MIDAMERICAN ENERGY COMPANY

April 5, 2021

TO: Iowa Department of Natural Resources

FROM: MidAmerican Energy Company

SUBJECT: The Appropriate Interest Rate in a Four Factor Analysis

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SUMMARY

On December 14, 2020, MidAmerican delivered a four-factor analysis of its Walter Scott and Louisa generating units. In evaluating the cost-effectiveness of certain emissions controls at the units, MidAmerican assumed an interest rate of 7% when calculating the annual capital recovery of the investment. The Iowa Department of Natural Resources has asked for an explanation of why this interest rate was used in the analysis.

For the reasons described below, MidAmerican believes that 7% is an appropriate, and even conservative, interest rate for purposes of the four-factor analysis.

THE CONTROL COST MANUAL PREFERS A FIRM-SPECIFIC INTEREST RATE

The United States Environmental Protection Agency (EPA) has unequivocally stated that the purpose of the Control Cost Manual (CCM[1]) is to estimate private costs. "The Manual focuses on private cost, which refers to the costs borne by a private entity for an action the private entity decides." See the CCM at page 5. Assessing private cost "attempts to tally up expenses that individual entities or facilities incur to purchase, finance, and operate pollution abatement equipment or strategies." See *id.*

Interest rates are one of the elements of the "Total Cost." See *id*. at 14. The CCM is very clear that cost analysis should use the interest rates that firms actually face. "When performing cost analysis, it is important to ensure that the correct interest rate is being used. Because this Manual is concerned with estimating private costs, the correct interest rate to use is the nominal interest rate, which is the rate firms actually face." *Id.* at 15.

The CCM provides that the bank prime rate can be an appropriate estimate "if firm-specific nominal interest rates are not available." *Id.* at 15. However, the CCM also notes that "[a]nalysts should use the bank prime rate with caution as these base rates used by banks do not reflect entity and project specific characteristics including the length of the project, and credit risks of the

[1] CCM (7th Edition), Section 1, Chapter 2, Cost Estimation: Concepts and Methodology, 2017, available at https://www.epa.gov/sites/production/files/2017-12/documents/epaccmcostestimationmethodchapter_7thedition_2017.pdf.

borrowers." *Id.* at 16. Ultimately, the CCM concludes that "assessments of private cost should be prepared using firm-specific nominal interest rates, or the bank prime rate if firm-specific interest rates cannot be estimated or verified." *Id.*

MIDAMERICAN'S FIRM-SPECIFIC RATE IS REGULATED AND EASILY VERIFIED

The CCM recognizes that firms finance their costs with both equity and debt. "Different firms may structure how they finance their purchases differently. Some may choose to finance their purchases through cash holding or other means of equity; some may choose to borrow to finance their investment." *Id.* at 15. Recently, EPA has clearly stated that, under the analysis contained in the CCM, "consideration of the cost of equity for a parent company as well as its cost of debt would be appropriate for a firm to justify a rate used in the context of a four-factor analysis."[2]

EPA's recent responses to the Ohio SIP apply squarely to MidAmerican, which is a subsidiary of Berkshire Hathaway Energy and has a mixed debt and equity capital structure approved by the Iowa Utilities Board (IUB) that appropriately reflects the capital costs MidAmerican actually faces. See IUB Docket No. RPU-2013-0004. The "weighted average cost of capital" or WACC approved for MidAmerican by the IUB[3] is **7.862%**, which reflects a capital structure that is approximately half long-term debt and half equity.

It is not appropriate, in MidAmerican's case, to assume that all capital expenditures for pollution control are debt financed and simply assume the bank prime rate as the nominal interest rate in the four-factor analysis. The fact that MidAmerican must seek regulatory approval for a return on its capital investment means that the firm competes for capital investment differently than non-regulated firms. The WACC rate approved by the IUB is a more accurate reflection of the risk associated with MidAmerican's capital expenditures and is, therefore, the rate that MidAmerican "actually faces."

As a rate approved by an agency of the state of Iowa, the WACC is easily verified, and, under the CCM, MidAmerican could have assumed 7.862% for purposes of the four-factor analysis. However, MidAmerican instead assumed 7%[4] in order to produce a lower, and therefore more conservative, cost estimate.

CONCLUSION

The CCM strongly prefers the use of a firm-specific interest rate. MidAmerican's firm-specific rate, and therefore its costs, is actually higher than the 7% rate assumed in the four-factor analysis.

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[2] See EPA Comments on Ohio Draft Regional Haze SIP, email from Alisa Liu to Trent Wickman and Don Shepherd, Subject: EPA Response to FLM Questions from 1-12-2021 LADCO Regional Haze Workgroup Meeting, sent March 5, 2021 at 3:44:14 PM, on file with MidAmerican General Counsel's Office.

[3] "The capital structures for MidAmerican contained in the Settlement are reasonable and there is no persuasive evidence in this proceeding to support a hypothetical capital structure." Order Approving Settlement, with Modifications, and Requiring Additional Information, Iowa Utilities Board Docket No. RPU-2013-0004, p. 98 (Mar. 17, 2014).

[4] While 7% is the rate used by the CCM for purposes of social cost estimation, MidAmerican did not assume this rate because a firm-specific rate was not known or verifiable.