STATE OF MICHIGAN

MICHIGAN OFFICE OF ADMINISTRATIVE HEARINGS AND RULES

FOR THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * * *

In the matter of the application of DTE Gas Company for approval of depreciation accrual rates and other related matters.	))))	Case No. U-21384

NOTICE OF PROPOSAL FOR DECISION

The attached Proposal for Decision is being issued and served on all parties of record in the above matter on August 15, 2024.

Exceptions, if any, must be filed with the Michigan Public Service Commission, 7109 West Saginaw, Lansing, Michigan 48917, and served on all other parties of record on or before September 4, 2024, or within such further period as may be authorized for filing exceptions. If exceptions are filed, replies thereto may be filed on or before September 16, 2024.

At the expiration of the period for filing exceptions, an Order of the Commission will be issued in conformity with the attached Proposal for Decision and will become effective unless exceptions are filed seasonably or unless the Proposal for Decision is reviewed by action of the Commission. To be seasonably filed, exceptions must reach the Commission on or before the date they are due.

MICHIGAN OFFICE OF ADMINISTRATIVE HEARINGS AND RULES
For the Michigan Public Service Commission

Sally L. Wallace

Digitally signed by: Sally L. Wallace
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Date: 2024.08.15 14:30:07 -04'00'

August 15, 2024
Lansing, Michigan

Sally L. Wallace
Administrative Law Judge

STATE OF MICHIGAN

MICHIGAN OFFICE OF ADMINISTRATIVE HEARINGS AND RULES

FOR THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of DTE Gas Company for approval of depreciation accrual rates and other related matters.	))))	Case No. U-21384

PROPOSAL FOR DECISION

I.

PROCEDURAL HISTORY

On September 29, 2023, DTE Gas Company (DTE Gas) filed an application, with supporting testimony and exhibits, requesting to continue amortization of select accounts and for accounting approval of proposed depreciation rates for gas utility plant. DTE Gas is currently accruing depreciation at rates and methods approved in the February 7, 2019 order in Case No. U-20118 (February 7 order). According to the application, approval of the Company's proposed depreciation rates would result in a $10.935 million annual increase in depreciation expense compared to the rates currently in effect.

A prehearing conference was held by ALJ Jonathan F. Thoits[1] on November 15, 2023, at which Staff appeared and petitions to intervene filed by the City of Ann Arbor (Ann Arbor or the City) and the Association of Businesses Advocating Tariff Equity

[1] This case was subsequently reassigned to ALJ Sally L. Wallace.

(ABATE) were granted. On March 19, 2024, Staff, ABATE, and Ann Arbor filed direct testimony and exhibits, and on April 17, 2024, the parties filed rebuttal testimony. On April 22, 2024, DTE Gas filed a motion to strike portions of testimony and certain exhibits of witnesses for Ann Arbor, and the City filed a response on April 29, 2024. A hearing on the motion was held on May 3, 2024, and a ruling denying the motion was issued on May 10, 2024.

An evidentiary hearing was held on May 23, 2024, at which all testimony was bound in, and exhibits were admitted, without the need for witnesses to appear for cross-examination. The parties filed briefs on or before June 20, 2024, and reply briefs on July 12, 2024. The record in this case consists of 214 pages of transcript and 58 exhibits admitted.

II.

OVERVIEW OF THE RECORD

This section provides a general overview of the testimony of the witnesses and certain exhibits. The parties' summaries of the evidence and arguments in support of their respective positions are fully set forth in their briefs and reply briefs. More detail is provided in Section III as necessary to address specific issues in controversy.

A. DTE Gas

DTE Gas presented the testimony of three witnesses.

Zeena Gatia, an accountant and Principal Financial Analyst in Asset Management, for DTE Energy Corporate Services, LLC, provided an overview of the case and addressed the Company's compliance with the directives included in the

February 7 settlement agreement and order. Ms. Gatia also presented DTE Gas's recommended depreciation rates, set forth in Exhibit A-5.[2]

Kimbugwe A. Kateregga, Ph.D., a partner of Foster Associates Consultants, LLC, (Foster Associates) provided the 2023 Depreciation Study for DTE Gas performed by Foster Associates and set forth in Exhibit A-6 revised.[3] Dr. Kateregga filed rebuttal in response to testimony by Staff, ABATE, and Ann Arbor witnesses.

Henry J. Decker, Vice President, Gas Sales & Supply for DTE Gas, provided rebuttal in response to Ann Arbor concerning the Company's climate goals and recommendations for certain climate studies.[4]

B. Staff

Staff presented the testimony of two witnesses.

James E. LaPan, a Public Utilities Engineer with the Commission, testified regarding Staff's review and recommendations regarding capital investments made for cathodic protection, and Staff's actuarial analysis of gas assets and resulting changes to annual depreciation accruals.[5] According to Mr. LaPan, although the February 7 order called for a collaborative to discuss accounting treatment for future cathodic protection replacements, the parties to the settlement in that case have agreed that a collaborative is no longer necessary. However, if the Commission would prefer to continue this approach, Staff would take the steps necessary to convene a collaborative within four months of the issuance of the final order in this case.[6]

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[2] Ms. Gatia's qualifications and direct testimony are transcribed at 3 Tr 55-62.
[3] Mr. Kateregga's revised direct testimony and rebuttal testimony are transcribed at 3 Tr 65-93.
[4] Mr. Decker's rebuttal testimony is transcribed at 3 Tr 96-104.
[5] Mr. LaPan's qualifications and revised direct testimony are transcribed at 3 Tr 188-197.
[6] 3 Tr 192-193.

Mr. LaPan testified that, as shown in Exhibit S-1, Staff made adjustments to nine of the Company's accounts, which resulted in a decrease in depreciation expense of approximately $11 million as calculated in Exhibit S-3. Lastly, Mr. LaPan testified that Staff recommends that DTE Gas file its next depreciation case no sooner than four years after the final order is issued in this case.[7]

Nicholas M. Revere, Manager of the Rates and Tariff section of the Commission's Regulated Energy Division, responded to testimony by Ann Arbor, providing Staff's review and recommendations regarding a climate study proposal made by the City.[8]

C. ABATE

Brian C. Andrews, a consultant in the field of public utility regulation and a Principal with the firm of Brubaker & Associates, Inc, testified on behalf of ABATE.[9] Mr. Andrews discussed his involvement in the Society of Depreciation Professionals (SDP) and the requirements for certification as a Certified Depreciation Professional by the SDP. Mr. Andrews recommended adjustments to depreciation rates for nine of the Company's underground storage, transmission and distribution plant accounts, as shown in Exhibit AB-11. According to Mr. Andrews, DTE Gas has underestimated the average service lives for those accounts, and that when properly estimated, the result would decrease the Company's proposed depreciation accrual rates by $20.89 million.[10] Mr. Andrews also filed rebuttal testimony in response to recommendations by Ann Arbor.

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[7] 3 Tr 197.
[8] Mr. Revere's qualifications and rebuttal testimony are transcribed at 3 Tr 200-213.
[9] Mr. Andrews' qualifications, direct, and rebuttal testimony are transcribed at 3 Tr 108-142.
[10] 3 Tr 110-111.

D. Ann Arbor

Ann Arbor presented the testimony of two witnesses.

Robert C. Ackley is the owner of Gas Safety Inc. and a consultant in the field of natural gas utilities and natural gas leak detection.[11] His testimony addressed the condition of the natural gas infrastructure in Ann Arbor and the appropriate physical life of plastic pipelines used in natural gas systems.

Dr. Melissa Stults is the Sustainability and Innovations Director for Ann Arbor.[12] Her testimony advocates for the consideration of sustainability and climate-focused goals in determining the useful life of natural gas assets, proposes alternative depreciation rates in this case that reflect those considerations, and recommends that the Company be required to complete a Climate Policy Impact Study before its next depreciation case. Dr. Stults presented rebuttal in response to Staff and ABATE.

III.

DISCUSSION

There does not appear to be any dispute over the Company's compliance with the February 7 order, although, as discussed by Staff, if the Commission prefers a collaborative approach to address cathodic protection replacements, Staff states that it is prepared to restart the collaborative if directed to do so.

Three principal issues were contested in this proceeding: (1) the appropriate depreciation accrual rates to be applied to DTE Gas going forward; (2) certain studies and scenarios (if any) related to climate change impacts be conducted before the

[11] Mr. Ackley's qualifications and direct testimony are transcribed at 3 Tr 145-150.
[12] Dr. Stults' qualifications, direct, and rebuttal testimony are transcribed at 3 Tr 152-184.

Company's next depreciation case; and (3) the date for DTE Gas's next depreciation case filing. These issues are addressed *ad seriatim*.

A. Depreciation Rates

1. DTE Gas

Dr. Kateregga testified that "[t]he goal of depreciation accounting is to charge to operations a reasonable estimate of the cost of the service potential of an asset (or group of assets) consumed during an accounting interval" noting that there are several systems developed for achieving this goal.[13] Next, Dr. Kateregga discussed the need for accurate depreciation accrual rates for regulated utilities, stating that depreciation studies need to be updated periodically "to assess the continuing reasonableness of parameters and accrual rates derived from prior estimates."[14]

Dr. Kateregga explained the steps in developing a depreciation study, beginning with data collection and validation, then life analysis, life estimation, an estimation of net salvage rates, an evaluation of the adequacy of the existing depreciation reserve, and finally the development of an accrual rate "based upon a selected depreciation system."[15] He presented Figure 1 at 3 Tr 70, listing the different methods, procedures, and techniques for constructing a depreciation system, testifying that a system is developed by selecting one method, one procedure, and one technique.[16]

Next, Dr. Kateregga explained that DTE Gas provided updated plant and net salvage data for 2018-2022, and statistical life studies were performed. Dr. Kateregga testified that:

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[13] 3 Tr 67.
[14] 3 Tr 68.
[15] 3 Tr 68-69, 70.
[16] 3 Tr 70.

> As discussed in Exhibit A−6 revised, all plant accounts were analyzed using a technique in which first, second- and third-degree polynomials were fitted to a set of observed retirement ratios. The resulting function was expressed as a survivorship function, which was numerically integrated to obtain an estimate of the population projection life. Observed proportions surviving were then fitted by a weighted least–squares procedure to the Iowa–curve family (using projection lives derived from the graduation of hazard rates) to obtain a mathematical description or classification of the dispersion characteristics of the data. Service life indications derived from the statistical analyses were blended with expectations about the future to obtain an appropriate projection life curve for each plant category.[17]

Dr. Kateregga testified that Foster Associates performed a net salvage analysis and an analysis of recorded depreciation reserves, concluding that based on the depreciation study, a rebalancing of the depreciation reserves for DTE Gas was warranted.[18]

Dr. Kateregga explained that the current depreciation system approved for DTE Gas uses the straight–line method, vintage group procedure, and remaining–life technique. According to him, no changes to the approved system are necessary at this time "provided depreciation studies are conducted periodically and parameters are routinely adjusted to reflect changing operating conditions."[19] Dr. Kateregga noted that changes in certain economic factors such as restructuring or performance-based ratemaking may lead to rejection of the straight-line method in the future, however no modifications to the method were made in the instant case.[20] Dr. Kateregga provided the summary results of the DTE Gas depreciation study in Table 1 at 3 Tr 74.

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[17] 3 Tr 71.
[18] 3 Tr 71-72.
[19] 3 Tr 73.
[20] 3 Tr 73-74.

