BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

IN RE:	)	
MIDAMERICAN ENERGY COMPANY	)	**DOCKET NO. NG22-_____**
	)	
	)	

DIRECT TESTIMONY
OF
AMANDA A. HOSCH

Q. Please state your name and business address.

A. My name is Amanda A. Hosch. My business address for MidAmerican Energy Company ("MidAmerican" or "Company") is 666 Grand Avenue, Des Moines, Iowa 50309.

Q. By whom are you employed and in what capacity?

A. I am employed by MidAmerican as Senior Director, Regulatory Policy and Rates.

Q. What are your responsibilities as Senior Director, Regulatory Policy and Rates?

A. I am responsible for regulatory policy strategy, retail rates and tariff administration, retail cost of service and rate design, retail contracts and innovative pricing programs, retail sales and revenue forecasting, peak demand forecasting, and the load research program.

Q. Please describe your education and business experience.

A. I am a 1998 graduate of the University of Northern Iowa where I received a Bachelor of Arts degree in Economics. I have been employed by MidAmerican since 1998. Prior to my current role at MidAmerican, I worked in unregulated retail services, resource planning, and electric trading. I was appointed Director, Regulatory Policy and Rates in September 2017 and Senior Director in November 2021.

Q. Have you testified before the South Dakota Public Utilities Commission previously?

A. No, I have not testified before the South Dakota Public Utilities Commission.

PURPOSE OF DIRECT TESTIMONY

Q. What is the purpose of your direct testimony?

The purpose of my testimony is to:

- Sponsor MidAmerican's proposed tariffs;
- Describe and support MidAmerican's cash working capital calculation;
- Support MidAmerican's rate case expense;
- Describe and support MidAmerican's natural gas cost of service study and resultant proposed natural gas rates; and
- Describe the weather normalization pro forma adjustment.

Q. In addition to your testimony, are you sponsoring any exhibits?

A. I am sponsoring Exhibit AAH 1.1, which includes the following schedules:

- Schedule A: Clean and Redlined Tariff Sheets
- Schedule B: Cash Working Capital
- Schedule C: Rate Case Expense

I am also sponsoring Exhibit AAH 1.2, which includes the following schedules:

- Schedule A: Gas Cost of Service Functional Allocators
- Schedule B: Gas Cost of Service Results
- Schedule C: Derivation of Gas Rates
- Schedule D: Proposed Gas Rates
- Schedule E: Gas Weather Normalization Pro Forma Results
- Schedule F: Gas Weather Normalization Method

TARIFF CHANGES

Q. Summarize the tariff changes proposed in this filing.

A. MidAmerican proposes to (1) update rates based on an updated class cost of service study incorporating the proposed revenue requirement (no changes to rate classes proposed); (2) change its Rate PRG – Producers of Renewable Gas Transportation Service rate ("Rate PRG"); and (3) make changes to the rules and regulations sections. MidAmerican's proposed tariff sheets are included as Exhibit AAH 1.1, Schedule A. Redlined versions are provided for comparison.

Q. Describe the rates proposed in the Gas Rate Schedules section of the tariff.

A. The proposed rate schedules reflect the revised rates to collect the requested revenue requirement, which is supported by Witness Blake M. Groen. The proposed rate schedules are supported by an updated class cost of service study, included as Exhibit AAH 1.2, Schedule A and Exhibit AAH 1.2, Schedule B. The class cost of service study ensures that the requested increase in the revenue requirement results in rates that are consistent with cost causation.

Q. Briefly describe the nature of the proposed changes to Rate PRG.

A. Renewable natural gas ("RNG") producers have indicated that utilizing a broader area would improve their ability to contract with off-takers rather than being limited to transportation within one state. The proposed changes to Rate PRG would enable the utilization of a broader area in response to these desires. MidAmerican's proposed changes to Rate PRG on Sheets Nos. 35.1 and 35.2 of Section No. 3 and are included in Exhibit AAH 1.1, Schedule A.

Q. How does MidAmerican propose to utilize a broader area?

A. MidAmerican maintains both Hinshaw exemptions and 7(f) exemptions from Federal Energy Regulatory Commission ("FERC") jurisdiction of its gas transmission facilities under the Natural Gas Act ("NGA").

