

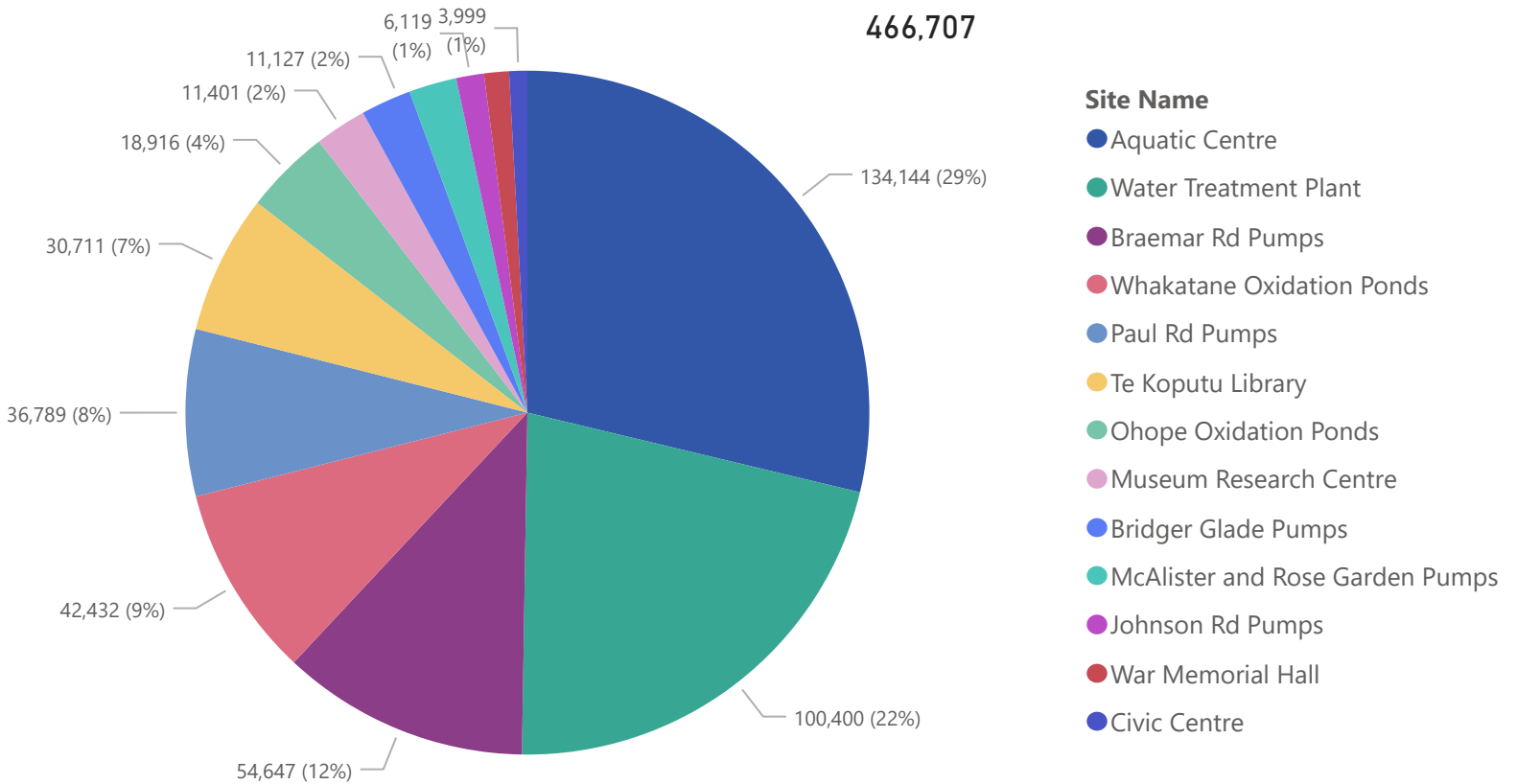
# Whakatane District Council Summary

<p><b>\$4,877</b> Monthly Energy Cost Savings</p>	<p><b>29,491</b> Elec. Savings (kWh/mo)</p>	<p><b>6%</b> Elec. Savings (%)</p>	<p><b>370,420</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>2,004</b> CO2e Savings (kg/mo)</p>
<p><b>\$117,469</b> R12M Energy Cost Savings</p>	<p><b>-8,983</b> Gas. Savings (kWh/mo)</p>	<p><b>-45%</b> Gas. Savings (%)</p>	<p><b>655,994</b> R12M Gas Savings (kWh/yr)</p>	<p><b>190,704</b> R12M CO2e Savings (kg/yr)</p>

## Total Energy (kWh/Month)

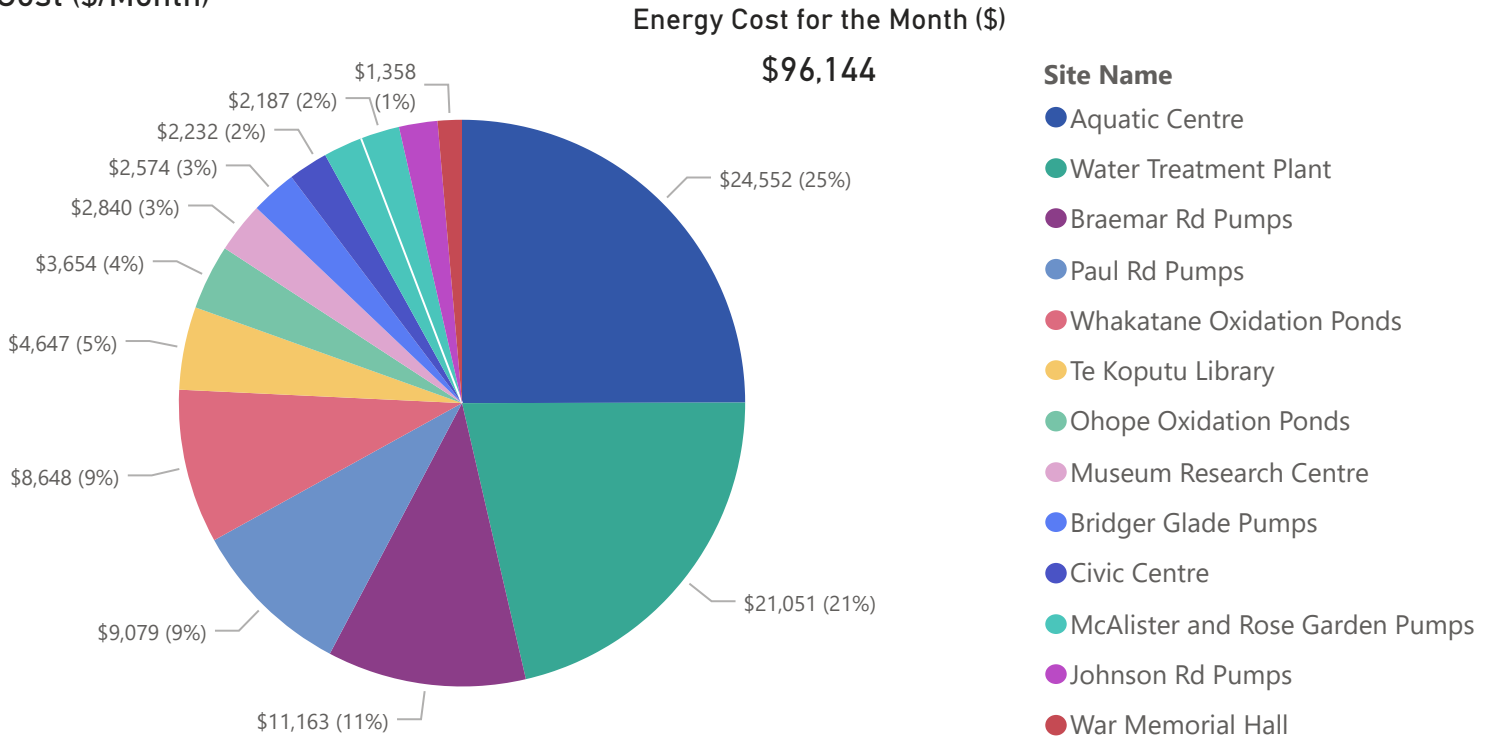
Total Energy Used for the Month (kWh)

**466,707**

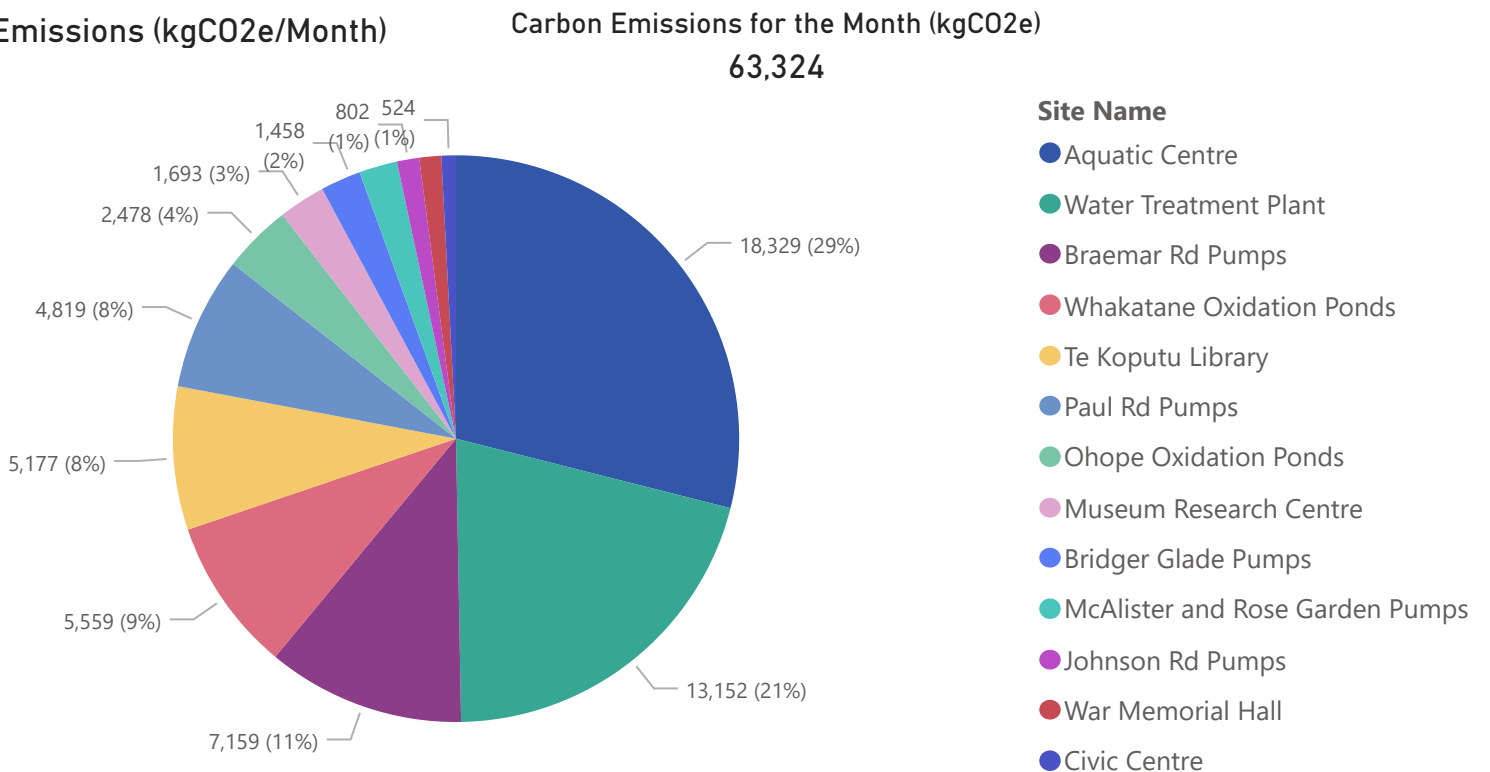


# Whakatane District Council Summary

## Energy Cost (\$/Month)

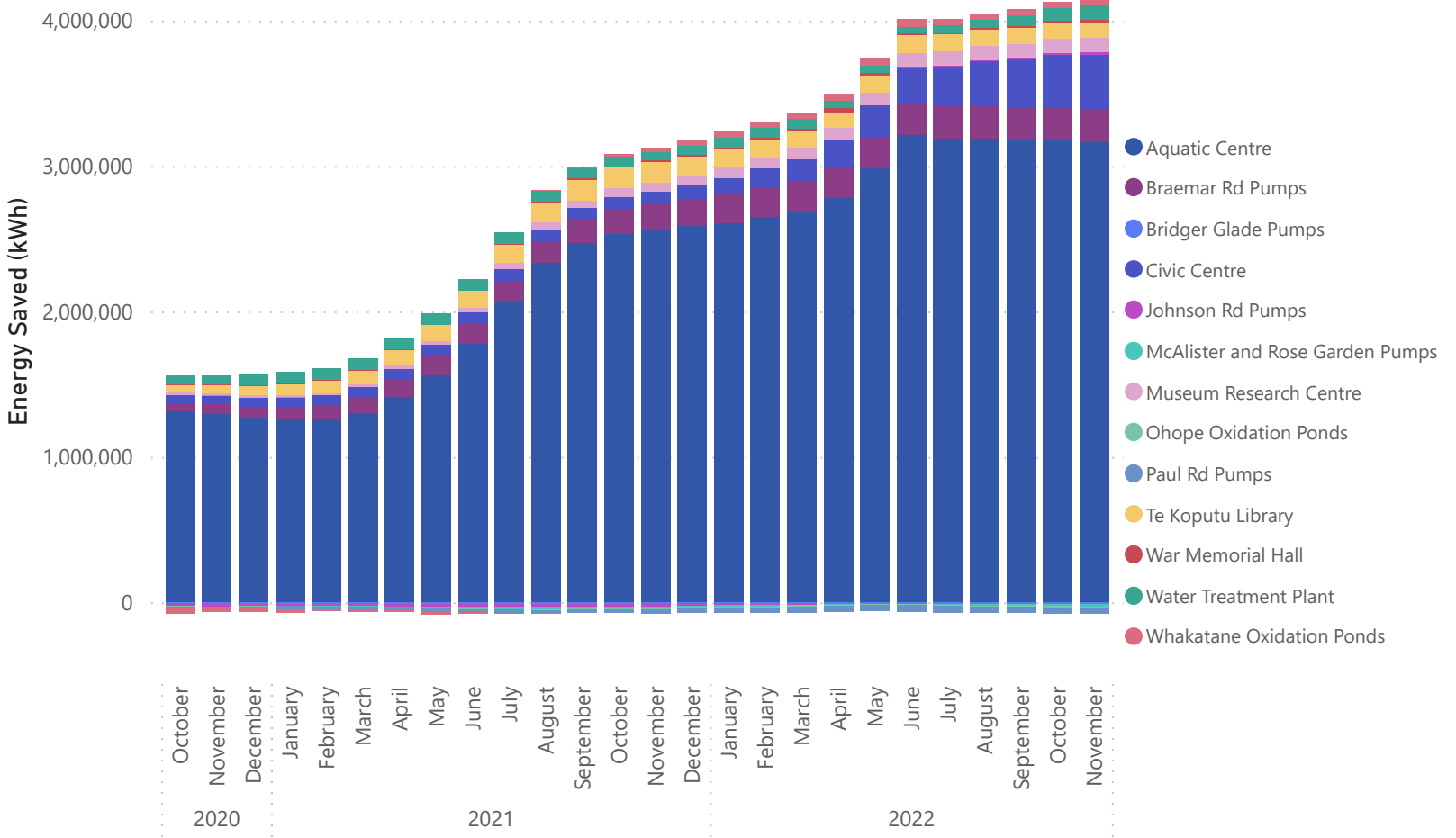


## Carbon Emissions (kgCO2e/Month)



# Whakatane District Council Summary

Cumulative Energy Savings (kWh)



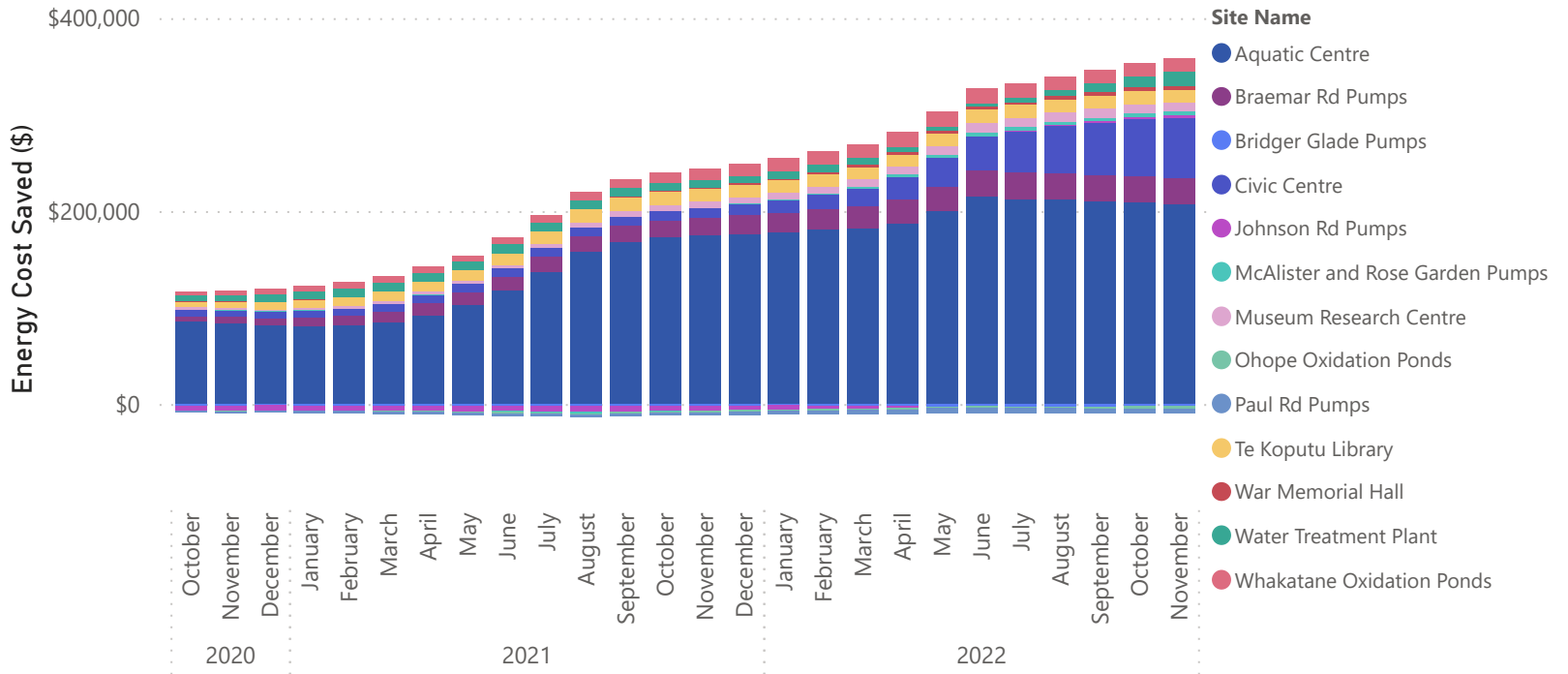
Note, cumulative savings are calculated starting July 2018

**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

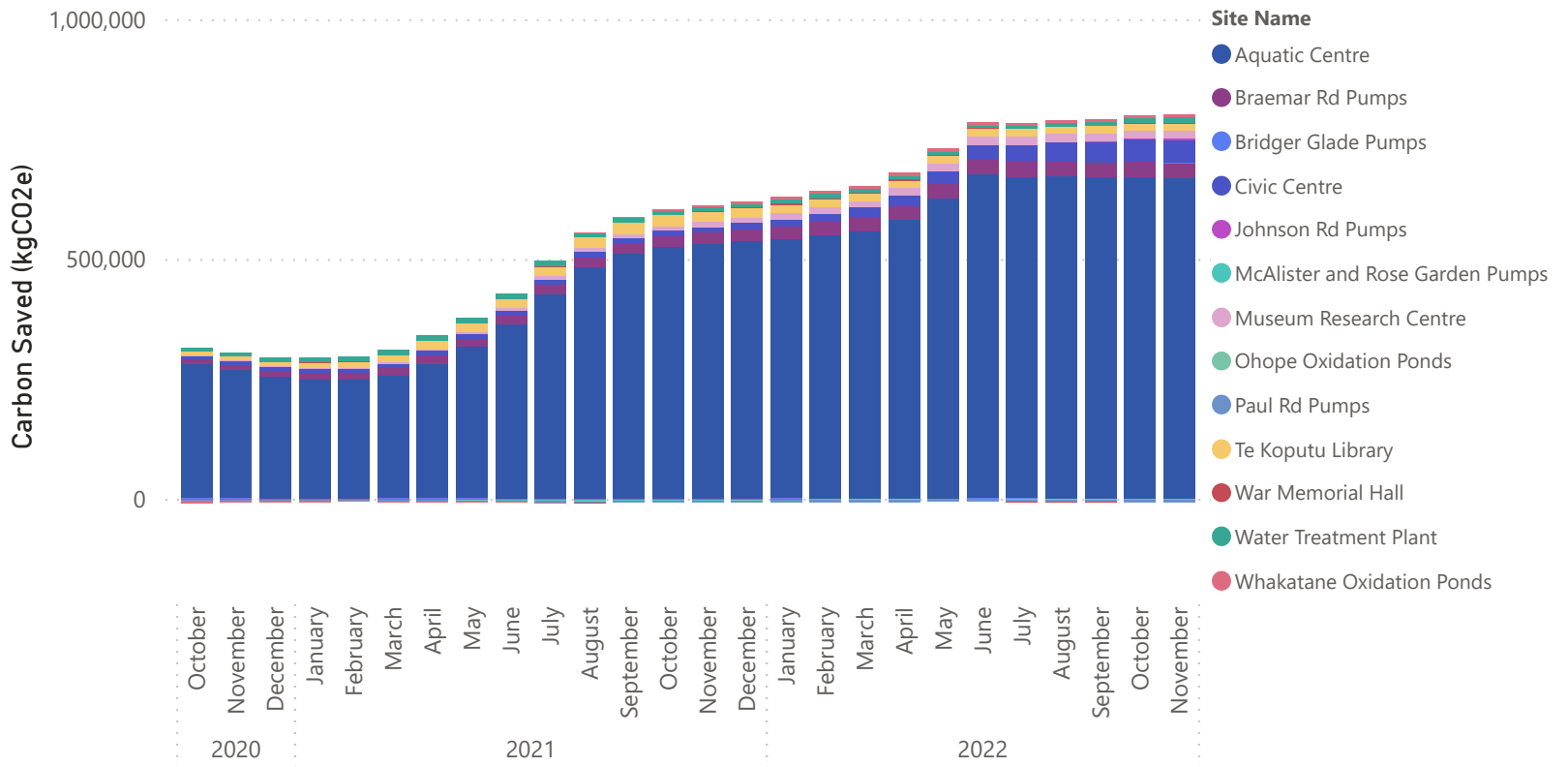
## Summary

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><b>\$3,552</b> Monthly Energy Cost Savings</p>	<p><b>20,669</b> Elec. Savings (kWh/mo)</p>	<p><b>84%</b> Elec. Savings (%)</p>	<p><b>291,555</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>2,708</b> CO2e Savings (kg/mo)</p>
<p><b>\$53,412</b> R12M Energy Cost Savings</p>				<p><b>37,643</b> R12M CO2e Savings (kg/yr)</p>

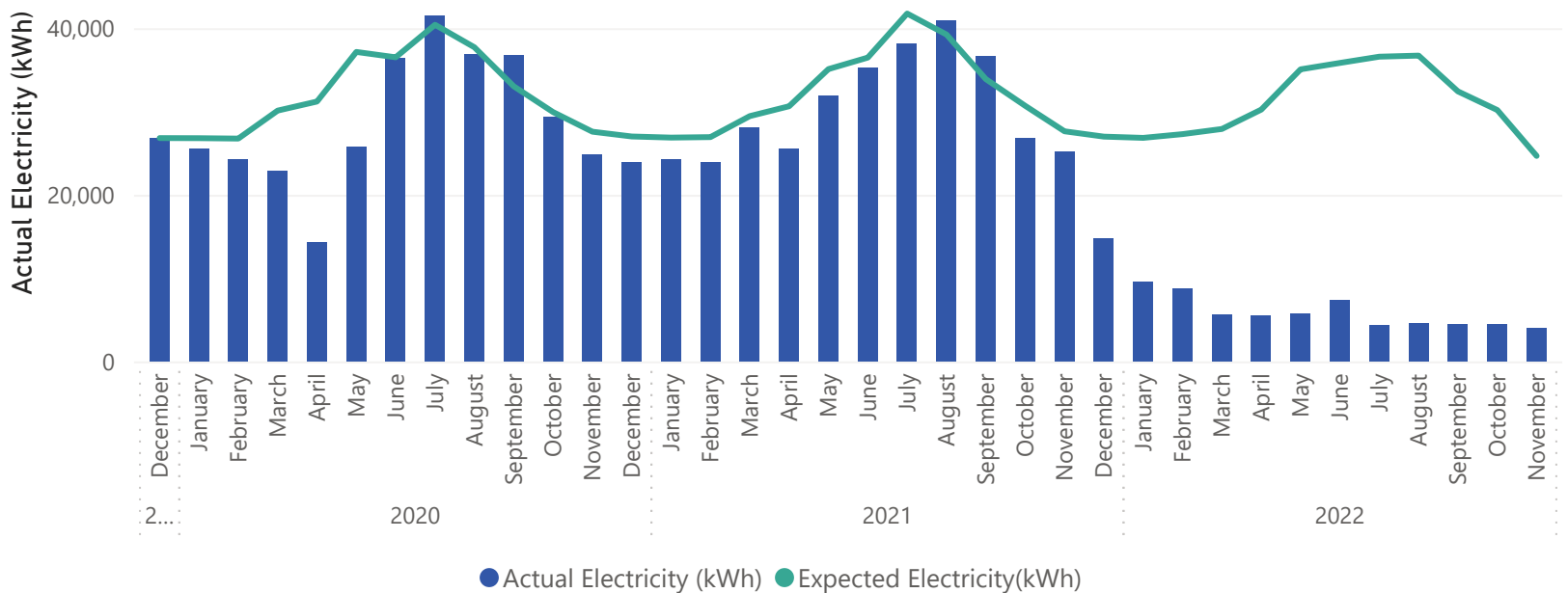
### Comments:

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.

