

Kane County

Government Center 719 S. Batavia Ave., Bldg. A Geneva, IL 60134

KC Energy and Environmental Committee

Agenda

BATES, Tarver, Allan, Kious, Penesis, Strathmann, Young, ex-officios Roth (County Vice Chair) and Pierog (County Chair)

Friday, May 16, 2025

9:00 AM

County Board Room

2025 Committee Goals

- Pursue funding to improve energy efficiency in Kane County Government-owned buildings
- Upon passage of the Tree Protection Ordinance, develop budget and implementation strategy for the Ordinance and an educational program to promote Tree Protection
- Develop Client Action Implementation teams and assist team in prioritizing action items and development strategies
- Increase education and improve overall recycling in Kane County buildings
- Community outreach to education about the CAIP

- 1. Call To Order
- 2. Roll Call
- 3. Remote Attendance Requests
- 4. Approval of Minutes: April 11, 2025
- 5. Public Comment (Agenda Items)
- 6. Environmental (J.Wollnik)
- 7. Recycling/Solid Waste (C. Ryan)
- 8. Sustainability (S.Hinshaw)
 - A. Solar Savings and Opportunities for Kane County
 - B. Cost Savings for Clean Energy
 - **C. Resolution:** Approving A Weatherization Rebate Program For Kane County Farmers
- 9. New Business
- 10. Chairs Comments
- 11. Reports Placed On File

Agenda

- 12. Executive Session (if needed)
- 13. Adjournment

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COUNTY OF KANE)	

PRESENTATION/DISCUSSION NO. TMP-25-563 SOLAR SAVINGS AND OPPORTUNITIES FOR KANE COUNTY





Kane County Energy and Environmental Committee review of Judicial Center / Jail Solar Field

Electric Spend Estimate June 1, 2025 – May 31, 2026



Kane County Government Ce	nter	37W777 Rt 3	8			
		No Solar	V	Vith Solar		
	An	nual Estimate	Anı	nual Estimate	So	olar
	(kWh profile)			(kWh profile)		vings
Power purchased from ComEd / Grid		9,403,906		5,406,486		
Power purchased from Solar Field		0				
Actual kWh used		9,403,906		9,403,906		
		Current		With Solar		
	(Sı	pend profile)	(Sr	pend profile)		
Energy Spend (Supplier) On Peak \$0.04988 per kWh	\$	211,080	\$	121,354		
Energy Spend (Supplier) Off Peak \$0.03218 per kWh	\$	166,440	\$	95,689		
Power purchased from Solar Field @ \$0.03946 per kWh		-	\$	157,738		
Sub-Total Energy Spend		377,520	\$	374,782		2,738
Transmission Costs (104% reduction actual -40.8375 PLC)	\$	69,223	\$	(1,816)		
Capacity Charge (88.4% reduction)	\$	191,552	\$	22,234		
Ancillary Services	\$	14,959	\$	10,190		
Sub-Total Fixed Energy Spend		275,733	\$	30,608		
Total Energy Spend with Fixed Costs		653,253	\$	405,389	\$24	47,864
ComEd Charges						
Customer Charge	\$	10,758	\$	10,758		
Standard Metering Charge	\$	152	\$	152		
Distribution Facilities Charges	\$	524,469	\$	472,022		
Meter Lease Charge	\$	348	\$	348		
Nonstandard Facility Charge	\$	6,380	\$	6,380		
IL Elect Distribution Charge	\$	11,661	\$	6,704		
Sub-Total ComEd Charges		553,766	\$	496,363	\$ 5	57,404
Tax's and Environmental Charges	_ T	222,722	,	,	<u> </u>	,
Envir Cost Recovery Adj.	\$	188	\$	108		
Renewable Portfolio Standard	\$	47,208	\$	27,141		
Zero Emissions Standard	\$	18,338	\$	10,543		
Carbon Free Resource Adjustment	\$	(103,443)	\$	(59,471)		
Energy Efficiency Programs	\$	13,636	\$	7,839		
Energy Transition Assistance	\$	6,771	\$	3,893		
State Tax	\$	29,328	\$	19,978		
Sub-Total Tax's and Environmental	\$	12,025	\$	10,030	\$	1,995
Total Spend	\$	1,219,044	\$	911,782	\$ 30	07,263
			Sav	ings with Solar		25%
Confidential De Net Conver Distribute @ 2024	_					



