

THE VILLAGE OF
Winnetka
2025

INTRODUCTION OF ORDINANCE M-5-2025

June 3, 2025



- Cost of Power
- Municipal PJM Participation Examples
- Consequences of Naperville not re-signing
- Sustainability Measures
- Renewable Energy Credits (RECs)
- Presentation by Mr. Mark Pruitt
- Recommendation



- Analysis from last study session is sound. Winnetka supply costs through IMEA have been lower than ComEd supply over time.
- Capacity Credits present an avoided cost to the utility, savings passed on to ratepayers.
 - Average 16% reduction in supply cost annually 2014-2024
 - Recovering supply cost increase from loss of credits would be a **~4.37% rate increase** across the entire Village.
- We receive the credits on our IMEA bill automatically, no matter how often we run the plant.
- Credits are scheduled to increase over the next five years to reflect the upward price trend for capacity.
- Winnetka's power plant is designed and permitted as a 'peaker' plant, would likely not provide economical dispatch into PJM most of the year.

COST OF POWER

- Bill comparison – Winnetka versus ComEd – bundled versus unbundled rates

CHARGE DETAILS

Retail Delivery Service - Res Single 4/17/25 - 5/19/25 (32 Days)

	SUPPLY - MC SQUARED ENERGY SERVICES	\$47.94
	Utility Electric Supply Charge 563 kWh at 0.05015	\$28.23
	Utility Transmission Charge 563 kWh at 0.01537	\$8.65
	Utility PEA Charge	\$11.06

Supply Cost w/o riders: \$0.0851 / kWh

	DELIVERY - ComEd	\$54.23
	Customer Charge	\$15.51
	Standard Metering Charge	\$4.01
	Distribution Facility Charge	563 kWh X 0.06041 \$34.01
	IL Electricity Distribution Charge	563 kWh X 0.00125 \$0.70

TAXES & FEES

	TAXES & FEES	\$10.64
	Renewable Portfolio Standard	563 kWh X 0.00502 \$2.83
	Environmental Cost Recovery Adj	563 kWh X 0.00007 \$0.04
	Zero Emission Standard	563 kWh X 0.00195 \$1.10
	Carbon-Free Energy Resource Adj	563 kWh X -0.00522 -\$2.94
	Energy Efficiency Programs	563 kWh X 0.00376 \$2.12
	Energy Transition Assistance	563 kWh X 0.00072 \$0.41
	Franchise Cost	\$47.12 X 0.035653 \$1.68
	State Tax	\$1.86
	Municipal Tax	\$3.54

Service Period Total **\$112.81**

MISCELLANEOUS

\$0.00

Charges/Credits from previous bill \$94.02

Thank You for Your Payment of \$94.02 on May 13, 2025

Total Amount Due **\$112.81**

UPDATES

MC Squared Energy Services

- Utility charges from MC2 are based on published tariff rates

ComEd

- **PRICE TO COMPARE:** The ComEd electric supply price to compare is 6.552 cents per kWh. This price does not include a monthly purchased electricity adjustment factor. For more information and supplier offers visit <https://www.pluginillinois.org/fixedrate.aspx>. For more information on ComEd bill line items go to [ComEd.com/UnderstandBill](https://www.comed.com/UnderstandBill).
- The amount of this bill will be automatically deducted from your bank account on June 12, 2025.

Supply Cost w/riders: \$0.0869 / kWh

Total Cost per kWh: \$0.2004 / kWh
(Includes: Supply, Delivery, and Taxes & Fees)

- Winnetka ratepayers have been receiving a **PCA credit for three consecutive years** due to IMEA being under the budgeted power cost.

COST OF POWER

Bill issued in May of 2025				
Assumes 563 KWH Consumption	ComEd Current	ComEd June 2025	Village of Winnetka	
Electric Supply Charges				
Supply Charges *	\$ 36.88	\$ 47.38	\$	43.22
Power Cost Adjustment	\$ 11.06	\$ 11.06	\$	(11.26)
<i>Total Supply Charge</i>	\$ 47.94	\$ 58.44	\$	31.96
Supply Charge / kWh	\$ 0.0852	\$ 0.1225	\$	0.0670
Electric Delivery Charges				
Customer Charge	\$ 15.51	\$ 15.51	\$	22.54
Distribution	\$ -	\$ -	\$	51.26
Standard Metering Fee	\$ 4.01	\$ 4.01	\$	-
IL Electricity Distribution Charge	\$ 0.70	\$ 0.70		
Distribution Facility Charge	\$ 34.01	\$ 34.01	\$	-
<i>Total Delivery Charge</i>	\$ 54.23	\$ 54.23	\$	73.80
Other Fees				
Renewable Portfolio Standard	\$ 2.83	\$ 2.83	\$	-
Environmental Cost Recovery Adjustment	\$ 0.04	\$ 0.04	\$	-
Zero Emission Standard	\$ 1.10	\$ 1.10	\$	-
Carbon-Free Energy Resource Adjustment	\$ (2.94)	\$ (2.94)	\$	-
Energy Efficiency Programs^	\$ 2.12	\$ 2.12	\$	-
Energy Transition Assistance	\$ 0.41	\$ 0.41	\$	-
Franchise Cost	\$ 1.68	\$ 1.68	\$	-
Municipal Tax	\$ 3.54	\$ 3.54		
State Tax	\$ 1.86	\$ 1.86	\$	1.86
<i>Total Other Fees</i>	\$ 10.64	\$ 10.64	\$	1.86
Total Electric Bill	\$ 112.81	\$ 123.31	\$	107.61
Total Cost / kWh	\$ 0.2004	\$ 0.2190	\$	0.1911
Winnetka % Higher / Lower	-4.61%	-12.73%		0.00%
Notes:				
* ComEd supply charges estimated to be \$0.015 to 0.02 /kWh higher starting June-2025.				
^ IMEA members pay a proportionate share into the EE program. This would be under their supply rate				

Bill Comparison

- In May, Winnetka's supply charges were **21% lower** than ComEd.
- When ComEd supply increases go into effect on June 1st, Winnetka supply charges estimated to be at least **45% lower (\$0.1225 vs. \$0.067)**
- In May, Winnetka's overall cost/kWh was **4.61% lower** than ComEd.
- When ComEd supply increases go into effect on June 1st, Winnetka overall bill charges estimated to be at least **12.73% lower.**

Q: Are there other examples of municipal utilities meeting 100% of the PJM requirements on their own?

A: Winnetka staff performed a thorough inquiry into approximately 18 municipal utilities that participate in PJM. **Staff did not find a single utility that takes on all the PJM participating member requirements on their own.**

- All the researched communities leverage some combination of Joint Action Agencies (JAAs) like IMEA and/or contracted resources to fill in the gaps that their JAA does not perform.
- All towns researched currently have coal in their generation portfolio, including some with Prairie State participation.
- Communities whose power portfolios include PJM market exposure are projecting significant increases in the cost of power supply.

MUNICIPAL PJM PARTICIPATION EXAMPLES

Organization	Affiliations used to meet PJM Obligations	Notes
Batavia, IL Geneva, IL Rochelle, IL	Northern Illinois Municipal Power Agency (NIMPA) Indiana Municipal Power Agency (IMPA) Avant Energy Van Buren Consulting	NIMPA's only asset is Prairie State. They are a 7.6% owner. Their debt obligations run to 2041
Borough of Chambersburg, PA	Member of Pennsylvania Municipal Electric Association (PMEA) American Municipal Power (AMP) - Joined 12/2024	AMP is the largest equity owner (23.6%) of the Prairie State Energy Campus.
City of Hamilton, OH	Member of Ohio Municipal Electric Agency (OMEA) American Municipal Power (AMP)	
Borough of Pitcairn, PA	Member of Pennsylvania Municipal Electric Association (PMEA)	Portfolio is currently 42% coal , 27% natural gas, 8% nuclear and 23% green
City of Dover, DE	Member of the Delaware Municipal Electric Corporation (DEMEC) The Energy Authority	DEMEC's portfolio is 75% non-renewable / 25% renewable
Hagerstown Light Department (HDL)	Customized Energy Solutions (CES) American Electric Power (AEP)	AEP portfolio is currently 42% coal , 27% natural gas, 8% nuclear and 23% green
Boroughs of Butler, Lavallette, Madison, Milltown, Park Ridge, Pemberton, Seaside Heights, South River, and the City of Vineland, NJ	New Jersey Public Power Authority (NJPPA)	

- Geneva, IL and Madison, NJ have telegraphed major increases in purchased power costs through their budget processes
 - Geneva – 16% cost increase Madison – 31% energy, 248% capacity



WHAT IF NAPERVILLE DOES NOT RE-SIGN?

- Environmental liability for current IMEA members extends beyond 2035, consistent with EPA precedent.
- IMEA is collecting decommissioning funds into an escrow account between now and 2035 to fund the eventual closure of coal plants. This would not be affected by Naperville's decision.
- Without Naperville's load, there is potentially less risk and rate volatility from having to secure energy off the market in the transitional period towards Net Zero.
- Without their load, IMEA will reach its Sustainability Goals faster as fewer resources will need to be secured to achieve Net Zero.
- There would be a small increase in % of A&G costs spread across the Membership (operations could be scaled over 10 years)
- IMEA will have excess capacity to sell back into the market via direct ownership in generating assets that are fully paid off.

- Energy Efficiency (EE) measures
 - Winnetka **fully expends \$42,500 of IMEA EE** funding each year throughout the community. This money is use-it-or-lose-it.
 - 9,557,337 cumulative kWh's reduced since 2009
 - Winnetka has full local control to go above and beyond and establish our own EE programs.
 - Council would need to provide direction on amounts and revenue sources.
- Self Generation (i.e. Solar)
 - Illinois residents have a right to self-serve via solar.
 - The Village nor IMEA can infringe on that right.
 - W&E must ensure grid reliability when integrating solar.
 - Currently a cap on Village-owned rooftop solar but that has been lifted in the past.



- Advanced Metering Infrastructure (AMI)
 - Opens the door to numerous programs to incentivize consumption reductions or shifts.
 - Demand Response (DR), Time of Use (TOU) Rates, Conservation Voltage Reduction (CVR).
- Member Directed Resource (MDR)
 - Viable option of utility-scale solar array on landfill.
 - Village would own array and receive credits for energy produced based on market rates.
 - Can be done as soon as contract extension is signed.
 - Batteries can be leveraged so long as a cost shift is not created to the other members.
 - IMEA Board has final say on raising the MDR limit.



