

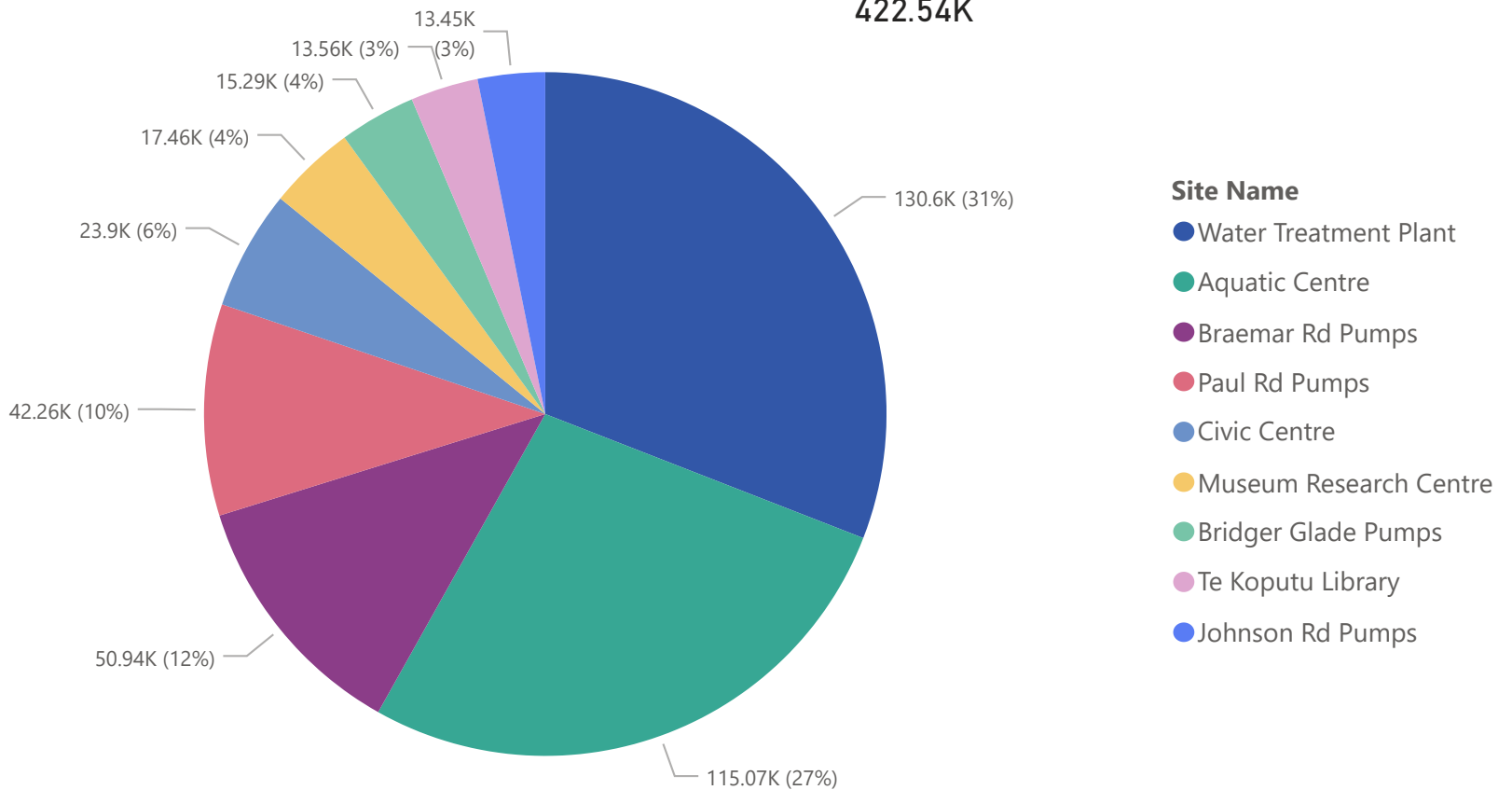
Whakatane District Council

Summary

<p>\$1,306 Monthly Energy Cost Savings</p>	<p>3,228 Elec. Savings (kWh/mo)</p>	<p>0.78% Elec. Savings (%)</p>	<p>-11.22K R12M Electricity Savings (kWh/yr)</p>	<p>-10K CO2e Savings (kg/mo)</p>
<p>\$39.6K R12M Energy Cost Savings</p>	<p>2,376 Gas. Savings (kWh/mo)</p>	<p>16.27% Gas. Savings (%)</p>	<p>597.33K R12M Gas Savings (kWh/yr)</p>	<p>87.89K R12M CO2e Savings (kg/yr)</p>

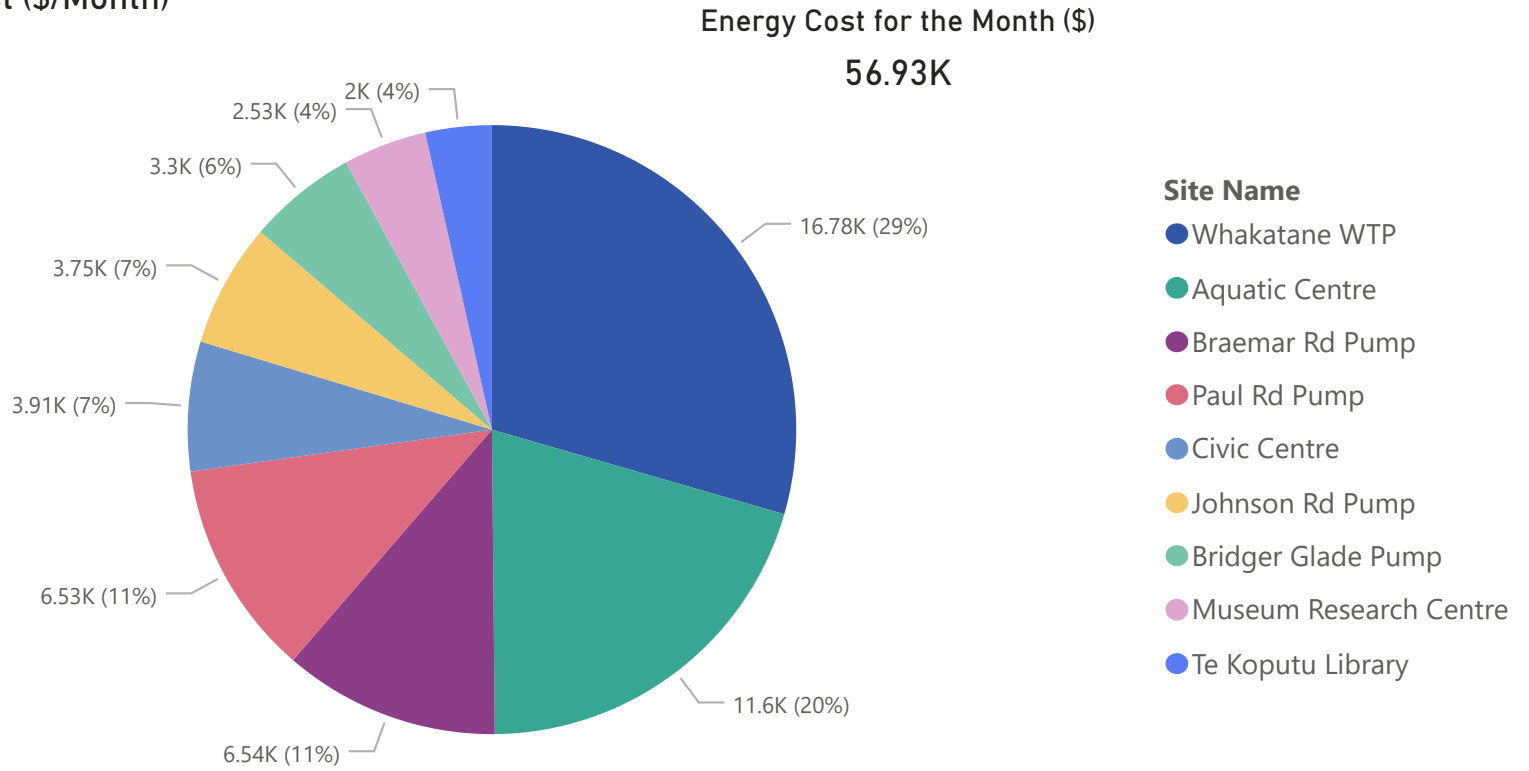
Total Energy (kWh/Month)

Total Energy Used for the Month (kWh)
422.54K

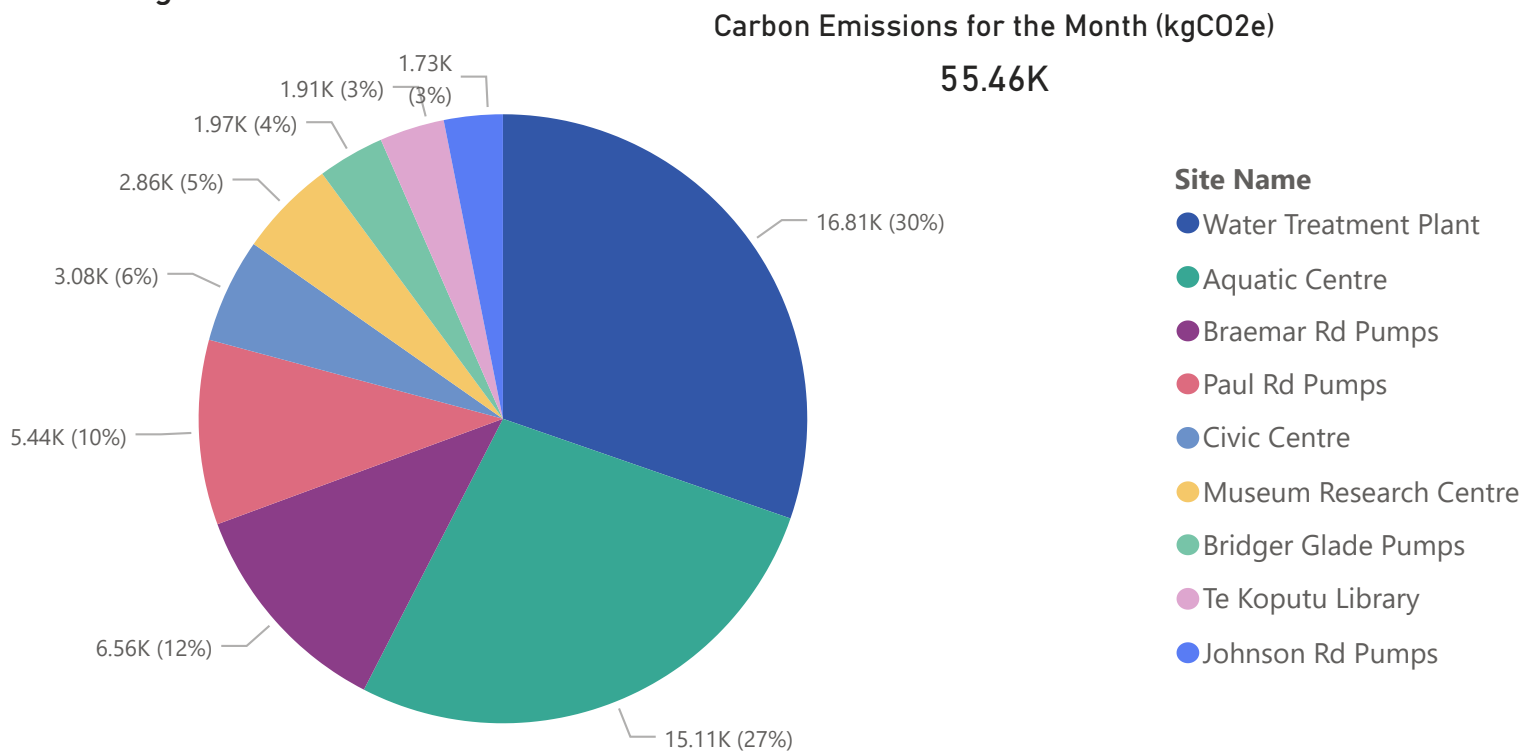


Whakatane District Council Summary

Energy Cost (\$/Month)



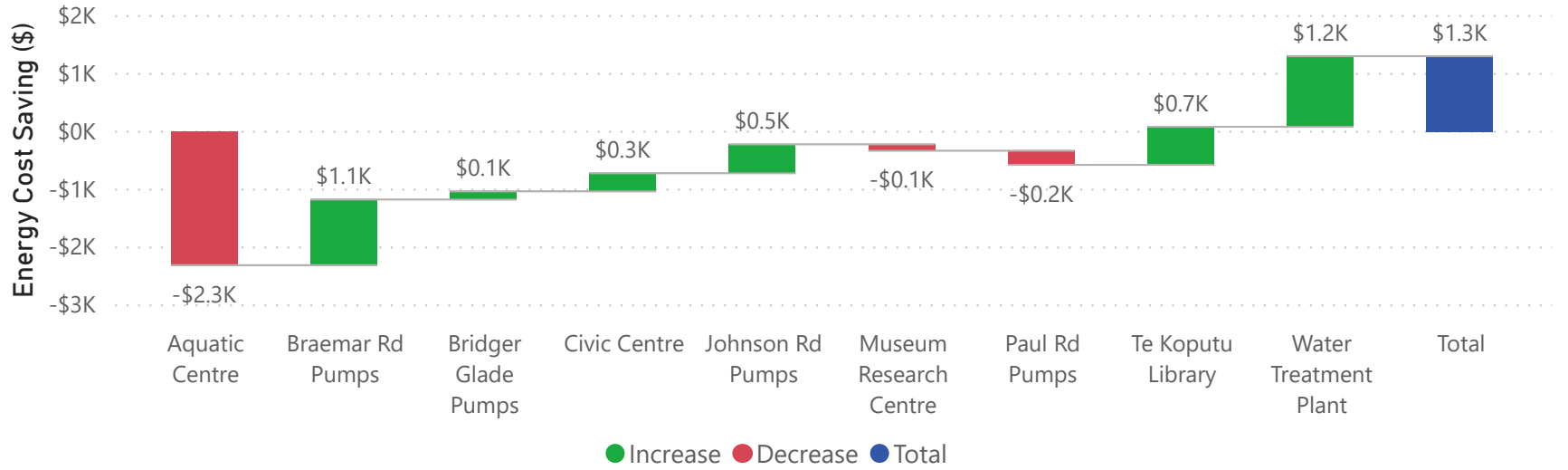
Carbon Emissions (kgCO2e/Month)



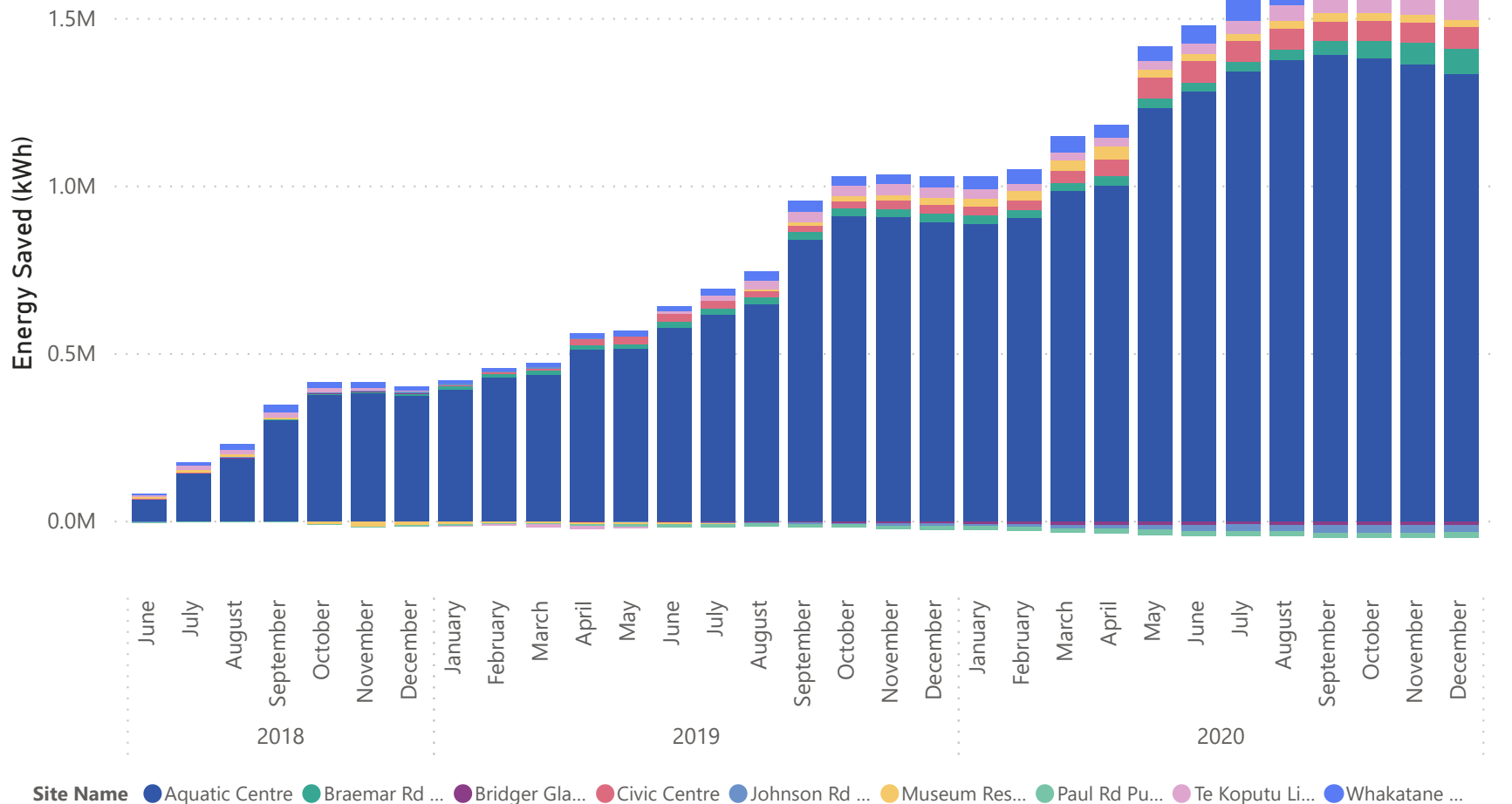
Whakatane District Council

Summary

Monthly Energy Cost Savings



Cumulative Energy Savings (kWh)

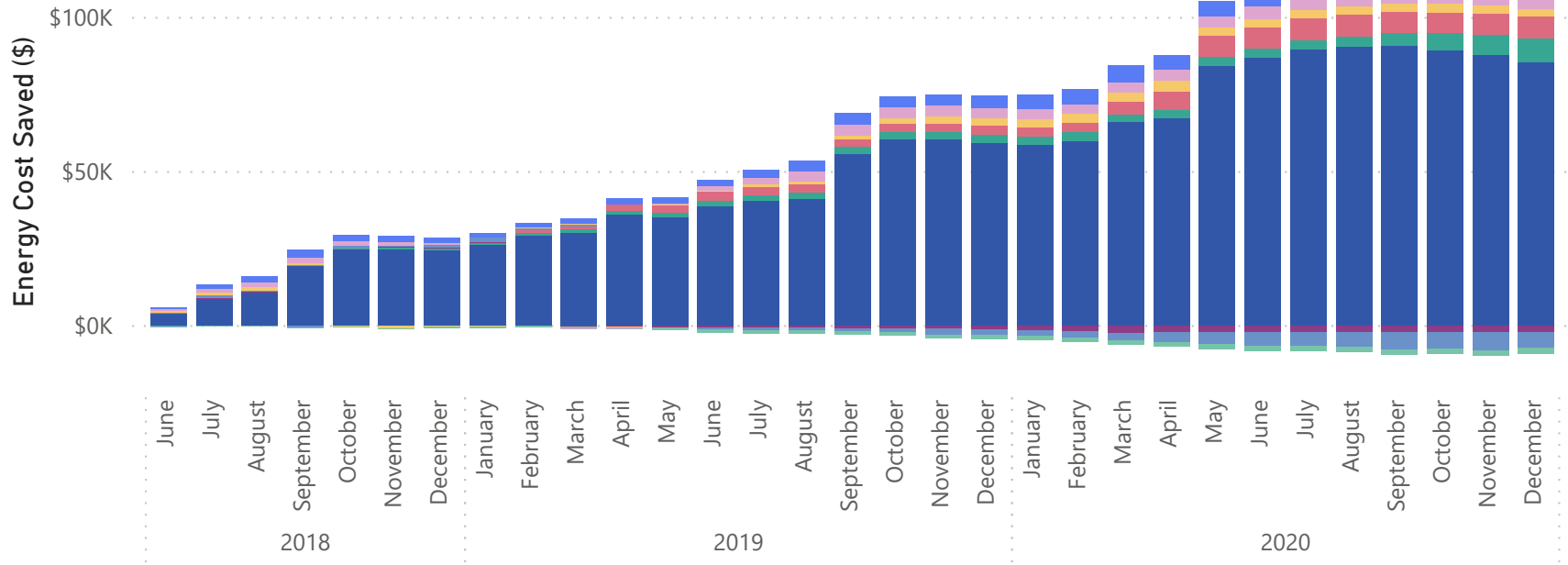


Site Name: Aquatic Centre, Braemar Rd Pumps, Bridger Glade Pumps, Civic Centre, Johnson Rd Pumps, Museum Research Centre, Paul Rd Pumps, Te Koputu Library, Whakatane District Council

