THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Pat Apple, Chairman
Shari Feist Albrecht
Jay Scott Emler

In the Matter of a General Investigation Regarding the Acceleration of Replacement of Natural Gas Pipelines Constructed of Obsolete Materials Considered to be a Safety Risk.	))))	Docket No. 15-GIMG-343-GIG

FINAL ORDER

This matter comes before the State Corporation Commission of the State of Kansas (Commission) for consideration and decision. Having reviewed the files and records, and being duly advised, the Commission finds and concludes as follows:

I. Procedural Background

1. On February 2, 2015, Commission Staff (Staff) submitted a Report and Recommendation (R&R) recommending the Commission open a general investigation to receive comments from Atmos Energy (Atmos), Black Hills Energy (Black Hills), Kansas Gas Service (KGS), the Citizens' Utility Ratepayer Board (CURB) and Staff on proposed parameters of an accelerated natural gas pipeline replacement program.[1]

2. On March 12, 2015, the Commission issued an *Order Opening General Investigation* and adopted the recommendations set forth in Staff's R&R.

3. On October 8, 2015, Atmos filed the Direct Testimony of Christian L. Paige, Gary L. Smith, and John S. McDill and on February 26, 2016, filed the Rebuttal Testimony of Christian L. Paige and Gary L. Smith.

[1] Atmos, Black Hills, and Kansas Gas Service shall henceforth be referred to collectively as the "Gas Utilities."

4. On October 8, 2015, Black Hills filed the Direct Testimony of Richard G. Petersen, Jerry A. Watkins, and Todd J. Jacobs and on February 26, 2016, filed the Rebuttal Testimony of Nicholas Gardner.

5. On October 9, 2015, KGS filed the Direct Testimony of David Dittemore and Randal B. Spector and on February 26, 2016, filed the Rebuttal Testimony of David Dittemore and Randal B. Spector.

6. On November 3, 2015, the Commission issued an *Order Setting Procedural Schedule, Discovery Order and Protective Order*.

7. On January 29, 2016, Staff filed the Direct Testimony of Leo M. Haynos and Justin T. Grady.

8. On January 29, 2016, CURB filed the Direct Testimony of Andrea Crane and Edward McGee.

9. On March 16, 2016, KGS filed a list of issues to clarify the scope of the Accelerated Pipeline Replacement Plan to be considered in this docket.

10. On March 17, 2016, Staff, CURB, Atmos, and Black Hills filed a joint List of Contested Issues. The filing parties specifically offered the following issues for Commission consideration:

a. Is it in the public interest for Kansas utilities to accelerate replacement of pipelines constructed of obsolete materials?
b. If the Commission finds programs for the accelerated replacement of obsolete pipe to be in the public interest:
    i. What are the necessary and appropriate parameters of the programs; and
    ii. Should the gas utilities be allowed to recover the costs of the programs through an alternative ratemaking mechanism; and if so,
    iii. What type of alternative ratemaking mechanism is most appropriate for recovery of program costs?

11. On March 30 and 31, 2016, the Commission held an evidentiary hearing at its Topeka office to create an evidentiary record allowing the Commission to establish a policy on gas infrastructure replacement within the state of Kansas. The hearing was conducted in two phases and was intended to narrowly focus on the two main issues provided in the joint List of Contested Issues. Testimony in each phase was given in a panel discussion format with opportunity for cross-examination, redirect and Commission questions.

12. The first phase was the engineering phase and focused on whether it is in the public interest for Kansas utilities to accelerate replacement of pipelines constructed of obsolete material. The engineering panel consisted of John McDill and Christian Paige for Atmos, Jerry Watkins for Black Hills, Randal Spector for KGS, Leo Haynos for Staff, and Edward McGee for CURB.

13. The second phase was the accounting and ratemaking phase and focused on whether an alternative ratemaking mechanism would be appropriate for the recovery of the costs of an accelerated pipeline replacement program and the possible terms of such a mechanism. The ratemaking panel consisted of Gary Smith for Atmos, Nicholas Gardner and Robert Amdor for Black Hills, David Dittemore for KGS, Justin Grady for Staff, and Andrea Crane for CURB.

14. On March 17, 2017, KGS filed a Motion to Supplement the Evidentiary Record with the Supplemental Testimony of Randal B. Spector.

II. Testimony

Atmos

15. Regarding Issue One, Atmos testified that it was in the public interest for the Gas Utilities to accelerate replacement of pipelines constructed of obsolete materials.[2] Atmos affirmed that the safety of its customers, community and employees is its highest priority and

[2] C. Paige Direct, p. 14.

that pipeline safety is an integral element of that mission.[3] Atmos serves 107 communities and approximately 131,182 residential, commercial and industrial customers in Kansas.[4] In support of its position, Atmos offered that it had 682 miles of bare steel mains, approximately 13 miles of which are not cathodically protected.[5] Additionally, Atmos has 28,149 bare steel service lines, all of which are cathodically protected.[6]

16. Atmos testified that since 1970 the Department of Transportation (DOT) has directed that cathodically protected, coated steel pipe is the only steel material approved for new installations.[7] Atmos also testified that its Kansas gas distribution system contained 109 miles of polyvinyl chloride (PVC) and 707 miles of Aldyl-A and Century main[8] and approximately 33,171 Aldyl-A and Century service lines.[9]

17. Atmos testified that bare steel[10] and early generation plastic pipes currently represent the greatest threats to Atmos' Kansas pipeline system and that the mitigation of these threats is paramount to Atmos' continued system safety and reliability.[11] The majority of the bare steel pipe in Atmos' Kansas system is at least 55 years old, with some sections approaching 75 years of service.[12] Atmos testified that, excluding excavation damage, 48% of all leaks repaired on Atmos' Kansas system over the past four years were caused by corrosion, which results in a loss of wall thickness in the pipe. Once the corrosion process has started on bare steel pipe it will continue until the pipe fails or is replaced.[13] Atmos further described circumstances in which the

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[3] *Id.*, p. 5.
[4] *Id.*, p. 6.
[5] *Id.*, p. 7.
[6] *Id.*
[7] *Id.*
[8] *Id.*, p. 8.
[9] *Id.*
[10] Pipe that is not coated.
[11] C. Paige Direct, pp. 1-2.
[12] *Id.*, p. 10.
[13] *Id.*, p. 10; Tr., Vol. 1, p. 52.

soil acts like a conduit, making it difficult for Atmos to locate a leak until circumstances, such as an extremely dry year, cause the soil to separate from the pipe and allow gas to migrate to the surface.[14] In those instances, said Atmos, the total bottom section of the pipe is eaten away.[15]

18. In support of its argument Atmos testified that the number of known system leaks scheduled for repair as reported in the annual DOT reports has increased from 335 in 2011 to 560 in 2014.[16] This increase occurred despite Atmos' replacement of approximately 400 service lines per year between 2004 and 2013.[17] Likewise, Atmos presented evidence that its obsolete PVC, Aldyl-A and Century pipe inventory was of concern because, although such materials are not subject to corrosion,[18] the structure of the pipe may prematurely weaken, become brittle, and eventually crack.[19]

19. Atmos expressed concern because there is no remedial action that will reverse the brittleness or cracking of this early generation plastic pipe.[20] Also, the glue used in the couplings that hold the PVC joints together stiffens as it ages, which can result in the pipe separating from the coupling.[21] Atmos further testified that at its current replacement pace, the entire bare steel and early generation plastic pipe infrastructure in Atmos' Kansas system would take more than 187 years to replace.[22] Atmos claimed its Kansas system was not in imminent danger of failure, yet as the pipe ages, the risk of failure becomes greater, and prolonging the replacement of undesirable pipe increases the chance of a catastrophic failure.[23]

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[14] Tr., Vol. 1, p. 53.
[15] *Id.*
[16] C. Paige Direct, p. 11.
[17] *Id.*, p. 11.
[18] Tr., Vol. 1, p. 52.
[19] C. Paige Direct, p. 12; Tr., Vol. 1, p. 52.
[20] C. Paige Direct, p. 12.
[21] *Id.*, p. 12.
[22] *Id.*, p. 2.
[23] G. Smith Direct, p. 8.

20. Regarding Issue Two, Atmos testified that there were three possible solutions or tools to correct the problem of aging or obsolete materials in its system. The first option is the Gas System Reliability Surcharge (GSRS).[24] For the last four fiscal years, Atmos has exceeded the cap allowed for its GSRS spending, which according to Atmos, means there is no additional head room under that mechanism to facilitate additional incremental replacement of obsolete materials.[25]

21. The second option is an enhanced incremental capital investment program. As explained by Atmos, there are two problems with this solution. First, this solution is driving the recurring rate cases Atmos has been filing at the Commission at one to two year intervals.[26] Second, even with Atmos' increased investment, at its current pace it will take 187 years to replace the obsolete pipe in the Atmos system.[27] Atmos testified that the potential for Grade 1 leaks[28] and catastrophic failure increased with a slow rate of replacement.[29]

22. The final option is the proposed accelerated recovery program, called the System Integrity Program (SIP). This option was proposed by Atmos in Docket No.16-ATMG-079-RTS, as well as in this proceeding, and was modified by a settlement in the aforementioned Docket.[30] The SIP (as modified by the settlement) is a semi-annual[31] surcharge mechanism meant to support and recover the costs incurred by the Company as a result of its proposed acceleration of investment in obsolete pipe replacement projects.[32] The SIP is intended to operate independently

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[24] G. Smith Rebuttal, pp. 18-19, 29-30.
[25] *Id.*, pp. 18-19.
[26] *Id.*, pp. 16-17, 24.
[27] *Id.*, p. 13.
[28] *See* Tr., Vol. 1, pp. 62-63 (a hazardous leak needing immediate action is what is called a Grade 1 leak).
[29] Tr., Vol. 1, p. 56.
[30] G. Smith Direct, pp. 2-5; G. Smith Rebuttal, p. 8 (a copy of the modified SIP is attached to G. Smith Rebuttal as Exhibit GLS-6).
[31] G. Smith Rebuttal, pp. 8-10 (Atmos further testified that the semi-annual surcharge adjustment was a material part of the SIP due to Atmos' concern regarding regulatory lag).
[32] G. Smith Direct, p. 9.

from the GSRS.[33] Atmos testified that the semi-annual component of the SIP was a critical feature, because it greatly reduced the lag between the time the investment is made and being used by customers, and when Atmos can begin to recover the carrying costs of that investment.[34] As proposed, the SIP would be an experimental five year pilot program, subject to renewal or modification at the end of its initial term.[35] During the life of the pilot program, there would be a dollar cap on capital expenditures, which would be subject to the approval of the Commission.[36]

23. Under the SIP, if Atmos files a rate case more frequently than once every three years, Atmos would agree to forego recovery of rate case expense relating to the general rate case, if filed within one year of the implementation of the SIP and forego recovery of 50% of rate case expense relating to the general rate case, if filed within two years of the implementation of the accelerated pipeline replacement program.[37] In the alternative, Atmos may agree to a three year moratorium on general rate increases, provided that Atmos is permitted to file for a limited and abbreviated rate case to reflect changes in non-growth plant not covered by the SIP or GSRS programs between years one and two of the rate moratorium period.[38]

24. Atmos testified that if the pilot was successful, it envisioned making a $591.5 million investment over 35 years[39] and would replace all known bare steel, PVC, Aldyl-A, and Century services, yard lines, and mains.[40] Under the SIP, Atmos would file a multi-year project plan and goals with the Commission for initial review.[41] Additionally, Atmos would file an