- IMEA's Sustainability Plan is updated on a rolling 3 Year basis, next update will be in 2026
- Runway for Bee Hollow solar (150 MW) was a 9-year timeline
- To comply with CEJA closures, IMEA needs to start planning now for resource procurement
 - This is the reason IMEA requested Contract extensions in 2024-25 to adequately plan for the size of the portfolio
- Currently a utility scale battery storage study is underway, 2030 implementation is the goal
- MDR can be leveraged to meet the Agency's goals
- Developing a program to facilitate CVR
- IMEA will continue to fully fund and distribute Energy Efficiency and Electric Vehicle incentives to members



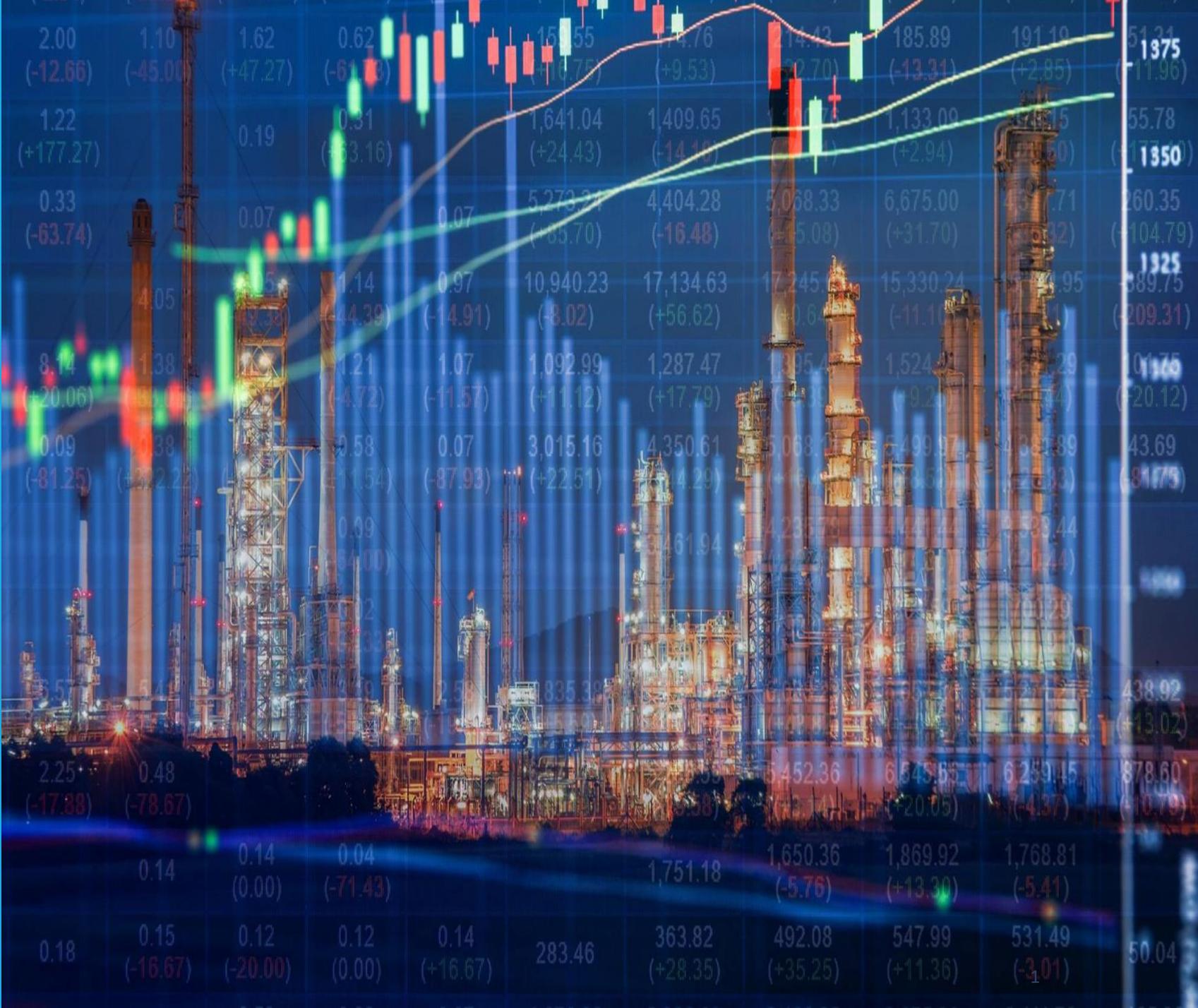
RENEWABLE ENERGY CREDITS (RECS)

3 Year Avg Village Energy Use (MWh) 124,106		1 REC = 1 MWh = 1,000 kWh		
Amount of electric use covered with RECs	Total annual cost at \$4 / REC	Approximate added cost per meter per month	Est. initial electric rate increases to fully fund RECs	
100% REC	\$ 496,422.03	\$8.27	2.17%	
75% REC	\$ 372,316.52	\$6.21	1.63%	
50% REC	\$ 248,211.02	\$4.13	1.09%	
25% REC	\$ 124,105.51	\$2.07	0.54%	

- A REC is a market-based instrument that represents the property rights to the environmental, social, and other non-power attributes of renewable electricity generation. RECs are issued when one megawatt hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable energy source.
- On an annual basis, determine the Village’s share of the carbon footprint from IMEA’s portfolio and buy an equivalent number of RECs to invest in carbon-free resources. The required REC purchase would diminish over time as IMEA moves towards net-zero.
- Examples other towns in ComEd territory going ‘green’ is often accomplished through REC purchases. Lake Zurich’s Green Choice Program is 100% RECs.

Cost Comparison of Wholesale and Retail Electricity Rates for the Village of Winnetka Municipal Utility

The Power Bureau
June, 2025



Agenda

OVERVIEW

- Assignment

WHOLESALE PRICES

- PJM Prices
- IMEA Prices
- Comparative Wholesale Prices and Costs

RETAIL PRICES

- Rate by Rate
- Volatility
- Escalators

DISCUSSION

- Open

OVERVIEW

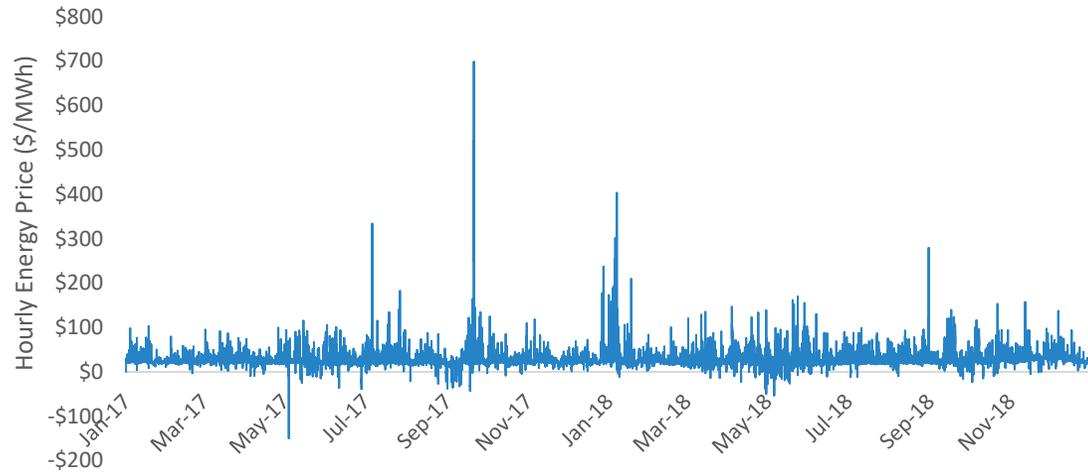
Mark Pruitt
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Assignment

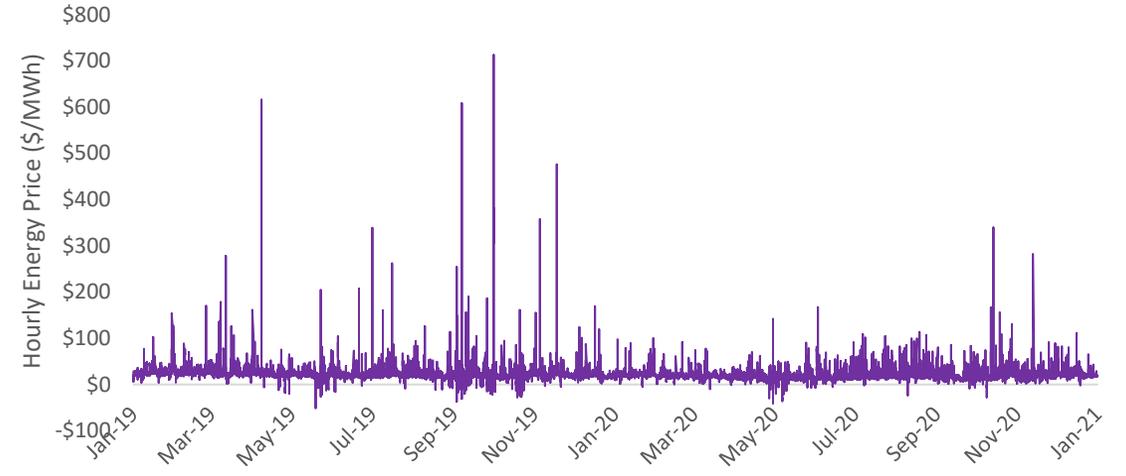
- Compare wholesale electricity rates of Village of Winnetka Municipal Utility and PJM between 2017 and 2024
- Compare retail electricity rates of Village of Winnetka Municipal Utility and Commonwealth Edison Company (ComEd) between 2017 and 2024
- Identify relevant trends, differentiators, drivers

Key Issue: What is the Correct Wholesale Price to Compare to IMEA?