Whakatane District Council

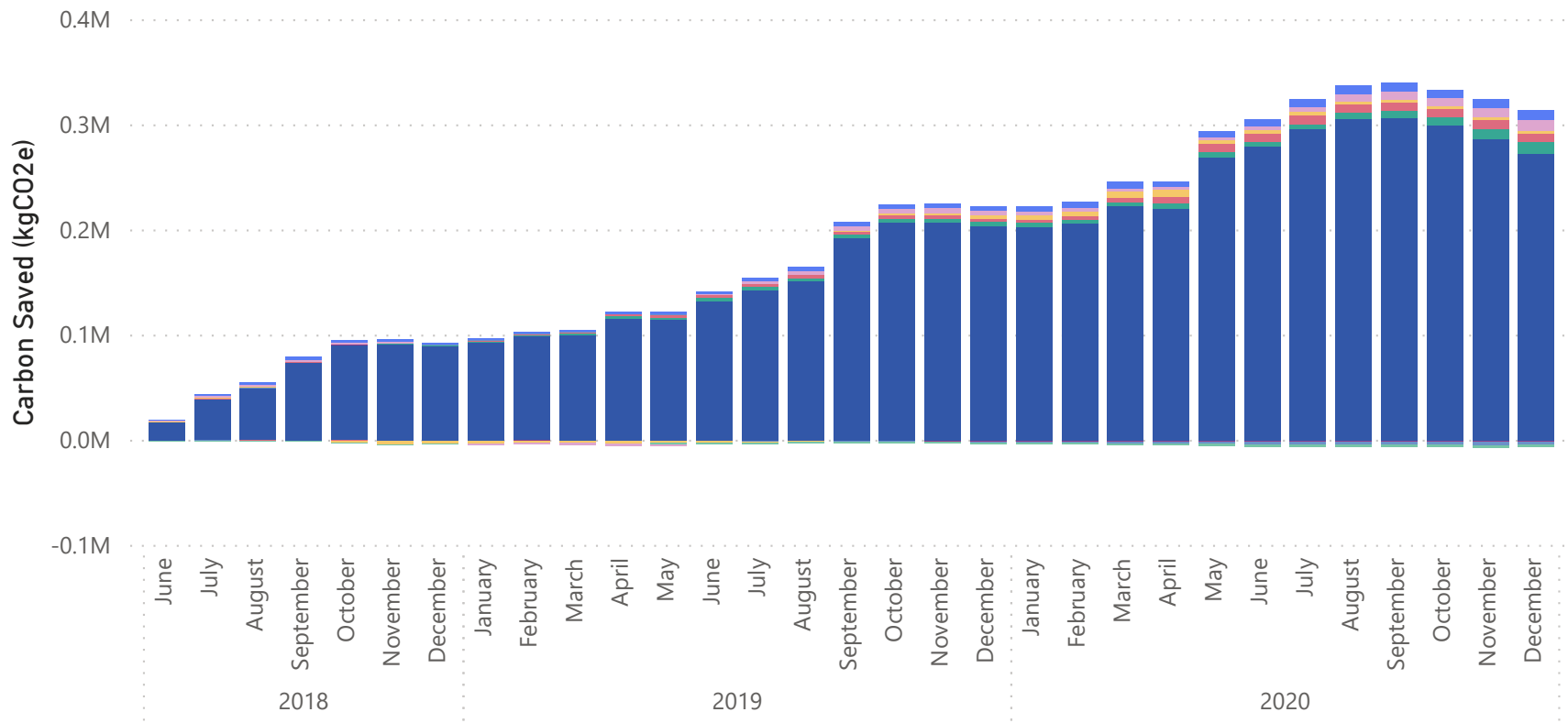
Summary

Cumulative Energy Cost Savings (\$/month)



Site Name ● Aquatic Centre ● Braemar Rd ... ● Bridger Gla... ● Civic Centre ● Johnson Rd ... ● Museum Res... ● Paul Rd Pu... ● Te Koputu Li... ● Whakatane ...

Cumulative Carbon Savings (kgCO2e/month)



Site Name ● Aquatic Centre ● Braemar Rd ... ● Bridger Gla... ● Civic Centre ● Johnson Rd ... ● Museum Res... ● Paul Rd Pu... ● Te Koputu Li... ● Whakatane ...

Whakatane District Council

Civic Centre

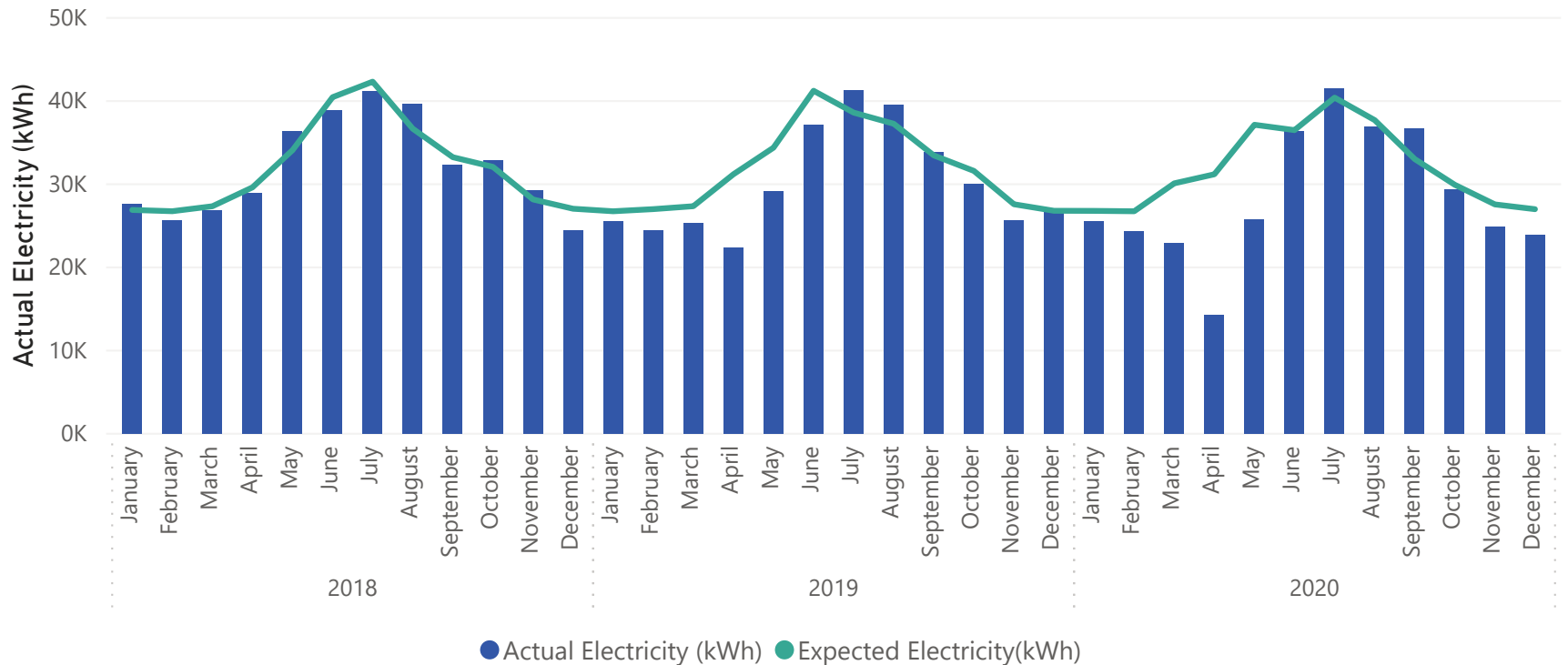
<p>\$313 Monthly Energy Cost Savings</p>	<p>3,101 Elec. Savings (kWh/mo)</p>	<p>11.48% Elec. Savings (%)</p>	<p>41.68K R12M Electricity Savings (kWh/yr)</p>	<p>399 CO2e Savings (kg/mo)</p>
<p>\$4.6K R12M Energy Cost Savings</p>				<p>5.36K R12M CO2e Savings (kg/yr)</p>

Comments:

Since heating was manually turned off, following an inadvertent change in the heating control scheme in September, energy performance has improved. Energy use in December was less than baseline, following a similar pattern of decreased usage that was seen in November.

A seasonal trend can be observed, with summer monthly using the less electricity than winter months. Compared to December 2019, December 2020 used approximately 11% less electricity.

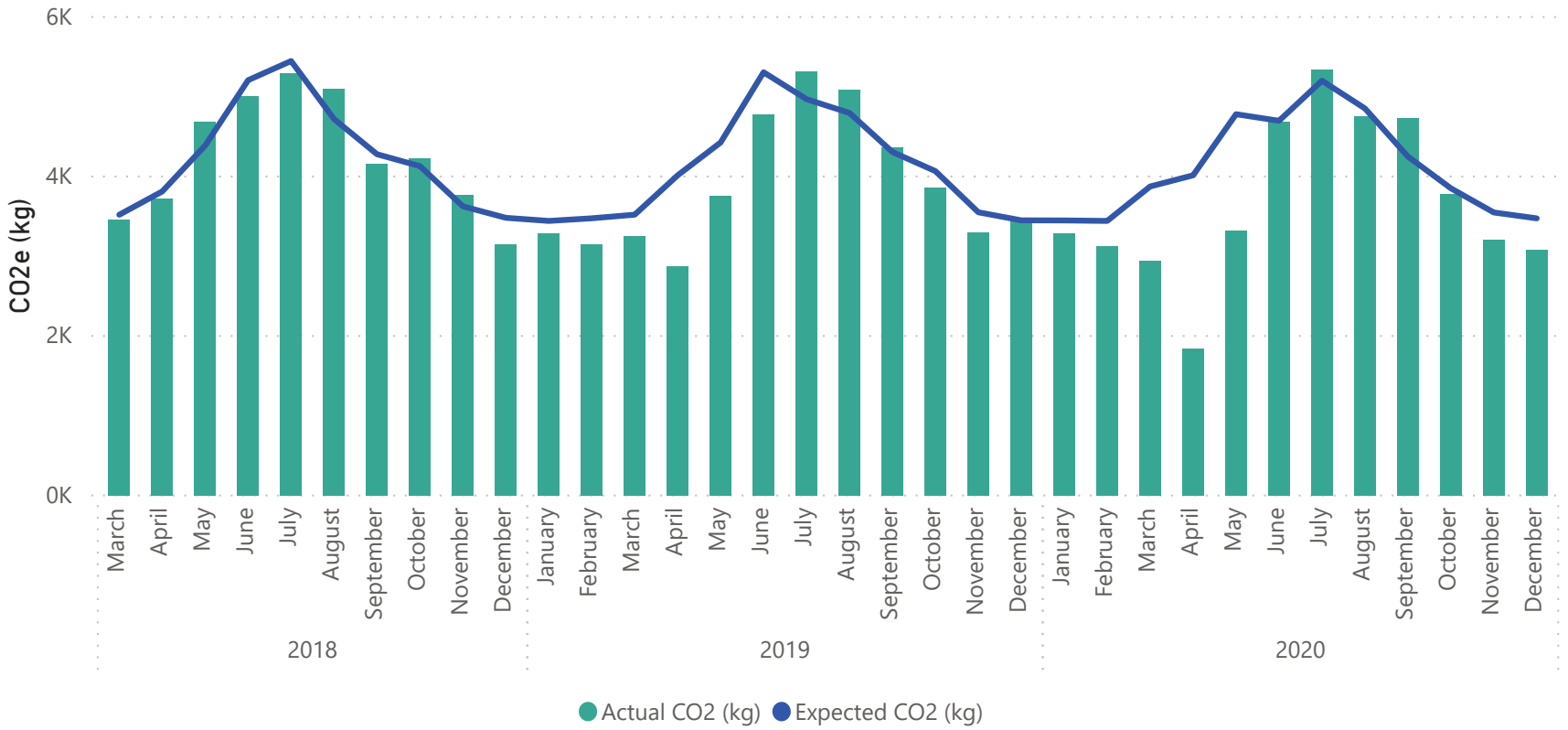
Electricity Use Compared to Baseline (kWh)



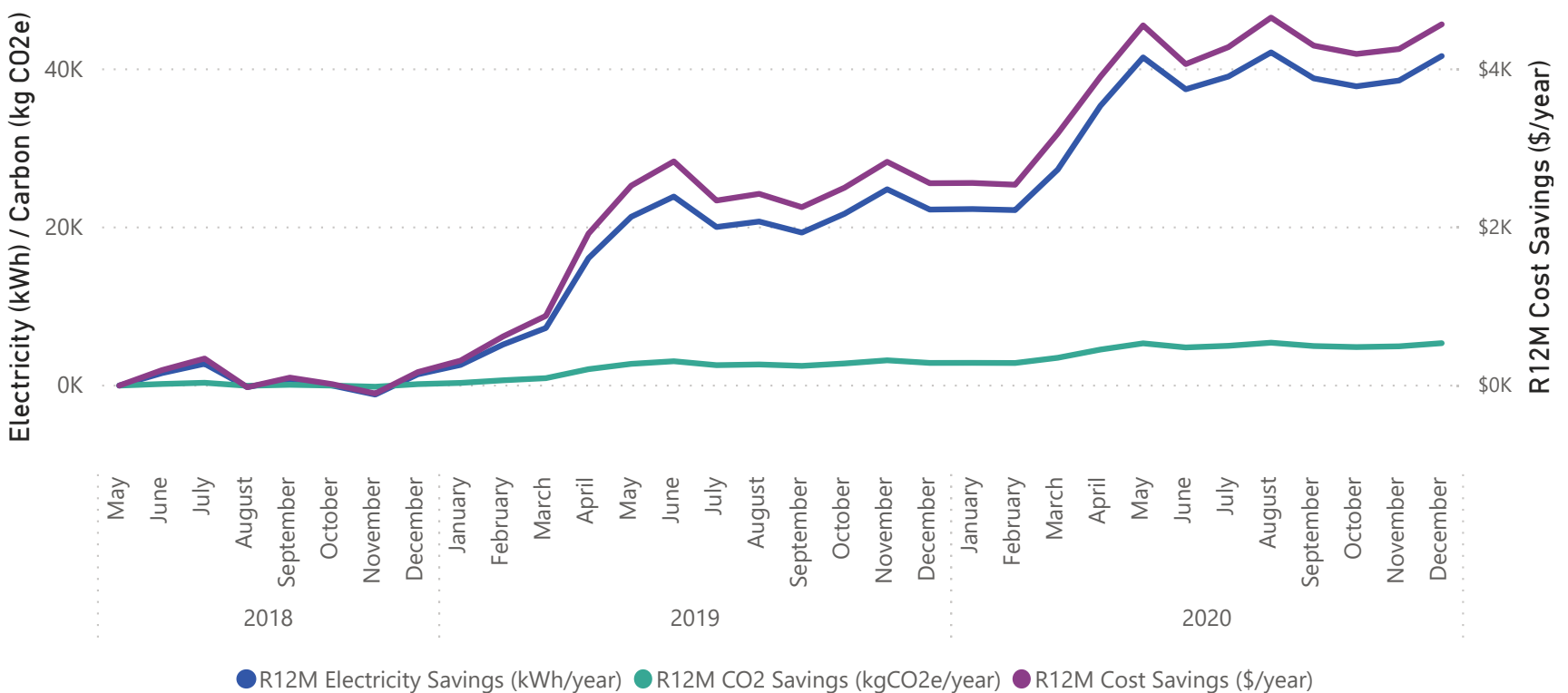
Whakatane District Council

Civic Centre

Carbon Emissions Compared to Baseline (kg CO2e)



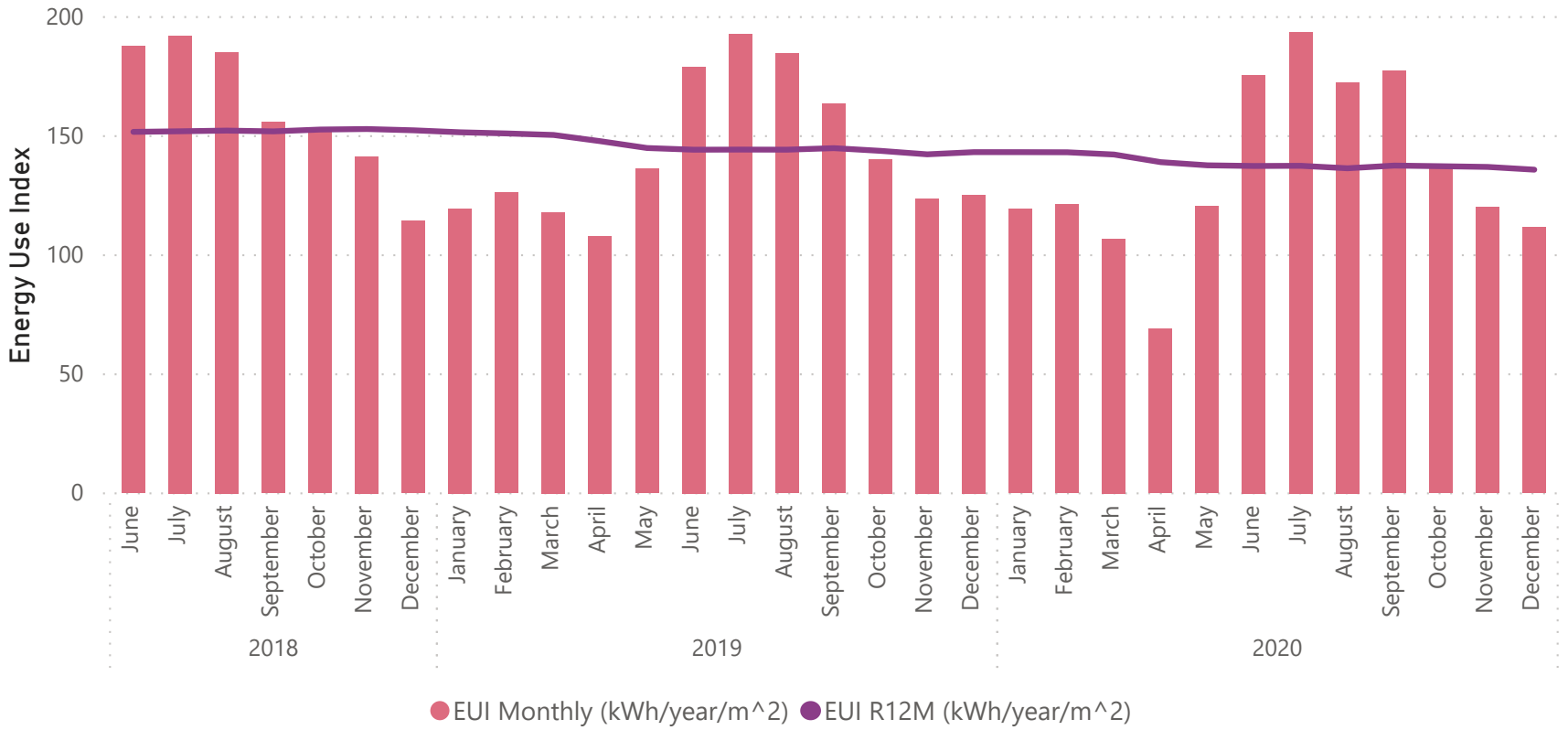
Cumulative Rolling 12 Month Savings



Whakatane District Council

Civic Centre

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



Whakatane District Council

Aquatic Centre

<p>-\$2,305</p> <p>Monthly Energy Cost Savings</p>	<p>-26,683 -31.39% -156.26K</p> <p>Elec. Savings (kWh/mo) Elec. Savings (%) R12M Electricity Savings (kWh/yr)</p>			<p>-14K</p> <p>CO2e Savings (kg/mo)</p>
<p>\$26.1K</p> <p>R12M Energy Cost Savings</p>	<p>-1,499 -79.26% 597.47K</p> <p>Gas. Savings (kWh/mo) Gas. Savings (%) R12M Gas Savings (kWh/yr)</p>			<p>68.37K</p> <p>R12M CO2e Savings (kg/yr)</p>

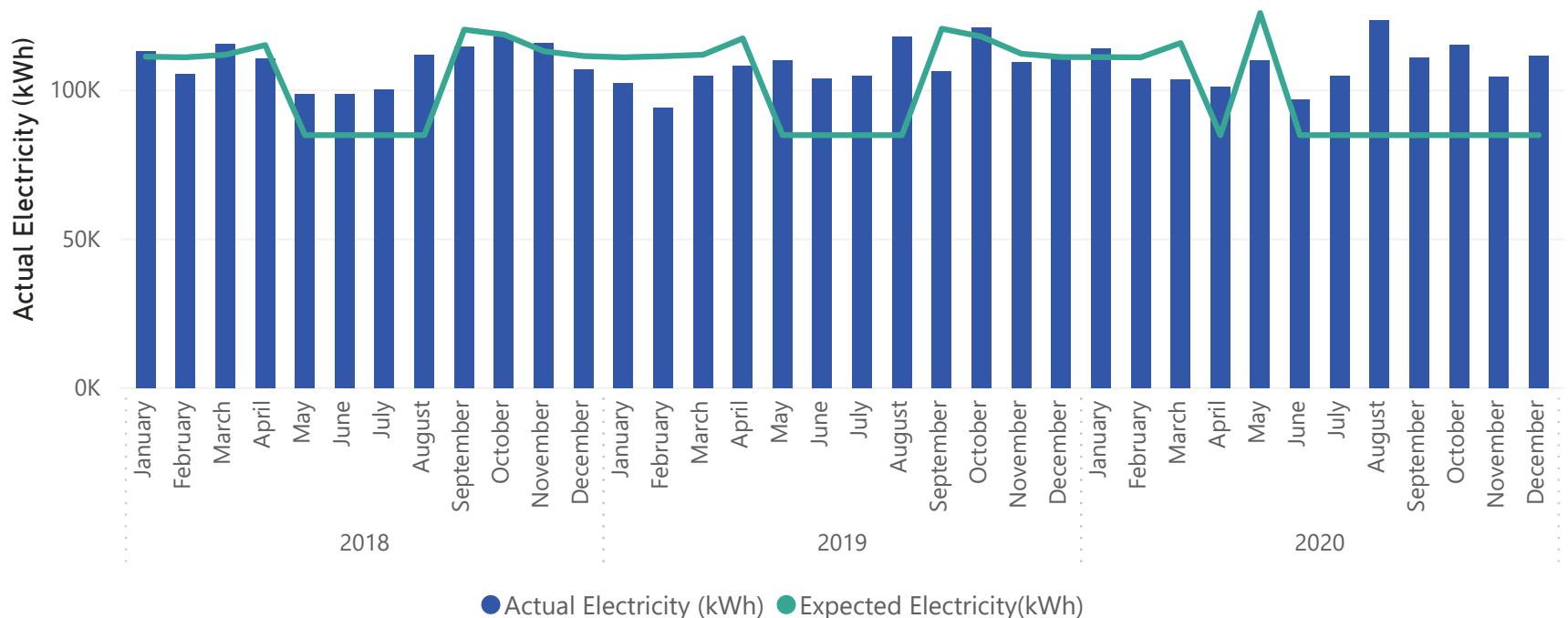
Comments:

For the month of December the outdoor pool was not in use and a baseline was used which excludes outdoor pool use. Historically, the outdoor pool has been open during December, however, it has been closed due to upgrades. The outdoor pool is scheduled to re-open on 5 Jan.

