Cost Comparison of Retail Electricity Rates for the City of Naperville Municipal Utility

May 29, 2025

The Power Bureau

CJT Energy Law, LLC

Progressive Energy Solutions, LLC



Agenda

OVERVIEW	IntroductionsAssignment
APPROACH	 Assumptions Data Sources Rate Structures
RESULTS	 Rate by Rate Volatility Escalators
DISCUSSION	■ Open

OVERVIEW

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Power Bureau	 Advisor on energy policy, planning, and procurement Retail and Wholesale energy transaction support
CJT Energy Law	 Legal analysis and advocacy supporting transactions as well as regulatory and legislative issues Representing entities other than the local utilities
Assignment	 Compare retail electricity rates of Naperville Municipal Utility and Commonwealth Edison Company (ComEd) Identify relevant trends, differentiators, drivers

Task 1: Map the "Retail Cost" Calculation

APPROACH

Assumptions

Data Sources

Rate Structures

Rates	 Residential Small Commercial (GS-1) Large Commercial (GS-2) Outdoor Metered Lights Primary Customers (served at 15kV) Transmission Customers (served at 34.5kV)
Billing Determinants	 Monthly Consumption (per Rate Class) Monthly Demand (per Rate Class) Monthly Number of Customers (per Rate Class)
Retail Cost	• Rate * Volume = Cost

Task 2: Locate authoritative and detailed data

APPROACH

Assumptions

Data Sources

Rate Structures

Rates	 Naperville Municipal Utility Commonwealth Edison Company Illinois Commerce Commission Illinois Power Agency PJM Independent Market Monitor (Monitoring Analytics)
Billing Determinants	 Naperville Municipal Utility Some capacity (demand) values are averaged Some consumption values are % allocated
Other	Additional details can be built into the models

Task 3: Identify which ComEd rates mirror Naperville's Rates

APPROACH

Assumptions

Data Sources

Rate Structures

Retail Rate Equivalents			
City of Naperville	ComEd		
Residential	Residential, Single Family/ No Electric Space Heat		
Small Commercial (GS-1)	Watt-Hour		
Large Commercial (GS-2)	Medium Load		
Outdoor Metered Lights	Dusk to Dawn Lighting		
Primary Customer served at 15 kV	Very Large Load		
Transmission Customers served at 34.5 kV	High Voltage		

Task 4: Run Calculations for each Naperville and ComEd Rate Class

NAPERVILLE RESIDENTIAL RATE CLASS (12/2024)		
Customer Charges	\$946,849	
Energy Charges	\$4,084,820	
Demand Charges	\$0	
TOTAL Charges (\$/Month)	\$5,031,669	
AVERAGE Rate (\$/kWh)	\$0.132566	

COMMONWEALTH EDISON		
RESIDENTIAL RATE CLASS (12/2024)		
Supply		
Electricity Supply Charge	\$2,455,750	
Purchased Electricity Adjustment	-\$307,443	
Delivery		
Customer Charge	\$863,860	
Standard Metering Charge	\$223,345	
Distribution Facilities Charge	\$2,292,919	
IL Electricity Distribution Charge	\$47,445	
<u>Taxes and Fees</u>		
Environmental Cost Recovery Adj	\$8,350	
Renewable Energy/Coal Tech. Dev. Charge	\$2,785	
Energy Assistance Charge	\$0	
Residential Real Time Pricing Program Cost Recovery	\$2,228	
Energy Efficiency and Demand Response Adjustment	\$138,919	
Renewable Portfolio Standard	\$190,721	
Zero Emissions Standard	\$626,273	
Carbon Free Energy Resource Adj	\$258,101	
Energy Transition Assistance	\$27,328	
TOTAL Charges (\$/Month)	\$6,830,582	
AVERAGE Rate (\$/kWh)	\$0.179961	

Residential

Small Commercial (GS-1)