Section 7(f) of the NGA allows FERC to designate certain areas as subject to state jurisdiction, rather than federal, and is available to local distribution companies ("LDCs") with facilities that physically cross state lines but operate as LDCs. MidAmerican has multiple FERC-approved 7(f) areas. The relevant areas for South Dakota include Yankton, Clay, Lincoln, and Union counties in South Dakota and Woodbury County in Iowa, as specified in FERC orders in Docket Nos. CP89-2002-000 and CP89-2002-001. Section 1(c) of the NGA, often referred to as the Hinshaw exemption, applies when all of an LDC's gas is consumed within the boundaries of a single state. The Hinshaw exemption applies to all of MidAmerican's facilities not subject to the 7(f) exemption. Accordingly, MidAmerican proposes modifying its Rate PRG tariff to allow RNG delivered into its natural gas system to be available for use and consumption throughout its FERC 7(f) area.

Q. What is the customer impact of the proposed changes?

A. MidAmerican's existing Rate PRG has no impact on non-participating customers, and the proposed change would benefit participating customers.

Q. Please describe the proposed changes to the rules and regulations in Section 5 of the proposed tariff.

A. MidAmerican proposes three changes to the rules and regulations in Section 5, Subsection 4 of the proposed tariff to update gas expansion policies. These

changes appear on Sheets No. 58, 64, 66, 76 and 78 of Section 5 and are included in Exhibit AAH 1.1, Schedule A. The three proposed changes are beneficial to customers affected by system expansion and have no negative impact on other customers.

First, MidAmerican is proposing an "extension-on-extension" policy that will work in a similar manner as MidAmerican's South Dakota Electric Tariff Schedule No 2, approved by the Commission in Docket No. EL20-004. This addition will allow developers to recover more of their cost in certain scenarios.

Second, MidAmerican is proposing to amend the Attachment Period (the time period within which any applicant must attach to the distribution main extension). The Attachment Period is currently between 30 days and one year; MidAmerican proposes to amend this to be between zero days and one year, with an additional clause allowing for a longer period in situations where MidAmerican has determined it is highly probable that additional attachments occur. This expanded attachment period will allow customers to recover more of their upfront cost.

Third, MidAmerican proposes amending the threshold under which nonrefundable contributions may be waived. Under the current tariff, contributions under $10 may be waived. Instead, MidAmerican proposes to waive the collection of fees that are deemed uneconomic to collect, a threshold which may vary by situation. Waiving the specific threshold will give MidAmerican flexibility to determine the need for a waiver on a situational basis instead of on a predetermined, static threshold.

CASH WORKING CAPITAL

Q. Please define cash working capital.

A. Cash working capital is generally the amount of day-to-day capital required to operate a business. Cash working capital is required to cover the time lag between the expenditure of cash in the delivery of services and the collection of revenues from the sale of such services.

Q. How is the level of cash working capital included in the rate base determined?

A. The level of cash working capital included in rate base is determined by comparing the amount and timing of payments MidAmerican must make to provide gas service to its customers with the amount and timing of the receipt of revenue from customers for that service. The amounts of costs and revenues are obtained from MidAmerican's accounting and customer service systems.

Cash working capital is calculated by taking the difference between the revenue lag and the expense lead (as defined below), multiplied by the total daily expense, to determine the cash working capital amount. Statement F, Schedule F-3 of the filing requirements shows the calculation of cash working capital needs. This is the same method that was used in the settlement of MidAmerican's most recent South Dakota natural gas rate case, Docket No. NG14-005.

Q. Describe revenue lag days and expense lead days.

A. Revenue lag days refers to the time between the rendering of service to a customer and the payment by the customer for that service. The revenue lag days used will be consistent across all items needed to provide gas service. Expense

lead days refers to the time between MidAmerican's acquisition of labor, materials, services, and all other costs used to provide gas service and the payment for those costs by the Company.

