

1 A. Yes. Regulators should take into account the price  
2 fluctuations typically experienced by utility companies.  
3 Such fluctuations may be sizeable, often ranging from 10-15%  
4 in a year. A public utility has limited discretion over its  
5 capital spending and financing needs, since it must meet  
6 customer obligations regardless of economic and capital  
7 market conditions. Consequently, a utility is subject to  
8 constraints as to the timing of common stock issuances,  
9 including equity contributed through dividend reinvestment  
10 programs. A further adjustment to the cost of equity, in  
11 addition to the flotation adjustment, is therefore required.

12 To account for market fluctuation in the area of 10%, I  
13 regard a further 10% adjustment to the market yield as being  
14 adequate. This equates to 1.07% (10.7% yield multiplied by  
15 10%).

16 Q. Based on the above, what is the appropriate rate of return on  
17 common equity for ratemaking purposes?

18 A. Reflecting a 15.6% market cost of equity (as determined by a  
19 DCF analysis of Iowa-Illinois), a .45% adjustment for  
20 flotation, and a 1.07% adjustment for market price  
21 fluctuation, the appropriate return on common equity is  
22 around 17.12%. Using instead the 15.8% cost of equity for  
23 eight comparison companies, but the same flotation and  
24 pricing adjustments, produces a result of 17.32%.

1 Q. How did you check your return recommendation against  
2 historical risk return relationships?

3 A. I relied on a study published by The Financial Analysts  
4 Research Foundation in 1982 entitled, "Stocks, Bonds, Bills,  
5 and Inflation: The Past and the Future". This study by  
6 Roger G. Ibbotson and Rex A. Sinquefeld studied inflation  
7 and the returns on various securities for a 56 year period  
8 ended 1981. The authors found that the mean arithmetic risk  
9 premium for common stocks versus treasury bills, that is, the  
10 average difference between stock and T-bill returns, was  
11 8.3%. The geometric mean return, which is appropriate for  
12 longer term forecasting, was a lesser 5.9%.

13 As shown in the Wall Street Journal (April 20, 1984  
14 edition), the current annualized yield on 90 day Treasury  
15 bills is approximately 10.1%. However, the return on T-bills  
16 with a maturity of one year is a higher 11.0%, indicating a  
17 market perception of some rise in near term interest rates.  
18 This is borne out by an examination of financial futures  
19 markets, which indicate that a 90-day T-bill to be delivered  
20 about one year from now (March 1985) is priced at an  
21 effective yield of 11.1%. In view of this market data, I  
22 used the one year T-bill rate of 11% as the appropriate "risk  
23 free" rate. Adding to this the historic geometric mean risk  
24 premium of 5.9% produces a 16.9% cost of equity for the

1 market as a whole. Adding instead the arithmetic mean risk  
2 premium of 8.3% produces a 19.3% market cost of equity.

3 Q. Have you prepared an exhibit which shows the overall cost of  
4 capital for Iowa-Illinois Gas and Electric Company's gas  
5 operations?

6 A. Yes, this is shown on Exhibit No. 19, entitled, "Cost of  
7 Capital Calculation".

8 Q. What does this document show?

9 A. Exhibit No. 19 shows the Company's capitalization ratios and  
10 the earnings requirements for each component of  
11 capitalization. The embedded costs of debt and preferred and  
12 preference stock were provided by Iowa-Illinois. The cost of  
13 capital calculation shows the Company's overall cost of  
14 capital is in a range of 12.24%-12.32% reflecting my  
15 recommended range of 17.1%-17.3% as an appropriate return on  
16 common shareholder equity. A fair and reasonable rate of  
17 return for Iowa-Illinois Gas and Electric Company's gas  
18 distribution operations should be no less than its cost of  
19 capital.

20 Q. Does this conclude your testimony?

21 A. Yes.

DOCKET NO. RPU-92-2  
(RPU-88-10)

STATE OF IOWA  
DEPARTMENT OF COMMERCE  
UTILITIES BOARD

---

IN RE:

IOWA POWER INC. n/k/a MIDWEST  
POWER SYSTEMS INC.

DOCKET NO. RPU-92-2  
(RPU-88-10)

---

ORDER APPROVING SETTLEMENT AND GRANTING EXTENSION OF TIME

(Issued October 15, 1992)

On August 17, 1992, Iowa Power Inc. n/k/a Midwest Power Systems Inc. (Iowa Power), the Consumer Advocate Division of the Department of Justice (Consumer Advocate), Deere & Company, Bridgestone/Firestone Inc., and Iowa Electric Light and Power Company filed with the Utilities Board (Board) a "Joint Motion for Approval of Settlement Agreement" and "Settlement Agreement." The proposed settlement stated it resolved all outstanding issues pending in Docket No. RPU-92-2. There are no other parties to this proceeding.

This proceeding was initiated on March 17, 1992, by Iowa Power filing a request for a permanent annual revenue increase in its electric rates of approximately \$36.1 million. Iowa Power subsequently amended its request to approximately \$43.4 million. Consumer Advocate recommended a \$5.4 million revenue decrease. On June 4, 1992, the Board issued an order setting temporary rates. The parties notified the Board on August 4, 1992, of the impending settlement and on August 5, 1992, the Board issued an order holding the procedural schedule established in Docket No. RPU-92-2 in abeyance. A hearing on the proposed settlement was held on September 28,

1992, to provide the parties an opportunity to respond to the Board's inquiries regarding the proposed settlement.

The settlement resolves all issues involving revenue requirement and rate design and allows an increase in electric rates of approximately \$19.3 million, or 5 percent. A copy of the settlement agreement is attached and incorporated by reference. The overall weighted cost of capital used to calculate the annual revenue requirement is 10.227 percent. The test period used to determine rates is on the basis of a test year ending December 31, 1991, as adjusted.

This rate case presented several difficult issues, including Cooper nuclear costs, nuclear decommissioning, and Financial Accounting Standard (FAS) No. 106. The hearing on the proposed settlement produced testimony which indicated the parties thoroughly examined the issues and worked to reach a compromise settlement. While the Board may not have reached the same decision on individual issues as reflected in the settlement, the overall terms of the settlement are reasonable and generally consistent with recent Board decisions.

After reviewing the complete record in this proceeding, pursuant to IOWA ADMIN. CODE 199-7.2(11) (1992), the Board finds the terms of the parties' settlement agreement to be reasonable and will approve it. There are no aspects of the settlement agreement which are inconsistent with Iowa law or the rules of the Board and the terms of the settlement agreement are in the public interest.

The Board will also approve Iowa Power's new Security Lighting Service, which is part of the settlement, and will grant Iowa Power an

Docket No. RPU-92-2 (RPU-88-10)  
Page 3

extension of time until January 15, 1995, to complete the phase-out of the Lightwatchman program ordered in Docket No. RPU-88-10. The new Security Lighting Service is to be offered in lieu of the Lightwatchman program.

#### FINDINGS OF FACT

1. The proposed settlement is reasonable in light of the complete record in this proceeding.
2. The proposed settlement is in the public interest.

#### CONCLUSIONS OF LAW

1. The Utilities Board has jurisdiction over the parties and subject matter of this proceeding, pursuant to IOWA CODE §§ 476.1 and 476.6 (1991).
2. Pursuant to IOWA ADMIN. CODE 199-7.2(11) (1992), this order constitutes the final decision of the Utilities Board in Docket No. RPU-92-2.

