

STATE OF IOWA
DEPARTMENT OF COMMERCE
BEFORE THE IOWA STATE UTILITIES BOARD

IN RE:	:	
	:	
APPLICATION OF MIDAMERICAN	:	DOCKET NO. RPU-07-__
ENERGY COMPANY FOR A	:	
DETERMINATION OF	:	
RATEMAKING PRINCIPLES	:	
	:	

DIRECT TESTIMONY
OF
THOMAS C. FOSTER

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

2 A. My name is Thomas C. Foster. My business address is 666 Grand Avenue,
3 Des Moines, Iowa 50309.

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

5 A. I am employed by MidAmerican Energy Company ("MidAmerican" or
6 "Company"). My title is Director, Investments, Regulatory Finance and Analysis.

7 **Q.** Please describe your educational background and business experience.

8 A. I hold a Bachelor of Business Administration degree with a major in Finance and
9 a Master of Arts degree in Economics, both from the University of Iowa. I have
10 previously been employed by the Iowa Utilities Board ("Board") as a Financial
11 Analyst and later by Iowa Southern Utilities Company ("Iowa Southern") as a
12 Rate Economist. Through a series of transactions, Iowa Southern is now part of
13 Alliant Energy Corporation. While employed by the Board and Iowa Southern, I
14 had normal rate administration responsibilities and testified before the Board in a
15 number of proceedings. Later, I was employed by Iowa Wesleyan College as an

1 Associate Professor of Business Administration and taught undergraduate courses
2 in both finance and economics. I joined Iowa-Illinois Gas & Electric Company, a
3 predecessor to MidAmerican in 1992 and served in its Rate Department
4 conducting electric embedded and marginal class cost of service studies and
5 performing rate design. When MidAmerican was formed in 1995, I joined the
6 Treasury Department where I was responsible for overseeing the investment of
7 the Company's pension, other post-retirement and nuclear decommissioning trust
8 funds, and preparing capital structure and cost of capital calculations for various
9 purposes, including regulatory proceedings. In 2000, my functions were moved
10 to the Financial Services Department where, in addition to the previously
11 mentioned responsibilities, I prepare or review major capital budgeting proposals
12 related to the electric generation business of the Company and am responsible for
13 analyzing the creditworthiness of transmission customers taking service under the
14 Company's open access transmission tariff.

15 I am a member of the American Economics Association, the Chartered
16 Financial Analyst ("CFA") Institute, and the CFA Society of Iowa. I have
17 previously served as chairman of the board of directors of the CFA Society of
18 Iowa and in various executive positions for that group. I also hold the designation
19 of Chartered Financial Analyst.

PURPOSE OF TESTIMONY

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

21 A. The purpose of my testimony is to sponsor portions of Section 2 (Economic
22 Evaluation) of MidAmerican's Application for a Determination of Ratemaking

1 Principles ("Ratemaking Principles Application") concerning the Wind IV Iowa
2 Projects. I will describe how MidAmerican will determine if a wind project is
3 economic under the methodology outlined in the Wind IV Iowa Stipulation and
4 Agreement ("Wind IV Stipulation") entered into between the Company and the
5 Office of Consumer Advocate ("OCA"). I will also discuss how MidAmerican
6 proposes to apply portions of the amount currently included in electric rates for
7 the decommissioning of the Quad Cities Nuclear Power Station to rate
8 equalization efforts between MidAmerican's service territory zones, and perhaps
9 investment in selected power plants. In addition, I will discuss the results of an
10 economic analysis for the 75 MW expansion to the Pomeroy Project site that is
11 described by MidAmerican witness Tom Budler and is a part of the Wind IV Iowa
12 Projects. I will also discuss the projected results for a 465 MW project (assumed
13 to be a series of projects that, for the purposes of this testimony, are collectively
14 referred to as "Project X") to be constructed in 2008. Finally, I will sponsor two
15 requested ratemaking principles, the principle describing the Economic Test for
16 Qualifying Projects and the Return on Equity principle.