Electricity use was similar to months when the outdoor pool is in use and almost identical usage compared to December 2019. Heating requirements should be lower with less pool water to heat. There may also be some contractor electricity during the upgrades.

Natural gas use was below baseline this month, which can be attributed to the outdoor pool being closed. Gas use represents the boilers idling, without necessarily doing any heating. The cost of idling the boilers is approximately \$600/month.

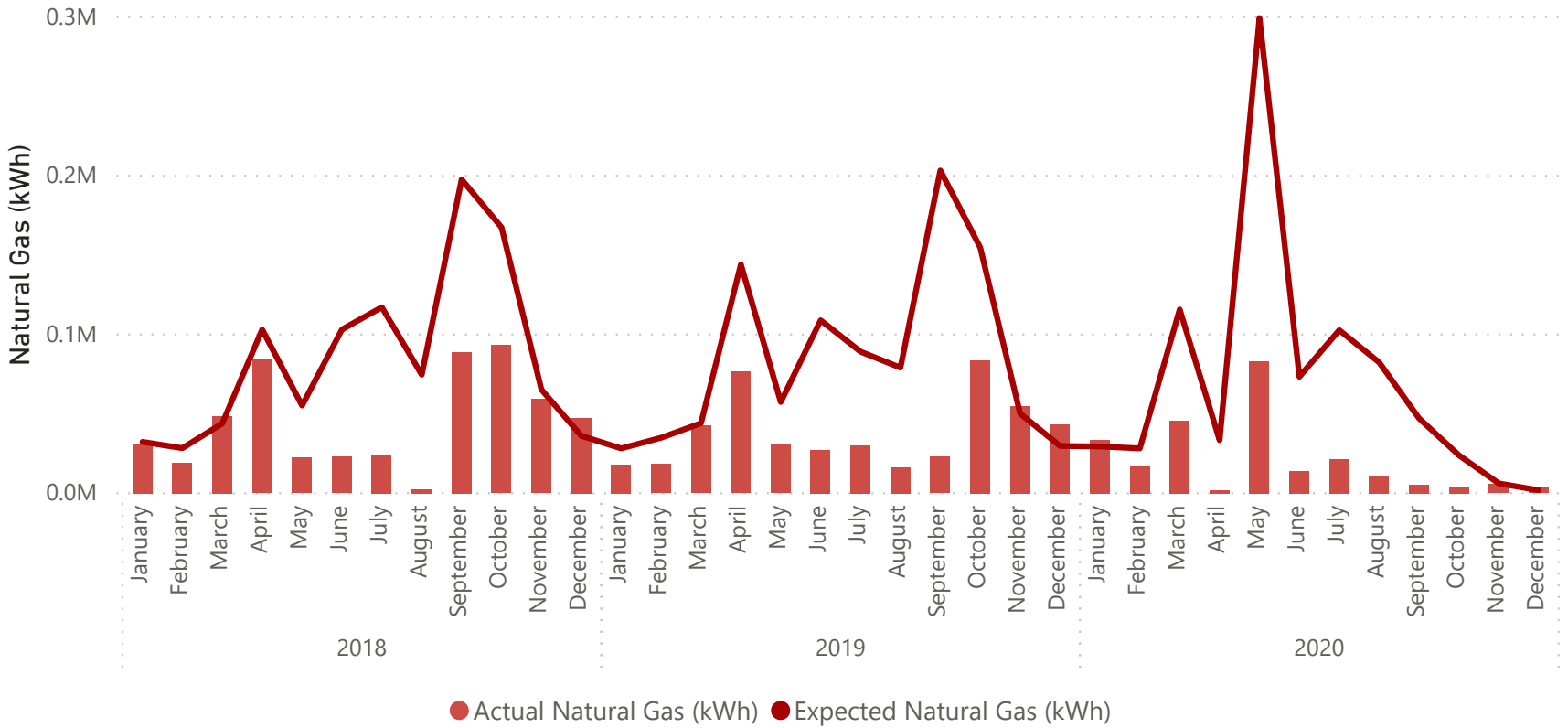
Electricity Use Compared to Baseline (kWh)



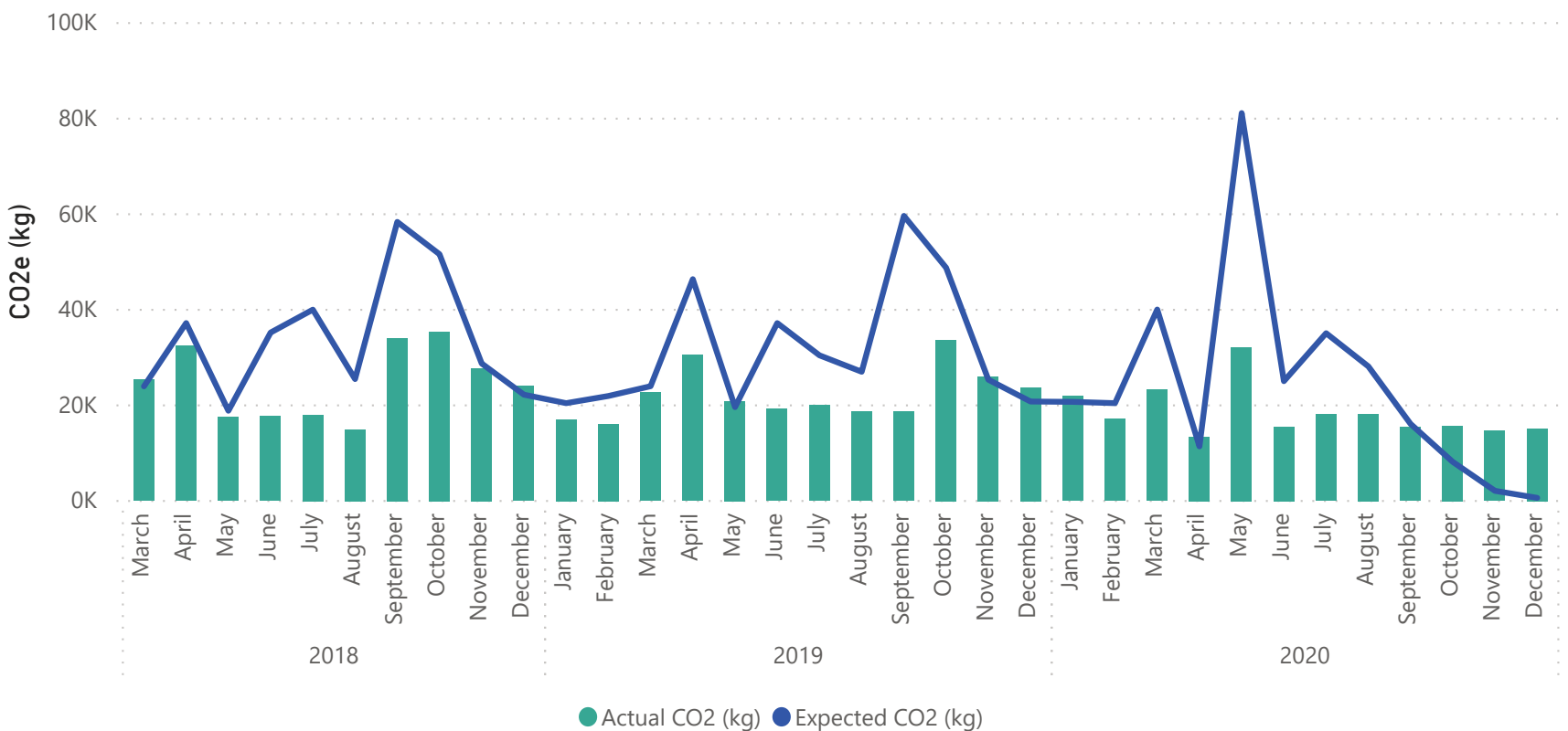
Whakatane District Council

Aquatic Centre

Natural Gas Compared to Baseline (kWh)



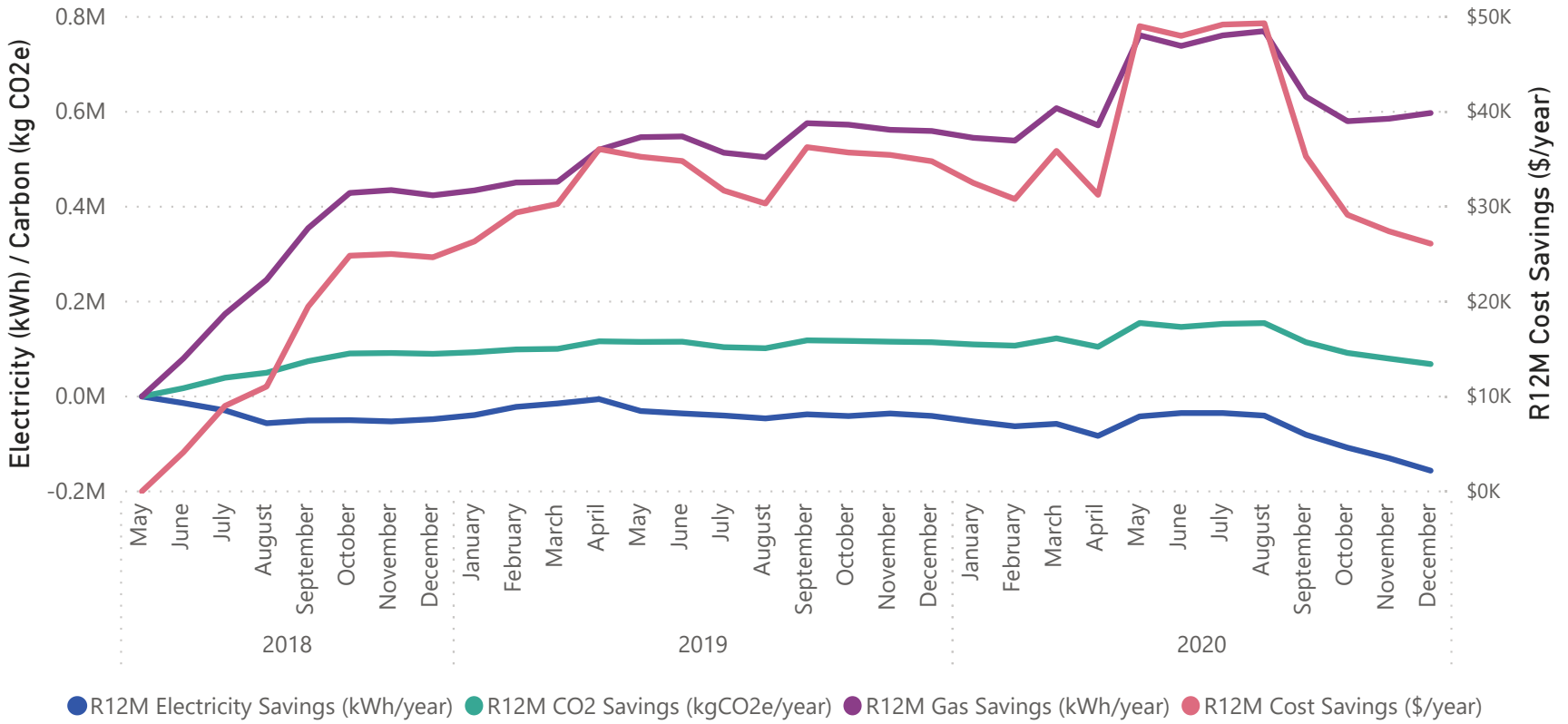
Carbon Emissions Compared to Baseline (kg CO2e)



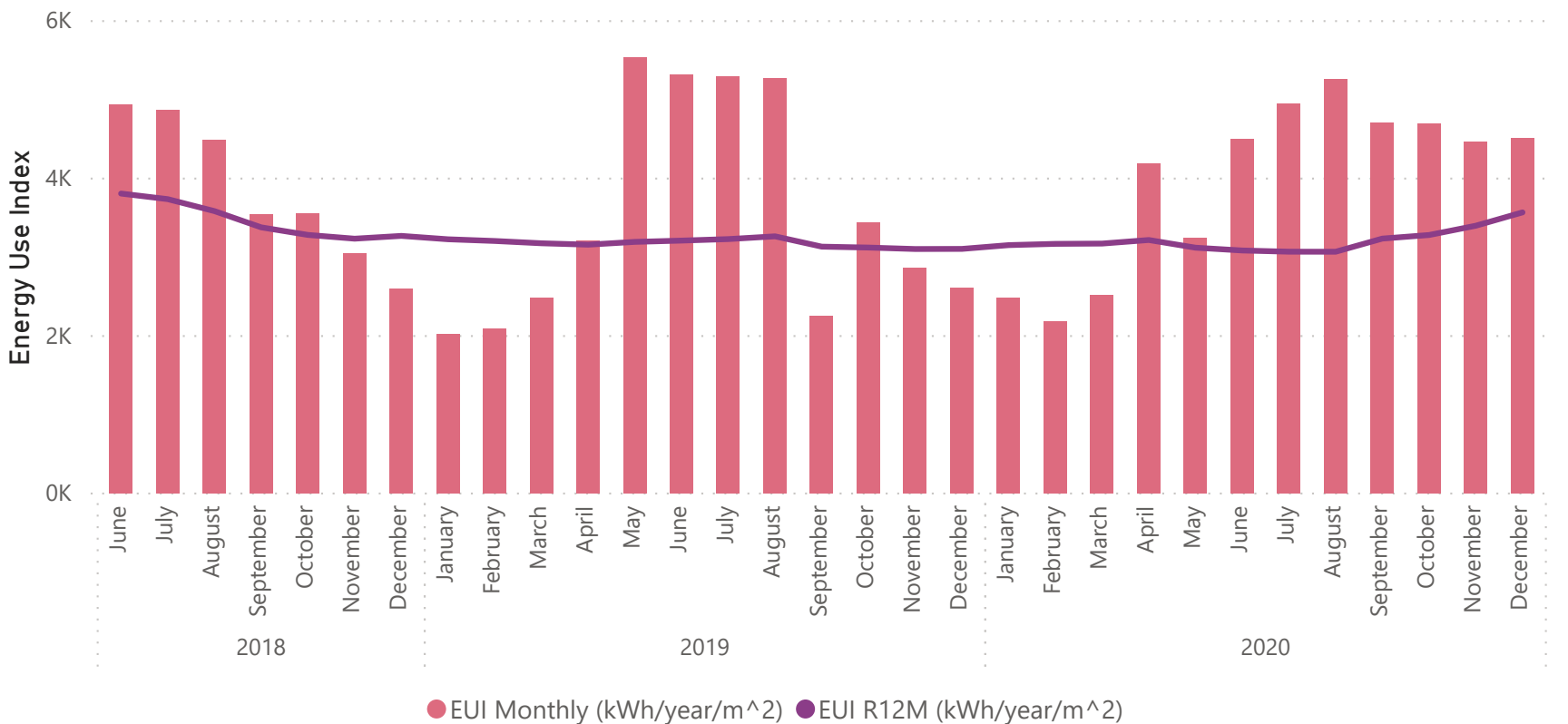
Whakatane District Council

Aquatic Centre

Cumulative Rolling 12 Month Savings



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



Whakatane District Council

Te Koputu Library

<p>\$657</p> <p>Monthly Energy Cost Savings</p>	<p>3,122</p> <p>Elec. Savings (kWh/mo)</p>	<p>21.10%</p> <p>Elec. Savings (%)</p>	<p>36.69K</p> <p>R12M Electricity Savings (kWh/yr)</p>	<p>1K</p> <p>CO2e Savings (kg/mo)</p>
<p>\$4.3K</p> <p>R12M Energy Cost Savings</p>	<p>4,795</p> <p>Gas. Savings (kWh/mo)</p>	<p>71.78%</p> <p>Gas. Savings (%)</p>	<p>3.40K</p> <p>R12M Gas Savings (kWh/yr)</p>	<p>5.51K</p> <p>R12M CO2e Savings (kg/yr)</p>

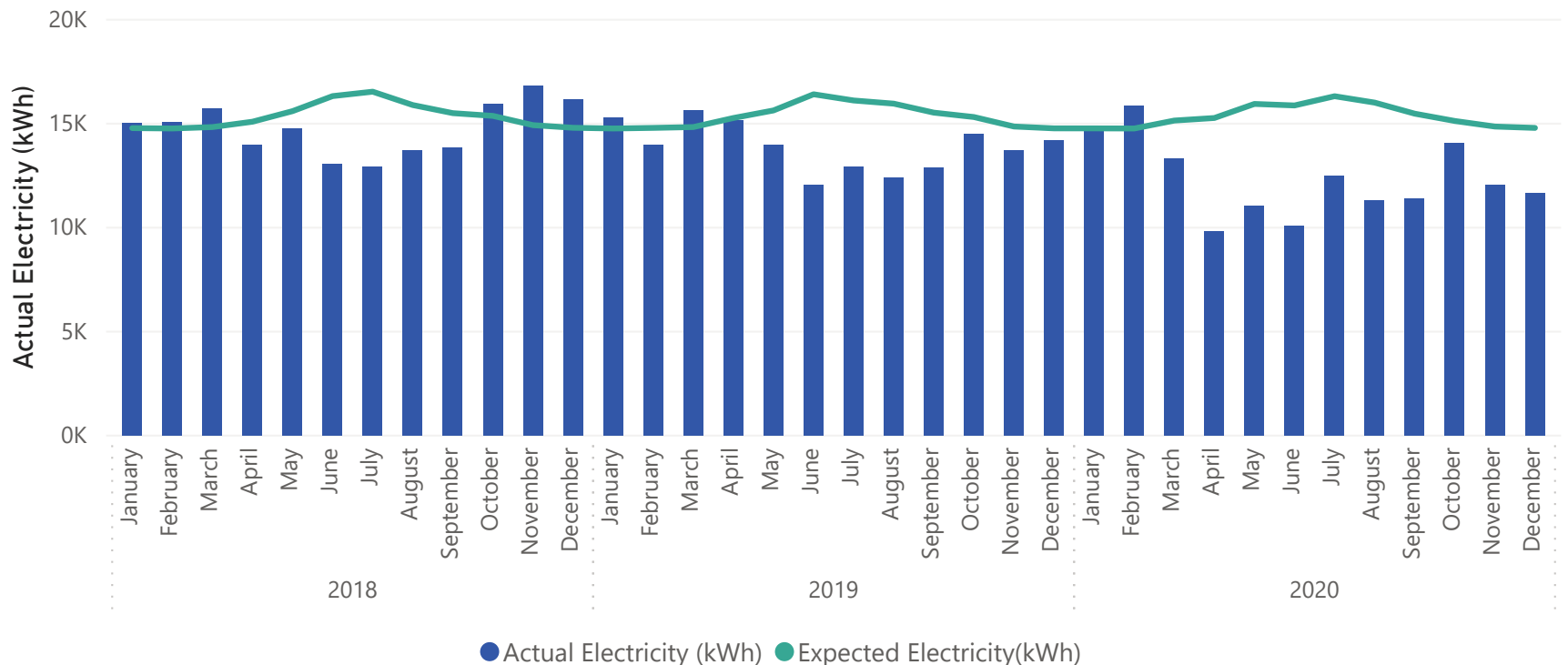
Comments:

Electricity use was significantly less than baseline in December. December 2020 electricity use was 18% lower than December 2019, which is a significant improvement as both months were about the same temperature, on average.

