

Whakatane District Council

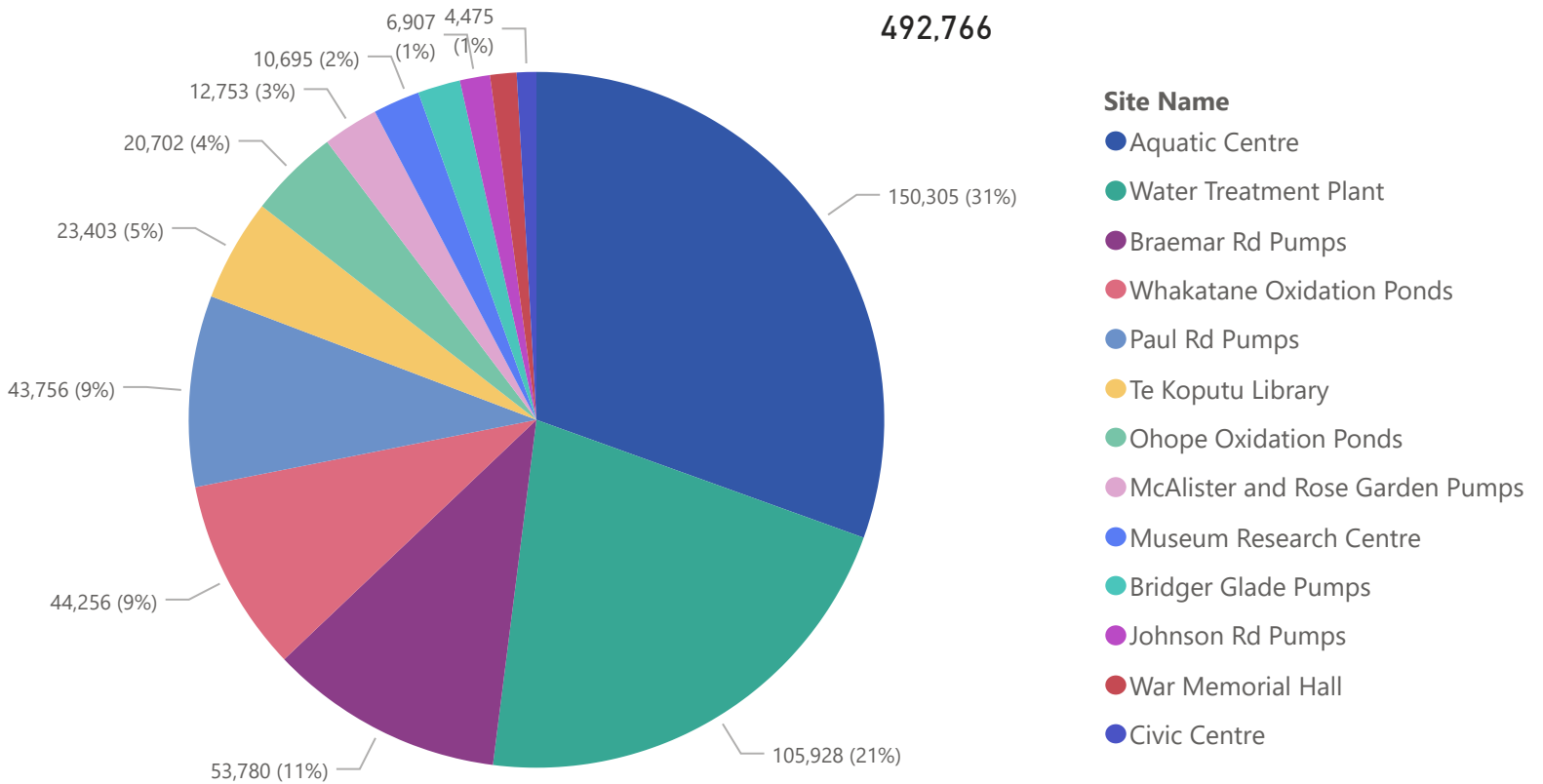
Summary

<p>\$7,101</p> <p>Monthly Energy Cost Savings</p>	<p>29,061</p> <p>Elec. Savings (kWh/mo)</p>	<p>6%</p> <p>Elec. Savings (%)</p>	<p>353,420</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>7,482</p> <p>CO2e Savings (kg/mo)</p>
<p>\$116,479</p> <p>R12M Energy Cost Savings</p>	<p>17,756</p> <p>Gas. Savings (kWh/mo)</p>	<p>38%</p> <p>Gas. Savings (%)</p>	<p>691,993</p> <p>R12M Gas Savings (kWh/yr)</p>	<p>196,172</p> <p>R12M CO2e Savings (kg/yr)</p>

Total Energy (kWh/Month)

Total Energy Used for the Month (kWh)

492,766

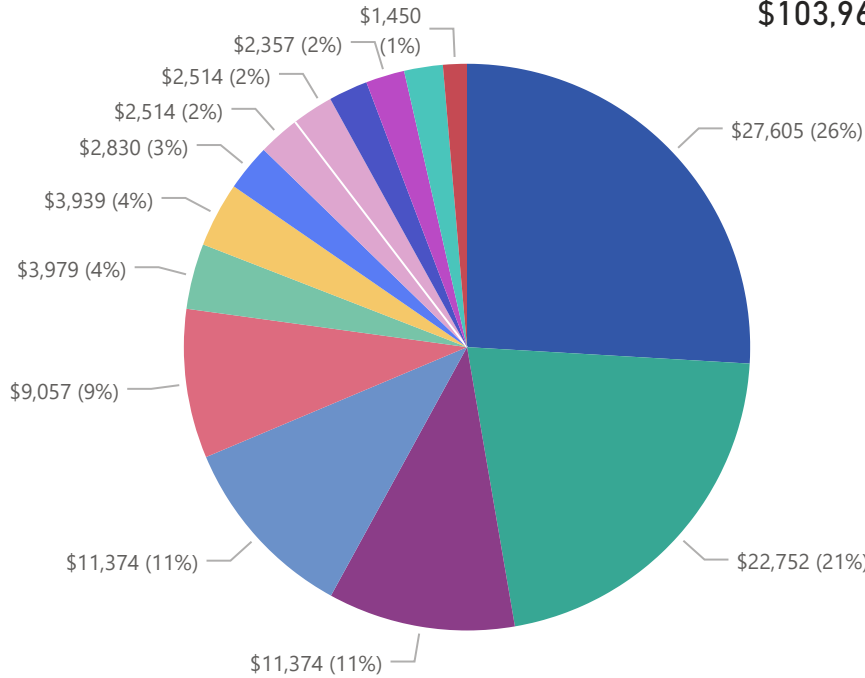


Whakatane District Council Summary

Energy Cost (\$/Month)

Energy Cost for the Month (\$)

\$103,962



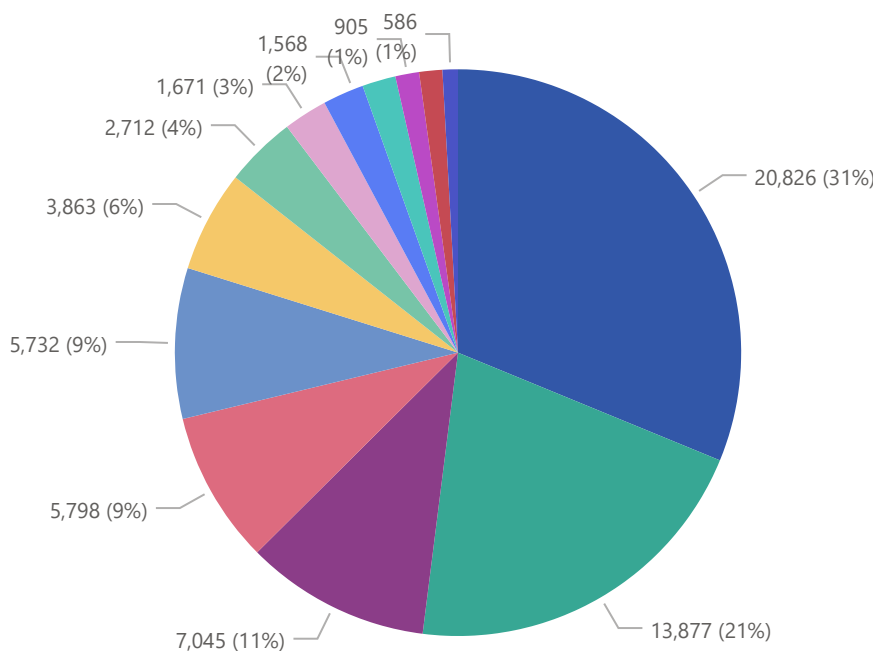
Site Name

- Aquatic Centre
- Water Treatment Plant
- Braemar Rd Pumps
- Paul Rd Pumps
- Whakatane Oxidation Ponds
- Ohope Oxidation Ponds
- Te Koputu Library
- Museum Research Centre
- McAlister and Rose Garden Pumps
- Civic Centre
- Johnson Rd Pumps
- Bridger Glade Pumps
- War Memorial Hall

Carbon Emissions (kgCO2e/Month)

Carbon Emissions for the Month (kgCO2e)

66,741

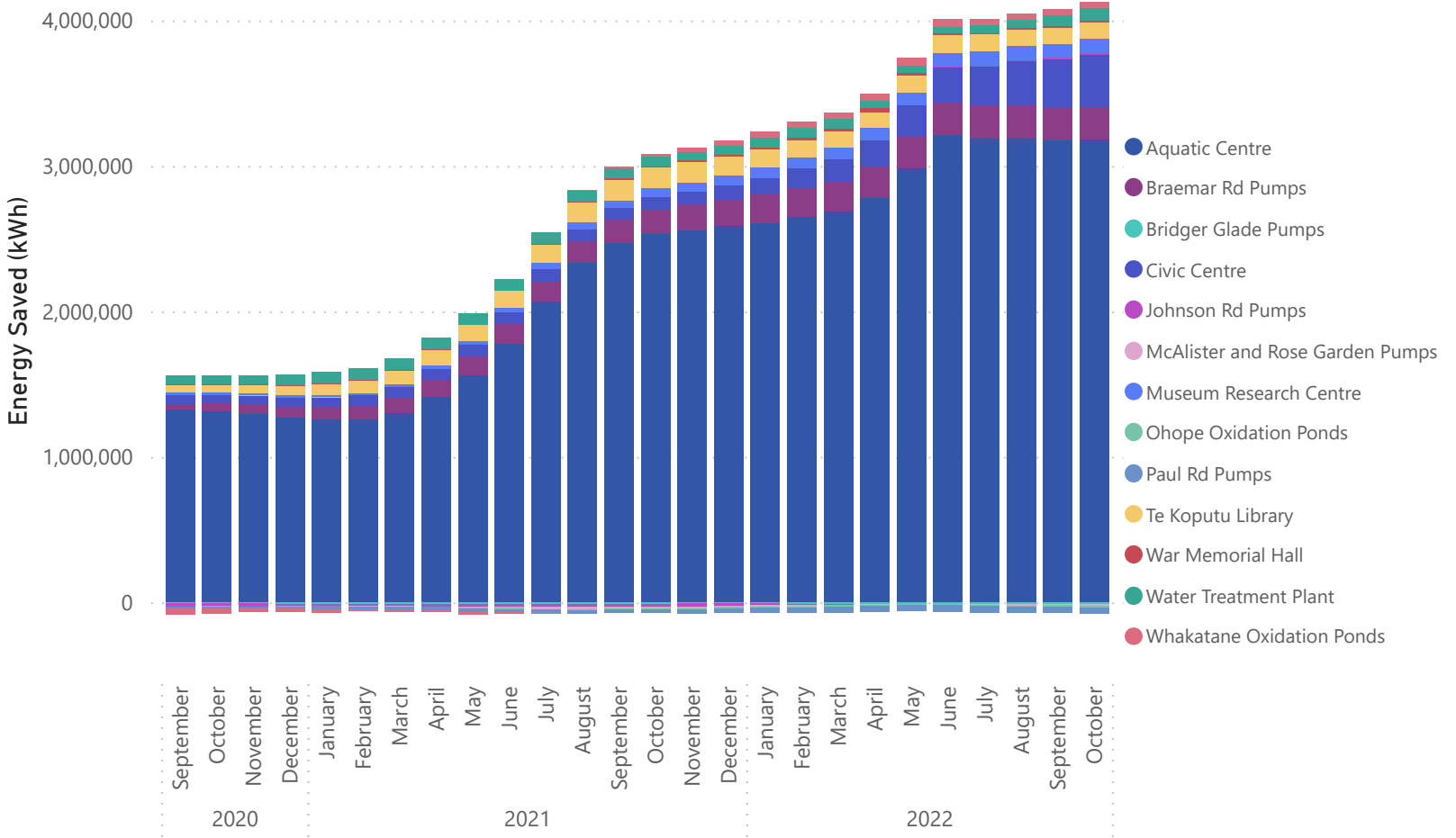


Site Name

- Aquatic Centre
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- Braemar Rd Pumps
- Whakatane Oxidation Ponds
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- War Memorial Hall
- Civic Centre

Whakatane District Council Summary

Cumulative Energy Savings (kWh)



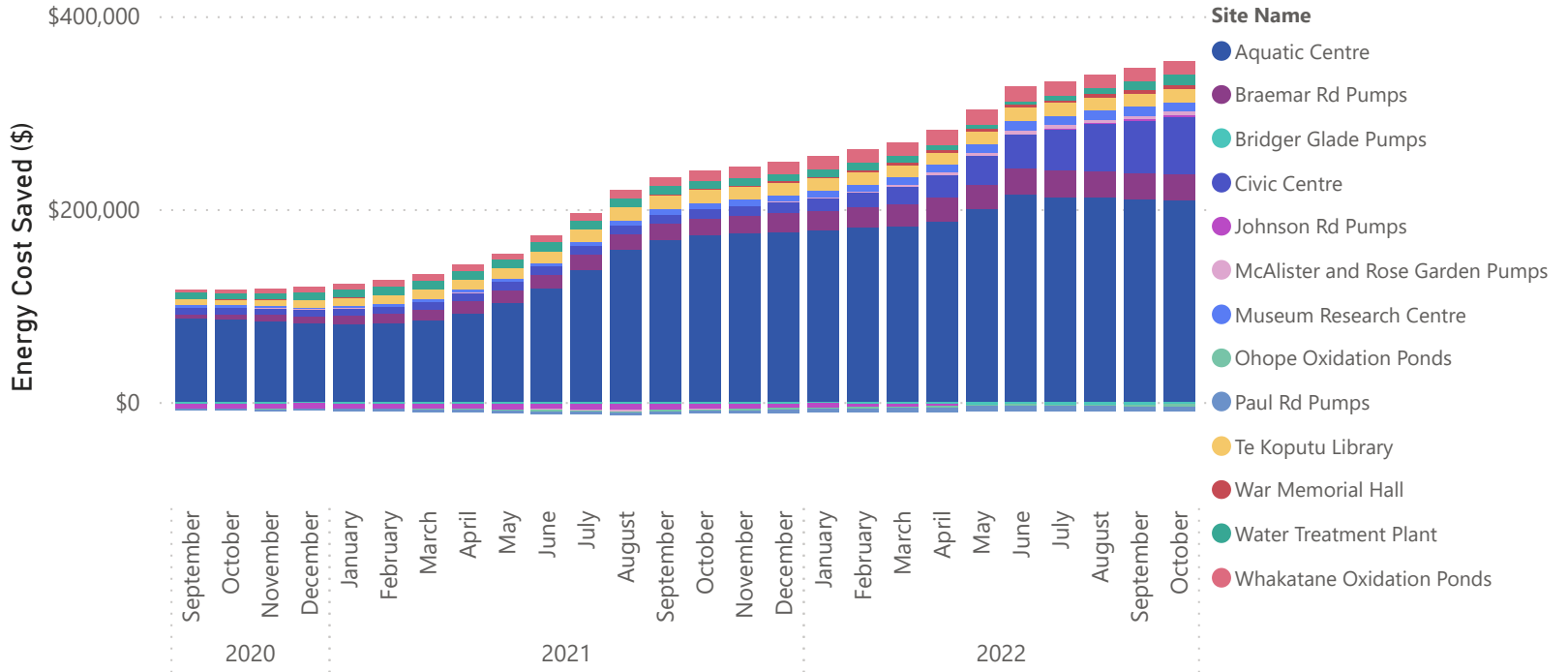
Note, cumulative savings are calculated starting July 2018

Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

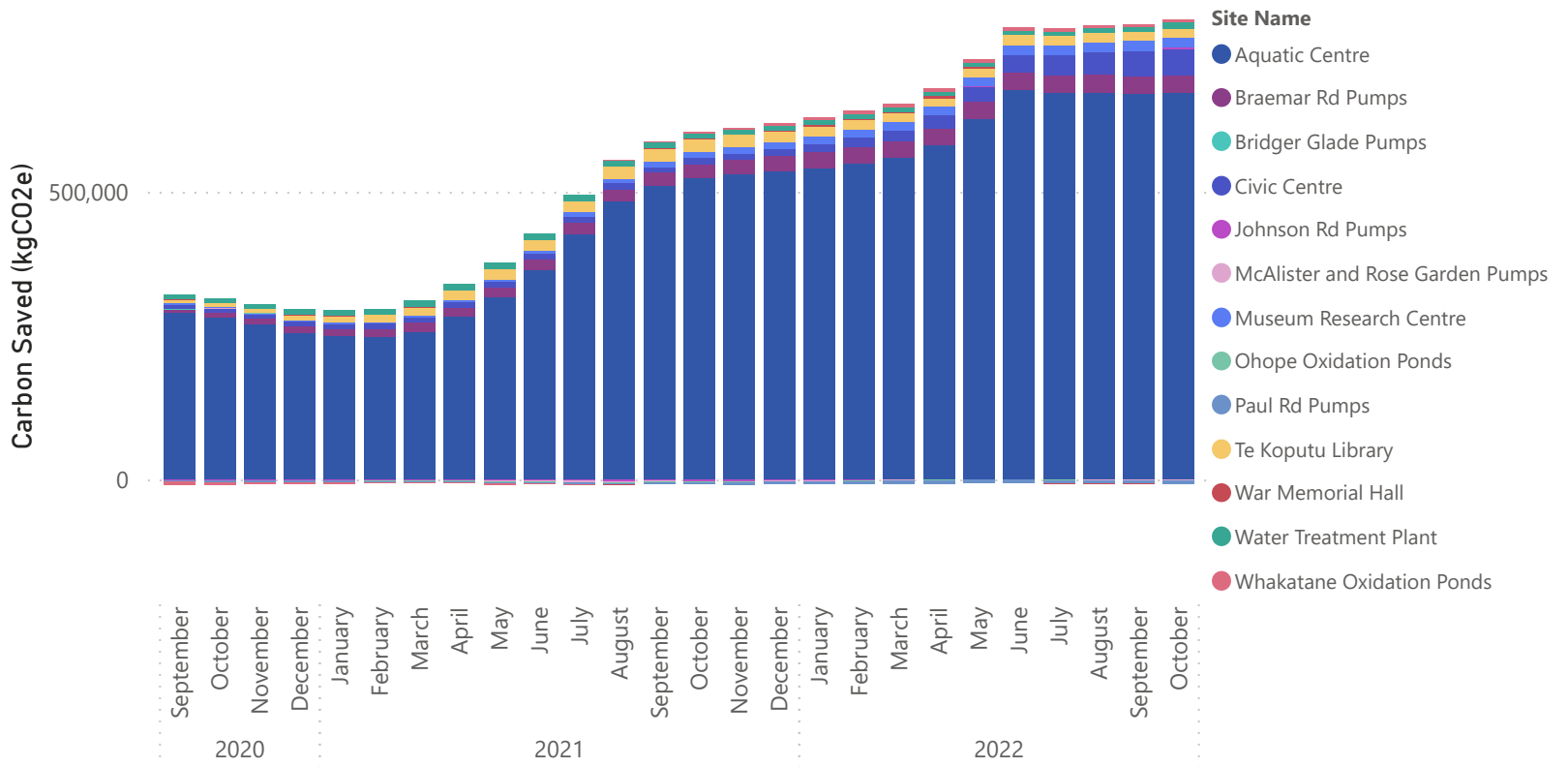
Summary

Cumulative Energy Cost Savings (\$)



Note, cumulative savings are calculated starting July 2018

Cumulative Carbon Savings (kgCO2e)



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council Civic Centre

<p>\$4,537 Monthly Energy Cost Savings</p>	<p>25,702 Elec. Savings (kWh/mo)</p>	<p>85% Elec. Savings (%)</p>	<p>273,390 R12M Electricity Savings (kWh/yr)</p>	<p>3,367 CO2e Savings (kg/mo)</p>
<p>\$50,124 R12M Energy Cost Savings</p>				<p>35,210 R12M CO2e Savings (kg/yr)</p>

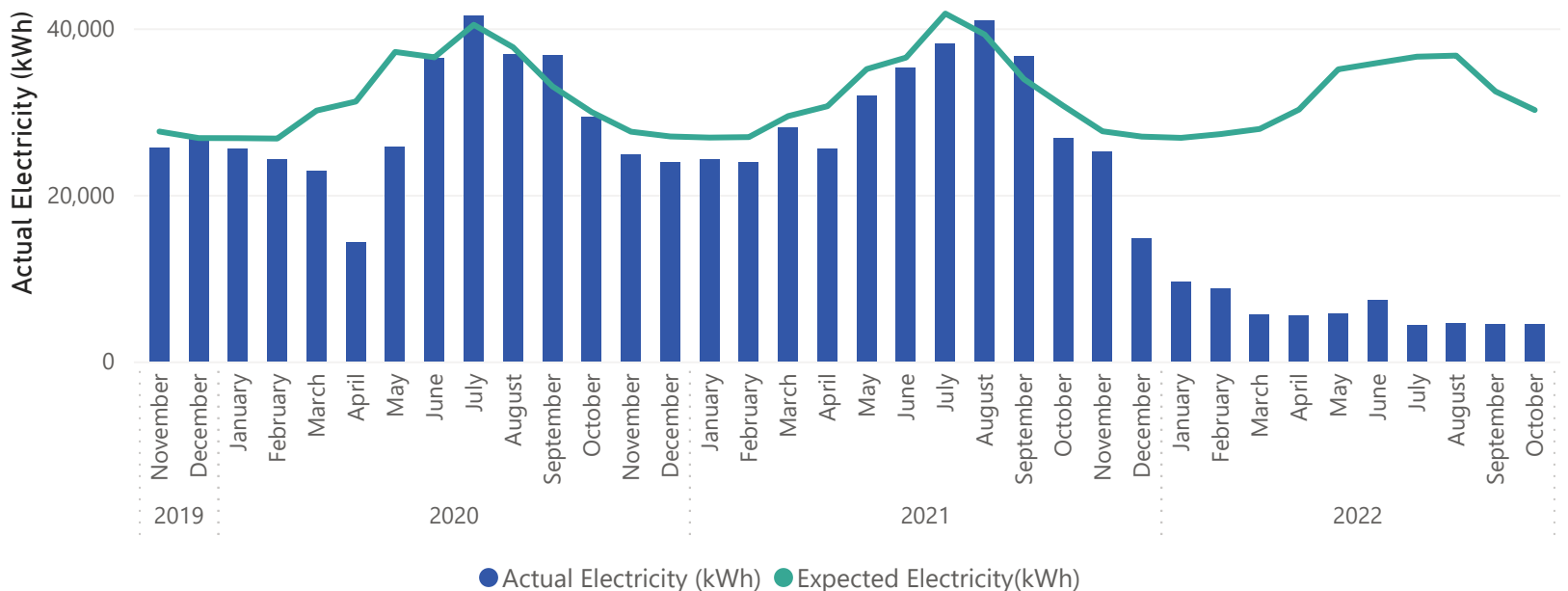
Comments:

The baseline for the Civic Centre has been updated, the baseline period was selected as Dec-2020 to Nov-2021, in order to exclude months where refurbishment was taking place.

Electricity use continues to be less than baseline for 2022, the Civic Centre renovation has displaced many office workers, which has decreased electricity demand.

Electric vehicle charging stations have been in use from March 2021, non-routine adjustments are on-going to account for the increased electricity use.

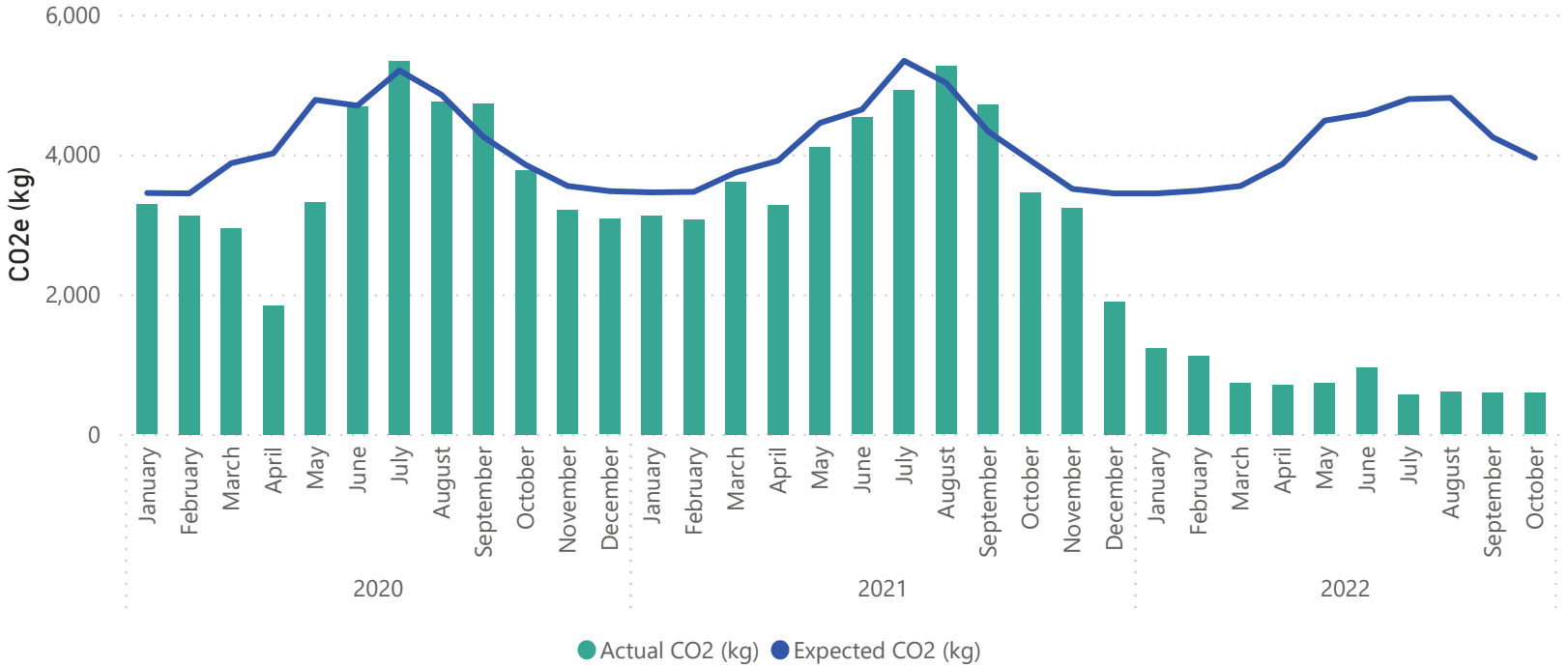
Civic Centre Electricity Use Compared to Baseline (kWh)



