

**Electric Rate Study
Rate Design Presentation**

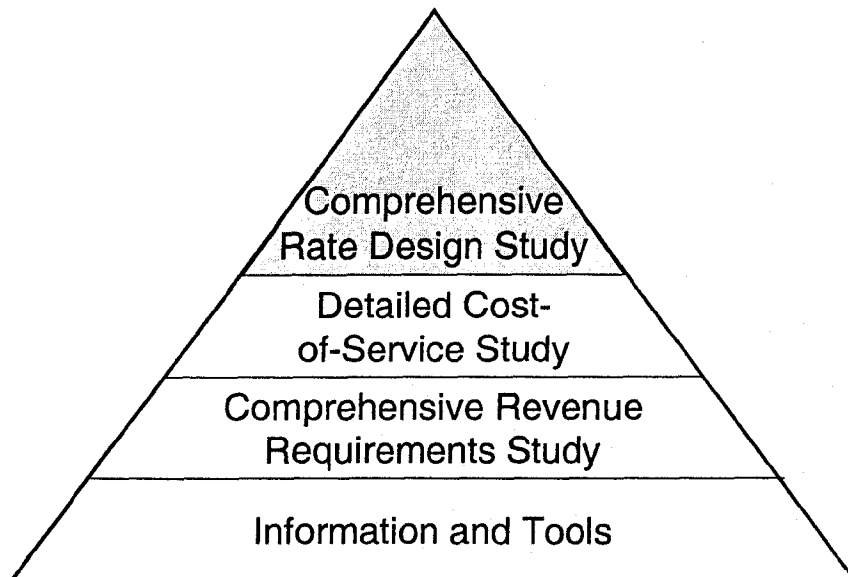
City of Dover

August 26, 2003

Brian Farber - Project Manager



Final Step of Electric Rate Study



Presentation Outline

- Recap of Cost-of-Service Results
- Review of Rate Design Considerations
- Overview of Rate Design Model
- Presentation of Proposed Rates by Rate Schedule Classification

FY2004 Revenue Requirement Dollars in Millions

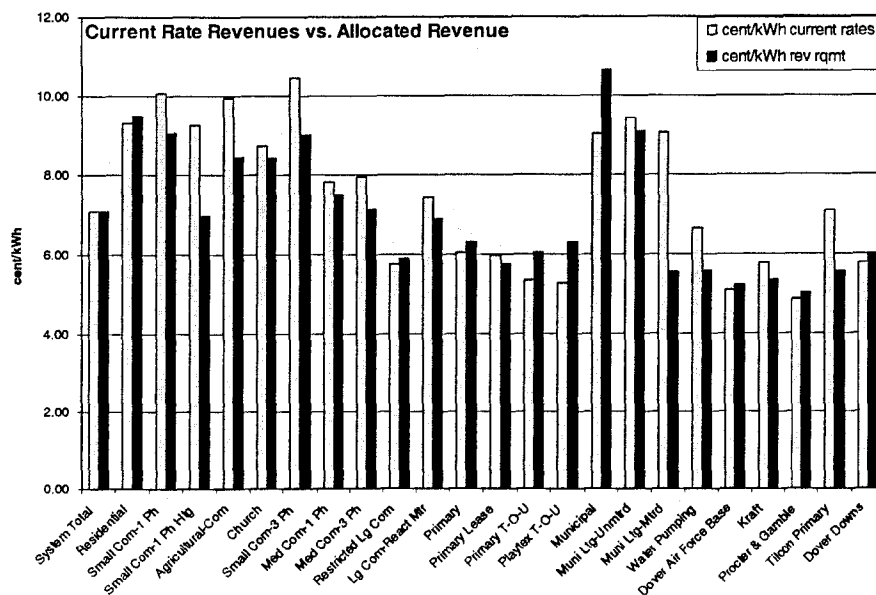
	Purchased Power Cost	\$35.2	63.8%
+	Operations Expense	10.5	19.0%
+	Depreciation Expense	3.9	7.1%
+	Cost of Debt	1.4	2.5%
+	Operating Transfers	4.8	8.7%
+	Street Lighting Contribution	0.5	0.9%
+	Net Margins	1.3	2.4%
-	Other Revenue	<u>-2.4</u>	-4.3%
	Total	\$55.2	100.0%