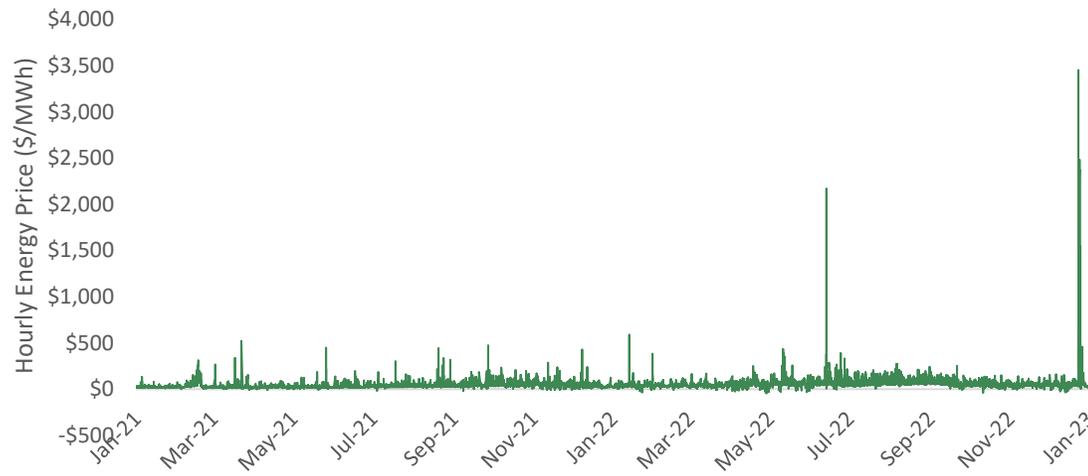
Historical Hourly Energy Prices, ComEd Zone (2017-2018)



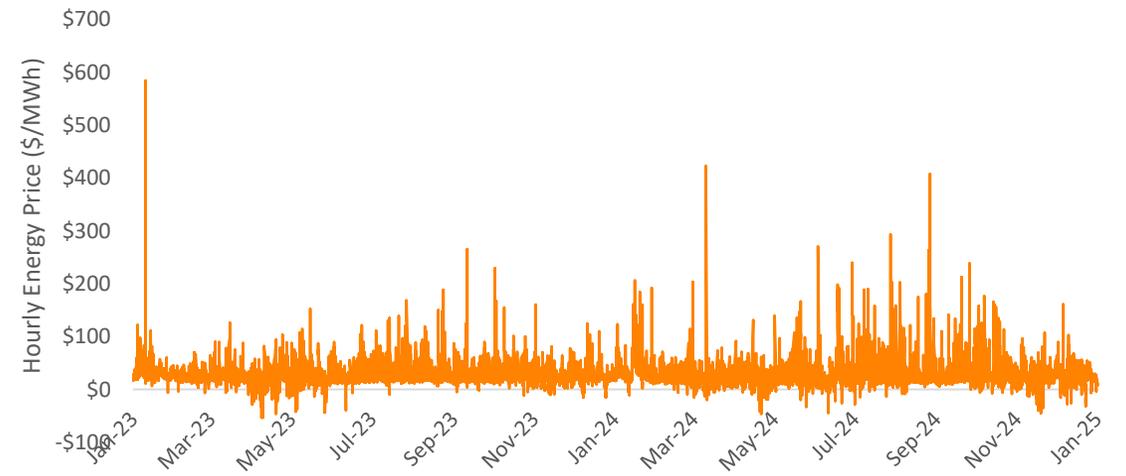
Historical Hourly Energy Prices, ComEd Zone (2019-2020)



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



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



PJM Benchmarking Proxy: ComEd Price to Compare

APPROACH

Assumptions

Data Sources

Rate Structures

Challenges

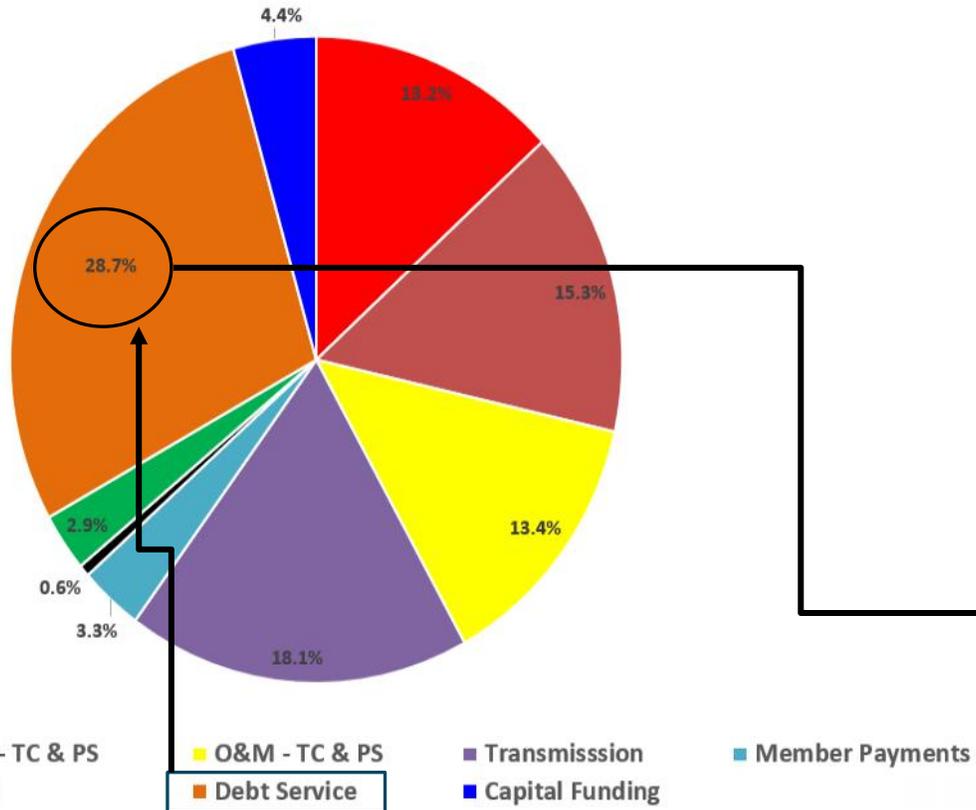
- **Market Price Variability**
 - Wholesale market **prices for energy changes every hour** (Day-Ahead) and every 5 minutes (Real Time)
 - Differences in daily load (**peak vs. off-peak**) and **seasonal differences** mean that the “average” wholesale price for energy will not represent the costs that the utility would have experienced
- **Unknown Hedging model**
 - Would the Village have hedged?
 - When, what volume, what duration?

Wholesale Market Proxy

- ComEd Default portfolio (secured by the IPA)
- Large (21 million MWh)
- Shaped for daily and seasonal use patterns
- Wholesale transactions (no broker fees)
- Layered hedging for energy (certain % fixed, remainder at variable market index rate)
- Passes through energy and transmission

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

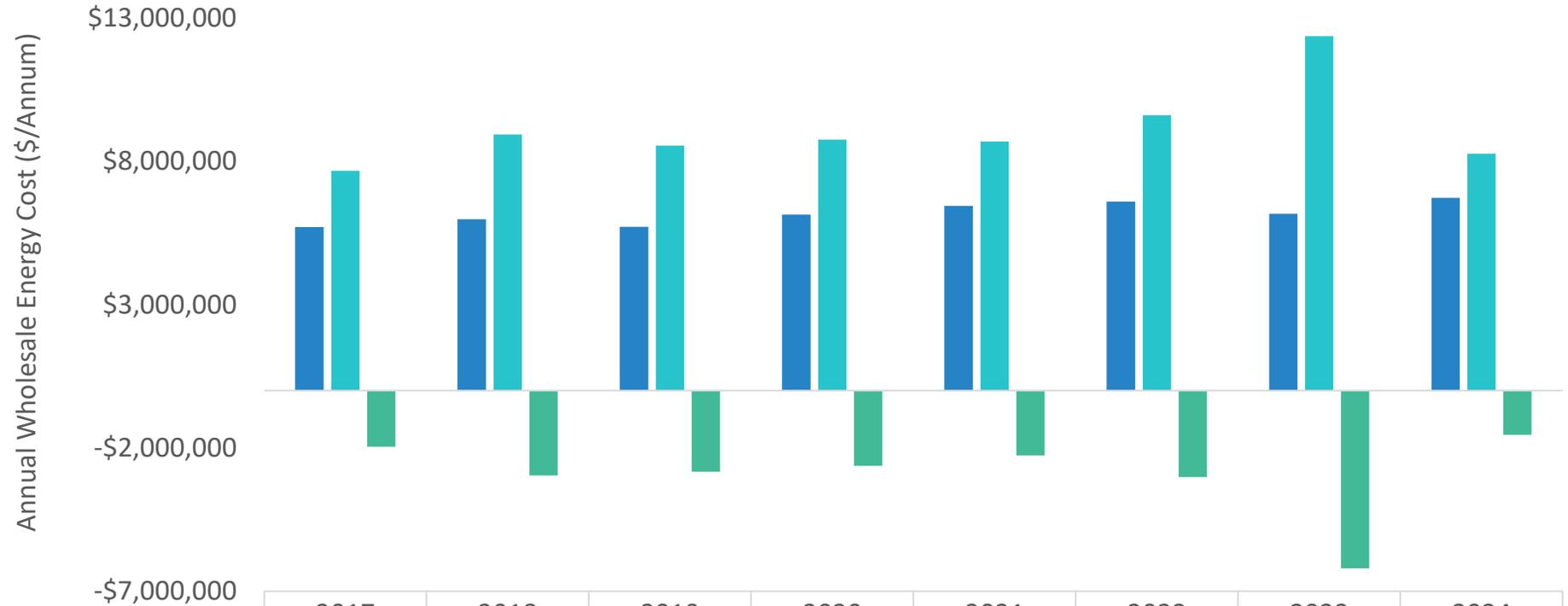
IMEA FY2023 Member Cost Breakdown



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 (proxy) v. IMEA (proxy) Power Supply Charges for Winnetka

Comparative Historical Wholesale Energy Costs



	2017	2018	2019	2020	2021	2022	2023	2024
■ IMEA Net Wholesale Power Cost	\$5,708,604	\$5,978,084	\$5,713,354	\$6,138,183	\$6,438,440	\$6,590,859	\$6,163,579	\$6,723,420
■ ComEd Proxy Wholesale Power Cost	\$7,666,629	\$8,938,968	\$8,544,067	\$8,756,668	\$8,694,345	\$9,609,084	\$12,363,044	\$8,265,894
■ Annual Cost Difference (IMEA Wholesale Power Cost minus ComEd Proxy Wholesale Power Cost)	-\$1,958,025	-\$2,960,884	-\$2,830,713	-\$2,618,486	-\$2,255,905	-\$3,018,225	-\$6,199,465	-\$1,542,475

RETAIL PRICE COMPARISON

Assumptions

Data Sources

Rate Structures

Map the “Retail Cost” Calculation

Rates	<ul style="list-style-type: none">• Residential (Rate 1)• Space Heat (Rate 2)• Commercial (Rate 3)• School and Government (Rate 4)• Electric Water Heat (Rate 6)• Large Residential (Rate 7)• High Demand
Billing Determinants	<ul style="list-style-type: none">• Customer Profiles<ul style="list-style-type: none">- Monthly Consumption- Monthly Demand• Unit Pricing<ul style="list-style-type: none">- Fixed Charges (customer, meter charges)- Variable Charges (energy, capacity, fees, credits)
Retail Cost	<ul style="list-style-type: none">• $\text{Rate} * \text{Volume} = \text{Cost}$

