

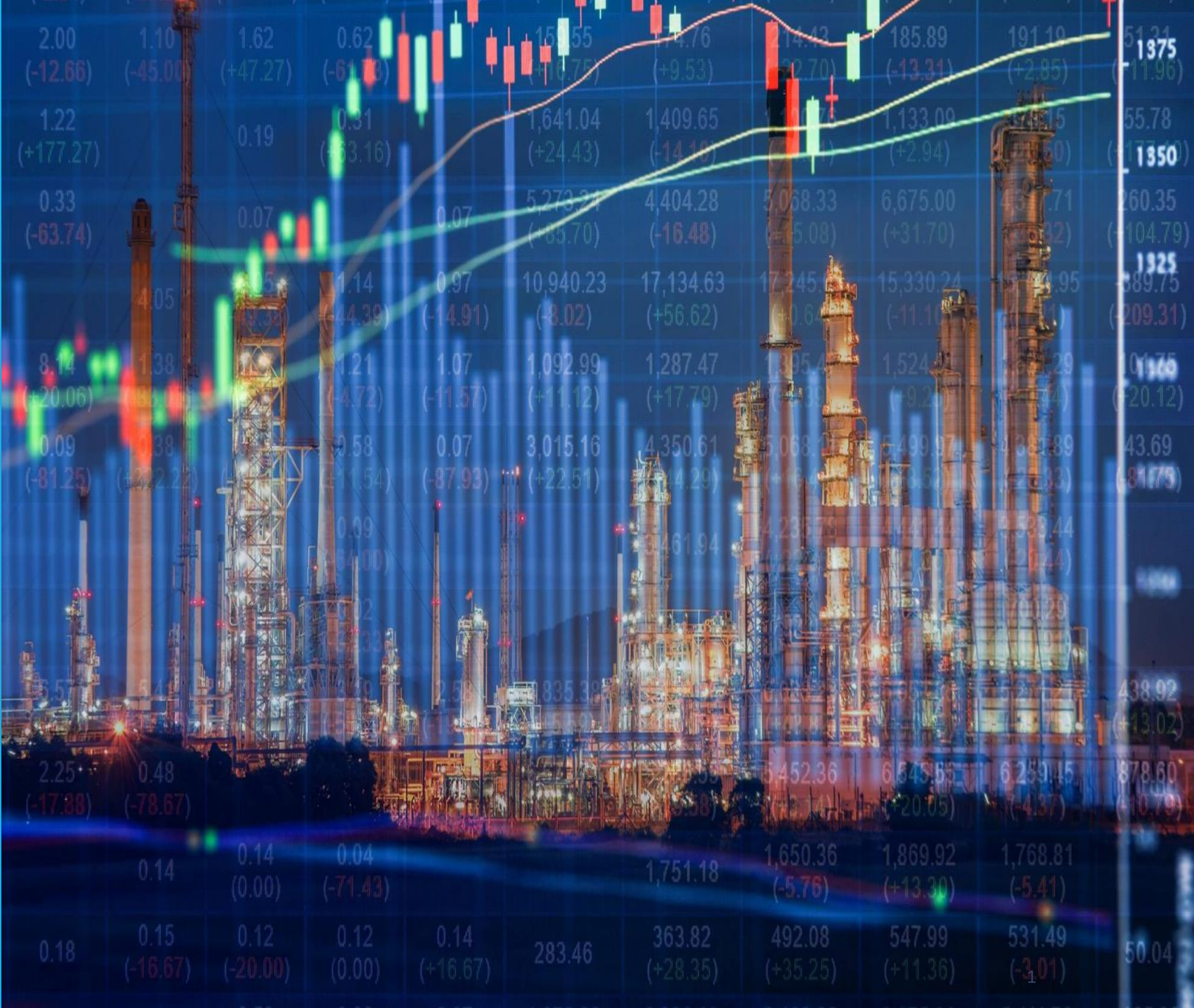
# Cost Comparison of Retail Electricity Rates for the City of Naperville Municipal Utility

The Power Bureau

CJT Energy Law, LLC

Progressive Energy Solutions, LLC

May 29, 2025



# Agenda

## OVERVIEW

- Introductions
- Assignment

## APPROACH

- Wholesale Prices
- Retail Prices

## RESULTS

- Drivers
- Final Point

## DISCUSSION

- Open

# OVERVIEW

Mark Pruitt  
Principal | Power Bureau  
markjpruitt@thepowerbureau.com  
(219) 921-3828

Christopher Townsend  
Attorney | CJT Energy Law  
chris@cjtenergylaw.com  
(312) 286-0311

## Power Bureau

- Advisor on energy policy, planning, and procurement
- Retail and Wholesale energy transaction support

## CJT Energy Law

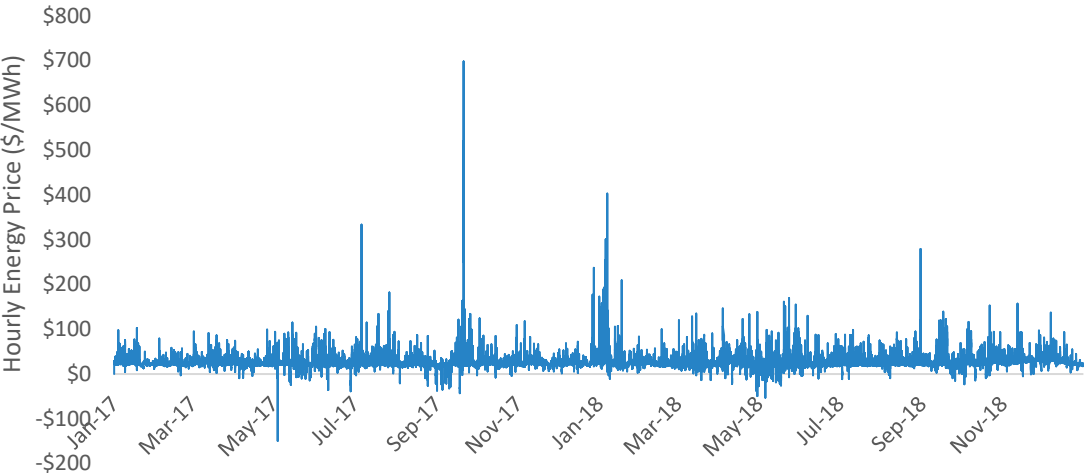
- Legal analysis and advocacy supporting transactions as well as regulatory and legislative issues
- Representing entities other than the local utilities

## Assignment

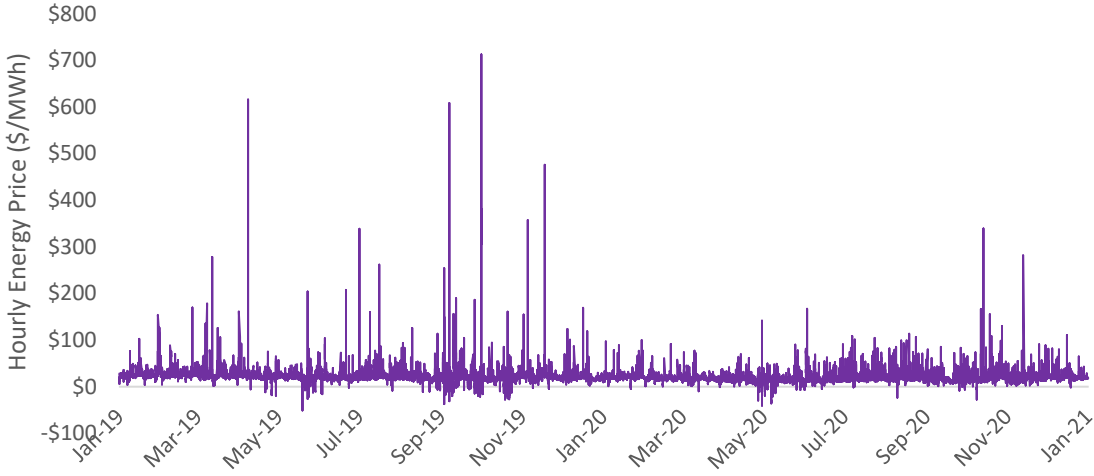
- Benchmark Naperville Municipal Utility costs
  - Wholesale electricity rates (IMEA v. PJM)
  - Retail electricity rates (Naperville v. ComEd)

Key Issue: What is the Correct Price to Compare?

