EARTHJUSTICE
BECAUSE THE EARTH NEEDS A GOOD LAWYER

August 26, 2020

Via Electronic Filing

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Buildings
400 North Street
Harrisburg, PA 17120

Re: *Pennsylvania Public Utility Commission v. Philadelphia Gas Works*
2020 Base Rate Case Filing / Docket No. R-2020-3017206

Dear Secretary Chiavetta,

Enclosed for filing in the above-referenced proceeding, please find the Environmental Stakeholders' Main Brief. As evidenced by the attached Certificate of Service, all parties to the proceeding are being served with a copy of this document. Should you have any questions, please do not hesitate to contact me. Thank you.

Sincerely,

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	Docket No. R-2020-3017206
v.	:	
	:	
Philadelphia Gas Works	:	
	:	

MAIN BRIEF OF THE ENVIRONMENTAL STAKEHOLDERS

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I. INTRODUCTION AND PROCEDURAL HISTORY

Pursuant to 52 Pa. Code § 5.501, Clean Air Council and Sierra Club, Pennsylvania Chapter (the "Environmental Stakeholders") respectfully submit this Main Brief in support of their positions in the above-captioned proceeding ("Proceeding") of the Pennsylvania Public Utility Commission (the "Commission") regarding the $70 million annual rate increase sought by Philadelphia Gas Works ("PGW").[1]

A. Introduction

This rate case is about responsible planning for the future, and the failure of PGW to do so. PGW resists responsible planning despite warning signs that, without changes in course, its customers will face persistent rate increases and risk substantial losses over the coming decades. Customers cannot afford PGW's refusal to plan, because PGW's rates are already unaffordable for many—particularly during a global pandemic and economic recession.[2]

The rising temperatures that drove PGW's last rate increase request are likely to continue,[3] and so far, it appears PGW's only answer to reduced demand during warmer winters is to rely on Weather Normalization Adjustments to protect its margins and to periodically ratchet up rates. In short, PGW's plan is for customers to keep bailing it out indefinitely: PGW has done

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[1] PGW 2020 Rate Filing, Vol. I, Part 1 of 3, *Statement of Reasons* at 1, Docket No. R-2020-3017206 (Feb. 28, 2020).

[2] *See Direct Testimony of Roger Colton on Behalf of the Office of the Consumer Advocate* at 5–12, Docket No. R-2020-3017206 (June 15, 2020) ("OCA St. No. 5, Colton Direct") (detailing public health and economic impacts from COVID-19 in Pennsylvania); *Direct Testimony of Scott Rubin on Behalf of the Office of the Consumer Advocate* at 9–10, Docket No. R-2020-301720 (June 15, 2020) ("OCA St. No. 1, Rubin Direct") (discussing deepening affordability challenges during pandemic and concluding "this is not the time to introduce higher costs on either people or businesses").

[3] ES Hearing Ex. 11, PGW 2017 Rate Case, Vol. II, *Direct Testimony of Gregory Stunder* at 3, Docket No. R-2017-2586783 (Feb. 2017) ("ES Hearing Ex. 11") ("PGW is facing declining sales, which leads to not only declining revenues but also declining cash flow and bond coverages. Warmer weather is contributing to significant decreases in consumption. Fiscal Year (FY) 2016 reflected a 20.8% warmer than normal winter and 24.5% warmer than the prior year. In fact, since 2010, the average annual usage of PGW's residential heating customer has decreased by 15.38% from 91 Mcf (for 2010-2011) to 77 Mcf (for 2015-2016). This decreased level of degree days represents a loss of about six Bcf of normal sales or roughly $36 million in lost margin. And this trend has been long-term.").

and plans to do nothing to evaluate or minimize customer cost- and risk-exposure associated with rising temperatures and climate change.

PGW's customers deserve a better plan. The Commission can and should require PGW to show by substantial evidence that it is prudently spending customer dollars in a manner that will deliver cost-effective, safe, and reliable service. Notably, PGW has not shown that a rate increase to further accelerate infrastructure investments is necessary or prudent at this time. PGW cannot make that showing because it has neglected its basic duty to consider potentially cost-effective alternatives and its basic duty to mitigate stranded asset risks posed by regulatory uncertainty and environmental changes in a climate-constrained future.

PGW similarly failed to show that any increase to its monthly fixed charge would be just and reasonable. Increased revenue recovery through fixed charges is widely recognized as contrary to sound economic theory, harmful to low-income and low-usage customers, and detrimental to conservation. Although a partial settlement reached by other parties to this proceeding proposes to reduce the customer charge increase relative to PGW's initial request, PGW has still failed to demonstrate that any increase is just and reasonable. Notably, PGW has failed to rebut evidence submitted by the Environmental Stakeholders that a fixed charge increase will negatively impact customers, particularly low-income customers, and will impede energy efficiency and conservation. Affordable and efficient service are critical, now more than ever, and any increase in the customer charge harms both.

For these reasons, and as more fully explained below, the Environmental Stakeholders ask the Commission to deny PGW's requested rate increase as insufficiently supported. Should the Commission decide to approve any revenue increase, any additional revenue authorized should be collected exclusively through variable charges, with no increase to the fixed charge.

Consistent with the Briefing Order, this brief is organized according to a common outline agreed upon by all parties.[4]

B. Procedural History

In late February, PGW filed a 2020 Base Rate Case Filing, consisting of proposed Supplement No. 128 to PGW's Gas Service Tariff – Pa. P.U.C. No. 2, and proposed Supplement No. 85 to PGW's Supplier Tariff – Pa. P.U.C. No. 1, and seeking a $70 million increase in annual distribution revenues based on a fully projected test year ending August 31, 2021.[5] In the months since, the parties have developed the record through discovery, submission of pre-filed testimony, and cross-examination at hearing.

On May 22, 2020, the Environmental Stakeholders filed a Petition to Intervene.[6] On May 29, 2020, PGW filed an Answer in Opposition to Petition to Intervene of the Environmental Stakeholders. On June 1, 2020, the Petition to Intervene of the Environmental Stakeholders was granted by the Administrative Law Judges ("ALJs").[7]

On June 2, 2020, the Clean Air Council served two sets of interrogatories on behalf of the Environmental Stakeholders.[8] PGW objected to the majority of those interrogatories, arguing that the "Commission lacks jurisdiction over the environmental issues that are the subject of the [Clean Air Council's] discovery requests."[9] On June 12, 2020, the Environmental Stakeholders

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[4] *Briefing Order*, Docket No. R-2020-3017206 (July 31, 2020).
[5] Coincidentally, this is same amount PGW requested in its last rate case.
[6] *Petition to Intervene of Environmental Stakeholders*, Docket No. R-2020-3017206 (May 22, 2020) ("Petition to Intervene").
[7] *Order Granting Petition to Intervene of Environmental Stakeholders*, Docket No. R-2020-3017206 (June 1, 2020) ("Order Granting Petition to Intervene").
[8] *Interrogatories of Environmental Stakeholders*, Docket No. R-2020-3017206 (June 2, 2020).
[9] *PGWs' Objections to Clean Air Council Interrogatories, Set I, Nos. 2–4 and 7–12*, Docket No. R-2020-3017206, at 2 (June 9, 2020); PGWs' Objections to the Clean Air Council Interrogatories, Set II, Nos.1–3, Docket No. R-2020-3017206, at 1 (June 9, 2020).

moved to dismiss PGW's objections.[10] On June 18, 2020, PGW filed Answer to Motion to Dismiss and Direct Answers to Interrogatories of the Environmental Stakeholders.[11]

On June 25, 2020, the ALJs heard over an hour of oral argument, much of which focused on the Commission's jurisdiction, then issued an oral decision that dismissed PGW's objections to all of the contested interrogatories except for those relating to electrification. On July 6, 2020, PGW provided partial further responses, which it completed with further responses on July 21, 2020—seven weeks after the discovery requests were originally served.

On July 14, 2020, the Environmental Stakeholders filed their first set of Discovery ("Set I"). PGW timely served written objections,[12] and on July 22, 2020, the Environmental Stakeholders moved to dismiss PGW's objections.[13] On July 23, 2020, by email, the ALJs granted the Environmental Stakeholders' motion in part, ordering PGW to provide responses to a number of interrogatories by Friday, July 24, 2020.

On June 15, 2020, the Environmental Stakeholders served the Direct Testimony of Dr. Ezra Hausman.[14] Dr. Hausman's testimony focuses on the impacts of climate change on PGW's business operations and how those impacts impose costs and risks that should be accounted for in determining whether or not PGW's proposed investments are prudent, just, and reasonable. Dr. Hausman's testimony also identifies numerous ways that PGW's infrastructure planning could be improved in order to minimize the costs of climate change impacts for ratepayers. In response, on June 24, 2020, PGW filed a Motion in Limine seeking to exclude all portions of Dr.

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[10] *Motion to Dismiss and Direct Answers to Interrogatories of the Environmental Stakeholders*, Docket No. R-2020-3017206 (June 14, 2020).
[11] *Answer to Motion to Dismiss and Direct Answers to Interrogatories of the Environmental Stakeholders*, Docket No. R-2020-3017206 (June 18, 2020).
[12] *PGWs' Objections to Environmental Stakeholders, Set 1*, Docket No. R-2020-3017206 (July 21, 2020).
[13] *Motion to Dismiss Objections and Compel Answers of Environmental Stakeholders*, Docket No. R-2020-3017206 (July 22, 2020).
[14] *Direct Testimony of Dr. Ezra Hausman on Behalf of the Sierra Club and Clean Air Council*, Docket No. R-2020-3017206 (June 15, 2020) ("SC St. No 1, Hausman Direct").

Hausman's testimony referencing climate change, again claiming that "the Commission lacks jurisdiction over the environmental issues and recommendations that are the subject of the testimony.[15] On June 30, 2020, the Environmental Stakeholders filed their Answer in Opposition to PGWs Motion in Limine, including extensive briefing on the issue of Commission jurisdiction.[16]

On July 7, 2020, the ALJs issued an Order resolving the dispute and admitting all of the contested portions of Dr. Hausman's testimony except for references to electrification, a topic the ALJs ruled was out of scope for this Proceeding.[17] On jurisdiction, the ALJs rejected PGW's jurisdictional arguments and ruled that "environmental considerations, including methane and other leaks that may exist in the infrastructure, are relevant to determining whether the rates increase sought by PGW for infrastructure work is just and reasonable."[18] The ALJs also found that "whether the proposed rate increase and associated infrastructure work present a risk of stranded assets given regional environmental planning issues are also relevant to the reasonableness of the proposed rates, rules and regulations."[19]

PGW also responded to Dr. Hausman's direct testimony by serving its first discovery requests on the Environmental Stakeholders. On June 26, 2020, after answering the majority of PGW's discovery requests, the Environmental Stakeholders filed written objections to six interrogatories in which PGW asked the Environmental Stakeholders to explain the

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[15] *Motion in Limine Regarding the Testimony Submitted by the Environmental Stakeholders*, Docket No. R-2020-3017206 (June 24, 2020) ("PGW Motion in Limine").
[16] *Answer to PGW's Motion in Limine of the Environmental Stakeholders*, Docket No. R-2020-3017206 (June 30, 2020).
[17] *Order on PGW's Motion in Limine Regarding the Direct Testimony of Ezra D. Hausman, Ph.D., Submitted by the Environmental Stakeholders*, Docket No. R-2020-3017206 (July 7, 2020) ("Order on PGW MIL").
[18] *Id.* at 4.
[19] *Id*.

Commission's statutory authority.[20] On July 2, 2020, PGW moved to dismiss the Environmental Stakeholders' objections, and on July 9, 2020, the Environmental Stakeholders filed the Answer to PGWs' Motion to Dismiss the Objections of the Environmental Stakeholders and Compel Responses to PGWs' Interrogatories.[21] On July 14, 2020, the ALJs denied PGW's motion after finding that the contested interrogatories were burdensome and in direct opposition to due process considerations.[22]

On July 13, 2020, PGW served their Rebuttal Testimony, including that of former Commissioner James Cawley.[23] On July 23, 2020, the Environmental Stakeholders filed a Motion in Limine to Exclude Portions of the Rebuttal Testimony of PGW Witness Mr. James Cawley.[24] The Environmental Stakeholders argued portions of Mr. Cawley's rebuttal testimony should be excluded because those portions of testimony are irrelevant to the development of the factual record, consist of multiple impermissible legal opinions, include hearsay, violate due process, and improperly attempt to reopen prior determinations by the ALJs.[25]

On July 24, 2020, the Environmental Stakeholders served the Surrebuttal Testimony of Ezra D. Hausman. From July 29–30, 2020, an Evidentiary Hearing was held before the ALJs via teleconference. On July 29, 2020, the ALJs issued an oral ruling denying the Environmental Stakeholders' motion in limine upon finding Mr. Cawley's testimony relevant.[26]

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[20] *Objections to PGW's Discovery Requests Directed to the Clean Air Council and Sierra Club of the Environmental Stakeholders*, Docket No. R-2020-3017206 (June 26, 2020).
[21] *Answer to PGW's Motion to Dismiss the Objections of the Environmental Stakeholders and Compel Responses to PGWs' Interrogatories*, Docket No. R-2020-3017206 (July 9, 2020).
[22] *Order on PGW's Motion to Dismiss the Objections of Environmental Stakeholders to its Interrogatories, Set I*, Docket No. R-2020-3017206 (July 14, 2020).
[23] *PGWs' Rebuttal Testimony*, Docket No. R-2020-3017206 (July 13, 2020).
[24] *Motion in Limine to Exclude Portions of the Rebuttal Testimony of PGWs' Witness Mr. James Cawley*, Docket No. R-2020-3017206 (July 23, 2020).
[25] *Id.*
[26] *Initial Telephonic Evidentiary Hearing Transcript*, Docket No. R-2020-3017206, at 258 (July 29, 2020) ("Tr.").

On August 13, 2020, PGW filed their Supplemental Rebuttal Testimony of Denise Adamucci.[27] On August 18, 2020, PGW alerted the ALJs that it had reached a partial settlement, resolving many issues, and requested a change in the briefing schedule. On August 19, 2020, the ALJs approved a change in the briefing schedule setting the deadline for Main Briefs to be August 26, 2020 and the deadline for Reply Briefs to be September 2, 2020.

II. STATEMENT OF THE CASE

The Environmental Stakeholders address two key questions in this rate case.[28] First, the Environmental Stakeholders ask the Commission to determine whether just and reasonable rates can include increased infrastructure spending when PGW has neglected to conduct any long-term planning accounting for the direct physical and regulatory risks it faces as a result of climate change, neglected to consider potentially cost-effective alternatives to in-kind infrastructure replacement, and neglected to conduct any planning to mitigate stranded asset risks. Second, the Environmental Stakeholders ask the Commission to determine whether it would be just and reasonable for PGW to increase its monthly customer charge where unrebutted evidence indicates that doing so be harmful to low-income customers and to conservation and energy efficiency. For the reasons explained herein, the Environmental Stakeholders respectfully submit that the answer to both questions must be no.

III. SUMMARY OF ARGUMENT

PGW's operations face considerable immediate and long-term challenges, but PGW has not planned responsibly to meet those challenges. Presently, PGW operates a distribution system

[27] *Supplemental Rebuttal Testimony of Denise Adamucci*, Docket No. R-2020-3017206 (Aug. 13, 2020) ("PGW St. No. 9-RS, Adamucci Suppl.").
[28] 52 Pa. Code § 5.501(b)(1).

designed to transport natural gas that is comprised of aging, at-risk infrastructure. Improving the safety of PGW's aging system requires removal of at-risk components, a process that will take PGW approximately four decades to complete based on current assumptions.

Over the longer-term, PGW's operations face even more fundamental risks. PGW's stock and trade is fossil-fuel energy, a commodity that Commonwealth and City of Philadelphia elected officials have committed to transitioning away from in order to avoid the worst effects of climate change. The Governor of Pennsylvania has committed to reducing greenhouse gas emissions 26% statewide by 2025, and 80% statewide by 2050.[29] Locally, the Philadelphia City Council has committed to "proactive climate change solutions," including reducing the City's carbon footprint by 80% before 2050 and transitioning to the use of 100% renewable energy "for all energy (including heat and transportation) city-wide by 2050 or sooner."[30] These commitments amount to bright red warning lights flashing at both the Commonwealth and city-level that changes will be required of PGW in the coming years.

In addition to these intentional commitments to reduce reliance on natural gas as an energy source, PGW's operations face direct climate risks that impose real costs on customers. For example, PGW has been grappling with the challenges of weather variability and warming winters for at least two decades already. Warming winters depress demand, but customers' reduced need for natural gas does not reduce the fixed costs of operating and maintaining PGW's system, prompting PGW to seek rate increases.[31] Weather variability destabilizes PGW's cash flow, a problem addressed since 2002 through PGW's Weather Normalization Adjustment, which

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[29] Pa. Exec. Order No. 2019-01 at 2 (Jan. 8, 2019) ("Order No. 2019-01") (emission percentages relative to 2005 levels).
[30] *Urging the City of Philadelphia to take measures to achieve fair and equitable transition to the use of 100% Clean Renewable Energy by 2050*, Resolution No. 190728, at 2 (Sept. 26, 2019) ("Resolution No. 190728"), https://phila.legistar.com/LegislationDetail.aspx?From=RSS&ID=4142523&GUID=BA06CC3B-7B43-4743-A07E-515A145C4A2A.
[31] *E.g.*, ES Hearing Ex. 11 at 3.

guarantees PGW collects expected revenues even when abnormal weather causes customers to use less natural gas.[32] Increased variability and a long-term trend of warming weather are likely to be joined by additional physical risks, including severe storms and extreme weather events.[33] Sea level rise predicted to occur within this century could result in hundreds of millions of dollars—if not billions—in lost property values across the Commonwealth and the displacement of "more than 5,000 people residing in more than 2,00 homes—mostly in Philadelphia[.]"[34]

These immediate- and long-term challenges have PGW between a rock and a hard place. It must remove at-risk infrastructure. But it cannot simply remove infrastructure and make in-kind replacements without exposing customers to substantial stranded asset risks. Replacement pipeline may be a reasonable investment when you can expect to get fifty-four years of value from it; but when it may only be used and useful for a fraction of that time, replacement pipeline may not be the lowest-cost, lowest-risk investment. This is precisely the scenario where detailed and comprehensive planning for the future is most needed—which is exactly what PGW has refused to do.