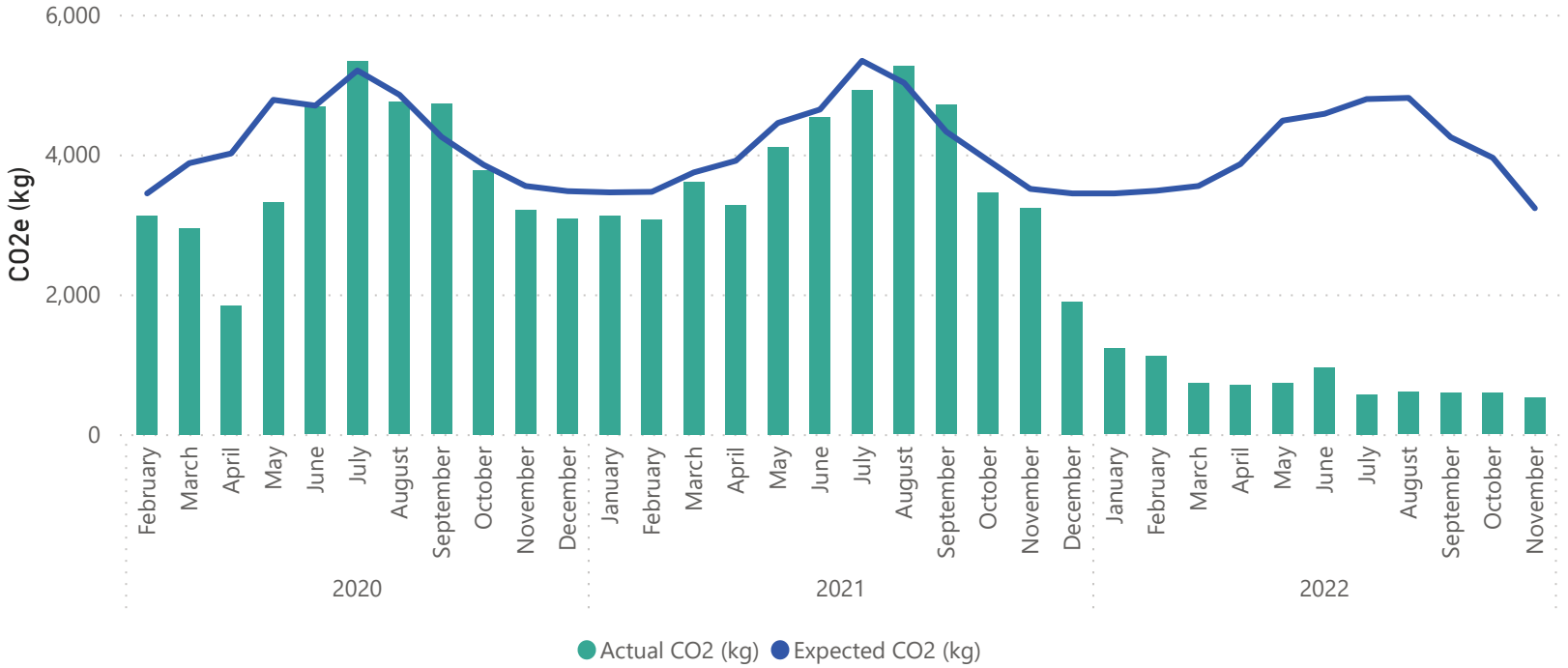
Civic Centre Electricity Use Compared to Baseline (kWh)



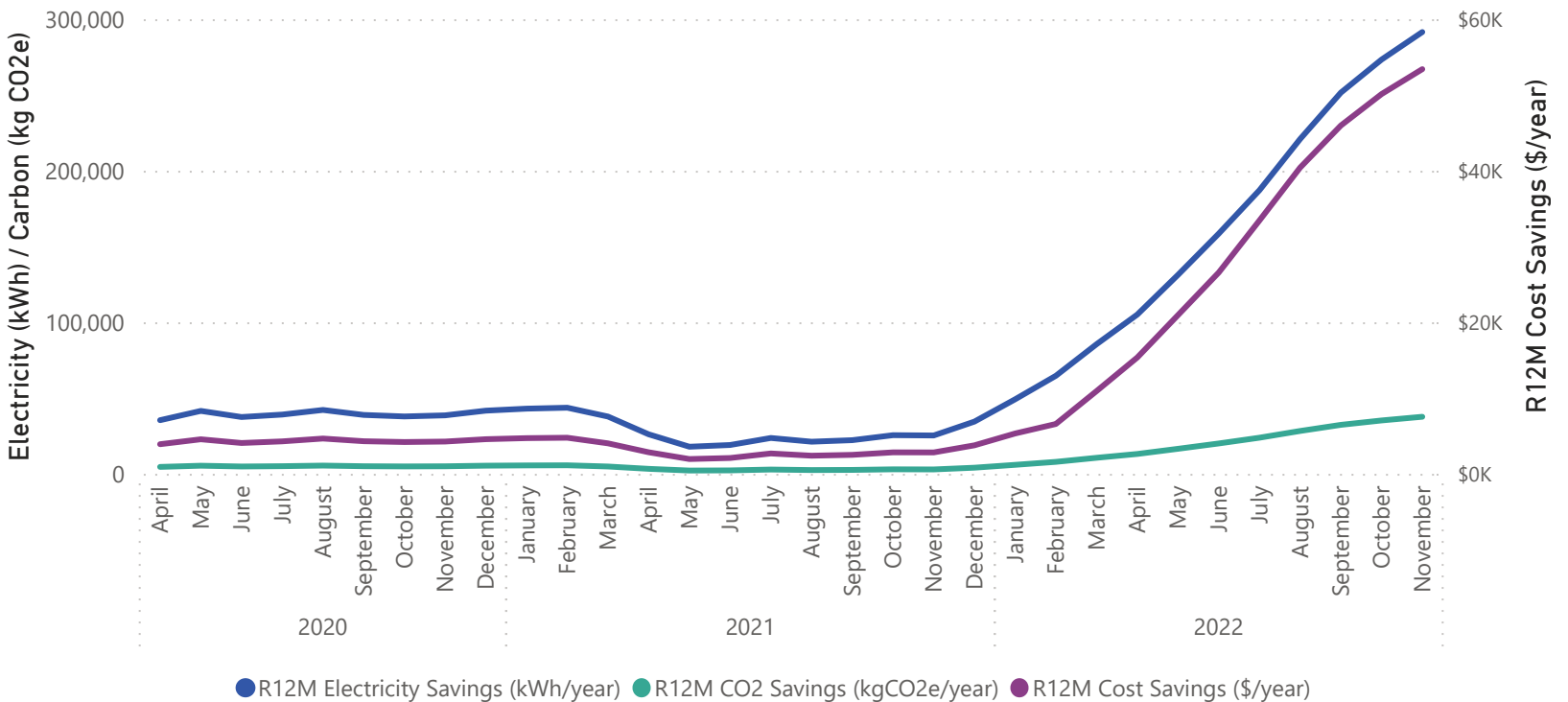
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council Civic Centre

### Civic Centre Carbon Emissions Compared to Baseline (kg CO2e)



### Civic Centre Rolling 12 Month Savings

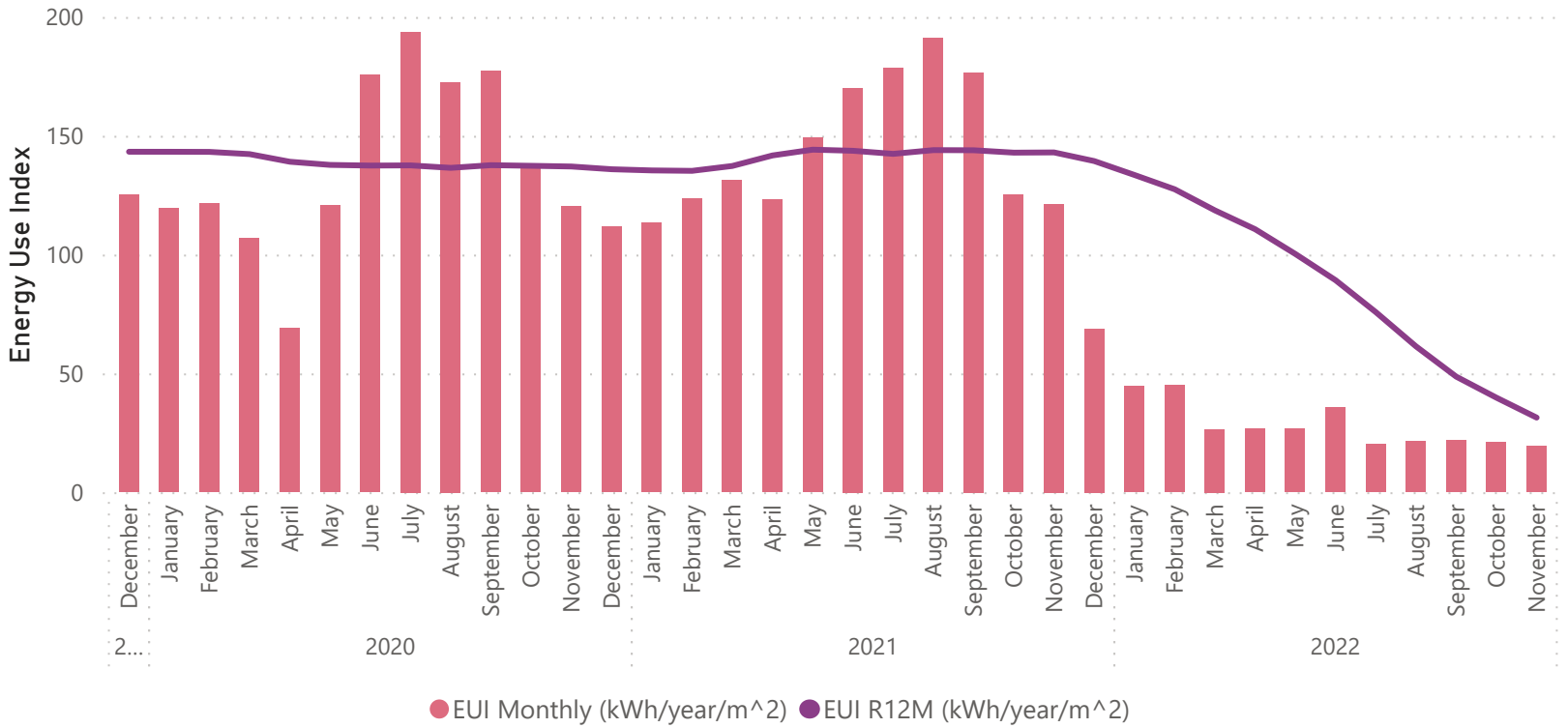


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# 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><b>-\$2,244</b></p> <p>Monthly Energy Cost Savings</p>	<p><b>-9,604</b>      <b>-8%</b>      <b>-82,537</b></p> <p>Elec. Savings (kWh/mo)    Elec. Savings (%)    R12M Electricity Savings (kWh/yr)</p>			<p><b>-2,864</b></p> <p>CO2e Savings (kg/mo)</p>
<p><b>\$32,790</b></p> <p>R12M Energy Cost Savings</p>	<p><b>-7,756</b>      <b>-354%</b>      <b>685,152</b></p> <p>Gas. Savings (kWh/mo)    Gas. Savings (%)    R12M Gas Savings (kWh/yr)</p>			<p><b>138,199</b></p> <p>R12M CO2e Savings (kg/yr)</p>

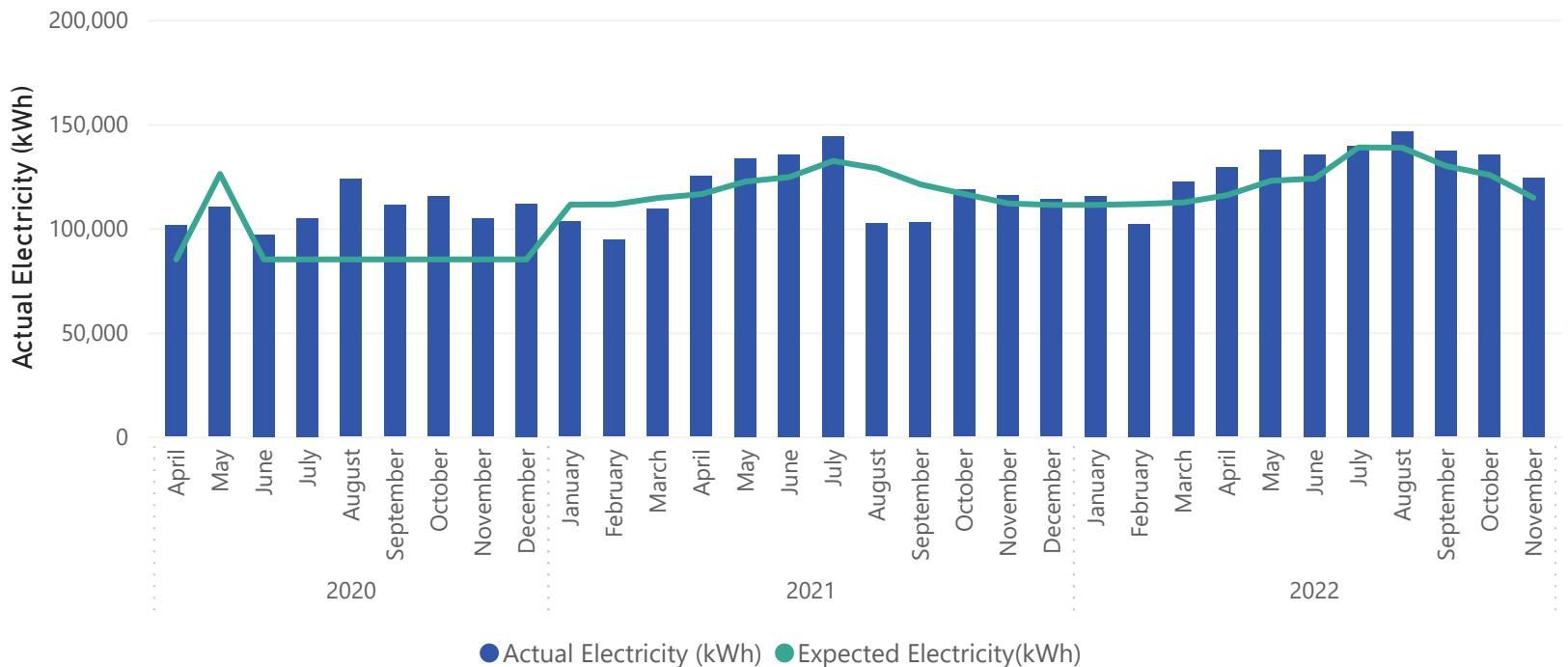
### Comments:

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.

Both electricity and natural gas use were higher than expected in November 2022. Gas use is approximately 350% (7,800 kWh) higher than expected, however, this is because very little gas use was expected for the month. 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)**



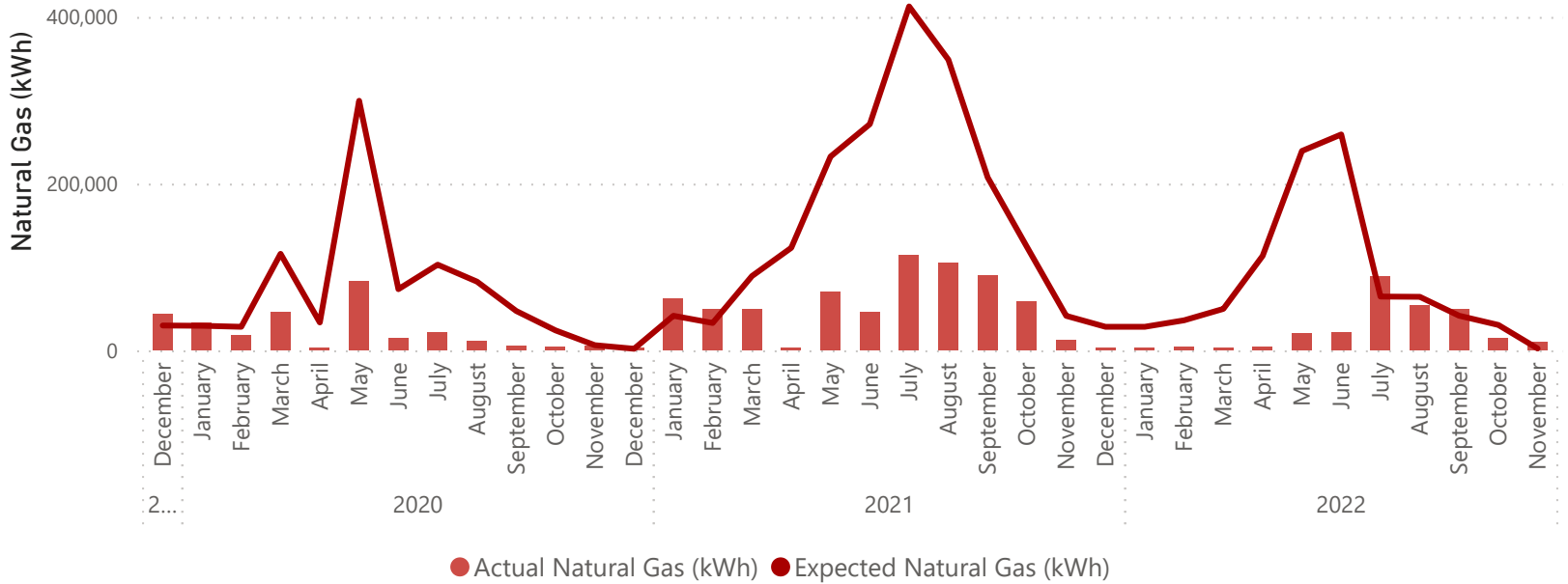
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**



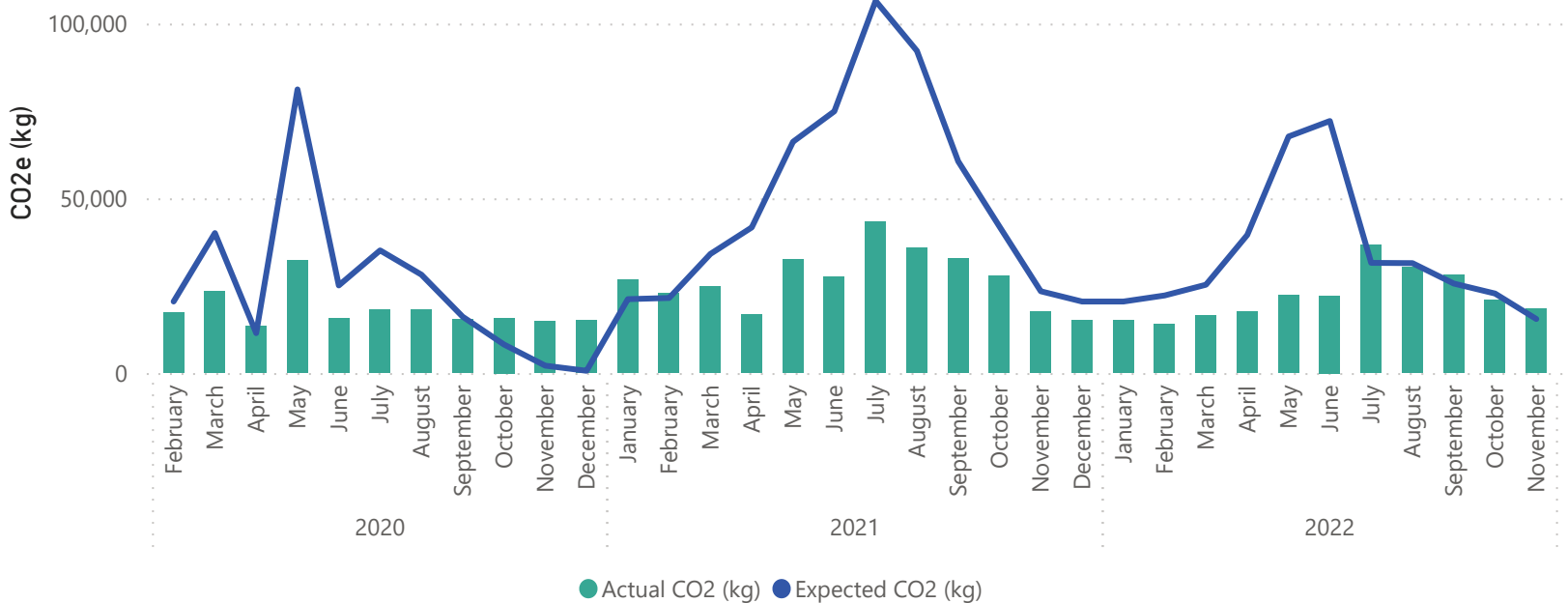
# Whakatane District Council

## Aquatic Centre

Aquatic Centre Natural Gas Compared to Baseline (kWh)



Aquatic Centre Carbon Emissions Compared to Baseline (kg CO2e)

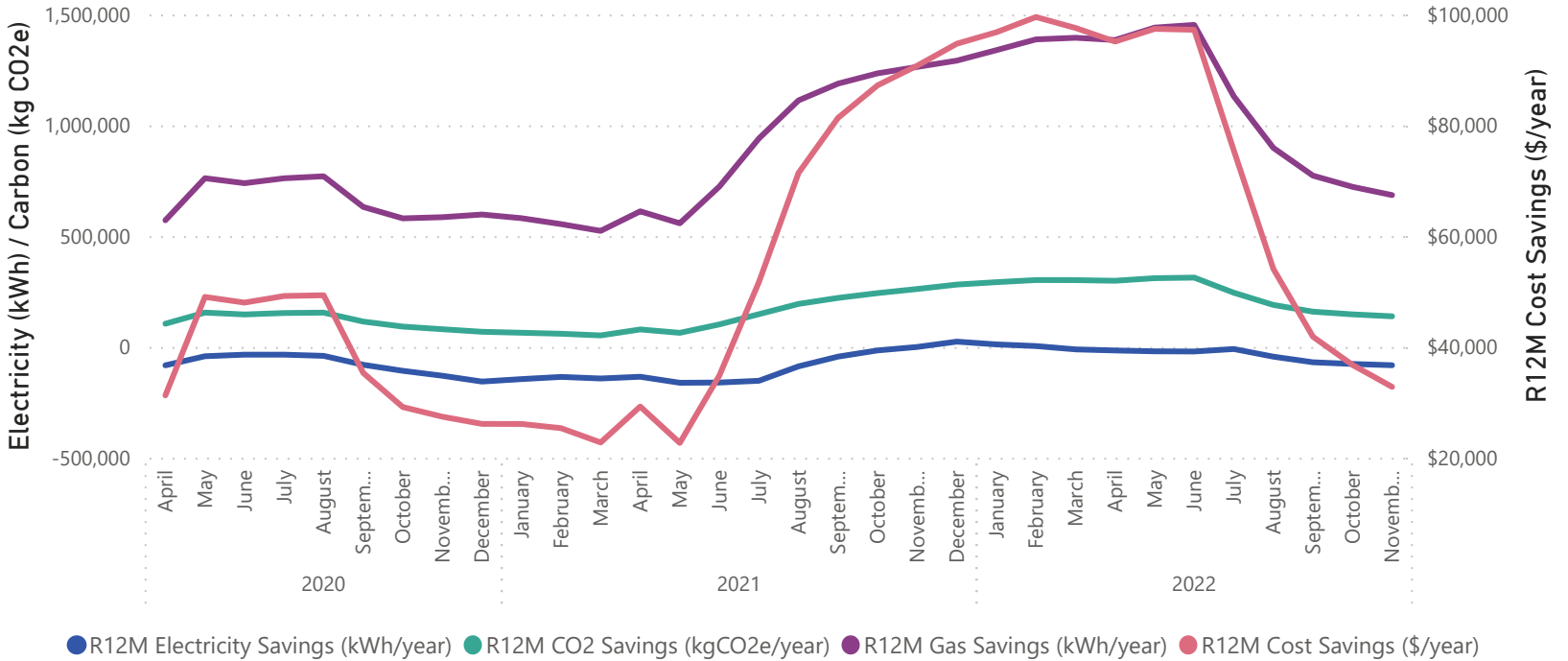


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

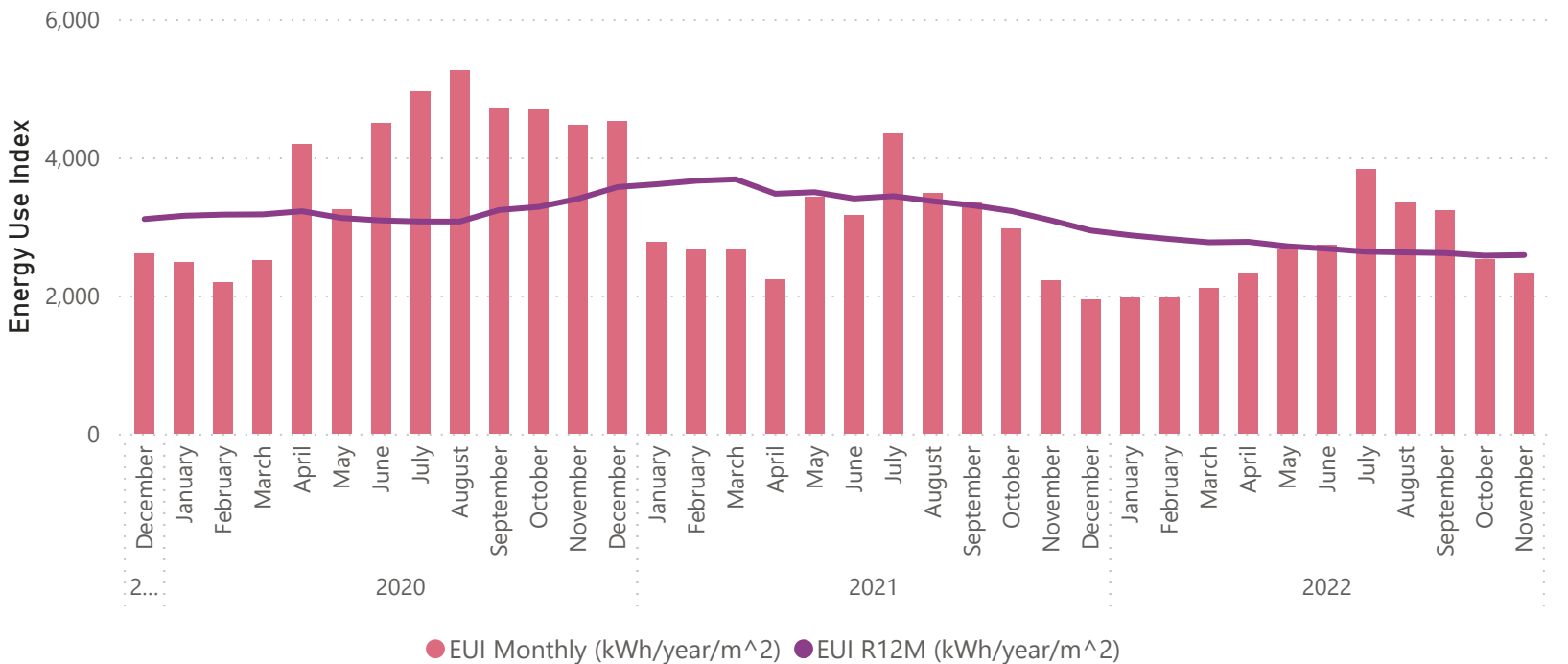
# Whakatane District Council

## 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

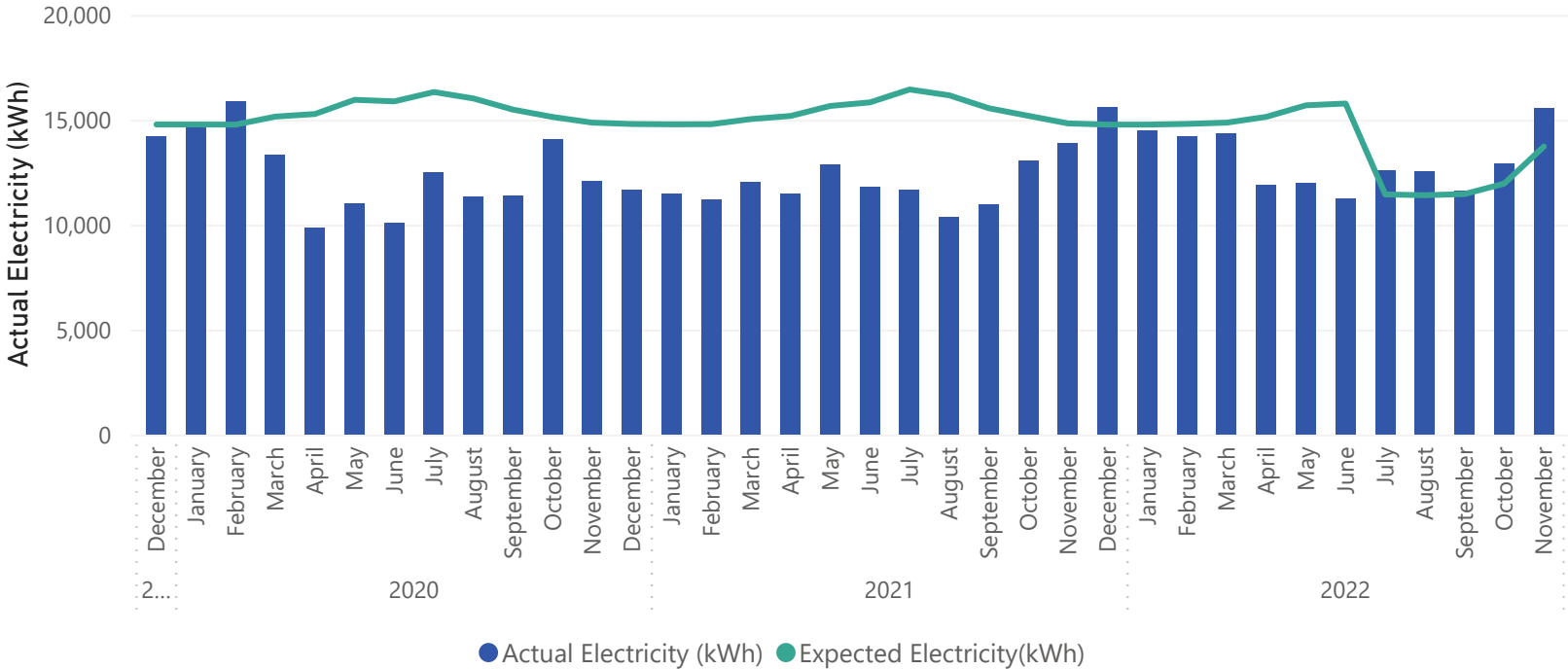
<p><b>-\$497</b> Monthly Energy Cost Savings</p>	<p><b>-1,802</b> Elec. Savings (kWh/mo)</p>	<p><b>-13%</b> Elec. Savings (%)</p>	<p><b>6,822</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>-741</b> CO2e Savings (kg/mo)</p>
<p><b>-\$1,062</b> R12M Energy Cost Savings</p>	<p><b>-2,438</b> Gas. Savings (kWh/mo)</p>	<p><b>-19%</b> Gas. Savings (%)</p>	<p><b>-37,662</b> R12M Gas Savings (kWh/yr)</p>	<p><b>-7,169</b> 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, natural gas use was also higher than expected. It is likely that the main cause of higher energy use is from significant dehumidification loads. Average monthly temperatures were similar for November 2022 and November 2021, however more electricity and natural gas was used for November 2022.