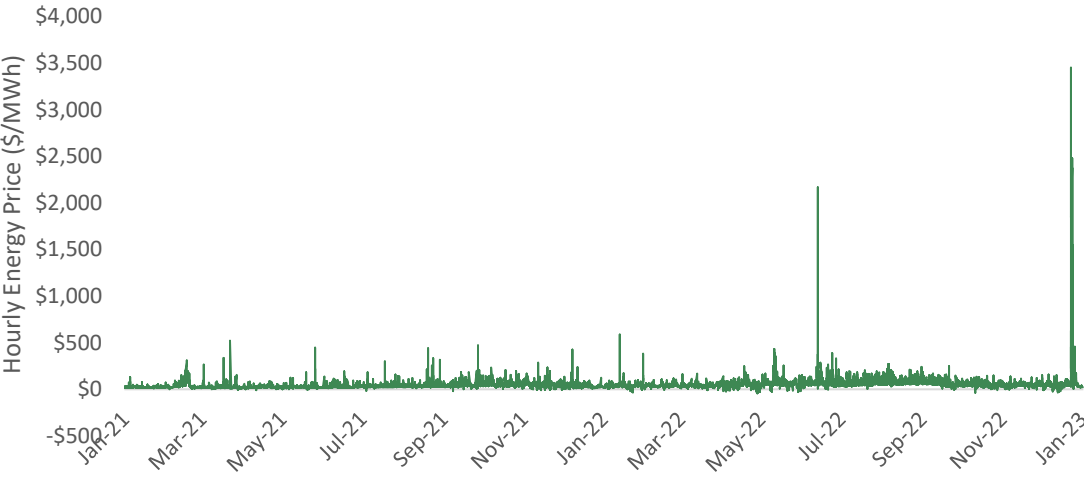
Historical Hourly Energy Prices, ComEd Zone (2017-2018)



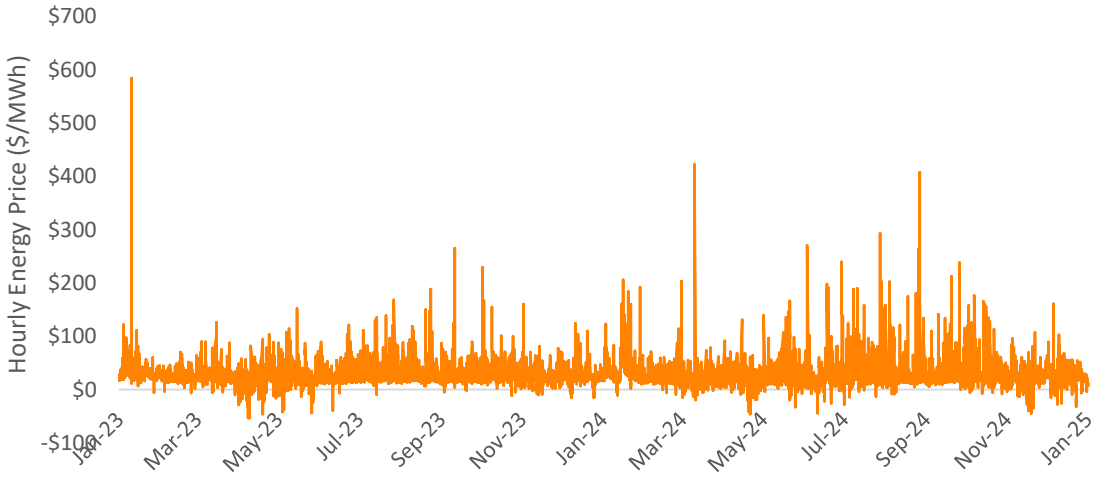
Historical Hourly Energy Prices, ComEd Zone (2019-2020)



Historical Hourly Energy Prices, ComEd Zone (2021-2022)



Historical Hourly Energy Prices, ComEd Zone (2023-2024)



WHOLESALE PRICES

Key Issue

Benchmarking Proxy

Wholesale Price Comparison

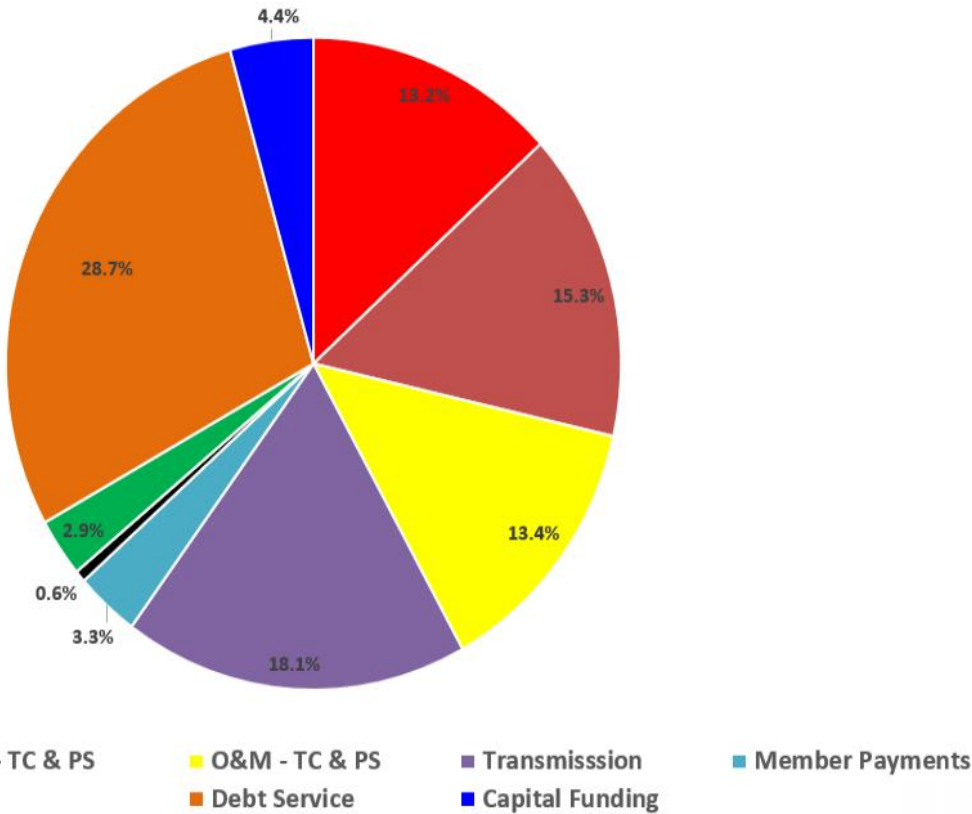
PJM Benchmarking Proxy: ComEd Price to Compare

Challenges	<ul style="list-style-type: none"><li>• Market Price Variability.<ul style="list-style-type: none"><li>- Wholesale market <b>prices for energy change every hour</b> (Day-Ahead) and every 5 minutes (Real Time)</li><li>- Differences in daily load (<b>peak vs. off-peak</b>) and <b>seasonal differences</b> mean that the “average” wholesale price for energy will not represent the costs that the utility would have experienced</li></ul></li><li>• Unknown Hedging model<ul style="list-style-type: none"><li>- Would the City have hedged?</li><li>- When, what volume, what duration?</li></ul></li></ul>
Candidate Proxy	<ul style="list-style-type: none"><li>• ComEd Default portfolio (secured by the IPA)</li><li>• Large (21 million MWh)</li><li>• Shaped for daily and seasonal use patterns</li><li>• Wholesale transactions (no broker fees)</li><li>• Layered hedging for energy (1-, 2-, and 3-year tranches)</li><li>• Passes through energy and transmission</li></ul>



