

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

IN RE:

MIDAMERICAN ENERGY COMPANY)

DOCKET NO. NG14-_____

**DIRECT TESTIMONY
OF
TOM A. GESELL**

Q. Please state your name and business address.

A. My name is Tom A. Gesell. My business address is 401 Douglas, Sioux City, Iowa, 51101.

Q. By whom are you employed and in what position.

A. I am employed by MidAmerican Energy Company (“MidAmerican” or “Company”) as Manager of Gas Supply Operations.

Q. Please describe your educational background and business experience.

A. I received a Bachelor’s degree in Business Administration from Wayne State College in Wayne Nebraska, and a Master’s degree in Business Administration from the University of South Dakota. From May 1979 to December 1986, I worked for Tyson Foods and Wilson Trailer Company in various accounting roles. In December 1986, I joined Midwest Energy Company, a predecessor of MidAmerican, as a Senior Accountant. In April 1990, I transferred to Iowa Public Service Company as a Natural Gas Analyst, and in August 1994 was promoted to Supervisor Gas Planning. On July 1, 1995, I was promoted to my current position.

Q. Please describe the responsibilities of your current position.

A. My primary responsibilities include managing MidAmerican’s gas control room and transportation services, which includes the safe and reliable delivery of natural gas to over 719,000 gas customers in four states. From MidAmerican’s control room in Sioux City, Iowa, we control four pipeline interconnects in the Quad Cities, three in Cedar Rapids/Iowa City and two in Des Moines. We monitor approximately 3,000 system data points. Gas Supply Operations economically balances supply with system demand, and closely manages the pipeline interconnects to ensure maximum value to MidAmerican

23 customers while maintaining system integrity. We also manage MidAmerican's gas
24 storage service, LNG (Liquefied Natural Gas) facilities, to ensure adequate supplies
25 under peak conditions.

26 In addition, my responsibilities include the administration of MidAmerican's gas
27 transportation service which includes the management of customers' nominations and
28 scheduling of gas through MidAmerican's distribution system, administering all gas
29 transportation tariffs, and providing transportation customers or their agents with system
30 information through MidAmerican's online bulletin board.

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

32 A. Yes. I have testified on behalf of MidAmerican in other gas proceedings before the South
33 Dakota Public Utilities Commission ("Commission") and in similar proceedings in Iowa
34 and Illinois.

35 **Purpose of Direct Testimony**

36 **Q. What is the purpose of your direct testimony?**

37 A. I sponsor and explain changes to MidAmerican's transportation tariffs and Rate LV -
38 Large Volume Service. I also briefly outline the pipeline services used to provide natural
39 gas service to MidAmerican's customers.

40 The more significant tariff changes that I address include:

- 41 • Maximum Hourly Quantity (MHQ) Provisions
- 42 • Maximum Daily Requirement (MDR) Provisions
- 43 • Cash-out Provisions
- 44 • Short Critical Day Penalty Rate
- 45 • Interval Metering Charge

- Monthly Metered Transportation Customer Capacity Release

Q. Why are you proposing these service changes?

A. These provisions are in effect in other parts of MidAmerican's natural gas service territory and as I explain below, they have been shown to provide benefits to the cost-effective operation and management of MidAmerican's natural gas distribution system.

Q. Please provide an overview of interstate pipelines and pipeline services that are available for MidAmerican's South Dakota customers.

A. MidAmerican's natural gas operations are consolidated to provide cost-effective and efficient service across its service territory. Reflecting the benefits of consolidated operations, MidAmerican's purchased gas adjustment (PGA) clause is consolidated. MidAmerican customers' receive natural gas from four interstate pipelines: Northern Natural Gas Company (NNG), Natural Gas Pipeline Company of America (NGPL), ANR Pipeline Company (ANR), and Northern Border Pipeline Company (NBPL). MidAmerican's customers are also supported by three LNG facilities strategically located to support peak day supply and pressure needs. MidAmerican's South Dakota service territory is served by NNG, but benefits from competitive pipeline sources and the supply reliability of the LNG facilities used to serve all MidAmerican customers and charged through the consolidated PGA clause. MidAmerican contracts for transportation services on all four pipelines, and for storage services with NGPL, NNG and ANR.

Maximum Hourly Quantity Provisions

Q. What is the MHQ provision MidAmerican is proposing?

A. This provision of Rate LV-Large Volume Service would require all Large Volume sales service and gas transportation customers to elect an MHQ representing the maximum

69 quantity of gas MidAmerican is obligated to deliver to the customer on a firm basis in a
70 given hour on Short Critical Days.