Q. What is the number of revenue lag days you propose to use?

A. In this proceeding MidAmerican proposes to use 36.43 revenue lag days. The basis for the lag days is explained and summarized in the workpapers for Schedule F-3 of the filing requirements. This figure includes the twenty-day allowance after the mailing date for customers to make timely payment per the Company's current gas tariff filed with the Commission. Since a calculation of the collection period made by the Company utilizing actual data supports an amount greater than twenty days, the Company has made a pro forma adjustment to the test period income statement to remove late payment penalties. This adjustment, supported by Witness Groen, corresponds to the use of the twenty-day pay lag cutoff which does not reflect cost of service for payments made after the twenty-day period. Such treatment is consistent with the position taken in Docket No. NG14-005.

Q. What is the number of expense lead days you propose to use?

A. In this proceeding MidAmerican proposes to use 42.00 expense lead days. The basis for the lead days for each expense item is provided in workpapers for Schedule F-3 of the filing requirements. The method of calculating the expense lead is consistent with that used in Docket No. NG14-005, including refinements to labor lead calculations addressing vacation pay and incentive pay that were reflected in the settlement.

Q. What is the amount of cash working capital that is included in the rate base?

A. The cash working capital included in the rate base is negative $1,947,000 and the advance tax collection is negative $206,000. These amounts are shown in Schedule F-3.

RATE CASE EXPENSE

Q. Please describe MidAmerican's proposed rate case expense adjustment.

A. MidAmerican's proposed rate case expense adjustment increases test year operating expenses for the estimated cost associated with litigating this rate case. Prior to the conclusion of the case, this estimate will be updated with actual values where available. Witness Groen includes a pro forma adjustment for rate case expense which amortizes such costs over a five-year period, the same as reflected in Docket No. NG14-005. Supporting information for rate case expense is attached as Exhibit AAH 1.1, Schedule C.

Q. Why does the adjustment amortize rate case expense over five years?

A. The costs are amortized over five years because it would not be equitable to include the entire amount in test year results. Rate case expense is nonrecurring; however, some recovery is appropriate since the expense is incurred specifically on behalf of MidAmerican's South Dakota gas customers. Five years was accepted in the last gas rate case as a reasonable approximation of the time between rate filings. MidAmerican is proposing the same time period in this rate case.

NATURAL GAS COST OF SERVICE STUDY

Q. Please describe MidAmerican's approach to the gas cost of service study.

A. As in its prior South Dakota gas rate case, MidAmerican's gas cost of service study reflects a two-step process. The first step assigns MidAmerican's overall revenue requirement to the purpose – or business function – of the cost. The second step assigns or allocates the revenue requirement for each business function to each customer class. The result is a revenue requirement for each customer class, the sum of which equals the total revenue requirement.

Q. What are the results of MidAmerican's gas cost of service study?

A. Exhibit AAH 1.2, Schedule B shows the results of MidAmerican's cost of service study, including the allocation of revenue requirement to function and the allocation of the costs associated with each function to customer classes. A full and complete working copy of MidAmerican's gas cost of service and rate design model has been provided as a workpaper for Statement O in the gas filing requirements. The following portion of this testimony will explain the functionalization and class allocation steps of the cost of service study.

Q. To which business functions does MidAmerican assign its revenue requirement in the first step of the gas cost of service study?

A. The revenue requirement is assigned to the following business functions:

- Peaking facilities
- Mains (both average and peak demand functions)
- Services
- Meters
- Regulators
- Industrial meters

- Customer accounts
- Administration, both daily and monthly transportation service
- Gas supply costs for non-Purchased Gas Adjustment ("PGA") use

Q. Please describe how individual accounts that make up MidAmerican's revenue requirement are assigned to a function.

A. Individual accounts are assigned to a business function at the time that the costs are incurred based on the type of cost being incurred. For example, a project to extend service to a new customer may include services and meters. The costs for those items are recorded into the appropriate accounts when they are paid. The majority of the accounts that make up MidAmerican's revenue requirement are directly assigned to a single function. Examples of this include metering and compressor equipment plant.

Accounts not directly assignable to a single function are allocated between functions based on appropriate allocation factors. Examples of this include general and intangible plant, accumulated deferred income taxes, administrative and general expenses, and payroll taxes.

Exhibit AAH 1.2, Schedule A identifies the assignment of each account, whether that account is direct assigned or allocated, and the method used for allocation. The schedule shows the resulting percentage of each account assigned or allocated to each business function. A summary of the resulting allocation of revenue requirement across functions in MidAmerican's gas cost of service study is provided in Exhibit AAH 1.2, Schedule B.