PGW requested this rate case to accelerate infrastructure investments, but nothing in this record shows PGW has considered the full risks and potential losses that may be in store for customers if it continues business as usual. Regulated utilities are required to cost-effectively manage operations and prohibited from imprudent spending of customer dollars. Without robust long-term planning and evaluation of alternatives, it is impossible to judge whether spending is

[32] PGW Vol. I, II.A.4, Renewed Energy in Philadelphia, p. vi ("Recognizing the need to stabilize and normalize revenue due to variations in weather from one fiscal year to another fiscal year, PGW requested and received approval from the PUC in 2002 for a Weather Normalization Adjustment Clause (WNA) to address fluctuating revenue due to weather conditions.").
[33] SC St. No. 1, Hausman Direct, at 13 (quoting Authorizing the Committee on Transportation and Public Utilities to conduct hearings regarding the sustainability of the Philadelphia Gas Works. Resolution No. 181081 at 1 (Dec. 6, 2018), https://phila.legistar.com/View.ashx?M=F&ID=6828110&GUID=C0AC9F32-F7E1-41B3-AF8ECB25B86D6837.
[34] *Id.* (quoting Exhibit EDH-3 at 16).

prudent. The Commission should deny increased revenue intended to further accelerate infrastructure investments unless and until PGW can show by substantial evidence that, after consideration of alternatives, its proposed investments reflect the lowest-cost and lowest-risk solution for customers.

However, PGW does not consider future customer needs when it decides how to replace at-risk infrastructure. PGW does not integrate energy efficiency into its infrastructure planning process. PGW does not consider potentially cost-effective alternatives to in-kind replacement. PGW does not consider—indeed, has not even calculated—the potential stranded asset risk exposure it continues to saddle customers with. In short, PGW cannot and has not provided substantial evidence showing it would put increased revenue to prudent and necessary uses. PGW's failure to conduct any real planning to address immediate- and long-term risks should be unacceptable to this Commission. Robust planning is needed to mitigate risk and reduce costs in the near- and long-term. Increased revenue is not needed to fulfill PGW's existing infrastructure plan, and customers should not be required to send more dollars to PGW unless and until PGW can show it is responsibly planning for the future. For these reasons, and as argued below, the requested rate increase should be denied.

Further, PGW has not shown by substantial evidence that increasing its customer charges at this time is necessary to establishing just and reasonable rates. Sound planning supports recovery of additional revenues, if warranted, through variable charges, which promote customers' ability to control their bills and incent efficient energy choices. PGW's proposal to increase its customer charge runs counter to sound economic theory and would harm PGW's customers, particularly low-income and low-usage customers, and impair conservation and energy efficiency measures. For that reason, should the Commission approve any rate increase, that additional annual revenue should be recovered through the volumetric charge for all customer classes.

IV. LEGAL STANDARDS

A. Cash Flow Method

Under the Public Utility Code, PGW is classified as a "City Natural Gas Distribution Operation," and as such PGW's rates are evaluated using the cash flow method.[35] While distinct from the ratemaking methodology applied to an investor-owned utility, the cash flow method still includes only reasonable and prudent expenses, as the Commission deems appropriate and in the public interest.

As the Commission's regulations explain, under the cash flow method, revenue from rates should be:

> [A]dequate to cover [PGW's] reasonable and prudent operating expenses, depreciation allowances and debt service, as well as sufficient margins to meet bond coverage requirements and other internally generated funds over and above its bond coverage requirements, as the Commission deems appropriate and in the public interest for purposes such as capital improvements, retirement of debt and working capital.[36]

As indicated above, rates must be adequate to cover reasonable and prudent operating expenses. But PGW has no right to recover unreasonable or imprudent operating expenses through rates. Similarly, the Commission may deem capital improvements appropriate and in the public interest. But if capital improvements are not shown to be appropriate and in the public interest, those expenses cannot be recovered from customers through rates.[37]

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[35] 66 Pa. C.S. § 2212; 52 Pa. Code § 69.2702.

[36] *Id*.

[37] "The primary object of the public service laws is not to establish a monopoly or to guarantee the security of investment in public service corporations, but first and at all times to serve the interests of the public." *Hoffman v. Pub. Serv. Comm'n*, 99 Pa. Super. 417, 429 (1930), quoted in *Colombo v. Pennsylvania Pub. Util. Comm'n*, 48 A.2d

B. Policy Statement

After adopting the cash flow method, the Commission issued a policy statement establishing a non-exhaustive list of criteria to be considered when determining just and reasonable rates for PGW.[38] Among any other factor deemed relevant, the Commission must consider the following factors in determining just and reasonable rates for PGW:

> (1) PGW's test year-end and (as a check) projected future levels of non-borrowed year-end cash;
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> (2) Available short term borrowing capacity and internal generation of funds to fund construction;
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> (3) Debt to equity ratios and financial performance of similarly situated utility enterprises;
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> (4) Level of operating and other expenses in comparison to similarly situated utility enterprises;
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> (5) Level of financial performance needed to maintain or improve PGW's bond rating thereby permitting PGW to access the capital markets at the lowest reasonable costs to customers over time;
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> (6) PGW's management quality, efficiency and effectiveness;
>
> (7) Service quality and reliability; and
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> (8) Effect on universal service.[39]

Previous allowance of a particular budget category does not require the Commission to allow continued recovery of any given budget category.[40] The Commission enjoys discretion to disallow recovery of budget category not specifically required by Section 2212 of the Public Utility Code.[41]

59, 61 (Pa. Super. Ct. 1946); *see also Perry Cty. Tel. & Tel. Co. v. Pub. Serv. Comm'n*, 108 A. 659, 661 (Pa. 1919) (affirming denial of certificate of necessity where "the basis of the action of the commission is the interest of the public as distinguished from the interest of the corporation or individual making the application").

[38] 52 Pa. Code. §§ 69.2702, 2703.

[39] *Id*.

[40] *Order*, Docket No. R-00006042, at 65 (Sept. 21, 2001).

[41] *Id.* (eliminating lobbying expense from PGW's revenue requirement).

C. Rates Must be Just and Reasonable

1. The Commission Has Jurisdiction Over the Justness and Reasonableness of PGW's Rates

The Commission's "powers are confined to those expressly granted, or which may be necessary and proper to carry out those specifically declared."[42] However, the Commission is provided by the Public Utility Code with the duty and powers to execute and enforce provisions of the Public Utility Code consistent with the public interest.[43] Although PGW is a city natural gas distribution operation, it is well-settled that it falls within the Commission's ratemaking jurisdiction.[44] The General Assembly expressly provided that, but for Chapters 11 (certificates of public convenience), 19 (securities and obligations), and 21 (affiliated interests), "public utility service being furnished or rendered by a city natural gas distribution operation within its municipal limits shall be subject to regulation and control by the commission with the same force as if the service were rendered by a public utility."[45]

Pennsylvania courts have recognized that the purpose of the Public Utility Code "is not to establish a monopoly or to guarantee the security of investment in public service corporations, but first and at all times to serve the interests of the public."[46] To that end, the Commission is responsible for ensuring that all public utilities "furnish and maintain adequate, efficient, safe, and reasonable service and facilities" and "make all such repairs, changes, alterations, substitutions, extensions, and improvements" to service and facilities as needed for the accommodation and safety of its patrons and the public.[47]

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[42] *City of Pittsburgh v. Pennsylvania Pub. Util. Comm'n*, 43 A.2d 348, 348 (Pa. Super. Ct. 1945).
[43] 66 Pa. C.S. § 501.
[44] *Id.* § 2212(b).
[45] *Id*. §§ 2212(b)-(c).
[46] *Colombo*, 48 A.2d at 61; *accord Highway Exp. Lines, Inc. v. Pennsylvania Pub. Util. Comm'n*, 169 A.2d 798 (Pa. Super. Ct. 1961).
[47] 66 Pa. C.S. § 1501; *see also id*. § 2212 (providing that public utility service furnished by a city natural gas distribution operation "shall be subject to regulation and control by the commission with the same force as if the service were rendered by a public utility").

The Commission is required to investigate all general rate increase filings.[48] Section 1301(a) of the Public Utility Code requires that "[e]very rate made, demanded, or received by any public utility . . . shall be just and reasonable, and in conformity with [the] regulations or orders of the commission."[49] In this rate case, the Commission has a statutory duty to consider utility performance, including efficiency, effectiveness, and adequacy of service,[50] as well as "management quality, efficiency and effectiveness."[51]

2. The Commission's Jurisdiction Includes Authority to Consider Any Fact Evidence Relevant to the Justness and Reasonableness of PGW's Rates

The Commission regularly observes that "[t]here is no single way to arrive at just and reasonable rates."[52] Indeed, "the [C]omission has broad discretion in determining whether rates are reasonable" and "is vested with discretion to decide what factors it will consider in setting or evaluating a utility's rates."[53] Generally, the Commission has explained that an "objective evaluation of reasonableness is whether the record provides sufficient detail to objectively determine whether the expense is prudently incurred."[54] If the record shows instead that "expenses are not incurred, imprudently incurred, or abnormally overstated . . . they should be disallowed and found not recoverable through rates."[55]

Throughout this exercise, it must be remembered that "[r]ate setting is a process which necessarily involves valuation of economic elements in the future tense. Because 'rates must be

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[48] *Popowsky v. Pennsylvania Pub. Util. Comm'n*, 683 A.2d 958, 961 (Pa. Commw. Ct. 1996); 66 Pa. C.S. § 2212 (providing that public utility service furnished by a city natural gas distribution operation "shall be subject to regulation and control by the commission with the same force as if the service were rendered by a public utility").
[49] *Id*. § 1301(a).
[50] 66 Pa. C.S. § 523; *see also id.* § 1501.
[51] 52 Pa. Code § 69.2703.
[52] *E.g., Pennsylvania Pub. Util. Comm'n Office of Consumer Advocate Office of Small Bus. Advocate*, Docket No. C-2019-3011959, 2020 WL 2487415, at *3 (Pa. PUC Apr. 29, 2020) ("Docket No. C-2019-301195").
[53] *Popowsky*, 683 A.2d at 961.
[54] Docket No. C-2019-3011959 at *3 (citing *Popowsky*, 674 A.2d at 1153–54).
[55] *Id*.

fixed for the future as well as for the present,' such future 'estimates . . . must necessarily enter into the disposition of any rate case.'"[56]

There are no "donut holes" or carve-outs in the Commission's plenary authority to regulate utility rates and services. The Commission is the sole agency responsible for judging whether proposed investments are prudent and necessary, such that they may lawfully be recovered from customers via just and reasonable rates. That fact does not change depending on the causative factor of some expense or operational challenge.[57] This is why, for example, the Commission hears evidence on the reasonableness of PGW's salaries and bonuses, benefits, and municipal bond markets despite the fact that the Commission has no jurisdiction to regulate labor markets,[58] health insurance,[59] pension plans,[60] or bond markets. Further, just as the Commission has jurisdiction to conclude that negotiable instruments do not constitute reasonable payment under the Public Utility Code though it does not administer the Uniform Commercial Code,[61] the Commission has jurisdiction to consider whether environmental factors render utility expenses unreasonable and imprudent, though it does not administer environmental statutes.

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[56] *Cohen v. Pennsylvania Pub. Util. Comm'n*, 468 A.2d 1143, 1146 (1983), order aff'd and remanded sub nom. *Barasch v. Pennsylvania Pub. Util. Comm'n*, 493 A.2d 653 (1985) (quoting *Peoples Natural Gas Co. v. Pennsylvania Public Utility Comm'n*, 14 A.2d 133, 138 (1940)).

[57] *See e.g., Columbia Gas of Pennsylvania, Inc. v. Pennsylvania Pub. Util. Comm'n*, 613 A.2d 74 (Pa. Commw. Ct. 1992), *aff'd*, 636 A.2d 627 (1994) (addressing cost recovery related to migration of pollution from utility-owned property); *Joint Application of Nui Corp., C&T Enterprises, Inc. & Valley Energy, Inc*., No. A-125100, 2002 WL 34560229 (PUC 2002) (approving settlement that assured utility's right to seek recovery through rates of remediation costs, if approved by the Commission); *see also* Order Granting Petition to Intervene at 2 (stating that "Environmental Remediation" is within the scope of this rate case); *see also* 52 Pa. Code § 69.2702 (requiring PGW rates to be adequate to cover reasonable and prudent operating expenses and maintain adequate financial quality as Commission deems appropriate and in the public interest without exempting any category of expense or any causative factor for an expense from consideration).

[58] *See, e.g.*, *Pennsylvania Pub. Util. Comm'n v. Valley Utils Co.*, 72 Pa. P.U.C. 310 (Mar. 22, 1990) (rejecting as unreasonable and unsupported by evidence utility's request to increase executive salary).

[59] *Pennsylvania Pub. Util. Comm'n v. Philadelphia Suburban Water Co.*, 71 Pa. P.U.C. 593 (Dec. 28, 1989) (approving as reasonable utility's proposed above-inflation increase to employee benefits and health care costs).

[60] *Pennsylvania Pub. Util. Comm'n Office of Consumer Advocate Office of Small Bus. Advocate Matthew Josefwicz Barbara Mcdade*, No. C-2018-2646178, 2018 WL 5620905 (Oct. 25, 2018) (approving as reasonable and supported by the evidence utility's proposed management bonus scheme).

[61] *Tucker v. Pa. Pub. Util. Comm'n*, 917 A.2d 378 (Pa. Commw. Ct. 2006).

In short, if some fact or circumstance has the potential to affect the prudence of utility expenses, it is within the Commission's ratemaking jurisdiction to consider that evidence. As the Environmental Stakeholders have maintained throughout this proceeding, the questions raised by the Environmental Stakeholders regarding the prudent consideration of costs and risks are core ratemaking issues well-within the Commission's traditional ratemaking jurisdiction.[62] However, PGW has in its testimony attempted to argue that the Commission lacks jurisdiction over any matter linked to "environmental" or "climate change" factors.[63] This argument is unavailing, and is addressed in detail by the Environmental Stakeholders *infra* in the section of the common brief outline designated for "Environmental Issues" at Section V.F.3.

3. In the Course of Ratemaking, the Commission Must Protect the Public Interest

The Public Utility Code entrusts the Commission with the duty to protect the public interest through regulation of monopoly utilities.[64] Without the disciplining effects of competition, monopoly utilities have a diminished incentive to control costs. The Commission's principle role is to broadly protect the public interest, ensuring that utilities are afforded a reasonable degree of security in their investments and customers are provided adequate service at reasonable rates. In short, the Commission is "a watchdog for the public and against unreasonable rates."[65] As explained herein, it is in the public interest for PGW to be ordered to responsibly plan for its future and prudently control costs for customers.

[62] Petition to Intervene; PGW Motion in Limine.
[63] *Rebuttal Testimony of James H. Cawley on Behalf of PGW*, Docket No. R-2020-3017206 (July 13, 2020) ("PGW St. No. 12-R Cawley Rebuttal"); *Rejoinder Testimony of James H. Cawley on behalf of PGW*, Docket No. R-2020-3017206 (July 28, 2020), Docket No. R-2020-3017206 (PGW St. No. 12-RJ, Cawley Rejoinder").
[64] *E.g.*, *Pa. Pub. Util. Comm'n v. Philadelphia Elec. Co.*, 561 A.2d 1224, 1226 (Pa. 1989); *Duquesne Light Co. v. Pa. Pub. Util. Comm'n*, 715 A.2d 540, 546 (It is the Commission's duty to determine the public interest and to protect the rights of the public.") (internal citations omitted); s*ee also* OCA St. No. 1, p. 8:10–14 (explaining Commission's role as acting within the broad public interest).
[65] *Pa. Pub. Util. Comm'n v. Philadelphia Elec. Co.*, 561 A.2d 1224, 1226 (Pa. 1989)

D. Burden of Proof

PGW bears the burden to show, by substantial evidence, that its proposed rate increase is just and reasonable.[66] "[T]he utility's burden of establishing the justness and reasonableness of every component of its rate request is an affirmative one, and that burden remains with the public utility throughout the course of the rate proceeding.[67] "Substantial evidence is that quantum of evidence which a reasonable mind might accept as adequate to support a conclusion."[68] Substantial evidence requires "more than a mere scintilla of evidence or suspicion of the existence of a fact to be established."[69]

The Commission is responsible for determining the weight of fact evidence, including reliability of proffered estimates and opinions as well as questions of witness credibility.[70] The Commission's principle duty is to protect the public interest, and to that end, nothing in the law requires the Commission to accept "unrealistic and merely hypothetical" fact evidence offered by

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[66] 66 Pa. C.S. § 315(a); *Pennsylvania Pub. Util. Comm'n Nat'l R.R. Passenger Corp. Ronald J. Serafin*, No. C-2016-2580526, 2017 WL 3872543, at *7–9 (Pa. PUC Aug. 14, 2017); *Lower Frederick Twp. Water Co. v. Pennsylvania Util. Comm'n*, 409 A.2d 505, 507 (Pa. Commw. Ct. 1980) ("It is well-established that the evidence adduced by a utility to meet this burden [of proving the justness and reasonableness of a proposed rate hike] must be substantial").

[67] *Pennsylvania Pub. Util. Comm'n Office of Consumer Advocate Office of Small Bus. Advocate*, No. C-2019-3011959, 2020 WL 2487415, at *4.

[68] *Norfolk & W. Ry. Co. v. Pa. Pub. Util. Comm'n*, 413 A.2d 1037, 1047 (Pa. 1980).

[69] *Murphy v. Com., Dept. of Pub. Welfare, White Haven Center*, 480 A.2d 382, 386 (Pa. Commw. Ct. 1984).

[70] *Armstrong Commc'ns, Inc. v. Pennsylvania Pub. Util. Comm'n*, 768 A.2d 1230, 1232–33 (Pa. Commw. Ct. 2001) (citing *York Water Co. v. Pennsylvania Public Util. Comm'n,* 414 A.2d 138 (Pa. Commw. Ct. 1980)) (The Commission is "[c]harged with the responsibility of considering all relevant evidence, determining the weight of evidence, credibility of witnesses, and reliability of estimates and opinions"); *Citizens Water Co. of Washington, Pa. v. Pennsylvania Pub. Util. Comm'n*, 124 A.2d 123, 126 (Pa. Super. Ct. 1956) ("After giving consideration to any relevant facts, it is within the province of the commission to determine the weight to be given the evidence, the reliability of the estimates and the opinions, and the credibility of the witnesses.").

a utility.[71] Indeed the Commission may not lawfully base its findings on "conjectural" or otherwise "unsatisfactory" estimates.[72]

V. ARGUMENT

A. Overall Position on Rate Increase

1. PGW's Requested Rate Increase Should Be Denied As Insufficiently Supported

PGW's requested rate increase should be denied in its entirety as insufficiently supported.[73] Responsible stewardship of customer dollars and prudent utility management depend on robust planning for operations in the real world. This record shows that PGW has neglected this basic duty.

Business as usual may not continue indefinitely for fossil-fuel based energy suppliers, including PGW. The Governor of Pennsylvania has committed the Commonwealth to dramatically reduce greenhouse gas emissions by 2050, in a bid to avoid the worst effects of climate change.[74] Philadelphia's City Council has adopted a similar resolution that goes a step further, committing to transition to 100% clean renewable energy for all purposes—including heating—by 2050.[75] Following-up on that commitment, the City has begun to explore how

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[71] *E.g.*, *Citizens Water Co. of Washington, Pa. v. Pennsylvania Pub. Util. Comm'n*, 124 A.2d 123, 126 (1956) ("The commission is charged with the duty of protecting the rights of the public, and there is nothing in the law that compels it to accept a company's valuation of property for rate making purposes which is unrealistic and merely hypothetical.").