RETAIL PRICE COMPARISON

Assumptions

Data Sources

Rate Structures

Collect authoritative and detailed data

Rates

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

Billing Determinants

- Winnetka Municipal Utility
 - Levelized bi-monthly billing cycle for residential classes
 - Averaged monthly load used for model customer profiles

Other

- Additional details can be built into the models

Identify which ComEd rates mirror Winnetka's Rates

RETAIL PRICE COMPARISON

Assumptions

Data Sources

Rate Structures

Retail Rate Equivalencies	
Village of Winnetka	ComEd
RESIDENTIAL (Rate 1)	Residential, Single Family/No Electric Space Heat
SPACE HEAT (Rate 2)	Residential, Single Family/with Electric Space Heat
COMMERCIAL (Rate 3)	Medium Load
SCHOOL & GOVERNMENT (Rate 4)	Medium Load
ELECTRIC WATER HEAT (Rate 6)	Watt-Hour
LARGE RESIDENTIAL (Rate 7)	Residential, Single Family/No Electric Space Heat

Calculate Monthly Billing Values for each Winnetka and ComEd Rate Class

Village of Winnetka

RESIDENTIAL RATE 1 (12/2024)	
Meter Charge	\$20.87
Energy Charge	\$158.93
Demand Charge	\$0.00
PCA	(\$15.23)
TOTAL (\$/Month)	\$164.57
AVERAGE (\$/kWh)	\$0.162055

Commonwealth Edison Company

RESIDENTIAL RATE CLASS (12/2024)	
<u>Supply</u>	
Electricity Supply Charge	\$32.85
Purchased Electricity Adjustment	-\$4.03
<u>Delivery</u>	
Customer Charge	\$15.51
Standard Metering Charge	\$4.01
Distribution Facilities Charge	\$30.67
IL Electricity Distribution Charge	\$0.63
<u>Taxes and Fees</u>	
Environmental Cost Recovery Adj	\$0.22
Renewable Energy Resources and Coal Technology Development Assistance Charge	\$0.05
Energy Assistance Charge	\$0.48
Residential Real Time Pricing Program Cost Recovery	\$0.04
Energy Efficiency and Demand Response Adjustment	\$1.86
Renewable Portfolio Standard	\$2.55
Zero Emissions Standard	\$8.38
Carbon Free Energy Resource Adj	\$2.82
Energy Transition Assistance	\$0.37
TOTAL Charges (\$/Month)	\$96.42
AVERAGE Rate (\$/kWh)	\$0.18989

Note: Background on ComEd Fees and Charges

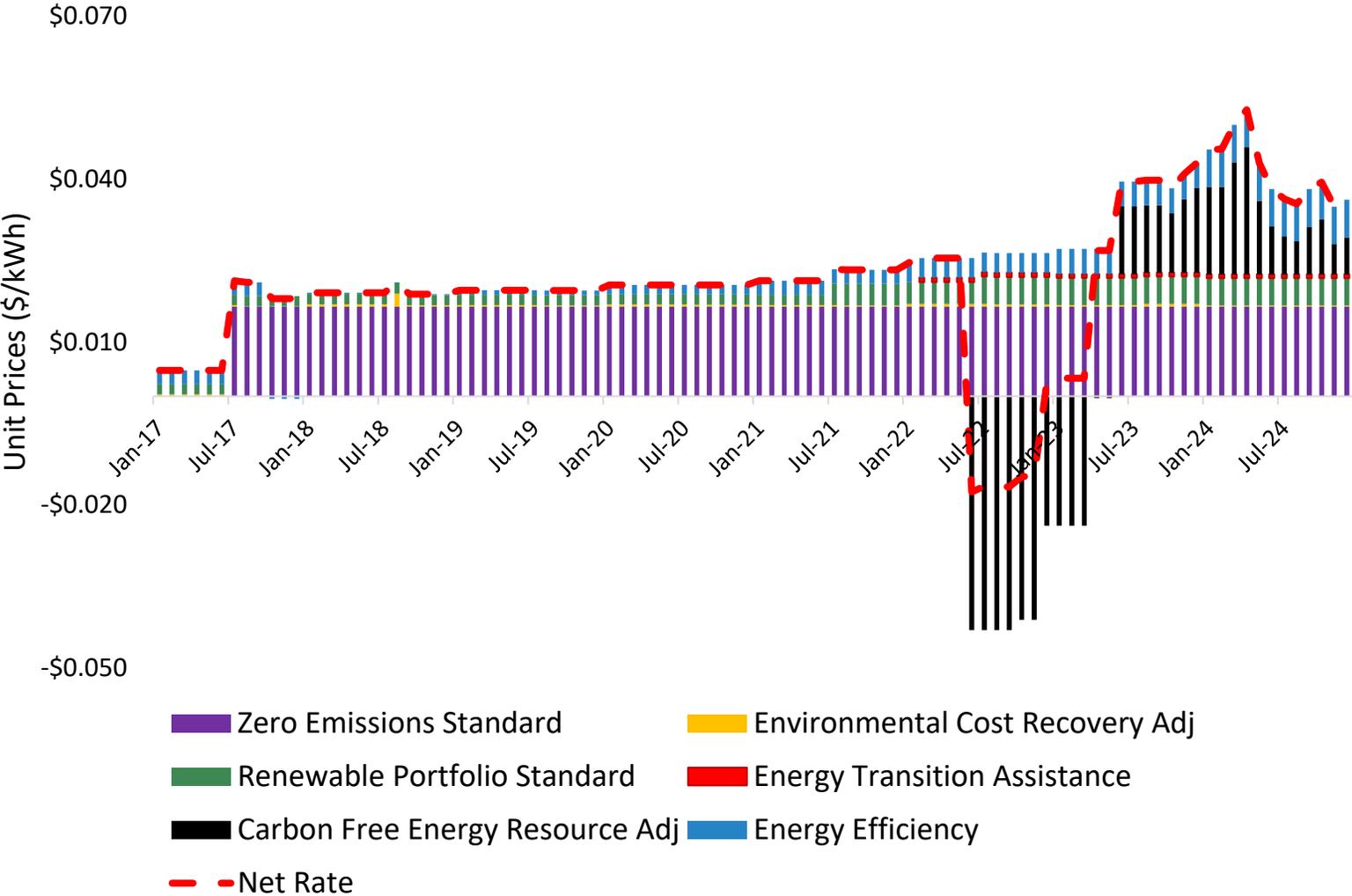
APPROACH

Assumptions

Data Sources

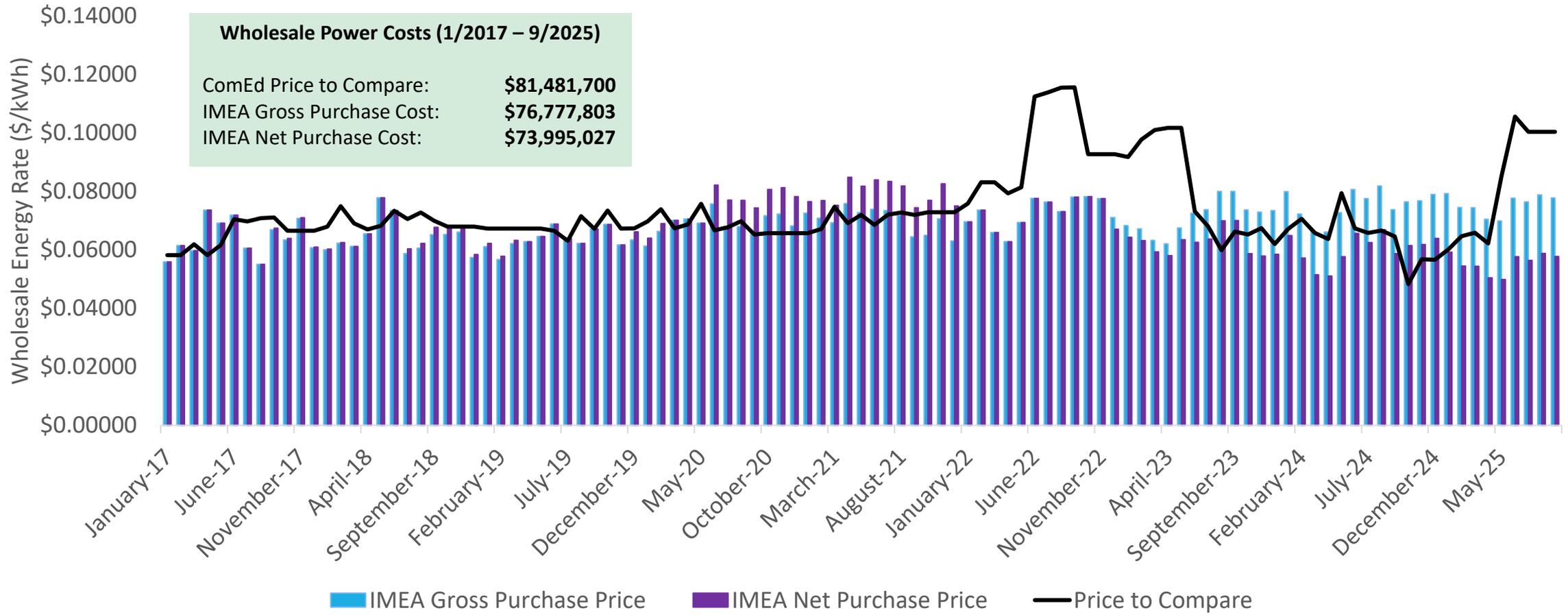
Rate Comparisons

Fees and Charges for ComEd Ratepayers



Retail Price Comparison: Rates for Village of Winnetka vs. ComEd Rates

Comparative Historical Wholesale Energy Costs
 (“IMEA Gross” = Billed by IMEA; “IMEA Net” = Billed by IMEA – Capacity Credits)



RESULTS

Residential (Rate 1)

Space Heat (Rate 2)