IMEA Benchmarking Proxy: Portions of IMEA’s Costs are not Supply-Related

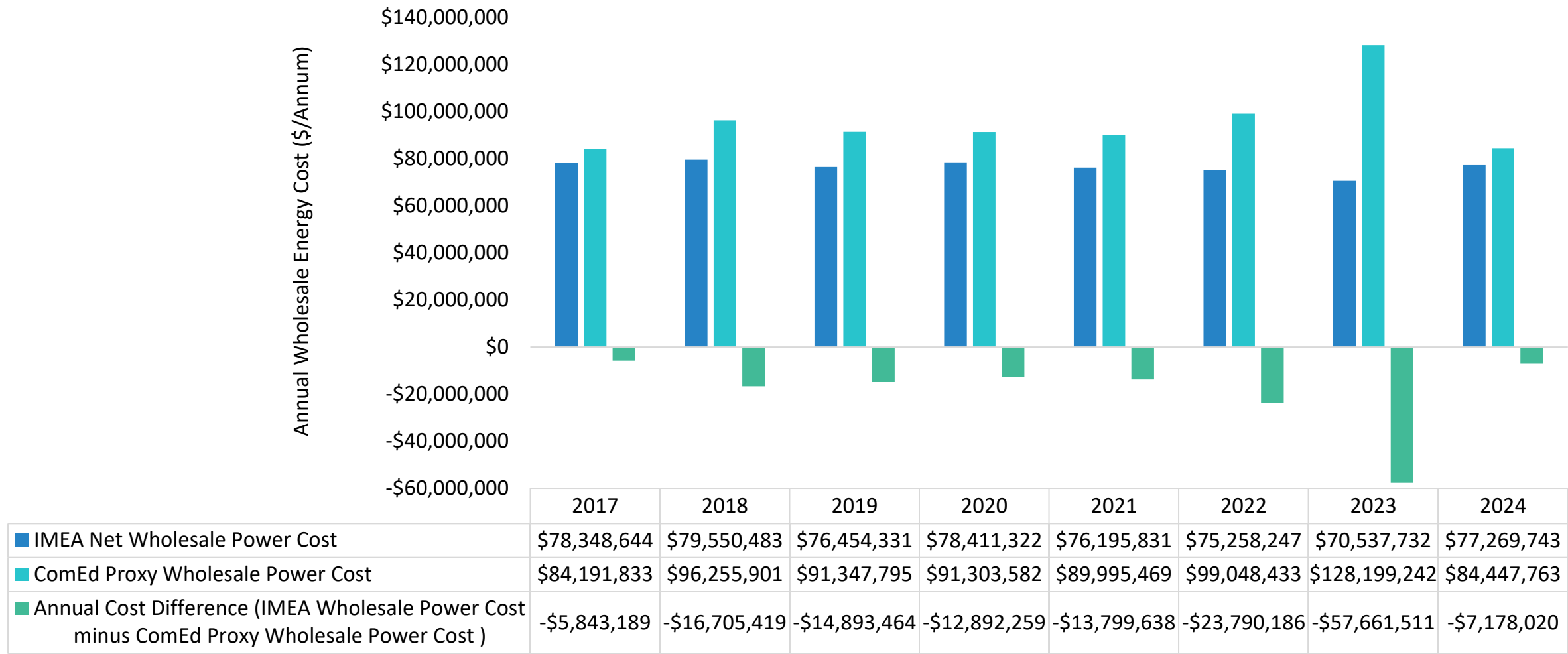
IMEA FY2023 Member Cost Breakdown



IMEA COST CATEGORY	ALLOCATION		NOTES
	GROSS	NET	
Purchased Power	13.2%	13.2%	Direct cost of supply; Included
Fuel - TC & PS	15.3%	15.3%	Operating cost related to generation; Included
O&M - TC & PS	13.4%	13.4%	Operating cost related to generation; Included
Transmission	18.1%	18.1%	Wholesale cost related to supply; Included
Member Payments	3.3%	3.3%	Wholesale cost of capacity; Included
Other Utility Operations	0.6%	0.6%	Indirect cost of supply management/generation; Included
A & G	2.9%	2.9%	Indirect cost of supply management/generation; Included
Debt Service	28.7%	0.0%	Investment with expected return; Excluded
Capital Funding	4.4%	4.4%	Indirect cost of generation; Included
TOTAL	100%	71.2%	Net % of IMEA costs related to generation/supply

Wholesale Price Comparison: PJM (ComEd Price to Compare proxy) v. IMEA Net Power Charges

Comparative Historical Wholesale Energy Costs



RETAIL PRICES

Assumptions

Data Sources

Rate Comparisons

General Approach

Rates	<ul style="list-style-type: none"><li>• Residential</li><li>• Small Commercial (GS-1)</li><li>• Large Commercial (GS-2)</li><li>• Outdoor Metered Lights</li><li>• Primary Customers (served at 15kV)</li><li>• Transmission Customers (served at 34.5kV)</li></ul>
Volumes	<ul style="list-style-type: none"><li>• Monthly Consumption (per Rate Class)</li><li>• Monthly Demand (per Rate Class)</li><li>• Monthly Number of Customers (per Rate Class)</li></ul>
Retail Cost	<ul style="list-style-type: none"><li>• <math>\text{Rate} * \text{Volume} = \text{Cost}</math></li></ul>



RETAIL PRICES

Assumptions

Data Sources

Rate Comparisons

Data Gathering

Rates

- Naperville Municipal Utility
- Commonwealth Edison Company
- Illinois Commerce Commission
- Illinois Power Agency
- PJM Independent Market Monitor (Monitoring Analytics)
- Illinois Municipal Electric Agency

Volumes

- Naperville Municipal Utility
  - Some capacity (demand) values are averaged
  - Some consumption values are % allocated

Other

- Additional details can be built into the models

Mirror the City’s Rates to ComEd’s Rates

RETAIL PRICES

Assumptions

Data Sources

Rate Comparisons

Retail Rate Equivalencies	
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

## Calculate Each Billing Variable per Rate Class

### Naperville

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

### Commonwealth Edison Company

RESIDENTIAL RATE CLASS (12/2024)	
<b><u>Supply</u></b>	
Electricity Supply Charge	\$2,455,750
Purchased Electricity Adjustment	-\$307,443
<b><u>Delivery</u></b>	
Customer Charge	\$863,860
Standard Metering Charge	\$223,345
Distribution Facilities Charge	\$2,292,919
IL Electricity Distribution Charge	\$47,445
<b><u>Taxes and Fees</u></b>	
Environmental Cost Recovery Adj	\$8,350
Renewable Energy Resources and Coal Technology Development Assistance 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
<b>TOTAL Charges (\$/Month)</b>	<b>\$6,830,582</b>
<b>AVERAGE Rate (\$/kWh)</b>	<b>\$0.179961</b>