RATEMAKING PRINCIPLES APPLICATION

17 **Q. What information are you sponsoring in Section 2 of the Ratemaking**
18 **Principles Application?**

19 A. Section 2.1 (Present Value Calculations) describes the assumptions employed in
20 the analyses presented in the Ratemaking Principles Application as well as the
21 economic test that will be used to determine if a proposed project should be
22 included in the Wind IV Iowa Projects. Section 2.2 (Cost of Capital) discusses

1 the RPU-04-3 proceeding. As a result, the stipulated ROE of 11.7%, slightly
2 below that allowed in RPU-04-3, appears to continue to be within the range of
3 reasonableness of ROEs previously allowed by the Board in wind ratemaking
4 proceedings. Section 5.5 of the Ratemaking Principles Application contains a
5 discussion of the return on equity principle.

6 **Q. Please describe the information contained in Section 2.3 of the Ratemaking**
7 **Principles Application (Revenue Requirements).**

8 A. Section 2.3 describes the calculation of the annual revenue requirement for the
9 above-described analyses. The revenue requirement will include return,
10 depreciation, taxes and operation and maintenance expenses. This calculation
11 will employ the ratemaking principles requested in the Ratemaking Principles
12 Application.

FUNDING OF THE NUCLEAR DECOMMISSIONING TRUSTS

13 **Q. Please address the proposed ratemaking provision being suggested with**
14 **respect to funding of the Company's nuclear decommissioning trust funds.**

15 A. After concluding a review of the funding status of the Quad Cities Nuclear
16 Decommissioning Trusts, and taking into consideration the recent 20-year
17 extension of the operating license for the Quad Cities nuclear units (MidAmerican
18 has a 25% ownership share; Exelon Generating Company, LLC, ("Exelon") has
19 the remaining 75% ownership share and also operates the units), MidAmerican is
20 proposing that the amount deposited to the trusts be reduced from approximately
21 \$8.3 million per year to approximately \$1.6 million per year (The exact amount is
22 \$1,595,964). The approximate \$6.7 million difference would be used to satisfy

1 the Board's previously required (Docket No. RPU-04-2) efforts at rate
2 equalization, as approved in that docket or as subsequently ordered by the Board.
3 MidAmerican witness Crist will further elaborate on this particular item.

4 If funds remain after the rate equalization funding, the remaining annual
5 amount would be used during the remaining period of revenue sharing to reduce
6 the Wind IV Iowa Projects' investment in rate base (including AFUDC) or the
7 investment in Council Bluffs Energy Center Unit No. 4 plant (including AFUDC),
8 whichever has the highest ROE.

9 **Q. Please provide an overview of the process MidAmerican goes through to**
10 **determine appropriate decommissioning contribution levels for the nuclear**
11 **decommissioning trusts.**

12 A. It is a multi-step process. First, Exelon as the operator of the facility retains the
13 services of an industry-recognized expert to estimate the amount of funds needed
14 to decommission the plant. Second, MidAmerican makes an assessment as to the
15 level of contributions the trusts will require to be reasonably assured that adequate
16 funds will be available at the time decommissioning is expected to begin in the
17 year 2032. This assessment is made by a MidAmerican nuclear decommissioning
18 trust committee that considers the potential escalation rates in decommissioning
19 costs, the expected after-tax returns of the trusts and the pattern of contributions.
20 Finally, if necessary, MidAmerican will seek the required rulings from the Board
21 and the Internal Revenue Service ("IRS"). The IRS approval is required in order
22 to make tax deductible contributions to the tax qualified trust funds and the IRS

1 relies on state public utility commission decisions in approving the schedules of
2 such contributions to these trusts.