2. Staff

As outlined above, Mr. LaPan sponsored Staff's adjustments to the Company's depreciation rates. As shown in Exhibit S-1, Mr. LaPan made modifications to the following accounts: (1) for Underground Storage Plant, Account 352.00 (Wells), and Account 354.00 (Compressor Station Equipment); (2) for Transmission Plant, Account 367.00 (Mains), and Account 368.00 (Compressor Station Equipment); and (3) for Distribution Plant, Account 376.10 (Mains – Metallic), Account 376.20 (Mains – Plastic), Account 380.10 (Services – Metallic), Account 380.20 (Services – Plastic), and Account 381.00 (Meters).[21]

Mr. LaPan testified that Staff "used all activity year transactions with vintage year identification, just as the Company did[,]" relying on aged property records obtained from the Company's Continuing Property Records (CPR) "which provide aged transactions over the period from 1983 through 2022 for all plant accounts."[22] According to Mr. LaPan:

> Staff is [sic] supports increases to the lives of these accounts based on its statistical analysis and physical observations, as well as professional judgment, of each account's mortality characteristics. Staff used the same data over the same transaction years, 1983 – 2022, as Company witness K.A. Kateregga used, and found that the lives Staff proposes are a much more accurate fit, or representation of the expected future retirement characteristics of those accounts.
>
> As Company witness K.A. Kateregga explained on page 7 of his Exhibit A-6, the life analysis and estimation is largely mechanical and focuses primarily on history. Therefore, statistical techniques are used to obtain a mathematical description of the forces of retirement acting on plant assets in each account, or life projections, also known as survivor curves. Additionally, the life analysis and estimates require the use of informed

[21] 3 Tr 194.
[22] 3 Tr 194.

> judgment to assess what the probability is that the statistical date [sic] will be the best representative of future retirement experience. Staff determined that Company witness Kateregga was too conservative when selecting the appropriate average life and curve fit.[23]

Next, Mr. LaPan detailed Staff's approach, using account 380.20 (Services–Plastic) as an example. According to Mr. LaPan, referencing Exhibit A-6, p. 42, the graph of retirement experiences from 1983-2022 was fitted to a survivor curve, however, "[t]he actual retirement experience seen here plots out a much straighter line, or less of a curve, than the average life and curve type proposed by Company witness Kateregga. Staff's analysis determined that these actual retirement experiences derive an average service life closer to 50 years and resemble the curve shape of the R1 survivor curve. Based on this, Staff proposes the use of a 50 R1 curve."[24] While not providing detailed examples, Mr. LaPan testified that Staff used the same approach for the remaining eight accounts to which Staff made adjustments.[25]

2. ABATE

Mr. Andrews testified that "the basic underlying principle of utility depreciation accounting is intergenerational equity, where the customers/ratepayers who benefit from the generated service of assets pay all the costs for those assets during the benefit period, which is over the life of those assets."[26] Noting that depreciation expense is intended to provide the "return of" the investment in a current asset over its average service life (ASL) Mr. Andrews provided the FERC definition of depreciation contained in 18 CFR 1.201 (2024).

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[23] 3 Tr 194-195.
[24] 3 Tr 196. Currently, according to Exhibit A-6, p. 42, Account 380.20 is fitted to the 45.0-R3 projection life curve, and DTE Gas proposes to adjust this to the 45.0-R1.5 survivor curve.
[25] 3 Tr 196-197.
[26] 3 Tr 111.

Like Dr. Kateregga, Mr. Andrews reviewed different depreciation systems, observing that the choice of a system can have a significant impact on depreciation rates.[27] According to Mr. Andrews, the most common depreciation system involves "the Straight Line Method, the [Average Life Group] ALG Procedure, and the Remaining Life Technique. Essentially, this system results in depreciation rates that ensure estimated future accruals are recovered equally over the remaining lives of the assets."[28]

Next, Mr. Andrews discussed the value of actuarial life analysis, quoting from the National Association of Regulated Utility Commissioners' (NARUC) manual on depreciation, testifying:

> As explained by the NARUC manual, when the required data exists (i.e., a database that contains the year of installation and the year of retirements for each vintage of property), actuarial life analysis is the preferred method of determining the life, and thus retirement characteristics, of a group of property. In this type of analysis, there are three major steps.
>
> The first step is to gather and use available aged data from the Company's continuing plant records to create an observed life table. The observed life table provides the percent surviving for each age interval of property.
>
> The second step is to conduct a fitting analysis to match the actual survivor data from the observed life table to a standard set of mortality or survivor curves. Typically, the observed life table data is matched to Iowa Curves. The fitting process is a mathematical fitting process, which minimizes the Sum of Squared Differences ("SSD") between the actual data and the Iowa Curves.
>
> The third step is to select the best fitting curve while using informed judgment to determine the curve that best represents the property being studied. This includes the use of a visual matching process. Although the mathematical fitting process provides a curve that is theoretically possible, the visual matching process will allow the trained depreciation professional

[27] 3 Tr 113-114.
[28] 3 Tr 114-115.

> to use informed judgment in the determination of the best fitting survivor curve.[29]

Mr. Andrews provided further explanation of the SSD statistical measurement, quoting from the Actuarial Life section of the NARUC Manual, which describes the approach as follows:

> Generally, the goodness of fit criterion is the least sum of squared deviations. The difference between the observed and projected data is calculated for each data point in the observed data. This difference is squared, and the resulting amounts are summed to provide a single statistic that represents the quality of the fit between the observed and projected curves.[30]

Mr. Andrews also discussed survivor curves (generally, Iowa curves) and the notation used to describe them, opining that "[t]he selection of the survivor curve is one of the most important aspects in conducting a depreciation study." He added that [a] survivor curve consists of an ASL and Iowa Curve type combination[,]"[31] providing an example in Figure 1 at 3 Tr 118.

Mr. Andrews testified that although he did not take issue with the method used for the Company's depreciation study, he focused on depreciation rates for nine accounts[32] that he found "are overstated and burden DTE's customers with unnecessary and excessive depreciation expense, which will inflate the revenue requirement when these depreciation rates are ultimately used in the development of DTE's revenue requirement."[33] Discussing his approach, Mr. Andrews explained:

> The first step in my analysis was a thorough review of DTE's depreciation study and of Dr. Kateregga's workpapers. I conducted my own actuarial

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[29] 3 Tr 115-116.
[30] 3 Tr 116, quoting NARUC Public Utility Depreciation Practices Manual, 1996, pp. 124-125.
[31] 3 Tr 117.
[32] These are the same nine accounts addressed by Staff witness LaPan.
[33] 3 Tr 120.

> analysis based on the observed life tables created by Dr. Kateregga for his actuarial analysis for DTE's largest accounts. I utilized an Excel-based model to determine the Iowa Curve and ASL combination that best fits the significant points of the observed life tables created by Dr. Kateregga. I then used a statistical and visual analysis to select Iowa Curves and ASLs that resulted in a better statistical fit (lower SSD) than the survivor curves being recommended by Dr. Kateregga. Again, the SSD is the sum of the squared differences between the Iowa Curves and the significant data points from the observed life tables.[34]

In Exhibits AB-1 through AB-9, Mr. Andrews presented detailed results for the nine accounts at issue, including explanations on how he performed his curve-fitting analysis to minimize SSDs. Mr. Andrews provided a summary of the information contained in each of his exhibits in Figures 2-10, which can be found at 3 Tr 122-133. According to Mr. Andrews, "[f]or each of the nine accounts where I am proposing a survivor curve that differs from Dr. Kateregga's recommendation, the SSD is lower. That is, all of my recommendations result in survivor curves that mathematically and statistically fit DTE's data better than those recommended by Dr. Kateregga."[35]

Lastly, Mr. Andrews provided a comparison of the depreciation rates proposed by DTE Gas to those recommended by ABATE in Table 3 at 3 Tr 134.

3. Ann Arbor

Ann Arbor witness Ackley sponsored Exhibit AA-2, which contains the results of a methane detection survey he completed for the City. Based on that survey, Mr. Ackley concluded that "[t]he majority of the natural gas infrastructure in the City appears to be in good condition" and, while certain pipes or sections of pipes may need to be repaired or replaced to address safety concerns, "the vast majority of the existing

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[34] 3 Tr 120.
[35] 3 Tr 121. See Table 2 at 3 Tr 122 for a summary of the differences in SSDs between DTE Gas's depreciation study and that performed by ABATE.

natural gas infrastructure in Ann Arbor will be able to safely serve the City until at least 2050."[36]

Mr. Ackley further testified it is not unusual for natural gas infrastructure to be in place for 50 years or longer; in fact, "many systems that have been in place for well over 100 years still have some original pipes in use."[37] In turn, he disagreed with the Company's use of 45.17 years as the average life of its plastic services.[38] Based on his experience and the research from two sources contained in Exhibits AA-3 and AA-4, Mr. Ackley opined "the minimum physical life of plastic pipes is 50 years (barring some outside force), and there is an expectation that plastic pipes will last beyond this minimum—up to 100 years or more."[39] He concluded it would be "unreasonable" to use "any amount less than 50 years in the calculation of depreciation rates for plastic pipes . . . (unless there is some other non-physical reason for accelerating depreciation)."[40]

Dr. Stults prefaced her recommendations for depreciation rates by discussing several sustainability goals that focus on decreasing fossil-fuel dependence. She testified that Ann Arbor's A^{2}ZERO Carbon Neutrality Plan (contained in Exhibit AA-6) intends to achieve "community-wide carbon neutrality by 2030."[41] She explained that the goals of A^{2}ZERO, which include powering the electrical grid with 100% renewable energy, transitioning appliances and vehicles from fossil fuels to electric, and significantly improving the energy efficiency of homes, businesses, and government

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[36] 3 Tr 148-149.
[37] 3 Tr 149.
[38] 3 Tr 149-150, citing Exhibit A-6, pp 31-32.
[39] 3 Tr 149-150.
[40] 3 Tr 150.
[41] 3 Tr 155.

facilities.[42] Dr. Stults further testified that Michigan's MI Healthy Climate Plan focuses on reducing emissions related to heating homes and businesses by 17% by 2030 and achieving 100% economy-wide carbon neutrality by 2050.[43] Additionally, the University of Michigan (UM) has stated its commitment to eliminating carbon emissions by 2040 with the help of geothermal systems, and UM and Ann Arbor have been in discussions regarding a collaborative deployment of such systems.[44]

According to Dr. Stults, because of the move to clean energy, Ann Arbor will likely no longer require gas service in the "not-so-distant future," estimating that the City could be completely independent of fossil fuels by 2050 at the latest.[45] She added that "[i]n the meantime, sharp reductions in usage are expected: The A^{2}ZERO plan states the City's goal is to have 100% of City facilities, 30% of owner-occupied homes, and 25% of rental properties fully electrified (meaning no fossil gas usage) by 2030."[46]

Citing DTE Energy's 2022 Sustainability Report, Dr. Stults testified the Company "has a stated goal of being 80% carbon neutral by 2040 and 'net zero by 2050.'"[47] She also testified that the Company failed to state how it could meet its goal, although the Report discusses renewable natural gas (RNG) and hydrogen as potential innovations.[48] Dr. Stults stated that she did not believe RNG was a viable option for

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[42] 3 Tr 155-156.
[43] 3 Tr 156.
[44] 3 Tr 156, citing Exhibits AA-7 and AA-8.
[45] 3 Tr 157, 159.
[46] 3 Tr 157.
[47] 3 Tr 157; Exhibit AA-9.
[48] 3 Tr 157.

replacing Ann Arbor's current usage of fossil fuels, nor did she foresee a safe or economic transition to hydrogen given the existing gas infrastructure.[49]

Next, Dr. Stults testified that DTE Gas conducts business within the City through a 30-year franchise that is revocable at will and expires in 2027.[50] On March 20, 2023, Ann Arbor City Council passed a resolution authorizing its staff to immediately begin negotiations for a new franchise that is aligned with the goal of A^{2}ZERO to transition away from natural gas. Dr. Stults did not believe a franchise similar to the one currently in place would be consistent with the City Council's direction.[51] She opined that portions of Ann Arbor would no longer need gas service before 2050, testifying that the City and entities within it are in the process of designing and installing geothermal systems and that the City intends to "aggressively educate and engage residents, including through the use of rebates and incentives" in an attempt to accelerate the adoption of alternative heating solutions. Dr. Stults noted that the City may contract with a different gas utility, "especially if that provider had a service offering that would more quickly advance the City's stated goals[.]"[52] In addition, the City could meet its future geothermal or other renewable-energy needs by establishing a municipal utility or granting a franchise to a provider of those services.[53]

Dr. Stults next addressed the concept of depreciation and the effect that accelerated depreciation rates would have on customer costs. Regarding the useful life of an asset, Dr. Stults testified:

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[49] 3 Tr 157-158.
[50] 3 Tr 158-159.
[51] 3 Tr 159.
[52] 3 Tr 160.
[53] 3 Tr 160-161.

