

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

IN RE:

MIDAMERICAN ENERGY COMPANY)	
)	DOCKET NO. 14-0066
Proposed General Increase in Electric Rates)	
)	

DIRECT TESTIMONY

OF

JEFFREY S. KAMAN

for

DEERE & COMPANY

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

2 A: My name is Jeffrey S. Kaman. My business address is 1 John Deere Place,
3 Moline, Illinois 61265.

4 **Q: By whom are you employed and in what capacity?**

5 A: I am employed by Deere & Company (John Deere, or Deere) as Energy Manager.

6 **Q: What is your educational and employment experience?**

7 A: I hold a Bachelor of Science in Engineering degree in Mechanical Engineering
8 from the University of Michigan and a Master of Science degree in
9 Environmental Engineering from the University of Notre Dame. I served as an
10 officer in the US Navy nuclear power program on an aircraft carrier for two
11 deployments, with operations and maintenance responsibility for staff and
12 equipment in the reactor plant, steam propulsion and electric plants. I then
13 worked for John Deere Dubuque Works, Dubuque, Iowa, where I had
14 responsibility for utility contracts and operations and maintenance responsibility
15 for its 12MW coal and 8MW diesel power plant.¹ I was on staff at the Iowa
16 Utilities Board for approximately 4-1/2 years as Manager of the Energy Section,
17 working with staff responsible for retail rates, Midcontinent ISO (MISO)
18 wholesale market participation of electric utilities, and routinely collaborating
19 with other States' commission staff on behalf of the States for regional and

¹ The coal-fired steam generation units have since been retired.

1 federal issues in planning and markets in MISO.² In April 2011, I returned to
2 John Deere in my present role.

3 **Q: What is your area of responsibility at John Deere?**

4 A: As Energy Manager for John Deere, I am responsible for facility energy supply
5 and utility issues globally, though many others are involved. For the purposes of
6 state utility regulatory proceedings, my responsibility is for issues of service and
7 cost for electricity, natural gas, and energy efficiency programs.

8 **Q: Have you previously testified before the Illinois Commerce Commission or
9 other regulatory agencies?**

10 A: I have not testified at the ICC. I have filed short written testimony in
11 MidAmerican's proceedings SPU-2011-0005 and RPU-2012-0001 before the
12 Iowa Utilities Board (IUB).

13 **PURPOSE OF TESTIMONY**

14 **Q: What is John Deere's presence in Illinois and interest in this proceeding?**

15 A: John Deere (Deere) owns and operates numerous large factories and office
16 buildings in the state of Illinois and in MidAmerican's electric service area,
17 individually and in the aggregate making it one of MidAmerican's largest Illinois
18 (and Iowa) customers.

² Midcontinent Independent System Operator (MISO). State interests are represented by the Board of Directors, and multi-State staff work groups, of the Organization of MISO States (OMS).

1 Deere & Company has a long and proud history as a citizen of Illinois. John
2 Deere settled in Grand Detour, Illinois on the Rock River and in 1837 built the
3 self- scouring plow that allowed the Illinois settlers to break and plow the thick
4 and sticky prairie sod. In 1848, John Deere moved his business to Moline,
5 Illinois to take advantage of the Mississippi River, both for power and
6 transportation. The company he founded has been headquartered in Moline,
7 Illinois ever since then and is one of the oldest corporations in the United States.

8 Deere currently has facilities in Champaign, East Moline, Moline, Milan, Grand
9 Detour, and Silvis Illinois. The facilities include three manufacturing facilities,
10 the John Deere Harvester Works, the John Deere Cylinder Works, and the John
11 Deere Seeding Works. Research and Development facilities are located in
12 Champaign and Silvis. In addition to the corporate headquarters, there are also
13 numerous office and support buildings, including data centers in Moline and
14 Milan. Deere sponsors the Professional Golfers Association event, the John
15 Deere Classic, each year at the Tournament Players Club at Deere Run in Silvis,
16 which was constructed on land previously owned by John Deere's descendants.
17 Deere's financial impact on the State of Illinois also extends to the hundreds of
18 Deere suppliers and John Deere equipment dealerships located throughout
19 Illinois.