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[33] G. Smith Rebuttal, Ex. GLS-6, p.2.
[34] *Id.*, pp. 9-10.
[35] G. Smith Direct, pp. 9-10.
[36] G. Smith Rebuttal, Ex. GLS-6, pp. 1-2; *see also* Joint Motion to Approve Unanimous Settlement Agreement, Docket No. 16-ATMG-079-RTS, , pp. 8-9 (Jan. 20, 2016) (Atmos agreed to a cap of $75 million over the five year pilot).
[37] G. Smith Rebuttal, Ex. GLS-6, p. 4.
[38] *Id.*
[39] G. Smith Direct, p. 11 (in 2014 dollars).
[40] *Id.*, pp. 10-11.
[41] *Id.*, pp. 11, 14-15 (the SIP would be focused on removing the highest risk piping in the utility's inventory first).

annual compliance report detailing the progress made in the last year, explaining any deviation from initial projections and revising the remaining plan projections.[42]

25. Atmos testified that it anticipates the impact to the average residential customer's bill would be about $1.16 per month in year one, increasing to $5.99 per month in year five.[43] Atmos argued this level of increase was offset by the fact that the average residential customer's monthly bill in 2015 was $58.00, as compared to 2008, when the average residential customer's monthly total bill was $89.00.[44] Atmos testified that it is in serious need of an accelerated capital expense recovery mechanism in order to support its accelerated replacement program in Kansas.[45] Atmos claimed that, absent such a recovery program, it would not have an opportunity to earn its allowed return on the capital expenditures it intends to make on system refurbishment.[46]

26. Additionally, Atmos took issue with CURB's assertion that the Gas Utilities should not be allowed to use an alternative ratemaking mechanism to recover costs associated with obsolete pipe because the Gas Utilities paid more than net book value for the utility assets.[47] Atmos countered that it did not pay an acquisition premium when it acquired Greeley Gas Company and United Cities Gas Company, and that its Kansas customers have never paid a rate that included an acquisition premium.[48] Additionally, Atmos argued there was no evidence that its predecessors imprudently installed pipe that is now considered obsolete.[49] Likewise, there is no evidence that industry practices were ignored when the now obsolete pipe was installed.[50]

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[42] *Id.*, pp. 12, 14-15.
[43] *Id.*, p. 18.
[44] *Id.*
[45] *Id.*, p. 3.
[46] *Id.*
[47] G. Smith Rebuttal, pp. 25-26.
[48] *Id.*
[49] *Id.*, p. 26
[50] *Id.*

27. Atmos also took issue with CURB's allegation the Gas Utilities' argument to the Commission, that accelerated obsolete pipe replacement programs place a strain on the utilities' shareholders, is inconsistent with what the Gas Utilities are telling the investment community.[51] Atmos testified that when it has access to an alternative ratemaking mechanism that eliminates the regulatory lag associated with the general rate case filing process, it is able to raise the necessary capital from the investment community needed to replace obsolete pipe, because it can show the investment community it has a reasonable opportunity to earn the authorized return for its shareholders.[52] However, in jurisdictions that do not offer alternative ratemaking mechanisms to effectively eliminate or meaningfully reduce regulatory lag, Atmos' ability to earn its authorized return for its shareholders is clearly strained.[53]

28. Atmos argued against CURB's claims that the Commission should just order the Gas Utilities to accelerate their replacement of obsolete pipe.[54] Although Atmos acceded to the Commission's authority to order accelerated replacement of obsolete pipe, Atmos countered that the Commission cannot restrict the frequency of rate filings.[55]

29. Atmos also opposed CURB's view that any approved alternative ratemaking mechanism related to cost recovery of accelerated obsolete pipe replacement should be based on a lower cost of capital than that previously authorized by the Commission to account for the special treatment being requested by the Gas Utilities.[56] Atmos argued that investment to replace obsolete pipe is like any other investment made by the utility and should be treated as such.[57] Atmos further claimed there was no regulatory principle allowing investments made under an

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[51] *Id.*, pp. 26-27.
[52] *Id.*
[53] *Id.*
[54] *Id.*, pp. 27-29.
[55] *Id.*, pp. 28-29.
[56] *Id.*, pp. 30-31.
[57] *Id.*, p. 30.

accelerated replacement program to receive an authorized return that is lower than the authorized return approved for other investments.[58] Additionally, Atmos stated it does not obtain capital funding on a project-by-project basis, and thus, using the weighted average cost of capital reflects its cost of capital, and there is no basis for customers paying less than the actual cost incurred by the gas utility.[59] Moreover, based on the increasing number of states with alternative ratemaking mechanisms, such mechanisms should not be considered special regulatory treatment.[60] Finally, Atmos argued that the Gas Utilities' authorized rates of return in Kansas are already the lowest in the nation.[61]

30. Atmos recommended the Commission approve the modified SIP as described in Exhibit GLS-6 attached to the rebuttal testimony of Gary L. Smith.[62]

Black Hills

31. Regarding Issue One, Black Hills testified in support of the accelerated replacement of pipelines constructed of obsolete materials.[63] Black Hills offered that it serves approximately 112,000 retail customers in 64 communities in 48 counties in Kansas.[64] Black Hills' Kansas inventory includes approximately 293 miles of transmission pipeline, 2,801 miles of distribution pipeline, and 99,570 service lines.[65] Black Hills also testified that it had 245 miles of bare steel mains and transmission lines, approximately 107 miles of which are unprotected.[66] Additionally, Black Hills has 29,234 unprotected bare steel service lines and 399 protected bare

[58] *Id.*, pp. 30-31.
[59] *Id.*, p. 31.
[60] *Id.*
[61] *Id.*
[62] *Id.*
[63] J. Watkins Direct, pp. 6-7.
[64] *Id.*, p. 3.
[65] *Id.*
[66] *Id.*, p. 7, Table 1.

steel service lines.[67] Regarding its obsolete plastic pipe, Black Hills testified that its Kansas gas distribution system contained 503 miles of PVC and 104 miles of pre-1970's Aldyl-A mains.[68] Black Hills also testified it had approximately 900 Aldyl-A and 184 PVC yard and service lines.[69]

32. Black Hills offered testimony consistent with that of Atmos regarding the types of leaks regularly seen on Black Hills' system.[70] Black Hills argued that, although it believes its system to be safe, large portions of the system were constructed over fifty years ago, with some sections of bare steel pipe being over 75 years old.[71] However, Black Hills stated that under its current replacement program, the number of leaks reported for the period 2008-2013 on bare steel service and yard lines has decreased.[72] Under its current replacement program, Black Hills estimated it will not have all of its obsolete materials replaced for another 74 years.[73] Black Hills testified that it is important to accelerate the replacement of deteriorated assets and affirmed that it will do so.[74]

33. Regarding Issue Two, Black Hills stated two alternatives exist: Either Black Hills can file rate cases more frequently, or an alternative ratemaking mechanism like the Accelerated System Replacement Program (ASRP) can be used to mitigate regulatory lag and smooth rate impacts.[75] Black Hills supported the ASRP as a reasonable, measured solution that balances interests.[76] The ASRP is a pilot program that would be reviewed annually by the Commission, with a thorough review after five years focusing on the cumulative impact on asset replacements

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[67] *Id.*
[68] *Id.*
[69] *Id.*
[70] Tr., Vol. 1, pp. 70-73.
[71] J. Watkins Direct, p. 7.
[72] J. Watkins Direct, pp. 8-9 (excluding leaks caused by excavation damage).
[73] J. Watkins Direct, p. 7, Table 1.
[74] T. Jacobs Direct, p. 5.
[75] *Id.*
[76] *Id.*

and leak reductions.[77] Additionally, the ASRP will sunset after 31 years or after all required pipe replacements have been completed.[78]

34. The ASRP is similar to the GSRS filing process, but calculates carrying charges monthly,[79] beginning the month when eligible assets are placed in service.[80] Black Hills proposed holding these carrying charges in a regulatory asset account until the end of 12 months, at which time a traditional GSRS-type filing will be made to create a surcharge.[81] According to Black Hills, the ASRP represents Black Hills' commitment to invest roughly $6.5 million[82] in accelerated obsolete infrastructure replacement annually over the next 31 years.[83] This will be billed like the current GSRS mechanism, but will eliminate regulatory lag on the eligible investments because the carrying charges will have accrued from the in-service date of the assets.[84] Black Hills estimates that a surcharge of approximately $0.21 per residential customer per month would result in year one, $0.55 per month in year two, and $0.88 per month in year three.[85]

35. Under the ASRP, if Black Hills elects to file a rate case within the first year the surcharge is put into place, Black Hills will bear the rate case expense.[86] If the general rate case is filed within two years of the surcharge being put into place, Black Hills will bear half of the rate case expense.[87]

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[77] R. Petersen Direct, p. 6.
[78] *Id.*, pp. 6-7; *but see* T. Jacobs Direct, p. 11("The program would not include a sunset provision, but would be reviewed every five years.").
[79] R. Petersen Direct, p. 7 (carrying charge of 9.763% gross of tax, as approved in Black Hills' most recent rate case).
[80] *Id.*, p. 5.
[81] *Id.*
[82] In 2015 dollars.
[83] R. Petersen Direct, p. 4.
[84] *Id.*, p. 5.
[85] *Id.*, p. 9.
[86] *Id.*, p. 5.
[87] *Id.*, pp. 5-6.

36. Black Hills opposed CURB's contention that the Gas Utilities acquired their current systems at premiums over net book value, even though those systems were constructed with obsolete materials.[88] According to Black Hills, the rates paid by Black Hills' Kansas customers include no acquisition premium costs.[89] Moreover, Black Hills contends there is no evidence that the previous utility's use of what is now considered obsolete materials was imprudent at the time.[90]

37. Likewise, Black Hills opposed CURB's allegation that the accelerated pipeline replacement programs are being undertaken so that shareholders can benefit from higher earnings.[91] Black Hills argued that alternative rate mechanisms, like the ones proposed in this docket, prevent earnings erosion, but do not enhance earnings above the authorized return.[92] Additionally, the driver for these investments, according to Black Hills, is the desire to significantly improve system safety and reliability in a relatively short period of time.[93]

38. Although Black Hills recognized leaks have declined over time as pipeline replacements have increased, which suggests the GSRS mechanism improves public safety, Black Hills ardently disagreed with CURB's argument that there is no evidence that additional accelerated costs recovery mechanisms are necessary or that current replacement schedules are sufficient.[94] Black Hills rejected CURB's suggestion that the Commission should implement a revised GSRS with a cap of $0.80 per year, along with the other safeguards recommended by

[88] N. Gardner Rebuttal, pp. 3-4.
[89] *Id.*, p. 3.
[90] *Id.*, pp. 3-4.
[91] *Id.*, p. 4.
[92] *Id.*
[93] *Id.*
[94] *Id.*, pp. 4-7.

Staff, because the GSRS is designed to be reactive, while the programs proposed in this docket are intended to be proactive.[95]

39. Black Hills opposed CURB's argument that something less than the weighted cost of capital should be used in calculating the accelerated pipeline replacement surcharge.[96] Black Hills said it does not obtain capital from the markets on a project-by-project basis, nor is the next incremental dollar of investment paid with debt, but rather with a combination of debt and retained earnings.[97] Black Hills believes utilizing something less than the weighted cost of capital in calculating the accelerated pipeline replacement surcharge would increase the regulatory lag and reduce the earned return on equity,[98] thereby acting as a disincentive to additional investment.[99] Black Hills argued that the delay in being allowed to earn a return on investment forecloses the Company's opportunity to earn its allowed rate of return.[100] According to Black Hills, this problem is compounded in subsequent years.[101]

40. Finally, Black Hills testified that it would accept the modified SIP, as attached to the Rebuttal Testimony of Gary L. Smith, and it supports the terms, conditions, and procedures laid out therein.[102]

KGS

41. Regarding Issue One, KGS testified in support of the Commission's adoption of a new cost recovery mechanism that better aligns public safety with a utility's financial incentives.[103] KGS said it operates and maintains an intrastate transmission system of over

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[95] *Id.*, pp. 5-6.
[96] *Id.*, p. 6.
[97] *Id.*
[98] *Id.*
[99] R. Petersen Direct, p. 11.
[100] T. Jacobs Direct, p. 8.
[101] *Id.*
[102] N. Gardner Rebuttal, pp. 7-8.
[103] D. Dittemore Direct, p. 3.