> The useful life of an asset is the time between the acquirement of an asset and the retirement of that asset. As indicated in a report by the New York State Electric & Gas Corporation and the Rochester Gas and Electric Corporation ("NY Utility Report"), this is true "no matter whether the retirement is due to decay, damage, the need for additional capacity, obsolescence, or due to the actions of public authorities such as environmental regulations or requirements that result in retirement." Exhibit AA-13, p. I-16. In other words, the useful life of an asset "is not merely the attainable life from a physical standpoint." *Id*. Rather, several factors that are very likely to impact usage should be considered when estimating the amount of time an asset will be used and useful (and hence the asset life) for depreciation purposes.[54]

Dr. Stults listed six factors from the NY Utility Report that should be considered when estimating the useful life of an asset and testified that two of those factors—changes in government requirements and obsolescence due to new technologies—are relevant when considering the effect of climate initiatives.[55] Dr. Stults added that there is an expectation of a significant reduction in gas consumption "starting immediately and continuing rapidly over the next 20 years," which will likely reduce the useful life of natural gas assets in the Company's service territory and should be taken into consideration when establishing depreciation rates.[56]

Dr. Stults referenced a series of discovery responses from DTE Gas contained in Exhibits AA-14 through AA-16 as evidence that the Company is not considering changes in government policies, potential obsolescence, or relevant climate goals when using "informed judgment" to determine the estimated life of its assets.[57] Based on her assessment, Dr. Stults concluded that there are two alternatives when it comes to understanding the Company's analysis:

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[54] 3 Tr 161-162.
[55] 3 Tr 162, citing Exhibit AA-13, p I-23.
[56] 3 Tr 162-163.
[57] 3 Tr 163-164.

> The first is that DTE ignored its own stated climate goals as well as the climate goals of the State of Michigan and its customers (including the City of Ann Arbor) in determining the useful life of its assets. The other is that it did consider these goals, but has no real plan for or intention of fulfilling its own goals and believes Michigan, Ann Arbor, UM, and other customers will all generally fail to meet their stated climate goals.[58]

She further testified that the remaining life expectancy of DTE Gas's assets in its depreciation study is longer than those assets are expected to be useful, especially in Ann Arbor, pointing out that the Company's proposed average remaining life of all plastic services is 36.23 years, a time which is well beyond 2050.[59]

Dr. Stults expressed concern that the Company's depreciation rates were too low, "which means a higher rate base, a higher return on rate base, and thus higher costs for ratepayers in the long-term."[60] She added that, "failing to take climate change into consideration will result in intergenerational inequity that could negatively impact disadvantaged communities."[61] She elaborated on the issue of intergenerational inequity:

> The customers who are benefitting from [the Company's capital investments] should bear its costs. However, as customers make the switch from fossil gas to another energy source (e.g., geothermal or electric) for heating or to power their appliances, the class of ratepayers will shrink leading to fewer customers paying higher rates because the depreciation expenses will be spread over a smaller customer base. Thus, the result of too-low depreciation rates is intergenerational inequity – a smaller and smaller class of remaining rate-paying customers will pay an increasingly disproportionate amount for the capital that used to be shared with customers who exited the class. Adding to my concern is the disproportionate impact intergenerational inequity is likely to have on disadvantaged communities. Low-income customers are least able to invest in upgrading to electric appliances and switching their energy usage. While Ann Arbor is committed to helping its own citizens transition

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[58] 3 Tr 165.
[59] 3 Tr 165-166.
[60] 3 Tr 166.
[61] 3 Tr 166, citing Exhibit AA-13, p II-4.

> in an equitable and just manner, citizens of other jurisdictions may experience affordability impacts when a shrinking customer base is left paying the same amount of depreciation expenses.[62]

Dr. Stults next proposed estimating the remaining useful life of the Company's natural gas assets to be no more than 26 years so that the capital investment in these assets can be recovered by 2050, opining that her proposal is consistent with DTE Gas's decarbonization goals.[63]

As an alternative recommendation, Dr. Stults proposed adjusting depreciation rates to account for the portion of assets that serve Ann Arbor having shorter assumed service lives. This proposal was based on Dr. Stults' underlying assumptions that there would be a 50% reduction in meters by 2040 and a 100% transition by 2050, meaning "no pipelines, no meters being used in Ann Arbor." She added that "[t]his scenario would assume all meter installations cease in 2040, because those customers would transition rather than re-up."[64] Thus, for pipeline infrastructure serving the City, Dr. Stults proposed a 3.8% depreciation rate (straight line) based on the assumption that there would be no pipelines in use in Ann Arbor by 2050.[65]

With respect to meter infrastructure, she recommended a 5.05% depreciation rate:

> For meter infrastructure, the Commission should assume half the meters in Ann Arbor would have a 16-year remaining useful life (a 6.3% depreciation rate on investment assuming straight line depreciation), and the other half would have a 26-year remaining useful life (a 3.8% depreciation rate, with the same assumptions). A blend of these two figures assuming a straight-line depreciation for investment (pre-salvage) values for Ann Arbor meter assets would be 5.05%. While the transition

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[62] 3 Tr 166-167.
[63] 3 Tr 169.
[64] 3 Tr 169.
[65] 3 Tr 169.

> would likely be more gradual, and other depreciation methods may be reasonable, in the absence of a full study, I believe these are reasonable assumptions to better align depreciation rates with the likely reality.[66]

Next, with respect to five asset classes, Dr. Stults explained her method for determining the percentage of assets assumed to be serving Ann Arbor, and thus subject to the new accelerated depreciation rates. Addressing accounts 380.10 (Services—Metallic) and 380.20 (Services—Plastic), Dr. Stults first testified that during discovery the Company stated its pipeline system is integrated to the extent that every distribution pipeline must be assumed to serve customers throughout the Company's service territory, an assertion Dr. Stults disputed:

> I find this an unreasonable assumption, since I believe it is extremely likely that some infrastructure at the distribution level would be able to be retired if all customers in Ann Arbor stopped using fossil gas. Moreover, if Ann Arbor did transition by creating geothermal systems, it is likely customers on the border of Ann Arbor would choose to connect to those systems rather than pay the costs of an increasingly shrinking infrastructure.[67]

She then explained her method for calculating the portion of those assets serving the City:

> Though DTE also objected to Ann Arbor's discovery request to indicate the number of miles of pipeline that are within Ann Arbor's boundary, the Company did supply a number: there are 417 miles of distribution pipeline within the City. Exhibit AA-20. Of those 417 miles of pipeline, DTE reported that the approximate material makeup is 61% plastic and 39% metallic. Exhibit AA-21. Thus, there are approximately 254 miles of plastic pipe (417 miles x 61%) and 163 miles of metallic pipe (417 miles x 39%) in the City. DTE reported to PHMSA that it had a total of 13,266.354 miles of plastic pipe and 6,283.123 miles of metallic pipe in 2022. Exhibit AA-22. Thus, Ann Arbor represents approximately 1.9% of pipes in 380.20 (plastic) (254 / 13,266.354 = 0.01914) and 2.6% of the total pipes in 380.10 (metallic) (163 / 6,283.123 = 0.02594). Based on the testimony of Ann Arbor witness Ackley, I assume this percentage will remain relatively

[66] 3 Tr 171.
[67] 3 Tr 170.

> stable for the remaining useful life of the assets, because replacements would only happen for immediate safety concerns and not for long-term usage. Therefore, accelerated depreciation should apply to 1.9% of assets in 380.20 (plastic) and 2.6% of assets in 380.10 (metallic).[68]

Regarding accounts 381.00 (Meters), 381.02 (AMI/AMR Modules), and 382.00 (Meter Installations), she testified:

> In discovery, DTE stated that it serves 53,750 billing sites in Ann Arbor and 1,334,914 billing sites in its entire service territory. Exhibit AA-23. To determine the percentage of the Company's customer base that is in Ann Arbor, I divided the number of billing sites in Ann Arbor by the number of billing sites in DTE's entire service area (53,750 / 1,334,914 = 0.04026). The resulting conclusion is that Ann Arbor represents approximately 4% of DTE's customer base. Therefore, the accelerated depreciation rate should be applied to 4% of assets in these classes.[69]

Dr. Stults concluded her proposal by calculating blended depreciation rates to be applied to the Company's five affected asset classes. The table at 3 Tr 172 summarizes her results and compares Ann Arbor's proposed blended depreciation rate with the Company's proposed rate. The blended rate is higher than DTE Gas's proposed rate for four asset classes, while both rates are the same for one class.[70]

Dr. Stults testified that her recommendation for a shortened useful life of assets due to climate considerations, paired with Mr. Ackley's testimony regarding the longer asset life of plastic piping, "reflects the true reality of the situation." She explained:

> It is the City's position that if the Company is going to look solely at physical attributes to determine useful life, then it should pass along immediate rate relief that lower depreciation rates provide, given that research is showing those pipes have a longer life than the Company is assuming. It is important for everyone to recognize the true physical useful life of plastic piping and the magnitude of the risk for a stranded asset for every pipe that is replaced with plastic. Only if that risk is truly reflected will the Commission be able to make an honest assessment of

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[68] 3 Tr 170-171.
[69] 3 Tr 171.
[70] 3 Tr 172.