20 Electric rates are a factor in Deere's product competitiveness, as well as in
21 decisions for expanding, reducing, or locating new facilities.

1 **Q: Does Deere oppose MidAmerican’s requested revenue requirement increase,**
2 **capital structure or cost of capital, unbundling of rates, or pro forma test**
3 **year adjustments?**

4 A: MidAmerican is a valued partner, and Deere recognizes that MidAmerican
5 has been a low-cost provider subject to rising costs. See DAC Ex. 1.0 at 5.
6 Certainly wholesale revenues had declined in the test year. Revenue pressures
7 and cost risks to MidAmerican have been partially mitigated in that MidAmerican
8 reinstated a Fuel Adjustment Clause in Illinois, effective since May 2012.
9 Customers now assume this fuel cost volatility risk.

10 By the proposal to unbundle rates through this proceeding, some of
11 MidAmerican’s costs are theoretically kept in check by retail competition,
12 aligning with open access implementation and Illinois policies. Deere is
13 confident the ICC will ensure costs included in MidAmerican’s “Delivery-Only”
14 rates and “bundled” rates will be fairly apportioned.

15 Deere sincerely appreciates the opportunity to participate. As an equipment
16 manufacturer and single customer, Deere will not be making fully developed
17 proposals on this case in its entirety, but may comment further to support or
18 respond to testimony of ICC Staff and others.

19 **Q: What is the purpose of your direct testimony?**

20 A: The purpose of my direct testimony is to address electric rate impacts on John
21 Deere’s businesses in Illinois, and advance specific concerns about cost of service
22 and rate design changes proposed by MidAmerican in this proceeding.

1 **COST OF SERVICE AND RATE DESIGN**

2 **Q: Does Deere have concerns with time-of-use rates?**

3 A: Conceptually, absolutely not. Clearly the cost to serve customers, including the
4 cost to acquire long-term capacity, has a time-of-use and seasonally-differentiated
5 component.³ MidAmerican has proposed time-of-use rates including a higher-
6 priced on-peak period from 1pm-6pm in the summer only. As MidAmerican
7 witness Czachura notes in testimony, “MidAmerican’s off-peak period was added
8 to encourage movement of usage to time periods where both prices and loads
9 were significantly lower.” See NGC Ex. 1.0 at 4.

10 **Q: What concerns does Deere have with the time-of-use rates as proposed?**

11 A: Deere’s concern is that it is not clear how MidAmerican’s philosophy to value
12 time-of-use has carried over to large general service customer rate design.
13 Specifically, customers with a flatter load profile (higher load factor) appear to
14 have a significantly larger increase in migration from current rate codes (Rate 53)
15 to MidAmerican’s new proposed rates (Rate VLT).⁴ This is counterintuitive for a
16 cost of service and rate design methodology that recognizes the basis of
17 MidAmerican’s obligation to build or acquire rights to long-term capacity, which

³ For the purposes of this testimony, “capacity” generally refers to the accredited capacity, in MW or kW, capability of a plant to produce energy. This would typically involve fixed costs and be recovered from customers on a \$/kW basis, and “demand” or “peak demand” would be customer MW or kW load. “Energy” generally refers to the produced or consumed volume of energy, in MWh or kWh. This would typically involve volumetric costs and be recovered from customers on a \$/kWh basis.

⁴ For the purposes of this testimony, “load factor” means the average kWh energy consumption of a given customer or customer class relative to its peak demand. For example, a customer with a 1,000 kW summer peak and 4,380,000 kWh/year energy usage has an average 50% annual load factor:
 $(4,380,000 \text{ kWh/year}) / (1,000 \text{ kW} \times 8,760 \text{ h/yr}) = 50\%$.

1 is to meet its obligations as a Load Serving Entity (LSE) for its summer peak load
2 according to MISO Module E.

3 **Q: What concerns does Deere have with MidAmerican’s cost-of-service model**
4 **and resulting rates?**

5 A: Deere’s general concern with proposed rates is the migration away from cost-
6 based rates by the application of an hourly costing model (HCM) as proposed by
7 MidAmerican witness Rea, which is not based on MidAmerican’s actual costs,
8 instead of a traditional cost of service study of MidAmerican’s actual generation
9 plant costs.

