

Big Savings for Springfield

*How Energy Efficiency is saving us money
and avoiding pollution*

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Environmental Advisory Commission

Springfield Township

June 2024



SPRINGFIELD TOWNSHIP
ENVIRONMENTAL
ADVISORY COMMISSION

Program Recap



RENEWABLE SPRINGFIELD

OUR PATH TO A CLEAN ENERGY FUTURE

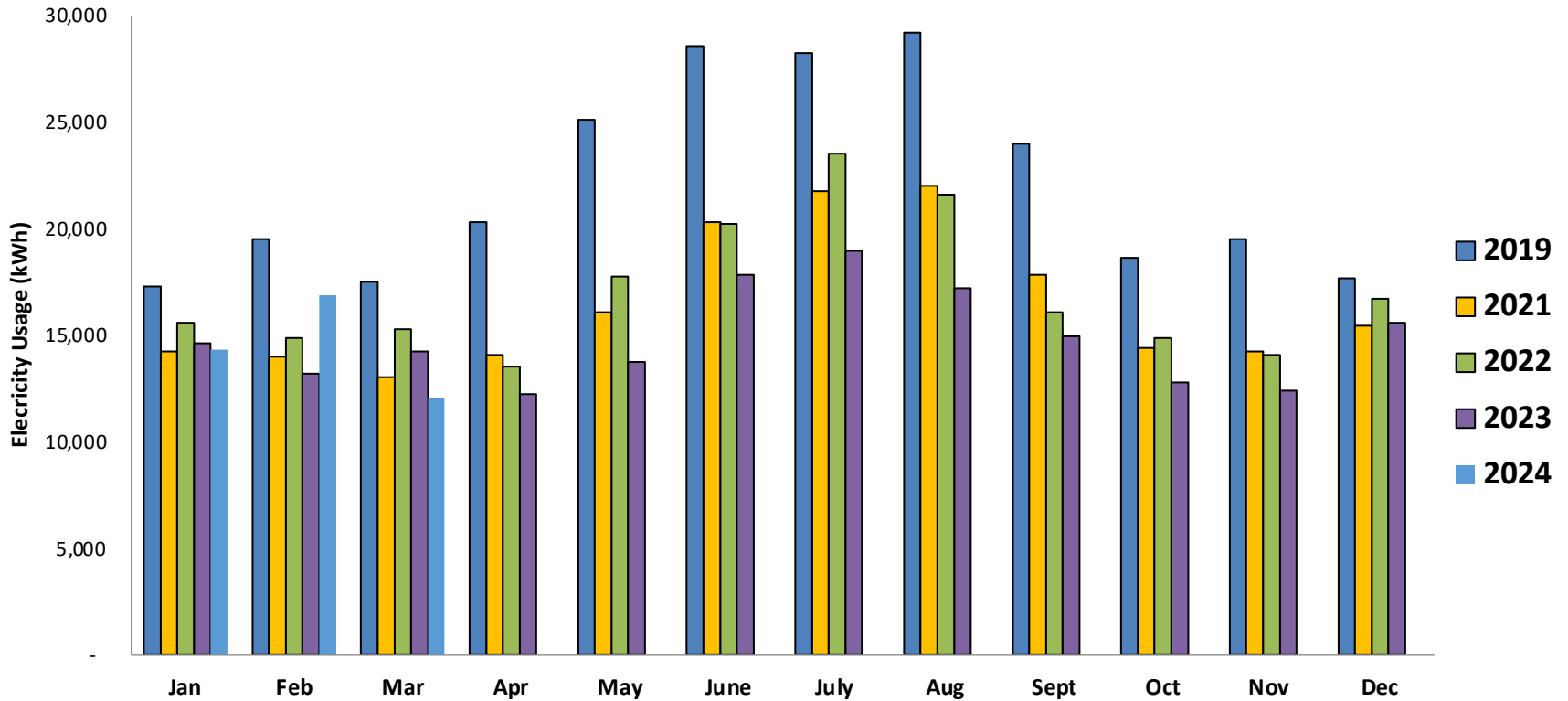
- The Board of Commissioners committed in 2019:
 - Getting to to **100% renewable electricity by 2035**
 - Getting to **100% fleet and building heat by 2050**
- We're making progress on both goals.
- Three efforts to reduce our municipal energy use:
 - Making the buildings more efficient (heat and electricity)
 - Streetlight upgrades to LEDs
 - Converting fleet to hybrids (police cruisers first)
- Let's look at our progress and savings...