Te Koputu Library Electricity Use Compared to Baseline (kWh)

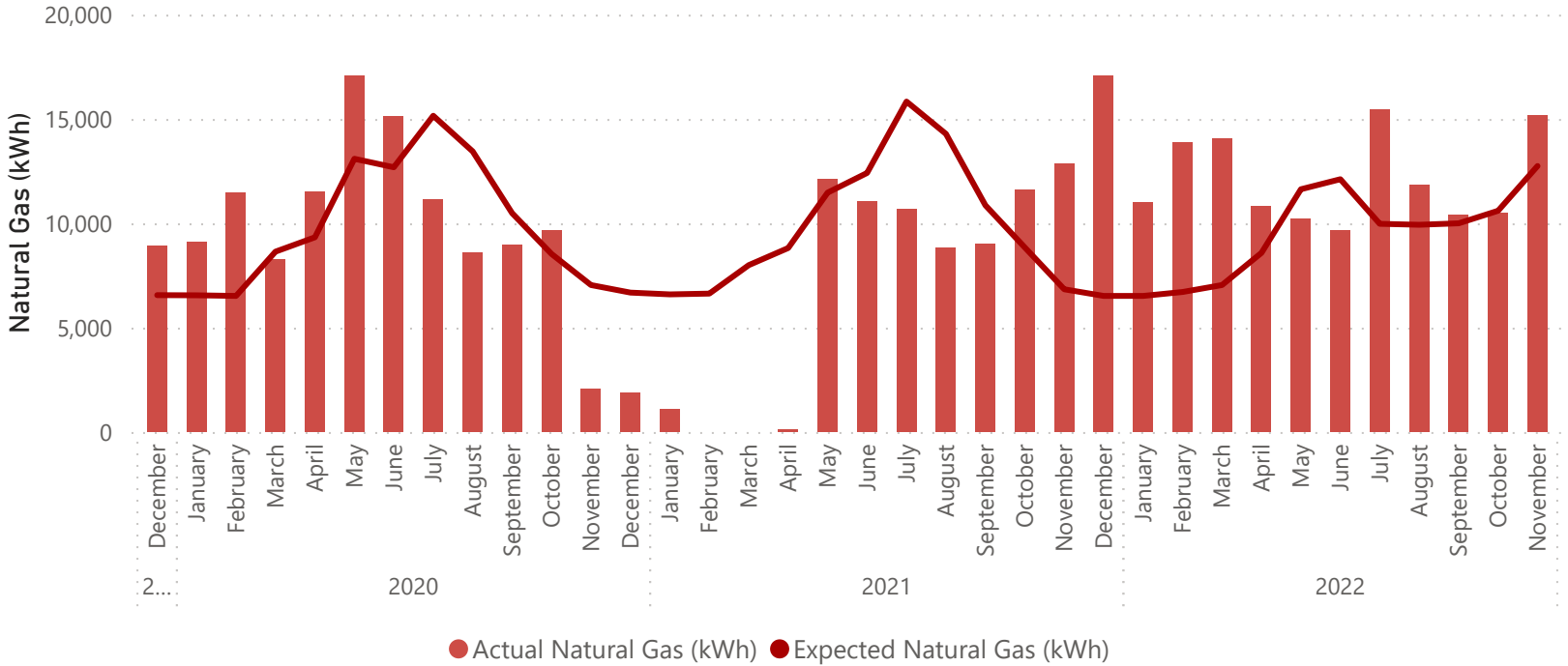


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

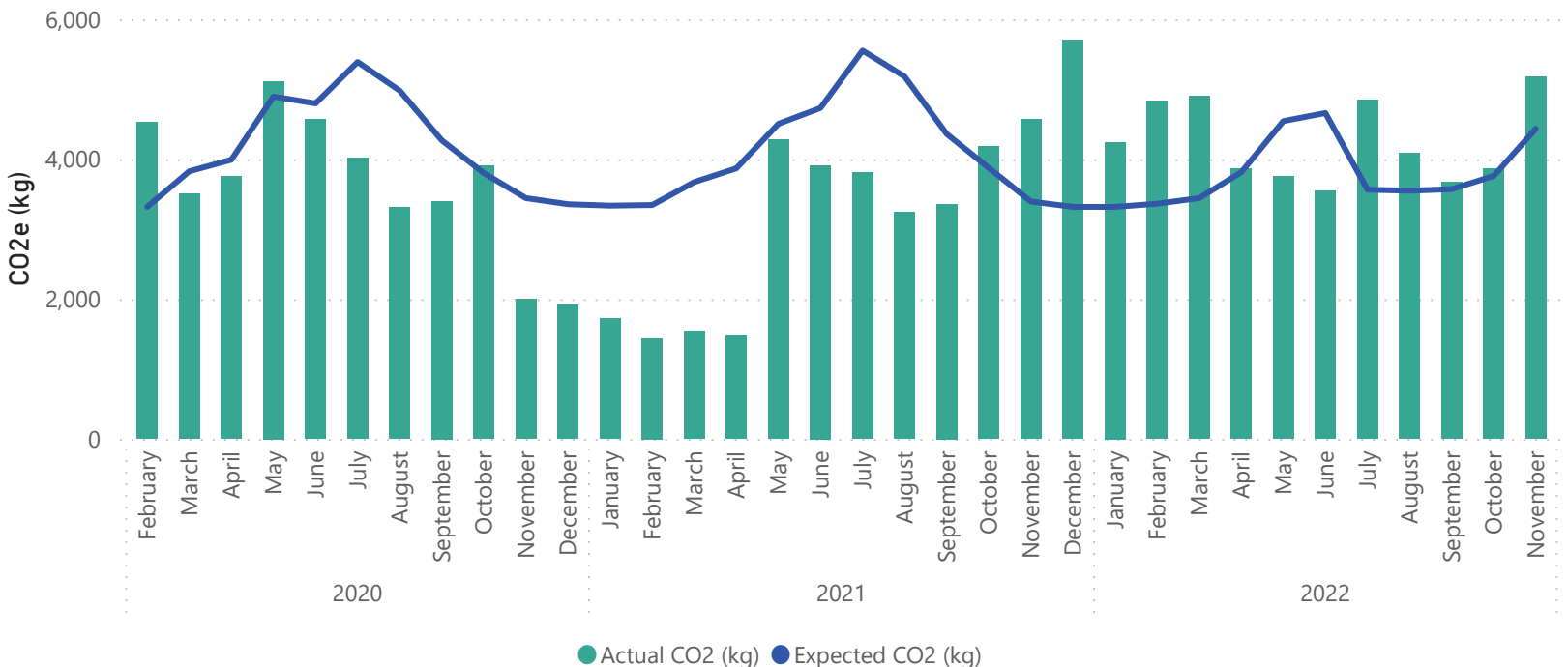
# Whakatane District Council

## Te Koputu Library

Te Koputu Library Natural Gas Compared to Baseline (kWh)



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

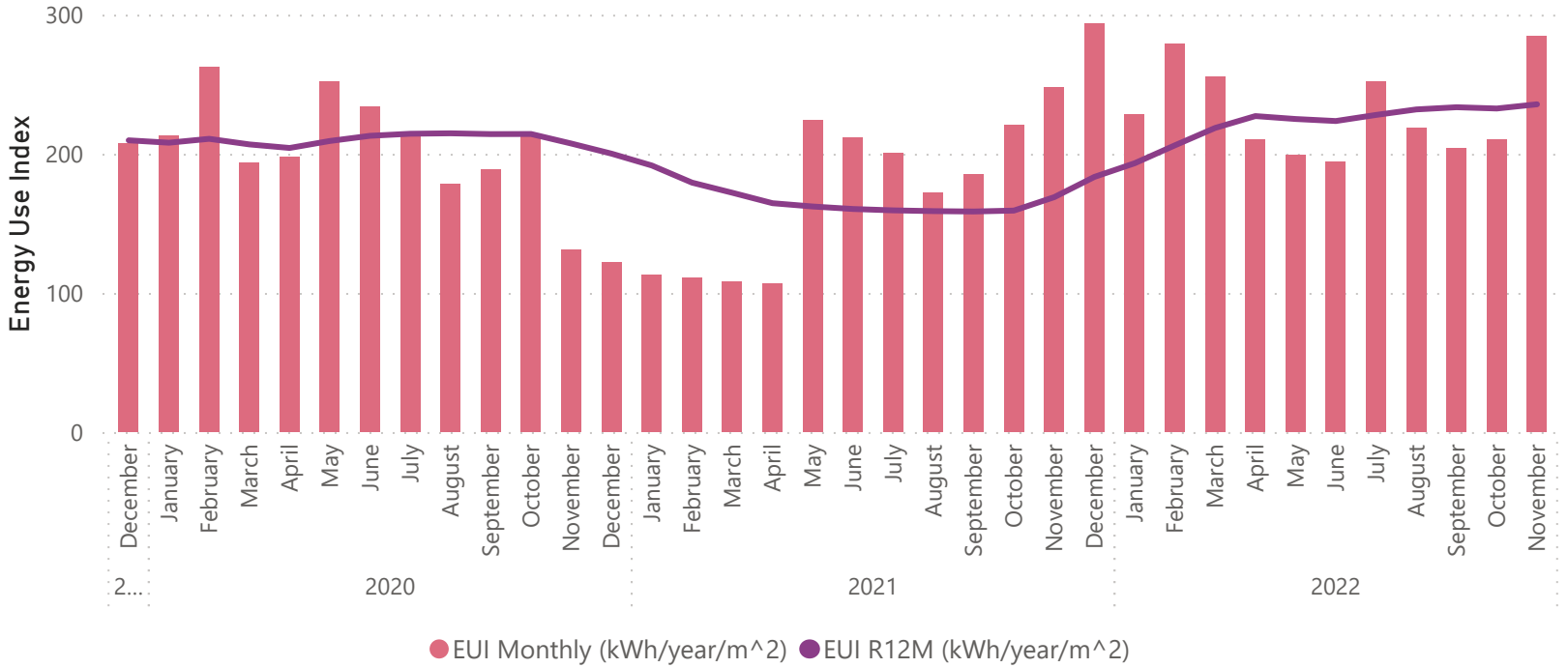


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

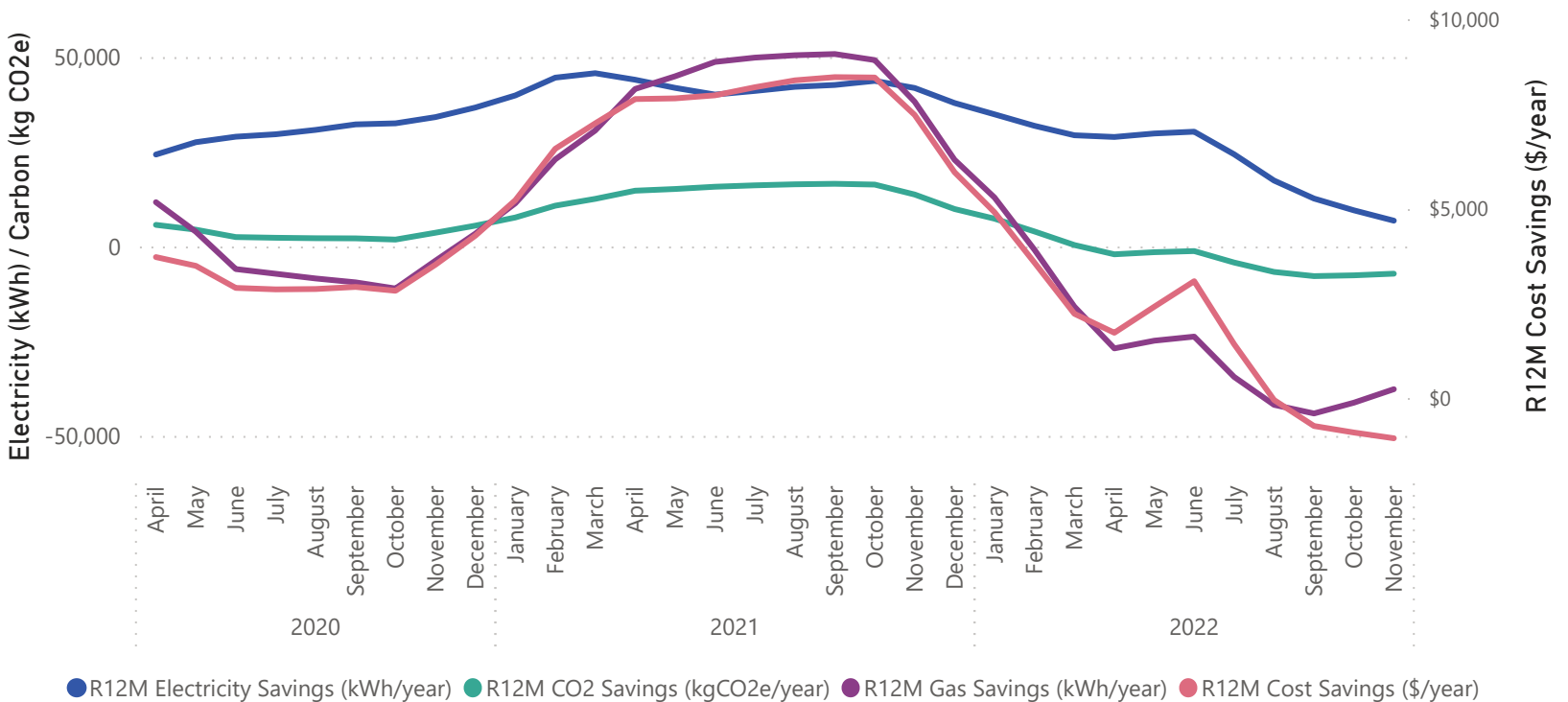
# Whakatane District Council

## 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

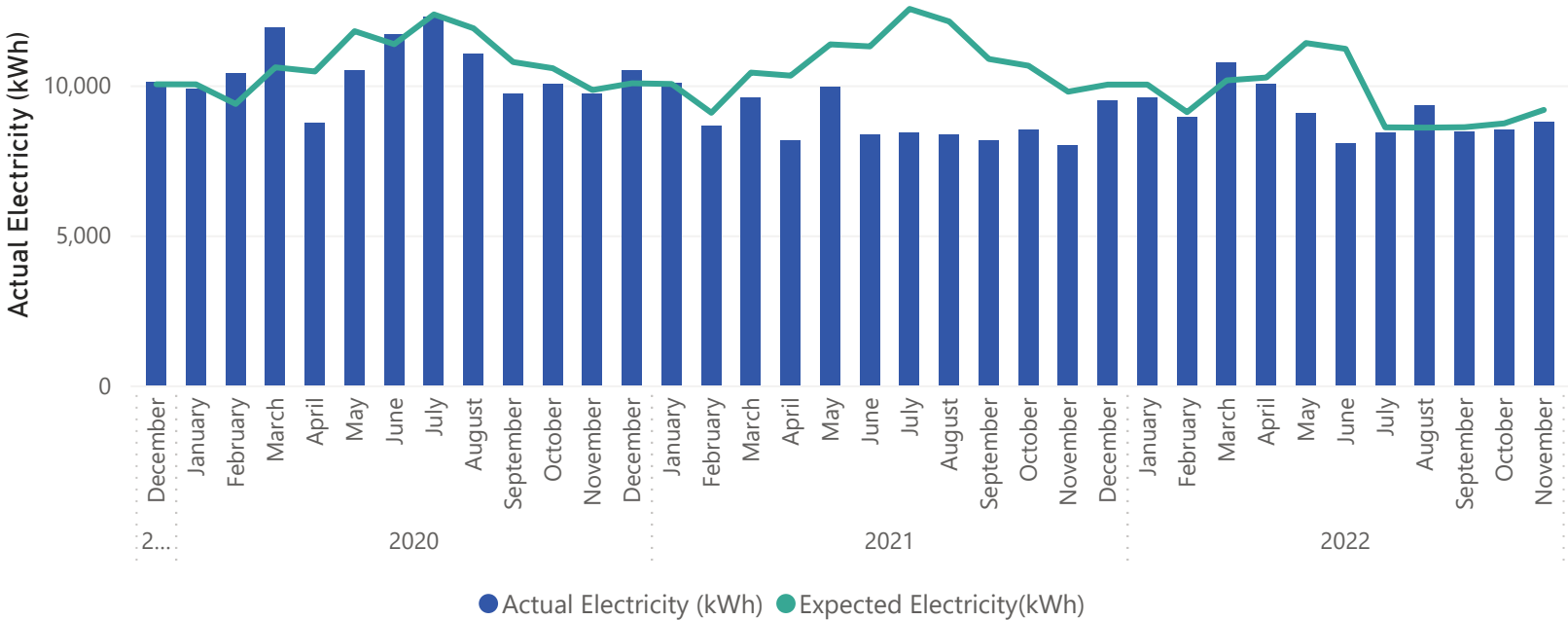
<p><b>\$82</b></p> <p>Monthly Energy Cost Savings</p>	<p><b>396</b></p> <p>Elec. Savings (kWh/mo)</p>	<p><b>4%</b></p> <p>Elec. Savings (%)</p>	<p><b>6,525</b></p> <p>R12M Electricity Savings (kWh/yr)</p>	<p><b>87</b></p> <p>CO2e Savings (kg/mo)</p>
<p><b>\$3,258</b></p> <p>R12M Energy Cost Savings</p>	<p><b>169</b></p> <p>Gas. Savings (kWh/mo)</p>	<p><b>6%</b></p> <p>Gas. Savings (%)</p>	<p><b>25,854</b></p> <p>R12M Gas Savings (kWh/yr)</p>	<p><b>6,434</b></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 less than expected and natural gas savings have been achieved for the month as well. Expected electricity has been relatively flat for the past four months, the number of cooling degree days each month have been similar.

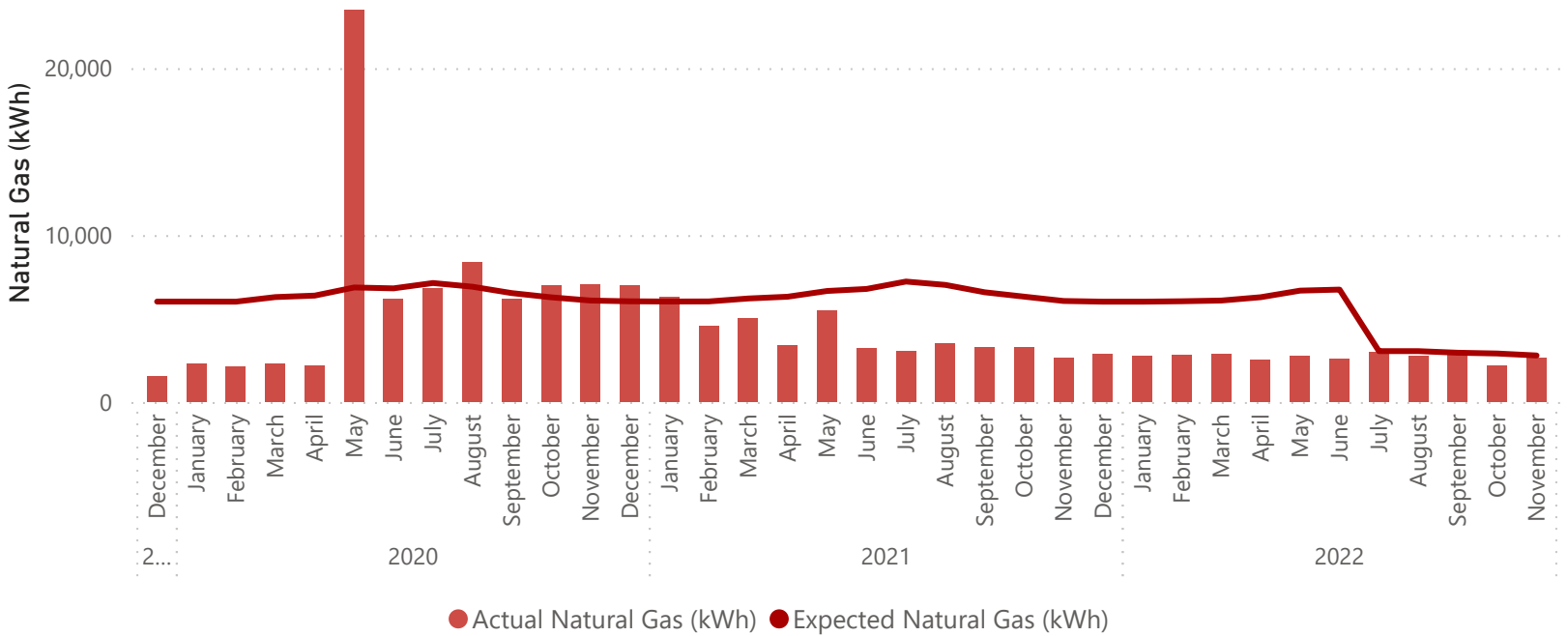
Museum Research Centre Electricity Use Compared to Baseline (kWh)



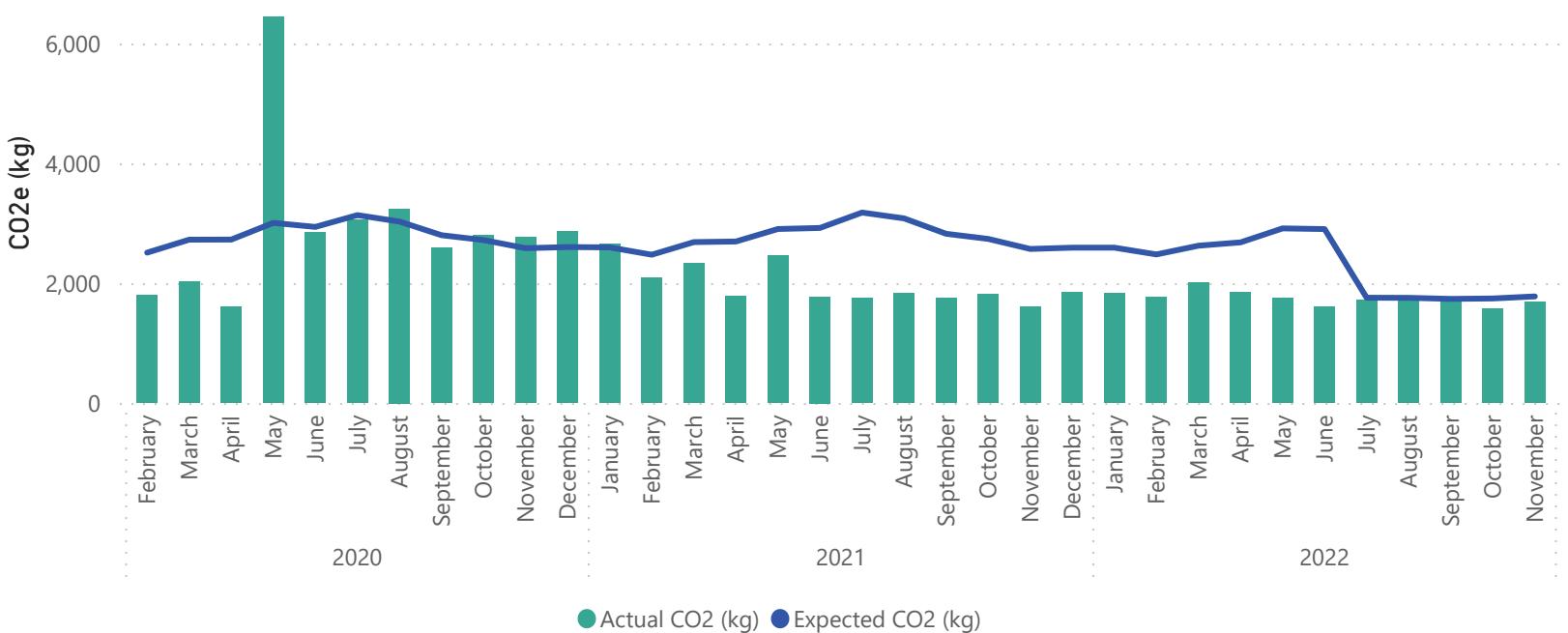
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# Whakatane District Council Museum and Research Centre

Museum Research Centre Natural Gas Compared to Baseline (kWh)



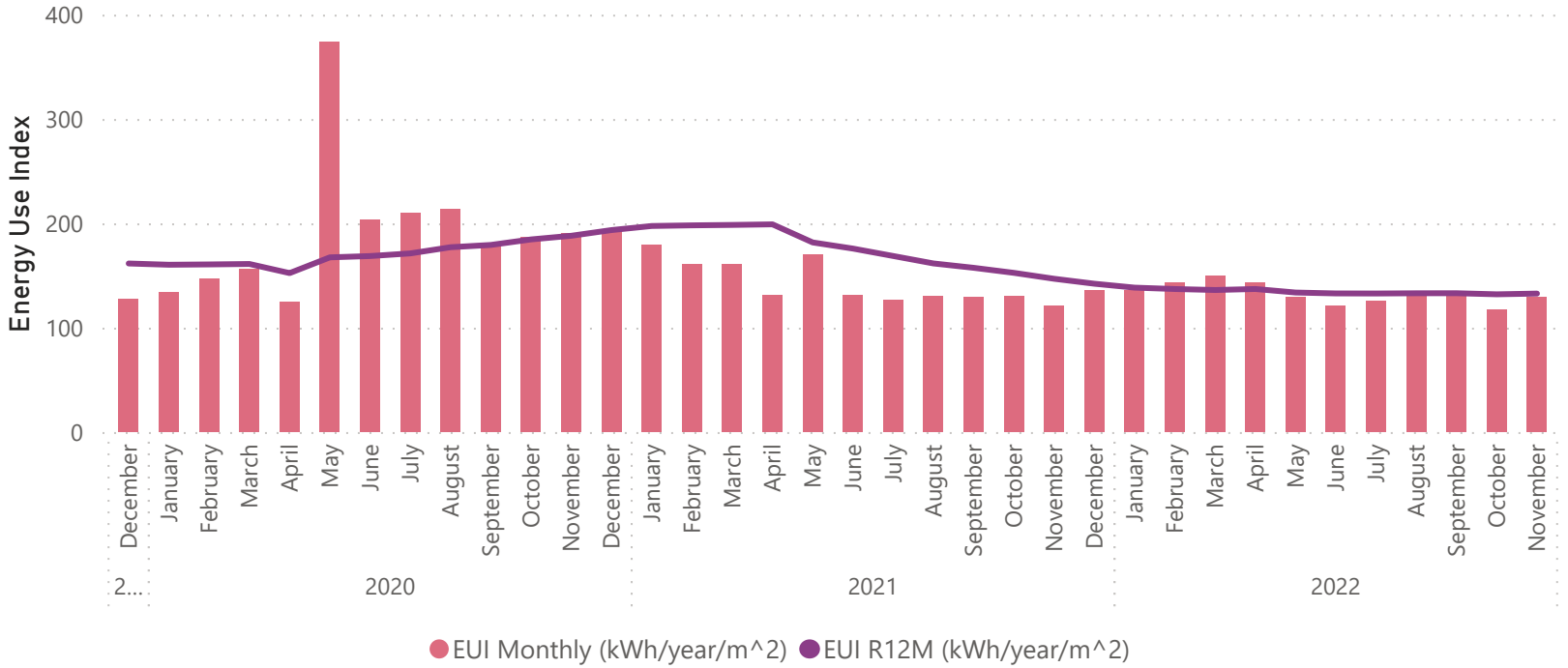
Museum Research Centre Carbon Emissions Compared to Baseline (kg CO2e)