10 **Q: What is your explanation for the counterintuitive result that efficient and**
11 **high load factor customers receive a disproportionate increase?**

12 A: A primary cause is MidAmerican’s assignment of generation capacity costs in the
13 Hourly Costing Model (HCM). Of the ten business functions identified by
14 MidAmerican witness Rea in direct testimony, one function, generation, is 60.9%
15 of the revenue requirement. See CBR Ex. 1.0 at 6-7. Valuation of capacity and
16 deferral of future capacity needs is a fundamental principle that is largely ignored
17 by an HCM energy allocator for fixed capacity costs.

18 **Q: Please explain.**

19 A: MidAmerican witness Rea suggests the HCM “prices generation service on a non-
20 discriminatory basis based on customer load shapes and usage patterns, and the
21 cost of acquiring and producing generation at different times of the day and

1 different times of the year.” See CBR Ex. 1.0 at 8. Further, that it accomplishes
2 this by “assigning a cost to each MWh in the retail system load curve.” See CBR
3 Ex. 1.0 at 8. Herein is the problem, because MidAmerican does not acquire assets
4 on an hourly basis; only energy, or some categories of reserves, is acquired on a
5 real-time or hourly basis. For capacity, MidAmerican is required to meet peak
6 demand by demonstrating that it has resources available to meet this peak demand
7 in accordance with Module E of MISO’s tariff. Instead, the HCM is essentially
8 allocating generation capacity costs fully on an energy basis. HCM is an energy
9 allocator.

10 **Q: Why do you characterize the HCM model for generation capacity cost**
11 **assignment as an energy allocator?**

12 A: A method recognizing peak demand, addressing MidAmerican’s generation
13 capacity responsibility per the MISO tariff, would allocate generation capacity
14 costs to demand (for example, excess demand or a customer class annual summer
15 peak). Instead, the HCM allocates all capacity costs to 8,760 demands – one for
16 every hour of the year. It is likely the majority of MidAmerican’s customer
17 meters do not even measure to this level of granularity. Each hourly demand,
18 multiplied by one hour, is the hourly energy consumption. The HCM’s 8,760
19 demands per year is, practically speaking, an energy-only allocator.

20 **Q: Why is an energy-only allocation of generation capacity costs a concern?**

21 A: This is a concern because it is a departure from cost causation, once these assets
22 are acquired to meet peak demand, to then reassign them on an energy-only basis.

1 MidAmerican is required to demonstrate capability, in MW capacity, to serve
2 summer peak load in accordance with Module E of the MISO tariff. Whether
3 capacity resources are owned or purchased in a medium or long-term purchase
4 power agreement (PPA), these capacity rights are not procured on an annual basis
5 and certainly not 8,760 times per year. An energy-only allocation of generation
6 capacity costs ignores this fact and results in a rate design that allocates a
7 disproportionate share of generation capacity costs to high load factor customers.
8 A business analogy would be that the capital (fixed) costs here are proposed to be
9 recovered instead on an expense (volumetric) basis.

10 **Q: MidAmerican witness Rea states one reason HCM is an appropriate method**
11 **for pricing generation service is that the HCM methodology rewards**
12 **customer groups with higher load factors. Do you agree?**

13 A: No. Any reasonable COS/Rate Design must strongly recognize that a high load
14 factor customer is less costly to serve, and that must be recognized in the cost of
15 service methodology and rate design.

16 **Q: What about the equity of the same price per kWh suggested by**
17 **MidAmerican witness Rea?**

18 A: MidAmerican witness Rea states “All customers that are taking generation service
19 in any given hour pay the same price per kWh under the HCM model for that
20 generation service regardless of size or end use.” See CBR Ex. 1.0 at 12. This is
21 also not reasonable, because to the extent the customer population includes those
22 with an inefficient (low) load factor and higher summer peaks, there will be more

1 generation to allocate, due to a heavy summer peaking load and MidAmerican's
2 requirement to build or procure the long-term capacity to meet that load. This
3 would result in overcharging a customer with a high load factor and flatter load
4 profile.