AUDIT RESULTS: 4 Years Later



- 25% AVERAGE Reduction in Electricity

**Springfield Township – Admin/Police Building Electricity Usage (kWh)
2019 to 2024**



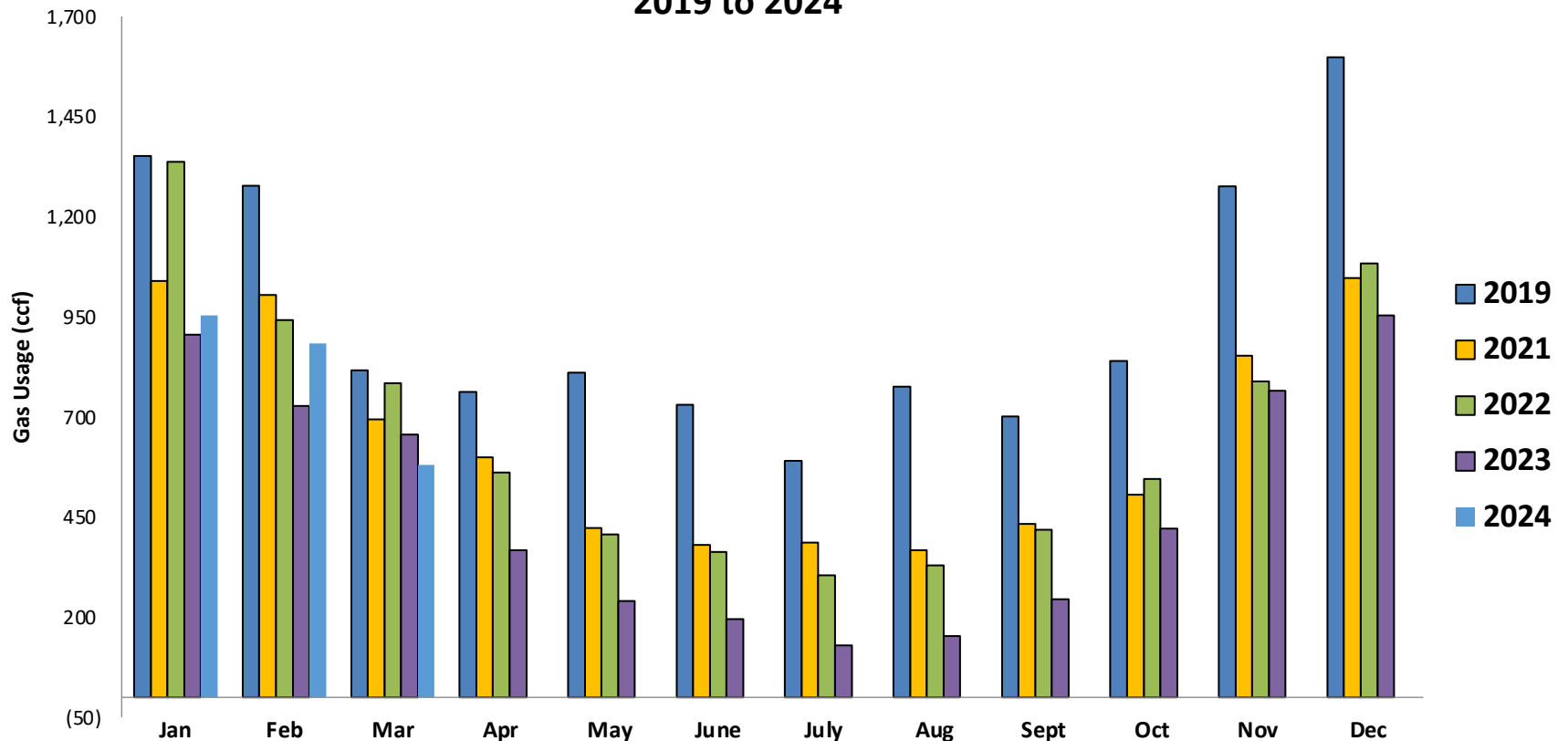
AUDIT RESULTS: 4 Years Later



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- 34% AVERAGE Reduction in Gas Use