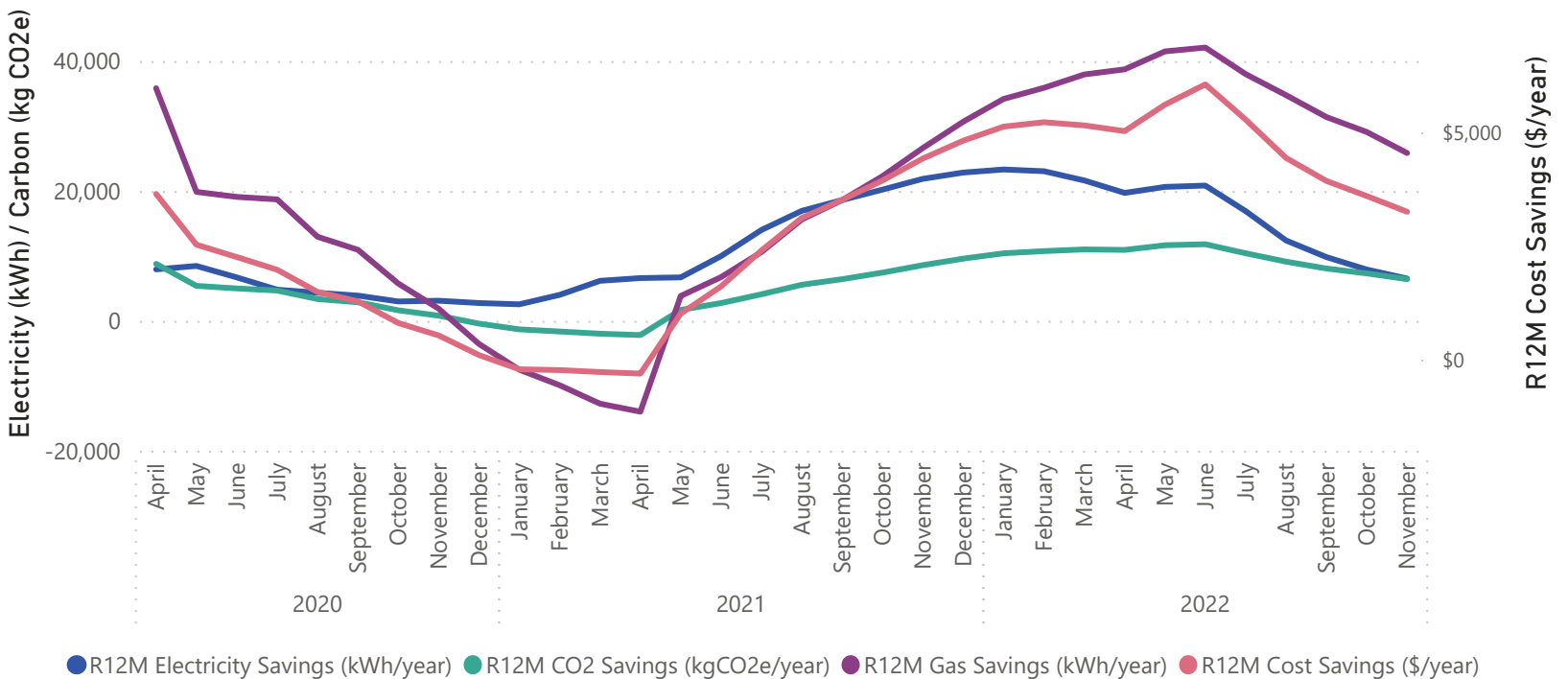
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# 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><b>\$182</b></p> <p>Monthly Energy Cost Savings</p>	<p><b>595</b></p> <p>Elec. Savings (kWh/mo)</p>	<p><b>12%</b></p> <p>Elec. Savings (%)</p>	<p><b>22,123</b></p> <p>R12M Electricity Savings (kWh/yr)</p>	<p><b>293</b></p> <p>CO2e Savings (kg/mo)</p>
<p><b>\$2,691</b></p> <p>R12M Energy Cost Savings</p>	<p><b>1,041</b></p> <p>Gas. Savings (kWh/mo)</p>	<p><b>51%</b></p> <p>Gas. Savings (%)</p>	<p><b>-17,350</b></p> <p>R12M Gas Savings (kWh/yr)</p>	<p><b>-819</b></p> <p>R12M CO2e Savings (kg/yr)</p>

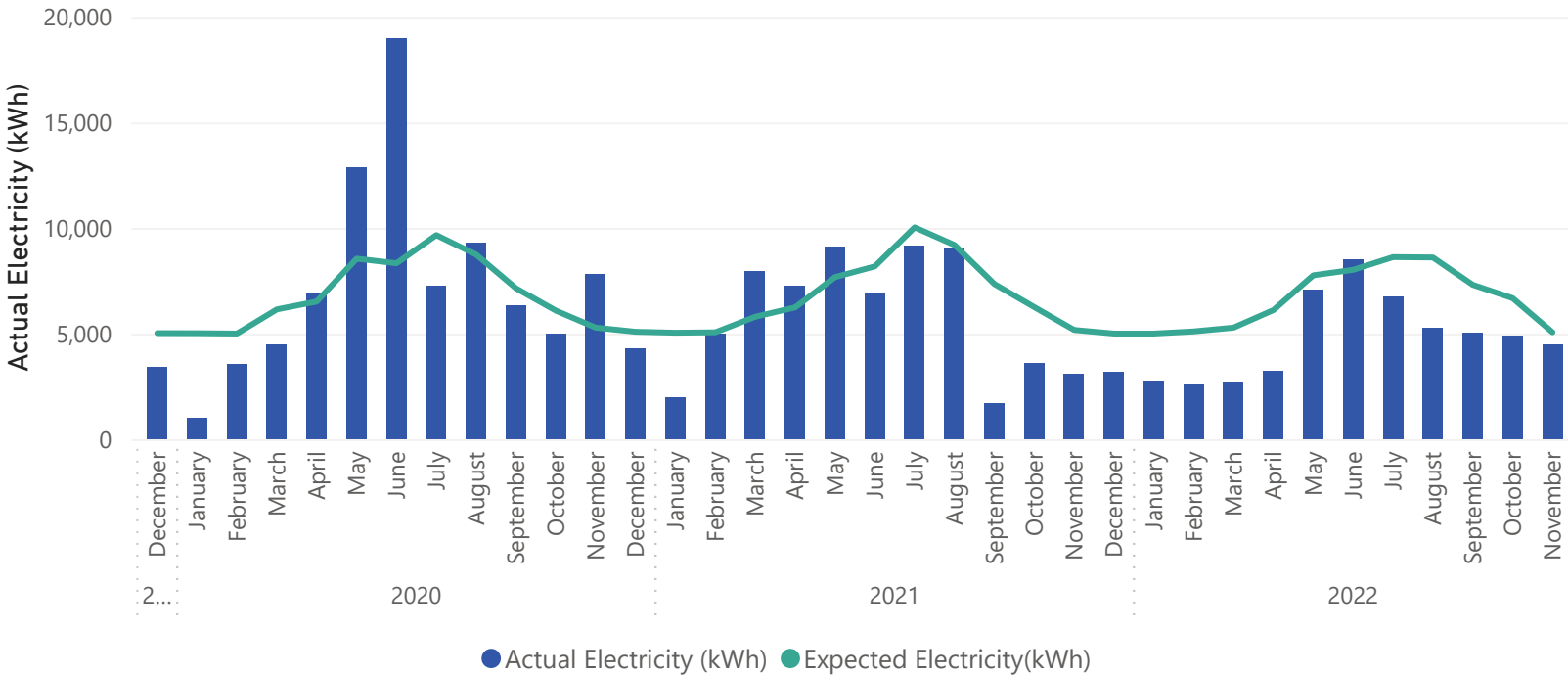
**Comments:**

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.

The War Memorial Hall has NHH accounts for both natural gas and electricity. Some months' usage may be estimated by the retailer and captured by a subsequent meter reading. The War Memorial Hall has achieved significant savings for the month with electricity and natural gas.

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)**

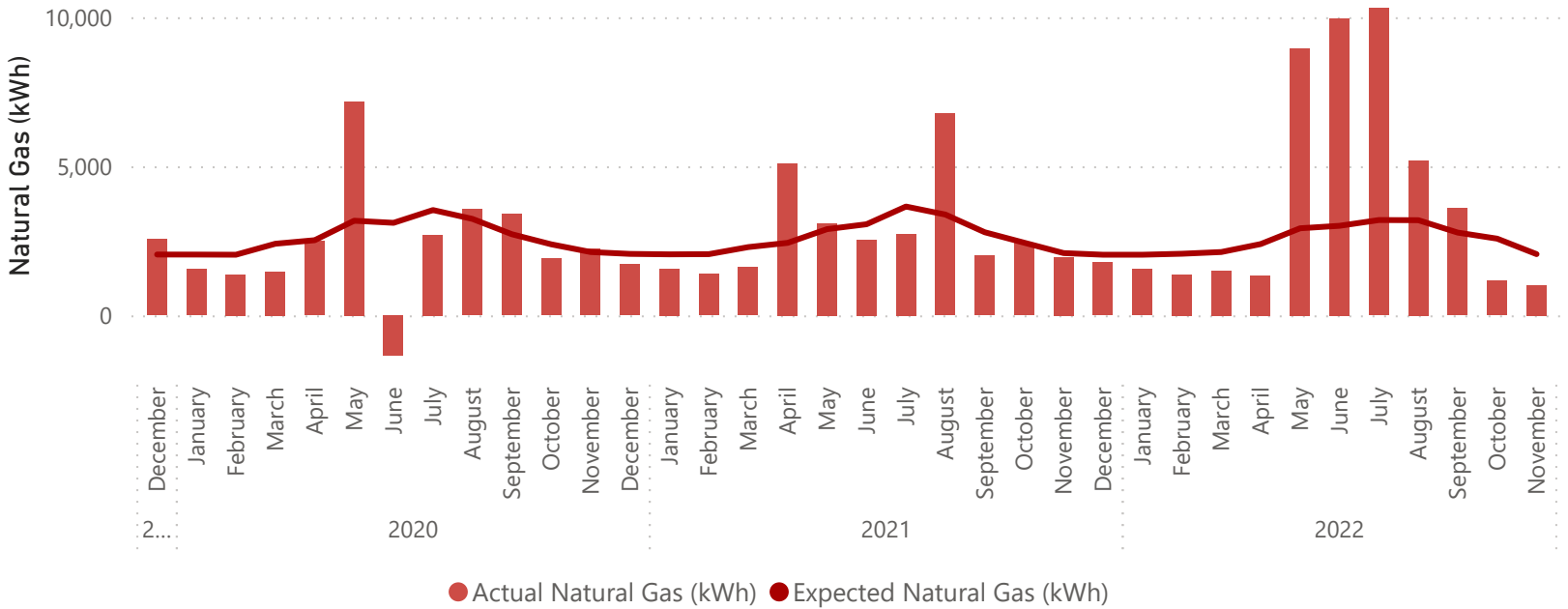


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

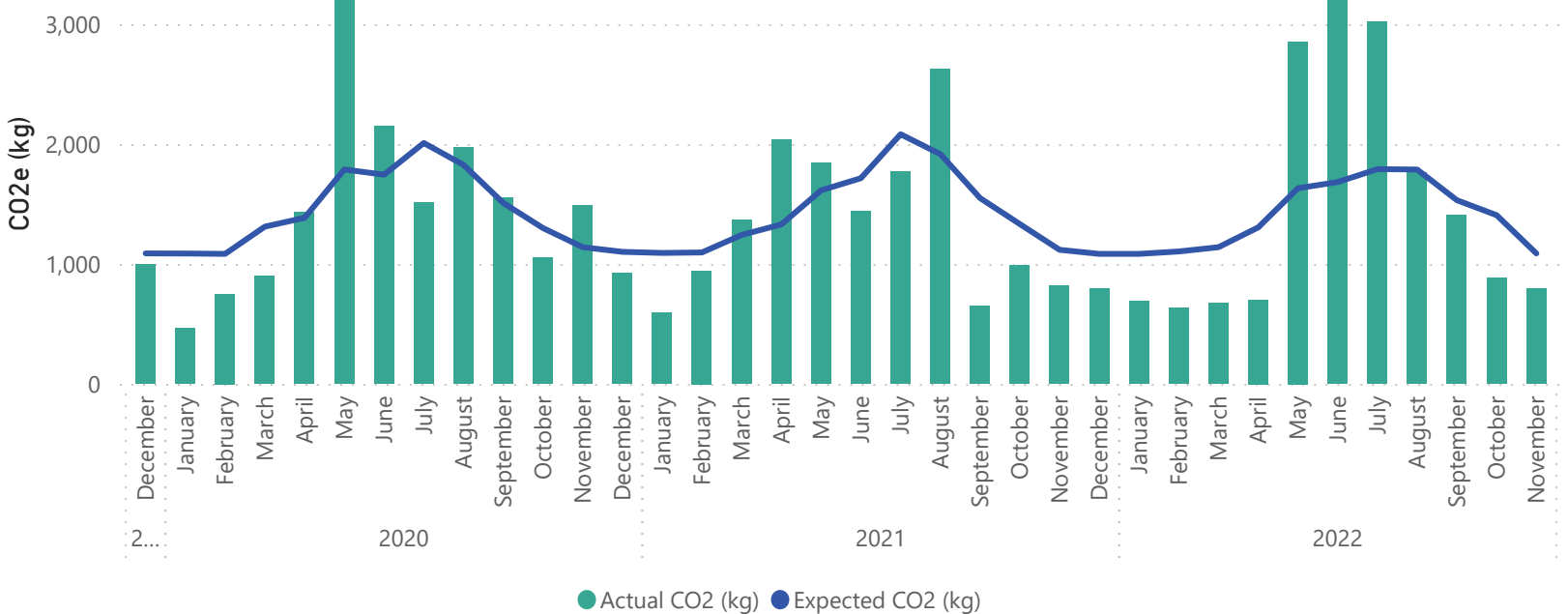
# Whakatane District Council

## War Memorial Hall

War Memorial Hall Natural Gas Compared to Baseline (kWh)



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

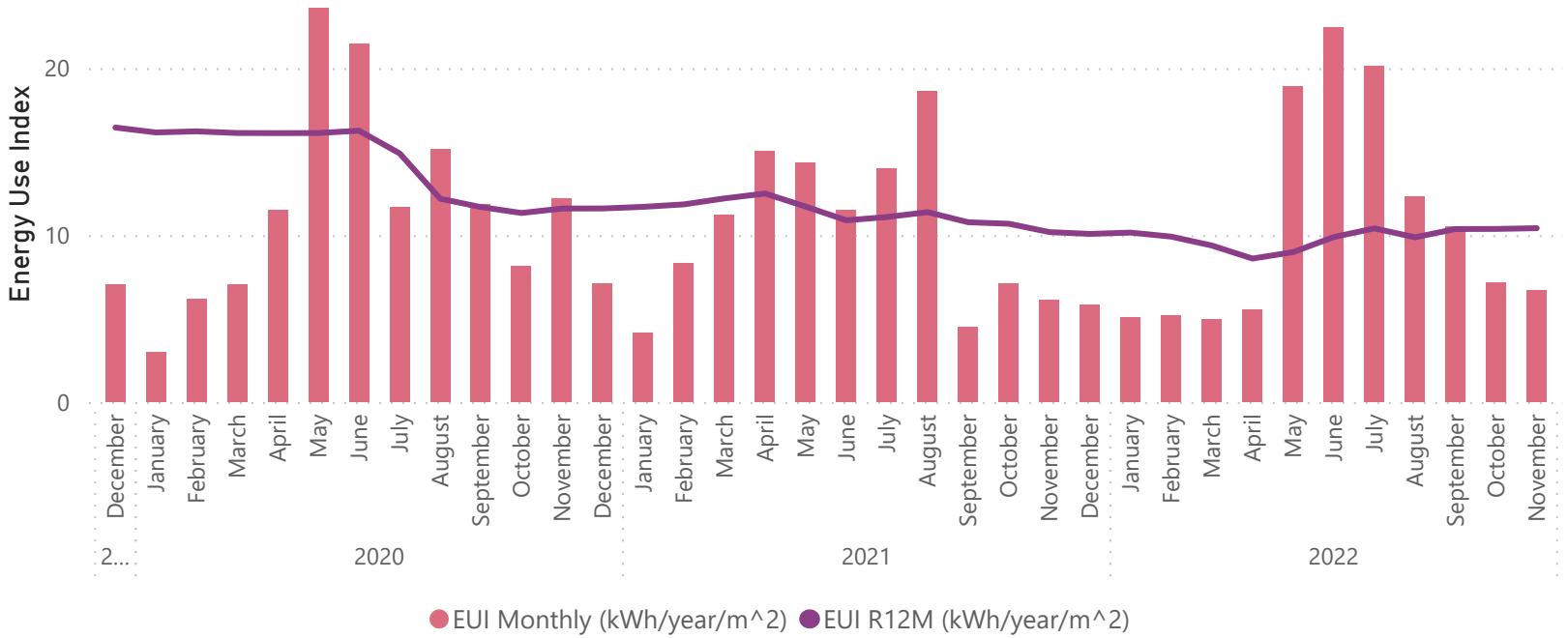


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

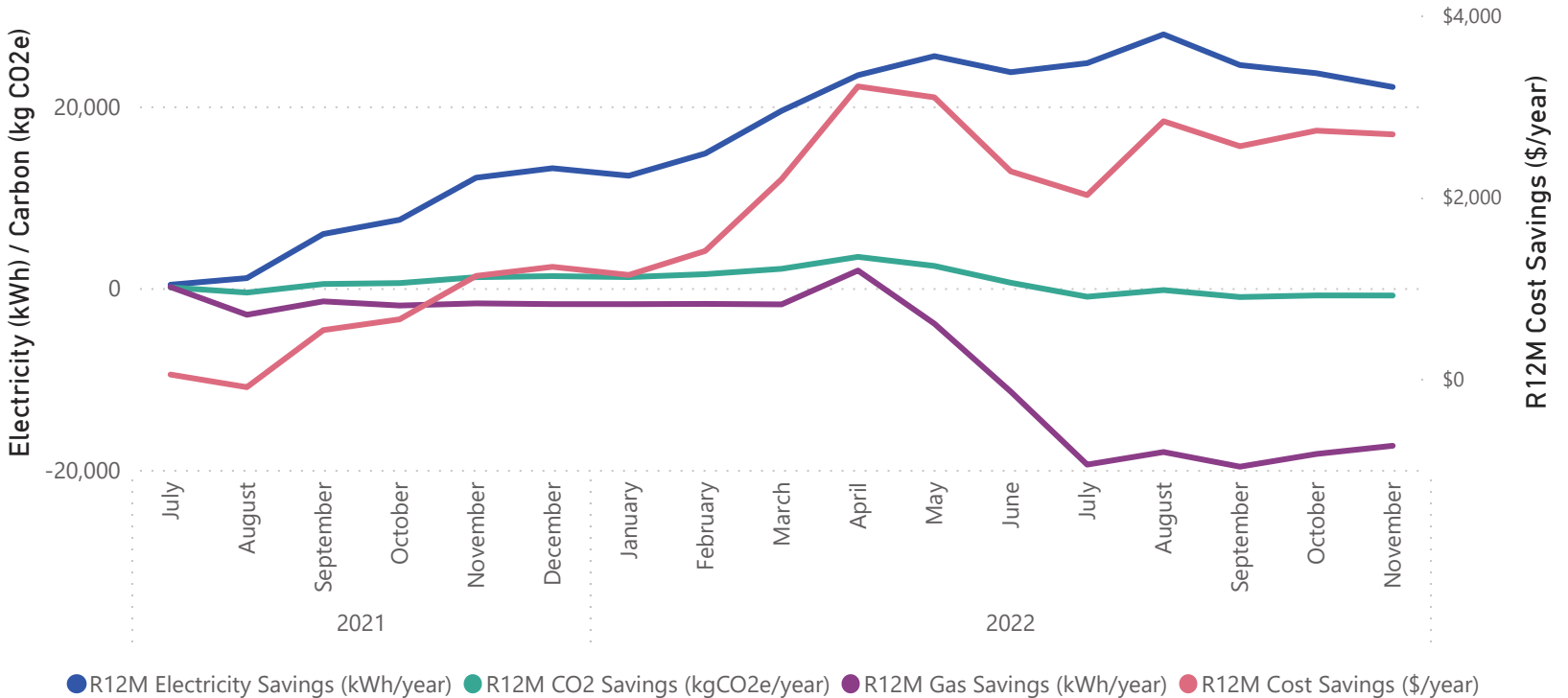
# Whakatane District Council

## 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

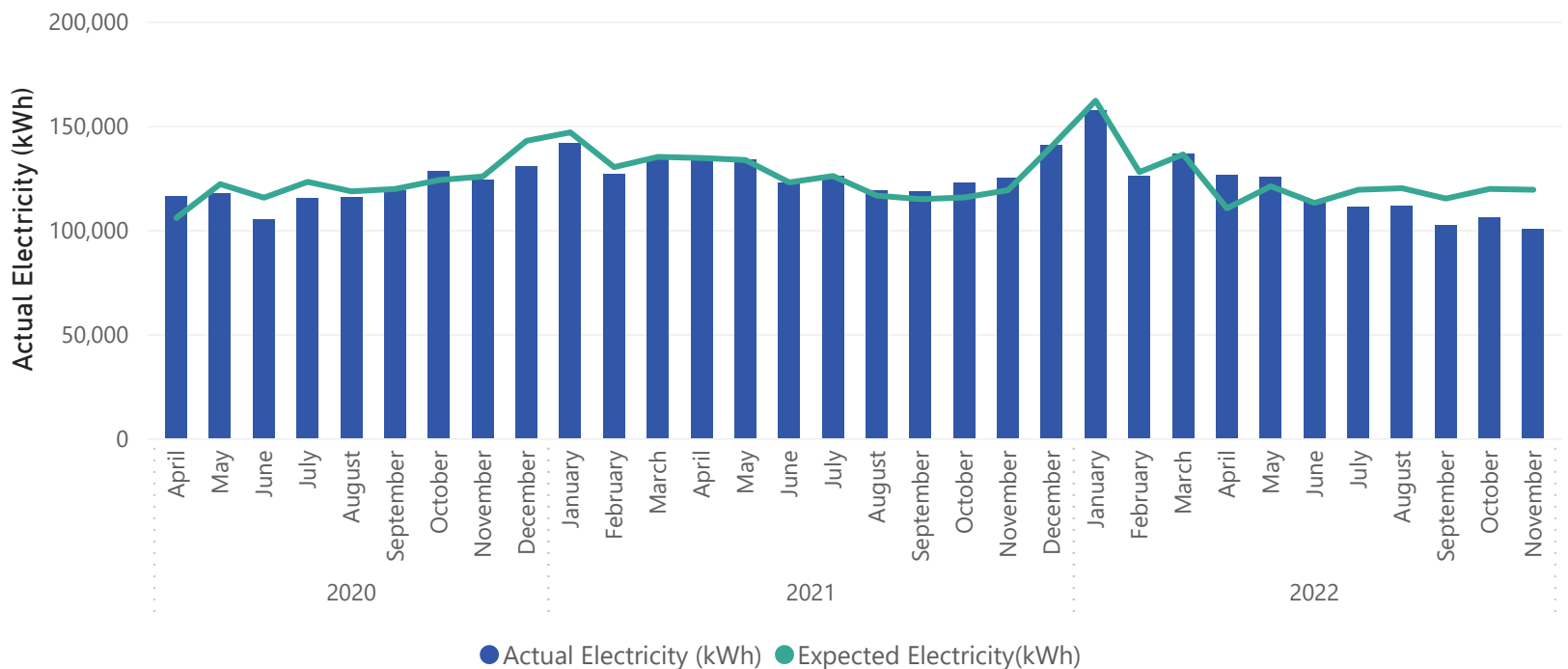
<p><b>\$3,206</b></p> <p>Monthly Energy Cost Savings</p>	<p><b>18,836</b></p> <p>Elec. Savings (kWh/mo)</p>	<p><b>16%</b></p> <p>Elec. Savings (%)</p>	<p><b>46,675</b></p> <p>R12M Electricity Savings (kWh/yr)</p>	<p><b>2,468</b></p> <p>CO2e Savings (kg/mo)</p>
<p><b>\$7,769</b></p> <p>R12M Energy Cost Savings</p>				<p><b>6,150</b></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 (m<sup>3</sup>) as the independent variable.

A 16% 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.

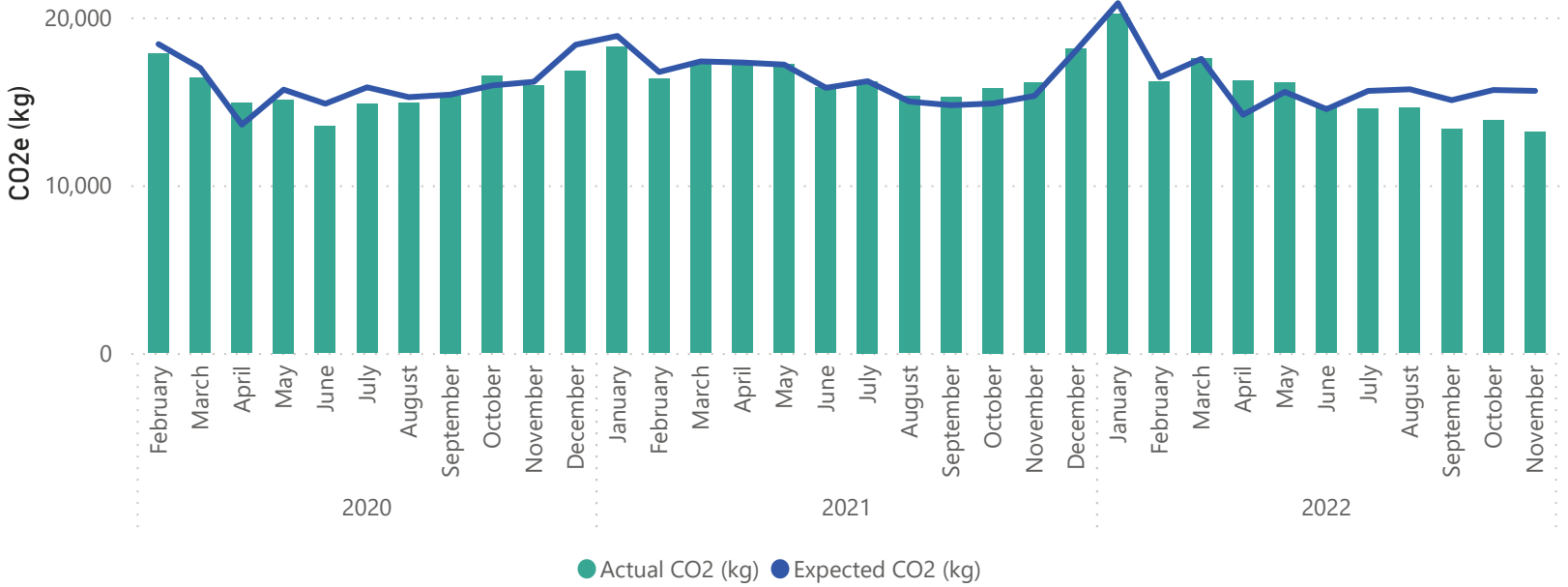
Water Treatment Plant Electricity Use Compared to Baseline (kWh)



