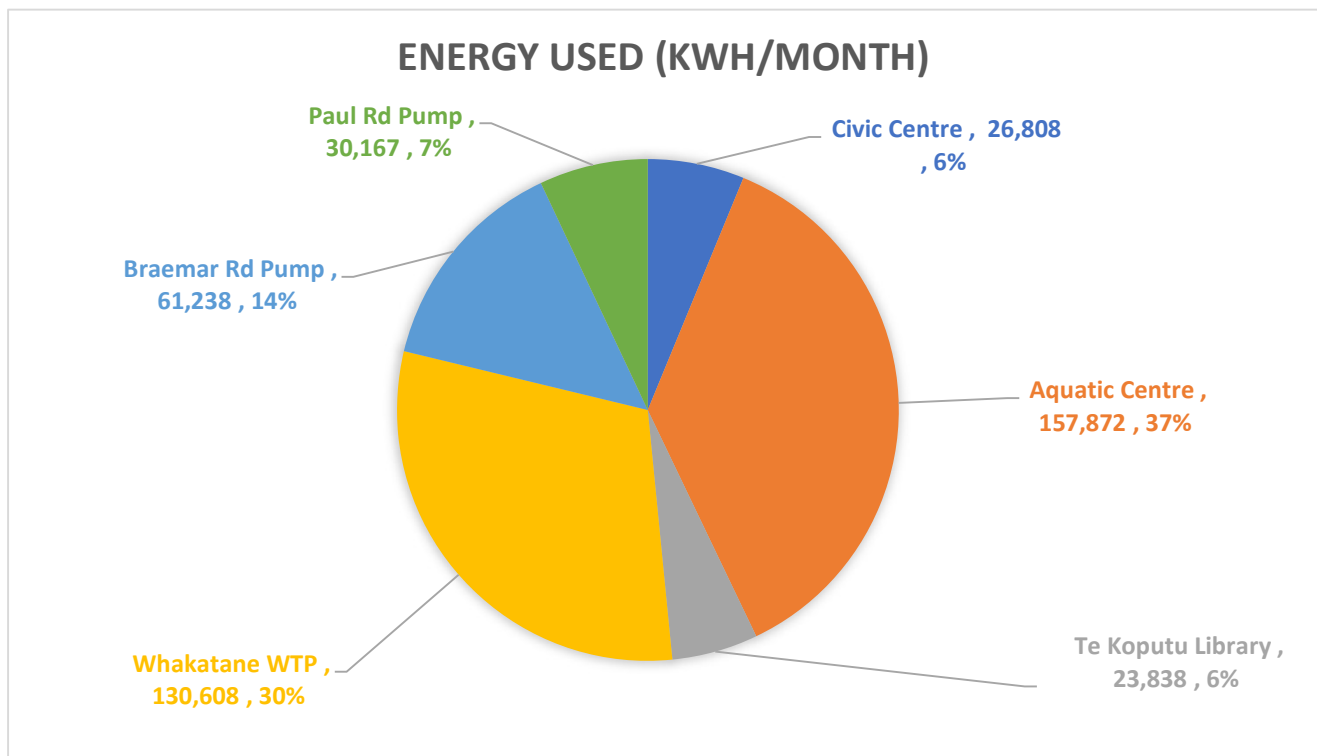


Whakatāne District Council Energy Performance Report

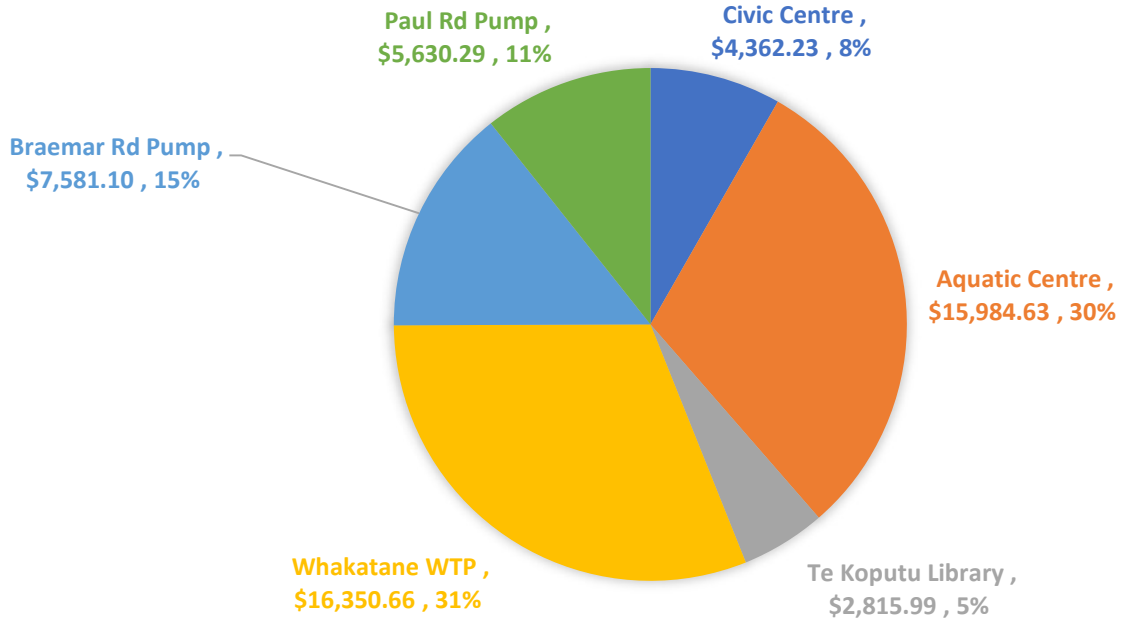
Summary

For Whakatāne District Council’s six largest energy using sites:

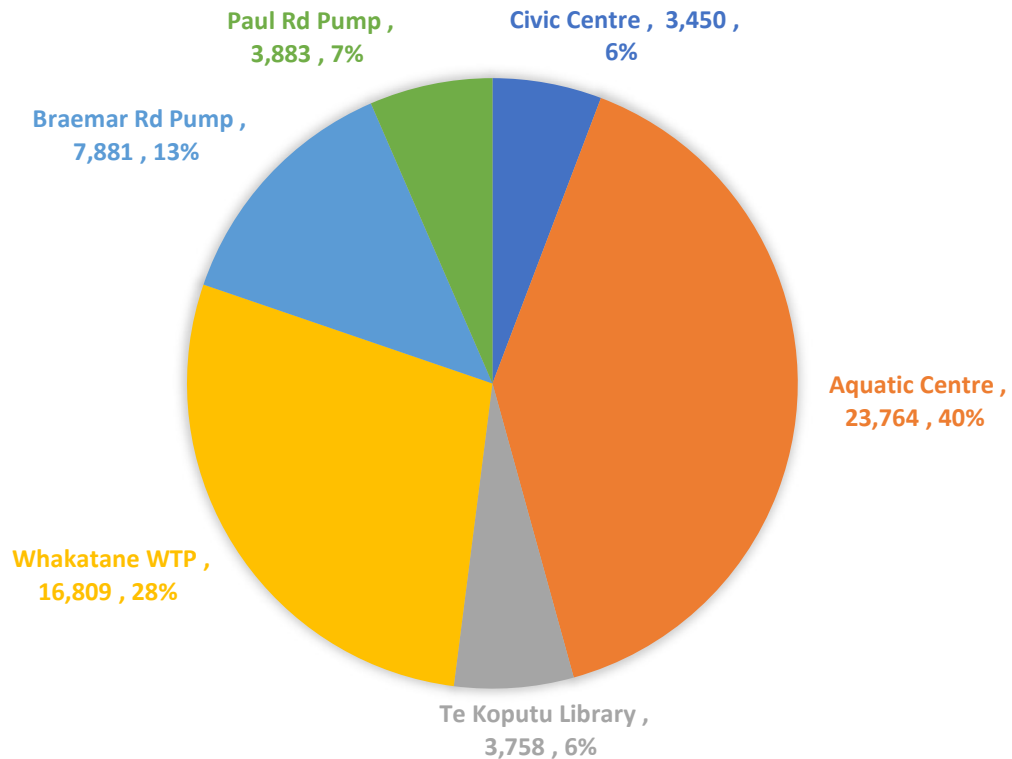
- Total energy used for the month was 430,531 kWh
- Total energy cost for the month was \$52,725
- Total carbon emissions for the month were 59,545 kgCO₂e
- Rolling 12-month energy savings total 600,922 kWh
- Rolling 12-month energy cost savings total \$48,368
- Rolling 12-month carbon savings total 126,369 kgCO₂e