#### ORDERING CLAUSES

IT IS THEREFORE ORDERED:

1. The proposed tariffs filed on March 17, 1992, by Iowa Power Inc. n/k/a Midwest Power Systems Inc., identified as TF-92-74 and TF-92-75, and made subject to investigation as part of this proceeding, are declared to be unjust, unreasonable, and unlawful.
2. The joint motion to approve the unanimous settlement agreement filed by the parties in Docket No. RPU-92-2 on August 17, 1992, is granted,

conditioned upon the filing of compliance tariffs acceptable to the parties and the Board.

3. On or before 45 days from the date of this order, Iowa Power Inc. n/k/a Midwest Power Systems Inc. shall file tariffs for the Board's consideration to implement the terms of the "Settlement Agreement" filed by the parties on August 17, 1992, and attached to this order.

4. Iowa Power Inc.'s n/k/a Midwest Power Systems Inc. new Security Lighting Service is approved, and Iowa Power is granted an extension until January 15, 1995, to complete the phase-out of the Lightwatchman program ordered by the Board in Docket No. RPU-88-10.

5. Motions and objections not previously granted or sustained are denied or overruled.

UTILITIES BOARD

Annex J. Nagel

Nancy S. Boyd

Ernest J. George, Jr.

ATTEST:

Raymond L. Vandenberg  
Executive Secretary

Dated at Des Moines, Iowa, this 15th day of October, 1992.

STATE OF IOWA  
DEPARTMENT OF COMMERCE  
BEFORE THE IOWA UTILITIES BOARD

---

IN RE:

IOWA POWER INC.,

n/k/a MIDWEST POWER SYSTEMS INC.

DOCKET NO. RPU-92-2

---

SETTLEMENT AGREEMENT

ARTICLE I

INTRODUCTION

On March 17, 1992, Iowa Power Inc. ("Iowa Power") filed with the Iowa Utilities Board ("Board") an application for a rate increase pursuant to Iowa Code Section 476.6 (1991), proposing to increase the annual revenue of Iowa Power by approximately \$36.1 million, or 10.0 percent. By order of April 10, 1992, the Board docketed the case as a formal proceeding identified as Docket No. RPU-92-2. On July 22, 1992, Iowa Power and Iowa Public Service Company merged with and into Midwest Power Systems Inc. (the successor corporation to Iowa Power), (hereinafter referred to as "Midwest Power" or "Company"). On July 23, 1992, the Board issued an order assigning the respective service territories of Iowa Power and Iowa Public Service to Midwest Power. The rate increase agreed to in this Settlement Agreement pertains only to customers in the former service territory of Iowa Power.

ARTICLE II

PURPOSE

This Settlement Agreement has been prepared and executed by Midwest

Power, the Office of Consumer Advocate, Bridgestone/Firestone Inc., Deere & Co., and Iowa Electric Light and Power Company (hereinafter collectively referred to as the "Parties", or individually as a "Party") for the purpose of resolving the disputed issues in Docket No. RPU-92-2 as herein provided and is applicable only to Docket No. RPU-92-2. In consideration of the mutual agreements hereinafter set forth, the Parties hereby agree as follows.

### ARTICLE III

#### JOINT MOTION

Upon execution of this Settlement Agreement, the Parties shall file the same with the Board together with a joint motion requesting that the Board issue an order approving this Settlement Agreement in its entirety without condition or modification.

### ARTICLE IV

#### CONDITION PRECEDENT

This Settlement Agreement shall not become effective unless and until the Board enters an order approving same in its entirety without condition or modification.

### ARTICLE V

#### PRIVILEGE AND LIMITATION

This Settlement Agreement shall become binding upon the Parties upon its execution, provided, however, that if this Settlement Agreement does not become

effective in accordance with Article IV, above, it shall be null, void, and privileged. This Settlement Agreement represents a settlement on a mutually agreeable outcome without resolution of specific issues of law or fact which were raised by the parties except as expressly provided in Article XI. This Settlement Agreement is intended to relate only to the specific matters referred to herein; no Party waives any claim or right which it may otherwise have with respect to any matter not expressly provided for herein; no Party shall be deemed to have approved, accepted, agreed, or consented to any ratemaking principle, any method of cost of service determination, or any method of cost allocation underlying the provisions of this Settlement Agreement (or the attachments thereto) or be prejudiced or bound thereby in any other current or future proceeding before the Board except as expressly provided in Article XI herein. Except as provided in Article XI, no Party shall directly or indirectly refer as precedent to the Settlement Agreement or that part of any Board order referring to this Settlement Agreement in any current or future proceeding before the Board.

## ARTICLE VI

### TEST PERIOD

The justness and reasonableness of rates in this case is to be determined on the basis of a pro forma annual revenue requirement determined on the basis of a test period ending December 31, 1991, as adjusted.

ARTICLE VII

RATE BASE

The rate base to be used to calculate Midwest Power's annual revenue requirement in this case shall be \$704,086,000. The rate base shall be the test year thirteen-month average net original cost of investment in electric plant in service and working capital with pro forma adjustments as set forth in Schedule A.

ARTICLE VIII

REVENUE REQUIREMENT

The total annual revenue requirement in this case shall be \$404,259,000 as set forth in Schedule A.

ARTICLE IX

RATE OF RETURN AND CAPITAL STRUCTURE

The parties agree that the allowable overall weighted cost of capital used to calculate the annual revenue requirement in this case shall be 10.227 percent as set forth in Schedule A.

ARTICLE X

RETURN ON EQUITY

The Parties agree that the rate of return on common equity to be used to

calculate Midwest Power's annual revenue requirement in this case shall be an 11.9 percent cost of common equity, added to which shall be a 30 basis point management efficiency award associated with merger activity, for an overall allowed return on common equity of 12.2 percent. Consistent with the Board's decision in Docket No. RPU-91-6, the 30 basis point addition to the cost of equity referred to above shall not be used by Midwest Power for calculating AFUDC, in calculations for energy efficiency purposes, or other regulatory purposes.

## ARTICLE XI

### DECOMMISSIONING COST ASSUMPTIONS

The Parties agree that projections of Midwest Power's decommissioning costs for Cooper Nuclear Station ("Cooper") should be calculated using the following assumptions:

a. that the amount remaining in the Nebraska Public Power District's ("NPPD") Fuel Reserve Fund, for Cooper, at the time Midwest Power's Cooper contract terminates will be used to defray the cost of decommissioning Cooper.

b. that the amount remaining in NPPD's Reserve Account in the Reserve and Contingency Fund, for Cooper, at the time Midwest Power's Cooper contract terminates will be used to defray the cost of decommissioning Cooper.

c. that the amount remaining in NPPD's Operating Fund, for Cooper, at the time Midwest Power's Cooper contract terminates will be used to defray the cost of decommissioning Cooper.

d. that the interest earnings of the above-referenced funds, during the decommissioning period, will be used to defray the cost of decommissioning Cooper.