> when asset replacement is reasonable. Overlaying the realities of a shortened useful life due to climate considerations with the true physical life of plastic piping will allow the Commission to understand the true impact to ratepayers of the current capital plans. If a shorter physical life is used for plastic piping, and climate is ignored in determining the useful life of the asset, then ratepayers lose in two ways: they pay higher rates today because physical depreciation is over-recovered, and they risk higher rates in the future due to stranded assets. The Commission and the Company need to grapple with the true cost of current capital programs to ratepayers given the likelihood that these assets will be rendered obsolete due to customer changes and climate policy.[71]

4. Rebuttal

a. DTE Gas

In response to Mr. LaPan and Mr. Andrews, Dr. Kateregga testified that "[n]either witness[] . . . claimed or demonstrated that the rates recommended for DTE Gas are mathematically incorrect, inconsistent with the goals of depreciation accounting, or fall outside a zone of reasonableness."[72] Dr. Kateregga reiterated the purpose of depreciation accounting, opining that:

> The concept of intergenerational equity is meaningless with group depreciation accounting. Any given generation of ratepayers is served by a mix of plant investments of varying ages. Some plant will be old and may be retired in the near future. Other facilities will be relatively new and may or may not be retired before older facilities are replaced. This phenomenon—called retirement dispersion—is implicitly captured in vintage–group (and broad–group) depreciation rates.[73]

Addressing Mr. LaPan's testimony, Dr. Kateregga testified that Staff declined to provide workpapers or other evidence that it created observed life tables, contrary to Mr. LaPan's testimony that Staff "'used all activity year transactions with vintage year

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[71] 3 Tr 173.
[72] 3 Tr 79.
[73] 3 Tr 81.

identification, just as the Company did.'"[74] He added that "[b]eyond a visual inspection of graphs developed by Foster Associates, Mr. LaPan provides no evidence, in either testimony or workpapers, that Staff conducted statistical analyses of the 9 plant accounts disputed by Staff."[75]

Addressing Mr. Andrews' testimony, Dr. Kateregga stated that Mr. Andrews' "adjustments to service–lives were derived from erroneous observed life tables and a deficient estimation of service–life statistics. His recommendations were then presented (as his own work) using Foster Associates' 'depreciation study model.'"[76]

Next, Dr. Kateregga discussed the development of an observed life table, explaining that:

> Observed life tables used in estimating service–lives of physical property are constructed from estimates of the conditional probabilities of retirement, most often estimated by the ratio of plant retirements during an age–interval to exposures at the beginning of the interval. Retirements and exposures are obtained from plant accounting records containing a history of additions, retirements, and plant activity (e.g., transfers and adjustments) producing a record of plant exposed to forces of retirement at the beginning of each recorded interval of time, most often monthly.[77]

However, pointing to Mr. Andrews' workpapers provided in response to discovery, Dr. Kateregga observed that Mr. Andrews erroneously used different plant exposures than Foster Associates, "largely attributable to Mr. Andrews' aging of adjustments to plant exposed to retirement" which in turn led to the development of erroneous retirement ratios and observed life tables. According to Dr. Kateregga,

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[74] 3 Tr 91, quoting 3 Tr 194.
[75] 3 Tr 92.
[76] 3 Tr 82.
[77] 3 Tr 83.

"Fitting curves to erroneous observed life tables will produce different service–life indications than estimated by Foster Associates."[78]

Dr. Kateregga described ABATE's approach to estimating service lives of various plant accounts, noting that the SSD method used by Mr. Andrews "is nothing more than a computerized version of a visual curve fitting technique." After describing the history and approach to visual curve fitting (which has been replaced by computerized methods), Dr. Kateregga explained that "[v]isual curve fitting is an application of *descriptive statistics* used to summarize and describe data through numerical calculations, graphs or tables. It is not an actuarial method of life analysis."[79] In contrast, Dr. Kateregga explained that:

> The statistical method used by Foster Associates is an application of inferential statistics. Hazard rates are graduated or smoothed rather than "visually" fitting data points to a survivor curve. This method draws inferences and predictions about population service–life parameters based on an analysis of samples drawn from a parent population. Projection lives and projection curves are population parameters "inferred" from a statistical analysis of the underlying forces of retirement described by probability distributions. A projection life is an estimate of mean service–life of the population from which retirements are observed as a random sample. Probability distributions used in estimating service–life statistics are called survival functions.[80]

Dr. Kateregga provided the four survival functions in Figure 1 at 3 Tr 85, and he provided the definitions of associated probabilities at 3 Tr 86. Dr. Kateregga emphasized that:

> The fundamental probability distribution of interest in estimating the service life of industrial property is called a hazard function. This function, which is also used in reliability theory, describes the conditional probability of retirement (called a hazard rate) during an age interval given survival to

[78] 3 Tr 83.
[79] 3 Tr 85.
[80] Id.

> the beginning of the interval. So, for example, the probability that plant which has been in service, say for 5 years, will be retired during the 6th year is a conditional probability of retirement. In other words, the probability is conditioned upon having achieved an age of 5 years.

Continuing, Dr. Kateregga testified that:

> Polynomials are used to estimate the conditional probabilities of a hazard function. A polynomial can then be transformed into a survivor function and numerically integrated to obtain an estimate of the projection life of a plant category. Observed proportions surviving are then fitted by a weighted least–squares procedure to the Iowa–curve family—using the projection life derived from the polynomial hazard function—to obtain a mathematical description or classification of the dispersion characteristics of the data. The only purpose of fitting to Iowa curves using the estimated projection life is to describe forces of retirement with survivor curves more familiar to users of Iowa–type curves than curves described by the coefficients of a polynomial. Absent an understanding of the probabilities associated with survival functions, fitting data points to survivor curves becomes an exercise in finding the best–looking graph. The statistical techniques used by Foster Associates to conduct technically rigorous depreciation studies are not the same as the "visual curve fitting" employed by Mr. Andrews to lengthen the service lives of plant accounts to reduce depreciation rates.[81]

Dr. Kateregga opined that the statistical methods used by Foster Associates were superior to the curve-fitting technique used by Mr. Andrews, not only because the statistical objective was different, but also because the Company's approach overcomes a "chaining" problem inherent in Mr. Andrews' method. According to Dr. Kateregga:

> Each successive point (i.e., proportion surviving) plotted against a survivor curve is dependent upon the points plotted for prior age–intervals. One or more anomalous or irregular retirements, therefore, will dictate the value of points plotted for subsequent age–intervals. Hazard rates are not "chained." Survivor curves fitted to observed proportions surviving will often produce misleading estimates of projections lives and inaccurate descriptions of the underlying forces of mortality.[82]

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[81] 3 Tr 86-87.
[82] 3 Tr 87.

In summary, Dr. Kateregga recommended that the Commission reject ABATE's adjustments to depreciation rates, on grounds that the Company's analysis and presentation were far more technically rigorous than the visual curve fitting technique used by Mr. Andrews.

Dr. Kateregga's rebuttal testimony also challenged Mr. Ackley's testimony. He testified that Mr. Ackley showed "no more than a limited knowledge of the subject matter of depreciation" when Mr. Ackley opined that the physical life of plastic pipes should last a minimum of 50 years.[83] Dr. Kateregga recommended that the Commission disregard Mr. Ackley's opinion when considering a reasonable service life for plastic pipes, explaining:

> First, it appears that Mr. Ackley is unfamiliar with the concept of retirement dispersion and the distinction between projection lives and average service lives. The R1.5 projection curve with a 45-year projection life recommended by Foster Associates was estimated from a rigorous statistical analysis of dollar–years of service (not "physical life"). The selected dispersion (i.e., 45–R1.5) describes probabilities of plant remaining in service to 200 percent of the projection life, or 95 years. The estimated mean service life of the population is 45 years. The average service life derived from the vintage–group procedure is 45.17 years. Clearly, Mr. Ackley does not evidence familiarity with the relationship between projection lives, average lives and retirement dispersion. Additionally, acceleration of depreciation is controlled by a method (e.g., sum–of–years–digits vs straight–line), not a service life.[84]

Dr. Kateregga also testified there were "various forces of retirement acting on plastic pipe [that] are unrelated to age" and asserted that Mr. Ackley's insistence that plastic pipes should last a minimum of 50 years "overlooks the multitude of forces that lead to retirement of service pipes."[85]

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[83] 3 Tr 92.
[84] 3 Tr 93.
[85] Id.

In response to Dr. Stults' testimony, Mr. Decker sponsored Exhibit A-7 containing DTE's CleanVision 2022 Sustainability Report, testifying that Dr. Stults mischaracterized DTE Gas's climate goals when she stated that the Company's objective was to become 80% carbon neutral by 2040 and net zero by 2050.[86] Mr. Decker explained that Dr. Stults was apparently relying on a graphic that refers to emissions from internal utility operations.[87] Referencing pages 9 and 32 of the Sustainability Report, Mr. Decker testified that DTE Gas's goal is to achieve a 35% reduction in customer emissions by 2040, rather than net-zero.[88] Mr. Decker also testified the Sustainability Report "clearly lays out a plan" for meeting the decarbonization goals through three programs of Upstream (supplier emissions), Internal Operations (DTE Gas emissions), and Downstream (customer-use emissions):

> For Upstream, we aim to procure increasingly lower methane intensity natural gas (e.g., Responsibility Source Gas or RSG) from our suppliers aiming to reduce these methane emissions by 80% by 2040 and then netting to zero by 2050. For Internal Operations, we aim to continue our main renewal program which upgrades our infrastructure to reduce methane leaks. We are also implementing new leak detection technologies, modifying our venting processes, and upgrading other infrastructure. Similar to Upstream, we aim to reduce these methane emissions by 80% by 2040 and then netting to zero by 2050. For Downstream, our customers' emissions, we aim to reduce these emissions by 35% by 2040 . . . . The Company details that we will do this through energy efficiency measures (which could lower usage) but also renewable natural gas and other technologies that still leverage our gas infrastructure.[89]

Regarding the Downstream goal, Mr. Decker testified that the target of a 35% reduction by 2040 "implies there will be continued usage of natural gas and our

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[86] 3 Tr 99-100.
[87] 3 Tr 100.
[88] Id.
[89] 3 Tr 100-101.

distribution assets after 2040 and beyond."[90] He further opined that while "DTE Gas's customers may be using less natural gas past 2050 than they are today, in the absence of significant technology advancements, households in Michigan will still be using natural gas for their energy needs well past 2050."[91]

Finally, Mr. Decker summarily rejected Dr. Stults' recommended adjustments to the Company's proposed depreciation rates: "Based on my testimony above and the work completed by our expert witness Dr. Kim Kateregga, I do not agree with the proposed depreciation rate adjustments being proposed by witness Stults."[92]

b. Staff

Mr. Revere testified that Staff took no position on Ann Arbor's proposal to set the useful life of the Company's assets to allow recovery by 2050, nor did Staff take a position on the alternative proposal that depreciation rates be adjusted for the Company's assets serving Ann Arbor.[93] However, if the Commission considers Ann Arbor's alternative proposal, Mr. Revere recommended that it also consider requiring an examination of how the proposal should affect rates paid by customers.[94] He opined that customers outside of Ann Arbor should not be required to pay higher rates as a result of the City's proposed elimination of gas:

> To the extent that the changes to depreciation rates are specific to the portion of the Company's system serving Ann Arbor, and how its climate goals will be achieved, it is likely appropriate for the ratemaking treatment of the recommendation also be specific to Ann Arbor. In other words, it

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[90] 3 Tr 101.
[91] Id.
[92] 3 Tr 104.
[93] 3 Tr 208-210.
[94] 3 Tr 210.

> would likely not be appropriate for other customers to pay higher rates based on Ann Arbor leaving the Company's system.[95]

Mr. Revere then provided examples where it was determined that different rates for certain customer groups are appropriate based on the costs those groups alone impose on the system, and he concluded that based on cost causation "it would be appropriate to charge only the customers in Ann Arbor based on the recommended change to depreciation rates specific to Ann Arbor."[96]

Mr. Revere also noted that, contrary to the Company's claim that its system is integrated to the extent that no assets can be identified as solely serving Ann Arbor, Dr. Stults "makes a compelling argument that at least certain assets can be assumed to serve only Ann Arbor."[97] In turn, he recommended that as part of the City's proposed study, discussed in more detail below, DTE Gas should be required to identify assets that would no longer be necessary to have in service were Ann Arbor to leave the system.[98]

c. ABATE

Mr. Andrews opposed Dr. Stults' proposal to shorten the useful life of the Company's assets. He estimated that DTE Gas would require an overall depreciation rate of 4.52% to recover the costs of all its assets by 2050, which would result in a $122.8 million annual increase or a 61% increase over the depreciation rates currently in effect.[99]

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[95] 3 Tr 210, internal footnote omitted.
[96] 3 Tr 210-212.
[97] 3 Tr 212.
[98] 3 Tr 212-213.
[99] 3 Tr 140.