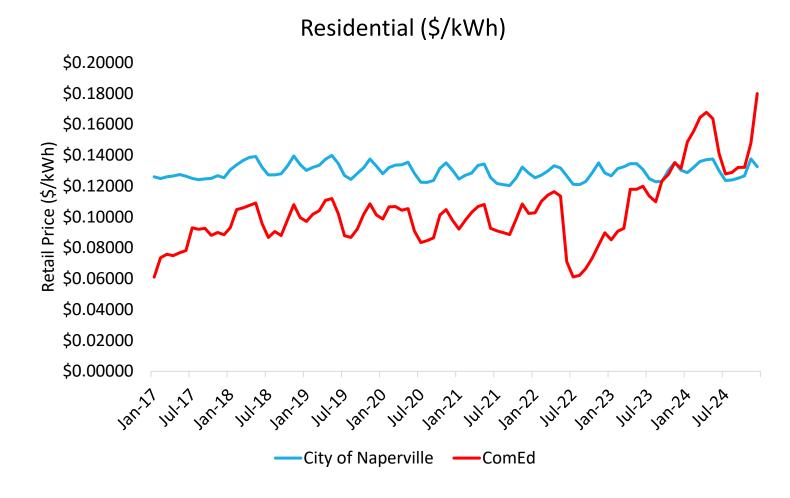
Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service

Residential Rates: Price Advantage has Flipped



Utility	Volatility Index	Inflation Index
City of Naperville	4.95	4.2%
Commonwealth Edison	23.21	81.2%

Residential

Small Commercial (GS-1)

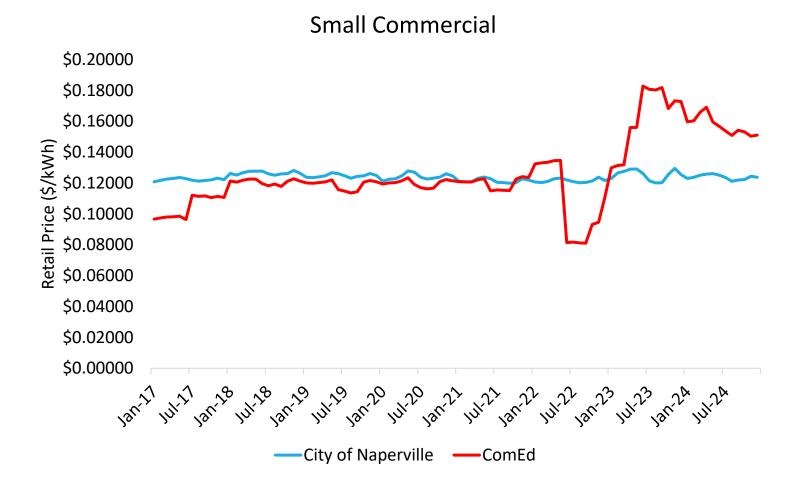
Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service

Small Commercial Rates: Historical Price Parity has Shifted



Utility	Volatility Index	Inflation Index
City of Naperville	2.40	1.3%
Commonwealth Edison	23.25	50.4%

Large Commercial Rates: Historical Price Parity has Shifted

RESULTS

Residential

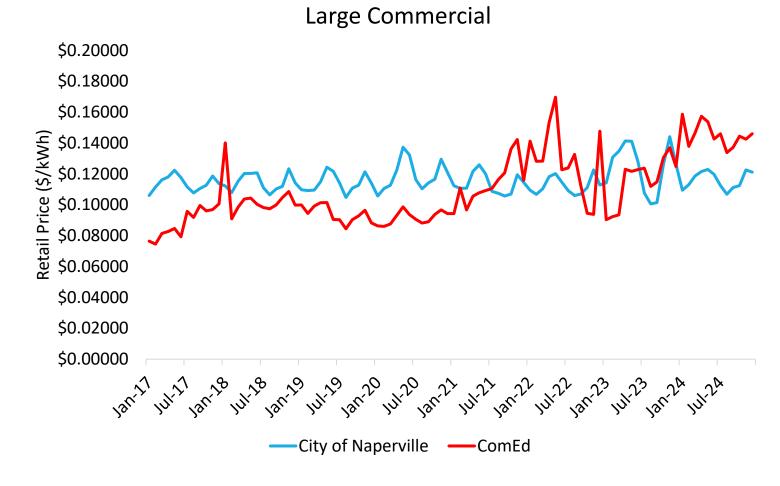
Small Commercial (GS-1)

Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service



Utility	Volatility Index	Inflation Index
City of Naperville	8.68	1.8%
Commonwealth Edison	23.37	64.8%