Environmental Benefits

Greenhouse Gas Emission Reduction over 25 years	53,946 CO ₂ Metric Tons
Miles Driven by a Car over 25 years	138,291,864 miles
Homes Energy Use over 25 years	6,798 homes
Acres of Forest over 25 years	64,332 acres

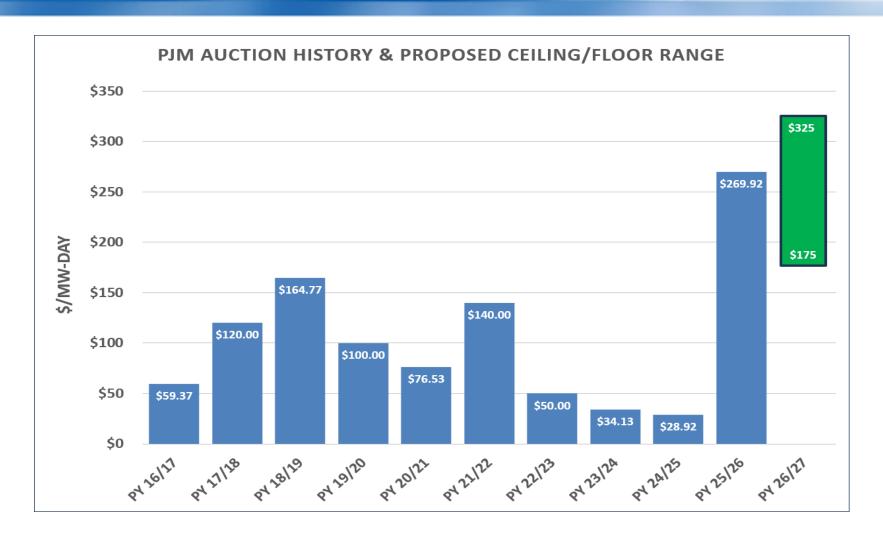
Electric Power Price "Future Curve"





PJM Capacity Prices show significant increases

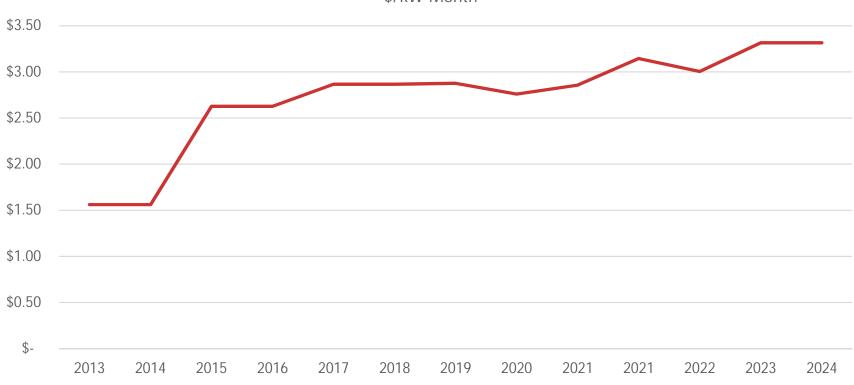




Transmission Cost History



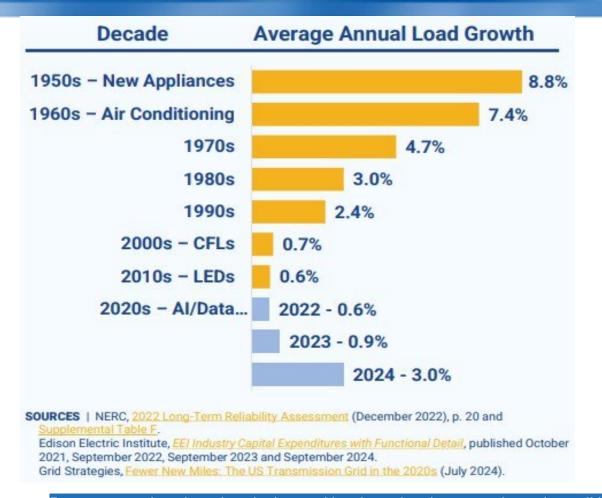




Since 2013, the Transmission Cost has increased from \$1.50/kW-Month to almost \$3.30/kW-month.







