be prudent for the Companies to learn from the NPA processes**
2 **being implemented by its sister utility in New York?**

3 **A27** Yes. NPA evaluation is a feature of prudent gas system planning, and Avangrid's
4 planning manuals lay out a process for conducting NPA evaluation. The
5 Companies have straightforward access to the necessary process and expertise to
6 apply these prudent tools to Connecticut yet have chosen not to.

7 **Q28** **Could the Companies propose to use NPAs as part of leak-prone pipe**
8 **retirement programs?**

9 **A28** Yes, they could. I am confident that PURA would consider programmatic and
10 investment proposals from the Companies that would advance state policy while
11 lowering energy system costs, even if those programs are novel and have not been
12 requested by PURA. Since the Companies have not stepped forward with such
13 ideas, I recommend that PURA include NPAs and leak-prone pipe programs in
14 the scope of the statewide gas system transition process that both the Companies
15 and I recommend.

16 **IV. RESPONSE TO WITNESS ALLIS**

17 **Q29** **What aspects of the Witness Allis's rebuttal testimony are you addressing**
18 **here?**

19 **A29** Witness Allis attempts to show a conflict between my direct testimony and that of
20 OCC Witness Dunkel, regarding depreciation rates. In this testimony, I clarify the
21 relationship between my testimony and that of Witness Dunkel and show there is
22 no conflict.

23 **Q30** **What conflict does Witness Allis claim exists between your testimony and**
24 **that of Witness Dunkel?**

25 **A30** Witness Allis argues that my direct testimony makes the case for higher
26 depreciation rates, while Witness Dunkel argues for a lower depreciation expense.

1 **Q31** Do you believe that PURA should order higher depreciation rates as a result
2 of shorter effective asset lifetimes, in this proceeding?

3 **A31** No, I do not.

4 **Q32** Why not?

5 **A32** Depreciation rates should be based on a comprehensive understanding of how
6 assets will be used over their lifetime. The Companies have not presented an
7 evaluation of how their assets will be used in the context of the energy transition,
8 including internally consistent evaluations of how the respective utilities will
9 manage the energy transition from a financial and business perspective. Absent
10 such a comprehensive analysis, it is not appropriate to adjust depreciation rates
11 into a paradigm that depends on such analysis (such as a utilization-based
12 depreciation regime). Therefore, it is best at this time to set depreciation rates
13 based on the information presented in this case. Witness Dunkel has conducted
14 that evaluation and makes specific recommendations for this case.

15 **Q33** Does this conclude your testimony at this time?

16 **A33** Yes, it does.