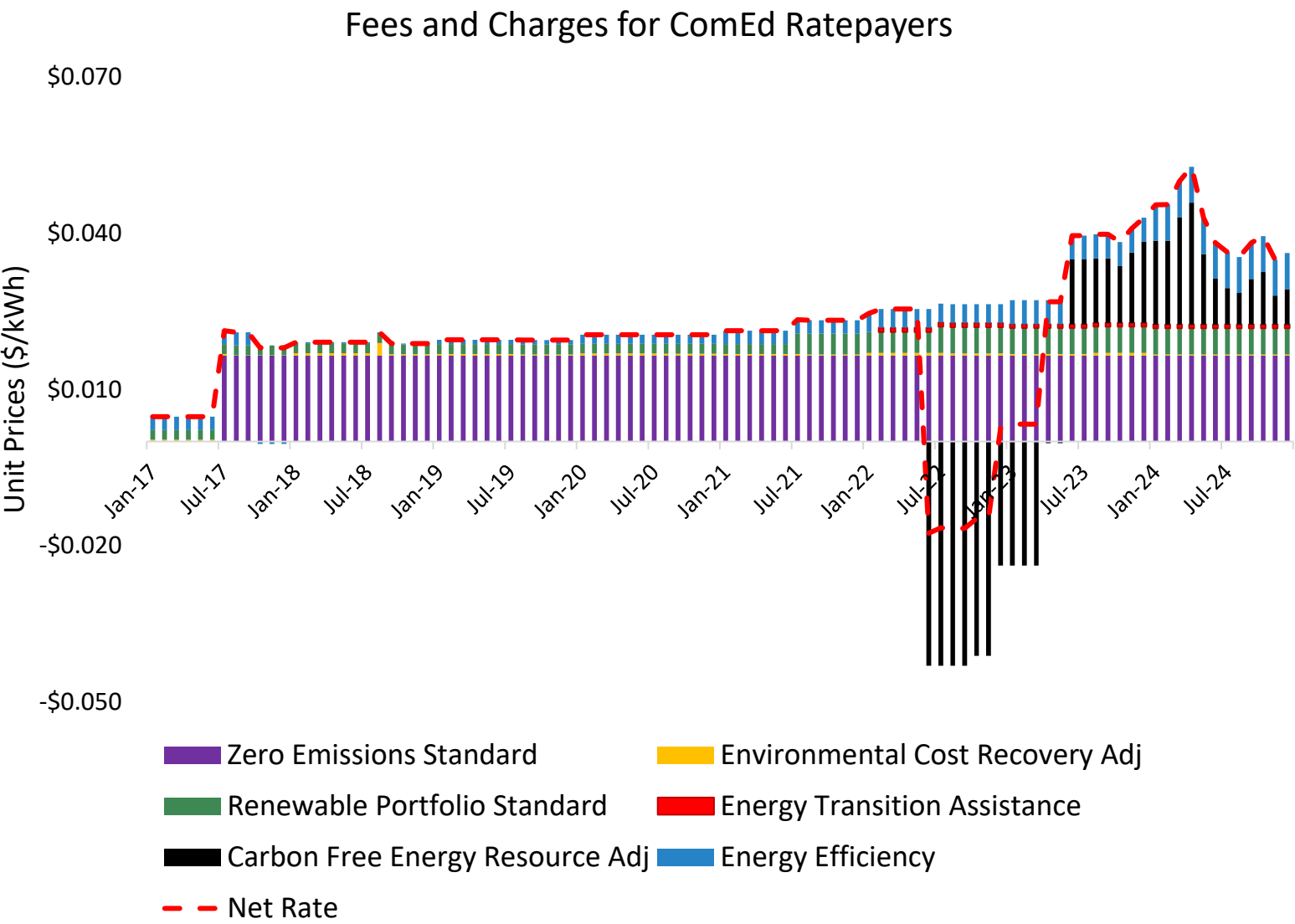
RETAIL PRICES

Assumptions

Data Sources

Rate Comparisons

Timing and Scale of Fees and Charges Included in Retail Rate Comparison



RETAIL PRICES: RESULTS

Residential

Small Commercial (GS-1)

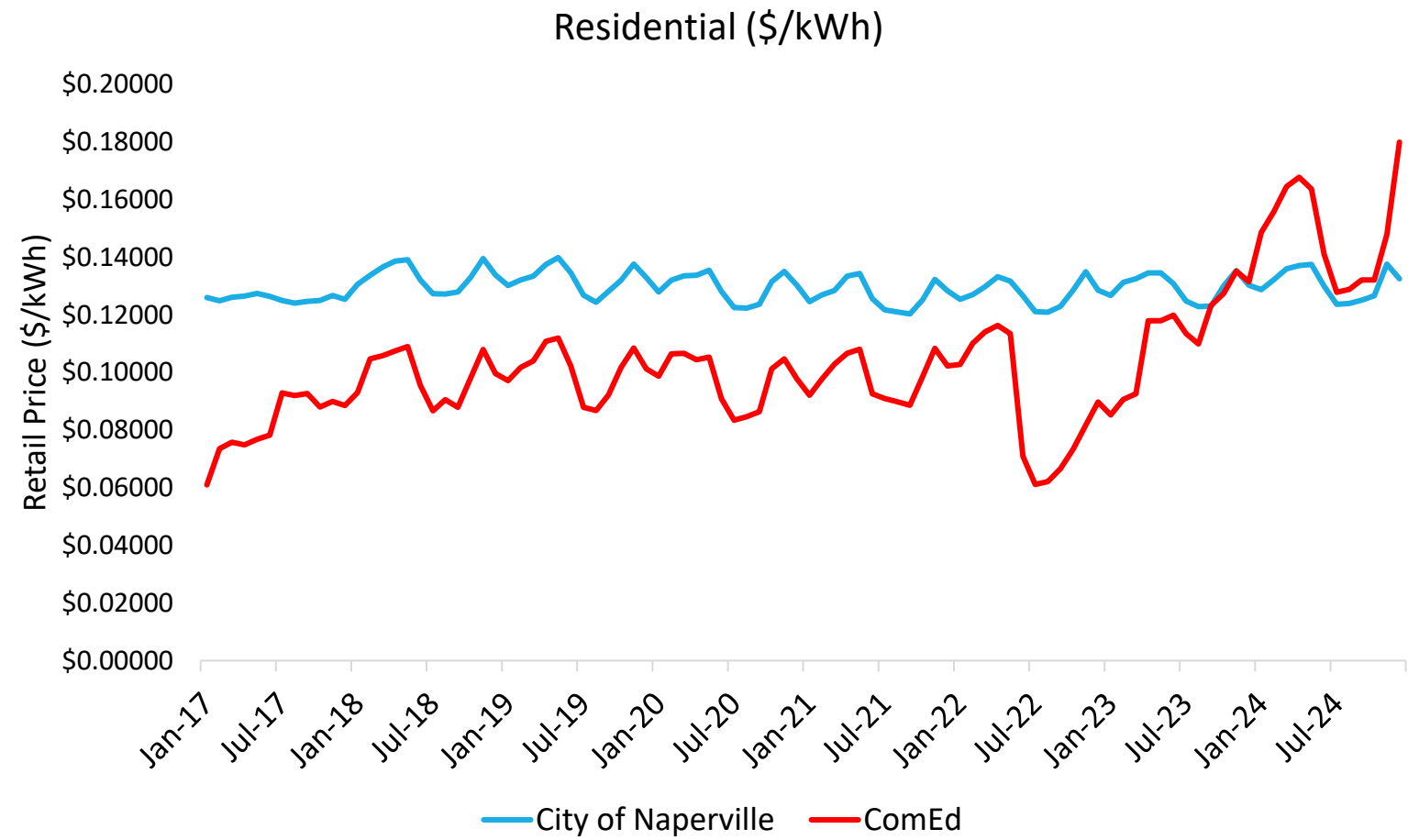
Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service

Residential Rates: Price Advantage has Flipped



Utility	Volatility Index	Inflation Index
City of Naperville	0.495	4.2%
Commonwealth Edison	2.321	81.2%

RETAIL PRICES: RESULTS

Residential

Small Commercial (GS-1)