71 **Q. Why is MidAmerican proposing this requirement?**

72 A. MidAmerican is proposing the MHQ provision for two reasons. First, the size of pipe and
73 facilities needed to serve a customer's facility is primarily determined by the customer's
74 hourly, rather than daily, consumption. A customer using 100 dekatherms (Dth) of
75 natural gas all in one hour needs pipe and/or facilities that can handle larger volumes than
76 a customer using 100 Dth of natural gas spread throughout an entire gas day, averaging
77 perhaps no more than five Dth/hour. Thus, the customer requiring 100 Dth/hour and 100
78 Dth/day should pay a larger distribution fee than a customer using five Dth/hour and the
79 same 100 Dth/day.

80 Second, this requirement is necessary to efficiently manage the distribution
81 system and develop rates that are consistent with cost causation principles. The demand
82 for natural gas has grown significantly, and many portions of the pipeline grid, including
83 portions of the NNG system in South Dakota, are operating at or near their design, or
84 maximum, capacity. The cost to increase capacity on either the interstate pipeline or on
85 the utility's distribution system is high. If a large customer can limit its hourly usage
86 when an hourly restriction is declared, MidAmerican can optimize the use of its existing
87 infrastructure without constructing large system upgrades, which benefits the large
88 customer with a lower distribution charge. Interstate pipelines serving MidAmerican's
89 distribution system have both contractual daily and operational hourly limits by delivery
90 point. Each pipeline serving MidAmerican has, by tariff, the right to limit the amount of
91 gas MidAmerican can receive at a specific delivery point into its system.

92 **Q. During the 2013/14 heating season, did any interstate pipeline limit gas to any of**
93 **MidAmerican's delivery points?**

94 A. Yes. NGPL limited hourly takes on 24 consecutive days during extremely cold conditions
95 in February and March of 2014. Usually, these limitations begin as advisories requesting
96 point operators to limit hourly flow to 1/16th of the total scheduled daily quantity. On
97 several occasions, these requests have escalated to an operational flow order restricting
98 hourly flow to as little as 1/20th of the total daily scheduled flow quantities. The pipeline
99 restriction has historically affected the hours from 6 a.m. to 12 noon.

100 **Q. During the 2013/14 heating season, did any interstate pipeline limit gas to any of**
101 **MidAmerican's delivery points in South Dakota?**

102 A. No. During the 2013/14 heating season, the hourly service from NNG was not limited.
103 However, NNG did declare 72 System Overrun Limitation (SOL) days and seven Critical
104 Days affecting South Dakota. A Critical Day is the equivalent of a Short Critical Day
105 under the MidAmerican tariff; however, no hourly limitations were imposed by NNG.

106 **Q. Why does MidAmerican need to impose MHQ provisions at this time?**

107 A. Imposing MHQ provisions benefits both MidAmerican and its customers. MHQ
108 provisions will allow MidAmerican to efficiently manage its transmission and
109 distribution systems, keeping improvement and expansion costs to a reasonable level.
110 Our experience with MHQ has proven it to be an effective method of properly sizing both
111 transmission and distribution systems to customer needs, while minimizing infrastructure
112 costs.

113 **Q. Are there benefits for the customer to have an MHQ?**

114 A. Yes. I believe the MHQ process benefits Large Volume customers by creating the
115 opportunity to limit hourly takes during critical hourly restriction periods and
116 correspondingly lower their demand costs, while still maintaining the ability to flow gas
117 in excess of their MHQ during non-critical periods. The process provides customers with
118 the flexibility to plan and contract for the level of firm service they desire, taking into
119 consideration the many factors unique to each customer. If a customer is faced with
120 paying a large sum of money to expand upstream delivery capacity in order to maintain
121 firm service, they may opt to install backup supply facilities such as propane, or to
122 restrict usage during Short Critical Days instead of paying for capacity upgrades. The
123 MHQ process provides both the customer and MidAmerican with the opportunity to plan
124 for an economical service. Furthermore, it provides an additional option for the customer
125 to manage distribution costs.