Language in Article V to the contrary notwithstanding, the agreement of the Office of Consumer Advocate ("Consumer Advocate") and Midwest Power to the above assumptions is intended to have application in all future Midwest Power rate proceedings before the Board. (The agreement of Bridgestone/Firestone Inc. and Deere & Company to the above assumptions is intended to have application only to Docket No. RPU-92-2, not all future Midwest Power rate proceedings before the Board, nor is said agreement to be construed as a waiver of Article V by either Bridgestone/Firestone Inc. or Deere & Company.) Therefore, by virtue of this Article XI, Midwest Power and the Consumer Advocate will have the right to refer to Article XI as Midwest Power's and the Consumer Advocate's mutual approval, acceptance, agreement and consent to the ratemaking principle that projections of Midwest Power's decommissioning costs for Cooper, for ratemaking purposes, should be computed in conformance with the above-stated assumptions. Midwest Power and the Consumer Advocate waive any claim or right to object to use of such assumptions in future computations of the projected Cooper decommissioning costs. Midwest Power and the Consumer Advocate reserve the right to litigate, in future Midwest Power rate proceedings, all other assumptions related to the computation of Midwest Power's projected decommissioning costs for Cooper.

## ARTICLE XII

### TIMELINESS OF APPROVAL

In entering into this Settlement Agreement, the Parties have contemplated that this Settlement Agreement would be approved by the Board as expeditiously as reasonably possible so that tariffs incorporating its terms could be implemented as ear.

as possible.

### ARTICLE XIII

#### RESERVED FOR FUTURE LITIGATION

The Parties explicitly reserve for future litigation:

- a. the issue of whether the Company's costs associated with the canceled Vandalia Project can be recovered from ratepayers;
- b. the issue of whether the Company's investment in the reusable plant and equipment at the former Des Moines Power Station (now known as "Des Moines Energy Center") should be included in the Company's rate base;
- c. the issue of whether the Board should approve the Company's proposed automatic rate adjustment mechanism relating to its Cooper costs; and
- d. the issue of whether the Board should approve the Company's proposal for a sharing of the energy and demand margins from its bulk power sales.

### ARTICLE XIV

#### FINANCIAL ACCOUNTING STANDARD 106

The Parties are in agreement and hereby urge the Board to institute a proceeding of general application (e.g., a rulemaking proceeding) that will address Financial Accounting Standard 106 ("FAS 106"), and that will address the issue of the proper ratemaking treatment to be followed by rate regulated Iowa utilities with respect to the costs for post-retirement medical benefits as booked in accordance with FAS 106.

The Parties are in further agreement and hereby urge the Board to render an agency decision with respect to the foregoing issues on or before December 31, 1992.

ARTICLE XV

EXECUTIVE INCENTIVE COMPENSATION

The Parties agree that Midwest Power's executive incentive compensation plan will be modified to explicitly consider individual performance.

ARTICLE XVI

RATE DESIGN

The Parties agree that the rate increase resulting from this Settlement Agreement shall be allocated to ratepayers in the manner and according to the procedure proposed in the Company's rate increase filing submitted to the Board on March 17, 1992 (i.e., in a manner that produces an across-the-board increase for all classes of customers). The customer charge will not be changed. The billing determinants to be used in designing the Company's rates shall be the test year billing units as set forth in Schedule B, attached hereto. The annual revenue requirement determined in this case is \$404,259,000 as set forth Article VIII. However, for purposes of rate design, this revenue requirement shall be reduced by \$4,894,000, the amount of the sales growth adjustment referenced in Schedule A. Therefore, final tariffed rates when applied to the billing determinants shown in Schedule B, plus the addition of Sales for Resale-Other Revenue in the amount of \$19,340,903 (see Interim Workpaper ODS-C, page 1 of 5) and

Other Operating Revenues-Iowa Jurisdictional in the amount of \$3,418,697 (see Interim Workpaper ODS-C, page 1 of 5, filed on June 8, 1992) shall produce revenues not to exceed \$399,365,000.

## ARTICLE XVII

### SECURITY LIGHTING SERVICE

The Parties agree that the Board should approve Midwest Power's proposed new Security Lighting Service program, as described in the prefiled Direct Testimony of O. Dale Stevens, to be offered in lieu of the Lightwatchman program currently being phased out.

## ARTICLE XVIII

### NEW RATE INCREASE FILING

Midwest Power agrees that any subsequent Application For Increased Electric Rates, filed after the conclusion of Docket No. RPU-92-2, and filed pursuant to Iowa Code Section 476.6 (1991), shall not be filed prior to March 1, 1993 and would not seek an effective date for interim rates prior to June 1, 1993. The foregoing agreement, however, shall not apply and shall not be binding on Midwest Power in the event Midwest Power experiences an extraordinary occurrence that requires the Company to seek rate relief.

Respectfully submitted,

OFFICE OF CONSUMER ADVOCATE

By *Ronald C. Polle*  
Ronald C. Polle  
Attorney  
4th Floor  
Lucas State Office Building  
Des Moines, Iowa 50319

ATTORNEY FOR THE OFFICE OF  
CONSUMER ADVOCATE

Date 8/17/92

MIDWEST POWER SYSTEMS INC.

By *Charles R. Montgomery*  
Charles R. Montgomery  
Manager-Legal Services  
2800 Ruan Center  
666 Grand Avenue  
Des Moines, Iowa 50309

By *Steven R. Weiss*  
Steven R. Weiss  
Senior Attorney  
2800 Ruan Center  
666 Grand Avenue  
Des Moines, Iowa 50309

ATTORNEYS FOR MIDWEST POWER  
SYSTEMS INC.

Date 08/17/92

BRIDGESTONE/FIRESTONE INC.

By *Michael R. May*  
Michael R. May  
Attorney at Law  
Suite 935-Two Ruan Center  
601 Locust Street  
Des Moines, Iowa 50309

ATTORNEY FOR INTERVENOR

Date 8/17/92

IOWA ELECTRIC LIGHT & POWER

By \_\_\_\_\_  
Jonathan M. Rogoff  
Senior Attorney  
200 First Street, S. E.  
Cedar Rapids, Iowa 52401

ATTORNEY FOR INTERVENOR

Date \_\_\_\_\_

Respectfully submitted,

OFFICE OF CONSUMER ADVOCATE

MIDWEST POWER SYSTEMS INC.

By \_\_\_\_\_  
Ronald C. Polle  
Attorney  
4th Floor  
Lucas State Office Building  
Des Moines, Iowa 50319

By \_\_\_\_\_  
Charles R. Montgomery  
Manager-Legal Services  
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ATTORNEY FOR THE OFFICE OF  
CONSUMER ADVOCATE

By \_\_\_\_\_  
Steven R. Weiss  
Senior Attorney  
2800 Ruan Center  
666 Grand Avenue  
Des Moines, Iowa 50309

Date \_\_\_\_\_

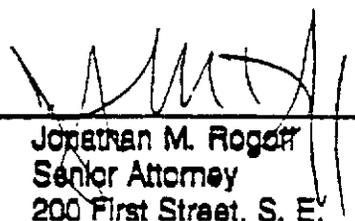
ATTORNEYS FOR MIDWEST POWER  
SYSTEMS INC.

Date \_\_\_\_\_

BRIDGESTONE/FIRESTONE INC.