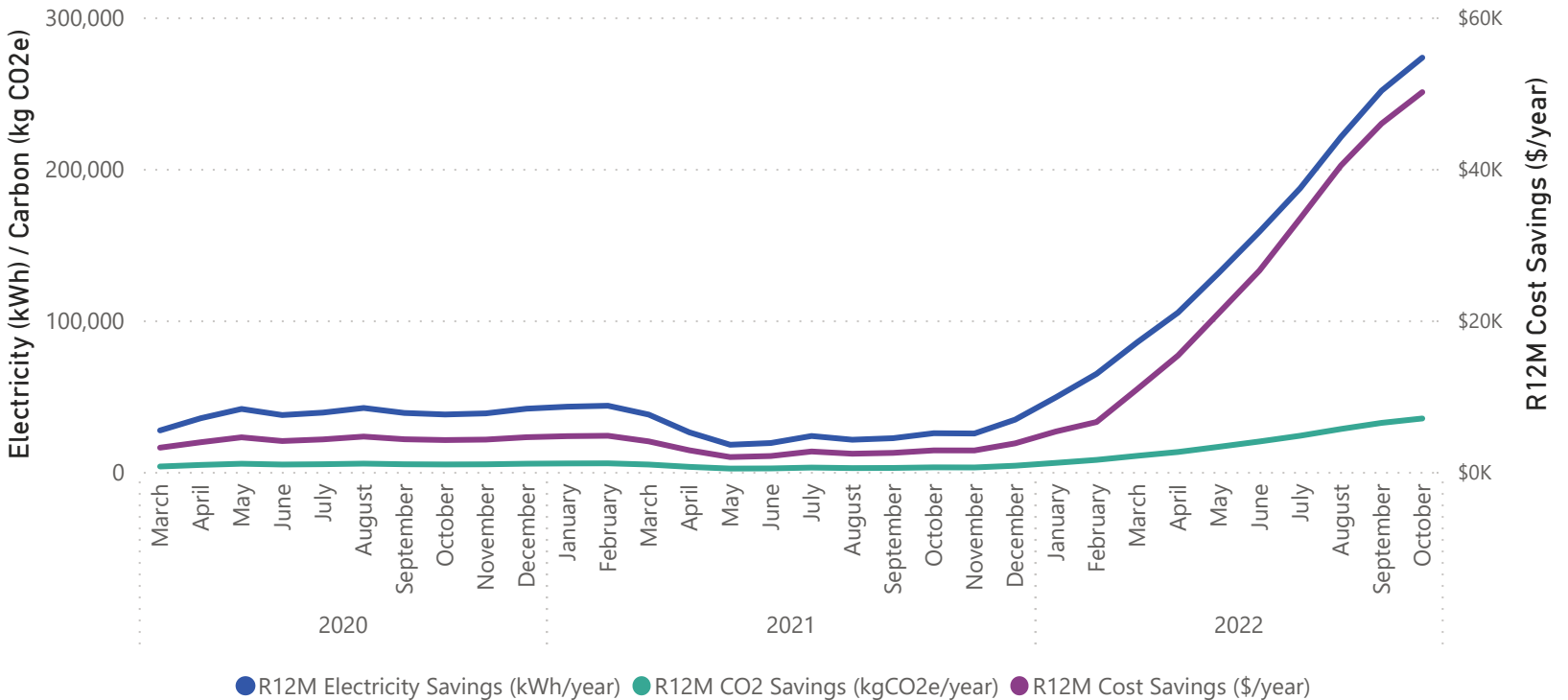
Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council Civic Centre

Civic Centre Carbon Emissions Compared to Baseline (kg CO2e)



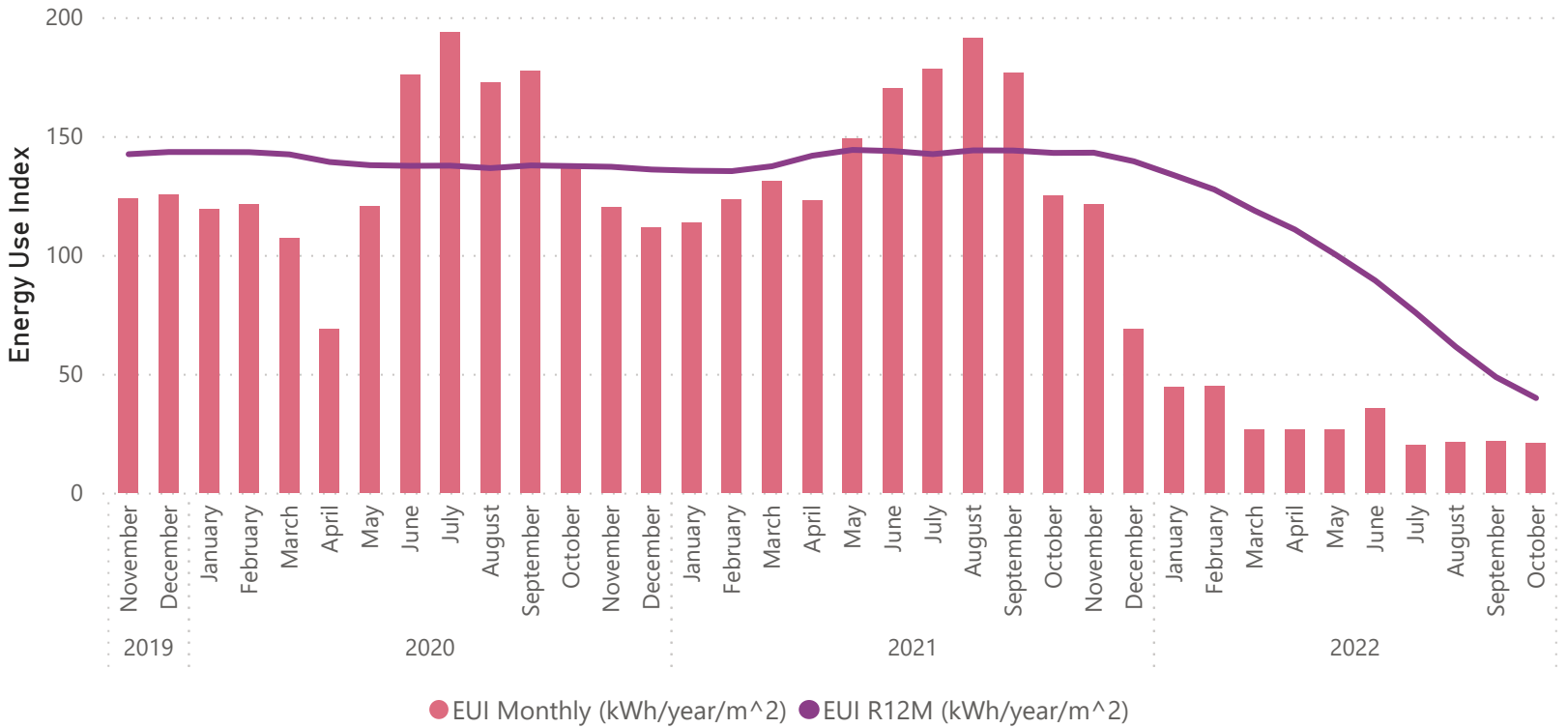
Civic Centre Rolling 12 Month Savings



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council Civic Centre

Civic Centre Energy Use Index by Month Compared to Rolling 12-Month Values



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

Aquatic Centre

<p>-\$572</p> <p>Monthly Energy Cost Savings</p>	<p>-9,808 -8% -76,855</p> <p>Elec. Savings (kWh/mo) Elec. Savings (%) R12M Electricity Savings (kWh/yr)</p>			<p>1,927</p> <p>CO2e Savings (kg/mo)</p>
<p>\$36,755</p> <p>R12M Energy Cost Savings</p>	<p>15,518 51% 722,381</p> <p>Gas. Savings (kWh/mo) Gas. Savings (%) R12M Gas Savings (kWh/yr)</p>			<p>146,981</p> <p>R12M CO2e Savings (kg/yr)</p>

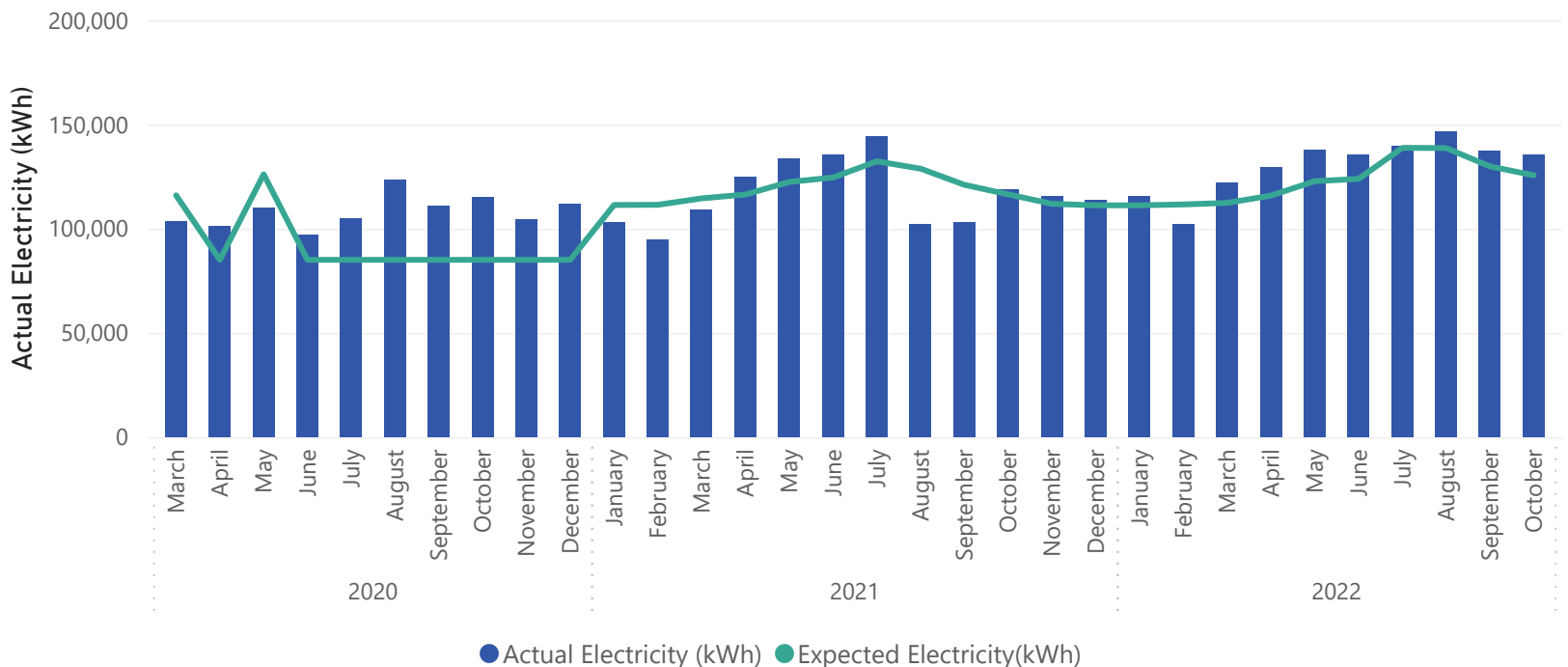
Comments:

Electricity and natural gas baselines have been updated for the Aquatic Centre, the baseline period is May 2021 to June 2022 and excludes Aug. and Sept. 2021 due to changes in Covid-19 alert levels and partial closure. The outdoor pool is open year-round and the baseline reflects this change.

Electricity use was higher than expected in October 2022 and natural gas use was less than expected. The EUI for the month is slightly lower than the average for the past 12 months.

Rolling 12 month savings are decreasing and will continue to decrease as a result from savings being measured against the new baseline. Savings can be increased by implementing new energy saving initiatives.

Aquatic Centre Electricity Use Compared to Baseline (kWh)

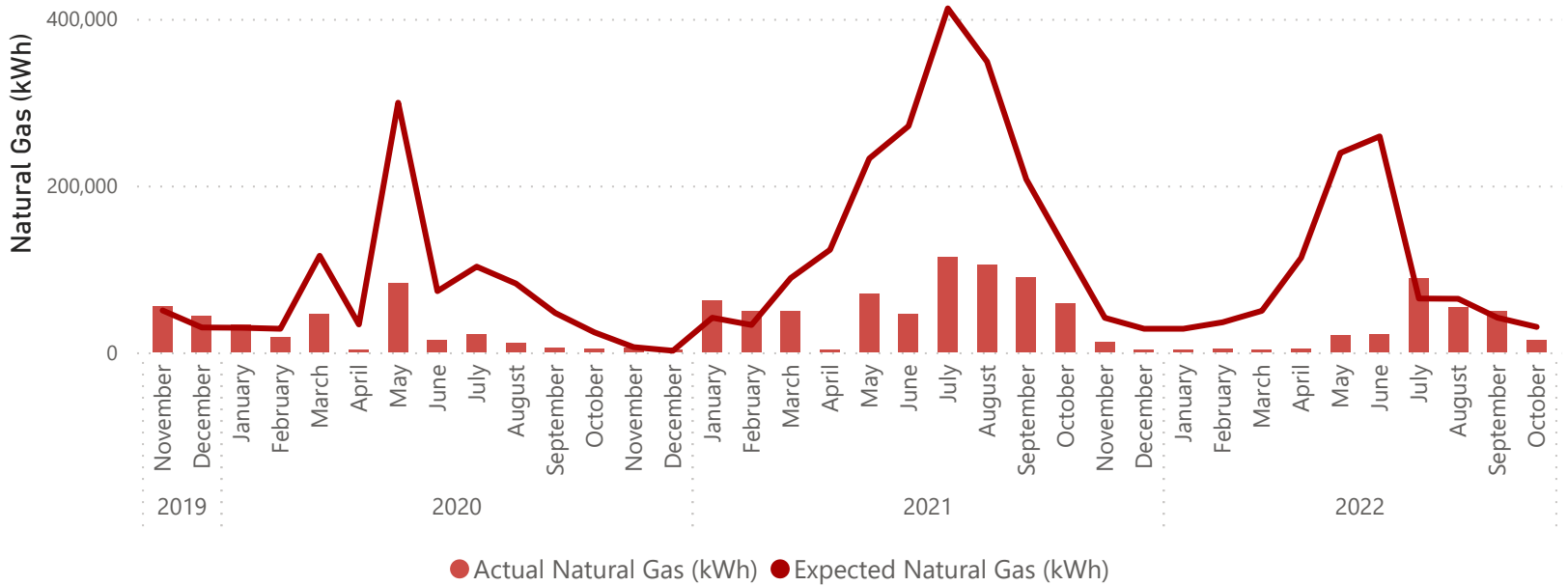


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

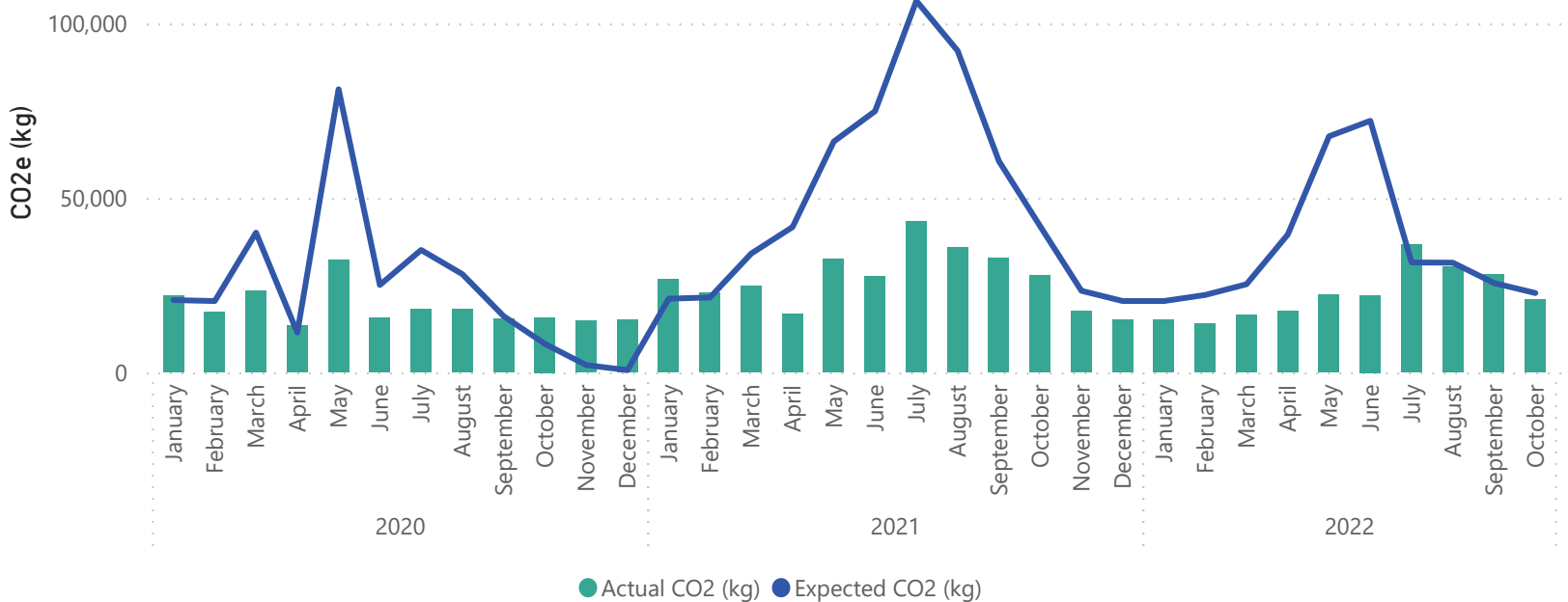
Whakatane District Council

Aquatic Centre

Aquatic Centre Natural Gas Compared to Baseline (kWh)



Aquatic Centre Carbon Emissions Compared to Baseline (kg CO2e)

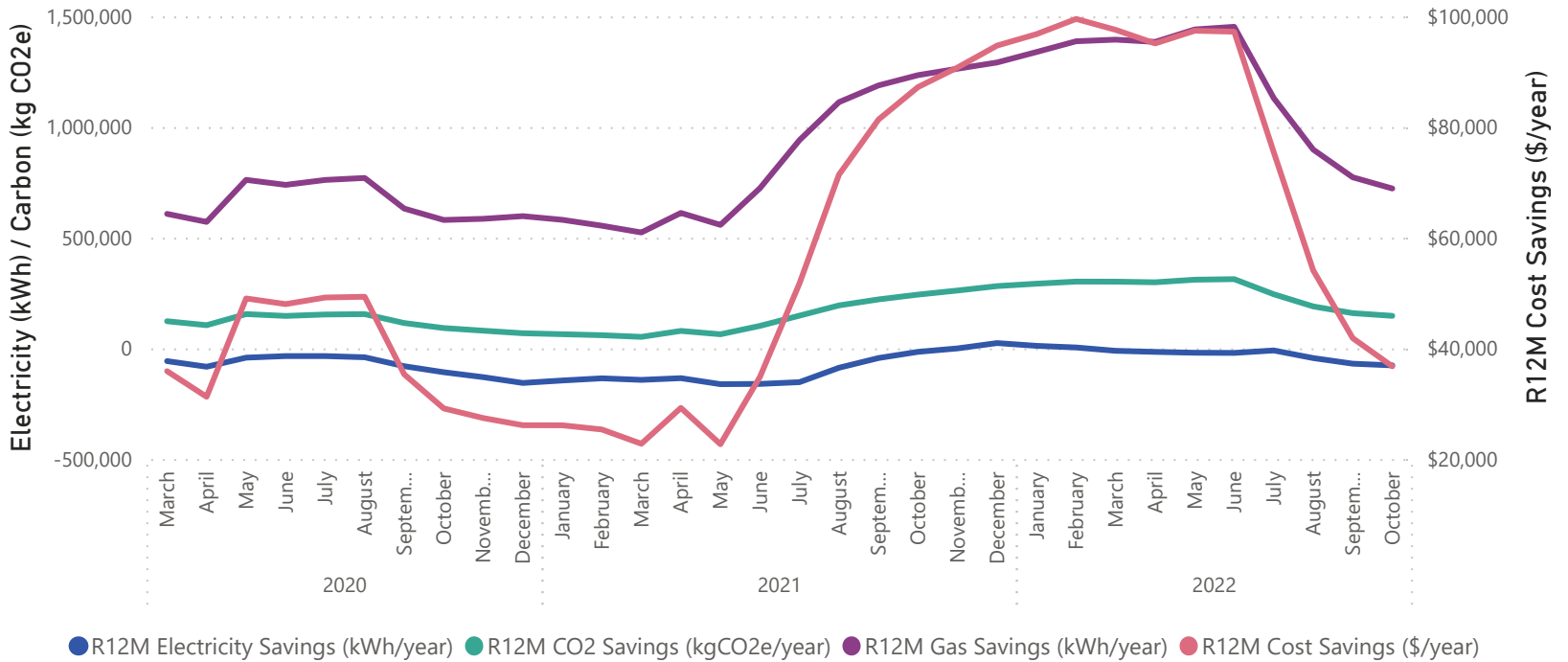


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

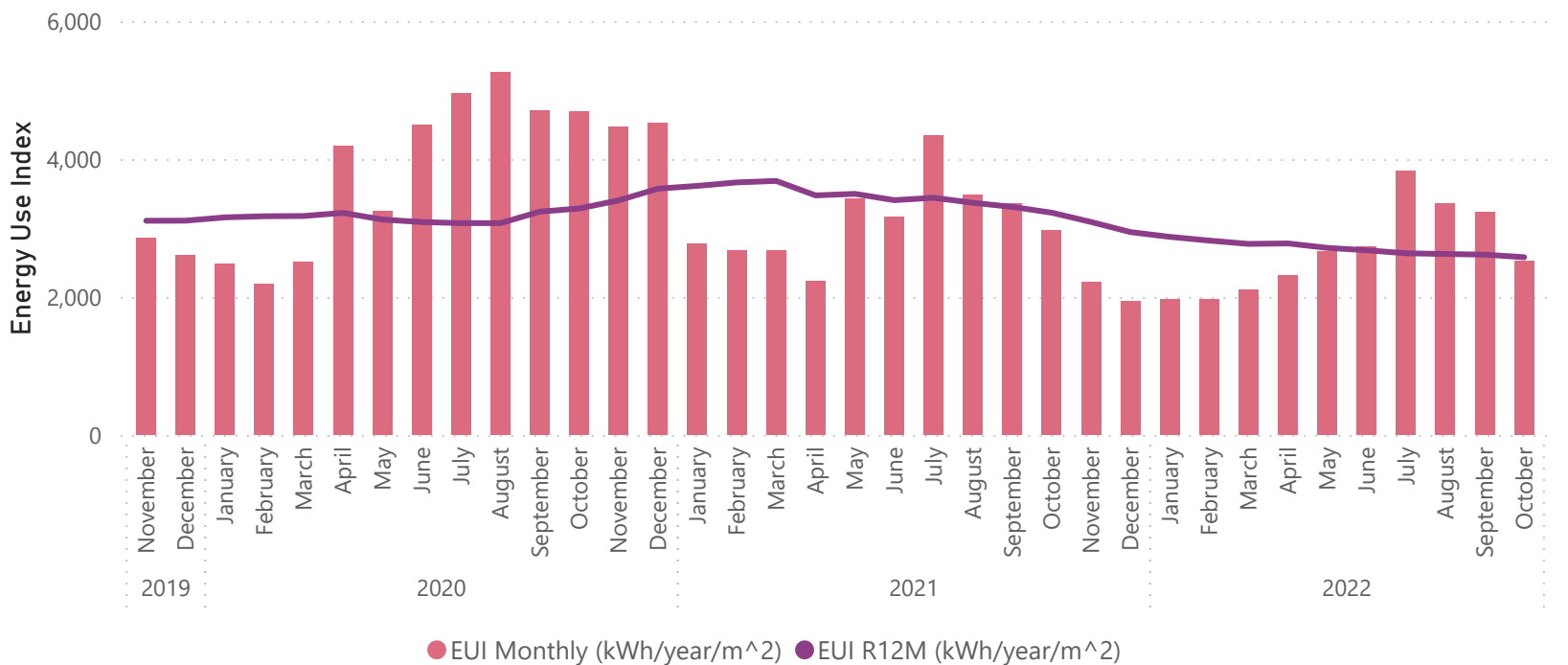
Whakatane District Council

Aquatic Centre

Aquatic Centre Rolling 12 Month Savings



Aquatic Centre Energy Use Index by Month Compared to Rolling 12-Month Values



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

Te Koputu Library

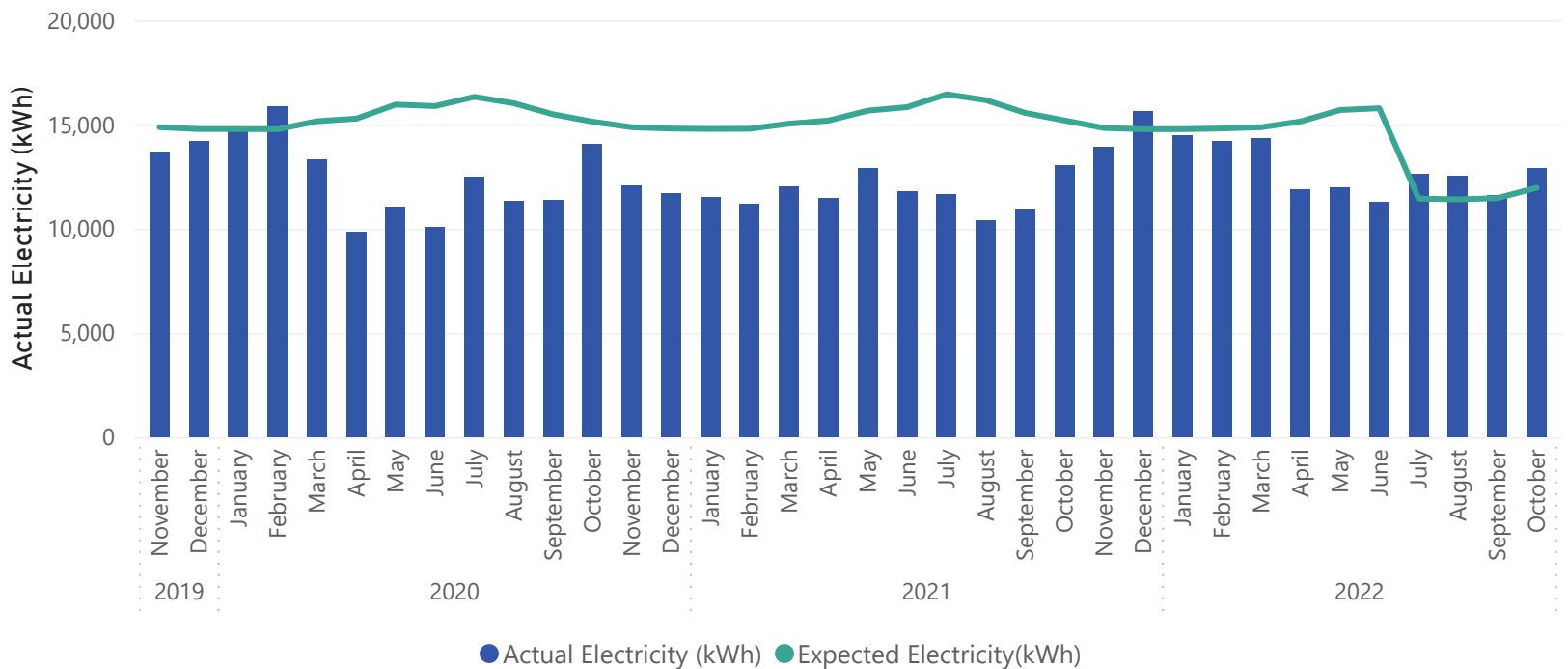
<p>-\$166 Monthly Energy Cost Savings</p>	<p>-953 Elec. Savings (kWh/mo)</p>	<p>-8% Elec. Savings (%)</p>	<p>9,550 R12M Electricity Savings (kWh/yr)</p>	<p>-102 CO2e Savings (kg/mo)</p>
<p>-\$910 R12M Energy Cost Savings</p>	<p>111 Gas. Savings (kWh/mo)</p>	<p>1% Gas. Savings (%)</p>	<p>-41,222 R12M Gas Savings (kWh/yr)</p>	<p>-7,606 R12M CO2e Savings (kg/yr)</p>

Comments:

New baselines were established for electricity and natural gas at the Library, the baseline period is July 2021 to June 2022 and use cooling degree days as the independent variable.

Electricity use was above baseline for the month, likely due to significant dehumidification loads.

