

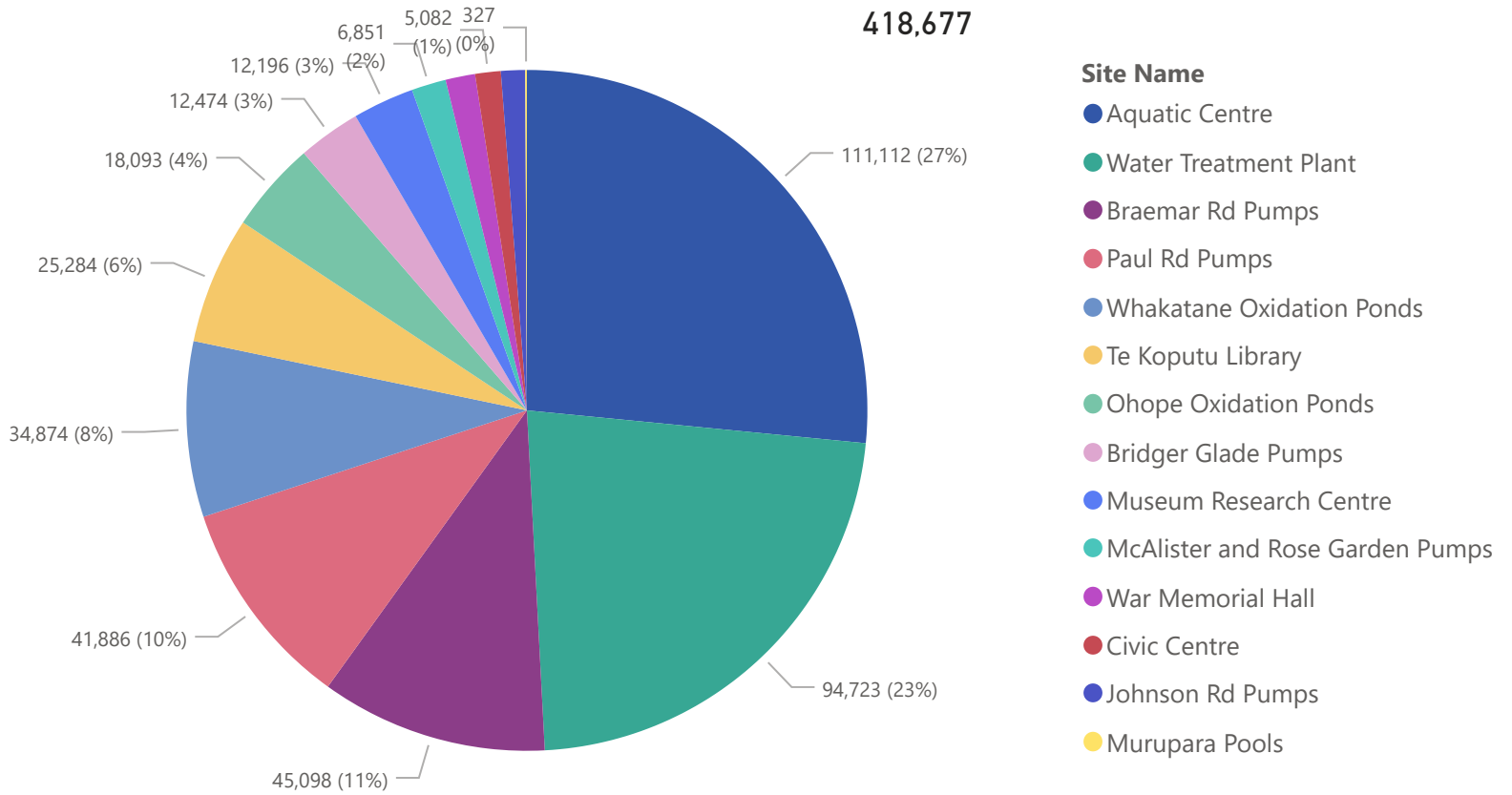
Whakatane District Council

Summary

<p>\$12,441</p> <p>Monthly Energy Cost Savings</p>	<p>63,036</p> <p>Elec. Savings (kWh/mo)</p>	<p>14%</p> <p>Elec. Savings (%)</p>	<p>480,899</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>10,997</p> <p>CO2e Savings (kg/mo)</p>
<p>\$127,088</p> <p>R12M Energy Cost Savings</p>	<p>13,235</p> <p>Gas. Savings (kWh/mo)</p>	<p>43%</p> <p>Gas. Savings (%)</p>	<p>459,209</p> <p>R12M Gas Savings (kWh/yr)</p>	<p>162,530</p> <p>R12M CO2e Savings (kg/yr)</p>

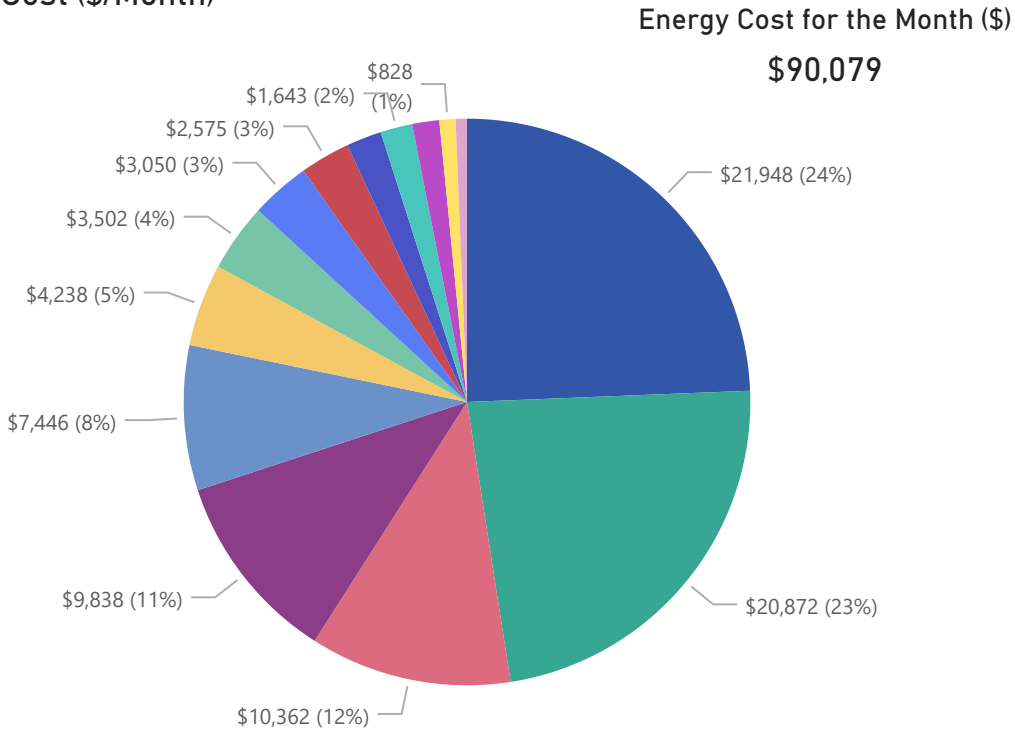
Total Energy (kWh/Month)

Total Energy Used for the Month (kWh)
418,677



Whakatane District Council Summary

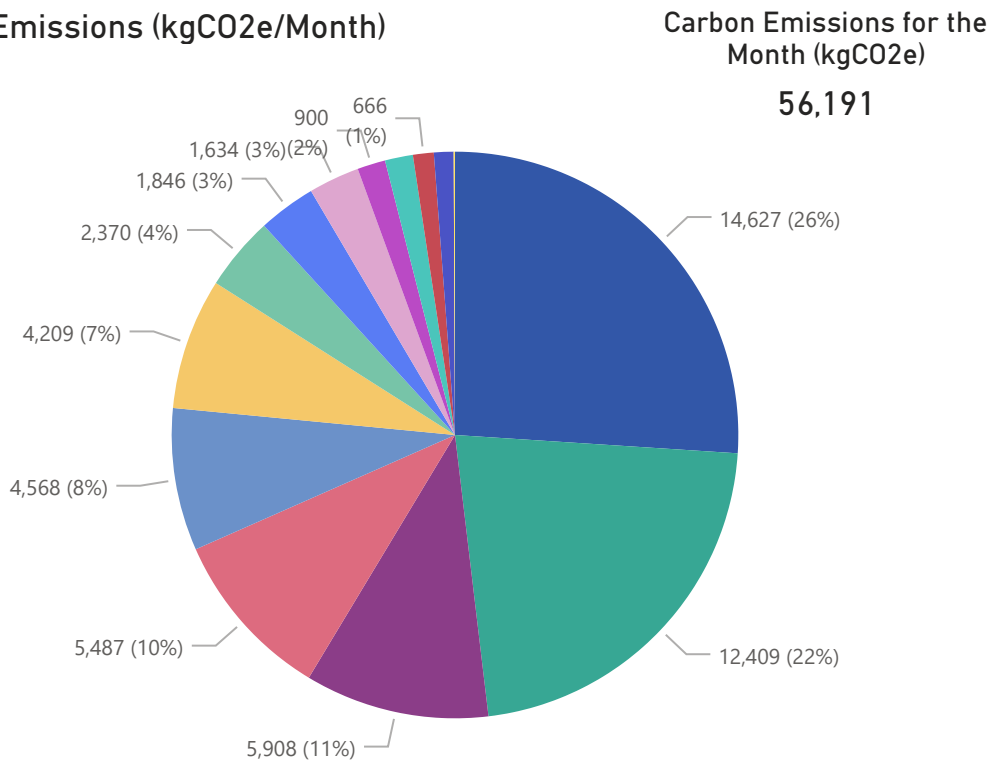
Energy Cost (\$/Month)



Site Name

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

Carbon Emissions (kgCO2e/Month)

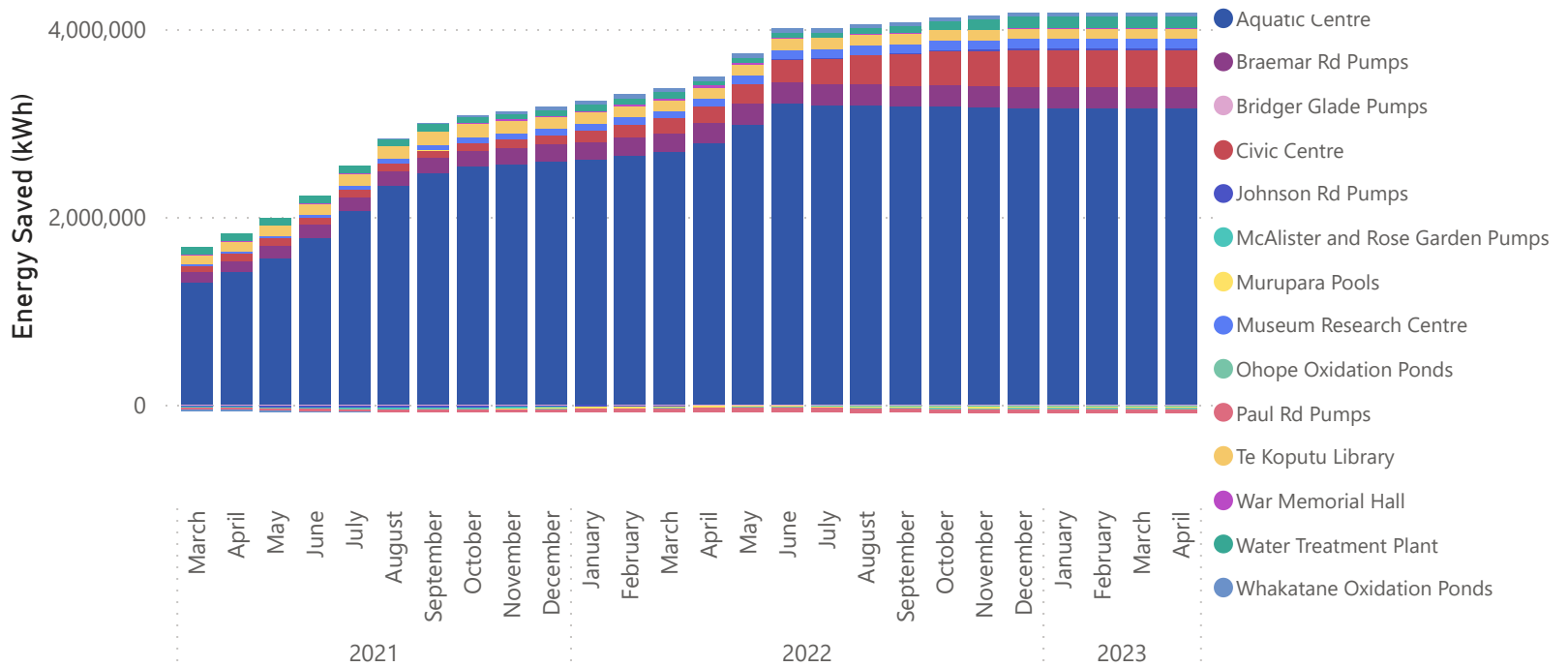


Site Name

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

Whakatane District Council Summary

Cumulative Energy Savings (kWh)



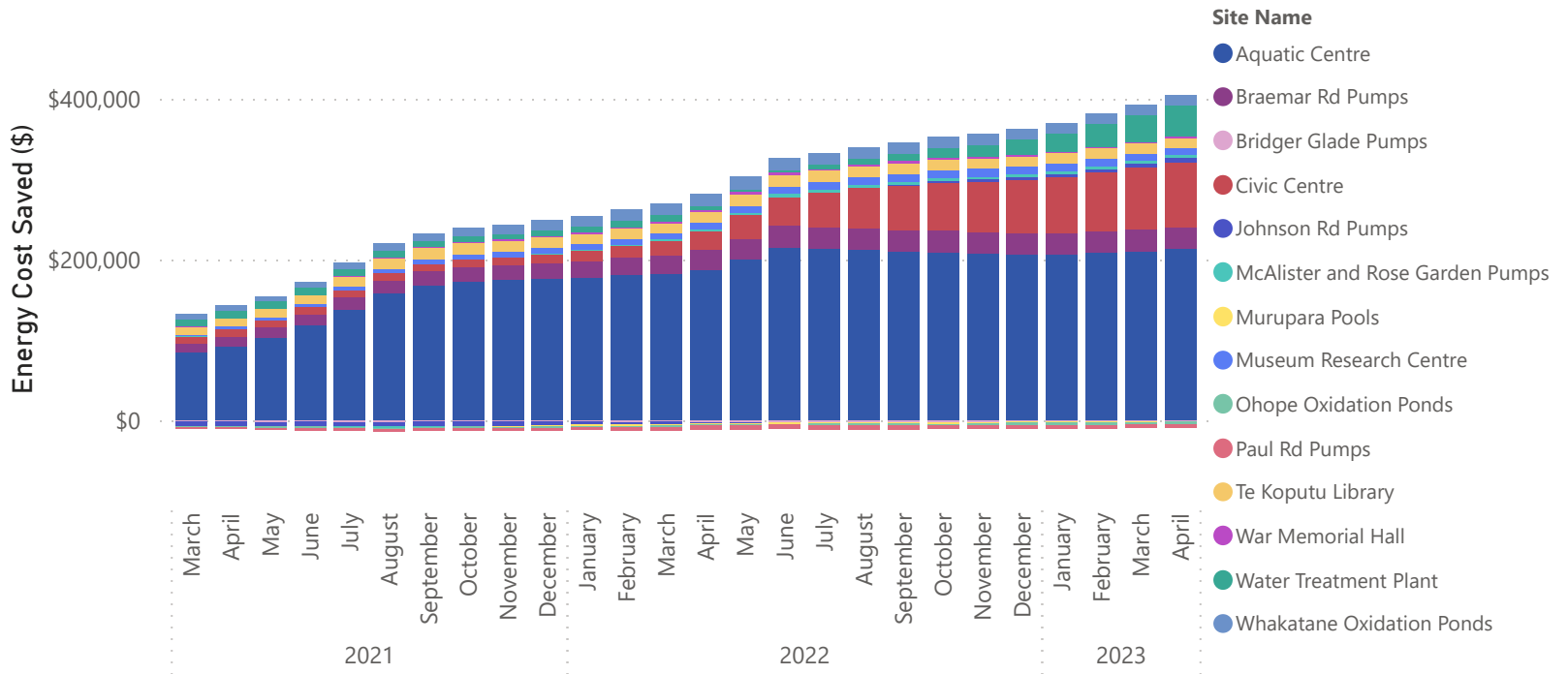
Note, cumulative savings are calculated starting July 2018

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

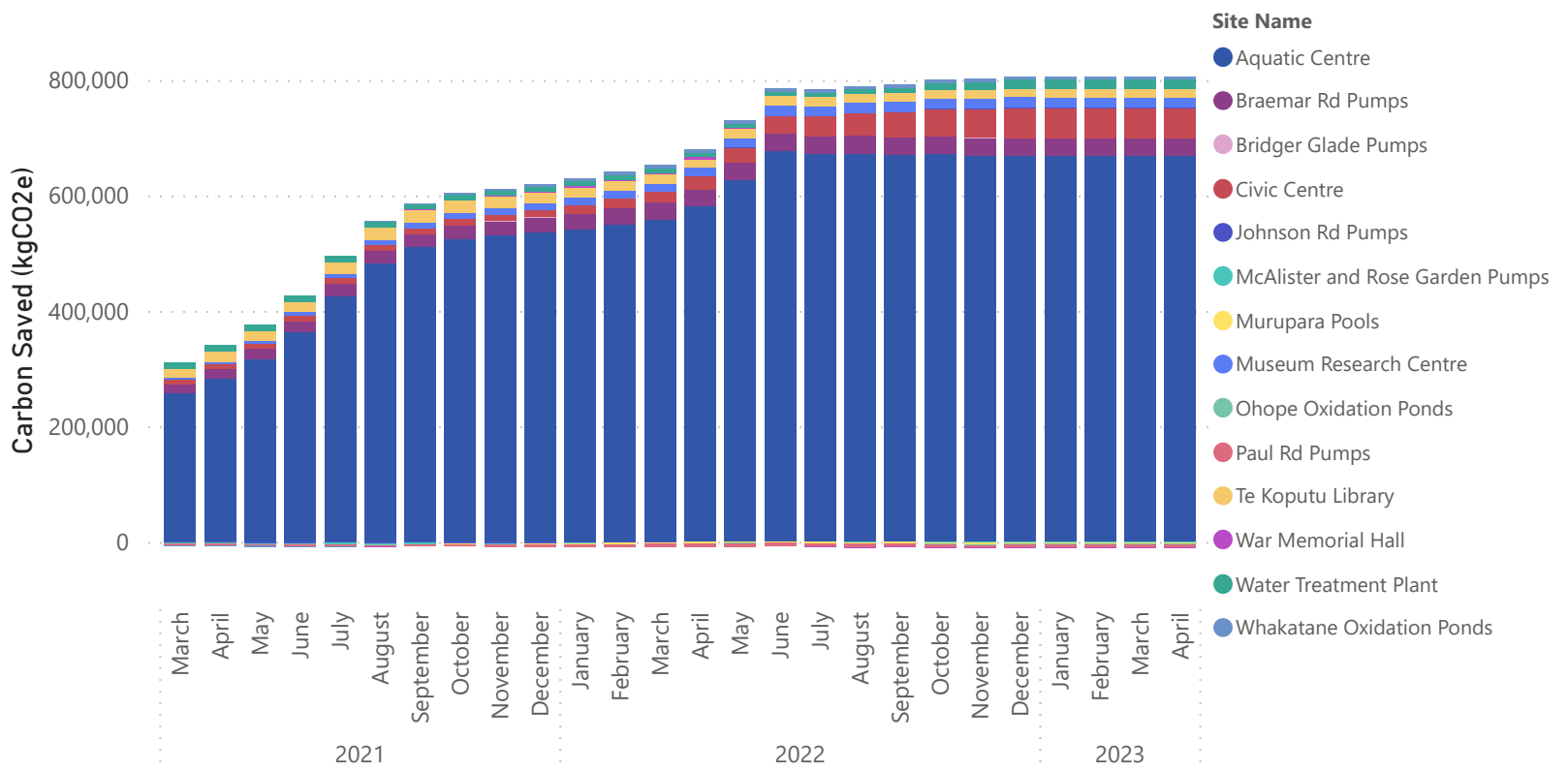
Summary

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>\$3,778 Monthly Energy Cost Savings</p>	<p>21,731 Elec. Savings (kWh/mo)</p>	<p>81% Elec. Savings (%)</p>	<p>300,045 R12M Electricity Savings (kWh/yr)</p>	<p>2,847 CO2e Savings (kg/mo)</p>
<p>\$56,879 R12M Energy Cost Savings</p>				<p>39,115 R12M CO2e Savings (kg/yr)</p>

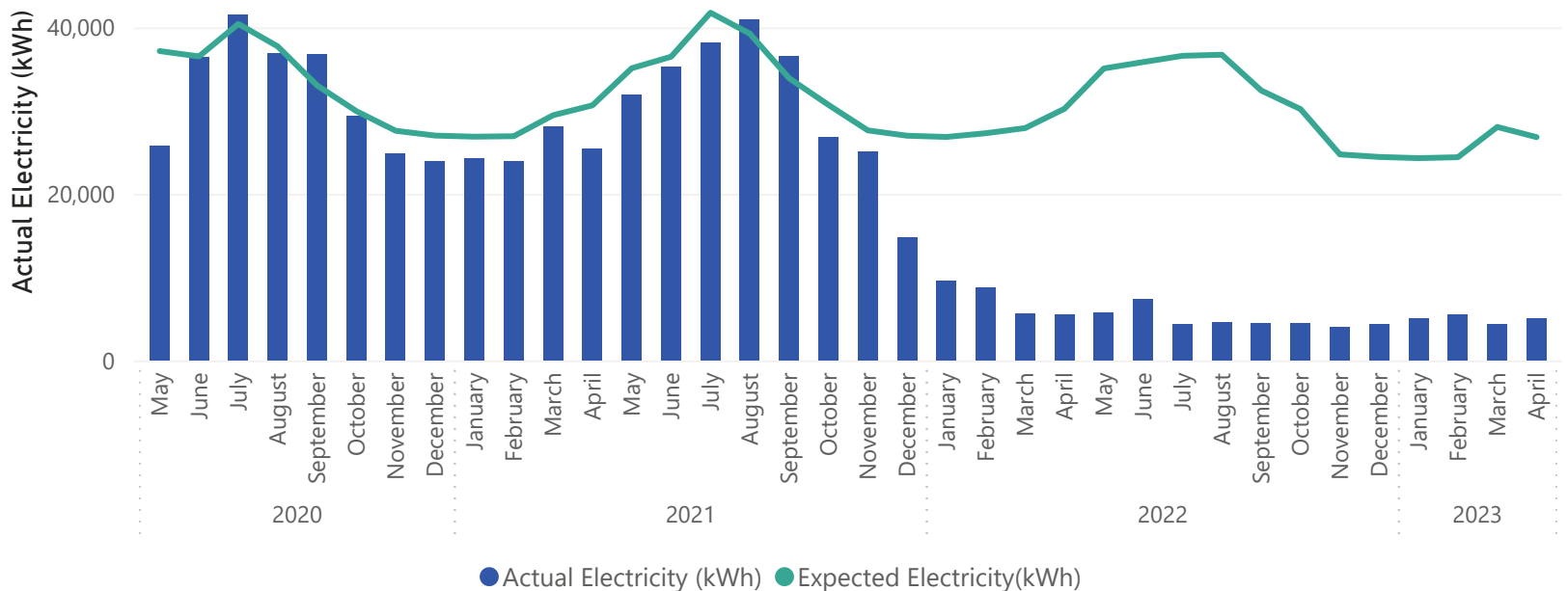
Comments:

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 2023, 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.

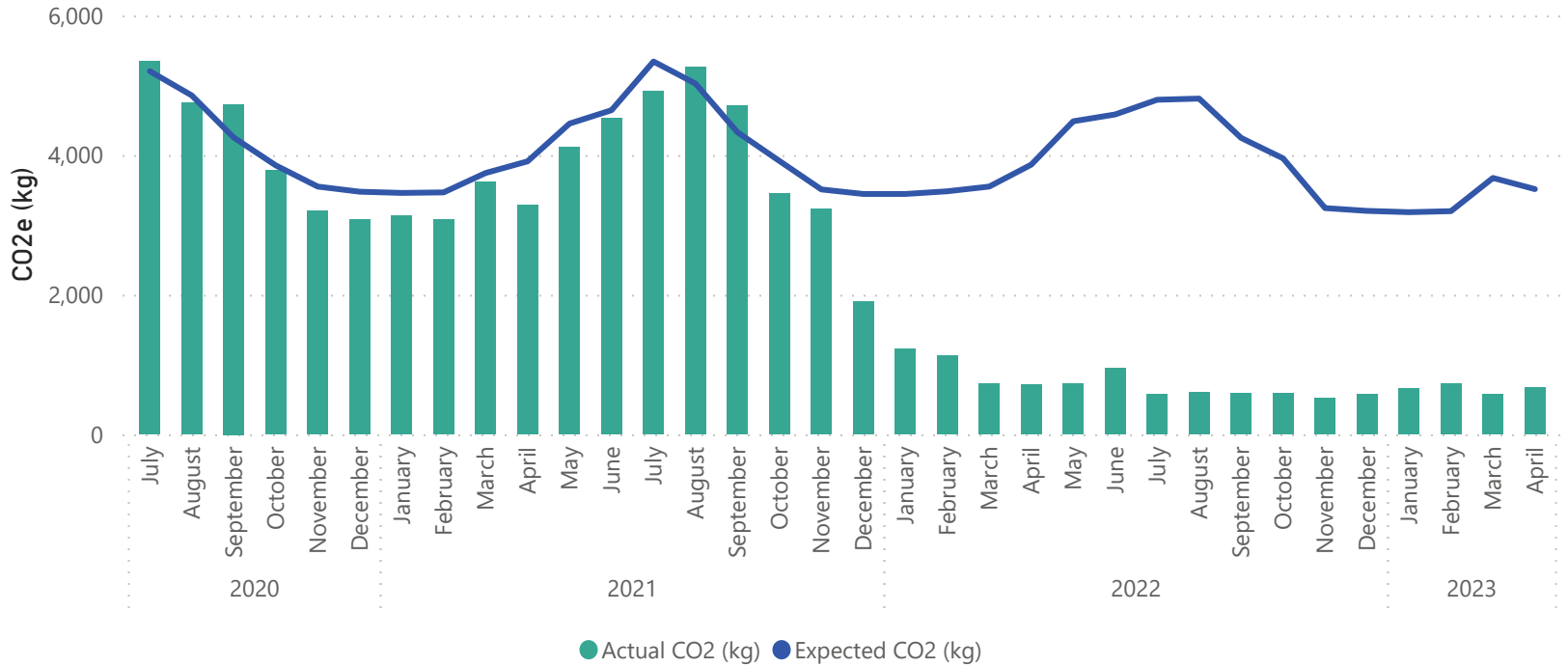
Civic Centre Electricity Use Compared to Baseline (kWh)



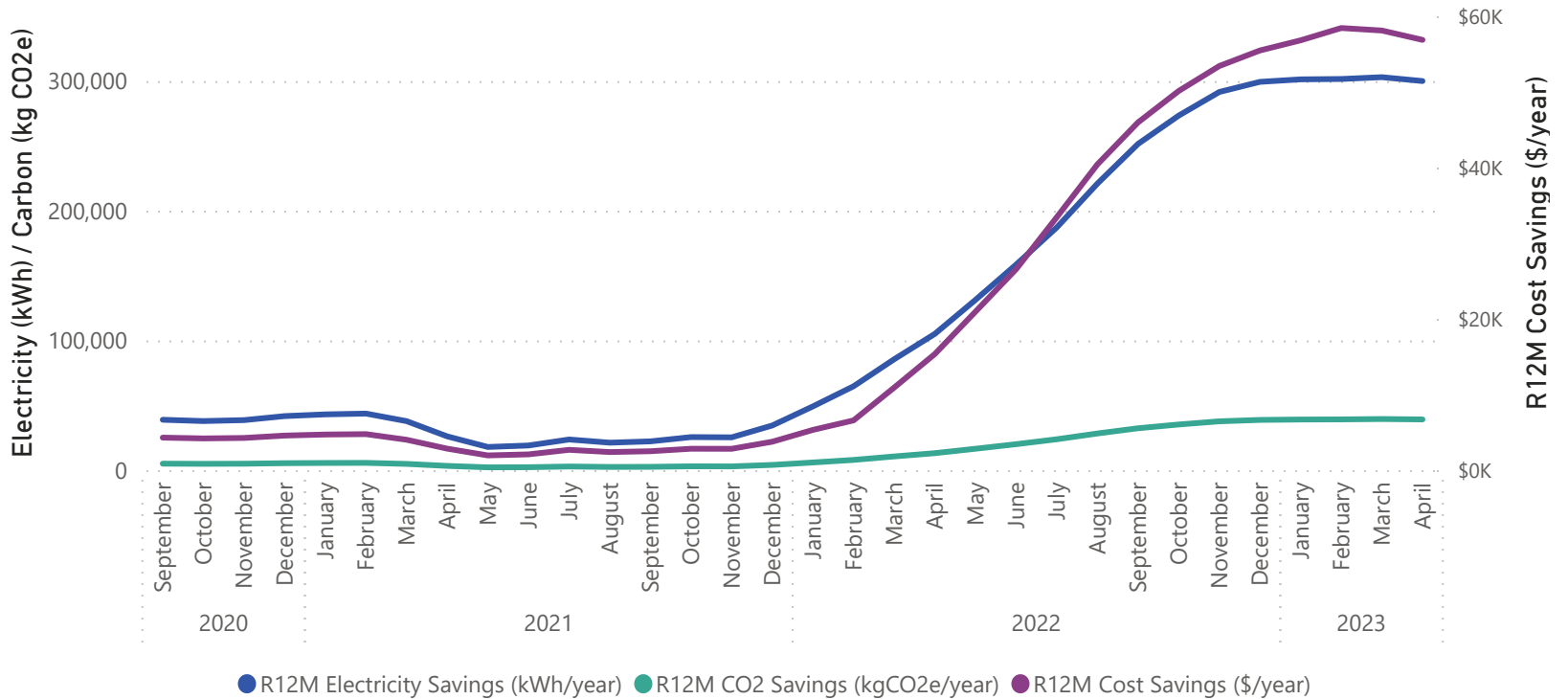
Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council Civic Centre