IOWA ELECTRIC LIGHT & POWER

By \_\_\_\_\_  
Michael R. May  
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By \_\_\_\_\_  
  
Jonathan M. Rogoff  
Senior Attorney  
200 First Street, S. E.  
Cedar Rapids, Iowa 52401

ATTORNEY FOR INTERVENOR

ATTORNEY FOR INTERVENOR

Date \_\_\_\_\_

Date 8/13/92

DEERE & COMPANY

By George E. Van Damme

George E. Van Damme  
John Deere Road  
Moline, Illinois 51265

*M.P. My*

ATTORNEY FOR INTERVENOR

Date 8/17/22

## CERTIFICATE OF SERVICE

I, Charles R. Montgomery, hereby certify that I have this day served the attached documents upon the following parties, at the following addresses in accordance with the rules of the Iowa Utilities Board.

Susan Allender  
General Counsel  
Fifth Floor  
Iowa Utilities Board  
Lucas State Office Building  
Des Moines, Iowa 50319

James R. Maret  
Consumer Advocate  
Fourth Floor  
Lucas State Office Building  
Des Moines, Iowa 50319

Michael R. May  
Attorney at Law  
Bridgestone/Firestone Inc.  
Suite 935-Two Ruan Center  
601 Locust Street  
Des Moines, Iowa 50309

George E. VanDamme  
Deere & Company  
John Deere Road  
Moline, Illinois 51265

Jonathan M. Rogoff  
Iowa Electric Light & Power  
200 First Street, S. E.  
Cedar Rapids, Iowa 52401

Dated at Des Moines, Iowa this 17th day of August, 1992.

By Charles R. Montgomery  
Charles R. Montgomery  
Manager-Legal Services  
666 Grand Avenue  
2800 Ruan Center  
Des Moines, Iowa 50309  
Telephone: 515/281-2900

Revenue Requirement  
Iowa Power  
RPU-92-2

1 Adjusted Rate Base	704,086
2 Rate of Return	10.23%
3 Allowable Operating Income	72,010
4 Pro Forma Operating Income	60,552
5 Additional Operating Income Requirement	11,458
6 Additional Income Taxes	7,867
7 Additional Revenue Requirement	19,325
8 Pro Forma Revenues	384,935
9 Total Revenue Requirement	404,259

Income Statement  
Iowa Power  
For Test Period Ended December 31, 1991

	Per Books (A)	Adjusts. Page 1 (B)	Adjusts. Page 2 (C)	Adjusts. Page 3 (D)	Total (E)	Increase (Decrease) (F)	Total After Increase (Decrease) (G)
1 Operating Revenues	381,453	3,482	0	0	384,935	19,325	404,259
2 Oper. and Maintenance	219,507	21,859	(6,858)	340	234,847		234,847
3 Depr. and Amortization	42,159	(121)	52	858	42,948		42,948
4 Other Taxes	30,996	(1,381)	17	0	29,632		29,632
5 Federal Income Tax	13,914	(5,132)	1,983	(366)	10,400	5,902	16,302
6 State Income Tax	4,660	(1,745)	660	(122)	3,454	1,965	5,419
7 Deferred Tax	4,888	(124)	14	167	4,945		4,945
8 ITC	(1,850)	6	0	0	(1,844)		(1,844)
9 Total Expense	314,274	13,363	(4,132)	877	324,382	7,867	332,249
10 Operating Income	67,179	(9,881)	4,132	(877)	60,552	11,458	72,010

Income Statement  
 Iowa Power  
 For Test Period Ended December 31, 1991

	Franchise Fee (A)	FERC Wholesale Requmts. (B)	Int. On Cust. Deposits (C)	Bank Fees (D)	Interest Synch. (E)	Rate Case Expense (F)	Income Tax (G)	FPUR88-10 Refund (H)	EOP Customer Levls (I)	EOP Emplee. And Wages (J)	1992 Cooper Budget (K)	1993 Cooper Budget (L)	Cooper Station Annualize Amortization 1991 (M)	1992 Amortization (N)	Capacity Purchases (O)	Total Page One (P)
1 Operating Revenue	(1,297)	(774)						650	4,894							3,462
2 Oper. and Maintenance		(722)	206	122		(205)		657	643	145	13,171	6,933	2,371	(755)	294	21,858
3 Depr. and Amortization		(121)														(121)
4 Other Taxes	(1,296)	(79)								(9)						(1,381)
5 Federal Income Tax	(0)	63	(63)	(37)	(95)	63	109	1	1,298	(42)	(4,022)	(1,812)	(724)	231	(90)	(5,132)
6 State Income Tax	(0)	18	(21)	(12)	(32)	21	0	0	432	(14)	(1,339)	(803)	(241)	77	(30)	(1,745)
7 Deferred Income Tax		(15)					(109)									(124)
8 ITC		0														0
9 Total Expense	(1,296)	(860)	122	72	(126)	(122)	0	656	2,374	82	7,809	3,518	1,406	(448)	174	13,363
10 Operating Income	(1)	86	(122)	(72)	126	122	0	1	2,520	(82)	(7,809)	(3,518)	(1,406)	448	(174)	(9,661)

Income Statement  
 Iowa Power  
 For Test Period Ended December 31, 1991

	Changes in Wages (A)	Vendata Project (B)	Storm Damage (C)	Power Plant Maintenance (D)	DPS Retiremnts (E)	Merger Savings Starting (F)	Alloc. Merger Costs (G)	Early Retire. Savings (H)	Non-Labor Cost Savings (I)	Elim. Severance Savings (J)	FAB 100 (K)	MINT Project (L)	1005 Early Retiremnt (M)	Rose Chemical (N)	Syc-tch. 345kV Rebuild (O)	Total Page Two (P)
1 Operating Revenue																0
2 Oper. and Maintenance	1,745	(673)	(467)	(4,376)	91	0	(779)	(1,361)	(92)	(534)	0	63	(303)	(152)		(8,658)
3 Depr. and Amortization												4			46	52
4 Other Taxes	100							(66)								17
5 Federal Income Tax	(564)	200	143	1,338	(26)	0	157	448	26	163	0	(20)	93	46	(24)	1,983
6 State Income Tax	(186)	88	47	445	(9)	0	52	148	9	54	0	(7)	31	15	(6)	600
7 Deferred Income Tax															14	14
8 ITC																0
9 Total Expense	1,086	(399)	(277)	(2,585)	54	0	(570)	(670)	(56)	(317)	0	40	(160)	(90)	30	(4,132)
10 Operating Income	(1,086)	399	277	2,595	(54)	0	570	670	55	317	0	(40)	160	90	(30)	4,132

Income Statement  
Iowa Power  
For Test Period Ended December 31, 1991

	Leh.-Ram 345kV Rebuild (A)	Bulk Power Sales (B)	Control Center (C)	Energy Managmnt System (D)	Expense Adj. (E)	Consol. Tax Savings (F)	Executive Bonuses (G)	Economic Devlpmnt. (H)	(I)	DMP Asbestos Removal (J)	(K)	(L)	(M)	(N)	(O)	Total Page (P)
1 Operating Revenue		0														0
2 Oper. and Maintenance		0			(215)		0	(182)	0	716						340
3 Depr. and Amortization	68		100	562												856
4 Other Taxes																0
5 Federal Income Tax	(43)	0	0	(219)	68	0	0	48	0	(219)	0	0	0	0	0	(368)
6 State Income Tax	(14)	0	0	(73)	22	0	0	18	0	(73)	0	0	0	0	0	(122)
7 Deferred Income Tax	24			143												167
8 ITC																0
9 Total Expense	63	0	100	433	(127)	0	0	(90)	0	425	0	0	0	0	0	877
10 Operating Income	(53)	0	(100)	(433)	127	0	0	88	0	(425)	0	0	0	0	0	(877)