3 **Q. What was the basis for the cost estimate developed for decommissioning the**
4 **Quad Cities Station Nuclear Plant ("Station")?**

5 A. TLG Services, Inc. performed a site-specific study ("Study") of the Station in
6 2006, and the results of the Study are the basis for the total decommissioning
7 estimate. TLG Services, Inc. is an industry leader in nuclear power plant
8 decontamination and decommissioning planning and cost estimating. The Study
9 shows that for Unit I, MidAmerican's 25% share of the decommissioning cost, in
10 2006 dollars, is \$164.806 million, and for Unit II, MidAmerican's 25% share of
11 the decommissioning cost, in 2006 dollars, is \$166.805 million. These estimates
12 assume the DECON method of decommissioning, which is consistent with both
13 MidAmerican and Exelon's previous assumptions regarding the decommissioning
14 method to be employed at this facility. The DECON method is a process where
15 the equipment and structures of the facility that are radioactive are removed or
16 decontaminated to a level that permits the property to be released for unrestricted
17 use shortly after cessation of operations. The decommissioning costs for the two
18 units are very close but not identical due to design differences between the two
19 reactors and the sequencing of the decommissioning work.

20 **Q. Please describe the actions of the MidAmerican nuclear decommissioning**
21 **trust committee that led to the reduction in contributions to approximately**
22 **\$1.6 million annually.**

1 A. The MidAmerican nuclear decommissioning trust committee received input from
2 NISA Investment Advisors, L.L.C. ("NISA"), a firm that has been managing
3 nuclear decommissioning trust assets since its inception in 1994. NISA is one of
4 the largest NDT investment managers in the United States and offers portfolio
5 management services, liability analysis reviews, and performance calculations.
6 NISA assisted in the evaluation of reasonable returns for funds invested in the
7 trusts and the allocation of funds to various investment classes. In January 2007
8 the MidAmerican nuclear decommissioning committee met and discussed the
9 input received from NISA. The committee focused on a long-run, after-tax return
10 assumption consistent with the trusts' actual historical experience. The
11 committee also reviewed a methodology sponsored by the Nuclear Regulatory
12 Commission in order to estimate the escalation rate of decommissioning costs.
13 This led to a determination that a contribution level of approximately \$1.6 million
14 annually would be likely to fulfill the decommissioning obligation. The
15 MidAmerican nuclear decommissioning trust committee will meet in the future
16 following any updates in the Study, significant changes in market conditions or
17 any other factors that require the reassessment of the adequacy of the contribution
18 levels to the trusts.

19 The proposed contribution level not only appears to give reasonable
20 assurance that the trusts will be able to meet their decommissioning liability, but
21 allows for the rate equalization efforts mentioned previously and for the possible
22 reduction in rate base to minimize long-run rate fluctuations.

1 **Q. What is meant by the term “tax qualification” as it relates to nuclear**
2 **decommissioning?**

3 A. A “tax-qualified” nuclear decommissioning trust fund is a fund that meets certain
4 criteria as defined in Section 468A of the Internal Revenue Code (“Section
5 468A”). Tax-qualified nuclear decommissioning trust funds are afforded
6 favorable tax treatment as compared to non-qualified funds. There are two main
7 tax advantages provided by a tax-qualified fund. The first is that deposits made
8 into the trust fund can be treated as current-year tax deductions. The second is
9 that earnings on the investments in the tax qualified trust fund are taxed at an
10 applicable federal tax rate of 20% as compared to a 35% federal tax rate on
11 earnings in a non-qualified trust fund.

12 **Q. Did the Energy Policy Act of 2005 include any modifications to the special**
13 **rules for nuclear decommissioning and Section 468A?**

14 A. Yes. The Energy Policy Act of 2005 included a number of modifications to the
15 special rules for nuclear decommissioning. Among the modifications were
16 amendments to Section 468A which governs the tax qualification of nuclear
17 decommissioning trust funds. These amendments are effective for taxable years
18 beginning after December 31, 2005.

19 **Q. What were the requirements for tax qualification under Section 468A prior**
20 **to the changes resulting from the Energy Policy Act of 2005?**

21 A. In order to ensure the continued tax qualification of the trust, any change in the
22 funding levels had to be filed with and approved by the IRS. The IRS required a
23 statement from an order of the state commission (a) approving the schedule of

1 decommissioning cost accruals; (b) finding that the decommissioning cost
2 accruals were included in cost of service and were included in rates for
3 ratemaking purposes; and (c) finding that the earnings rate assumed for the trust
4 takes into consideration the tax rate change and the removal of the investment
5 restrictions resulting from the Energy Policy Act of 1992.