Civic Centre Carbon Emissions Compared to Baseline (kg CO2e)



Civic Centre Rolling 12 Month Savings

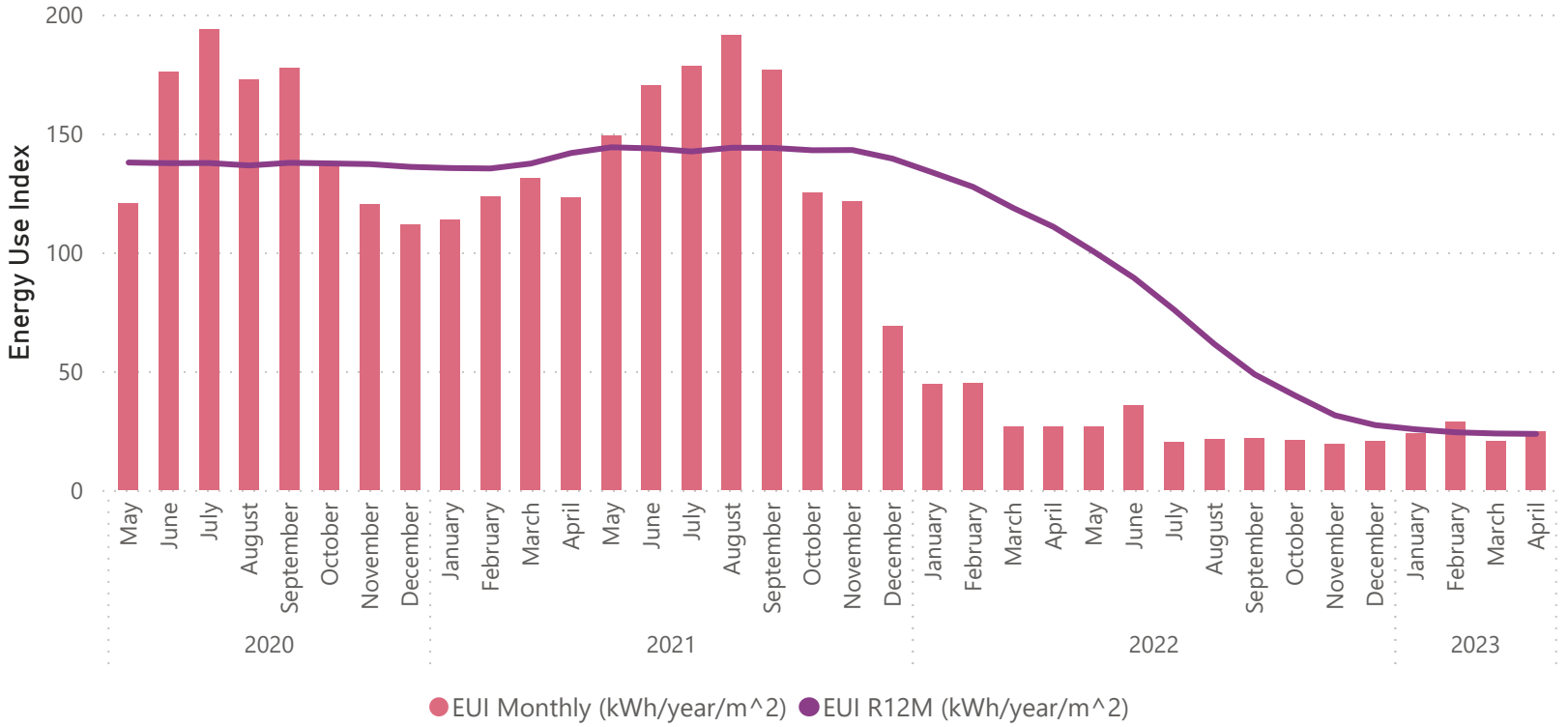


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

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

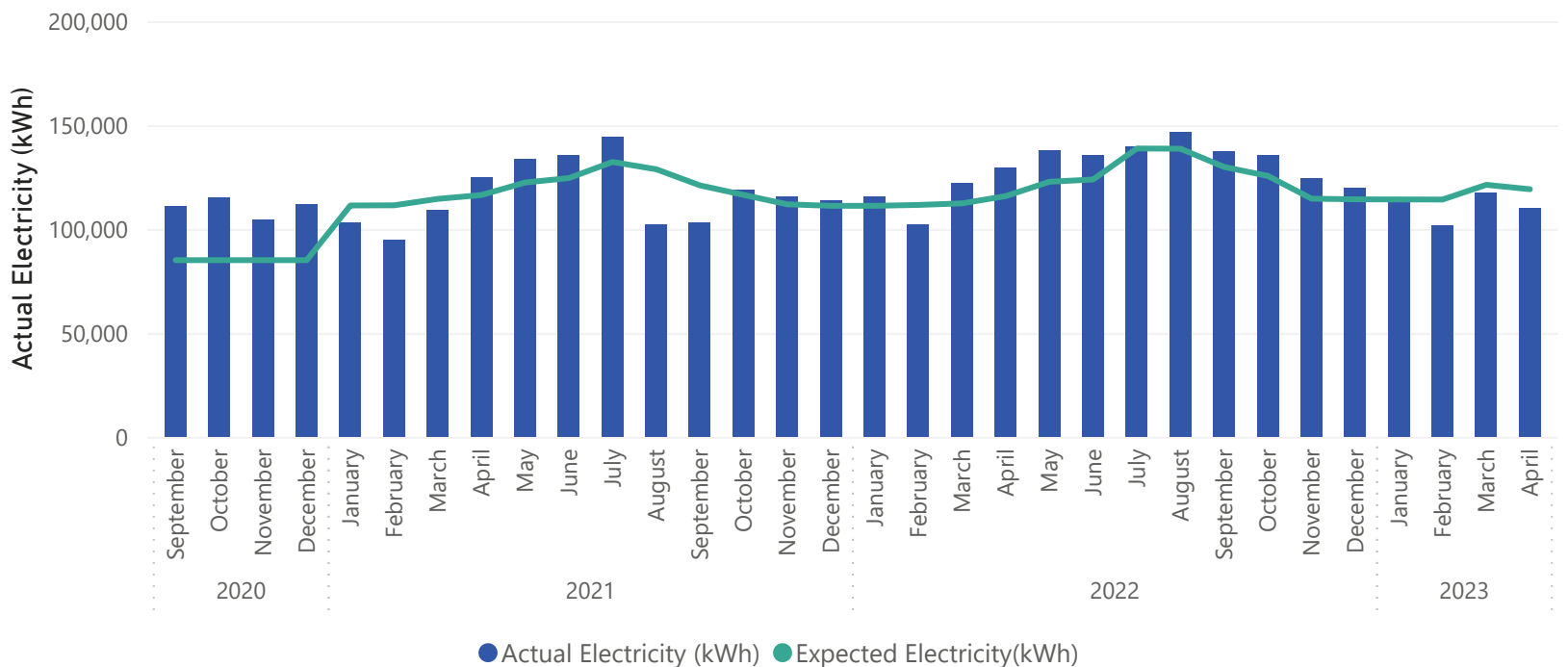
<p>\$2,600</p> <p>Monthly Energy Cost Savings</p>	<p>8,951</p> <p>Elec. Savings (kWh/mo)</p>	<p>8%</p> <p>Elec. Savings (%)</p>	<p>-42,715</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>3,856</p> <p>CO2e Savings (kg/mo)</p>
<p>\$25,772</p> <p>R12M Energy Cost Savings</p>	<p>12,966</p> <p>Gas. Savings (kWh/mo)</p>	<p>93%</p> <p>Gas. Savings (%)</p>	<p>476,285</p> <p>R12M Gas Savings (kWh/yr)</p>	<p>97,592</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 less than expected in April 2023. The Aquatic Centre used very little gas this month, the boilers were switched off from 17 December and heating has been primarily provided by heat pumps. The EUI for the month is lower than the average for the past 12 months, which is excellent.

Aquatic Centre Electricity Use Compared to Baseline (kWh)

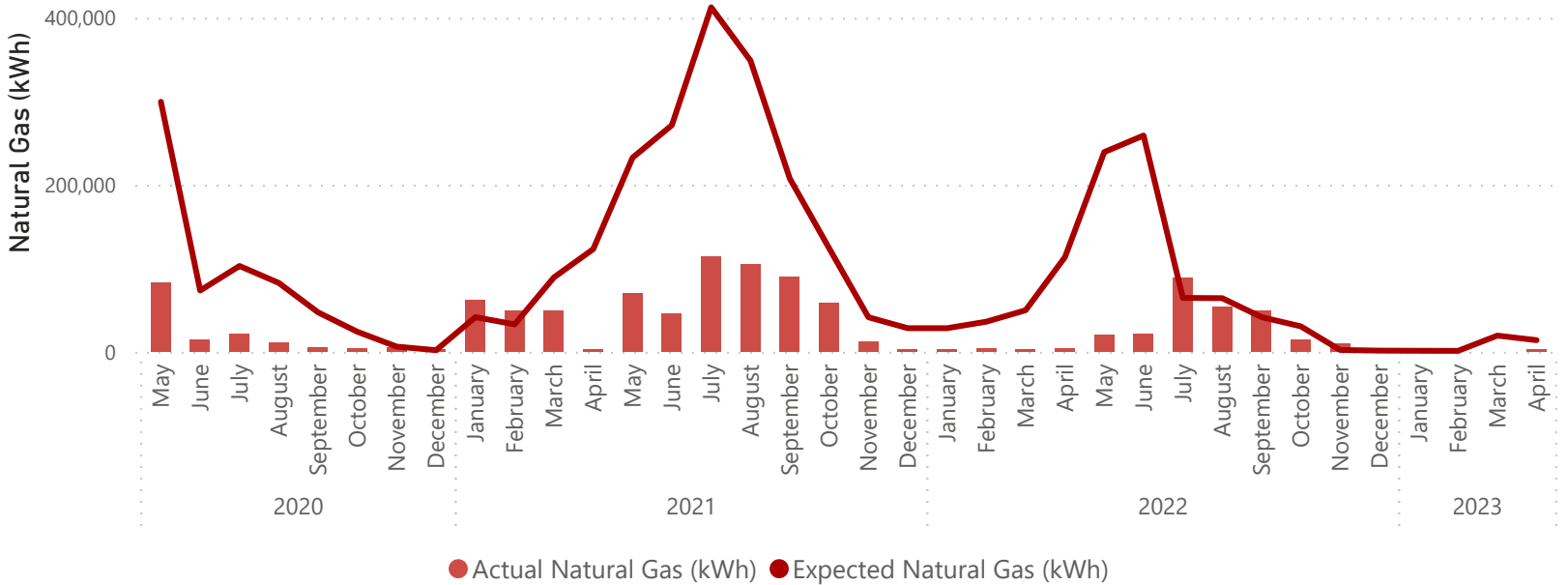


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

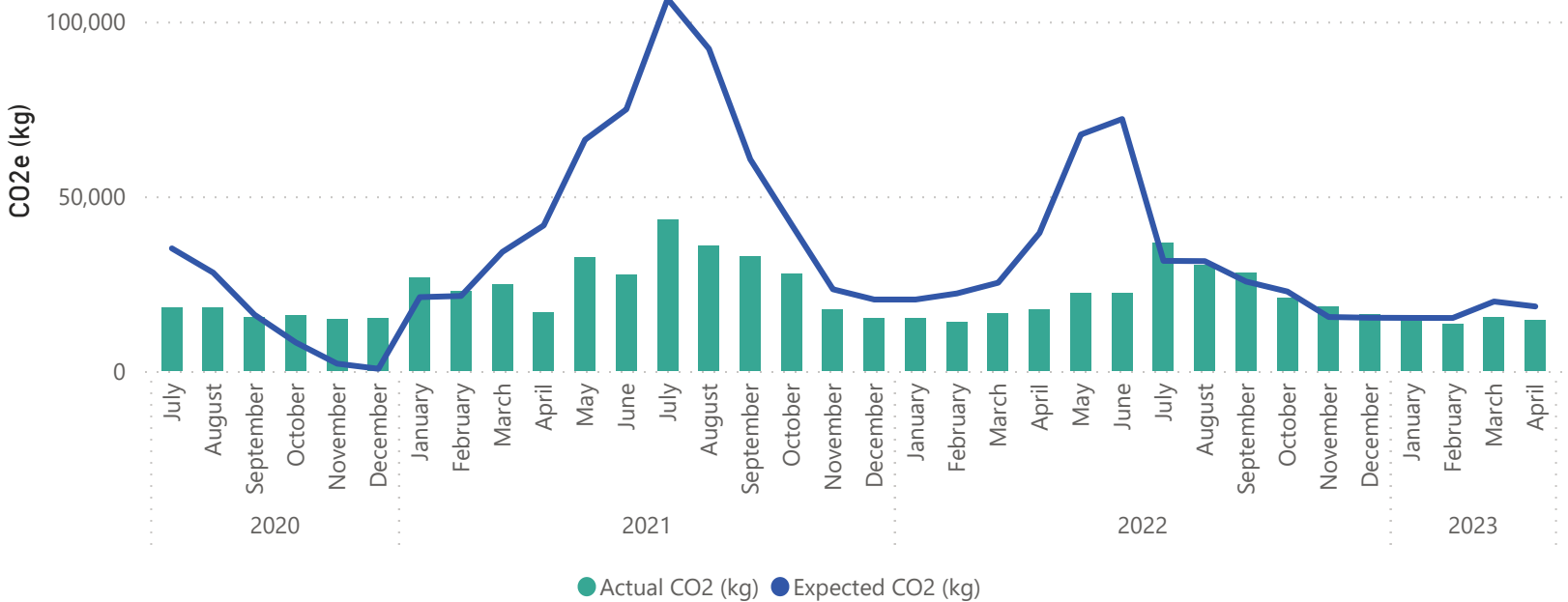
Whakatane District Council

Aquatic Centre

Aquatic Centre Natural Gas Compared to Baseline (kWh)



Aquatic Centre Carbon Emissions Compared to Baseline (kg CO2e)

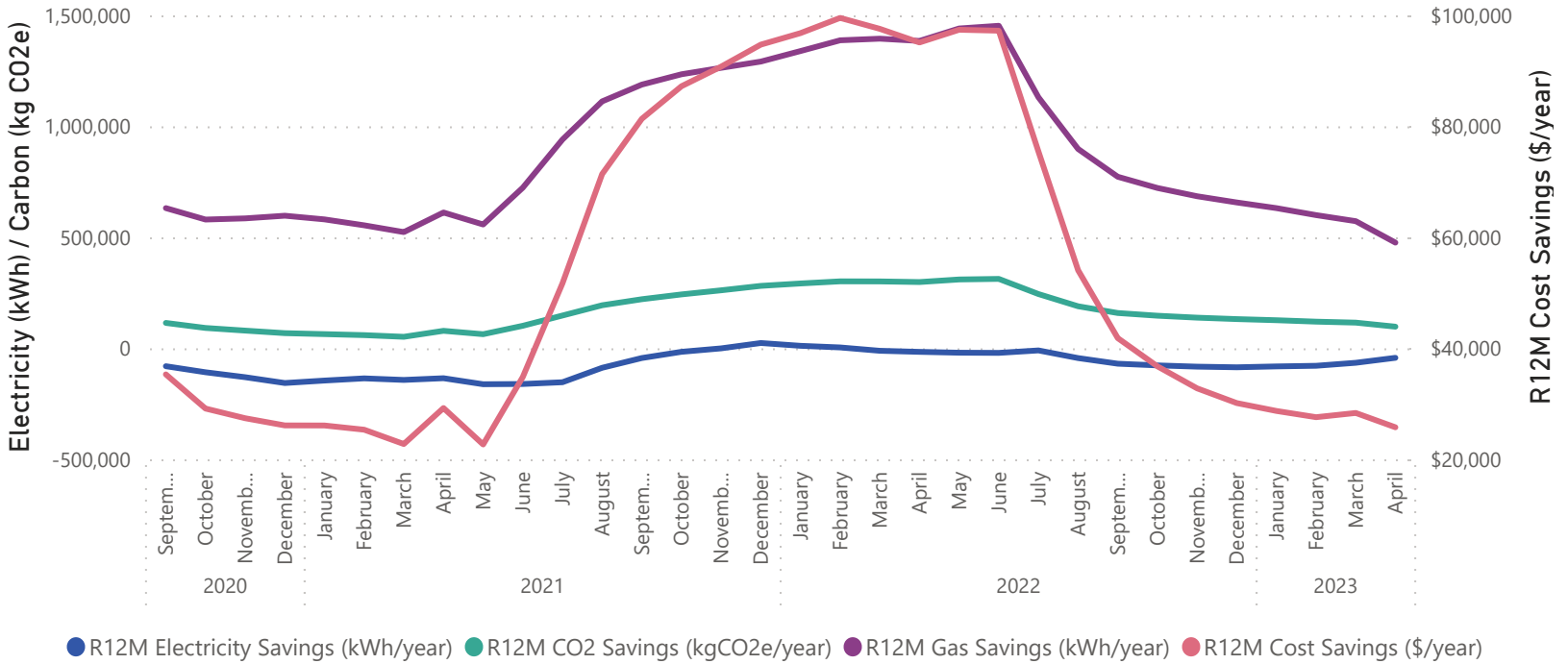


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

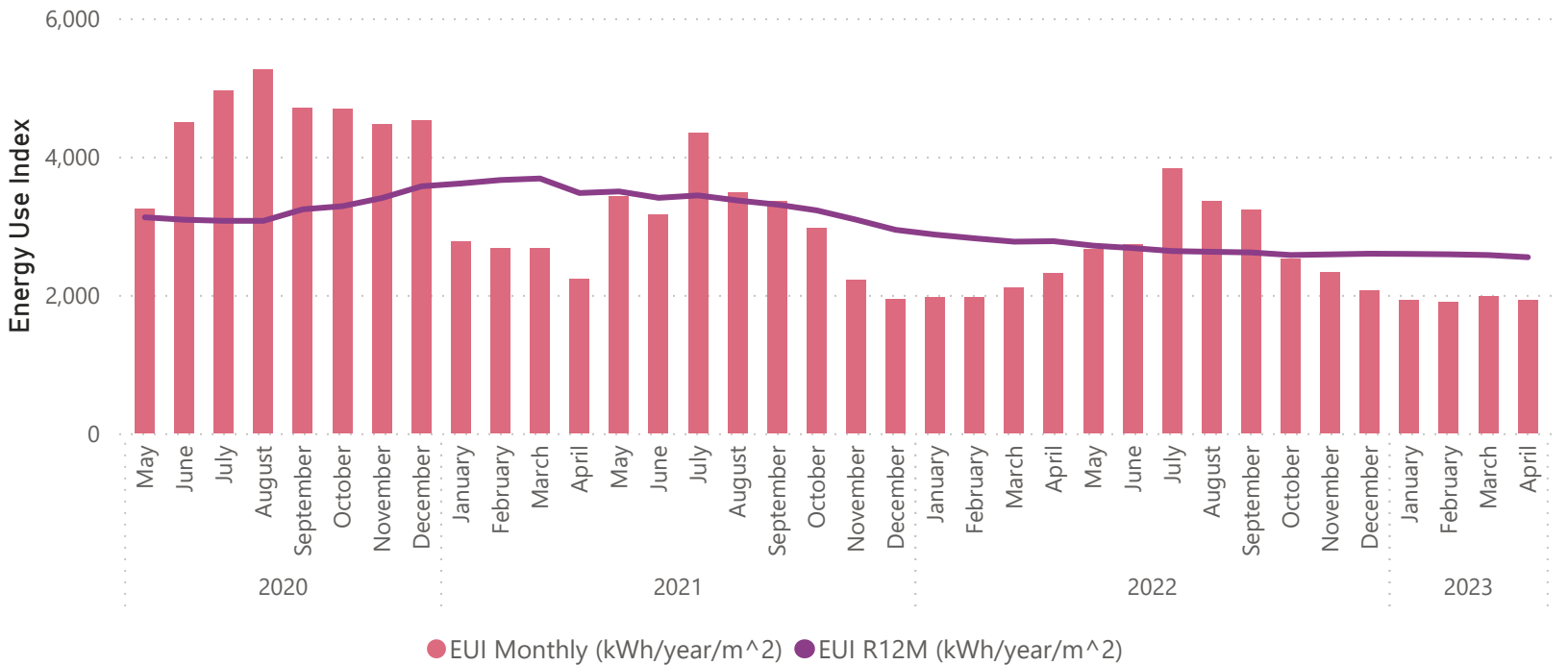
Whakatane District Council

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

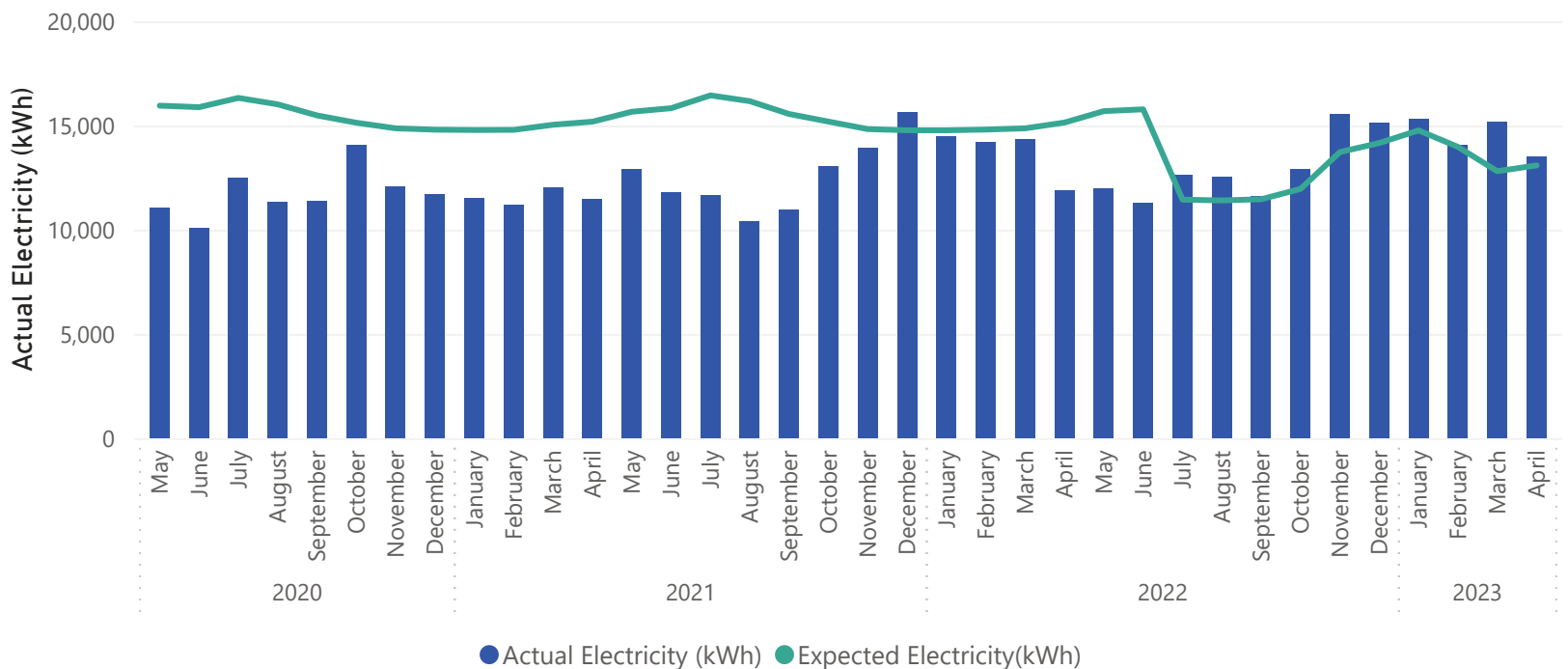
<p>-\$58 Monthly Energy Cost Savings</p>	<p>-399 Elec. Savings (kWh/mo)</p>	<p>-3% Elec. Savings (%)</p>	<p>-1,340 R12M Electricity Savings (kWh/yr)</p>	<p>-17 CO2e Savings (kg/mo)</p>
<p>-\$485 R12M Energy Cost Savings</p>	<p>171 Gas. Savings (kWh/mo)</p>	<p>1% Gas. Savings (%)</p>	<p>-7,717 R12M Gas Savings (kWh/yr)</p>	<p>-1,745 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 more than expected for the month, natural gas use was less than expected. The average daily temperature in April 2023 was approximately one degree warmer than April 2022,. April 2023 was a less humid month compared to March 2023, 7% less relative humidity on average.