Summary - Unbundled Revenue Requirement

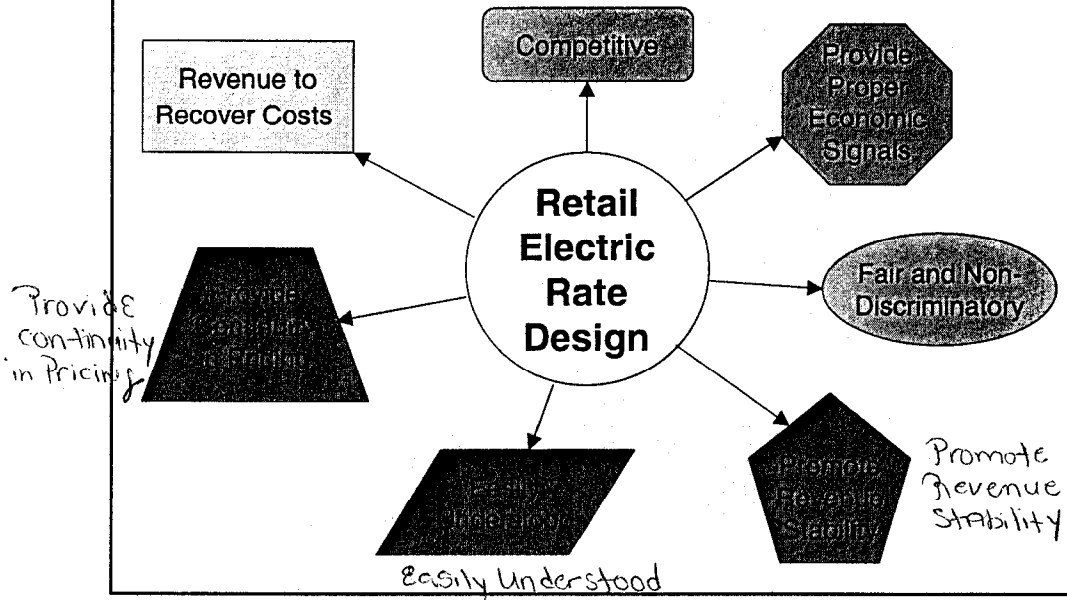
Dollars in Millions

Demand	\$14.3	26.0%
Energy	28.0	50.8%
Transmission	4.5	8.2%
Distribution	4.6	8.4%
Customer	3.7	6.7%
Total	\$55.2	100.0%

Cost of Service Analysis Summary Results



Divergent Rate Design Objectives



Factors Affecting Rate Design

- Cost-of-Service Analysis Results
- Specific Objectives of City
- Competition With Other Energy Sources
- Revenue Stability
- Price Stability
- Ease of Administration

Decisions on Revenue Changes

- Which Rate Schedules -
 - are to be increased and by how much?
 - are to be decreased and by how much?
 - are not to be changed?
- How is City to be Made Whole?
- What Specific Criteria are to be Considered?

