

**STATE OF ILLINOIS**  
**ILLINOIS COMMERCE COMMISSION**

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<b>MIDAMERICAN ENERGY COMPANY</b>	)	
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<b>Proposed general increase in natural gas rates.</b>	)	<b>DOCKET NO. 09-</b>
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**DIRECT TESTIMONY**  
**OF**  
**GREGORY B. ELDEN**

1 **Q. Please state your name and business address.**

2 A. My name is Gregory B. Elden. My business address is 3500 104<sup>th</sup> Street, Urbandale, IA  
3 50322-7916.

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

5 A. I am employed by MidAmerican Energy Company (“MidAmerican” or “Company”) as  
6 Director, Customer Office, Meter Reading and Automated Meter Reading (AMR)  
7 project. (2007 to present)

8 **Q. Please describe your educational and employment background.**

9 A. I am a graduate of the University of Minnesota and received a Bachelors of Science in  
10 Business Degree with an emphasis in accounting. I received my degree in December  
11 1974. I began working in the utility business in 1975. I have held a number of positions  
12 with MidAmerican and its predecessor companies, including Vice President of Field  
13 Services (2003-2007), Vice President MEC Construction Services Company (2001-2003)  
14 and District Vice President (1995-2001).

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**Purpose of Direct Testimony**

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

A. The purpose of my direct testimony is to explain and support certain components of MidAmerican’s request for a general increase in its gas rates. Specifically, I will describe MidAmerican’s automated meter reading project, and temperature compensated meter project.

**Q. Are you presenting any attached Exhibits to your direct testimony?**

A. Yes, I am including the following Exhibits:  
MidAmerican Exhibit GBE 1.1 – AMR Annual Savings

**Description of MidAmerican’s Automated Meter Reading Project**

**Q. Please describe MidAmerican’s automated meter reading (AMR) project.**

A. MidAmerican’s AMR project was designed to automate the meter reading process to improve the collection of meter readings. Instead of walking up to every meter, visually reading the meter index and manually entering the reading into a handheld device, the meters are read remotely while driving by using a mobile data collector. The project replaced most electric meters with a new Encoder Receiver Transmitter (ERT) enabled meter and an ERT module was added to most gas meters. When the project is completed, MidAmerican expects to reduce 100 meter reader positions company-wide and has reflected this cost reduction in its pro forma adjustments.

**Q. What are the benefits of the AMR project to MidAmerican and its customers?**

- A. Benefits of the AMR project include the following:
- Reduced meter reading costs

37 Costs of meter reading charged to Illinois gas customers have been reduced from  
38 \$573,363 in 2007 to a forecasted amount of \$244,089 included in this case.

- 39 • Improved meter reading accuracy

40 AMR reads are 100% accurate in the transmission of data to the mobile collector.

- 41 • Increased billing accuracy

42 With 100% accurate reads from the mobile collector bills generated will be calculated  
43 correctly.

- 44 • Improved customer satisfaction

45 Meter reading related complaints have shown a significant decline from 16.5 complaints  
46 per month in 2007 to 12.9 in 2008 and the trend continues in 2009 with 7.5 complaints  
47 per month.

- 48 • Reduced safety exposures for meter readers

49 MidAmerican's number of the Occupational Safety and Health Administration (OSHA)  
50 recordable injuries for meter readers is showing improvement. The fact that meter  
51 readers do not need to walk into backyards or enter homes to read meters removes a  
52 significant amount of risk of injury to MidAmerican's employees.

- 53 • Reduction in the number of estimated meter readings

54 Meters read percentage has improved from the average of 96.48% (2001-2006) to  
55 97.24% in 2007 and 99.15% year to date in 2009. (April)

- 56 • Reduced meter access issues for inside meters

- 57 • Reduction in the number of high-cost and hazardous-to-read meters

- 58 • Ability to automate the collection of off-cycle reads for change of party reads

59 **Q. When did MidAmerican begin its AMR project?**

60 A. MidAmerican's AMR project was initiated with the signing of a contract with Itron Inc.  
61 (Itron) as an Engineer, Procure, and Construct (EPC) contractor on May 9, 2007. The  
62 first installations began on August 1, 2007, with deployment starting in the Quad Cities  
63 area of MidAmerican's service territory. Itron, under the terms of the contract, is  
64 responsible for the performance of all work as identified in the contract for the design,  
65 engineering, procurement, construction, erection, dismantling, removing, installation,  
66 commissioning and testing of the project. The contractor is responsible for all materials,  
67 equipment, machinery, tools, labor, transportation, administration and other services and  
68 items required to complete and deliver to MidAmerican a fully integrated and operational  
69 project. The initial completion date of June 1, 2010 was revised by contract amendment  
70 to reflect an accelerated installation schedule that will allow the project to be completed  
71 by December 31, 2009.

72 **Q. What was the installation schedule for the Illinois part of the AMR project?**

73 A. The Quad Cities Illinois portion of the project began on August 1, 2007 and was  
74 completed August 8, 2008. The Illinois portion of MidAmerican's service territory is  
75 composed of approximately 66,000 gas meters and 78,000 electric meters, which are read  
76 in 325 meter reading routes.

77 **Q. How much did the AMR project cost?**

78 A. The current forecasted cost for completion of the AMR project is \$78,499,000. These  
79 forecasted costs will be allocated across MidAmerican's entire gas and electric service  
80 territory of Iowa, Illinois, South Dakota, and Nebraska. Based upon the number of gas  
81 meters in the state of Illinois, the allocated increase in plant cost is \$649,745 and the  
82 increase in accumulated depreciation is \$23,205. These amounts are included as a pro

83 forma adjustment. Witness Mary Jo Anderson supports the calculation of these amounts  
84 in schedule B-2.3.

85 **Q. What impact will the AMR project have on Illinois gas customers and their rates?**

86 A. As described above, the AMR project provides reduced meter reading expenses. While  
87 some of those savings are reflected in the test year operations and maintenance expenses,  
88 not all of the savings were achieved by the end of the test year. The calculation of a pro  
89 forma adjustment to capture an additional \$155,049 of annual savings expected from the  
90 AMR project is included in Exhibit GBE 1.1. With the inclusion of this pro forma  
91 adjustment, customers receive the full benefit of the expected reduction in meter reading  
92 expenses. MidAmerican witness Rick Tunning has reflected this pro forma adjustment in  
93 the rate case income statement in Schedule C-2.

94 **Description of MidAmerican's Temperature Compensated Meter Project**

95 **Q. Please describe the temperature compensated gas meter project.**

96 A. This project involved replacement of all non-temperature compensated (NTC) gas meters  
97 with temperature compensated (TC) gas meters to improve the consistency of meter  
98 measurements, and was carried out in accordance with 83 Il. Adm. Code 500.170(b). *See*  
99 also Schedule F-4, Code Part 500 Compliance Plan, dated May 1, 2006. MidAmerican  
100 replaced a total of 64,864 gas meters in Illinois for this project. The project started in the  
101 second quarter of 2006 and was completed in the third quarter of 2008.

102 **Q. What was the cost of the temperature compensated meter project?**

103 A. The total cost of the project was \$7,148,846, of which \$727,038 has been allocated to  
104 Illinois gas service rate base.

105 **Q. Were there synergies between the temperature compensated meter project and the**  
106 **AMR project?**

107 A. Yes, MidAmerican was able to preload the gas Encoder Receiver Transmitter (ERT)  
108 module on the new TC gas meters so that only one trip was required for a majority of the  
109 gas meter locations to change out the meters.

110 **Q. Does this conclude your direct testimony?**

111 A. Yes, it does.