Te Koputu Library Electricity Use Compared to Baseline (kWh)

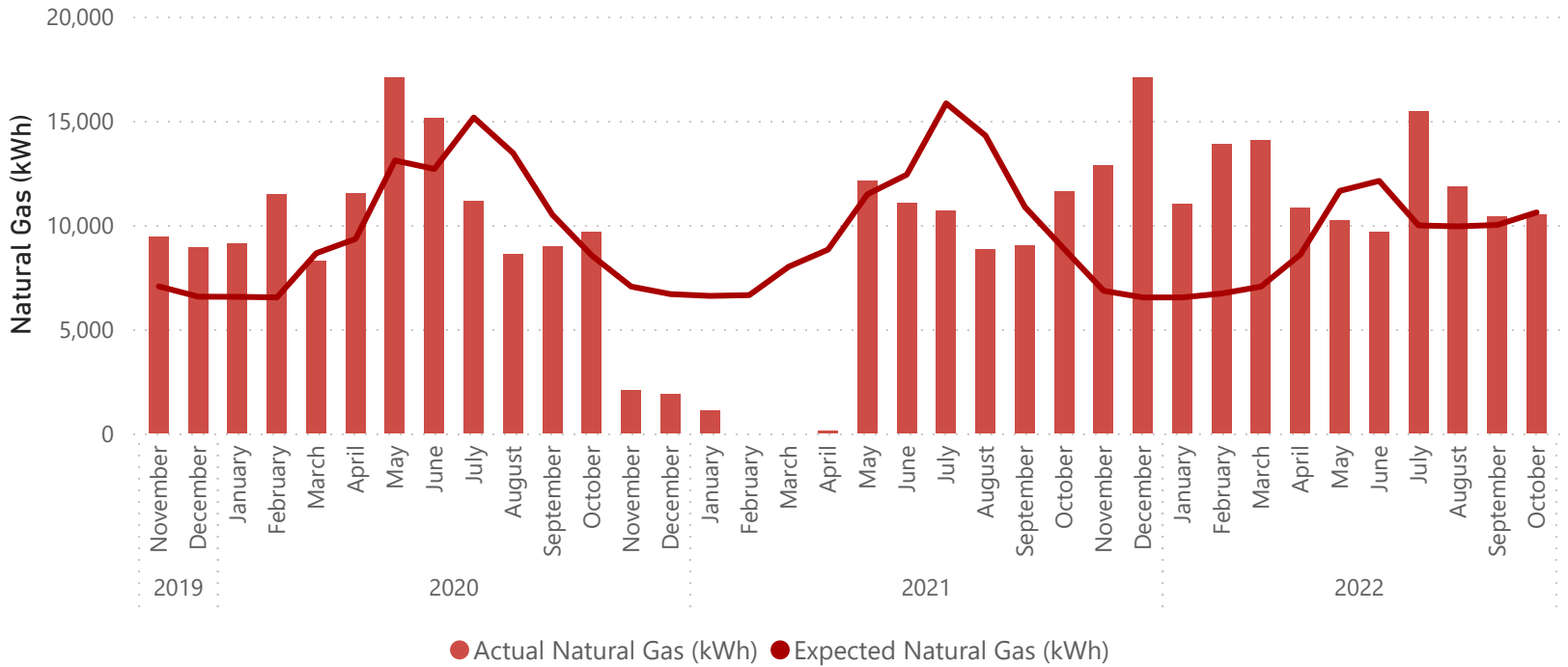


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

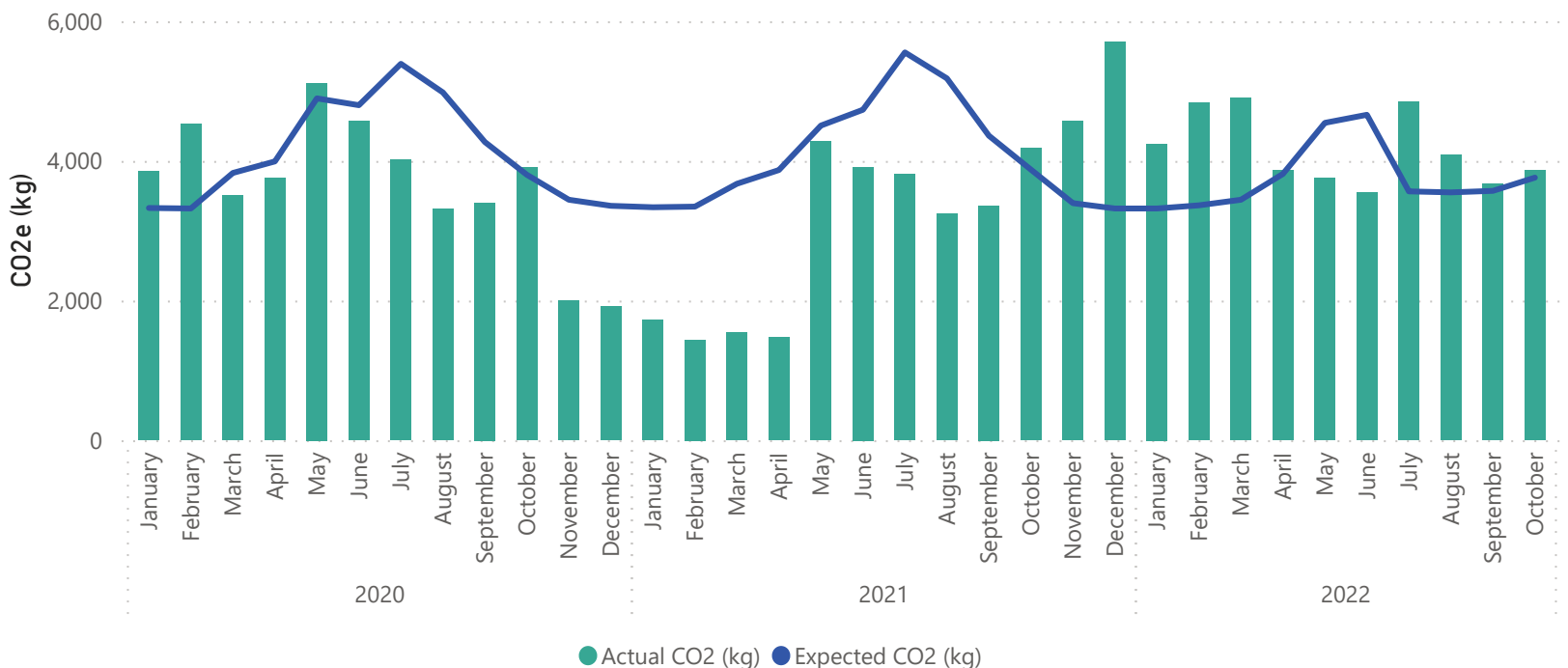
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Te Koputu Library

Te Koputu Library Natural Gas Compared to Baseline (kWh)



Te Koputu Library Carbon Emissions Compared to Baseline (kg CO2e)

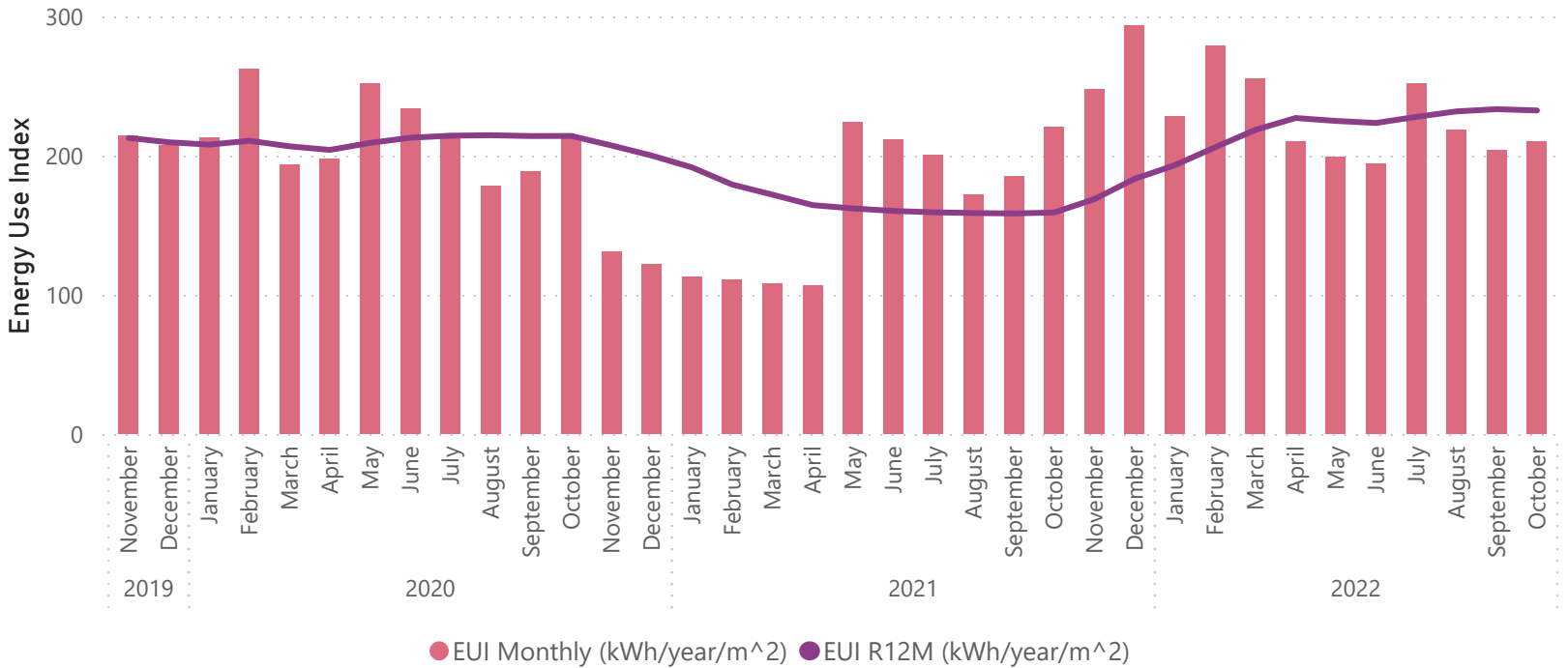


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

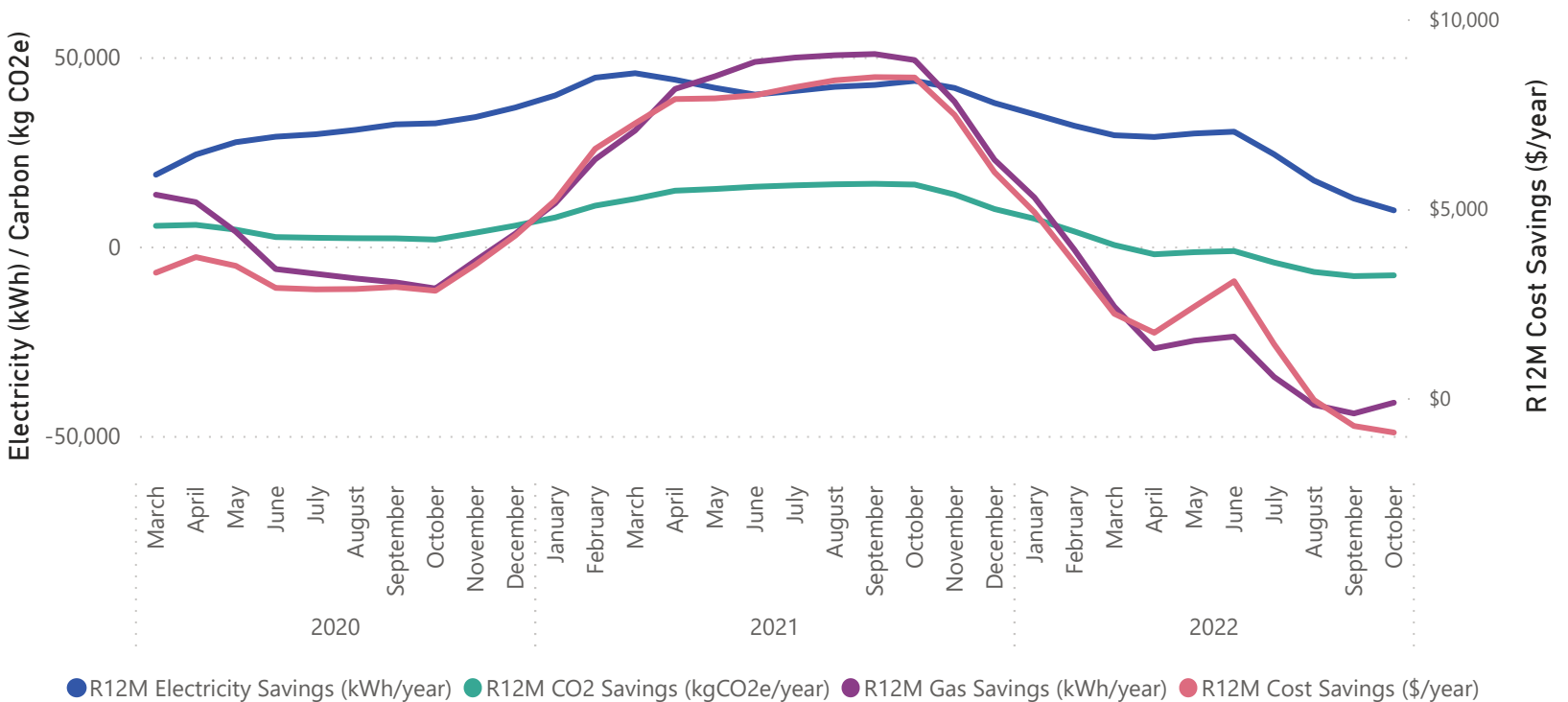
Whakatane District Council

Te Koputu Library

Te Koputu Library Energy Use Index by Month Compared to Rolling 12-Month Values



Te Koputu Library Rolling 12 Month Savings



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

Museum and Research Centre

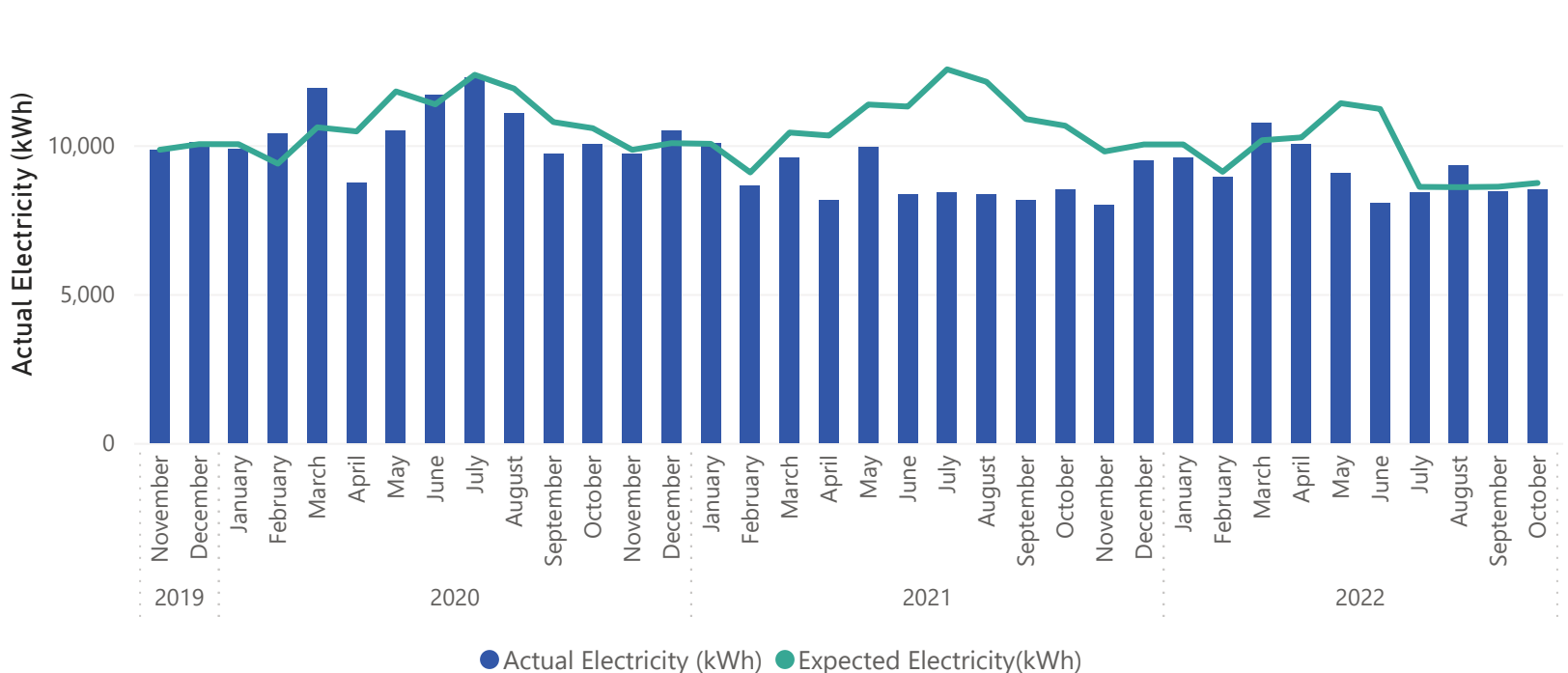
<p>\$94</p> <p>Monthly Energy Cost Savings</p>	<p>228</p> <p>Elec. Savings (kWh/mo)</p>	<p>3%</p> <p>Elec. Savings (%)</p>	<p>7,911</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>177</p> <p>CO2e Savings (kg/mo)</p>
<p>\$3,604</p> <p>R12M Energy Cost Savings</p>	<p>712</p> <p>Gas. Savings (kWh/mo)</p>	<p>24%</p> <p>Gas. Savings (%)</p>	<p>29,088</p> <p>R12M Gas Savings (kWh/yr)</p>	<p>7,314</p> <p>R12M CO2e Savings (kg/yr)</p>

Comments:

New baselines were established for electricity and natural gas at the Museum and Research Centre, the baseline period is July 2021 to June 2022. The electricity baseline uses cooling degree days as the independent variable and the natural gas baseline uses heating degree days as the independent variable.

Electricity use was slightly less than expected and natural gas achieved good savings for the month. Expected electricity has been relatively flat for the past four months, the number of cooling degree days each month have been similar.

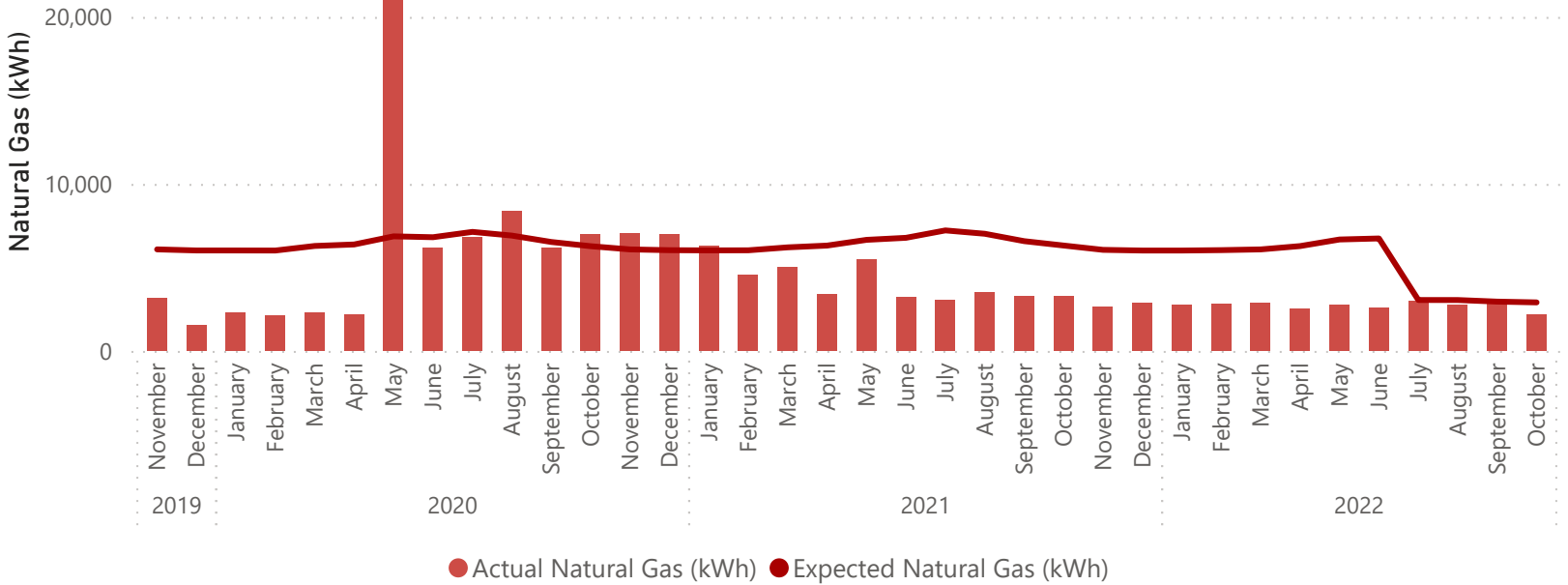
Museum Research Centre Electricity Use Compared to Baseline (kWh)



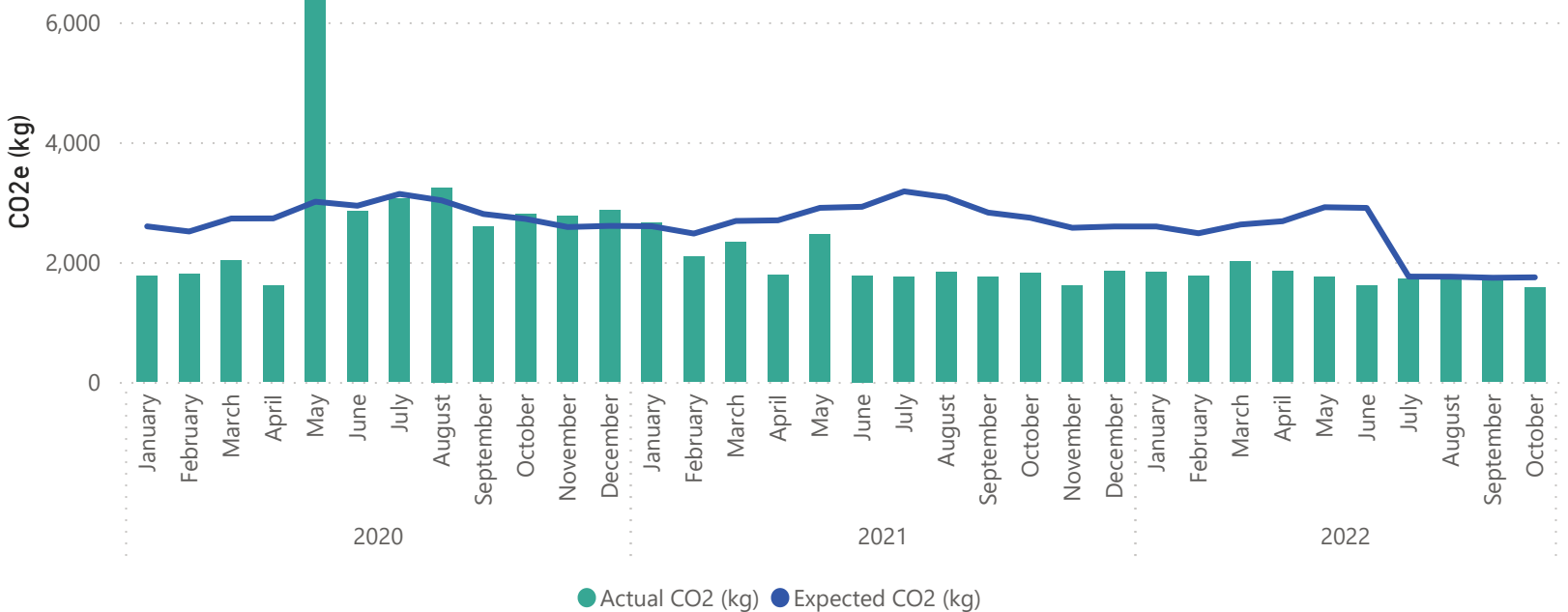
Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council Museum and Research Centre

Museum Research Centre Natural Gas Compared to Baseline (kWh)



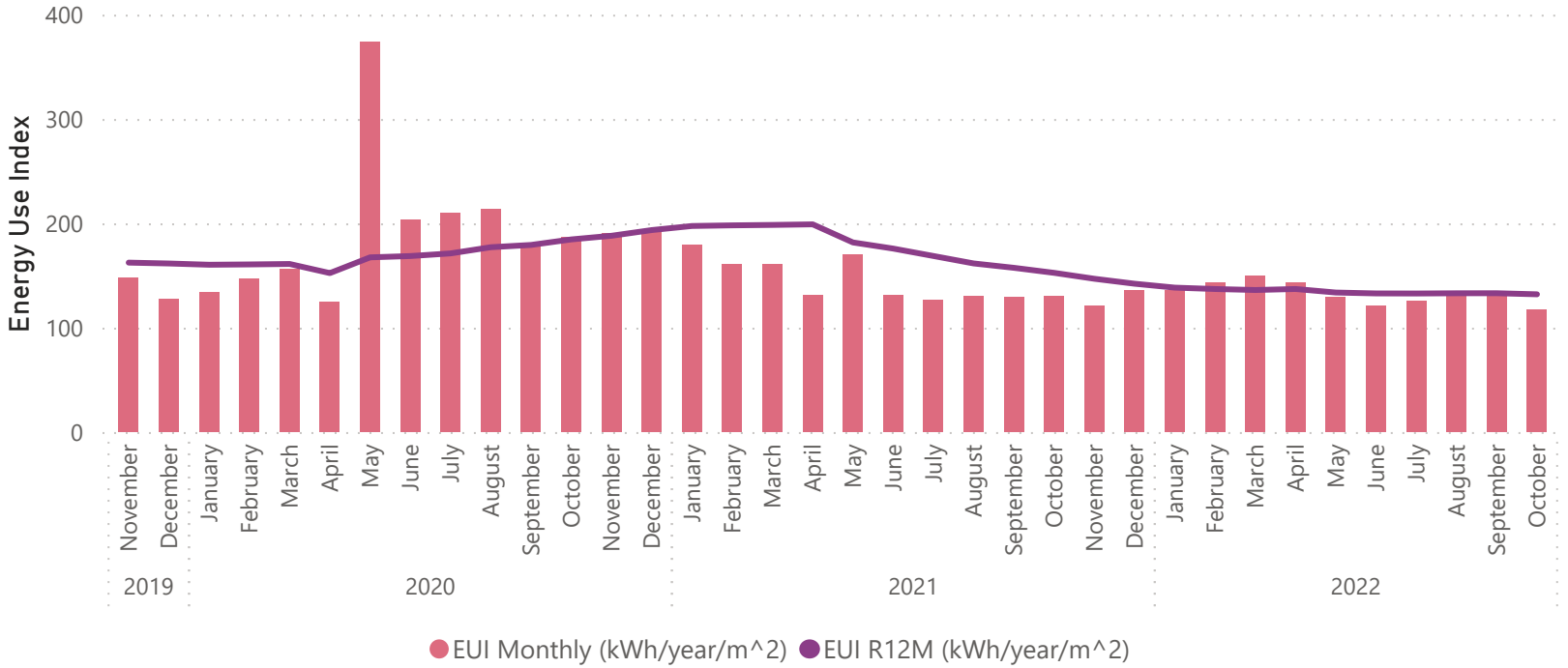
Museum Research Centre Carbon Emissions Compared to Baseline (kg CO2e)



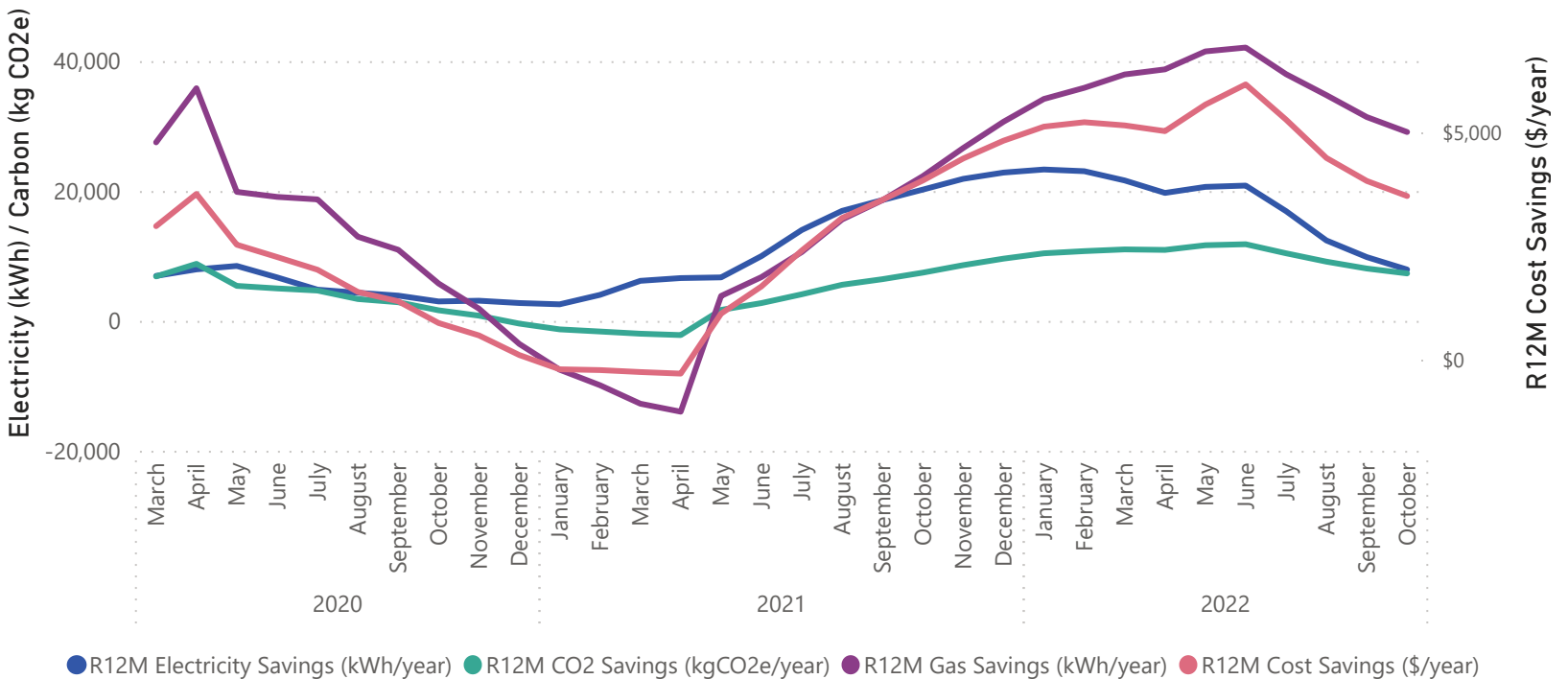
Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council Museum and Research Centre

Museum Research Centre Energy Use Index by Month Compared to Rolling 12-Month Values



Museum Research Centre Rolling 12 Month Savings



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

War Memorial Hall

<p>\$428</p> <p>Monthly Energy Cost Savings</p>	<p>1,777</p> <p>Elec. Savings (kWh/mo)</p>	<p>27%</p> <p>Elec. Savings (%)</p>	<p>23,639</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>526</p> <p>CO2e Savings (kg/mo)</p>
<p>\$2,732</p> <p>R12M Energy Cost Savings</p>	<p>1,416</p> <p>Gas. Savings (kWh/mo)</p>	<p>55%</p> <p>Gas. Savings (%)</p>	<p>-18,254</p> <p>R12M Gas Savings (kWh/yr)</p>	<p>-810</p> <p>R12M CO2e Savings (kg/yr)</p>

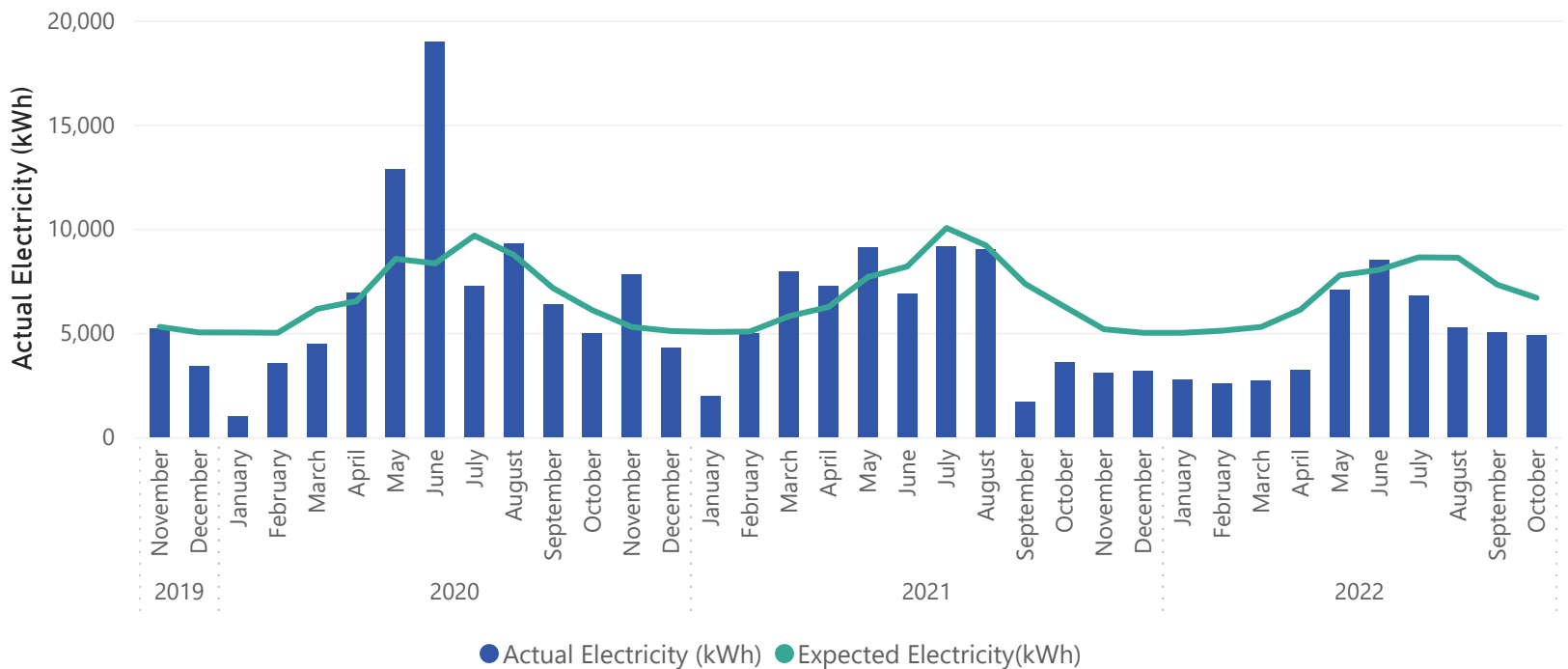
Comments:

The baseline was updated for War Memorial Hall, the baseline adjusts for ambient temperature. The baseline period is July 2021 to June 2022. The War Memorial Hall uses more electricity and gas in winter months.