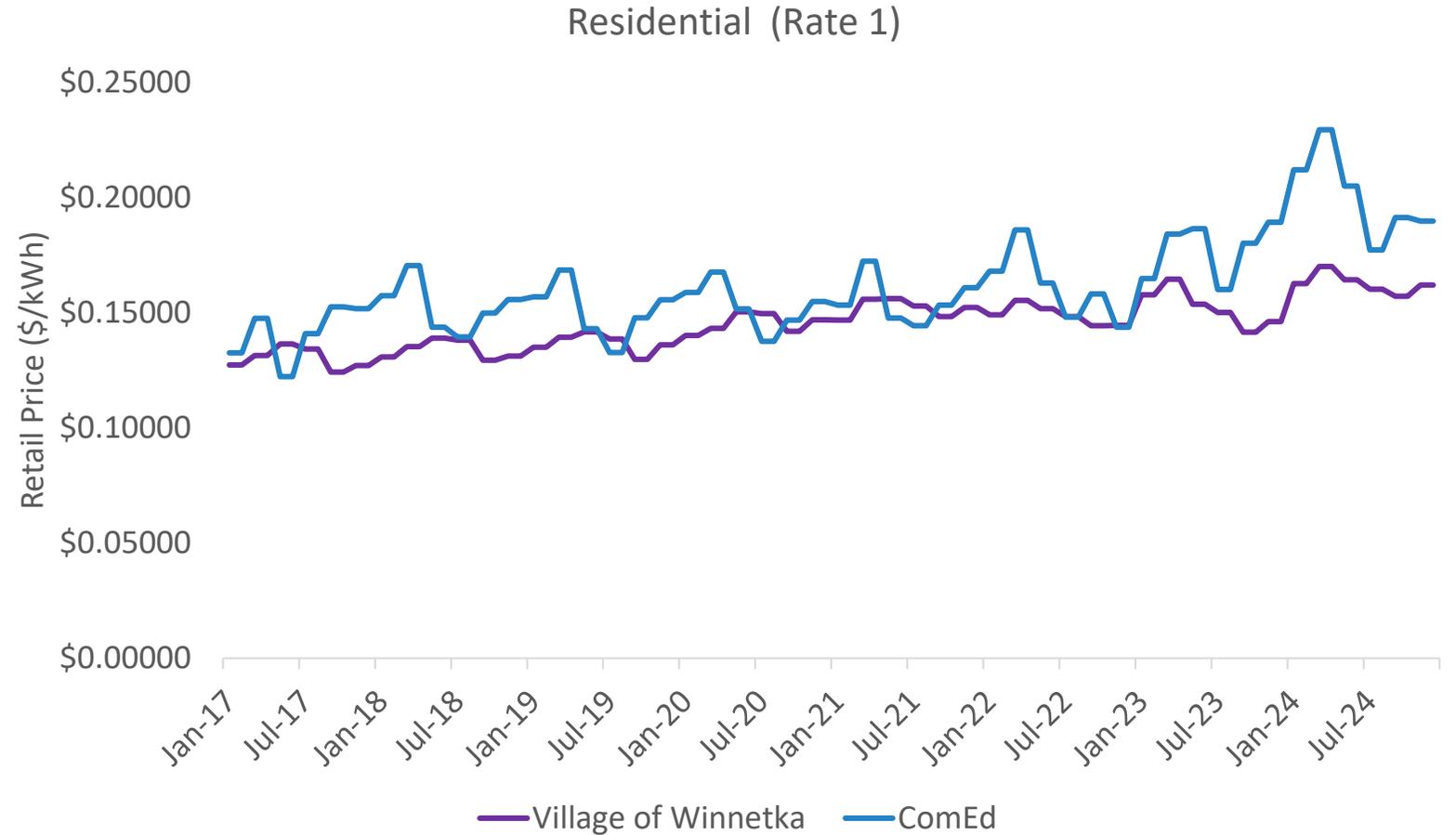
Commercial (Rate 3)

School & Government (Rate 4)

Electric Water Heat (Rate 6)

Large Residential (Rate 7)

Residential (Rate 1): Prices are Diverging



Utility	Volatility Index	Annualized Inflation Index
Village of Winnetka	1.127	3.5%
Commonwealth Edison	2.145	6.0%

RESULTS

Residential (Rate 1)

Space Heat (Rate 2)

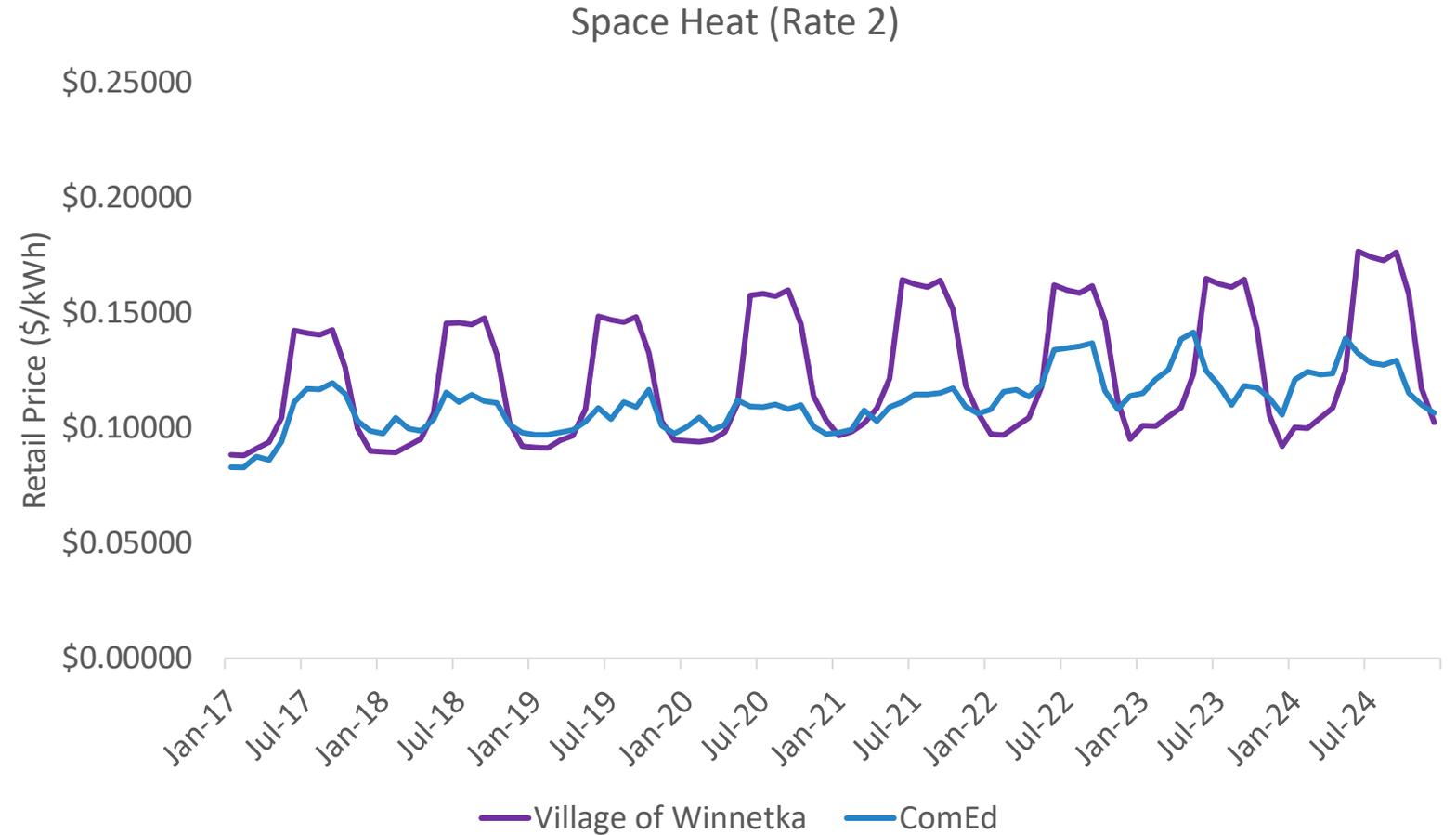
Commercial (Rate 3)

School & Government (Rate 4)

Electric Water Heat (Rate 6)

Large Residential (Rate 7)

Space Heat (Rate 2): Historical Price Pattern is Generally Stable



Utility	Volatility Index	Annualized Inflation Index
Village of Winnetka	2.803	2.8%
Commonwealth Edison	1.225	3.1%

RESULTS

Residential (Rate 1)

Space Heat (Rate 2)

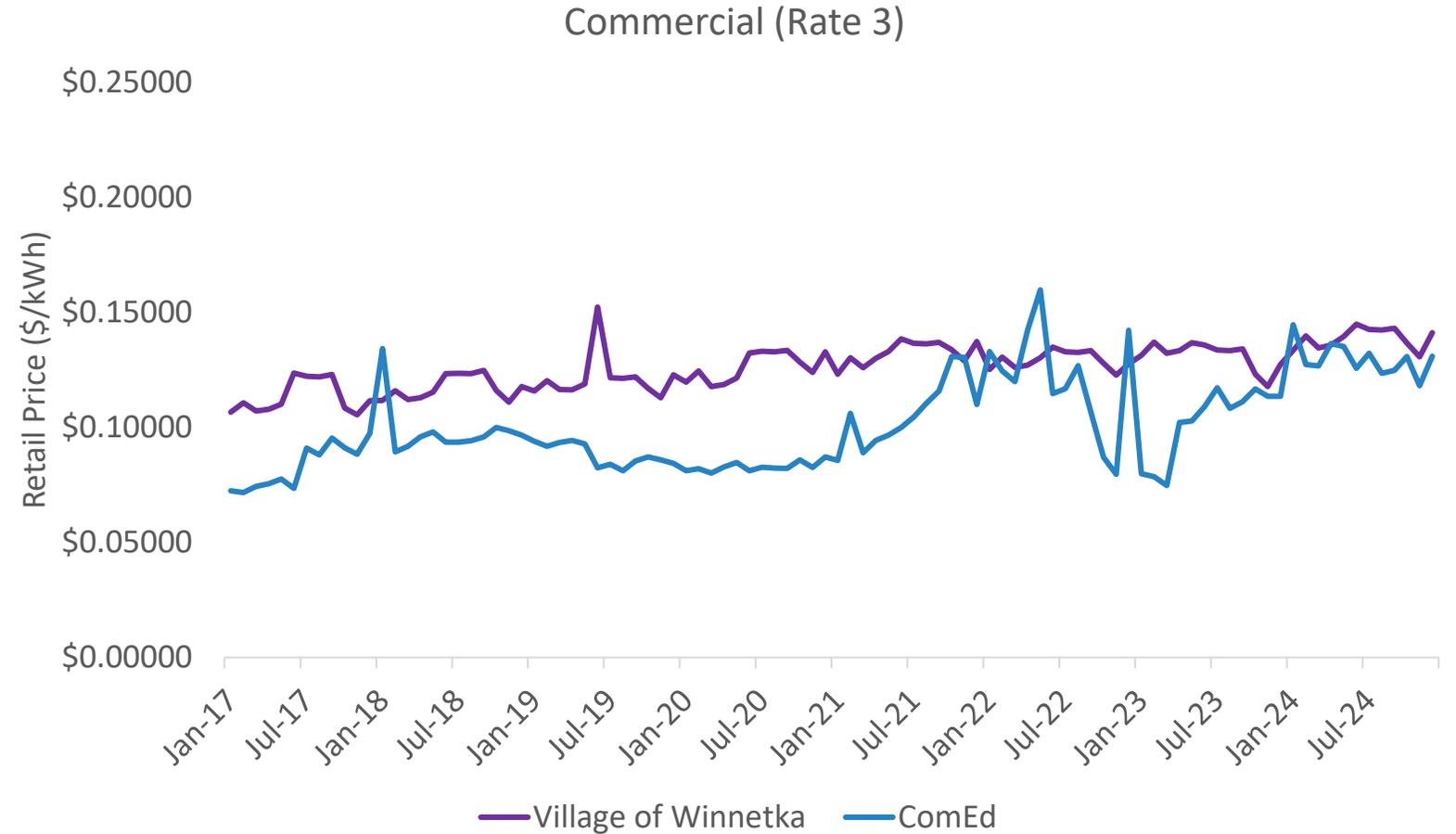
Commercial (Rate 3)