126 **Q. How will the new MHQ process be managed?**

127 A. Initially, all Large Volume customers in South Dakota will be assigned an MHQ
128 equivalent to their historical or contractual hourly usage level – generally 1/16th of their
129 peak daily requirement. This MHQ represents the maximum hourly quantity of gas
130 MidAmerican is obligated to deliver to the customer's facility during Short Critical Day
131 conditions. The customer may increase the MHQ level up to MidAmerican's delivery
132 capacity at the customer facility. Increases above the delivery capacity would require
133 system upgrades at the customer's expense or exploration of alternative methods to
134 reduce MHQ requirements. If MidAmerican declares a Critical Hourly Restriction, Large
135 Volume customers will be required to limit their usage to contracted MHQ level.

136 **Q. Would a customer be permitted to contract for an MHQ that is below historical**
137 **hourly usage level?**

138 A. Yes. The customer would be permitted to contract for an MHQ as small as 1/24th of its
139 Maximum Daily Requirement (MDR).

140 **Q. Will MHQ be limited during the non-critical period of Short Critical Days?**

141 A. No. During non-critical periods, a customer's hourly usage will not be restricted,
142 assuming the customer's gas was received by MidAmerican. Furthermore, the hourly
143 restriction will usually only apply to MidAmerican designated peak hours of the gas day,
144 generally 5 am to 9 am. Hourly usage outside of designated restricted hours will not be
145 limited.

146 **Q. How often do you expect MidAmerican to call an MHQ restriction?**

147 A. Based on my experience, I do not think it will be used very frequently. MidAmerican
148 intends to use its Short Critical Day options to manage its overall system, and only use
149 the MHQ restrictions when system pressures to a specific area are degrading, or hourly
150 flows are expected to exceed our system capacity.

151 **Q. Are there other benefits of requiring Large Volume customers to elect MHQs?**

152 A. Yes. The MHQ process also provides a more accurate estimate of hourly loads and
153 allows for more effective system design planning, ensuring facilities are adequate to meet
154 customer demand. Contracting for supply resources can also be more accurate because
155 customer designation of an MHQ provides quantification of necessary capacity and helps
156 ensure adequate space is available for firm customers to receive their contracted volume
157 of gas during peak conditions.

158 **Q. What are the consequences of a customer exceeding their MHQ rights during a**
159 **Critical Hourly Restriction period?**

160 A. Hourly excess use charges will be imposed if the customer's hourly usage during the
161 hours of the restricted period exceeds their contractual MHQ. These charges are outlined
162 in the proposed Rate LV tariff. If additional MHQ space is available at the customer's
163 delivery point, the customer will be given the option to retroactively increase their MHQ
164 to the first of the month in which their excess use occurred. However, the customer
165 would need to commit to a minimum term of twelve months for the new MHQ. If MHQ
166 space is unavailable, the customer can either pay for a system upgrade to increase their
167 MHQ capability, or pay the hourly excess use charges.

168 **Q. What are the expected impacts on customers from the proposed MHQ provisions?**

169 A. There should be no financial impacts for customers who are able to maintain their hourly
170 quantities at or below their historical or contractual levels. Operational impacts are
171 expected to be minimal, because an MHQ only affects gas use in excess of an MHQ.
172 Also, it must be recognized that MHQs are only limitations during extreme conditions.
173 MidAmerican would not have called any MHQ Critical Hourly Restrictions for South
174 Dakota customers during the 2013-2014 heating season. Had any restrictions been called,
175 customers would only have been prohibited from using above their MHQ; maintaining
176 access to their full MHQ.

177 **Maximum Daily Requirement**

178 **Q. What is the MDR provision MidAmerican is proposing?**

179 A. The provision would require all Large Volume customers to elect an MDR representing
180 the maximum daily consumption of gas MidAmerican is obligated to deliver to the

customer on a firm basis. Usage on any December through February day in excess of contractual MDR, or usage on any March or November day in excess of 125% of contractual MDR, or usage on any April through October day in excess of 200% of the contractual MDR, shall be considered excess use. Such excess use shall be subject to excess use charges. The customer may elect to establish a new contractual MDR in lieu of payment of excess use charges, if in the sole judgment of the Company, supply conditions and/or distribution system capacity permit. The new MDR would then become effective with the billing period in which such excess use occurred.

Q. Why is MidAmerican proposing this requirement?

A. This is another tool used to efficiently and cost-effectively manage pipeline resources. The demand for natural gas has grown significantly, and many portions of the pipeline grid, including portions of the NNG system in South Dakota, are operating at or near their design, or maximum capacity. The cost to increase capacity on either the interstate pipeline or the utility's distribution system is expensive. Interstate pipelines serving MidAmerican's distribution system have both contractual daily and operational hourly limits by delivery point. Each pipeline serving MidAmerican has, by tariff, the right to limit the amount of gas MidAmerican can receive at a specific delivery point into its system.