Natural gas use was significantly less than baseline in December and has been the lowest month on record, improving on November's performance. Compared to December last year, which was a similar temperature month, gas use is 79% less.

From November, when improvements were made to the HVAC system, natural gas use has dropped significantly compared to baseline, which has had a significant impact on monthly carbon emissions from the library. The EUI of the library has also dropped significantly in the past two months.

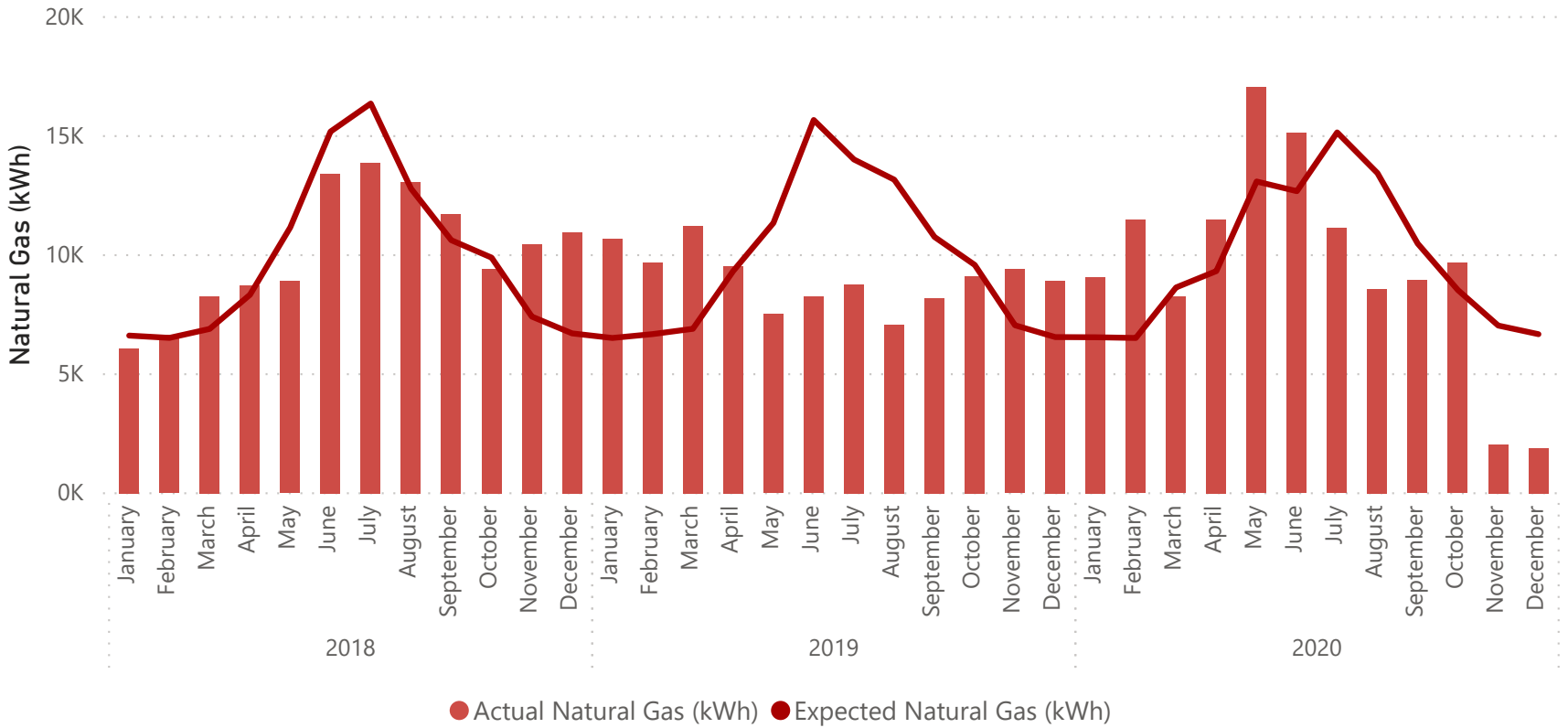
Electricity Use Compared to Baseline (kWh)



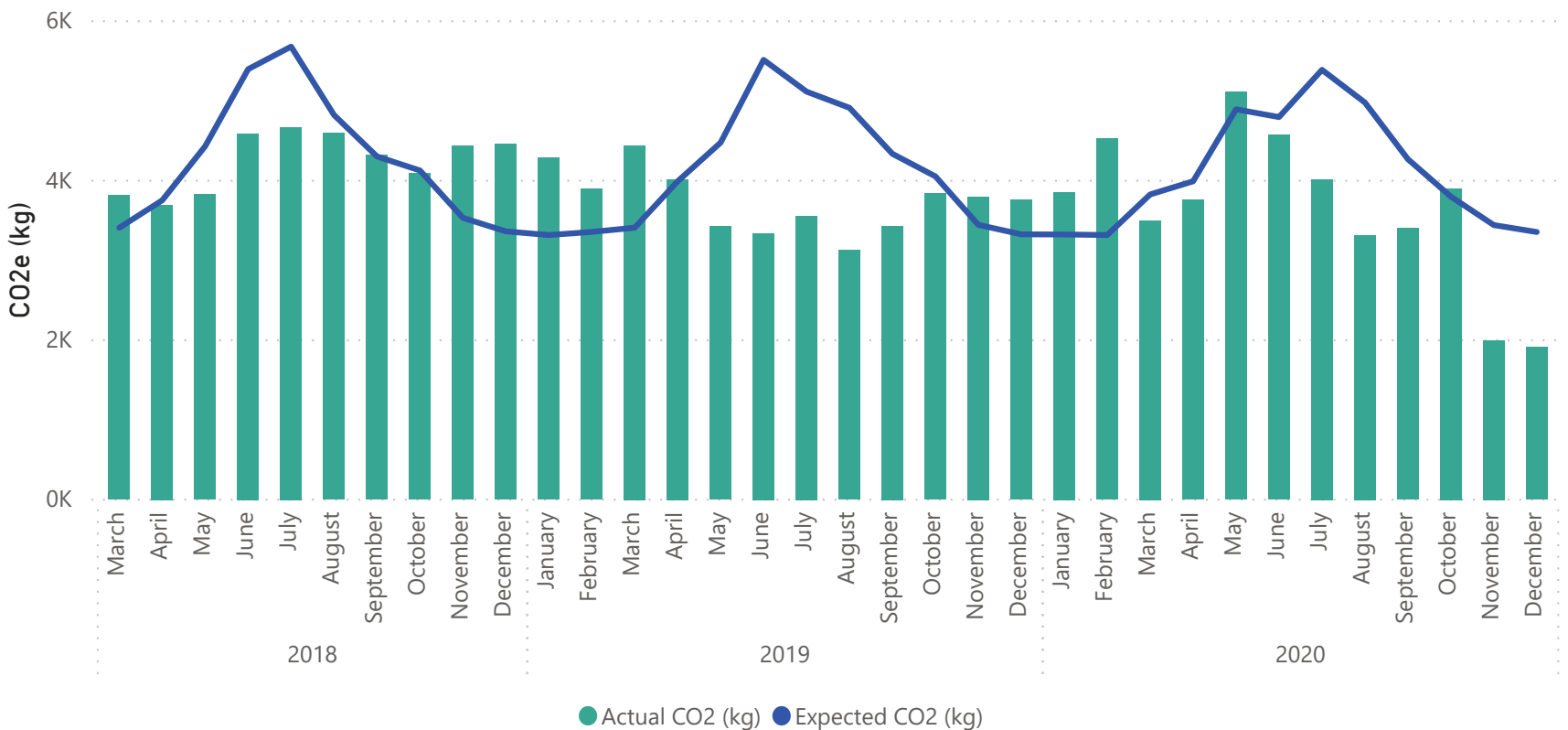
Whakatane District Council

Te Koputu Library

Natural Gas Compared to Baseline (kWh)



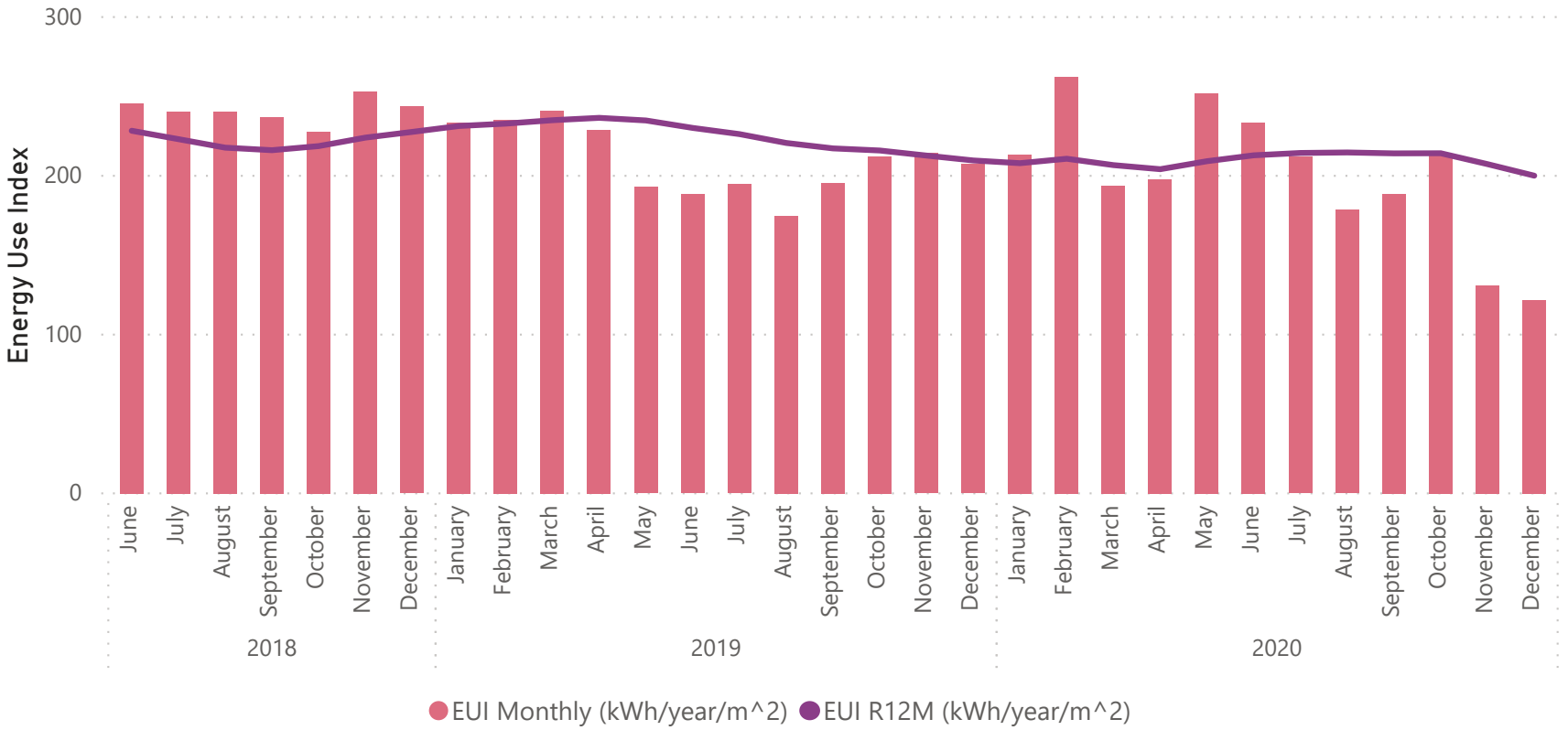
Carbon Emissions Compared to Baseline (kg CO2e)



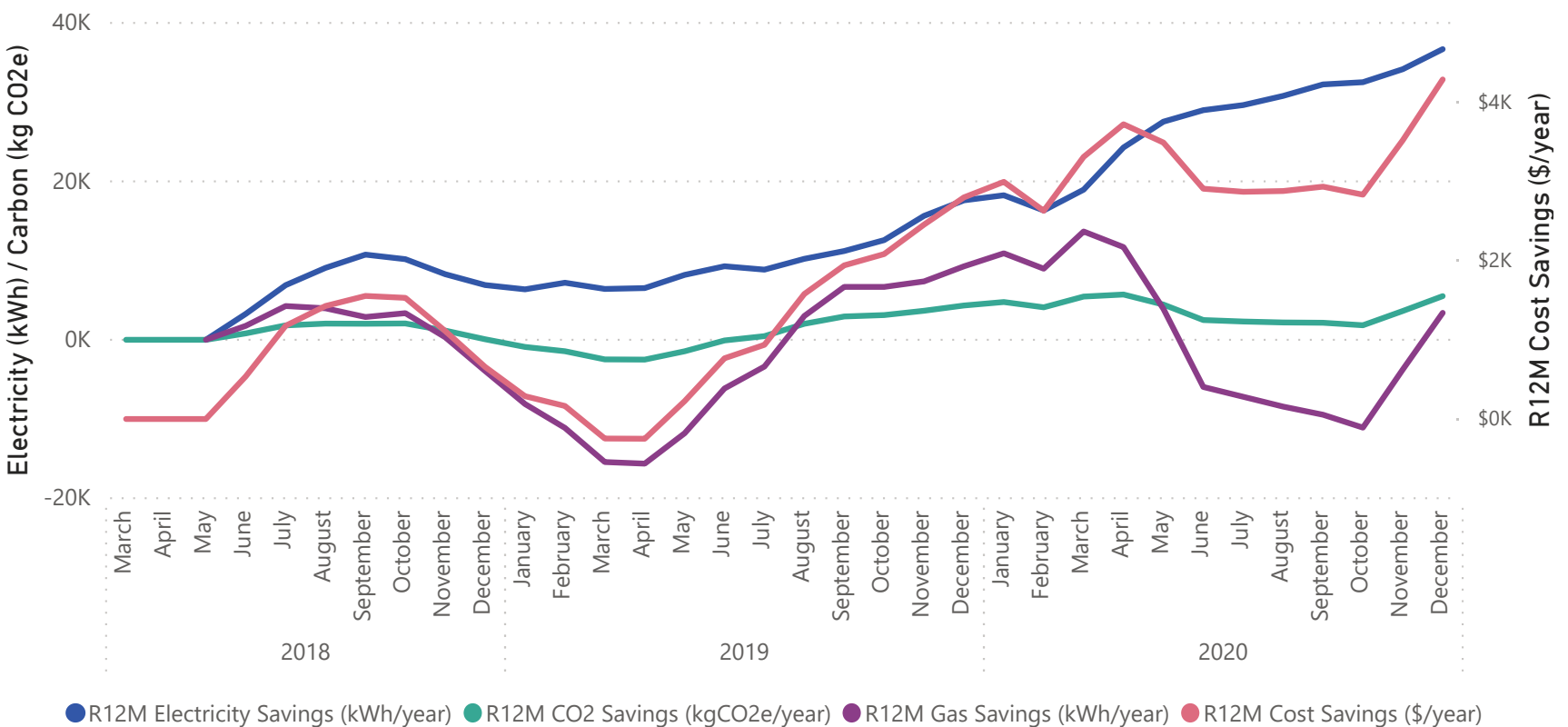
Whakatane District Council

Te Koputu Library

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



Cumulative Rolling 12 Month Savings



Whakatane District Council

Museum and Research Centre

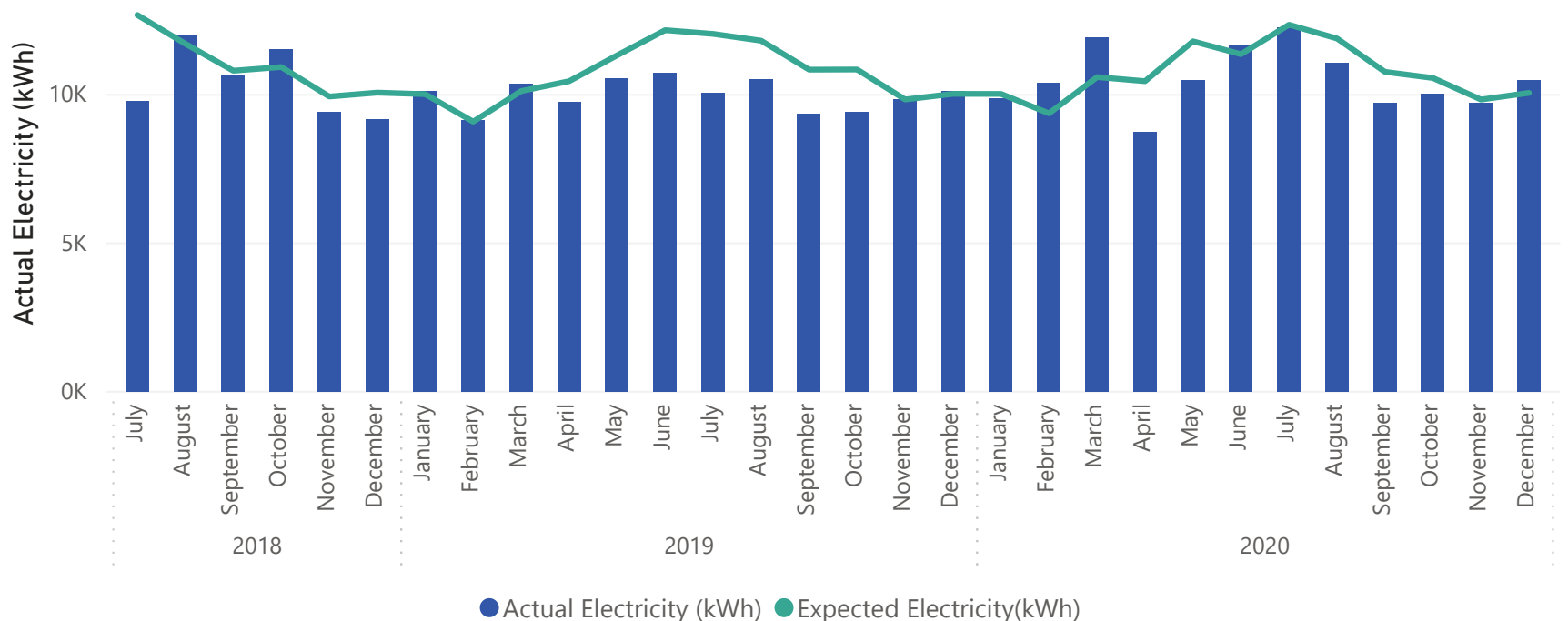
<p>-\$110 Monthly Energy Cost Savings</p>	<p>-437 Elec. Savings (kWh/mo)</p>	<p>-4.34% Elec. Savings (%)</p>	<p>2.75K R12M Electricity Savings (kWh/yr)</p>	<p>-256 CO2e Savings (kg/mo)</p>
<p>\$106.7 R12M Energy Cost Savings</p>	<p>-920 Gas. Savings (kWh/mo)</p>	<p>-15.25% Gas. Savings (%)</p>	<p>-3.54K R12M Gas Savings (kWh/yr)</p>	<p>-413.50 R12M CO2e Savings (kg/yr)</p>

Comments:

Electricity use at the Museum and Research Centre is above baseline for December 2020. Compared to 2019, electricity use has increased by 4%. Both months were approximately the same temperature on average.

The Museum and Research Centre also used 4.6 times more natural gas in December 2020, compared to December 2019. This seems to be the result of the meter not being read for several months from Aug 2019 to Apr 2020.