Rate Base  
Iowa Power  
For Test Period Ended December 31, 1991

	13-Month Avg. Balance	Cooper Station 1991	Cooper Station 1992	Oct. 91 IceStorm Sys-Leh.	Oct. 91 IceStorm Leh.-Rein	Des Moines Power Station	Ia Power Control Center	Energy Mngmnt Center	MINT Project	90-Day Coal Burn	Working Capital		Adjusted Rate Base
1 Plant-in-Service	1,126,200	0	0	2,120	3,768	0	6,457	5,793	309				1,144,647
2 Accumulated Depreciation	(416,066)			100	176	0	(150)	(346)	(5)				(416,313)
3 Net Plant	700,112	0	0	2,220	3,946	0	6,307	5,445	304	0	0	0	728,334
Deductions:													
4 Accumulated Deferred Income Taxes	101,190			6	14			63				0	101,295
5 Unamortized Investment Tax Credit	516												516
6 Customer Advances for Construction	2,009												2,009
7 Customer Deposits	1,404												1,404
8 Reserve for Workmen Compensation & Major Losses	(539)												(539)
9 Reserve for Uncollectible Accounts	266												266
10 Unclaimed Checks	273												273
11 Total Deductions	106,201	0	0	6	14	0	0	63	0	0	0	0	106,306
Additions:													
12 Cooper Contractual Payments	70,669	7,642	(6,780)										60,531
13 Working Capital (OCA Ex. ____ (BWT), Schedule V)	4,789									(264)	1,208		5,713
14 Total Additions	64,458	7,642	(6,780)	0	0	0	0	0	0	(264)	1,208	0	66,244
15 Total Rate Base	664,369	7,642	(6,780)	2,212	3,922	0	6,307	5,362	304	(264)	1,208	0	706,272
16 Less: Non-jurisdictional at .309499572%	2,124	24	(21)	7	12	0	20	17	1	(1)	4	0	2,168
17 Total Jurisdictional Rate Base	664,244	7,618	(6,759)	2,205	3,920	0	6,287	5,345	303	(263)	1,205	0	704,086

Common Stock	328,108	48.198%	11.900%	5.736%
ME/Merger	328,108	48.198%	0.300%	0.145%
Common Stock—Total	328,108	48.198%	12.200%	5.880%
Preferred Stock	19,277	2.832%	4.365%	0.124%
Long—Term Debt	333,369	48.971%	8.625%	4.224%
Total	680,754			10.227%

DIRECT TESTIMONY OF  
PETER W. AHN

IOWA POWER, INC.

RPU-92-2

BEFORE THE  
IOWA STATE UTILITIES BOARD

ON BEHALF OF  
BRIDGESTONE/FIRESTONE GROUP

June 15, 1992

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I. STATEMENT OF QUALIFICATIONS

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Q. Would you please state your name, address and occupation?

A. My name is Peter W. Ahn. My business address is 2150 Dain Bosworth Plaza, 60 South Sixth Street, Minneapolis, Minnesota. I am an Associate Consultant with Dahlen, Berg & Co., a management consulting firm.

Q. Please you summarize your experience in the area of public utility regulation.

A. I have participated in several regulatory engagements regarding electric and gas utilities. These engagements have included testifying, analysis of filings, research and assistance in preparation of testimony, exhibits and briefs concerning rate of return, rate design, program design, and cost allocation. I performed analyses and testified before the Iowa State Utilities Board (Board) on the rate of return on common equity in Docket No. RPU-91-9, Iowa Electric Light and Power's request for a rate increase.

I have performed analyses and assisted in preparing testimony before the Iowa State Utilities Board in the following cases:

In Docket No. RPU-91-7 - Interstate Power Company's request for an electric rate increase, I performed analyses and assisted in preparing testimony and briefs regarding rate of return.

In Docket No. RPU-91-6 - The Office of the Consumer Advocate's request for a decrease in Iowa Public Service's electric rates, I performed analyses and assisted in preparing testimony and briefs regarding rate of return.

1 In Docket No. EEP-91-8 - Iowa Public Service Company's energy efficiency plan, I  
2 assisted in preparing testimony regarding lost revenue estimates, cost allocation,  
3 and program design.

4  
5 In Docket No. RPU-91-5 - Midwest Gas' request for a natural gas rate increase, I  
6 performed analyses and assisted in preparing testimony and briefs regarding rate  
7 of return and rate design.

8  
9 In Docket No. EEP-91-5 - Interstate Power Company's energy efficiency plan, I  
10 prepared analyses regarding program design.

11  
12 Additionally, I performed analyses regarding rate of return before Nebraska  
13 Municipalities in August, 1991 regarding Minnegasco, a division of Arkla, Inc.'s,  
14 filing for a general rate increase in Nebraska Municipalities.

15 Q. Have you participated in any other engagements involving utilities?

16 A. Yes. For the Blue Earth Light and Water Department, Blue Earth, Minnesota, I  
17 performed analyses of the present value of lost revenues from a protected service  
18 territory. Also, I performed financial analyses related to the purchase and  
19 construction of additional capacity for Blue Earth.

20  
21 On behalf of the Minnesota Energy Consumers, I participated in the Northern  
22 States Power (NSP) Demand-Side Management Energy Efficiency Task Force.

23  
24 On behalf of the River Electric Association and Minnesota Municipal Power  
25 Agency (MMPA), I performed financial analyses related to development of the  
26 MMPA. This work included analyses related to debt financing and other financial  
27 projections.

1 On behalf of the Minnesota Alliance for Fair Competition, I performed analyses  
2 and conducted discovery related to ratepayer subsidization of utilities' unregulated  
3 businesses.

4 Q. Would you outline your educational background?

5 A. In June of 1991, I received an M.B.A. degree with a concentration in strategic  
6 management from the Carlson School of Management at the University of  
7 Minnesota, Minneapolis, Minnesota. During 1989, I attended the A.B. Freeman  
8 School of Business at Tulane University, New Orleans, Louisiana. In January of  
9 1988, I received a B.A. degree with a major in economics from Macalester College,  
10 St. Paul, Minnesota.

11 Q. Would you describe your professional background?

12 A. In August of 1991, I joined the management consulting firm of Dahlen, Berg & Co.  
13 During the academic year 1990-91, I was a teaching assistant in the finance  
14 department and a research assistant in the strategic management department at the  
15 University of Minnesota, Minneapolis, Minnesota. In 1989, I completed an  
16 internship in the finance and debt management department of Union Electrica  
17 Fenosa, an investor-owned electric utility in Madrid, Spain.

II. PURPOSE OF TESTIMONY

3

4 Q. What is the purpose of your testimony?

5 A. My testimony presents the results of my analysis of Iowa Power's (IP) cost of  
6 common equity related to IP's request for an electric rate increase in this case.