October 2022 breaks the trend of natural gas use being more than expected, May to September 2022 were more than expected. October 2022 is the fourth month in a row that electricity use has been less than expected.

The War Memorial Hall is on a NHH account, some months' usage may be estimated by the retailer and captured by a subsequent meter reading. It is recommended that manual meter readings are taken, which would improve accuracy of electricity and gas usage.

War Memorial Hall Electricity Use Compared to Baseline (kWh)

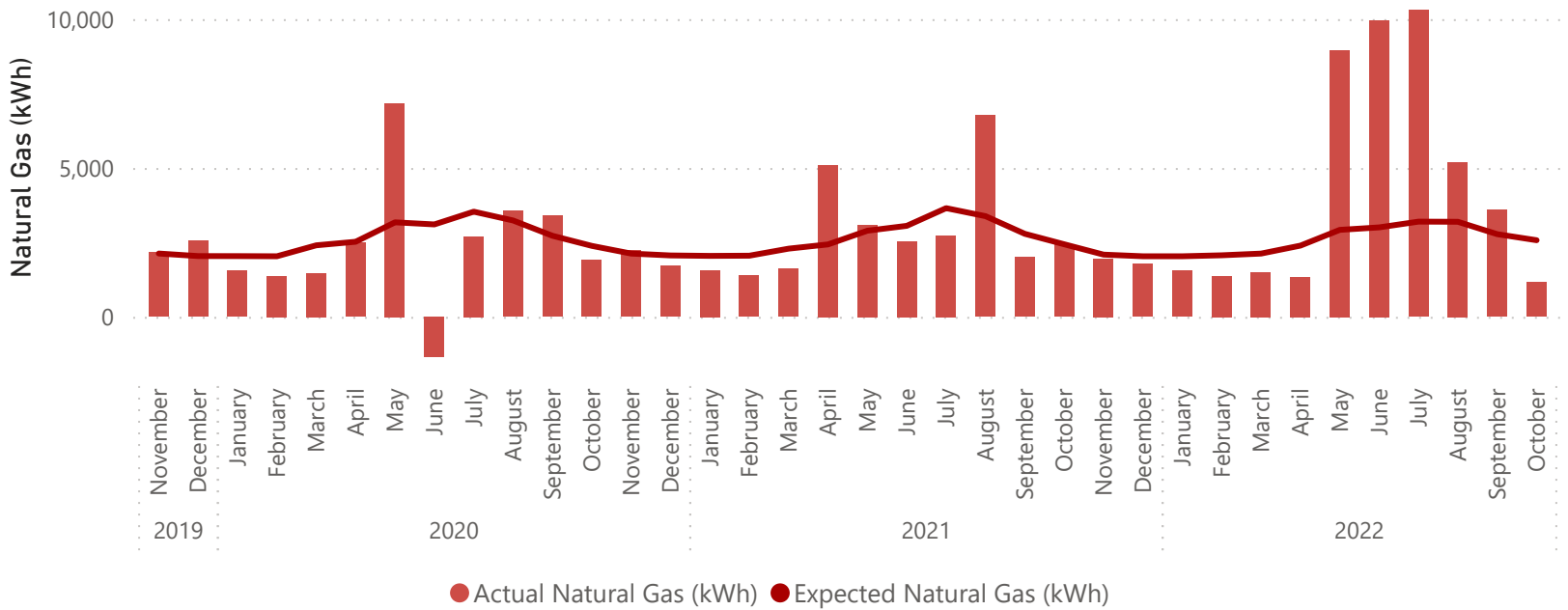


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

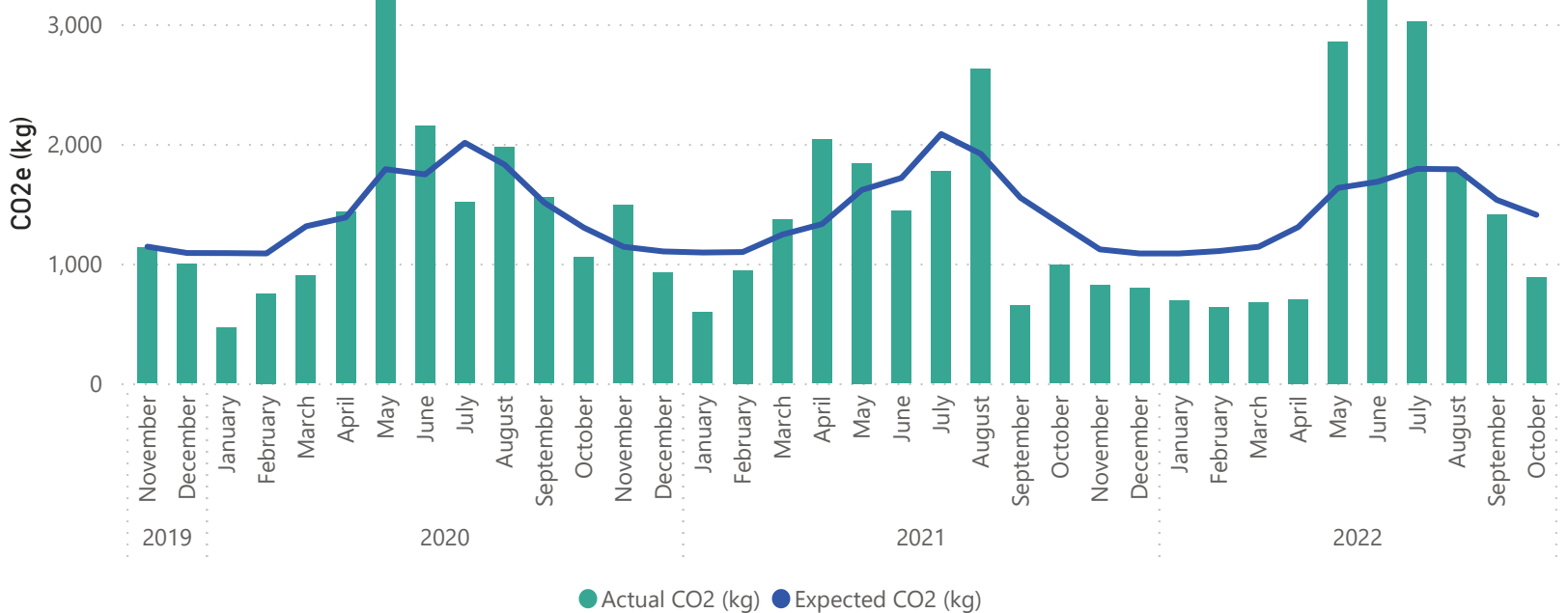
Whakatane District Council

War Memorial Hall

War Memorial Hall Natural Gas Compared to Baseline (kWh)



War Memorial Hall Carbon Emissions Compared to Baseline (kg CO2e)

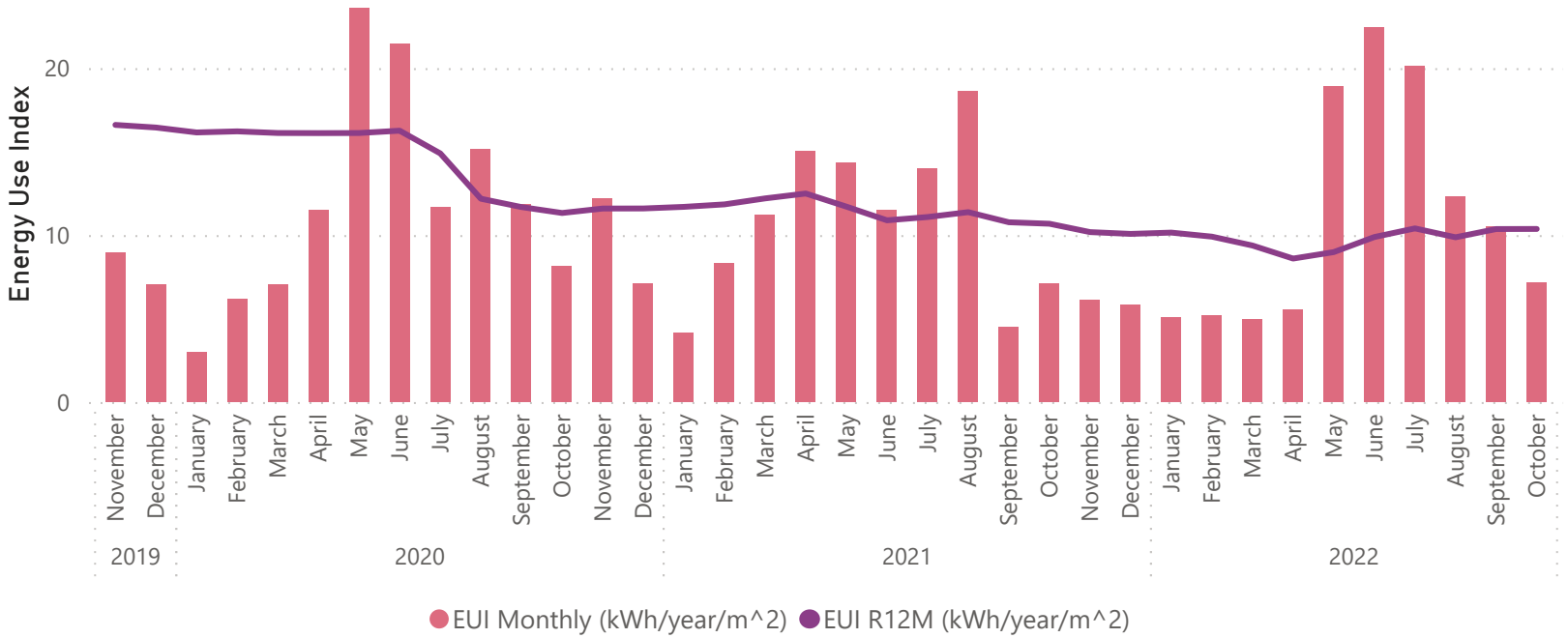


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

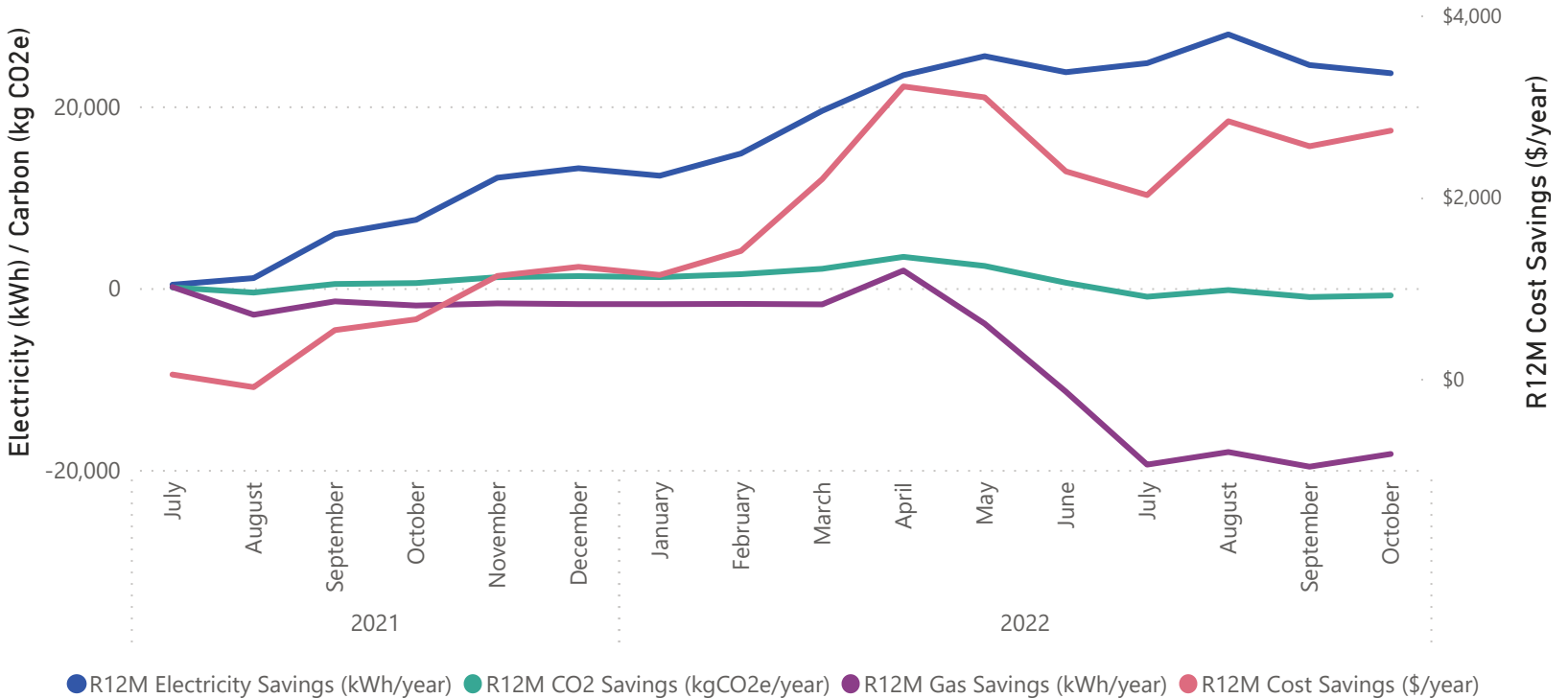
Whakatane District Council

War Memorial Hall

War Memorial Hall Energy Use Index by Month Compared to Rolling 12-Month Values



War Memorial Hall Rolling 12 Month Savings



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

Water Treatment Plant

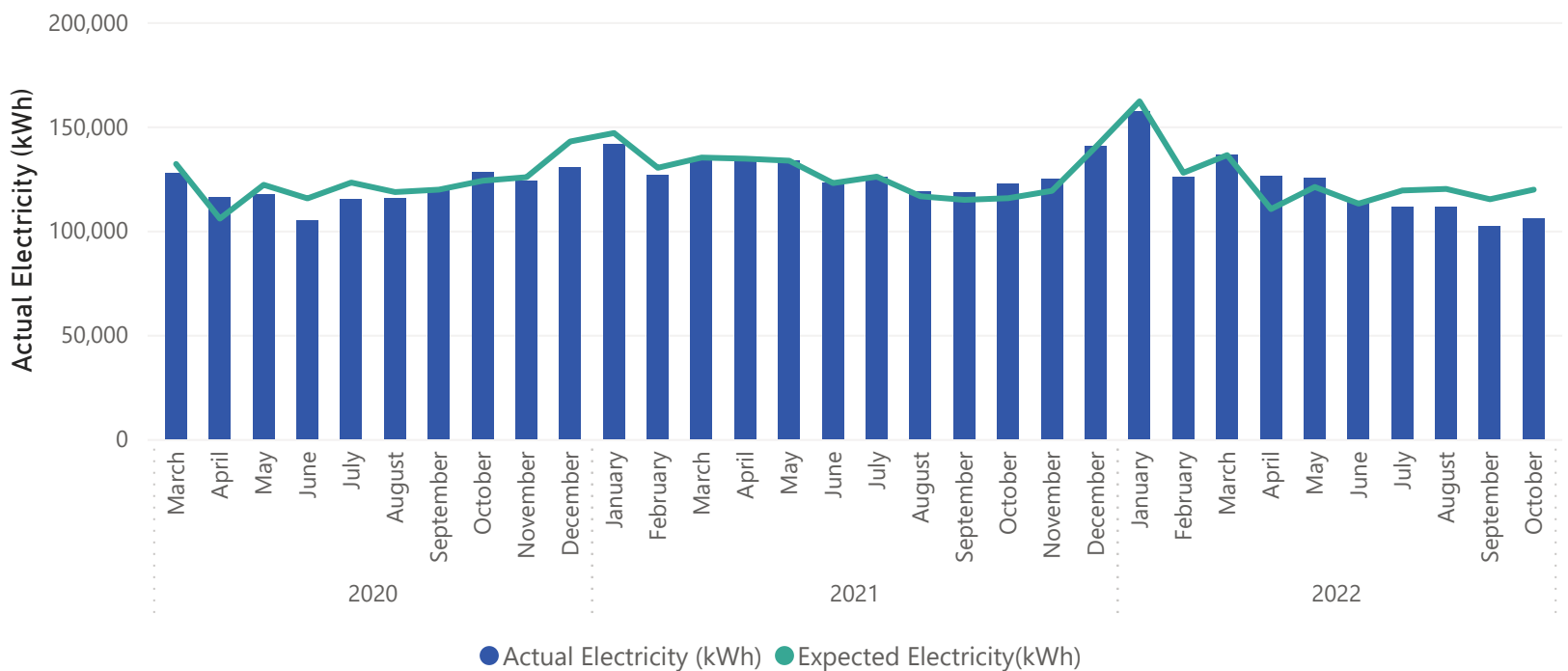
<p>\$2,413</p> <p>Monthly Energy Cost Savings</p>	<p>13,697</p> <p>Elec. Savings (kWh/mo)</p>	<p>11%</p> <p>Elec. Savings (%)</p>	<p>21,829</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>1,794</p> <p>CO2e Savings (kg/mo)</p>
<p>\$3,977</p> <p>R12M Energy Cost Savings</p>				<p>2,909</p> <p>R12M CO2e Savings (kg/yr)</p>

Comments:

The electricity use baseline was updated for the Water Treatment Plant, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of water pumped (m³) as the independent variable.

A 11% savings has been achieved at the WTP this month. The monthly EUI is less than the average over the last 12 months and rolling 12-month savings are increasing, which is good.

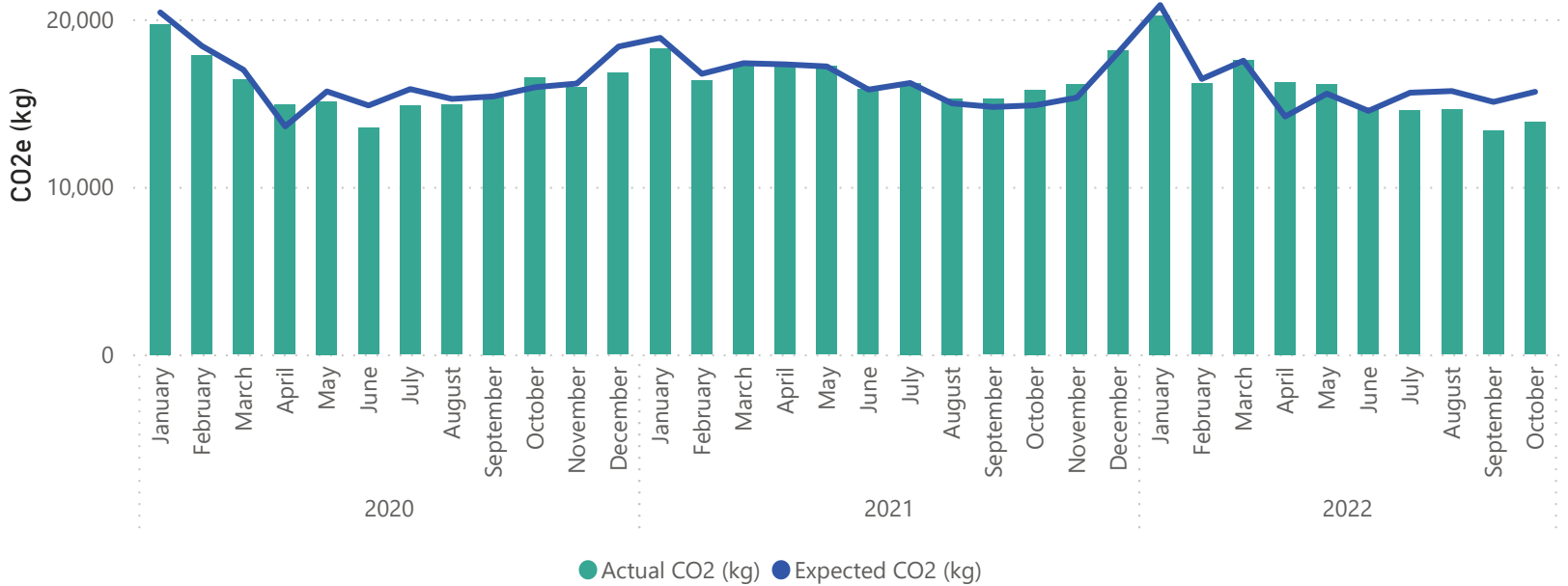
Water Treatment Plant Electricity Use Compared to Baseline (kWh)



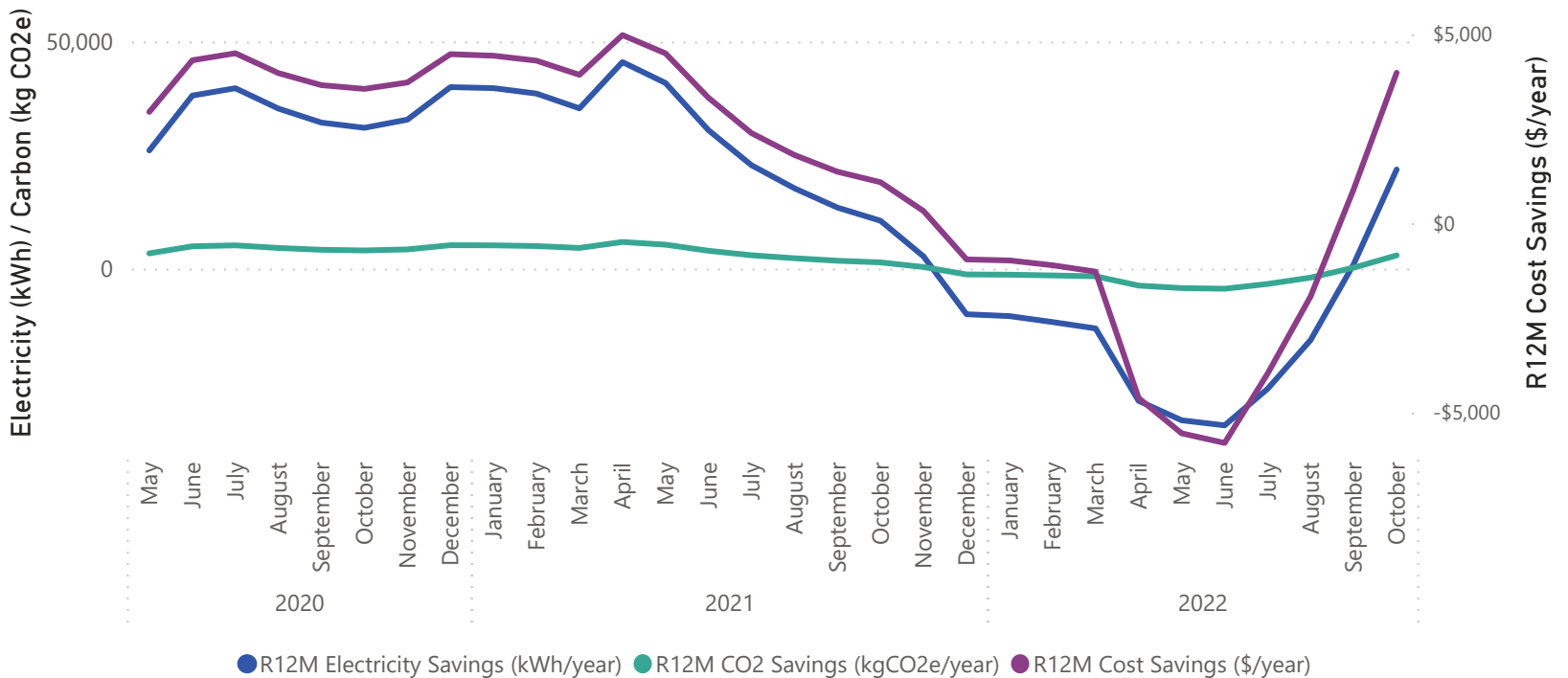
Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council Water Treatment Plant

Water Treatment Plant Carbon Emissions Compared to Baseline (kg CO2e)