Rate Design Model

Rate Schedules

- Current
- Proposed
- Competition

Monthly Billing History

- kWh Energy
- kW Demand
- Revenue

Rate Design Model

```
graph TD; A["Rate Schedules  
• Current  
• Proposed  
• Competition"] --- B["Monthly Billing History  
• kWh Energy  
• kW Demand  
• Revenue"]; B --> C["Rate Design Model"]
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Rate Design Model Considers Various Types of Charges

- Cents per kWh Energy
- Dollars per kW Demand
- Demand Ratchet
- Customer Charge
- Minimum Bill
- Power Cost Adjustment Factor

Major Rate Components

- | | |
|--------------------------|--|
| • <u>Energy</u> Rate | • Sum of Variable Costs of Service |
| • <u>Demand</u> Rate | • Sum of Power Supply Demand and Non-Customer-Related Fixed System Costs |
| • <u>Customer</u> Charge | • Sum of Customer Related Fixed System Costs |

Proposed Rate Classifications

- Residential
- Small Commercial
- Medium Commercial
- Large Commercial
- Primary Metering
- Street Lighting
- Security Lighting

Large Customers With Separate Rates

- Dover Air Force Base
- Kraft
- Proctor & Gamble
- Tilcon Delaware
- First State Power Mgmt

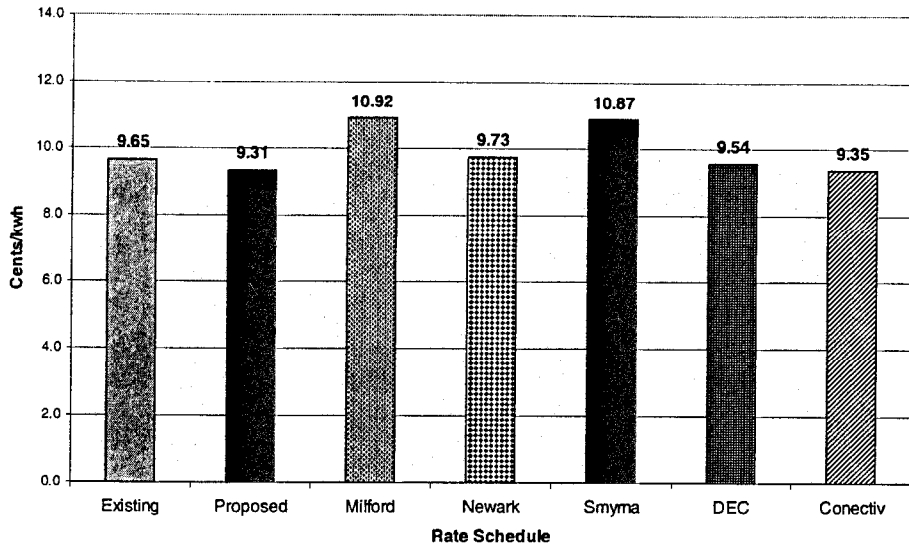
