

Energy Management Policy and Plan

Policy #56



9.5.3 PW2026-033 - Energy Management

No. 2026-283

Moved By Councillor Singh Soares

Seconded By Councillor Ferguson

Be it resolved that Staff Report PW2026-033 be received for information; and

That Council approve the updated Policy #56 Energy

Management Policy and Plan; and

That Council approve the Energy Management Policy Schedule A and Schedule B Annual Report documents for 2025.

Carried



Township of Southgate

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Section 1: Southgate's Declaration of Commitment:

The Corporation of the Township of Southgate declares commitment to reduce energy consumption and greenhouse gases by ensuring the efficient use of energy that will continue to be a priority within all municipal facilities, by creating policies, generating reports to identify efficiencies and implement energy reduction strategies to provide leadership to the community.

Section 2: Southgate's Vision:

The Township of Southgate's vision is to be an environmentally sustainable community by striving towards future goals and objectives while providing valuable services to our residents. The Township will express the importance of conserving energy and decreasing the number of emissions through managing the use of consumption throughout the municipal facilities.

Section 3: Southgate's Goals and Objectives:

The Township of Southgate has established the following Goals:

- Periodically audit facilities to ensure that Southgate's vision is being complied with;
- Communicate with Southgate staff the importance of conserving energy and decreasing the GHG Emissions within the municipality;
- Maintain the Township's equipment to provide dependability and security for staff;
- Providing a positive outlook for delivering and supporting Township culture while conserving Southgate's vision.

The Township of Southgate has established the following Objectives:

- Enhance the use of energy throughout the municipality;
- Set energy use reduction targets for the Township to strive towards;



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- Provide an optimistic corporation culture with Township staff and residents within the community of Southgate;
- Research all applicable funding opportunities that are made available to the municipality pertaining to energy management.

Section 4: Southgate's Energy Reduction Target:

The importance for an efficient future with the **energy conservation and demand management (CDM)** vision is to have progressive and attainable targets.

The Township's Declaration of Commitment is to reduce energy consumption and greenhouse gases. With this declaration the Township will:

- Establish 2011 as the Township's foundation year in which the decrease of energy use and greenhouse gases will be measured.
- The targets are 1% reduction in energy consumption, greenhouse gases and cost savings on an annual basis between now and going forward with a 5-year plan to 2030.

Section 5: Southgate's Renewable Energy

The Township finds that it is necessary to enhance the vision mentioned in Section 2 of this policy by ensuring that the municipality is an environmentally sustainable community while providing valuable services to our residents.

The Township built the Southgate Community Services Building including the Ruth Hargrave Memorial Library in 2010 with geothermal, which is ground source energy. This facility also has a grey water supply from a rain collection tank under the parking lot for the use of toilet water.

The Township has set out future guidelines for asset improvements at facilities throughout the municipality which will enhance the use of energy and greenhouse gases. Table Section 5 attached as Schedule A: Represents the Township's annual energy asset plan.



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Section 6: Southgate's Energy Leader

The Township of Southgate has delegated CAO Jim Ellis as the person responsible for providing the corporate culture in energy management. CAO Jim Ellis is an employee who has taken the LAS Energy Management courses through AMO and understands the importance of why energy consumption should be lowered, and the greenhouse gases depreciated.

Section 7: Southgate's Energy Use at the Municipal Level

The Township of Southgate staff will carry out the responsibility of effective energy consumption and reduce the greenhouse gases with direction from their supervisors with information provided at Department Head meetings. The information provided will enhance the corporate culture by providing an optimistic review of how the municipality is achieving its goals and objectives. The Energy Leader will provide staff training with energy management tools to create an energy savings culture and awareness. Department heads will receive information to view their annual results and report to their department staff.

Section 8: Southgate's Energy Asset Level Execution

Providing education to all municipal staff is essential to conserve energy consumption and greenhouse gases.

The initial action in executing the energy management plan will be to complete facility energy audits for all facilities. Each energy audit will include a technical review of the facility, its energy consumption and greenhouse gas reduction. These audits will assist the municipality to determine the future needs of each facility and what their budget requirements will be.



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Section 9: Southgate's Energy Plan Review

The Township of Southgate will have annual Energy Committee meetings to evaluate and update the requirements throughout the municipality.

The Energy Committee will promote corporate culture and will take a positive approach to decreasing energy consumption and greenhouse gases. The Public Works Manager and other Department Heads will provide all facilities with the goals and objectives of the Energy Management Plan.

Section 10: Summary of Consumption, Cost, and GHG's

The total annual energy consumption in municipal building operations is 2,360,540 EKWH, at a cost of \$375,172 per year and GHG emission of 237,388 kg/year eCO₂. In 2024, the usage was 2,333,560 EKWH, the cost was \$301,654, and the emissions were 214,697 kg/year eCO₂.

Section 11: Projected Growth and Factors

- Wastewater upgrades are projected to occur in 2026.
- New administration & multi-use facility in Dundalk by 2027.
- Eco Parkway Phase 2 – SPS.
- Continued population growth and new housing & commercial buildings coming online in Southgate in 2026 equals more draw on public services.
- Renovation for the rear storage shed for vehicle storage and the additional propane tank in 2024 increased the square footage & energy usage footprint.
- Additional staffing to meet growth requirements may make a minor impact with new computers and electronics/appliance use.
- The sale of Olde Town Hall to reduce overall usage in February 2025.
- Acquired VanDusen pump station, projected to increase usage and reliance on wastewater system.
- Replacement of overhead doors at Hopeville Depot and Transfer Station Garage.



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- Weather impacts – Heating Degree Days (HDD) and Cooling Degree Days (CDD). The HDD for winter weather for 2025 showed an increase in heating requirements and the CDD for cooling in the summer had a slight increase from 2024. This is an overall energy increase for 2025.

YEAR	HDD (winter)	CDD (summer)
2019	4254	190
2020	3763	284
2021	4004	206
2022	4329	174
2023	3937	134
2024	3996	134
2025	4327	207

Degree days measure the amount of heating or cooling necessary at your property. Degree days are measured relative to a base of 65°F(18°C). Above 65°F(18°C) it is assumed that your property will need to have cooling and below 65°F(18°C) it is assumed that your property will need to have heating.

- Heating Degree Days (HDD) - HDD is the equivalent number of days you would have to heat your building by 1 degree to accommodate the heating requirement. For example, if you have a day on which the temperature is 55°F degrees, that day is worth 10 Heating Degree Days because it is 10 degrees below 65°F. HDD is calculated in this way for each day of the year and summed up to get the total annual HDD.
- Cooling Degree Days (CDD) - CDD is the equivalent number of days you would have to cool your building by 1 degree to accommodate the cooling requirement. For example, if you have a day on which the temperature is 80°F degrees, that day is worth 15 Cooling Degree Days because it is 15 degrees above 65°F. CDD is calculated in this way for each day of the year and



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summed up to get the total annual CDD.

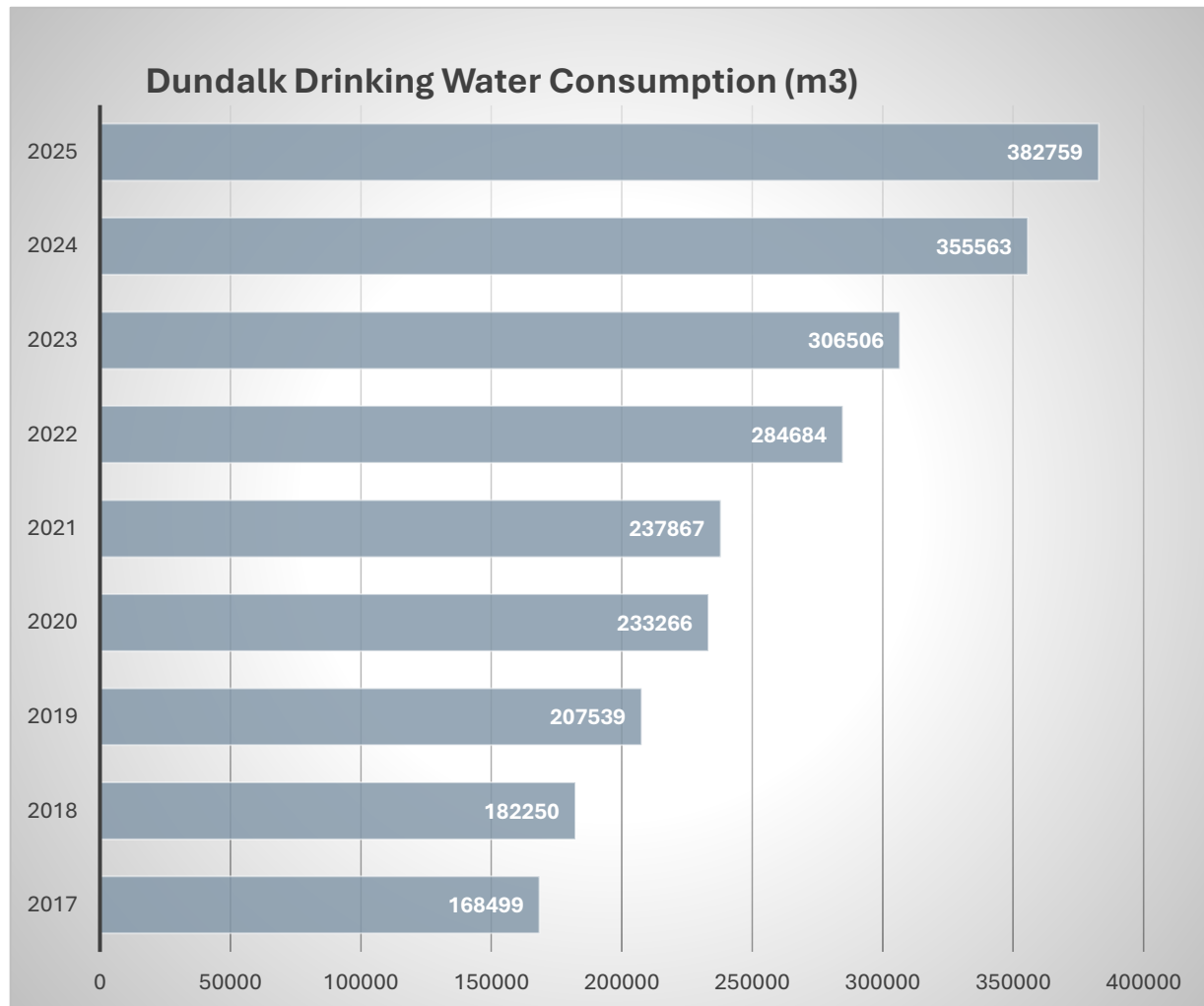
Source PM Degree Day Calculator

<https://portfoliomanager.energystar.gov/pm/degreeDaysCalculator>

*HDD – Heating Degree Days

*CDD – Cooling Degree Day

- An increase of water consumption over time – Dundalk Drinking Water System





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Schedule A

Annual Energy Asset Plan

Schedule A is updated on an annual basis.