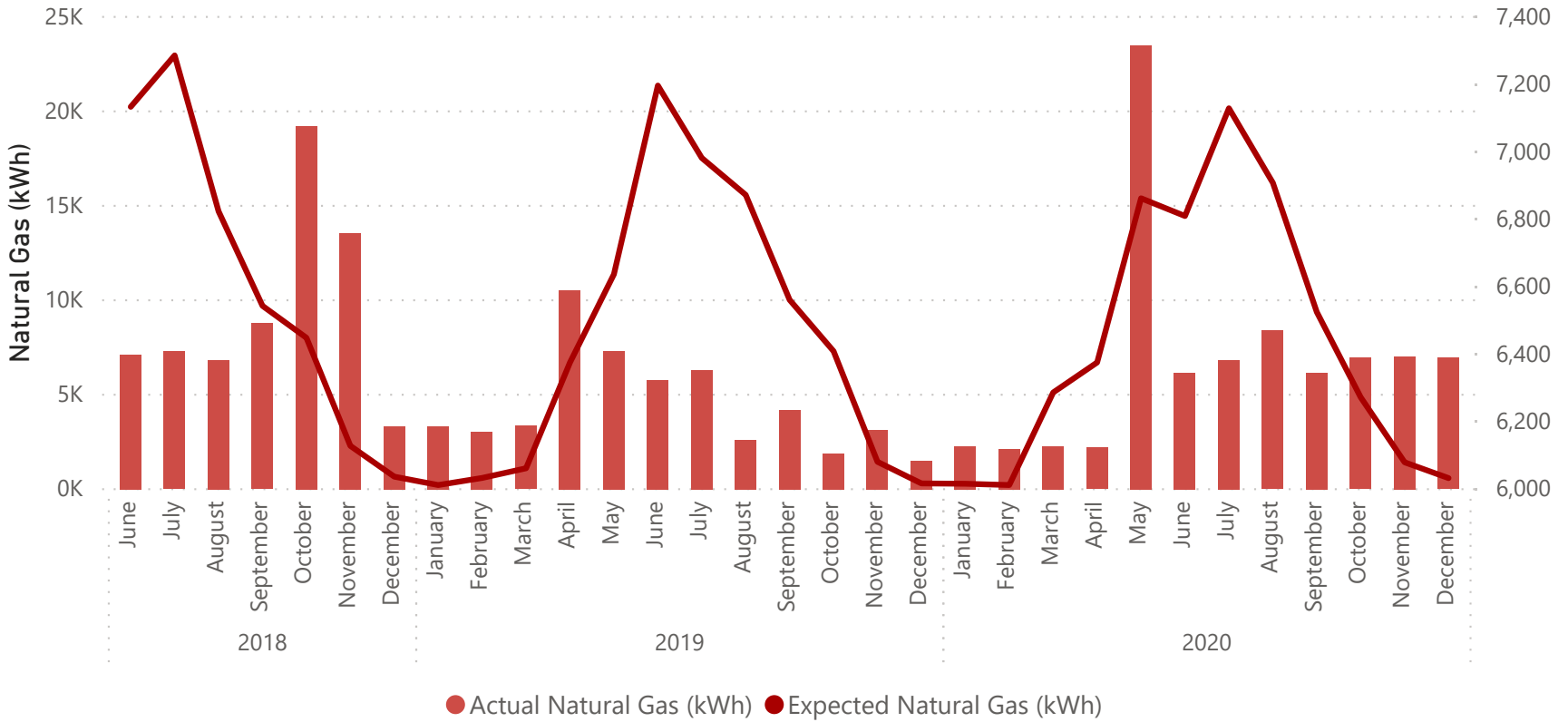
Electricity Use Compared to Baseline (kWh)



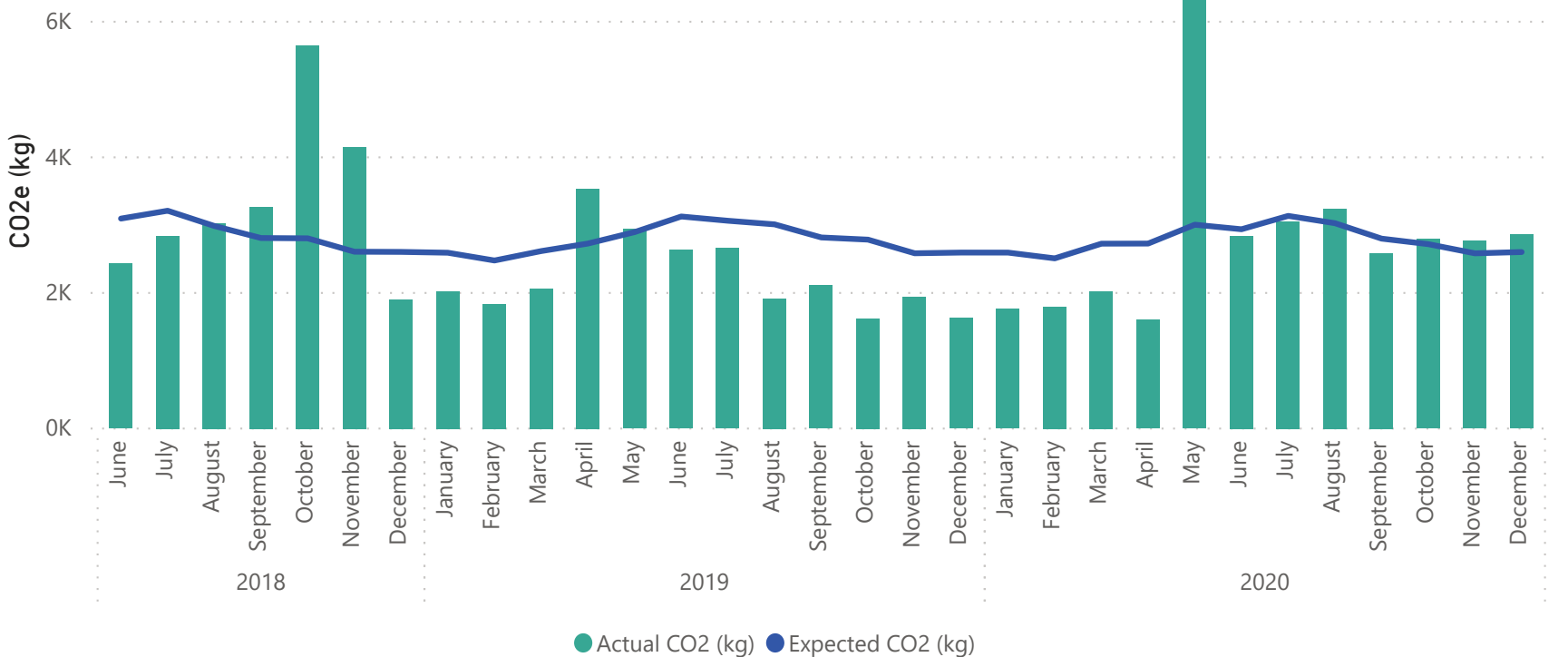
Whakatane District Council

Museum and Research Centre

Natural Gas Compared to Baseline (kWh)

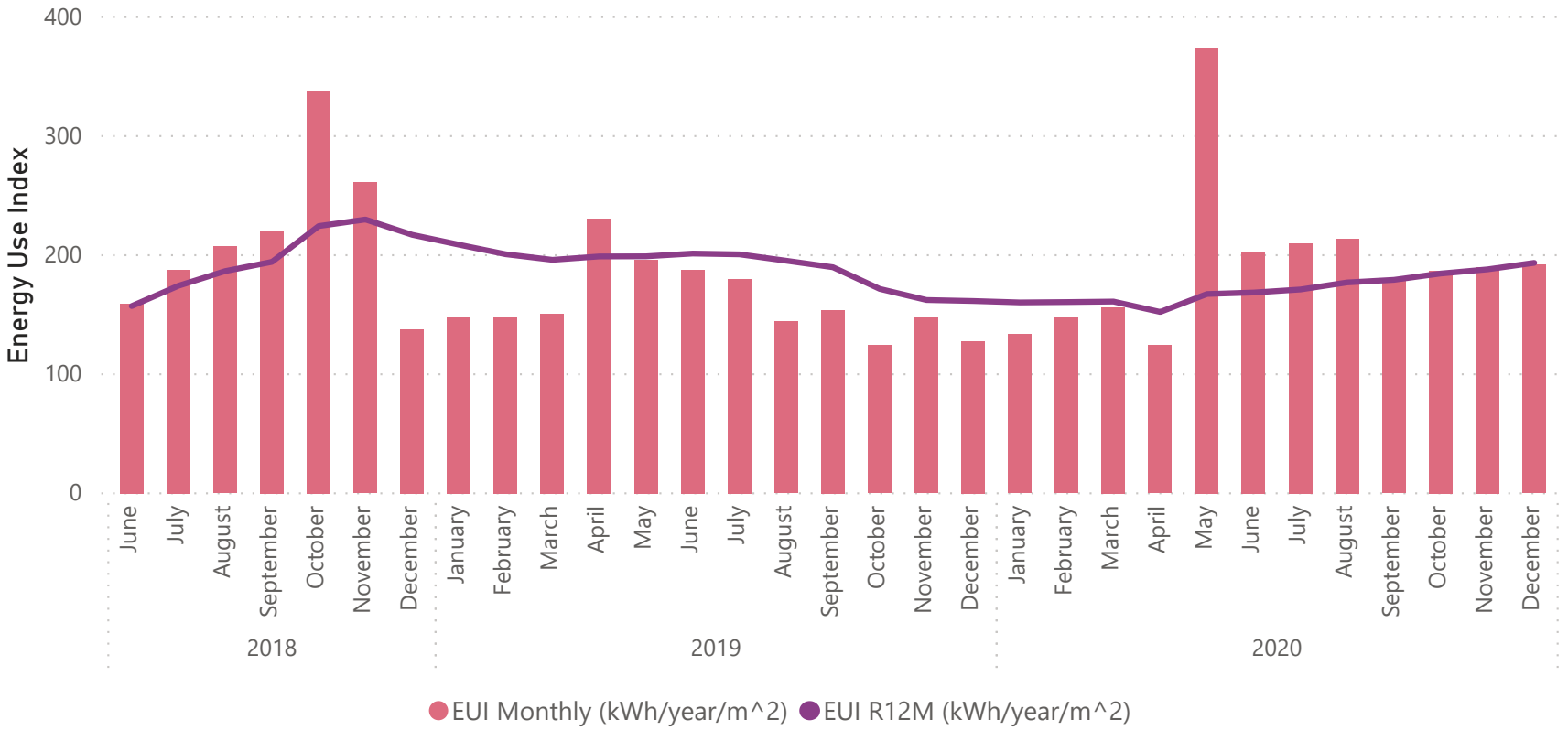


Carbon Emissions Compared to Baseline (kg CO2e)

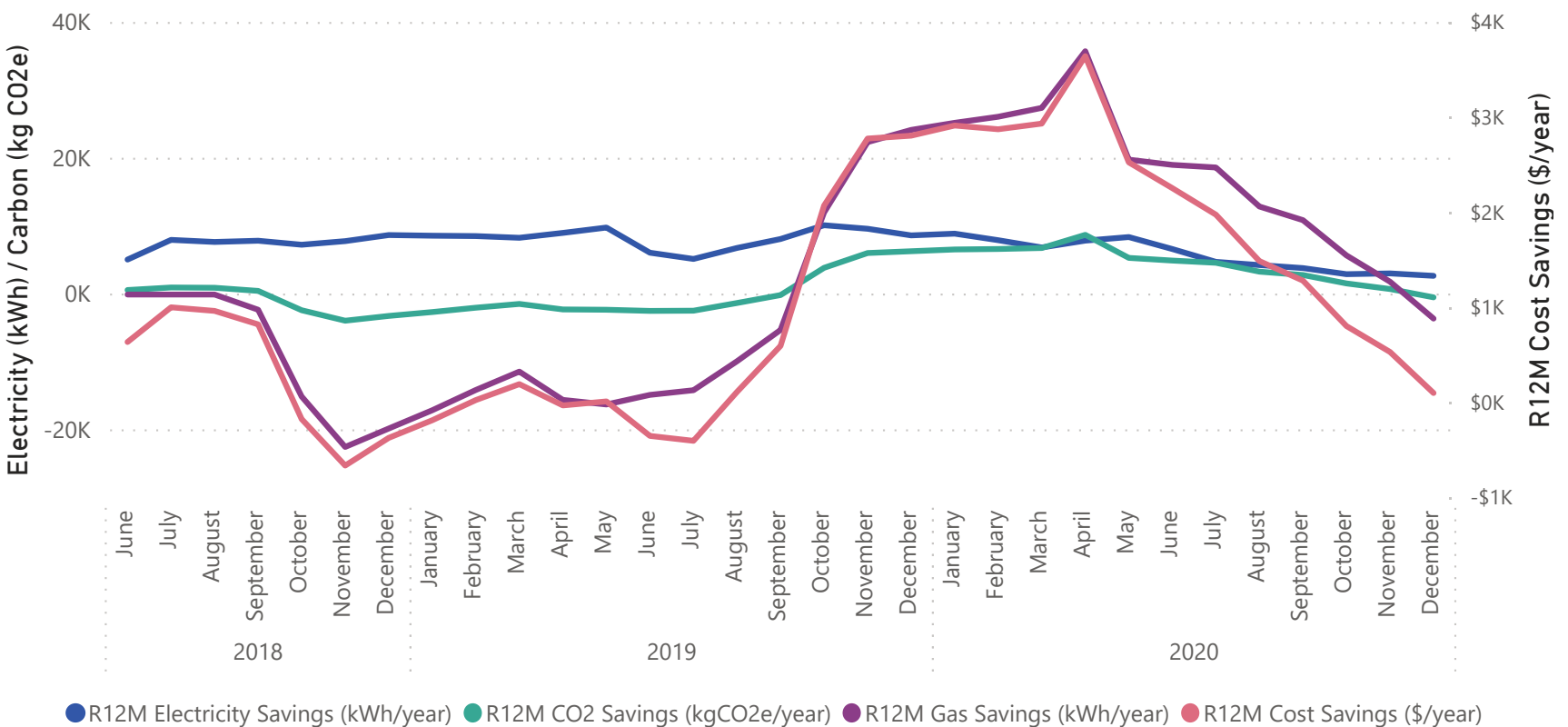


Whakatane District Council Museum and Research Centre

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



Cumulative Rolling 12 Month Savings



Whakatane District Council

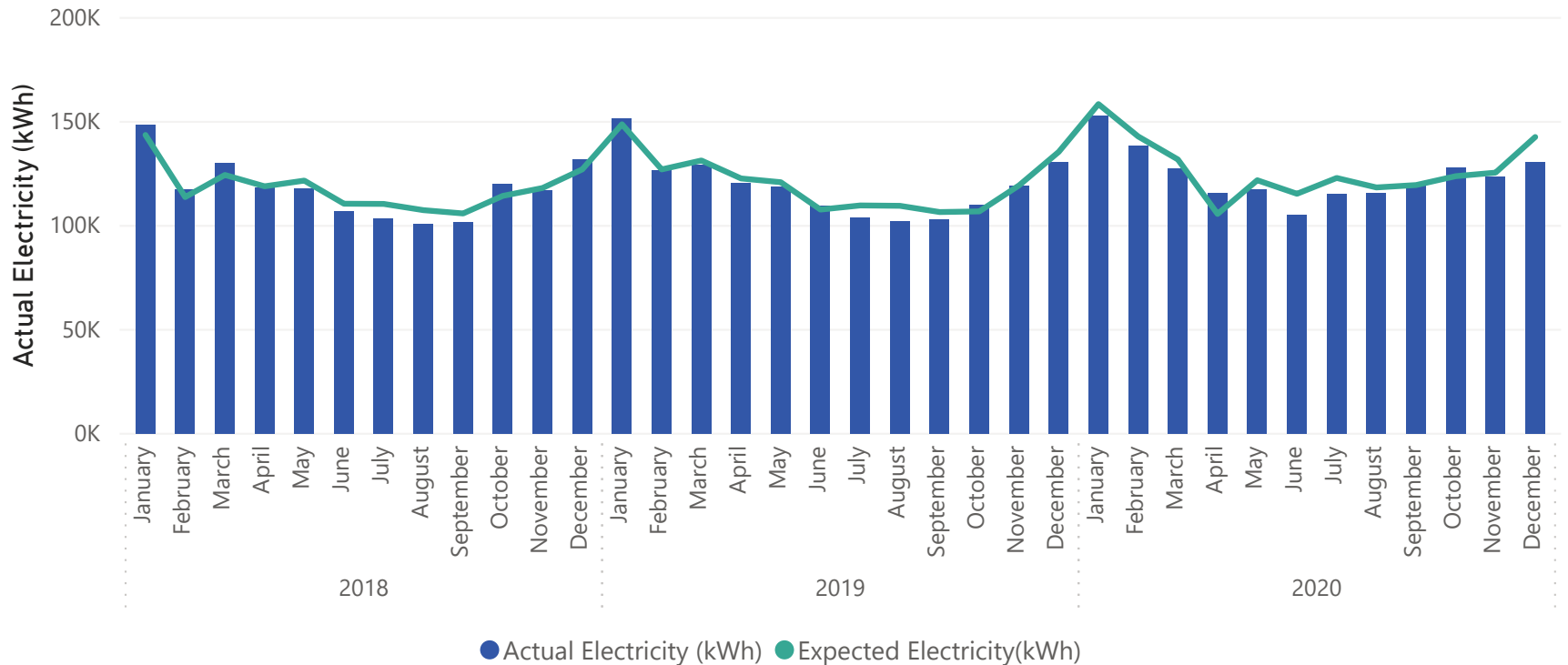
Water Treatment Plant

\$1,220 Monthly Energy Cost Savings	12,123 Elec. Savings (kWh/mo)	8.49% Elec. Savings (%)	39.97K R12M Electricity Savings (kWh/yr)	2K CO2e Savings (kg/mo)
\$4.5K R12M Energy Cost Savings				5.14K R12M CO2e Savings (kg/yr)

Comments:

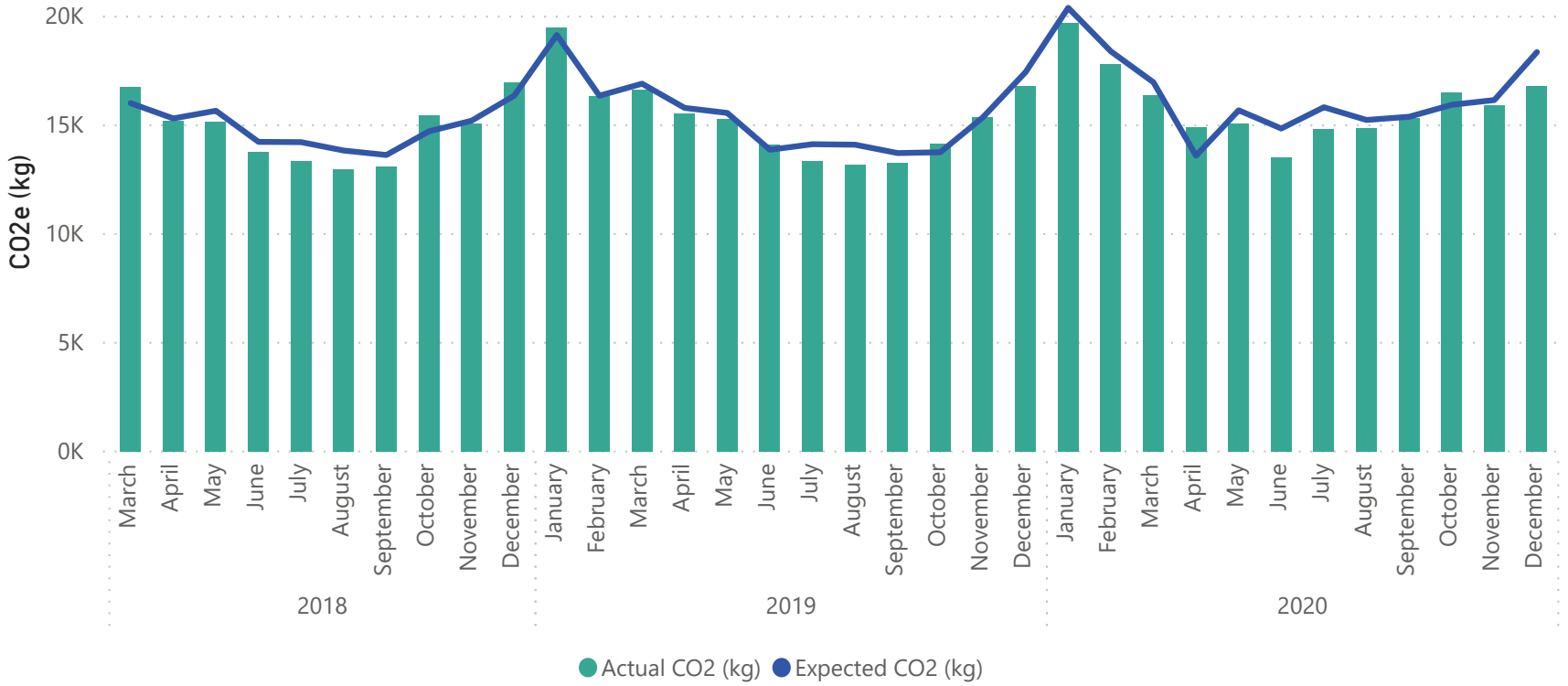
Demand for water has increased in December. Previously demand had been relatively steady. The use pattern is consistent with historic trends in which electricity use generally increases in December. For December 2020, electricity use is approximately equal to December 2019; however, a larger savings has been achieved in 2020.