School & Government (Rate 4)

Electric Water Heat (Rate 6)

Large Residential (Rate 7)

Commercial (Rate 3): Prices are Converging



Utility	Volatility Index	Annualized Inflation Index
Village of Winnetka	0.998	3.2%
Commonwealth Edison	2.027	8.0%

RESULTS

Residential (Rate 1)

Space Heat (Rate 2)

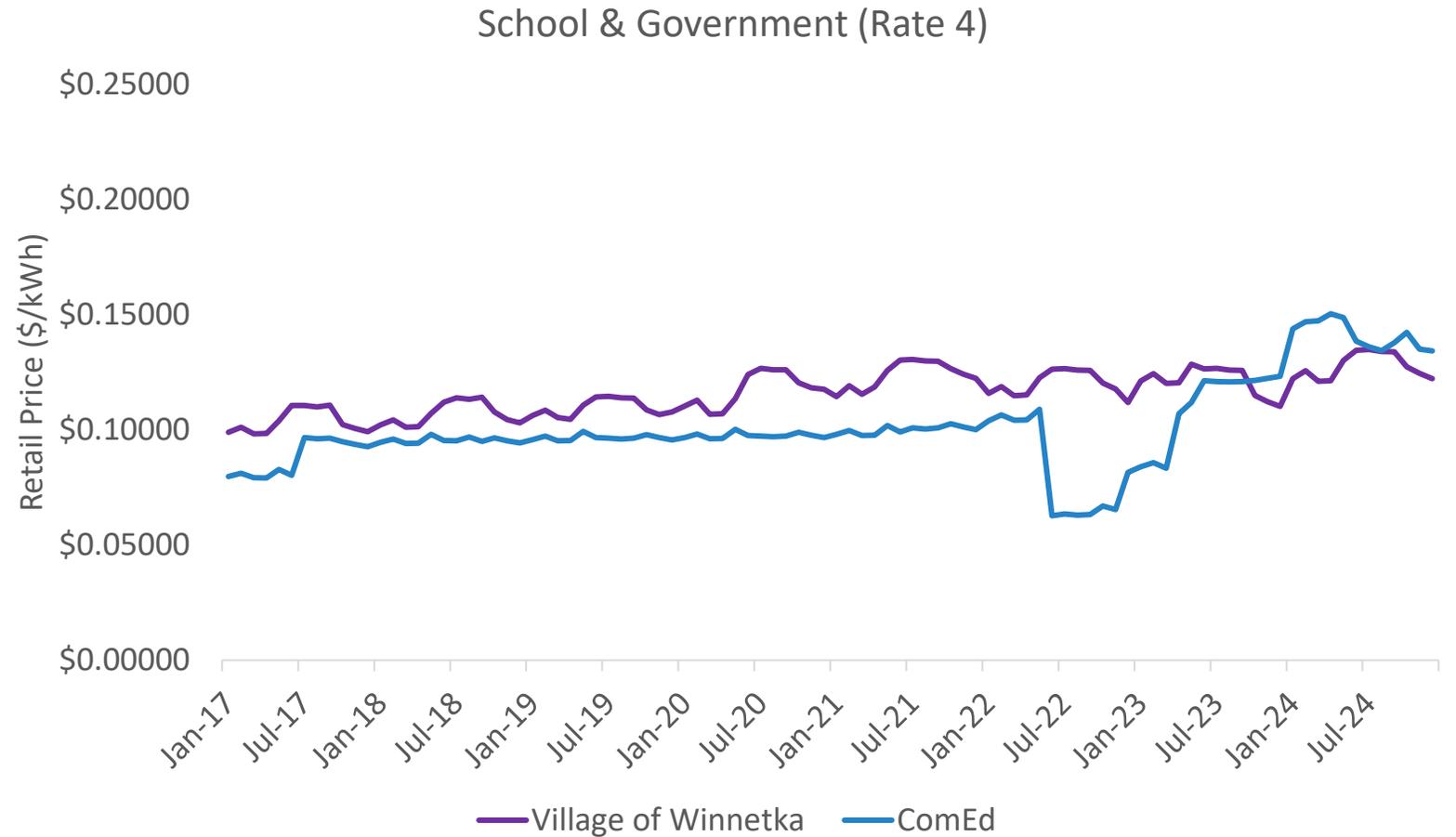
Commercial (Rate 3)

School & Government (Rate 4)

Electric Water Heat (Rate 6)

Large Residential (Rate 7)

School & Government: Wider Ranges of Price Pattern Deviation



Utility	Volatility Index	Annualized Inflation Index
Village of Winnetka	0.973	3.3%
Commonwealth Edison	1.951	8.7%

RESULTS

Residential (Rate 1)

Space Heat (Rate 2)

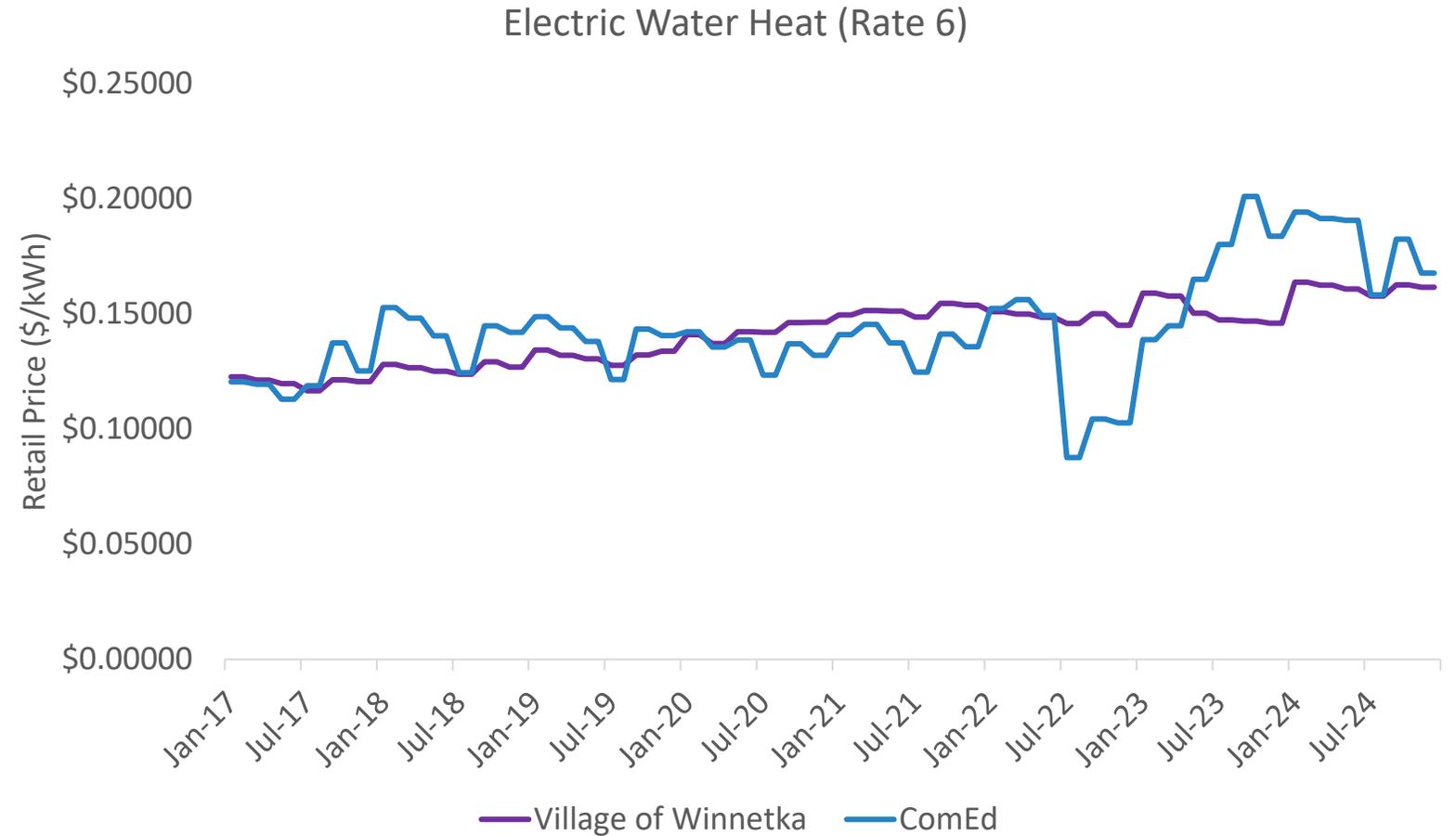
Commercial (Rate 3)

School & Government (Rate 4)

Electric Water Heat (Rate 6)

Large Residential (Rate 7)

Electric Water Heat (Rate 6): Wider Range of Price Pattern Deviation



Utility	Volatility Index	Annualized Inflation Index
Village of Winnetka	1.362	4.9%
Commonwealth Edison	2.425	6.8%

RESULTS

Residential (Rate 1)

Space Heat (Rate 2)

