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# MidAmerican Energy Company

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October 2, 2007

Electric Rate Design Workshop

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# Background

- 2003 request by MidAmerican to establish ratemaking principles for wind investment
- MidAmerican agreed to freeze revenues until January 1, 2011
- Iowa Utilities Board requested a plan to address MidAmerican's geographic differences in rates

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# MidAmerican's Approved Plan

- Reductions for
  - Target residential and lighting customers
  - Other rate groups across geographic areas
- Additional reductions in high-priced areas
- Rate design workshops in 2007
- File cost-of-service analysis and recommendations in 2009
- Implement approved plan on January 1, 2011

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# Disclaimer

These are informational workshops. They are intended to assist MidAmerican in developing its final positions on rate issues. I encourage your input today. You should recognize that the positions that are expressed today both by MidAmerican and by the participants are to be considered preliminary in nature and not final positions.

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# Workshop Description

- Conducted by MidAmerican
  - MidAmerican's initial thoughts
  - Gather input
  - Discuss issues
- Not a formal proceeding
  - No formal record
  - Discussion not intended to be used in future proceedings
  - Educational and issue identification

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# Introductions

- MidAmerican
  - Naomi Czachura
  - Debra Kutsunis
  - Melanie Acord
- Office of Consumer Advocate

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# Today's Schedule

- Exits, restrooms, and beverages
- Work until lunch at approximately 12:00 pm
- Lunch on your own
  - List of nearby restaurants at registration table
- Reconvene at 1:30 pm
- Dismiss by 4:00 pm

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# Agenda

- Preliminary comments
- MidAmerican presentation on lighting rates
- Alternative presentations by others
- Next steps

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# Preliminary Comments

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# Lighting Rate Design

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# General Cost-of-Service Review

- Assigns costs to those causing the costs (cost causation)
- Calculates costs by
  - Rate class
  - Function
    - Generation
    - Fixed Costs
    - Delivery
- Provides foundation for rate design

# Cost-of-Service Results\*

	Current Revenue	Cost-of-Service Revenue (HCM)
Residential	\$ 428.7	\$ 440.9
<b>Lighting</b>	<b>15.8</b>	<b>15.7</b>
Small General Service	267.3	222.2
Large General Service	<u>334.4</u>	<u>367.4</u>
Total	\$ 1,046.2	\$ 1,046.2

\*Cost-of-service revenues are for illustration only and are not intended to be test-year quality data.

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# Lighting Cost-of-Service

- Energy Costs \$ 3.9 million
- O&M Costs 5.7 million
- Plant Costs 6.1 million

**Total Lighting Revenue Requirement** \$15.7 million

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# Goals and Objectives for Lighting Rate Design

- Based on cost-of-service principles
- Unbundle lighting components
  - Energy
  - Operation & Maintenance
  - Plant
- Provide transparent pricing
- Provide flexibility in lighting options available
- Incorporate customer input

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# Lighting Rate Design

- Unmetered dusk-to-dawn lighting
- Controlled by photo electric cells
- Standard offerings defined
- Non-standard offerings
  - Priced as options or
  - One-time buy-down

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# Equalized Rate Design

- Result is equalized rates and consistent offerings
- Implementation of equalized rates are subject to Iowa Utilities Board proceeding

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# Energy Component

- Rate based on
  - Calculated kWh usage
  - Based on dusk-to-dawn lighting
- Includes costs of
  - Generation using hourly costing model
  - Delivery and customer-related functions
    - Transmission, substations, distribution lines
    - Services, transformers, customer accounting

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# Maintenance Component

- Rate based on replacement of minor-cost items
  - ❑ Broken glassware
  - ❑ Expired lamps and lamp sockets
  - ❑ Starting aids
  - ❑ Luminaires
  - ❑ Photo controls

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# Plant Component

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# Street Lighting

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# Company-Owned Street Lighting

- Rate based on costs for standard-offer lighting facilities
  - Wood pole
  - Overhead service
  - Cobra head luminaire
- Options available at incremental cost-based rates
  - Metal pole
  - Underground service
- One-time buy-down for decorative lighting fixtures

## Street Lighting—Example of Unbundled Monthly Rates--**FOR ILLUSTRATION ONLY**

<b>HPS</b>	Energy	Maint.	Plant
70 W	\$ 1.11	\$ 3.53	\$ 1.65
100 W	1.56	3.53	3.12
150 W	2.32	3.53	3.26
250 W	3.81	3.53	3.96
400 W	5.91	3.53	4.66