7 Q. By whom were you engaged in this case?

8 A. Dahlen, Berg & Co. was engaged by the Bridgestone/Firestone group. The members  
9 of this group are customers of IP's Large General Service class.

10 Q. What is the scope of the work you performed in this case?

11 A. I reviewed IP's filing and performed analyses of information related to IP and  
12 other electric utilities. The scope of my work was limited to review of IP's filing,  
13 other documents prepared by IP, and other publicly available information.

14 Q. How is your testimony organized?

15 A. My testimony is presented in the following sections:

- 16 ● Section III, Rate of Return, and
- 17 ● Section IV, Industry Average Returns.

III. RATE OF RETURN

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Q. What rate of return on common equity has IP proposed in this proceeding?

A. IP has proposed a rate of return on common equity of 12.75% in this proceeding. The proposed 12.75% rate of return on common equity is based on the results of Risk Premium and Discounted Cash Flow (DCF) analyses performed by IP witness Dr. Vander Weide.

Q. Should the Board allow IP's proposed 12.75% rate of return on common equity?

A. No. The Board should not allow IP's proposed 12.75% return on common equity because the proposed return is significantly higher than IP's cost of common equity.

Q. What is the basis of the rate of return criteria for regulated businesses presented in your testimony?

A. The basis of the rate of return criteria presented in my testimony was set forth in the Supreme Court's Bluefield (1923) and Hope (1944) cases. In these cases, the Supreme Court determined two basic criteria of a "fair" rate of return for a regulated company. First, the return of common equity should be equal to the return on companies of similar risk and uncertainty. Second, the "fair" rate of return must provide enough earnings for the company to maintain its credit rating and attract capital on reasonable terms.

**Cost of Common Equity**

Q. What is IP's cost of common equity?

A. IP's cost of common equity is 9.46%. My estimate is based on the average cost of common equity for companies comparable to IP.

Q. How did you estimate IP's cost of common equity?

A. I estimated IP's cost of common equity using a DCF analysis.

Q. Why should a DCF analysis be used to estimate the cost of common equity in this case?

A. A DCF analysis should be used to estimate the cost of common equity in this case because the DCF analysis produces a cost of common equity estimate that satisfies the rate of return criteria for regulated businesses set forth in the Supreme Court's Hope and Bluefield cases. Further, utilities are generally dividend-paying stocks, making the DCF analysis especially useful for estimating the cost of common equity.

#### Discounted Cash Flow Analysis

Q. What is a Discounted Cash Flow analysis?

A. A Discounted Cash Flow analysis is a method for estimating a company's cost of common equity. The DCF model is based on the theory that the price of a stock is equal to the present value of future dividends plus any growth in the value of the stock.

Q. What form of the DCF model was used in your analyses?

A. The DCF model used in my analyses was as follows:

$$k = D_1 / P + g \quad \text{where,}$$

$k$  = the rate of return expected on securities of similar risk,

$D_1$  = the dividend expected during the next twelve months,

$P$  = the stock price, and

$g$  = the expected dividend growth rate.

Q. How did you estimate the dividend expected during the next twelve months, " $D_1$ "?

A. I estimated " $D_1$ " by multiplying the most recent quarterly dividend by four (the indicated annual dividend) times one plus one half of " $g$ ".

Q. Why is this method of estimating " $D_1$ " appropriate?

1 A. The method I used to estimate " $D_1$ " is appropriate because it reflects current  
2 information and recognizes firms will, on average, increase dividends halfway  
3 through the year.

4 Q. How did you estimate the stock price, "P"?

5 A. I estimated "P" by taking an average of the high and low stock prices over the  
6 period February, 1992 to April, 1992 as shown in Exhibit \_\_\_\_\_ (PWA-1), Schedule 1.

7 Q. How did you estimate the expected dividend growth rate, "g"?

8 A. The expected dividend growth rates used in my analyses are *Value Line* estimates.  
9 The *Value Line* estimates used in my analyses are widely available and reflect  
10 current information about dividend growth.

11 Q. Did you use the *Institutional Brokers Estimate System (IBES)* estimate of earnings  
12 growth that Dr. Vander Weide used in his analyses?

13 A. No. I did not use the *IBES* estimates. The *IBES* estimates are a summary of  
14 investment analysts' projections that present earnings growth estimates rather than  
15 dividend growth estimates. Further, given that *Value Line* predicts no earnings  
16 growth for Midwest Resources, the 5.5% *IBES* earnings growth rate for Midwest  
17 Resources used by Dr. Vander Weide appears excessive.

18 Q. What base sample of companies was used in your DCF analyses?

19 A. The base sample of companies in my DCF analyses was electric companies in the  
20 *Value Line Electric Utility (East, Central and West) Industry*. Companies were  
21 excluded from the analyses if:

- 22 ● The stock of the utility was not traded on either the New York Stock  
23 Exchange or the American Stock Exchange, or
- 24 ● The company had decreased or omitted a common dividend in the current  
25 or prior three quarters.

Q. Did you apply the DCF model to other comparison groups?

A. Yes, I applied the DCF model to two subsets of the base sample of companies. The subsets were determined using the following comparison criteria:

- 3 o Companies with a *Value Line* safety rating of "2," and
- 4 o Companies with a *Standard & Poor's (S&P)* bond rating of "A".

5 DCF analyses performed on groups of risk comparable companies produces a cost  
6 of common equity estimate that satisfies the standards set forth in the Hope and  
7 Bluefield cases. I have included a list of the companies in the base sample of  
8 companies and their ratings as Exhibit \_\_\_\_\_ (PWA-1), Schedule 2.

9 Q. Would you describe the comparison criteria used in your analyses?

10 A. Yes. The comparison criteria used in my analyses are readily available ratings,  
11 commonly used by investors and analysts.

- 12 • The *Value Line* safety rating is an investment ranking index, scaled "1" to  
13 "5," with "1" being the safest. Midwest Resources has a safety rating of "2,"  
14 so companies with a safety rating of "2" were used in the comparison group.  
15 (The only way to purchase Iowa Power equity is to buy Midwest Resources  
16 common stock).

- 17 • The second comparison measure used was the *Standard and Poor's (S&P)*  
18 bond rating which is a relative rating of a firm's ability to repay debt. IP's  
19 S&P bond rating is "A," so companies with a bond rating of "A" were used  
20 in this sample.

21 Q. What were the results of your DCF analyses?

22 A. The DCF analyses for the comparison groups described above yielded an estimated  
23 cost of common equity ranging from 9.24% to 9.83% The individual DCF results  
24 are as follows:

25 Results for Comparison Groups

26	<i>Value Line</i> base sample	9.83%
27	<i>Value Line</i> safety rating of 2	9.30%

S&P debt rating of A 9.24%

2 I have included a summary of my DCF analyses as Exhibit \_\_\_\_\_(PWA-1), Schedule  
3 3.

4 Q. What is your recommended cost of common equity for IP?

5 A. I recommend a 9.46% cost of common equity for IP, based on the average cost of  
6 common equity of the comparison groups in my DCF analyses.