6 **Q. How have the requirements for tax qualification changed as a result of the**
7 **changes to Section 468A?**

8 A. There is no longer a cost of service requirement for tax-qualified funds.
9 Previously, deposits into a tax-qualified fund were limited by the amount included
10 in cost of service for ratemaking purposes so long as that amount did not provide
11 greater than level funding (i.e., not front-loaded). Regarding the allowed level of
12 funding into a tax-qualified fund, the revised Section 468A only states that "the
13 amount which a taxpayer may put into the fund for any taxable year shall not
14 exceed the ruling amount applicable to such taxable year."

15 **Q. What was the rationale for the elimination of the cost of service**
16 **requirement?**

17 A. The cost of service requirement was primarily eliminated to allow nuclear owners
18 in states that now have deregulated generation to maintain the tax-qualified status
19 of their trust funds in the absence of cost of service-based regulation.

20 **Q. How will the IRS determine the allowable level of funding to a tax-qualified**
21 **fund if it no longer has a state commission-ordered cost of service amount for**
22 **decommissioning funding upon which to rely?**

1 A. Because the elimination of the cost of service requirement has only recently
2 become effective it is not yet evident how the IRS will rule when it does not have
3 a state commission-ordered funding amount.

4 **Q. Given the elimination of the cost of service requirement for the tax-**
5 **qualification of the fund, what language would you request that the Board**
6 **put in its order regarding the amount of decommissioning funding in cost of**
7 **service for ratemaking purposes?**

8 A. MidAmerican respectfully requests that the Board use the same type of language
9 in the order approving the decommissioning funding level that was required prior
10 to the changes to Section 468A. Because of the uncertainty at this time regarding
11 potential IRS treatment, use of the prior Section 468A language provides the
12 greatest assurance of continued tax-qualified decommissioning funding.
13 MidAmerican respectfully requests that the Board provide an order that states the
14 following:

15 MidAmerican's annual Iowa jurisdictional decommissioning costs
16 included in the cost-of-service shall be \$1,595,964 divided equally
17 between the two units commencing on January 1, 2007.
18

19 **Q. Please explain how the above-mentioned \$6.7 million difference will be used**
20 **to reduce investment in rate base, if any of that amount remains after rate**
21 **equalization efforts.**

22 A. I have included a presentation that illustrates how reductions in rate base and the
23 amortization of a regulatory liability over the life of the proposed project would
24 be accomplished on confidential Tables 2.1-2(a) through 2.1-2(c) of the
25 Ratemaking Principles Application. It is MidAmerican's belief that this

MidAmerican Energy Company
Contributions to Quad Cities Station Nuclear Decommissioning Trusts

Exhibit ____ (TCF-1)