11,000 miles of mains and nearly 630,000 service lines in order to serve its customers in more than 300 Kansas communities.[104] KGS testified that it has 4,470 feet of continuous Aldyl-A pipe in its system and has not experienced an unusual leak history since its installation in 1971.[105] Of those lines, KGS reported that it has 1,846 miles of protected bare steel mains, 265 miles of unprotected bare steel mains, 70 miles of cast iron/ductile iron mains, 68,869 bare steel service lines, of which 60,365 are unprotected.[106] KGS affirmed that operating a safe natural gas system was one of its core values[107] and that its system was safe.[108] Yet it also testified that cast iron mains and bare steel service lines posed the greatest likelihood of failure.[109] KGS offered testimony in support of its safety claims, demonstrating it had spent approximately $320,323,727 in safety-related capital expenditures between 2005 and 2014.[110] Likewise, KGS testified it had voluntarily entered into an agreement with Staff which provided a firm commitment for removal of bare steel service lines.[111] Under that commitment, KGS had agreed to replace 10,000 service lines annually.[112] As of September 2015, KGS has, on average, replaced 10,866 service lines per year since the program's inception.[113] Similarly, KGS has agreed to a specific cast iron replacement program and has committed to removing all cast iron pipe by December 31, 2024.[114] KGS projected the majority of its 250 miles of unprotected bare steel mains will be replaced in

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[104] R. Spector Direct, p. 3.
[105] Motion to Supplement the Evidentiary Record, pp. 1-2 (May 4, 2016) (correcting the testimony of R. Spector, Tr., Vol. 1, pp. 189-90).
[106] R. Spector Direct, p. 4 (Table RS-1) and R. Spector Supplemental, p. 2.
[107] *Id.*, p. 3.
[108] *See Id.*, p. 5.
[109] *Id.*
[110] *Id.*
[111] *Id.*, p. 6.
[112] *Id.*
[113] *Id.*
[114] *Id.*

approximately 25 years.[115] KGS offered no such similar projection for the remaining 1,846 miles of protected bare steel mains.

42. Regarding Issue Two, KGS supported the creation of a new cost recovery mechanism that would apply to existing and future Commission-approved infrastructure programs.[116] KGS testified that any new mechanism should eliminate regulatory lag and could include the deferral method recommended by Staff's February 2, 2015, memorandum in this docket, the quarterly SIP as outlined by Gary L. Smith in 16-ATMG-079-RTS, the Infrastructure Replacement Program surcharge contained in 12-KGSG-721-TAR,[117] or the modified semi-annual SIP from 16-ATMG-079-RTS.[118] However, KGS indicated a strong preference for a mechanism that is fully compensatory.[119] KGS testified that the modified SIP was preferable to the GSRS because, although the GSRS reduced regulatory lag, it still contained more lag than KGS believed appropriate.[120] Likewise, KGS did not support a mechanism that required a utility to agree to a rate moratorium.[121] Finally, KGS took issue with CURB's suggestion that alternative recovery should not be permitted because a utility paid an acquisition price above net book value. KGS also faulted CURB for failing to accurately convey the time period that had elapsed, the change in regulatory emphasis, the proactive measures that were implemented and the significant amount of pipe to be replaced in the system.[122]

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[115] R. Spector Supplemental, p. 3.
[116] D. Dittemore Direct, p. 3.
[117] *Id.*
[118] D. Dittemore Rebuttal, p. 10.
[119] D. Dittemore Direct, pp. 3, 6, 7, 12.
[120] D. Dittemore Rebuttal, pp. 4-11,
[121] D. Dittemore Direct, pp. 12-13; D. Dittemore Rebuttal, p. 6.
[122] D. Dittemore Rebuttal, pp. 11-12.

Staff

43. Regarding Issue One, Staff testified in support of a program accelerating replacement of obsolete pipeline infrastructure.[123] Staff testified that the need for obsolete pipe replacement is primarily derived from the safety threat posed by natural gas leaks.[124] However, Staff testified that the leakage history reported by the Gas Utilities does not evidence an imminent danger of catastrophic pipe failure in Kansas.[125] Staff clarified that over time the pipe will age, failures will become more frequent and the probability of a catastrophic failure will increase.[126] Staff further testified that the Gas Utilities all had adequate replacement prioritization methodologies as required by the PHMSA's Distribution Integrity Management Program.[127] However, Staff also testified that under current regulation, the Gas Utilities had the discretion to decide what constitutes an unsatisfactory condition and when pipe must be replaced.[128] Staff testified that the subjectivity of determining a given pipeline's condition is easily influenced by economic or budget considerations.[129] Staff described how under the GSRS the Gas Utilities are permitted to recover capital investments for infrastructure replacements as a surcharge, not to exceed $0.40 per customer per month, on customers' bills if the investment is required by pipeline safety regulations. Staff suggests that some of the Gas Utilities are reluctant to declare all aging infrastructure to be in an unsatisfactory condition and initiate replacement programs because once such a declaration is made it becomes nearly impossible to declare the "unsatisfactory" pipe has somehow returned to "satisfactory condition" should the ability to

[123] L. Haynos Direct, p. 2.
[124] *Id.*, pp 2-3.
[125] *Id.*, p.3.
[126] *Id.*
[127] *Id.*, p. 7.
[128] *Id.*, p. 4.
[129] *Id.*, p. 5.

invest in replacement become unavailable[130] or exceed the $0.40 cap.[131] Staff's alternative rate mechanism attempts to solve this problem by allowing the Gas Utilities to replace obsolete pipe without reclassifying the pipe as unsatisfactory.[132]

44. Regarding Issue Two, Staff supported a Commission-approved alternative ratemaking mechanism to fund the accelerated replacement of obsolete natural gas infrastructure in Kansas.[133] Staff testified that an alternative ratemaking mechanism would be in the public interest because it would avoid more frequent general rate case filings[134] and would allow Staff and the Commission to have a more direct voice in the pace of obsolete infrastructure replacement, the magnitude of the investments, and the timing of individual utility filings required to administer the program.[135] Staff also opined that proactive and programmatic replacement of obsolete infrastructure would likely lead to lower costs per unit than other replacement methods, due to the anticipated economies of scale and scope associated with bidding a systematic construction program, as well as the general economies that can be gained with comprehensive versus piecemeal construction approaches.[136] Staff's support for an alternative ratemaking mechanism is predicated on the following conditions:

a. The mechanism should diminish regulatory lag, while not completely eliminating it, as this important cost-containing incentive should not be totally eliminated in the face of substantial increases in investment necessary to accelerate the replacement of obsolete natural gas infrastructure. Staff believes this can be accomplished by the use of a surcharge mechanism that is updated semi-annually to begin rate recovery of infrastructure replacement projects that are actually in service and providing a safety benefit to customers. Staff would have the opportunity to audit and review the semi-annual surcharge

[130] *Id.*, p. 9.
[131] *Id.*, p. 10.
[132] *Id.*
[133] J. Grady Direct, p. 2.
[134] *Id.*, p. 5.
[135] *Id.*, p. 6.
[136] *Id.*

filings and a Commission Order would be required prior to the surcharge taking effect.[137]

b. The mechanism would be limited to a return of, and a return on, capital expenditures for project types which are in service and have been approved by the Commission as part of a five-year pilot program (five-year plan). The five-year plan should contain the goals, objectives, and projected yearly capital expenditure levels during the plan. This five-year plan will be updated and filed on a yearly basis with detailed capital expenditure projections and project descriptions for the upcoming plan year. Staff will have the opportunity to review and report to the Commission on the appropriateness of the five-year plan and the individual detailed yearly filings. Commission approval of the five-year plan and individual yearly filings would be required before the plans would take effect.[138]
c. The initial five-year plan filing, annual plan update filings, and semi-annual surcharge filings would all be afforded a reasonable time period for Staff review and a Commission Order.[139]
d. The result of the five-year plan should be an increase in capital expenditures that accelerates the replacement of obsolete natural gas infrastructures in Kansas.[140]
e. The five-year plan should be accompanied by some commitment not to file a general rate increase more often than once every three years. If necessary, the utility should be permitted to use the abbreviated rate case process provided in K.A.R. 82-1-213(b)(3) to recover non-growth related capital expenditures not recovered by any other ratemaking mechanisms (including the GSRS) during this rate moratorium.[141]

45. Regarding Black Hills' proposed ASRP, Staff testified that it did not support that particular program because it completely eliminated regulatory lag by combining the earnings deferral effects of a regulatory asset mechanism with the yearly rate change associated with an annual surcharge.[142] According to Staff, completely eliminating regulatory lag from an alternative ratemaking mechanism used to fund an accelerated replacement of obsolete infrastructure is a problem given the magnitude of additional capital investment being contemplated under these plans.[143] Staff contended that regulatory lag offers an important

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[137] *Id.*, p. 3.
[138] *Id.*, pp. 3-4.
[139] *Id.*, p. 4.
[140] *Id.*
[141] *Id.* (citation omitted).
[142] *Id.*, pp. 12-13.
[143] *Id.*

incentive for utilities to continue to manage their costs, which is especially important when one considers the size of the capital expenditure program being considered.[144]

46. Staff further testified that the gas utilities could not simply continue to rely solely on the GSRS mechanism because the GSRS is used mostly for replacement projects that are reactive in nature.[145] Staff supported the creation of a mechanism that would be proactive in nature and this cannot be accomplished with the GSRS today because of the capital cost limitations imposed by the GSRS' $0.40 per month per residential customer yearly limit.[146] Staff stated the GSRS price cap limitation currently translates into approximately $7 million per year of capital investment for Atmos, $8.8 million per year for Black Hills, and $38.8 million per year for KGS.[147] Staff testified that during 2010-2014, Atmos' yearly investment levels on system integrity or safety-related capital expenditures averaged $15.7 million, Black Hills averaged $11.7 million, and KGS invested $36.4 million annually.[148] Staff argued that the investment limitations of the GSRS do not allow the Gas Utilities to recover additional investments associated with an accelerated replacement of obsolete infrastructure through the GSRS.[149]

47. Staff supported Commission approval of the SIP as modified by the Unanimous Settlement Agreement filed in Docket No. 16-ATMG-079-RTS.[150] Staff testified that the modified SIP is a reasonable alternative ratemaking mechanism containing all the features recommended by Staff to be in the public interest.[151] Specifically, the mechanism accelerates the rate of obsolete natural gas infrastructure replacement, prolongs the period of time between general rates cases, retains some regulatory lag, and creates a system of accountability and

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[144] *Id.*, Attachment A, p. 18.
[145] *Id.*, pp. 6-7.
[146] *Id.*, pp. 6-7.
[147] *Id.*, p. 7.
[148] *Id.*, pp. 7-8.
[149] *Id.*, p. 8.
[150] *Id.*, p. 9.
[151] *Id.*, p. 11.

transparency through Commission review to ensure that rates changed as a result of the SIP mechanism remain just and reasonable.[152] Furthermore, Staff believed that the modified SIP could also be a successful template for Black Hills and KGS.[153] Therefore, Staff recommended the modified SIP as an alternative ratemaking mechanism that would balance the interests of ratepayers and shareholders and would be in the public interest.[154]