Electricity Use Compared to Baseline (kWh)

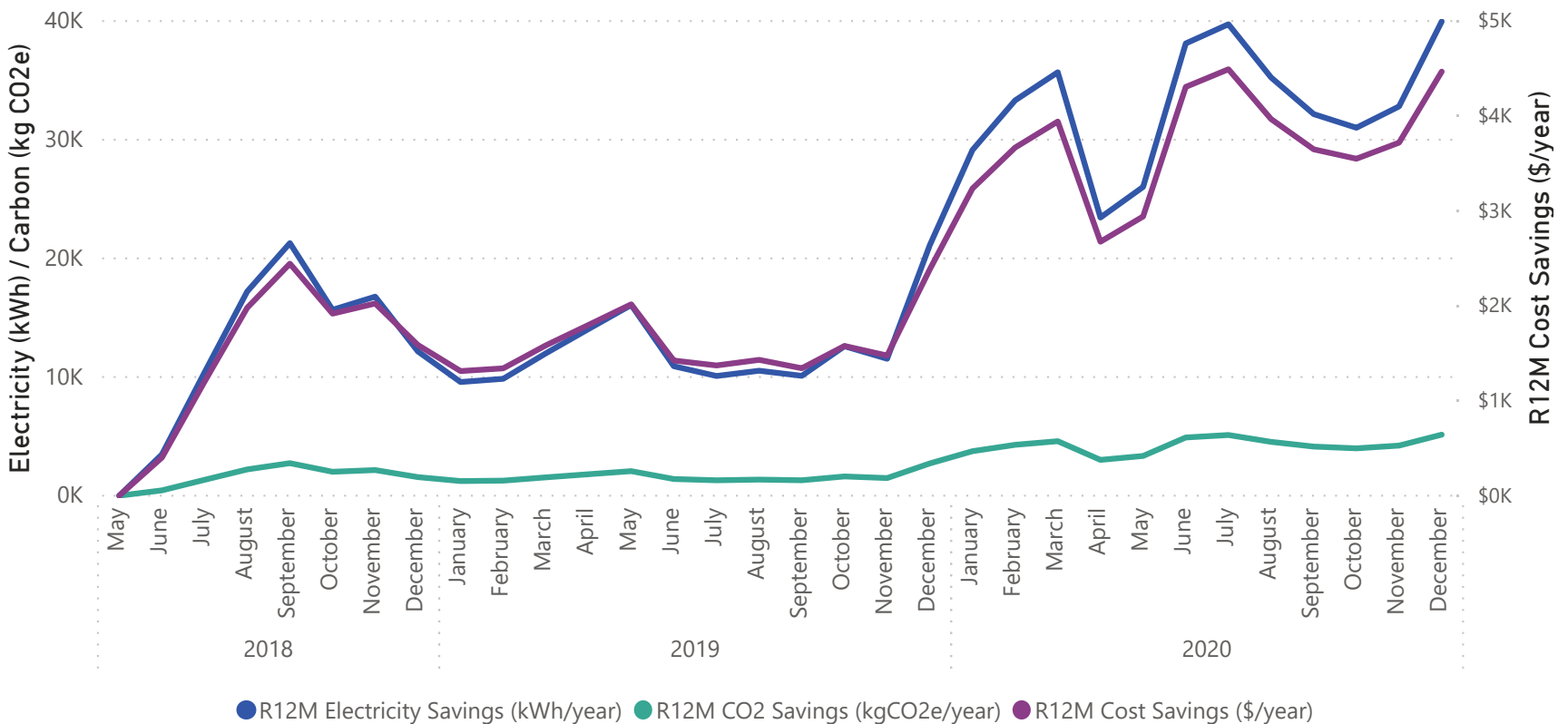


Whakatane District Council Water Treatment Plant

Carbon Emissions Compared to Baseline (kg CO2e)



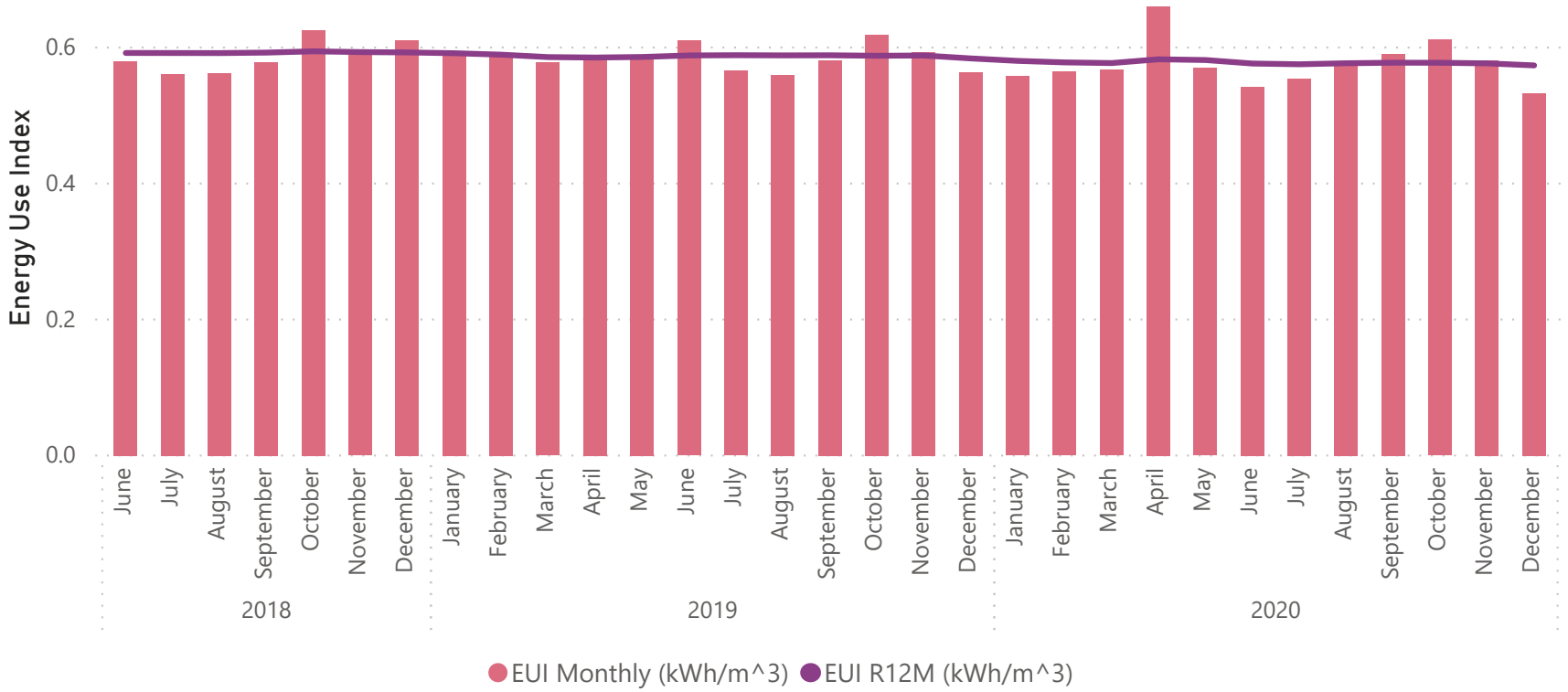
Cumulative Rolling 12 Month Savings



Whakatane District Council

Water Treatment Plant

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



Whakatane District Council

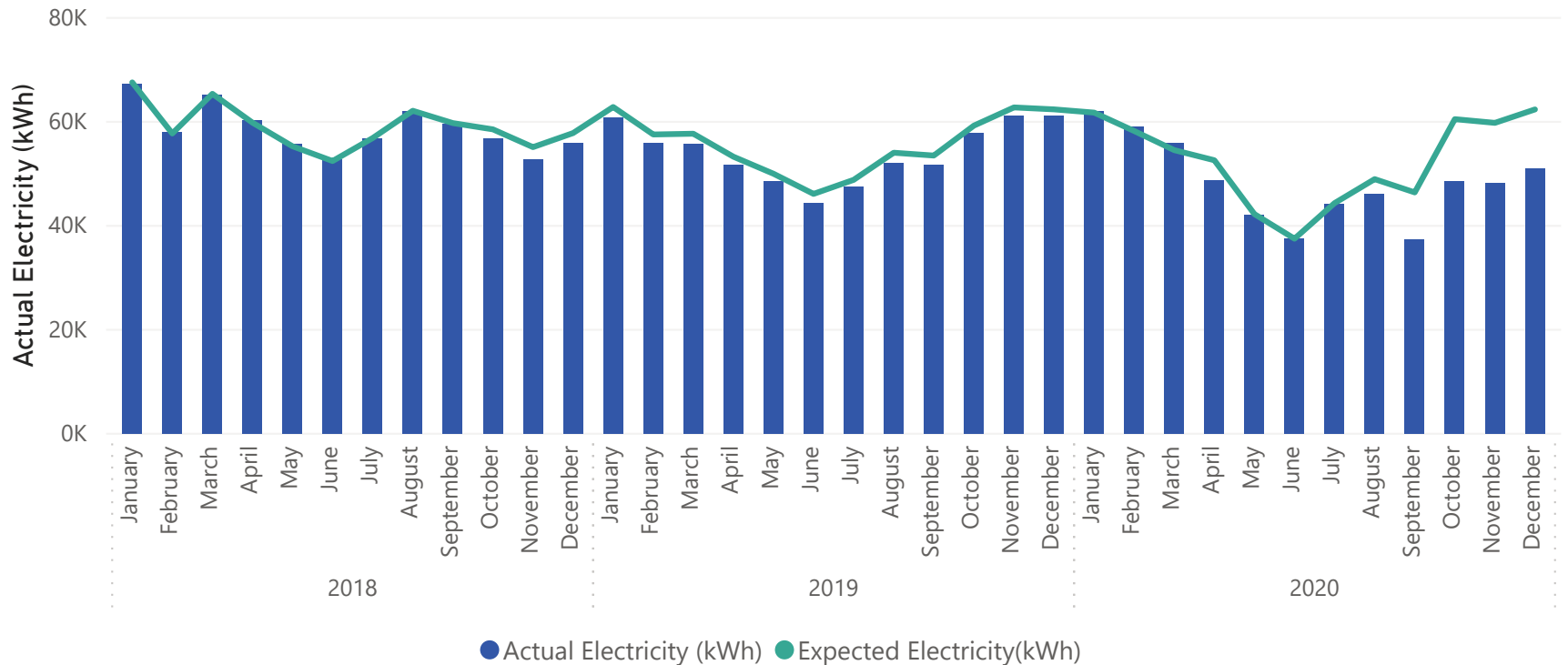
Braemar Road Pump Station

\$1,134 Monthly Energy Cost Savings	11,454 Elec. Savings (kWh/mo)	18.36% Elec. Savings (%)	48.95K R12M Electricity Savings (kWh/yr)	1K CO2e Savings (kg/mo)
\$4.9K R12M Energy Cost Savings				7.11K R12M CO2e Savings (kg/yr)

Comments:

Compared to baseline, Braemar Rd. has saved approximately 18% in electricity use. This is the fourth month in a row that savings in the 20% range have been achieved. This is due to new, more efficient pumps installed late in August, which have proven to produce consistent savings since.

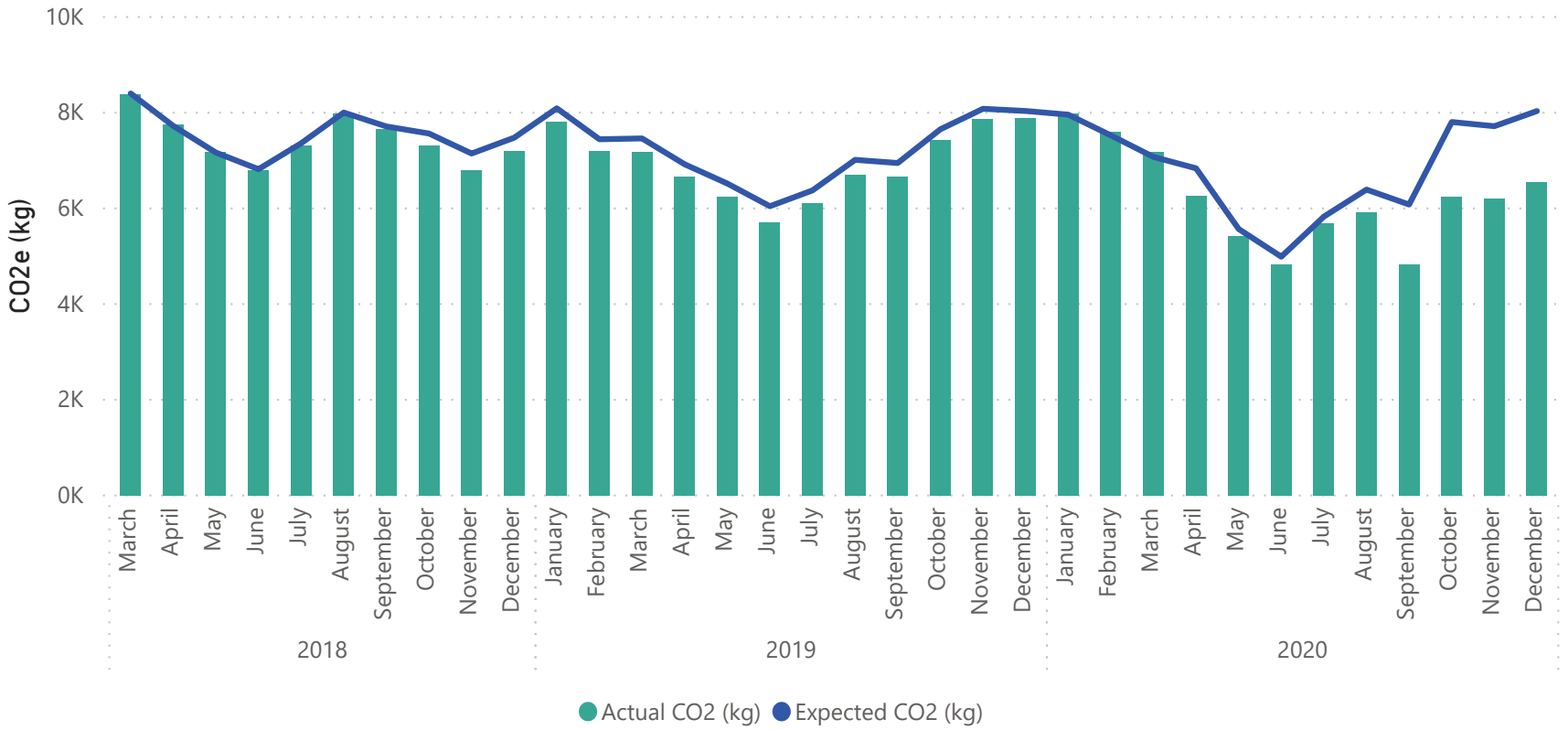
Electricity Use Compared to Baseline (kWh)



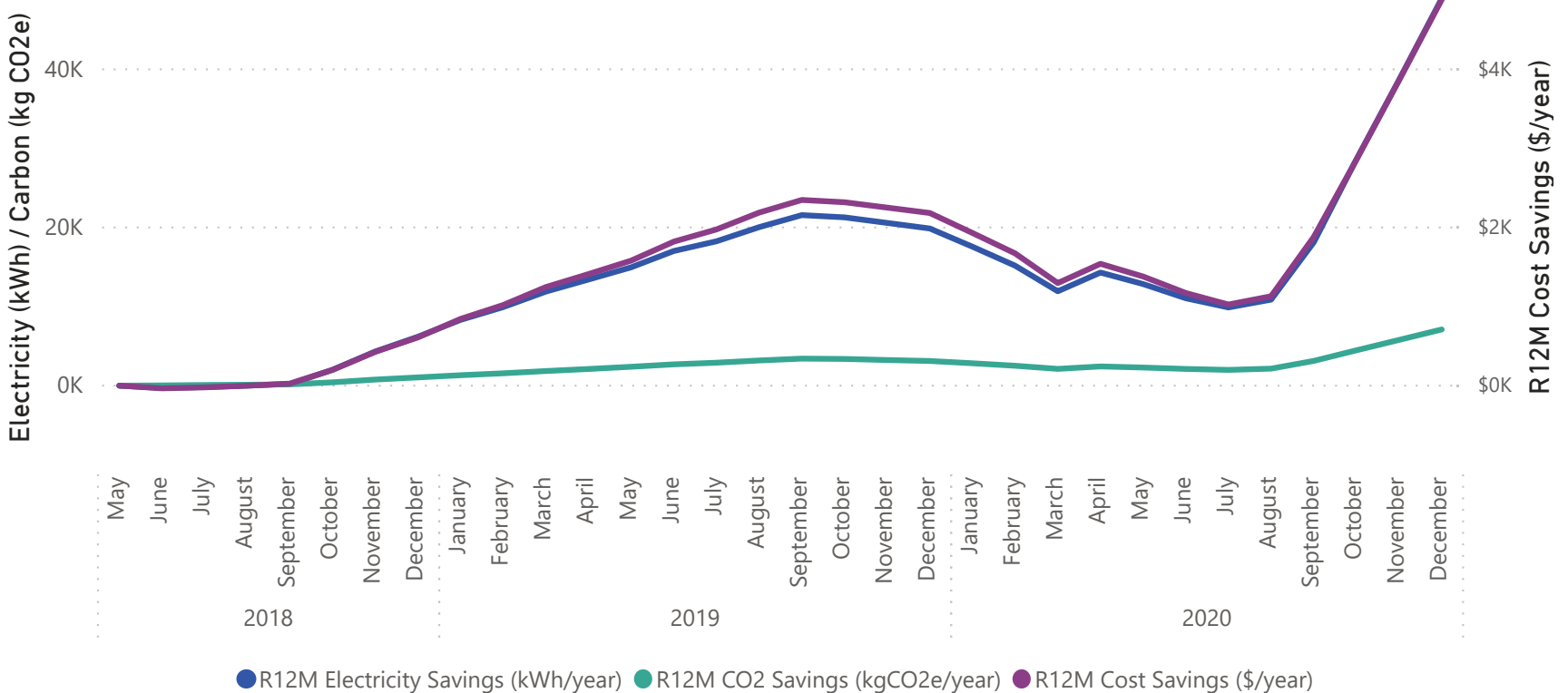
Whakatane District Council

Braemar Road Pump Station

Carbon Emissions Compared to Baseline (kg CO2e)