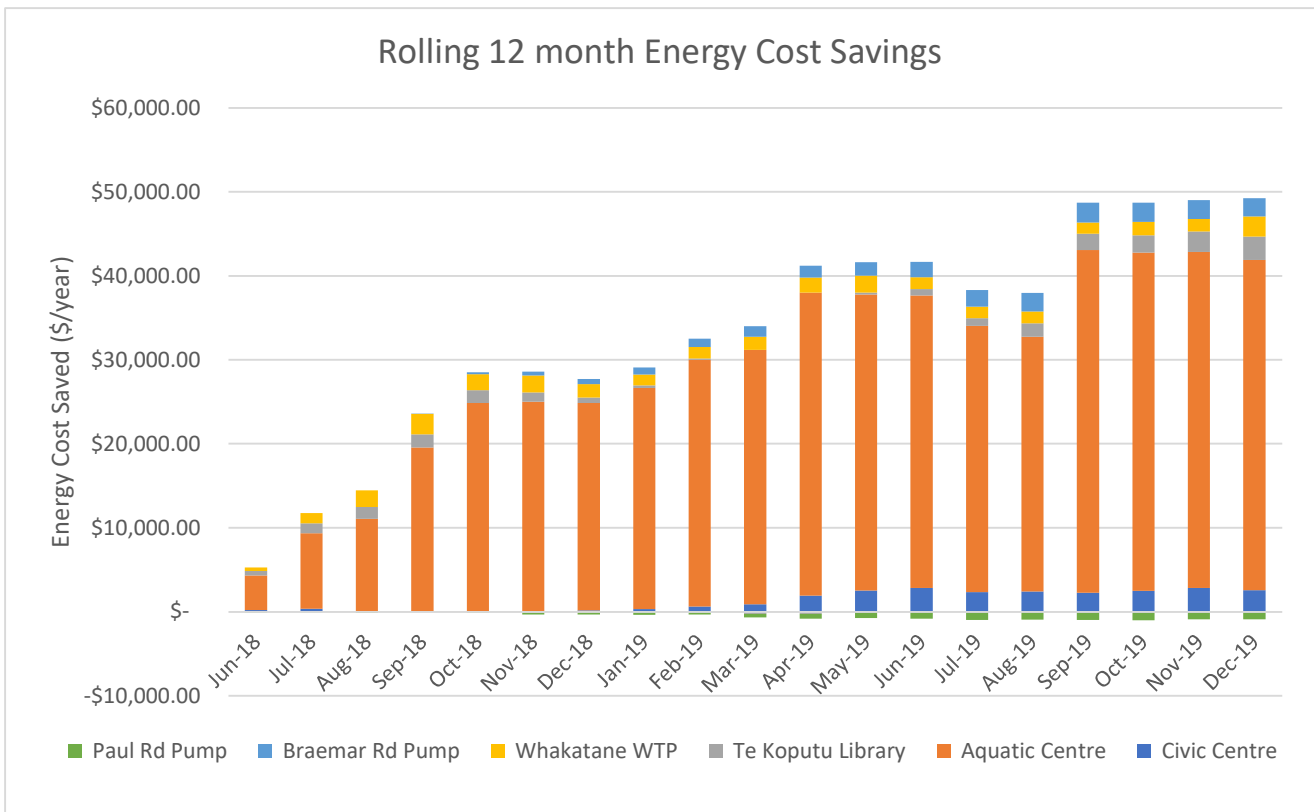
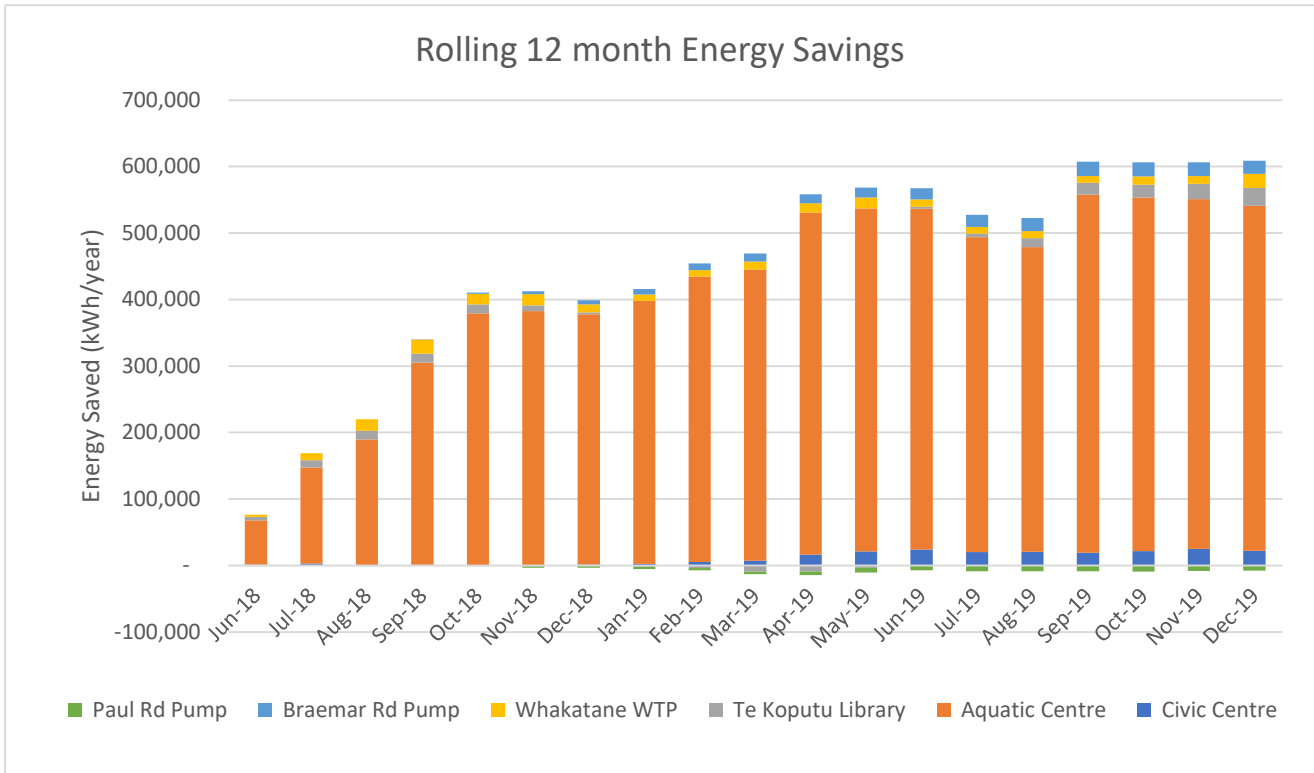