Te Koputu Library Electricity Use Compared to Baseline (kWh)

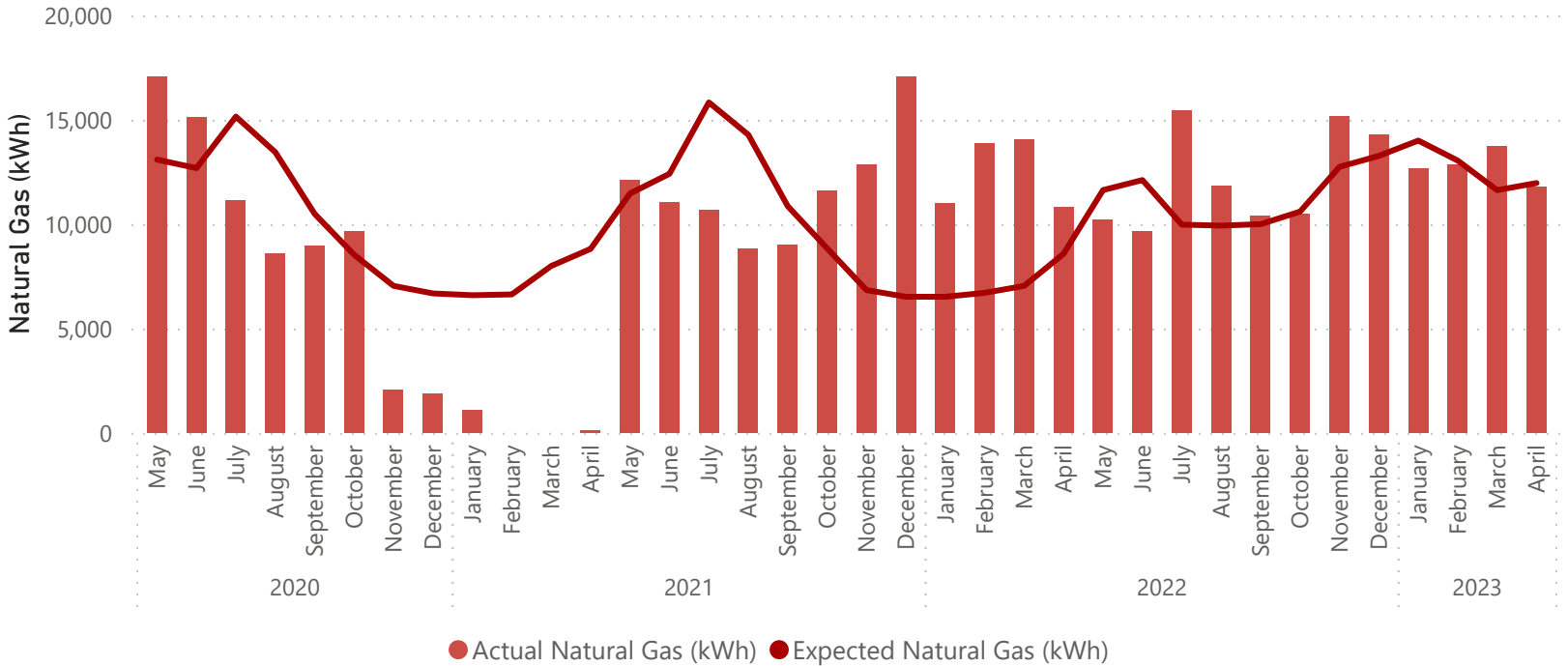


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

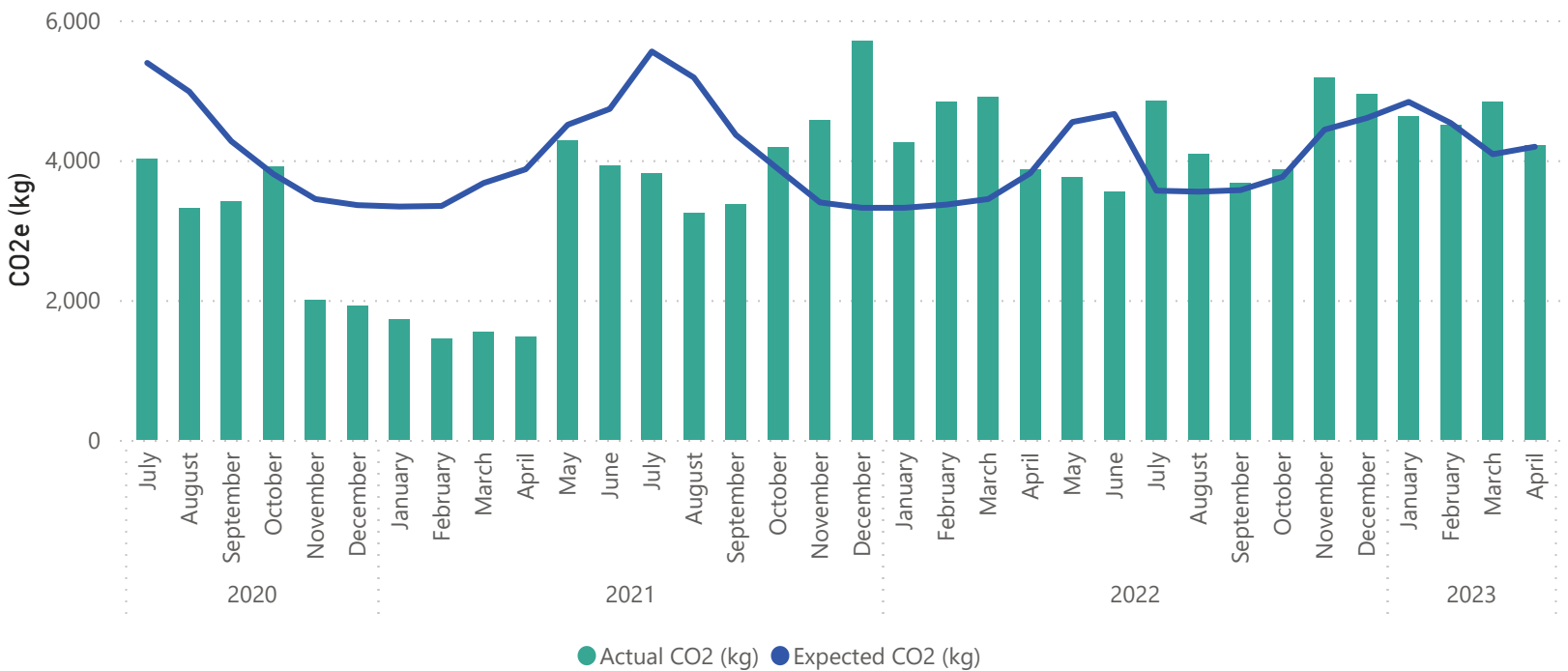
Whakatane District Council

Te Koputu Library

Te Koputu Library Natural Gas Compared to Baseline (kWh)



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

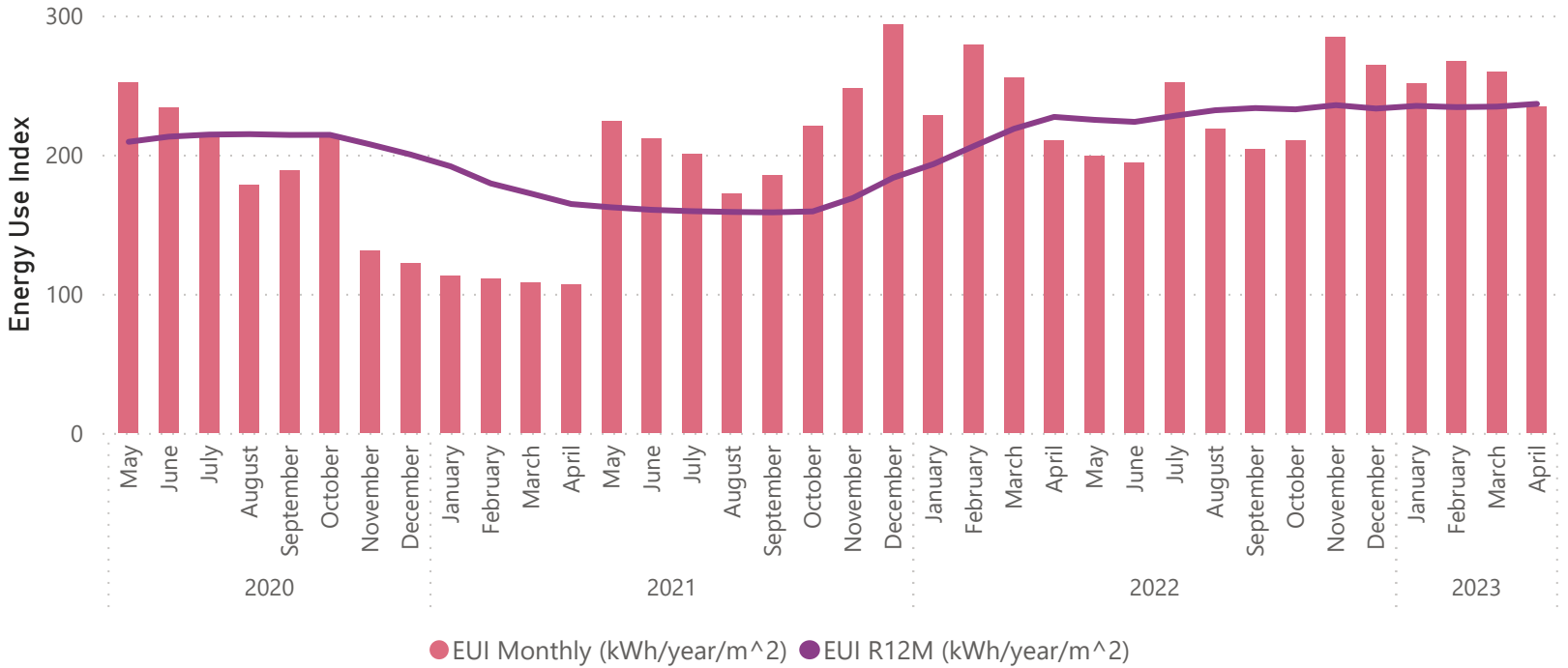


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

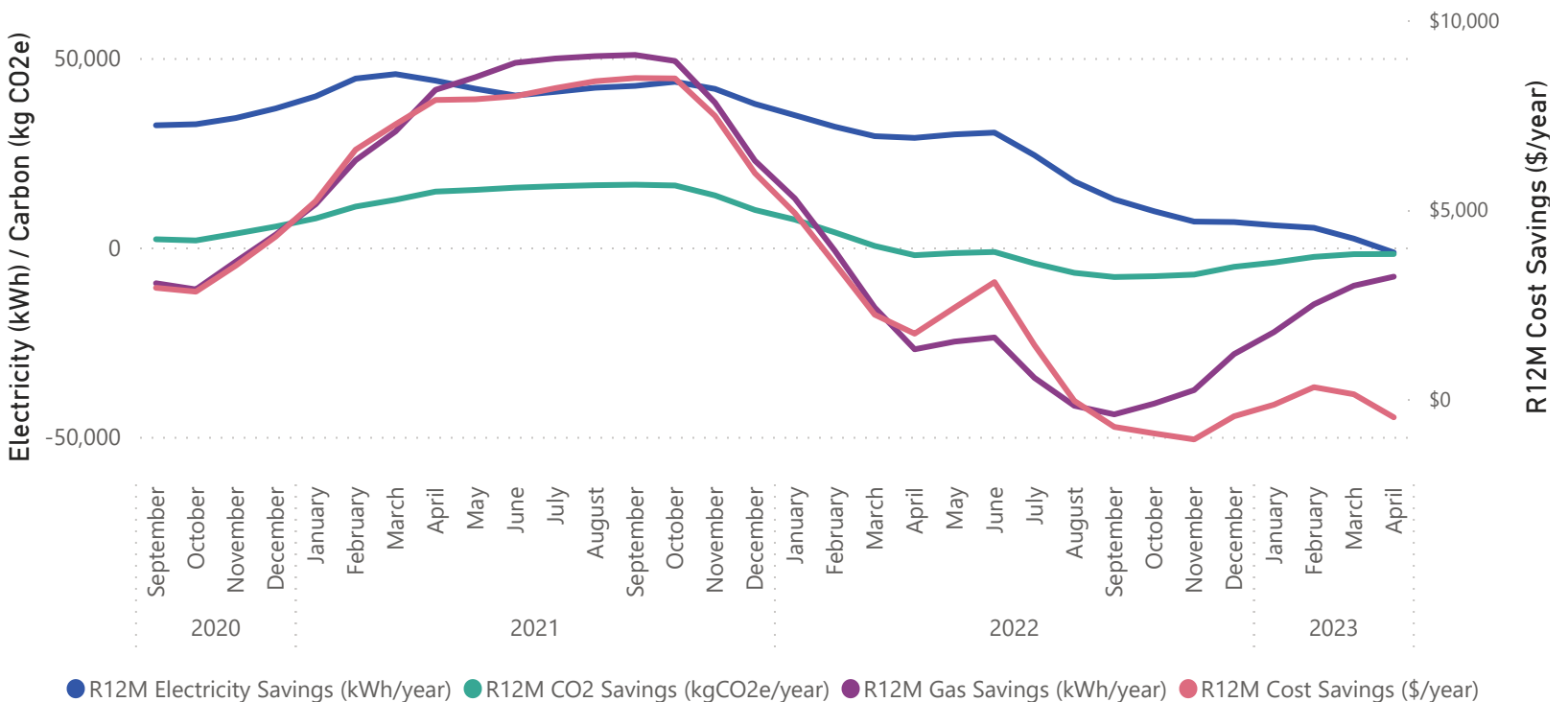
Whakatane District Council

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

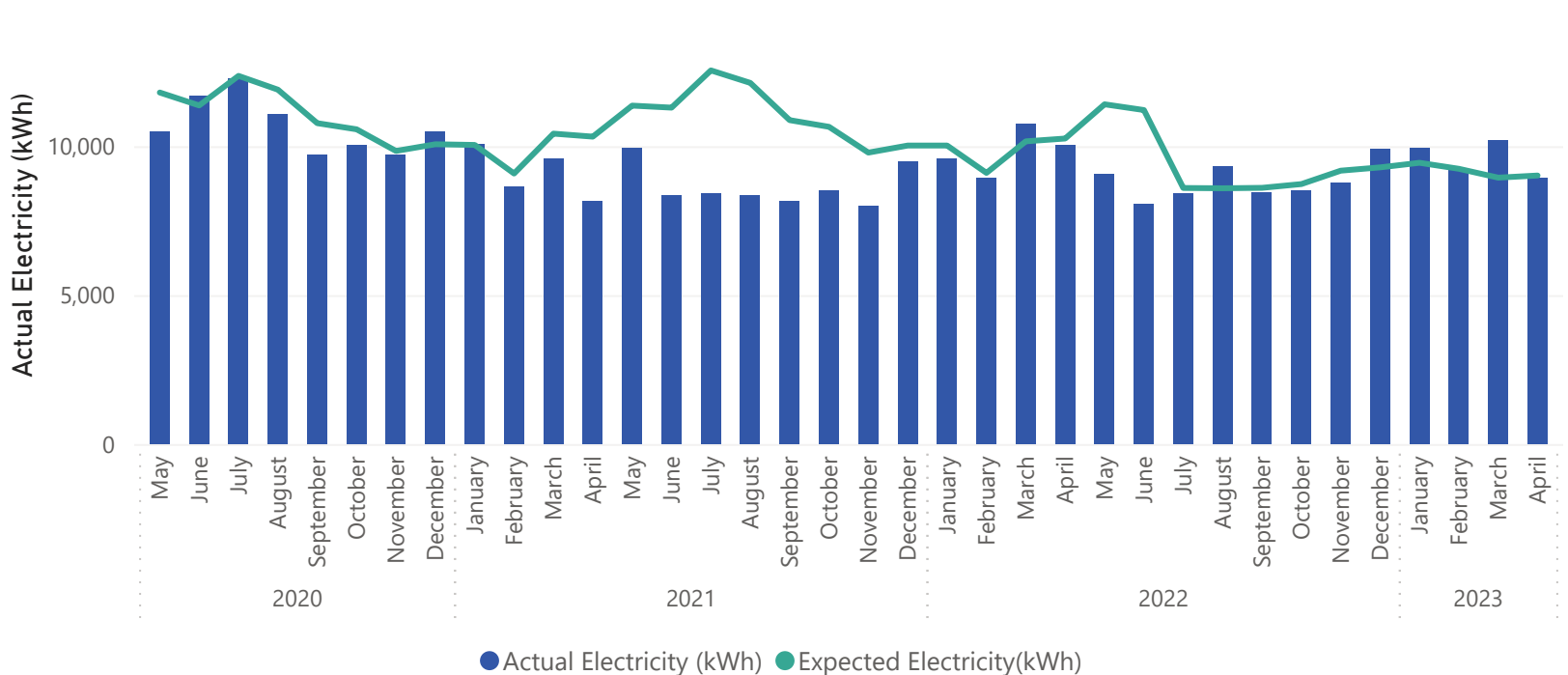
<p>-\$19</p> <p>Monthly Energy Cost Savings</p>	<p>84</p> <p>Elec. Savings (kWh/mo)</p>	<p>1%</p> <p>Elec. Savings (%)</p>	<p>3,472</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>-77</p> <p>CO2e Savings (kg/mo)</p>
<p>\$1,398</p> <p>R12M Energy Cost Savings</p>	<p>-427</p> <p>Gas. Savings (kWh/mo)</p>	<p>-15%</p> <p>Gas. Savings (%)</p>	<p>6,788</p> <p>R12M Gas Savings (kWh/yr)</p>	<p>1,927</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.

Natural gas use was 15% higher than expected, which may be due to dehumidification requirements. Natural gas use has remained relatively flat from December 2022. Energy use for the month is close to average over the last 12 months.

Museum Research Centre Electricity Use Compared to Baseline (kWh)

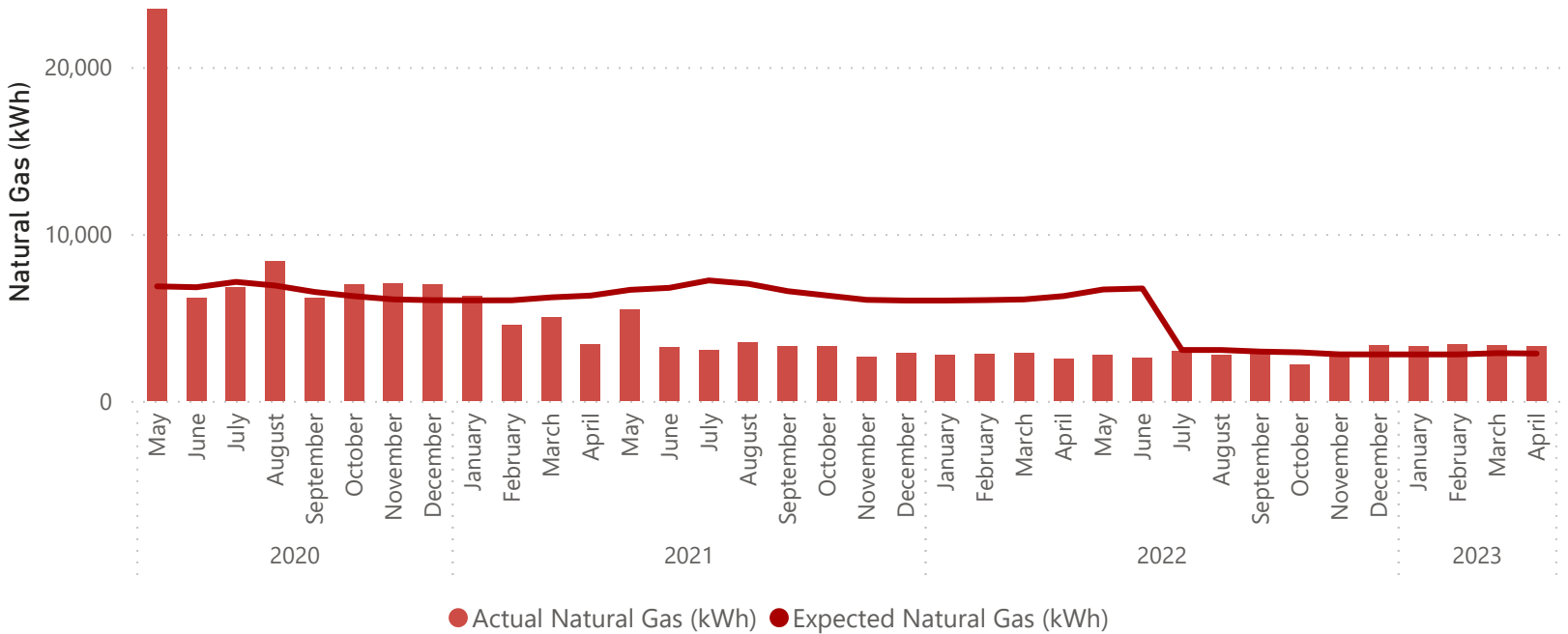


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

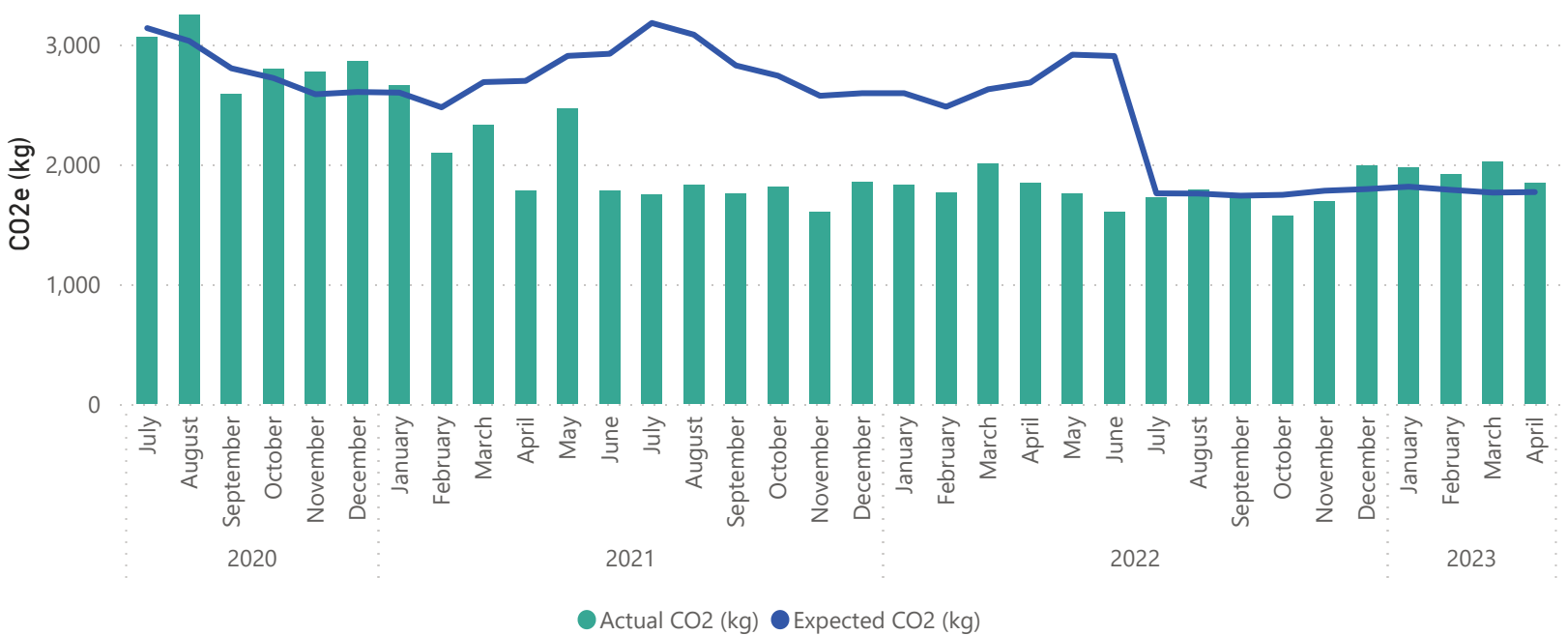
Whakatane District Council

Museum and Research Centre

Museum Research Centre Natural Gas Compared to Baseline (kWh)



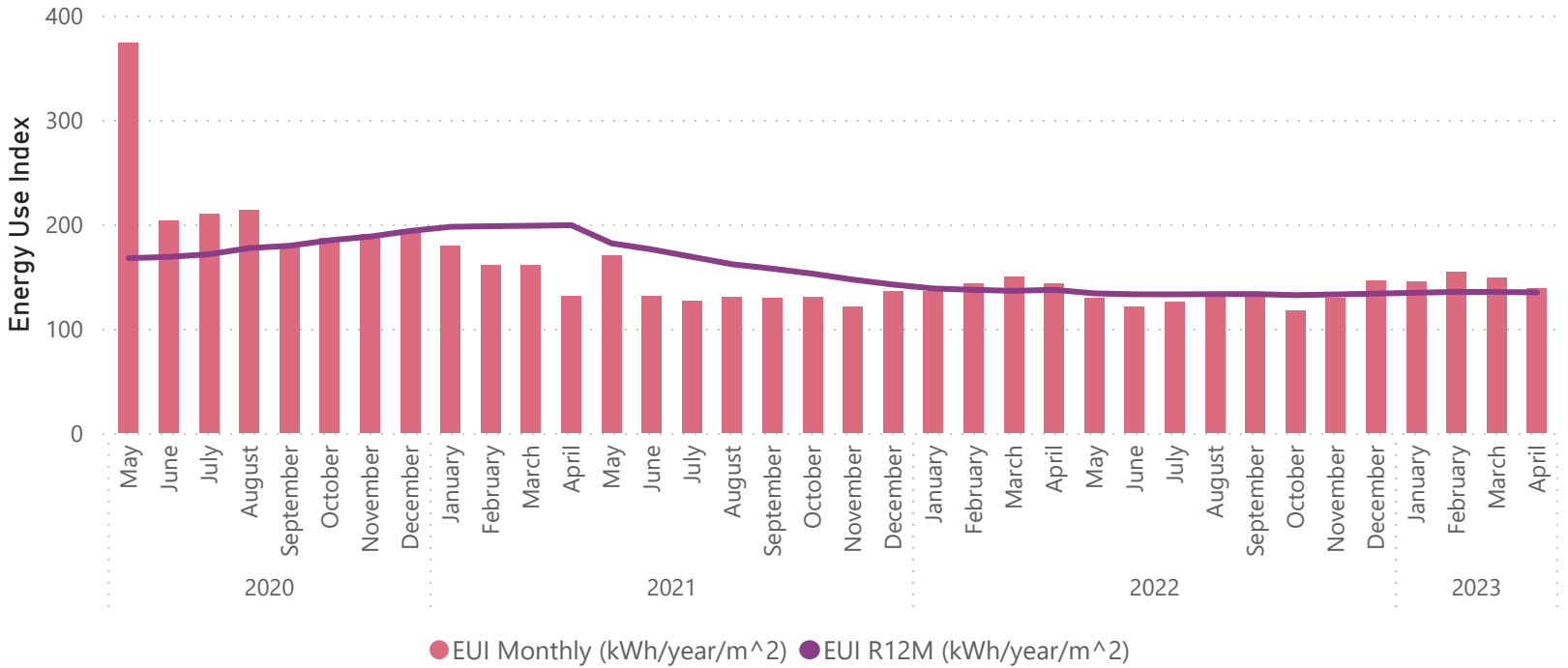
Museum Research Centre Carbon Emissions Compared to Baseline (kg CO2e)



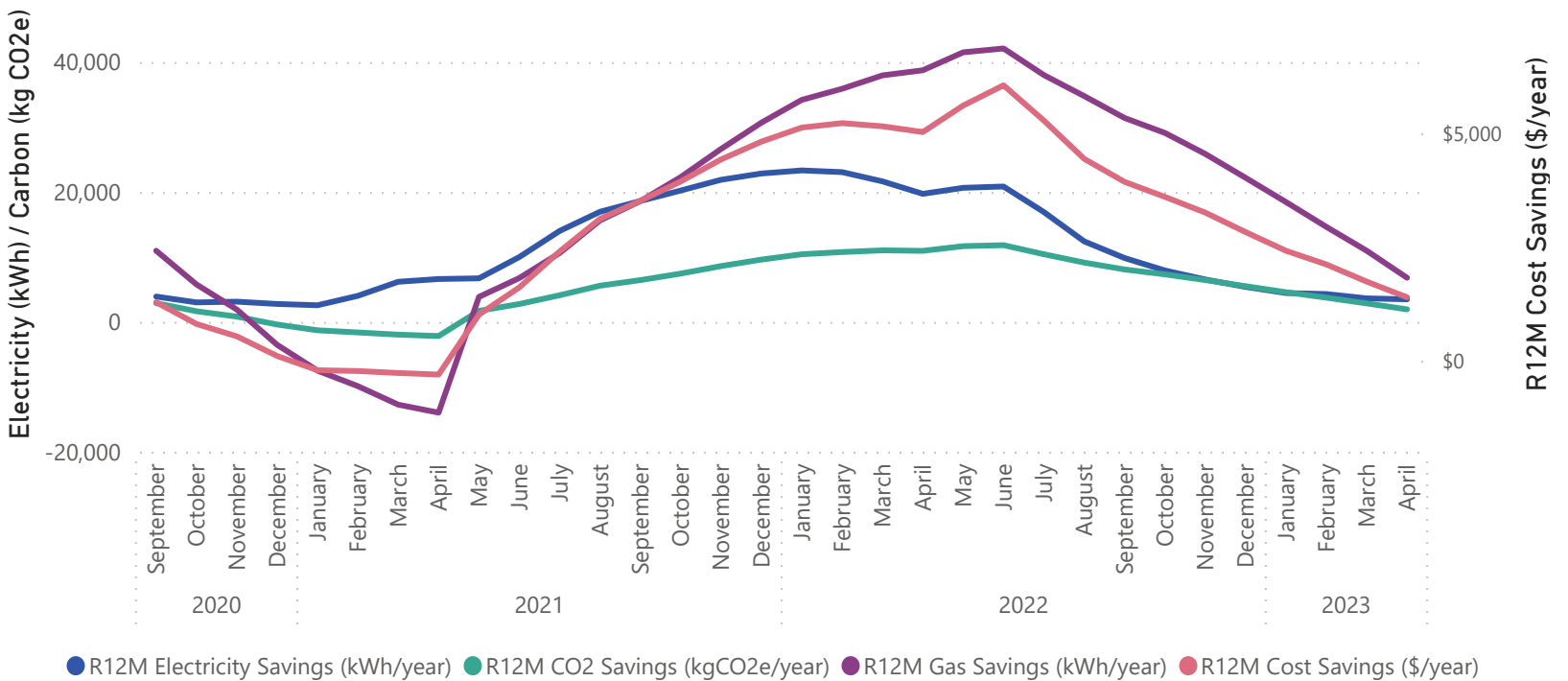
Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

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>-\$105 Monthly Energy Cost Savings</p>	<p>-814 Elec. Savings (kWh/mo)</p>	<p>-24% Elec. Savings (%)</p>	<p>-4,304 R12M Electricity Savings (kWh/yr)</p>	<p>2 CO2e Savings (kg/mo)</p>
<p>-\$1,767 R12M Energy Cost Savings</p>	<p>524 Gas. Savings (kWh/mo)</p>	<p>24% Gas. Savings (%)</p>	<p>-16,147 R12M Gas Savings (kWh/yr)</p>	<p>-4,034 R12M CO2e Savings (kg/yr)</p>

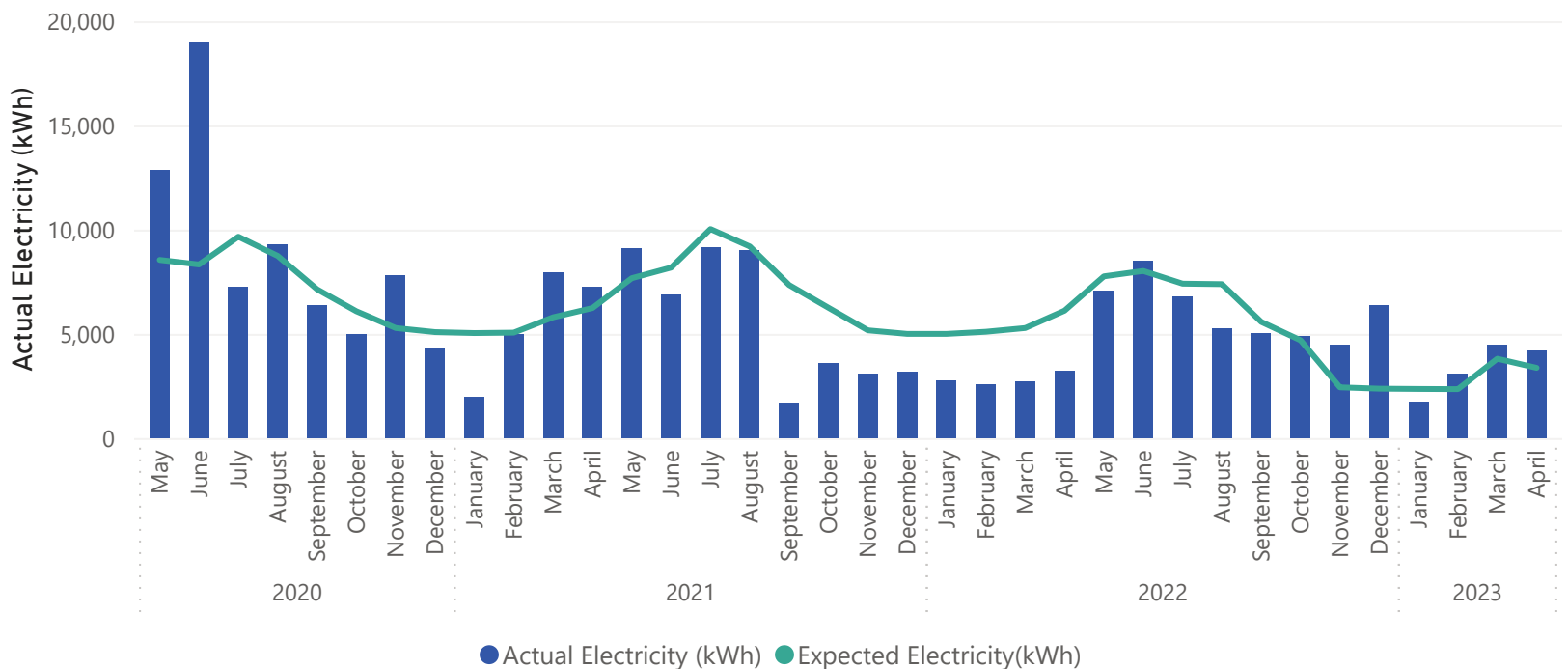
Comments:

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, the change in baseline can be observed in monitoring starting July 2022.