5 **Q: Does it also discourage demand management and efforts to offset generation**
6 **and capacity needs?**

7 A: Yes. MidAmerican's obligation for capacity is to meet its summer peak. If peak
8 demand is not valued properly for summer peaks, customer behavior will not
9 reflect the actual costs to serve higher loads at peak times. If peak demand is not
10 valued correctly in rate design, MidAmerican may need to build generation
11 sooner, and/or acquire a larger amount of generation capacity via a PPA, in order
12 to meet its Module E obligations as a load serving entity in MISO. These
13 increased costs would be borne by all customers, and may also have negative
14 environmental consequences. It certainly appears the HCM results could
15 artificially establish a need for more generation capacity, which is inefficient and
16 contrary to the stated energy efficiency and demand response policies of the State
17 of Illinois.⁵ MidAmerican should explain how its cost of service model maintains
18 or strengthens price signals to customers, versus former tariff rates, to reduce and

⁵ Section 8-103(a) of the Public Utilities Act states:
Energy efficiency and demand-response measures.

(a) It is the policy of the State that electric utilities are required to use cost-effective energy efficiency and demand-response measures to reduce delivery load. Requiring investment in cost-effective energy efficiency and demand-response measures will reduce direct and indirect costs to consumers by decreasing environmental impacts and by avoiding or delaying the need for new generation, transmission, and distribution infrastructure. 220 ILCS 5/8-103(a).

1 defer needs for future capacity additions by building generation or
2 acquiring/maintaining rights in a purchase power agreement.

3 **Q: Is Iowa’s decision approving HCM on an interim basis useful in this case?**

4 A: Clearly the ICC is not bound by a decision in another State. Additionally, the
5 IUB decision on this issue was embedded in its approval of a Non-Unanimous
6 Settlement, and as the IUB Order specifically stated, it is not a precedent for other
7 utilities in that State or even MidAmerican’s cost of service methodology in the
8 next proceeding; in fact, the IUB ordered a new COS study be filed in the next
9 case or in 3 years, whichever comes first.⁶ Finally, in Iowa, MidAmerican’s
10 Iowa-jurisdictional wind ownership was used as some justification to even
11 propose the untested HCM method; MidAmerican’s Iowa jurisdictional wind
12 should not be charged to Illinois customers or considered in this proceeding.

13 **TRANSMISSION COSTS AND RIDER TS**

14 **Q: What does MidAmerican’s transmission Rider TS accomplish?**

15 A: MidAmerican’s transmission rider, Rider TS, appears to move all transmission
16 costs from base rates into a new rider applicable to those customers that take
17 power and energy (“bundled”) service from MidAmerican. See DLK Ex. 1.0 at
18 23. MidAmerican believes this will place all transmission costs into a single
19 charge that will be recovered from customers purchasing bundled retail service,
20 while MISO will bill comparable charges to suppliers for (“unbundled”)

⁶ Order Approving Settlement, with Modifications, and Requiring Additional Information, *In re: MidAmerican Energy Company*, Docket No. RPU-2013-0004 at 85 (Iowa Utilities Board Mar. 17, 2014).

1 customers taking service from alternative retail electric service providers. See
2 DAS Ex. 1.0 at 4.

3 **Q: What comments does Deere have regarding this change?**

4 A: In general, it is important to keep utility and customer interests for value and cost
5 control aligned, and cost recovery riders are a last resort. Additionally, a rider
6 moves volatility risks from the utility's shareholders to customers, and in this case
7 of this transmission rider, costs are already increasing from the test year costs to
8 2014 as illustrated by MidAmerican witness Stevens' Exhibit DAS 1.1 Schedule
9 E. I believe costs will continue to increase primarily as a result of MISO Multi
10 Value Projects (MVPs). Moving assets from ICC jurisdictional rate base to a
11 FERC formula rate will cede some of the ICC's influence and can have an impact
12 on customer rates merely from this jurisdictional change without any specific
13 incremental benefit.

14 Deere is not necessarily opposed to a transmission rider but may comment further
15 in future rounds of testimony.

16 **Q: Does this conclude your testimony?**

17 A: Yes.