48. However, Staff clearly stated the modified SIP was not the only alternative ratemaking mechanism option the Commission could find in the public interest.[155] Likewise, Staff testified that the weighing of different ratemaking options, including alternative ratemaking options, is not an exact science that inexorably results in a "right" or "wrong" answer.[156] Accordingly, Staff noted that many of the options discussed in this and other proceedings have positive and negative aspects for shareholders, ratepayers, and other stakeholders, including Commission Staff.[157]

CURB

49. Regarding Issue One, CURB testified that it had reviewed the Gas Utilities' filings, responses to discovery, as well as publicly available information from the DOT.[158] CURB concluded: "1) safety risks, as measured by both leak rates and incident rates, have been successfully reduced over time under the existing Commission replacement rules and rates;"[159] 2) over the last sixteen years, the companies' leak rates have generally been declining or level, meaning each of the Gas Utilities has managed leaks in its Kansas system very successfully to

[152] *Id.*
[153] *Id.*, p. 12.
[154] *Id.*, p. 14.
[155] *Id.*, p. 13.
[156] *Id.*
[157] *Id.*, pp. 13-14.
[158] E. McGee Direct, p. 3.
[159] *Id.*

date under existing Commission replacement rules and rates;[160] 3) over the last forty-five years the Gas Utilities' incident rates have generally been declining, indicating that Kansas utilities as a whole have managed incidents in their systems very well to date under existing replacement rules and rates;[161] and "4) incidents caused by certain obsolete materials, such as those identified as 'material failure' and 'corrosion' causes, have been very low in recent years."[162]

50. CURB testified that of the 176 U.S. gas utilities that have at least 1,000 miles of mains, KGS ranks 24th, with 19.1% of its total miles of mains,[163] Atmos ranks 25th, with 18.8% of its total miles of mains,[164] and Black Hills ranks 60th, with 8.8% of its total miles of mains,[165] when it comes to the proportion of their system composed of obsolete metallic mains as compared to other gas utilities.[166] CURB further testified that of the 194 U.S. gas utilities having 25,000 or more service lines, Atmos ranks 21st,[167] KGS ranks 42nd,[168] and Black Hills ranks 93rd[169] when it comes to the proportion of their system composed of obsolete metallic service lines as compared to other gas utilities.[170] CURB went on to explain that despite the high amounts of obsolete metallic piping for Kansas utilities as compared to other U.S. gas companies, safety risks are not high.[171] CURB testified that the obsolete materials in Kansas differ markedly from the types of obsolete materials listed for most of the companies near the top of the rankings.[172] The difference was that most of the obsolete materials in Kansas are steel

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[160] *Id.*
[161] *Id.*
[162] *Id.*
[163] *Id.*, pp. 6-8 (made up of cast/ductile iron mains, unprotected/protected bare steel mains, and coated steel unprotected mains).
[164] *Id.*, pp. 6, 8 (made up of unprotected/protected bare steel mains).
[165] *Id.*, pp. 6, 8 (made up of unprotected/protected bare steel mains and transmission lines).
[166] *Id.*, p. 8.
[167] *Id.*, pp. 6, 8 (made up of protected bare steel service lines).
[168] *Id.*, pp. 6-8 (made up of unprotected/protected bare steel and unprotected coated steel service lines).
[169] *Id.*, pp. 6, 8 (made up of unprotected/protected bare steel service/yard lines).
[170] *Id.*, p. 8.
[171] *Id.*, p. 9.
[172] *Id.*

materials as compared to the iron piping materials in the other top ranking companies' systems.[173]

51. Furthermore, CURB testified that when measured in miles of mains, 22.5% of Atmos' mains are obsolete types of plastic (primarily Aldyl-A or Century plastic), 21.7% of Black Hills' mains are obsolete plastic (primarily PVC), and 1.3% of KGS' mains are obsolete plastic (entirely PVC).[174] Likewise, when measured in number of service lines, 23% of Atmos' service lines are obsolete types of plastic (Aldyl-A or Century plastic), 1.1% of Black Hills' service lines are obsolete plastic (primarily Aldyl-A), and KGS has no plastic service lines that are made out of materials considered to be obsolete.[175]

52. CURB also provided analysis of the Gas Utilities' leak rates over the past sixteen years[176] and the Gas Utilities' incident trends for the period of 1970 through 2014.[177] CURB argued that its analysis indicates the gas utilities are adequately managing safety risks and leaks, and incidents have been declining under existing Commission replacement rules and rates.[178]

53. Regarding Issue Two, CURB offered eight recommendations. First, CURB testified that the issue of whether to accelerate infrastructure investment programs should be evaluated separately from the issue of cost recovery.[179] CURB indicated it did not believe an accelerated replacement program was necessary, but does believe that it may provide some benefits to ratepayers.[180]

54. Second, CURB testified that the Gas Utilities acquired the current systems at premiums over net book, even though the acquired systems were constructed with obsolete

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[173] *Id.*
[174] *Id.*
[175] *Id.*, p. 10.
[176] *Id.*, p. 13.
[177] *Id.*, p. 16.
[178] *Id.*, p. 19.
[179] A. Crane Direct, pp. 5, 20-21.
[180] *Id.*, p. 21.

materials.[181] CURB argued that it was reasonable to assume that the acquiring companies all expected to earn a reasonable return not only on the net book value of the assets, but also on the premiums that were paid by the acquiring company, even if those premiums were excluded from rate base.[182] Likewise, CURB testified that the traditional base rate case process does not require shareholders to forego the entire revenue requirement associated with the accelerated program, but rather requires shareholders to forego the return of and the return on the investment until the company's next base rate case.[183] CURB further reasoned that, assuming a 50-year depreciable life and an average regulatory lag of 26 months, shareholders would be responsible for funding 4.33% of the investment prior to it being included in base rates.[184] Therefore, according to CURB, even if the base rate case process is used and the utility does not file a rate case for a period of three years, the impact on return would be 4.33%.[185] Yet, if the company filed a base rate case sooner than three years or used the abbreviated rate case process, the impact would be less.[186] CURB further suggested that in consideration of the Gas Utilities' failures to proactively replace infrastructure since these systems were acquired, and given the condition of the systems, both utility managements and shareholders should bear some responsibility for the current situation.[187] Likewise, CURB contended if some sacrifice is necessary in order to accelerate replacement of these systems, there is no reason why ratepayers should bear 100% of that sacrifice, especially when the benefits that accrue to shareholders from accelerated investment are taken into consideration.[188]

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[181] *Id.*, pp. 5, 21-22.
[182] *Id.*, p. 22.
[183] *Id.*
[184] *Id.*, pp. 22-23.
[185] *Id.*, p. 23.
[186] *Id.*
[187] *Id.*
[188] *Id.*

55. Third, according to CURB, Gas Utilities, in their presentations to shareholders, made it clear that increasing rate base by accelerating infrastructure investment provides benefits to shareholders through higher earnings.[189] Specifically, CURB testified that in a November 18, 2015, presentation to security analysts, Atmos promoted its stock as a "pure play, high growth Natural Gas Delivery Investment Proposition" and highlighted the fact that 95% of earnings are regulated and rate base driven.[190] Similarly, Atmos emphasized that it expects "[s]trong forecasted regulated rate base growth through Fiscal 2020."[191] CURB further testified that, although Atmos did not identify regulatory lag as major concern, it did note that it receives earnings "on over 90% of annual Capex within 6 months," and the company's presentation made it clear that its earnings growth through 2020, which is projected to increase from $3.05 per share in 2015 to the $4.10-$4.40 range, was being driven directly by increases in its rate base.[192] Also, CURB testified that "Atmos presented Kansas as a jurisdiction with a seven to twelve month lag except for plant recovered through the GSRS, which it identified as having only a one to six month lag."[193] CURB further argued that "Atmos' presentation shows that since it implemented a 'Growth Through Infrastructure Investment Strategy,' its total shareholder return has been 79.6%, as compared to the peer group's growth of 70.0%."[194] According to CURB, the story that regulatory lag was stifling investment in Kansas, as presented by Atmos in this case, is very different from the story presented to investors.[195]

56. Similar to the argument regarding Atmos, CURB testified that in a November 2015 presentation at the Edison Electric Institute Financial Conference, Black Hills highlighted

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[189] *Id.*, pp. 5, 22-28.
[190] *Id.*, p. 24.
[191] *Id.*
[192] *Id.*
[193] *Id.*
[194] *Id.*
[195] *Id.*

its capital investment strategy and included the point that Black Hills wanted to "[c]onstruct cost effective rate-based generation and transmission to serve existing customers."[196] CURB also noted that "in discussing 'Optimizing Regulatory Recovery,'" Black Hills presented a chart showing the various cost recovery mechanisms available for its electric and gas utilities."[197] Of the six gas recovery mechanisms considered, Kansas already had five of the six, the most of any of Black Hills' gas jurisdictions.[198]

57. CURB testified that in a presentation at the Evercore ISI Utilities Conference in January 2016, ONE Gas, Inc.[199] offered a five year financial outlook highlighting the forecast that an average annual net income growth of 5-8% is expected between 2014 and 2019, which will be "[d]riven by capital investments and customer growth" and that "[r]ate base [is] expected to grow an average of 5-6% per year between 2014-2019."[200] Additionally, CURB testified that ONE Gas, Inc. listed capital investments as its first point for "Creating Value for Shareholders."[201]

58. CURB also explained that even though additional investment does not change the rate of return, shareholders still stand to benefit.[202] This shareholder benefit results from the fact that the stock market is largely driven by earnings per share.[203] When such earnings are taken into account, along with the fact that much of the equity capital used by utilities to fund infrastructure replacement projects are internally generated, it means that increases in a utility's rate base generally result in increases in earnings per share.[204] Although there are many factors

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[196] *Id.*, p. 25.
[197] *Id.*
[198] *Id.*
[199] Of which KGS is a division.
[200] A. Crane Direct, p. 25.
[201] *Id.*
[202] *Id.*, pp. 25-26.
[203] *Id.*
[204] *Id.*

that impact stock price, increasing rate base is one way utilities can grow earnings, and, as highlighted by the presentations given by the utilities, the anticipated earnings to shareholders were based on earnings per share.[205]

59. CURB also characterized the suggestion by some utilities that they will favor investment in those states that provide them with the most favorable returns and most liberal regulatory policies as a thinly veiled threat.[206] CURB argued that the Gas Utilities are regulated monopolies, which allows them to avoid the worries of competition in financial markets.[207] Likewise, the monopoly franchise awarded to the Gas Utilities grants the companies the exclusive right to serve customers in a certain service territory, but also imposes the obligation to serve those customers at the lowest reasonable cost.[208] CURB contended that "[t]he utilities' threats to direct investment resources away from Kansas because [they do] not believe that shareholders are making enough here is an insult to the ratepayers of this state and inconsistent with the regulatory obligations of the utilities."[209] CURB again pointed out that "[u]nder the traditional rate case process, utility shareholders may have to wait a few years for new investment to be reflected in rates."[210] "However, given the long lives of utility assets, shareholders will receive a long revenue stream once those costs are reflected in rates."[211] CURB believes this investment by shareholders is substantially less risky than investing in many competitive companies.[212]

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[205] *Id.*, p.26.
[206] *Id.*, pp. 26-27.
[207] *Id.*, p. 27.
[208] *Id.*
[209] *Id.*
[210] *Id.*
[211] *Id.*
[212] *Id.*

60. Fourth, CURB reminded the Commission that the Gas Utilities already have an accelerated cost recovery mechanism in place in the form of the GSRS.[213]