The War Memorial Hall has used more electricity than expected in the past three months. December 2022 used more electricity than expected and January 2023 used less,, this may be partly due to when the electricity meter was read, The War Memorial Hall may have also seen higher occupancy in December with holiday events.

The hall has used less natural gas than expected since October 2022, which is excellent.

War Memorial Hall Electricity Use Compared to Baseline (kWh)

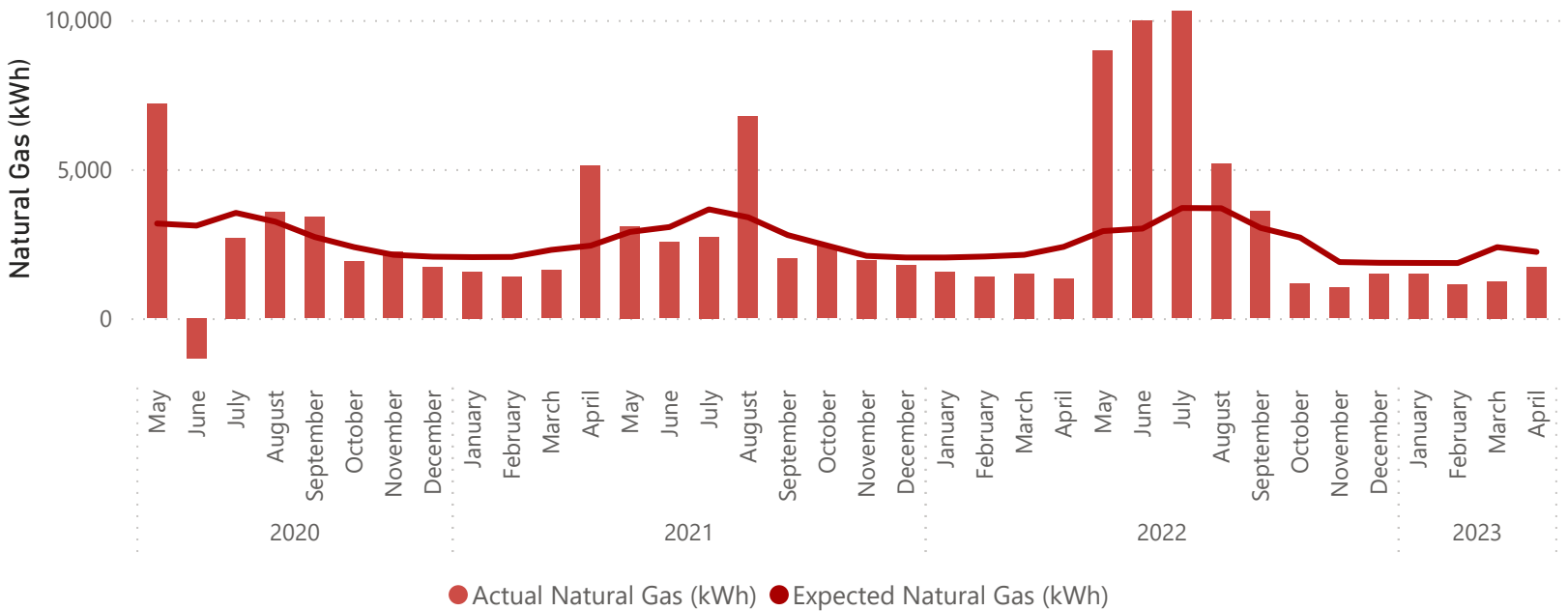


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

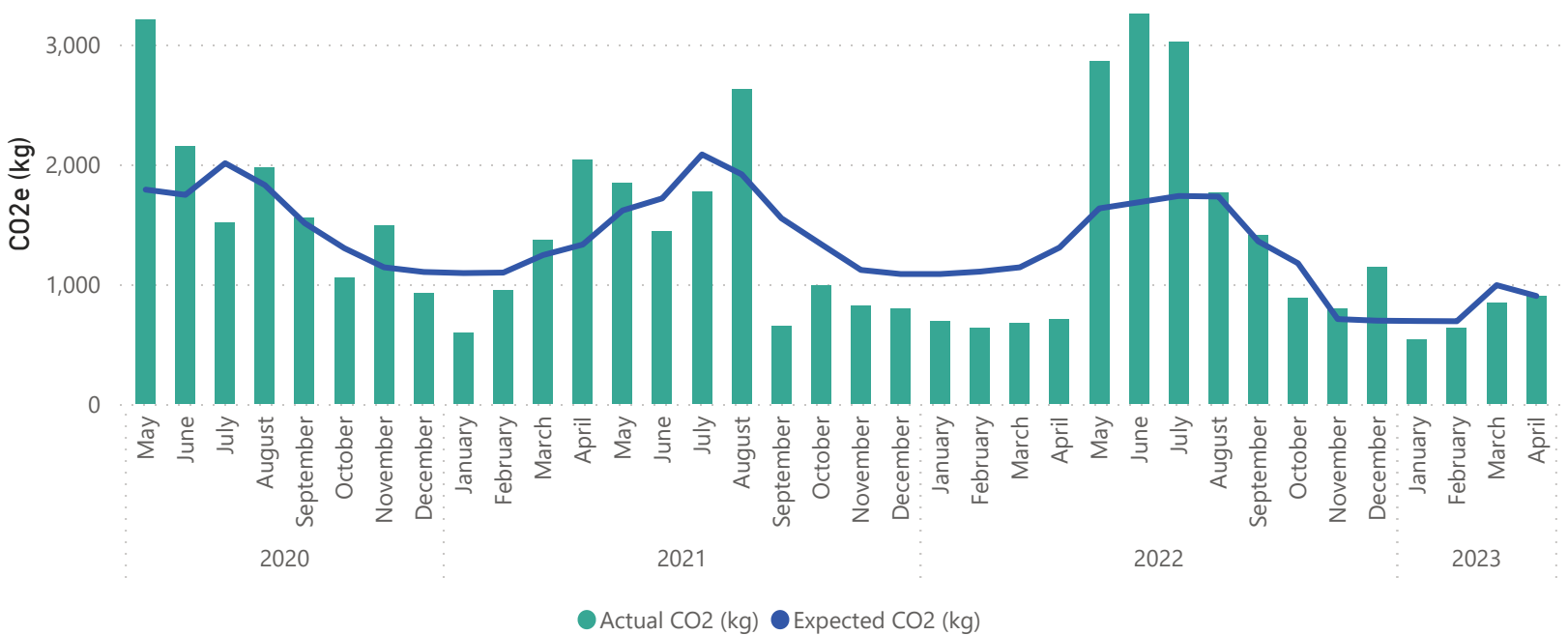
Whakatane District Council

War Memorial Hall

War Memorial Hall Natural Gas Compared to Baseline (kWh)



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

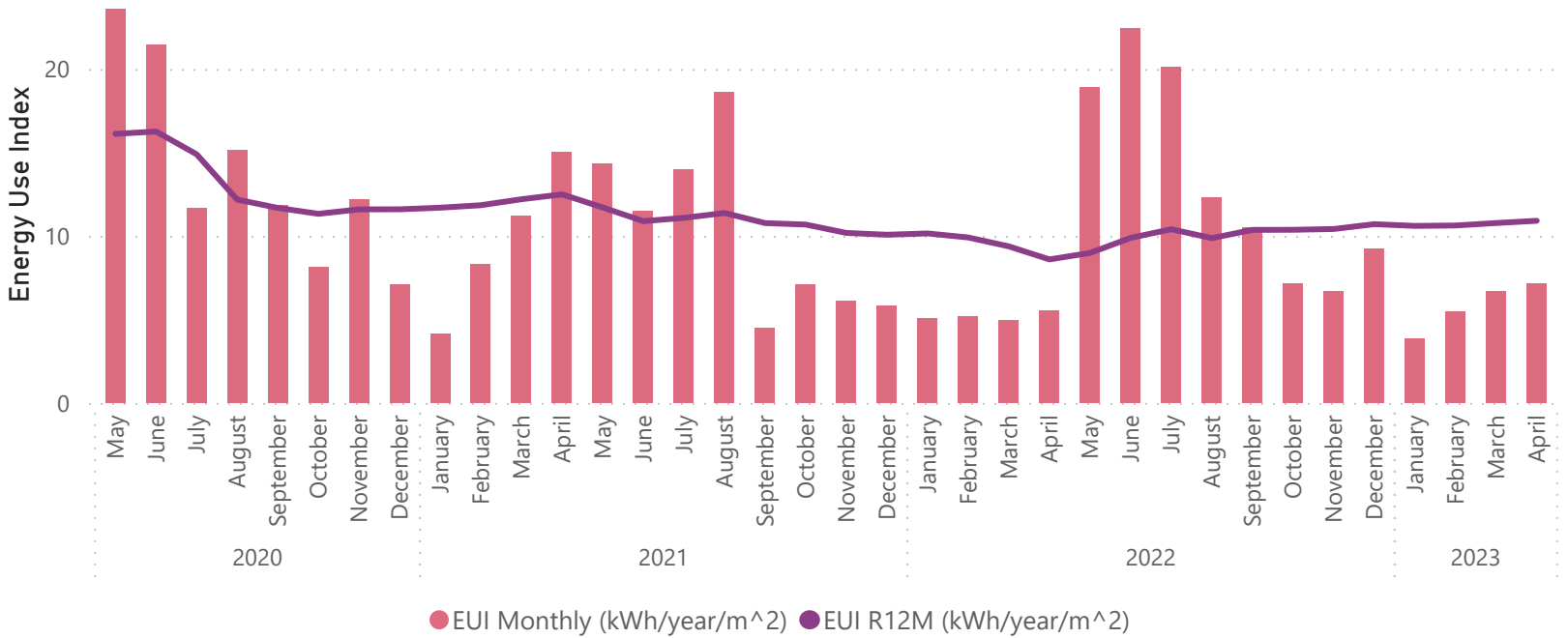


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

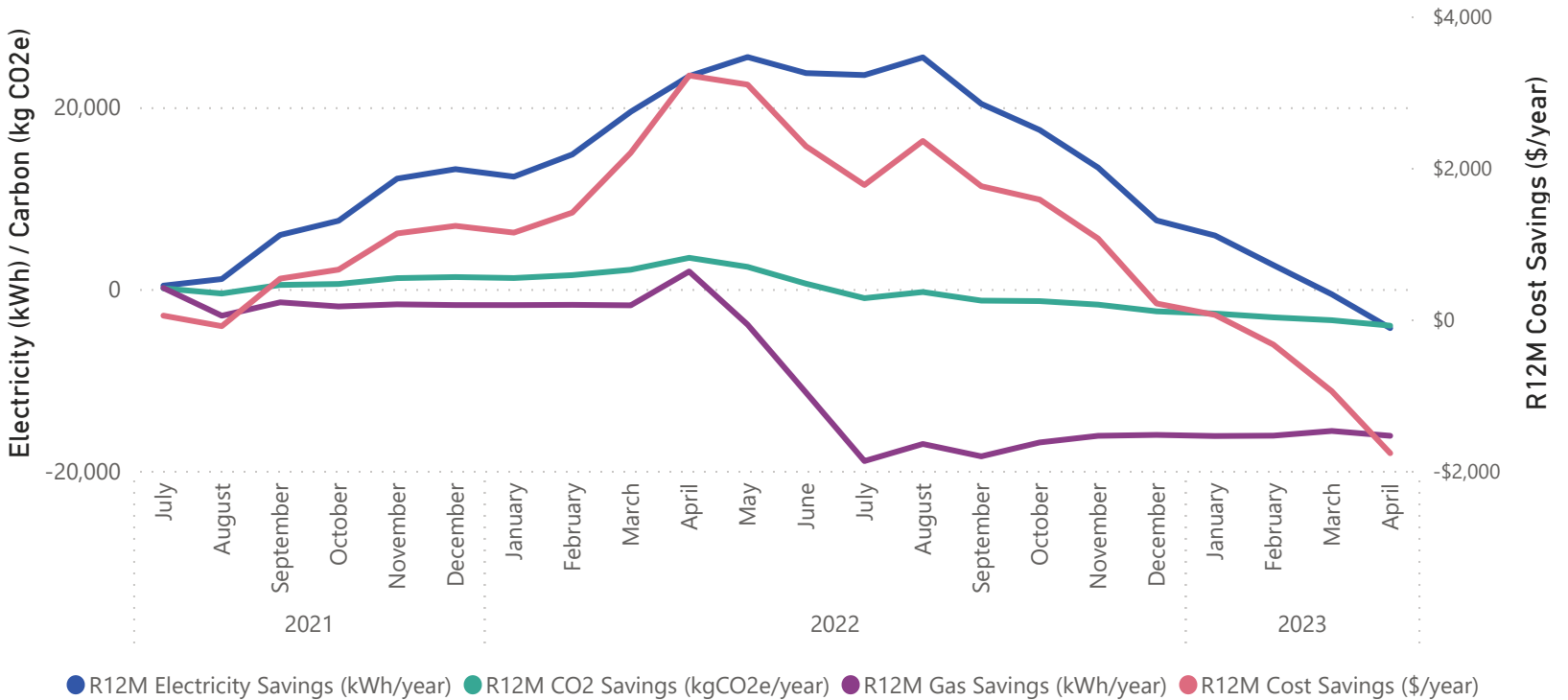
Whakatane District Council

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

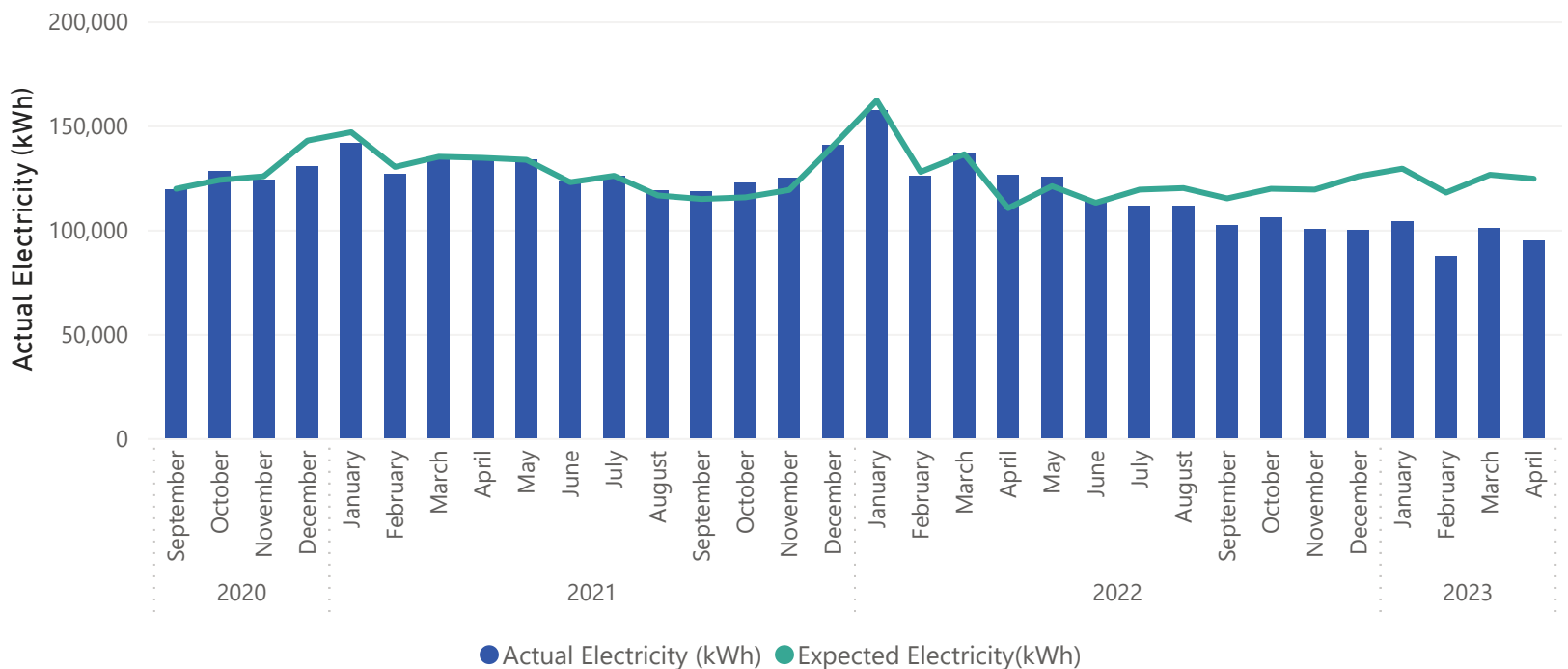
<p>\$5,194 Monthly Energy Cost Savings</p>	<p>29,727 Elec. Savings (kWh/mo)</p>	<p>24% Elec. Savings (%)</p>	<p>194,119 R12M Electricity Savings (kWh/yr)</p>	<p>3,894 CO2e Savings (kg/mo)</p>
<p>\$33,792 R12M Energy Cost Savings</p>				<p>25,442 R12M CO2e Savings (kg/yr)</p>

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.

Another month of savings has been achieved at the WTP in April 2023. Water metering errors were present from 2 April to 10 April and a non routine adjustment was required.

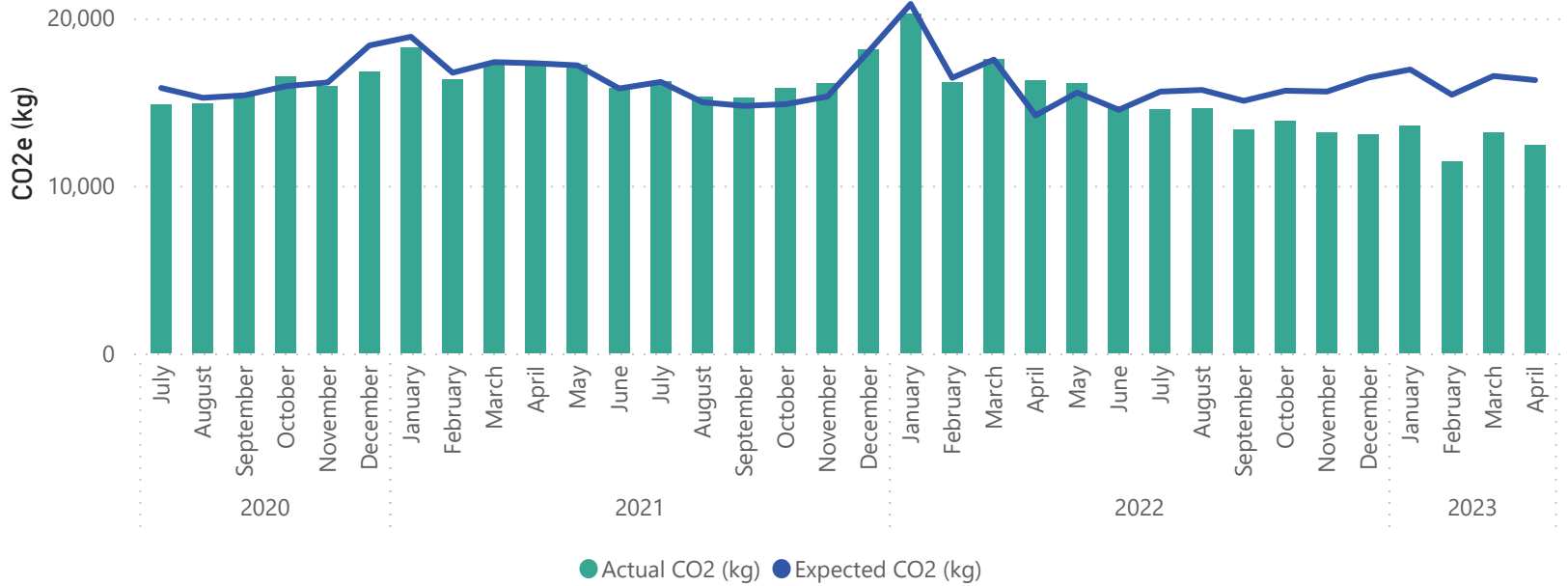
Water Treatment Plant Electricity Use Compared to Baseline (kWh)



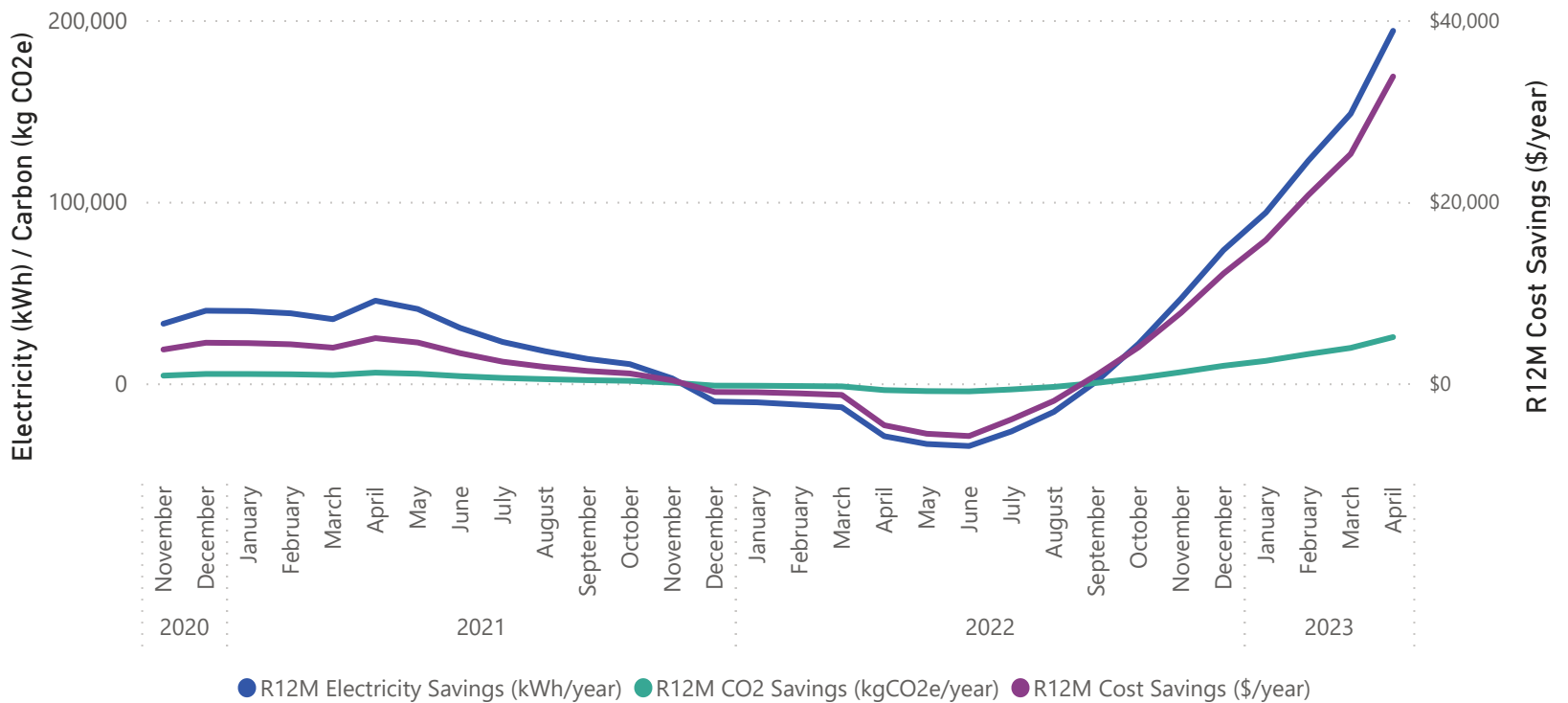
Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

Whakatane District Council Water Treatment Plant

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



Water Treatment Plant Rolling 12 Month Savings

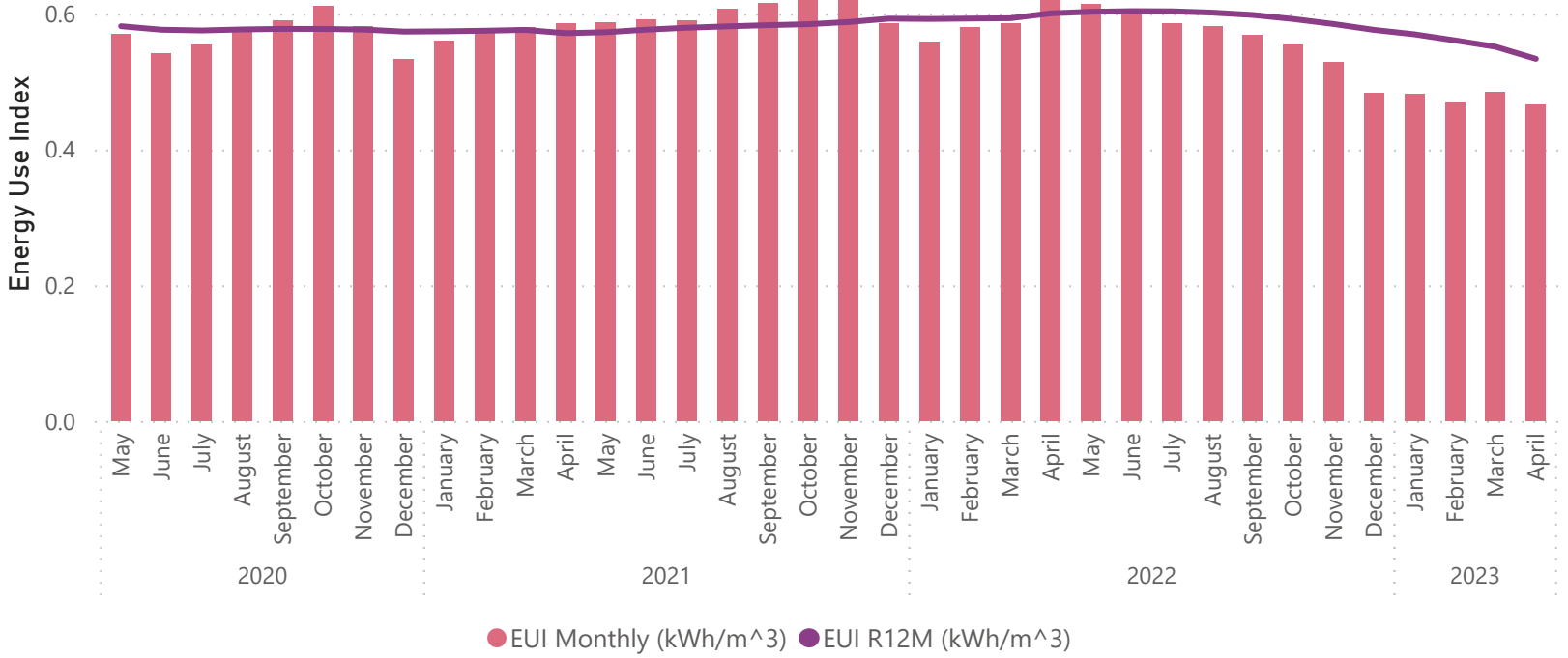


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

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

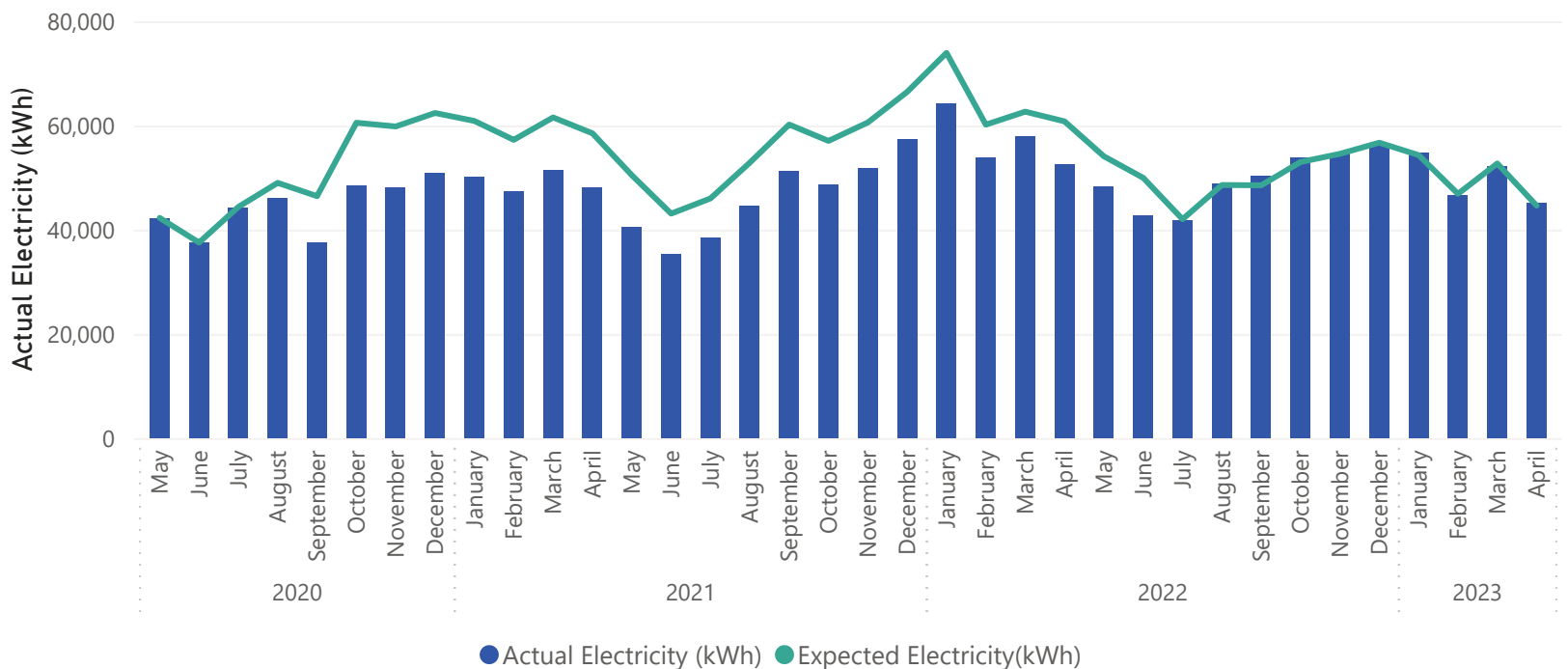
<p>-\$86 Monthly Energy Cost Savings</p>	<p>-489 Elec. Savings (kWh/mo)</p>	<p>-1% Elec. Savings (%)</p>	<p>10,450 R12M Electricity Savings (kWh/yr)</p>	<p>-64 CO2e Savings (kg/mo)</p>
<p>\$2,489 R12M Energy Cost Savings</p>				<p>1,479 R12M CO2e Savings (kg/yr)</p>