Mr. Andrews testified that Dr. Stults failed to provide any concrete evidence or studies supporting her assumption that 2050 is the last year the Company's assets would be utilized.[100] He explained that Dr. Stults' assumption is based on the decarbonization goals of Michigan, Ann Arbor, and DTE Gas, and while these goals exist, "they do not necessarily mean DTE's assets will be no longer used and useful after 2050."[101] Mr. Andrews noted DTE Gas's discovery responses contained in Exhibit AB-13 indicating that "no impact has been identified as to the useful lives of DTE Gas's assets as a result of its climate goals" and "[t]here are no events or changes in circumstances that would indicate that the natural gas assets will not be used for their entire service life."[102]

Mr. Andrews concluded that Dr. Stults' recommendation to recover all the Company's depreciation expense by 2050 should be rejected, describing the Company's proposed depreciation rates as "excessive and burdensome . . . on their own," noting that Ann Arbor's recommendation would "add an additional $111 million to that burden."[103]

Addressing Dr. Stults' alternative recommendation that focuses on the portion of assets serving Ann Arber, Mr. Andrews opined that this proposal should also be rejected.[104] He further explained ABATE's concern with this proposal:

> I understand Dr. Stults' concerns, but this issue is far more complicated than simply assigning a higher depreciation rate to a small fraction of DTE's plant-in-service. This recommendation would ultimately lead to one set of customers, those that live in [Ann Arbor (AA)], having a different set

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[100] 3 Tr 140.
[101] 3 Tr 140.
[102] 3 Tr 140-141.
[103] 3 Tr 141.
[104] 3 Tr 141-142.

> of rates from the rest of DTE's system. AA customers would be paying rates that assume use of the system would cease by 2050 and the rest of DTE's customers would pay rates that assume DTE continues to provide service indefinitely. This simply cannot be fully contemplated, nor resolved in a depreciation case. DTE would need to create a separate set of accounts specific to AA to track their accumulated depreciation, and all other costs that are associated with serving those customers, in order to calculate cost-based rates just for customers that live within the AA boundaries. I understand that AA may raise these same concerns within DTE's current gas rate case. I recommend that this issue be considered within a full rate case, not a depreciation case.[105]

d. Ann Arbor

Dr. Stults responded to the direct testimony of Mr. LaPan and Mr. Andrews. Addressing Mr. LaPan's testimony, Dr. Stults agreed that several categories of assets likely have longer remaining physical lives than the Company claims, citing Mr. Ackley's testimony regarding the life of plastic pipes.[106] But she disagreed with Mr. LaPan's proposed adjustments because he did not consider the impact of climate goals as part of his statistical analysis or professional judgment.[107] Dr. Stults opined that failing to consider a future decrease in demand for natural gas will result in depreciation rates that are too low, which in turn will cause customers to pay more over the long-term as well as intergenerational inequities.[108] She expounded on this point:

> Depreciation rates are not the category we should be looking at to reduce the Company's revenue requirement during this time of impending change in the fossil gas industry – because it does not ultimately benefit ratepayers to pay a rate of return on the capital when the ability to spread those costs is narrowing. While it is out of the scope of this case, I believe when identifying areas to lower ratepayer burdens, we should be looking at the Company's proposed capital expenses.[109]

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[105] 3 Tr 142.
[106] 3 Tr 180.
[107] 3 Tr 179-180.
[108] 3 Tr 180.
[109] 3 Tr 181.

Next, addressing Mr. Andrews' testimony, Dr. Stults agreed that the Straight Line Method is designed to avoid intergenerational inequities, but only if "the estimated useful life of that plant is accurate and the number of customers in the system remains relatively stable."[110] She explained that if the plant ends up being useful for a much shorter period than estimated or if the customer base shrinks, later generations of customers will pay higher depreciation costs. And, given her prediction of less reliance on natural gas throughout the Company's territory, Dr. Stults did not believe the estimated lives of the Company's assets used to set depreciation rates in this case were accurate, particularly for assets serving Ann Arbor.[111] Dr. Stults clarified she was not opposed to using the Straight Line Method but instead was "arguing for a downward adjustment to the estimated remaining lives of assets regardless of the method used—i.e. after the determination of their physical lives is calculated—to reflect the percentage of assets that will not be used and useful for the entirety of their physical lives[.]"[112]

Dr. Stults also disagreed with Mr. Andrews' assertion that his proposed depreciation rates more accurately reflected the expected lives of the equipment. On this point, she again opined that the analysis should include more than physical characteristics and past retirement data and should also take into account factors such as changes in government requirements and obsolescence.[113]

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[110] 3 Tr 182.
[111] 3 Tr 182.
[112] 3 Tr 183.
[113] 3 Tr 184.

5. Discussion

In briefing, DTE Gas argues that its depreciation study, "was properly conducted and its recommendations more than satisfy the Company's burden in this matter."[114] DTE Gas adds that no party to this proceeding has shown that the Company's proposed depreciation rates "are mathematically incorrect, inconsistent with the goals of depreciation accounting, or fall outside a zone of reasonableness."[115]

Relying on Dr. Kateregga's rebuttal testimony, DTE Gas asserts that Mr. Andrews' modifications to the service lives of nine plant accounts were erroneous, because they were based on incorrect observed life tables and inadequate statistical analysis, reiterating that the depreciation study undertaken by Dr. Kateregga is far superior to the curve-fitting undertaken by Mr. Andrews.

DTE Gas similarly criticizes Staff witness LaPan's recommendations, reiterating that Staff misconstrues the Company's presentation, contending that Staff's description of Dr. Kateregga's approach was incorrect. DTE Gas observes that "Dr. Kateregga did not select an 'average life and curve fit;'" contrary to Staff's claim, instead, "he selected a projection life and projection curve. Mr. LaPan, therefore, attempted to adjust the projection lives and curves that Dr. Kateregga had selected appropriately."[116]

In response to Ann Arbor, DTE Gas reiterates Dr. Kateregga's rationale for disregarding Mr. Ackley's opinion regarding the physical life of plastic services.[117] In addition, the Company asserts in a footnote that "Mr. Ackley offers no evidence of

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[114] DTE brief, 4-5.
[115] DTE brief, 5, referencing 3 Tr 79.
[116] DTE brief, 10-11.
[117] DTE brief, 8.

knowledge, education, training, or experience in depreciation accounting (or any related fields of accounting, engineering, economics or finance)."[118]

The Company similarly claims that Dr. Stults lacks knowledge or experience in depreciation accounting or a related field.[119] It then relies on Mr. Decker's rebuttal testimony to argue that Dr. Stults mischaracterizes the Company's climate goals and that Michigan households will need natural gas beyond 2050. DTE Gas argues that Dr. Stults' proposed rate adjustments to five asset classes should be rejected because she used an "arbitrary formula" "without any reliable analysis" and her recommendations "are not supported with competent, material and substantial evidence."[120]

Staff's brief summarizes Mr. LaPan's testimony concerning appropriate depreciation rates and, in response to Dr. Kateregga's rebuttal, Staff asserts that while it agrees with the method, technique, and procedure used by DTE Gas and by Mr. LaPan, Staff maintains that its depreciation rates should be adopted because "Staff utilized a better fitting Iowa Curve to the historical retirements resulting in more accurate average remaining lives of the assets."[121]

In response to Dr. Stults' rebuttal testimony concerning Mr. LaPan's failure to consider climate goals as part of his analysis, Staff states that "while [it is] not discounting the importance of climate goals, [Staff] does not find them necessarily directly relevant to a depreciation case, which generally sets rates based on historical

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[118] DTE brief, 8 n 9.
[119] DTE brief, 9 n 10.
[120] DTE brief, 9.
[121] Staff brief, 19.

actual plant balances, actuarial analysis, known future events, but not on speculation of potential future events."[122]

ABATE disputes the Company's dismissal of intergenerational equity as "meaningless with group depreciation accounting,"[123] quoting from several cases where the Commission has held to the contrary. ABATE also took issue with DTE Gas's depreciation study, reiterating that the results of the study were unreasonable. According to ABATE, Mr. Andrews used the "more common" Straight Line Method, the ALG Procedure, and the Remaining Life Technique in developing average service lives for his depreciation study, whereas Dr. Kateregga's depreciation study was based on the Straight Line Method, the Vintage Group Procedure, and the Remaining Life Technique, which resulted in a significant increase in depreciation rates of approximately $11 million.[124]

In response to Dr. Kateregga's rebuttal, ABATE argues that DTE Gas has not shown that Mr. Andrews' approach was unreasonable, nor did it provide evidence that his observed life tables were incorrect. ABATE asserts that Mr. Andrews' observed life tables were developed using methods taught by the SDP, and that the observed life tables used by Mr. Andrews are quite similar to those developed by Dr. Kateregga. ABATE adds that Foster Associates' approach is "quite different, unnecessarily complex, and apparently only used by [Foster Associates,]" concluding that "the fact that the Company's analysis utilized a singular, unique, and uncommon approach to develop its depreciation rates is not an indication of its reasonableness, it instead

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[122] Staff brief, 20.
[123] ABATE brief, 4, fn. 1.
[124] ABATE brief, 5-6.

demonstrates its lack of reliability."[125] Accordingly, ABATE recommends that the Commission reject the depreciation study and depreciation rates presented by DTE Gas.

ABATE also describes as unreasonable Ann Arbor's proposal that depreciation rates should account for climate goals and urges the Commission to reject it.[126] Addressing the City's argument that the useful remaining life of the Company's fossil-fuel assets is no more than 26 years, ABATE parses the City's A^{2}Zero Plan, the MI Healthy Climate Plan, along with the Company's stance with respect to its own carbon neutrality goals.[127] ABATE then concludes, "it is neither reasonable nor prudent to establish depreciation rates . . . based on unenforceable, reversable, and optimistic carbon neutrality goals" and "reliance on significant potential future occurrences is not an appropriate basis for determining reasonable and prudent service lives for the Company's assets here."[128] It opines the City has failed to provide adequate support to justify adding $122.8 million to customers' rates, citing Mr. Andrews' testimony.[129] Turning to Ann Arbor's alternative proposal, ABATE references Mr. Andrews' and Mr. Revere's testimony in arguing that the issue is too complex to be adequately addressed in this case.[130]

In its initial brief, Ann Arbor cites DTE Gas's Sustainability Report and quotes discovery responses by Mr. Decker, arguing that "the Company was not able to articulate a set of measures that will combine to achieve the [carbon-reduction] goals it

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[125] ABATE brief, 17-18.
[126] ABATE brief, 18.
[127] ABATE brief, 18-20.
[128] ABATE brief, 18-19.
[129] ABATE brief, 20.
[130] ABATE brief, 20-21.

has set—let alone demonstrate that its infrastructure will remain used and useful if it achieves its goals."[131] The City states that DTE Gas lacks a plan for procuring enough RNG to meet its goal and, even if the Company had such a plan, "the City is likely not interested in off-taking RNG from the sources DTE is pursuing."[132] Regarding the potential use of hydrogen, Ann Arbor relies on a study conducted on behalf of DTE Gas by Black & Veatch to support its argument that the Company is far from implementing hydrogen blending at even low levels, and it cannot assure that hydrogen blending is even feasible.[133] The City also argues, "if DTE is actually considering implementing hydrogen blending, it should also be considering accelerating the depreciation of its existing assets that will no longer be useful for transmitting and delivering gas with any meaningful amount of hydrogen blended into it."[134]

Relying on Dr. Stults' testimony, Ann Arbor reiterates its expectation for a sharp reduction in the use of fossil fuels leading up to 2050, when the City plans to be completely independent from fossil fuels.[135] Ann Arbor then reviews Dr. Stults' testimony regarding DTE Gas's franchise with the City before concluding that the Company should not assume that it will continue to provide gas service to Ann Arbor after 2027, because the City may not choose to grant the Company another franchise.[136]

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[131] Ann Arbor brief, 5-6, citing Exhibits AA-9, AA-25, and AA-29. In contrast to Dr. Stults' testimony, the City's brief describes DTE Gas's carbon reduction goals to "include achieving net zero emissions for both its own internal operations and its upstream suppliers by 2050 and reducing the total carbon emissions of its customers by 35% by 2040 (from estimated 2005 levels)." Ann Arbor brief, 5; see 3 Tr 157.
[132] Ann Arbor brief, 6.
[133] Ann Arbor brief, 6-8, citing Exhibit AA-31.
[134] Ann Arbor brief, 8.
[135] Ann Arbor brief, 9.
[136] Ann Arbor brief, 11.