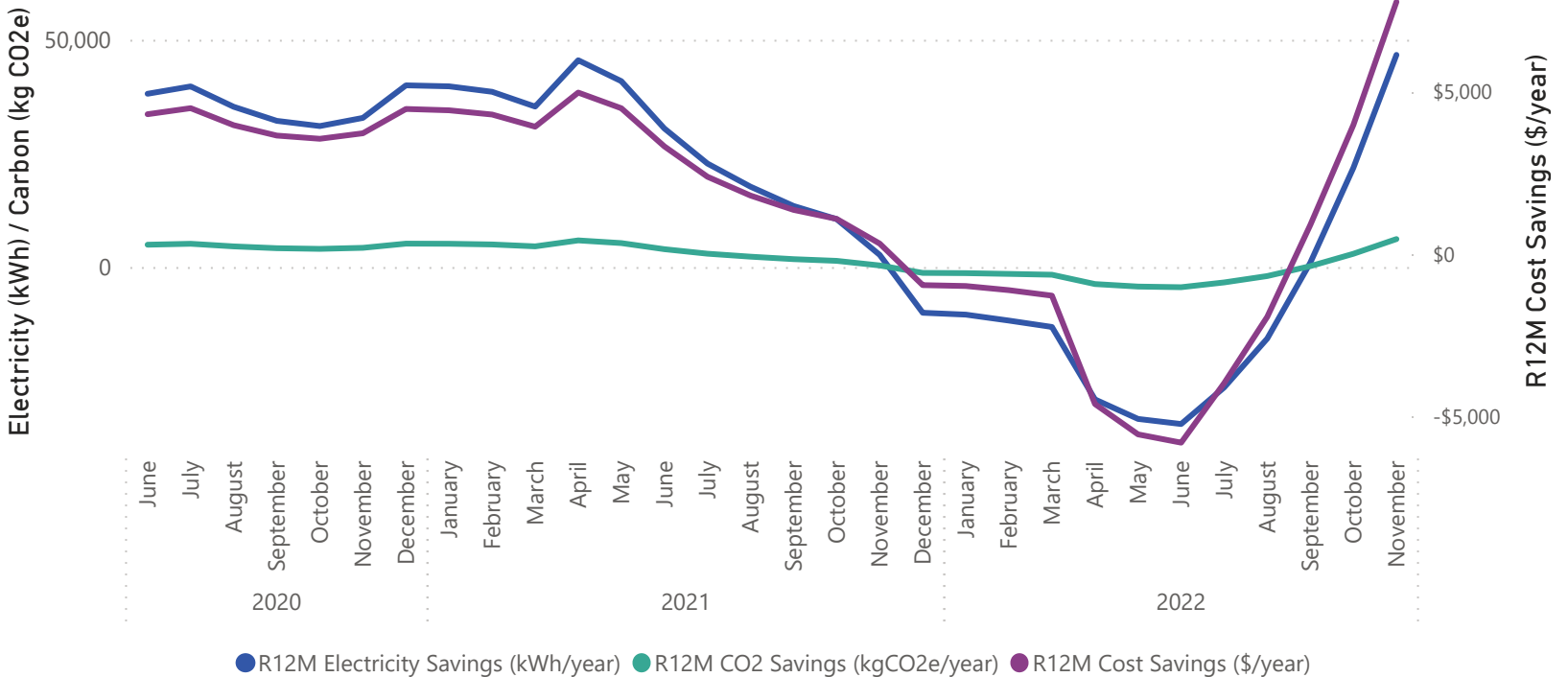
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

# Whakatane District Council Water Treatment Plant

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



Water Treatment Plant Rolling 12 Month Savings

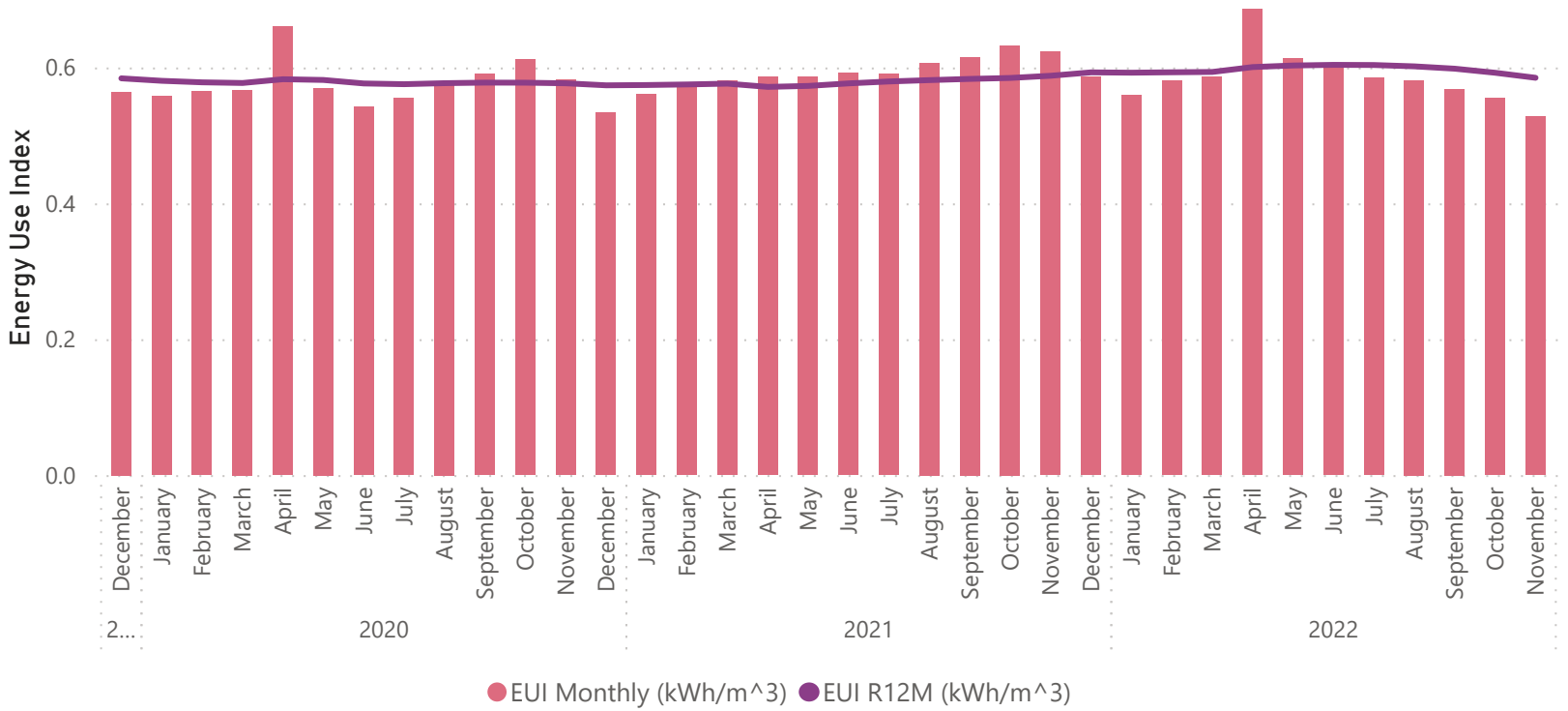


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# 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

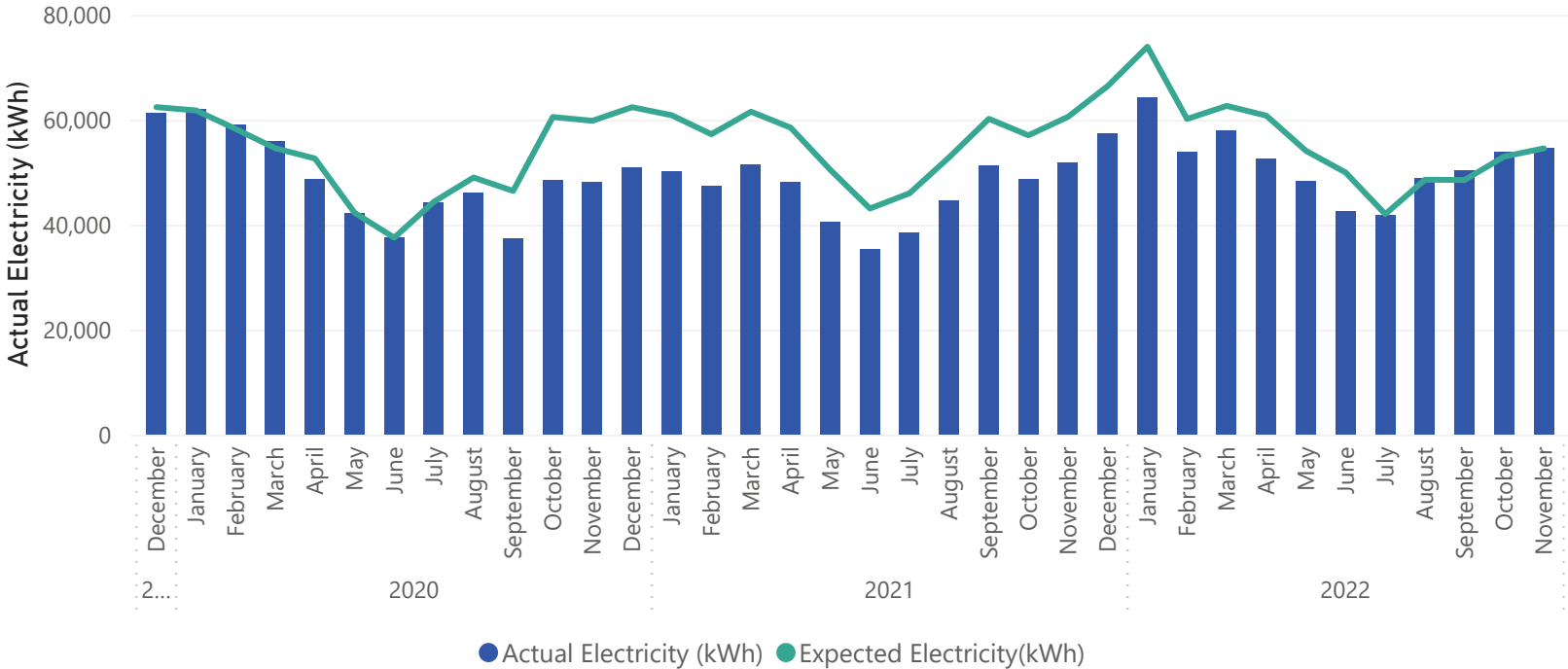
<p><b>-\$16</b> Monthly Energy Cost Savings</p>	<p><b>-90</b> Elec. Savings (kWh/mo)</p>	<p><b>-0%</b> Elec. Savings (%)</p>	<p><b>48,424</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>-12</b> CO2e Savings (kg/mo)</p>
<p><b>\$7,810</b> R12M Energy Cost Savings</p>				<p><b>6,315</b> R12M CO2e Savings (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 (m<sup>3</sup>) 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)

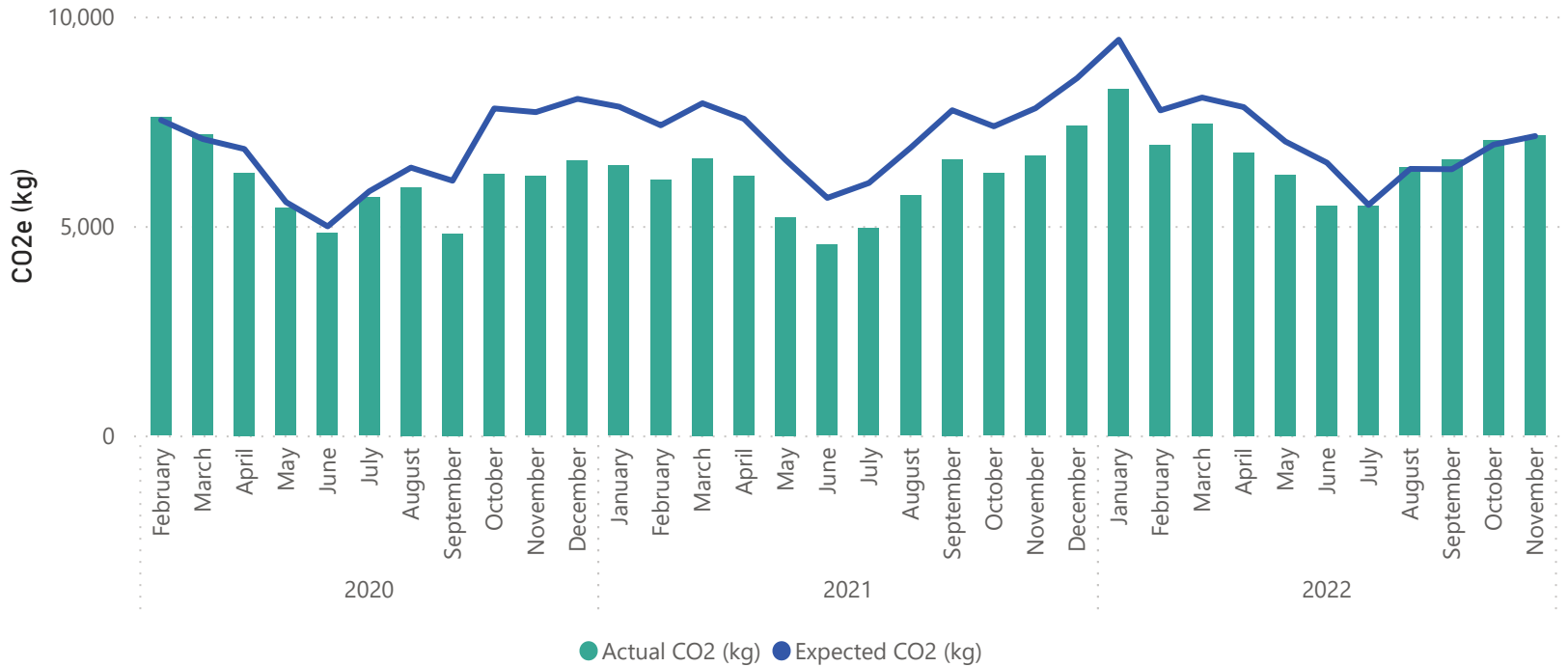


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

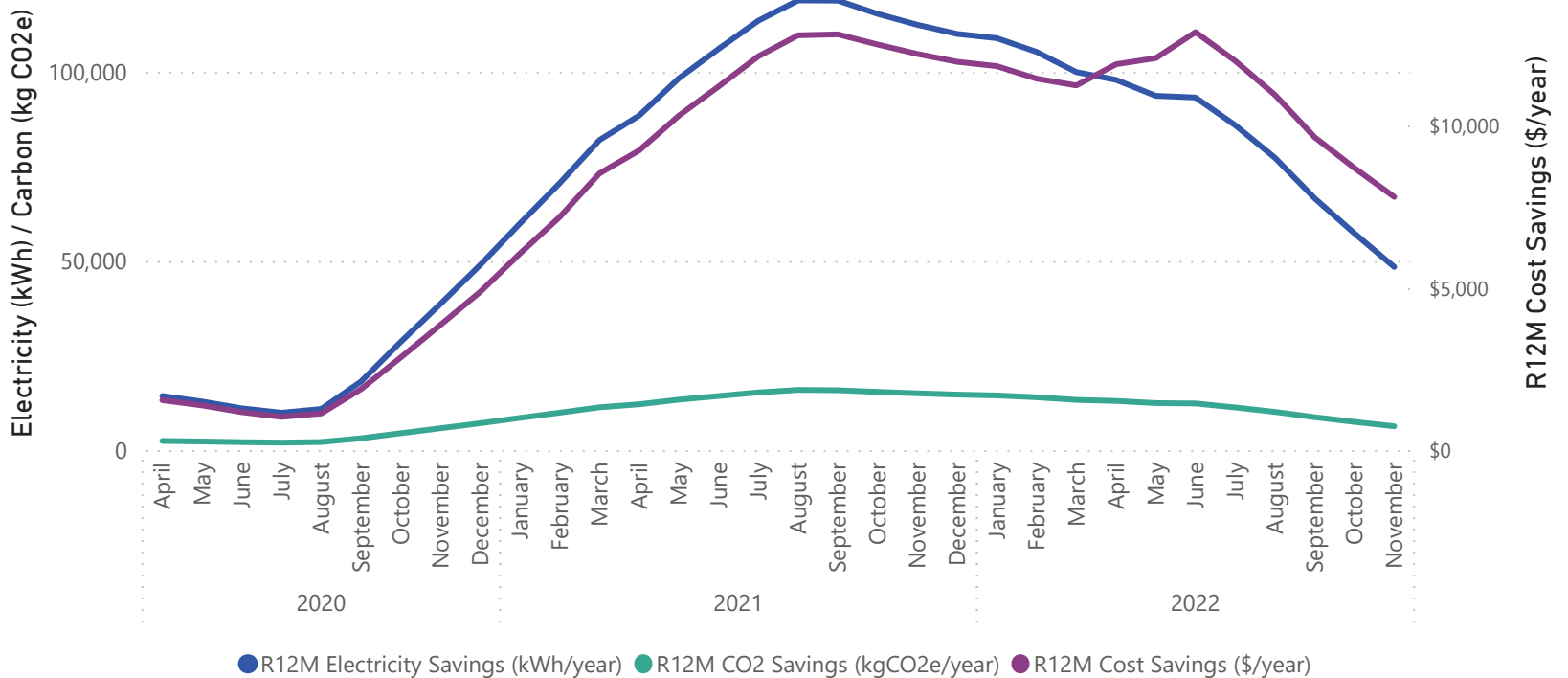
# Whakatane District Council

## Braemar Road Pump Station

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



Braemar Rd Pumps Rolling 12 Month Savings



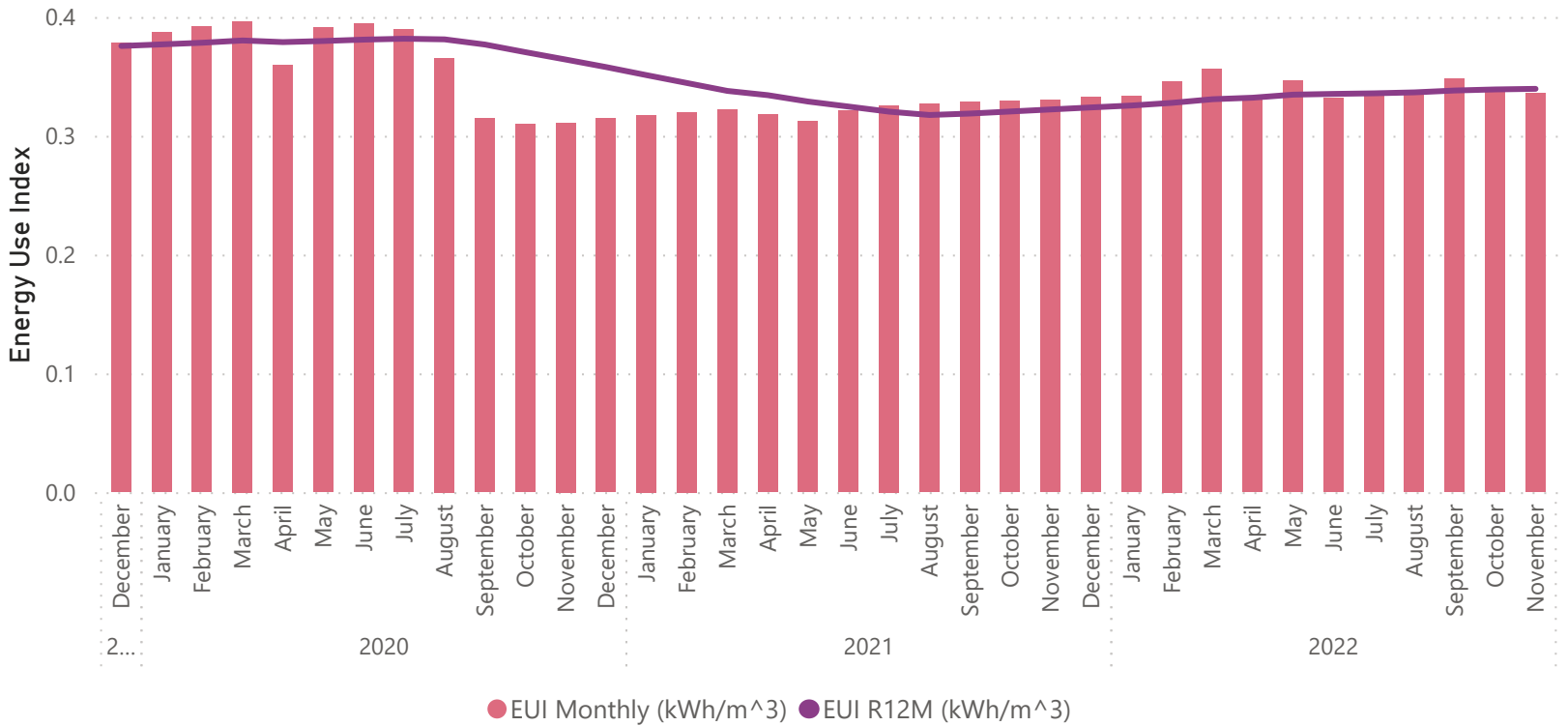
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**



# 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

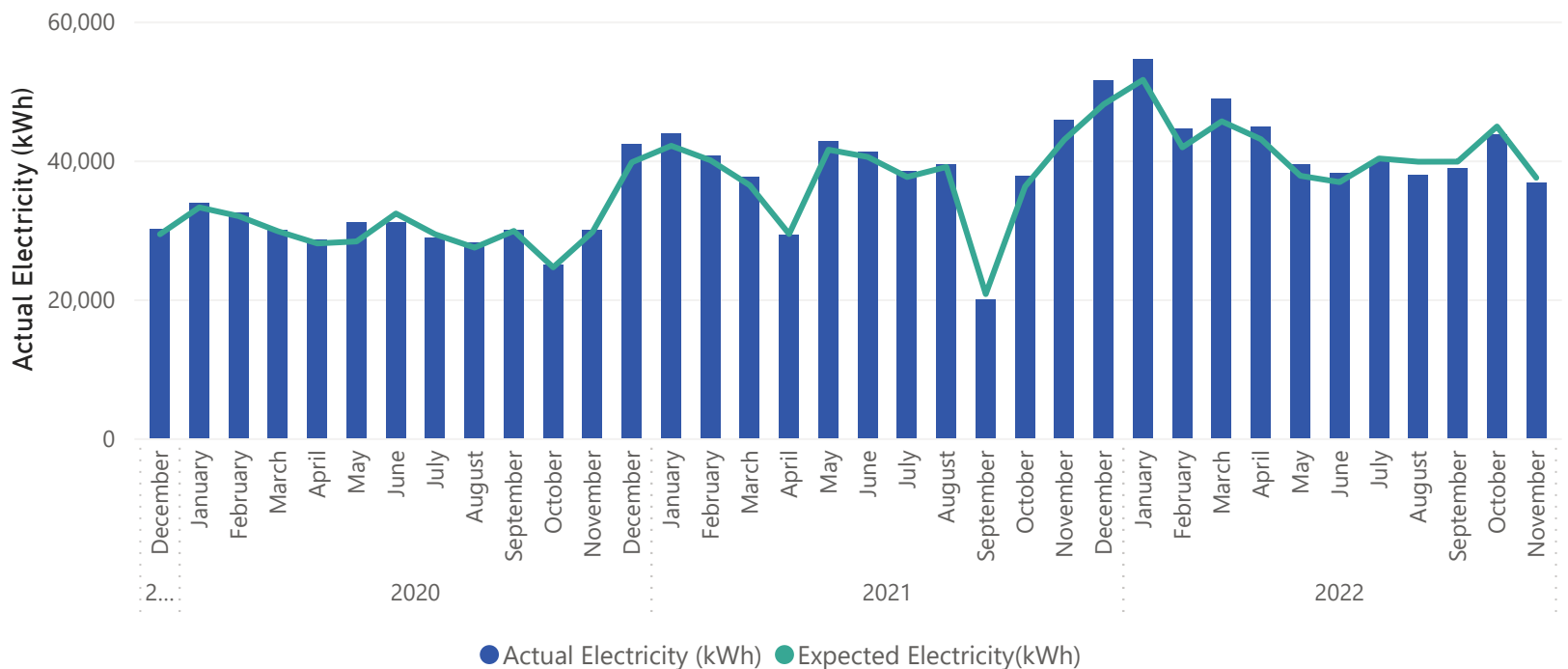
<p><b>\$123</b> Monthly Energy Cost Savings</p>	<p><b>707</b> Elec. Savings (kWh/mo)</p>	<p><b>2%</b> Elec. Savings (%)</p>	<p><b>-11,898</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>93</b> CO2e Savings (kg/mo)</p>
<p><b>-\$1,595</b> R12M Energy Cost Savings</p>				<p><b>-1,512</b> R12M CO2e Savings (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 (m<sup>3</sup>) 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)