7  
8 **IP's Proposed Return on Common Equity**

9 Q. Should the Board use the Risk Premium analysis as a basis for estimating IP's cost  
10 of common equity?

11 A. No. The Board should not use the Risk Premium analysis to estimate IP's cost of  
12 common equity. The Risk Premium analysis depends on averages of historical  
13 values that do not recognize today's capital market conditions.

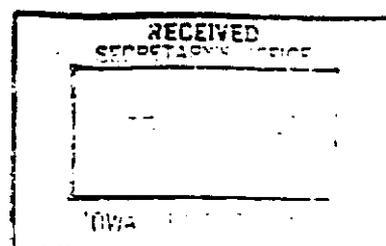
14 Q. Does a risk premium analysis determine what investors require as an equity  
15 premium today?

16 A. No. A risk premium analysis does not determine what investors require as an  
17 equity premium today. A risk premium is simply an average of historical risk  
18 premiums from the time period selected. IP witness Dr. Vander Weide has  
19 presented no evidence that proves investors require any particular equity risk  
20 premium at any particular time. Nor has Dr. Vander Weide presented any evidence  
21 that investors require the 4.5% to 5.5% equity risk premium he recommends.

22 Q. Should the Board use the quarterly DCF model used by witness Dr. Vander Weide?

23 A. No. The Board should not use the quarterly DCF model used by witness Dr.  
24 Vander Weide because it overestimates the cost of common equity. The quarterly  
25 DCF model overestimates the cost of common equity because the model assumes the  
26 company should pay an extra return to investors on the dividends the company has  
27 already paid. In other words, the quarterly DCF model assumes the company

2 should, in addition to paying the dividend, pay a return on the dividend. Investors  
3 earn returns through dividends and stock appreciation. After a company pays a  
4 dividend, the company is not responsible for paying any additional return on that  
dividend.



PREPARED DIRECT TESTIMONY OF

DR. DAVID S. HABR

RE: IOWA POWER INC.

DOCKET NO. RPU-92-2

1 Q: Please state your name and address.

2 A: David S. Habr, Lucas State Office Building, Des Moines, Iowa.

3 Q: By whom are you employed?

4 A: I am employed by the Consumer Advocate Division of the Iowa  
5 Department of Justice as the Chief of the Technical Bureau.

6 Q: When did you join the staff of the Consumer Advocate Division?

7 A: In November of 1987. For the previous six years I had been  
8 employed by the Utilities Division of the Iowa Department of  
9 Commerce.

10 Q: Would you describe your education and experience?

11 A: I received a Bachelor of Arts (1968) and a Master of Arts (1969)  
12 degree from the University of Nebraska-Lincoln. In both cases my  
13 major field of study was Economics. I received a Ph.D. in  
14 Economics from Washington State University in 1976. My  
15 dissertation is entitled "The Relationship Between Advertising and  
16 Liquor Sales in the State of Washington."

17           Within economics, I have specialized in the following fields:  
18 industrial organization and government regulations, public utility  
19 economics, and transportation economics. In addition, I have had  
20 graduate course work in monetary theory and advanced statistics.  
21 While a member of the Utilities Division staff, I attended Myron  
22 Gordon's workshop on the Cost of Capital to Public Utilities, the  
23 NARUC Annual Regulatory Studies Program, and the NARUC Advanced  
24 Regulatory Studies Program.

25

1           Prior to joining the Utilities Division staff in 1981, I was  
2 employed as an economist by the University of Nebraska-Lincoln  
3 (1968-69), Washington State University (1969-73), Drake University  
4 (1973-79), and Mitchell and Mitchell Economists, Ltd. (1979-80).

5           During my tenure at Drake University, I taught several  
6 different areas within economics including "Public Utilities and  
7 Transportation," "Government Regulation of Business," and  
8 "Managerial Economics." While at Mitchell and Mitchell, I  
9 developed and directed a feasibility study for the City of Des  
10 Moines and developed and estimated a revenue forecasting model for  
11 Northwestern Bell.

12           For the year prior to joining the staff of the Utilities  
13 Division, I was engaged in a private consulting practice. In the  
14 course of this practice, I was called upon to determine damages in  
15 antitrust cases and I testified on behalf of Midwestern Telephone  
16 Company, Inc. in Docket No. RPU-80-40. I have also testified in  
17 court proceedings and before the Industrial Commission.

18           As a member of the Utilities Division or Office of Consumer  
19 Advocate staff, I have testified in the proceedings shown on  
20 Appendix A of my testimony. I also provided staff review in a  
21 number of utility rate cases that were not litigated.

22           During 1986-87, I served as a member of the NARUC Ad Hoc  
23 Committee on Diversification and I presented a paper on double  
24 leverage at the committee's 1987 winter meeting. My paper entitled  
25 "A Note on Transaction Costs and the Cost of Common Equity for a

1 Public Utility" appeared in the January 1988 issue of the NRRRI  
2 Quarterly Bulletin.

3 In addition to my regular duties, I taught a seminar on  
4 antitrust economics at the Drake Law School in the fall of 1981.  
5 During the spring and fall of 1987 I taught the macroeconomics  
6 class in the Drake M.B.A. program.

7 Q: What is the purpose of your testimony?

8 A: The purpose of my testimony is to determine the appropriate market  
9 based common equity return Iowa Power should be given the  
10 opportunity to earn on its Iowa jurisdictional operations and  
11 comment on certain aspects of the testimonies of Dr. Vander Weide  
12 and Mr. Christiansen.

13 Q: Have you prepared an exhibit for presentation in this proceeding?

14 A: Yes. Exhibit \_\_\_\_ (DSH), Schedules A through N, was prepared by me  
15 or under my direct supervision.

16 Q: Have you found a market based common equity return appropriate for  
17 Iowa Power's jurisdictional operations?

18 A: Yes. Based on my analysis, Iowa Power should be given the  
19 opportunity to earn 10.9% on the common equity portion of its  
20 jurisdictional operations. My 10.9% common equity return derives  
21 from my analysis of the market based cost of common equity for  
22 Midwest Resources and is supported by my analysis of other Iowa  
23 based utility companies.

24 Q: Why did you analyze Midwest Resources?

25 A: The only way it is possible for an investor to buy a common equity

1           As is shown on page 3 of Schedule G, what is typically  
2 referred to as "the" arithmetic average risk premium is in fact the  
3 arithmetic average of discrete yearly risk premiums as opposed to  
4 an arithmetic average of yearly continuous risk premiums. It is  
5 preferable to use a geometric mean because it is not only based on  
6 arithmetic averages, it also has the property of getting from  
7 beginning values to ending values.

8 Q: In general, does Dr. Vander Weide's quarterly DCF model provide an  
9 accurate estimate of common equity return a utility should be given  
10 the opportunity to earn?

11 A: No, Dr. Vander Weide's model overestimates the common equity return  
12 a utility should be given the opportunity to earn.

13 Q: What is the basis for your last answer?

14 A: Dr. Vander Weide's model does not reflect the fact that the  
15 utility's assets which underlay the common equity owner's shares  
16 generate earnings on a continuous basis. Rather, the quarterly DCF  
17 model shows the common share as a "black box" which emits dividends  
18 on a quarterly basis. Such treatment results in an overestimation  
19 of the common equity return a utility should be given the  
20 opportunity to earn.