Water Treatment Plant Rolling 12 Month Savings

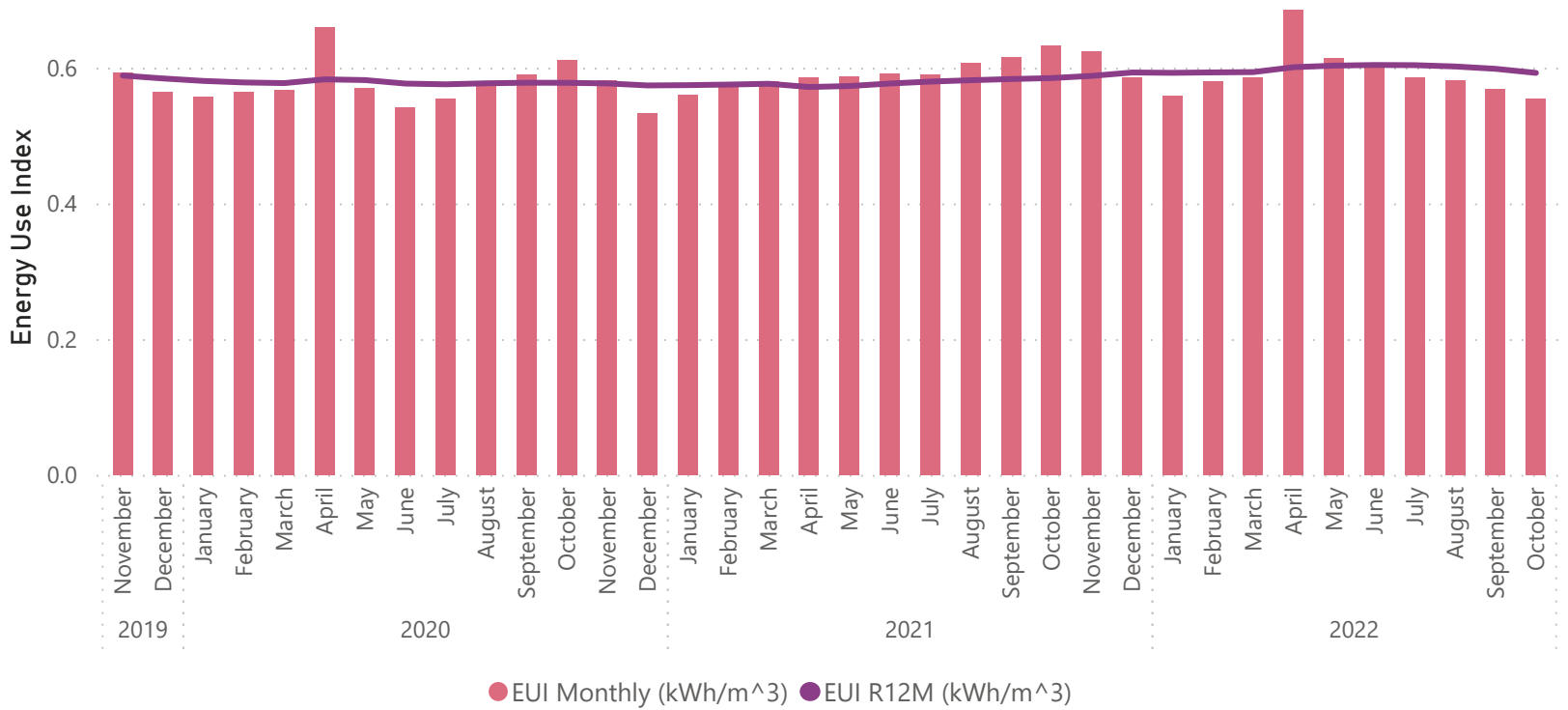


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

Water Treatment Plant

Water Treatment Plant Energy Use Index by Month Compared to Rolling 12-Month Values



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

Braemar Road Pump Station

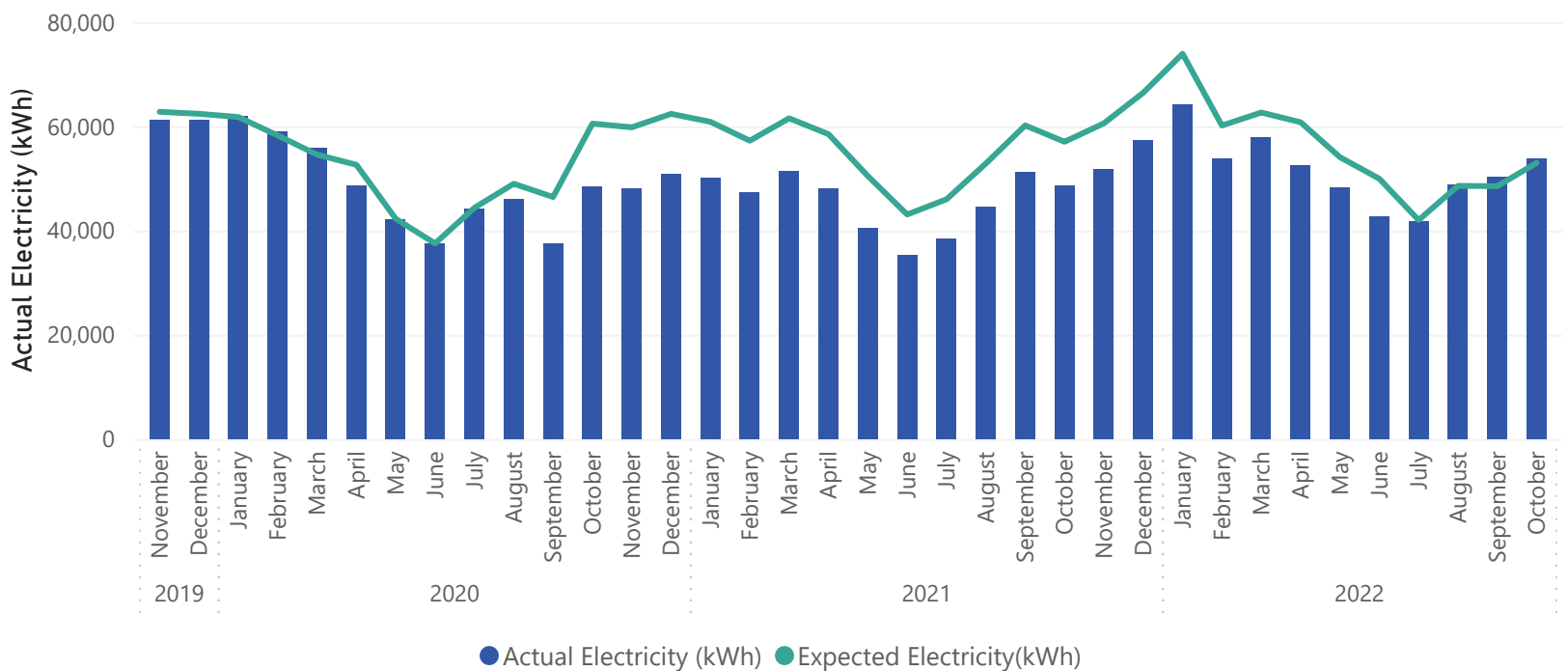
<p>-\$141 Monthly Energy Cost Savings</p>	<p>-787 Elec. Savings (kWh/mo)</p>	<p>-1% Elec. Savings (%)</p>	<p>57,290 R12M Electricity Savings (kWh/yr)</p>	<p>-103 CO2e Savings (kg/mo)</p>
<p>\$8,700 R12M Energy Cost Savings</p>				<p>7,472 R12M CO2e Savings (kg/yr)</p>

Comments:

The electricity use baseline was updated for the Braemar Road Pump Station, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of water pumped (m³) as the independent variable.

Savings from the high efficiency pumps and motors will no longer be visible when comparing to the new baseline and rolling 12-month savings will decrease. However, real savings have been achieved since September 2020, using approximately 15% less electricity compared to the older pumps and motors, which is evident in the EUI chart.

Braemar Rd Pumps Electricity Use Compared to Baseline (kWh)

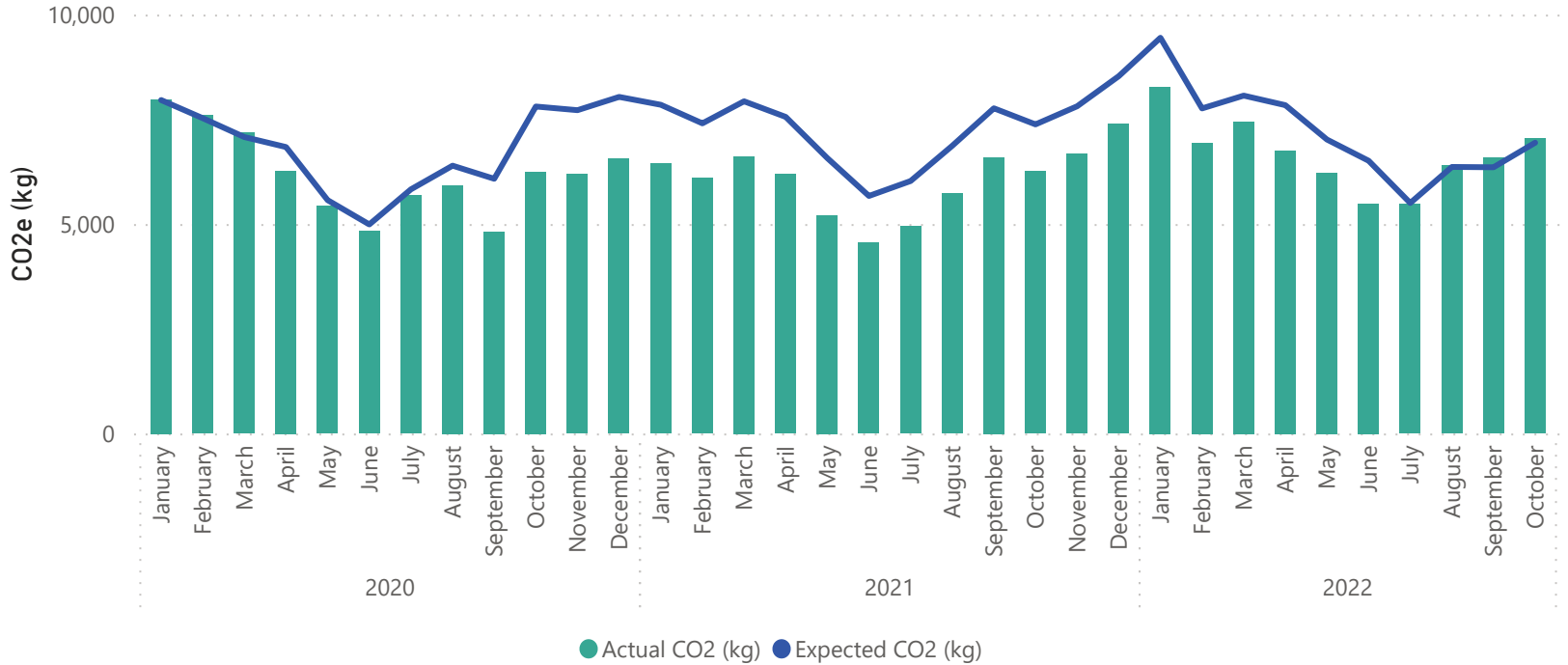


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

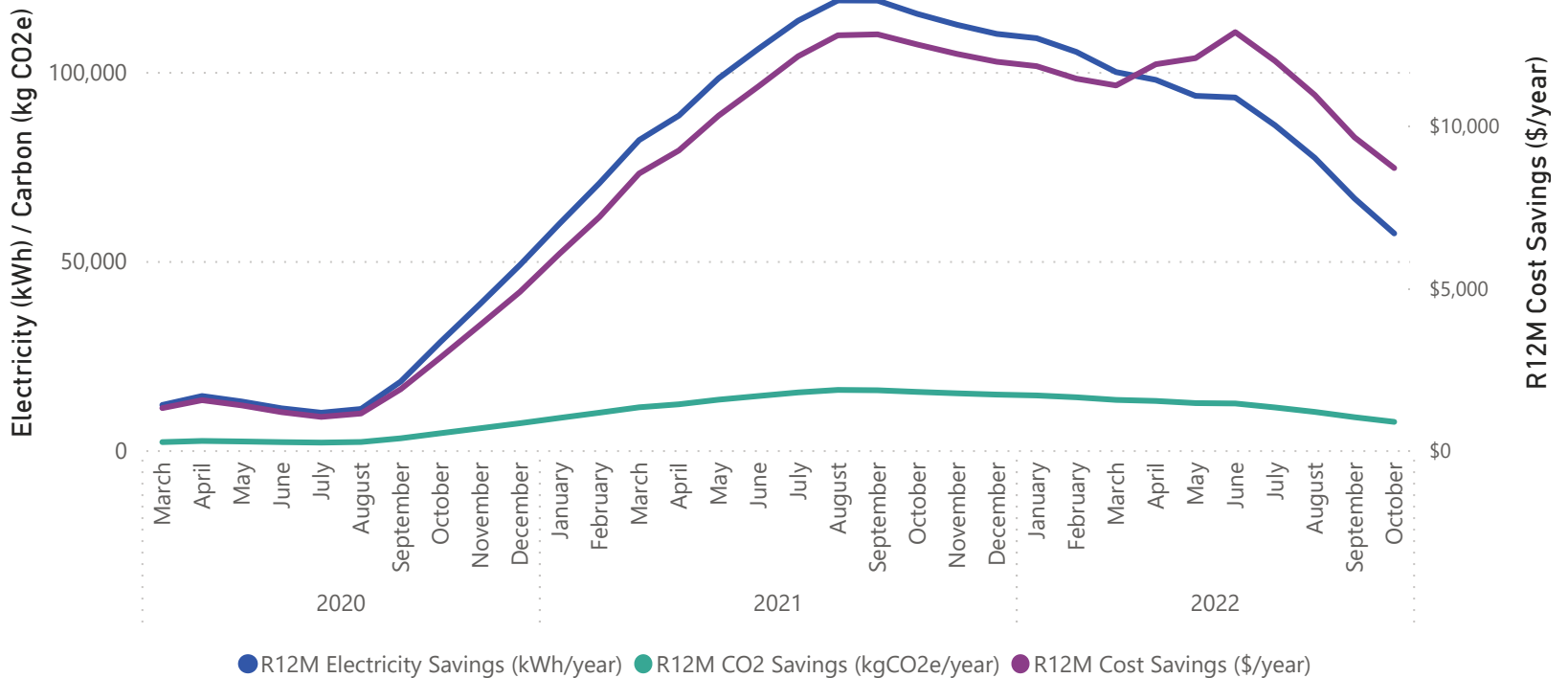
Whakatane District Council

Braemar Road Pump Station

Braemar Rd Pumps Carbon Emissions Compared to Baseline (kg CO2e)



Braemar Rd Pumps Rolling 12 Month Savings

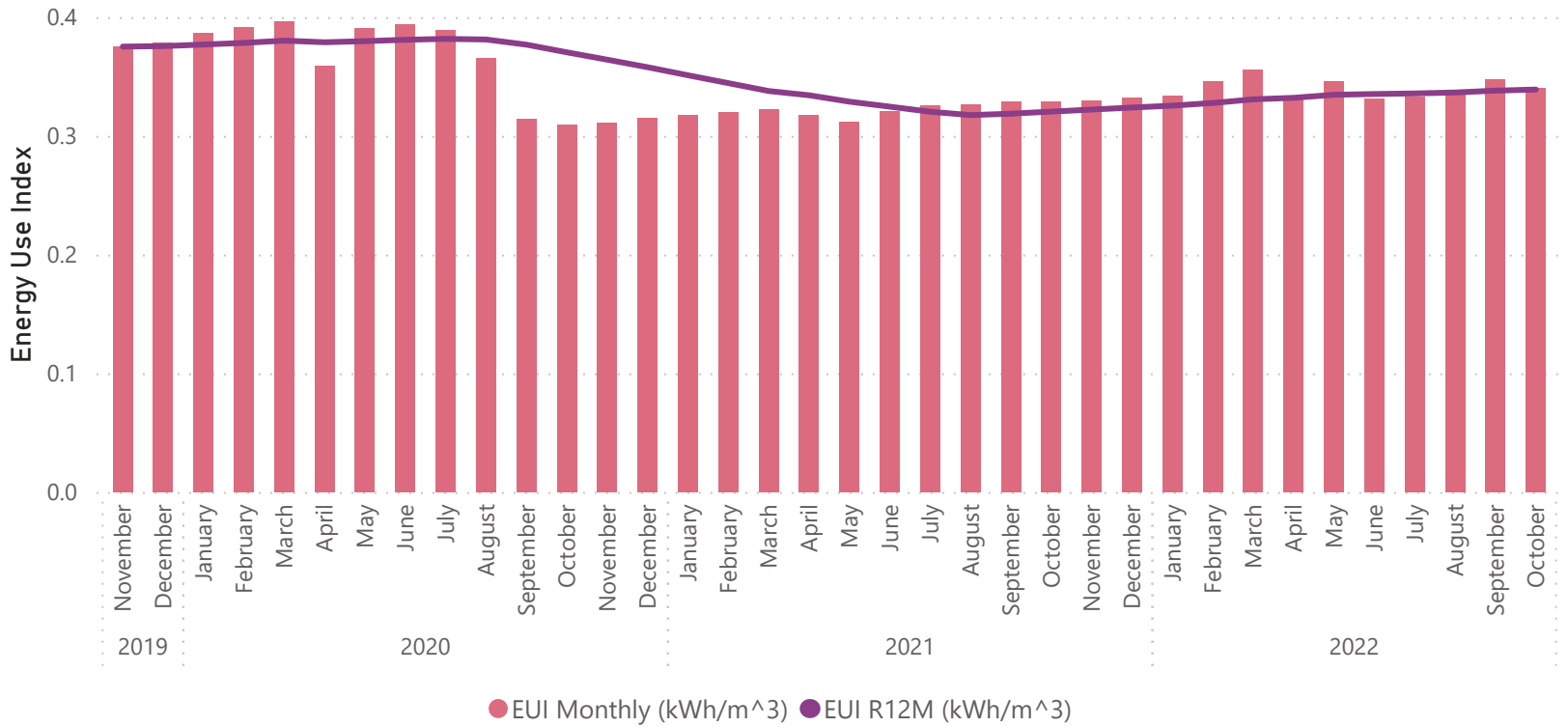


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

Braemar Road Pump Station

Braemar Rd Pumps Energy Use Index by Month Compared to Rolling 12-Month Values



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

Paul Road Pump Station

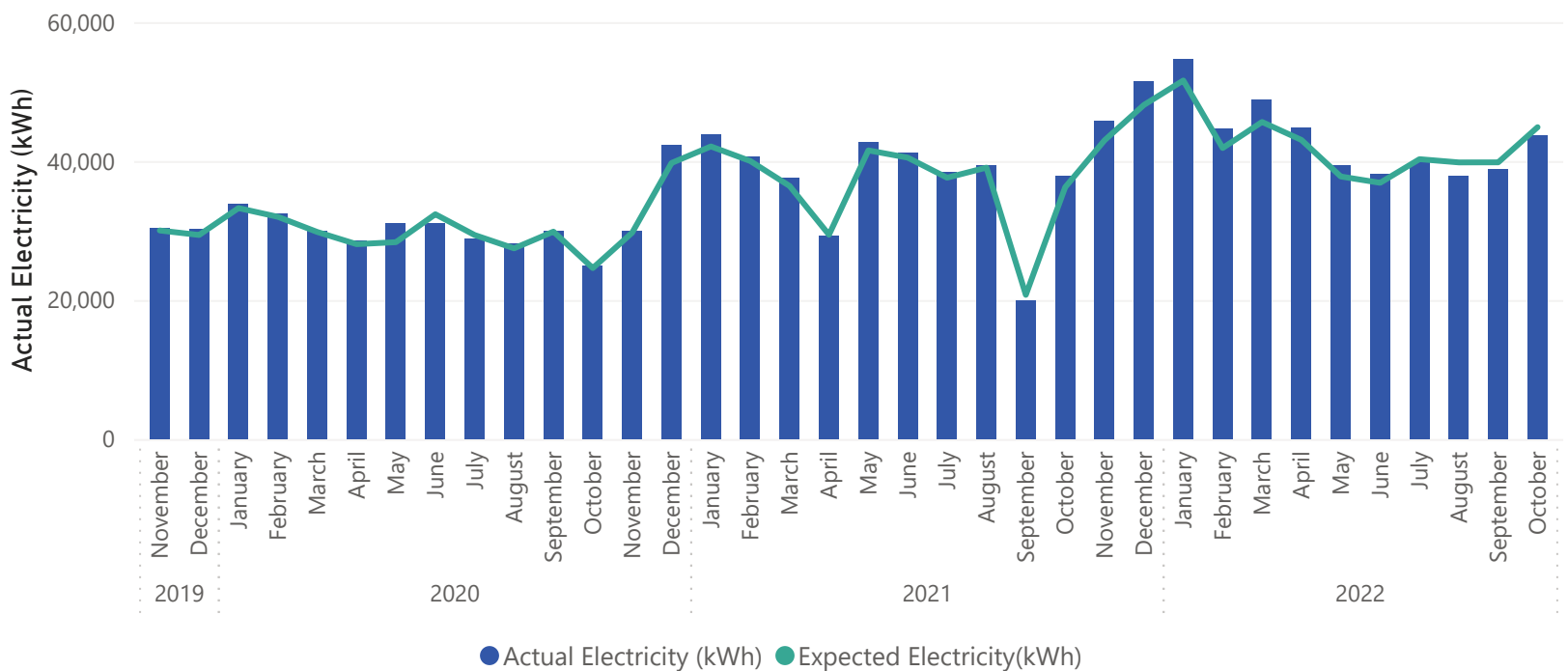
<p>\$220 Monthly Energy Cost Savings</p>	<p>1,121 Elec. Savings (kWh/mo)</p>	<p>2% Elec. Savings (%)</p>	<p>-15,431 R12M Electricity Savings (kWh/yr)</p>	<p>147 CO2e Savings (kg/mo)</p>
<p>-\$2,000 R12M Energy Cost Savings</p>				<p>-1,968 R12M CO2e Savings (kg/yr)</p>

Comments:

The electricity use baseline was updated for the Paul Road Pump Station, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of water pumped (m³) as the independent variable. The updated baseline has a smaller baseload factor and a larger variable component.

Another month where small savings have been achieved at the Paul Road Pump Station. The monthly EUI is slightly less than average over the past 12 months.

Paul Rd Pumps Electricity Use Compared to Baseline (kWh)

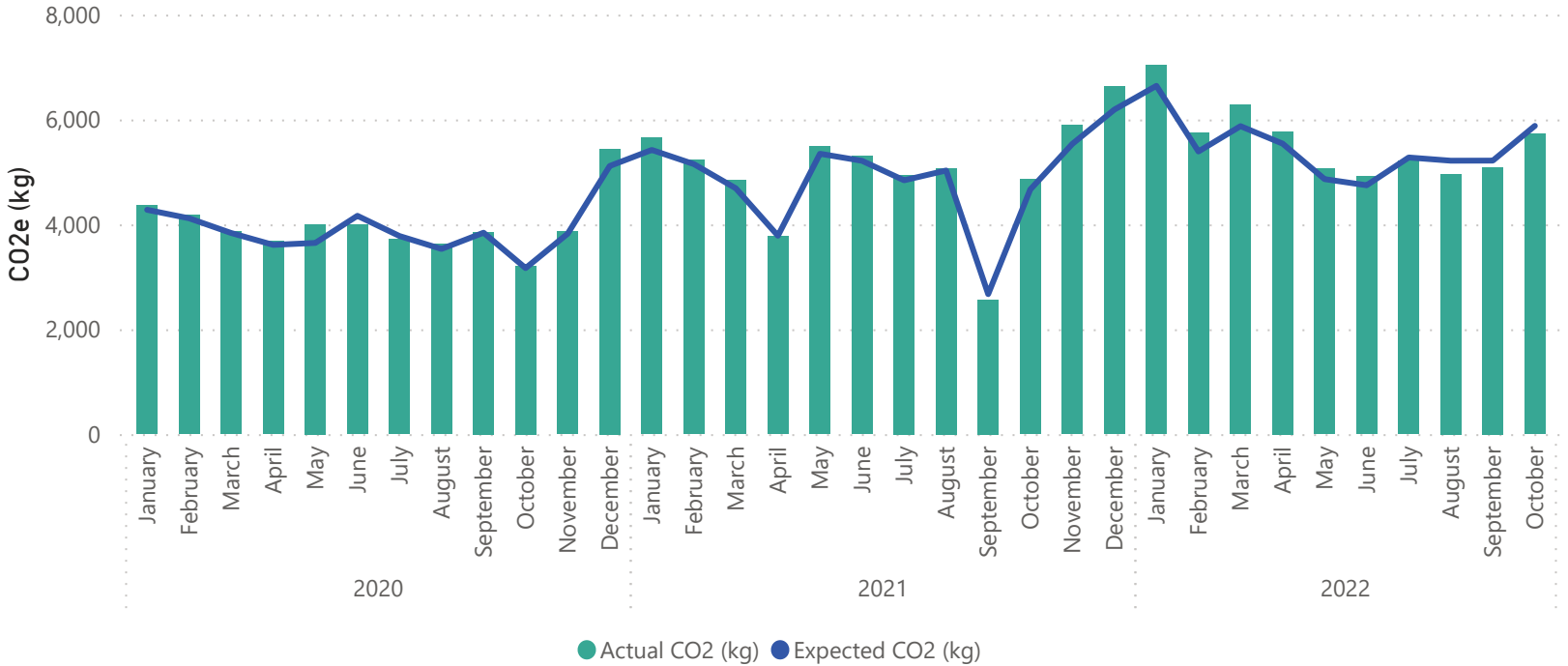


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

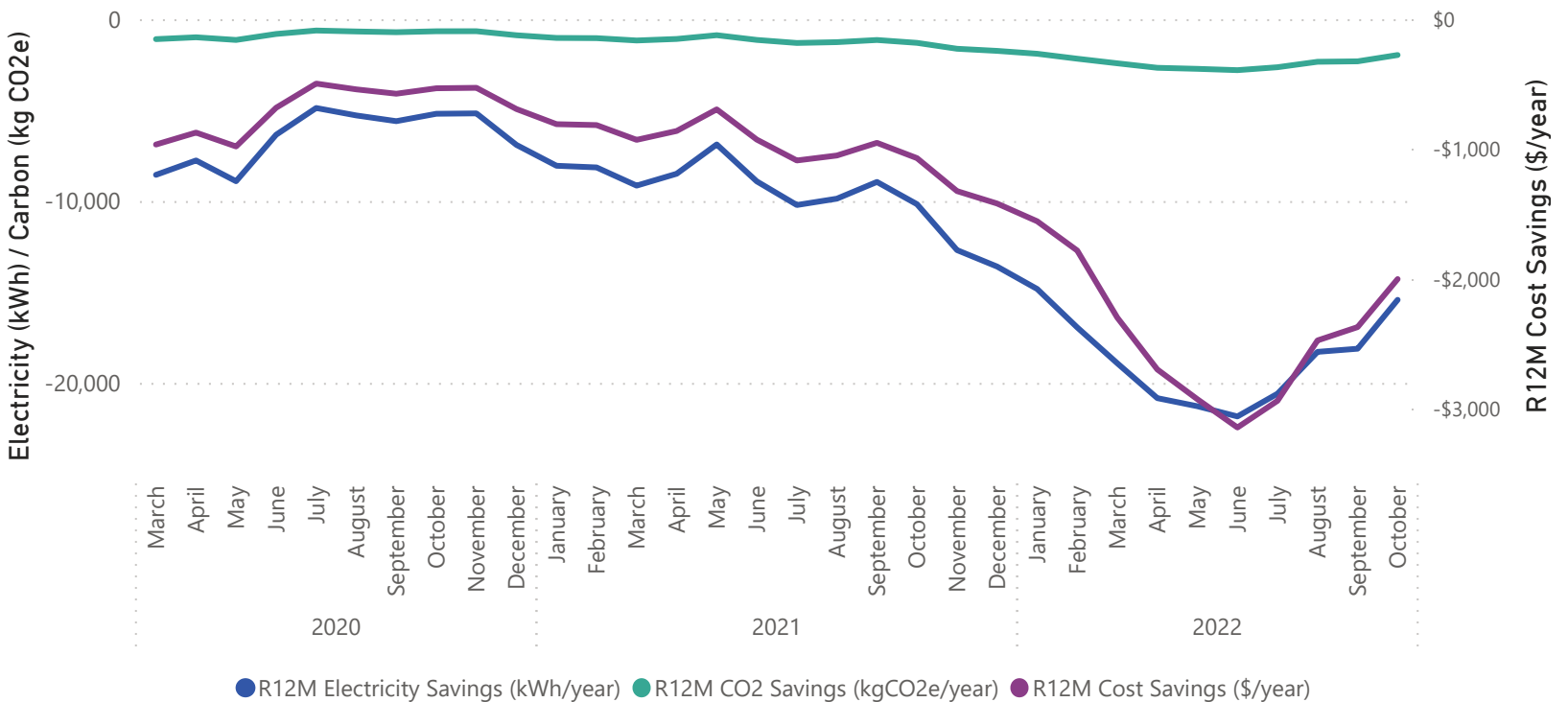
Whakatane District Council

Paul Road Pump Station

Paul Rd Pumps Carbon Emissions Compared to Baseline (kg CO2e)