[72] *City of Pittsburgh v. Pennsylvania Pub. Util. Comm'n*, 126 A.2d 777, 781 (1956) (internal citation omitted) ("The commission is not empowered to base a finding upon 'conjectural and unsatisfactory estimates.'").

[73] Pursuant to the Briefing Order, attached hereto as Attachment 1, there is a rate case table designed to reflect the denial of PGW's requested rate increase in its entirety.

[74] Pa. Exec. Order No. 2019-01 at 2 (Jan. 8, 2019) ("Order No. 2019-01"); *Direct Testimony of Ezra Hausman on Behalf of the Sierra Club and Clean Air Council*, at 7:5-8:12, Docket No. R-2020-3017206 (June 15, 2020).

[75] *Urging the City of Philadelphia to take measures to achieve fair and equitable transition to the use of 100% Clean Renewable Energy by 2050*, Resolution No. 190728, at 2 (Sept. 26, 2019) ("Resolution No. 190728"), https://phila.legistar.com/LegislationDetail.aspx?From=RSS&ID=4142523&GUID=BA06CC3B-7B43-4743-A07E-515A145C4A2A; *Direct Testimony of Ezra Hausman on Behalf of the Sierra Club and Clean Air Council*, at 8:13-9:20, Docket No. R-2020-3017206 (June 15, 2020).

PGW's operations will have to adapt.[76] It appears PGW, however, has ignored these Commonwealth and local commitments in favor of business as usual.

Before increasing rates to further accelerate PGW's infrastructure investments, PGW must show such investments are prudent, necessary, and consistent with public interest. But PGW simply has not done its homework in this regard. PGW is making infrastructure investments based on current need, with no evaluation of customer needs over the long-term. This is a problem, given "the critical fact that PGW's existence as a viable business entity relies upon, and thus, its distribution mains investment costs are caused by, end-user annual gas requirements."[77] PGW neglected to consider cost-effective alternatives to infrastructure spending, like energy efficiency and other non-pipeline alternatives. PGW has not studied or even quantified the stranded risk exposure that accompanies the City's commitment to make reliance on natural gas obsolete by 2050. Finally, PGW has failed to show by substantial evidence that increased fixed customer charges would be just and reasonable, and not unduly discriminatory.

As a result, and as explained more fully below, the Commission should deny PGW's requested rate increase. Should the Commission grant PGW any rate relief, increased revenue should be collected exclusively through customers' volumetric rates without increasing the existing fixed customer charges, which are already among the highest in the Commonwealth.

[76] *Direct Testimony of Ezra Hausman on Behalf of the Sierra Club and Clean Air Council*, at 13:6–16:16, Docket No. R-2020-3017206 (June 15, 2020).
[77] *Direct Testimony of Jerome D. Mierzwa on Behalf of the Pennsylvania Office of the Consumer Advocate*, at 24:2–4, Docket No. R-2020-3017206 (June 15, 2020) ("OCA St. No. 4, Mierzwa Direct").

2. PGW has Neglected its Basic Duty to Consider Alternatives That Could Save Customers Money in the Near- and Long-Term

Like any utility, PGW is obliged to be a responsible steward of customer dollars by controlling costs.[78] The ability to control costs is a function of robust planning and meaningful evaluation of potentially cost-effective alternatives. Because PGW's infrastructure investments are based on current need and lack any examination of alternatives to replacing aging, at-risk infrastructure in-kind, neither customers nor the Commission can have confidence that PGW is making cost-effective investments consistent with the public interest.

Rather than rote replacement of each component of its aging, at-risk system, PGW should be looking for potentially cost-effective alternatives at every opportunity. For example, energy efficiency, if targeted, has the potential to change the configuration and size of PGW's distribution system, reducing capital costs in the near-term and mitigating longer-term stranded asset risks.[79] In fact, energy efficiency is even more of a win-win, as it also helps to reduce customers' monthly bills in a City where affordability is a perennial challenge.

Yet, PGW has not performed any studies of whether increased energy efficiency measures could enable the decommissioning of some mains or services over the next 35 years.[80] As Dr. Hausman testified, "As a result, the Company has provided no basis for the Commission to judge whether *additional* energy efficiency measures might be a cost-effective way to avoid costly infrastructure investments."[81] Instead, PGW's management does nothing more than a yearly analysis of current need before deciding whether and how to replace a segment of its

[78] Stunder Cross, Tr. at 345 ("[A] utility should be concerned about costs[.]").
[79] *See, e.g.*, *Direct Testimony of Ezra Hausman on Behalf of the Sierra Club and Clean Air Council*, at 12:3–21, Docket No. R-2020-3017206 (June 15, 2020) (explaining value of energy efficiency programs) ("SC St. No 1, Hausman Direct"); *see also* OCA St. No. 4, Mierzwa Direct at 18–19 (explaining relative costs to install different main sizes and illustrating the cost difference between different main sizes).
[80] Moser Cross, Tr. at 318; ES Hearing Ex. 10, Response to ES Interrogatories Set I, No. 8.f.
[81] *Surrebuttal Testimony of Dr. Ezra Hausman on Behalf of the Sierra Club and Clean Air Council*, at 10:18–20, Docket No. R-2020-3017206 (July 24, 2020) ("SC St. No. 1-SR, Hausman Surrebuttal").

distribution system, and that yearly analysis is not at all integrated with PGW's energy efficiency programs.[82] PGW simply does not view energy efficiency as a means to reduce demand over the short- or long-term,[83] and in its leadership's view, that justifies PGW's failure to try to identify energy efficiency investments that may reduce the need for capital investments.[84] PGW's failure to even consider alternatives that may be less costly, less risky, and safer for customers is a management quality, efficiency, and effectiveness failure.[85]

Prudent utilities plan infrastructure investments in light of long-term need and risks, using all the alternatives at their disposal to reduce customer cost and risk.[86] PGW does things differently; its "distribution system is designed to meet customers' current needs,"[87] with no thought to whether the investments will continue to provide value over their full expected useful life.[88] But if PGW instead capitalized on the potential to "use energy efficiency to avoid pipeline replacements, it could both avoid additional costs in the short term, and reduce its stranded asset risk in the long term."[89]

Simply put, PGW has not prudently planned its infrastructure investments, and rates should not be increased to accelerate those investments unless and until PGW evaluates whether targeted energy efficiency investments, and other non-pipeline alternatives, reduce costs and risks ultimately borne by Philadelphians.

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[82] Moser Cross, Tr. at 318.
[83] *Id.* at 321.
[84] *Id*.
[85] *E.g.*, *Direct Testimony of Gregory Stunder on Behalf of Philadelphia Gas Works* at 4:13–6:22, Docket No. R-2020-3017206 (Feb. 28, 2020) (listing cost-saving initiatives to demonstrate management quality, efficiency and effectiveness); Stunder Cross, Tr. at 343:9–344:16 (agreeing that cost saving initiatives are relevant when considering management quality, efficiency and effectiveness).
[86] Cawley Cross, Tr. at 278:17–279:6 (agreeing "it's always proper for a utility to consider [inaudible] when it does its long-term planning").
[87] ES Hearing Ex. 10, PGW's Response to ES Interrogatories Set I, No. 8.a.
[88] Moser Cross, Tr. at 325:4-12.
[89] SC St. No. 1-SR, Hausman Surrebuttal at 12:14–16.

3. PGW Has Neglected Its Basic Duty To Evaluate And Limit Customer Exposure To Stranded Asset Risks

PGW also failed in its basic duties by refusing to study or attempt to minimize the stranded asset risks posed by climate change. As discussed in detail below, PGW faces significant regulatory uncertainty and risk, as evidenced by Commonwealth and City commitments to respond to climate change by reducing harmful emissions and reliance on fossil fuels. PGW needs a reasonable, fact-based plan to evaluate these risks and minimize their cost impacts.

The Environmental Stakeholders submitted extensive and unrebutted testimony on the direct and regulatory risks of climate change to PGW's operations: "Climate science tells us that we cannot continue to burn fossil fuels at the rate we have been over the next several decades without catastrophic and irreparable harm to the climate of the planet, as well as to the economy and livability of Philadelphia."[90] Climate change impacts are already materializing, including more frequent and intense extreme weather and national disasters, higher temperatures, global sea level rise, changes in precipitation and more frequent flooding.[91]

Communities across the Commonwealth will continue to be negatively impacted as these changes intensify, including in Philadelphia. This is why Governor Wolf described climate change as "the most critical environmental threat confronting the world."[92] The risk of flooding from sea level rise threatens severe consequences for Philadelphia:

[90] SC St. No. 1, Hausman Direct, at 26:10–13; *see also* SC St. No. 1-SR, Hausman Surrebuttal at 8 ("As a climate scientist I am well aware of the need to eliminate the use of fossil fuels as thoroughly and as quickly as possible from our energy supply in order to avert the worst impacts of climate change."); SC St. No. 1, Hausman Direct, Ex. EDH-3, at 11 ("The Earth's average temperature has warmed by more than one degree Fahrenheit over the last century, and scientists overwhelmingly agree that most or all of this warming comes from human influence. This influence comes mainly through the burning of fossil fuels and resulting accumulation of carbon dioxide in the atmosphere.").
[91] SC St. No. 1, Hausman Direct, at 7 (quoting Order No. 2019-01 at 1).
[92] SC St. No. 1, Hausman Direct, at 8 (quoting Order No. 2019-01 at 1).

> Nearly 9 square miles of land lie less than 4 feet above the high tide line in Pennsylvania. Some $686 million in property value, and more than 5,000 people residing in more than 2,000 homes – mostly in Philadelphia – sit on this area. More than $250 million of the property sits within just one zip code, 19153 (Philadelphia International Airport). Totals jump to some $3.4 billion, more than 27,000 people, and more than 12,000 homes on more than 29 square miles of land under 9 feet.[93]

The risk of flooding from sea level rise also threatens severe impacts throughout the Commonwealth:

> The state has 63 miles of road below 4 feet, plus 23 hazardous waste sites, 15 wastewater sites, and 4 power plants. At 9 feet, these numbers grow to nearly 227 miles of road, 114 hazardous waste sites, 37 wastewater sites, and 10 power plants, as well as 2 museums. Surging Seas Risk Finder presents results for many more infrastructure and facility categories, as well as population groups and potential contamination sources.[94]

There is a clear and compelling public interest in avoiding the displacement of thousands of Pennsylvanians and the loss of billions of dollars of value in the Commonwealth.[95] As Dr. Hausman testified, "If emissions are not curtailed, large areas of Philadelphia will be regularly inundated either persistently or during storm surges, making currently valuable residential and business areas uninhabitable."[96] Neither PGW nor any other party has contested or rebutted these basic facts of climate change. The only question, then, is what to do with these facts.

Elected officials at the Commonwealth and local level have begun to answer that question by making commitments that may help avoid the worst impacts of climate change. In 2019, by his first Executive Order of the year, Governor Wolf declared that "climate change impacts in Pennsylvania are real and continue to Pennsylvanians at risk[.]"[97] The order

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[93] SC St. No. 1, Hausman Direct at 26–27 (quoting Ex. EDH-3 at 16).
[94] *Id*.
[95] Order No. 2019-01 ("Pennsylvania's economy, health and safety, and quality of life of its citizens are dependent on the careful stewardship of resources, a healthy economy, and the development of technologies to enable economic growth while protecting the environment.").
[96] SC St. No. 1, Hausman Direct, at 27:11–13.
[97] *Id.* at 7 (quoting Commonwealth Leadership in Addressing Climate Change and Promoting Energy Conservation and Sustainable Governance, Order No. 2019-01 at 1).

continues, "the Commonwealth is committed to further reducing its net greenhouse gas emissions which, left unchecked, would create a high risk of irreversible, widespread, severe climate impacts in the Commonwealth and beyond[.]"[98] Governor Wolf noted Pennsylvania's unique potential to "take steps to continue to reduce emissions in the power sector, increase reliance on clean energy and improve energy efficiency, and continue reductions of potent greenhouse gasses such as methane[.]"[99] In particular, Governor Wolf's Executive Order states that "[t]he Commonwealth shall strive to achieve a 26 percent reduction of net greenhouse gas emissions statewide by 2025 from 2005 levels, and an 80 percent reduction of net greenhouse gas emissions by 2050 from 2005 levels."[100]

The City of Philadelphia has made further commitments. In City Council Resolution No. 190728, our City Commissioners stated that "[t]he City of Philadelphia must continue to take the lead in advancing proactive climate change solutions" and urged "the City of Philadelphia to take measures to achieve fair and equitable transition to the use of 100% Clean Renewable Energy by 2050."[101] Ultimately, Resolution No. 190728 resolves "[t]hat the City of Philadelphia shall take measures to achieve a fair and equitable transition to the use of 100% clean renewable energy for electricity in municipal operations by 2030, for electricity City-wide by 2035, *and for all energy (including heat and transportation) city-wide by 2050 or sooner.*"[102]

These commitments by the City and the Commonwealth are warning signs that profound changes to our energy system are in the making and it would be reckless to ignore them. Without changes to its operations, PGW may find itself unable to meet future requirements to decrease

[98] *Id.* at 7 (citing Order No. 2019-01 at 1).
[99] Order No. 2019-01 at 1.
[100] SC St. No. 1, Hausman Direct, at 8 (citing Order No. 2019-01 at 2).
[101] *Id.* at 8 (quoting Resolution No. 190728 at 2).
[102] Resolution No. 190728 at 3 (Sept. 25, 2019).

methane emissions. More fundamentally, if the City of Philadelphia follows-through on its commitments to transition to clean energy, by the time PGW has finished replacing all of its cast iron main in approximately 2055, the city it serves will have already stopped relying on natural gas.[103] But PGW has done nothing to evaluate whether accelerating its infrastructure investments is necessary or prudent in light of these stranded asset risks.

Though Dr. Hausman addressed stranded asset risks extensively in his direct and surrebuttal testimony, no PGW witness provided credible testimony addressing stranded asset risk in response. PGW has not even quantified the magnitude of the stranded asset risks. Neither PGW's leadership nor the Philadelphia Facilities Management Corporation ("PFMC") have discussed Governor Wolf's commitment to reduce harmful emissions in meetings, and neither has considered any reports, presentations, or analyses on the topic.[104] Similarly, neither PGW's leadership nor the PFMC have discussed the City of Philadelphia's commitments to stop using fossil fuels entirely by 2050, and neither has considered any reports, presentations, or analyses on the topic.[105] PGW's management has not evaluated the risk that climate change or future regulatory changes relating to greenhouse gases or fossil fuel use may pose to its ability to obtain the full expected value from its planned infrastructure investments.[106] PGW's management has not developed any plan to minimize the cost to ratepayers for compliance with any future regulatory changes relating to greenhouse gases or fossil fuel use.[107] PGW's management has not developed any plan to minimize the cost to ratepayers to adapt its infrastructure to climate change.[108]

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[103] SC St. No. 1, Hausman Direct at 10.
[104] ES Hearing Ex. 5, PGW's Response to CAC-01-CAC-01-8.
[105] *Id.*, PGW's Responses to CAC-01-CAC-01-10, CAC-01-CAC-01-12; ES Hearing Ex. 7, PGW's Suppl. Responses to CAC-01-CAC-01-10.Supplemental.01, CAC-01-CAC-01-12.Supplemental.01.
[106] ES Hearing Ex. 10, PGW's Response to ES-I-3.a, c.
[107] *Id.*, PGW's Response to ES-I-3.b.
[108] *Id.*, PGW's Response to ES-I-3.d.

PGW's only explanation for not taking care to consider any of these risks and to develop contingency plans is that "[r]egulatory changes have not been imposed."[109] This explanation is unconvincing. First, like other utilities, PGW regularly engages with proposed legislative and regulatory changes.[110] The statement that regulatory changes have not yet been imposed does not excuse a failure to plan in light of potential and foreseeable changes. Second, waiting for regulatory changes forcing PGW to immediately reduce its methane emissions or discontinue reliance on natural gas for energy in favor of safer, loss-costly clean energy alternatives fundamentally misses the point. The point is that PGW faces known, significant risks as a result of climate change and regulations aimed at avoiding the worst effects of climate change by curtailing fossil-fuel use. Should these risks materialize, the consequences for PGW will be profound, posing extremely difficult questions about whether and how PGW will remain relevant and solvent in the face of climate constraints. In the face of such dramatic risks, prudence demands contingency planning. The Environmental Stakeholders urge that PGW not be allowed to squander this opportunity for prudent planning.

Now is the time to begin planning and reducing risk exposure. As Dr. Hausman has testified, "if the Company is taking the City Council and the Governor's Executive Order seriously, not disregarding them entirely, it would be looking at what it would take to retire that infrastructure and not just replace it with something that would not be useful during the end of the time period."[111] Unless and until PGW can show by substantial evidence that its infrastructure expenditures are prudent notwithstanding obvious regulatory uncertainty and risks posed by climate change, these expenses cannot be included in just and reasonable rates.

[109] *Id.*, PGW's Response to ES-I-3.
[110] *E.g.*, Stunder Cross, Tr. at 370 (discussing lobbying in relation to proposed changes in the law).
[111] Hausman Cross, Tr. at 397:17–22.

4. Particularly Given That PGW Has Neglected Its Duty to Plan Responsibly In Light of Coming Climate Changes, the Commission Should Reject PGW's Proposal to Shift Weather Variability Risks to Customers

In addition to increased revenues, PGW also asks the Commission to approve increased monthly customer charges, effectively shifting the cost risks of weather variability to customers. As such, the Commission should reject PGW's requested fixed charge increase, as explained in detail *infra* in Section V.C.3. Greater recovery of revenue through fixed as opposed to variable charges harms ratepayers, with many low-income and all low-usage customers absorbing a steeper increase than their high-usage counterparts on a percentage basis, and dampens price signals that otherwise encourage conservation. In addition to these well-known reasons fixed changes are bad for customers, there are further reasons PGW cannot carry its burden on this issue. Just as PGW failed to do its homework with respect to cost-effective alternatives and regulatory risks, PGW failed to study how hiking its fixed charge would impact its customers.[112]

PGW cannot say what the impacts to customers are, but it knows the impact it is trying to achieve for itself by increasing fixed charges: shift weather variability risks off PGW and onto customers' monthly bills.[113] This should be unacceptable to the Commission. The weather variability challenges faced by PGW are challenges that will only increase with climate change.[114] Particularly at a time when PGW is neglecting its duty to evaluate cost-effective

[112] Dybalski Cross, Tr. at 384; ES Hearing Ex. 4, PGW's Responses to Discovery Request CAC-01-CAC-01-5, CAC-01-CAC-01-6 (admitting PGW has not studied impact of increased customer charge on low-income customers or energy efficiency programs).