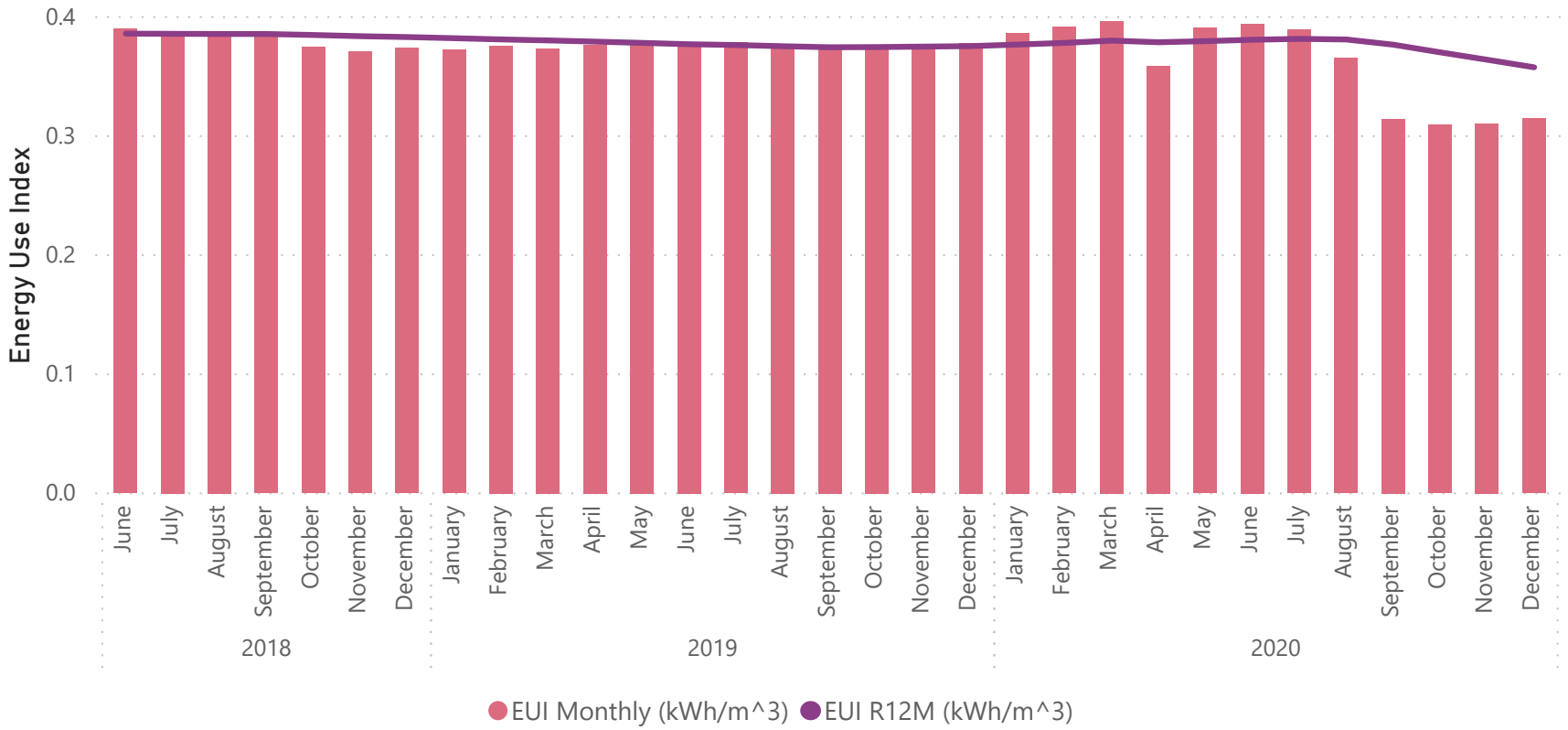
Cumulative Rolling 12 Month Savings



Whakatane District Council

Braemar Road Pump Station

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



Whakatane District Council

Paul Road Pump Station

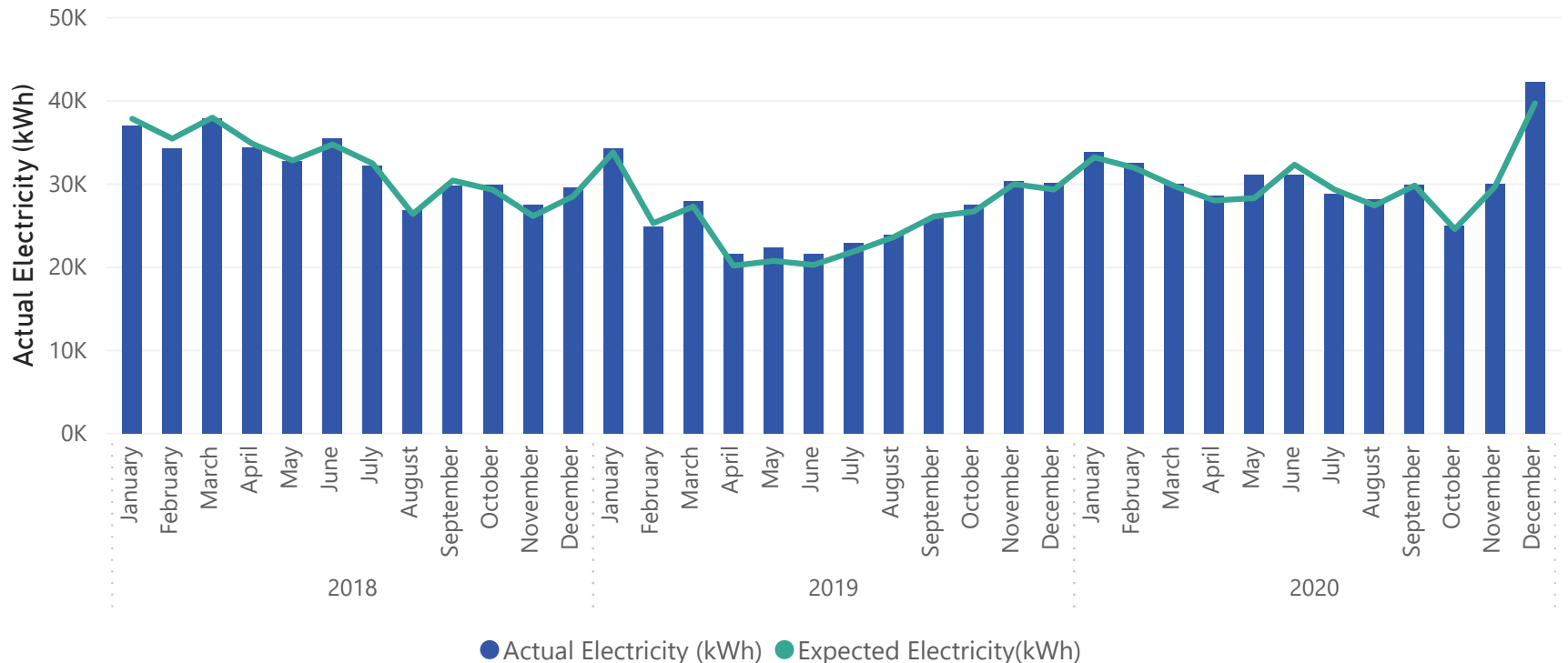
<p>-\$244 Monthly Energy Cost Savings</p>	<p>-2,539 Elec. Savings (kWh/mo)</p>	<p>-6.39% Elec. Savings (%)</p>	<p>-6.91K R12M Electricity Savings (kWh/yr)</p>	<p>-326 CO2e Savings (kg/mo)</p>
<p>-\$691.5 R12M Energy Cost Savings</p>				<p>-881.61 R12M CO2e Savings (kg/yr)</p>

Comments:

Paul Rd Pump Station electricity was above baseline in December 2020 and demand was 41% higher than December 2019. Demand is also up from November by 39%. The change in demand from November to December has resulted in a month to month change from the lowest demand month to the highest.

Electricity use for the year at Paul Road pump station, compared to baseline, averaged 2% more than baseline. The increase in demand and electricity use at Paul Road is partially attributed to a decrease of use at Johnson Road pump station.

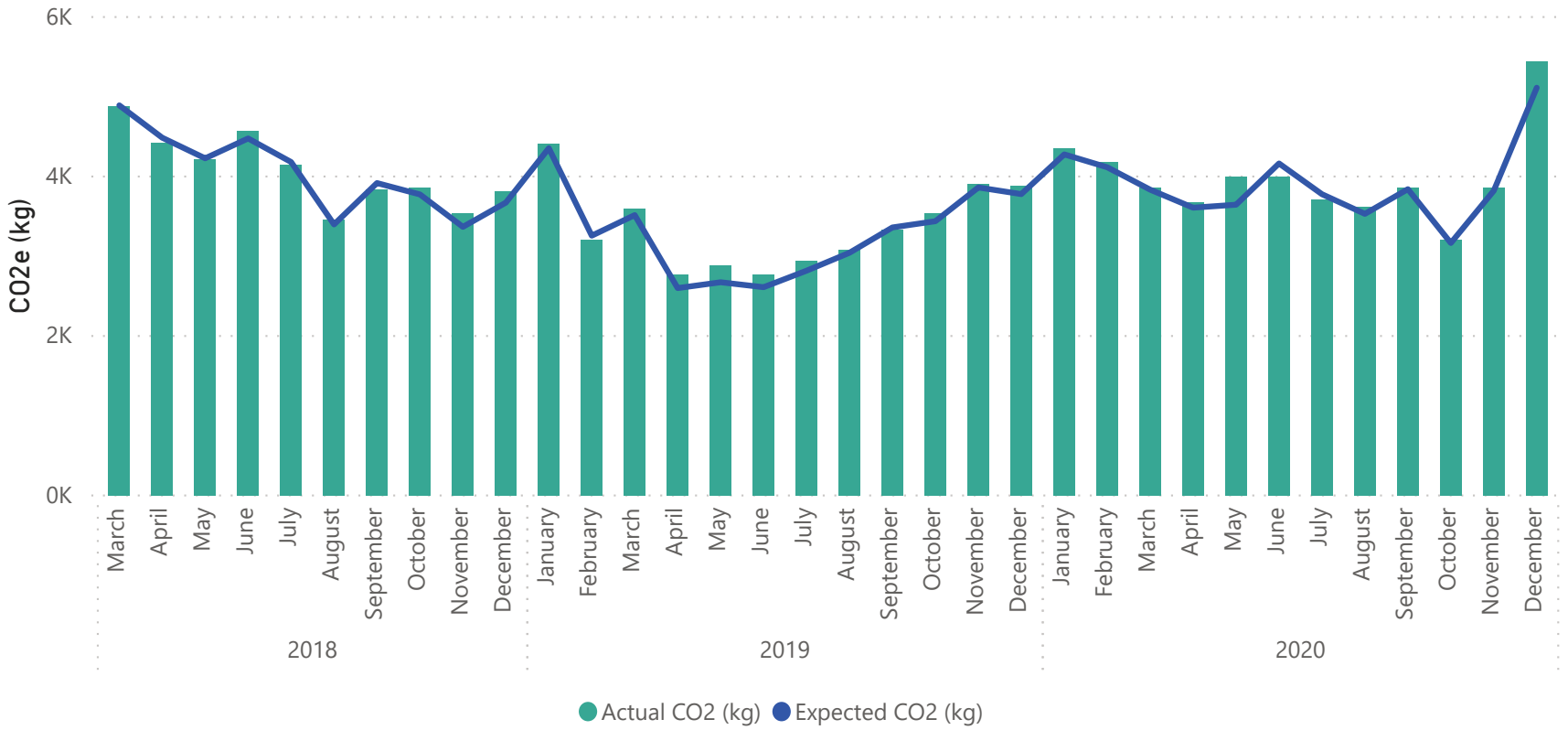
Electricity Use Compared to Baseline (kWh)



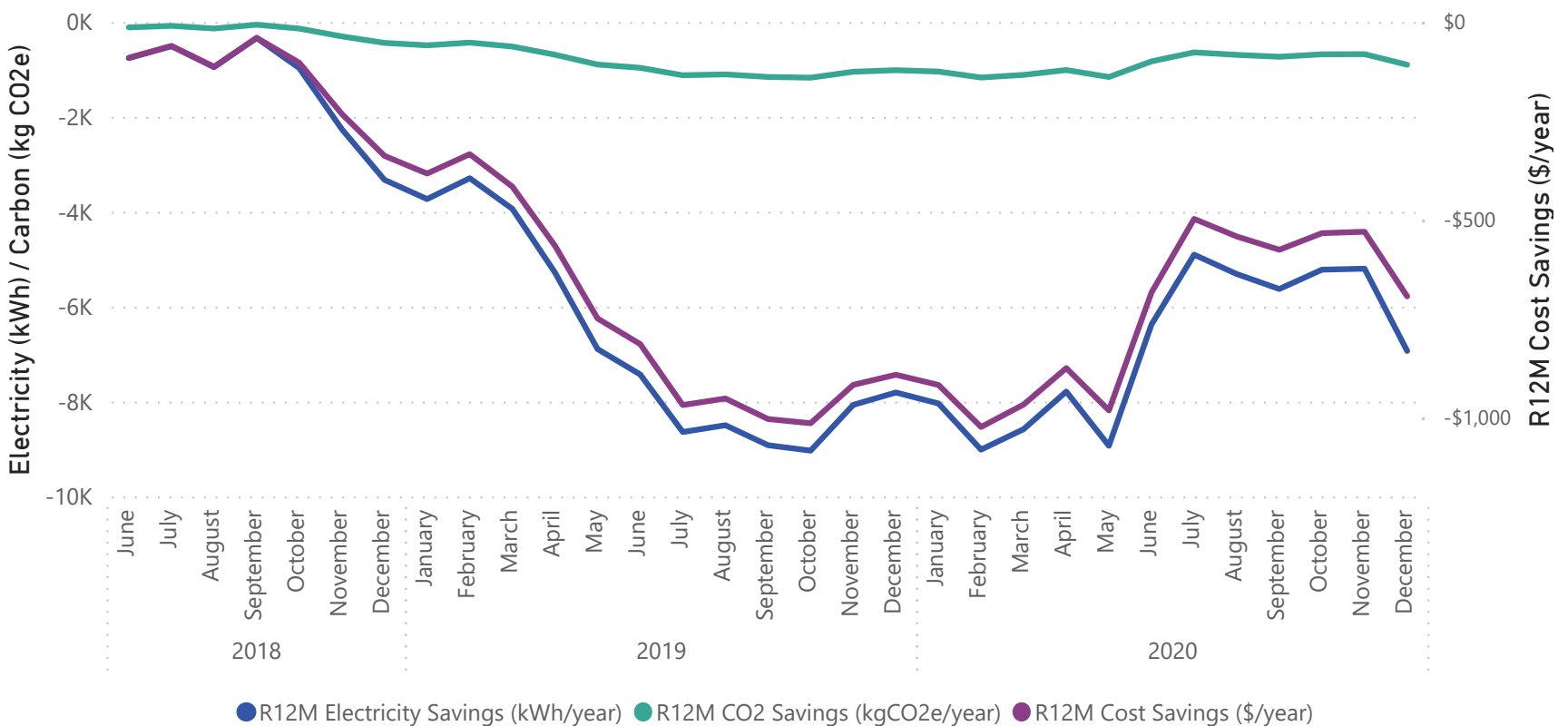
Whakatane District Council

Paul Road Pump Station

Carbon Emissions Compared to Baseline (kg CO2e)



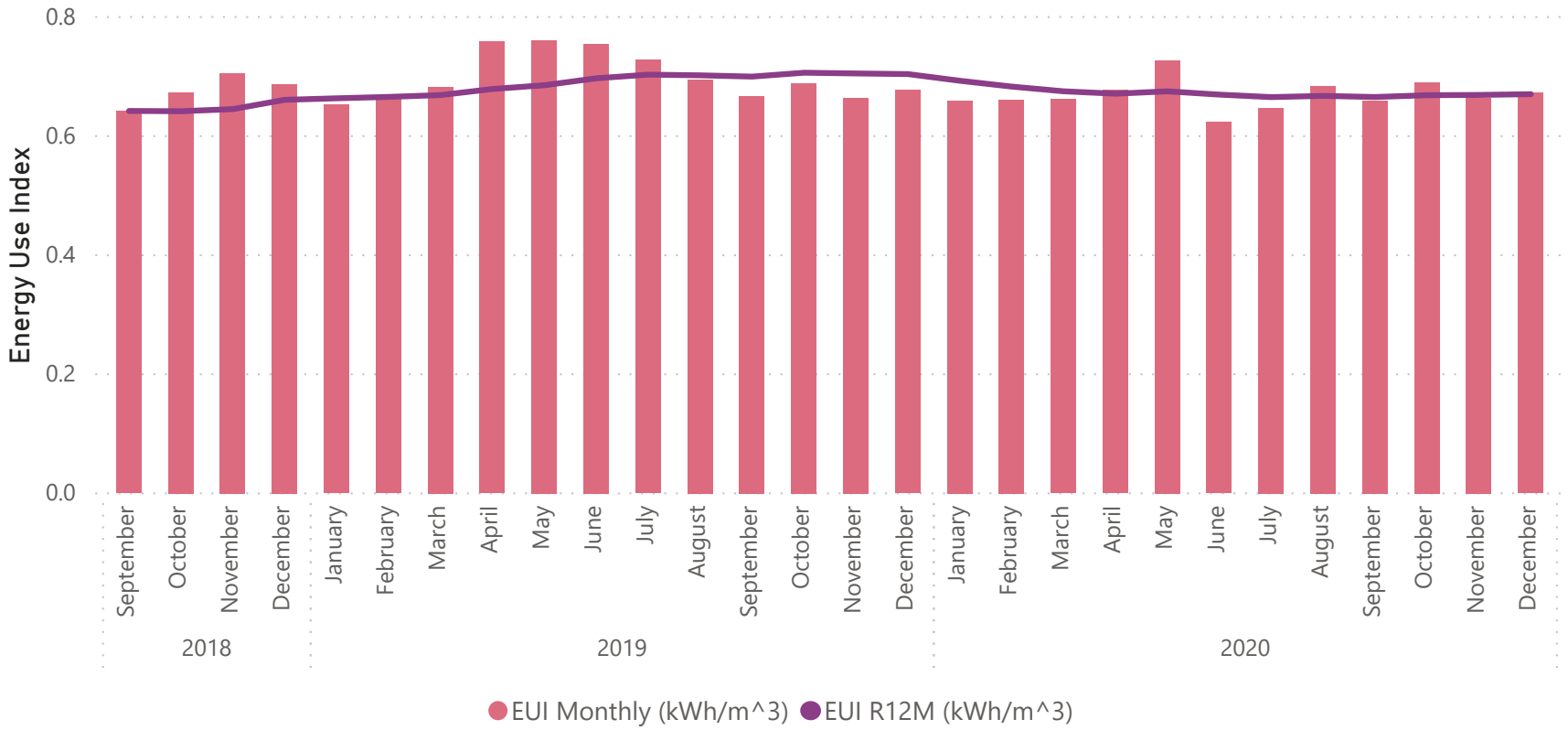
Cumulative Rolling 12 Month Savings



Whakatane District Council

Paul Road Pump Station

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



Whakatane District Council

Johnson Road Pump Station

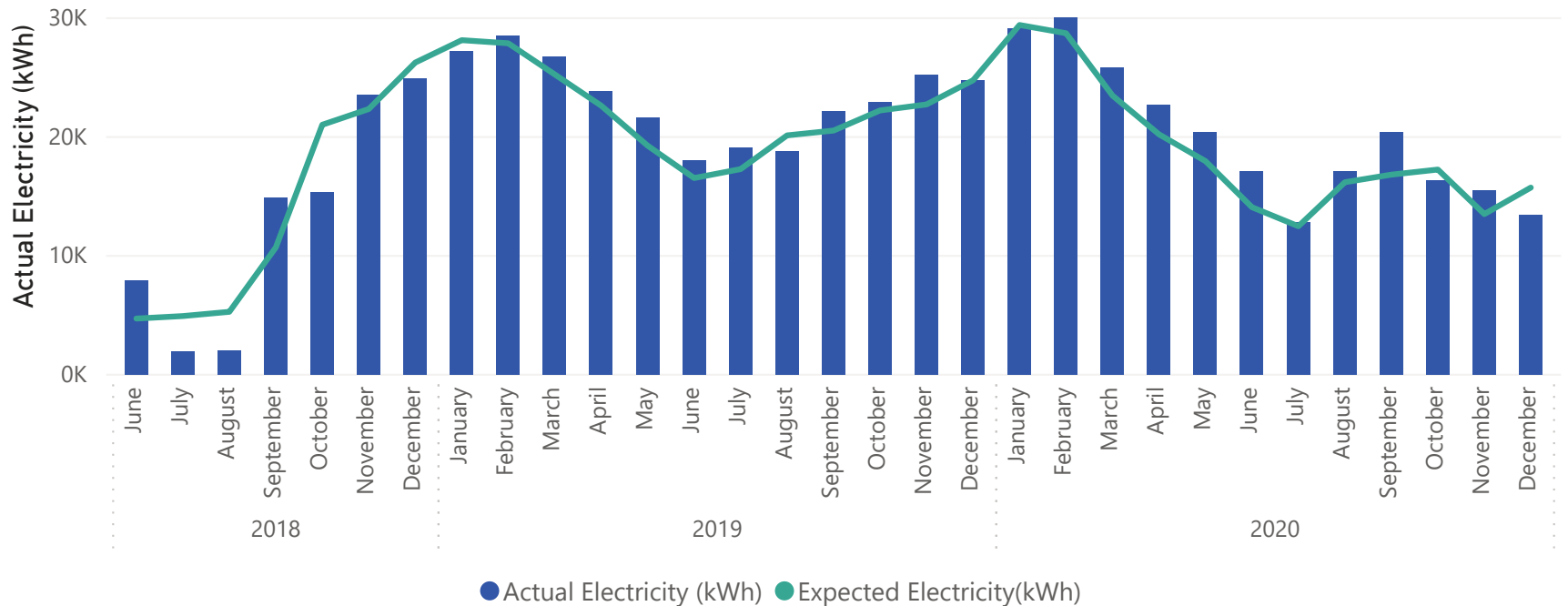
<p>\$500 Monthly Energy Cost Savings</p>	<p>2,297 Elec. Savings (kWh/mo)</p>	<p>14.59% Elec. Savings (%)</p>	<p>-14.86K R12M Electricity Savings (kWh/yr)</p>	<p>296 CO2e Savings (kg/mo)</p>
<p>-\$3.5K R12M Energy Cost Savings</p>				<p>-1.90K R12M CO2e Savings (kg/yr)</p>

Comments:

Electricity use was approx 15% less than baseline at Johnson Rd in December 2020. This may be partly due to when the electricity meter was read, although energy use is adjusted for the actual number of days in the month.

The decrease in electricity use compared to baseline is offset by increased usage at Paul Road pump station.