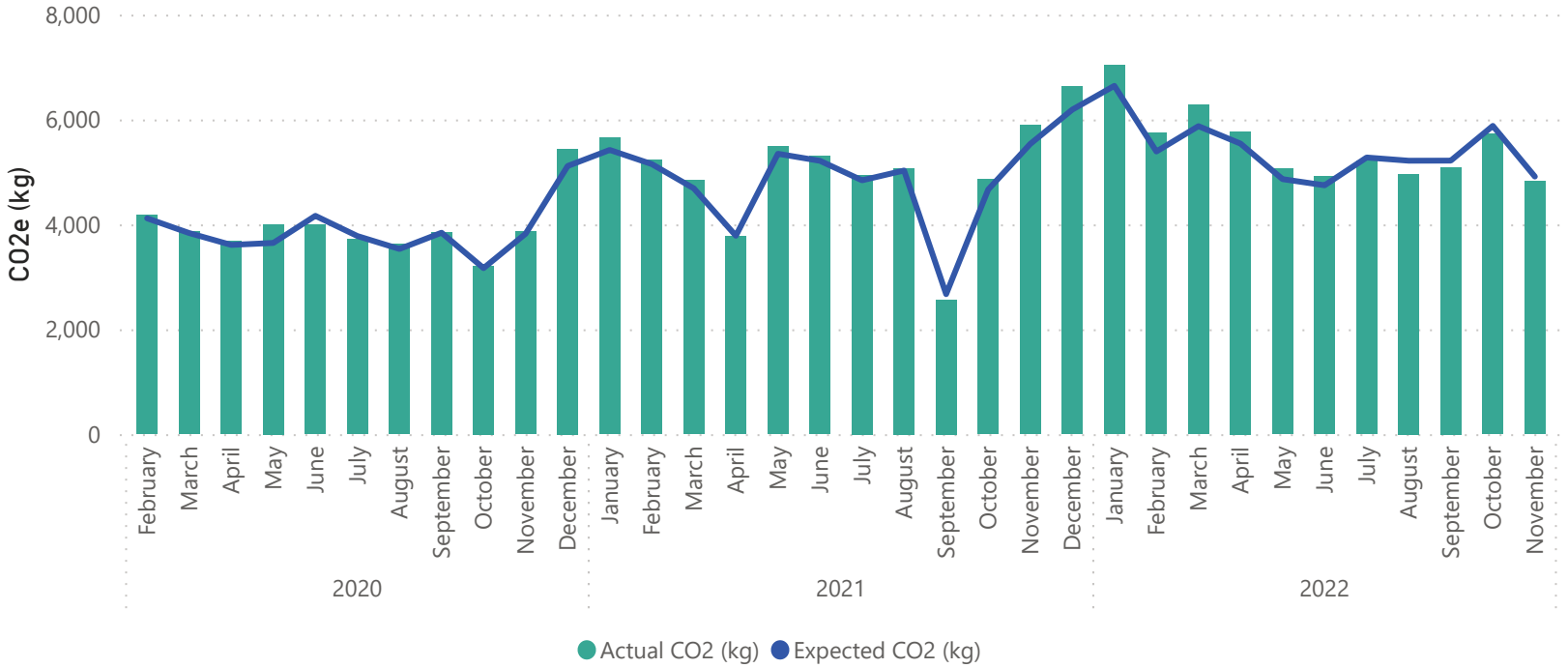


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

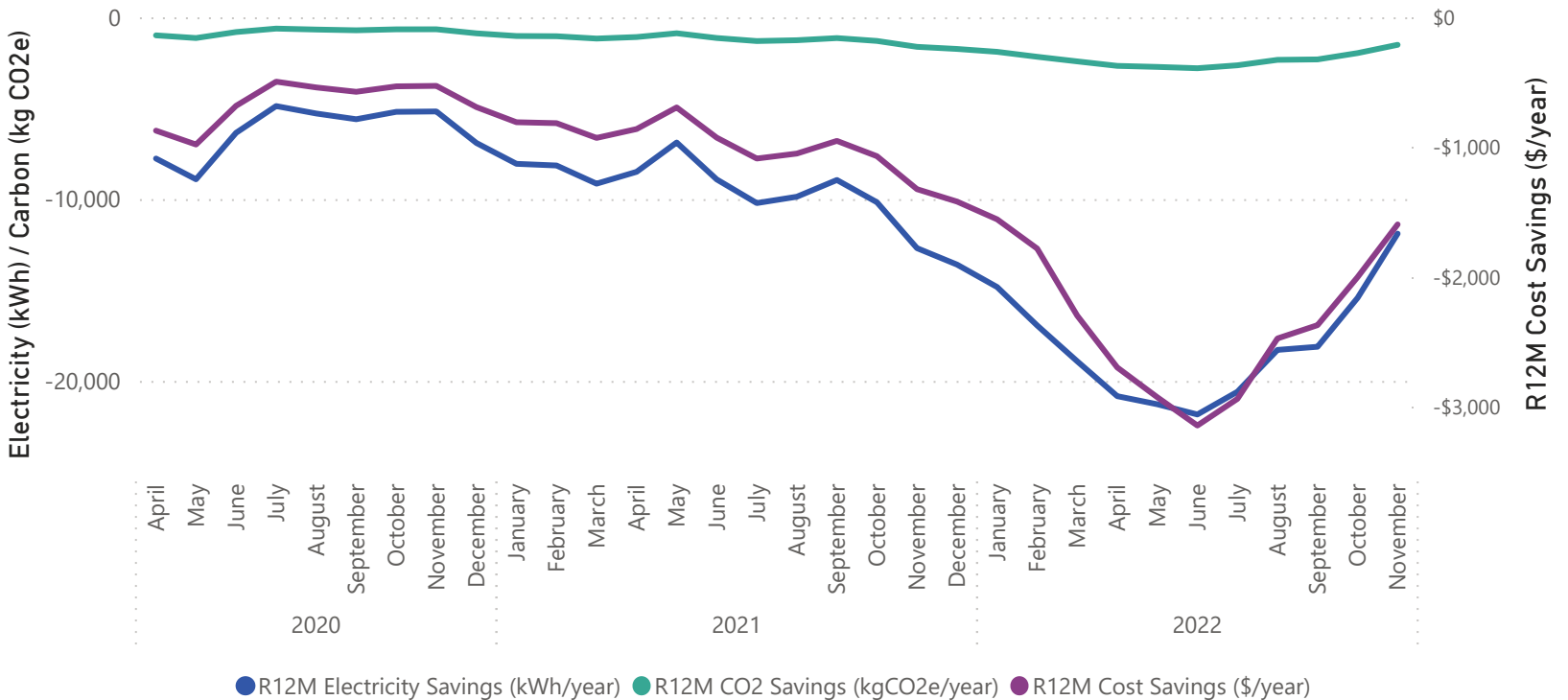
# Whakatane District Council

## Paul Road Pump Station

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



Paul Rd Pumps Rolling 12 Month Savings

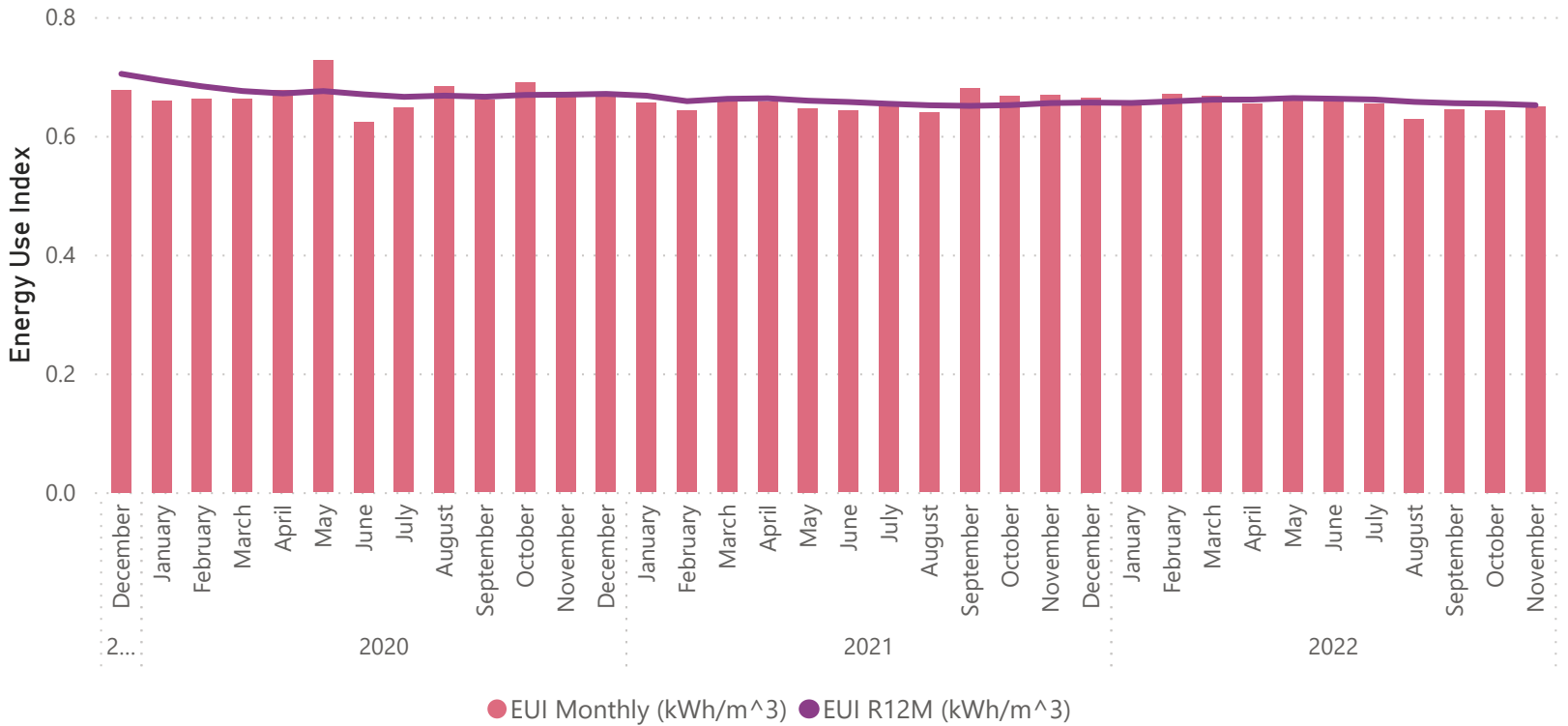


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# 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

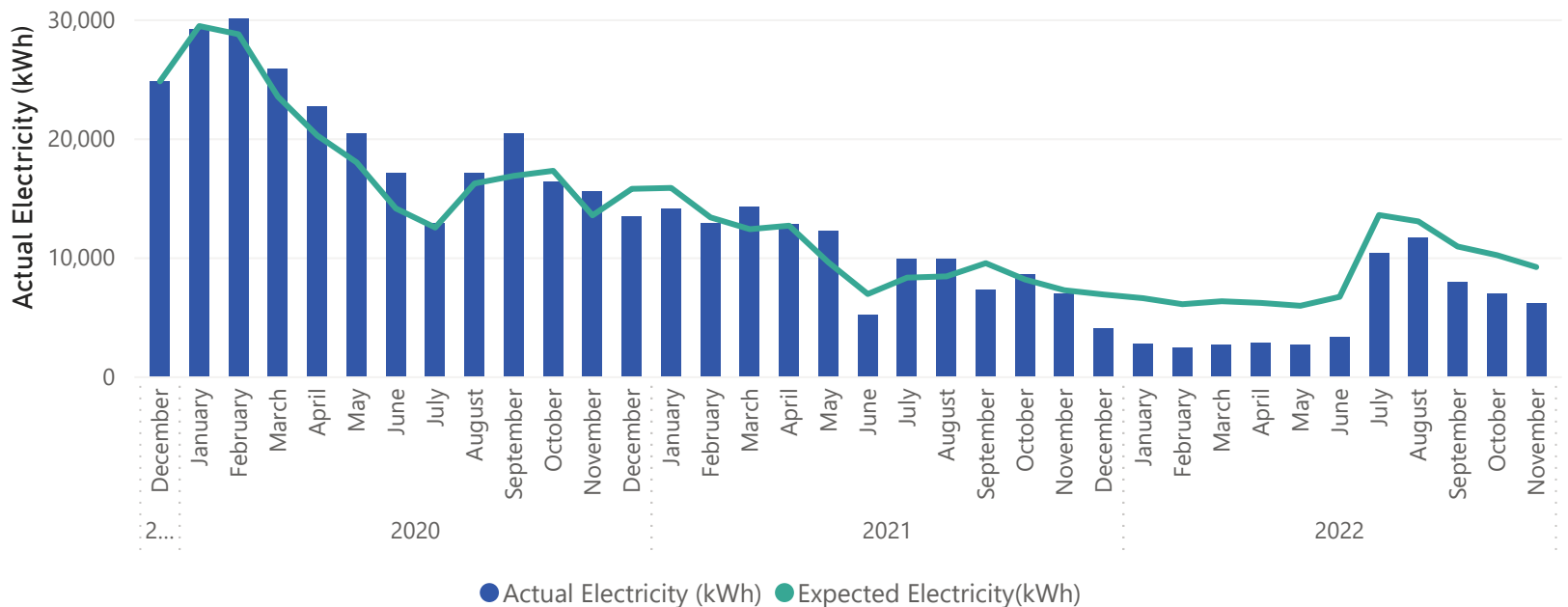
<p><b>\$657</b> Monthly Energy Cost Savings</p>	<p><b>3,054</b> Elec. Savings (kWh/mo)</p>	<p><b>33%</b> Elec. Savings (%)</p>	<p><b>37,825</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>400</b> CO2e Savings (kg/mo)</p>
<p><b>\$8,267</b> R12M Energy Cost Savings</p>				<p><b>4,901</b> R12M CO2e Savings (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 (m<sup>3</sup>) 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 one third less electricity than expected.

Johnson Rd Pumps Electricity Use Compared to Baseline (kWh)

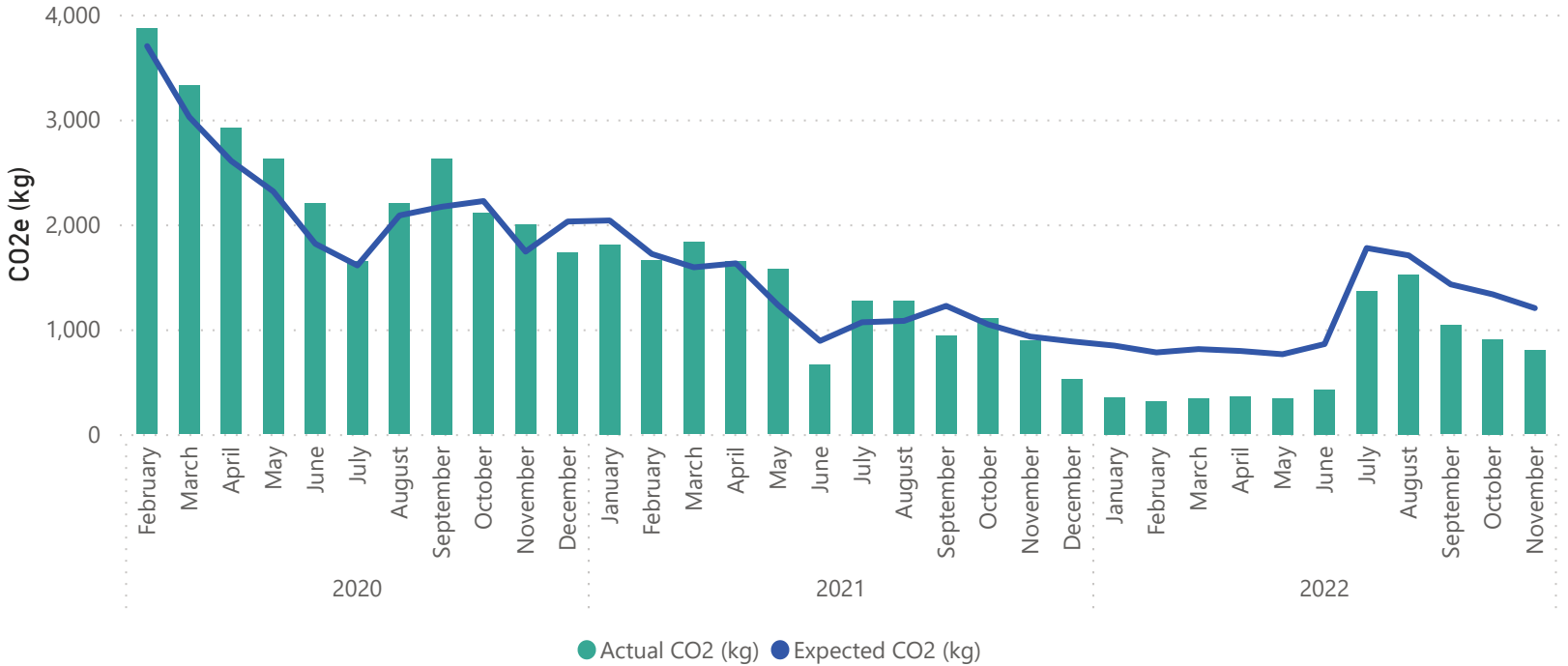


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

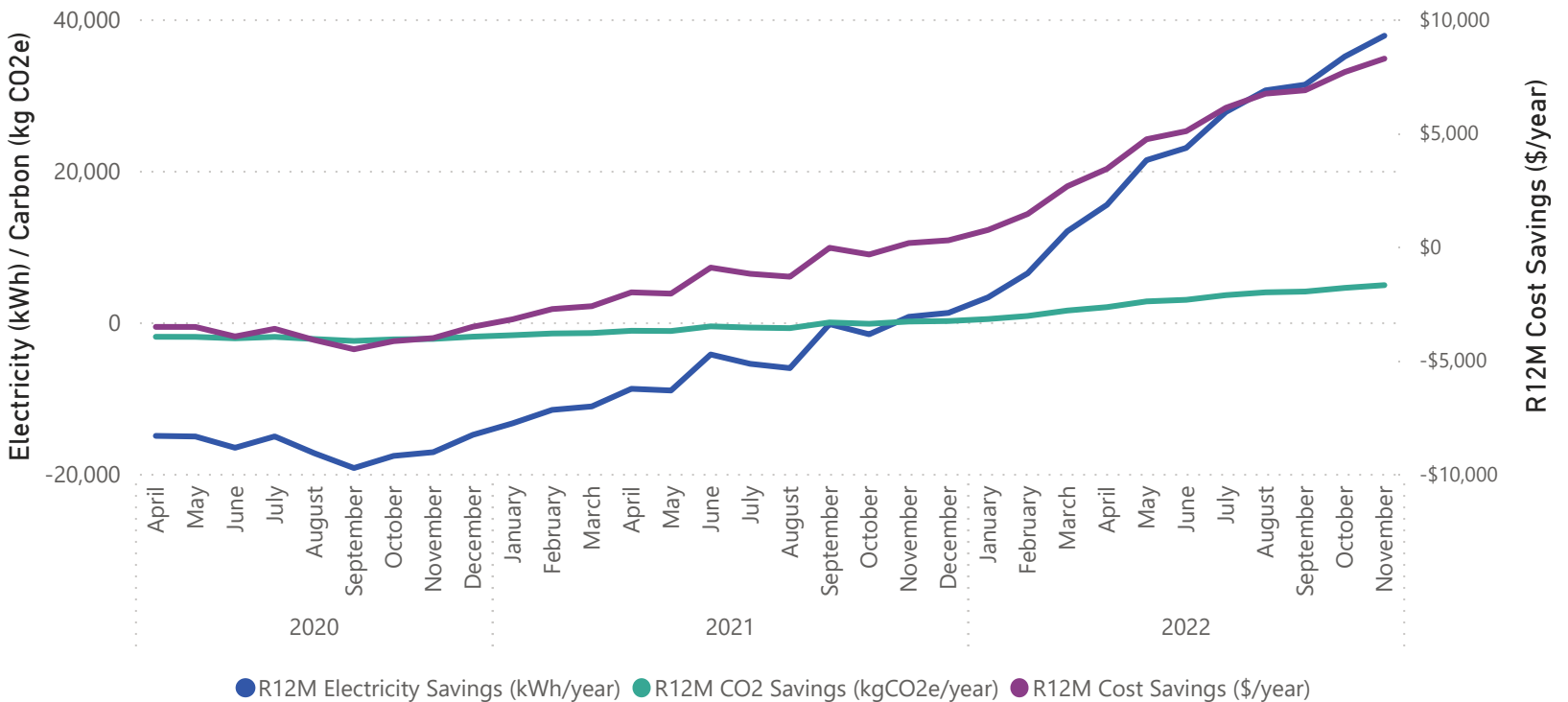
# Whakatane District Council

## Johnson Road Pump Station

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



Johnson Rd Pumps Rolling 12 Month Savings

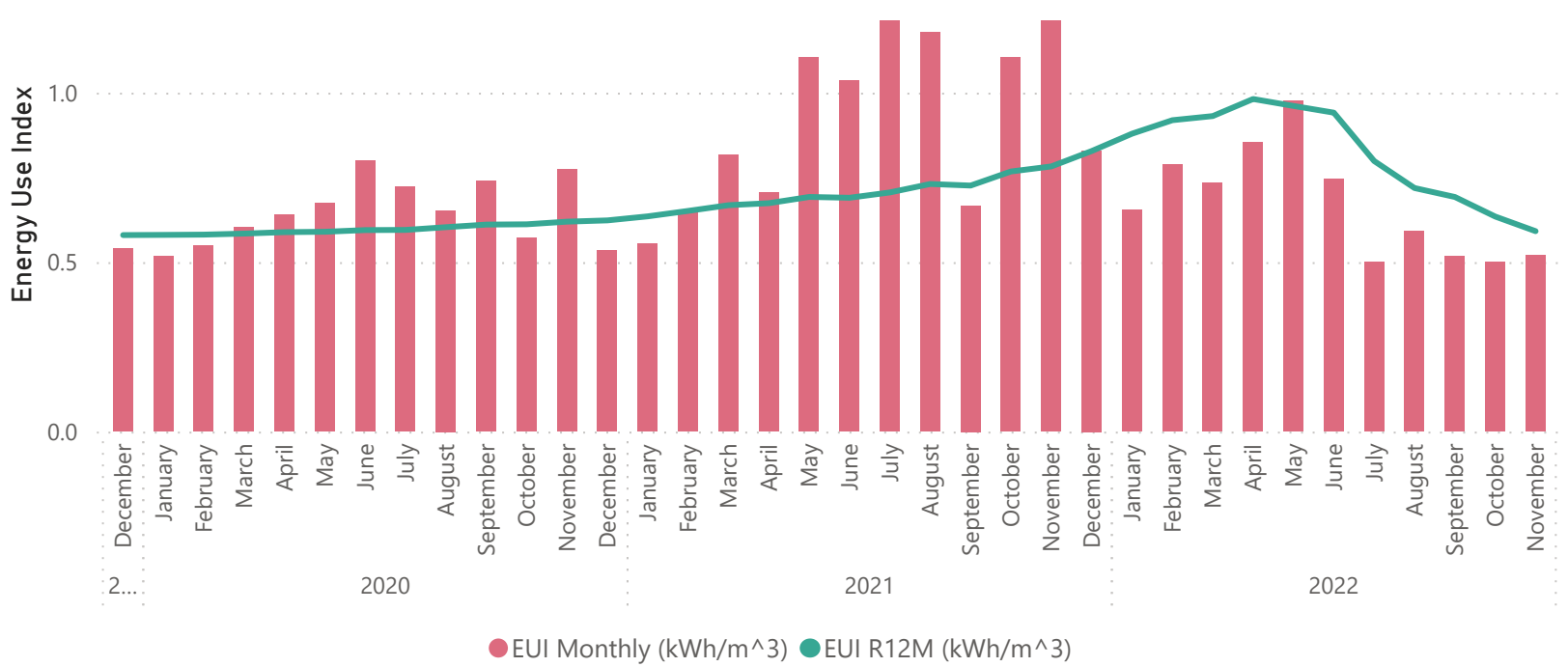


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# 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

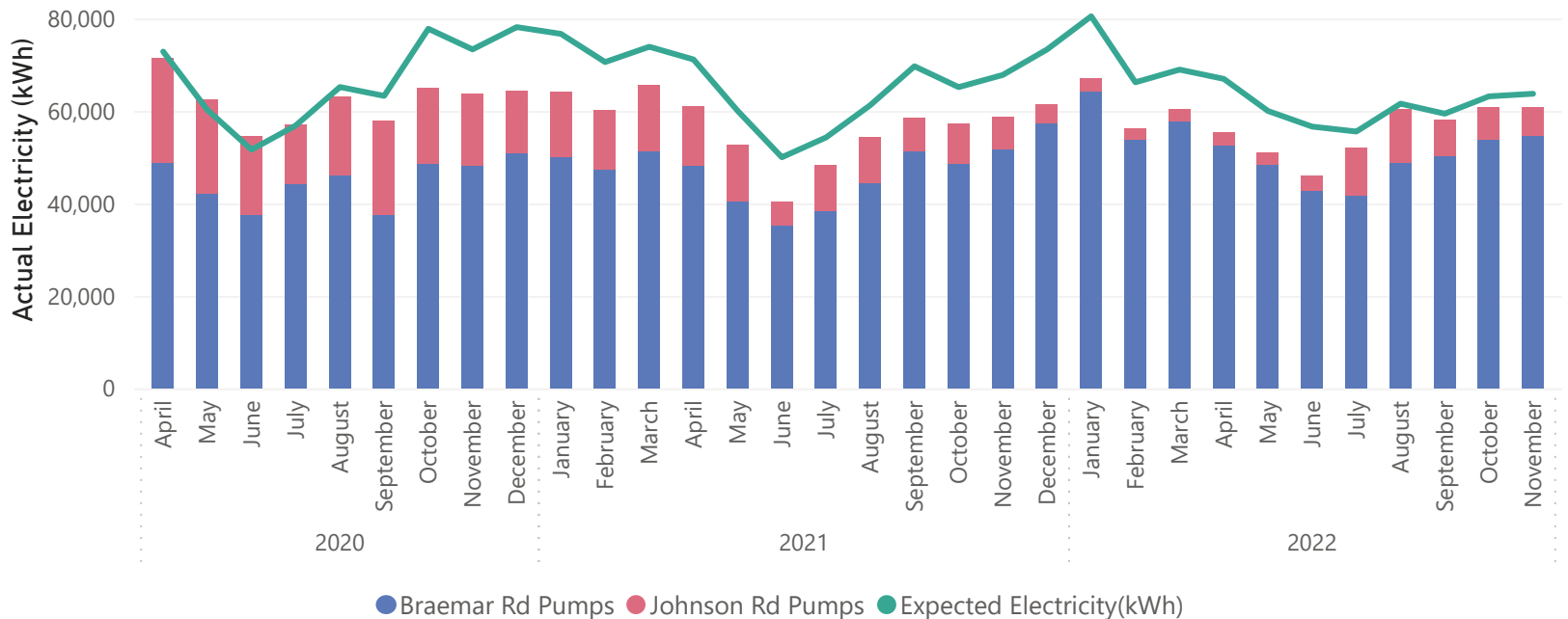
<p><b>\$642</b> Monthly Energy Cost Savings</p>	<p><b>2,964</b> Elec. Savings (kWh/mo)</p>	<p><b>5%</b> Elec. Savings (%)</p>	<p><b>86,249</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>388</b> CO2e Savings (kg/mo)</p>
<p><b>\$16,076</b> R12M Energy Cost Savings</p>				<p><b>11,216</b> R12M CO2e Savings (kg/yr)</p>

**Comments:**

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

Johnson Rd achieved savings in November 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)



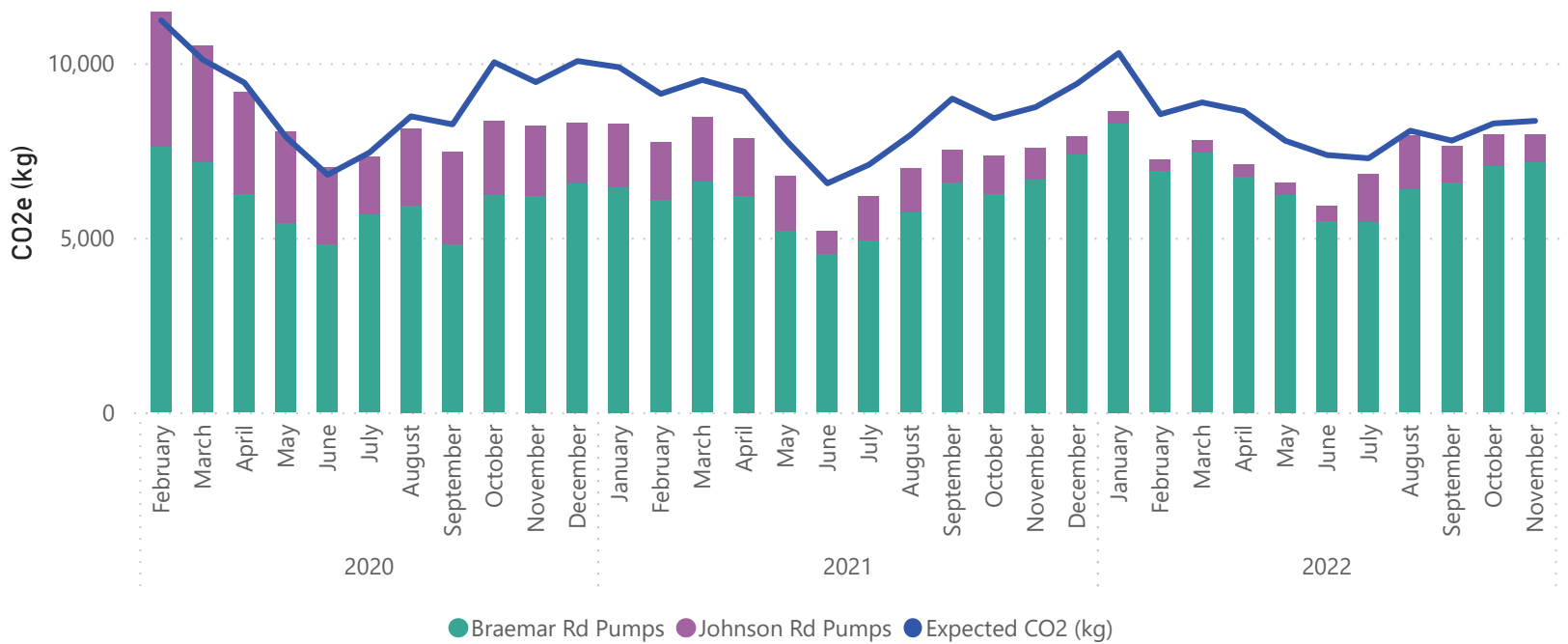
**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**