[113] *Direct Test. of Kenneth S. Dybalski on Behalf of PGW*, Docket No. R-2020-3017206, at 7:9–8:2 (Feb. 28, 2020) ("PGW St. No. 6, Dybalski Direct") ("Greater revenue stability will also improve PGW's cash flow and make it less susceptible to weather variability.").

[114] *Direct Testimony of Ezra Hausman on Behalf of the Sierra Club and Clean Air Council*, at 26:1-28:7, Docket No. R-2020-3017206 (June 15, 2020); *See also id.* at 13–16 (summarizing City Council resolution 181081, which called for a hearing on the climate sustainability of PGW given unavoidable threat of climate change, decreasing demand for natural gas, and increasing competition from cleaner, lower-cost energy sources, all of which necessitate an exploration of "how to adapt PGW to the needs of the changing market and planet"); *id.* at 15 (explaining that the City is pursuing a business diversification study in light of declining demand for energy from PGW which "will only intensify as temperatures are projected to continue to rise in the future and new polices may restrict the production of greenhouse gases").

alternatives that may help reduce climate-related risk exposure in the long-term, it would be unreasonable and against the public interest to allow PGW to shift additional risks onto its captive customers.

Further, PGW already insulates its revenues from weather variability through its Weather Normalization Adjustment ("WNA"). Since 2002, PGW has used the WNA "to neutralize the impact of weather on the Company's revenues."[115] PGW and rating agencies alike view the WNA as effectively stabilizing cash flows and limiting the downside risk during warm years.[116] With continued reliance on the WNA to address weather variability, there is no need for PGW to further insulate itself from weather variability by shifting those risks onto customers through fixed charge increases.

As increased weather variability and weather trends continue, it cannot be acceptable for PGW's only plan in response to be periodic rate increases accompanied by higher recovery through fixed charges. PGW needs a real plan for how it will address the challenges facing its business without depending on customers to keep paying higher, less-controllable bills every few years.

5. PGW's Failure To Meet Its Evidentiary Burden Could Be Remedied By Preparation of a Climate Business Plan

Rather than ignoring the physical and regulatory risks to PGW's operations and infrastructure as a result of climate change, PGW needs to begin responsibly planning for its

[115] PGW Vol. 1, Part 1, *Response to Filing Requirement II.A.3, Basic Financial Statements and Supplementary Information Aug. 31, 2019 and 2018 (With Independent Auditors' Reports Thereon)*, at 24, Docket No. R-2020-3017206, http://www.puc.state.pa.us/pcdocs/1656459.pdf.

[116] *E.g.*, *id.* at *Response to Filing Requirement II.A.4, Independent Consultant's Engineering Report (July 2017)*, Sec. 7.4, p. 49 ("Since 2002, PGW's Tariff has included a weather normalization adjustment ("WNA") clause. The benefit of a WNA is that it mitigates the single biggest risk to PGW of not recovering its approved margin due to warmer than normal weather during the winter season."); *Direct Test. of Joseph F. Golden, Jr. on Behalf of PGW*, Docket No. R-2020-3017206, at Ex. JFG-3, Part 1 of 3, p. 4 (Feb. 28, 2020) ("Favorably, PCW's weather normalization adjustment (WNA) mechanism has helped keep margins stable. The weather normalization adjustment is key to the utility's financial stability.").

future in climate constrained world.[117] The analytic gaps identified above regarding alternatives, costs, and risks need to be filled in order for the Commission to determine whether PGW's proposed rates and just and reasonable.[118]

As Dr. Hausman has testified, this would most efficiently be accomplished through an integrated Climate Business Plan study addressing all of these gaps in a coordinated fashion.[119] However, these analytic gaps could also be filled through issue-specific studies.[120] Whether denominated as a Climate Business Plan or something else, "[t]he important thing is to fill the analytic gaps left by the Company on alternatives and risks, so that PGW is not 'flying blind' into the future with hundreds of millions or billions of ratepayer dollars at stake."[121] With integrated planning that includes robust evaluation of alternatives and consideration of stranded asset risk, PGW would have a roadmap setting out prudent infrastructure and operational decisions to prepare PGW for an equitable transition to a climate-constrained future.[122]

The Commission should order PGW to produce and file such Climate Business Plan study.[123] In so doing, some public process is necessary to ensure its adequacy as well as public understanding and acceptance of the plan.[124] This public process should include written public comments on a draft plan and at least one public hearing on the record.[125] Further, the plan should demonstrate the potential for non-pipeline alternatives, including energy efficiency, to

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[117] SC St. No. 1, Hausman Direct, at 11–18.
[118] SC St. No. 1-SR, Hausman Surrebuttal, at 4:16–17.
[119] *Id.* at 5:11–14.
[120] *Id*.
[121] SC St. No. 1-SR, Hausman Surrebuttal, at 5:11-14.
[122] SC St. No. 1, Hausman Direct, at 11–12.
[123] 66 Pa. C.S. § 504 (providing that "commission may require any public utility to file periodical reports, at such times, and in such form, and of such content, as the commission may prescribe, and special reports concerning any matter whatsoever about which the commission is authorized to inquire, or to keep itself informed, or which it is required to enforce.").
[124] SC St. No. 1, Hausman Direct, at 12–13.
[125] *Id*. at 13.

provide cost-effective alternatives to in-kind infrastructure replacement.[126] To maximize the cost-effective use of ratepayer dollars, PGW's work on the Climate Business Plan should be coordinated with the business diversification study that PGW is working on in cooperation with the City of Philadelphia.[127]

Rather than simply planning for incremental rate increases and reliance on weather normalization adjustments as demand on its system declines—whether as a result of warmer winters, customer switches to lower-cost energy alternatives, or regulatory mandates to reduce reliance on fossil fuels, or all of the above—PGW needs to control costs and risk exposure resulting from climate change through integrated planning.[128] Unless and until PGW undertakes robust planning to meet the challenges presented by climate change, further rate increases would be unjust, unreasonable, and inconsistent with the public interest.

B. Revenue Requirement

1. Pro Forma Expense Adjustments

The Environmental Stakeholders reserve this issue for reply briefing, as appropriate to respond to parties' main brief.

2. Allowed Financial Metrics

The Environmental Stakeholders reserve this issue for reply briefing, as appropriate to respond to parties' main brief.

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[126] *Id*.
[127] *Id*. at 15:3-16:16.
[128] *See, e.g.*, OCA St. No. 4, Mierzwa Direct, at 15:17–20 ("A viable gas market is dependent upon the ability to amortize delivery costs over a sufficient volume of service so as to result in a unit cost that can be recovered at a price at which gas can be sold and still compete with other energy sources.").

3. Overall Revenue Requirement Recommendation

The Environmental Stakeholders recommend that PGW's proposed revenue requirement be adjusted to exclude all expenses associated with the acceleration of PGW's main replacement program beyond what is required to fulfill PGW's obligations under its Commission-approved Long Term Infrastructure Improvement Plan ("LTIIP").

C. Rate Structure/Cost of Service

1. Cost of Service Study

The Environmental Stakeholders reserve this issue for reply briefing, as appropriate to respond to parties' main brief.

2. Revenue Allocation by Rate Class

The Environmental Stakeholders reserve this issue for reply briefing, as appropriate to respond to parties' main brief.

3. Rate Design

a. Summary of Proposed Rate Design

The Environmental Stakeholders reserve this issue for reply briefing, as appropriate to respond to parties' main brief.

b. Customer Charges

PGW has asked this Commission to approve a significant customer charge increase: Residential customers would be particularly hard hit by PGW's proposed increases, seeing a 40%

increase requiring them to pay $19.25 every month regardless of usage.[129] If approved as proposed, PGW's customer charge would be by far the highest of any utility in Pennsylvania.[130]

PGW's requested customer charge increases should be denied because they would harm customers, particularly low-income customers, discourage conservation, and unreasonably shift risk to customers, all against the public interest. [131] Although some parties have proposed a settlement reducing PGW's original customer charge increase, the Environmental Stakeholders maintain that the record does not support any change to the customer charge. Should the Commission grant any rate increase in this proceeding, additional revenues should be recovered through volumetric charges, with monthly customer charges held constant.

i) Increased Fixed Charges Will Harm Residential Customers, Especially Low-Income Customers and Low-Usage Customers

Although the harmful implications of increasing fixed charges are clear,[132] PGW conducted no analysis whatsoever to consider the particular impact its proposed fixed charge increase will have on its customers.[133] This failure to consider customer impacts is particularly concerning given that the majority of PGW's residential customers "either live below or are

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[129] PGW St. No. 1, Stunder Direct, at 7:3–5; SC St. No. 1, Hausman Direct, at 19.
[130] PGW St. No. 1, Stunder Direct, at 7; *see also* OCA St. No. 4, Mierzwa Direct, at 33–34 ("PGW's proposed monthly Residential customer charge of $19.95 would be significantly higher than that of any other NGDC in the Commonwealth.").
[131] SC St. No. 1, Hausman Direct, at 22–23; *id.* at 24–25 (illustrating higher usage patterns following fixed charge increase).
[132] *Id.* at 21–25 (discussing harmful effects of higher customer charges, which include unfairly charging lower-usage customers more on a per-unit basis, unjustly using low-income customers to cross-subsidize high-income customers, disproportionately impacting low-income customers, unreasonably decreasing affordability and bill control during a global pandemic and national recession, unreasonably transferring risks from the utility to customers, inefficiently dampening price signals, and inefficiently incenting higher usage); *see also* OCA St. No. 5, Colton Direct, at 16–18 (explaining how increasing customer charge harms low-income customers).
[133] *Id.* at 22 (citing Ex. EDH-7, PGW's Response to Discovery Request CAC-01-CAC-01-6).

within stumbling distance of the federal poverty level."[134] Yet PGW did not evaluate in any fashion the impact of a fixed charge increase on its low-income customers.[135]

Increased recovery through fixed rather than variable charges harms customers generally, and disproportionately harms low-income customers.[136] Practically speaking, increasing the fixed charge will have uneven impacts across PGW's customer base. The more PGW adjusts rates to recover revenue requirements through fixed rather than volumetric charges, the more differentiation there will be in the per-unit cost paid by different customers. This differential impact will be particularly harmful and unfair to lower-income customers. As Dr. Hausman testified, "This is because a fixed charge effectively charges lower-usage customers, who tend to be lower-income, more than higher-usage customers on a per-unit basis."[137]

The uneven impact on all customers, and disproportionate impact on low-income customers, is a significant issue.[138] Households across PGW's service territory are suffering the effects of the coronavirus pandemic and associated economic downturn.[139] More than ever before, PGW's customers are in need of opportunities to lower their monthly expenses. Now is not the time to raise the fixed customer charge and further burden customers struggling to make ends meet simply because a monopoly utility wants greater revenue stability for itself.[140]

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[134] *Id.* (quoting Barry O'Sullivan, Director of Corporate Communications for PGW).

[135] Dybalski Cross, Tr. at 384; ES Hearing Ex. 4, PGW's Response to Discovery Request CAC-01-CAC-01-6 (confirming that PGW has conducted no analysis concerning the impact that changing the balance of fixed and variable charges on customer bills would have on low-income customers).

[136] SC St. No. 1, Hausman Direct, at 21; *Direct Test. of Harry S. Geller on Behalf of Tenant Union Representative Network ("TURN") and Action Alliance of Senior Citizens of Greater Philadelphia*, at 10, Docket No. R-2020-3017209 (June 15, 2020) ("TURN *et al.* St. No. 1, Geller Direct"); OCA St. No. 5, Colton Direct, at 16–18.

[137] SC St. No. 1, Hausman Direct, at 21; *see also* OCA St. No. 5, Colton Direct, at 18: 9–14; *id.* at 21 (noting that despite a general correlation between income and usage, PGW has not studied the correlation between income and usage among its customers).

[138] SC St. No. 1, Hausman Direct, at 21–22.

[139] OCA St. No. 5, Colton Direct, at 5–12 (detailing dramatic public health and economic impacts from COVID-19 in Pennsylvania).

[140] Dybalski Cross, Tr. at 386 (agreeing that customer charge increase will provide more rate stability to PGW over the course of a year); *see also* SC St. No. 1, Hausman Direct, at 24 (quoting the Regulatory Assistance Project

ii) Increased Fixed Charges Will Harm Customers' Ability to Control Their Bills Through Conservation and Energy Efficiency Measures

Under the current circumstances, customers need every opportunity to control household expenses they can find. PGW's proposal to collect revenue through increasing its fixed charges has the opposite effect, however, harming customers by reducing each customer's individual potential for bill reduction through changes in behavior and increased efficiency.[141] By increasing the residential customer charge by $5.50 per month, PGW's low-income customers will pay an additional $13.6 million annually regardless of usage.[142] Though the proposed settlement would reduce that increased burden, the fact of increased annual payments to PGW regardless of usage remains. Practically, the increased customer charge diminishes customers' ability to control their bills through changes in usage, conservation measures.[143] This fundamental dynamic, with higher fixed charges discouraging energy efficiency by dampening price signals, is widely recognized.[144]

In his pre-served testimony, Mr. Dybalski shared his contrary belief that increasing the customer charge will not affect customer conservation. That belief, however, is illogical and entirely unsupported on this record.[145] The simple fact is that PGW never studied how increasing

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Report, Ex. EDH-2 at D-4–D-5) ("Another important role of utility regulation is to impart to natural monopolies (as electric distribution utilities are generally categorized) the same pricing discipline that competitive firms experience, so that they endeavor to minimize costs and maximize customer satisfaction. If utilities are allowed to recover their system costs in fixed charges for the privilege of being a customer, much of this discipline is lost.").

141 *Id.* at 6; OCA St. No. 5, Colton Direct, at 17.

142 OCA St. No. 5, Colton Direct, at 17.

143 TURN *et al.* St. No. 1, Geller Direct, at 10:3–7 ("Many of PGW's low-income customers have minimal or no resources to pay higher fixed charges and are not struggling to pay current charges and maintain their service. Because the customer charge is fixed and unavoidable, PGW customers will not be able to lower the charge by moderating natural gas consumption.").

144 *E.g.*, SC St. No. 1, Hausman Direct, at 22–23 (citing Illinois Commerce Commission decision rejecting People's Gas's similar request to increase revenues recovered through fixed charge as "inconsistent with the public policies of attributing costs to cost causers, encouraging energy efficiency, and eliminating inequitable cross-subsidization of high users by low users of natural gas").

145 *Surrebuttal Testimony of Dr. Ezra Hausman on Behalf of the Sierra Club and Clean Air Council* at 13:6-15:12, Docket No. R-2020-3017206 (July 24, 2020).

the customer charge would impact any of its customers.[146] This fact alone should be fatal to PGW's proposed increase, as well as the settlement derived therefrom—in both cases, PGW did not study and cannot know the degree of impact to its customers.

As Dr. Hausman testified, a fixed charge increase will negatively impact conservation, energy efficiency, and affordability.[147] Mr. Dybalski agrees that price signals affect customer behavior;[148] agrees that when a customer reduces their usage, savings are realized through the volumetric rate;[149] and agrees that, all else equal, increasing the fixed charge portion of customers' bill reduces the volumetric rate.[150] Logically, one conclusion flows from these agreed facts: a higher fixed charge will reduce the savings a customer can achieve through reducing their usage, and that price signal may affect customer decisions to pursue conservation opportunities.[151]

Mr. Dybalski's contrary belief appears to be mere conjecture.[152] Mr. Dybalski cannot say what the actual impacts may be, because PGW did not analyze the question. Mr. Dybalski cannot say whether the impact to the hypothetical "typical"[153] residential customer is actually representative of what the bill impact will be for residential customers on different payment arrangements. Mr. Dybalski offers no evidence whatsoever beyond his own speculation to

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[146] Dybalski Cross, Tr. at 382.
[147] *Direct Testimony of Ezra Hausman on Behalf of the Sierra Club and Clean Air Council*, at 18:12-25-22, Docket No. R-2020-3017206 (June 15, 2020); *Surrebuttal Testimony of Dr. Ezra Hausman on Behalf of the Sierra Club and Clean Air Council* at 13:6-15:12, Docket No. R-2020-3017206 (July 24, 2020).
[148] *Id.* at 383.
[149] *Id.*
[150] *Id.*
[151] SC St. No. 1, Hausman Direct, at 23 (explaining that Illinois Commerce Commission "has recognized that lower monthly customer charges and higher volumetric charges can advance energy use conservation and efficiency policy objectives by providing a greater price signal"); OCA St. No. 4, Geller Direct, at 35: 2–3 (explaining that a higher volumetric charge encourages lower usage).
[152] *Pennsylvania Pub. Util. Comm'n*, 126 A.2d at 781 (1956) (internal citation omitted).
[153] When PGW calculated the projected impact on a "typical" residential customer, it considered the average usage across all residential customers. It appears from the record that PGW made no effort to differentiate between subgroups of residential customers (e.g., residential customers paying the regular rate as a district subgroup from those paying reduced rates).

identify the percentage increase at which customer behavior will be affected. Mr. Dybalski agrees with each of the factual predicates to concluding that an increased fixed charge will dampen conservation incentives, yet refuses to acknowledge that conclusion. Such a contention is unavailing, and the Commission should accord it no weight.[154]

iii) Increased Fixed Charges Will Unfairly Shift Weather and Climate Risks onto Customers

In addition to the direct and disparate harms threatened by PGW's proposed fixed charge increases, such increases will further harm customers by improperly shifting weather and climate risks onto their shoulders. Like any other gas utility,[155] weather and climate variability threatens PGW's revenue stability.[156] PGW's last rate increase demand was expressly predicated on the need for greater revenue on a per unit basis due to a long-term trend of progressively warmer temperatures depressing demand.[157] By increasing customers' fixed charges, PGW increases its protection from weather and climate variability at the expense of customers. This moral hazard should be avoided; PGW has no incentive to plan for climate change impacts to customer demand unless PGW continues to bear weather variability risk.

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[154] *Pennsylvania Pub. Util. Comm'n*, 126 A.2d at 781 (1956) (internal citation omitted) ("The commission is not empowered to base a finding upon 'conjectural and unsatisfactory estimates.'").

[155] *See e.g., In the Matter of the Application of Michigan Consol. Gas Co. for Auth. to Increase Its Rates, Amend Its Rate Schedules & Rules Governing the Distribution & Supply of Nat. Gas, & for Miscellaneous Accounting Auth.*, 2010 WL 2334674 (Mich. P.S.C.), 282 P.U.R.4th 1 (June 3, 2010) (considering whether change to weather normalization methodology proposed by gas utility alongside request for rate increase more accurately accounted for climate change and ordering gas utility to provide multiple projections based on two weather normalization methods in its next rate case filing); *id.* ("According to [Michigan Consolidated Gas Company], there is virtually no reasonable controversy regarding the fact that measurable climate change has taken place in the past three decades, and that the temperature increase is greatest over the Northern Hemisphere continents in the winter.").