Turning to the concept of depreciation, Ann Arbor quotes FERC's definition, which states that among the causes to be considered when determining loss in service value are "obsolescence" and "changes in demand and requirements of public authorities."[137] The City argues this definition applies here because the Commission has adopted FERC's uniform system of accounts (UsoA) for gas utilities under Mich Admin Code R 460.9022.[138] However, according to Ann Arbor, instead of using the relevant FERC definition, DTE Gas relies on a definition of depreciation from "an accounting research monograph published in 1975" that provides no guidance on factors to consider when determining an asset's expected useful life.[139] The City also notes DTE Gas's comments to the FERC, wherein the Company stated: "technology is changing rapidly, costs are becoming more differentiated, and choice is becoming the norm. As a result, the assumption that assets will produce a steady stream of revenue throughout their physical lives is no longer valid."[140]

Ann Arbor points out that although DTE Gas failed to consider climate-change policies when calculating its proposed depreciation rates in this case, in the Company's current rate case, it acknowledges business risks related to decarbonization.[141] Ann Arbor accuses DTE Gas of "planning to continue with business as usual" in the face of impending obsolescence of fossil-fuel assets, "push[ing] the costs of failing to mitigate these known risks onto ratepayers, not shareholders."[142] It further addresses the risks associated with adopting depreciation rates that are too low, including intergenerational

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[137] Ann Arbor brief, 13.
[138] Ann Arbor brief, 13.
[139] Ann Arbor brief, 13-14.
[140] Ann Arbor brief, 14-15, citing Exhibit AA-32.
[141] Ann Arbor brief, 15, citing Exhibits AA-15 and AA-33.
[142] Ann Arbor brief, 17.

inequity and stranded costs, and encourages the Commission to confront "the problem at the least painful and most just point."[143]

Ann Arbor cites Mr. Ackley's testimony, as well as a study conducted by DTE Gas and Black & Veatch, to support its argument that the Company's infrastructure is in good condition and can safely serve the City until at least 2050.[144] In turn, it again expresses concern that the Company is prioritizing shareholder returns by investing in new capital and cautions that the "premature replacement of assets could impact depreciation rates because it results in retirement of assets that have not yet served their entire useful lives."[145] The City further explains its position on this matter:

> Ann Arbor urges the Commission to consider depreciation rates in the context of DTE's current general rate case. If depreciation rates are kept artificially low because DTE refuses to acknowledge the impact of decarbonization on the fossil gas industry, and DTE is allowed to continue to spend significant capital on new fossil gas infrastructure when its existing infrastructure could safely last longer, under the assumption that new infrastructure will be needed for decades beyond its likely useful life, ratepayers will be doubly (negatively) impacted by an unnecessarily inflated rate base.[146]

Turning to its proposed depreciation rates, Ann Arbor reiterates its arguments for implementing rates based on remaining useful lives of no more than 26 years for all natural gas assets, explaining that these adjustments would result in higher rates in the near term, but lower rates over the remaining life of DTE Gas's assets.[147]

According to Ann Arbor, coupling the City's recommended adjustment to depreciation rates with less investment in new assets "would mitigate near-term rate

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[143] Ann Arbor brief, 17-18.
[144] Ann Arbor brief, 19-20, citing Exhibit AA-31.
[145] Ann Arbor brief, 19-20.
[146] Ann Arbor brief, 20-21.
[147] Ann Arbor brief, 21.

impacts as well as prevent stranded assets and long-term ratepayer costs."[148] In the alternative, the City continues to advocate for depreciation rates that account for the retirement of the Company's assets serving Ann Arbor by 2050, detailing Dr. Stults' proposal for calculating the appropriate blended rate.[149]

Addressing Mr. Revere's recommendation that the Commission examine how Ann Arbor's proposal for accelerated rates would affect all ratepayers, the City makes clear it is not opposed to differing depreciation treatment so long as it receives the benefits of accelerated depreciation:

> [I]f the Commission decides to depreciate the assets serving Ann Arbor at an accelerated rate, the Commission will also need to ensure Ann Arbor receives the benefit of that accelerated depreciation – i.e., a proportionally decreasing rate base. In other words, such ratemaking treatment would require creating a separate rate class for Ann Arbor. Ann Arbor believes that users outside Ann Arbor who share the City's view of the likely climate and energy future would opt-in for such ratemaking treatment if given the choice, so climate leaders in every community could pay less overall to DTE and avoid the risk of stranded assets.[150]

The City responds to Mr. Revere's concern that other customers could pay higher rates if Ann Arbor leaves the system, arguing "this is the exact situation [the City] is trying to avoid by accelerating depreciation rates for all to account for the impending changes to the fossil gas industry and the departure of its customers."[151] Ann Arbor further notes that "[f]ailing to accelerate depreciation now will likely result in the intergenerational inequity Mr. Revere finds objectionable."[152]

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[148] Ann Arbor brief, 21.
[149] Ann Arbor brief, 22-24.
[150] Ann Arbor brief, 24-25.
[151] Ann Arbor brief, 25.
[152] Ann Arbor brief, 26.

Next, Ann Arbor claims that although DTE Gas is aware of the risks of stranded assets, the Company does not want to address those risks in this case "because inclusion in depreciation cuts off the opportunity to earn a profit on these assets for their entire physical life, even if those assets become useless."[153] The City again notes DTE Gas's contradictory positions, pointing to testimony in the ongoing rate case acknowledging this risk, while here the Company refuses to recognize the same risk. Accordingly, Ann Arbor proposes that if the Commission declines to adjust depreciation rates to account for obsolescence in this case, the Commission should "find that the Company's shifting positions (depending on profit implications) mean that the Company's opposition to receiving compensation via depreciation means that it has forfeited the opportunity for future recovery of the amounts such adjustments would have produced should those risks materialize."[154] Stated differently, Ann Arbor argues:

> DTE opposes receiving additional dollars today in depreciation rates to limit the risk of stranded assets in the future – and thus, it is consciously and deliberately choosing to run a larger risk of stranded assets. It is doing so in order to retain the maximum potential for shareholder returns on installed assets. To the extent the Commission allows the Company to take that risk in this case, it should be explicit that just as the Company will get the benefits if the gamble pays off, it will also bear the consequences of this gamble if it does not pay off.[155]

In response to Staff, DTE Gas reiterates that Staff did not undertake or present a depreciation study, and that Staff's corrected worksheets and exhibits, presented shortly before initial briefs were due, also do not constitute a depreciation study. According to

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[153] Ann Arbor brief, 26.
[154] Ann Arbor brief, 29.
[155] Ann Arbor brief, 28.

DTE Gas, Staff "simply 'insert[ed] [what it believes are] the more accurate lives of the assets into the Foster Associates workbook.'"[156]

In response to ABATE, DTE Gas avers that the Company's approach was far more comprehensive than that presented by Mr. Andrews, adding that while ABATE appears to take issue with the Company's approach, Mr. Andrews used the same straight-line method, vintage group procedure, and remaining life technique used by Foster Associates. DTE Gas reiterates that:

> Mr. Andrews did not correctly develop observed life tables. Instead, his workpapers establish that he erroneously aged adjustments to plant exposed to retirement. Erroneous exposures produce erroneous retirement ratios which in turn produce erroneous observed life tables. Fitting curves to erroneous observed life tables will produce different service–life indications than estimated by Foster Associates. (3 T 83).[157]

DTE Gas asserts that Ann Arbor's recommendations would result in an approximate $12 million increase in depreciation expense as compared to the current annual expense.[158] It argues that the Company's public statements quoted in Ann Arbor's initial brief "do not change its position in this case and do not constitute evidence of unreasonableness related to its Depreciation Study or recommendations."[159] According to the Company, Ann Arbor cannot refute the fact that customers will need natural gas beyond 2050, noting that the Company is in the early stages of exploring gas decarbonization. DTE Gas adds that this case is narrowly focused on the establishment of depreciation rates, and as such, decarbonization goals are not an appropriate consideration in this case, stating: "The proposed depreciation

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[156] DTE reply brief, 4, quoting Staff brief, 18-19.
[157] DTE reply brief, 6.
[158] DTE reply brief, 1.
[159] DTE reply brief, 7-8.

rates are based, in part, on the expected useful and remaining lives of assets as of December 31, 2022. Currently, there are no events or changes in circumstances that would indicate that the natural gas assets will not be used for their entire service life. (Exhibit AA-14)."[160]

The Company describes Ann Arbor's proposal to adjust depreciation rates as "a misunderstanding and misapplication of depreciation accounting principles," arguing that: "Useful life should not be 'estimated' based on one city's agenda. Rather, the forces that lead to the retirement from service of utility plant and equipment include 'physical,' 'functional,' and 'situational' forces."[161] DTE Gas further contends that it is improper to rely on speculation as to whether Ann Arbor intends to renew its gas franchise with the Company, adding that the franchise is "immaterial to a depreciation analysis" because DTE Gas's pipeline infrastructure within the City functions to serve customers throughout its service territory.[162] It also notes that Ann Arbor did not conduct a depreciation study and instead "simply looked at the Company's study, and then offered a separate set of numbers."[163]

In reply briefing, ABATE again argues that Ann Arbor's proposal to increase depreciation rates lacks an adequate evidentiary basis due to the "speculative and amorphous nature" of the carbon-reduction goals upon which the City relies.[164] ABATE

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[160] DTE reply brief, 8-9.
[161] DTE reply brief, 9-10, citing Exhibit AA-30.
[162] DTE reply brief, 10.
[163] DTE reply brief, 10
[164] ABATE reply brief, 6.

repeats that the Commission should reject Ann Arbor's request, "although, if addressed, these issues should be considered within a full rate case, not a depreciation case."[165]

As an initial matter, this PFD finds that the potential for obsolescence and future reduction in customer demand due to a shift toward carbon-free energy sources, is an appropriate consideration in establishing depreciation rates. The USoA, adopted by the Commission under Mich Admin Code R 460.9022, defines depreciation as follows:

> Depreciation, as applied to depreciable gas plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of gas plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. *Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities, and, in the case of natural gas companies, the exhaustion of natural resources.*[166]

In turn, service life is defined as "the time between the date gas plant is includible in gas plant in service . . . and the date of its retirement."[167] This PFD agrees with the analysis of these two definitions that is provided in the New York Depreciation Study contained in Exhibit AA-13:

> This definition [of service life] does not specify that the retirement that concludes an asset's service life must be due to any specific factor. Further, it does not, for example, preclude factors such as obsolescence, requirements of public authorities or even management discretion. It follows then that the method used for depreciation must result in the recovery of costs by the time of retirement and, since the Uniform System of Accounts enumerates several causes to be considered – including obsolescence and the requirements of public authorities – any of these causes can define or redefine the service life of a particular asset. Thus, no matter the reason for retirement, the depreciation rates established by a regulatory commission should, as a general matter, be designed such

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[165] ABATE reply brief, 6.
[166] 18 CFR Pt. 201(12)(B), emphasis added.
[167] 18 CFR Pt. 201 (36).

that capital costs are recovered before the assets cease to provide utility service.[168]

Consistent with this analysis, DTE Gas acknowledges that "the forces that lead to the retirement from service of utility plant and equipment include 'physical,' 'functional,' and 'situational' forces. When conducting life analysis and estimation, one must address all three types of forces jointly and call the measured variable 'economic' or 'useful' life."[169] And both ABATE and Staff indicate that the goal of depreciation accounting is to recover the cost of an asset over its "useful life" or "service life."[170] Indeed, much of the process involved in calculating depreciation rates—and the point of debate involving the nine disputed accounts in this case—focuses on estimating the appropriate "service life" of an asset, which is synonymous with "useful life."[171] Dr. Kateregga made the distinction between physical life and service life in his rebuttal to Mr. Ackley's testimony, when he explained that his analysis involved the service life of plastic pipes, not physical life, and argued that Mr. Ackley "overlooks the multitude of forces that lead to retirement of service pipes."[172]

Therefore, while the physical life of an asset is relevant in determining the service life of an asset, it is not controlling; rather, loss in service value can be caused by outside forces such as obsolescence, changes in demand, and requirements of public authorities.