Q. To which customer classes does MidAmerican assign its revenue requirement by business function in the second step of the gas cost of service study?

A. MidAmerican assigns the functionalized revenue requirement from the first step of the cost of service study to the following customer classes:

- Small Volume (defined as Rates SVS, SVT, STM, SSS, SVI)
- Medium Volume (defined as Rates MVS, MVT, MTM)
- Large Volume (defined as Rates LVS, LVT, LVI, LSS)

The following portion of this testimony will explain the basis for allocating the functionalized revenue requirement to customer classes.

Q. How does MidAmerican propose to allocate the cost of peaking facilities to customer classes?

A. Peaking facilities are allocated to customer classes based on estimated design day peak demand for sales service customers in each class, the same method used in MidAmerican's last South Dakota gas rate case. MidAmerican's peaking facilities are used to provide MidAmerican-owned gas to sales service customers at times of high peak demand on the system. Peaking facilities are generally not used to provide service to transport customers and therefore they do not receive an allocation.

For each of the customer classes, MidAmerican conducts a simple regression analysis of billing sales to billing month heating degree days. This analysis produces two values for each class: a constant value which represents the amount of billing sales for each class in a month assuming zero heating degree

days (e.g., a summer month), and a slope value that represents the incremental usage in a month for that class for every increase of one heating degree day. These two values can be used in an algebraic formula to estimate monthly or daily usage for every class for any presumed number of heating degree days. For the purpose of estimating design day load, the calculation divides the constant value by 30.42 to convert from a monthly value to a daily value and adds to that the product of the slope value multiplied by 80 degree days, which is the assumed design day value. This calculation results in an estimate of design day load for each of the customer classes.

Q. How does MidAmerican allocate the revenue requirement associated with distribution mains to customer classes?

A. The revenue requirement associated with distribution mains costs are allocated to customer classes based on a combination of a design day allocator and a total throughput allocator that reflects the splits of the mains system between a peaking function and a total throughput function. This is the same method used in MidAmerican's last South Dakota gas rate case.

MidAmerican's gas cost of service study recognizes that the primary purpose of the distribution mains system is to deliver gas to customers on a year-round basis, but that the mains system needs to be sized to accommodate gas loads under design day conditions. For this reason, the costs of owning, operating, and maintaining the mains system is split into two components: a peaking component and a total throughput (i.e., average load) component.

The cost associated with distribution mains is split between the peaking component and the average load component based on the system annual capacity factor. The system capacity factor is calculated as total weather-normalized system throughput divided by 365 days divided by estimated design day throughput. MidAmerican's South Dakota capacity factor in this case is estimated to be 29.5%. Therefore, 70.5% of the plant value and associated operations and maintenance expense for mains is assigned to the peaking component and 29.5% is assigned to the average component.

The cost associated with the peaking component of mains is allocated to customer classes based on estimated total design day throughput. The method used to estimate design day throughput is the same as the method described above for peaking facilities, but for transport loads being included for mains.

The cost associated with the average component of mains is allocated to customer classes based on total weather-normalized annual throughput, as estimated through the weather normalization process described later in this testimony.

Q. Please describe how MidAmerican allocates the revenue requirement associated with services to customer classes.

A. Service costs are allocated to customer classes based on a weighted number of customers calculation. Customer weights in each class are calculated based on the ratio of the current average cost of service installations (per customer) required to serve particular customer groups to the current average cost of a service installation for small volume customers.

Q. Please describe how MidAmerican allocates the revenue requirement associated with meters to customer classes.

A. MidAmerican allocates the cost of meters to four separate meter classes, and these classes will be the basis for the metering charge. These classes are as follows:

- Class 1: 0 to 675 cubic feet per hour
- Class 2: 675 to 3,000 cubic feet per hour
- Class 3: 3,000 to 11,000 cubic feet per hour
- Class 4: Over 11,000 cubic feet per hour

Metering costs are allocated to metering classes based on a weighted number of meters calculation in each class. Meter weights in each class are calculated based on the ratio of the current average cost of a meter installation in each class to the current average cost of a meter installation in Class 1.