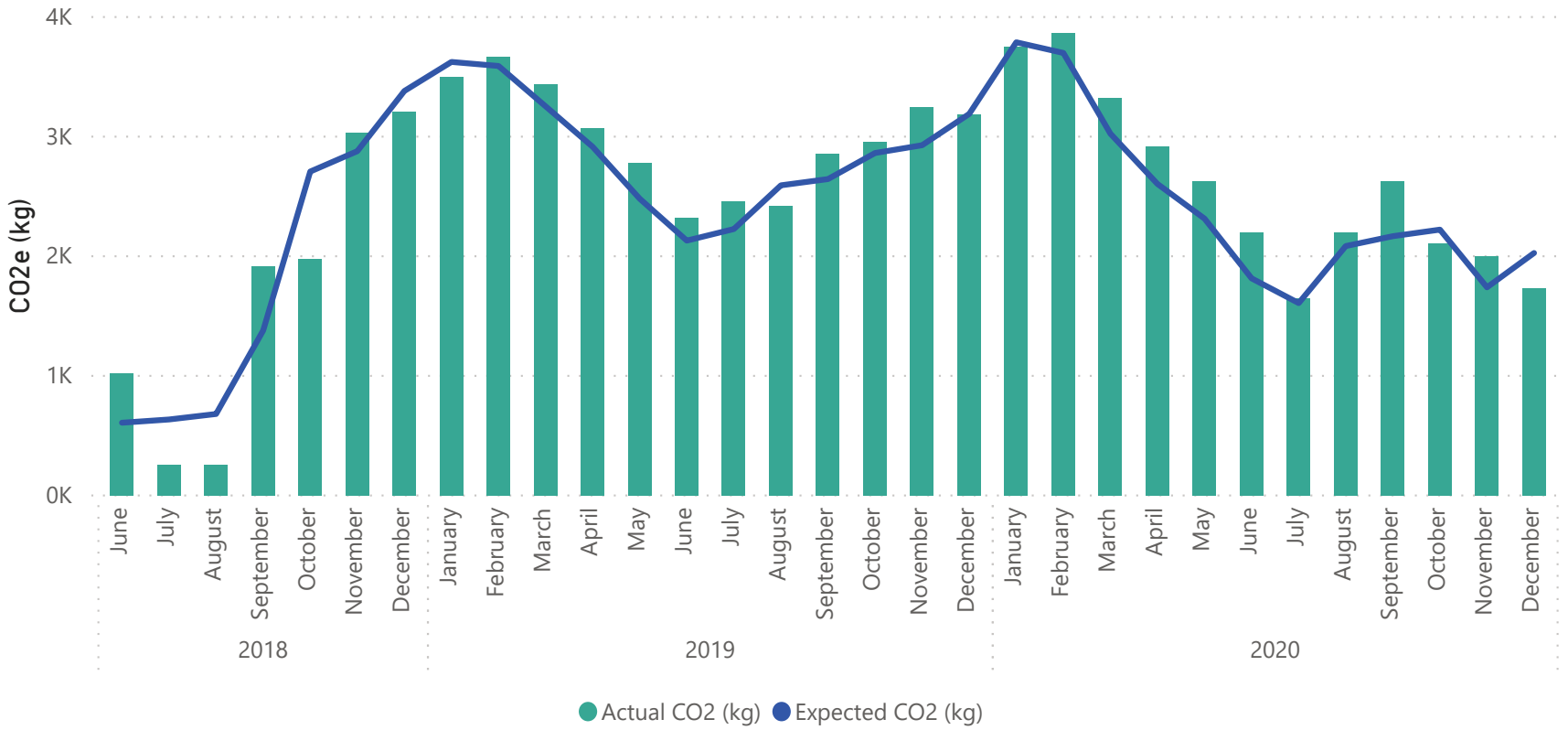
Electricity Use Compared to Baseline (kWh)



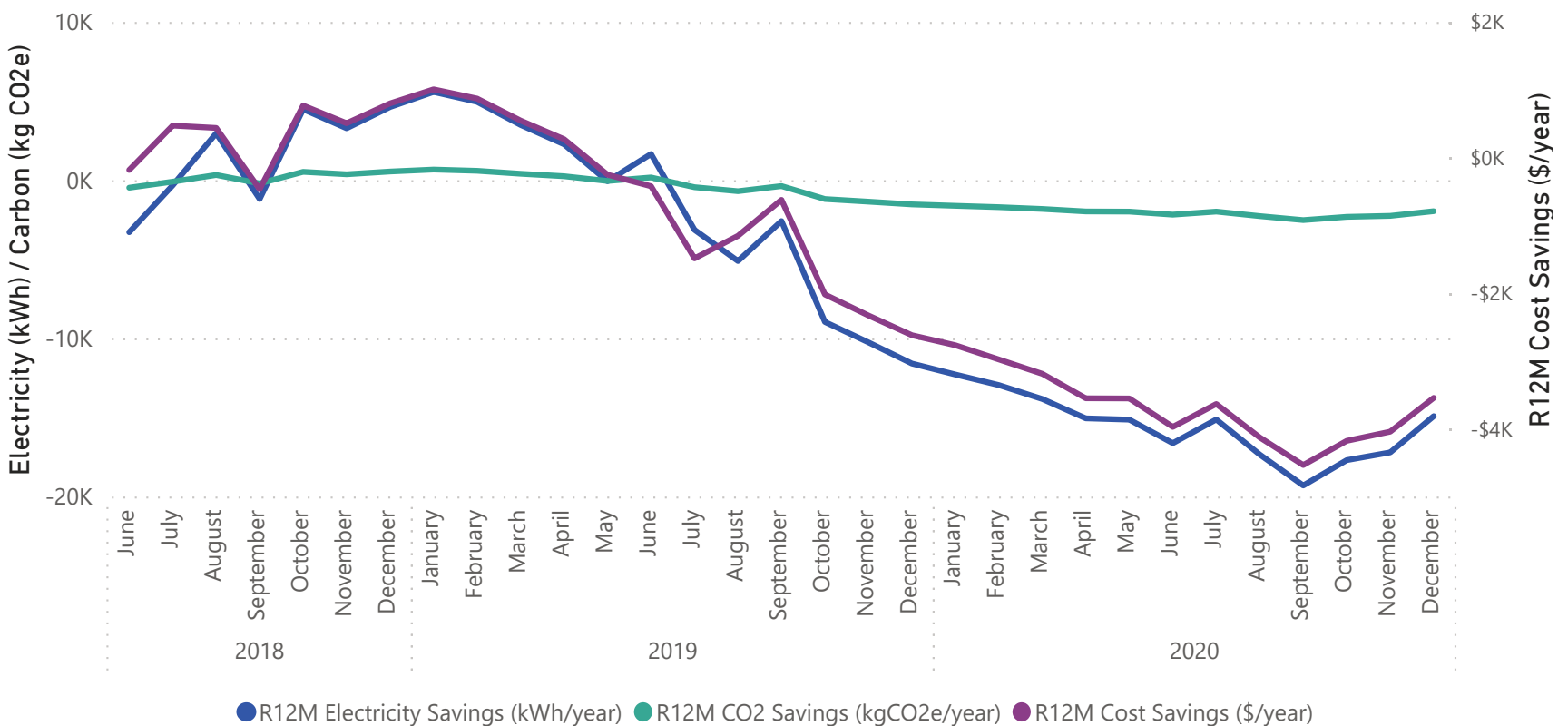
Whakatane District Council

Johnson Road Pump Station

Carbon Emissions Compared to Baseline (kg CO2e)



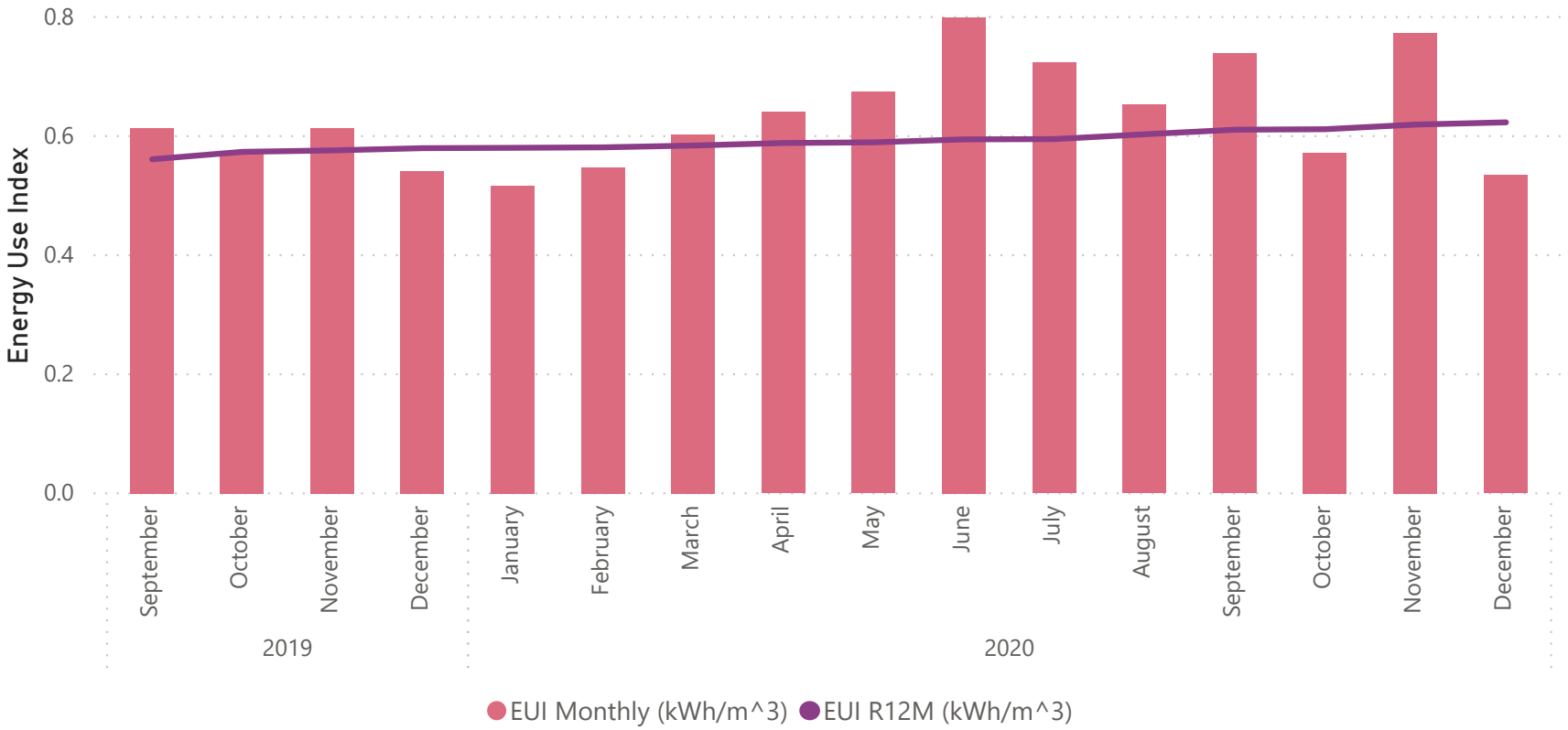
Cumulative Rolling 12 Month Savings



Whakatane District Council

Johnson Road Pump Station

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



Whakatane District Council

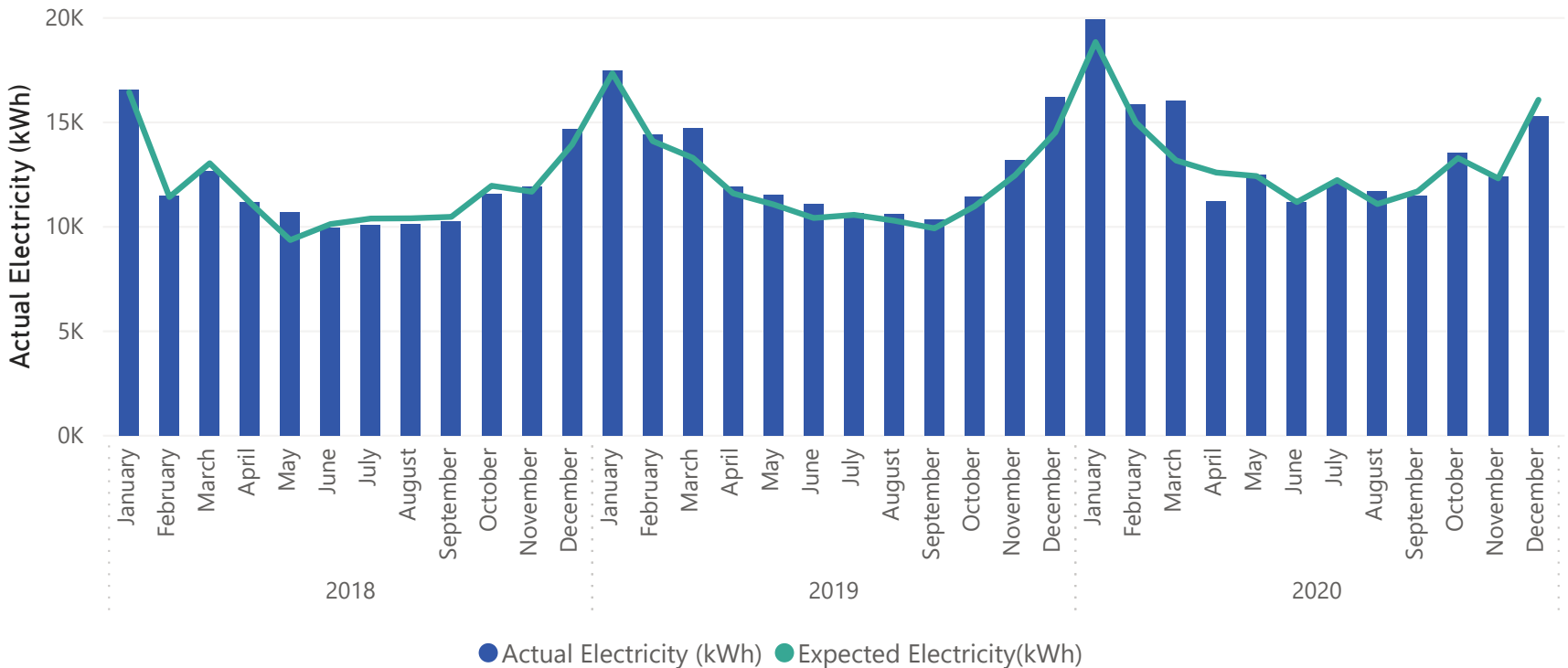
Bridger Glade Pump Station

\$142 Monthly Energy Cost Savings	790 Elec. Savings (kWh/mo)	4.91% Elec. Savings (%)	-3.23K R12M Electricity Savings (kWh/yr)	102 CO2e Savings (kg/mo)
-\$635.9 R12M Energy Cost Savings				-415.90 R12M CO2e Savings (kg/yr)

Comments:

Electricity use was less than baseline for the month of December at Bridger Glade pump station. Compared to December 2019, the volume of water supplied by Bridger Glade pumps has increased by 11% and electricity use has decreased by 6%. Historic data shows that demand for water (and hence electricity) at Bridger Glade begins increasing over summer months and peaks in January.

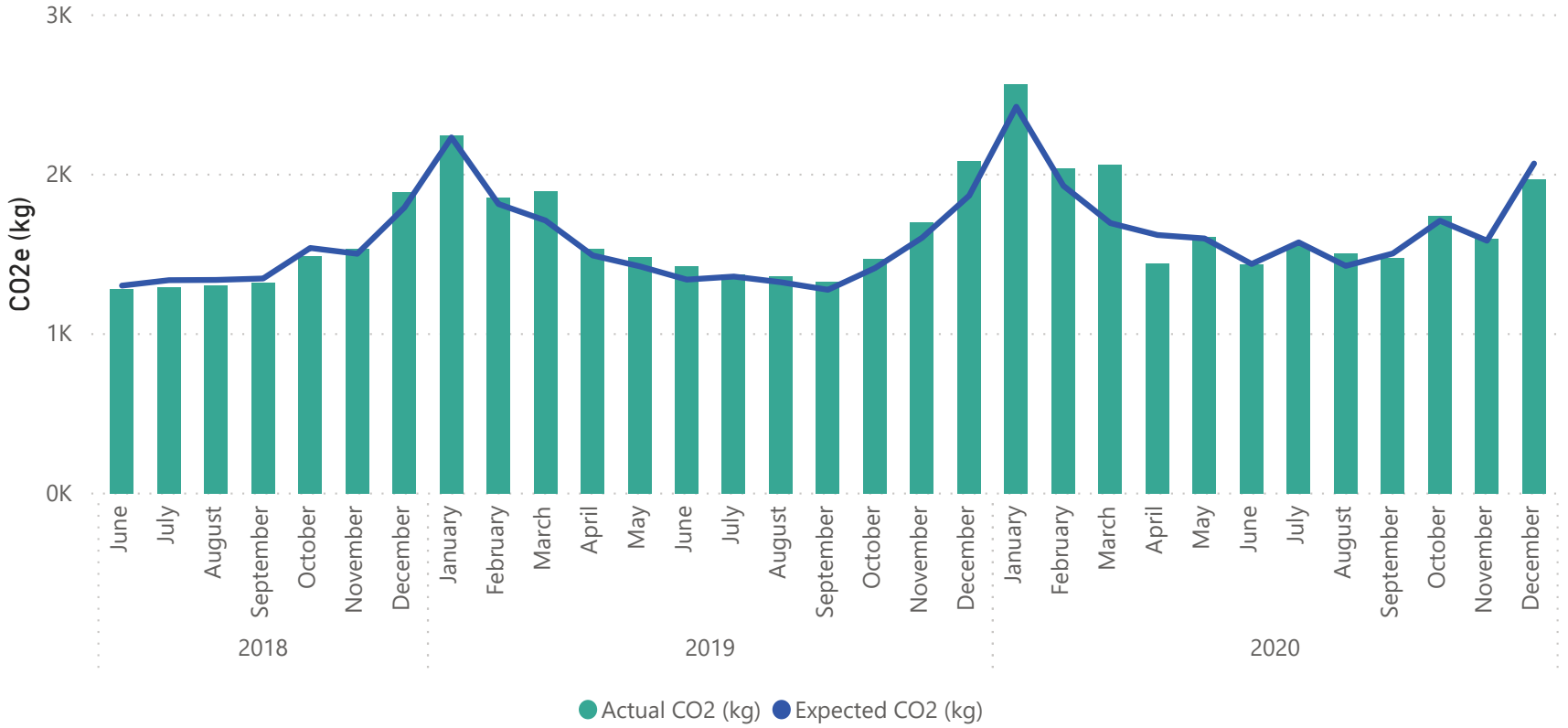
Electricity Use Compared to Baseline (kWh)



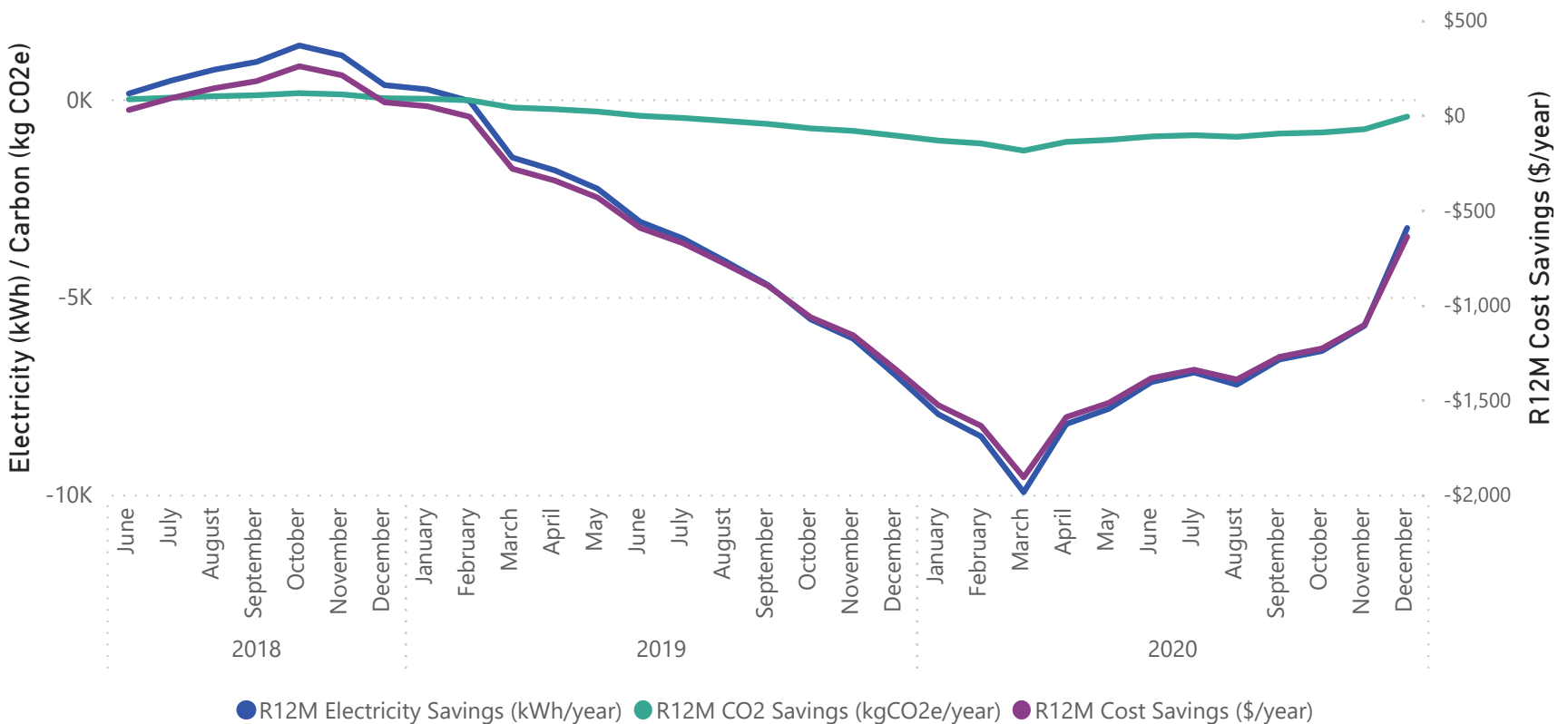
Whakatane District Council

Bridger Glade Pump Station

Carbon Emissions Compared to Baseline (kg CO2e)



Cumulative Rolling 12 Month Savings



Whakatane District Council

Bridger Glade Pump Station

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