Paul Rd Pumps Rolling 12 Month Savings

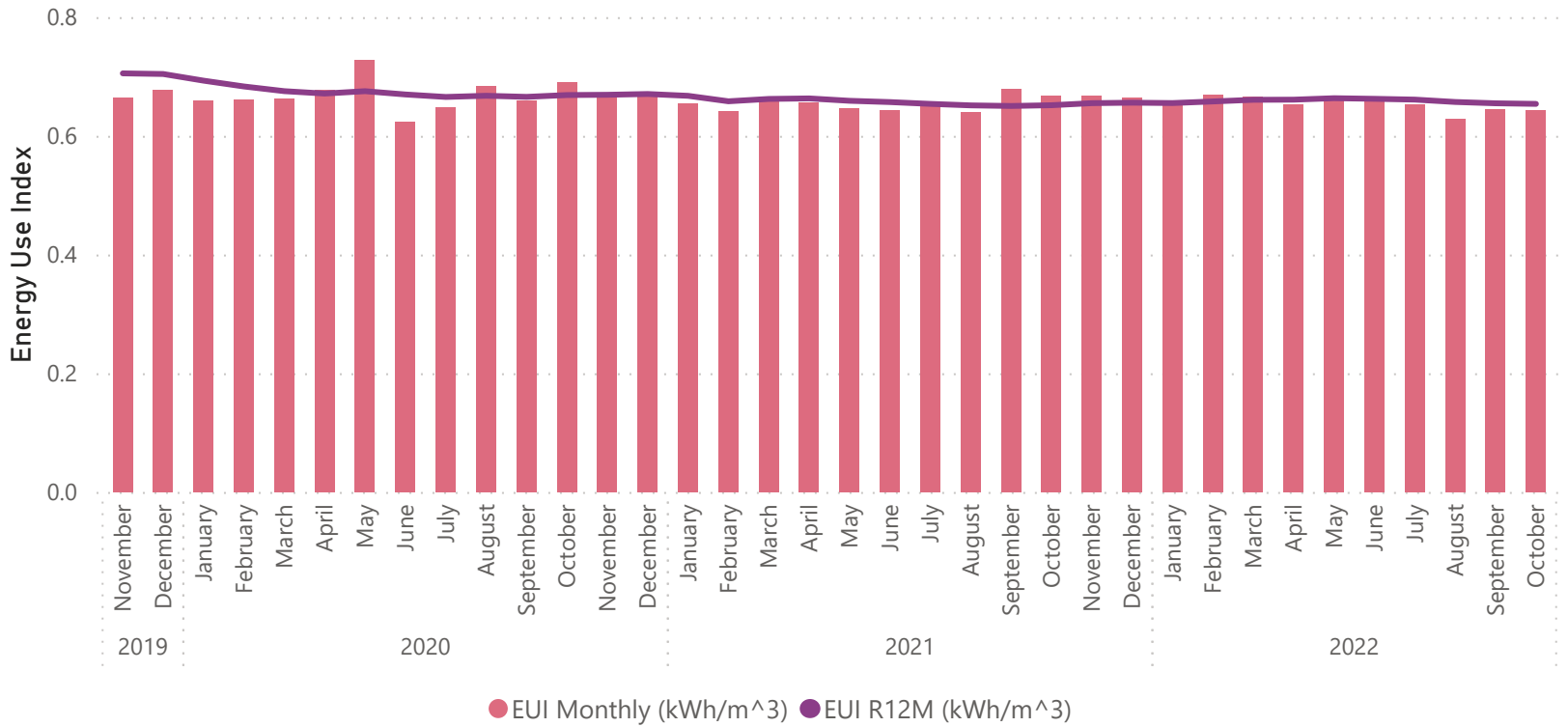


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

Paul Road Pump Station

Paul Rd Pumps Energy Use Index by Month Compared to Rolling 12-Month Values



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

Johnson Road Pump Station

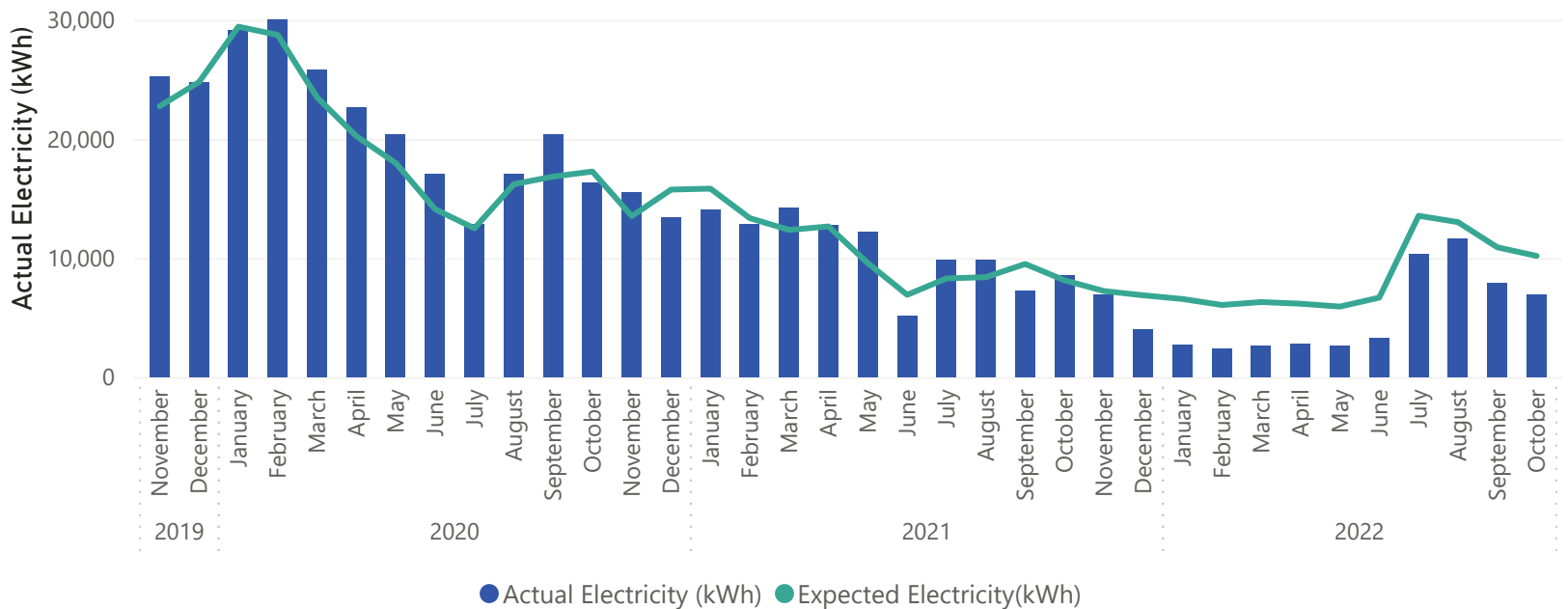
<p>\$703</p> <p>Monthly Energy Cost Savings</p>	<p>3,267</p> <p>Elec. Savings (kWh/mo)</p>	<p>32%</p> <p>Elec. Savings (%)</p>	<p>35,076</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>428</p> <p>CO2e Savings (kg/mo)</p>
<p>\$7,677</p> <p>R12M Energy Cost Savings</p>				<p>4,540</p> <p>R12M CO2e Savings (kg/yr)</p>

Comments:

The electricity use baseline was updated for the Johnson Road Pump Station, the baseline period is Aug 2018 to June 2022. The electricity baseline uses the amount of water pumped (m³) as the independent variable. The updated baseline has a smaller baseload factor and a larger variable component.

Electricity use in October 2022 is 19% less than October last year. The EUI has been relatively consistent over the past 4 months, and the EUI is less than the average for the past 12 months.

Johnson Rd Pumps Electricity Use Compared to Baseline (kWh)

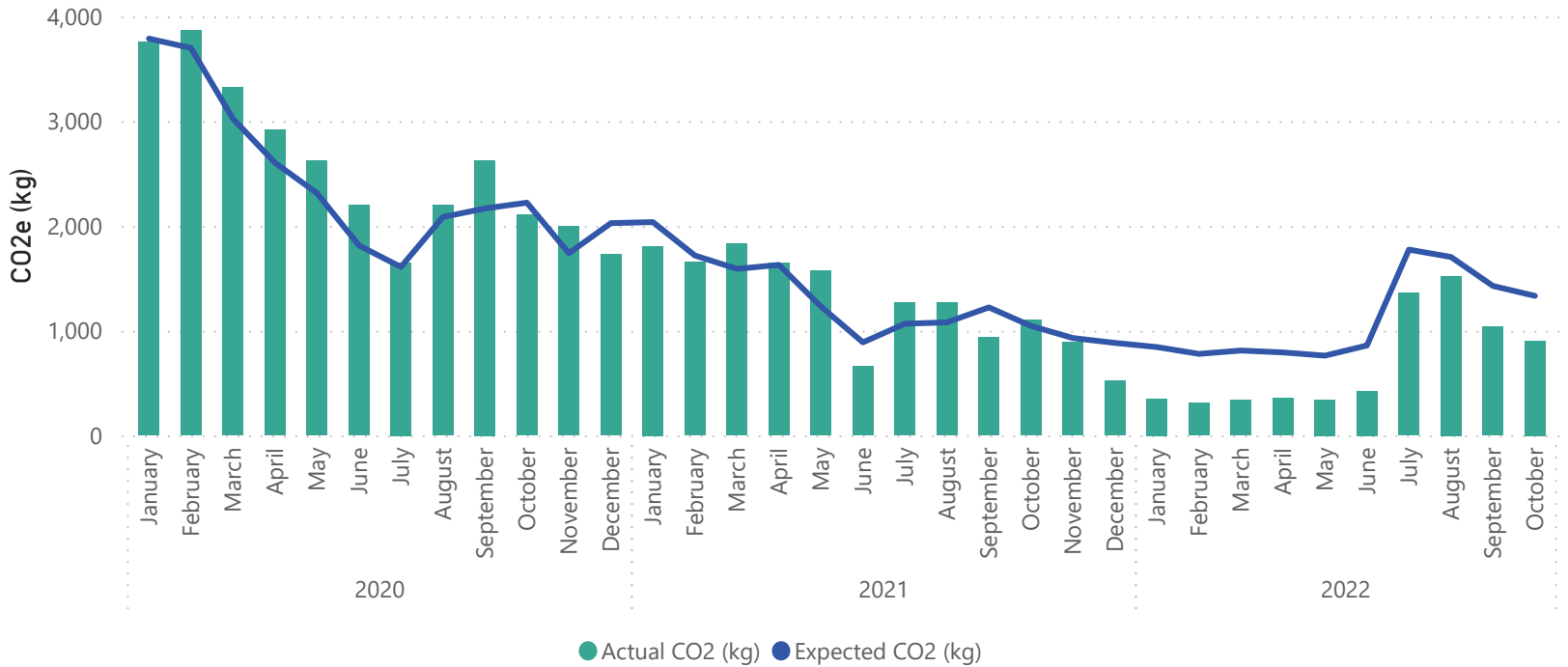


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

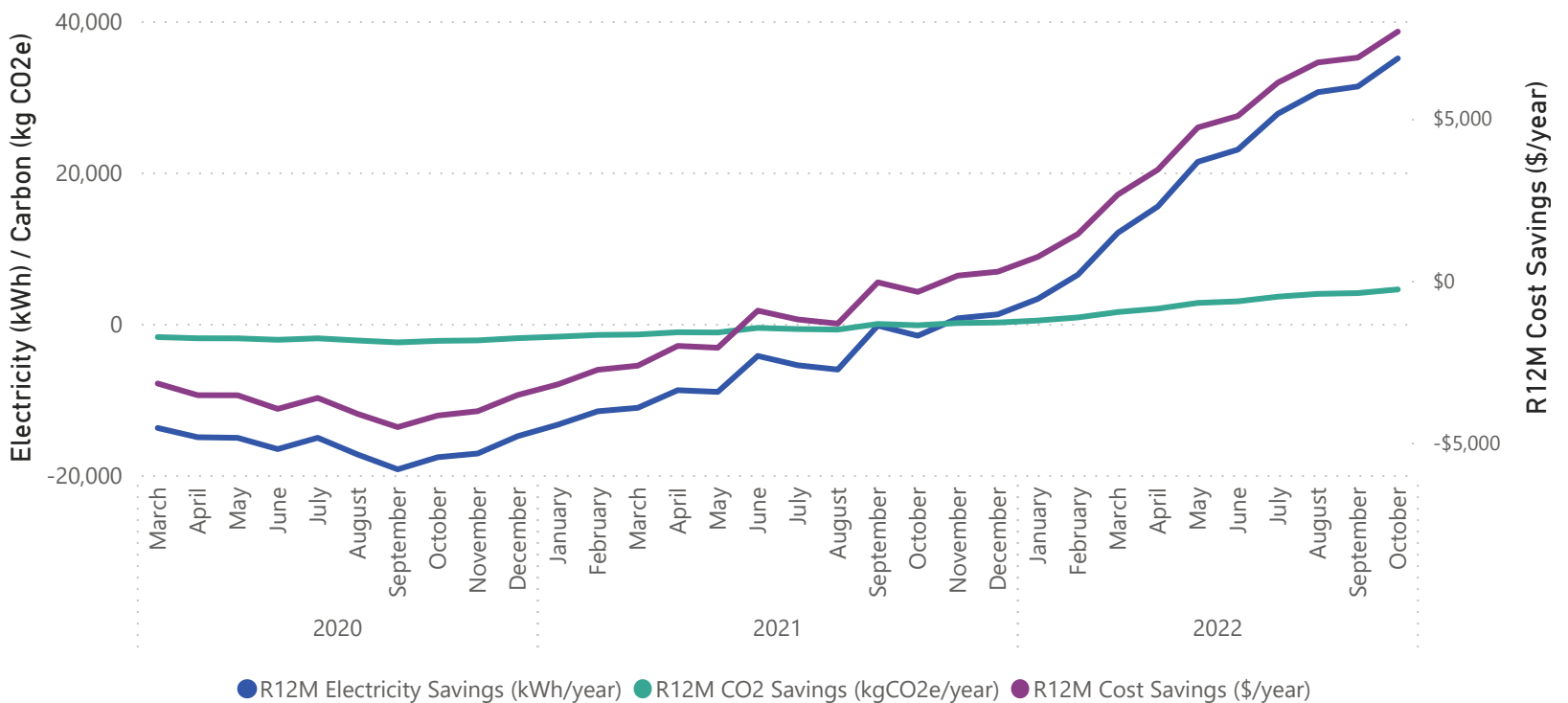
Whakatane District Council

Johnson Road Pump Station

Johnson Rd Pumps Carbon Emissions Compared to Baseline (kg CO2e)



Johnson Rd Pumps Rolling 12 Month Savings

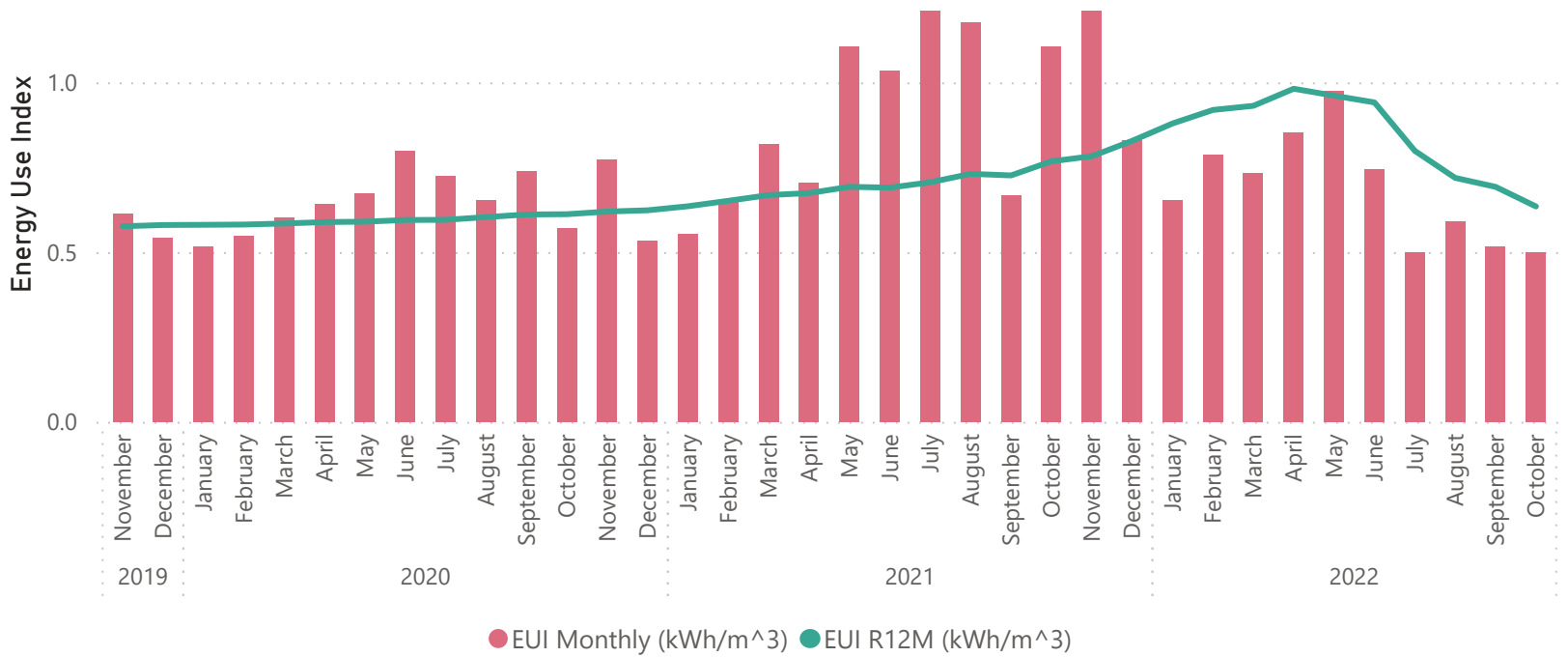


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

Johnson Road Pump Station

Johnson Rd Pumps Energy Use Index by Month Compared to Rolling 12-Month Values



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

Johnson and Braemar Rd Pump Stations

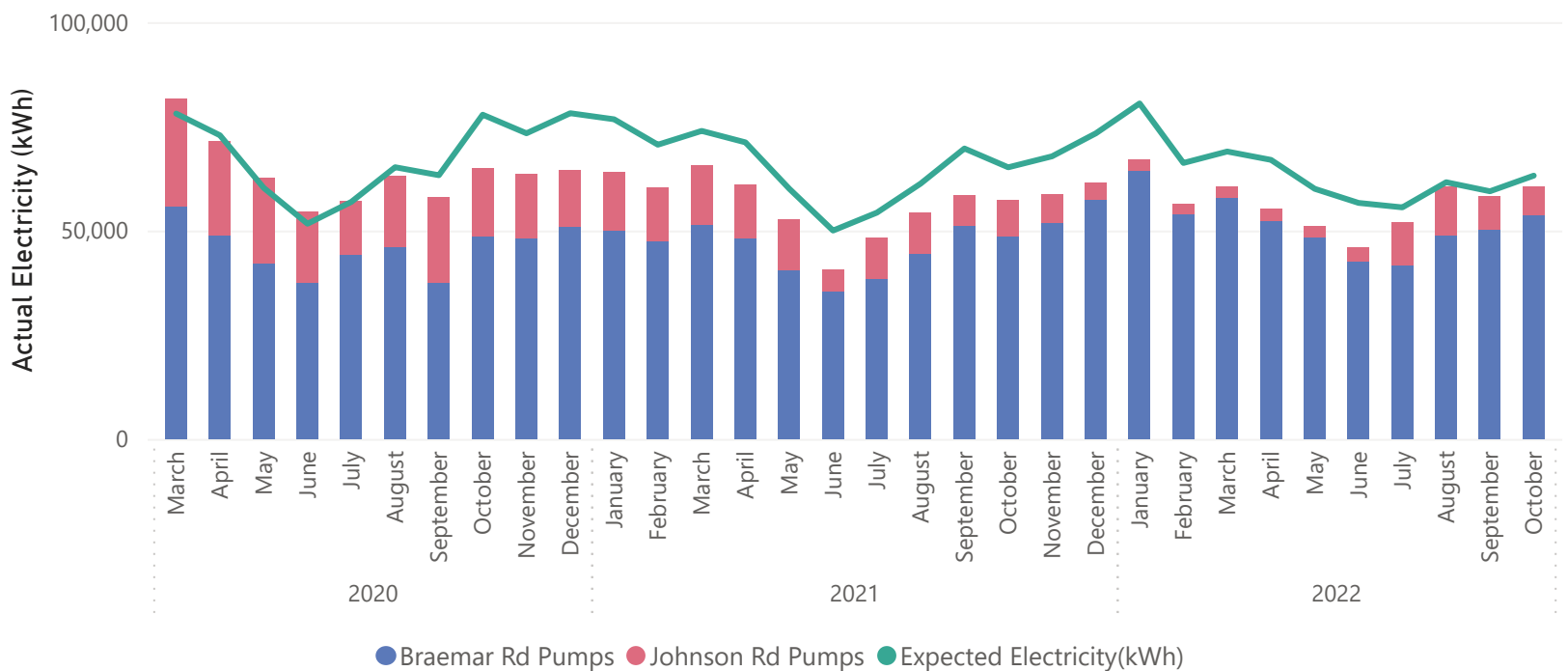
<p>\$562 Monthly Energy Cost Savings</p>	<p>2,480 Elec. Savings (kWh/mo)</p>	<p>4% Elec. Savings (%)</p>	<p>92,366 R12M Electricity Savings (kWh/yr)</p>	<p>325 CO2e Savings (kg/mo)</p>
<p>\$16,377 R12M Energy Cost Savings</p>				<p>12,013 R12M CO2e Savings (kg/yr)</p>

Comments:

Baselines were updated for Johnson Road and Braemar Road pump stations.

Johnson Rd achieved savings in October 2022, Braemar Rd pump station's electricity use was close to expected for the month.

Johnson and Braemar Rd Pump Stations Electricity Use Compared to Baseline (kWh)

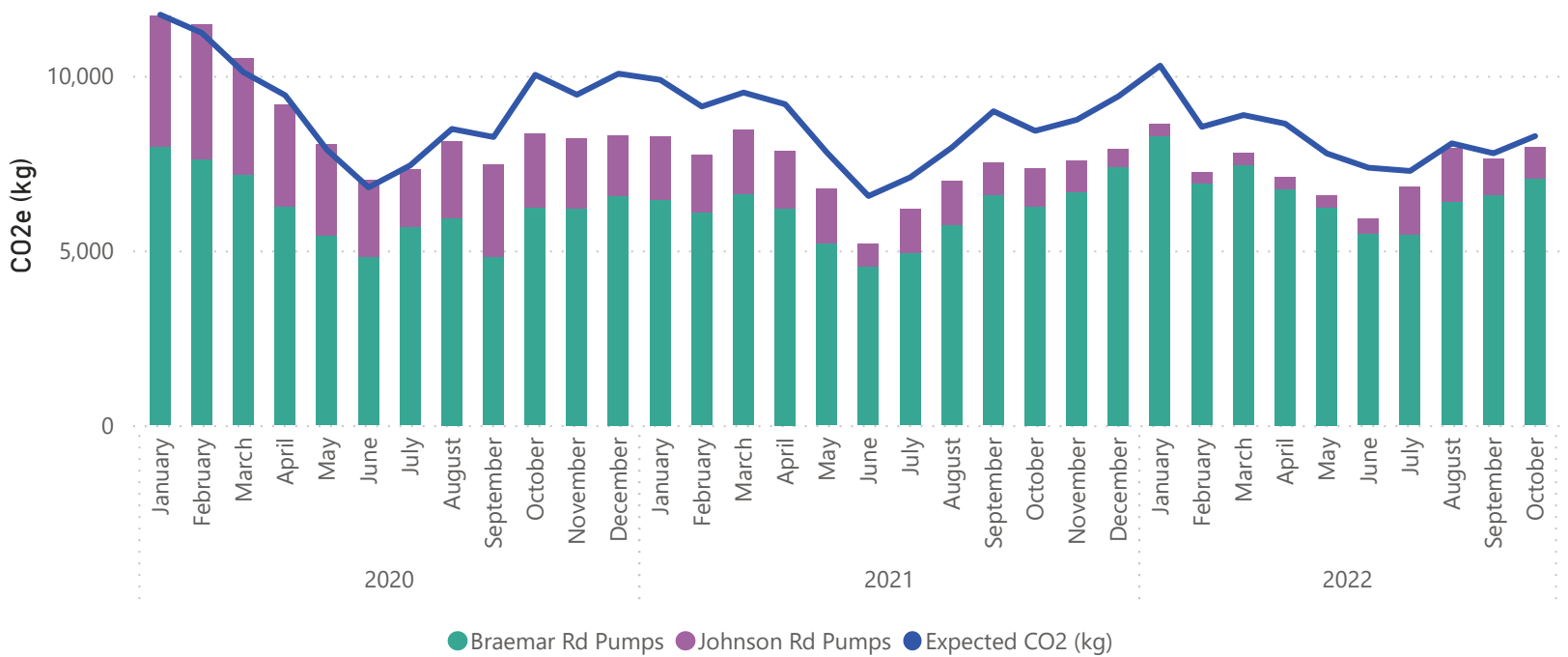


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

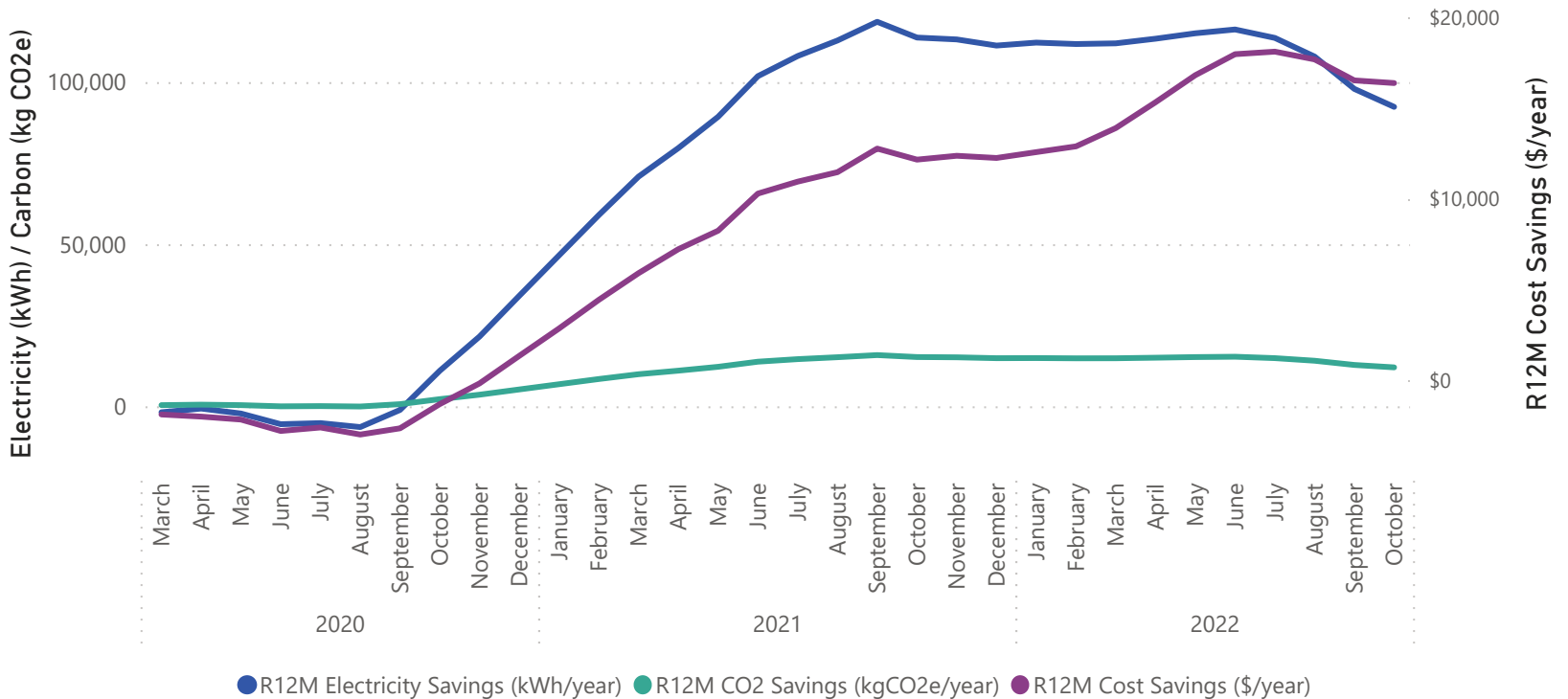
Whakatane District Council

Johnson and Braemar Rd Pump Stations

Johnson and Braemar Rd Pump Stations Carbon Emissions Compared to Baseline (kWh)