[156] Dybalski Cross, Tr. at 386–87; *see also* PGW Vol. I, Part I, *Response to Filing Requirement II.A.4, Black & Veatch Financial Feasibility for the Fifteenth Series Bonds*, at 69, Docket No. R-2020-3017206, (identifying recovery during periods of warmer than normal weather as the "single biggest risk to PGW"), http://www.puc.state.pa.us/pcdocs/1656459.pdf.

[157] ES Hearing Ex. 11 at 3 (explaining key reason for rate increase request as "combination of increasing costs over time and decreasing revenues caused chiefly by progressively warmer temperatures in PGW's service territory, resulting in less use of natural gas for heating, makes additional revenues imperative").

Further, PGW has already substantially shifted weather variability risks to its customers through the Weather Normalization Adjustment. The WNA is intended to address fluctuating revenue due to weather variation,[158] and is one way that PGW is already ensuring it collects expected revenues from customers even when customers do not use as much gas to heat their homes through the winter. Maintaining the WNA whilst also increasing the customer charge to further account for weather variability would effectively allow PGW to double-dip on its own risk prevention at the expense of its customers. It would be neither just nor reasonable to afford PGW a new mechanism to shift the risk of weather variations onto customers.

iv) Economic Theory and Utility Costing Principles Favor Recovery of Expenses Through Variable Charges

Contrary to unsupported assertions from PGW witnesses, economic theory does not support recovery of all so-called "fixed costs" through a fixed monthly charge. Rather, economists recognize that so-called "fixed costs" are only fixed in the short term.[159] Attempting to recover so-called "fixed costs" through fixed charges "is lacking in both economic foundation and accounting principles."[160] These basic principles of utility ratemaking are explained in detail by Dr. Hausman's direct testimony.

Mr. Dybalski claims, without the support of any authority whatsoever, that Dr. Hausman misunderstands utility costing principles.[161] However, Dr. Hausman offered more than his own expert opinion; Dr. Hausman's direct testimony is consistent with the recommendations of the Regulatory Assistance Project ("RAP"), a regulatory think-tank staffed by "former utility and

[158] PGW Vol. I, Part I, *Response to Filing Requirement II.A.4, Renewed Energy in Philadelphia*, at vi, Docket No. R-2020-3017206, http://www.puc.state.pa.us/pcdocs/1656459.pdf.
[159] SC St. No. 1, Hausman Direct, at 20.
[160] *Id.* (quoting Ex. EDH-2 at D-5, Jim Lazar, Regulatory Assistance Project, Smart Rate Design for a Smarter Future, Appendix D: The Specter of Straight Fixed/Variable Rate Designs and the Exercise of Monopoly Power (2005)).
[161] *Rebuttal Test. of Kenneth S. Dybalski on Behalf of PGW*, Docket No. R-2020-3017206, at 7 (July 13, 2020).

environmental regulators, industry executives, system operators, and other policymakers and officials with extensive experience in the power sector."[162]

Presumably, PGW would respond that its cost of service study seemingly justifies even higher fixed charge increases, and no party directly challenged that study. But PGW is mistaken. When Dr. Hausman testified that PGW's proposal to recover so-called fixed charges through its fixed charge is unsupported by basic economic theory and accounting principles, he is directly challenging PGW's cost of service study. The methodology underling PGW's study is miscalibrated. Further, it appears from the record that all PGW did to arrive at a 40% increase to the fixed residential charge was to arbitrarily plus up every included expense category by 40%. The Commission should not approve an increase to the residential fixed charge based on arbitrary numbers and a faulty methodology.

PGW's requested customer charge increase should be denied. If any rate increase is granted in this proceeding, the Commission should require that increase to be recovered through volumetric rates and maintain the existing fixed charge rates. PGW has not shown by substantial evidence that its requested increased fixed charges, particularly for residential customers, would be just and reasonable, and not unduly discriminatory.

c. Rate IT Design

The Environmental Stakeholders reserve this issue for reply briefing, as appropriate to respond to parties' main briefs.

[162] SC St. No. 1, Hausman Direct, at 20.

D. Customer Service

The Environmental Stakeholders reserve this issue for reply briefing, as appropriate to respond to parties' main briefs.

E. Tariff Revisions

The Environmental Stakeholders reserve this issue for reply briefing, as appropriate to respond to parties' main briefs.

F. Infrastructure Proposals

1. Main Replacement Program Cost

PGW justifies its rate increase as needed to allow further acceleration of its main replacement plan. However, as a threshold issue, no rate increase is needed for PGW to fulfill its obligations under its current Commission-approved infrastructure plan.[163] Further, evidence introduced through the Bureau of Investigation and Enforcement ("BI&E") persuasively illustrates PGW's failure to control costs for its main replacement efforts, and a coincident failure to maximize risk reduction. This evidence, taken in combination with PGW's failure to conduct any evaluation of potentially cost-effective alternatives and stranded asset risks before investing customer dollars on major capital projects,[164] suggests further rate increases by PGW would be imprudent without first filling the analytic gaps relating to alternatives, costs, and risks discussed herein.

a. PGW's Commission-Approved Accelerated LTIIP Can Be Fulfilled Without a Rate Increase

[163] PGW St. No. 7, Moser Direct, at 2:13–16 ("PGW is projecting that it will replace all cast iron main inventory in 40.1 years based on the assumption that base rates will increase 5% every five years (starting in 2026) along with associated increases in DSIC recovery/spending. This assumption does not include the proposed $70 million rate increase.").
[164] *Supra* at Sections V.A2–3.

PGW's existing accelerated LTIIP can be completed without additional revenues and is already considerably more aggressive than PGW's original infrastructure plan. Before 2012, PGW replaced roughly sixteen miles per year through base rates.[165] At that pace, it would have taken PGW over one hundred thirty years to replace all its cast iron main.[166] Then, the General Assembly introduced a Distribution System Improvement Charge ("DSIC"), which could be used by regulated utilities to recover reasonable and prudent costs incurred to repair, improve, or replace eligible property related to the utility's distribution system.[167] With the benefit of new revenue through the DSIC, PGW expected it would be able to remove approximately twenty-five miles of cast iron mains during each year of its First LTIIP (fiscal years 2013 through 2017), enabling it to replace all of its cast iron main in 86 years.[168]

Since approval of its First LTIIP, PGW has accelerated its original main replacement plans multiple times. In 2016, the Commission approved a 50% increase above the ordinary statutory cap for the DSIC charge.[169] That increased DSIC charge reduced the projected time required to replace all PGW's cast iron main by 44%, bringing it to 48 years.[170] The next year, PGW filed its Second LTIIP covering fiscal years 2018 through 2022, and projecting that it could replace all cast iron main in forty-five years.

Presently, PGW expects to replace all cast iron main in roughly forty years, assuming it is granted a 5% rate increase in 2026 and every five years thereafter.[171] Meaning, through increasing customer rates and increased recovery through the DSIC charge, in recent years, PGW

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[165] *Opinion and Order*, Docket Nos. P-2012-2337737 and C-2013-2346939, at 5 (Apr. 4, 2013) (explaining PGW replaced just 250 miles of cast iron main over the fifteen years preceding its first LTIIP).
[166] *Opinion and Order*, Docket No. P-2017-2602315, at 13 (Aug. 31, 2017) (observing PGW's initial plan to replace all cast-iron mains would have taken 136 years).
[167] System Improvement Charges Act 11 of 2012 (Feb. 14, 2012) (amending Chapters 3, 13, and 33 of Title 66).
[168] *Opinion and Order*, Docket No. P-2012-2337737, at 6 (June 9, 2017).
[169] *Opinion and Order*, Docket No. P-2015-2501500, at 37 (Jan. 28, 2016).
[170] *Opinion and Order*, Docket No. P-2012-2337737, at 6 (June 9, 2017).
[171] PGW St. No. 7, Moser Direct, at 2:13–16.

has shortened the expected timeline to complete main replacements by almost 100 years, from 136 years down to 40 years, over a 70% acceleration.

b. PGW Is Making Significant Progress Under Its Second LTIIP and has Not Shown a Need To Increase Spending Beyond the Amounts Approved by the Commission In Its Second LTIIP

The record in this proceeding shows that PGW is meeting the obligations under its Commission-approved LTIIP without difficulty. Thus far, according to Mr. Moser, PGW has made "tremendous" progress toward replacing cast iron main still in use in its system.[172] In FY 2017, PGW successfully completed its First/Modified LTIIP, removing approximately 3% more cast iron main than anticipated at lower costs than anticipated.[173]

According to Mr. Moser, "PGW's second LTIIP is off to a strong start."[174] In the first two years of PGW's second LTIIP, PGW has replaced 8% more cast iron main that planned.[175] According to Mr. Moser, PGW is making "significant" progress in reducing the number of hazardous leaks encountered on its distribution system,[176] and "substantial gains" in reducing hazardous leaks repaired on services.[177] Similarly, Mr. Moser averred that PGW "continues to make substantial strides in reducing its open leak backlog."[178]

The record does not explain, however, why PGW needs a rate increase to accelerate beyond its Commission-approved LTIIP. The Environmental Stakeholders asked PGW in discovery to explain why increased revenue beyond the amounts included for FY2020 and

[172] *Id.* at 3.
[173] *Id.* at 4.
[174] *Id.*
[175] *Id.* at 4, Figure 2 (in FY 2018, PGW planned to replace 31.8 miles of cast iron main and actually replaced 34 miles; in FY 2019, PGW planned to replace 63.7 miles of cast iron main and actually replaced 69.1 miles).
[176] *Id.* at 5.
[177] *Id.* at 6 (explaining that "the number of hazardous leaks on service lines has continually declined since FY 2013 by greater than 37%").
[178] *Id.* at 7 (total leak backlog reduced approximately 20% since the start of FY 2013).

FY2021 in the Commission-approved LTIIP is needed, and PGW said nothing in response.[179] PGW did not affirmatively offer any evidence to explain the feasibility of further accelerating its main replacement work in terms of a revised schedule for repair and replacement, workforce management, street closures, outreach and coordination activities, or anything else.[180] In short, PGW has not made the case that increased revenues are needed to fulfill its current main replacement obligations or that there is a need for increased revenues to accelerate those investments further.

c. Though Still On Track, PGW's Costs Have Been Escalating at a Concerning Rate and It Is Not Getting The Risk Reduction Gains the Bureau Of Investigation & Enforcement Would Expect

While it is fair to say that PGW is successfully making progress toward fulfilling its obligations under the Second LTIIP, this record does show some cause for concern regarding the prudence with which PGW has managed costs and planning. As highlighted by Mr. Orr on behalf of the BI&E, PGW's total costs for pipeline replacement on a per mile basis have trended upwards over the last five years:

> PGW's capital replacement costs are increasing. In 2015, the cost was $1,204,801 per mile as compared to $1,611,987 in 2019. This is approximately a 33.8% increase in cost per mile over five years, or an average increase in cost of 6.9% per year.[181]

Across the board, such increases easily outpaced inflation over the same time period, but that is particularly so with respect to PGW's contractor costs. As observed by Mr. Orr, "[c]ontractor costs have significantly increased from 2015 to 2019, from $26,470,959 per mile to $46,217,261

[179] ES Hearing Ex. 8, PGW's Responses to Discovery Request ES-01-ES-01-20, -21.
[180] *E.g.*, 52 Pa. Code § 121.1 (listing elements that must be included with LTIIP petition)
[181] I&E St. No. 3, Orr Direct, at 12. The concerns raised by I&E in this proceeding are not new. The Bureau of Investigation & Enforcement expressed a similar concern during pendency of PGW Second LTIIP application, noting that PGW "may not be suitably prioritizing funds for riskier pipeline replacement." *I&E Comments*, Docket No. P-2017-2602315 (June 2, 2017), http://www.puc.state.pa.us/pcdocs/1523141.pdf.

per mile, which represents a jaw-dropping cost increase of approximately 48.3%.[182] PGW's failure to control costs reflects an absence of management quality, effectiveness, and efficiency of the highest order insofar as "[t]he increasing costs per mile of pipeline replaced reduces the number of miles of risky pipe replaced annually."[183] Meaning, PGW's failure to effectively control the cost of its main replacements directly diminishes PGW's ability to improve safety.

So while PGW appears capable of fulfilling its existing main replacement obligations based on existing rates, this is not the time to send increased funding to the program. PGW would be sure to spend any increased revenue, but this record shows PGW is not likely to get the maximum safety benefit from that spending for the simple reason that it has not adequately controlled costs. PGW's existing rates are adequate to fund the remaining three years of its Commission-approved LTIIP, and during these next three years, PGW must better control costs of its main replacement efforts, particularly contractor costs.

d. PGW Should Not Be Granted A Rate Increase To Further Accelerate Main Replacements Unless And Until It Can Show A Long-Term Need For Those Investments As Opposed To More Cost-Effective And Less-Risky Alternatives

Even without PGW's failure to control costs in recent years, increasing rates to accelerate beyond the Commission-approved LTIIP would be imprudent given PGW's abdication of long-term planning. PGW's long-term plans for addressing its infrastructure should be consistent with its customer's future needs.[184] This recommendation is based on the unremarkable principle that prudent management of a utility includes an effort to plan infrastructure investments in the manner most likely to safely and cost-effectively serve customers' needs over the expected useful life of that infrastructure. Here, in the face of existential regulatory risks and physical challenges

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[182] I&E St. No. 3, Orr Direct, at 13.
[183] *Id.* at 14.
[184] Hausman Direct, Tr. at 401.

resulting from climate change, PGW should not further accelerate main replacement unless and until PGW (i) plans relative to long-term customer needs, (ii) evaluates potentially cost-effective alternatives before spending customer money, and (iii) develops a complete picture of stranded asset risk exposure and ways to mitigate those risks.

PGW replaces distribution infrastructure without regard to whether the customers served will continue using natural gas even one day into the future after installation is complete.[185] That is a problem. Just and reasonable rates cannot include unreasonable or unnecessary expenses and cannot include capital expenditures unless appropriate and in the public interest.[186] Without an expectation of continued use sufficient to repay the cost of installing new infrastructure, such expenditures are imprudent and inappropriate. PGW should be managing and planning its distribution system according to longer-term forecasts of customer needs.

Where there is a definite long-term need, PGW should fully evaluate potentially cost-effective alternatives before spending customer dollars. As discussed above, energy efficiency has the potential to impact the necessary size and configuration of PGW's distribution system and should be an integrated part of PGW's infrastructure planning. Rather than searching only for services and mains that are already under-utilized, PGW should recognize its energy efficiency programs as a tool to reduce demand on key parts of its system, such that the size and configuration of its system can be scaled back over-time. This would dramatically improve PGW's current practice of passively "identify[ing] portions of its system which are duplicative or underutilized to remove without replacement"[187] to proactively identifying portions of its system

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[185] Moser Cross, Tr. at 321 ("We do not take into consideration that, you know, the customer may leave or not utilize the full expense of the gas a day from now or a week from now.").
[186] 52 Pa. Code § 69.2702.
[187] *Rebuttal Testimony of Douglas A. Moser*, Docket No. R-2020-3017206, at 5–6 (July 13, 2020) ("PGW St. No. 7-R, Moser Rebuttal").

that, with the benefit of targeted energy efficiency investments, could become underutilized, creating an opportunity for reduced replacement burdens.

Finally, PGW should weigh the stranded asset risks of every infrastructure investment as part of its long-term planning. Ordinarily, PGW would expect a cast iron main to have a useful life of roughly fifty-four years.[188] That expected useful life is critically important considering that planning to change PGW's business model is underway at the City-level following the City's commitment to transition off natural gas by 2050.[189] Given that timeline, a basic analysis tells us that every cast iron main replaced since 2000 may be obsolete before the end of its useful life, as illustrated in the table below:

<u>Table 1. Potential Stranded Asset Risks</u>

Replacement Main Installation Year	Expected Useful Life[190]	Age in 2050	Years of value potentially stranded by 2050
2000	54 years	50 years	4 years
2005		45 years	9 years
2010		40 years	14 years
2015		35 years	19 years
2020		30 years	24 years
2025		25 years	29 years
2030		20 years	34 years
2035		15 years	39 years
2040		10 years	44 years
2045		5 years	49 years
2050		0 years	54 years

[188] Moser Cross, Tr. at 317.
[189] SC St. No. 1, Hausman Direct, at 13–16 (summarizing City Council resolution 181081, which called for a hearing on the climate sustainability of PGW given unavoidable threat of climate change, decreasing demand for natural gas, and increasing competition from cleaner, lower-cost energy sources, all of which necessitate an exploration of "how to adapt PGW to the needs of the changing market and planet"); *id.* at 15 (explaining that the City is pursuing a business diversification study in light of declining demand for energy from PGW which "will only intensify as temperatures are projected to continue to rise in the future and new polices may restrict the production of greenhouse gases").
[190] Moser Cross, Tr. at 317.

These stranded asset risks are significant. If the City of Philadelphia does, in fact, transition to 100% clean energy by 2050, mains replaced this year may transport natural gas for just a fraction of their expected useful life. A prudent and forward-looking utility with quality management practices would evaluate its planned infrastructure investments with these stranded asset risks in mind.

PGW's rationalization for not evaluating alternatives or considering stranded asset risk appears to be rooted in the idea the Commonwealth and City may not follow through on their commitments. But that does nothing to explain PGW's neglect of potentially cost-effective alternatives, which could deliver lower-cost service to customers and is a win-win worth pursuing at all times.