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Table: Section 5:A							
Historical Energy Asset Plan							
Facility	Project	Year	Completed	Target Energy	Target GHG	Capital Costs	Projected Savings
All municipal facilities	Fluorescent light replacement	2010	2010				
All municipal facilities	Programmable thermostats and temp setting	2013	2013	1%	1%		
Public Works							
Township Streetlights	Convert all lights to LED	2017	2017	60%		\$182,481.00	\$ 32,073.00
All municipal facilities	Replace outside buildings with LED wall packs	2017	2017	1%	1%	\$16,610.00	
Holstein Works Garage	Oil furnace replaced with propane	2018	2018	2%	5%	\$8,544.00	
Dundalk Works Garage	LED Lighting upgrade	2019		1%	1%	\$0.00	(\$182.97)
Hopeville Works Garage and Office	Insulate Attic	2020		1%	1%	\$8,356.00	
Egremont Landfill Shop	LED light replacement	2018		1%	1%	\$8,000.00	
Wastewater	LED Lighting upgrade	2019		1%	1%	\$0.00	\$625.08
Holstein Works Garage	Overhead Door	2023	2023	1%	1%	\$52,000	
Hostein Works Garage	Insulate Ceiling	2017	2017	1%	1%	\$3,135.00	
Water Tower	Reduce pumping costs	2022	2022				
Sewage Lagoon	New Furnace	2023	2023	1%	1%		
Sewage Lagoon	Influent pumps converted to VFD control, Aeration Blower Replacement	2014	2014	5%	3%	\$200,000.00	
Recreation							
Dundalk Arena and Community Centre	Gas Boiler in Lobby and Olympia Room	2014	2014			\$4,000.00	
Dundalk Arena and Community Centre	Dehumidifier Replacement	2018	2018			\$21,000.00	
Dundalk Arena and Community Centre	Better insulation and heating/cooling system	2019		1%	1%	\$15,000.00	
Hopeville Park	LED Lighting upgrade	2019		1%	1%	\$0.00	\$14.67
Arena	LED Lighting upgrade	2019		1%	1%	\$0.00	(\$1,219.38)
Dundalk Pavillion and Pool	LED Lighting upgrade	2019		1%	1%	\$0.00	(\$948.17)
MacIntyre Building	LED Lighting upgrade	2019		1%	1%	\$0.00	
Swinton Park	New Boiler	2018	2018			\$3,000.00	
Pool Building	Reduced light fixtures by 50%	2022	2022	1%	1%	TBA	
Municipal Office							
Administration Offices	LED Lighting throughout office	2019	2019	1%	1%	\$761.30	(\$1,010.77)
Fire							
Fire Hall	Add weather stripping	2021	2021	1%	1%	TBA	
Fire Hall	New front door	2022	2022	1%	1%	TBA	
Fire Hall	New Furnace install upstairs	2022	2022	1%	1%	TBA	
Fire Hall	New LED strip lights	2023	2023	1%	1%	TBA	
Annual Energy Asset Plan							
Facility	Project	Year	Completed	Target Energy	Target GHG	Capital Costs	Projected Savings
Municipal Office							
Administration Offices	New Admin/Multi-use Building	2026		TBD	TBD	TBD	
Public Works							
Wastewater	Wastewater upgrades	2025		TBD	TBD	\$4,700,000.00	
Waste Garage	Overhead Door	2025		1%	1%	\$22,270.51	
Hopeville Works Garage	Overhead Door	2025		1%	1%	\$58,441.32	
Dundalk Works Garage	Insulate Overhead Doors	TBD		1%	1%	\$45,000.00	\$ 62.18
Recreation							
Dundalk Pool	Grant to reduce Natural Gas consumption	2023		1%	1%	TBD	
Dundalk Arena and Community Centre	LED Lighting over Ice Surface Area	2024		1%	1%	\$10,000.00	
Fire							
Fire Hall	Upgrade AC	2026		1%	1%	TBD	
Total over 5 year EAP				4%	4%	\$ 4,835,711.83	\$ 2,109.53
Average Annual Savings				0.8%	0.80%	\$ 972,000.00	\$ 421.91



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Schedule B

Schedule B is updated on an annual basis.

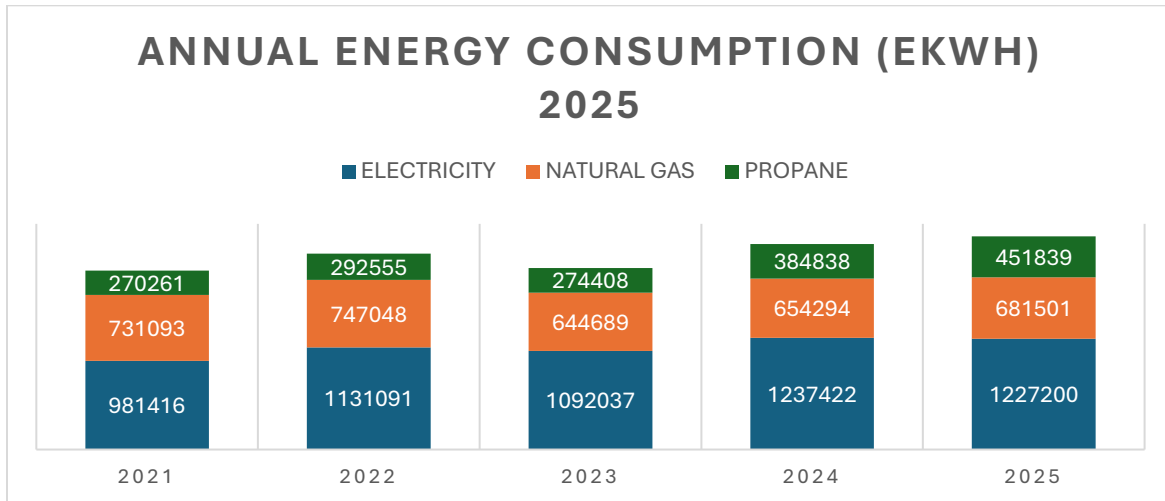
Southgate's Energy Consumption – Greenhouse Gas Emissions



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SECTION 1 – Annual Energy Consumption

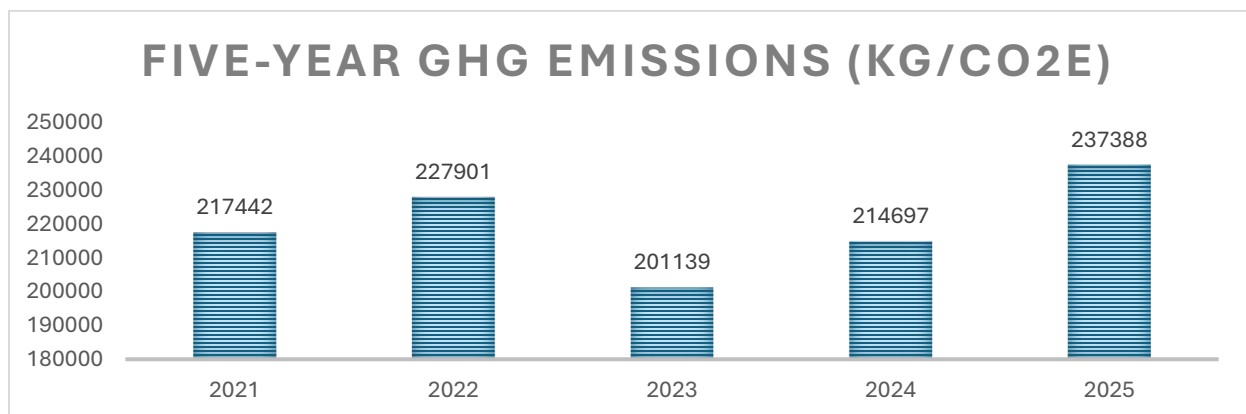


Since 2021, the total building energy consumption has increased/decreased:

- Electricity +25%
- Natural Gas -6.8%
- Propane +67.2%

However, after peak years of 2022 and 2024, there is an overall decrease in electricity consumption. For example, there is a 2.6% decrease in electricity consumption since 2024.

SECTION 2 – GHG Emissions

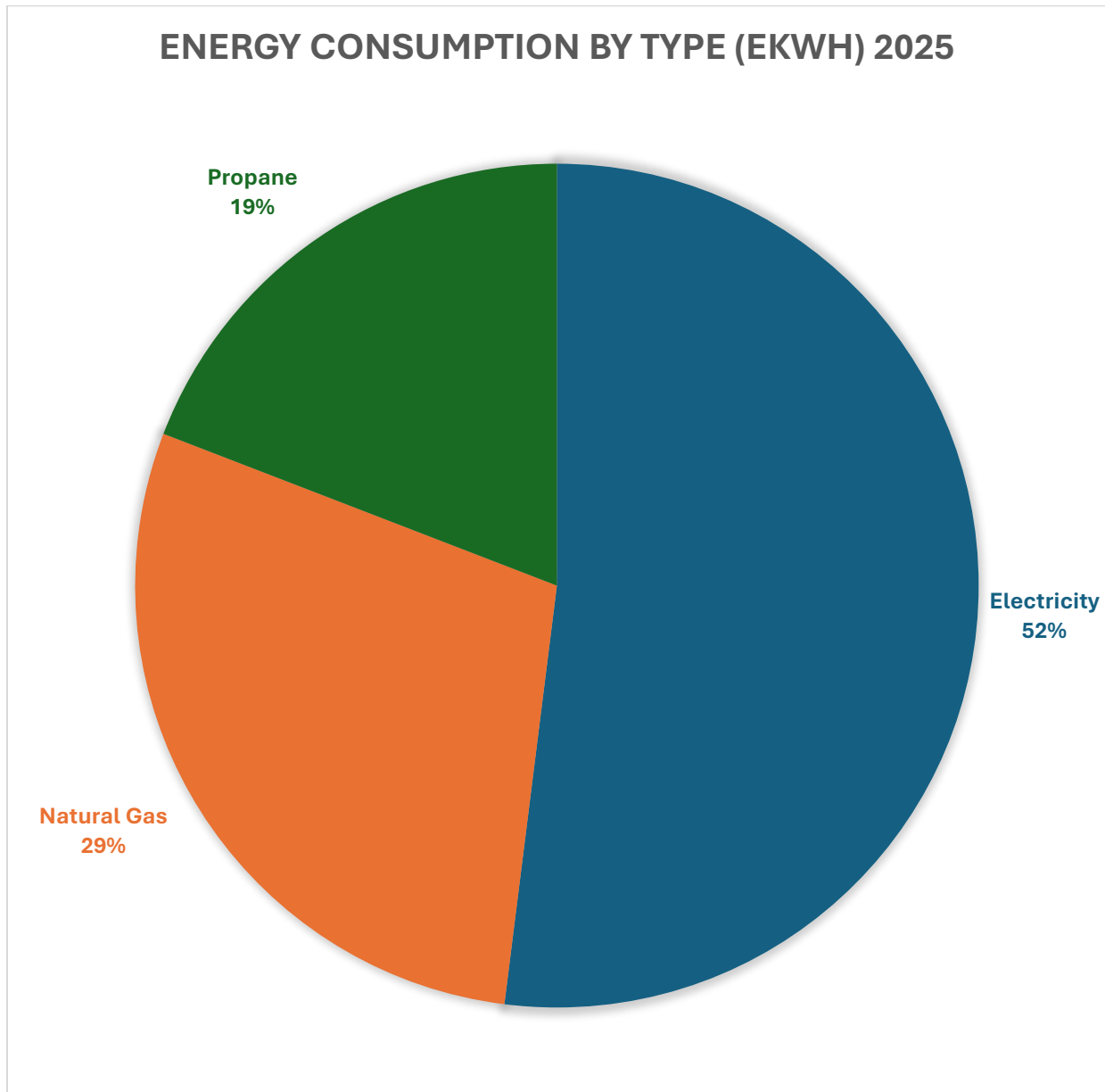




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SECTION 3 – Facility Details