Cash-out Provisions

Q. What are the proposed changes to MidAmerican's cash-out provisions?

A. MidAmerican is proposing changes to both the actual cash-out settlement, and the associated daily balancing charges for gas transportation service. The changes to be implemented to the cash-out settlement will apply a daily high or low index, based on the

pipeline services primarily used to manage daily swings for MidAmerican's entire system. MidAmerican utilizes NNG services to cover daily swings in South Dakota; thus NNG indices would be used for actual cash-out settlement. Currently, one index is assigned to the buy price and one to the sell price, which may not reflect price fluctuations during the month. Each customer group's long/short imbalance is subject to the applicable buy/sell index. The proposed changes will assign one index cashout rate, either long/short to all customer groups depending on the net aggregate transportation imbalance for the day.

Q. Why does MidAmerican believe the current cash-out structure should change?

MidAmerican believes the current cash-out structure should change in order to accurately reflect the price of the swing service utilized. MidAmerican is primarily using an NNG balancing service to physically balance its system. If a South Dakota gas transportation group delivers short, the unexpected shortfall is supplied by gas purchased under an NNG service, the cost of which is borne by the sales customers. This results in higher costs to PGA customers due to covering the shortfall with likely higher-priced gas and a balancing service from NNG. Thus we believe the change is necessary to maintain equity between MidAmerican's sales and gas transportation customer groups.

Q. How is the proposed settlement process determined?

A. MidAmerican will review the overall gas transportation customer group's daily imbalance to determine whether, in aggregate, gas transportation customers created a long or short imbalance on MidAmerican's system. An appropriate cash-out index, to be used for all transportation customer and group settlements, would be assigned, depending upon whether gas transportation customers were net long or short. Currently,

MidAmerican has contracted with NNG for the services primarily used to handle the South Dakota customer swings. Long imbalances (PGA purchases imbalance gas from transportation customer group) would be settled with the lowest supply index on the pipeline being used to balance the system and cover swings, while short imbalances (PGA sells imbalance gas to the transportation customer group) would be settled with the highest supply index on the pipeline used to balance the system and cover swings.

Q. What tools are available to gas transportation groups to help manage imbalances?

A. MidAmerican's tariff allows gas nomination changes up to the end of the gas day on its electronic bulletin board, GasMAIN. Additionally, MidAmerican provides hourly usage for transportation customers and groups throughout the gas day.

Q. How will a gas transportation customer know which daily system balancing service and resulting index rate will be used for imbalances?

A. Gas transportation customers will not know ahead of time which index will be used for daily settlement because they will not know if the transportation group's imbalance will be long or short. However, the settlement index will be posted on the electronic bulletin board.

Short Critical Day Penalty Rate

Q. What are the proposed changes to the Short Critical Day penalty tariff?

A. MidAmerican proposes to change the index used in determining the Short Critical Day penalty rate. The current Short Critical Day penalty rate is the greater of \$30/ Dth or three times the Chicago "Midpoint" index as reported in Gas Daily. MidAmerican is proposing to use the greater of the NNG Ventura or Demarc index to calculate this penalty, reflecting applicable pipeline prices. MidAmerican's proposed changes add increased

flexibility to both its Operational Flow Order (OFO) and Short Critical Day penalty rates, allowing it to post a lesser penalty rate, \$10/ Dth, during the off-peak April – October period.

Q. Are you proposing to change the Short Critical Day penalty rates during peak conditions?

A. No. The current structure is effective and works very well during the traditional peak winter months of November through March.

Q. Why does MidAmerican need an off-peak Short Critical Day penalty rate?

A. The demand for natural gas has increased significantly over the last few years, and MidAmerican has seen large price variances between gas supply sources. These two factors create capacity constraints as shippers try to purchase larger volumes of gas from the least expensive supply source. Interstate pipeline transportation capacity serving MidAmerican's market is generally fully subscribed and shippers are unable to flow large quantities of interruptible or non-primary receipt volumes through certain areas on the interstate pipelines. When shippers schedule too much gas through a point, pipelines restrict or "allocate" scheduled volumes down to a level they can physically flow. Such allocations are becoming a regular occurrence when pipeline supply areas experience delivery restrictions. To encourage shippers and customer agents to replace gas allocations with deliverable supplies, or to flow primary receipt supply utilizing firm capacity during a pipeline allocation period, MidAmerican would like the option to set Short Critical Day charges that more appropriately fit the circumstances. During peak conditions, (November – March), the \$30/ Dth rate works well to incent performance as penalties imposed by the pipelines are also high and under deliveries may lead to loss of

273 service. However, during other pipeline events such as supply allocations, in non-peak
274 periods (April – October), the exposure to MidAmerican’s system may be less severe.
275 Thus, MidAmerican is proposing different Short Critical Day penalties at such times that
276 are tailored for the circumstances of \$10/ Dth.