Q. Please describe how MidAmerican allocates the revenue requirement associated with regulators to customer classes.

A. Regulator costs are allocated to customer classes based on a weighted number of customers calculation. Customer weights in each class are calculated based on the ratio of the current average cost of regulator installations (per customer) required to serve particular customer groups to the current average cost of a regulator installation for small volume customers.

Q. Please describe how MidAmerican allocates the revenue requirement associated with industrial meters to customer classes.

A. Industrial meter costs are allocated to customer classes based on the total number of industrial customers in each class.

Q. Please describe how MidAmerican allocates the revenue requirement associated with the customer accounts function to customer classes.

A. Customer accounts costs are allocated to customer classes based on a weighted number of customers calculation. Customer weights in each class are calculated based on the ratio of the current cost per customer of providing customer service and key account management functions to particular customer groups to the current cost per customer of providing customer service functions to small volume customers.

Q. Please describe how MidAmerican allocates the revenue requirement associated with transportation administration to customer classes.

A. Transportation administration costs are allocated to customer classes based on the number of transportation customers in each class. The analysis in Exhibit AAH 1.2, Schedule B subdivides the transportation administration expense associated with daily transportation customers (i.e., Rates SVT, MVT, and LVT) and monthly transportation customers (i.e., Rates STM and MTM). This subdivision of transportation administration expense uses a weighted customer allocation that assumes daily transportation customers require three times the amount of full-time equivalent labor relative to a daily transportation customer. The allocation of the transportation administration expense proposed in the last gas rate case allocated transportation administration expense by total number of transportation customers, irrespective of the service type, i.e., daily or monthly.

The adoption of this method better reflects cost causation and enables the calculation of separate transportation administration charges for daily and monthly transportation service, similar to the charge structure approved in the previous rate case.

Q. How has MidAmerican addressed the farm tap customers it acquired as a result of Docket No. NG17-011 in the cost of service study?

A. MidAmerican has reflected revenue from these customers as a reduction to the overall revenue requirement to be recovered from the rates applicable to all other customers. In 2028, these farm tap customers will complete a ten-year rate phase-in as determined in Docket No. NG17-011. As approved in that proceeding, any difference between the final rate and the phase-in rate is recovered from all gas sales customers via the PGA clause until the phase-in is complete. Therefore, the revenue requirement adjustment for farm tap revenues in the cost of service study is made at the final 2028 rate level. As discussed later in this testimony, MidAmerican is proposing to adjust the farm tap rates by an amount equal to the overall revenue requirement increase.

RATE DESIGN CONSIDERATIONS AND METHODS

Q. Please describe the relationship between cost of service results and the goals of rate design.

A. An important goal of rate design is to develop prices for natural gas service to retail customers to recover the Company's approved revenue requirement and that reflect the cost of providing service to retail customers. MidAmerican is submitting a full set of rates based upon the cost of service study provided in this

case. The rate design offered by MidAmerican is directly based on cost of service, is designed to recover MidAmerican's proposed revenue requirement, and reflects the costing and pricing principles of the cost of service study. Detailed financial information from the cost of service study is used to develop the individual components of the rate design.

Q. What rates are MidAmerican proposing to implement in this case?

A. Exhibit AAH 1.2, Schedule D provides a complete set of proposed rates for MidAmerican in this filing. MidAmerican is proposing to implement rates for the following rate classes:

- Small Volume (defined as Rates SVS, SVT, STM, SSS, SVI)
- Medium Volume (defined as Rates MVS, MVT, MTM)
- Large Volume (defined as Rates LVS, LVT, LVI, LSS)
- Farm Tap (defined as Rates NFS, NFT)

Q: How is MidAmerican proposing to charge customers for meters?

A: MidAmerican is proposing to continue the practice of utilizing a separate meter charge instead of including the meter charge in the monthly service charge. This calculation and method are consistent with that used in the previous rate case.

Q: How does MidAmerican calculate the monthly interval meter charge associated with service that requires additional telemetry metering equipment, such as daily transportation and interruptible service?