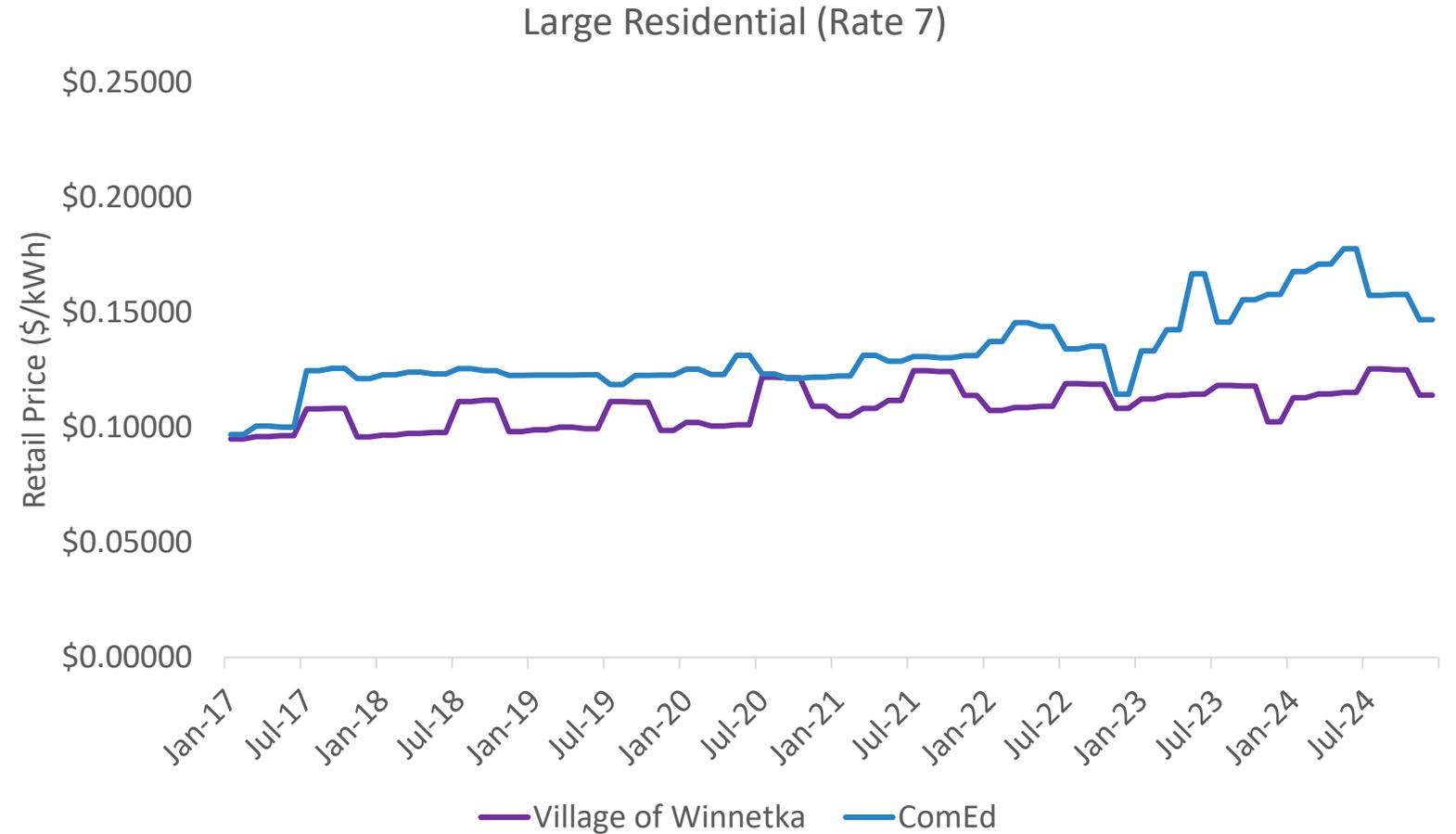
Commercial (Rate 3)

School & Government (Rate 4)

Electric Water Heat (Rate 6)

Large Residential (Rate 7)

Large Residential (Rate 7): Price Divergence has Grown



Utility	Volatility Index	Annualized Inflation Index
Village of Winnetka	0.891	2.6%
Commonwealth Edison	1.765	6.6%

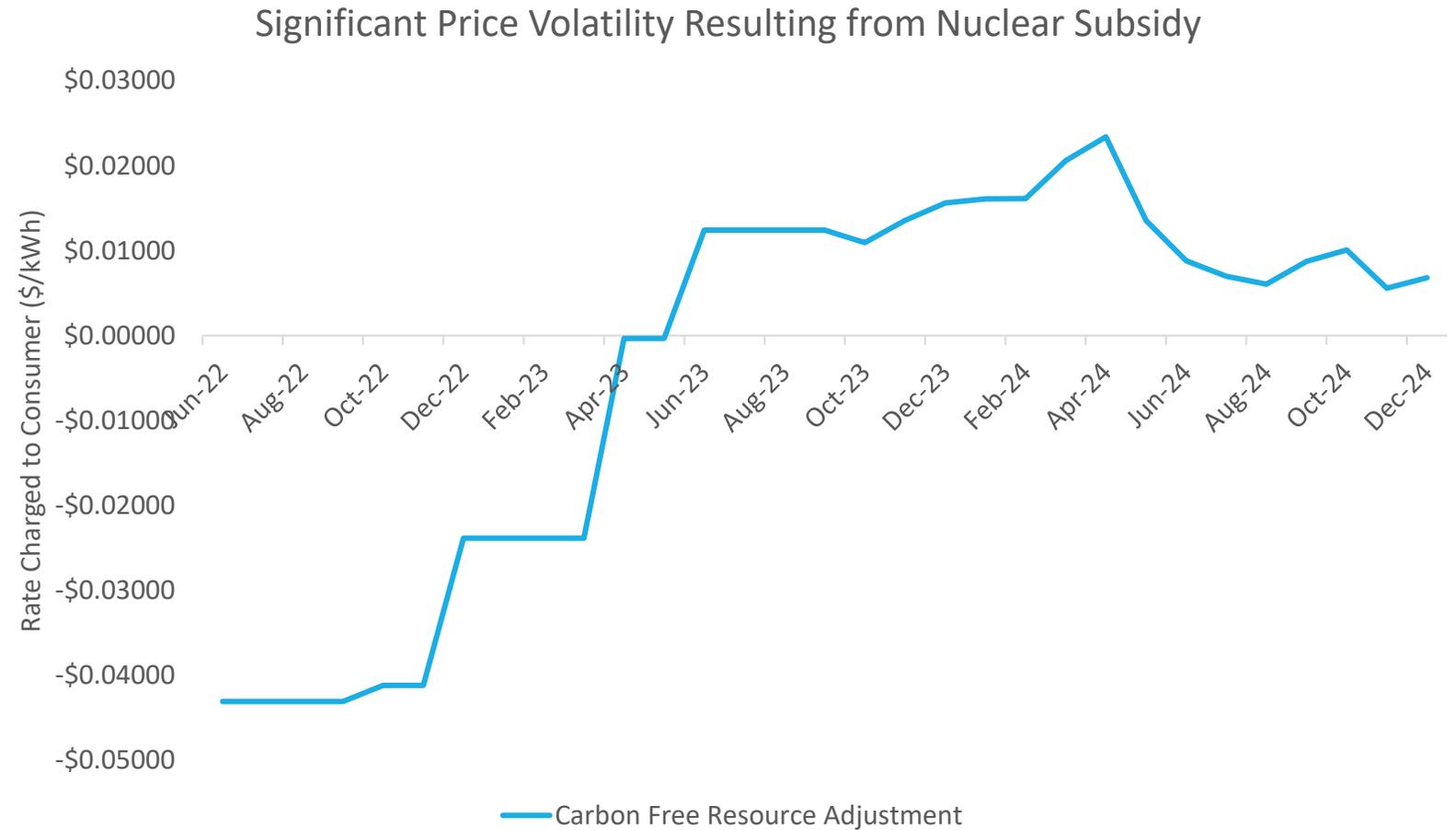
RETAIL PRICES: DRIVERS

Volatility

Escalators

Last Point

ComEd Retail 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

ComEd Retail Volatility Driver: PJM Wholesale Markets

RETAIL PRICES: DRIVERS

Volatility

Escalators

Last Point

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

ComEd Retail Escalation Drivers: Renewable Portfolio Standard and Energy Efficiency