It also does nothing to absolve PGW of its responsibility to prudently plan for the future. As PGW's own witness testified, risk is a product of probability and consequence.[191] Here, PGW faces dramatic consequences if the Commonwealth and City do what they have committed to do: by 2050, PGW will no longer be in the business of selling natural gas, because Philadelphia will be relying on 100% clean energy for all applications including heating.[192] Even if PGW believed the probability of meeting that goal is low, the consequence is so great that the overall risk remains high and cannot be prudently ignored.[193]

Unless and until PGW demonstrates an ability to control the costs of its main replacement program and robust long-term planning demonstrating the prudence of further accelerations of its

[191] PGW St. No. 7-R, Moser Rebuttal, at 3:6–7.
[192] *Urging the City of Philadelphia to take measures to achieve fair and equitable transition to the use of 100% Clean Renewable Energy by 2050*, Resolution No. 190728, at 2 (Sept. 26, 2019) ("Resolution No. 190728"), https://phila.legistar.com/LegislationDetail.aspx?From=RSS&ID=4142523&GUID=BA06CC3B-7B43-4743-A07E-515A145C4A2A; *Direct Testimony of Ezra Hausman on Behalf of the Sierra Club and Clean Air Council*, at 8:13-9:20, Docket No. R-2020-3017206 (June 15, 2020).
[193] Moser Cross, Tr. at 315 (agreeing that low probability, high consequence events are high risk).

main replacement program, the Commission should deny additional revenues for that purpose. Moreover, as explained in detail *supra* in Sections V.A.2-3, PGW has completely failed to study potentially cost-effective alternatives, including energy efficiency, to its proposed infrastructure investments, and has refused to study stranded asset risks associated with climate change.[194] PGW's rate increase should be denied until these analytic gaps are filled, and PGW should not be allowed to continue "flying blind" into a future of rising costs for customers.[195]

2. Pipeline Safety

All parties agree that the safety of PGW's system is paramount. Although PGW attempts to mischaracterize Dr. Hausman's testimony as somehow disregarding safety, his testimony plainly acknowledged and stressed the importance of safety. As offered in his direct testimony and consistently restated since, Dr. Hausman "certainly agree[s] that it is important for PGW to ensure customer safety and reduce gas leakage[.]"[196] Dr. Hausman has not represented himself as a pipeline safety expert. Rather, he reserved judgment on whether PGW's safety measures are adequate to the Commission.[197]

Critically, Dr. Hausman's recommendation is not to abandon efforts to make PGW's system safer; rather, Dr. Hausman recommended that PGW include as part of its efforts to achieve a safer system consideration of alternatives that would cost-effectively enable it to reduce the size and configuration of its distribution system over time. Instead, PGW is

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[194] *See supra at* Section IV.A.2-3.
[195] SC St. No. 1-SR, Hausman Surrebuttal, at 5:11-14.
[196] SC St. No. 1, Hausman Direct, at 5–6; *see also id.* at 11 ("PGW should aggressively address leakage from its pipeline system, starting with the largest leaks, for several reasons—including safety, environmental benefits, and avoiding emissions of a potent greenhouse gas into the atmosphere."); Hausman Cross, Tr. at 400 ("I am not proposing to the Commission or recommending to the Commission that the company cease addressing safety and public health issues. I'm merely saying that, over this 34- or 40-year period, the company should be making investments that are consistent with the direction of the Governor's Executive Order, the City Council resolution and, based on that, what the realistic expectation of its customers' needs will be."); *Id.* at 401 ("I'm not saying they shouldn't address safety issues. I'm saying that it should be done based on realistic planning parameters[.]").
[197] Hausman Cross, Tr. at 398.

myopically focused on replacing its existing cast iron mains one-for-one. But no amount of replaced mains will render PGW's operations truly safe: the only gas mains that cannot leak or suffer catastrophic failure are those that are abandoned or otherwise removed from operation.[198]

Yet PGW's main replacement program does nothing to examine or fully utilize opportunities to increase safety by decommissioning cast iron main rather than replacing it. Similarly, PGW's main replacement program is in no way integrated with PGW's energy efficiency programs. By neglecting to integrate conservation programs and infrastructure planning, PGW is missing untold opportunities to reduce the size and configuration of its distribution system by targeting energy efficiency investments where they can return the most value in terms of avoided capital spending. As these examples from Dr. Hausman show, PGW is ignoring potentially safer and cost-effective alternatives in favor of using customer money for in-kind main replacement.

Moreover, as discussed above, PGW is already operating under a Commission-approved and fully funded LTIIP to replace its mains, and even under PGW's proposed acceleration plan, replacement will be a decades-long process not completed until past 2050. The idea that pipeline safety is somehow a reason to negate all of PGW's responsibilities to consider potentially cost-effective alternatives such as energy efficiency, to study stranded assets associated with climate change, and to responsibly plan for its future in a climate-constrained world is simply misplaced.

3. Environmental Issues

In response to Dr. Hausman's testimony on behalf of the Environmental Stakeholders, PGW has advanced the novel theory that all matters relating to the environment, including climate change, are *per se* outside the Commission's jurisdiction to receive evidence on or

[198] SC St. No. 1-SR, Hausman Surrebuttal, at 12.

consider in any fashion, regardless of how such factors may affect a utility's infrastructure, operations, or rates.[199] As explained below, the Commission should reject this claim.

a. PGW's Theory of Jurisdiction Lacks Any Basis in Law

The fundamental principles of jurisdiction applicable to this Proceeding are uncontroversial. As discussed *supra* in Section IV.C, the Commission has broad jurisdiction to enforce and execute the provisions of the Public Utility Code,[200] including the requirement that utilities "furnish and maintain adequate, efficient, safe, and reasonable service and facilities" and "make all such repairs, changes, alterations, substitutions, extensions, and improvements" to service and facilities as needed for the accommodation and safety of its patrons and the public.[201]

The Commission also has jurisdiction to investigate all general rate increase filings.[202] Section 1301(a) of the Public Utility Code requires that "[e]very rate made, demanded, or received by any public utility . . . shall be just and reasonable, and in conformity with [the] regulations or orders of the commission."[203] In a rate case, the Commission has the jurisdiction and the statutory duty to consider utility performance, including efficiency, effectiveness, and adequacy of service.[204] Specific to PGW, the Commission considers the factors codified in Title 52, Section 69.2703 of the Pennsylvania Code, including "PGW's management quality, efficiency, and effectiveness."[205]

199 Cawley Cross, Tr. at 288:25–289:1 ("Anything environmental is what I refer to as global warming."); *id.* at 299 (asserting that "Commission has no jurisdiction to consider environmental issues in setting ratemaking"); PGW St. No. 12-R, Cawley Rebuttal, at 36:8-15.
200 66 Pa. C.S. § 501; *Popowsky*, 683 A.2d at 961.
201 66 Pa. C.S. § 1501; *see also id.* § 2212 (providing that public utility service furnished by a city natural gas distribution operation "shall be subject to regulation and control by the commission with the same force as if the service were rendered by a public utility").
202 *Popowsky*, 683 A.2d at 961; 66 Pa. C.S. § 2212 (providing that public utility service furnished by a city natural gas distribution operation "shall be subject to regulation and control by the commission with the same force as if the service were rendered by a public utility").
203 66 Pa. C.S. § 1301(a).
204 *Id.* § 523; *see also id.* § 1501.
205 52 Pa. Code § 69.2703.

As the Commission has observed, "[t]here is no single way to arrive at just and reasonable rates."[206] "The [Commission] has broad discretion in determining whether rates are reasonable" and "is vested with discretion to decide what factors it will consider in setting or evaluating a utility's rates."[207]

The Commission has broad jurisdiction to consider such factors because it is necessary to do so in order to determine if rates are just and reasonable.[208] Consequently, the Commission hears and considers evidence on the reasonableness of PGW's salaries and bonuses, benefits, and municipal bond markets despite the fact that the Commission has no jurisdiction to regulate labor markets,[209] health insurance,[210] pension plans,[211] or bond markets. Moreover, in the same way that the Commission has jurisdiction to conclude that negotiable instruments do not constitute reasonable payment under the Public Utility Code even though it does not administer the Uniform Commercial Code,[212] the Commission has jurisdiction to consider whether environmental factors render utility expenses unreasonable and imprudent, though it does not administer environmental statutes.

[206] *E.g.*, *Pennsylvania Pub. Util. Comm'n Office of Consumer Advocate Office of Small Bus. Advocate*, No. C-2019-3011959, 2020 WL 2487415, at *3 (Pa. PUC Apr. 29, 2020).
[207] *Popowsky*, 683 A.2d at 961.
[208] *See e.g., Columbia Gas of Pennsylvania, Inc. v. Pennsylvania Pub. Util. Comm'n*, 613 A.2d 74, *aff'd*, 636 A.2d 627 (addressing cost recovery related to migration of pollution from utility-owned 34560229 (PUC 2002) (approving settlement that assured utility's right to seek recovery through rates of remediation costs, if approved by the Commission); *see also* Order Granting Petition to Intervene at 2 (stating that "Environmental Remediation" is within the scope of this rate case); *see also* 52 Pa. Code § 69.2702 (requiring PGW rates to be adequate to cover reasonable and prudent operating expenses and maintain adequate financial quality as Commission deems appropriate and in the public interest without exempting any category of expense or any causative factor for an expense from consideration).
[209] *See*, *e.g.*, *Pennsylvania Pub. Util. Comm'n v. Valley Utils Co.*, 72 Pa. P.U.C. 310 (Mar. 22, 1990) (rejecting as unreasonable and unsupported by evidence utility's request to increase executive salary).
[210] *Pennsylvania Pub. Util. Comm'n v. Philadelphia Suburban Water Co.*, 71 Pa. P.U.C. 593 (Dec. 28, 1989) (approving as reasonable utility's proposed above-inflation increase to employee benefits and health care costs).
[211] *Pennsylvania Pub. Util. Comm'n Office of Consumer Advocate Office of Small Bus. Advocate Matthew Josefwicz Barbara Mcdade*, No. C-2018-2646178, 2018 WL 5620905 (Oct. 25, 2018) (approving as reasonable and supported by the evidence utility's proposed management bonus scheme).
[212] *Tucker*, 917 A.2d 378.

Notably, PGW agrees that the Commission has jurisdiction to do each of the following: to determine whether rates are just and reasonable;[213] to determine whether infrastructure investments are prudent;[214] to consider whether a utility is operating efficiently by, for example, taking steps to reduce costs and operate more efficiently;[215] and to consider whether City resolutions affect the prudency of planned infrastructure investments.[216]

PGW further agrees to some practical applications of these fundamental principles. For example, PGW agrees that the Commission would have jurisdiction to determine whether just and reasonable rates may include expenses to harden utility facilities to heightened flood risks[217] or improve system resilience in the face of extreme weather events.[218] Further, PGW agrees that it would be appropriate for the Commission to consider whether just and reasonable rates may include capital investment in new infrastructure to serve a facility that the City committed to close within twenty years by resolution.[219]

Although Mr. Cawley, on cross-examination, agreed with each of these settled principles of Commission jurisdiction, he nonetheless proffered a novel view of jurisdiction wherein the Commission is stripped of its ordinary powers if "anything environmental"[220]—including "the perceived effects greenhouse gases or global warming"[221]—and the appropriateness of PGW's response thereto are at issue.

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[213] Cawley Cross, Tr. at 282
[214] *Id.* at 303.
[215] *Id.* at 282–83.
[216] *Id.* at 306–07.
[217] *Id.* at 303–04.
[218] *Id.* at 304 (claiming these would be "normal infrastructure improvements").
[219] Cawley Cross, Tr. at 306–07.
[220] *Id.* at 288–89 ("Anything environmental is what I refer to as global warming. . . . I don't know what global warming encompasses except to know that it is an environmental issue that is ultra vires the [sic] Commission's jurisdiction.").
[221] PGW St. No. 12-R, Cawley Rebuttal, at 36:12–13.

Yet there is no authority for carving out such "donut holes" from the Commission's plenary jurisdiction over ratemaking. The claims raised by the Environmental Stakeholders in this Proceeding concern compliance with the Public Utility Code, and the Commission is indisputably the appropriate agency to consider such issues. It is well-settled that the Commission cannot determine the justness and reasonableness of rates without factual evidence about the real-world circumstances in which a utility operates. This is why, as noted above, the Commission hears and considers evidence on the reasonableness of PGW's salaries and bonuses, benefits, and municipal bond markets, despite the fact that the Commission does not regulate labor markets,[222] health insurance,[223] pension plans,[224] or bond markets. The Commission has also previously exercised its jurisdiction specifically to consider environmental costs, such as those associated with pollution and remediation issues.[225] Further, because rates set today necessarily continue into the future and are part and parcel of customers' future obligations, the Commission must consider both current and probable future conditions impacting the justness and reasonableness of rates.[226]

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[222] *See*, *e.g.*, *Pennsylvania Pub. Util. Comm'n*, 72 Pa. P.U.C. 310 (rejecting as unreasonable and unsupported by evidence utility's request to increase executive salary).
[223] *Pennsylvania Pub. Util. Comm'n*, 71 Pa. P.U.C. 593 (approving as reasonable utility's proposed above-inflation increase to employee benefits and healthcare costs).
[224] *Pennsylvania Pub. Util. Comm'n Office of Consumer Advocate Office of Small Bus. Advocate Matthew Josefwicz Barbara Mcdade*, No. C-2018-2646178, 2018 WL 5620905 (approving as reasonable and supported by the evidence utility's proposed management bonus scheme).
[225] *See*, *e.g., Columbia Gas of Pennsylvania, Inc.*, 613 A.2d 74 (addressing cost recovery related to migration of pollution from utility-owned property); *Joint Appl. of Nui Corp., C&T Enterprises, Inc. & Valley Energy, Inc.*, Docket No. A-125100, 2002 WL 34560229 (Feb. 7, 2002) (approving settlement that assured utility's right to seek recovery through rates of remediation costs, if approved by the Commission); *see also* Order Granting Petition to Intervene at 2 (stating that "Environmental Remediation" is within the scope of this rate case).
[226] *E.g.*, *Cohen*, 468 A.2d at 1146 (quoting *Peoples Natural Gas Co. v. Pennsylvania Public Utility Comm'n*, 14 A.2d 133, 138 (1940)) ("Rate setting is a process which necessarily involves valuation of economic elements in the future tense. Because 'rates must be fixed for the future as well as for the present,' such future 'estimates . . . must necessarily enter into the disposition of any rate case.'").

Mr. Cawley claimed in rebuttal testimony that his jurisdictional claims are consistent with the Commonwealth Court's decision in *Funk v. Wolf*.[227] Here again, Mr. Cawley is mistaken. In *Funk v. Wolf*, the court considered an entirely distinct issue concerning claims raised under the Commonwealth's Environmental Rights Amendment.[228] The only jurisdictional argument raised in that case involved a challenge to the court's own jurisdiction—a challenge the court rejected, finding that it did have jurisdiction over the claims at issue.[229] Nothing in the decision deprived the Commission of its ordinary jurisdiction to enforce and execute the provisions of the Public Utility Code. There simply is no precedent diminishing the Commission's power to enforce and execute the Public Utility Code if "anything environmental"[230] is at issue.

It bears emphasis that not even PGW takes seriously the contention that the Commission is without jurisdiction to consider evidence regarding environmental factors such as climate change and rising temperatures. PGW itself affirms that the Commission has jurisdiction to consider environmental impacts such as warming winters when it comes time for PGW to justify a rate increase:

> PGW is facing declining sales, which leads to not only declining revenues but also declining cash flow and bond coverages. Warmer weather is contributing to significant decreases in consumption. Fiscal Year (FY) 2016 reflected a 20.8% warmer than normal winter and 24.5% warmer than the prior year. In fact, since 2010, the average annual usage of PGW's residential heating customer has decreased by 15.38% from 91 Mcf (for 2010-2011) to 77 Mcf (for 2015-2016). This decreased level of degree days represents a loss of about six Bcf of normal sales or roughly $36 million in lost margin. And this trend has been long-term.[231]

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[227] PGW St. No. 12-R, Cawley Rebuttal, at 37 (citing *Funk v. Wolf*, 144 A.3d 228 (Pa. Cmwlth. 2016).
[228] *Funk*, 144 A.3d at 232–33 (explaining petitioners' allegation that Governor and agency failed to fulfill constitutional obligations under Article I, Section 27 of the Pennsylvania Constitution).
[229] *Funk*, 144 A.3d at 241–43.
[230] Cawley Cross, Tr. at 288:25–289:1.
[231] ES Hearing Ex. 11, PGW 2017 Rate Case, Vol. II, *Direct Testimony of Gregory Stunder* at 3, No. R-2017-2586783 (Feb. 2017).

This passage makes clear that PGW has no problem with the Commission's jurisdiction to consider climate impacts for the purpose of raising rates. As such, it appears that PGW's primary objection here is that the Environmental Stakeholders have requested that the Commission consider environmental impacts for the purpose of requiring PGW to plan responsibly to control costs to the public. This objection, which PGW attempts to style as a jurisdictional argument, is in substance nothing more than self-interest. PGW's "heads, I win / tails, the public loses" approach to jurisdiction on climate change and environmental impacts should not be allowed to continue.[232]

b. Mr. Cawley's Testimony Should Be Afforded No Weight

The arguments advanced in Mr. Cawley's testimony are unavailing, as demonstrated above. However, there is a deeper problem with Mr. Cawley's testimony: Due to Mr. Cawley's conceded ignorance of basic information about the effects of climate change (including whether or not climate change can lead to rising temperatures), and Mr. Cawley's lack of knowledge of recent Commission precedent on PGW, Mr. Cawley's testimony should be afforded no weight.

According to Mr. Cawley, the Commission has no jurisdiction to consider "anything environmental,"[233] especially "the perceived effects of global warming."[234] This assertion necessarily depends on an understanding of what the perceived effects of global warming are; without that, one could not possibly make judgments about its relevance or the Commission's jurisdiction relative to any facet of it.

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[232] "The primary object of the public service laws is not to establish a monopoly or to guarantee the security of investment in public service corporations, but first and at all times to serve the interests of the public." *Colombo v. Pennsylvania Pub. Util. Comm'n*, 48 A.2d at 61; *accord Highway Exp. Lines, Inc.*, 169 A.2d 798.
[233] Cawley Cross, Tr. at 288:25–289:5
[234] PGW St. No. 12-R, Cawley Rebuttal, at 36:12–13.

But Mr. Cawley appears not to know anything about the principle subject of his testimony. In his own words: "global warming, whatever that is."[235] At the hearing, Mr. Cawley was repeatedly invited to explain what "effects of global warming" his testimony refers to, and Mr. Cawley refused or was unable to say. Mr. Cawley could not even bring himself to state whether warming temperatures would be included among the "effects of global warming" his testimony focused on.[236] Because Mr. Cawley does not know what "global warming" refers to, he is *ipso facto* unqualified to opine on matters related to it.

Furthermore, Mr. Cawley is apparently unfamiliar with the Commission's recent decisions relating to PGW. Mr. Cawley testified that a rate increase request has never been predicated based on weather changes,[237] but he is mistaken. PGW itself justified its last rate increase on the basis of long term trends of warmer weather.[238] Mr. Cawley made that mistake despite knowing that weather variability can impact PGW's sales,[239] and agreeing that it would be appropriate for the Commission to consider weather impacts on revenue in a rate case.[240] Since Mr. Cawley conceded on cross-examination that he was unable to explain, even in the most basic terms, what the effects of climate change are, and was completely unfamiliar with

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[235] Cawley Cross, Tr. at 307.
[236] *Id.* at 283.
[237] Cawley Cross, Tr. at 296.
[238] *E.g.*, PGW 2017 Rate Case, Vol. II, *Direct Testimony of Gregory Stunder* at 3–4, Docket No. R-2017-2586783 (Feb. 2017) ("PGW is facing declining sales, which leads to not only declining revenues but also declining cash flow and bond coverages. Warmer weather is contributing to significant decreases in consumption. Fiscal Year (FY) 2016 reflected a 20.8% warmer than normal winter and 24.5% warmer than the prior year. In fact, since 2010, the average annual usage of PGW's residential heating customer has decreased by 15.38% from 91 Mcf (for 2010-2011) to 77 Mcf (for 2015-2016). This decreased level of degree days represents a loss of about six Bcf of normal sales or roughly $36 million in lost margin. And this trend has been long-term.").
[239] Cawley Cross, Tr. at 290.
[240] Cawley Cross, Tr. at 290–92.

recent Commission precedent on PGW, his testimony on the appropriate exercise of Commission jurisdiction in this Proceeding should be afforded no weight.[241]

G. Miscellaneous Issues

Within the category of prudent planning for PGW's business operations in a climate-constrained future, an area where detailed planning by PGW is needed to protect its customers is gas supply acquisition practices and policies. Although PGW's most forward-looking forecasts only project demand five years out,[242] PGW has entered into prepaid gas contracts with twenty-five to thirty year terms, and PGW expects to continue entering into more prepaid gas contracts.[243] Through six already-executed contracts, PGW has committed to purchase greater than 20% of the supply needed to meet current demand through FY 2045.[244] These prepaid gas contracts may ultimately represent a significantly larger percentage of PGW's gas supply needs if demand does not hold steady for the next twenty-five to thirty years.