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[168] Exhibit AA-13, pp 23-24 (internal citation omitted).
[169] DTE Gas reply brief, 9-10, citing Exhibit AA-30.
[170] 3 Tr 112; Staff brief, 22.
[171] See 3 Tr 67, 69, 83-85, 112, 120-134.
[172] 3 Tr 93. Dr. Kateregga provided examples of the "various forces of retirement acting on plastic pipe," which include "urban renewal projects, condemnation, and abandonment of residential structures." *Id*.

Turning to Ann Arbor's proposed accelerated rates, this PFD finds it would be premature in this case to radically adjust depreciation rates based on the City's proffered evidence and under the assumption that the Company's natural gas assets will become obsolete over the next 26 years. The City relies on various public statements and climate goals to support its claim that the Company's assets have a limited remaining useful life.[173] However, this PFD agrees with DTE Gas and ABATE that while it can be deduced there will be a reduction in future demand, the goals cited by Ann Arbor are "unenforceable, reversable, and optimistic," and they do not establish complete, systemwide obsolescence of the Company's assets by 2050.[174] In short, these goals are important—they should not and cannot be dismissed—but they are insufficient to support the City's proposal. See *In re Application of Consumers Energy Co for Gas Cost Recovery*, 345 Mich App 66, 83; 3 NW2d 853 (2022) (the Commission's factual findings must be supported by competent, material, and substantial evidence).

While not addressed by the parties, Michigan's 2023 energy legislation is relevant to this discussion. The law increases the renewable energy standard applicable to electric providers to 15% through 2029, 50% by 2030, and 60% by 2035, and it creates a new clean energy standard requiring that electric providers establish clean energy portfolios of at least 80% by 2035 and 100% by 2040.[175] More germane to

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[173] 3 Tr 155-158, 168-169; Ann Arbor brief, 21.
[174] See 3 Tr 100-101, 140; DTE Gas brief, 9; ABATE brief, 18-19; DTE Gas reply brief, 8-9; ABATE reply brief, 6.
[175] MCL 460.1028(1); MCL 460.1051(1). A "'renewable energy resource' means a resource that naturally replenishes over a human, not a geological, time frame and that is ultimately derived from solar power, water power, or wind power"; it does not include petroleum or natural gas. MCL 460.1011(g). "Clean energy" is generated using a "clean energy system," which includes electricity generation facilities that do

this issue, electric providers are now authorized to implement optional efficient electrification plans designed to encourage the conversion of natural gas appliances and equipment to electric.[176] And, both electric and gas providers are subject to increased energy waste reduction standards.[177] Unlike the voluntary climate goals addressed in Dr. Stults' testimony, the new energy laws mandate changes that will impact demand for fossil fuels across the State. Although the extent of that impact is unknown at this time, the topic may be an appropriate consideration in future depreciation cases.

Ann Arbor's alternative proposal to depreciate DTE Gas's natural gas assets serving the City over the next 26 years deserves additional consideration in light of the City's unique circumstances and the smaller scale involved. Ann Arbor demonstrates a commitment to achieving the lofty goals identified in its A^{2}Zero initiative, with the ultimate objective of reaching "community-wide carbon neutrality by 2030."[178] In further support of its proposal, Ann Arbor states that it is determined to renegotiate its franchise with DTE Gas, which expires in 2027, to align with the goals of A^{2}Zero, or to altogether forgo a franchise with the Company. According to Ann Arbor, the efforts it is making on these fronts show there will be a sharp reduction of natural gas usage within the City leading up to 2050, which under Ann Arbor's estimate is the latest date before reaching complete independence from fossil fuels.

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not emit greenhouse gas, as well as certain facilities that are fueled by natural gas and use carbon capture. MCL 460.1003(e), (i).
[176] MCL 460.1005(a); MCL 460.1072(2).
[177] MCL 460.1077(1), (7).
[178] 3 Tr 155.

To fully address the City's proposal, it is necessary to review the A^{2}Zero Plan itself. The Plan sets forth seven strategies, implemented through 44 actions, to achieve its overall goal of carbon neutrality by 2030, a goal it describes as "audacious, ambitious, and inspirational."[179] It states, "By necessity, this Plan is considered living since many things, can and likely will, change in the coming years."[180] It also acknowledges, "Some of the programs in this Plan will be wildly successful. Others will be moderately successful. And yet others will prove inadequate for the challenge ahead."[181] Successful implementation will "necessitate collaboration, innovation, and disruption" and require "tough decisions about how to fund and finance the actions outlined in this Plan."[182] Additionally, success relies, in part, on UM "mirror[ing] the actions of the City," and the Plan states that "assumptions will change" once more information is available about UM's progress on its carbon neutrality planning process.[183] Of particular note, one of the 44 actions relies on the following goal: "By 2030, 100% of city facilities, 30% of owner-occupied homes, and 25% of rental properties have fully electrified and the electricity powering those homes is coming from renewable energy sources."[184]

It is clear Ann Arbor is in the early stages of implementing its ambitious A^{2}Zero Plan. There is, no doubt, a pressing need to aggressively push forward in the direction of combating climate change, and Ann Arbor will most certainly make significant progress toward that end in the decades to come. But the City's commitment and early

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[179] 3 Tr 155; Exhibit AA-6, pp 6, 9.
[180] Exhibit AA-6, p 6.
[181] Exhibit AA-6, p 122.
[182] Exhibit AA-6, pp 5, 8.
[183] Exhibit AA-6, pp 8-9.
[184] Exhibit AA-6, p 32.

efforts to achieving such a monumental goal do not demonstrate that an adjustment to depreciation rates is prudent at this time. Ann Arbor's success may be delayed by impediments outside of its control, and it is too early to conclude that the City will reach its objective of carbon-free energy in accordance with its projected timeframe.

Likewise, the status of Ann Arbor's franchise with DTE Gas is unsettled. It would be speculative to assume, as the City urges, that the Company will no longer be providing fossil-fuel service within Ann Arbor beyond 2027.[185] While the likely resolution of this issue over the next several years may help shed light on the probable service life of the Company's assets within the City, it is too soon to reach a well-supported conclusion on that issue.

Therefore, this PFD agrees with ABATE that, given the record here, it would not be appropriate to rely on "numerous assumptions" and "significant potential future occurrences" to determine the service lives of the Company's assets.[186] Implementing Ann Arbor's proposed depreciation rates would have significant financial consequences.[187] And there are complex issues that have not been resolved on this record, including DTE Gas's claim that its system is too integrated to be able to identify assets solely serving Ann Arbor[188] and concerns raised by Staff and ABATE relating to implementation of Ann Arbor's alternative proposal.[189] While this PFD finds that these

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[185] See Ann Arbor brief, 11.
[186] See ABATE brief, 19.
[187] ABATE "roughly estimate[s]" that recovery of all DTE Gas's assets by 2050 would result in a $122.8 million annual increase in depreciation expense. 3 Tr 140. The Company states, "Ann Arbor recommends an approximate $12 million increase, as compared to the Company's current annual depreciation expense, by estimating the useful life of assets no more than 26 years." DTE Gas reply brief, 1. Neither ABATE nor DTE Gas explained how they calculated their respective figures, and it is unclear why there is such a considerable discrepancy in their numbers.
[188] 3 Tr 170, 212; DTE Gas reply brief, 10.
[189] 3 Tr 142, 210-212

issues are not yet ripe, it also finds that they merit further consideration through a study, which is discussed below. The City will have an opportunity to provide a more complete proposal during the Company's next depreciation rate case.

Turning to the adjustments to nine accounts proposed by Staff and ABATE, this PFD finds that the depreciation rates recommended by these parties should be rejected. As DTE Gas points out, both Mr. LaPan and Mr. Andrews used a workbook created by the Company's consultant, Foster Associates, and recommended different service lives for the accounts at issue.[190] In Staff's case, DTE Gas was unable to validate the adjustments, because Staff provided incomplete workpapers. As DTE Gas points out:

> Staff did not perform or present a "depreciation study." When requested, via discovery, Staff failed to produce evidence that it created observed life tables. Instead, Staff provided an Excel workbook containing one worksheet with column headings and no data. Other worksheets contained annual plant histories (i.e., opening balances, additions, retirements, adjustments and ending balances) developed by DTE Gas's expert, not Staff. (3 T 91). Then, Staff, in its Initial Brief, "acknowledge[s] that the wrong attachments were provided in discovery [and asserts that] [t]he correct attachments were sent by Staff's Counsel on June 18, 2024[,]" two days prior to the Initial Brief filing date. Yet, these "correct" responses do not support Staff's recommended service lives and do not constitute evidence of unreasonableness of the Company's recommendations. Staff's Exhibits also fail to carry the day. Specifically, Exhibit S–1 merely contains current and proposed Staff parameters and statistics. Exhibit S–2 merely contains current, and Staff proposed accrual rates. Exhibit S–3 merely contains current, and Staff proposed accruals. None of this material comes close to being considered a "depreciation study," nor does it constitute "evidence of unreasonableness" of the Company's recommendations.[191]

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[190] It should be noted that although Staff and ABATE adjusted the same nine accounts, there was a small difference—less than $1 million—between Staff's recommended depreciation expense and that recommended by ABATE.

[191] DTE Gas reply, 3-4. The PFD notes that Staff is not required to demonstrate "unreasonableness" of the Company's (or any other party's) position.

As for ABATE's presentation, although better documented than Staff's, this PFD agrees with the Company that Mr. Andrews' recommended adjustments, based on the SSDs applied to life and Iowa curves, should be disregarded. As DTE Gas argues, "[ABATE's position] must be rejected because it compares SSDs derived from curves estimated from independent projection lives (Foster Associates approach) with SSDs derived from curves estimated from combined projection lives and curves (Mr. Andrews' approach)."[192] Although ABATE maintains that DTE Gas has not demonstrated that the depreciation rates proposed by Mr. Andrews are unreasonable, this PFD finds that, ultimately, ABATE's recommendations are unsupported.

Consistent with the preceding discussion, this PFD finds that the depreciation study and resulting rates recommended by DTE Gas should be adopted.