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)

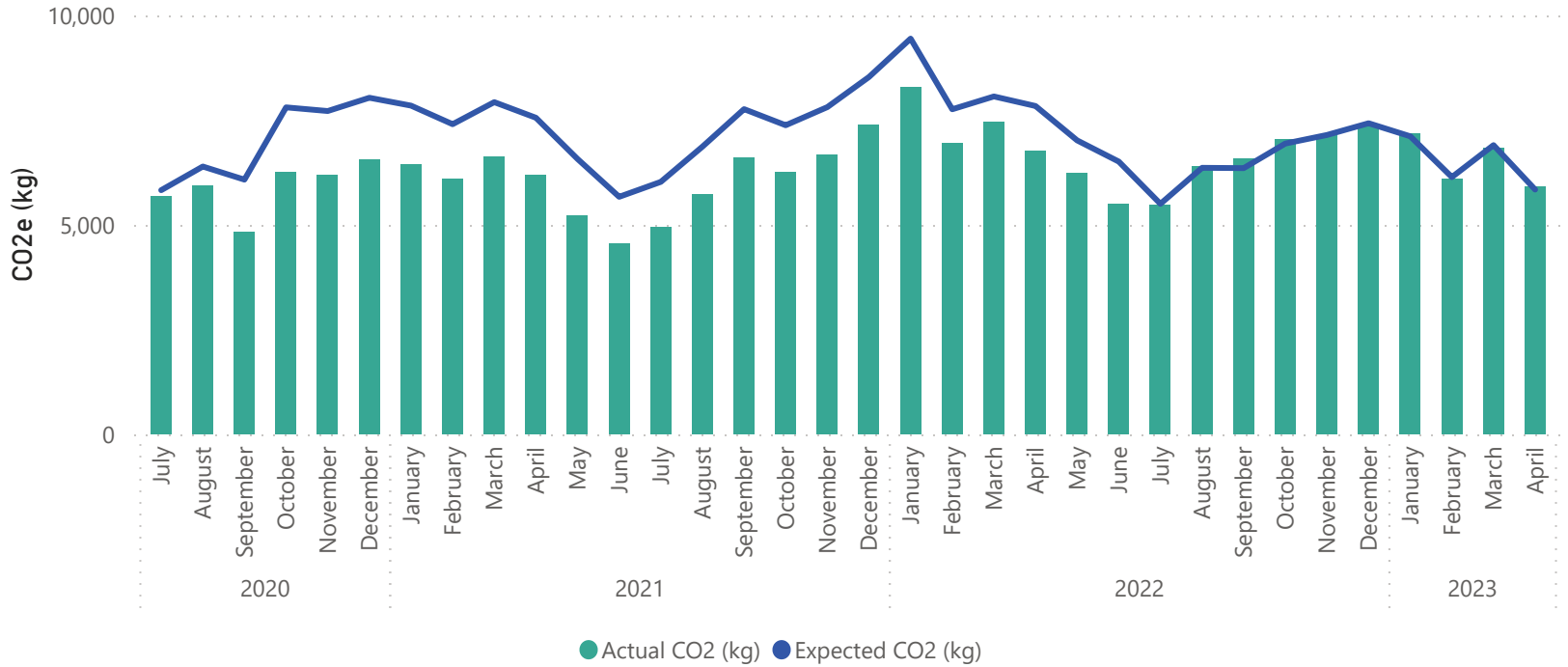


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

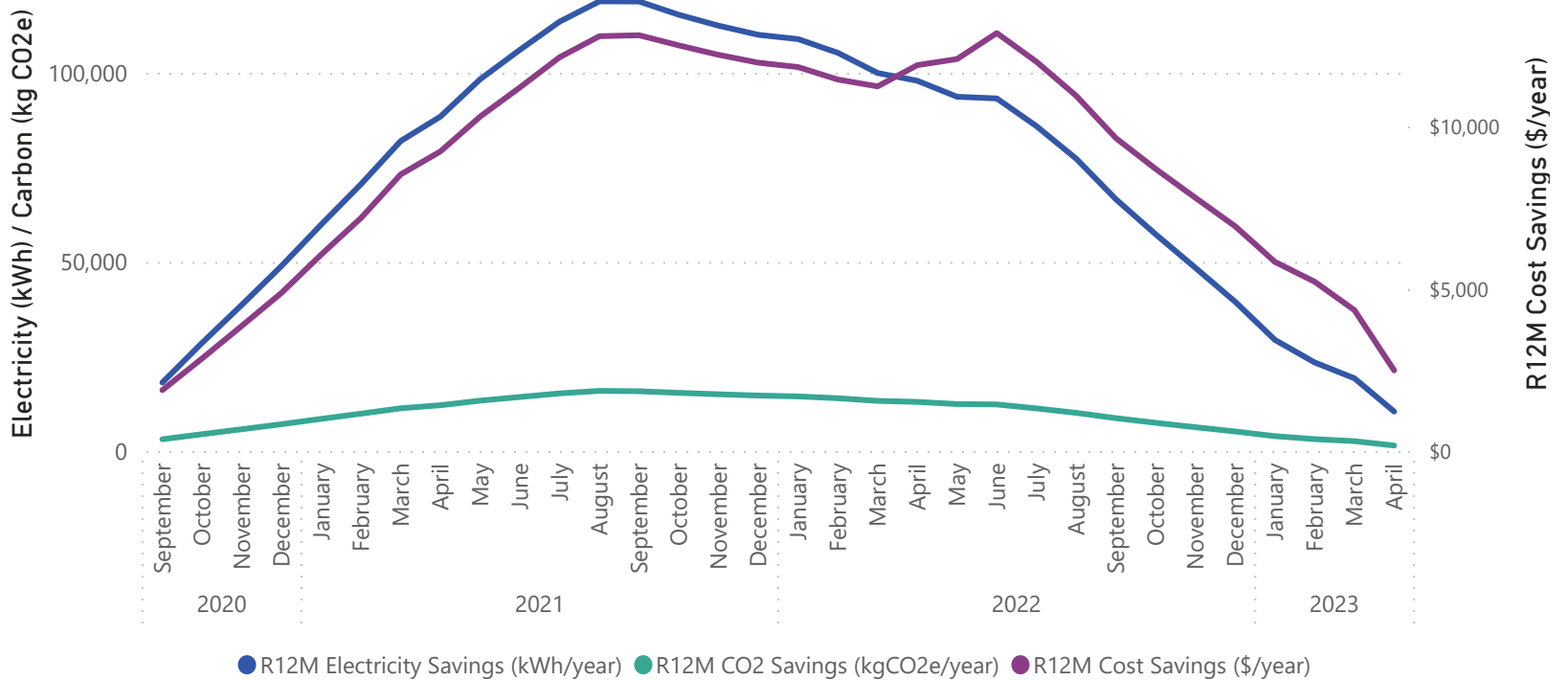
Whakatane District Council

Braemar Road Pump Station

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



Braemar Rd Pumps Rolling 12 Month Savings

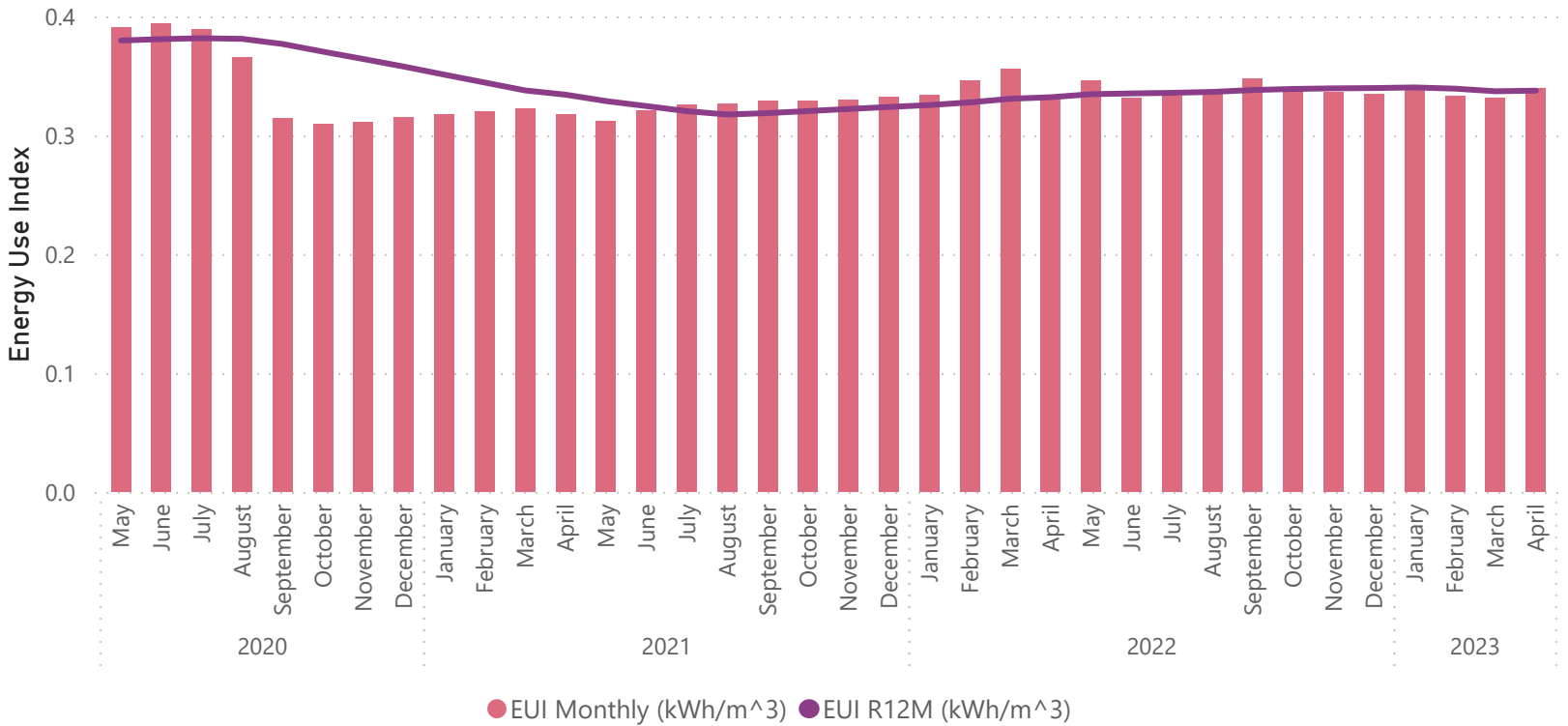


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

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

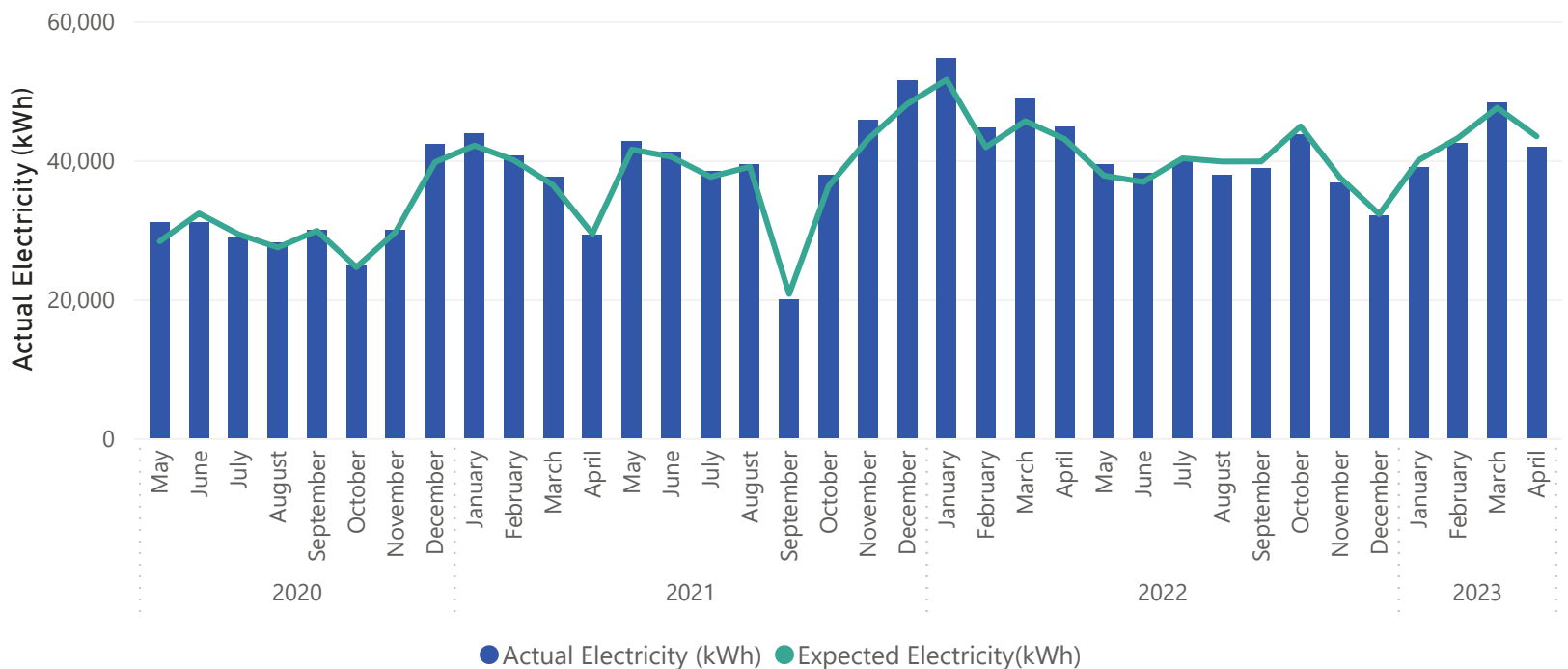
<p>\$273 Monthly Energy Cost Savings</p>	<p>1,541 Elec. Savings (kWh/mo)</p>	<p>4% Elec. Savings (%)</p>	<p>5,144 R12M Electricity Savings (kWh/yr)</p>	<p>202 CO2e Savings (kg/mo)</p>
<p>\$888 R12M Energy Cost Savings</p>				<p>682 R12M CO2e Savings (kg/yr)</p>

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.

Electricity use was slightly less than expected at Paul Road Pump Station. The monthly EUI is below average over the past 12 months. Rolling 12 month savings are increasing and from March 2023 are positive for the first time in several years, which is good.

Paul Rd Pumps Electricity Use Compared to Baseline (kWh)

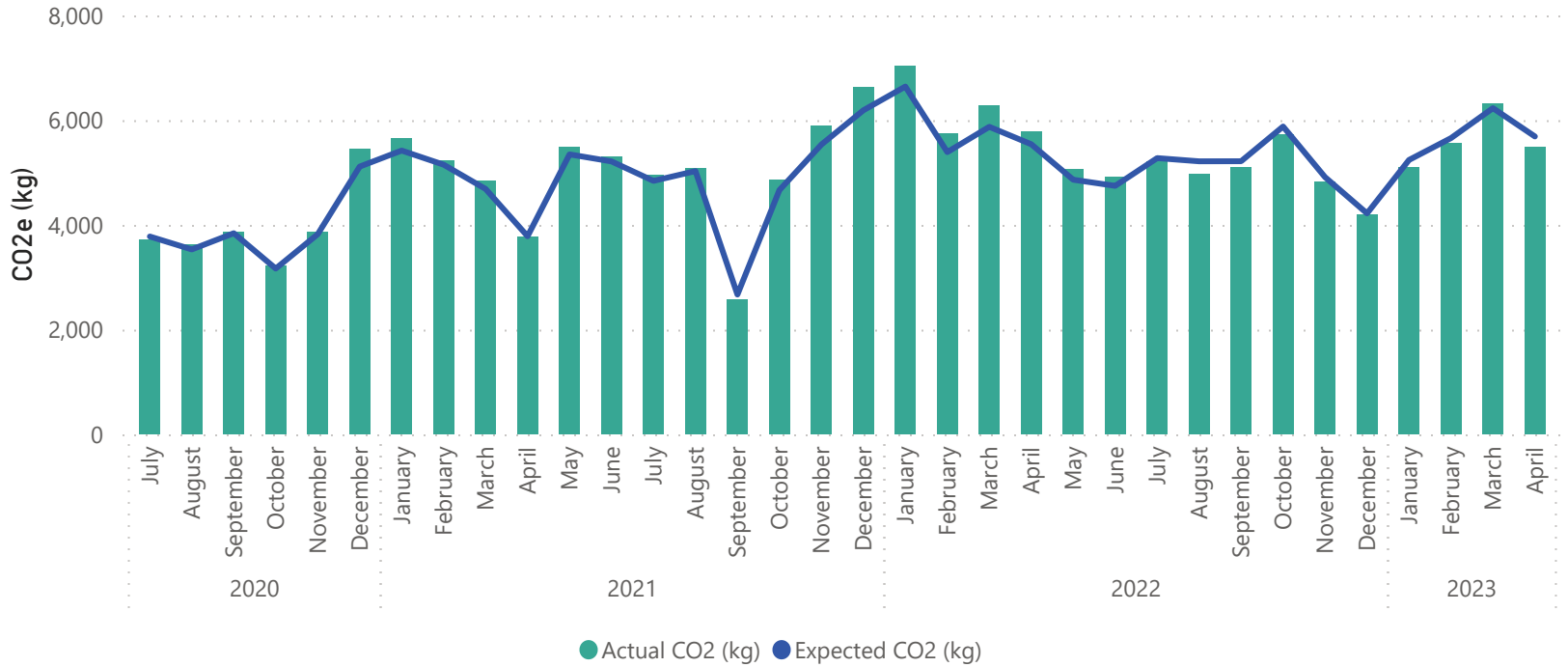


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

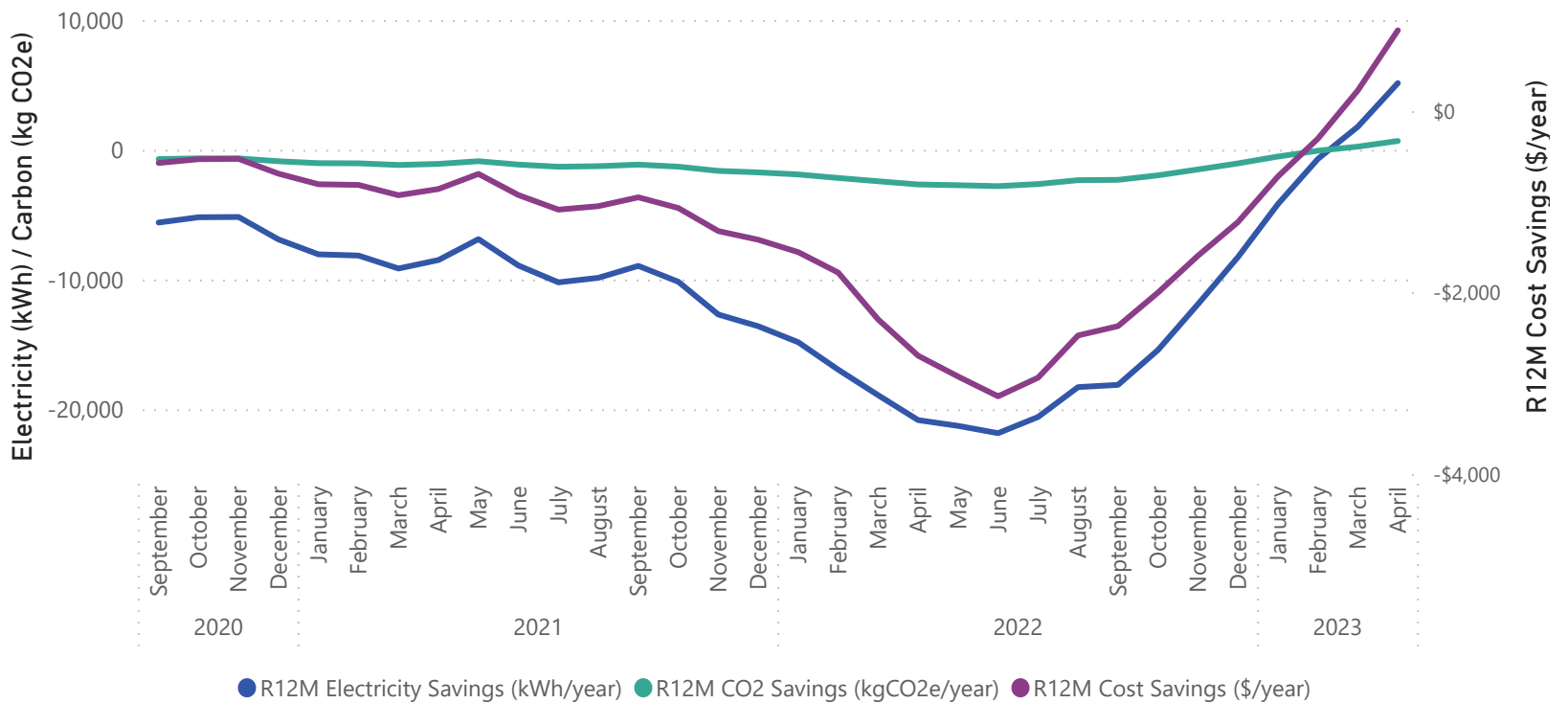
Whakatane District Council

Paul Road Pump Station

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



Paul Rd Pumps Rolling 12 Month Savings

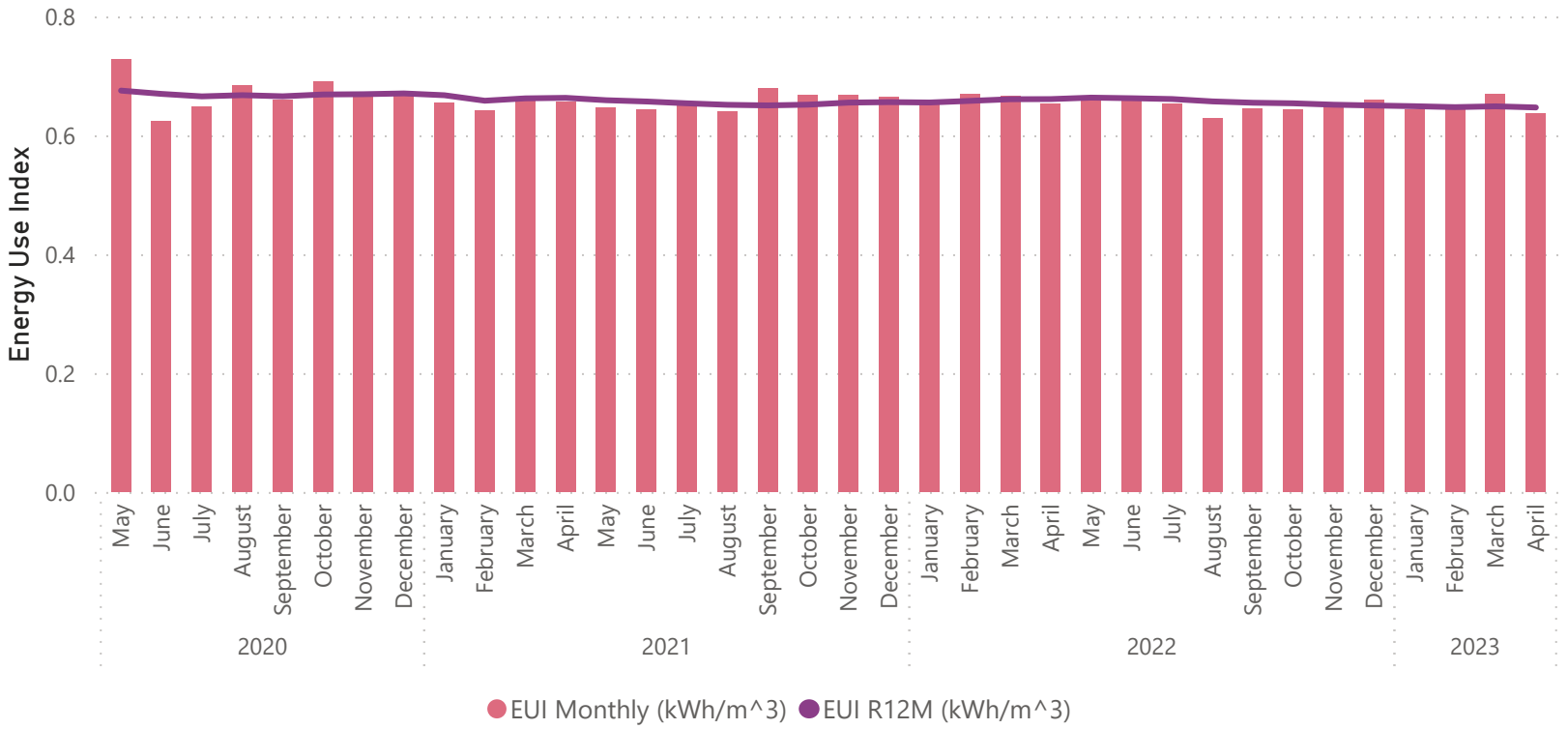


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

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

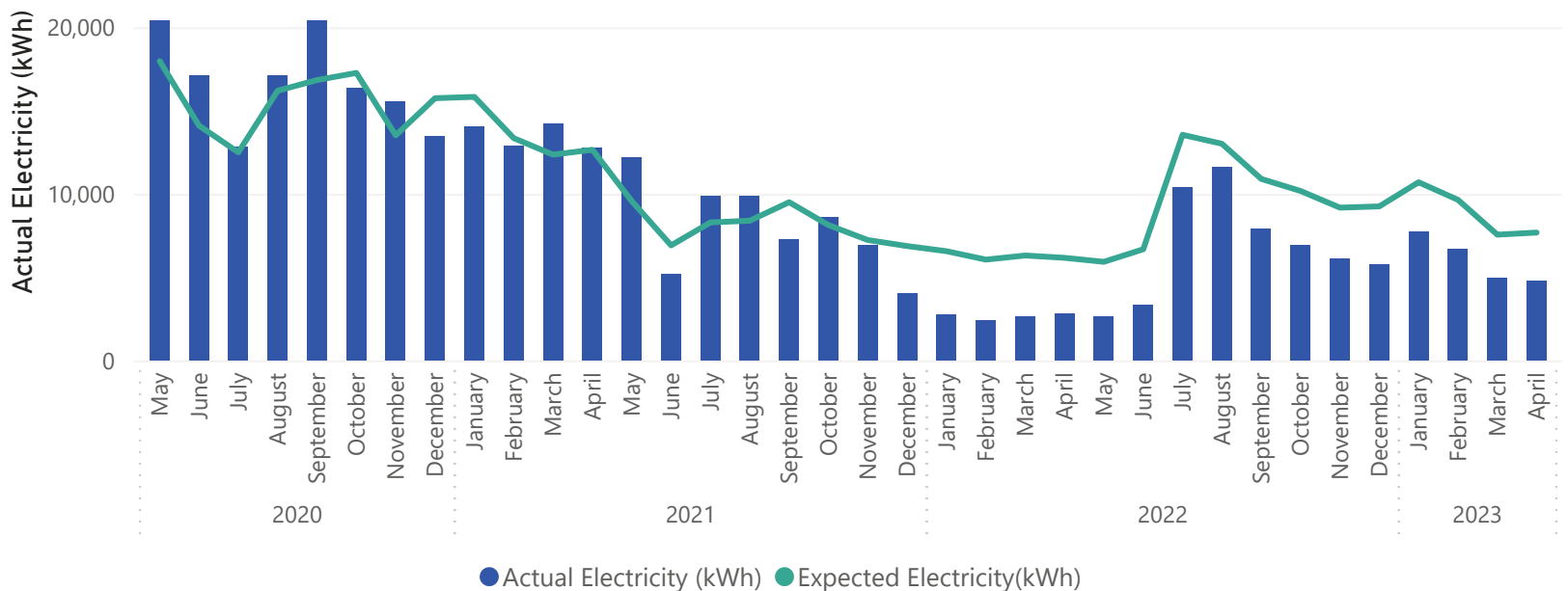
<p>\$620 Monthly Energy Cost Savings</p>	<p>2,881 Elec. Savings (kWh/mo)</p>	<p>38% Elec. Savings (%)</p>	<p>35,397 R12M Electricity Savings (kWh/yr)</p>	<p>377 CO2e Savings (kg/mo)</p>
<p>\$7,653 R12M Energy Cost Savings</p>				<p>4,622 R12M CO2e Savings (kg/yr)</p>

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.