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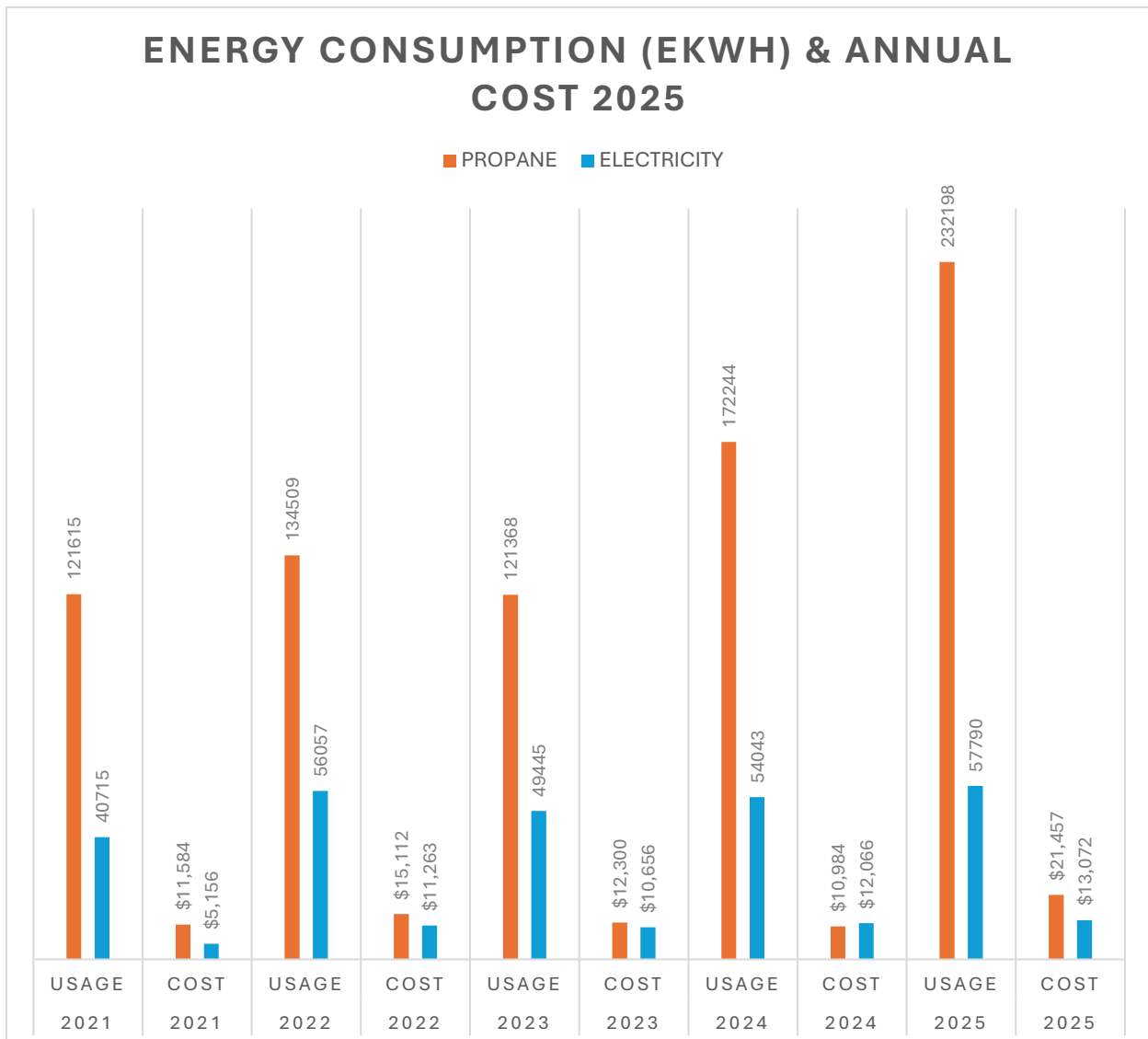
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Administration Office & Works Garage
185667 Grey Road 9
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
951	2085	Electricity: Hydro One
		Propane: Avenir

Electricity (\$/hr): 6.26 – Usage YOY +6.9%

Propane/Natural Gas (\$/hr): 10.29 – Usage YOY +34.8%





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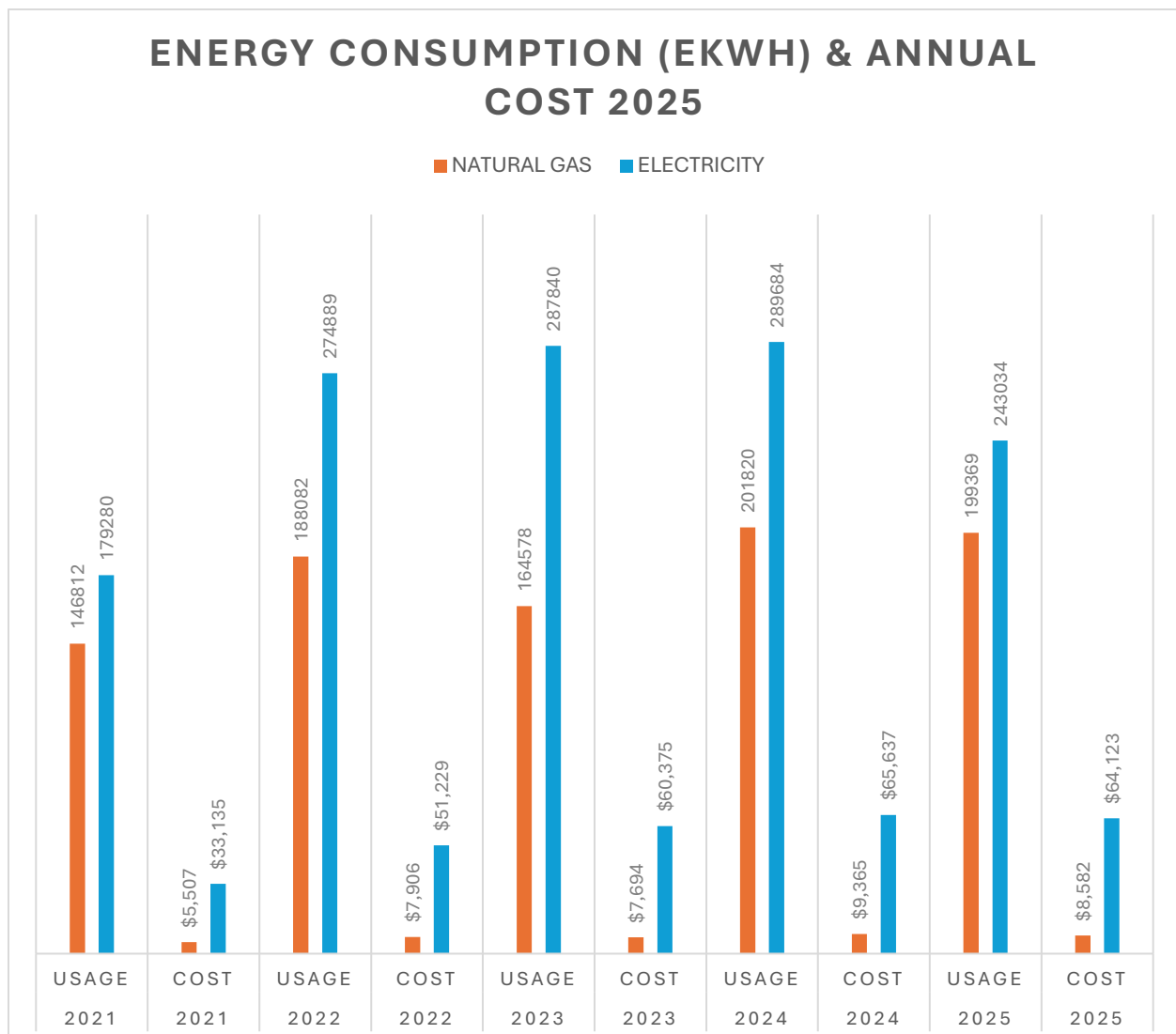
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Dundalk Arena and District Community Centre
550 Main Street East
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
2302	2919	Electricity: Hydro One
		Natural Gas: Enbridge

Electricity (\$/hr): 21.97 – Usage YOY -16.1%

Propane/Natural Gas (\$/hr): 2.94 – Usage YOY -1.2%





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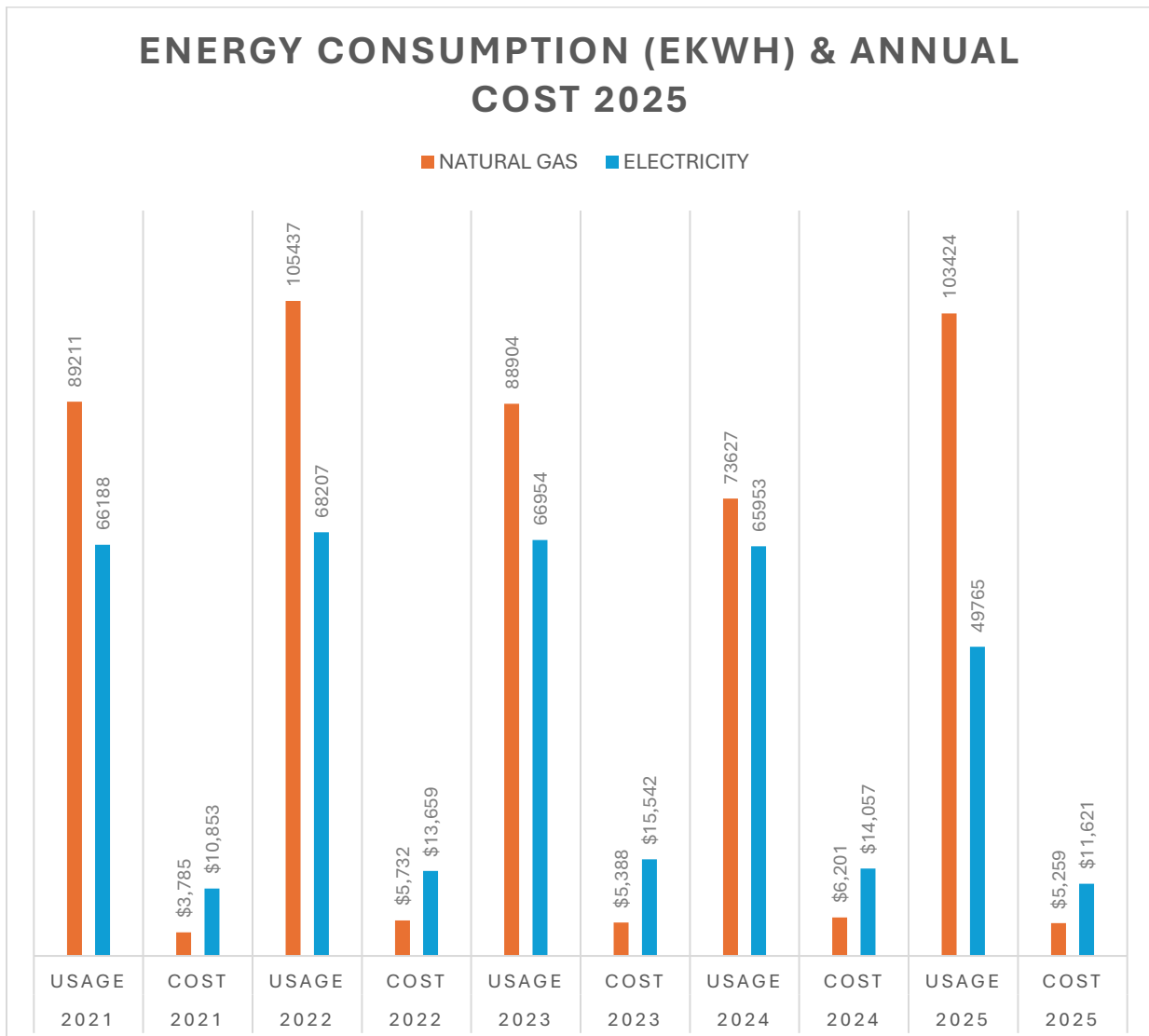
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Dundalk Fire Hall
85 Dundalk Street
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
736	8760	Electricity: Hydro One
		Natural Gas: Enbridge