61. Fifth, CURB alleged there is no evidence that additional accelerated cost recovery mechanisms are necessary at this time in order for the Gas Utilities to continue to provide safe and reliable utility service.[214] CURB testified that KGS has already implemented an accelerated infrastructure replacement program without a corresponding cost recovery mechanism, and Atmos' and Black Hills' testimony in this docket is inconsistent with presentations made to the investment community.[215] Additionally, CURB noted there is no indication the Gas Utilities are having difficulty attracting capital to fund infrastructure projects.[216] CURB claimed that even if the Commission finds that an accelerated infrastructure program should be adopted, it does not follow that an accelerated cost recovery mechanism is required.[217]

62. Sixth, CURB recommended that if the Commission finds in favor of an additional acceleration of cost of recovery, it should implement a revised GSRS with a cap of $0.80 per year on residential increases to residential customers, along with the additional safeguards recommended by Staff in the Staff Report.[218] CURB testified that increasing the GSRS cap would preserve the framework initially adopted by the Kansas Legislature, while recognizing that the magnitude of the replacement projects faced by Kansas utilities may require more funds than those that could be provided under the current residential cap, which has not been increased

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[213] *Id.*, pp. 6, 28-29.
[214] *Id.*, pp. 6, 14, 17-19.
[215] *Id.*, p. 28.
[216] *Id.*
[217] *Id.*
[218] *Id.*, pp. 6, 34-35.

since the GSRS was first implemented in 2006.[219] CURB further testified that this approach would help reduce regulatory lag.[220]

63. Seventh, CURB asked that, should the Commission determine that a cap of $0.80 per year on residential increases is not sufficient, then any additional annual increases should be subject to lower return requirements until such costs are included in base rates.[221] CURB reasoned that if the Commission approved a mechanism that goes beyond the protections granted by the Kansas Legislature, then ratepayers should be compensated for the loss of those protections.[222] Specifically, CURB recommended a return on equity adjustment of 50 basis points if a semi-annual adjustment is utilized, and an adjustment of 100 basis points if a shorter adjustment period is adopted.[223] Likewise, if the Commission approves an annual GSRS increase that exceeds the $0.80 per month on residential customers, CURB recommended a return on equity adjustment of 100 basis points until such time as the investment is rolled into rate base.[224] CURB claimed that its recommendation was reasonable because the reduction in equity return provides some benefit to ratepayers, which is appropriate given the benefit to shareholders of accelerated replacement programs and growth in rate base.[225] CURB reasoned that while the Gas Utilities want ratepayers to provide for accelerated cost recovery, they do not want shareholders to lose any of their profit potential.[226] "In fact, the Gas Utilities seek to increase shareholder returns by accelerating recovery, while shifting risk of recovery from shareholders to

[219] *Id.*, p. 29.
[220] *Id.*, p. 30 (CURB also testified that regulatory lag is not always detrimental to the utilities, as it can work to the benefit of shareholders during periods of declining capital costs and/or sales growth).
[221] *Id.*, pp. 6, 32-33.
[222] *Id.*, p. 32.
[223] *Id.*
[224] *Id.*, pp. 32-33.
[225] *Id.*, p. 33.
[226] *Id.*

ratepayers."[227] The reduction recommended by CURB would allow shareholders to begin recovering a return on these costs sooner, but would mitigate the impact on ratepayers in the short run.[228]

64. Eighth, CURB testified that Kansas ratepayers should not be burdened with more than one accelerated cost recovery mechanism relating to infrastructure investment.[229] CURB argued that two surcharge mechanisms would require twice as much work by the Commission, its Staff, and other parties in reviewing and evaluating the proposed surcharges.[230] Likewise, CURB suggested that two surcharges would be confusing for customers.[231]

65. CURB concluded that the Commission should reject requests by the Gas Utilities to implement a new accelerated cost recovery mechanism for infrastructure replacement projects.[232] CURB offered its support for an increase in the current GSRS residential cap from $0.40 per month to $0.80 per month.[233] However, if the Commission further accelerated the cost recovery currently provided in the GSRS, CURB would recommend a reduction to the utility's cost of equity on the incremental investment until such time as the investment is rolled into base rates.[234] Finally, CURB offered its general support for the parameters outlined by Staff in the Staff Report.[235]

III. Legal Standards

66. The Commission is granted the "full power, authority and jurisdiction to supervise and control the natural gas public utilities, as defined in K.S.A. 66-1,200, doing business in

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[227] *Id.*
[228] *Id.*
[229] *Id.*, pp. 6, 29-30.
[230] *Id.*, p. 30.
[231] *Id.*
[232] *Id.*, p. 34.
[233] *Id.*
[234] *Id.*, pp. 34-35.
[235] *Id.*, p. 34.

Kansas, and is empowered to do all things necessary and convenient for the exercise of such power, authority and jurisdiction."[236] The Commission is tasked with ensuring that the Gas Utilities furnish reasonably efficient and sufficient service and facilities at just and reasonable rates that are not unduly preferential or discriminatory.[237] The Commission is also granted general supervision of the natural Gas Utilities and is, from time to time, required to inspect the condition of each natural gas public utility, its equipment, the manner of its conduct, and its management, with reference to the public safety and convenience.[238] Furthermore, the Commission is required to inquire into any neglect or violations of the laws of this state by any natural gas public utility.[239] The Commission's authority and jurisdiction is liberally construed to grant the Commission all incidental powers necessary to carry into effect the Commission's obligations under the law.[240]

IV. Findings of Fact

67. The Commission has jurisdiction to hear this matter.[241] The record consists of the Direct and Rebuttal Testimony of 13 witnesses. Therefore, the Commission finds that there is an ample evidentiary basis from which to make a decision.

a. *Issue One: Is it in the public interest for Kansas utilities to accelerate replacement of pipelines constructed of obsolete materials?*

1. *KGS*

68. For the sake of clarity the Commission will address the need for accelerated replacement of each utility's pipelines constructed of obsolete materials individually.

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[236] K.S.A. 66-1,201.
[237] K.S.A. 66-1,202.
[238] K.S.A. 66-1,208 (this statute does not relieve the gas utilities from their responsibility or liability for damage to persons or property).
[239] *Id.*
[240] K.S.A. 66-1,207.
[241] K.S.A. 66-1,201; K.S.A. 66-1,202; K.S.A. 66-1,208.

69. The Commission finds KGS is a jurisdictional regulated monopoly. Hence, KGS has an obligation to provide safe and efficient service at just and reasonable rates. The Commission finds that KGS has a substantial amount of obsolete material in its inventory. Specifically, the Commission notes that 20.4% of KGS' mains and 11.8% of KGS' service lines are made up of obsolete material.[242] That translates to approximately 2,319 miles of obsolete mains and 68,869 obsolete service lines.[243]

70. The Commission appreciates the proactive steps KGS has taken to replace its aging and obsolete infrastructure,[244] especially KGS' commitment to replace 10,000 service lines per year.[245] The Commission also finds that KGS' efforts thus far have paid off as the number of leaks reported has decreased.[246] The Commission finds that KGS has gone beyond the mere claim that safety is its highest priority to a demonstration of that fact through its replacement efforts and prudent management. However, the Commission is generally concerned about the remaining mileage of obsolete bare steel main included in KGS' inventory that is not currently included in a replacement plan. The Commission finds that when taking into consideration KGS' complete inventory of obsolete material, Staff's estimate that it would take KGS 67 years to totally replace all of its obsolete material to be reasonable. Consequently, the Commission is concerned about KGS' failure to mitigate the likely possibility that at its current pace it will be operating a system with obsolete pipe that is at least 118 years old.[247]

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[242] R. Spector Direct, p. 4 Table RS-1.
[243] Id.
[244] Id. at p. 6.
[245] Id.
[246] E. McGee Direct, Schedule EM-04, EM-05.
[247] L. Haynos Direct, p. 14 (Over the last five years KGS has replaced 31 miles of bare steel per year. If that replacement rate is assumed to be constant, the last of the bare steel – which is at least 50 years old – would be replaced by the year 2084 when the last of the bare steel would be at least 118 years old.).

2. Black Hills

71. The Commission finds Black Hills is a jurisdictional regulated monopoly. Hence, Black Hills has an obligation to provide safe and efficient service at just and reasonable rates. The Commission finds that Black Hills has a substantial amount of obsolete material in its inventory. Specifically, the Commission notes that 30.5% of Black Hills' mains and 30.86% of Black Hills' service lines are made up of obsolete material.[248] That translates to approximately 852 miles of obsolete mains and 30,717 obsolete service lines.[249] Evidence also shows some of those materials have been in use for fifty years[250] and that as those materials draw closer to the end of their useful life, the risk of catastrophic failure greatly increases.[251] Black Hills further testified that on average it replaces 17.7 miles of main and 1,185 service lines annually.[252] At its current replacement rate it estimated replacement of its entire obsolete pipe inventory in 74 years.[253]

72. The Commission finds that Black Hills' testimony regarding its system's safety is not completely without merit, as the record indicates the number of leaks reported on Black Hills' system has been on a decline.[254] However, the Commission is concerned that by having nearly one-third of its system comprised of obsolete materials and having a replacement rate that only rectifies the situation after approximately 75 years, Black Hills is subjecting its customers to an unacceptable level of risk. The Commission has significant concerns that Black Hills' current level of replacement of obsolete infrastructure does not demonstrate a commitment to operational safety equal to that of KGS.

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[248] *See,* J. Watkins Direct p. 3 and p.7 Table 1.
[249] J. Watkins Direct, p. 7 Table 1.
[250] J. Watkins Direct, p. 7 (In Docket No. 14-ATMG-320-RTS Tr. Vol. 2. P. lns 18-19 Atmos testified that, "[g]as pipe isn't made to last 100 years").
[251] G. Smith Direct, p. 8; Tr., Vol. 1, p. 56; L. Haynos Direct, p. 3.
[252] J. Watkins Direct, p. 6 fn 1.
[253] J. Watkins Direct, p. 7, Table 1.
[254] E. McGee Direct, Schedule EM-04, EM-05.

3. Atmos

73. The Commission finds Atmos is a jurisdictional regulated monopoly. Hence, Atmos has an obligation to provide safe and efficient service at just and reasonable rates. The Commission finds that, despite testimony to the contrary, there is sufficient evidence to give the Commission concern that Atmos' system may be at imminent risk of catastrophic failure. The evidence indicates that 42% of Atmos' Kansas distribution system is constructed with aging high risk materials that are deemed obsolete and a risk to public safety.[255] Evidence also shows some of those materials have been in use between 50 and 75 years[256] and that as those materials draw closer to the end of their useful life, the risk of catastrophic failure greatly increases.[257] Atmos further testified that at its current replacement rate, estimated replacement of its entire obsolete pipe inventory in 187 years.[258]

74. The testimony further shows that the number of Atmos' known system leaks scheduled for repair as reported in the annual DOT reports has increased by 67.18% between the years 2011 and 2014.[259] Likewise, Atmos provided exhibits showing an upward trend in the quantity of corrosion leaks repaired in the Kansas distribution system, which is consistent with the number of unrepaired leaks.[260] According to Atmos, that upward trend in leaks, given the level of cathodic protection, is indicative of an aging system approaching the end of its useful

[255] C. Paige Rebuttal, p. 4.
[256] C. Paige Direct, p. 10; (In Docket No. 14-ATMG-320-RTS Tr. Vol. 2. P. lns 18-19 Atmos testified that, "[g]as pipe isn't made to last 100 years").
[257] G. Smith Direct, p. 8; Tr., Vol. 1, p. 56; L. Haynos Direct, p. 3.
[258] C. Paige Direct, p. 2.
[259] C. Paige Direct, p. 11.
[260] C. Paige Rebuttal, p. 17.

life.[261] The record further shows that Atmos' customers have been fortunate thus far in that no serious incidents[262] have taken place in that time period.[263]

75. Based on Atmos' current replacement trend which estimates replacement of all obsolete material in an unacceptable 187 years,[264] the Commission is not confident that Atmos' customers will continue to be so fortunate. For comparison sake, Atmos testified that between 2004 and 2013 it replaced 400 service lines per year. Thus, over a nine year time span Atmos replaced 3,600 service lines. In contrast, between 2011 and 2015 KGS replaced on average 10,886 service lines a year for a total of 48,079 service lines replaced in a four year time span. Atmos' efforts pale in comparison even to Black Hills' replacement rate of 1,185 service lines per year.