Outdoor Lighting Rates: Historical Price Gas is Shrinking

RESULTS

Residential

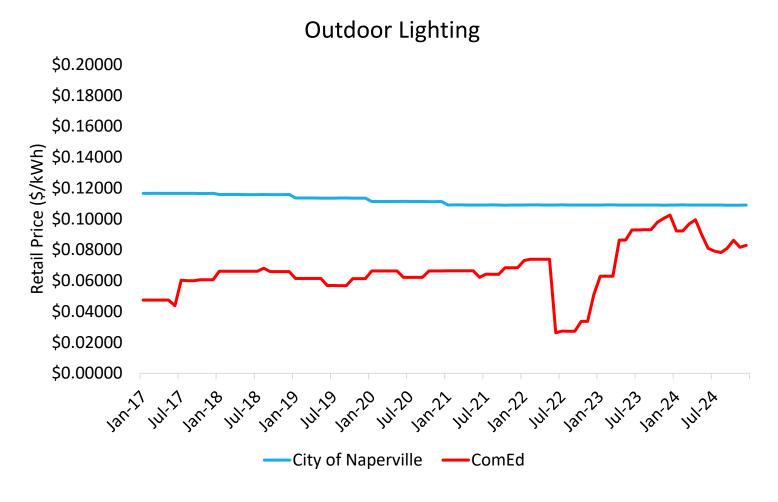
Small Commercial (GS-1)

Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service



Utility	Volatility Index	Inflation Index
City of Naperville	3.03	-6.5%
Commonwealth Edison	16.13	61.7%

Primary Service Rates: Historical Price Parity has Shifted

RESULTS

Residential

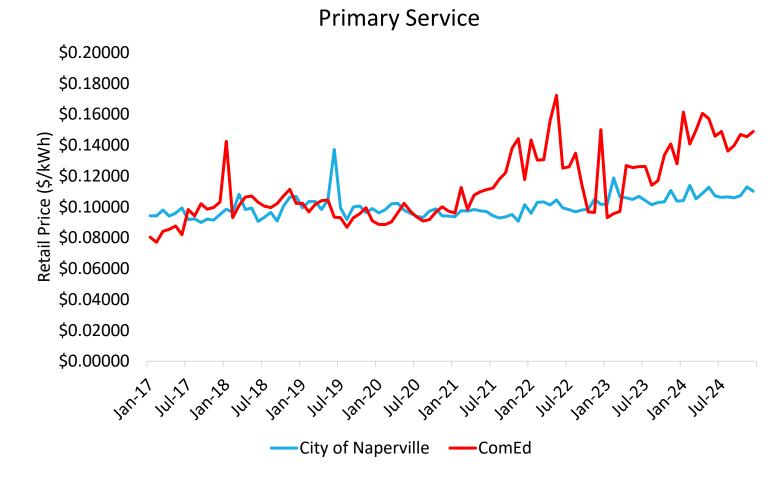
Small Commercial (GS-1)

Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service



Utility	Volatility Index	Inflation Index
City of Naperville	7.02	15.3%
Commonwealth Edison	22.37	63.0%

Transmission Service Rates: Not Presented

RESULTS

Residential

Small Commercial (GS-1)

Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service

 Only one (1) customer currently is served under the Naperville Municipal Utility Transmission Service Rate

 We will not present the analysis for the Transmission Service rate customer since doing so would effectively share that customer's account information

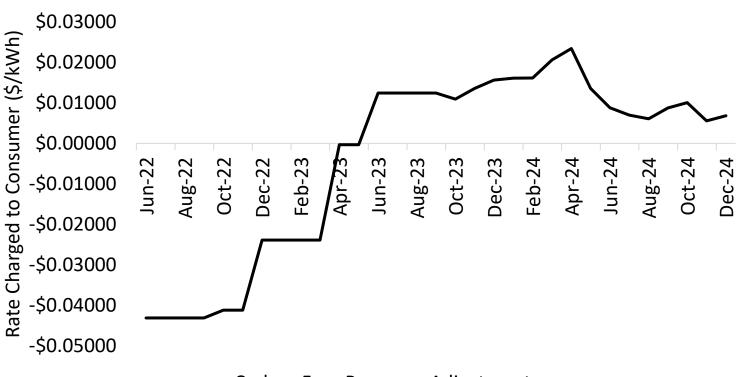
Volatility

Escalators

Last Point

Volatility Driver: Carbon Free Resource Adjustment

Significant Price Volatility Resulting from Nuclear Subsidy



—Carbon Free Resource Adjustment

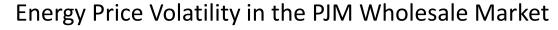
Originally considered to be "hedge" against rising energy and capacity prices until ComEd miscalculated credits by \$1.1 billion in year 1 and has been recovering those overages (with interest) for the past 2 years.