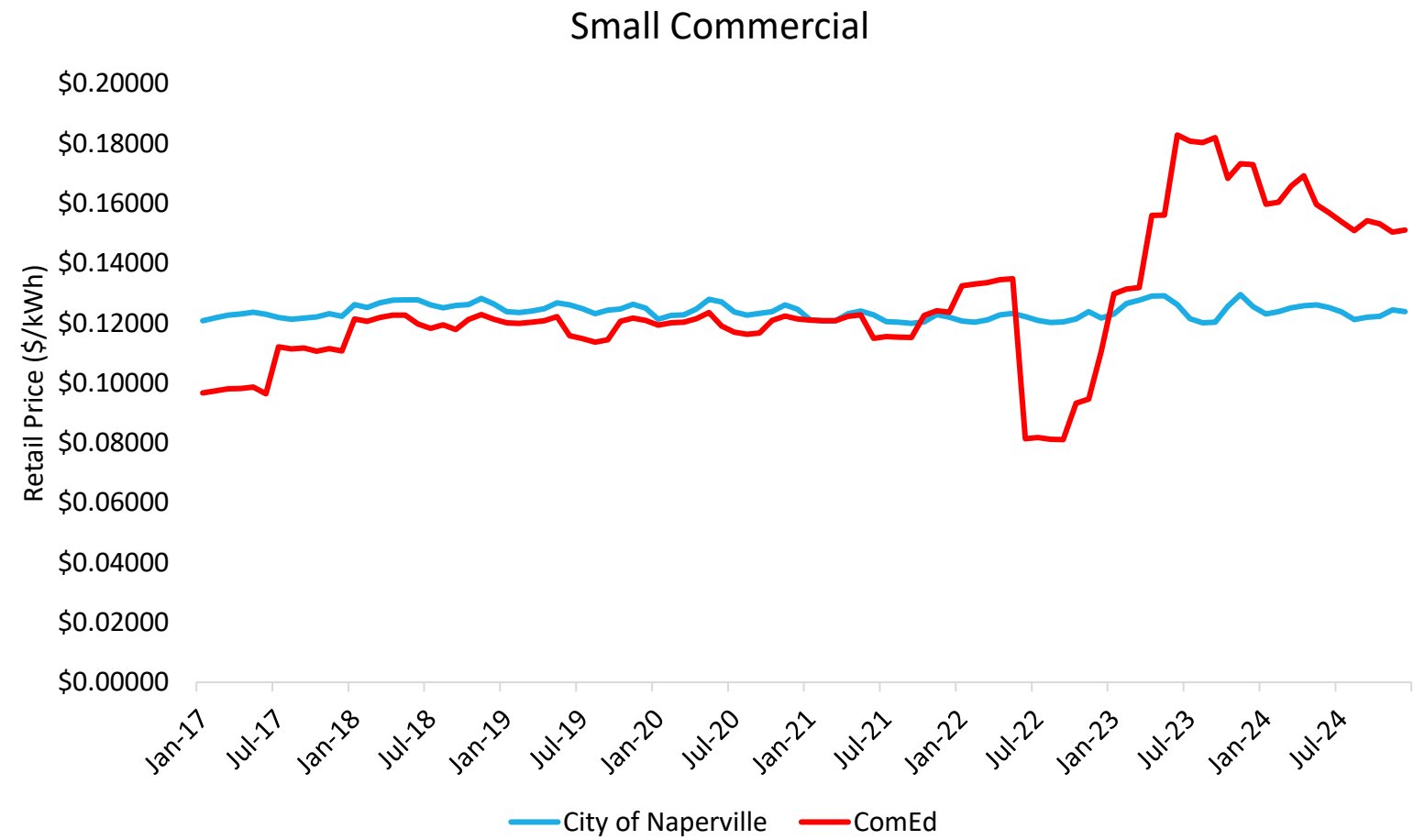
Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service

Small Commercial Rates: Historical Price Parity has Shifted



Utility	Volatility Index	Inflation Index
City of Naperville	.240	1.3%
Commonwealth Edison	2.325	50.4%



RETAIL PRICES: RESULTS

Residential

Small Commercial (GS-1)

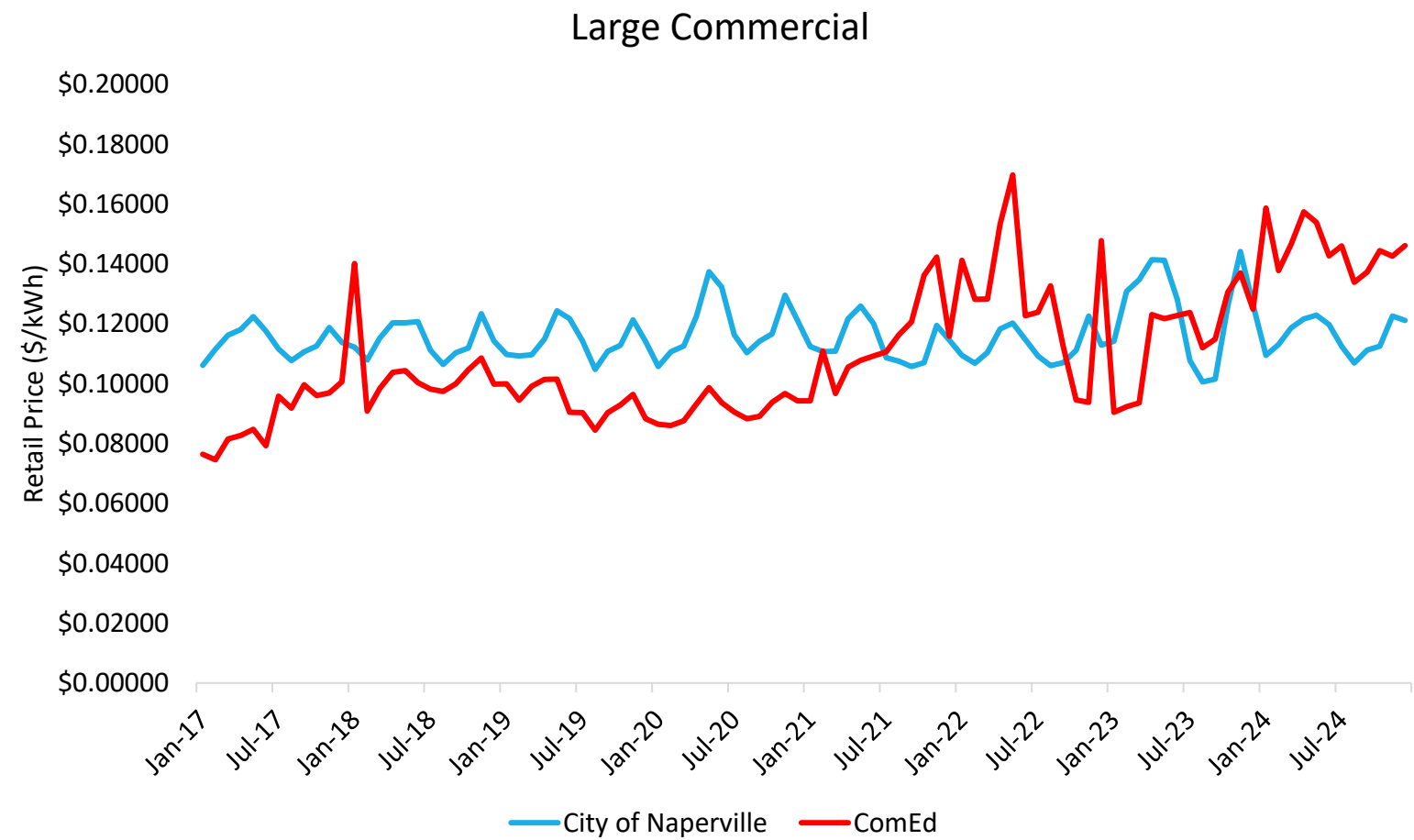
Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service

Large Commercial Rates: Historical Price Parity has Shifted



Utility	Volatility Index	Inflation Index
City of Naperville	0.868	1.8%
Commonwealth Edison	2.337	64.8%

RETAIL PRICES: RESULTS

Residential

Small Commercial (GS-1)