# Street Lighting—Monthly Rate Comparison FOR ILLUSTRATION ONLY

	Example	Current		
HPS	Company-Owned	East	North	South
70 W	\$ 6.29	\$---	\$---	\$ 8.78
100 W	8.21	10.13	11.94	9.63
150 W	9.11	10.81	---	11.27
250 W	11.30	12.08	11.66	16.70
400 W	14.10	14.14	14.68	19.49

## Street Lighting—Example of Unbundled Monthly Rates--**FOR ILLUSTRATION ONLY**

<b>Mercury Vapor*</b>	Energy	Maint.	Plant
100 W	\$ 1.64	\$ 2.69	\$ 1.76
175 W	2.71	2.69	2.81
250 W	3.93	2.69	3.39
400 W	6.02	2.69	3.98
1,000 W	14.48	2.69	13.19

\*Mercury vapor lighting rates are for existing installations only.

## Street Lighting—Monthly Rate Comparison FOR ILLUSTRATION ONLY

Mercury Vapor	Example Company-Owned	Current		
		East	North	South
100 W	\$ 6.09	\$ 9.32	\$---	\$---
175 W	8.21	10.23	4.76	7.87
250 W	10.01	11.07	10.11	9.76
400 W	12.69	12.59	11.63	12.32
1,000 W	30.36	20.46	16.51	---

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## Street Lighting—Example Monthly Rates **FOR ILLUSTRATION ONLY**

<b>Options</b>	<b>Additional Charge per Light</b>
Metal Pole	\$ 1.82
Underground Service	0.83

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## Street Lighting—Example Monthly Rates **FOR ILLUSTRATION ONLY**

<b>Other Options</b>	<b>One-Time Buy-Down</b>
Ornamental Pole	Difference between standard offer and desired option(s)
Decorative Lighting Fixtures	

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# Private Area Lighting

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# Company-Owned Private Area Lighting

- Rate based on costs for standard-offer lighting facilities
  - Existing overhead service
  - Security luminaire
- Options available at incremental cost-based rates
  - Pole
  - Service where not readily available
- Buy-down for decorative lighting fixtures

Private Area Lighting—Example of Unbundled  
 Monthly Rates--**FOR ILLUSTRATION ONLY**

HPS	Energy	Maint.	Plant
70 W	\$ 1.11	\$ 3.53	\$ 1.13
100 W	1.56	3.53	1.34
150 W	2.32	3.53	1.43
250 W	3.81	3.53	3.59
400 W	5.91	3.53	5.22
1,000 W	14.67	3.53	12.10

# Private Area Lighting—Monthly Rate Comparison FOR ILLUSTRATION ONLY

HPS	Example Company- Owned	Current		
		East	North	South
70 W	\$ 5.77	\$---	\$---	\$ 2.51
100 W	6.43	7.51	5.36	9.63
150 W	7.28	8.14	---	11.27
250 W	10.93	9.34	11.47	16.70
400 W	14.66	15.44	20.60	27.71
1,000 W	30.30	33.66	33.66	38.81

## Private Area Lighting—Example of Unbundled Monthly Rates--**FOR ILLUSTRATION ONLY**

<b>Mercury Vapor</b>	Energy	Maint.	Plant
100 W	\$ 1.64	\$ 2.69	\$ 1.22
175 W	2.71	2.69	1.30
250 W	3.93	2.69	3.27
400 W	6.02	2.69	4.75
1,000 W	14.48	2.69	11.02

## Private Area Lighting—Monthly Rates FOR ILLUSTRATION ONLY

Mercury Vapor	Example Company-Owned	Current		
		East	North	South
100 W	\$ 5.51	\$ 6.02	\$---	\$---
175 W	7.62	7.07	4.80	---
250 W	9.42	8.01	---	---
400 W	12.10	10.05	11.65	---
1,000 W	29.77	19.52	16.51	---

## Private Area Lighting—Example Monthly Rates **FOR ILLUSTRATION ONLY**

<b>Options</b>	<b>Additional Monthly Charge per Light</b>
Wood Pole	\$ 1.92
Metal Pole	5.95
Overhead Service	1.20
Underground Service	3.44

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## Private Area Lighting—Example Monthly Rates **FOR ILLUSTRATION ONLY**

<b>Other Options</b>	<b>One-Time Buy-Down</b>
Overhead Span(s)	Difference between standard offer and desired option(s)
Pole	
Decorative Lighting Fixtures	

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# Questions

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# Website Information

- MidAmerican's website:
  - [midamericanenergy.com](http://midamericanenergy.com)
  - Rates tab, Iowa Electric Workshops
- Direct link:  
[midamericanenergy.com/html/rates2a.asp](http://midamericanenergy.com/html/rates2a.asp)

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# Wrap-Up

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