Another good month of savings for the month at Johnson Rd Pump Station, using 38% less electricity than expected.

Johnson Rd Pumps Electricity Use Compared to Baseline (kWh)

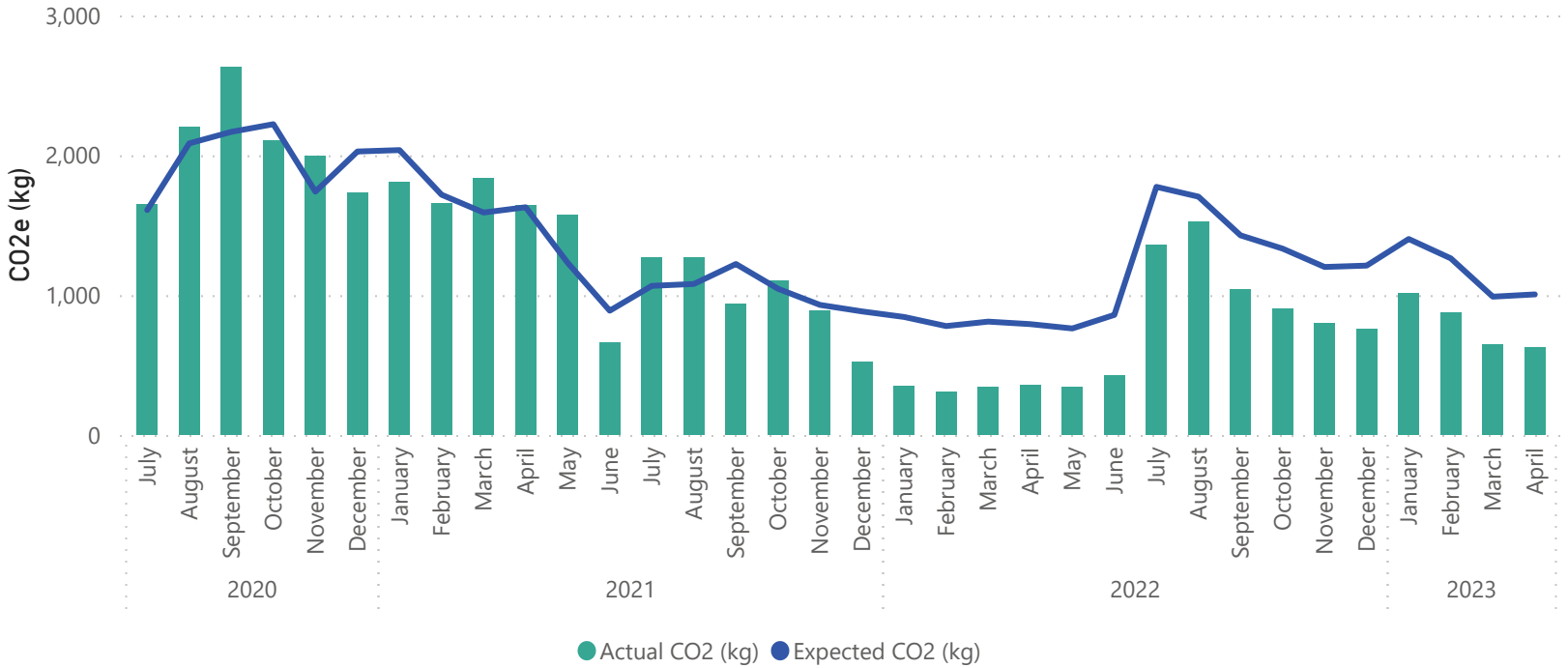


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

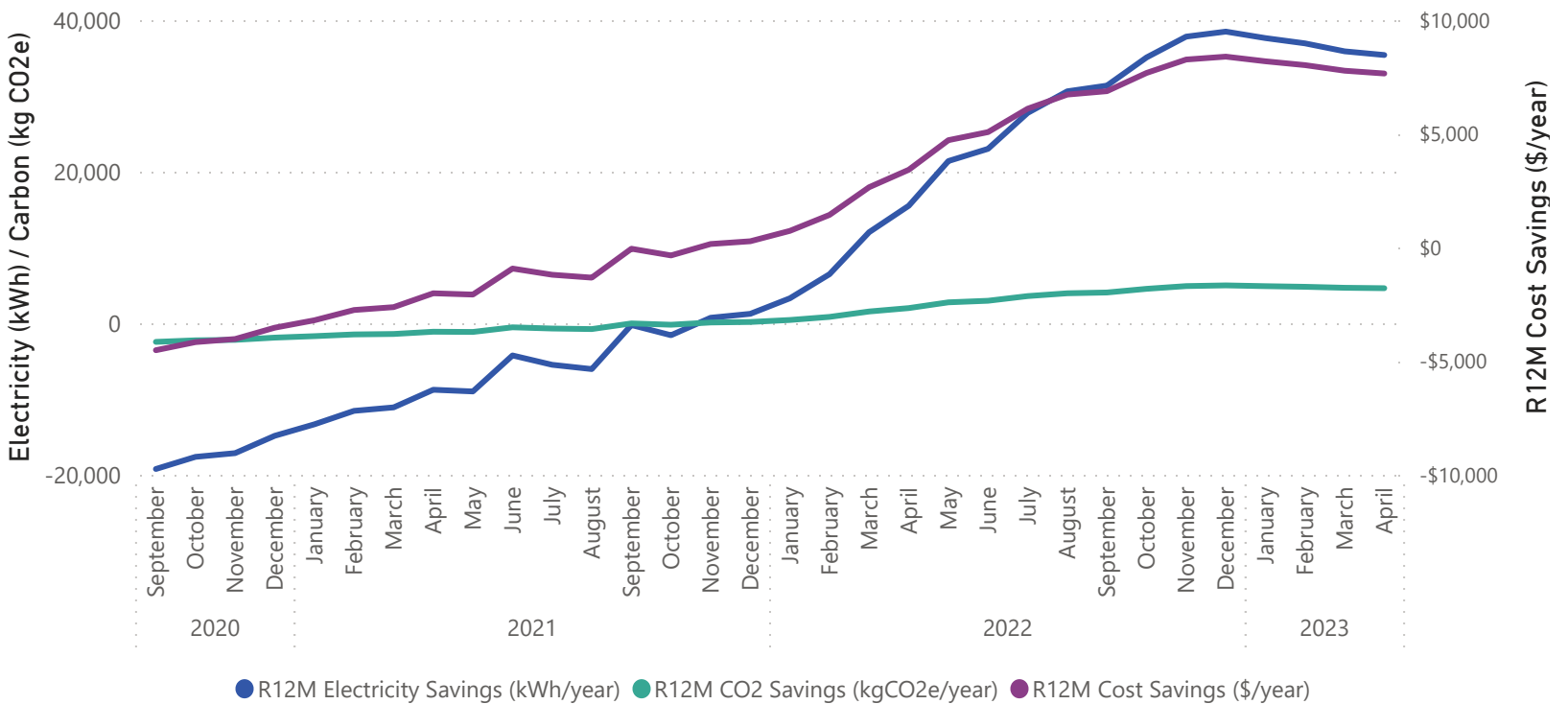
Whakatane District Council

Johnson Road Pump Station

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



Johnson Rd Pumps Rolling 12 Month Savings

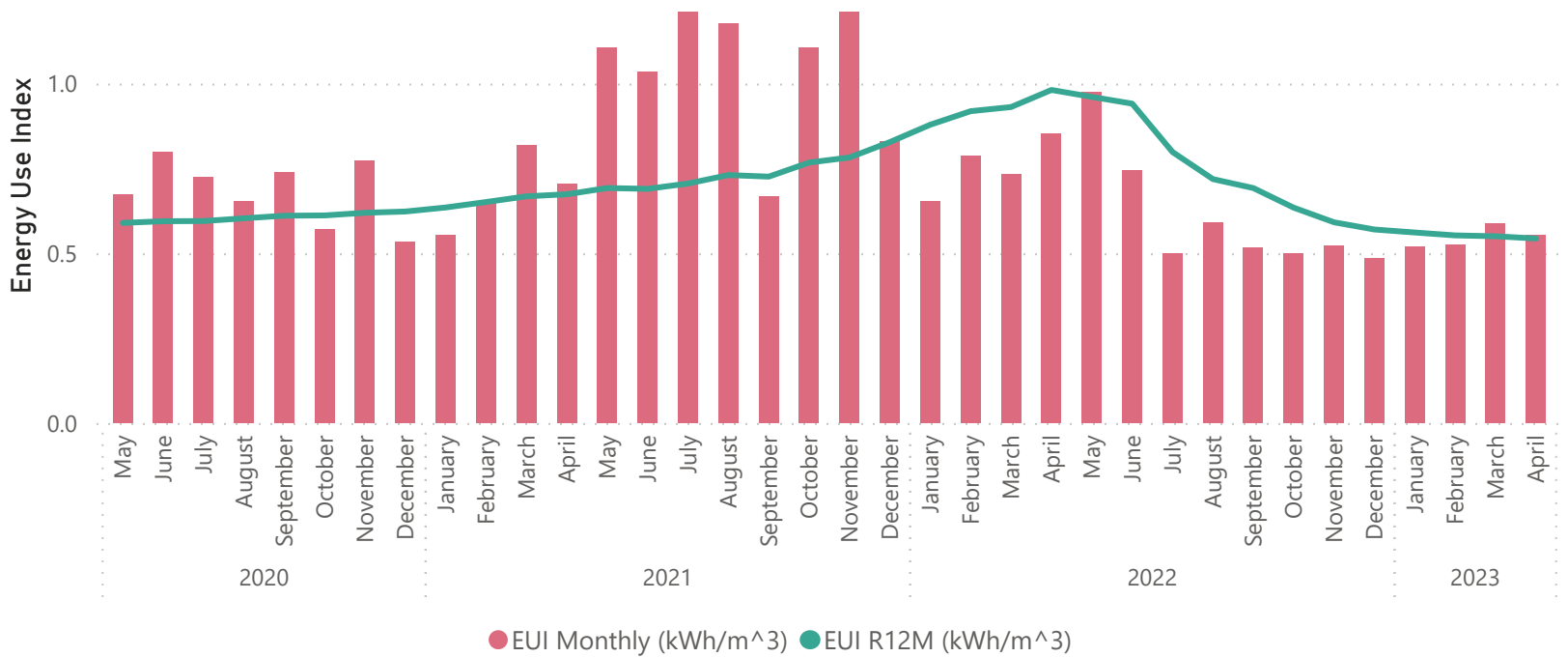


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

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

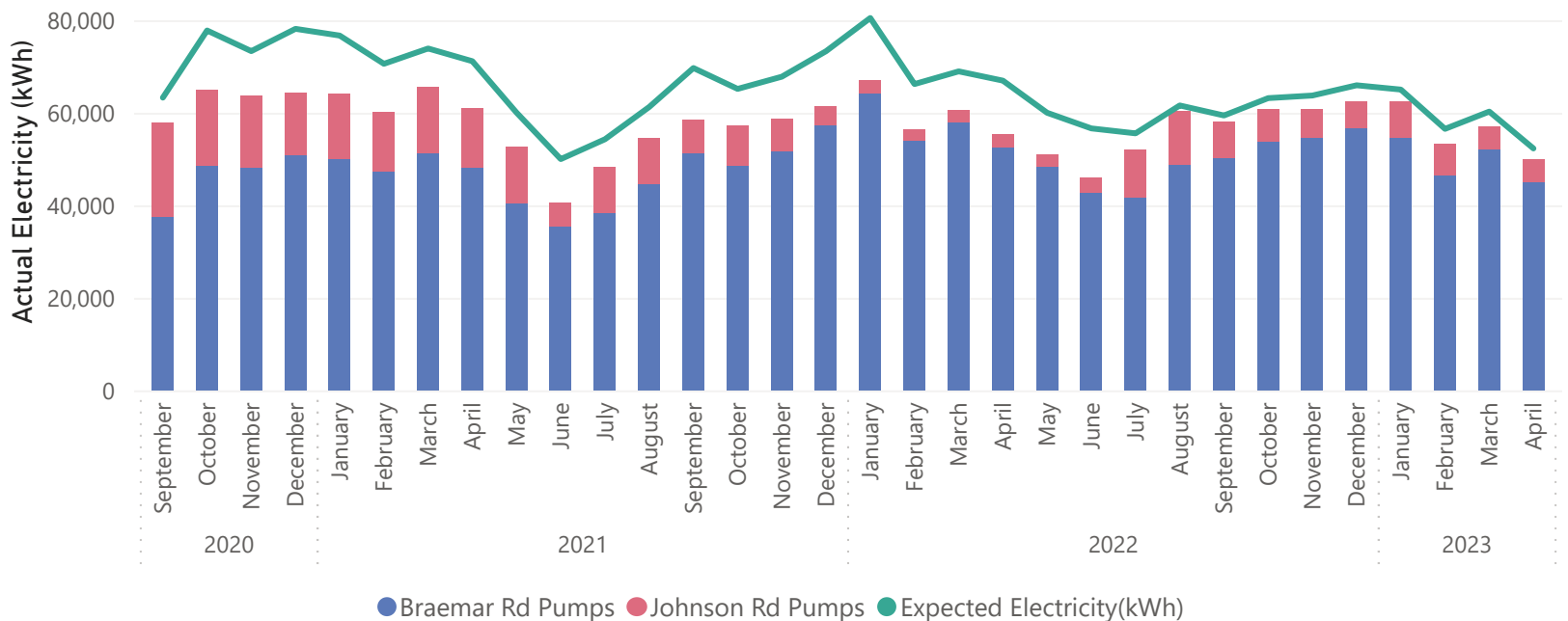
<p>\$534 Monthly Energy Cost Savings</p>	<p>2,392 Elec. Savings (kWh/mo)</p>	<p>5% Elec. Savings (%)</p>	<p>45,847 R12M Electricity Savings (kWh/yr)</p>	<p>313 CO2e Savings (kg/mo)</p>
<p>\$10,141 R12M Energy Cost Savings</p>				<p>6,101 R12M CO2e Savings (kg/yr)</p>

Comments:

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

Johnson Rd achieved savings in April 2023, Braemar Rd pump station's electricity use was slightly more than expected for the month. The monthly EUI for the two pumps in March and April has been slightly higher than the six previous months.

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

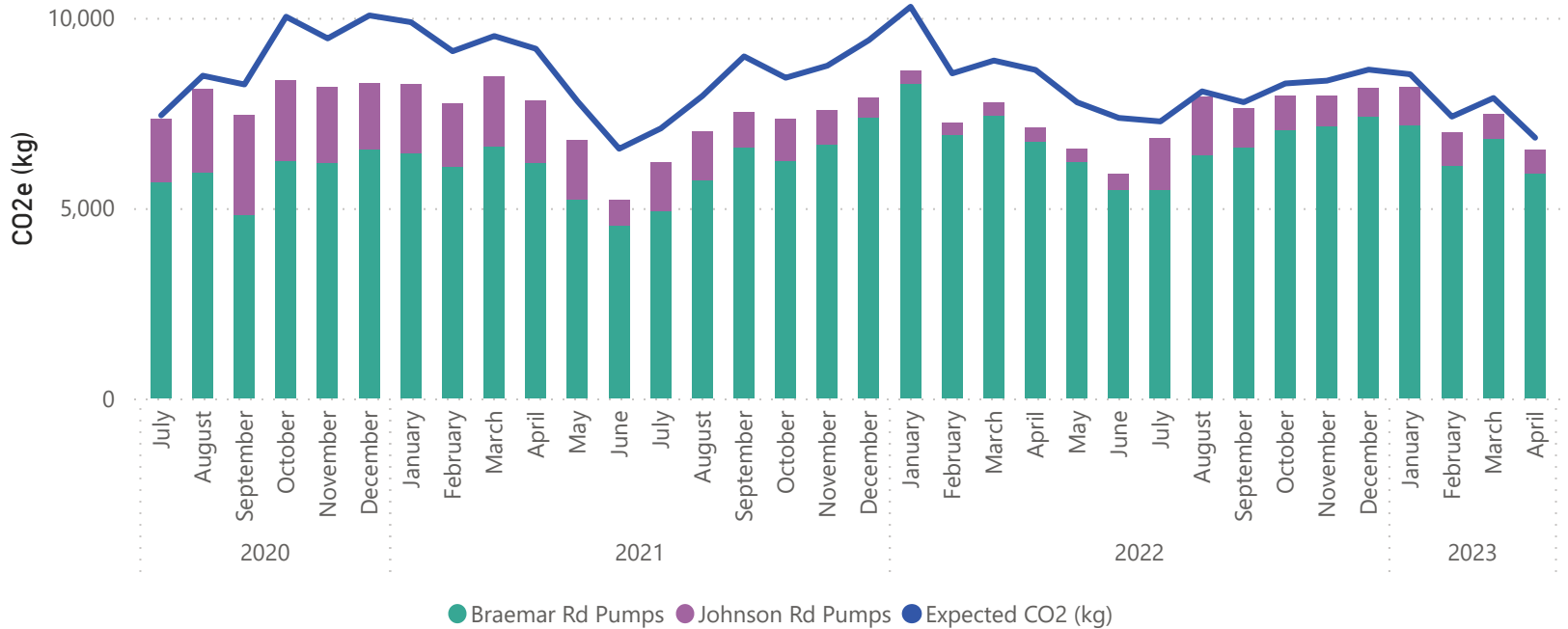


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

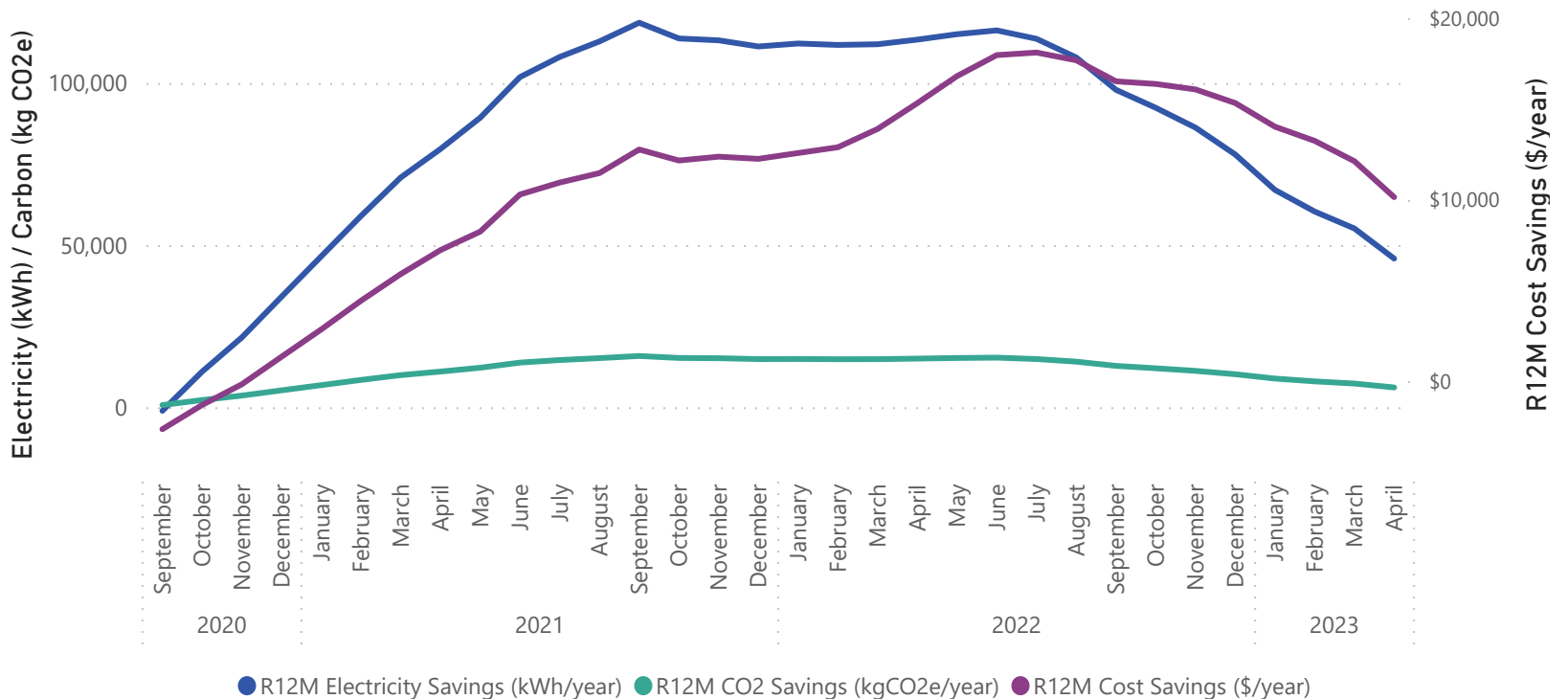
Whakatane District Council

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

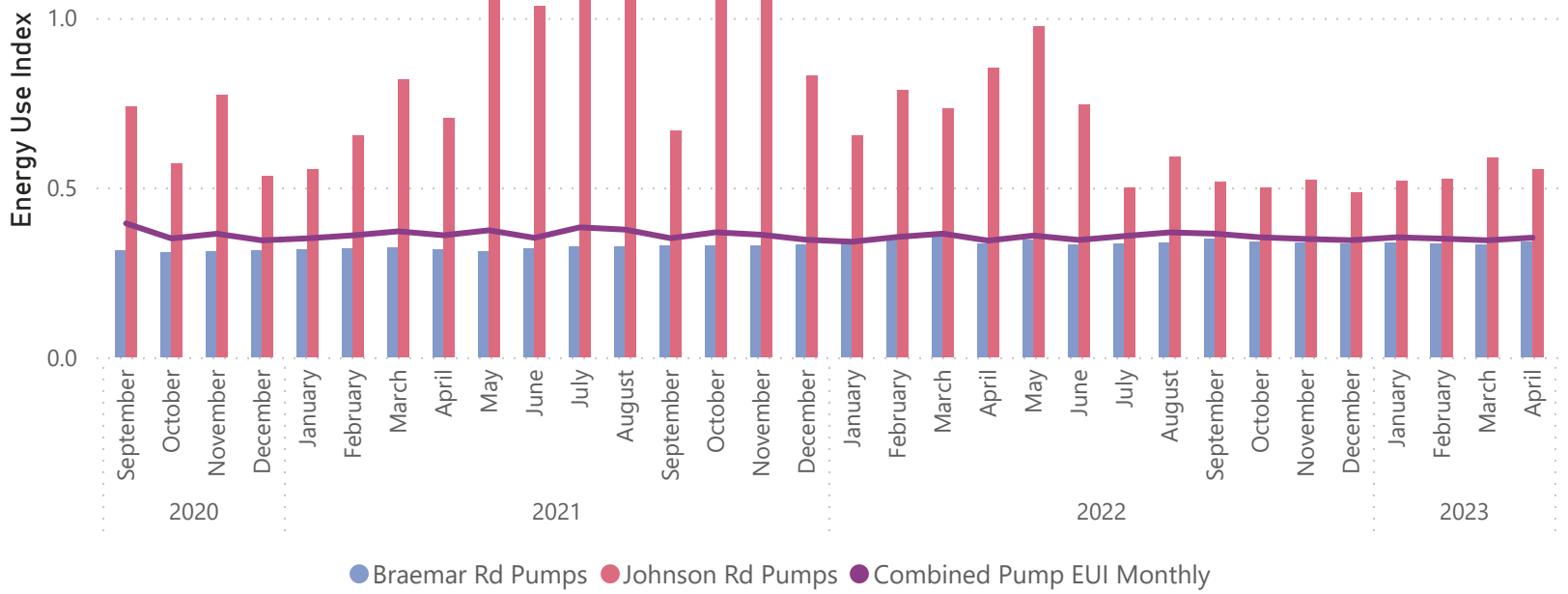


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

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

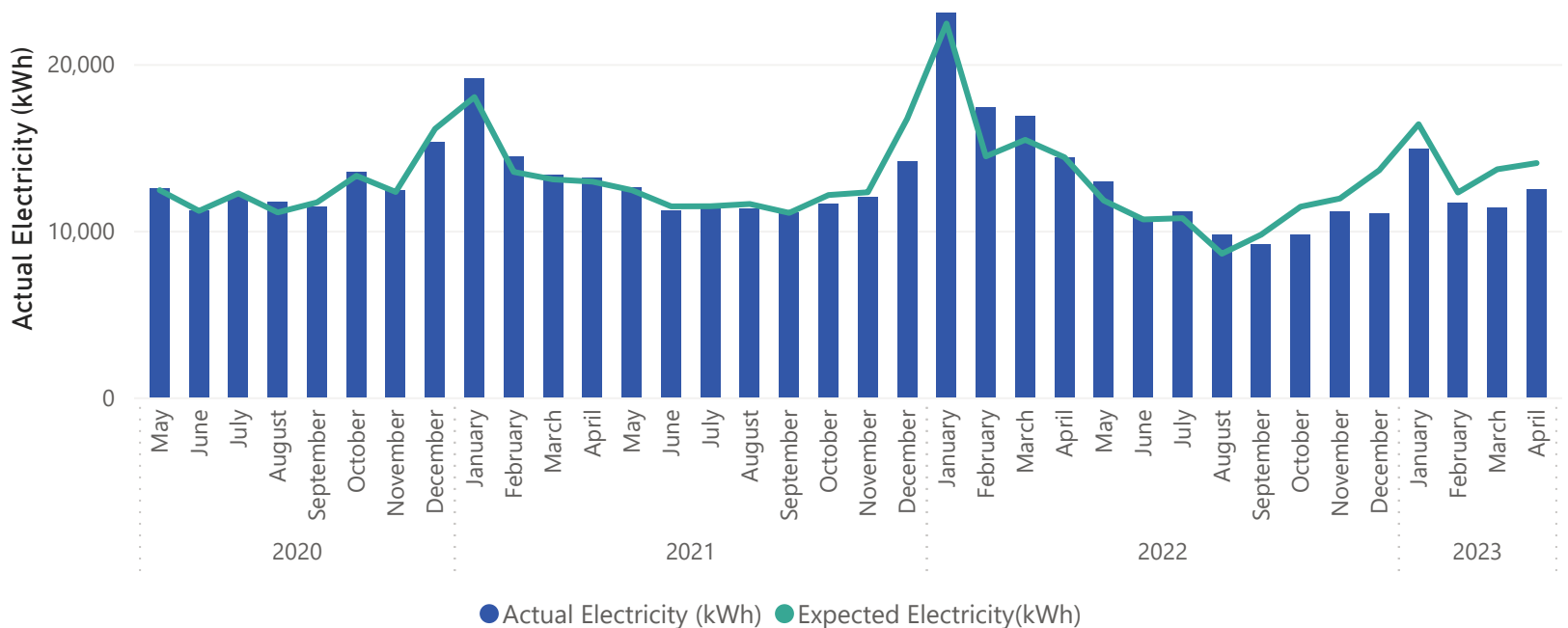
<p>\$279</p> <p>Monthly Energy Cost Savings</p>	<p>1,582</p> <p>Elec. Savings (kWh/mo)</p>	<p>11%</p> <p>Elec. Savings (%)</p>	<p>8,903</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>207</p> <p>CO2e Savings (kg/mo)</p>
<p>\$1,561</p> <p>R12M Energy Cost Savings</p>				<p>1,169</p> <p>R12M CO2e Savings (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.

April is the eighth month in a row that the Bridger Glade Pump Station has used less electricity than expected, this is due to new supply pumps that were installed in late August 2022. The monthly EUI is less than average over the last 12 months.