Johnson and Braemar Rd Pump Stations Cumulative Rolling 12 Month Savings

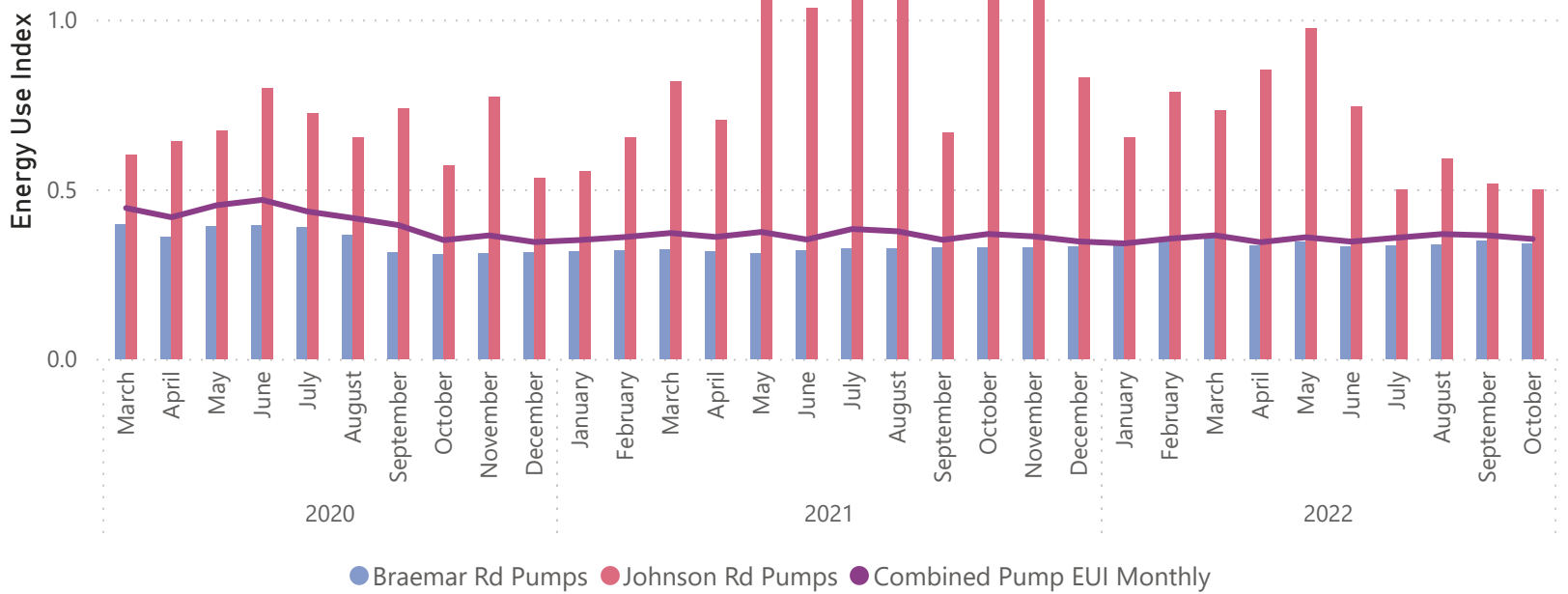


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

Johnson and Braemar Rd Pump Stations

Johnson and Braemar Rd Pump Stations Energy Use Index by Month



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

Bridger Glade Pump Station

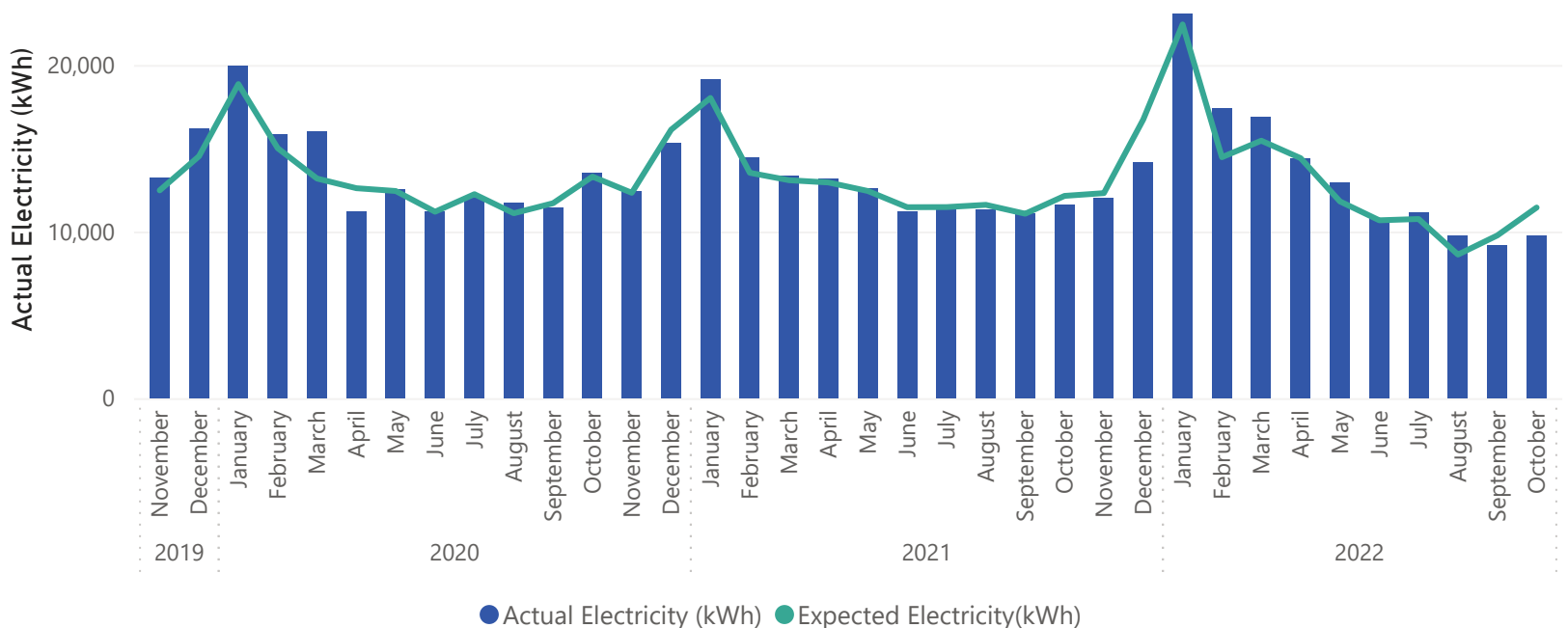
<p>\$298</p> <p>Monthly Energy Cost Savings</p>	<p>1,689</p> <p>Elec. Savings (kWh/mo)</p>	<p>15%</p> <p>Elec. Savings (%)</p>	<p>-2,642</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>221</p> <p>CO2e Savings (kg/mo)</p>
<p>-\$490</p> <p>R12M Energy Cost Savings</p>			<p>-338</p> <p>R12M CO2e Savings (kg/yr)</p>	

Comments:

The electricity use baseline was updated for the Bridger Glade Pump Station, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of water pumped (m³) as the independent variable. The updated baseline has no baseload factor and a marginally larger variable component.

October 2022 electricity usage was less than expected and a 15% savings has been achieved, which is excellent. The monthly EUI has reduced compared to August and September, which could in part be due to when the meter was read.

Bridger Glade Pumps Electricity Use Compared to Baseline (kWh)

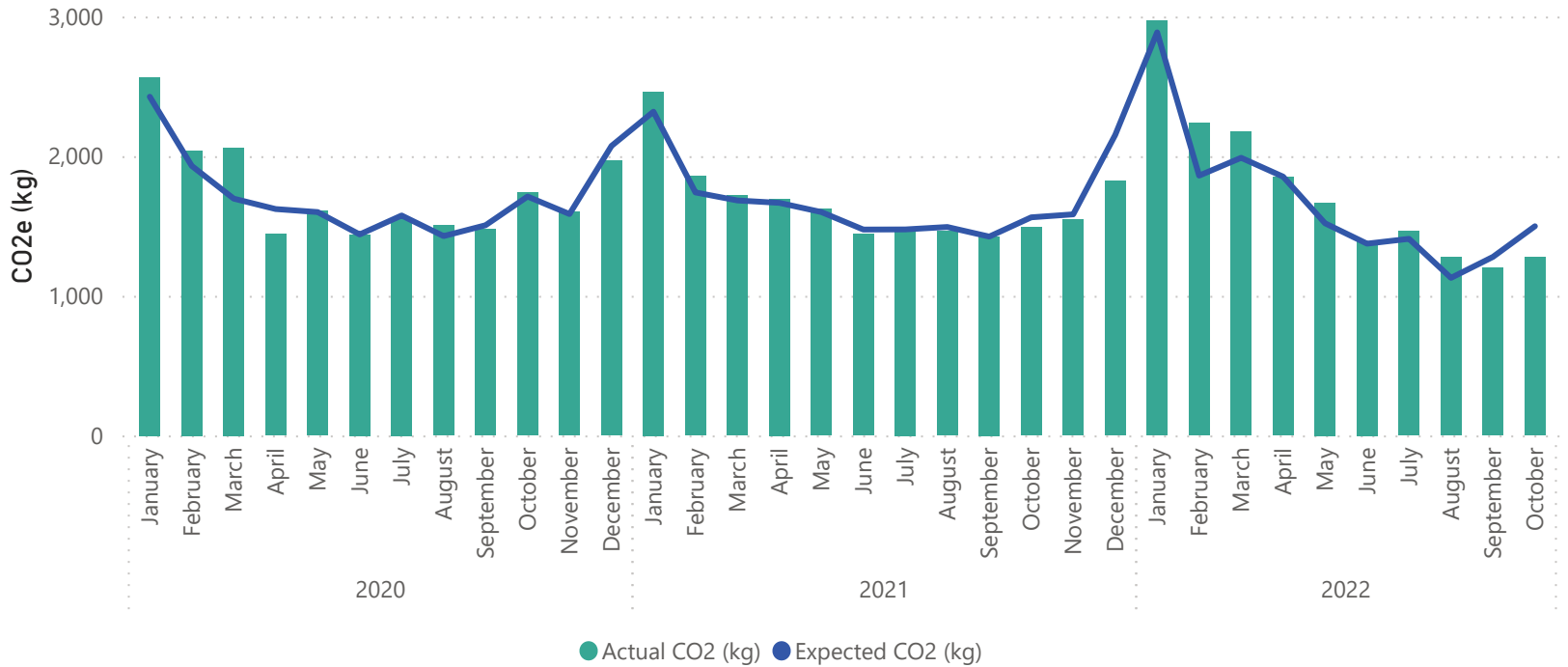


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

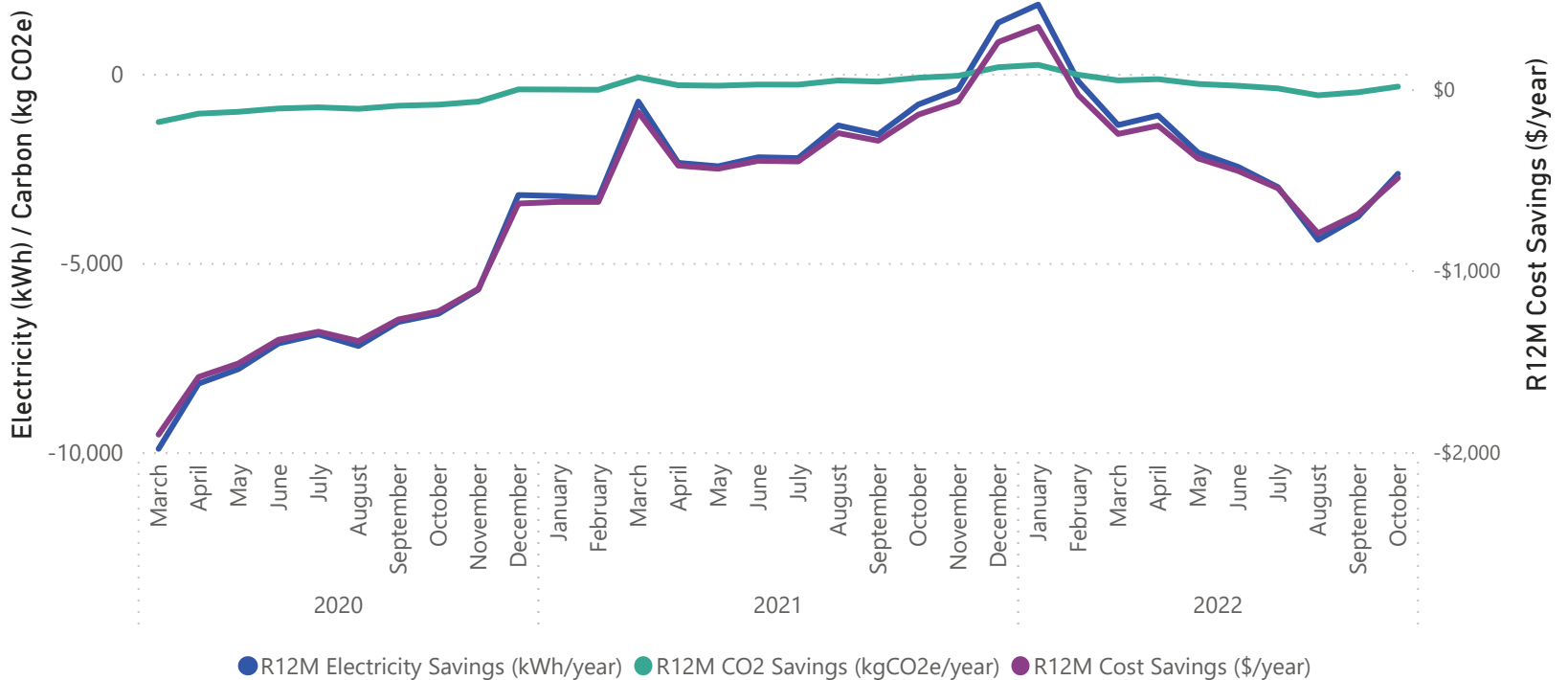
Whakatane District Council

Bridger Glade Pump Station

Bridger Glade Pumps Carbon Emissions Compared to Baseline (kg CO2e)



Bridger Glade Pumps Rolling 12 Month Savings

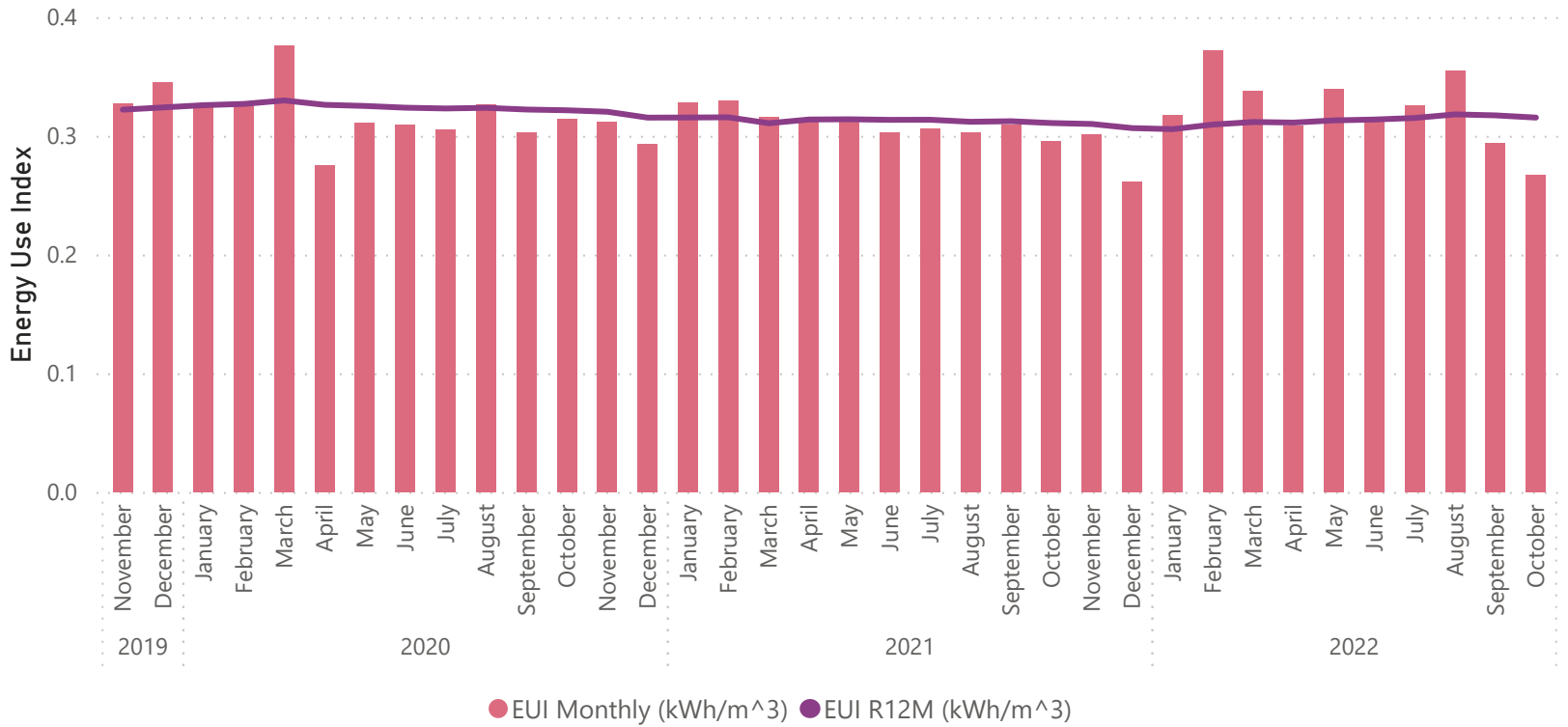


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

Bridger Glade Pump Station

Bridger Glade Pumps Energy Use Index by Month Compared to Rolling 12-Month Values



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

Ohope Oxidation Ponds

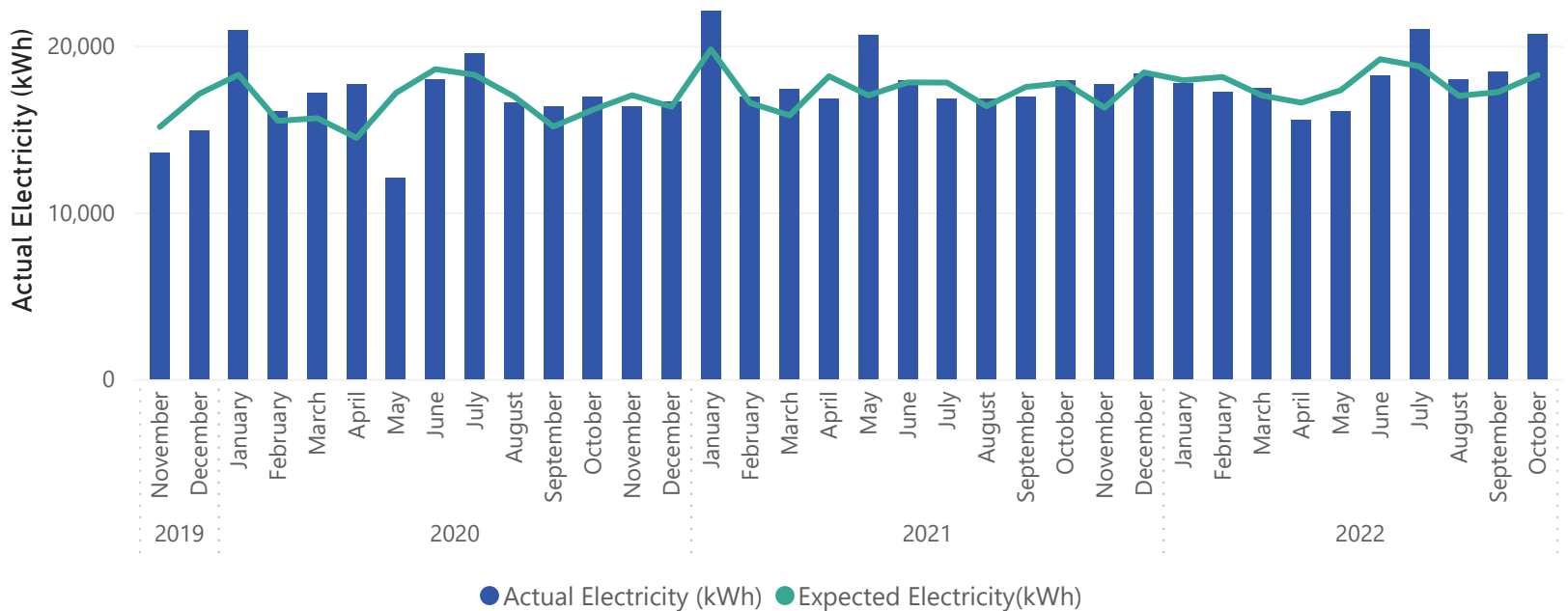
<p>-\$434 Monthly Energy Cost Savings</p>	<p>-2,466 Elec. Savings (kWh/mo)</p>	<p>-14% Elec. Savings (%)</p>	<p>-4,460 R12M Electricity Savings (kWh/yr)</p>	<p>-323 CO2e Savings (kg/mo)</p>
<p>-\$776 R12M Energy Cost Savings</p>				<p>-590 R12M CO2e Savings (kg/yr)</p>

Comments:

The baseline for electricity use was updated for the Ohope Oxidation Ponds, the baseline period is July 2021 to June 2022. The electricity baseline uses the amount of effluent pumped (m³) as the independent variable. The updated baseline has a larger baseload factor and a smaller variable component.

Electricity use has been more than expected since July 2022. The EUI in October is lower than average over the past 12 months.

Ohope Oxidation Ponds Electricity Use Compared to Baseline (kWh)

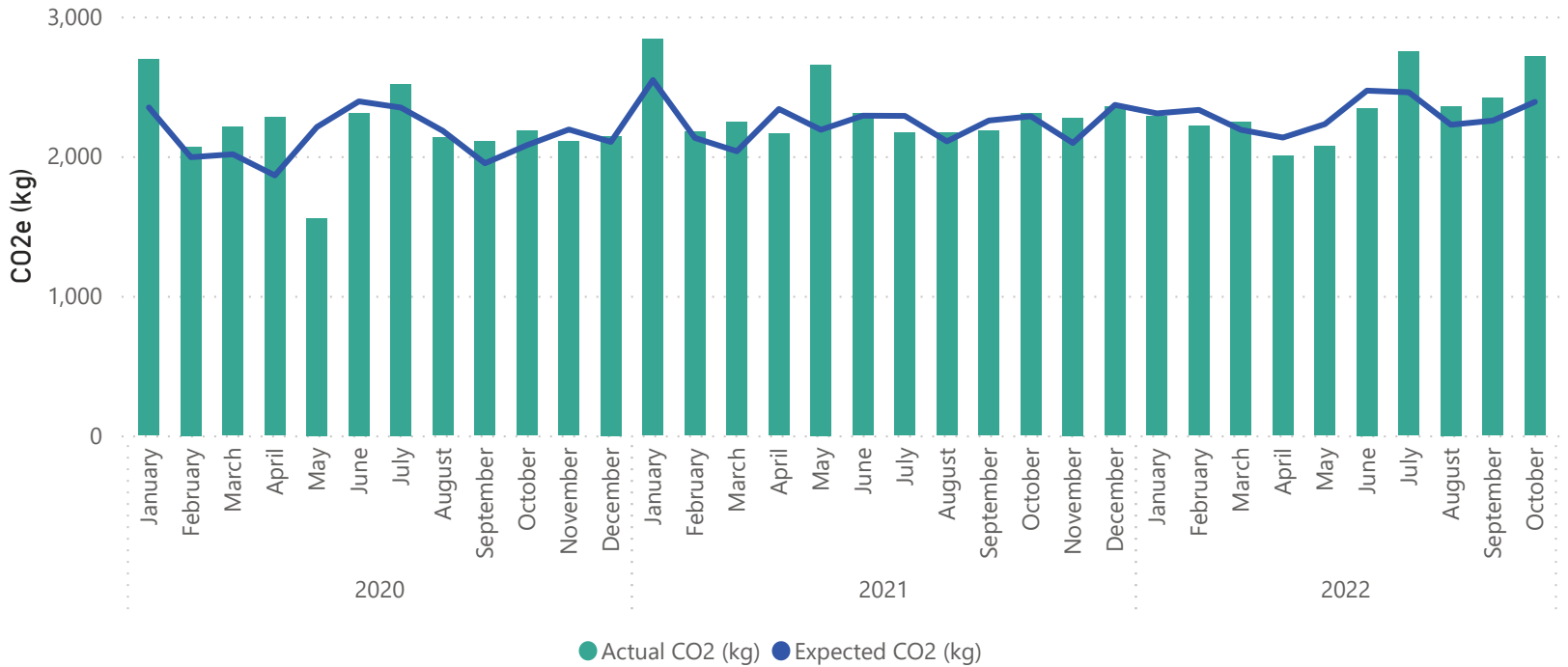


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

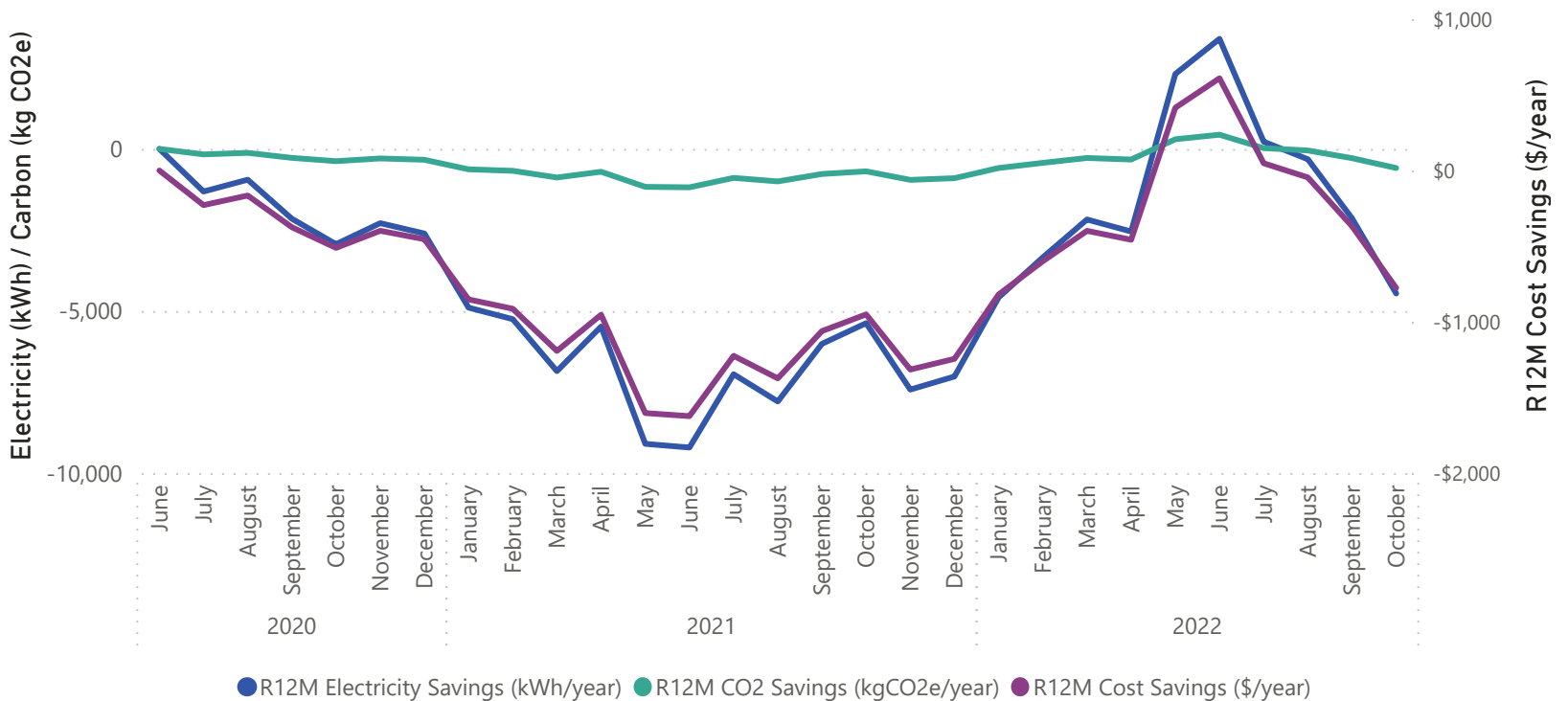
Whakatane District Council

Ohope Oxidation Ponds

Ohope Oxidation Ponds Carbon Emissions Compared to Baseline (kg CO2e)