Electricity (\$/hr): 1.33 – Usage YOY -24.5%

Propane/Natural Gas (\$/hr): 0.60 – Usage YOY +40.5%





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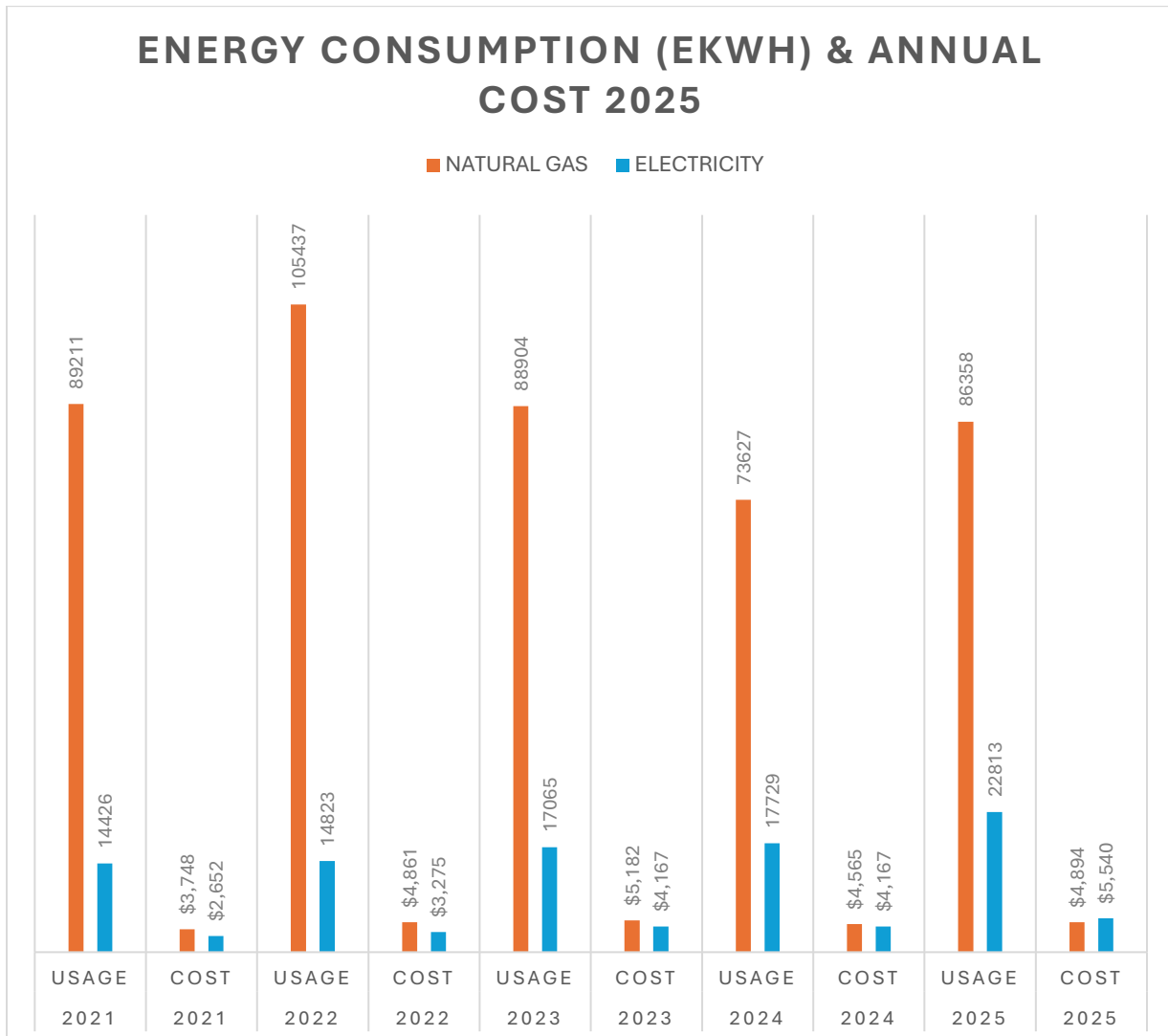
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Dundalk Works Garage
75 Dundalk Street
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
736	2085	Electricity: Hydro One
		Natural Gas: Enbridge

Electricity (\$/hr): 2.66 – Usage YOY +28.7%

Propane/Natural Gas (\$/hr): 2.35 – Usage YOY +17.3%





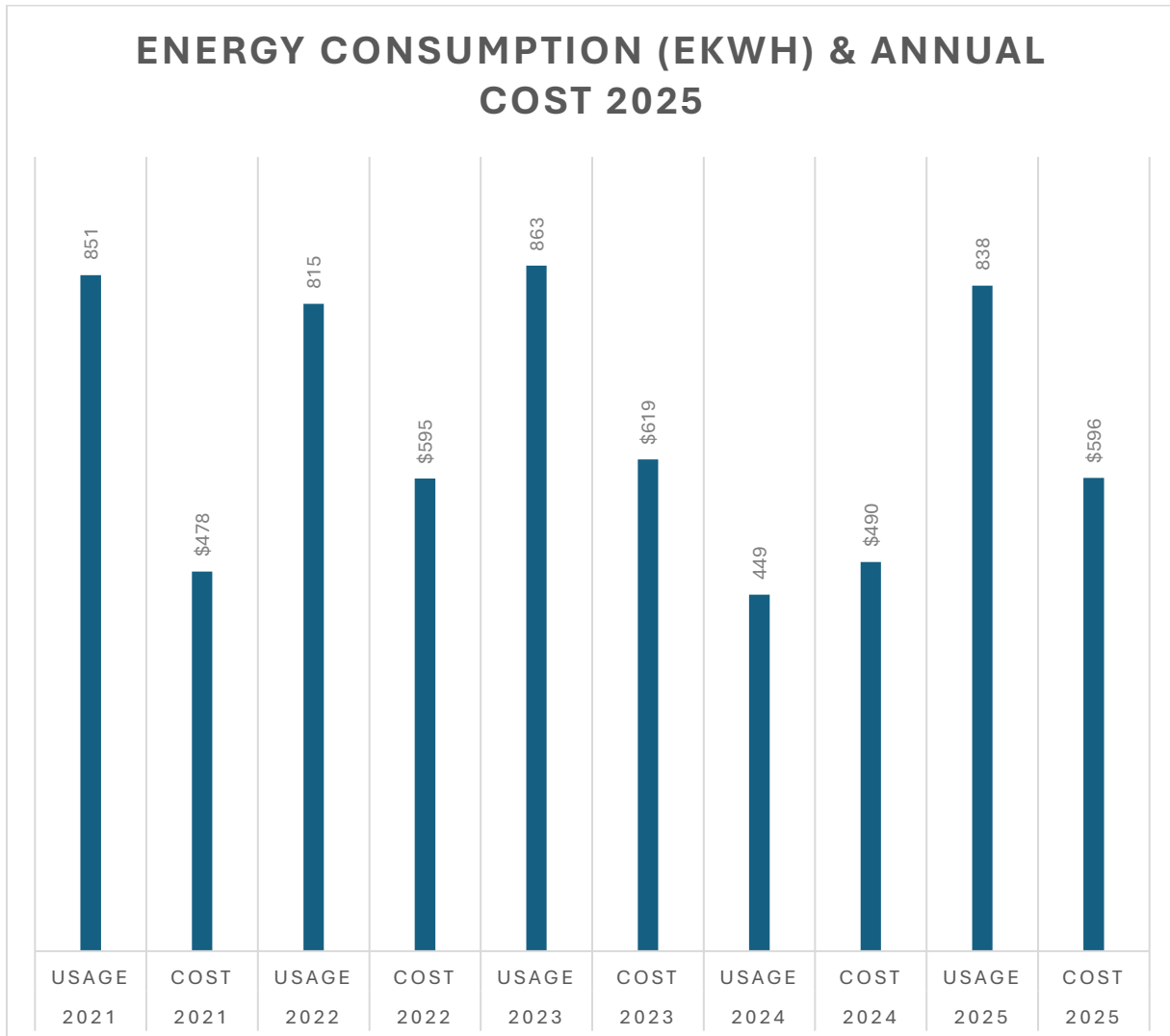
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Egremont – Hunt Camp
413013 Southgate Road 41
Durham ON
N0G 1R0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
52	469	Electricity: Hydro One

Electricity (\$/hr): 1.27 – Usage YOY +86.6%





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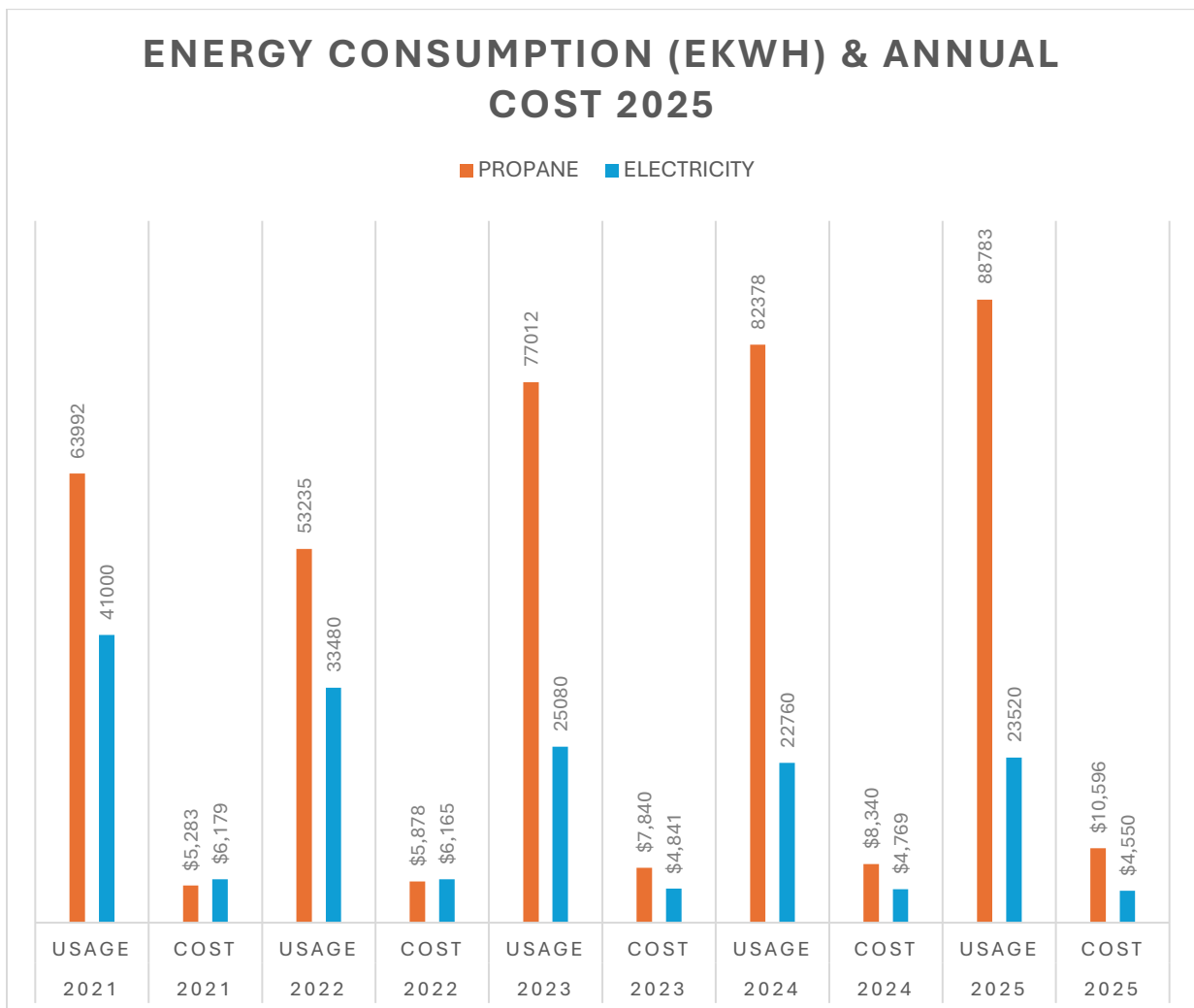
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Holstein Works Garage
123273 Southgate Road 12
Holstein ON
N0G 2A0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
798	2086	Electricity: Wellington North Power
		Propane: Avenir