- Before 2022, most load forecasts relied on general economic trends and population growth to predict demand
- Beginning in 2022, a surge in strategic industries, such as data centers and domestic industrial facilities, has driven shockingly large increases in 5-year load projections
- Data centers are the largest contributor

For over two decades, electric demand has been in a low growth mode, well below 1% per year. Current forecast, anticipate 3% growth which may seem small, this however would mean six time the planning and construction of new generation and transmission capacity.

Sources: GridStrategies, EPRI

Solar Opportunities for Residents / Business / Governmental



Residential (ComEd)

- Incentives pay for 50% 65% of solar project
- True "Net Metering" ended 12/31/24 going to Modified "Net Metering" in January 2025.
- Payback is almost always less than 7 years.
- Purchase Price Agreement (PPA) and Lease Agreements are available to allow residents to have solar with no upfront money. Caution is many of these are not great deals.

• Business / Governmental / Non-Profit

- Incentives pay for 65% 80% of solar field installation
- On-Site Battery Storage incentives in Illinois are in 85% range
- Modified "Net Metering" if customer takes advantage of "Smart Meter Rebate"
- Payback on solar less than 5 years,
- Payback on Batteries less than 3 years (May want to look into options at Judicial Center)
- Purchase Price Agreement (PPA) and Lease Agreements are available that allows for solar and Battery with no upfront money.

Community Solar

- Guaranteed 10% 15% savings on Energy Supply vs. ComEd Price to Compare Rate
- Total Savings of 5% 8% off ComEd Invoice
- Consolidated ComEd invoicing has started.
- High Demand for these programs

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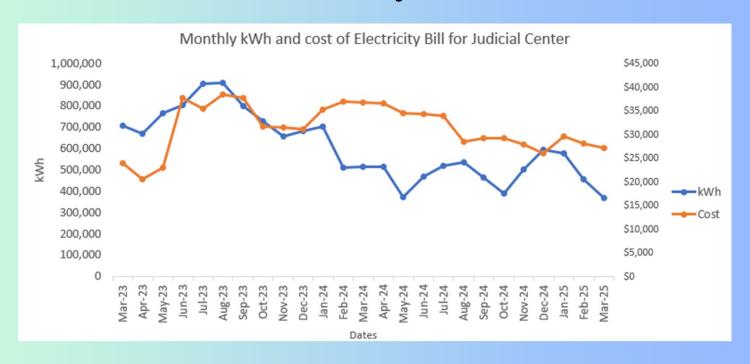
PRESENTATION/DISCUSSION NO. TMP-25-560 COST SAVINGS FOR CLEAN ENERGY







Judicial Center Electricity Costs and kWh



Total cost = \$2,380,700 (indoor and outdoor lighting)

Cost of parking lot lights = \$233,367

Fixture	Fixture	Watt/Hr	Watt/Hr	Watt/Hr	kWh	ENERGY
Qty.	Type	Before	After	Removed	Removed	SAVINGS
52	GALN-SA8	250	162.5	87.5	19,938	\$2,161
18	GALN-SA3	250	60.5	189.5	14,947	\$1,620
4	GALN-SA7	250	143	107	2,813	\$305
43	GALN-SA5	250	102	148	27,887	\$3,023
39	A4000250	94	14.1	79.9	15,207	\$1,649
6	A4000805	150	21.7	128.3	3,757	\$407
7	SLS1000	91	13	78	2,664	\$289
20	A4000315	75	8.1	66.9	6,529	\$708
35	GR-5105-5	22	2	20	3,416	\$370
1	ITT-300B	1000	300	700	3,416	\$370
2	PL2014	260	82	178	1,737	\$188
27	BRT6-A2-8	133	18	115	15,152	\$1,643
15	FL50-BL-30	458	50	408	29,866	\$3,238
4	3002A-RD-	192	25	167	3,260	\$353

Total number of lights = 275

kWh removed = 150,590

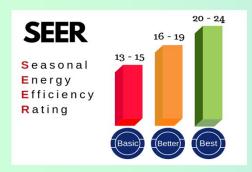
Annual cost
savings = \$17,305

Note* The is estimated the lights are 50% dimmed at nighttime when unoccupied

7 New rooftop HVAC units were placed in County Court and Jail \$1,390,000 related to this project: Kitchen and Laundry HVAC Improvements