IRR: 5.27%

	<u>Beginning Balance</u>	<u>Contributions</u>	<u>Balance Before Earnings</u>	<u>Earnings</u>	<u>Liabilities (Future \$)</u>	<u>Ending Balance</u>	<u>FLows for IRR</u>
0 2006						246,998,000	(247,795,982)
1 2007	246,998,000	797,982	247,795,982	13,564,182		261,360,164	(1,595,964)
2 2008	261,360,164	1,595,964	262,956,128	14,394,038		277,350,165	(1,595,964)
3 2009	277,350,165	1,595,964	278,946,129	15,269,319		294,215,449	(1,595,964)
4 2010	294,215,449	1,595,964	295,811,413	16,192,513		312,003,926	(1,595,964)
5 2011	312,003,926	1,595,964	313,599,890	17,166,242		330,766,132	(1,595,964)
6 2012	330,766,132	1,595,964	332,362,096	18,193,273		350,555,369	(1,595,964)
7 2013	350,555,369	1,595,964	352,151,333	19,276,522		371,427,854	(1,595,964)
8 2014	371,427,854	1,595,964	373,023,818	20,419,067		393,442,886	(1,595,964)
9 2015	393,442,886	1,595,964	395,038,850	21,624,155		416,663,005	(1,595,964)
10 2016	416,663,005	1,595,964	418,258,969	22,895,208		441,154,177	(1,595,964)
11 2017	441,154,177	1,595,964	442,750,141	24,235,838		466,985,979	(1,595,964)
12 2018	466,985,979	1,595,964	468,581,943	25,649,853		494,231,796	(1,595,964)
13 2019	494,231,796	1,595,964	495,827,760	27,141,271		522,969,031	(1,595,964)
14 2020	522,969,031	1,595,964	524,564,995	28,714,327		553,279,322	(1,595,964)
15 2021	553,279,322	1,595,964	554,875,286	30,373,492		585,248,778	(1,595,964)
16 2022	585,248,778	1,595,964	586,844,742	32,123,478		618,968,219	(1,595,964)
17 2023	618,968,219	1,595,964	620,564,183	33,969,257		654,533,440	(1,595,964)
18 2024	654,533,440	1,595,964	656,129,404	35,916,072		692,045,476	(1,595,964)
19 2025	692,045,476	1,595,964	693,641,440	37,969,455		731,610,896	(1,595,964)
20 2026	731,610,896	1,595,964	733,206,860	40,135,239		773,342,099	(1,595,964)
21 2027	773,342,099	1,595,964	774,938,063	42,419,577		817,357,640	(1,595,964)
22 2028	817,357,640	1,595,964	818,953,604	43,837,529		862,791,132	(1,595,964)
23 2029	862,791,132	1,595,964	864,387,096	45,223,095		909,610,191	(1,595,964)
24 2030	909,610,191	1,595,964	911,206,155	46,569,470		957,775,625	(1,595,964)
25 2031	957,775,625	1,595,964	959,371,589	47,869,666		1,007,241,255	(1,595,964)
26 2032	1,007,241,255	1,595,964	1,008,837,219	49,116,546	2,465,690	1,055,488,075	1,667,710
27 2033	1,055,488,075	797,980	1,056,286,055	48,869,166	56,209,543	1,048,945,678	56,209,543
28 2034	1,048,945,678		1,048,945,678	48,529,563	136,210,862	961,264,379	136,210,862
29 2035	961,264,379		961,264,379	44,472,980	191,663,780	814,073,579	191,663,780
30 2036	814,073,579		814,073,579	37,663,185	208,959,767	642,776,997	208,959,767
31 2037	642,776,997		642,776,997	29,738,134	195,440,370	477,074,760	195,440,370
32 2038	477,074,760		477,074,760	22,071,905	179,804,651	319,342,015	179,804,651
33 2039	319,342,015		319,342,015	14,774,386	116,720,054	217,396,347	116,720,054
34 2040	217,396,347		217,396,347	10,057,861	61,051,537	166,402,671	61,051,537
35 2041	166,402,671		166,402,671	7,698,634	39,179,703	134,921,602	39,179,703
36 2042	134,921,602		134,921,602	6,242,160	18,158,613	123,005,149	18,158,613
37 2043	123,005,149		123,005,149	5,690,844	14,209,175	114,486,819	14,209,175
38 2044	114,486,819		114,486,819	5,296,743	14,871,706	104,911,856	14,871,706
39 2045	104,911,856		104,911,856	4,853,756	15,545,798	94,219,813	15,545,798
40 2046	94,219,813		94,219,813	4,359,088	16,230,229	82,348,673	16,230,229
41 2047	82,348,673		82,348,673	3,809,868	41,231,178	44,927,363	41,231,178
42 2048	44,927,363		44,927,363	2,078,568	40,658,305	6,347,627	40,658,305
43 2049	6,347,627		6,347,627	293,673	6,641,300	0	6,641,300
					1,355,252,259		

Notes 1 The rate of return to net the trust assets to zero at the end of decommissioning represents a return after-taxes, investment management fees, trustee fees and trading commissions. It represents a full liquidation rate of return.

2 Annual earnings of the trust reflect the allocation of investments among equities and fixed income securities. As decommissioning approaches the asset allocation becomes more heavily weighted to fixed income securities.