Electricity (\$/hr): 2.18 – Usage YOY +3.3%

Propane/Natural Gas (\$/hr): 5.08 – Usage YOY +7.8%





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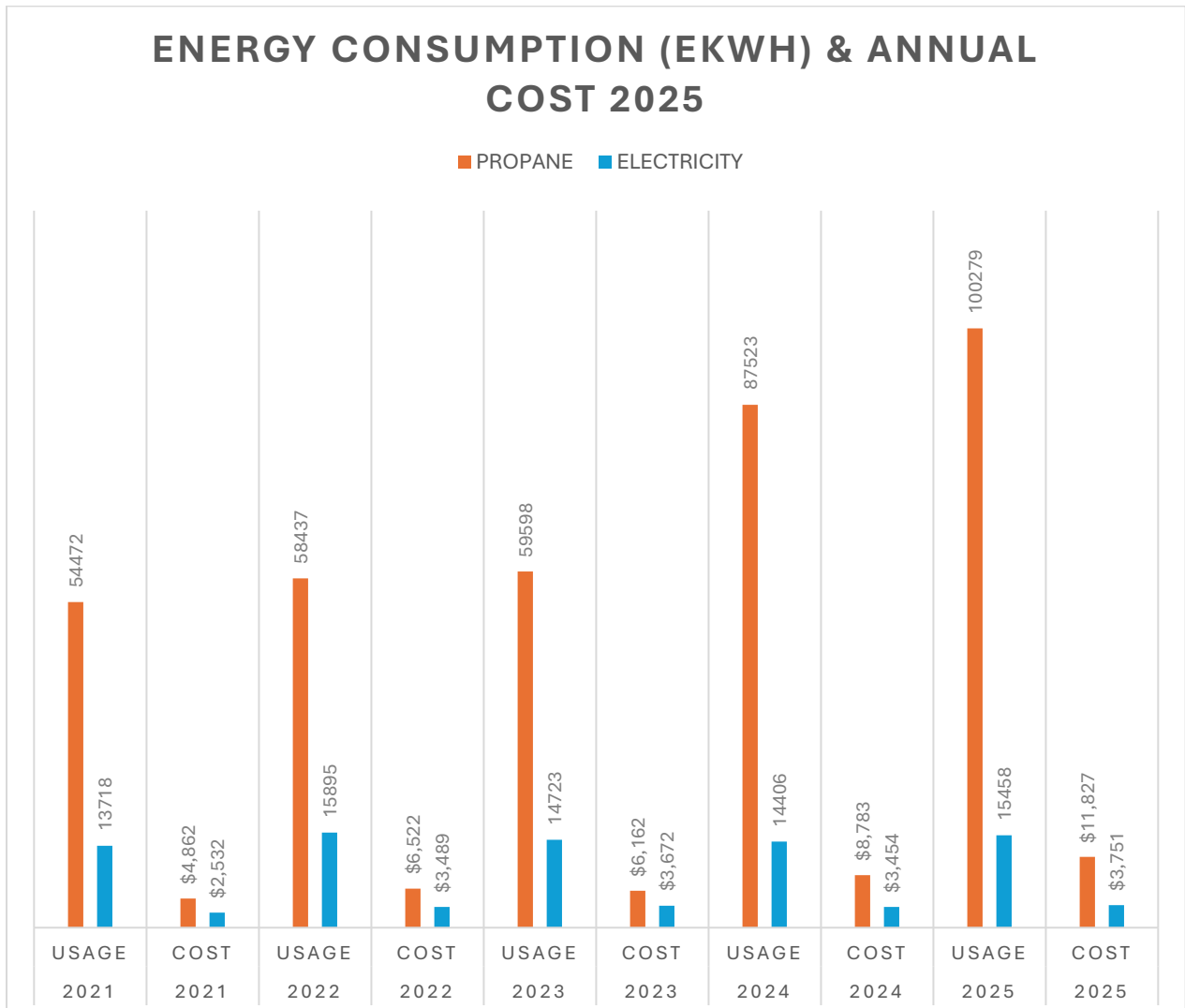
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Landfill Scale House
413013 Southgate Road 41
Egremont ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
369	625	Electricity: Hydro One
		Propane: Avenir

Electricity (\$/hr): 6.00 – Usage YOY +7.3%

Propane/Natural Gas (\$/hr): 18.92 – Usage YOY +14.6%





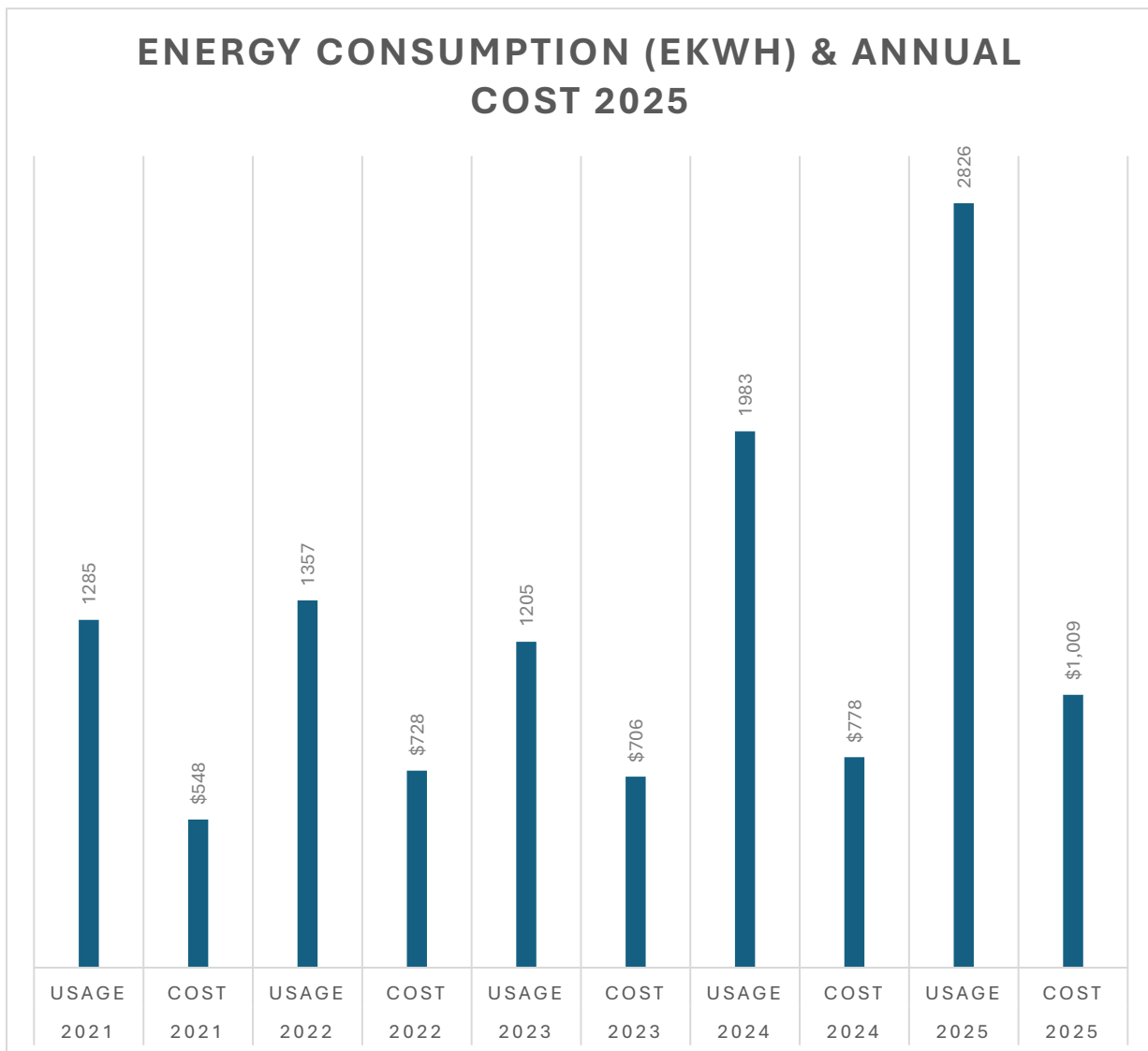
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Hopeville Pavilion & Park
185450 Grey Road 9
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
125	156	Electricity: Hydro One

Electricity (\$/hr): 6.47 – Usage YOY +42.5%





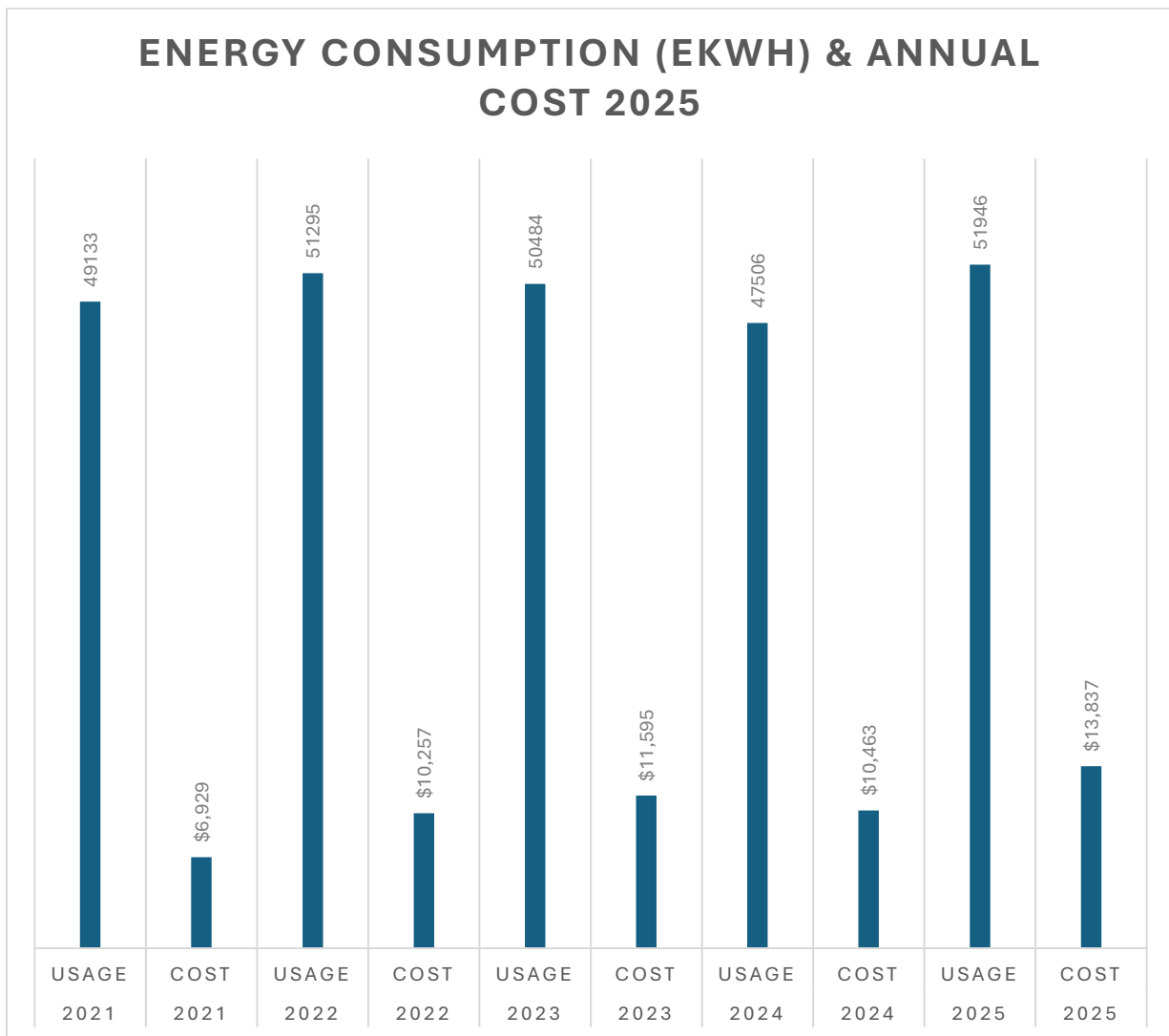
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Library
80 Proton Street North
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
610	2502	Electricity: Hydro One