277 **Transportation/Interval Meter Charge**

278 **Q. Are you proposing to change the way telemetry costs are recovered from the daily**
279 **metered Gas Transportation and Interruptible customers?**

280 A. Yes. MidAmerican is proposing to add a monthly transportation/interval meter charge to
281 all customers in South Dakota utilizing telemetry. MidAmerican currently charges
282 customers for the full cost of telemetry when it is installed.

283 **Q. Why is MidAmerican proposing this change?**

284 A. MidAmerican believes this change will allow for long-term recovery of these costs in a
285 way that is less disruptive for customers. The change is particularly needed now for two
286 main reasons. First, much of the existing equipment has outlived its useful life and needs
287 to be replaced. Other than the amount gas transportation customers’ pay for telemetry
288 when starting to transport gas, MidAmerican lacks a mechanism outside of base rates to
289 collect for telemetry upgrades. Second, the current equipment MidAmerican installs on
290 our gas transportation and interruptible customer sites requires an analog phone service.
291 The telecommunications world is migrating away from analog systems to digital, making
292 it very difficult for both MidAmerican and our customers to maintain the old analog
293 service. Many phone companies lack resources to fix problems and try to use converters
294 on digital lines, which are a continual problem. To resolve this issue, MidAmerican is
295 proposing a telemetry upgrade project to convert all the old analog equipment to digital in

the next couple of years. MidAmerican believes the cost of this communication upgrade should be paid for by customers using telemetry. Even if MidAmerican were able to charge the customer for the cost of new telemetry and digital upgrades, recovering these costs through a monthly charge will have less impact on customers and will be more consistent with how MidAmerican charges other customers for metering services.

Q. What benefits will your Gas Transportation and Interruptible customers see from the implementation of a monthly transportation/interval meter charge?

A. Most businesses have upgraded to digital phone systems and new equipment which utilizes digital or wireless communications. Maintaining an analog system is very difficult and costly for customers when they experience problems. Second, customers will receive their hourly usage throughout the day at no additional cost. This should help them balance and reduce costs associated with imbalance reconciliation. Lastly, the addition of a transportation/interval meter charge allows MidAmerican to be more responsive to future technology changes with the ability to be even more responsive to hourly usage needs.

Q. When will current Gas Transportation and Interruptible customers begin seeing the transportation/interval meter charge on bills?

A. MidAmerican is proposing to apply the monthly transportation/interval meter charge to current gas transportation and interruptible customers after their telemetry equipment has been upgraded or replaced. These customers paid up-front for their original equipment when it was installed. New daily gas transportation or interruptible customers will begin paying these charges as soon as they begin taking gas transportation or interruptible service.

Monthly Metered Customer Capacity Release

Q. Are you proposing to change the Monthly Metered customer Capacity Release procedure?

A. Yes. MidAmerican is proposing to give monthly metered customers the choice of continuing to utilize firm transportation from MidAmerican or from their supplier after the first year of operation.

Q. Will the monthly metered customers be subjected to delivery risk with this change?

A. No, the choice is entirely voluntary. If a customer wants to continue and use the primary firm capacity released by MidAmerican they can do so. However, if a customer's supplier has unused primary firm capacity, the customer may be able to reduce their cost by utilizing their supplier's under-utilized capacity.

Q. Are you proposing to change the number of monthly metered customers you can add each month?

A. Yes. MidAmerican recently upgraded the monthly metered customer billing system, allowing the ability to add up to 450 customers in South Dakota per month. MidAmerican is proposing to increase the monthly limit from the current 100 customers per month to match its 450 customers per month upgraded capability.

Q. Are you proposing any other changes to the monthly metered transportation service tariff?

A. Yes. MidAmerican is proposing to update the switching, administration and scheduling fees based on actual test year costs.

Q. Does this conclude your direct testimony?

A. Yes, it does.