76. Therefore, the Commission is unable to reconcile Atmos' claimed commitment to public safety[265] with the dearth of action taken to remedy its expansive inventory of increasingly leak-prone obsolete pipe. This is especially troubling in light of statements on the record, such as, "[p]rolonging the replacement of undesirable pipe increases the chance of a catastrophic failure"[266] and "[t]his non-standard and obsolete piping poses a long-term threat to the safety and reliability of Atmos Energy's Kansas distribution system and the current pace of replacement is insufficient to replace this pipe within a reasonable and safe timeframe."[267] In this instance, the Commission takes Atmos at its word and agrees that its current pace of replacement is unreasonable and places its customers' safety at an unacceptable level of risk. The Commission

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[261] Id.
[262] Id. p. 12 (PHMSA defines a significant incident as an incident that include any of the following, 1) Fatality or injury requiring in-patient hospitalization, 2) $50,0000 (sic) or more in total cost, measured in 1984 dollars, 3) highly volatile liquid release of 5 barrels or more or other liquid releases of 50 barrels or more, and 4) liquid releases resulting in an unintentional fire or explosion).
[263] E. McGee Direct, pp. 12-13.
[264] C. Paige Direct, p. 2.
[265] C. Paige Direct, p. 5.
[266] G. Smith Direct, p. 8.
[267] C. Paige Direct, p. 4. (emphasis added)

has significant concerns that Atmos' current level of replacement of obsolete infrastructure does not demonstrate a commitment to operational safety equal to that of KGS. Despite Atmos'[268] assurances that, regardless of the action taken by the Commission in this matter, it would take the appropriate steps to maintain its systems, the significant amount of obsolete pipe in Atmos' system, along with its minimal replacement levels, does not give the Commission comfort it will take such action. This is especially true in light of Atmos' testimony that it "does not restrict capital to address safety considerations and make[s] certain that identified risks are mitigated. However, Commission approval of recovery mechanisms...facilitates a regulatory environment where safety concerns receive their appropriate priority."[269] The Commission is concerned about Atmos' linkage of alternative recovery mechanisms with the appropriate prioritization of safety concerns. In the Commission's mind the existence of an alternative recovery mechanism should have no bearing on appropriate prioritization of safety concerns.

77. The Commission interprets Atmos' testimony regarding the risk of not accelerating replacement of obsolete material and of the increased level of leaks found on Atmos' system, Atmos' testimony regarding the role alternative rate mechanisms have in allowing safety concerns to be appropriately prioritized, and Atmos' meager replacement efforts to mean that, despite its protestations to the contrary, Atmos places a higher emphasis on shareholder profits than the safety of its Kansas ratepayers.

4. The Gas Utilities

78. Upon review of the record, the Commission finds materials in most urgent need of replacement in the Gas Utilities' systems are bare steel and cast iron. The Commission is persuaded that these materials pose the highest risk to safety because of the materials' relative

[268] Tr., Vol. 1, p. 43.
[269] J. McDill Direct, p. 10.

length of service[270] and their proclivity for corrosion[271] or stress fractures.[272] Therefore, the Commission finds that the accelerated, programmatic replacement of bare steel mains, bare steel service/yard lines, and cast iron mains is in the public interest and necessary. The Commission therefore directs the Gas Utilities to develop a plan for the accelerated systematic replacement of all of their bare steel service/yard lines, cast iron mains, and all bare steel mains that are within a Class 3 location.[273]

79. However, the Commission is not persuaded that the safety concerns presented by the Gas Utilities are sufficient to warrant the wholesale abandonment of the wisdom rooted in over 100 years of traditional ratemaking practices. This is particularly true in light of the Gas Utilities' admission that they share the blame for their insufficient, reactive approach to infrastructure replacement.[274] Add to this the testimony of Staff that the Gas Utilities may be reluctant to declare all aging infrastructure to be in an unsatisfactory condition and initiate replacement programs under the GSRS because, once such a declaration is made, the Gas Utilities would find it impossible to declare that the "unsatisfactory" pipe had somehow returned to "satisfactory condition" should the ability to invest in replacement become unavailable[275] or exceed the $0.40 cap.[276] Therefore, the Commission finds that an alternative ratemaking mechanism is necessary, but shall only be available to the Gas Utilities that can provide a 10-

[270] C. Paige Direct, p. 10.
[271] *Id.*, p. 10-11; Tr., Vol. 1, p. 110 ("Actually I believe the leading cause [of leaks] in Kansas has been corrosion, and third party damage leaks I believe is second.").
[272] E. McGee Direct, p. 9.
[273] 49 CFR 192.5(3) (Any class location unit that has 46 or more buildings intended for human occupancy; or an area where the pipeline lies within 100 yards of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12 month period. (The days and weeks need not be consecutive.)).
[274] Tr. Vol. 2, pp. 199-200.
[275] *Id.*, p. 9.
[276] *Id.*, p. 10.

year plan for the programmatic replacement of all of its bare steel service/yard lines and bare steel mains that are within a Class 3 location.

80. The Commission received testimony that Black Hills, Atmos, and KGS had obsolete vintage plastic piping in need of accelerated replacement. However, upon review of the record,[277] the Commission is not persuaded that the leak detection data provides sufficient evidence to warrant accelerated replacement of those materials at this time. Nevertheless, the Commission finds that data gathered from more frequent leak detection[278] on these obsolete materials may provide further evidence in support of future accelerated replacement. Therefore, the Commission directs the Gas Utilities and Staff to prepare a plan for increased leak detection of the Gas Utilities' obsolete plastic system and to submit the plan for Commission approval. In addition, Staff and the Gas Utilities are directed to develop a reporting plan that would annually update the Commission on the mileage of mains per material broken down into Class Locations, as defined by 49 C.F.R. 192.7, and develop an annual lost and unaccounted for gas report sub-categorized by city over 10,000 customers. The Commission finds this additional data will be helpful in tracking and assessing the Gas Utilities' replacement efforts and determining the level of risk facing the Gas Utilities' customers.

81. Furthermore, the Commission is concerned by the vast scope of obsolete materials in the Gas Utilities' systems and desires to further understand what corporate culture or management practices of the Gas Utilities may have contributed to the current state of affairs. Therefore, the Commission finds that an independent and impartial analysis of the physical condition of the Gas Utilities' individual systems, management, policies, practices, and

[277] Tr., Vol. 1, pp. 230:2-8, 105-106, 135-136 ("[i]f you look at where leaks occur . . . they occur on older steel lines").
[278] Tr., Vol. 1, p. 173 ("The Federal requirements for polyethylene pipe are 5-year requirements where on other material pipes, there are more frequent requirements based on the materials that existed.").

procedures that affect the safety of its natural gas delivery system and the level of investment for replacement of facilities that are either obsolete or at the end of their useful life is necessary. This independent and impartial analysis shall serve to assure both the Commission and the Gas Utilities' Kansas' customers that their systems are safe and that current management practices allow for sufficient investment to maintain their systems into the future.

a. *Issue Two: If the Commission finds programs for the accelerated replacement of obsolete pipe to be in the public interest:*

   i. *What are the necessary and appropriate parameters of the programs; and*
   ii. *Should the Gas Utilities be allowed to recover the costs of the programs through an alternative ratemaking mechanism; and*
   iii. *What type of alternative ratemaking mechanism is most appropriate for recovery of program costs?*

82. Due to the safety concerns raised by the Gas Utilities and Staff, the Commission finds that an Accelerated Replacement Program (ARP) is in the public interest. The record shows the parties have offered a number of alternative rate mechanisms which the Commission can either adopt wholesale or use to craft an approach the Commission believes to be just, reasonable, and in the public interest. Likewise, the record shows most of the parties have largely supported the program parameters suggested by Staff at the initiation of this docket.[279] The Commission shall address each of Staff's eleven parameters and describe the ARP below. Some of the parameters ask questions similar in nature and will be addressed together, and some of parameters may be addressed out of order.

Parameter 10: Please provide comments on the viability of Staff's proposal that utilities applying for alternative ratemaking treatment be limited to one of two non-traditional ratemaking methodologies: a Deferred Cost Recovery option or a Yearly Surcharge option[280]*; Parameter 11: Please provide a synopsis of other alternative ratemaking methodologies that you wish the Commission to consider.*[281]

[279] C. Paige Direct, p. 28; T. Jacobs Direct, p. 11; A. Crane Direct, p. 34.
[280] *Order Opening General Investigation*, Attach. 1 to Staff's Attached Report and Recommendation, p. 3.
[281] *Id.*

83. The record is replete with testimony in support of a yearly surcharge,[282] a deferred cost recovery option, [283] or a hybrid approach.[284] A central theme throughout the testimony on the benefits of each approach has been in relation to the negative impacts[285] or potential value[286] associated with regulatory lag. The Commission is persuaded by much of the testimony on this point and thus strives to strike the appropriate balance that is both fair to the ratepayer and the shareholder.

84. Similarly, this investigation focused initially on whether the Commission had the authority to approve an infrastructure replacement mechanism beyond that which has already been granted to the Gas Utilities by the Legislature.[287] The Commission has already found that the GSRS is an optional mechanism for cost recovery for certain infrastructure replacement projects and does not limit the Commission's authority to implement additional alternative ratemaking methodologies for recovery of costs related to accelerated replacement of natural gas pipelines considered to be a safety risk.[288] The Commission further concluded that the GSRS and any proposed pipeline replacement program are separate in scope and in policy goals. [289] The Commission stands by that ruling.

85. However, the Commission draws upon the wisdom of the Legislature, and finds that any program for accelerated replacement of obsolete infrastructure should be structured very similarly to that enacted by the Legislature in the GSRS in order to ensure similar consumer

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[282] *See* G. Smith Direct, p. 2; D. Dittemore Direct, p. 10; A. Crane Direct, pp. 6, 34-35; J. Grady Direct, p. 9.
[283] *See* D. Dittemore Rebuttal, pp. 6-7.
[284] *See* T. Jacobs Direct, p. 3.
[285] T. Jacobs Direct, pp. 7-8; G. Smith Rebuttal, p. 8, 10; D. Dittemore Direct, pp. 7-12; Tr., Vol. 2, pp. 265, 270-271, 276, 402-403, 409-410.
[286] A. Crane Direct, pp. 22-27; J. Grady Direct, pp. 3, 11-12; Tr., Vol. 2, pp. 296-297, 303-304, 317-318, 320-321, 326-327, 330-331, 354, 373, 381, 406-408.
[287] *Order Opening General Investigation,* ¶ 4 (Mar. 12, 2015).
[288] *Order on Jurisdictional Issue,* ¶ 11 (June 18, 2015).
[289] *Id.,* ¶ 12 (June 18, 2015).

protections granted by the Legislature. The Commission also finds that this approach would be administratively efficient because the Gas Utilities, CURB, and Staff are accustomed to the GSRS process. Therefore, the Commission finds that an annual surcharge best balances the interests of ratepayers and shareholders.