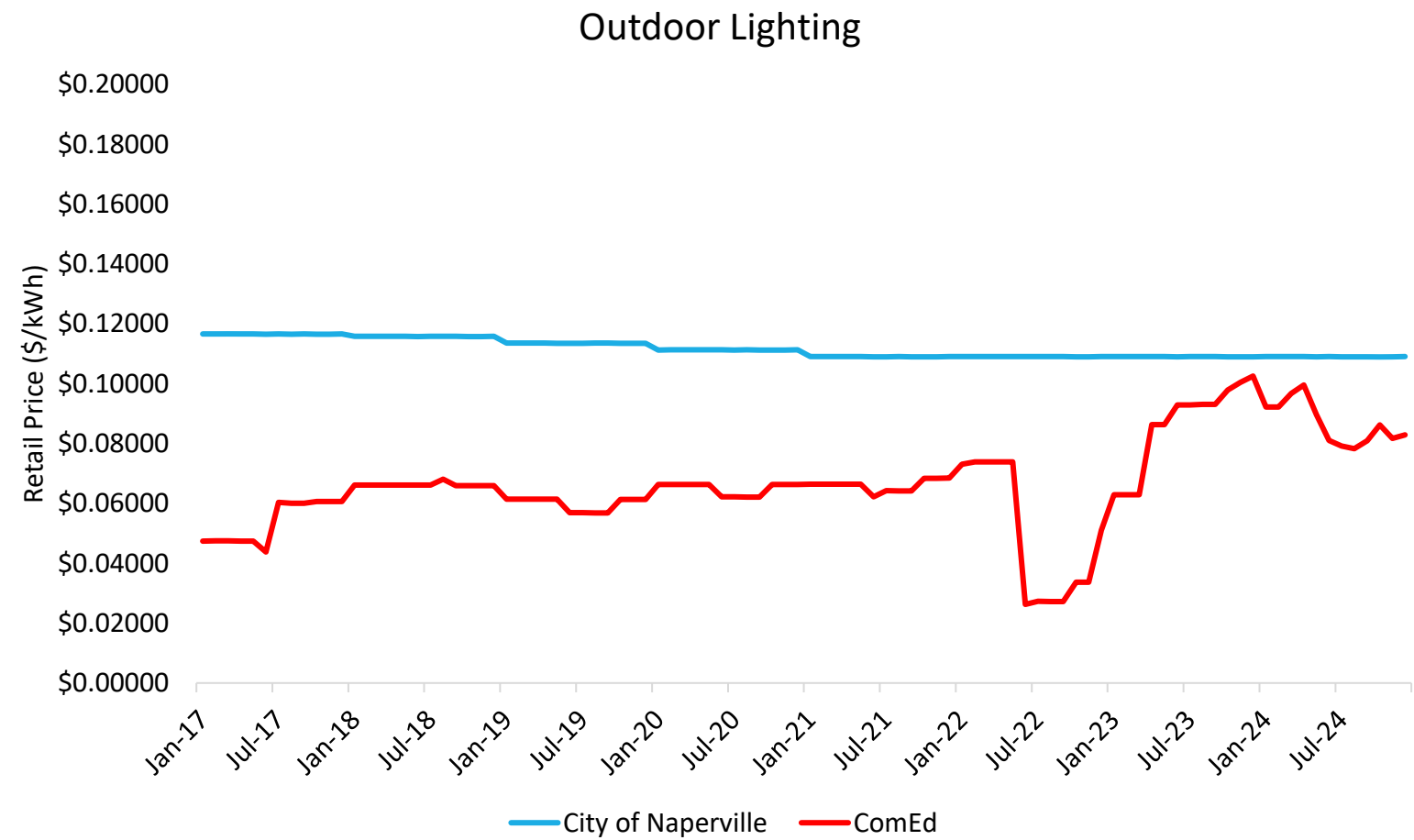
Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service

Outdoor Lighting Rates: Historical Price Ga is Shrinking



Utility	Volatility Index	Inflation Index
City of Naperville	0.303	-6.5%
Commonwealth Edison	1.613	61.7%

RETAIL PRICES: RESULTS

Residential

Small Commercial (GS-1)

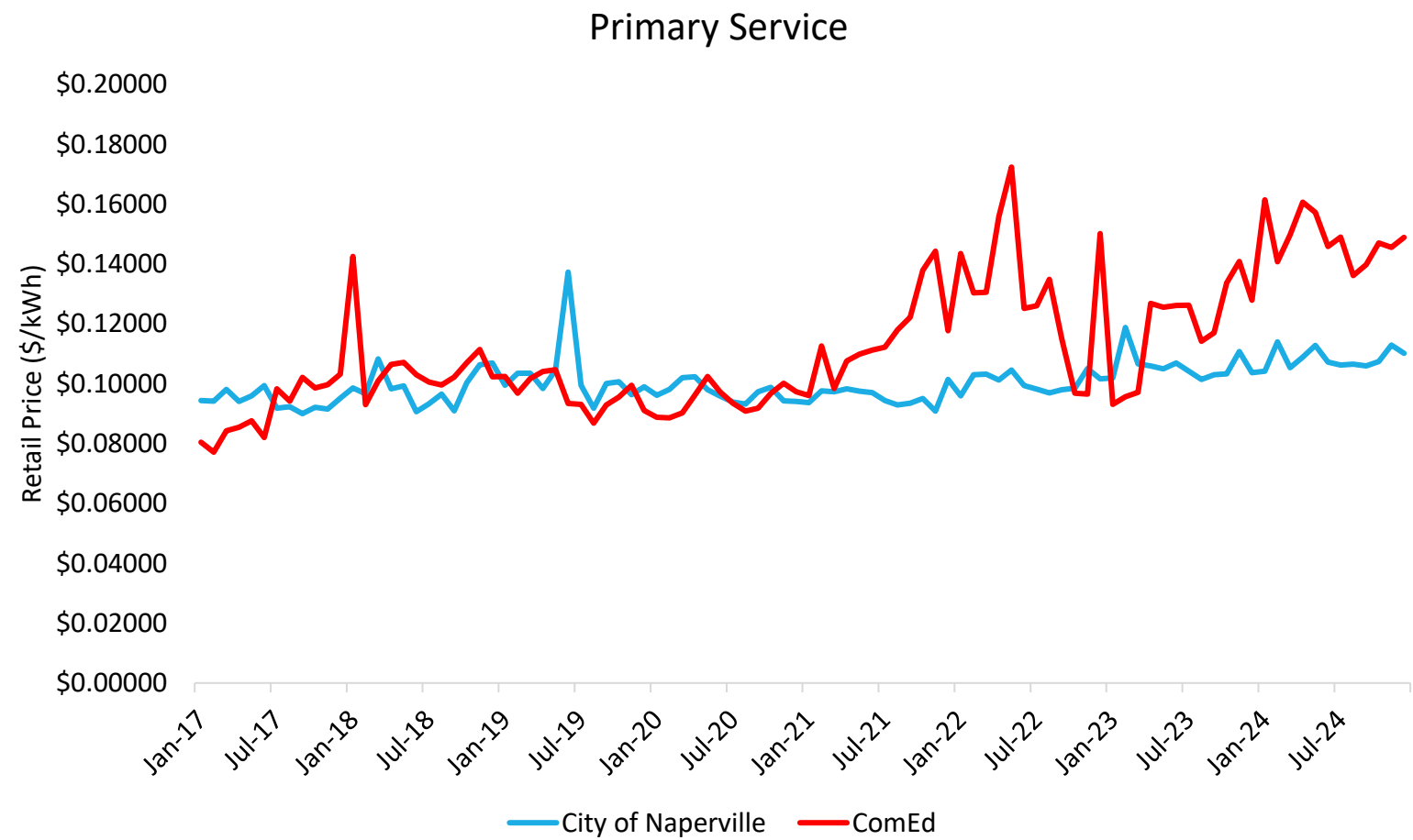
Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

Transmission Service

Primary Service Rates: Historical Price Parity has Shifted



Utility	Volatility Index	Inflation Index
City of Naperville	0.702	15.3%
Commonwealth Edison	2.237	63.0%

## RETAIL PRICES: RESULTS

Residential

Small Commercial (GS-1)

Large Commercial (GS-2)