Comparison of Revenue Requirement and Revenue From Current Rates

<u>Rate Class</u>	<u>Revenue Requirement</u>	<u>Current Rates</u>	<u>Variance</u>	<u>Percent</u>
Residential	\$16,610	\$16,291	\$319	2.0%
Small Commercial	2,343	2,646	(304)	-11.5%
Medium Commercial	13,478	14,340	(862)	-6.0%
Large Commercial	1,051	1,037	14	1.3%
Primary	10,819	9,941	878	8.8%
Street Lighting	36	59	(23)	-39.0%
Security Lighting	652	629	23	3.6%
Other	10,162	10,207	(45)	-0.4%
Total	\$55,150	\$55,150	(\$0)	0.0%

Residential Rate

<u>Rate Schedule</u>	<u>Current Rate</u>	<u>Proposed Rate</u>
Customer Charge	\$4.00	\$5.00
Energy Charge		\$0.0880
Summer	\$0.0924	
Winter		
First 1,000 kWh	\$0.0880	
Over 1,000 kWh	\$0.0808	

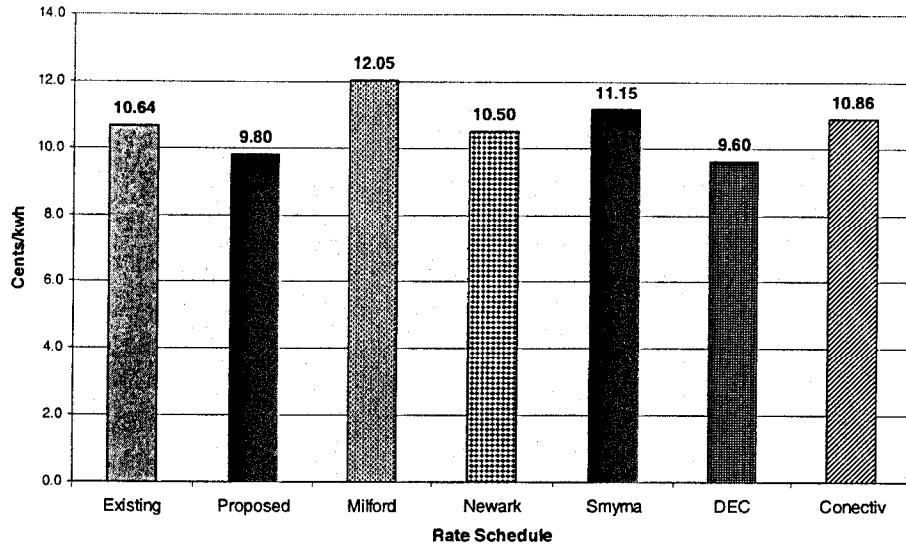
Residential Rate Comparison Average Monthly Bill per kWh



Small Commercial Rate

Rate Schedule	Current Rate	Proposed Rate
Customer Charge	\$5.00	\$10.00
Energy Charge		
Summer	\$0.1014	\$0.0880
Winter	\$0.0914	\$0.0820

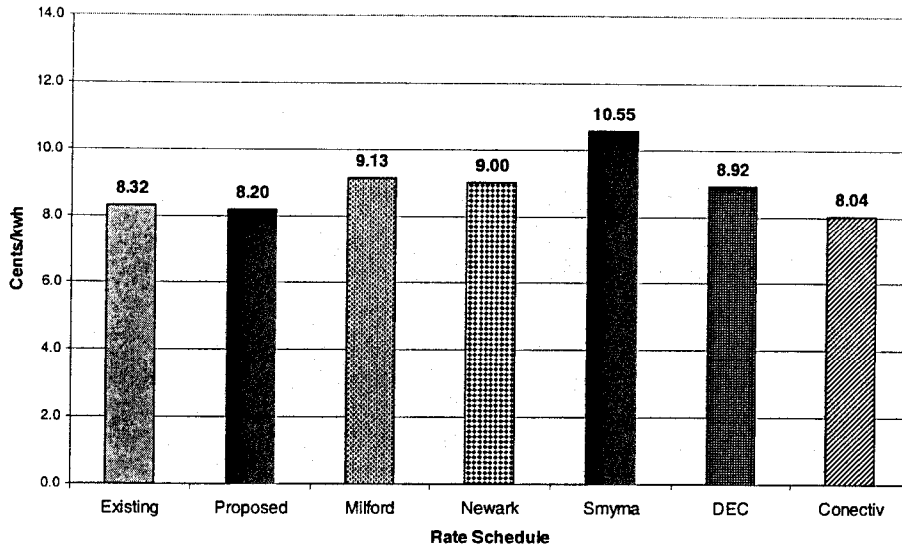
Small Commercial Rate Comparison Average Monthly Bill per kWh



Medium Commercial Rate

Rate Schedule	Current Rate	Proposed Rate
Customer Charge	\$5.00	\$10.00
Without Metered Demand		