Estimate of 1 units savings per year





Potential savings = \$33,365 over 15 years

More accurate savings will be provided after installation



IRS TAX CREDITS





Electric Vehicle and Infrastructure Savings

Item	Cost	Tax Credit	ComEd
Cargo Van 1	\$49,365	\$7,009	\$5,000
Cargo Van 2	\$49,265	\$6,956	\$5,000
Hybrid 1	\$46,733	\$7,500	
Hybrid 2	\$46,377	\$7,500	
Infrastructure	\$21,179	\$6,353	
Charger	\$14,214	\$4,264	\$10,366
	\$227,133	\$39,582	\$20,366
Total Cost savings			\$59,948
Percent returned			26.4%

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RESOLUTION NO. TMP-25-561

APPROVING A WEATHERIZATION REBATE PROGRAM FOR KANE COUNTY FARMERS

WHEREAS, a 2014 referendum affirmed Kane County's authority to arrange for the supply of electricity for its residential and small commercial retail customers who have not opted out of such program (Ordinance No. 13 - 334); and

WHEREAS, the Kane County Energy and Environmental Committee directed civic contribution funds from the Electric Aggregation program be used for sustainability-focused measures that directly benefit the community (Resolution 21-322 Creation of Fund 421, March 11, 2022 E&E); and

WHEREAS, the Weatherization Rebate program will use \$20,000 from Fund 421 to directly benefit Kane County farmers by providing funds to offset the cost of weatherization as well as reduce the cost of heating and cooling their homes; and

WHEREAS, the program will offer up to \$800 in rebates per household to qualified farmers who reside in Kane County with requests processed in the order they are received until the funds are exhausted; and

NOW, THEREFORE, BE IT RESOLVED that the Kane County Board and the Chairman thereof approves the Weatherization Rebate Program for Kane County Farmers and authorizes a budget of \$20,000 from the Electric Aggregation Fund 421 to offer weatherization rebates in support of qualified farmers across the County and the budget of Fund 421 is amended to reflect said program.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the Chairman is authorized to enter into an agreement with a project partner for the purpose of administering the funds to qualified farmers upon review and approval of the agreement by the State's Attorney's office and that the following adjustments to the FY2025 budget be authorized.

Amount Description Account Number (\$20,000) Fund Balance Utilization 421.670.000.39900 \$20,000 Contractual/Consulting Services 421.670.693.50150

Was Personnel/Item/Service approved in original budget or a subsequent budget revision? No Are funds currently available for this Personnel/Item/Service in the specific line item? Yes If funds are not currently available in the specified line item, where are the funds available? N/A

File Number: TMP-25-561

Passed by the Kane County Board on June 10, 2025.

John A. Cunningham, MBA, JD, JD Clerk, County Board Kane County, Illinois Corinne M. Pierog MA, MBA Chairman, County Board Kane County, Illinois

Vote:



RESOLUTION / ORDINANCE EXECUTIVE SUMMARY ADDENDUM

Title

APPROVING A WEATHERIZATION REBATE PROGRAM FOR KANE COUNTY FARMERS

Committee Flow:

Energy and Environmental Committee, Finance and Budget Committee, Executive Committee, County Board

Contact:

Austin Powell - (630) 444-3157

Budget Information:

Was this item budgeted? No	Appropriation Amount: \$20,000			
If not budgeted, explain funding source: 421 Electric Aggregation Fund				
Was this item passed through the appropriate committee? N/A				

Summary:

The Weatherization Rebate program will use \$20,000 from Fund 421 to directly benefit Kane County farmers by providing funds to offset the cost of weatherization as well as reduce the cost of heating and cooling their homes. The program will offer up to \$800 in rebates per household to qualified farmers who reside in Kane County with requests processed in the order they are received until the funds are exhausted.