Parameter 1: Should initial filings be limited to five year programs on a pilot basis which will be reevaluated every five years?[290]

86. Atmos,[291] Black Hills,[292] CURB,[293] and Staff[294] each testified in support of utilizing a five year pilot program. KGS, however, testified that a five year pilot was unnecessary because, "Staff has the means and expertise to evaluate the benefits of these programs on an annual basis and it may take appropriate action if it determines utilities are not enhancing safety on their systems or imprudently incurring costs."[295] In light of the evidence that the risk of catastrophic failure increases the longer obsolete pipe remains in service, the Commission desires to take a more active role in overseeing the utilities' programs for replacing obsolete pipe. However, the record is silent as to why a five year pilot program is preferable as to some other time period. Therefore, the Commission finds that the ARP shall begin as an initial four year pilot program. This will allow the Commission to evaluate program effectiveness and costs while allowing other aspects of the program, which will be discussed below, to run in sync with the pilot period. At the end of the four year pilot program, the Commission will evaluate the effectiveness of the ARP and either terminate the program or implement a sunset provision in keeping with the goals of this proceeding.[296]

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[290] *Order Opening General Investigation*, Attach. 1 to Staff's Attached Report and Recommendation, p. 1.
[291] G. Smith Direct, pp. 9-10.
[292] R. Petersen Direct, p. 6.
[293] A. Crane Direct, p. 34.
[294] J. Grady Direct, pp. 3-4.
[295] D. Dittemore Direct, p. 11.
[296] If at the end of the four year pilot, the Commission determines to continue with the program the Commission shall continue to evaluate the effectiveness of the ARP every four years and may terminate the program or

Parameter 2: Should filings be limited to a utility-specific program to replace obsolete infrastructure on an expedited basis compared to current pace?[297] *And Parameter 5: Should the proposed programs be required to result in an increase in overall capital expenditures for the replacement of aging natural gas infrastructure in Kansas?*[298]

87. Atmos,[299] Black Hills,[300] CURB,[301] and Staff[302] each testified in support of replacement programs that result in an increase to overall capital expenditures. In contrast, KGS testified that because KGS has already developed pipeline replacement programs, such a requirement would result in Atmos and Black Hills receiving more favorable treatment than KGS.[303] KGS has raised a thought-provoking argument, but as explained below, the Commission does not agree.

88. In light of the Commission's above findings regarding each of the Gas Utilities' inadequate rate of replacement for obsolete infrastructure, the Commission finds it would be wholly inappropriate to reward the Gas Utilities' shareholders with extraordinary ratemaking treatment on capital expenditures the utility should have otherwise made on its own accord under traditional ratemaking practices. Therefore, the Commission finds that the ARP will only apply to expenditures for replacement of obsolete infrastructure over and above each of the Gas Utilities' current amount of replacement expenditures. For the purposes of establishing current replacement expenditures, the Gas Utilities shall utilize their average replacement expenditures from the years 2014, 2015, and 2016. This ensures the results of the four year pilot program will be an increase in capital expenditures.

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implement a sunset provision in keeping with the goals of this proceeding. However, nothing herein shall prohibit any party to this proceeding from moving for termination of the program with a showing that the program is no longer necessary, no longer in the public interest, or has resulted in rates that are not just and reasonable.

[297] *Order Opening General Investigation*, Attach. 1 to Staff's Attached Report and Recommendation, p. 1.

[298] *Id.*

[299] G. Smith Rebuttal, p. 16.

[300] T. Jacobs Direct, p. 11.

[301] A. Crane Direct, p. 34.

[302] J. Grady Direct, p. 4.

[303] D. Dittemore Direct, p. 11.

89. CURB expressed concern that if the Commission were to authorize an accelerated cost recovery mechanism, the Commission should also put a total cap on accelerated recovery of costs associated with infrastructure programs of $0.80 per residential customer per year, inclusive of the existing GSRS $0.40 cap.[304] The Commission has significant concerns about the impact an additional surcharge for accelerated replacement of infrastructure will have on residential customers. Similar to its rationale above regarding reliance upon the wisdom of the Legislature, the Commission finds that a $0.40 per residential customer per month strikes a prudent balance between overburdening ratepayers and sufficiently incentivizing the Gas Utilities. Therefore the Commission finds that the ARP shall contain a $0.40 per residential customer per month cap as a necessary protection for ratepayers.

Parameter 3: For the initial filing, should the proposed programs include a long term plan to eliminate all types of undesirable pipe in the utility's system over a pre-determined time frame (not necessarily five years)?[305]

90. Atmos,[306] Black Hills,[307] CURB,[308] and Staff[309] each testified in support of replacement programs that include a long term plan to eliminate all types of undesirable pipe in the utility's system over a pre-determined time frame. Alternatively, KGS testified the decision to include a long-term plan to eliminate all types of undesirable pipe over a pre-determined time frame should depend on the circumstances of the individual utility.[310] Specifically addressing its bare steel main inventory, KGS testified that it preferred to utilize its Asset Management and Distribution Integrity Management Program principals for identifying threats, evaluating risk,

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[304] A. Crane Direct, pp. 28-29 (CURB also advocated for a "GSRS 2" mechanism that would replace the existing GSRS mechanism).
[305] *Order Opening General Investigation*, Attach. 1 to Staff's Attached Report and Recommendation, p. 1.
[306] G. Smith Rebuttal, p. 16.
[307] T. Jacobs Direct, p. 11.
[308] A. Crane Direct, p. 34.
[309] J. Grady Direct, pp. 3-4.
[310] R. Spector Direct, p. 12.

and mitigating projects.[311] KGS further testified that this tactic "would permit a strategic approach to vintage replacement consistent with integrity management and allow [KGS] to react appropriately to other unanticipated needs."[312]

91. As indicated above, the Commission finds KGS' stated preference for a reactionary approach to bare steel main replacement is inconsistent with the record evidence, which supports proactive replacement of obsolete materials.[313] Therefore, the Commission finds that the Gas Utilities shall provide a roadmap for an accelerated programmatic replacement of all bare steel mains, bare steel service/yard lines, and cast iron mains, in order to provide the Commission and the public at large with an understanding of the magnitude of the program and the steps necessary to remove obsolete gas piping from the system. However, as described above the ARP shall only be available to those gas utilities that can provide a 10-year programmatic replacement of all of its bare steel service/yard lines and all of its bare steel mains in Class 3 locations. This ensures the results of the four year pilot program will be a significant acceleration of the replacement of obsolete natural gas infrastructure and a substantial safety improvement for the Gas Utilities' customers in Kansas.

Parameter 4: Should the programs be required to include a prioritization scheme for pipe replacement that reduces threats to pipeline safety?[314]

92. The Gas Utilities,[315] Staff[316] and CURB[317] each testified in support of including within the program a prioritization scheme for pipe replacement that reduces threats to pipeline safety. Therefore, the Commission finds the ARP should be focused on removing the highest risk obsolete piping from the utility's inventory first. However, the Commission recognizes that, for

[311] *Id.*
[312] *Id.*
[313] L. Haynos Direct at p. 3; R. Spector Direct at p. 12; J. Watkins Direct at p 7; C. Paige Direct at pp. 14-15.
[314] *Order Opening General Investigation*, Attach. 1 to Staff's Attached Report and Recommendation, p. 1.
[315] T. Jacobs Direct, p. 11; G. Smith Rebuttal, p. 16; R. Spector Direct, p. 13.
[316] J. Grady Direct, pp. 3-4.
[317] A. Crane Direct, p. 34.

the sake of efficient allocation of resources, a utility replacing an area of high risk piping may at times replace less risky pipe located nearby. The Commission finds such a principled systematic replacement approach contains costs and is in the public interest. The program should also include the basis for the prioritization scheme. The record includes substantial testimony from KGS,[318] Atmos,[319] and Black Hills[320] specifically addressing this topic. Although the evidence shows each utility proposed a different risk assessment tool, the Commission finds each of the Gas Utilities' methodologies takes a reasonable approach to risk assessment.[321]

Parameter 6: Should initial filings be required to include projected yearly replacement levels and capital expenditures (both in the aggregate and on a per-unit basis)?[322] *and Parameter 7: Should the utility be required to file annual compliance filings detailing progress made in the last year, deviation from initial projections, and revisions to remaining plan projections, if applicable?*[323]

93. The Gas Utilities,[324] Staff[325] and CURB[326] have testified in support of a programmatic requirement that the Gas Utilities file projected annual replacement levels and capital expenditures and annual compliance filings detailing progress made, explaining any deviation from initial projections, and revising the remaining plan projections. The Commission is concerned about the current safety issues raised by the Gas Utilities and Staff. The Commission is also very concerned by CURB's arguments that the alternative rate mechanisms proposed by the Gas Utilities serve as a source of increased shareholder profits.[327] The Commission recognizes that a conflict may sometimes arise between the Gas Utilities' dual obligations to maximize profits for their shareholders and provide a safe and reliable system at

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[318] R. Spector Direct, pp. 8-9.
[319] C. Paige Direct, pp. 15-25.
[320] J. Watkins Direct, p. 12.
[321] Trans. Vol. 1 PP. 175-184.
[322] *Order Opening General Investigation*, Attach. 1 to Staff's Attached Report and Recommendation, p. 1.
[323] *Order Opening General Investigation*, Attach. 1 to Staff's Attached Report and Recommendation, p. 2.
[324] D. Dittemore Direct, pp. 11-12; R. Petersen Direct, p. 4; G. Smith Rebuttal, p. 16.
[325] J. Grady Direct, pp. 3-4.
[326] A. Crane Direct, p. 34.
[327] *Id.*, pp. 5, 22-28.

the least cost to ratepayers. The inference that the Gas Utilities would either create false controversy, or worse, put their customers at risk in order to maximize shareholder profits, is deeply troubling to the Commission. The Commission is interested in CURB's suggestion that the proposed alternative rate mechanisms should result in a lower return on equity.[328] Yet, at this time, the Commission does not find sufficient evidence to proceed with such a proposal.[329]

94. The Commission finds, however, program transparency is a necessary component of allowing the Commission, its Staff, and other intervenors the opportunity for meaningful review of the program. Consequently, the Commission finds that initial filings under the ARP are to include projected yearly replacement levels and capital expenditures (both in aggregate and on a per-unit basis). Likewise, the Commission finds that the Gas Utilities are to file annual compliance reports detailing progress made in the last year, explaining any deviation from initial projections, and revising remaining plan projections.

Parameter 8: Should a filing requesting an alternate ratemaking mechanism include an agreement from the utility to not file a rate case more often than once every three years? And, if a utility files a rate case more frequently than once every three years, should the utility be required to agree to the following terms: If a rate case is filed after only one year, the utility must agree to forego recovery of rate case expense in rate. If the utility files after two years, the utility must agree to recover only 50% of that expense in rates.[330]

95. Atmos,[331] Black Hills,[332] Staff,[333] and CURB[334] have offered support for the general concept of a rate moratorium. KGS testified in opposition to a moratorium because: 1) alternative rate mechanisms are not fully compensatory due to regulatory lag;[335] 2) there are

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[328] *Id.*, p. 32.
[329] The Commission asks Staff to further investigate whether alternative ratemaking mechanisms similar to the GSRS or those granted under this order result in a lower risk profile for the Gas Utilities than those in their proxy groups. Such analysis can be presented at each of the Gas Utilities' next general rate cases.
[330] *Order Opening General Investigation*, Attach. 1 to Staff's Attached Report and Recommendation, p. 2.
[331] G. Smith Rebuttal, p. 16.
[332] R. Petersen Direct, p. 4.
[333] J. Grady Direct, p. 4.
[334] A. Crane Direct, p. 34.
[335] D. Dittemore Direct, pp. 12-13.

causes for rate cases other than capital expenditures;[336] and 3) rate case filings are statutorily and constitutionally allowed.[337] Without specifically addressing the merits of each of KGS arguments, the Commission agrees that a mandatory moratorium would be inconsistent with the principles of a regulated monopoly and likely a violation of the law. However, the Commission also recognizes that a voluntary program designed to incentivize the accelerated replacement of obsolete infrastructure, along with an accompanying mechanism for accelerated recovery of capital expenditures, is not the same as a Commission imposed moratorium.