Ohope Oxidation Ponds Rolling 12 Month Savings

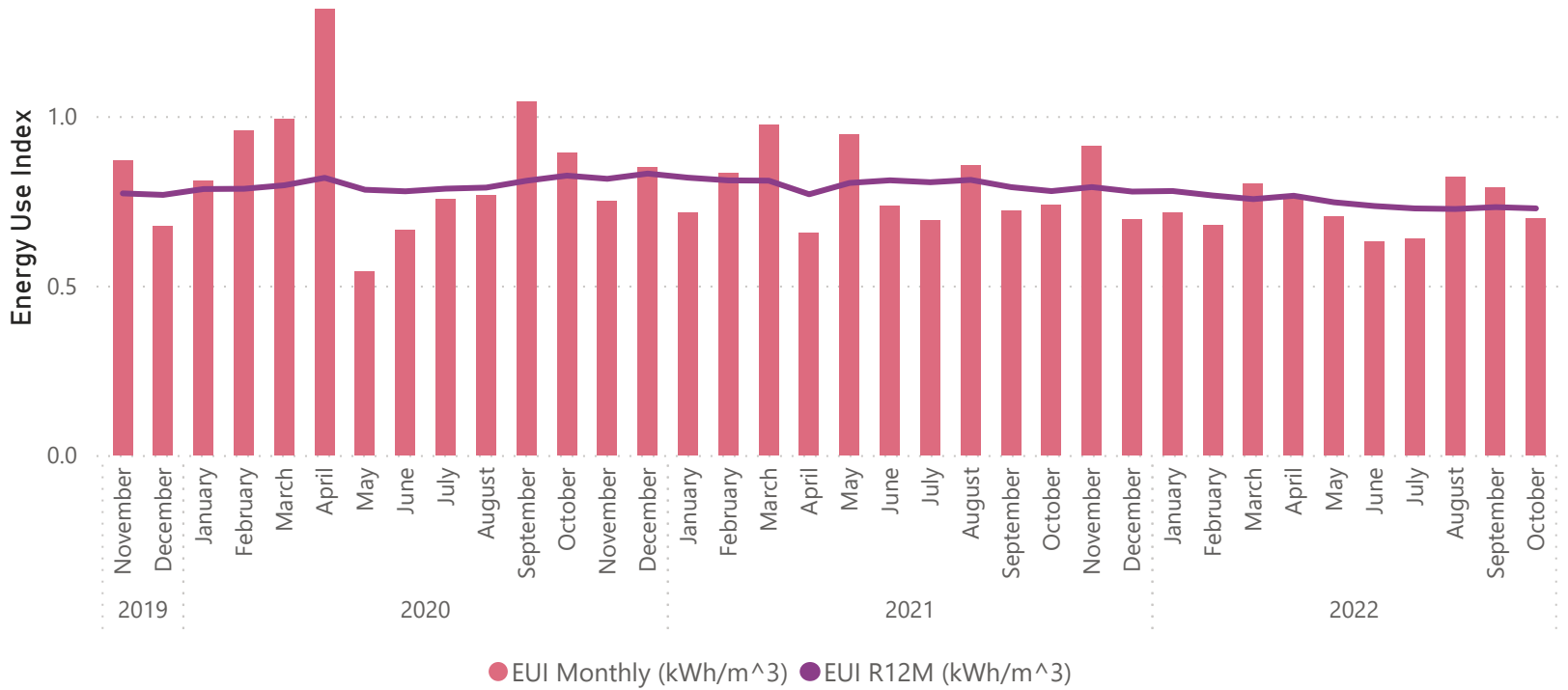


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

Ohope Oxidation Ponds

Ohope Oxidation Ponds Energy Use Index by Month Compared to Rolling 12-Month Values



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

Whakatane Oxidation Ponds

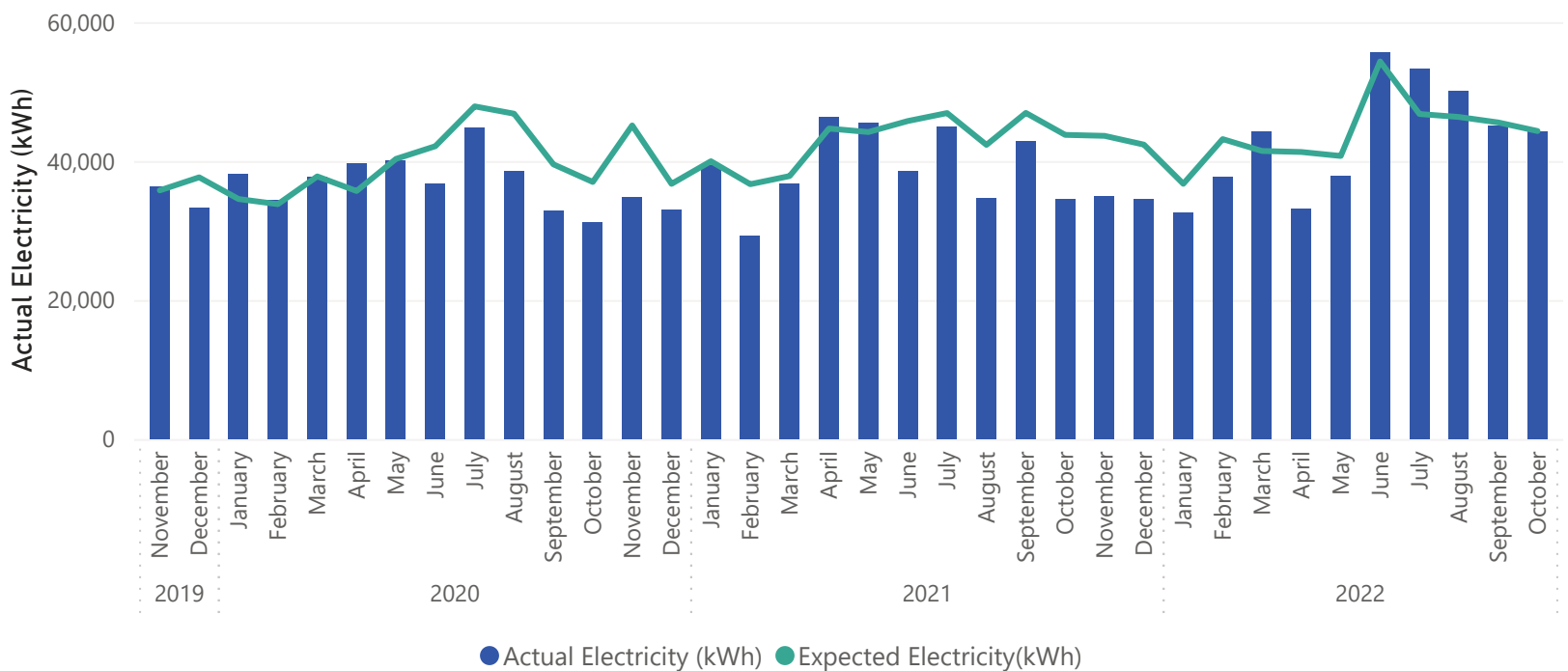
<p>\$12</p> <p>Monthly Energy Cost Savings</p>	<p>66</p> <p>Elec. Savings (kWh/mo)</p>	<p>0%</p> <p>Elec. Savings (%)</p>	<p>23,288</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>9</p> <p>CO2e Savings (kg/mo)</p>
<p>\$3,263</p> <p>R12M Energy Cost Savings</p>				<p>2,975</p> <p>R12M CO2e Savings (kg/yr)</p>

Comments:

The electricity use baseline was updated for the Whakatane Oxidation Ponds, the baseline period is July 2021 to June 2022. The electricity baseline combines electricity use for the NHH and TOU account and uses the effluent volumes each month (m³) as the independent variable. The updated baseline has a smaller baseload factor and a smaller variable component.

The EUI has decreased on average for the past five months, which is excellent. The EUI in October 2022 is approximately 8% lower than the same time last year.

Whakatane Oxidation Ponds Electricity Use Compared to Baseline (kWh)

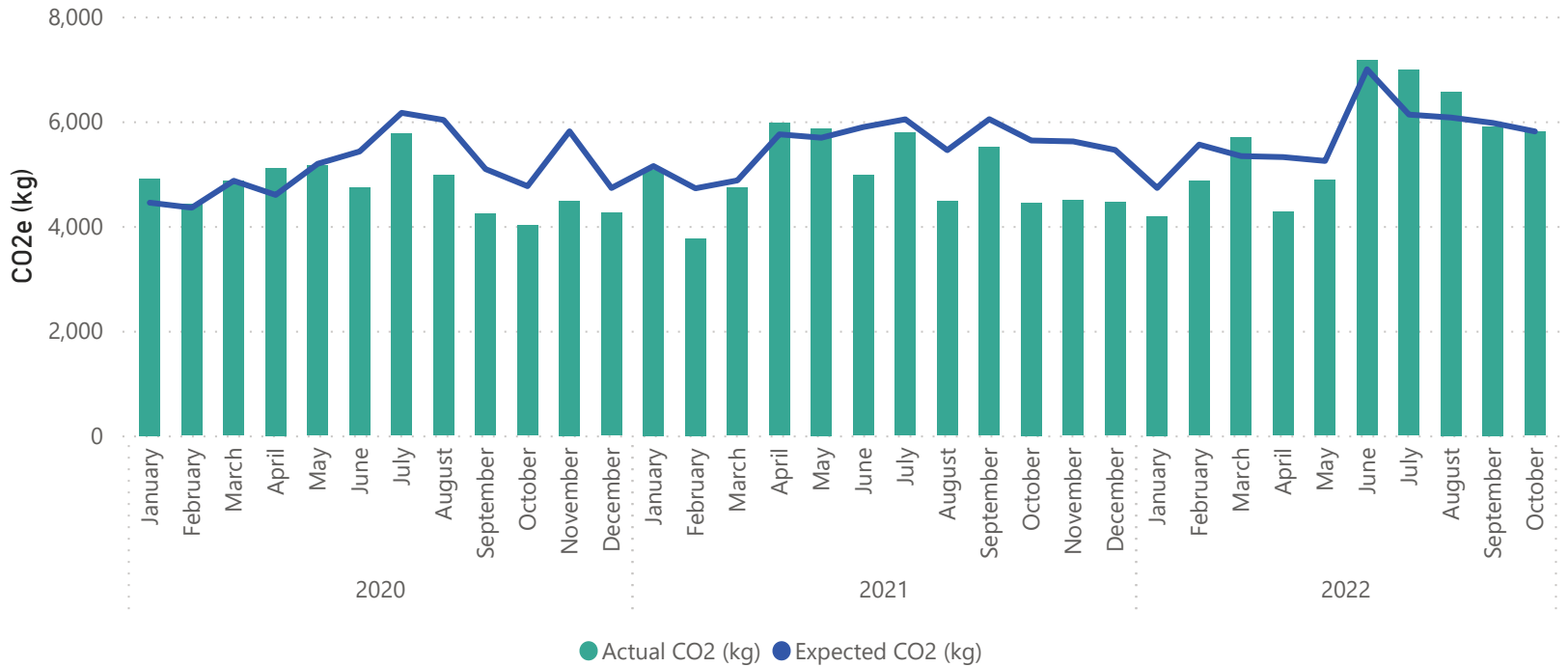


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

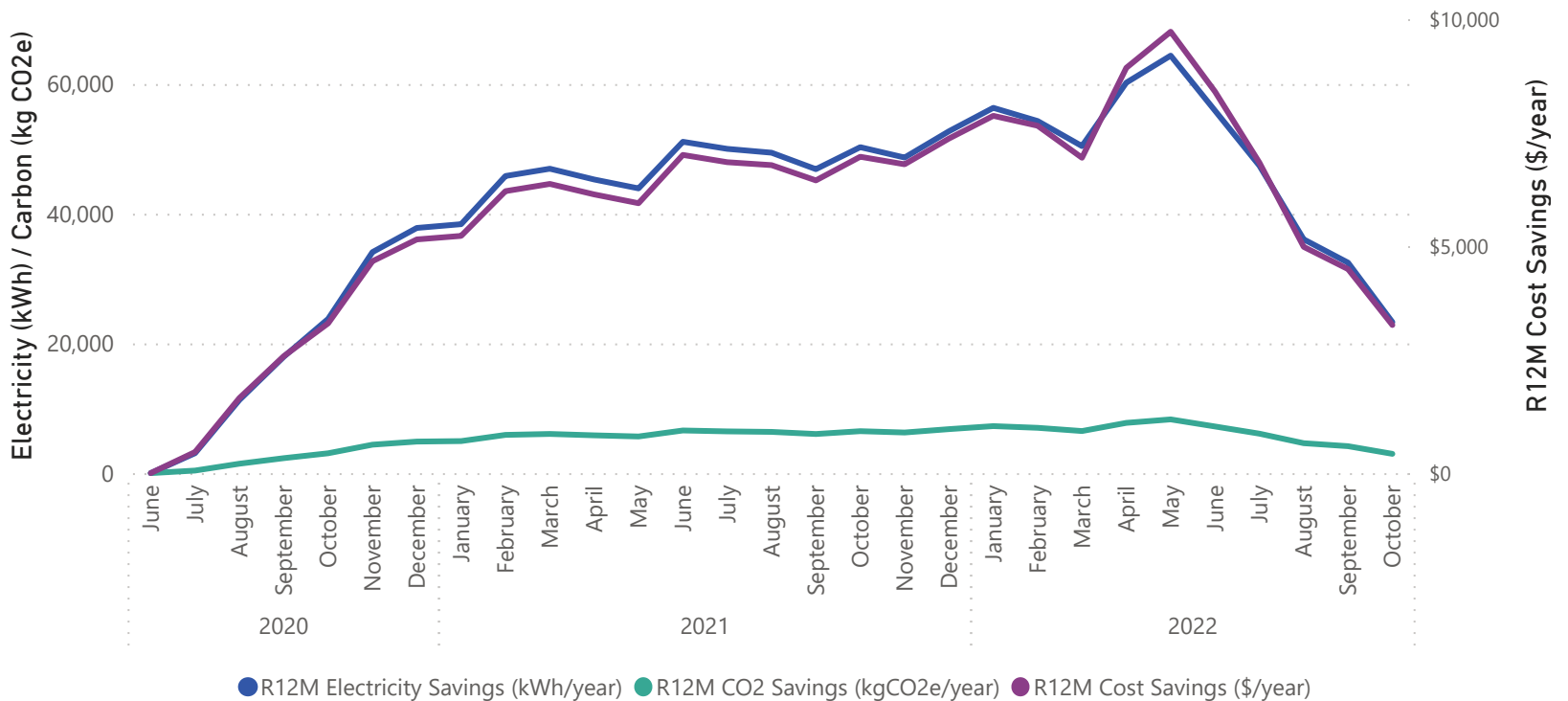
Whakatane District Council

Whakatane Oxidation Ponds

Whakatane Oxidation Ponds Carbon Emissions Compared to Baseline (kg CO2e)



Whakatane Oxidation Ponds Rolling 12 Month Savings

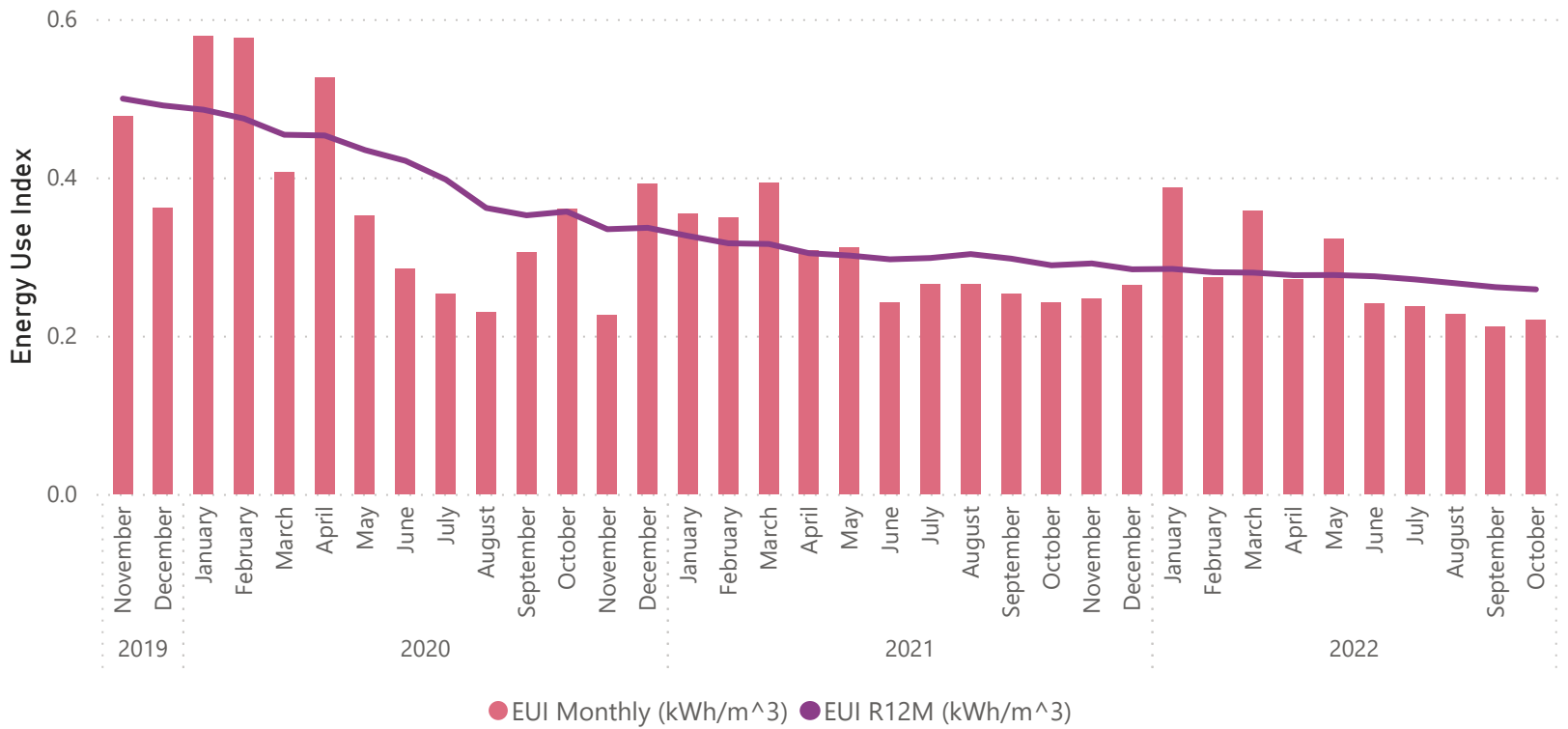


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council

Whakatane Oxidation Ponds

Whakatane Oxidation Ponds Energy Use Index by Month Compared to Rolling 12-Month Values



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

Whakatane District Council

McAlister Street and Rose Garden Pump Stations

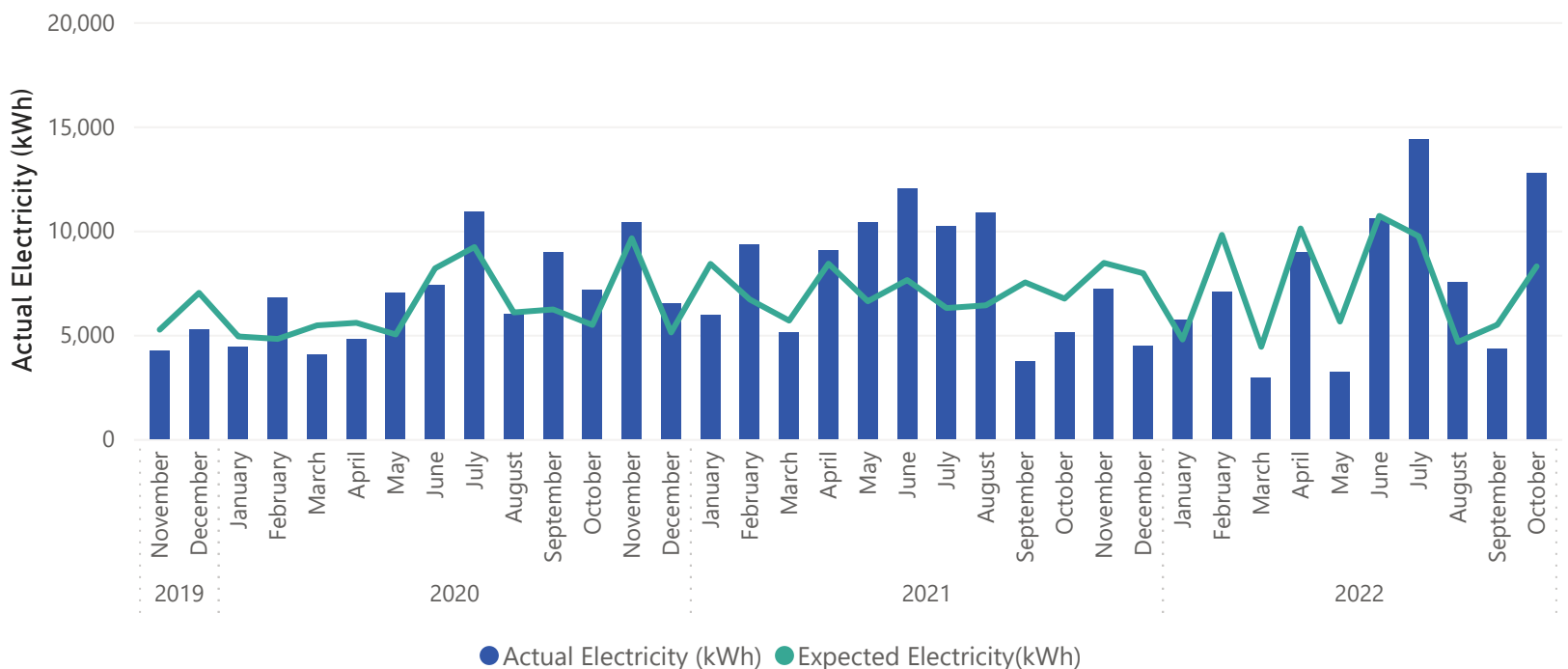
<p>-\$292 Monthly Energy Cost Savings</p>	<p>-4,472 Elec. Savings (kWh/mo)</p>	<p>-54% Elec. Savings (%)</p>	<p>835 R12M Electricity Savings (kWh/yr)</p>	<p>-586 CO2e Savings (kg/mo)</p>
<p>\$3,824 R12M Energy Cost Savings</p>				<p>82 R12M CO2e Savings (kg/yr)</p>

Comments:

The baseline for McAlister St and Rose Garden Pumps was updated, the baseline adjusts for the amount of rainfall at the Kopeopeo weather station. Expected electricity is for McAlister St and Rose Gardens combined. The baseline period uses data from July 2021 to June 2022. The updated baseline uses a smaller baseload and a marginally smaller variable component.

Electricity used for the month was 54% more than expected. Approximately 100mm of rain fell in October, however, over 200mm was captured during the electricity use billing period, which started in September. Rose Gardens pump station only used 39 kWh for the month. The McAlister Street station is principally responsible for using more electricity than expected.

McAlister and Rose Garden Pumps Electricity Use Compared to Baseline (kWh)

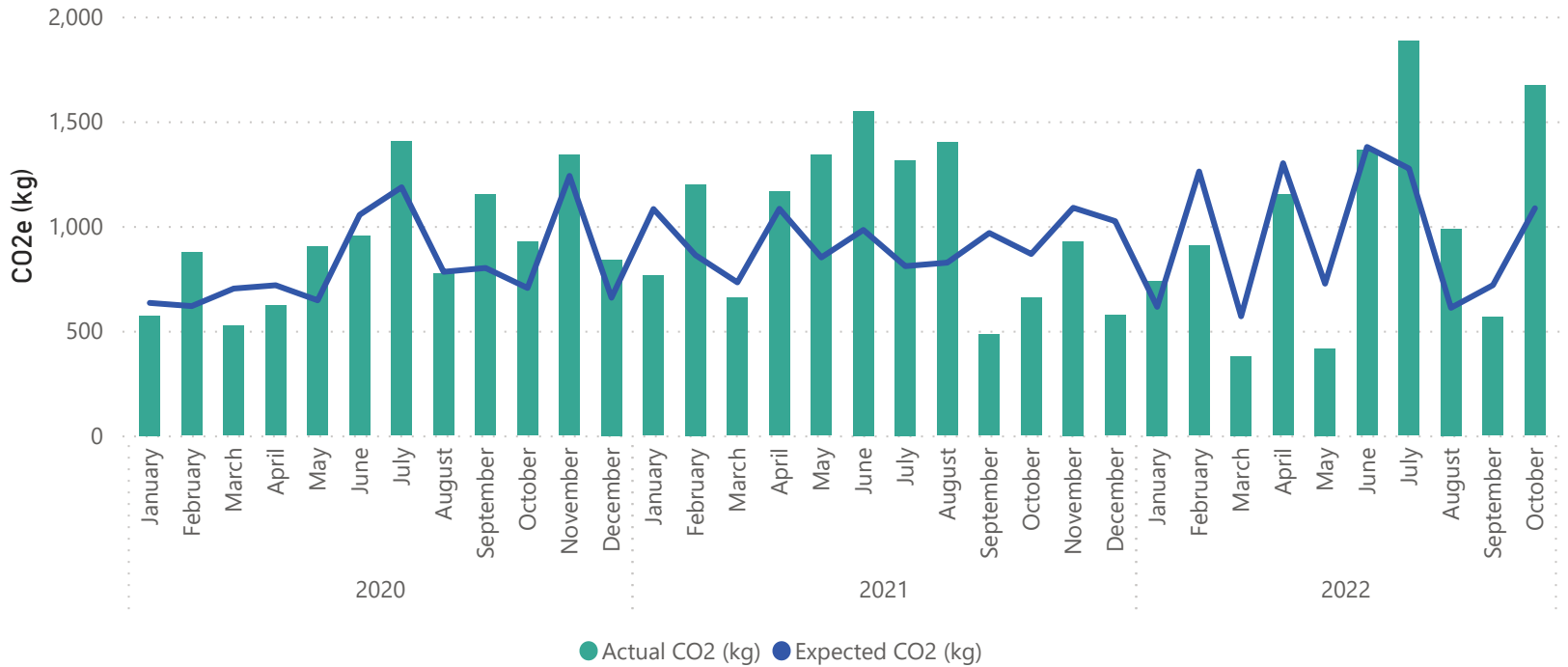


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

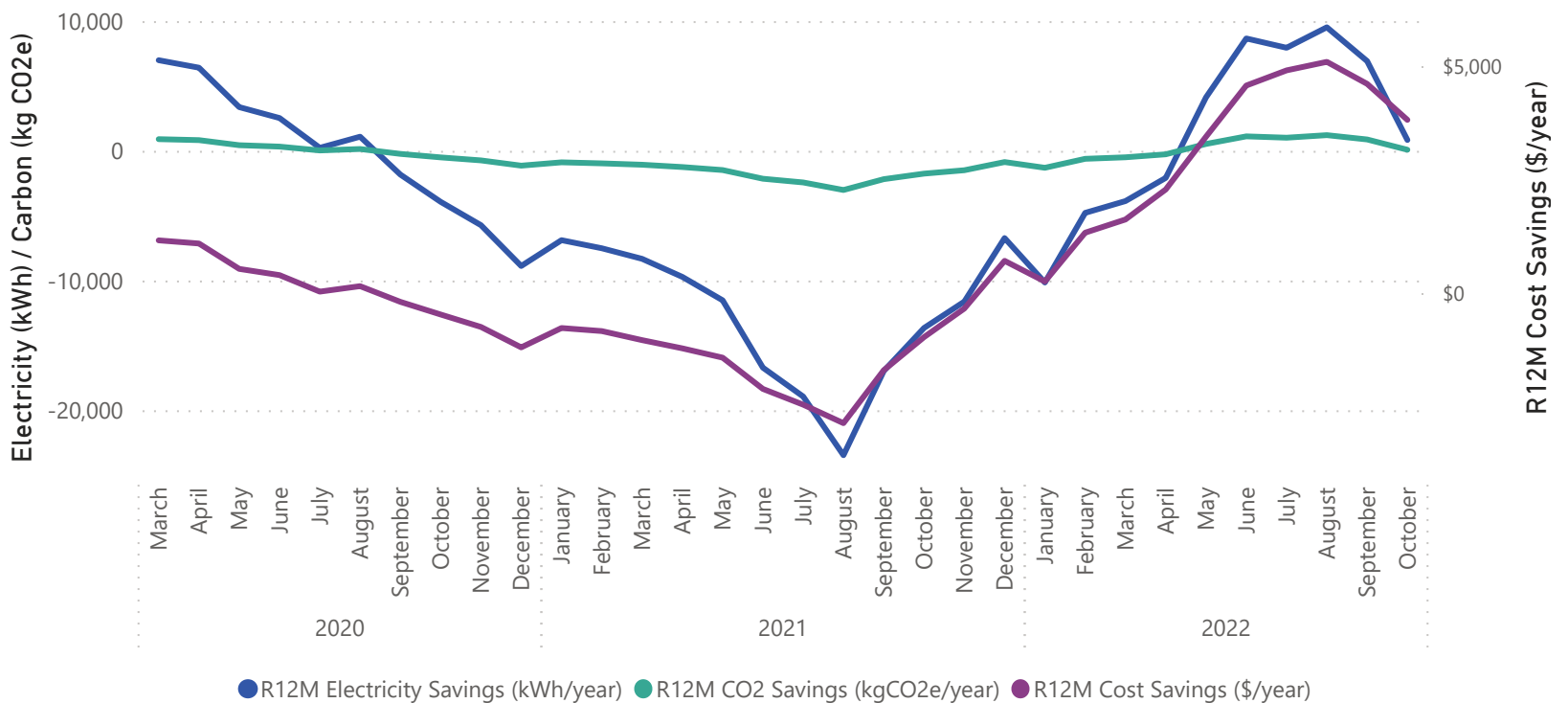
Whakatane District Council

McAlister Street and Rose Garden Pump Stations

McAlister and Rose Garden Pumps Carbon Emissions Compared to Baseline (kg CO2e)



McAlister and Rose Garden Pumps Rolling 12 Month Savings



Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**