COUNTY OF KANE

Kane County Finance Department Kathleen Hopkinson Executive Director



Kane County Government Center
Building A
719 Batavia Avenue
Geneva, Illinois 60134
(630) 208-5132
hopkinsonkathleen@kanecountyil.gov

Emergency Appropriation and/or Budget Transfer Request Form			
Department Name	Environmental & Water Resources Department		
Date	05/28/2025		
Fund	421		
Category (Personnel Services, Contractual Services, Commodities, or Capital)	Contractual and Consulting Services		
Increase or Decrease	Increase		
Amount	\$20,000		

Requested Emergency Appropriation and/or Budget Transfer Description and Rationale (please also attach draft resolution)

Requesting a \$20,000 transfer from 421 fund balance to 421.670.693.50150

Submitted by		
Signature of Elected Official or Department Executive D	irector	
Joel ()	Date	5/12/25

Category	Account	Approved Budget	Debit	Credit
Personnel Services			1	
Contractual Services	421.670.69	13.50150	720,000	
Commodities				
Capital	1-01 101 10			4016
MND BAL U	(TVL 42), 6%	0.000,99000		520.00L

Reviewed by

Emergency Appropriation has been reviewed by Finance Department	
Executive Director Willem H by Bland ON	5-13-25

Farmer Weatherization Rebate Program

Summary

A rebate program offered to farmers who weatherize their home through air sealing and/or attic insulation.

<u>Total Fund:</u> \$20,000



Funded by the Electric Aggregation Program

Rebate Amount:

- > \$500
 - 1. Farmers living in Kane County.
 - 2. Uses Nicor Gas for residential heating.

This program would benefit between 25 to 40 farmers.

- > \$800
 - 1. Farmers living in Kane County.
 - 2. Does not use Nicor Gas for residential heating.

Benefits of Air Sealing and Attic Insulation

A 2023 study by the <u>American Council for and Energy-Efficient Economy</u> found that weatherization measures such as air sealing and attic insulation can reduce a home's energy usage by <u>12 to 18 percent</u>.

 The <u>US EPA</u> estimates that homeowners can save an average of <u>15 percent</u> on heating and cooling costs by air sealing their homes and adding insulation in attics, floors over crawl spaces and basements.



Cost Breakdown & Available Rebates

- The Minnesota Center for Energy and Environment estimates that air sealing and attic insulation costs between \$2,000 to \$6,500
- Estimates from Qualified Contractors in the Chicago Area (1,700 sq. ft home): ~ \$3400 to \$7000

Kane County

\$500 or \$800

Nicor Rebates

Air Sealing: \$250 per home

Attic Insulation: \$400 per home

Inflation Reduction Act

30% of qualified expenses or up to \$1200

Cost Breakdown: Kane County

Kane County Rebate without Nicor or IRA					
Service	Estimated Cost	Rebate Amount	Total Cost	% Change	
	\$3,000	\$800	\$2,200	-26.67%	
Air Sealing & Attic Insulation	\$5,000	\$800	\$4,200	-16.00%	
	\$7,000	\$800	\$6,200	-11.43%	

Cost Breakdown: Kane County & Nicor

Kane County Rebate with Nicor						
Service	Estimated Cost	Rebate Amount	Total Cost	% Change		
Air Sealing & Attic Insulation	\$3,000	\$1,150	\$1,850	-38.33%		
	\$5,000	\$1,150	\$3,850	-23.00%		
	\$7,000	\$1,150	\$5,850	-16.43%		

Cost Breakdown: Kane County & IRA

Kane County Rebate with IRA						
Service	Estimated Cost	Rebate Amount	Total Cost	% Change		
Air Sealing & Attic Insulation	\$3,000	\$1,400	\$1,600	-46.67%		
	\$5,000	\$1,700	\$3,300	-34.00%		
	\$7,000	\$1,700	\$5,300	-24.29%		

Cost Breakdown: Kane County + Nicor + IRA

Kane County Rebate with Nicor & IRA						
Service	Estimated Cost	Rebate Amount	Total Cost	% Change		
Air Sealing & Attic Insulation	\$3,000	\$2,050	\$950	-68.33%		
	\$5,000	\$2,350	\$2,650	-47.00%		
	\$7,000	\$2,350	\$4,650	-33.57%		

General Takeaways

- \$20,000 fund offering weatherization rebates to farmers living in Kane County.
- Kane County rebate: \$500 to \$800 reduction in total cost.
- Kane County + Nicor rebate: \$750 to \$1150 reduction in total cost.
- Kane County + IRA rebates: \$1400 to \$1700 reduction in total cost.
- Kane County + Nicor + IRA rebates: \$2050 to \$2350 reduction in total cost.

Any Questions?

Austin Powell Sustainability Coordinator powellaustin@kanecountyil.gov