Electricity (\$/hr): 5.53 – Usage YOY +9.3%





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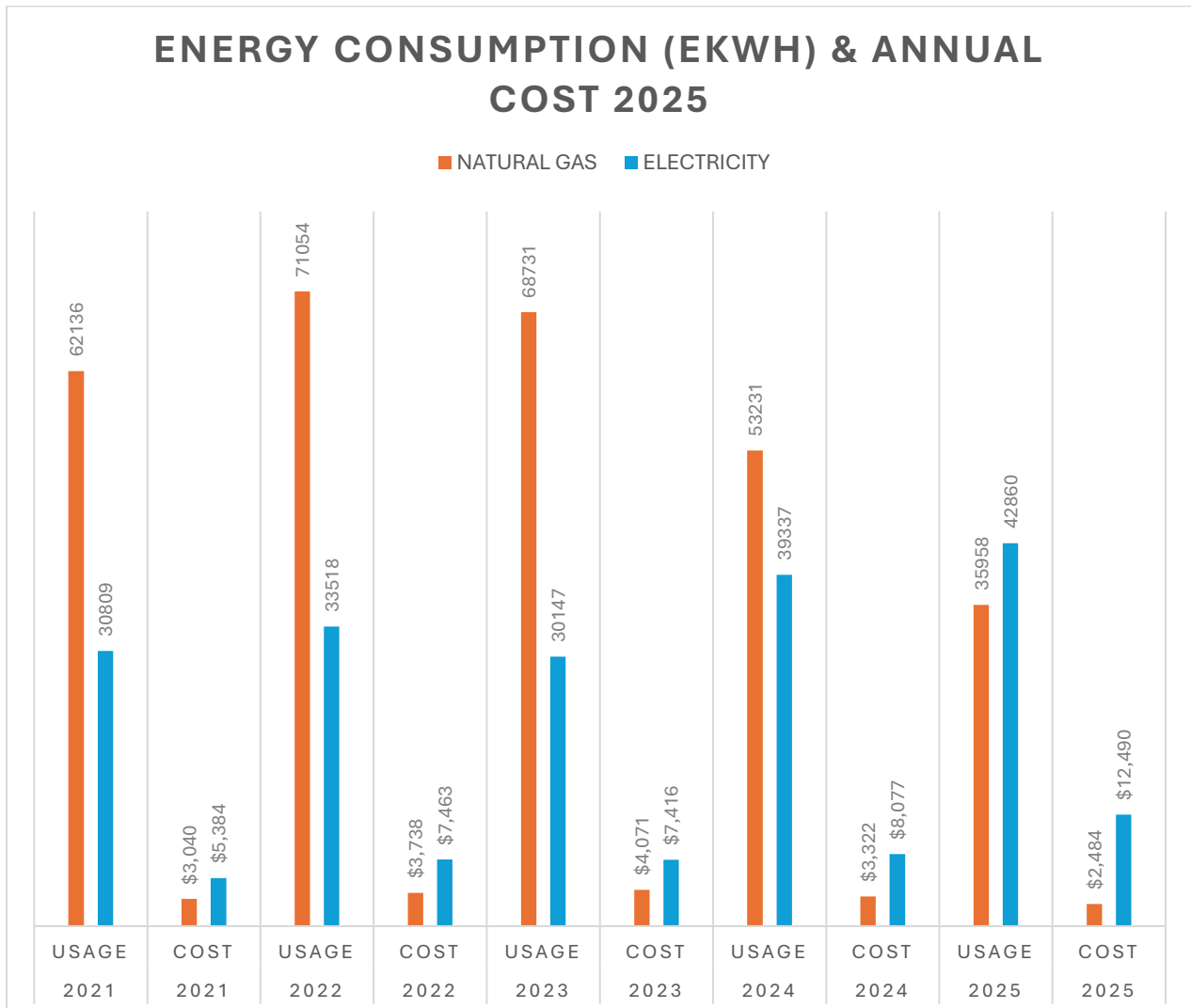
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Memorial Park
250 Owen Sound Street
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
105	5000 *ALL FACILITIES	Electricity: Hydro One
Frank McIntyre Building		Natural gas: Enbridge

Electricity (\$/hr): 2.50 – Usage YOY +9%

Propane/Natural Gas (\$/hr): 0.50 – Usage YOY -32.4%





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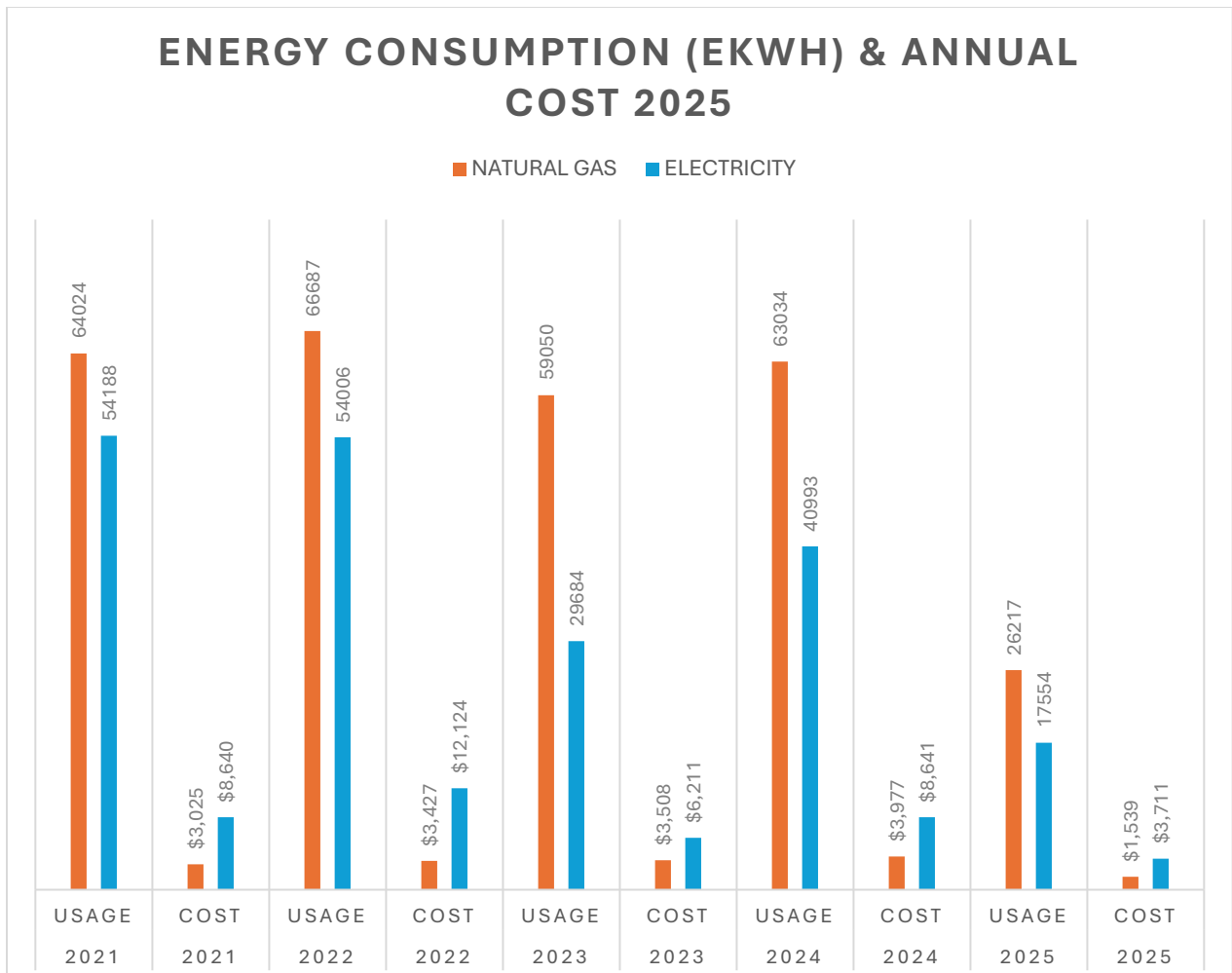
Olde Town Hall
90 Main Street East
Dundalk ON
N0C 1B0

***BUILDING SOLD FEBRUARY 2025**

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
518.4	2919	Electricity: Hydro One
		Natural Gas: Enbridge