B. Climate Change Studies

Ann Arbor witness Stults recommended that the Commission direct DTE Gas to perform a Climate Policy Impact Study "to analyze the impact on depreciation rates and the cost to ratepayers of a reduction in fossil gas service demand over the next 26 years throughout its service territory."[193] She proposed seven scenarios that should be addressed in the Study and provided her rationale for each:

> **Scenario 1:** The obsolescence of all the Company's fossil gas assets by 2050.
>
> **Rationale**: This scenario aligns with the stated goals of Ann Arbor, the State of Michigan, and the Company itself to achieve 100% carbon neutrality by 2050.
>
> **Scenario 2:** A 50% reduction in the Company's fossil gas customers by 2040, with the Company's remaining customers transitioning away from fossil gas by 2050.

[192] DTE Gas brief, 7.
[193] 3 Tr 173-174.

Rationale: As above, this scenario aligns with the stated goals of Ann Arbor, the State of Michigan, and the Company. This scenario also recognizes the significant – though not complete – progress that will likely be made by 2040 (and given the Company's stated goal of 80% carbon neutrality by 2040, recommending a 50% reduction by 2040 is actually conservative).

Scenario 3: The obsolescence of the Company's fossil gas assets at a rate that integrates the established climate goals of all government entities in the Company's service territory (e.g., local, county, and statewide).

Rationale: The Company should be considering the stated climate goals of all the customers it serves and assuming that those customers will achieve their stated climate goals. Such climate goals should be treated as notice of those customers' plans to discontinue fossil gas service, and if the Company ignores that notice, it is inviting a financially unsustainable system of stranded assets.

Scenario 4: A transition to 50% green hydrogen usage in the Company's service territory by 2050 along with 50% decarbonization through other means.

Rationale: Use of green hydrogen is one of the two innovations the Company discusses in its sustainability report. This scenario assumes moderate success of incorporation of green hydrogen.

Scenario 5: A transition to 80% green hydrogen usage in the Company's service territory by 2050 along with 20% decarbonization through other means.

Rationale: Use of green hydrogen is one of the two innovations the Company discusses in its sustainability report. This scenario assumes a higher level of success of incorporation of green hydrogen than the previous scenario.

Scenario 6: A transition to 25% thermal energy networks in the Company's service territory by 2050 along with 75% decarbonization of system through other means.

Rationale: There are currently several thermal energy projects in various stages of progress in Ann Arbor (including the City's design of a geothermal project to serve one neighborhood, Ann Arbor schools installing geothermal systems for all its buildings, a private developer installing a geothermal system for heating and cooling in its new development, UM transitioning to all geothermal systems, etc.). Considering the number of thermal energy projects that are in the works and planned for the future, a transition to 25% thermal energy networks by 2050 is conservative.

Scenario 7: A transition to 50% thermal energy networks in the Company's service territory by 2050 along with 50% decarbonization in the system through other means.

Rationale: This scenario represents a high thermal energy network adoption rate – which is not unreasonable given the number of

> current thermal energy projects currently underway, and the likely exponential adoption of such systems once other communities have successful models from early adopters (such as Ann Arbor) to work from.[194]

Dr. Stults proposed that the Study should be completed as soon as possible, but no later than 6 months before the filing of the Company's next depreciation case.[195]

2. Rebuttal

Mr. Decker opposed Dr. Stults' recommendation that the Company perform a Climate Policy Impact Study. He testified that the impetus behind Dr. Stults' proposal appeared to be an order by the New York Public Service Commission directing local distribution companies to file depreciation studies with three scenarios.[196] Addressing that New York order, Mr. Decker testified that the "two main reasons" it was issued—because of New York's 2019 Climate Leadership and Community Protection Act and because of constraints in the ability of New York local distribution companies to provide new or expanded natural gas service in some areas—"do not have analogues in Michigan at the time this testimony is written."[197] He continued:

> Without specific legislative action or requirement to eliminate the use of natural gas by 2050 in the State of Michigan, and the constrained market conditions like New York, it would be premature for any utility to take on and incur the costs to complete the recommended study. Any requirement to perform such a Study should be initiated by the Commission under its own motion based on a legislative requirement for all Michigan utilities to conduct such a study. At this point, it is premature to perform any such study.[198]

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[194] 3 Tr 175-177.
[195] 3 Tr 177.
[196] 3 Tr 103.
[197] 3 Tr 103.
[198] 3 Tr 103-104.

Mr. Revere testified that Staff agrees with Ann Arbor's proposal in principle and, if the Commission also agrees, Staff had several alternative or additional recommendations for the Commission to consider.[199] Mr. Revere went on to recommend that in determining the range of potential scenarios the study should cover, it would be appropriate to first fully examine the plans that exist and potential other changes to gas usage and to explore the various ways decarbonization might occur.[200] Mr. Revere noted that obsolescence of the Company's system may or may not be the only way to meet decarbonization goals, further observing, "Staff finds it reasonable to presume that the Company meeting its own decarbonization goals is not likely to be planned to result in obsolescence of its system."[201] Further, Mr. Revere opined that this step in the analysis should include an examination of the viability of hydrogen in decarbonizing as well as the possibility for increasing amounts of geothermal energy in Ann Arbor and throughout the Company's system.[202] Mr. Revere then summarized his recommendation: "In Staff's opinion, an appropriate path forward would be to require the Company to first examine potential scenarios, both based on current plans and goals and various methods of achieving them, along with any other scenarios identified as reasonable in that examination."[203]

Mr. Revere further recommended that in developing the scenarios to be considered, the Company should be required to meet with interested parties to obtain

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[199] 3 Tr 205-206. Mr. Revere clarified, "However, Staff notes that if the Commission is not receptive to the idea of studies on various scenarios potentially impacting the appropriate depreciation rates as put forward by Ann Arbor witness Stults, Staff is not requesting that the Commission consider the following." 3 Tr 206.
[200] 3 Tr 206.
[201] 3 Tr 206.
[202] 3 Tr 207.
[203] 3 Tr 207.

feedback and to discuss how the scenarios will be examined for how they would affect potential depreciation rates.[204] He also recommended that the Company file the results of the study in the instant docket at least six months before the Company's next depreciation case.[205]

Finally, if the Commission approves any of the proposed studies, Mr. Revere recommended that the Commission also consider similar studies for all regulated natural gas utilities, "as the issues discussed in the instant case may apply more broadly across other utility service areas."[206] In this regard, Mr. Revere further explained:

> Staff recommends the Commission consider how best to extend the recommendation made by Staff and/or Ann Arbor witness Stults in this case to other regulated gas utilities and the state as a whole so the potential impacts on depreciation rates (as well as intergenerational equity, equity amongst ratepayers of different means, and the potential for a utility death spiral if the potential impact of the goals discussed are not contemplated and addressed early enough, as discussed by Ann Arbor witness Stults) can be thoroughly examined. For example, if the Commission believes it would be beneficial for other regulated gas utilities to perform similar studies, Staff could begin working with other gas utilities outside of contested cases in anticipation of future depreciation rate applications. The Commission might also consider issuing a separate order requiring other regulated natural gas utilities to submit such a study in their next depreciation case, or by a certain fixed date.[207]

4. Discussion

In briefing, DTE Gas again advocates against the proposed Climate Policy Impact Study, arguing that Ann Arbor relies on an order issued by the New York Public

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[204] 3 Tr 207.
[205] 3 Tr 207.
[206] 3 Tr 208.
[207] 3 Tr 208, internal footnote omitted.

Service Commission that was based on circumstances distinguishable from the situation here.[208]

Staff repeats in briefing that it takes no position on the issues raised by Ann Arbor but offers additional factors to be considered if the Commission chooses to adopt the City's proposals. Staff summarized Mr. Revere's recommendations regarding the potential scope of a Climate Policy Impact Study and the appropriate range of scenarios that should be addressed.[209] Staff also notes that Dr. Stults was not aware of a prior instance where the Commission required a Company to analyze scenarios that assume a reduction in fossil-fuel demand over time and that "the Company has filed rebuttal testimony outlining the difficulties it would face if it were required to do so."[210]

In its reply brief, Staff asserts that the Commission has authority under MCL 460.54 and Mich Admin Code R 460.9002 to order depreciation-related studies "on a case-by-case or statewide basis" and that the Commission may do so "on its own timetable and own motion."[211] Staff repeats it is taking no position as to whether the Commission should order DTE Gas to perform such a study.[212]

In response, Ann Arbor points out that pursuant to existing statutes and rules, the Commission has authority to direct the Company to undertake the proposed Climate Impact Study, and no additional legislation is necessary.[213] Staff likewise reasserts that "the Commission has the authority to require depreciation related studies, on a case-by-

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[208] DTE Gas reply, 10-11.
[209] Staff brief, 26.
[210] Staff brief, 25-26.
[211] Staff reply, 1.
[212] Staff reply, 1-2.
[213] Ann Arbor reply, 3.

case or statewide basis, . . . [under] MCL 460.54 [and] Mich Admin Code, R460.9002. . . . and DTE does not provide any authority in its initial brief that states otherwise."

This PFD agrees with Ann Arbor that DTE Gas (if not all natural gas service providers in Michigan) should be directed to undertake a study of the potential impacts of a significant reduction in natural gas usage in the Company's service territory. While Ann Arbor has not established that depreciation rates should be adjusted in this case based on the potential future reduction in use of natural gas, the City has shown (as discussed above) that the issue is ripe for further consideration. As Ann Arbor points out, a failure to begin to engage with this issue could result in substantial stranded costs in the near future, to the detriment of ratepayers and the company.[214]

Specifically, this PFD finds that DTE Gas should include Scenarios 1-3 and 6-7 in its study. While this PFD generally agrees with Ann Arbor, that there is insufficient RNG available to significantly reduce the amount of fossil methane required by DTE gas, and that hydrogen blending is not currently viable, DTE Gas could nevertheless opt to include Scenarios 4 and 5 in the study. Lastly, the PFD agrees with Staff that before undertaking the study, DTE Gas should be directed to meet with Staff, Ann Arbor, and other interested parties to discuss additional or alternative scenarios based on current and prospective plans.

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[214] In its brief, p. 33, Ann Arbor states: "To the extent the Company is permitted to lock in depreciation rates that do not account for obsolescence, then the importance of making a factual finding regarding the company's deliberate decision to forgo compensation in the event that the assets do become obsolete is all the more important." This PFD finds that this request is not ripe for consideration in this case, but generally agrees that if DTE Gas fails to consider obsolescence, it runs the risk that the Company may end up paying for certain costs that may be stranded in the future.

C. Filing Date Recommendations

As noted above, Staff recommends that the Company file its next depreciation case no more than four years after the final order is issued in this case. DTE Gas does not oppose Staff's recommendation.[215]

Ann Arbor disagrees with Staff as to the timing of the next depreciation case, recommending that the Company be required to file within three years.[216] Dr. Stults testified that "things are changing swiftly" as customers plan to transition away from fossil fuels and "it makes sense for the Company to be mandated to at least *study* the impacts of its own stated goals and those of its customers on the life of its gas assets."[217] Dr. Stults urged the Commission to require DTE Gas to perform a Climate Impact Study "as soon as reasonably possible so that all interested parties can understand the impact of increased electrification and the transition away from fossil gas."[218]

This PFD agrees with Ann Arbor that the Company's next depreciation rate case should be filed three years after the final order is issued in this case. This will allow sufficient time for DTE Gas to undertake any study directed by the Commission and the timing is far enough in the future to allow a better assessment of potential changes in gas usage.

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[215] DTE Gas reply, 5 n 4.
[216] 3 Tr 181.
[217] 3 Tr 181, emphasis in original.
[218] 3 Tr 181-182.

IV.

CONCLUSION

This PFD recommends that the Commission issue a PFD in conformance with the findings of fact and conclusions of law set forth in the preceding discussion.

MICHIGAN OFFICE OF ADMINISTRATIVE HEARINGS AND RULES
For the Michigan Public Service Commission

Sally L. Wallace

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