Bridger Glade Pumps Electricity Use Compared to Baseline (kWh)

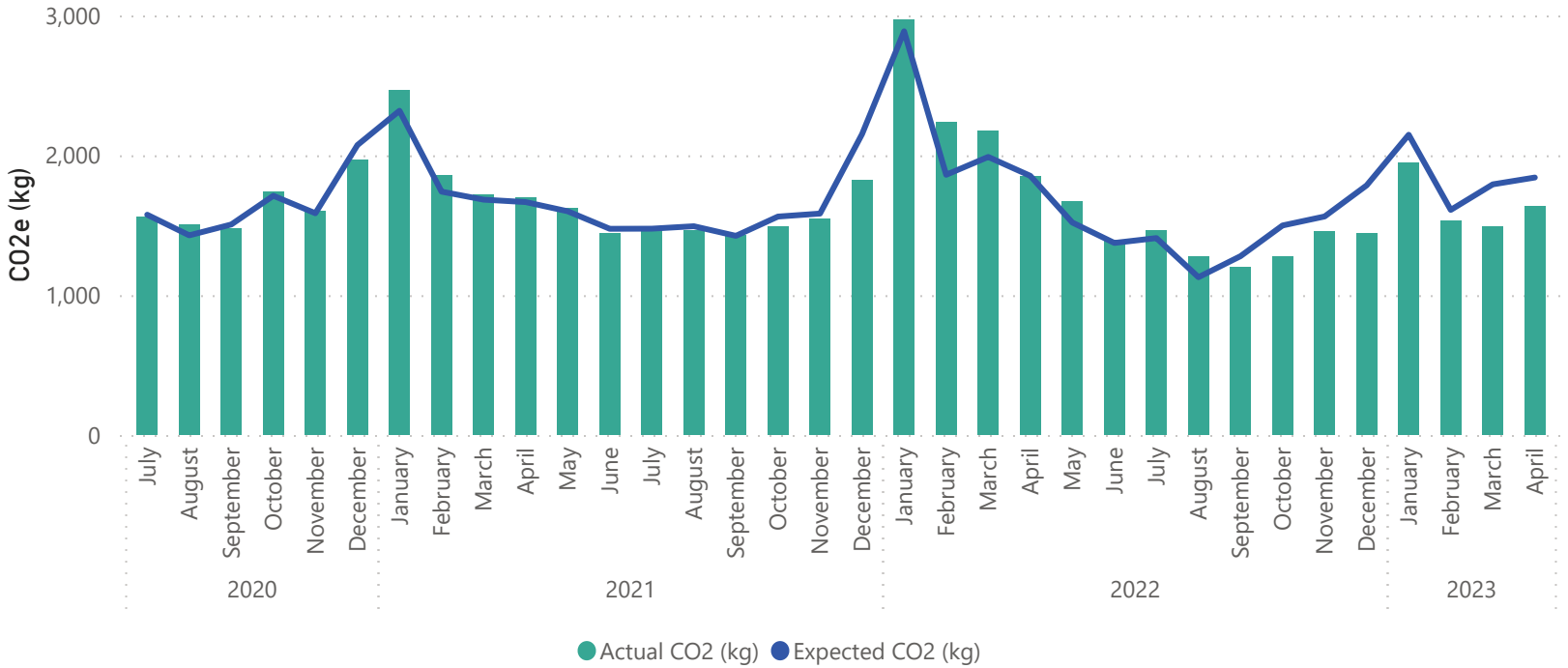


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

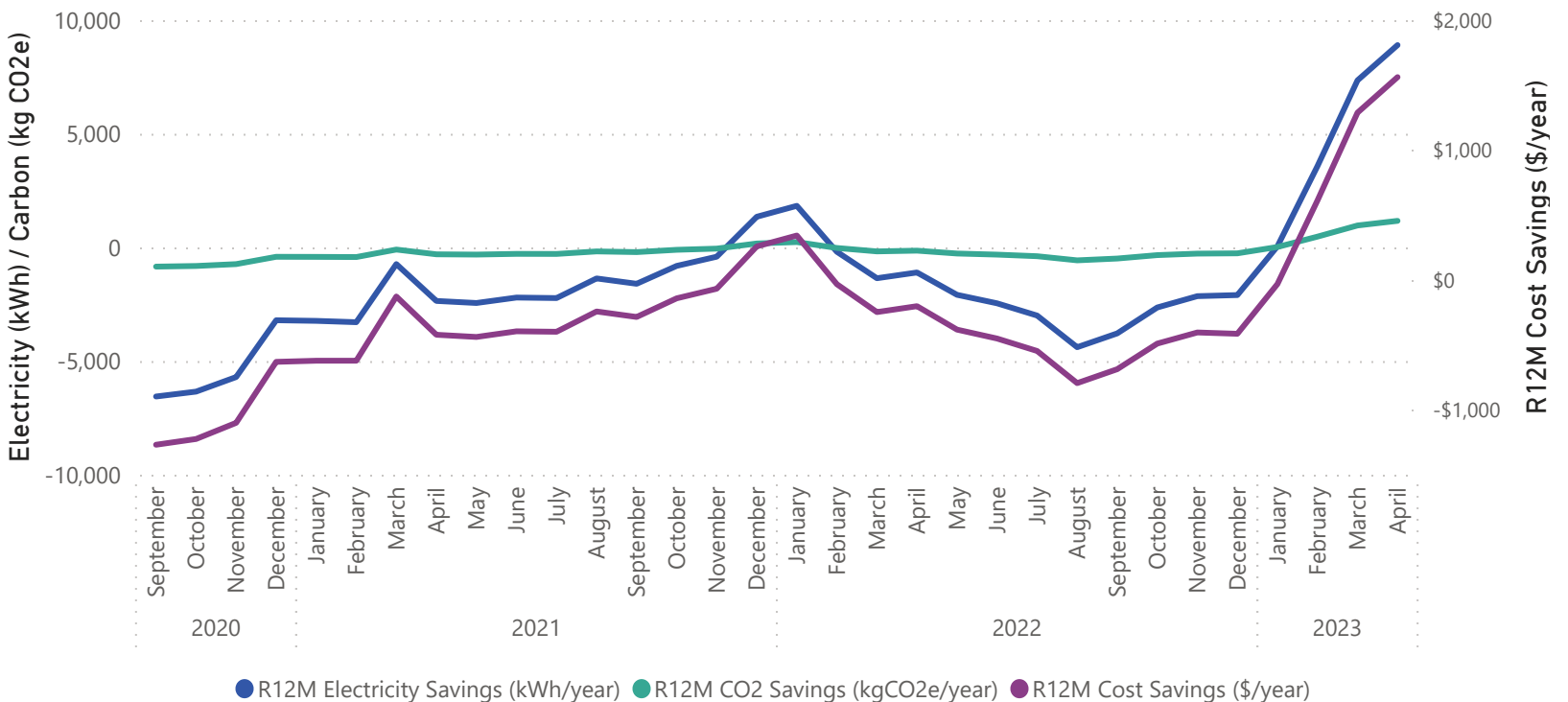
Whakatane District Council

Bridger Glade Pump Station

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



Bridger Glade Pumps Rolling 12 Month Savings

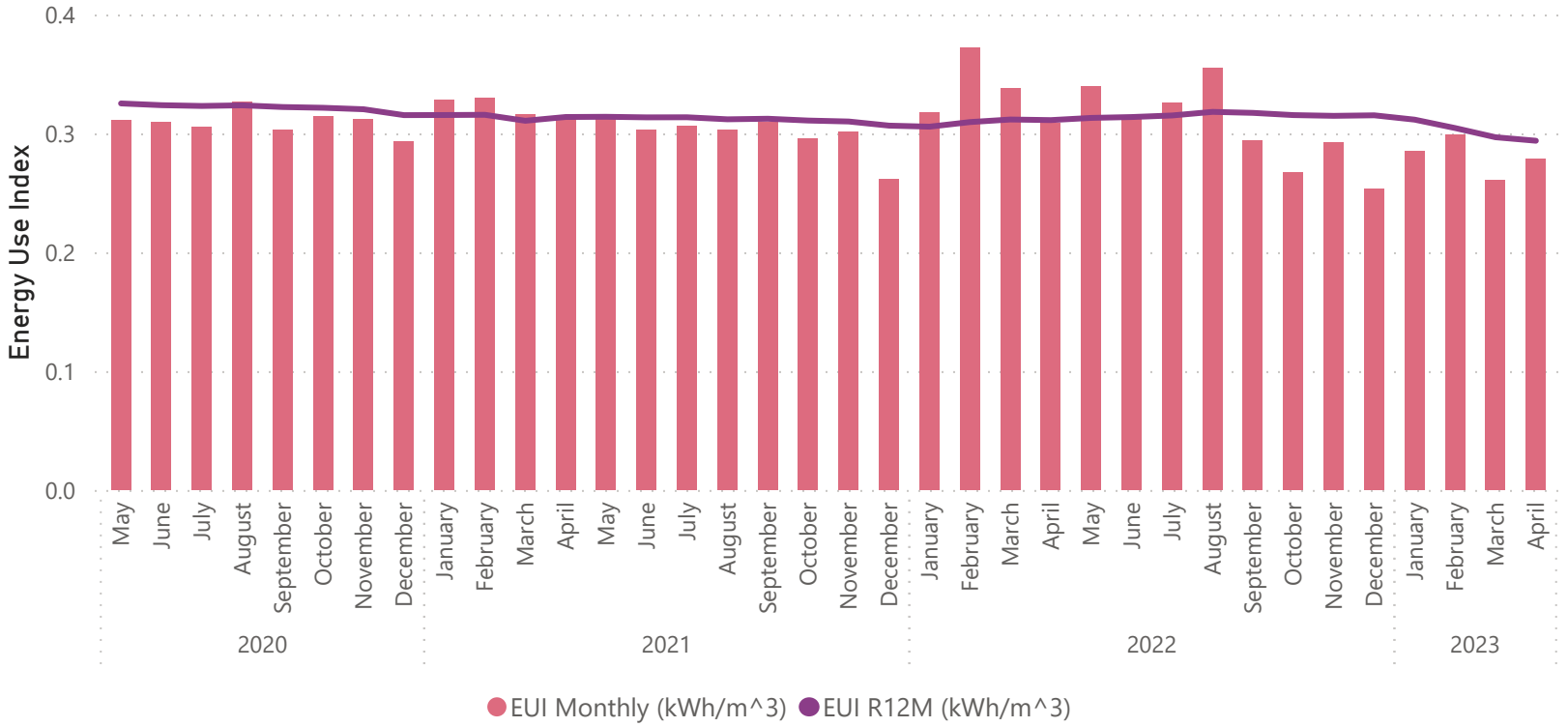


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

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

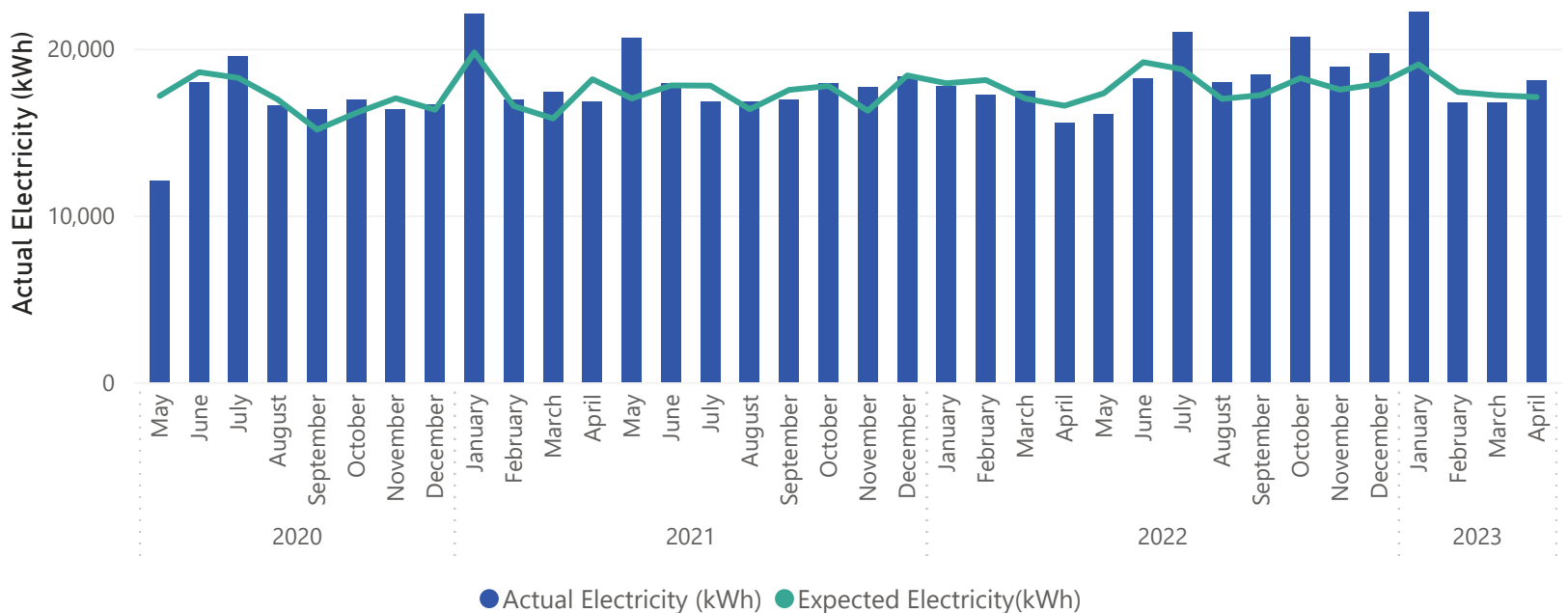
<p>-\$176 Monthly Energy Cost Savings</p>	<p>-998 Elec. Savings (kWh/mo)</p>	<p>-6% Elec. Savings (%)</p>	<p>-10,999 R12M Electricity Savings (kWh/yr)</p>	<p>-131 CO2e Savings (kg/mo)</p>
<p>-\$1,928 R12M Energy Cost Savings</p>				<p>-1,446 R12M CO2e Savings (kg/yr)</p>

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.

Ohope Oxidation Ponds have used more electricity than expected in 8 of the last 12 months. Rainfall has generally been higher than usual, which may contribute to higher electricity usage. The monthly EUI has increased steadily over the past four months.

Ohope Oxidation Ponds Electricity Use Compared to Baseline (kWh)

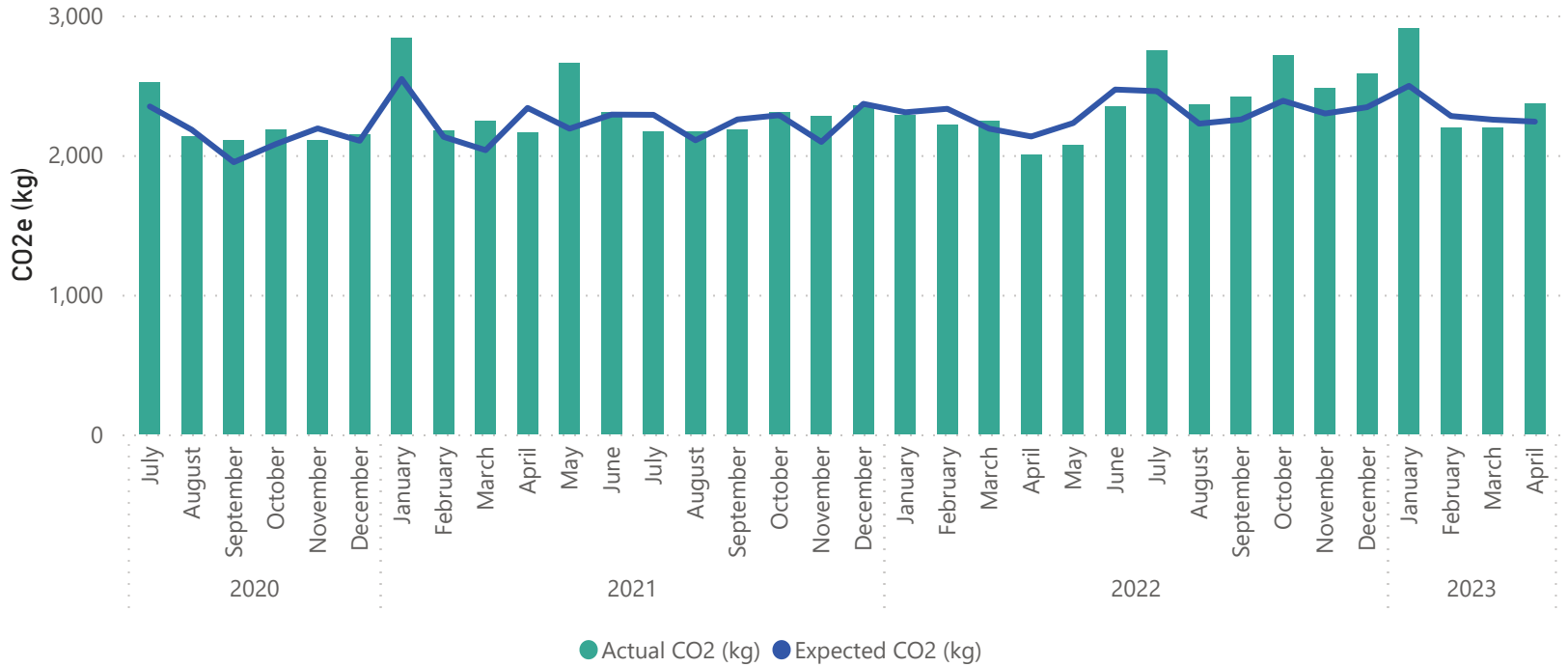


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

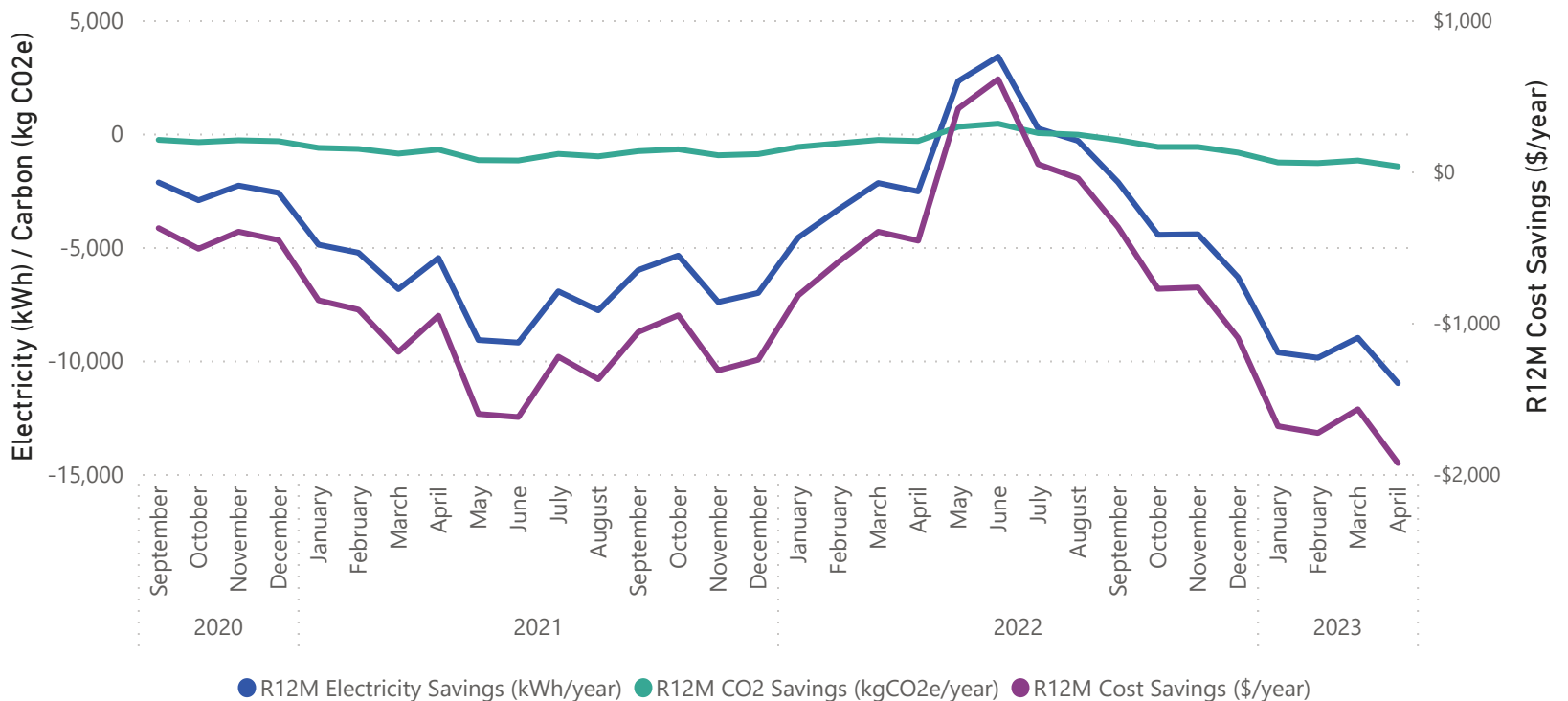
Whakatane District Council

Ohope Oxidation Ponds

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



Ohope Oxidation Ponds Rolling 12 Month Savings

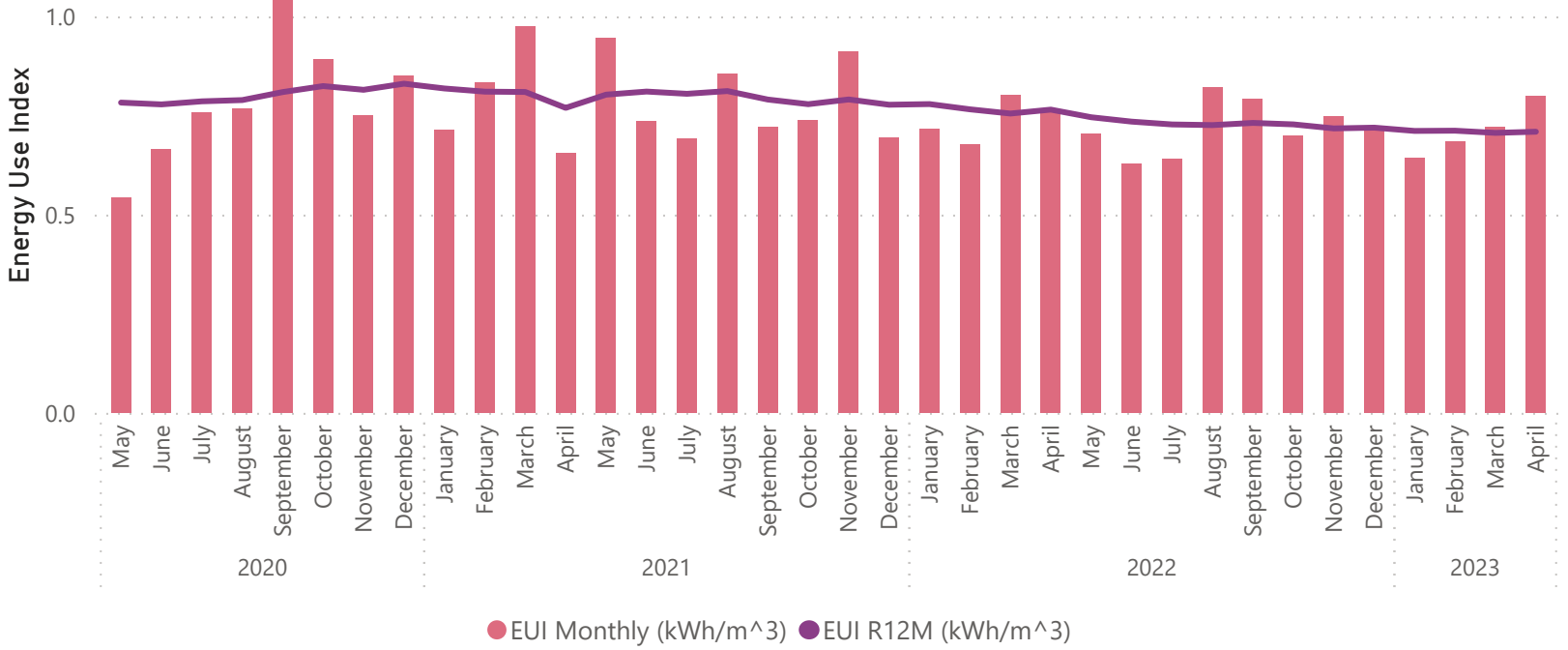


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

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

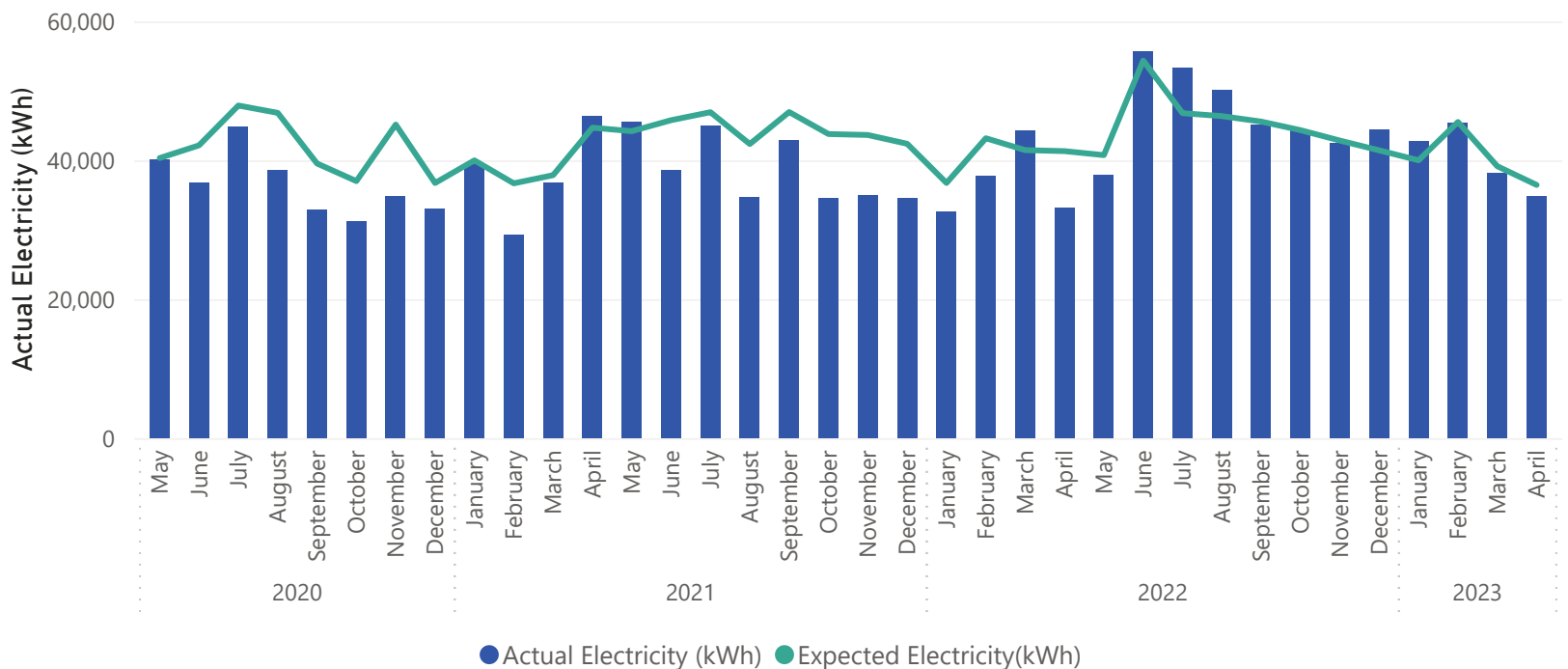
<p>\$286 Monthly Energy Cost Savings</p>	<p>1,566 Elec. Savings (kWh/mo)</p>	<p>4% Elec. Savings (%)</p>	<p>-10,926 R12M Electricity Savings (kWh/yr)</p>	<p>205 CO2e Savings (kg/mo)</p>
<p>-\$2,002 R12M Energy Cost Savings</p>				<p>-1,435 R12M CO2e Savings (kg/yr)</p>

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 oxidation ponds' electricity use is less than expected in April 2023. The monthly EUI has increased above the 12 month average; however, the 12 month average EUI is trending downwards, which is good.