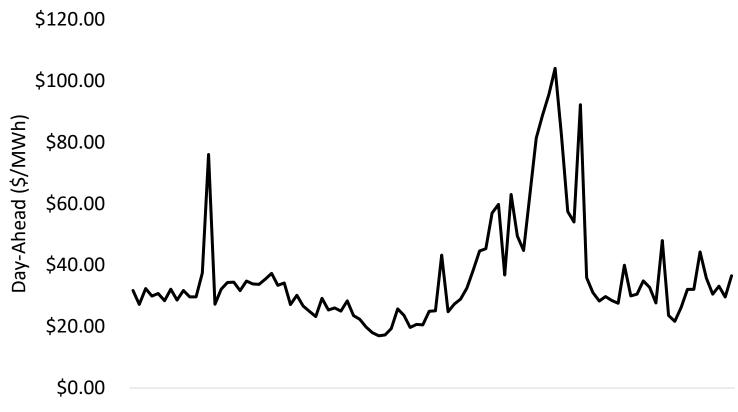
Volatility

Escalators

Last Point

Volatility Driver: PJM Wholesale Markets





Wide variances in Energy prices over the past few years have been driven by underlying volatility in natural gas prices and tightening balances between supply and demand levels throughout PJM.

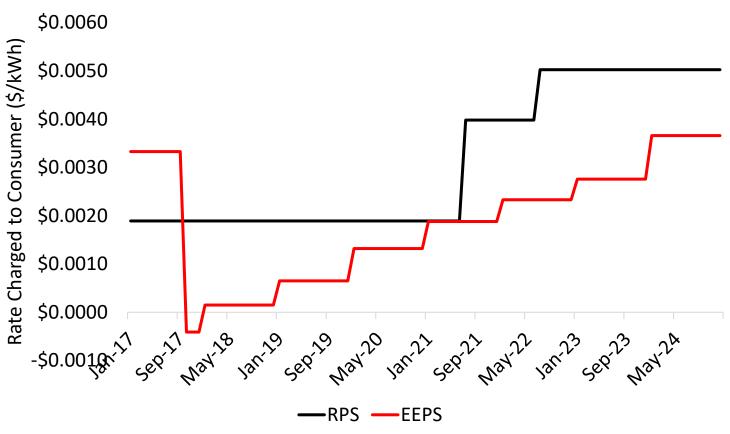
Volatility

Escalators

Last Point

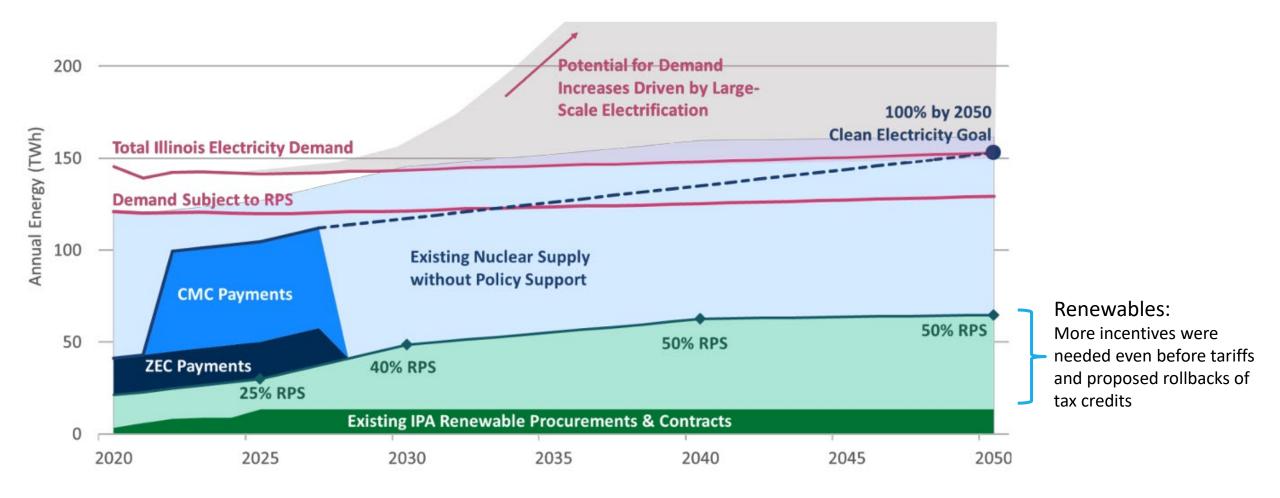
Escalation Drivers: Renewable Portfolio Standard and Energy Efficiency