**Springfield Township - Admin/Police Building Gas Usage (ccf)
2019 to 2024**

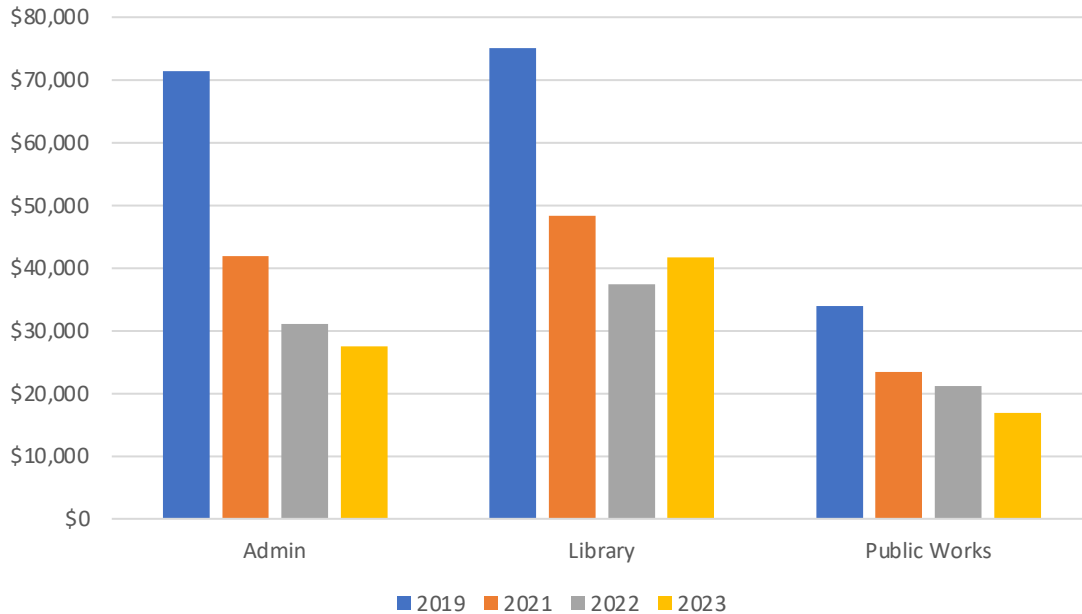


SAVINGS 2019 v. 2023 = \$43,000 Combined Admin Elec & Gas



Cumulative building savings through 2023

Total Energy Costs (Electricity and Gas)



Admin/Police
\$113,000 in
Cost Savings
2021 - 2023

Library
\$97,000 in
Cost Savings
2021 - 2023

Public Works
\$40,000 in
Cost Savings
2021 - 2023

Over \$250,000
energy cost savings in
2021, 2022, & 2023

2021 = \$67,000

2022 = \$91,000

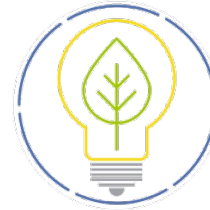
2023 = \$94,000

Over 659,000 lbs
CO2 avoidance

2021 = 266,000 lbs

2022 = 161,000 lbs

2023 = 231,000 lbs



Progress to date on fleet conversion

- We started replacing police cruisers with hybrids in 2021.
- The goal is for 100% electric vehicles.



Progress to date on streetlight conversion

- We converted our streetlights to LEDs starting in 2017.



Springfield Township

Municipal Buildings & Fleet

A. Savings resulting from energy audits on municipal buildings	Savings (\$)	CO2 avoided (pounds)	kWh Reduction (kWh)	Gas Reduction (ccf)
Total Savings 2019 thru 2023 (ignoring 2020 - pandemic)	\$ 250,000	659,994	197,560	30,496
Estimated ongoing annual savings	\$ 90,000			
B. Savings from police hybrids	Savings (\$)	CO2 avoided (pounds)		
Total Savings 2021 - 2023 - 4 vehicle fleet (estimated)	\$ 51,800	1,410,660		
Yearly operating savings per vehicle (based on 24,000 miles/year)	\$ 4,317	117,555		
4 Vehicle fleet (estimated fleet size) per year (estimated)	\$ 17,267	470,220		
C. Savings from streetlight conversion	Savings (\$)	CO2 avoided (pounds)	kWh Reduction (kWh)	
Total Savings 2017 -2023	\$ 149,174	3,752,878	2,200,100	
Estimated ongoing annual savings	\$ 35,000			
<i>Note: Assumes 2023 electricity rate through 2030</i>				
	Savings (\$)	CO2 avoided (pounds)		
Total savings through 12/31/23	\$ 450,974	5,823,532		
Estimated ongoing annual savings	\$ 142,267			



RENEWABLE SPRINGFIELD

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Looking ahead

- Exploring solar on admin/police and public works roofs.
- Exploring electrical landscaping equipment
- Aiming for conversion of full fleet to hybrids, then electric
- An enormous opportunity in building the Rec Center:

A net-zero building!