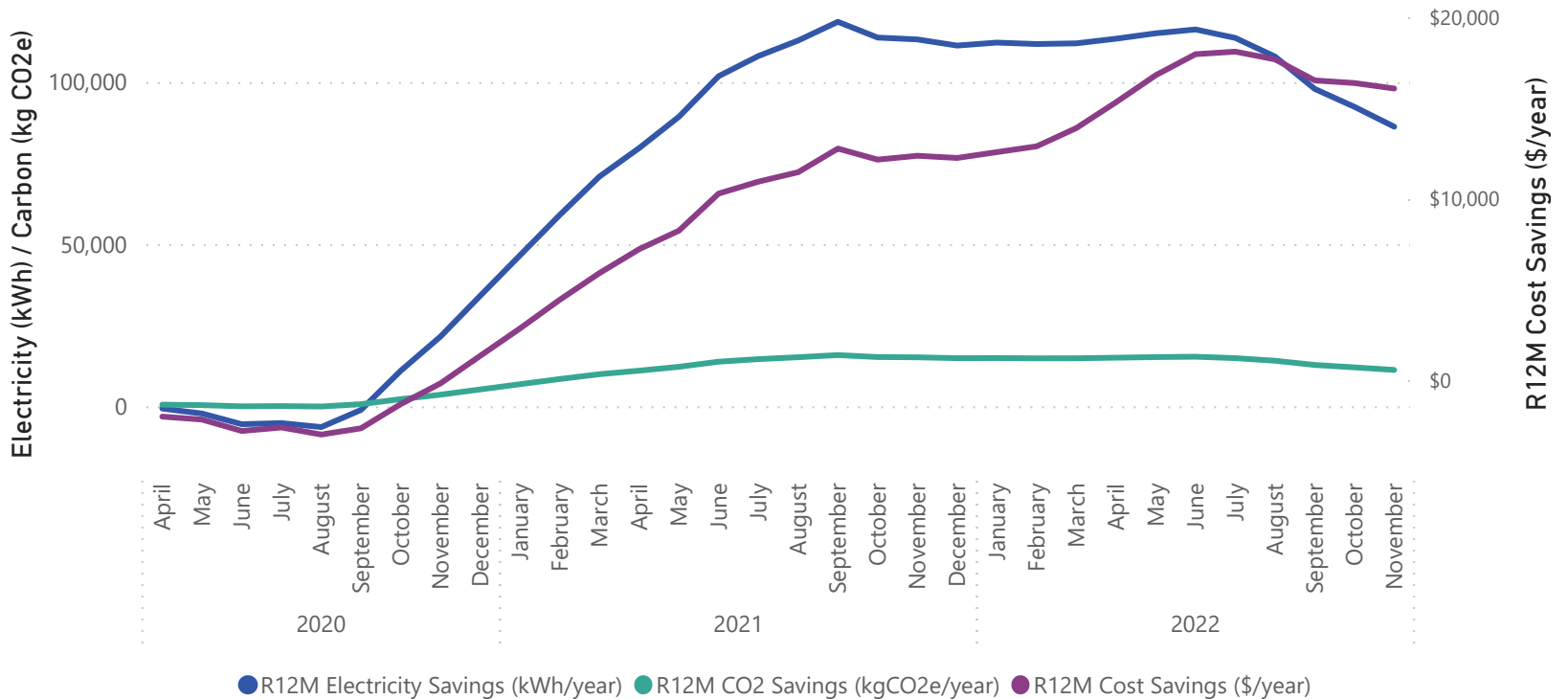
# Whakatane District Council

## 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

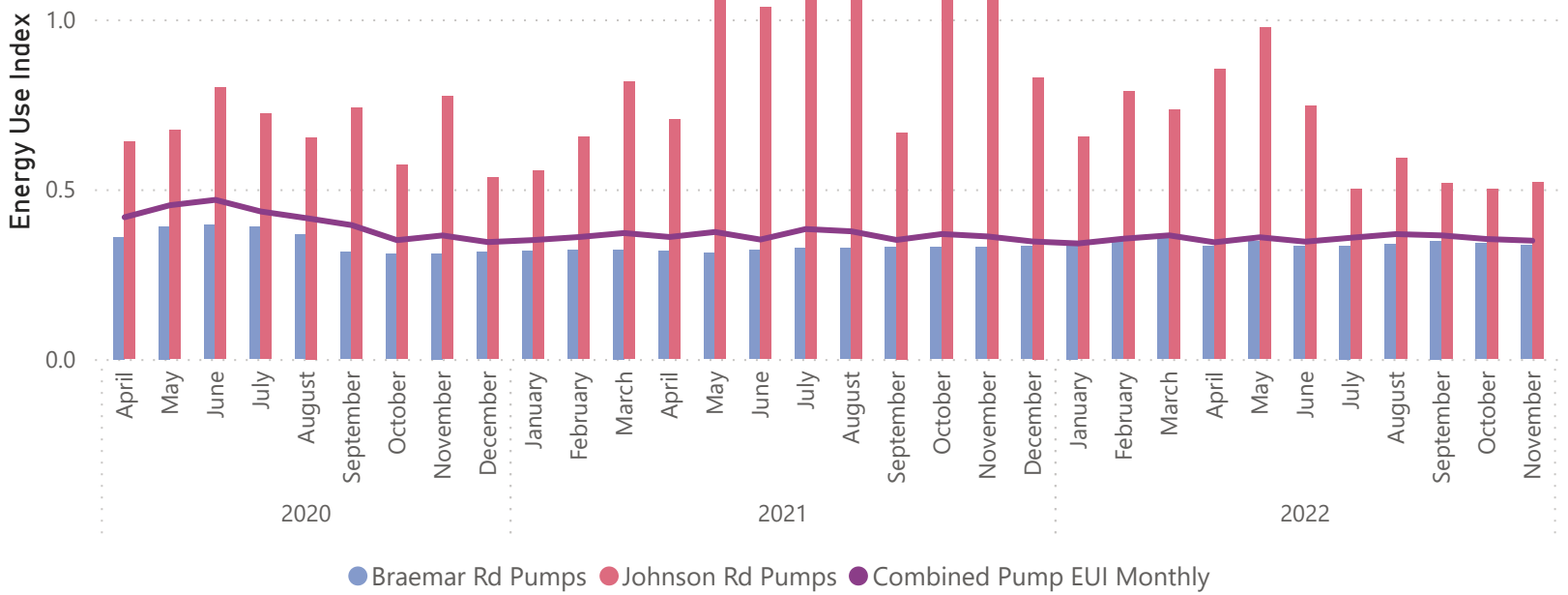


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# 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

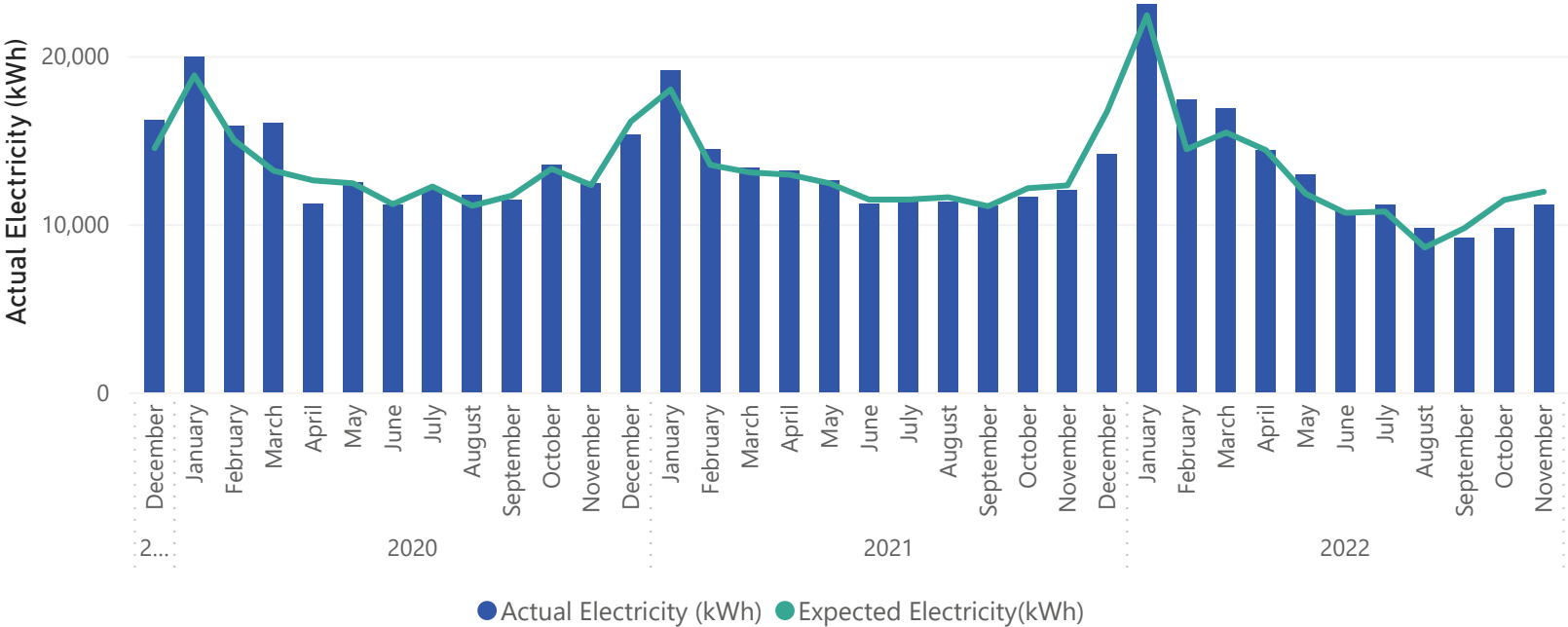
<p><b>\$141</b> Monthly Energy Cost Savings</p>	<p><b>801</b> Elec. Savings (kWh/mo)</p>	<p><b>7%</b> Elec. Savings (%)</p>	<p><b>-2,144</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>105</b> CO2e Savings (kg/mo)</p>
<p><b>-\$405</b> R12M Energy Cost Savings</p>				<p><b>-272</b> R12M CO2e Savings (kg/yr)</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 (m<sup>3</sup>) as the independent variable. The updated baseline has no baseload factor and a marginally larger variable component.

November is the third month in a row that the Bridger Glade Pump Station has used less electricity than expected. The monthly EUI is less than average over the last 12 months.

**Bridger Glade Pumps Electricity Use Compared to Baseline (kWh)**

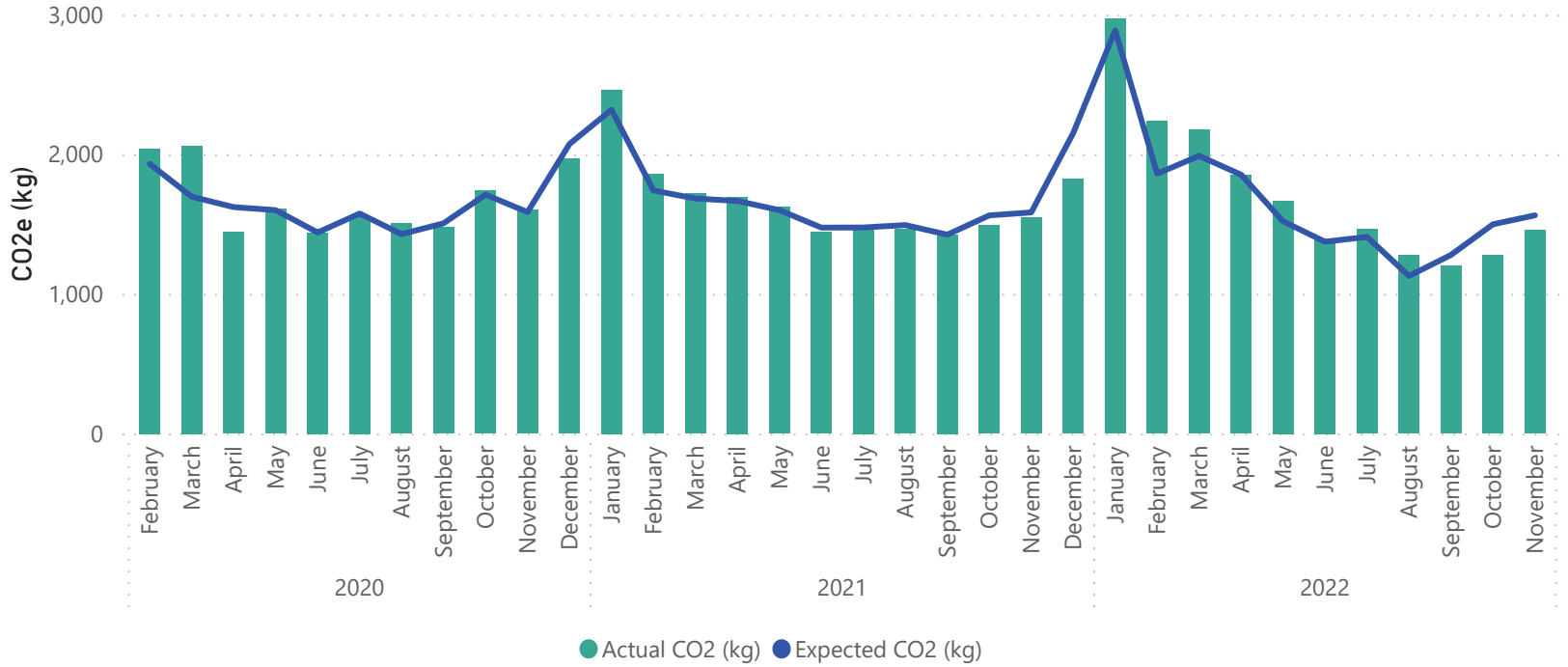


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

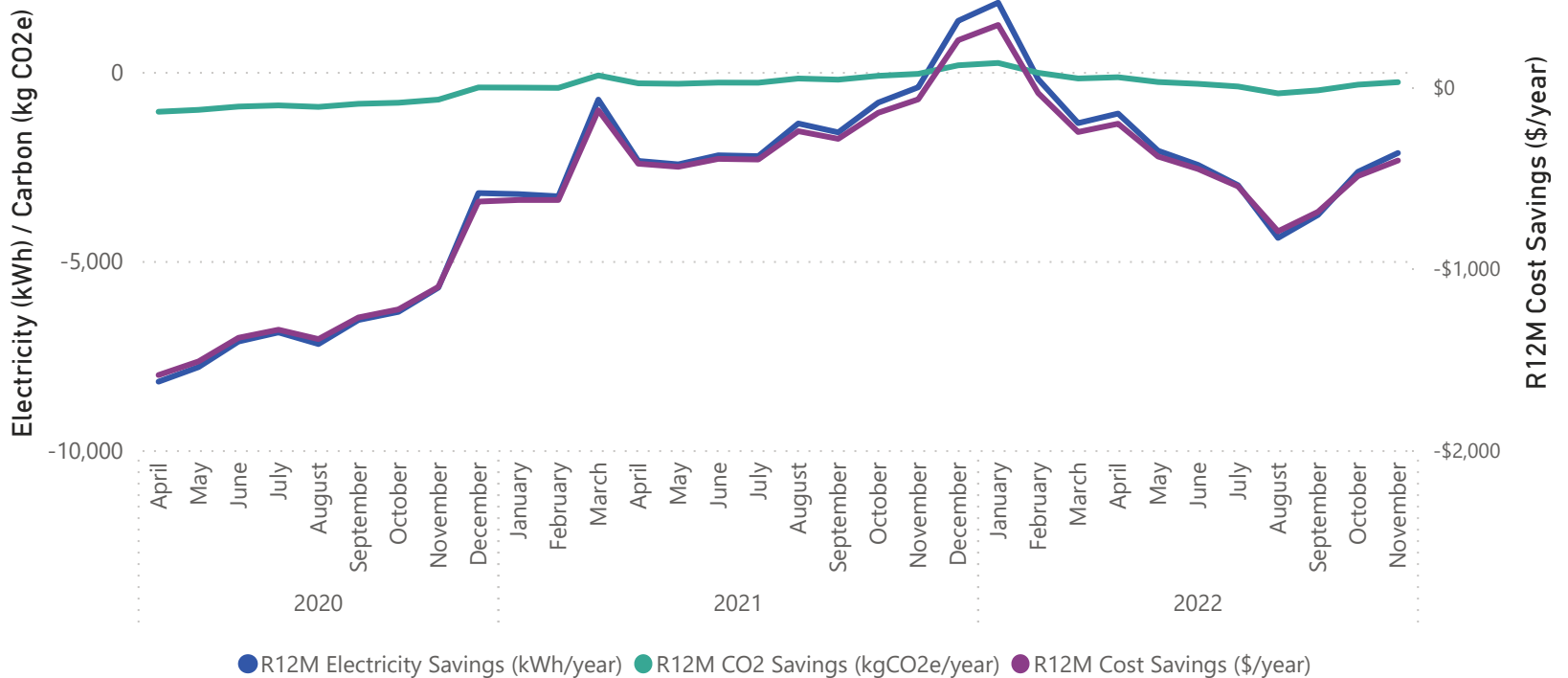
# Whakatane District Council

## Bridger Glade Pump Station

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



Bridger Glade Pumps Rolling 12 Month Savings

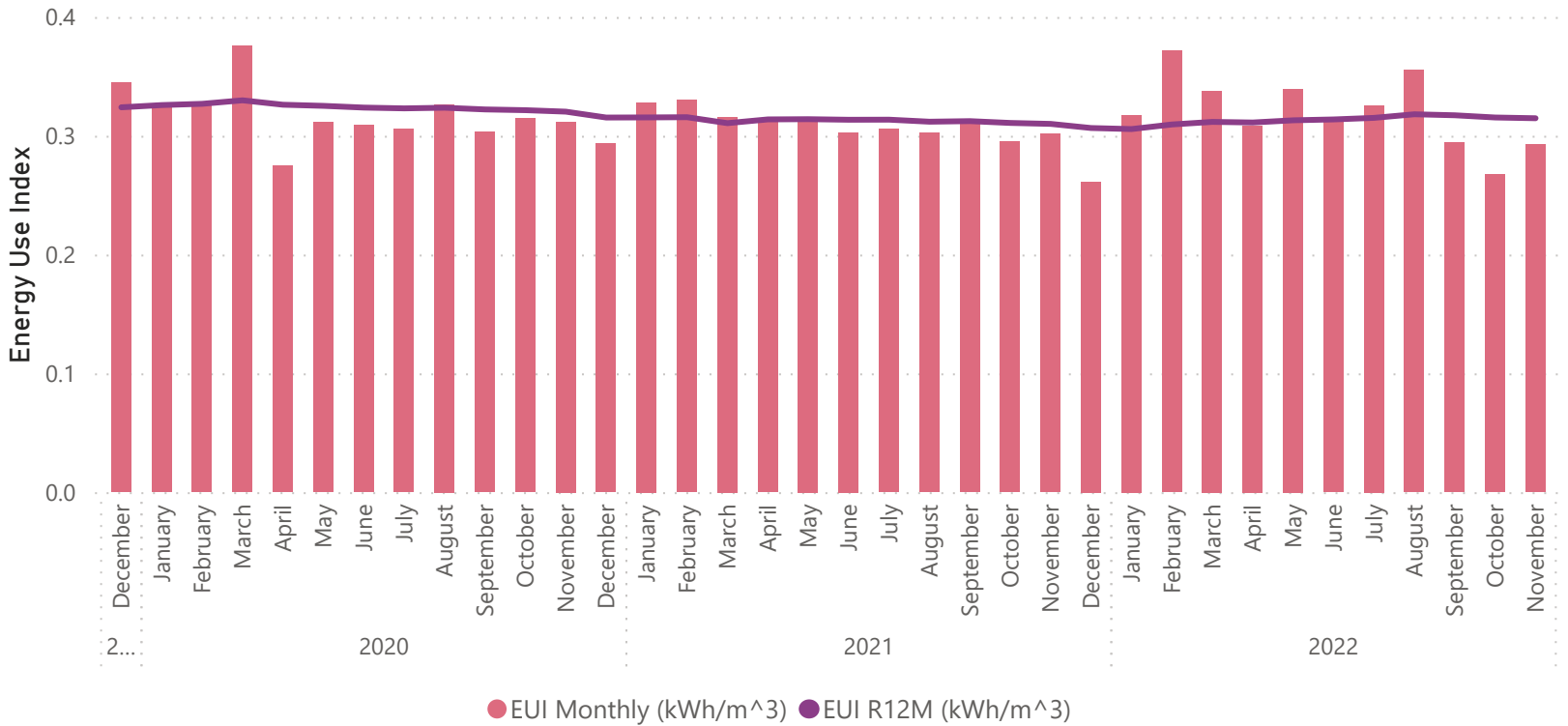


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# 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

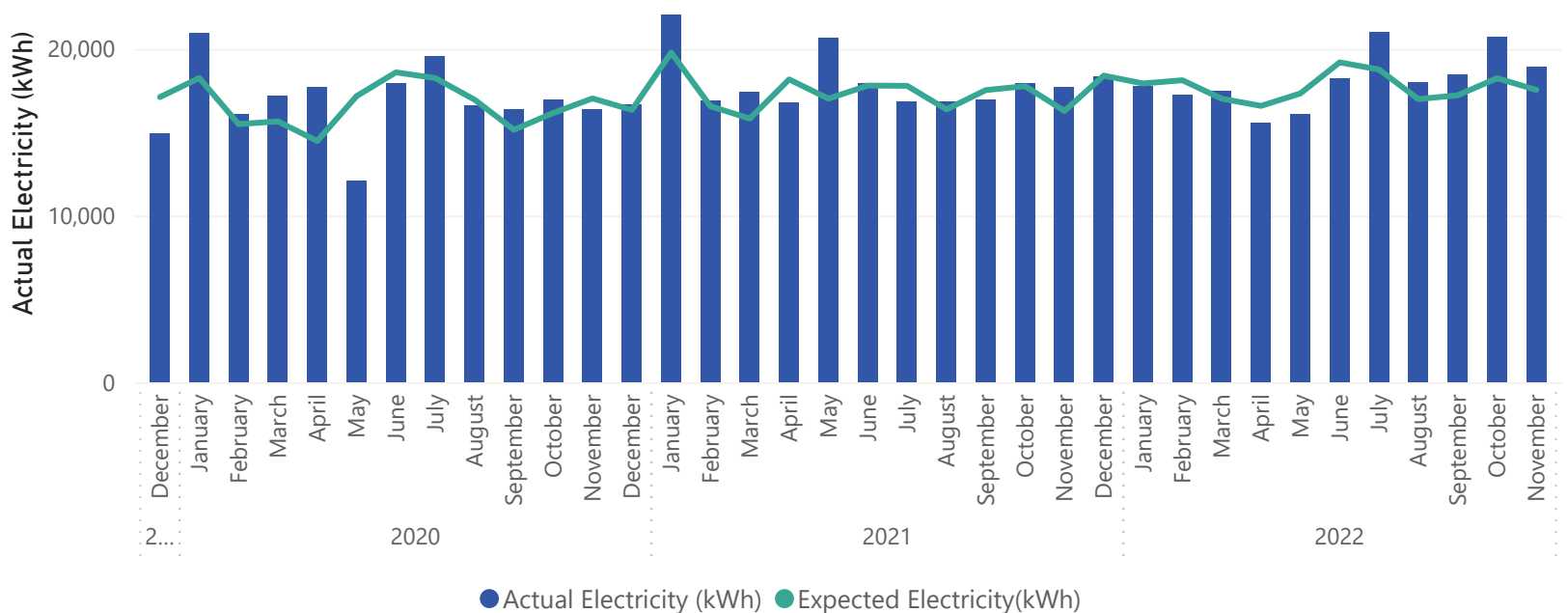
<p><b>-\$242</b> Monthly Energy Cost Savings</p>	<p><b>-1,376</b> Elec. Savings (kWh/mo)</p>	<p><b>-8%</b> Elec. Savings (%)</p>	<p><b>-4,436</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>-180</b> CO2e Savings (kg/mo)</p>
<p><b>-\$767</b> R12M Energy Cost Savings</p>				<p><b>-590</b> R12M CO2e Savings (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 (m<sup>3</sup>) as the independent variable. The updated baseline has a larger baseload factor and a smaller variable component.

Ohope Oxidation Ponds used an extra 8% electricity in November 2022 compared to expected.

Ohope Oxidation Ponds Electricity Use Compared to Baseline (kWh)