A: Consistent with the method established through discovery in the previous rate case, this calculation utilizes an average net plant balance upon which a return, annual depreciation expense (assuming a ten-year depreciable life), and a test

year property tax rate are used to determine the appropriate annual revenue requirement per interval meter. The resultant per meter revenue requirement is used to produce a total interval meter revenue requirement. This total interval meter revenue requirement is removed from the overall revenue requirement associated with metering expense to ensure these revenues will not be accounted for twice in the resulting rates.

Q. How are the various cost components of the class cost of service study used in the design of MidAmerican's proposed rates?

A. Exhibit AAH 1.2, Schedule C describes how the different components of cost of service are used to build the rate.

Q. Is MidAmerican proposing any changes to the rates or terms approved in Docket No. NG17-011 regarding the farm tap customers formerly served by NorthWestern Energy?

A. MidAmerican is not proposing any changes to the terms approved in Docket No. NG17-011. However, MidAmerican is proposing to increase the rates developed in that docket by a percentage equal to the overall revenue requirement percentage increase in this docket. As a result, the farm tap customer rates, which are currently scheduled to increase each year through 2028 per MidAmerican's current tariff, will be increased by the same percentage as the overall increase ultimately approved in this docket.

GAS WEATHER NORMALIZATION

Q. What is the purpose of the gas weather normalization pro forma and why is it an important issue in this case?

A. The purpose of the weather normalization pro forma adjustment is to determine a level of retail sales and revenues under existing rates that could be reasonably expected given normal weather conditions, thus eliminating the effect on test year retail sales and revenues of having unusually mild or extreme weather during the test year.

Based on MidAmerican's South Dakota gas customer composition and seasonal variation in use, MidAmerican estimates that about 62% of total natural gas throughput on MidAmerican's South Dakota system is used for heating and is therefore weather dependent. As a result, the level of annual revenue that is collected from volumetric charges associated with this natural gas usage is dependent on the severity of the heating season. Cold winters will result in MidAmerican collecting a higher level of revenue than it normally otherwise would, and mild winters will result in MidAmerican collecting a lower level of revenue. The weather normalization pro forma adjustment accounts for this variability.

Q. What is the value of the proposed weather normalization pro forma adjustment?

A. The weather normalization pro forma adjustment increases total test year natural gas distribution revenue by $894,948. The weather normalization pro forma adjustment for both revenue and therm sales by rate is provided in Exhibit AAH 1.2, Schedule E.

Q. Which rates are MidAmerican proposing to include in the weather normalization pro forma adjustment for natural gas sales?

A. MidAmerican is proposing weather normalization pro forma adjustments for its small and medium volume rates, excluding seasonal and interruptible rates, as follows:

- Rate SVS (residential and commercial)
- Rate MVS (commercial)
- Rate STM
- Rate MTM
- Rate SVT
- Rate MVT

Q. What weather data is MidAmerican using as the basis for the natural gas pro forma adjustment?

A. MidAmerican is basing its weather normalization adjustment on monthly weather data from the NOAA Sioux Falls, Joe Foss Field weather station. Monthly heating degree days with a 65-degree base are used to model the heating component of weather-sensitive natural gas sales. Normal weather is defined to be the official 30-year NOAA daily normal (1991 to 2020) for the Sioux Falls, Joe Foss Field weather station.

Q. Is MidAmerican using the same method to determine the sales component of the weather normalization pro forma that it used in its last rate case?

A. Yes, the weather normalization method and degree day base are the same as reflected in the Docket No. NG14-005 settlement. MidAmerican is defining billing month heating degree days using a 60/40 weighting. This means that billing month degree days for a given month are to be defined as 40% of the

calendar month degree days for that month and 60% of the calendar month heating degree days for the month immediately preceding that month. The method is shown in Exhibit AAH 1.2, Schedule F.

Q. Describe the calculation to determine the revenue adjustment.

A. MidAmerican applies the current distribution charge per therm for each tariff rate to the weather normalization volume adjustment for the applicable rate to arrive at the revenue component. For small volume rates with two distribution charge steps, MidAmerican calculated a weighted-average distribution charge based on actual test-year sales in each rate step. A summary of the weather normalization pro forma adjustment by tariff rate is provided in Exhibit AAH 1.2, Schedule E. This is the same calculation used in in the previous rate case, Docket No. NG14-005.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.