Energy Charge		
Summer	\$0.0521	\$0.0880
Winter	\$0.0460	\$0.0820
With Metered Demand		
Demand Charge		
Summer	\$10.75	\$12.00
Winter	\$7.80	\$10.00
Energy Charge		
Summer	\$0.0521	\$0.0470
Winter	\$0.0460	\$0.0380

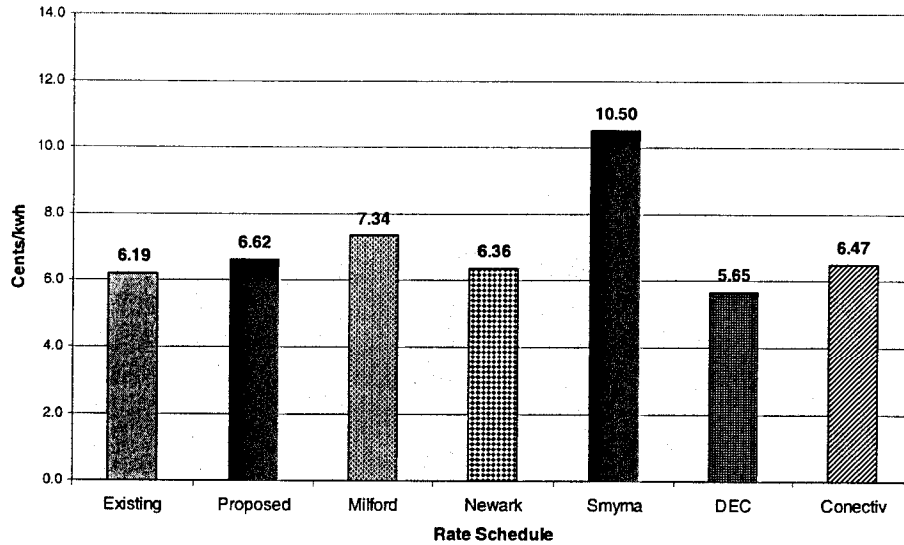
Medium Commercial Rate Comparison Average Monthly Bill per kWh



Large Commercial Rate

Rate Schedule	Current Rate	Proposed Rate
Customer Charge	\$5.00	\$10.00
Demand Charge		
Summer	\$8.75	\$12.00
Winter	\$6.80	\$10.00
Energy Charge	\$0.0450	
Summer		\$0.0430
Winter		\$0.0380

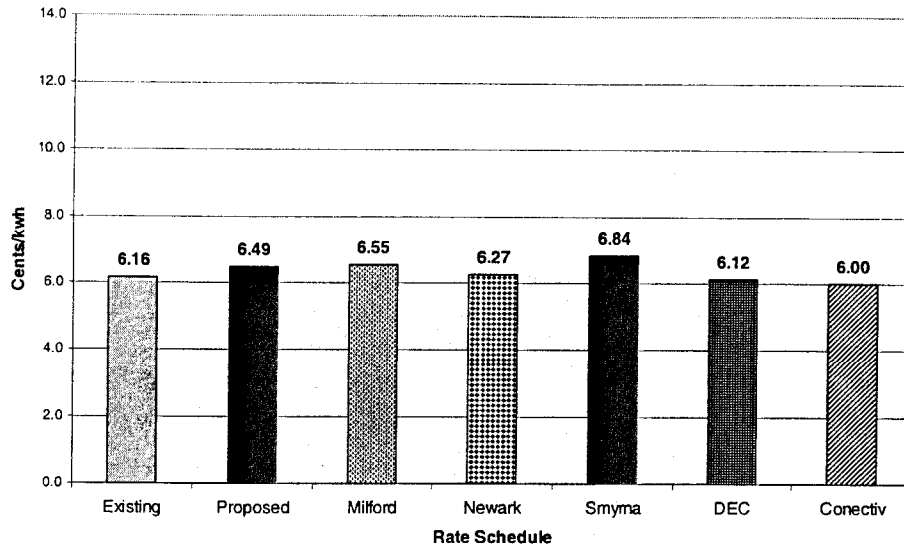
Large Commercial Rate Comparison Average Monthly Bill per kWh



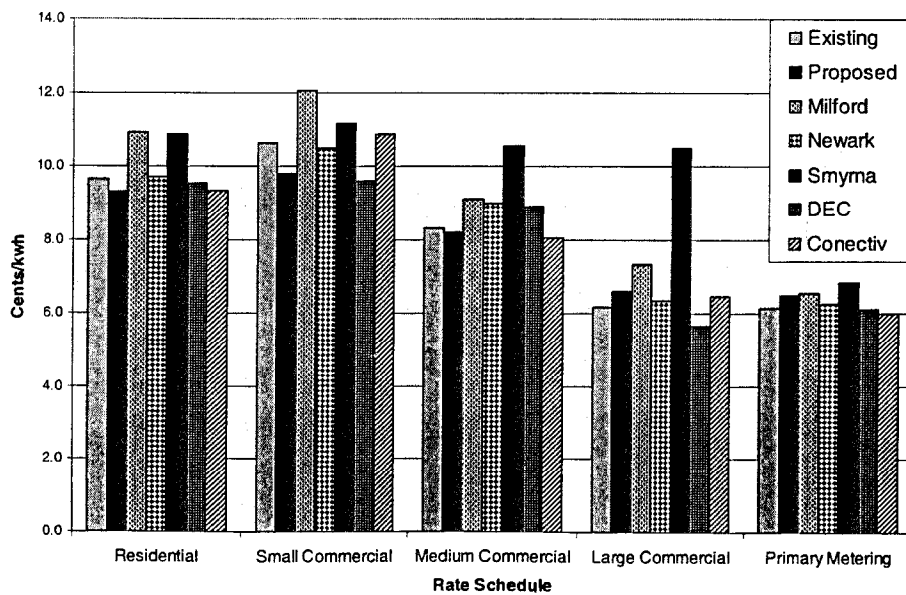
Primary Metering Rate

Rate Schedule	Current Rate	Proposed Rate
Customer Charge		\$10.00
Demand Charge		
Summer	\$8.00	\$12.00
Winter	\$5.30	\$10.00
Energy Charge	\$0.0450	
Summer		\$0.0400
Winter		\$0.0380

Primary Metering Rate Comparison Average Monthly Bill per kWh



Average Rate Comparison



Street Lighting Rate

<u>Rate Schedule</u>	<u>Current Rate</u>	<u>Proposed Rate</u>
Customer Charge		\$10.00
Energy Charge	\$0.0808	\$0.0570

Comparison of Projected Revenue From Proposed Rates and Current Rates