21 Q: Can you provide an illustration which demonstrates the  
22 overestimation you have described?

23 A: Yes. Schedule H contains the results of two simulations which  
24 compare continuous and discrete compounding. The simulations  
25 demonstrate conclusively that the continuous form of the DCF model

1 is the proper form to use to estimate the common equity return a  
2 utility should be given the opportunity to earn.

3 Q: Would you describe the nature of your simulations?

4 A: Yes. Each of my simulations begin with the following four  
5 premises: (1) the firm is 100% common equity financed, (2) the firm  
6 earns 11% on a continuous basis, (3) the current market price is  
7 \$100.00 (beginning of quarter 1) which is equal to book value, and  
8 (4) 75% of annual earnings are paid out as dividends. The  
9 simulations differ in the timing of the growth of dividend  
10 payments. The quarterly dividend is increased once a year in  
11 Simulation 1 while it is increased each quarter in Simulation 2.  
12 The dividend flows from each of these simulations are shown on  
13 pages 2 and 3 of Schedule H.

14 Q: How did you use these simulations to arrive at the DCF cost rates  
15 you show on page 1 of your Schedule H?

16 A: I used the dividends and dividend growth rates from each simulation  
17 to measure the values of the discrete and continuous forms of the  
18 DCF model that derive from each simulation.

19 Using Simulation 1 as an example, the discrete dividend yield  
20 of 8.81% is determined using the formula Dr. Vander Weide shows on  
21 his Schedule 2 without the flotation cost adjustment. That is, it  
22 is the sum of quarters 1 through 4 dividends, each appropriately  
23 "grown" by the expected cost of common equity, 11.63%, with the  
24 result, \$8.81, divided by the share price of \$100.00. Adding to  
25 this dividend yield the discrete dividend growth rate of 2.82%

1 results in the discrete DCF value for "k" of 11.63%.

2 Still using Simulation 1 as an example, the continuous  
3 dividend yield of 8.22% is determined by summing the preceding four  
4 quarters' (quarters -3 through 0) dividends, \$8.22, and dividing by  
5 the share price of \$100.00. Adding to this dividend yield the  
6 continuous growth rate of 2.78% results in the continuous DCF "k"  
7 value of 11.00%.

8 Q: And what do your simulations illustrate?

9 A: They demonstrate that the continuous form of the DCF model, not the  
10 discrete form, provides the correct estimate of the 11% underlying  
11 earnings rate. They also demonstrate that the continuous DCF model  
12 yields an income stream sufficient to cover stockholder  
13 expectations based on the discrete quarterly receipt of dividends.

14 Q: What is the impact on ratepayers of using the discrete form of the  
15 DCF?

16 A: Use of the discrete method will always result in an overestimate of  
17 the common equity return a utility should be given the opportunity  
18 to earn. Hence, rates based on the discrete DCF method will exceed  
19 the actual cost of providing the utility service.

20 Moreover, Dr. Vander Weide's use of the quarterly model has  
21 the effect of requiring ratepayers to pay a return on dividends  
22 that stockholders have already received. The continuous model, on  
23 the other hand, does recognize that investors chose to leave their  
24 "daily dividends" with the firm by allowing them to earn a compound  
25 return on the reinvested "daily dividends."

- 1 Q: Is a utility able to earn on a basis that is consistent with  
2 continuous compounding?
- 3 A: Yes. A utility sells its products 24 hours a day, seven days a  
4 week, 365 days a year. With cycle billing and dispersed collection  
5 stations (e.g., grocery stores), a utility's revenues flow in on a  
6 daily basis and are thus available for immediate reinvestment.
- 7 Q: If revenues flow to the utility on a daily basis, does continuous  
8 compounding still yield reasonable results?
- 9 A: Yes. For example, 11% compounded daily or continuously yields the  
10 same annual return of 11.63%.
- 11 Q: Turning now to Dr. Vander Weide's flotation cost adjustment, is his  
12 proposed adjustment correct?
- 13 A: No. First, Dr. Vander Weide applies his flotation cost adjustment  
14 to all of Company's outstanding common equity when in fact only a  
15 portion of that common equity was obtained through new public  
16 issues. Second Dr. Vander Weide's analysis does not recognize the  
17 transaction costs incurred by investors who purchase a utility's  
18 common stock in the secondary market. Hence, his adjustment is  
19 incomplete and, because it is incomplete, the adjustment leads to  
20 an overstatement of the common equity return Iowa Power should be  
21 given the opportunity to earn on its electric operations.
- 22 Q: What portion of Midwest Resources' common equity is the result of  
23 new issues to the general public?
- 24 A: About 37.5% of MWR's year-end 1991 common equity was derived from  
25 new issues of common stock sold to the general public.

1 Q: What is the dollar value of the issuance expenses incurred by  
2 Midwest Resources and its predecessors?

3 A: From 1957 through 1991, MWR and its predecessors incurred total  
4 issuance expenses of \$8.6 million (including the \$2.048 million  
5 expenses associated with the December 1991 MWR issue) or about  
6 \$245,000 per year.

7 Q: If Dr. Vander Weide's flotation cost adjustment were applied to all  
8 of Midwest Resources utility operations, how much would MWR collect  
9 each year for issuance expenses?

10 A: Midwest Resources would collect about \$4.6 million before taxes or  
11 \$2.8 million after taxes. Dr. Vander Weide's proposed yearly  
12 collections exceed the total expenses MWR incurred in its latest  
13 common stock issuance, and that was the first time in ten years MWR  
14 or its predecessors had a public common stock issuance.

15 Q: With respect to Dr. Vander Weide's flotation cost adjustment, do  
16 you agree with his statement at page 29 of his direct testimony  
17 that "my adjustment allows Iowa Power only to recover current  
18 carrying costs associated with flotation costs incurred at the time  
19 stock sales were made?"

20 A: No. His annual after tax "carrying charge" is 31.4 percent (\$2.7  
21 million divided by \$8.6 million). This return is three times  
22 bigger than Company's proposed weighted average cost of capital

23 Q: If a flotation cost adjustment is going to be made, why is it  
24 necessary to recognize secondary market transaction costs?

25 A: Generally speaking, all stock prices used in DCF analyses are

DOCKET NOS. RPU-83-38

STATE OF IOWA  
IOWA STATE COMMERCE COMMISSION

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IN RE:

IOWA POWER AND LIGHT COMPANY  
(IOWA GAS)

DOCKET NO. RPU-83-38

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ORDER

(Issued December 23, 1983)

On October 3, 1983, Iowa Gas Company (Company), at that time an operating division of Iowa Power and Light Company, filed a proposed general increase of \$3.9 million, a 2.7 percent annual increase, and an interim rate increase request of \$3.6 million, representing a 2.5 percent increase in total rates. On November 2, 1983, the Office of Consumer Advocate (OCA) filed an objection to interim rates. We have reviewed the Company's request, OCA's objection, and in view of the stipulation and addendum discussed below, approve Company's proposed interim rates in their entirety. Company's corporate undertaking is also approved. These interim rates shall take effect with usage on and after January 1, 1984.

On December 5, 1983, a stipulation and joint motion to approve the stipulation and establish a procedural schedule were filed by Company and OCA. This stipulation resolves all fact and issues in this docket, except the issue of whether Iowa Gas is charging customers for plant not required to provide adequate service. The terms of the stipulation also require