Outdoor Metered Lights

Primary Service

**Transmission Service**

### Transmission Service Rates: Not Presented

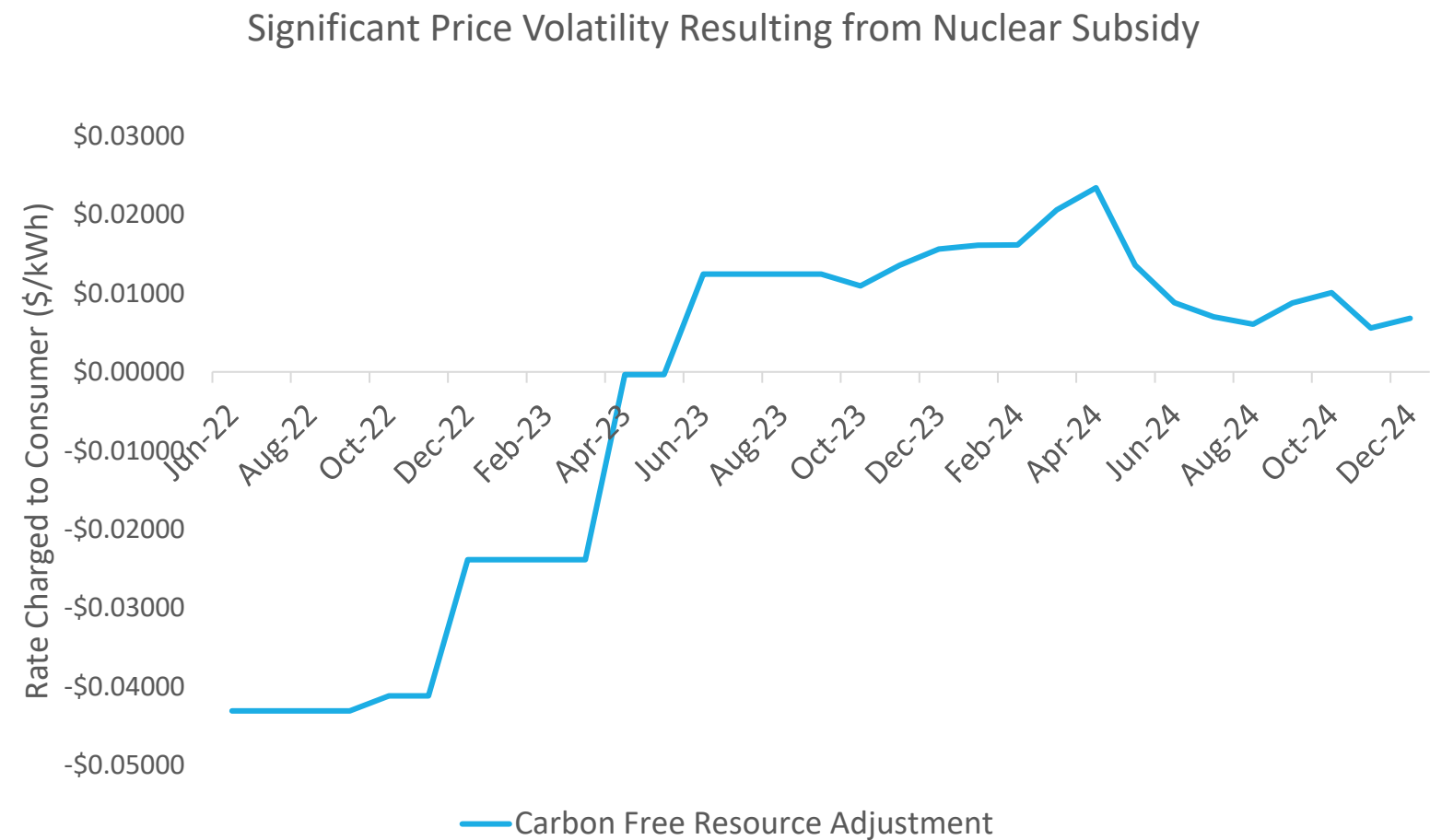
- Only one (1) Transmission Serve Customer is served by the Naperville Municipal Utility
- Revealing analysis of this single user would effectively share that customer's account information
- State law prohibits the sharing of identifying account information
- As such, we will not present the analysis for the Transmission Service rate customer

RETAIL PRICES: DRIVERS

Volatility

Escalators

Volatility Driver: 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

RETAIL PRICES: DRIVERS

Volatility

Escalators

Volatility Driver: PJM Wholesale Markets

Energy Price Volatility in the PJM Wholesale Market



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



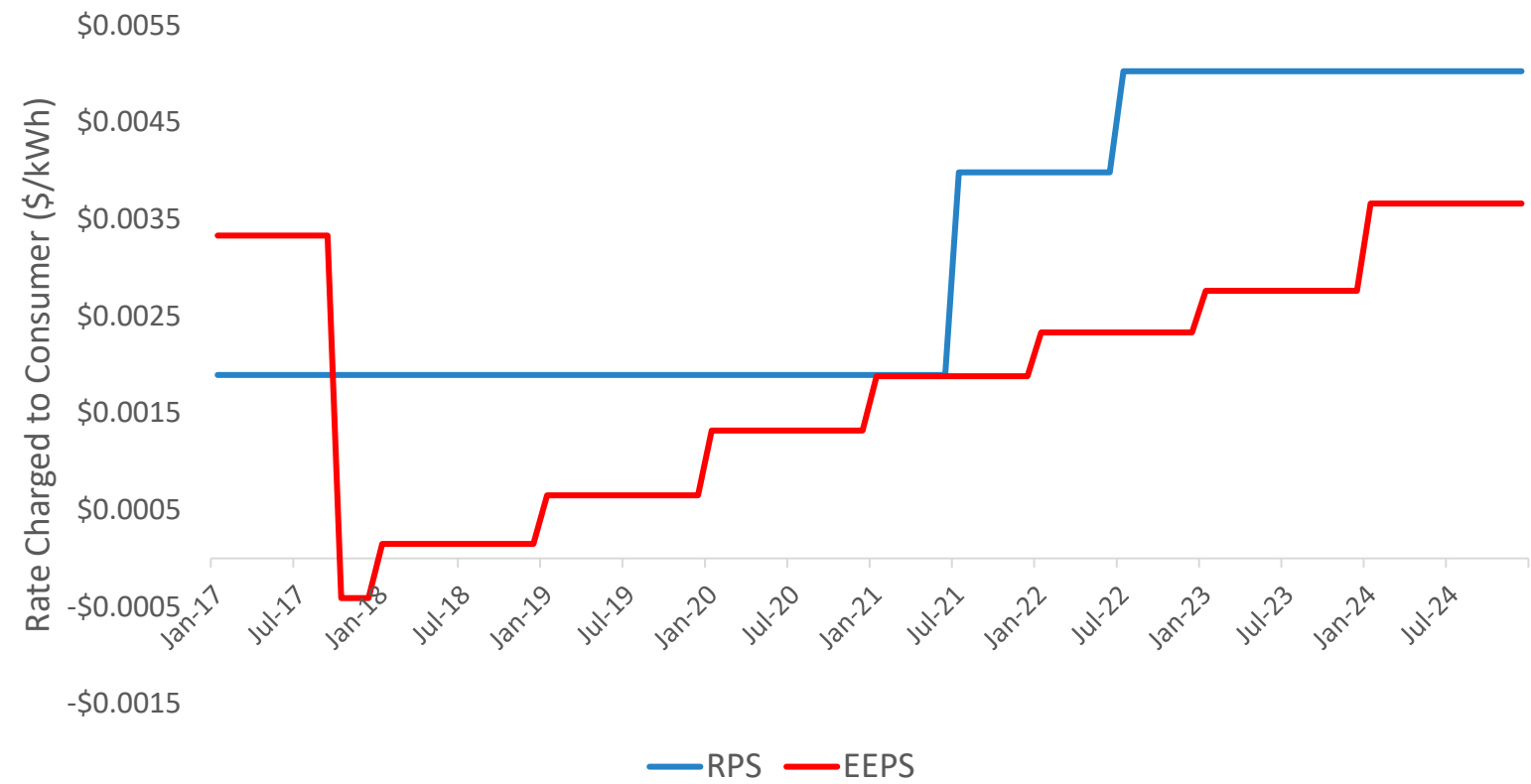
RETAIL PRICES: DRIVERS

Volatility

Escalators

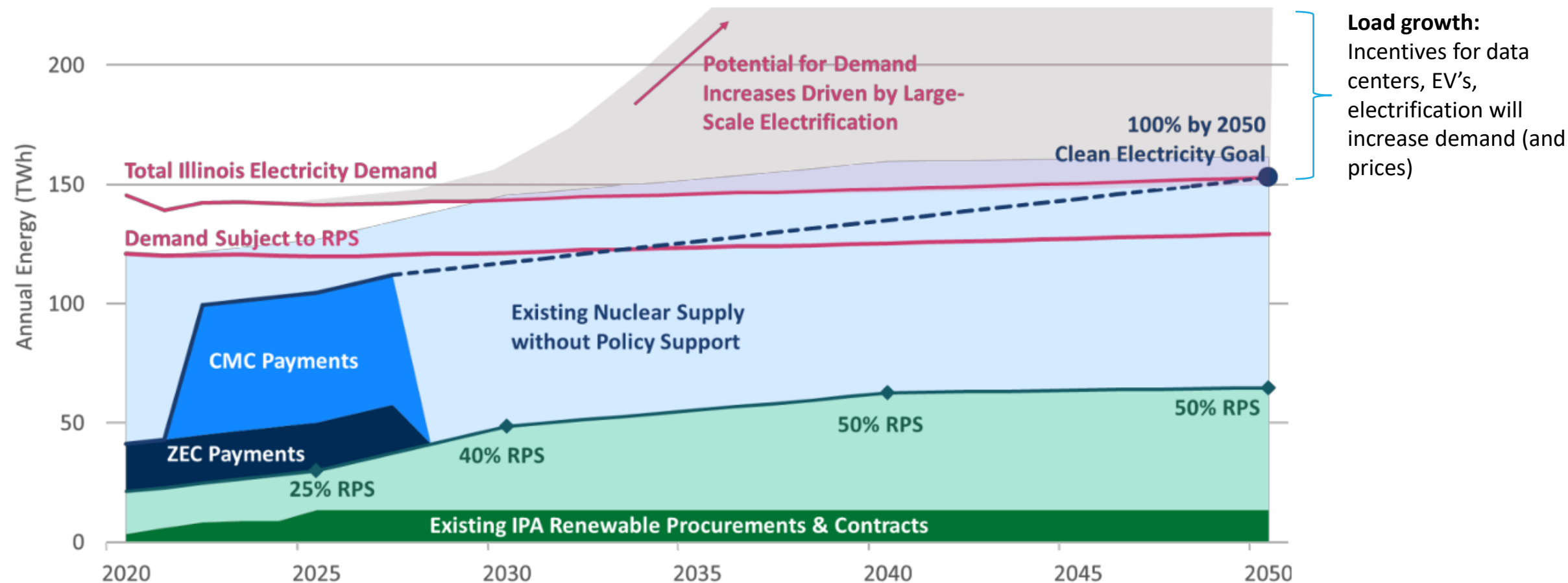
Escalation Drivers: Renewable Portfolio Standard and Energy Efficiency