There are multiple circumstances suggesting further reductions in current demand are probable over the coming decades. First, the continuing trend of progressively warmer weather noted by PGW is its last rate case will likely put downward pressure on PGW sales. Increased efficiency and the relative competitiveness of renewable energy sources are further likely to put downward pressure on PGW demand, as customers reduce consumption and transition to cleaner,

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[241] An additional reason to accord no weight to Mr. Cawley's testimony is that, as argued by the Environmental Stakeholders in their Motion in Limine, large portions of it comprise impermissible legal opinion testimony and/or hearsay. Motion in Limine Regarding the Testimony Submitted by the Environmental Stakeholders (June 24, 2020), http://www.puc.pa.gov/pcdocs/1667700.pdf.
[242] ES Hearing Ex. 10, PGW Discovery Responses to Environmental Stakeholders Interrogatories – Set 1, ES-I-2.c (confirming that PGW has not projected demand over the next 30 years, instead only preparing five-year projections of sales volumes).
[243] PGW St. No. 7, Moser Direct, at 11–12; ES Hearing Ex. 10, PGW Discovery Responses to Environmental Stakeholders Interrogatories – Set 1, ES-I-15.
[244] PGW Hearing Ex. 10, PGW Discovery Responses to Environmental Stakeholders Interrogatories – Set 1, ES-I-18 (providing volume of gas acquired via prepaid contracts as a percentage of current demand: FY 2025 – 20.2%; FY 2030 – 23.82%; FY 2035 – 23.82%; FY 2040 – 23.91%; FY 2045 – 23.82%).

safer, and cheaper energy sources.[245] There is also the risk that state and local commitments to reduce emissions and transition away from fossil-fuels, discussed at length above, will accelerate customers' reduced reliance on PGW and also constrain PGW's ability to transport natural gas.

Cost savings on a per unit basis are reasonable to pursue, but PGW should take care not to commit to purchasing gas supply without an evidence-based forecast reasonably showing that supply will be needed over the entire contract term. The necessary analog to twenty-five to thirty-year gas supply contracts should be forecasts projecting demand over that same period. Without that corresponding forecast, PGW leadership cannot make reasoned judgments about the volume of gas it is reasonable to commit its customers to purchase through FY 2050. For that reason, the Environmental Stakeholders encourage the Commission to require PGW to develop longer forecasts of gas sales and take care not to commit its customers to purchasing more gas, over a longer period of time, than will be needed.

VI. CONCLUSION

For the foregoing reasons, the Environmental Stakeholders respectfully submit that PGW has failed to show by substantial evidence that its requested rate increase would be just, reasonable, and consistent with the public interest. Accordingly, the Commission should maintain PGW's existing rates. PGW has failed to study cost-effective alternatives, including energy efficiency, to its proposed infrastructure investments, and has failed to evaluate or take any action to minimize the cost of the serious direct and regulatory risks associated with climate change. Similarly, PGW has failed to show that increasing the fixed customer charge would result in just and reasonable rates. Instead, the record shows increased customer charges will

[245] SC St. No. 1, Hausman Direct, at 13 (quoting Dec. 6, 2018 City Council Resolution No. 181081) ("Forces outside the control of either PGW or the City of Philadelphia will call upon [PGW's] history of innovation: the increasing destruction caused by global warming and the twin financial threats of more efficient energy usage and competitive price of renewable energy resources").

have substantial negative impacts, including harming PGW's low-income and low-usage customers and discouraging conservation and energy efficiency.

The Environmental Stakeholders further emphasize PGW's overarching failure to prudently plan for its future in a manner that is consistent with the public interest and capable of delivering low-cost rates over the long-term in a climate-constrained world. PGW's only apparent plan for dealing with climate change is reliance on weather normalization adjustments to maintain expected margins coupled with periodic rate increases. This is a classic scenario of perverse incentives. If PGW is allowed to simply apply weather normalization and increase its rates regularly, it has an incentive to stall the difficult process of confronting and planning for its future in a climate-constrained world as long as possible. While PGW apparently perceives this to be in its narrow self-interest, it is not in the public interest for customers to be faced with ever-rising rates and an ever-growing risk of stranded assets paid for with ratepayer dollars. If there was ever a situation calling for the Commission to order a utility to do the right thing and plan prudently and responsibly to minimize costs for customers, this is it.

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Respectfully submitted,

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APPENDIX A.

PROPOSED FINDINGS OF FACT

1. Under Philadelphia Gas Works' ("PGW") Commission-approved Long Term Infrastructure Improvement Plan ("LTIIP"), PGW projects that it will replace all cast iron main inventory in 40.1 years, based on the assumption that base rates will increase 5% every five years (starting in 2026) along with associated increases in DSIC recovery/spending. PGW St. No. 7, Moser Direct, at 2:13–16.
2. PGW's Commission-approved LTIIP is sufficiently funded through existing rates. PGW St. No. 7, Moser Direct, at 2:13–16. The requested rate increase is not needed for PGW to meet its obligations under the Second LTIIP. *Id.*
3. In the first two years of PGW's Second LTIIP, the utility has already replaced 8% more cast iron main than projected. PGW St. No. 7, Moser Direct, at 4:8–9; *id.* at 4, Figure 2 (in FY 2018, PGW planned to replace 31.8 miles of cast iron main, and actually replaced 34 miles; in FY 2019, PGW planned to replace 63.7 miles of cast iron main, and actually replaced 69.1 miles).
4. PGW has not adequately controlled the costs of its main replacement program, resulting in a five-year trend of increasing costs. I&E St. No. 3, Orr Direct, at 12–14.
5. Energy efficiency is a potentially cost-effective alternative to maintaining the current size and configuration of PGW's distribution system. SC St. No. 1-SR, Hausman Surrebuttal, at 12:16–19; Hausman Cross, Tr. at 411–12. By reducing the volume of gas used, energy efficiency can lead to downsizing to smaller-sized infrastructure. Moser Cross, Tr. at 319; ES Hearing Ex. 10, PGW's Responses to Environmental Stakeholders Interrogatories – Set 1, ES-I-8.b ("energy efficiency may cost effectively reduce relative levels of natural

gas usage”). In this way, energy efficiency can reduce the infrastructure costs for additional mains or services. Moser Cross, Tr. at 319.

6. PGW has not studied whether increased or targeted energy efficiency investments could reduce the overall cost of its 40-year main replacement program. Moser Cross, Tr. at 318–19.
7. PGW has not integrated energy efficiency planning into its infrastructure planning processes. Moser Cross, Tr. at 318–19; ES Hearing Ex. 10, PGW’s Responses to Environmental Stakeholders Interrogatories – Set 1, ES-I-8.f.
8. The Governor of Pennsylvania issued Executive Order 2019-01 committing to address the risk of climate change, which he characterized as “the most critical environmental threat confronting the world. SC St. No. 1, Hausman Direct, at 7–8. Executive Order 2019-01 states that “[t]he Commonwealth shall strive to achieve a 26 percent reduction of net greenhouse gas emissions statewide by 2025 from 2005 levels, and an 80 percent reduction of net greenhouse gas emissions by 2050 from 2005 levels.” *Id.* at 8.
9. On September 26, 2019, Philadelphia’s City Council adopted Resolution No 190728, “[u]rging the City of Philadelphia to take measures to achieve fair and equitable transition to the use of 100% Clean Renewable Energy by 2050” and stating that “[t]he City of Philadelphia must continue to take the lead in advancing proactive climate change solutions.” SC St. No. 1, Hausman Direct, at 8:15–19. The Resolution further resolves “[t]hat the City of Philadelphia shall take measures to achieve a fair and equitable transition to the use of 100% clean renewable energy for electricity in municipal operations by 2030, for electricity City-wide by 2035, and for all energy (including heat and transportations) city-wide by 2050 or sooner.” *Id.* at 9.

10. PGW's leadership has no record of ever discussing or considering the impacts of the City Council's resolutions or the Governor's Executive Order on its operations. ES Hearing Ex. 5, PGW's Response to Discovery Request: CAC-01-CAC-01-8; *id.* at CAC-01-CAC-01-10, -12; ES Hearing Ex. 7, PGW's Supplemental Responses to Discovery Request: CAC-01-CAC-01-10, -12.
11. If the Commonwealth and local governments do as they have committed to do, reducing emissions and transitioning to 100% clean energy by 2050, by the time PGW completes replacement of all its cast iron mains, those mains will no longer be useful for transmitting natural gas. SC St. No. 1-SR, Hausman Surrebuttal, at 4–5.
12. The expected useful life of a replaced gas main is 54 years. ES Hearing Ex. 8, PGW's Response to Discovery Request: ES-01-ES-01-25; Moser Cross, Tr. at 317.
13. Risk is the product of probability and consequence. PGW St. No. 7-R, Moser Rebuttal, at 3:6–7.
14. PGW's last request to increase rates was needed to ensure sufficient revenues despite declining demand caused by a pattern of warmer winters. Stunder Cross, Tr. at 348; ES Hearing Ex. 11, Direct Testimony of Gregory Stunder on behalf of PGW, Docket No. R-2017-2586783, at 3. PGW's last rate case also required adjustments to its weather normalization clause to account for the changing climate. ES Hearing Ex. 11, Direct Testimony of Gregory Stunder on behalf of PGW, Docket No. R-2017-2586783, at 3–4.
15. There is a risk that climate change may impact PGW's infrastructure and operations. SC St. No. 1, Hausman Direct, Ex. EDH-3. These risks include but are not limited to reduced demand, increased flood risks, and severe storm risks. *Id.*

16. There is a risk that climate change regulations will constrain PGW's operations. SC St. No. 1-SR, Hausman Surrebuttal, at 5:1–4, 10–20.
17. There is a risk that falling demand and increasing competition will affect PGW's bottom-line over time. SC St. No. 1, Hausman Direct, at 13.
18. PGW has not studied the physical or regulatory risks climate change poses to its operations. ES Hearing Ex. 10, PGW's Responses to Environmental Stakeholders Interrogatories – Set 1, ES-I-2.b–d; *id*. PGW's Responses to Environmental Stakeholders Interrogatories – Set 1, ES-I-3.a–d.
19. A significant proportion of PGW's residential customers are low-income customers, many of which are not enrolled in PGW's Customer Responsibility Program. OCA St. No. 5, Colton Direct, at 13. PGW acknowledged at a City Council hearing on April 26, 2019, that "[m]ore than half of [PGW ratepayers] either live below or are within stumbling distance of the federal poverty level." SC St. No. 1, Hausman Direct, at 22:7–10.
20. A regulatory think-tank staffed by "former utility and environmental regulators, industry executives, system operators, and other policymakers and officials with extensive experience in the power sector," recently affirmed that the mere fact that "a cost is fixed in the short run does not mean it should be recovered in a fixed charge." SC St. No. 1, Hausman Direct, Ex. EDH-2 at D-5.
21. All else being equal, when a fixed charge is increased, a lower-usage customer will see their bill increase by a larger percentage on a per-unit basis than a higher-usage customer. SC St. No. 1, Hausman Direct, at 21.

22. Increasing the fixed charge will harm low-income customers, many of whom are also low-usage customers. SC St. No. 1, Hausman Direct, at 21–22.
23. PGW did not conduct any analysis to estimate the magnitude of customer impacts that will accompany 40% increase in the residential customer charge. ES Hearing Ex. 4, PGW's Response to Discovery Request: CAC-01-CAC-01-6.
24. Increasing the fixed charge will discourage customers from increasing the efficiency of their homes and diminish customers' ability to reduce their bill by otherwise reducing usage. SC St. No. 1, Hausman Direct, 21–23; OCA St. No. 5, Colton Direct, 17–18.
25. Increasing the fixed charge would give PGW more revenue stability over the course of the year. PGW St. No. 6, Dybalski Direct, at 7; Dybalski Cross, Tr. at 386.

APPENDIX B.

PROPOSED CONCLUSIONS OF LAW

1. The Commission has jurisdiction to consider whether expenses included in proposed and existing rates are reasonable and prudent. 66 Pa. C.S. § 2212; 52 Pa. Code § 69.2702. Any factor bearing on the reasonableness of utility expenses is therefore within the Commission's jurisdiction to consider as it endeavors to set just and reasonable rates. 2 Pa. C.S. § 505 ("all relevant evidence of reasonably probative value may be received").
2. PGW has not met its burden of proof in this proceeding to show that a rate increase to accelerate its approved main replacement program is reasonable or prudent.
3. PGW has not met its burden of proof in this proceeding to show that increasing the customer charges will result in just and reasonable rates consistent with the public interest.
4. Management quality, efficiency and effectiveness, 66 Pa. C.S. § 2212; 52 Pa. Code § 69.2702, can be demonstrated by efforts to control costs, including for example, building efficiencies into an employee benefit program, transitioning to lower-cost health insurance models, and adjusting post-retirement benefits. PGW St. No. 1, Stunder Direct, at 4–6.
5. Management quality, efficiency and effectiveness can be demonstrated by efforts to identify, analyze, and mitigate risks, including both physical and regulatory risks. 66 Pa. C.S. § 2212; 52 Pa. Code § 69.2702.
6. Management quality, efficiency and effectiveness includes both meeting customers' present needs and long-term planning in light of customers' projected future needs.

APPENDIX C.

PROPOSED ORDERING PARAGRAPHS

It is hereby ORDERED THAT:

1. Philadelphia Gas Works' requested rate increase is denied pending completion and approval of the study described below.
2. Philadelphia Gas Works has inadequately studied potential cost-effective alternatives, including energy efficiency, to its proposed infrastructure work.
3. Philadelphia Gas Works has inadequately studied risks of climate change, leading to a risk of stranded assets.
4. Philadelphia Gas Works has failed to carry its burden of demonstrating that its proposed investments are prudent, just, or reasonable.
5. Philadelphia Gas Works shall produce a Climate Business Plan study examining potentially cost-effective alternatives, including energy efficiency, to its proposed infrastructure investments as well as the physical and regulatory risks facing its infrastructure and operations as a result of climate change, evaluating options to mitigate those risks, and setting a plan to mitigate those risks, consistent with the public interest. The study shall:
    a. Include a comprehensive and objective analysis of the above-described potentially cost-effective alternatives, physical and regulatory risks associated with climate change, and mitigation options. The scope of risks to be assessed includes, but is not limited to, reduced demand for natural gas, rising temperatures, extreme weather events, sea-level rise, flooding, and regulatory or legislative action relating to climate change or the reduction or elimination of natural gas use.

b. Include a comprehensive and objective analysis of how Philadelphia Gas Works plans to evolve its operations in response to future regulations relating to climate change.

c. Be informed by an active stakeholder process with formal mechanisms for soliciting information from stakeholders, including at least one public hearing on the record in Philadelphia and the solicitation of written comments on the record. This stakeholder process shall include measures designed to facilitate participation by environmental justice communities within Philadelphia Gas Works' service territory, including educational outreach, translation/interpretation as needed, and accessible locations and times of meetings.

d. Be informed by the business diversification planning that Philadelphia Gas Works is conducting in coordination with the City of Philadelphia.

e. Be completed by a date set by the Commission and then be filed, along with a transcript of the public hearing and all written comments received, with the Commission for its review.

6. Following approval of the study by the Commission as compliant with this order, Philadelphia Gas Works shall thereafter file annual updates to the study with the Commission.

7. Philadelphia Gas Works shall fully integrate the evaluation of energy efficiency as an alternative in its infrastructure planning processes going forward.

8. In any future requests for revenue increases or approval of infrastructure spending, PGW must provide evidence showing evaluation of potentially cost-effective alternatives, including energy efficiency, as well as of evaluation of the physical and regulatory risks

associated with climate change, and the proactive steps PGW is taking to mitigate those risks.

9. Philadelphia Gas Works shall include demand projections for a minimum 20-year horizon in its next rate case and in any proceeding involving infrastructure spending or contracts with terms of five or more years.

[Should the Commission choose to approve any rate increase, the Environmental Stakeholders propose the following ordering paragraph.]