Electricity (\$/hr): 1.27 – Usage YOY -64.9%*

Propane/Natural Gas (\$/hr): 0.53 – Usage YOY -58.4%*





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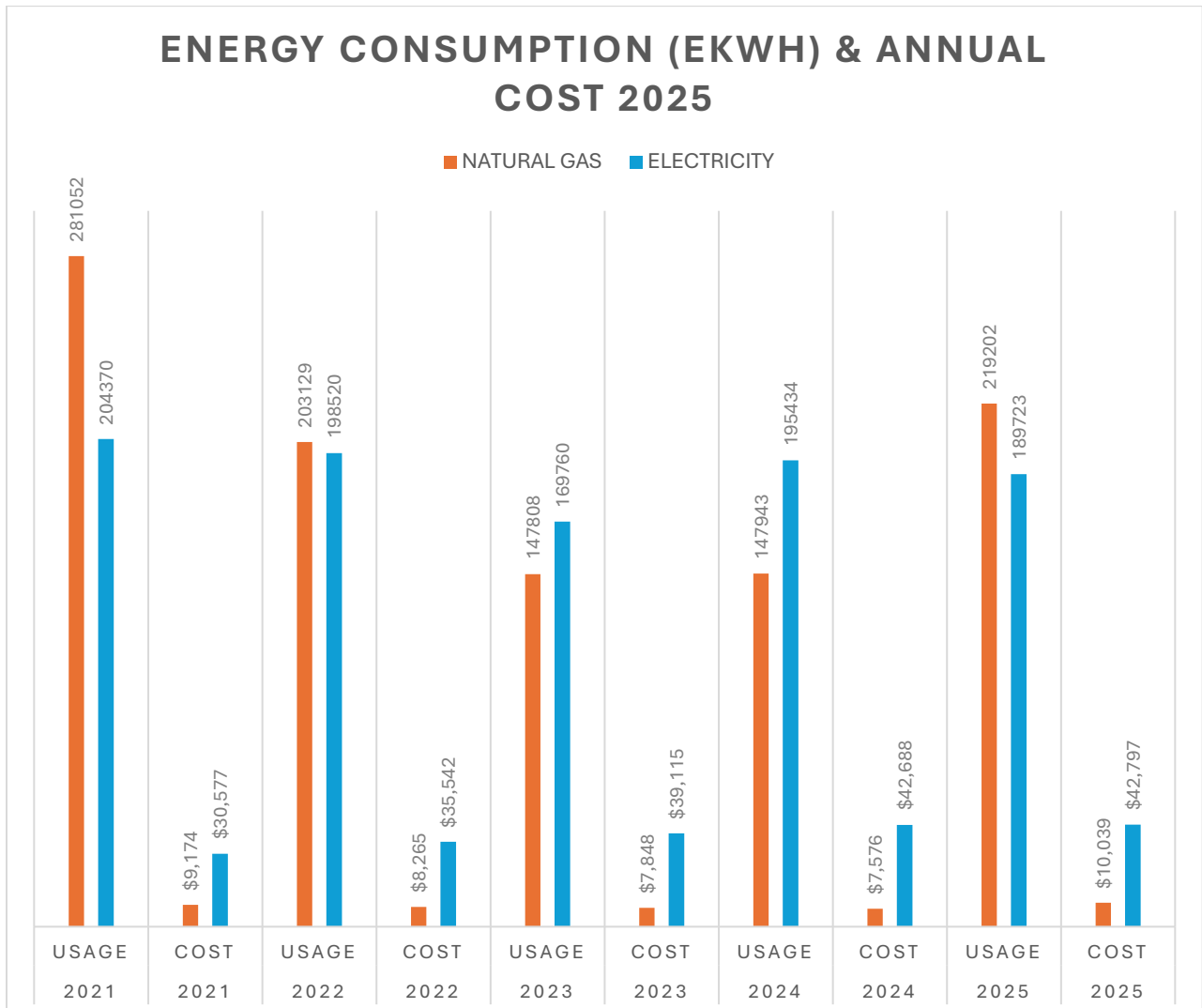
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Sewage Lagoon
752051 Ida Street
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
277.6	8760	Electricity: Hydro One
		Natural Gas: Enbridge

Electricity (\$/hr): 4.89 – Usage YOY -2.9%

Propane/Natural Gas (\$/hr): 1.15 – Usage YOY +48.2%





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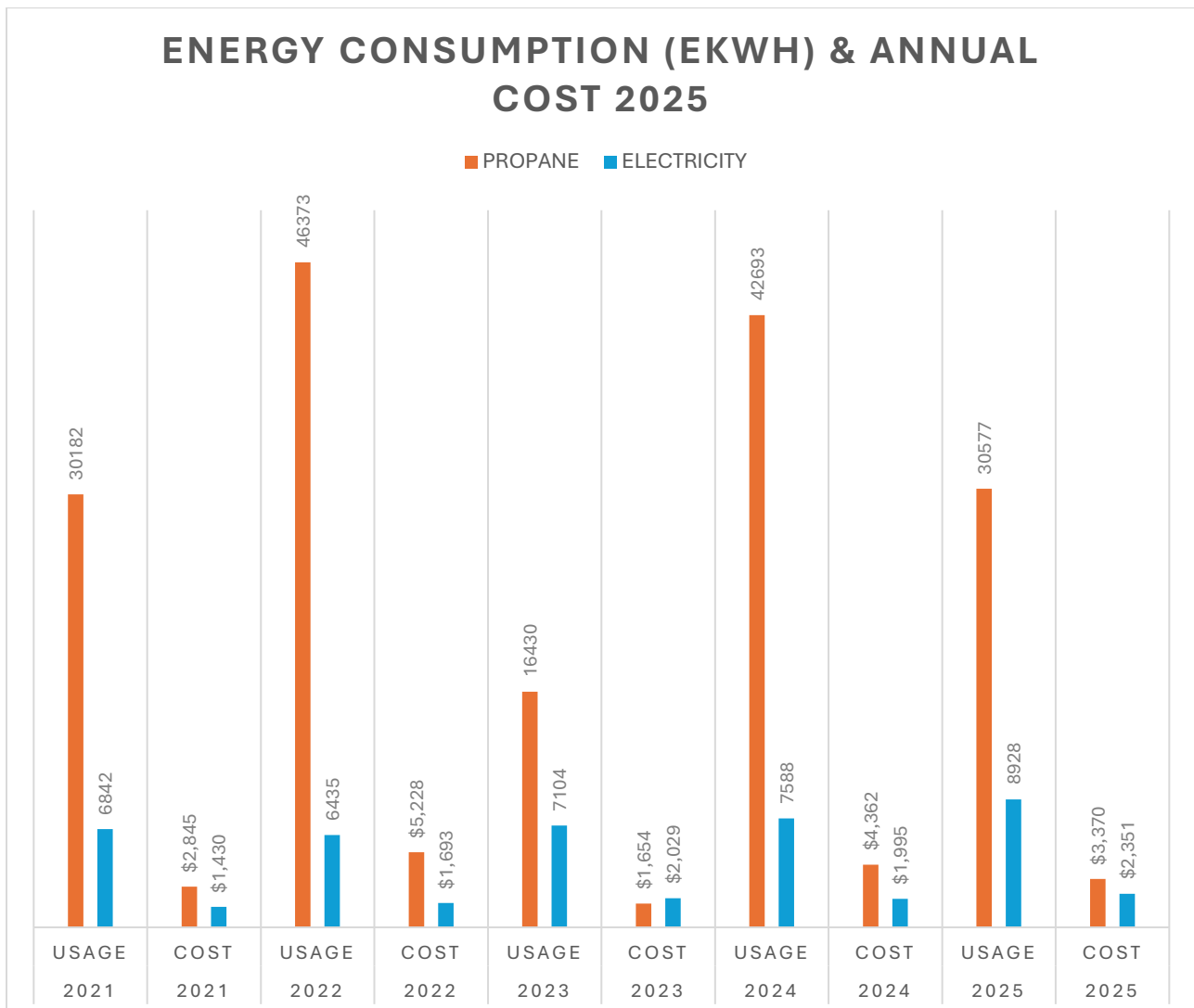
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Swinton Park
245308 Southgate Road 24
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
166.4	388	Electricity: Hydro One
		Propane: Avenir

Electricity (\$/hr): 6.06 – Usage YOY +17.7%

Propane/Natural Gas (\$/hr): 8.69 – Usage YOY -28.4%





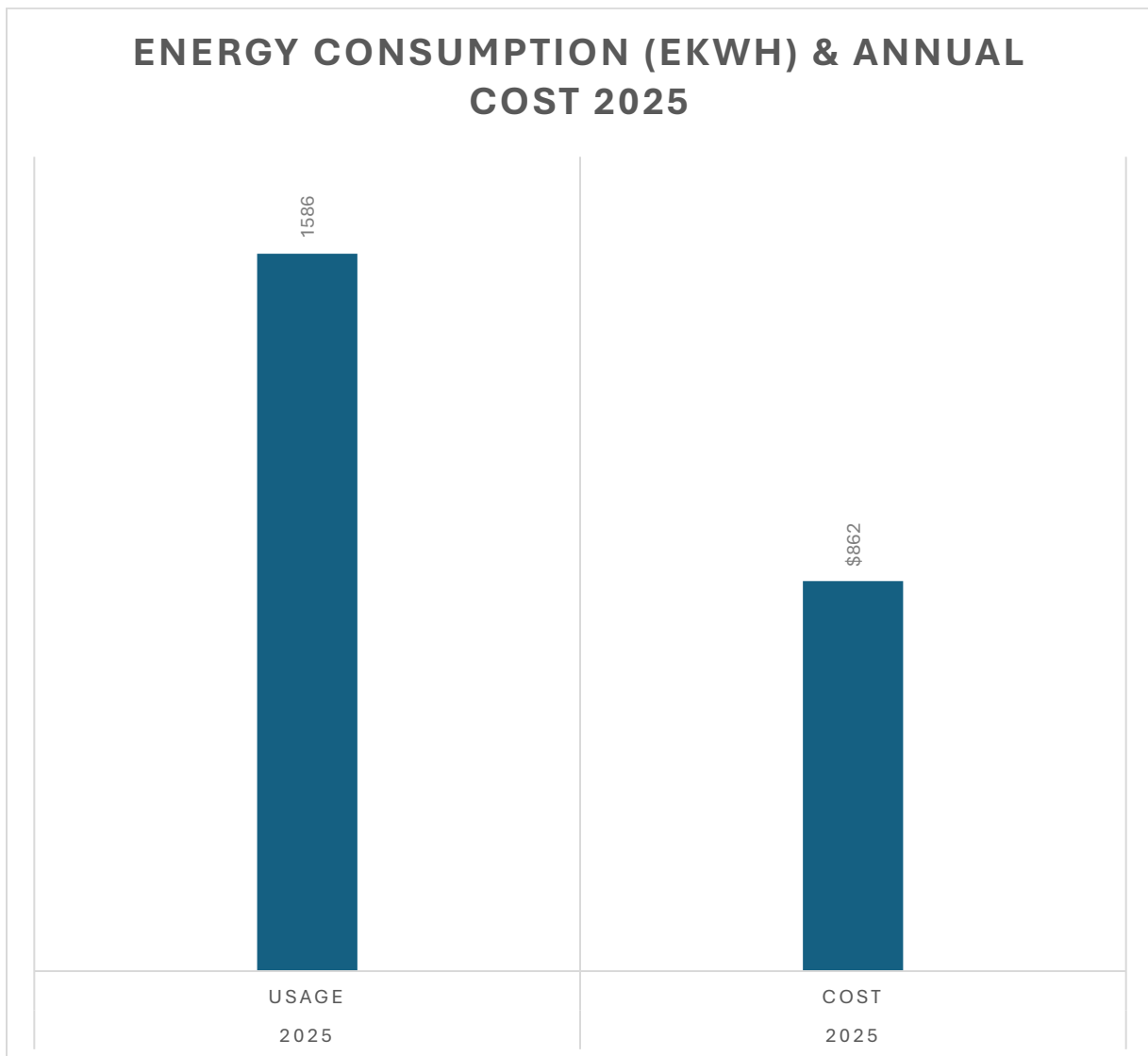
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Holstein Park and Pavilion
392057 Main Street
Holstein ON
N0G 2A0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
269	2000	Electricity: Wellington North Power