<u>Rate Class</u>	<u>Proposed Rates</u>	<u>Current Rates</u>	<u>Variance</u>	<u>Percent</u>
Residential	\$16,443	\$16,291	\$152	0.9%
Small Commercial	2,473	2,646	(173)	-6.5%
Medium Commercial	13,969	14,340	(372)	-2.6%
Large Commercial	1,051	1,037	14	1.3%
Primary	10,335	9,941	393	4.0%
Street Lighting	44	59	(14)	-24.2%
Security Lighting	629	629	0	0.0%
Other	10,207	10,207	0	0.0%
Total	<u>\$55,150</u>	<u>\$55,150</u>	<u>\$0</u>	0.0%

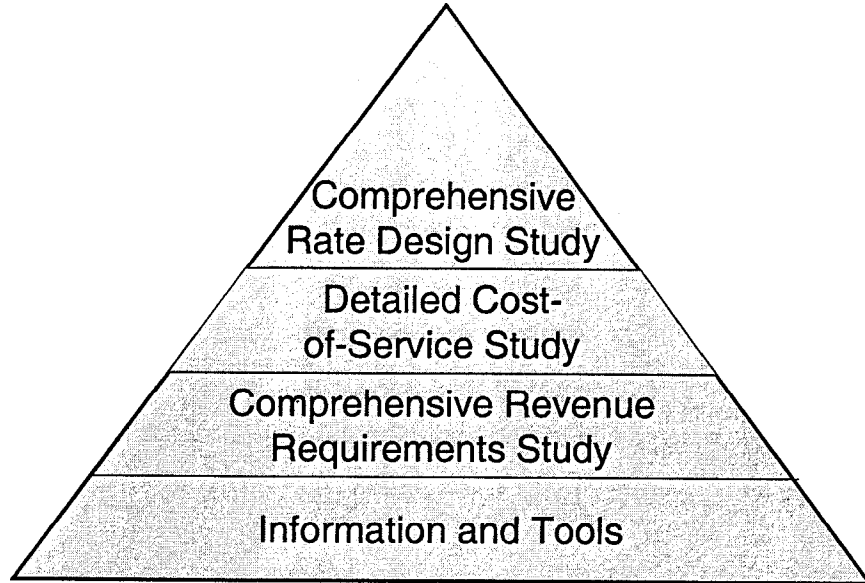
Other Proposed Rate Provisions

- No Changes in Separate Rate Schedules for Security Lighting and Large Customers
- Change Threshold between Small and Medium Commercial Rate Schedules From an Energy Basis to a Demand Basis
- Change Demand Ratchet on Medium and Large Commercial and Primary Metering Rate Schedules from 60% to 100%
- Change Power Factor Requirement From 90% to 95%

Purchased Power Cost Adjustment

- Additional Charge Above Rate Schedules
- Provides Recovery of Contractual Increases in Power Costs
- Calculated Annually
- Current Methodology Provides Partial Recovery
- New Methodology Provides Full Recovery
- Includes True-up of Past Year Cost Recovery

Project Report Covers All Phases



**Discussion
and
Questions**