1. Philadelphia Gas Works' requested increase to the customer charge is denied, and Philadelphia Gas Works is directed to build the approved rate increase into the volumetric charge for all customer classes.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	Docket No. R-2020-3017206
v.	:	
	:	
Philadelphia Gas Works	:	
	:	

ATTACHMENT 1

RATE CASE TABLE

TABLE I

Philadelphia Gas Works

STATEMENT OF INCOME

R-2020-3017206

(Dollars in Thousands)

LINE NO.		PGW Pro Forma Present Rates FPFTY Budget FY 2021 (1)	PGW Adjustments	PGW Pro Forma Proposed Rates FPFTY Budget FY 2021 (2)	ALJ Revenue Requirement Adjustments	ALJ Proposed Rates FPFTY FY2021	ALJ Revenue Adjustments	ALJ Total Allowable Revenues FPFTY FY2021
		$	$	$	$	$	$	$
	OPERATING REVENUES							
1.	Non-Heating	21,466	$ -	21,466		21,466	-	21,466
2.	Gas Transport Service	67,767	-	67,767		67,767	-	67,767
3.	Heating	576,418	-	576,418		576,418	-	576,418
4.	Revenue Adjustment (TED/BUS Rate)	400	-	400		400	-	400
5.	Revenue Enhancement / Cost Reduction FY 2021	-	70,000	70,000		70,000	(70,000)	0
6.	Weather Normalization Adjustment	-	-	-		0	-	0
7.	Appropriation for Uncollectible Reserve	(29,951)	(3,150)	(33,101)		(33,101)	-	(33,101)
8.	Unbilled Adjustment	(36)	-	(36)		(36)	-	(36)
9.	Total Gas Revenues	636,064	66,850	702,914		702,914		632,914
10.	Appliance Repair & Other Revenues	7,964	-	7,964		7,964	-	7,964
11.	LNG Project Revenues	-	-	-		0	-	0
12.	Other Operating Revenues	11,164	997	12,161		12,161	(997)	11,164
13.	Total Other Operating Revenues	19,128	997	20,125		20,125		19,128
14.	**Total Operating Revenues**	655,192	67,847	723,039		723,039		652,042
	OPERATING EXPENSES							
15.	Natural Gas	191,548	-	191,548	-	191,548		191,548
16.	Other Raw Material	10	-	10	-	10		10
17.	Sub-Total Fuel	191,558	-	191,558		191,558		191,558
18.	**CONTRIBUTION MARGINS**	**463,634**	67,847	**531,481**		**531,481**		**460,484**
19.	Gas Processing	21,740	-	21,740	-	21,740		21,740
20.	Field Services	-	-	-	-	0		0
21.	Distribution	-	-	-	-	0		0
22.	Field Operations	86,412	-	86,412	-	86,412		86,412
23.	Collection	4,430	-	4,430	-	4,430		4,430
24.	Customer Service	15,751	-	15,751	-	15,751		15,751

25.	Account Management	9,245	-	9,245	-	9,245	9,245
26.	Marketing	4,916	-	4,916	-	4,916	4,916
27.	Administrative & General	85,191	-	85,191	-	85,191	85,191
28.	Health Insurance	27,151	-	27,151	-	27,151	27,151
29.	Environmental	1,059	-	1,059	-	1,059	1,059
30.	Capitalized Fringe Benefits	(8,969)	-	(8,969)	-	(8,969)	(8,969)
31.	Capitalized Administrative Charges	(22,707)	-	(22,707)	-	(22,707)	(22,707)
32.	Amortization of Restructuring Costs		-	-	-	0	0
33.	Pensions	23,577	-	23,577	-	23,577	23,577
34.	Taxes	9,481	-	9,481	-	9,481	9,481
35.	Other Post Employment Benefits	25,422	-	25,422	-	25,422	25,422
36.	Proposed Bond Refunding Savings	(589)	-	(589)	-	(589)	(589)
37.	Cost / Labor Savings	519	-	519	-	519	519
38.	Sub-Total Other Operating & Maintenance	282,629	-	282,629		282,629	282,629
39.	Depreciation	67,934	-	67,934	-	67,934	67,934
40.	Cost of Removal	4,500	-	4,500	-	4,500	4,500
41.	To Clearing Accounts	-	-	-	-	0	0
42.	Net Depreciation	72,434	-	72,434		72,434	72,434
43.	**Sub-Total Other Operating Expenses**	355,063	-	355,063		355,063	355,063
44.	**TOTAL OPERATING EXPENSES**	546,621	-	546,621		546,621	546,621
45.	OPERATING INCOME	108,571	67,847	176,418		176,418	105,421
46.	**Interest Gain / (Loss) and Other Income**	7,400	-	7,400	-	7,400	7,400
47.	INCOME BEFORE INTEREST	115,971	67,847	183,818		183,818	112,821
48.	**INTEREST**						
49.	Long-Term Debt	54,442	-	54,442	-	54,442	54,442
50.	Other	(9,612)	-	(9,612)	-	(9,612)	(9,612)
51.	AFUDC	(2,212)	-	(2,212)	-	(2,212)	(2,212)
52.	Loss From Extinguishment of Debt	4,460	-	4,460	-	4,460	4,460
53.	**Total Interest**	47,078	-	47,078		47,078	47,078
54.	**NET INCOME**	**68,893**	67,847	**136,740**		**136,740**	**65,743**
55.	City Payment	18,000	-	18,000	-	18,000	18,000
56.	**NET EARNINGS**	**$ 50,893**	**$ 67,847**	**$ 118,740**		**$ 118,740**	**$ 47,743**

(1) PGW Exhibit JFG-1-A (Present Rates)
(2) PGW Exhibit JFG-2-A (Proposed Rates)
Potential Input To Be Shown On Other Tables
Adjustments from Table II

TABLE I(A)

DEBT SERVICE COVERAGE
R-2020-3017206
(Dollars in Thousands)

LINE NO.		PGW Pro Forma Present Rates FPFTY Budget FY 2021 (1)	PGW Pro Forma Proposed Rates FPFTY Budget FY 2021 (2)	ALJ Adjustments	ALJ Total Allowable Revenues FPFTY FY2021
		$	$	$	$
	FUNDS PROVIDED				
1.	Total Gas Revenues [Table I, Line 10]	636,064	702,914		632,914
2.	Other Operating Revenues [Table I, Line 13]	19,128	20,125		11,164
3.	Total Operating Revenues [Table I, Line 13]	655,192	723,039		652,042
4.	Other Income Incr. / (Decr.) Restricted Funds [Table I, Line 47; Table 1(B), Line 3]	2,692	2,692		2,692
5.	AFUDC (Interest) [Table I, Line 13]	2,212	2,212		2,212
6.	TOTAL FUNDS PROVIDED	660,095	727,943		656,946
	FUNDS APPLIED				
7.	Fuel Costs [Table I, Line 18]	191,558	191,558		191,558
8.	Other Operating Costs	355,063	355,063		355,063
9.	Total Operating Expenses [Table I, Line 45]	546,621	546,621		546,621
10.	Less: Non-Cash Expenses	69,157	69,157	-	69,157
11.	TOTAL FUNDS APPLIED	477,464	477,464		477,464
12.	Funds Available to Cover Debt Service	182,632	250,479		179,482

13.	Net Available after Prior Debt Service [Line 12]	182,632	250,479		179,482
14.	Equipment Leasing Debt Service	(47,075)	-	-	-
15.	Net Available after Prior Capital Leases	229,707	250,479		179,482
16.	1998 Ordinance Bonds Debt Service	106,790	106,790	-	106,790
17.	1999 Ordinance Subordinate Bonds Debt Service - (TXCP)	-	-	-	-
18.	Total 1998 Ordinance Debt Service	106,790	106,790		106,790
19.	**Debt Service Coverage 1998 Bonds**	**2.15**	**2.35**		**1.68**
20.	Net Available after 1998 Debt Service	122,917	143,689		72,692
21.	Aggregate Debt Service [Line 18]	106,790	106,790		106,790
22.	Debt Service Coverage (Combined liens)	1.71	2.35		1.68
23.	Debt Service Coverage (Combined liens w/$18.0 City Fee)	**1.54**	**2.18**		**1.51**

(1) PGW Exhibit JFG-1-A (Present Rates)
(2) PGW Exhibit JFG-2-A (Proposed Rates)
Potential Input To Be Shown On Other Tables
Adjustments from Table II

TABLE I(B)
Philadelphia Gas Works
CASH FLOW STATEMENT
R-2020-3017206
(Dollars in Thousands)

LINE NO.			PGW Pro Forma Present Rates FPFTY Budget FY 2021 (1)	PGW Pro Forma Proposed Rates FPFTY Budget FY 2021 (2)	ALJ Adjustments	ALJ Total Allowable Revenues FPFTY FY2021
			$	$	$	$
	SOURCES					
1.	Net Income	[Table I, Line 55]	68,893	136,740		65,743
2.	Depreciation & Amortization		63,079	63,079	-	63,079
3.	Earnings on Restricted Funds Withdrawal/(No Withdrawal)		(4,708)	(4,708)	-	(4,708)
4.	Proceeds from Bond Refunding to Pay Cost of Issuance		-	-	-	-
5.	Increased/(Decreased) Other Assets/Liabilities		(37,907)	(37,907)	-	(37,907)
6.	Available From Operations		89,356	157,204	-	86,207
7.	Drawdown of Bond Proceeds		78,084	78,084	-	78,084
8.	Release of Restricted Fund Asset		-	-	-	-
9.	Release of Bond Proceeds to Pay Temporary Financing		-	-	-	-
10.	Temporary Financing		-	-	-	-
11.	TOTAL SOURCES		**$ 167,440**	**$ 235,288**	**$ -**	**$ 164,291**
	USES					
12.	Net Construction Expenditures		154,084	154,084	-	154,084
13.	Funded Debt Reduction:		-	-	-	-
14.	Revenue Bonds		54,956	54,956	-	54,956
15.	Temporary Financing Repayment		-	-	-	-
16.	Changes in City Equity		-	-	-	-
17.	Distribution of Earnings	[Table I, Line 56]	18,000	18,000		18,000
	Additions To (Reductions of)					
18.	Non-Cash Working Capital		(3,202)	(3,470)	-	(3,470)
19.	Cash Needs		223,838	223,570		223,570

20.	Cash Surplus (Shortfall)	(56,397)	11,717		(59,279)
21.	TOTAL USES	$ **167,440**	$ **235,287**		$ **164,291**
22.	Cash - Beginning of Period	101,805	101,805	-	101,805
23.	Cash - Surplus (Shortfall) [Line No. 19]	(56,397)	11,717	-	11,717
24.	**ENDING CASH**	$ **45,407**	$ **113,522**		$ **113,522**
25.	**Outstanding Commercial Paper**	-	-	-	-
26.	**Outstanding Commercial Paper - Capital**	-	-	-	-
27.	**DSIC Spending**	35,000	35,000	-	35,000
28.	**Internally Generated Funds**	41,000	41,000	-	41,000
29.	**TOTAL IGF + Incremental DSIC Spending**	$ **76,000**	$ **76,000**		$ **76,000**

(1) PGW Exhibit JFG-1-A (Present Rates)
(2) PGW Exhibit JFG-2-A (Proposed Rates)
Potential Input To Be Shown On Other Tables
Adjustments from Table II

LINE NO.	TABLE II Philadelphia Gas Works SUMMARY OF ADJUSTMENTS R-2020-3017206 (Dollars in Thousands)	ALJ Adjustments	ALJ Reference
		$	
TABLE I	**STATEMENT OF INCOME**		
	OPERATING REVENUES		
1.	Non-Heating	-	
2.	Gas Transport Service	-	
3.	Heating	-	
4.	Revenue Adjustment (TED/BUS Rate)	-	
5.	Revenue Enhancement / Cost Reduction FY 2021	(70,000)	
6.	Weather Normalization Adjustment	-	
7.	Appropriation for Uncollectible Reserve	-	
8.	Unbilled Adjustment	-	
10.	Appliance Repair & Other Revenues	-	
11.	LNG Project Revenues	-	
12.	Other Operating Revenues	(997)	
	OPERATING EXPENSES		
15.	Natural Gas	-	
16.	Other Raw Material	-	
19.	Gas Processing	-	
20.	Field Services	-	
21.	Distribution	-	
22.	Field Operations	-	
23.	Collection	-	
24.	Customer Service	-	
25.	Account Management	-	
26.	Marketing	-	
27.	Administrative & General	-	
28.	Health Insurance	-	
29.	Environmental	-	

30.	Capitalized Fringe Benefits		-						
31.	Capitalized Administrative Charges		-						
32.	Amortization of Restructuring Costs		-						
33.	Pensions		-						
34.	Taxes		-						
35.	Other Post Employment Benefits		-						
36.	Proposed Bond Refunding Savings		-						
37.	Cost / Labor Savings		-						
39.	Depreciation		-						
40.	Cost of Removal		-						
41.	To Clearing Accounts		-						
46.	**Interest Gain / (Loss) and Other Income**		-						
49.	Long-Term Debt		-						
50.	Other		-						
51.	AFUDC		-						
52.	Loss From Extinguishment of Debt		-						
55.	City Payment		-						
TABLE I(A)	**DEBT SERVICE COVERAGE**								
10.	Less: Non-Cash Expenses		-						
14.	Equipment Leasing Debt Service		-						
16.	1998 Ordinance Bonds Debt Service		-						
17.	1999 Ordinance Subordinate Bonds Debt Service - (TXCP)		-						
TABLE I(B)	**CASH FLOW STATEMENT**								
	SOURCES								
2.	Depreciation & Amortization		-						
3.	Earnings on Restricted Funds Withdrawal/(No Withdrawal)		-						
4.	Proceeds from Bond Refunding to Pay Cost of Issuance		-						
5.	Increased/(Decreased) Other Assets/Liabilities		-						
7.	Drawdown of Bond Proceeds		-						
8.	Release of Restricted Fund Asset		-						
9.	Release of Bond Proceeds to Pay Temporary Financing		-						
10.	Temporary Financing		-						

	USES	
12.	Net Construction Expenditures	-
13.	Funded Debt Reduction:	-
14.	Revenue Bonds	-
14.	Temporary Financing Repayment	-
16.	Changes in City Equity	-
18.	Non-Cash Working Capital	-
22.	Cash - Beginning of Period	-
23.	Cash - Surplus (Shortfall) [Line No. 19]	-
25.	**Outstanding Commercial Paper**	-
26.	**Outstanding Commercial Paper - Capital**	-
27.	**DSIC Spending**	-
28.	**Internally Generated Funds**	-
TABLE III	**BALANCE SHEET**	
	ASSETS	
1.	Utility Plant Net	-
2.	Leasehold Asset	-
3.	Sinking Fund Reserve	-
4.	Capital Improvement Fund - Current	-
5.	Capital Improvement Fund - Long Term	-
6.	Workers' Compensation Fund - & Health Insurance Escrow	-
7.	Cash	(68,116)
9.	Gas	-
10.	Other	-
11.	Accrued Gas Revenues	-
12.	Reserve for Uncollectible	-
14.	Materials & Supplies	-
15.	Other Current Assets	-
16.	Deferred Debits	-
17.	Unamortized Bond Issuance Expense	-
18.	Unamortized Loss on Reacquired Debt	-
19.	Deferred Environmental	-
20.	Deferred Pension Outflows	-
21.	Deferred OPEB Outflows	-
22.	Other Assets	-
	EQUITY & LIABILITIES	

24.	City Equity		(68,116)
25.	Revenue Bonds		-
26.	TECA Accretions		-
27.	Unamortized Discount		-
28.	Unamortized Premium		-
30.	Lease Obligations		-
31.	Notes Payable		-
32.	City Loan		-
33.	Accounts Payable		-
34.	Customer Deposits		-
35.	Other Current Liabilities		-
36.	Pension Liability		-
37.	OPEB Liability		-
38.	Deferred Credits		-
39.	Deferred Pension Inflows		-
40.	Deferred OPEB Inflows		-
41.	Accrued Interest		-
42.	Accrued Taxes & Wages		-
43.	Accrued Distribution to City		-
44.	Other Liabilities		-
53.	Plant in Service		-
56.	Accumulated Depreciation		-
	(1) PGW Exhibit JFG-1-A (Present Rates)		
	(2) PGW Exhibit JFG-2-A (Proposed Rates)		
	Potential Input To Be Shown On Other Tables		
	Adjustments from Table II		

TABLE III
Philadelphia Gas Works
BALANCE SHEET
R-2020-3017206
(Dollars in Thousands)

LINE NO.		PGW Pro Forma Present Rates FPFTY Budget FY 2021 (1)	PGW Pro Forma Proposed Rates FPFTY Budget FY 2021 (2)	ALJ Adjustments	ALJ Total FPFTY FY2021
		$	$	$	$
	ASSETS				
1.	Utility Plant Net	1,591,691	1,591,691	-	1,591,691
2.	Leasehold Asset	852	852	-	852
3.	Sinking Fund Reserve	127,803	127,803	-	127,803
4.	Capital Improvement Fund - Current	88,177	88,177	-	88,177
5.	Capital Improvement Fund - Long Term	81,621	81,621	-	81,621
6.	Workers' Compensation Fund & Health Insurance Escrow	2,759	2,759	-	2,759
7.	Cash	45,407	113,523	(68,116)	45,407
8.	**Accounts Receivable:**				
9.	Gas	140,752	140,392	-	140,392
10.	Other	1,825	1,825	-	1,825
11.	Accrued Gas Revenues	5,528	5,528	-	5,528
12.	Reserve for Uncollectible	(65,657)	(65,565)	-	(65,565)
13.	Total Accounts Receivable:	82,448	82,180		82,180
14.	Materials & Supplies	50,851	50,851	-	50,851
15.	Other Current Assets	3,160	3,160	-	3,160
16.	Deferred Debits	12,940	12,940	-	12,940
17.	Unamortized Bond Issuance Expense	209	209	-	209
18.	Unamortized Loss on Reacquired Debt	27,471	27,471	-	27,471
19.	Deferred Environmental	47,108	47,108	-	47,108
20.	Deferred Pension Outflows	8,590	8,590	-	8,590
21.	Deferred OPEB Outflows	52,091	52,091	-	52,091
22.	Other Assets	28,934	28,934	-	28,934
23.	**TOTAL ASSETS**	2,252,110	2,319,958		2,251,842
	EQUITY & LIABILITIES				
24.	City Equity	312,496	380,343	(68,116)	312,227
25.	Revenue Bonds	1,116,650	1,116,650	-	1,116,650
26.	TECA Accretions	0	0	-	0
27.	Unamortized Discount	(48)	(48)	-	(48)
28.	Unamortized Premium	78,577	78,577	-	78,577
29.	Long Term Debt	1,195,179	1,195,179		1,195,179
30.	Lease Obligations	852	852	-	852
31.	Notes Payable	0	0	-	0
32.	City Loan	0	0	-	0
33.	Accounts Payable	68,769	68,769	-	68,769
34.	Customer Deposits	2,828	2,828	-	2,828
35.	Other Current Liabilities	4,647	4,647	-	4,647
36.	Pension Liability	244,675	244,675	-	244,675
37.	OPEB Liability	293,105	293,105	-	293,105
38.	Deferred Credits	4,013	4,013	-	4,013
39.	Deferred Pension Inflows	6,344	6,344	-	6,344
40.	Deferred OPEB Inflows	22,099	22,099	-	22,099
41.	Accrued Interest	7,073	7,073	-	7,073
42.	Accrued Taxes & Wages	4,222	4,222	-	4,222
43.	Accrued Distribution to City	3,000	3,000	-	3,000
44.	Other Liabilities	82,810	82,810	-	82,810
45.	**TOTAL EQUITY & LIABILITIES**	2,252,111	2,319,958		2,251,842
	CAPITALIZATION				
46.	Total Capitalization	1,507,675	1,575,522		1,507,406
47.	Total Long Term Debt	1,195,179	1,195,179		1,195,179
48.	Debt to Equity Ratio	79.27%	75.86%		79.29%
49.	Capitalization Ratio	3.82	3.14		3.83
50.	Total Capitalization Excluding Leases	1,507,675	1,575,522		1,507,406
51.	Total Long Term Debt Excluding Leases	1,195,179	1,195,179		1,195,179
52.	Debt to Total Capital Ratio	0.793	0.759		0.793
53.	Plant in Service	2,694,472	2,694,472	-	2,694,472
54.	Capital - 106 &107 [Table I(B), Line 12]	154,084	154,084	-	154,084
55.	Total Plant	2,848,556	2,848,556		2,848,556
56.	Accumulated Depreciation	(1,256,865)	(1,256,865)	-	(1,256,865)
57.	Net Utility Plant	1,591,691	1,591,691		1,591,691

(1) PGW Exhibit JFG-1-A (Present Rates)
(2) PGW Exhibit JFG-2-A (Proposed Rates)
Potential Input To Be Shown On Other Tables
Adjustments from Table II

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of this electronically-filed document upon the parties, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a party).

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Dated: August 26, 2020

<u>/s/ Devin McDougall</u>
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