Electricity (\$/hr): 0.43





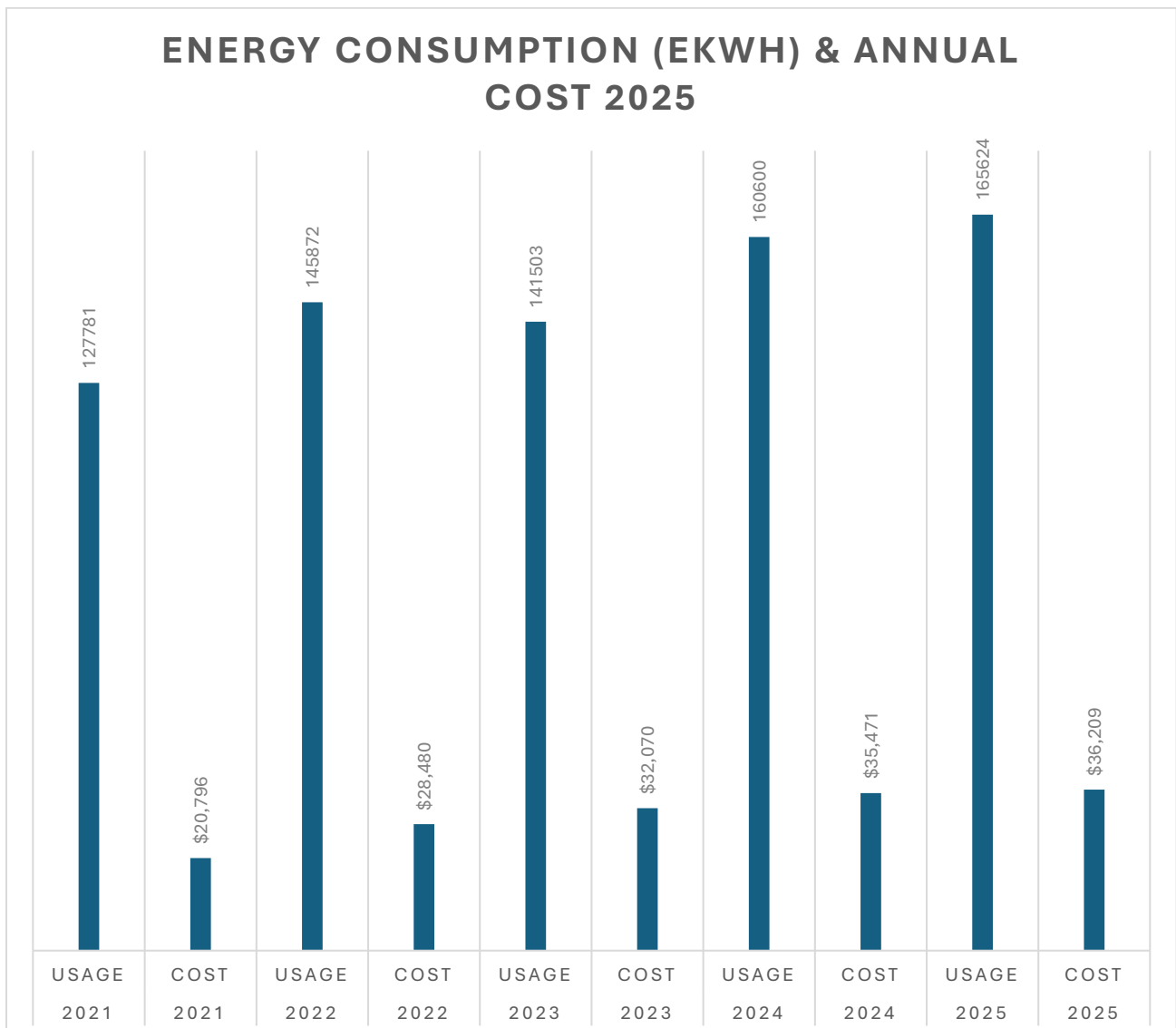
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Well #3
280 Victoria Street West
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
70.6	8760	Electricity: Hydro One

Electricity (\$/hr): 4.13 – Usage YOY +3.1%





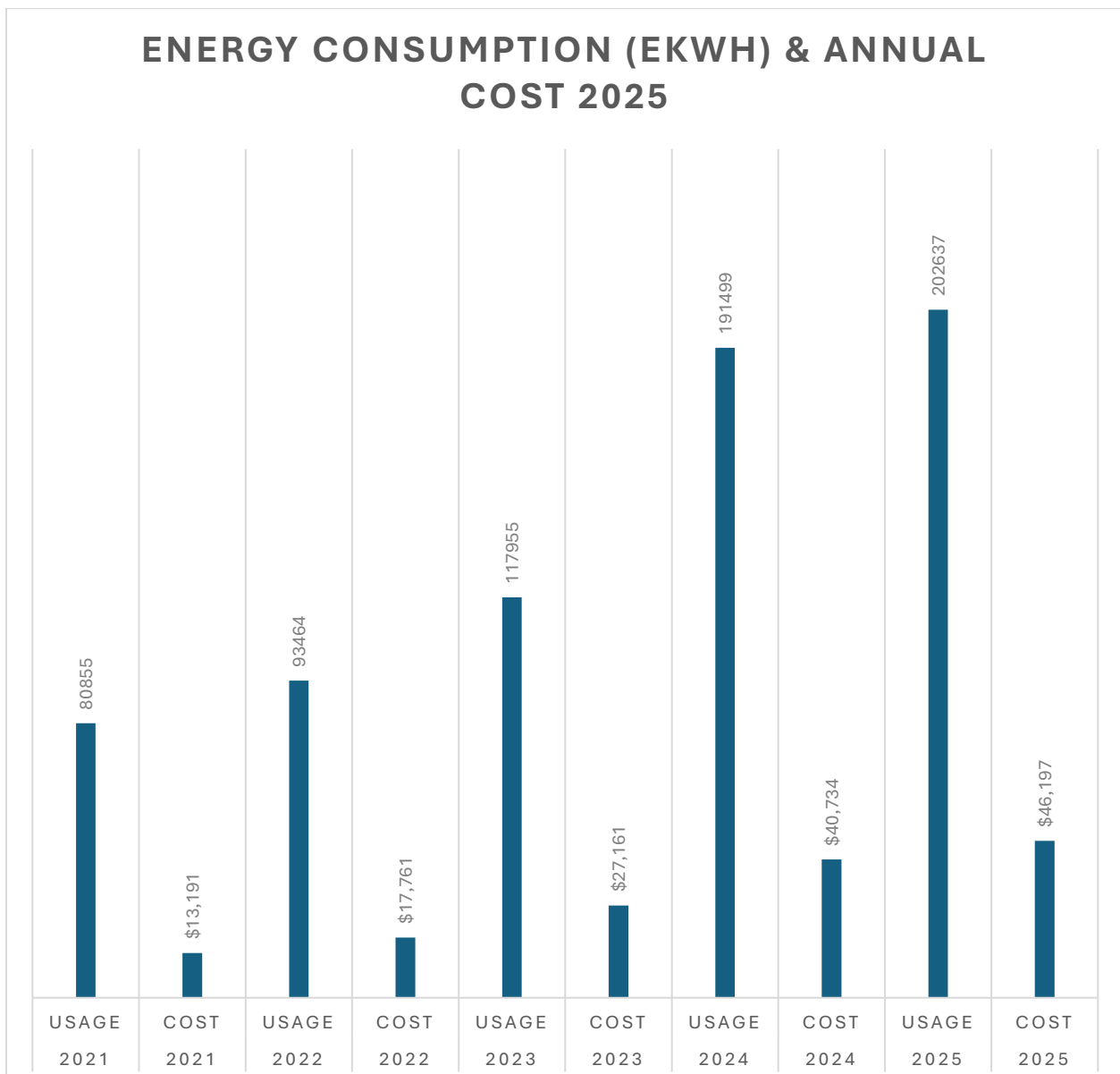
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Well #4
550 Main Street East
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
134.7	8759	Electricity: Hydro One

Electricity (\$/hr): 5.27 – Usage YOY +4.2%





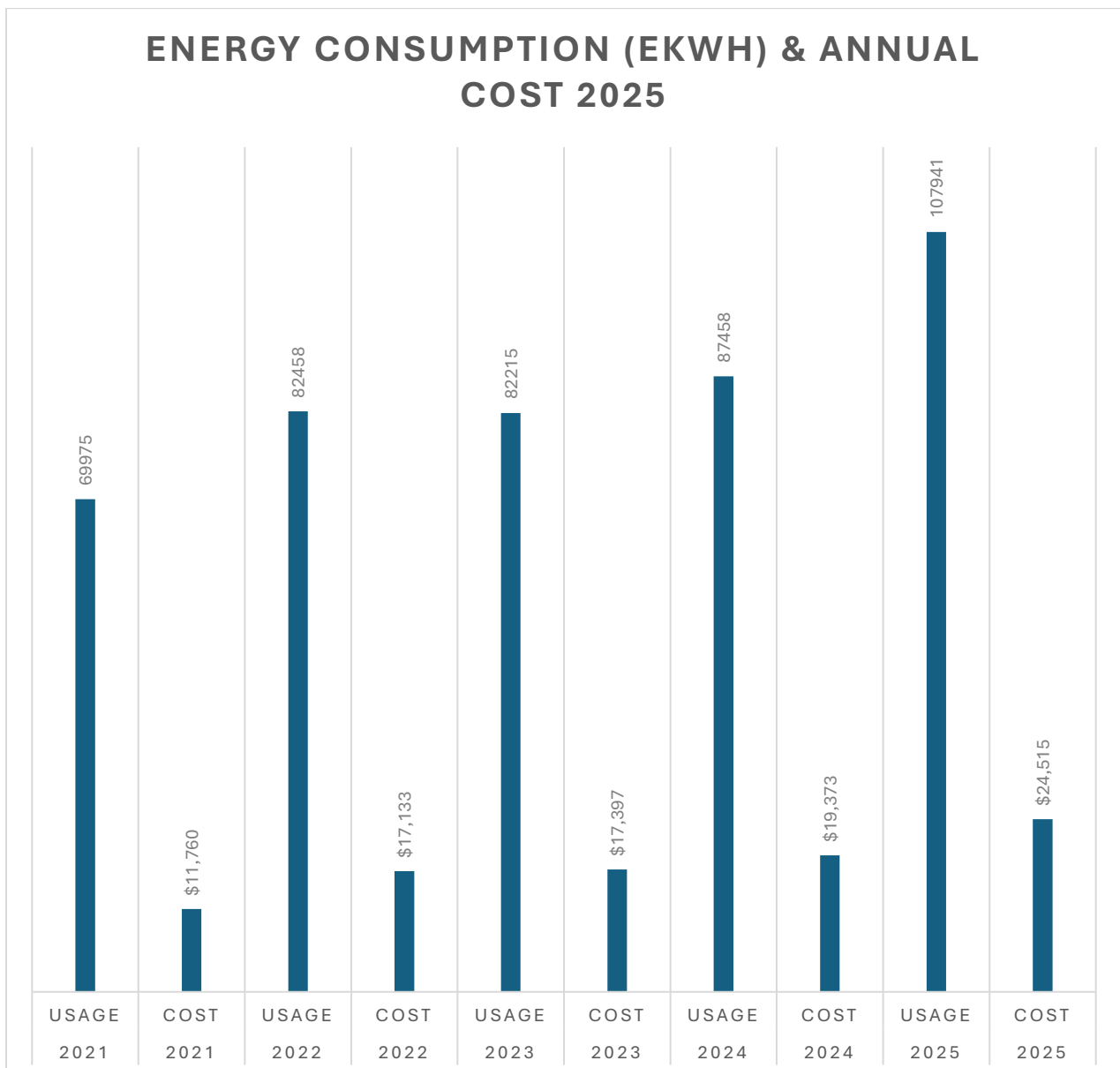
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Well #5
250 Hagen Street East
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
202.3	8760	Electricity: Hydro One

Electricity (\$/hr): 2.80 – Usage YOY +23.4%





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VanDusen Pumping Station
446 VanDusen Avenue
Dundalk ON
N0C 1B0

Gross Floor Area (m ²)	Annual Operating Hours	Energy Service Provider
160	8760	Electricity: Hydro One
		Natural Gas: Enbridge

Electricity (\$/hr): 0.73

Propane/Natural Gas (\$/hr): 0.17