Gradually Increasing RPS and EE Fees Resulting from FEJA/CEJA

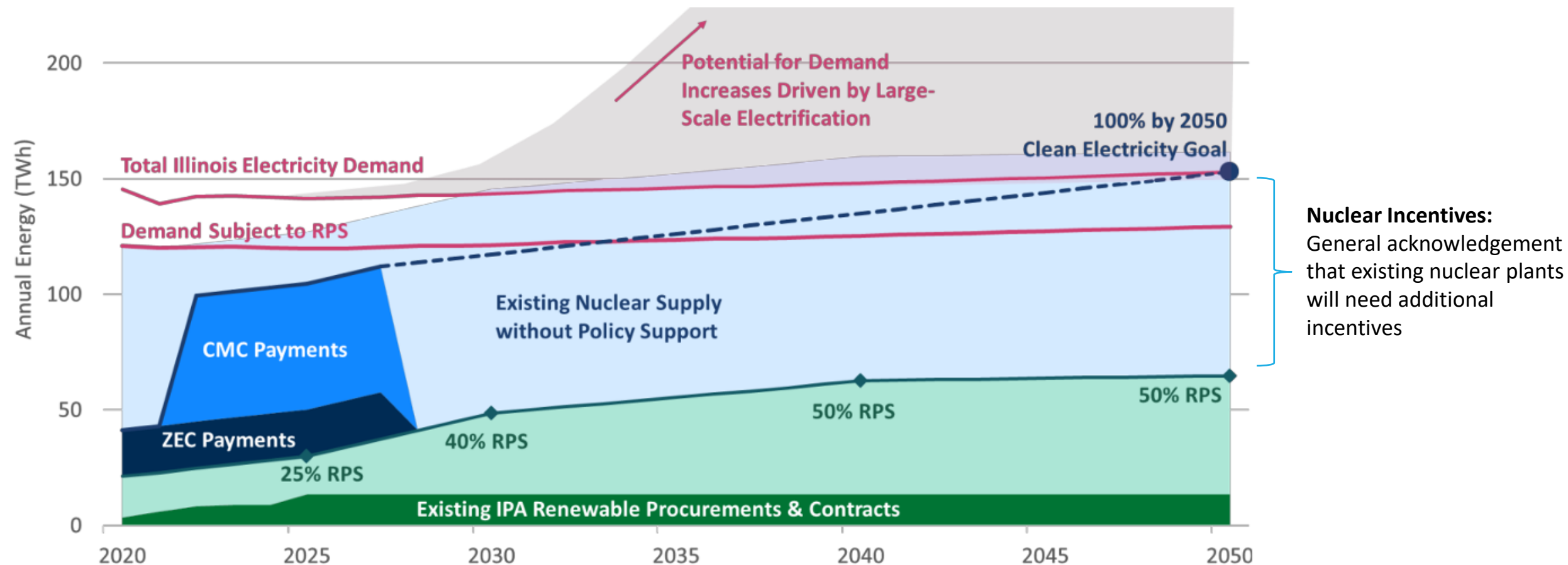


Energy Efficiency program costs increase due to ComEd’s receiving a return on program expenditures. Renewable Portfolio Standard funding will run into deficit starting in 2028-2029 and increases are expected

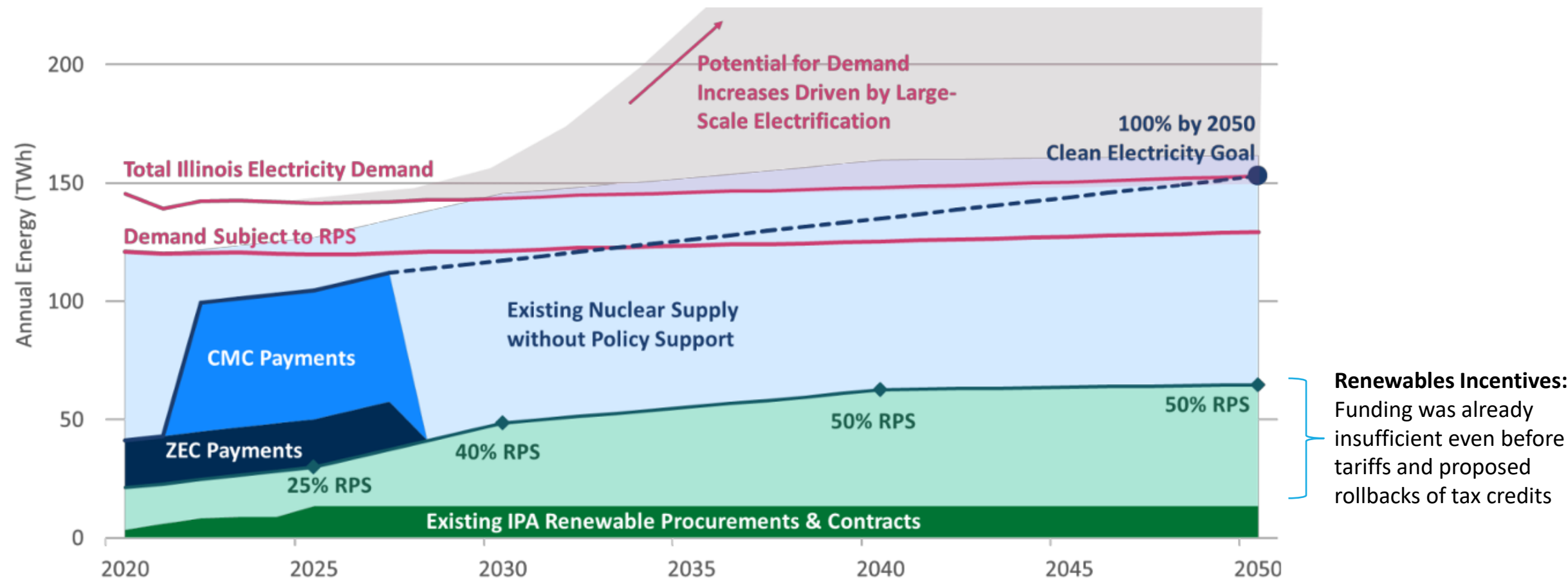
FINAL POINT: Policy makes have already identified that prices will continue to rise



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FINAL POINT: Policy makes have already identified that prices will continue to rise



**Renewables Incentives:**  
Funding was already insufficient even before tariffs and proposed rollbacks of tax credits

# THANK YOU

## **Mark Pruitt**

Principal | The Power Bureau

[markjpruitt@thepowerbureau.com](mailto:markjpruitt@thepowerbureau.com)

C: (219) 921-3828

## **Chris Townsend**

Managing Partner | CJT Energy Law, LLC

[chris@cjtenergylaw.com](mailto:chris@cjtenergylaw.com)

C: (312) 286-0311