96. Therefore, as a means of protecting ratepayers from the impact of two annual surcharges for infrastructure replacement and regular rate cases, the Commission finds that if a utility seeks to participate in the ARP as laid out herein, the utility must agree to the following conditions: 1) a utility must initiate the program through a traditional rate case; 2) if a utility files a rate case after one year from initiating the program, the utility must agree to forego recovery of rate case expense in rates; 3) if a utility files a rate case after two years, the utility must agree to only recover 25% of rate case expense in rates; and 4) if a utility files a rate case after three years, the utility must agree to recover only 75% of rate case expense in rates. A utility may file an abbreviated rate case within 24 months of the first year of initiating the program for the sole purpose of collecting non-growth related, obsolete infrastructure replacement capital costs[338] that are not otherwise recoverable under any other ratemaking mechanisms, including the GSRS.

Parameter 9: Should a utility applying for alternative ratemaking treatment be required to commit to tracking directly identifiable reductions in operating and maintenance expenses? Furthermore, should any reductions in operations and maintenance expenses be used to offset the increased revenue requirements associated with the replacement program?[339]

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[336] *Id.*, p. 13.
[337] *Id.*
[338] These costs may include a utilitys' current level of capital expenditures that are above the GSRS, but are not permissible to be included in the new infrastructure replacement program or costs in excess of GSRS and the program cap.
[339] *Order Opening General Investigation*, Attach. 1 to Staff's Attached Report and Recommendation, p. 2.

97. Atmos,[340] Black Hills,[341] Staff[342] and CURB[343] supported the proposed requirement that the Gas Utilities be directed to track directly identifiable reductions in operating and maintenance expense. KGS testified that it was not feasible to isolate one of many factors impacting operating and maintenance expenses as the basis for tracking reductions in operating and maintenance expense.[344] The Commission recognizes that increased investment in obsolete infrastructure replacement may lead to identifiable reductions in operating and maintenance expenses. Therefore, the Commission finds that a utility seeking to participate in the ARP shall commit to working with Staff and CURB within the first year of the pilot program to develop an agreeable methodology for tracking such directly identifiable savings. Afterwards, those savings are to be used as an offset against the costs of the ongoing replacement program.

Conclusions

98. The Commission concludes that acceleration of the replacement of bare steel mains, bare steel service/yard lines, and cast iron mains is in the public interest. The Commission concludes that, to further facilitate such acceleration, the Commission shall institute the ARP. The ARP shall begin as a four year pilot program designed to accelerate the Gas Utilities' recovery of associated infrastructure replacement costs. The Commission further concludes that the ARP shall consist of:

a. An annual surcharge limited to a return of, and a return on, capital expenditures for project types which are in service and have been approved by the Commission as part of a four year pilot program. The surcharge shall only include capital expenditures in excess of current capital expenditures for

[340] G. Smith Rebuttal, p. 16.
[341] R. Petersen Direct, p. 4.
[342] *Order Opening General Investigation*, Attach. 1 to Staff's Attached Report and Recommendation, p. 2.
[343] A. Crane Direct, p. 34.
[344] R. Spector Direct, p. 14; D. Dittemore Direct, pp. 8-9.

replacement of obsolete pipe as described above and must be shown to replace obsolete pipe on an expedited basis, as compared to the current pace. The annual surcharge shall be capped at $0.40 per residential customer per month. The annual surcharge will be filed within a reasonable time period to allow for Staff and CURB review and will be subject to Commission review and approval.

b. A ten-year plan containing the goals, objectives, projected yearly replacement levels and capital expenditures (both in the aggregate and on a per-unit basis). The plan shall consist of a proposal to eliminate all bare steel service/yard lines and all bare steel mains within a Class 3 location, as described above, and include a prioritization scheme for pipe replacement that reduces threats to public safety. The ten-year plan will be filed within a reasonable time period to allow for Staff and CURB review. The ten-year plan must be approved by the Commission.[345]

c. An annual update containing detailed progress reports from the last year, deviation from initial projections, revisions to the ten-year plan projections, and detailed capital expenditure projections and project descriptions for the upcoming year. The annual update will be filed within a reasonable time period to allow for Staff and CURB review. The annual update must be approved by the Commission.

d. An agreement by participants to the following conditions:

[345] A participating utility may seek a limited waiver of this condition if the utility can demonstrate that it is unable to accomplish the objectives of the program in the ten year time frame due to physical impracticalities or financial constraint imposed by the $0.40 per residential customer per month cap. A request for waiver shall be accompanied by a detailed plan describing the length of additional time requested and the issue precipitating the need for a waiver.

i. A utility must initiate the ARP through a traditional rate case;

ii. If a utility files a rate case after one year, the utility must agree to forego recovery of rate case expense;

iii. If a utility files a rate case after two years, the utility must agree to recover only 25% of rate case expense;

iv. If a utility files a rate case after three years, the utility must agree to recover only 75% of rate case expense;

v. A utility may file an abbreviated rate case within 24 months of the initial filing for the sole purpose of collecting obsolete infrastructure replacement costs that are not otherwise collectible under any other ratemaking mechanisms, including the GSRS; and

vi. A utility must commit to working with Staff and CURB within the first year of the Program to develop an agreeable methodology for tracking such directly identifiable savings. Afterwards, those savings are to be used as an offset against the costs of the ongoing replacement program.

99. Furthermore, the Commission concludes that an independent and impartial analysis of the Gas Utilities' management, policies, practices, and procedures that affect the safety of its natural gas delivery system and the level of investment for replacement of facilities that are either obsolete or at the end of their useful life is necessary and in the public interest. The Commission directs Staff to develop a proposal to create a review process that will develop safety and investment analytics for the purposes of benchmarking by which the Commission can fulfill its duties under K.S.A. 66-1,208 in a more organized and periodic fashion.

THEREFORE, THE COMMISSION ORDERS:

A. Atmos, Black Hills, and KGS shall develop a plan for the systematic accelerated replacement of all of their bare steel service/yard lines, cast iron mains, and all bare steel mains within a Class 3 location. A preliminary proposed plan shall be filed with the Commission within 3 months of the issuance of this order. The final proposed plan shall be filed with the Commission within 6 months of the issuance of this order.

B. Atmos, Black Hills, KGS and Staff shall prepare a plan for increased leak detection of the Gas Utilities' obsolete plastic system and to submit the plan for Commission approval. In addition, Atmos, Black Hills, KGS, and Staff shall develop a reporting plan that will annually update the Commission on the mileage of mains per material broken down into Class Locations, as defined by 49 C.F.R. 192.7, and develop an annual lost and unaccounted for gas report sub-categorized by city over 10,000 customers.

C. In the next rate case filed, Atmos, Black Hills, and KGS are permitted to make application seeking Commission approval to participate in the Accelerated Replacement Program.

D. Staff shall develop a proposal to create a review process that will develop safety and investment analytics for the purposes of benchmarking by which the Commission can fulfill its duties under K.S.A. 66-1,208 in a more organized and periodic fashion.

E. Kansas Gas Service's Motion to Supplement the Evidentiary Record is granted.

F. The parties have 15 days from the date of electronic service of this Order to petition for reconsideration.[346]

G. The Commission retains jurisdiction over the subject matter and the parties for the purpose of entering such further orders as it deems necessary.

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[346] K.S.A. 66-118b; K.S.A. 77-529(a)(1).

BY THE COMMISSION IT IS SO ORDERED.

Apple, Chairman; Albrecht, Commissioner (Concurring in part, Dissenting in part); Emler, Commissioner.

Dated: SEP 12 2017

Lynn M. Retz
Secretary to the Commission

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EMAILED

SEP 12 2017

Commissioner Albrecht, Concurring in part, Dissenting in part:

This decision has been a long time in the making. As past deliberations have shown, we three commissioners are not of the same mind on the issues in this case. We are here today with a decision that bears my name and I take seriously the obligations I have as a decision-maker. There are portions of this order with which I strongly agree; there are provisions that raise more questions than I have answers; there is language in the order that cast aspersions based on suspicion or harbored ill will to which I lay no claim.

A general investigation such as this one that involves three different utilities with different gas distribution systems, different management philosophies, different histories, a ratepayer advocate in CURB, and Commission Staff makes for a challenging balancing act, especially when it comes to establishing a policy goal for accelerating the replacement of obsolete pipeline materials. As much as I would like for this decision to be a graceful balancing act, I fear that it is not.

I believe this order rightly finds by a preponderance of the evidence that there is a public safety need for an alternate funding mechanism. Each of the gas utilities has substantial portions of their distribution system that contain obsolete materials. Each of the gas utilities has nearly met or exceeded the cap on capital expenditures under the Gas System Reliability Surcharge. The evidence shows that the time has come to take an accelerated proactive approach to replacing obsolete pipeline. A well-planned systematic replacement is necessary to ensure the public safety, to identify and prioritize those portions of the respective systems for replacement, and to ease the ratepayer burden over a period of time for current and future generations.

This order fails to explain how the Accelerated Replacement Program it adopts furthers the policy goal of accelerating the replacement of obsolete pipeline materials. I do not disagree with taking a more measured approach beginning with a ten-year plan that targets Class 3 high consequence areas and limits replacement to bare steel and cast iron. But I wonder whether the conditions that the Commission places on the utilities' participation erode what the Commission describes as a "voluntary" program and whether these conditions undermine the stated policy goal.

Despite the parties' wide acceptance of a five-year pilot program, the Commission's program favors a four-year program without explanation. Perhaps the four-year program is selected to coincide with the four-year "sliding scale" in which the utility foregoes recovery of rate case expense if a rate case is filed within one year and allows increasing levels of recovery for each year the utility defers filing a rate case, presumably to discourage the utilities from filing a general rate case sooner than every four years. While there is evidence in the record from Black Hills and Atmos supportive of a similar scale for two years, KGS opposes any moratorium.

The order further conditions a utility's participation in the ARP by creating a starting point that is based on the individual utility's capital expenditures "in excess of current capital expenditures,"[1] averaged over an arbitrary three-year period, the effect of which is not explained. Moreover, this aspect of the ARP is without evidentiary basis in the record.

Finally, the order establishes a $0.40 cent per residential customer per month cap[2] on the utilities' allowed capital expenditures. This cap mirrors the cap in the GSRS, and while a step in the right direction, does little to advance the desired policy goal, which began from the premise that the GSRS was not sufficient to whittle the lengthy time for replacing the obsolete pipeline materials or to reduce the percentages of such pipeline in each of the utilities' systems.

In my view, the parameters for the ARP, besides lacking proper evidentiary support, seem more suited for discouraging than encouraging progress in this important public safety policy. The last thing any of us wants to see is a tragic accident and to be able only to look back on what more could have been done to prevent it. We are at a crossroads when the more needs to be done sooner rather than later. I believe the industry is equipped and well-intentioned to accomplish this more and that we as a Commission must responsibly encourage industry to do this "more."

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[1] Final Order, ¶98.a. See also ¶88.
[2] Final Order, ¶89.

CERTIFICATE OF SERVICE

15-GIMG-343-GIG

I, the undersigned, certify that the true copy of the attached Order has been served to the following parties by means of Electronic Service on SEP 12 2017.

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