Whakatane Oxidation Ponds Electricity Use Compared to Baseline (kWh)

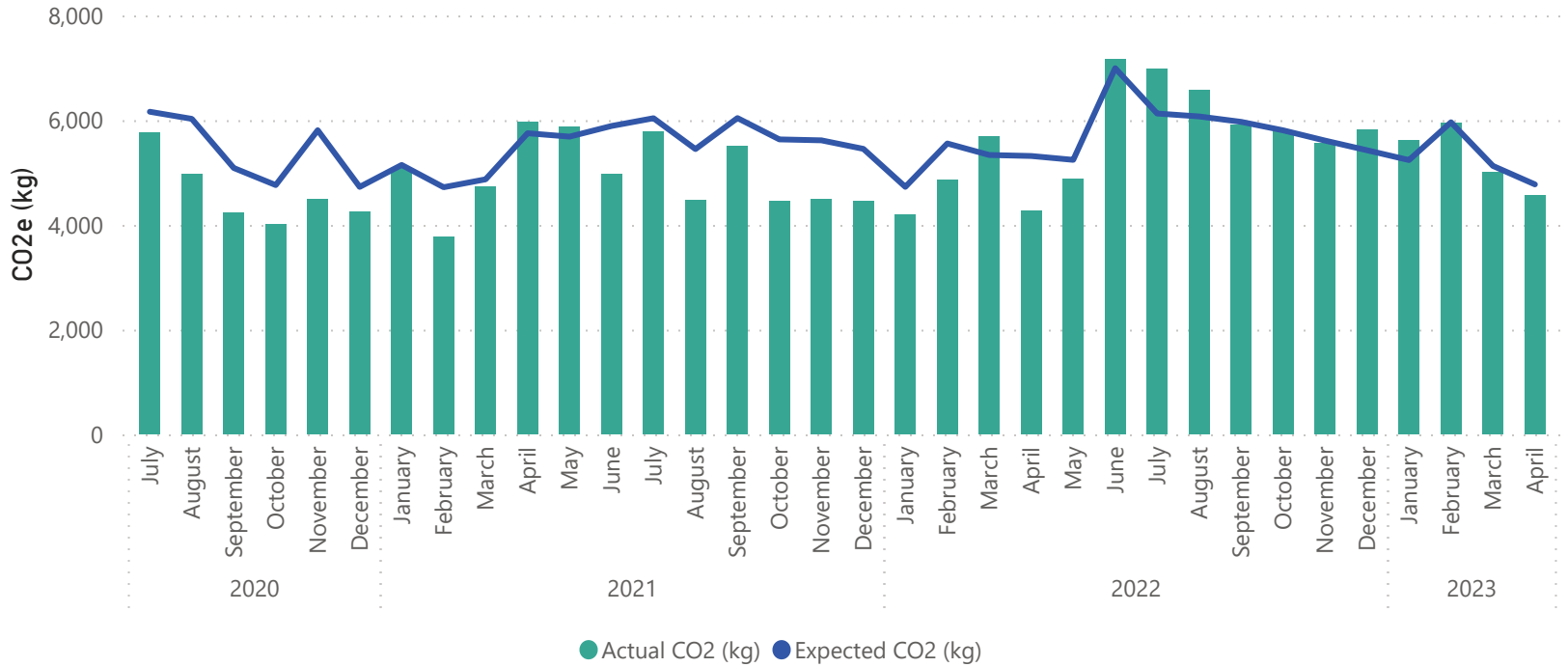


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

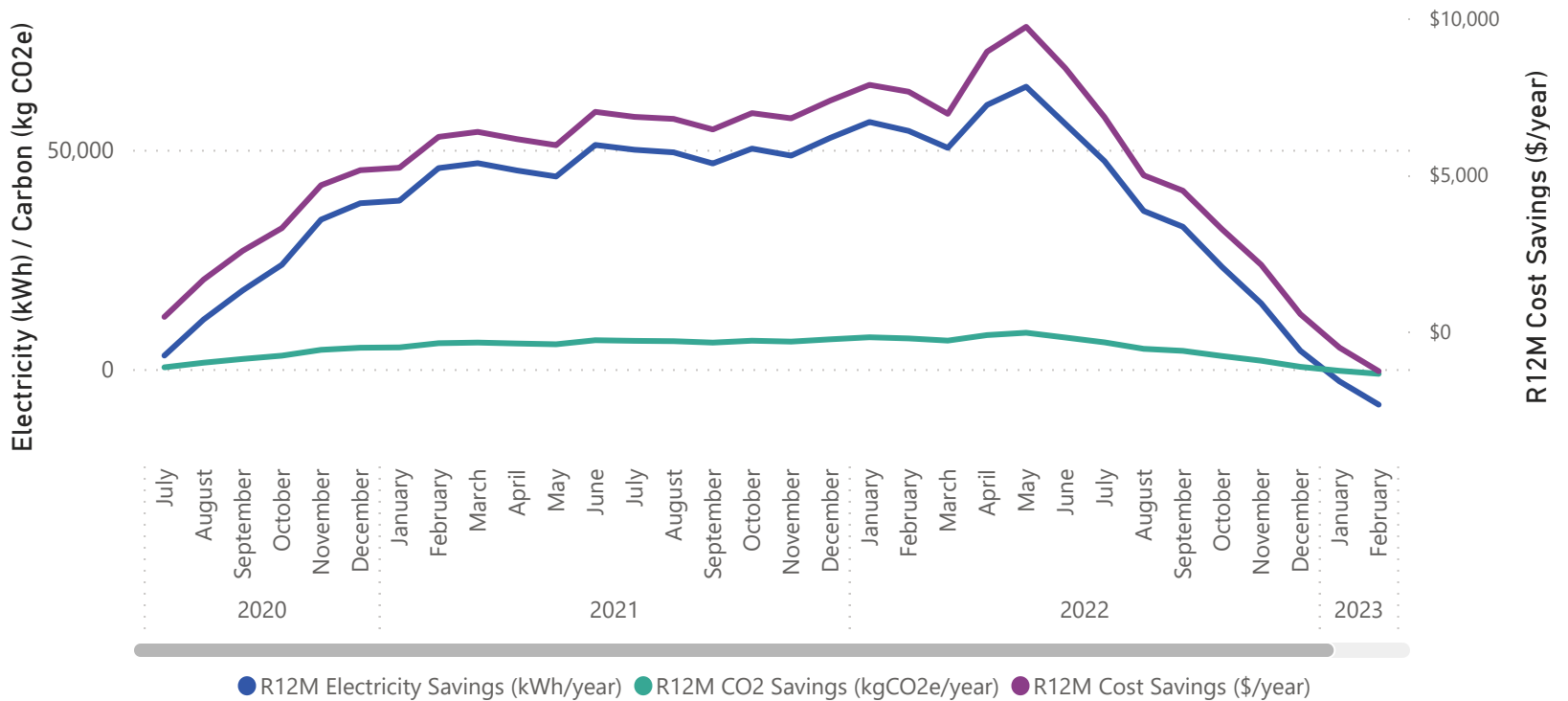
Whakatane District Council

Whakatane Oxidation Ponds

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



Whakatane Oxidation Ponds Rolling 12 Month Savings

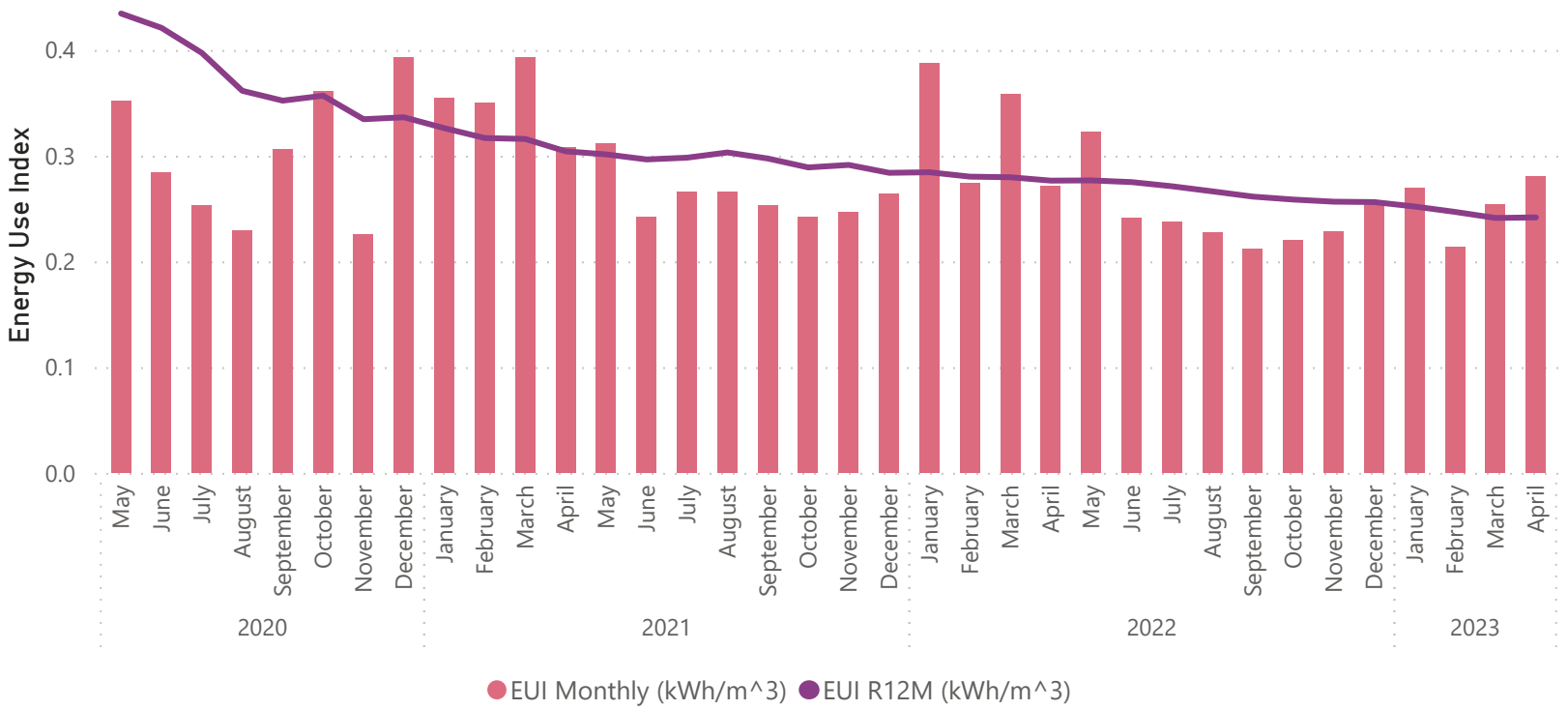


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

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

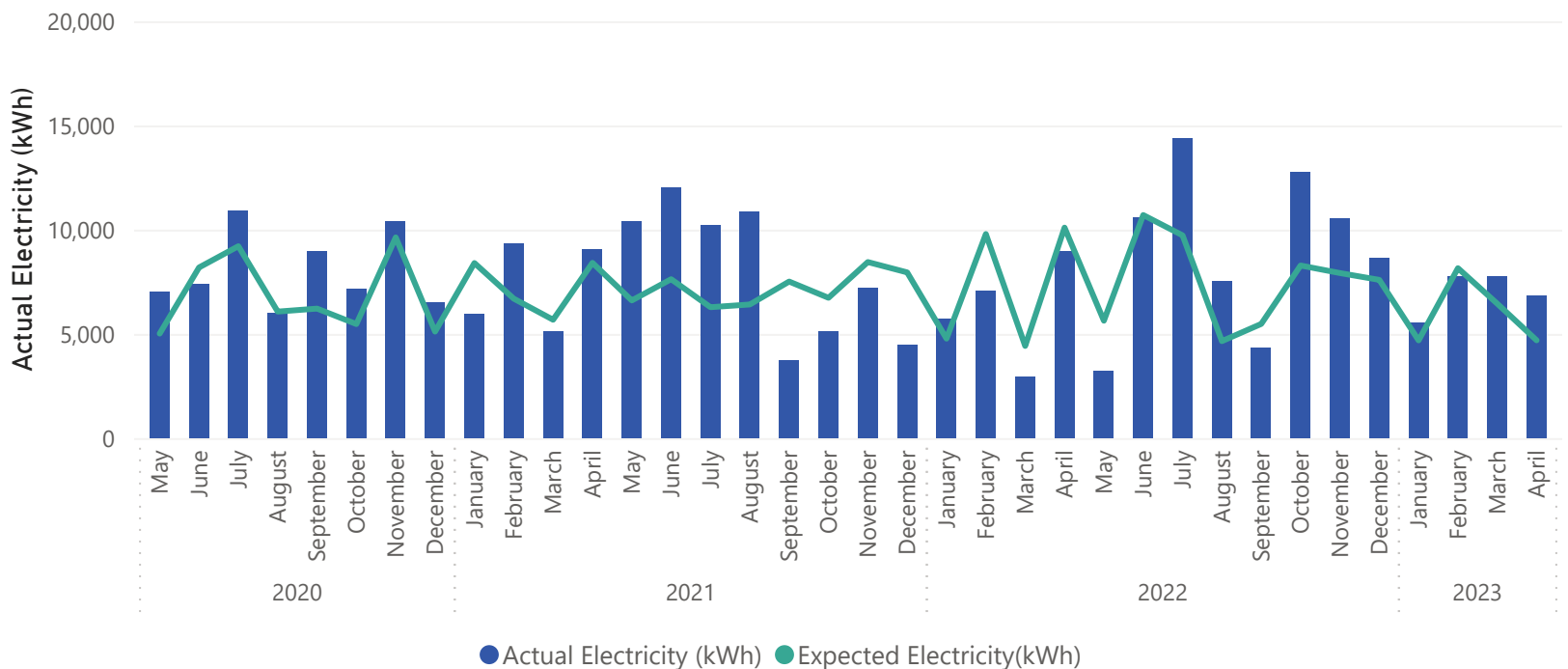
<p>-\$115 Monthly Energy Cost Savings</p>	<p>-2,160 Elec. Savings (kWh/mo)</p>	<p>-46% Elec. Savings (%)</p>	<p>-15,894 R12M Electricity Savings (kWh/yr)</p>	<p>-283 CO2e Savings (kg/mo)</p>
<p>\$1,173 R12M Energy Cost Savings</p>				<p>-2,088 R12M CO2e Savings (kg/yr)</p>

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.

The pump stations used more electricity than expected this month. April 2023 was a month with less rainfall, approximately 70mm of rain coincided within the billing period.

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

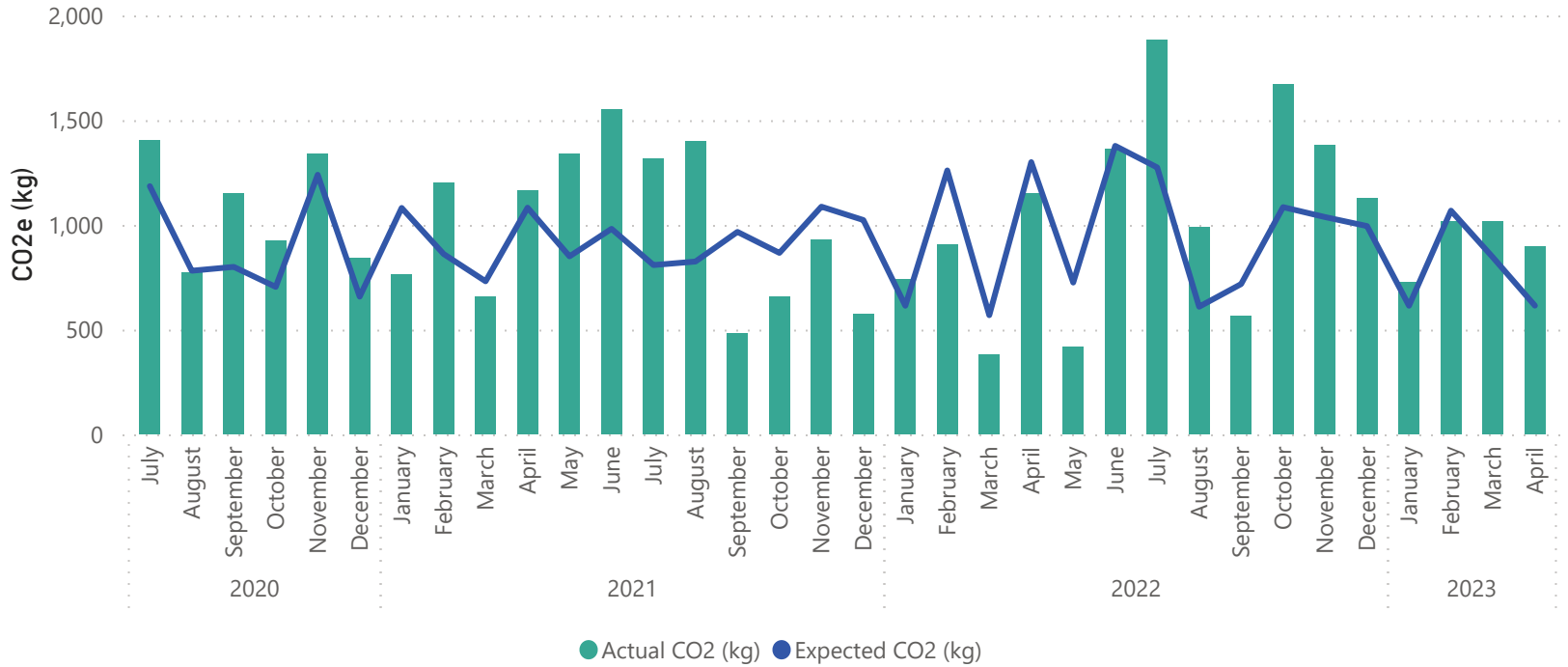


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

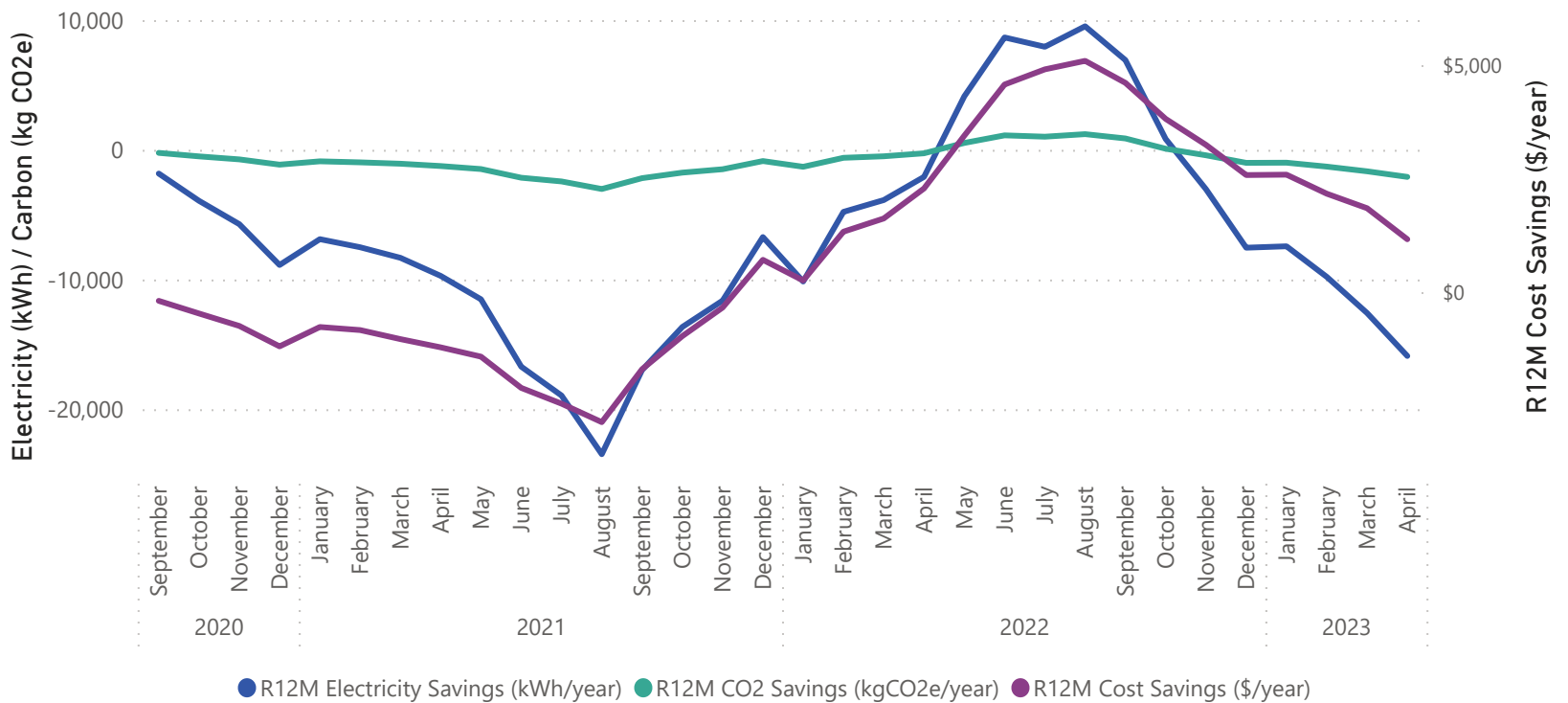
Whakatane District Council

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.**

Whakatane District Council

Murupara Pools

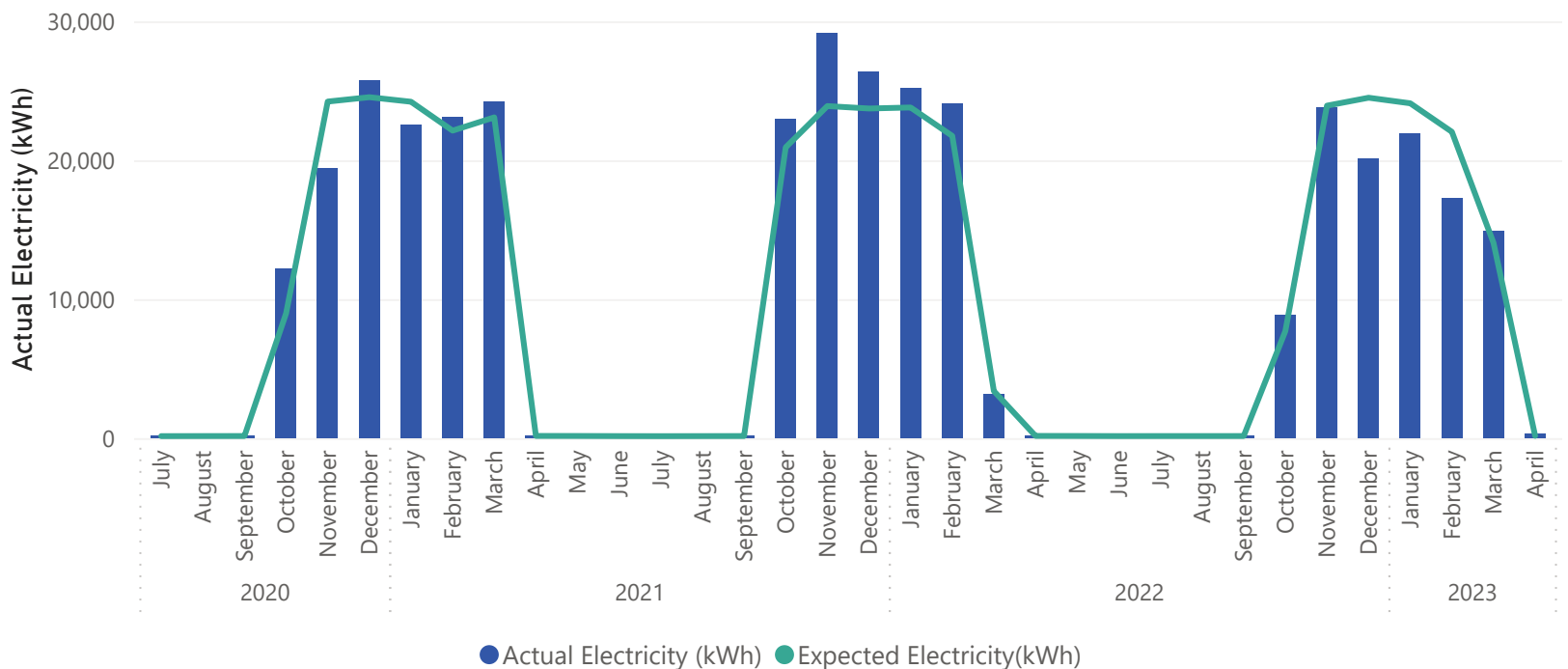
<p>-\$30 Monthly Energy Cost Savings</p>	<p>-167 Elec. Savings (kWh/mo)</p>	<p>-104% Elec. Savings (%)</p>	<p>9,545 R12M Electricity Savings (kWh/yr)</p>	<p>-22 CO2e Savings (kg/mo)</p>
<p>\$1,667 R12M Energy Cost Savings</p>				<p>1,250 R12M CO2e Savings (kg/yr)</p>

Comments:

Murupara Pools have been added to reporting in December 2022. The baseline period uses data from July 2021 to June 2022 and adjusts for ambient temperature as well as how many days in the month the pool is open or closed.

The pools are now closed for the season and are using a few kWh per day.

Murupara Pools Electricity Use Compared to Baseline (kWh)

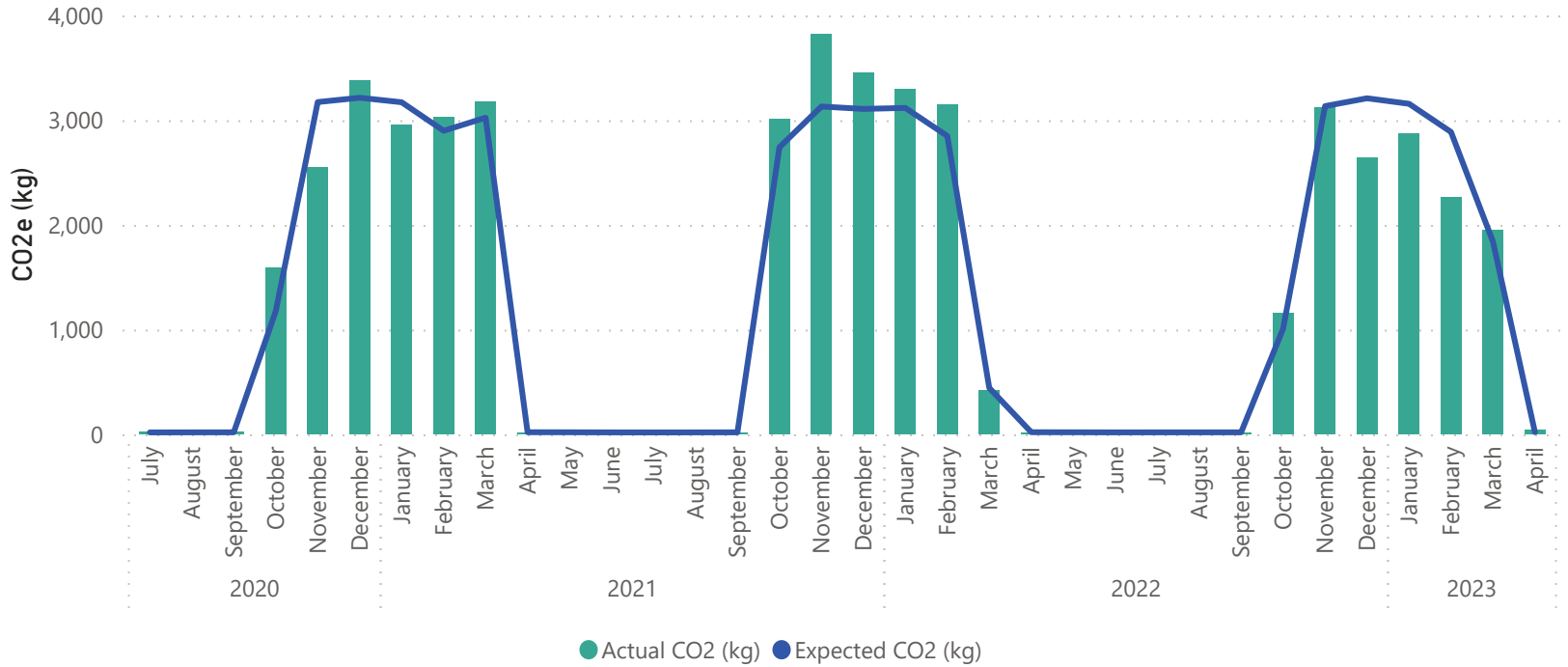


Note: New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time
Baselines were updated for all sites from July 2022.

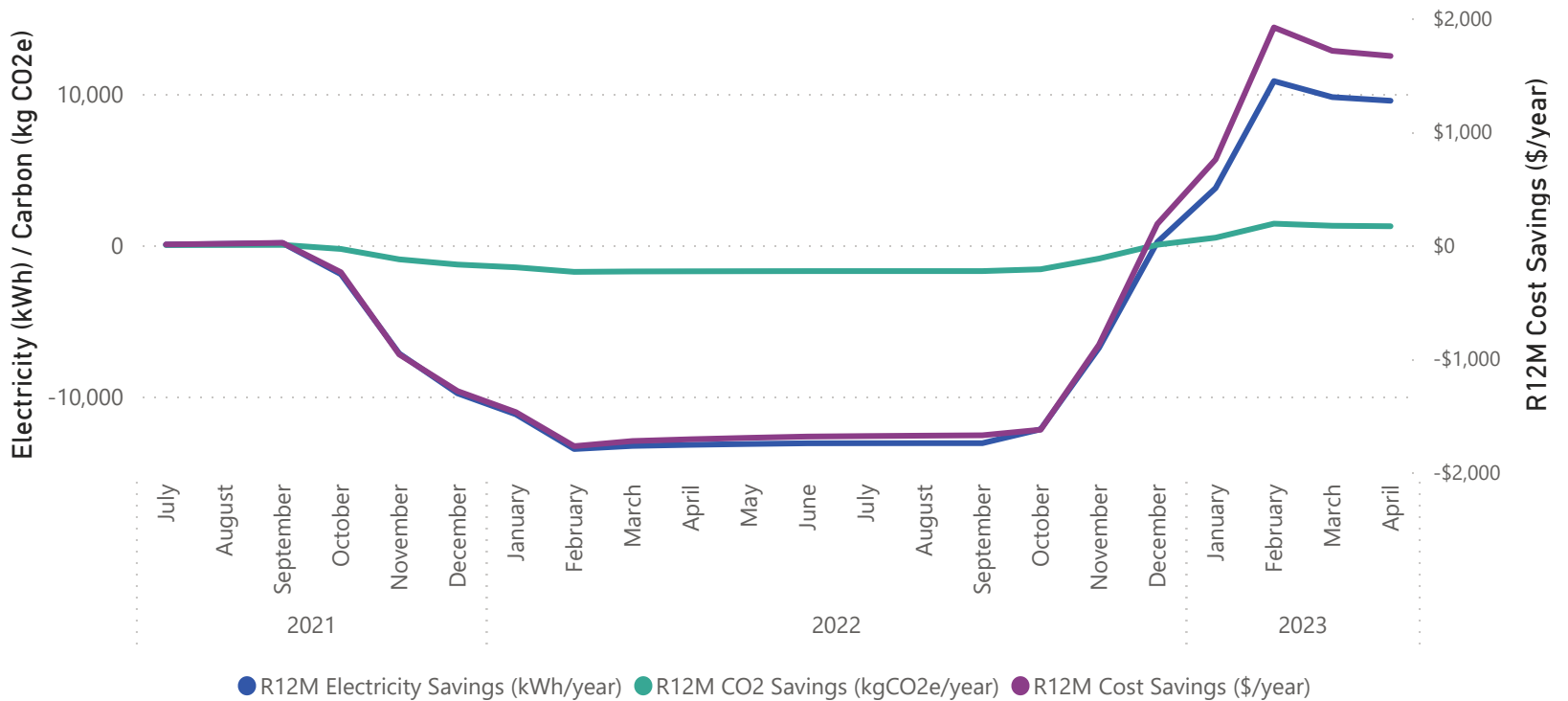
Whakatane District Council

Murupara Pools

Murupara Pools Carbon Emissions Compared to Baseline (kg CO2e)



Murupara Pools 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.**