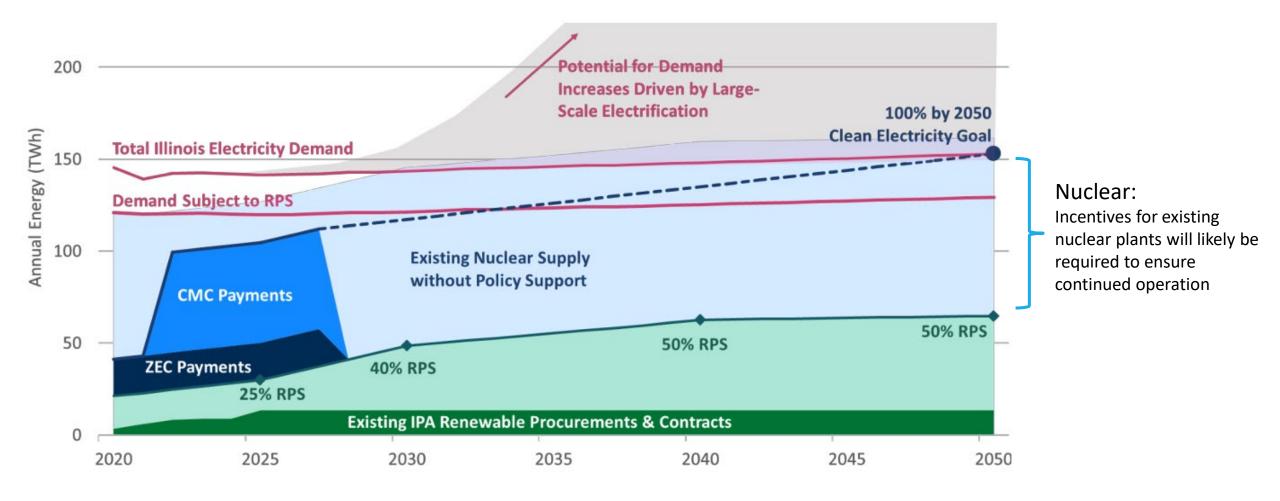


Energy Efficiency program costs increase due to ComEd receiving a return of and on program expenditures. Renewable Portfolio Standard funding will run into deficits starting in 2028-2029, so further increases are expected.

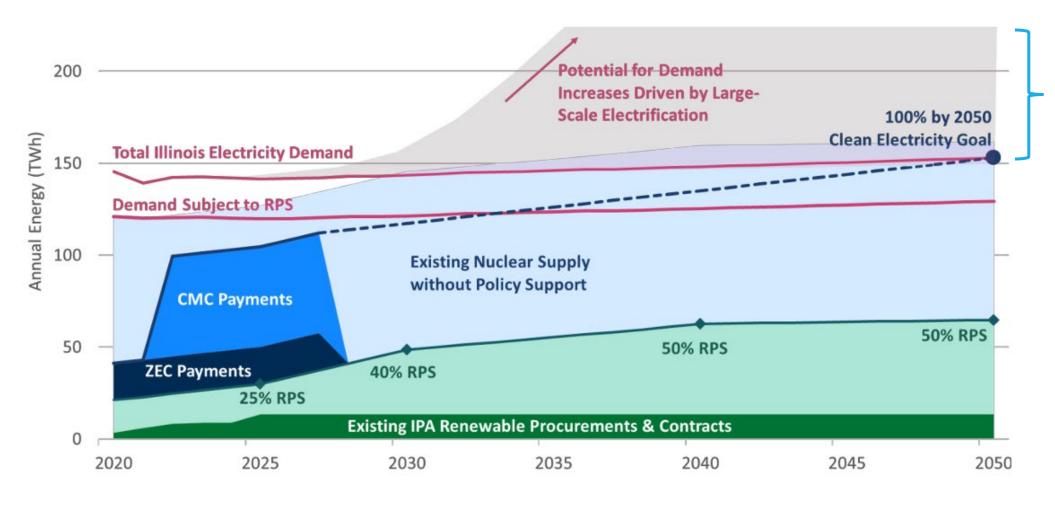
Final Point: Policymakers already have identified drivers for prices to continue to rise



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Load:

Incentives for data centers, EV's, electrification will result in increased demand which will require more capacity and supply

Thank You!

DISCUSSION

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