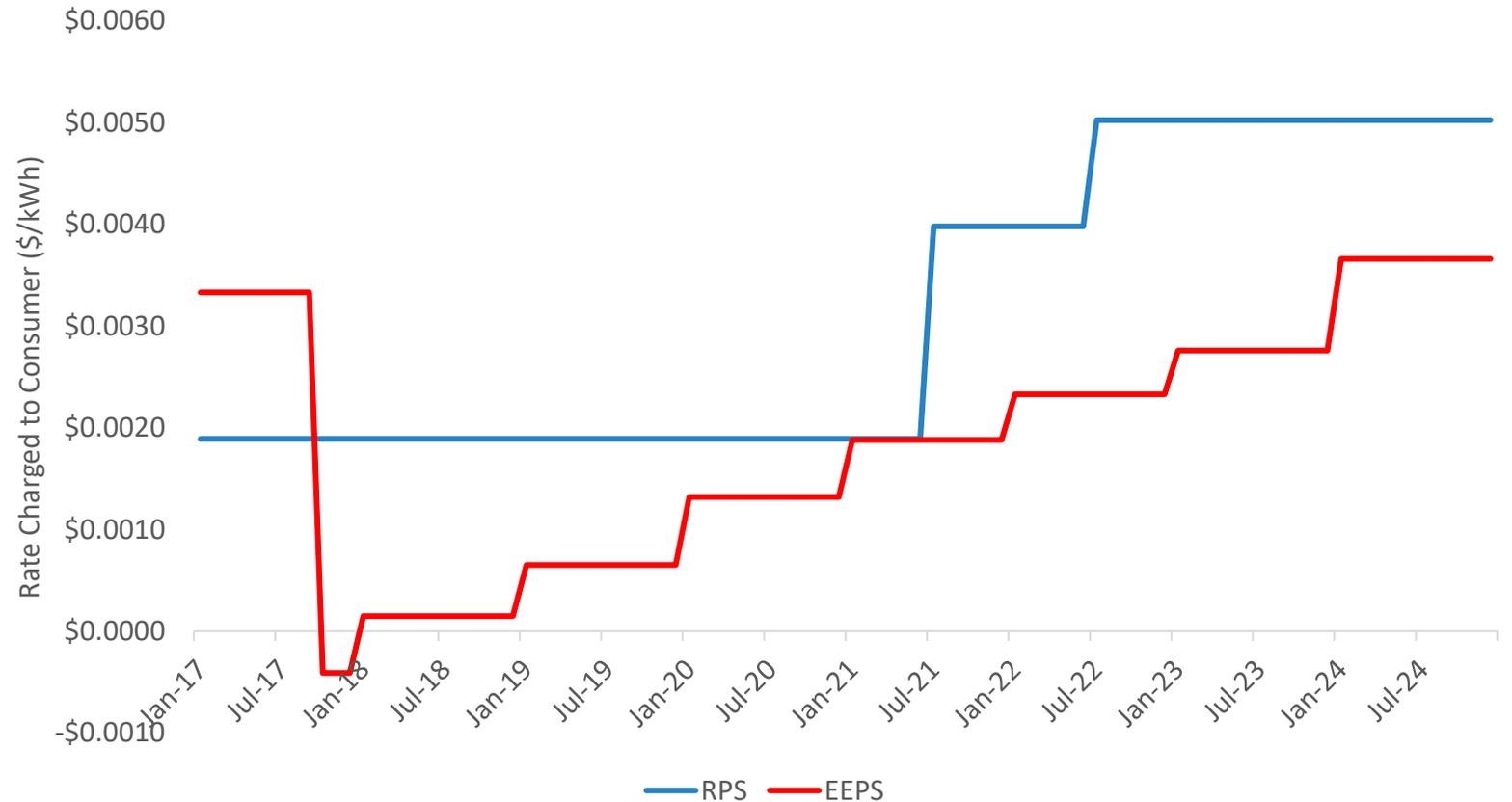
RETAIL PRICES: DRIVERS

Volatility

Escalators

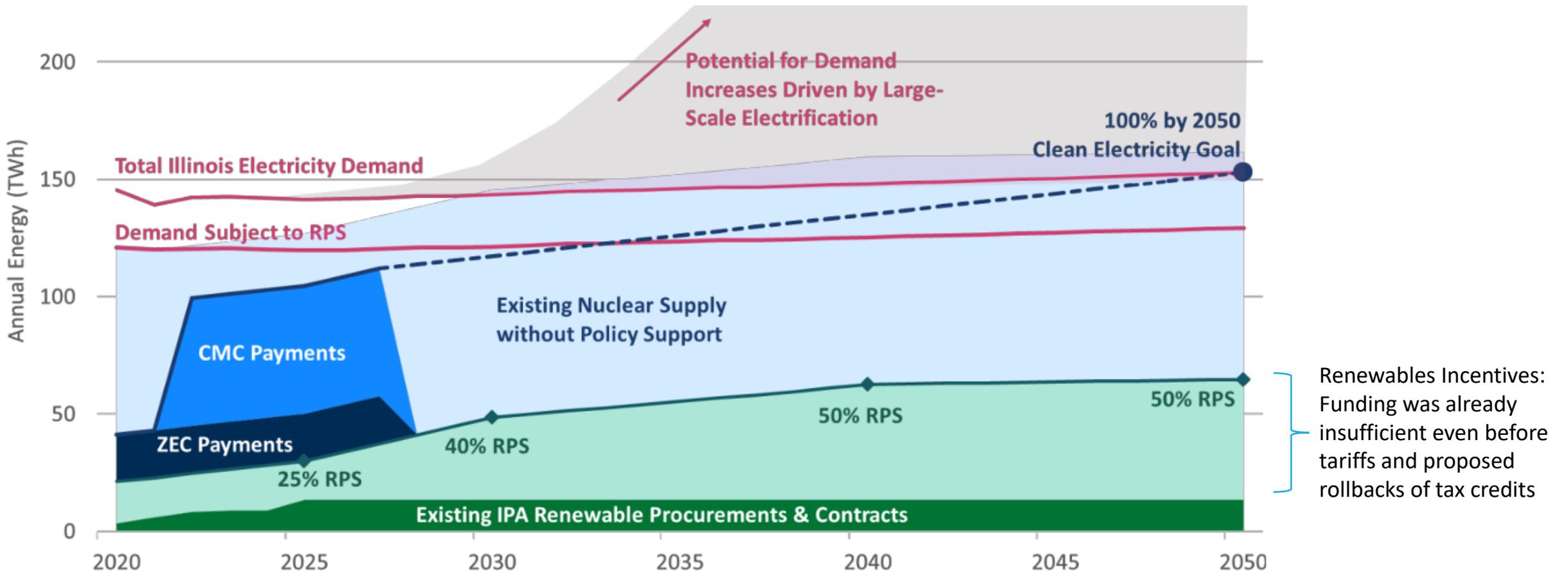
Last Point

Gradually Increasing Fees Resulting from FEJA/CEJA

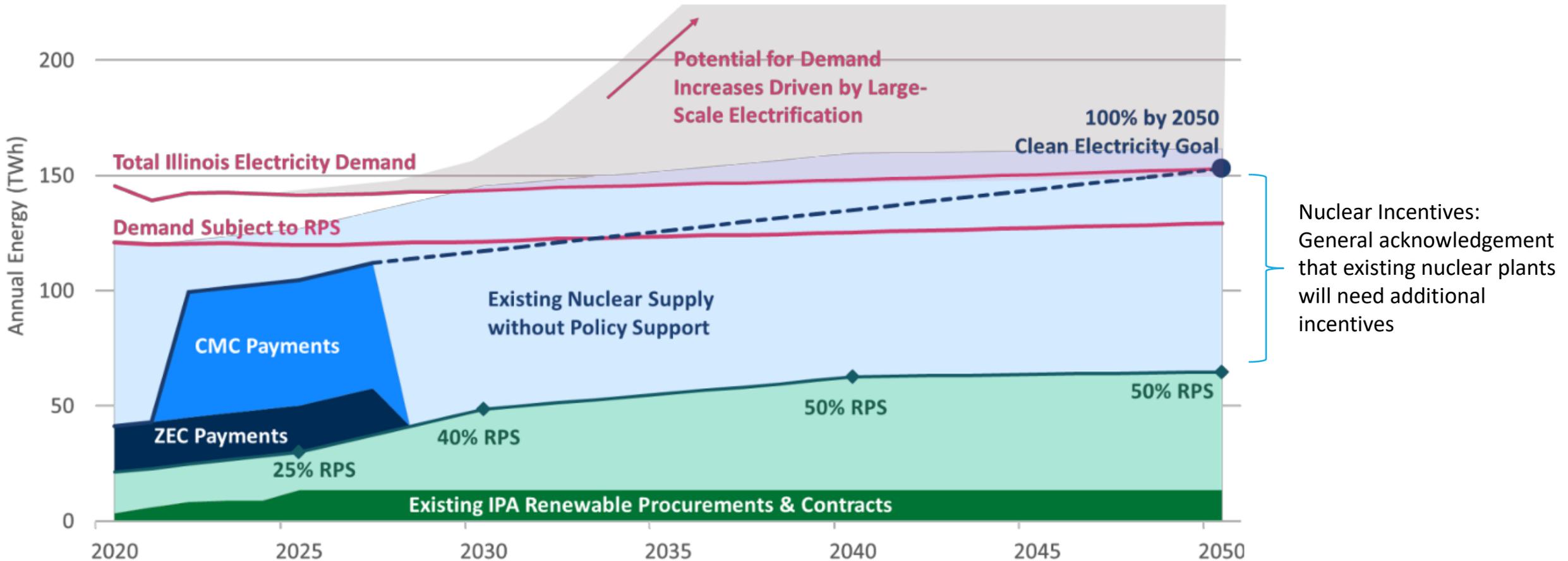


Energy Efficiency program costs increase due to ComEd's receiving a return on program expenditures. Renewable Portfolio Standard funding will run into deficit starting in 2028-2029 and increases are expected

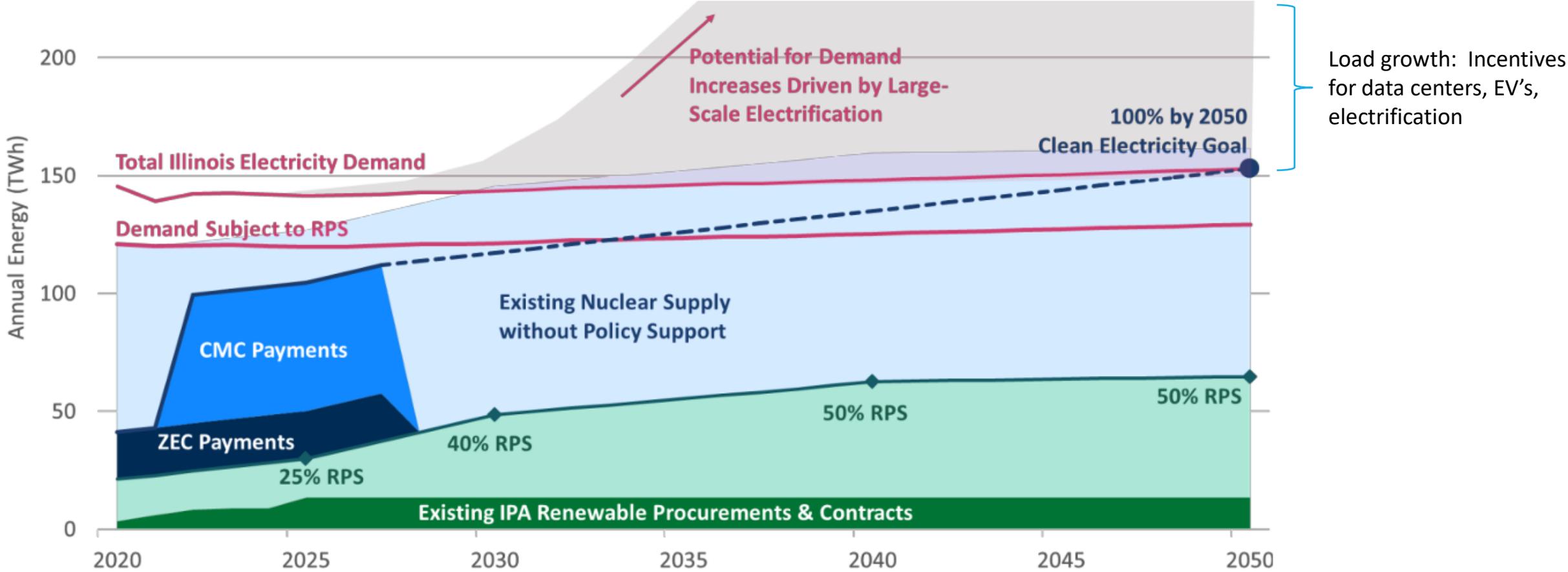
Final Point: Policy makers have already identified that prices will continue to rise



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Consider Introduction of:

M-5-2025: Authorizing The Execution Of A New Power Sales Contract And A New Capacity Purchase Agreement With The Illinois Municipal Electric Agency For The Delivery Period Commencing October 1, 2035

COUNCIL QUESTIONS
PUBLIC COMMENT
And
GENERAL DISCUSSION