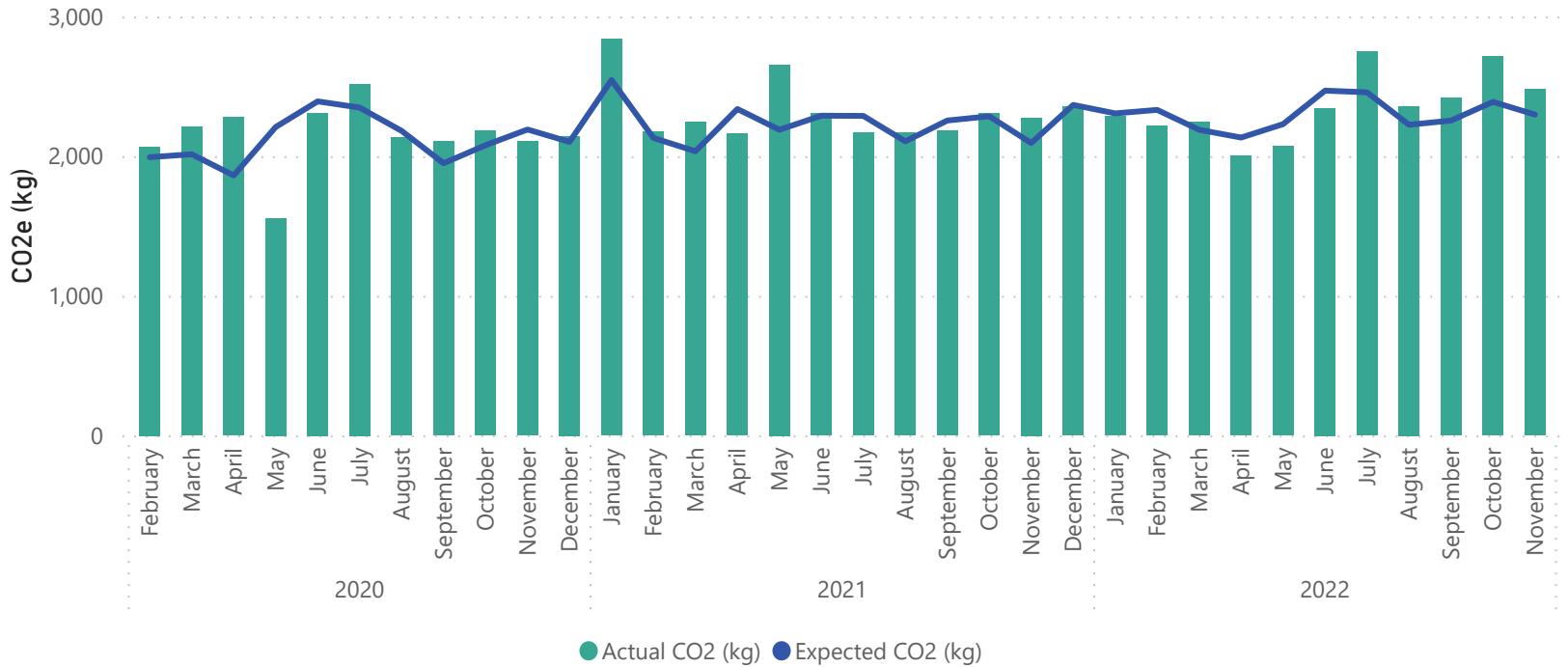


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

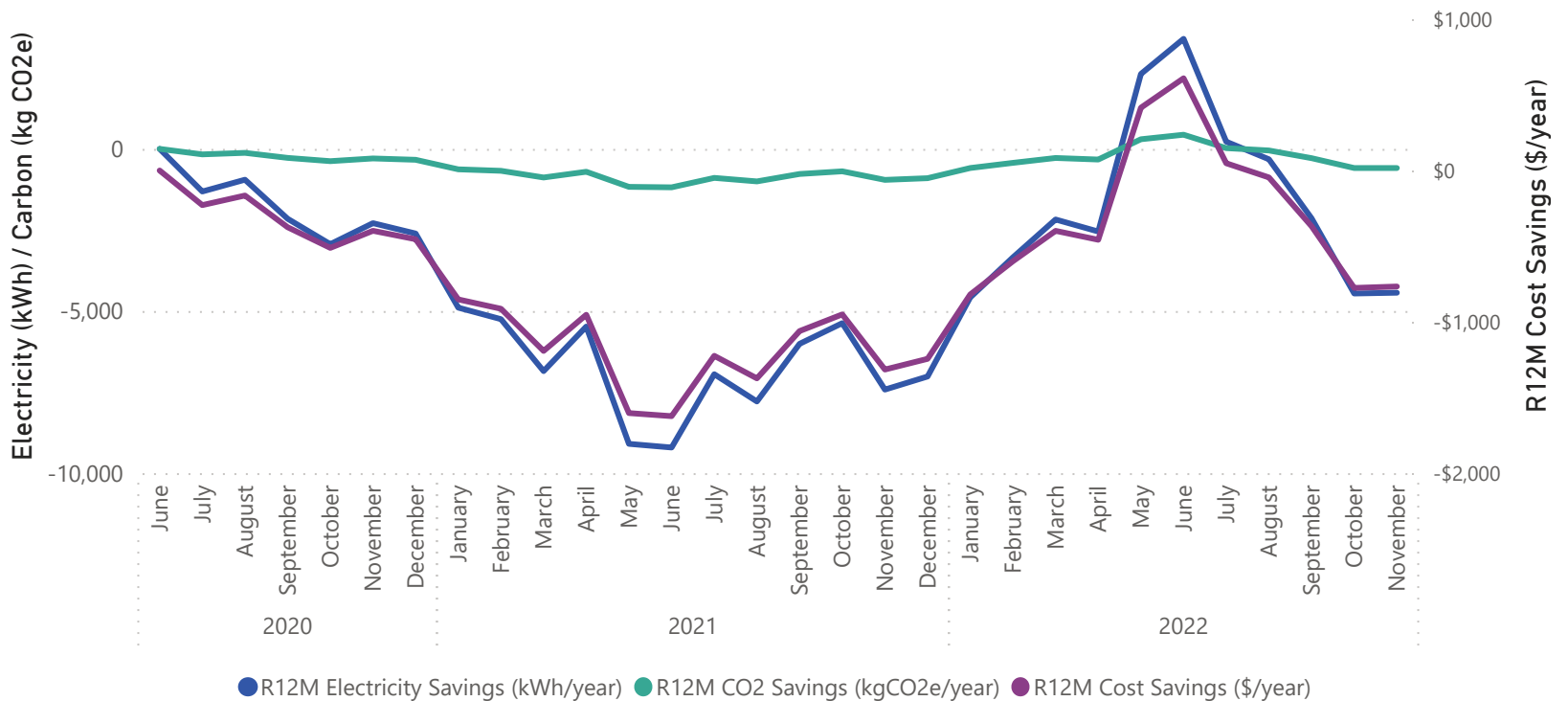
# Whakatane District Council

## Ohope Oxidation Ponds

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



Ohope Oxidation Ponds Rolling 12 Month Savings

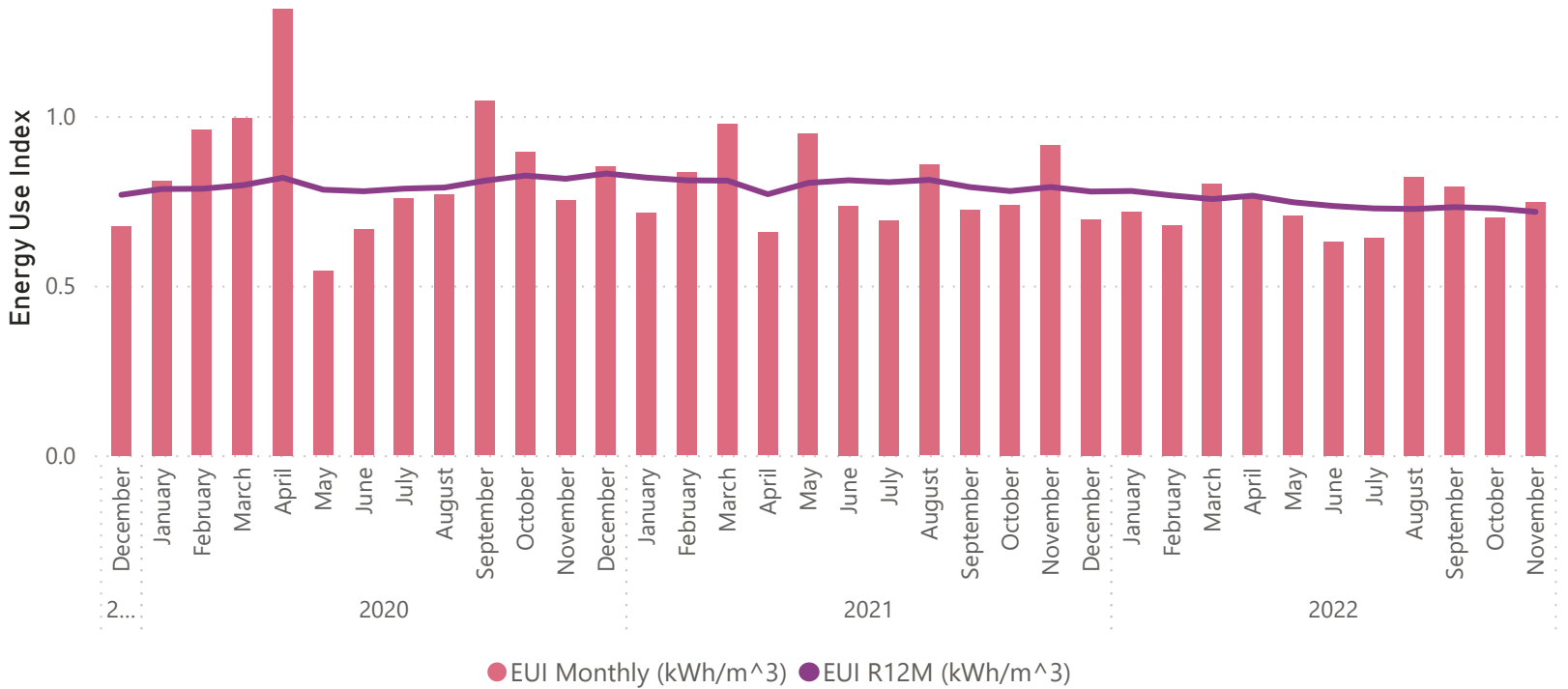


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

# 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

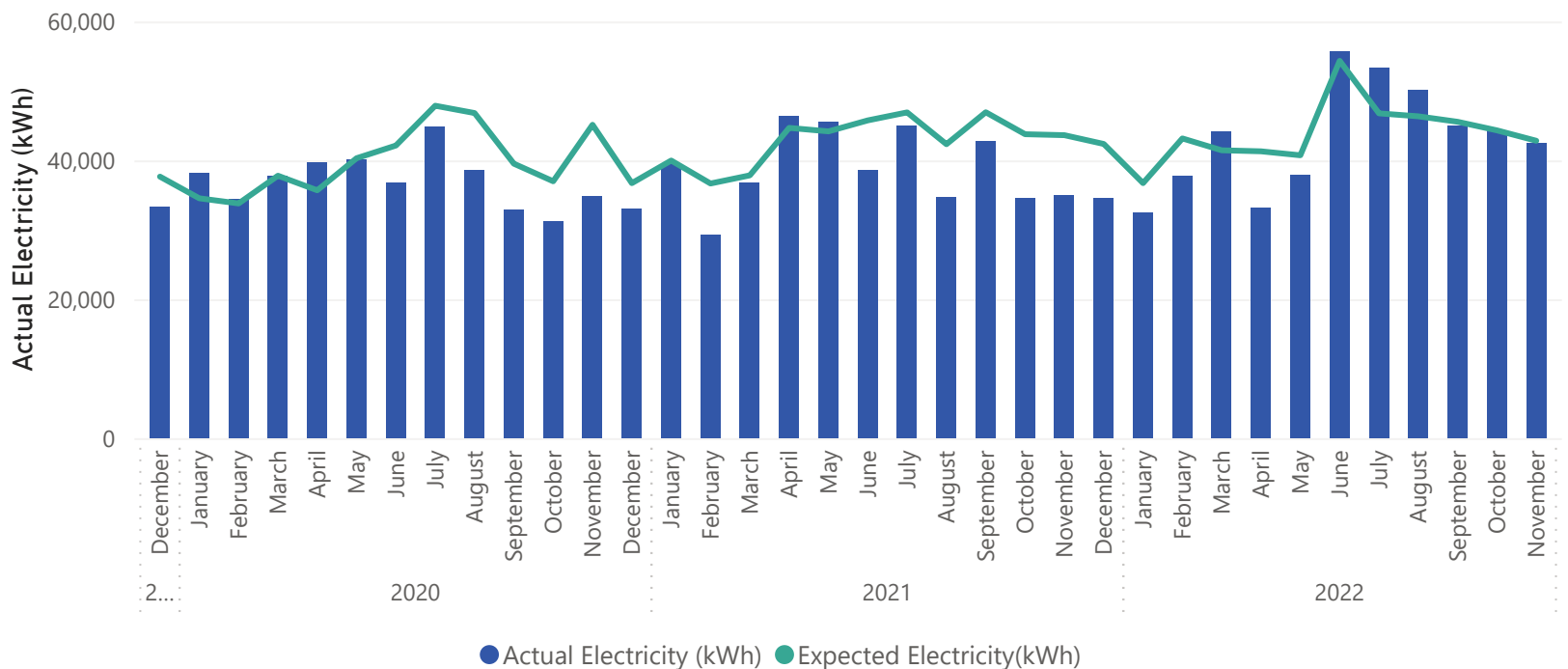
<p><b>\$70</b> Monthly Energy Cost Savings</p>	<p><b>392</b> Elec. Savings (kWh/mo)</p>	<p><b>1%</b> Elec. Savings (%)</p>	<p><b>14,981</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>51</b> CO2e Savings (kg/mo)</p>
<p><b>\$2,129</b> R12M Energy Cost Savings</p>				<p><b>1,907</b> R12M CO2e Savings (kg/yr)</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 (m<sup>3</sup>) as the independent variable. The updated baseline has a smaller baseload factor and a smaller variable component.

The oxidation ponds have used slightly less electricity than expected in November 2022. The monthly EUI decreased in June 2022 and has remained less than average, which is good.

Whakatane Oxidation Ponds Electricity Use Compared to Baseline (kWh)

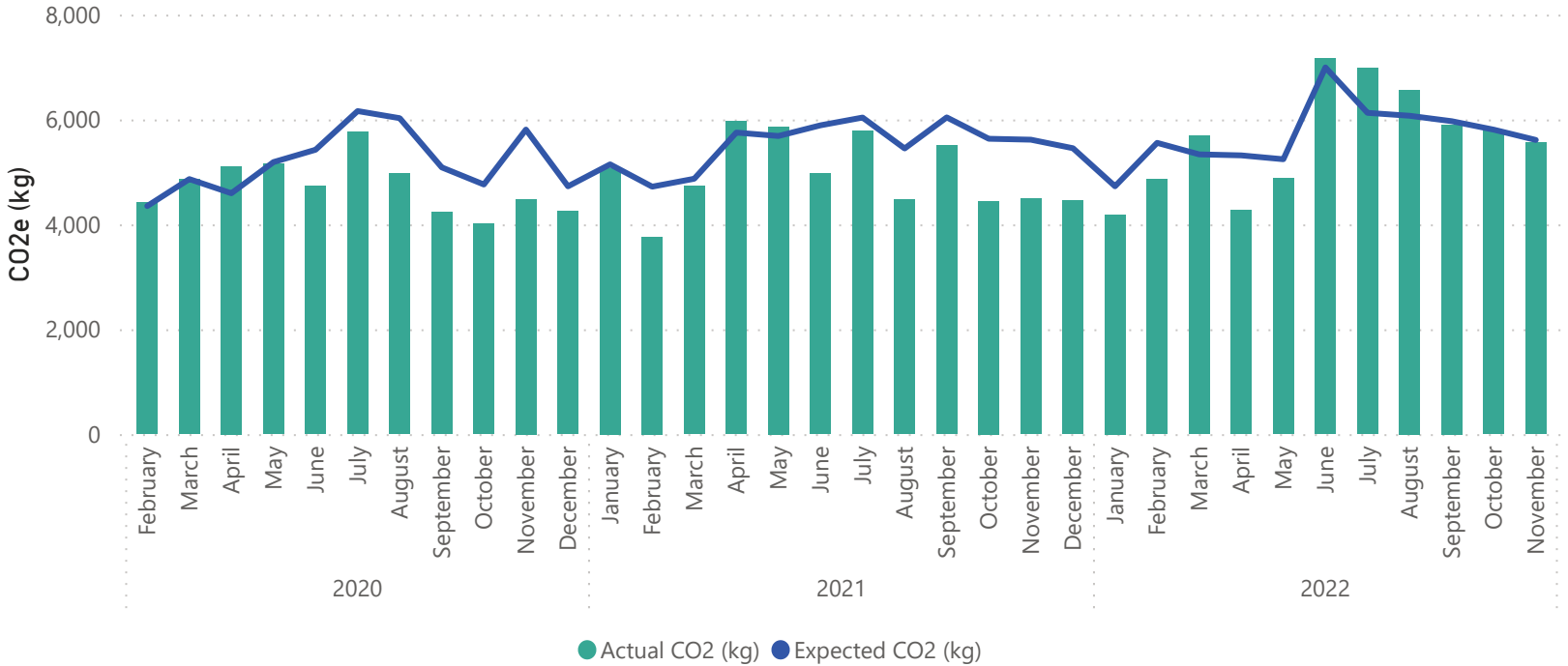


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time  
**Baselines were updated for all sites from July 2022.**

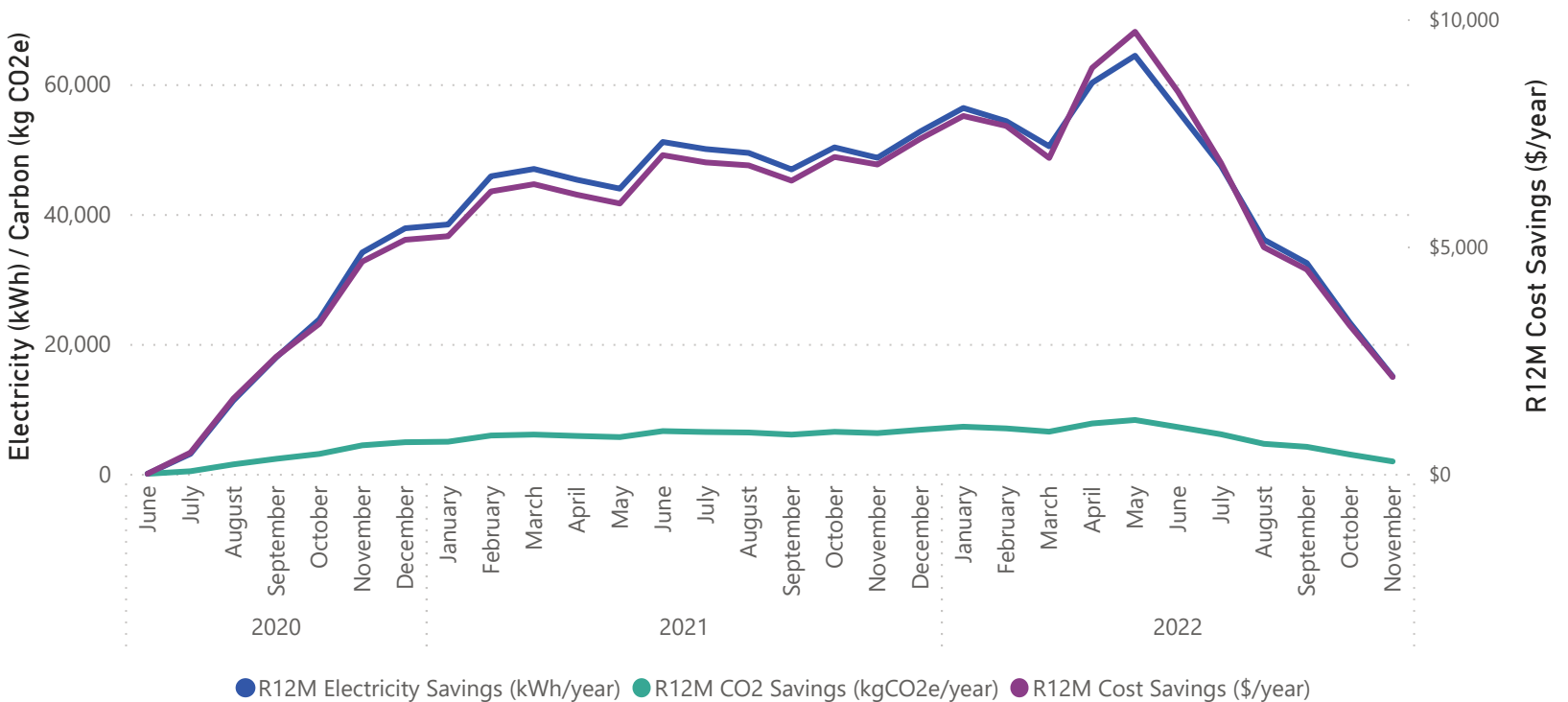
# Whakatane District Council

## Whakatane Oxidation Ponds

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



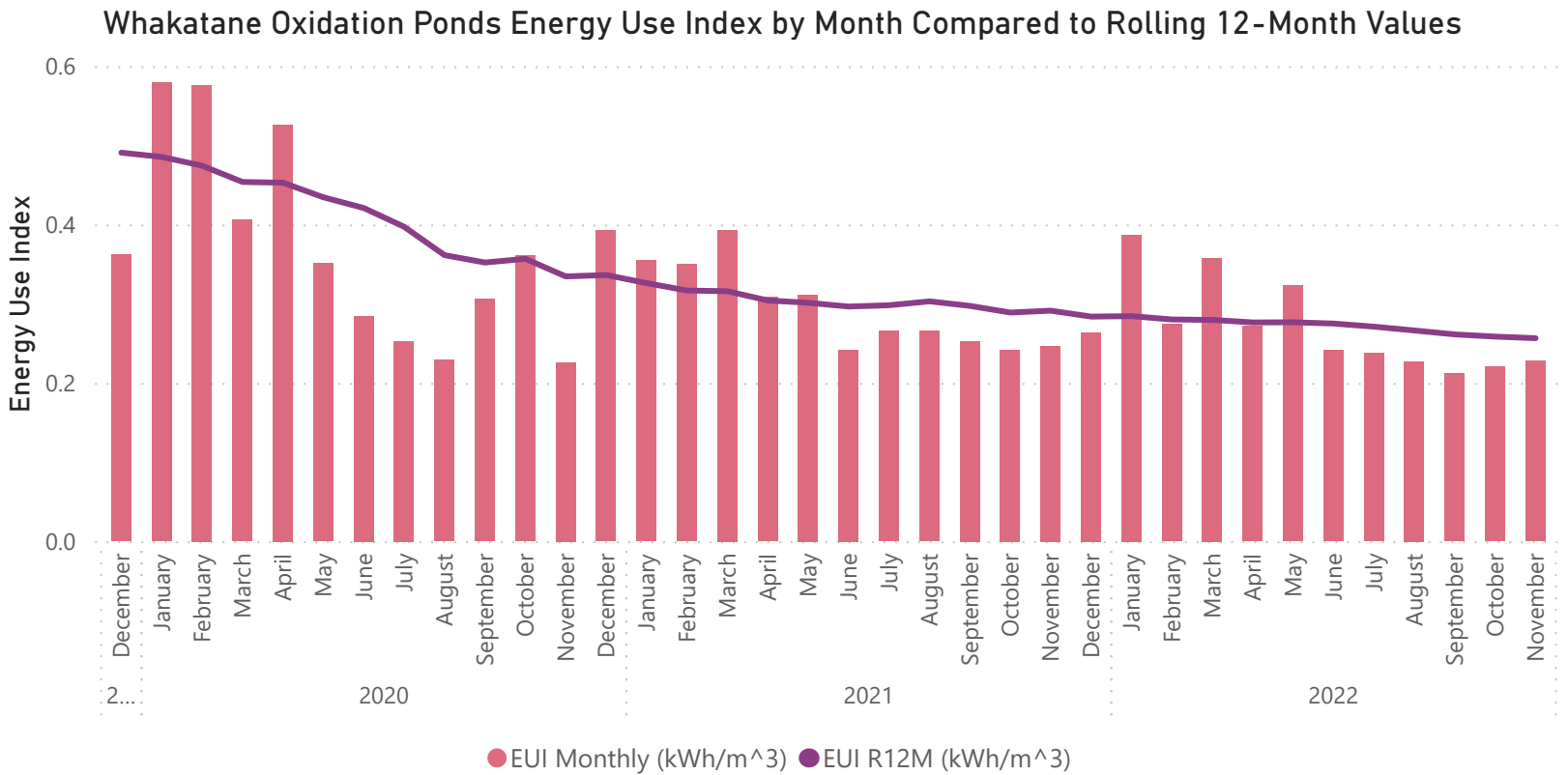
Whakatane Oxidation Ponds Rolling 12 Month Savings



**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



**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

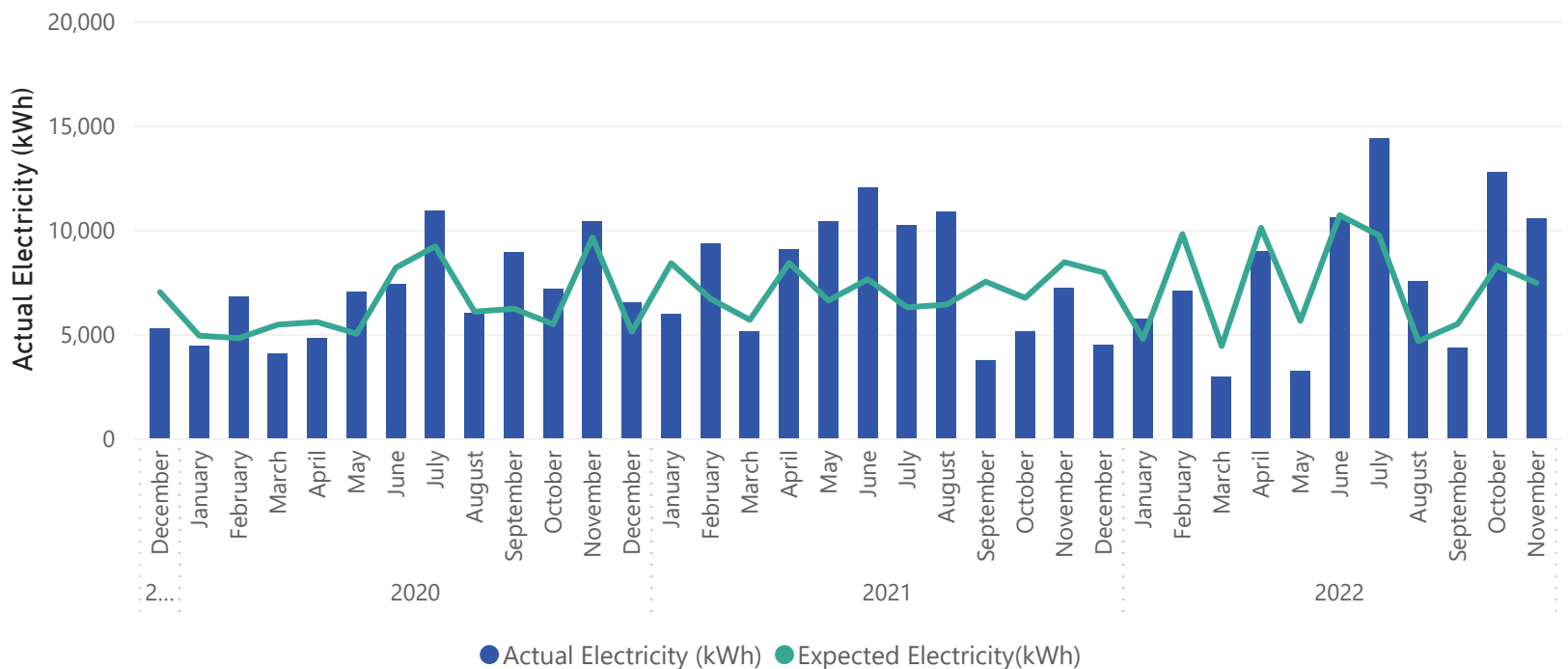
<p><b>-\$136</b> Monthly Energy Cost Savings</p>	<p><b>-3,087</b> Elec. Savings (kWh/mo)</p>	<p><b>-41%</b> Elec. Savings (%)</p>	<p><b>-3,496</b> R12M Electricity Savings (kWh/yr)</p>	<p><b>-404</b> CO2e Savings (kg/mo)</p>
<p><b>\$3,171</b> R12M Energy Cost Savings</p>				<p><b>-482</b> R12M CO2e Savings (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. November 2022 was a heavy rainfall month, with approximately 183mm of rain that coincided with the billing period.

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

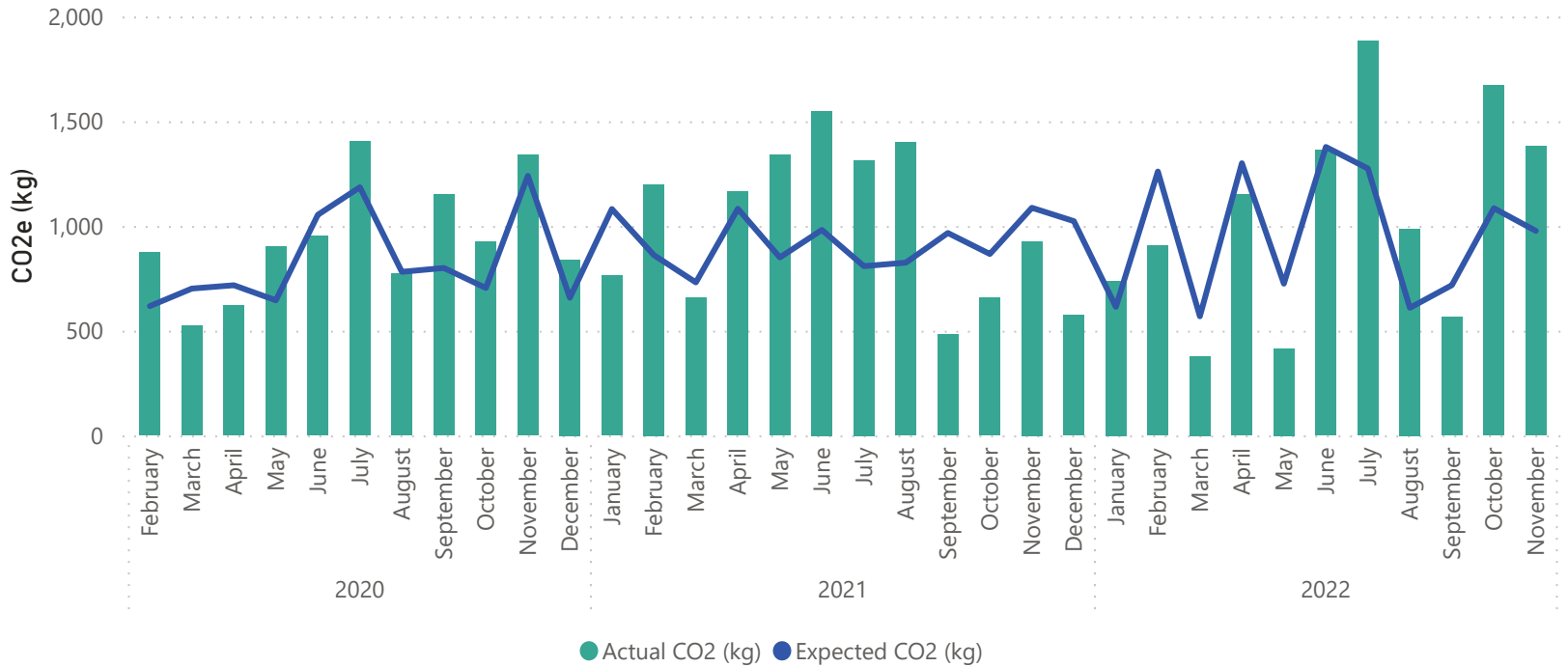


**Note:** New Zealand was in Covid-19 alert levels 3 and 4 from 23 March until 12 May, 2020. Energy use may have been impacted during this time **Baselines were updated for all sites from July 2022.**

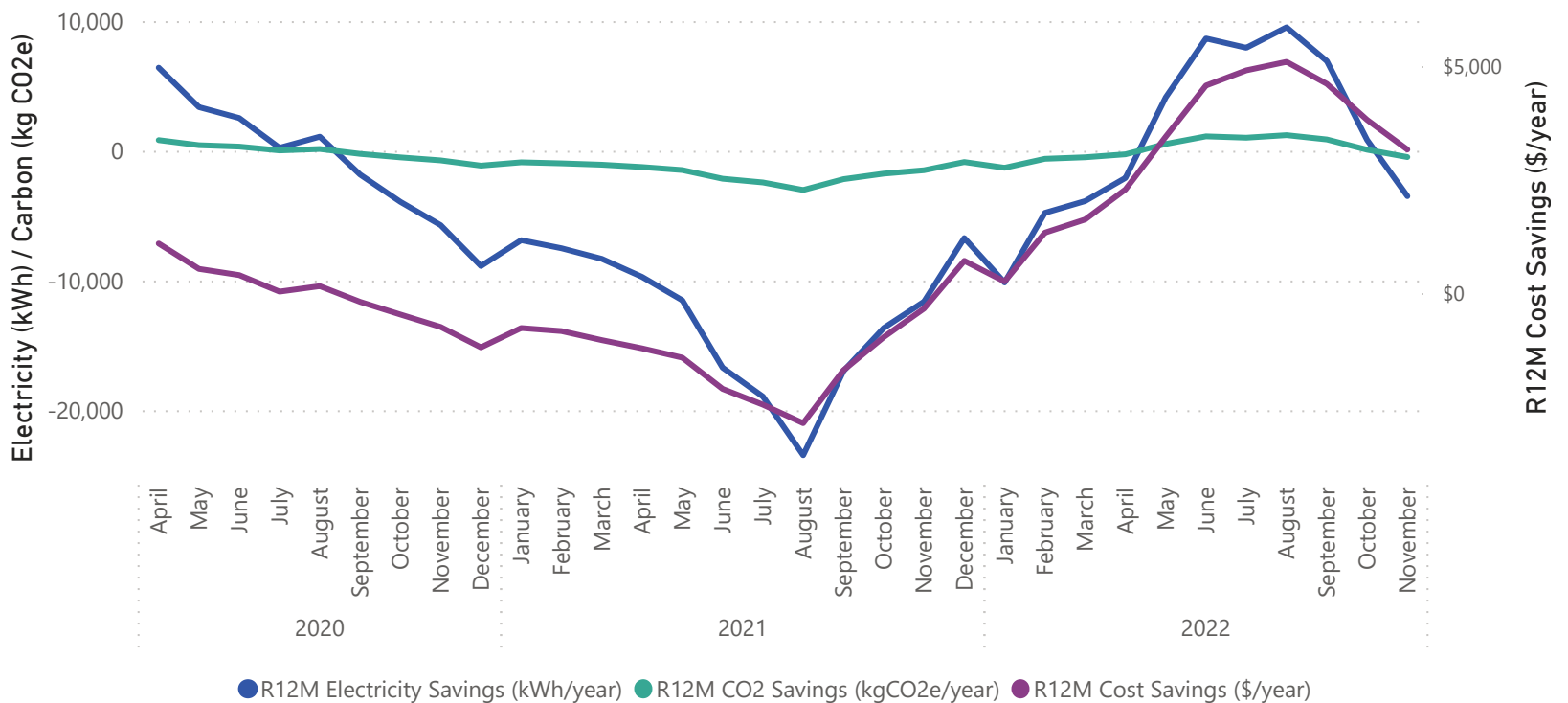
# Whakatane District Council

## 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.**