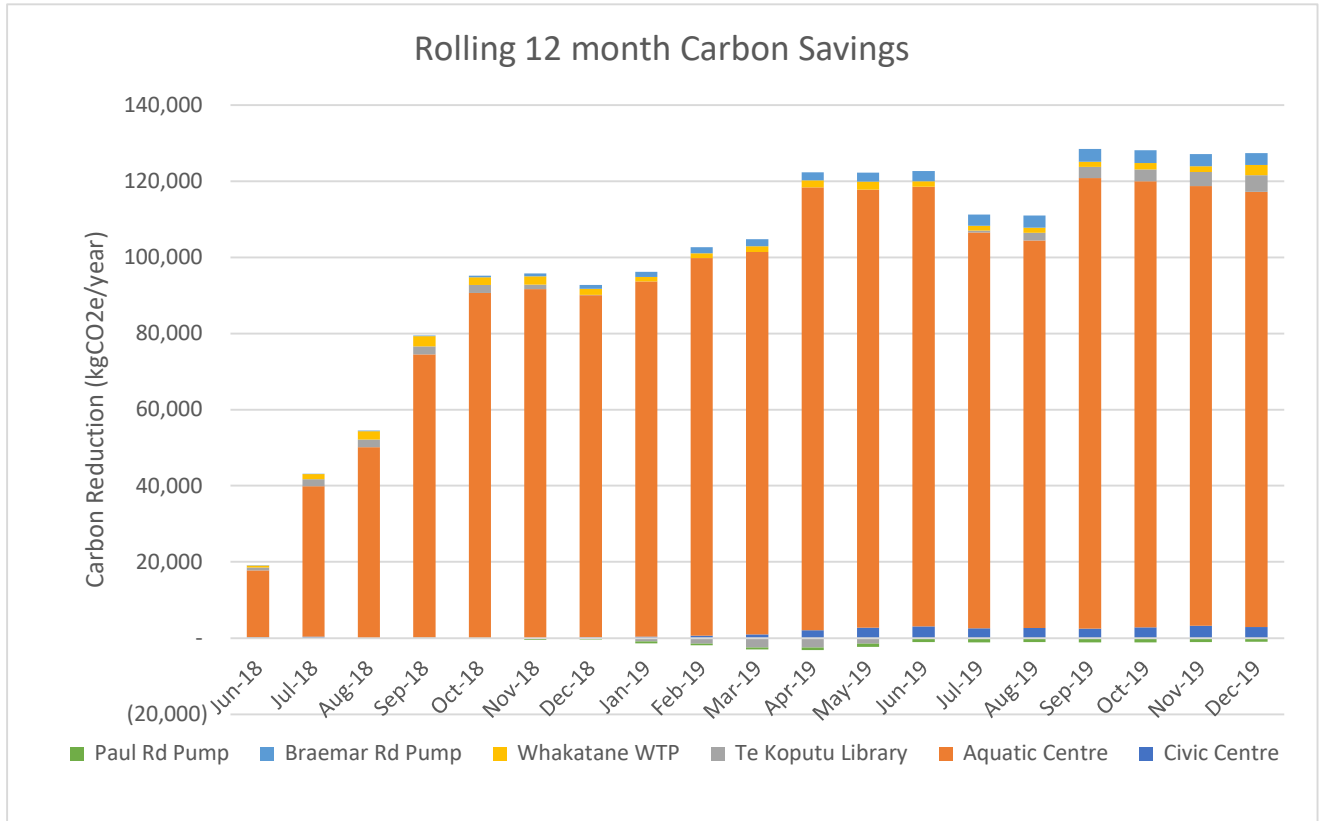
ENERGY COST (\$/MONTH)



CARBON EMISSIONS (KGCO2E/MONTH)







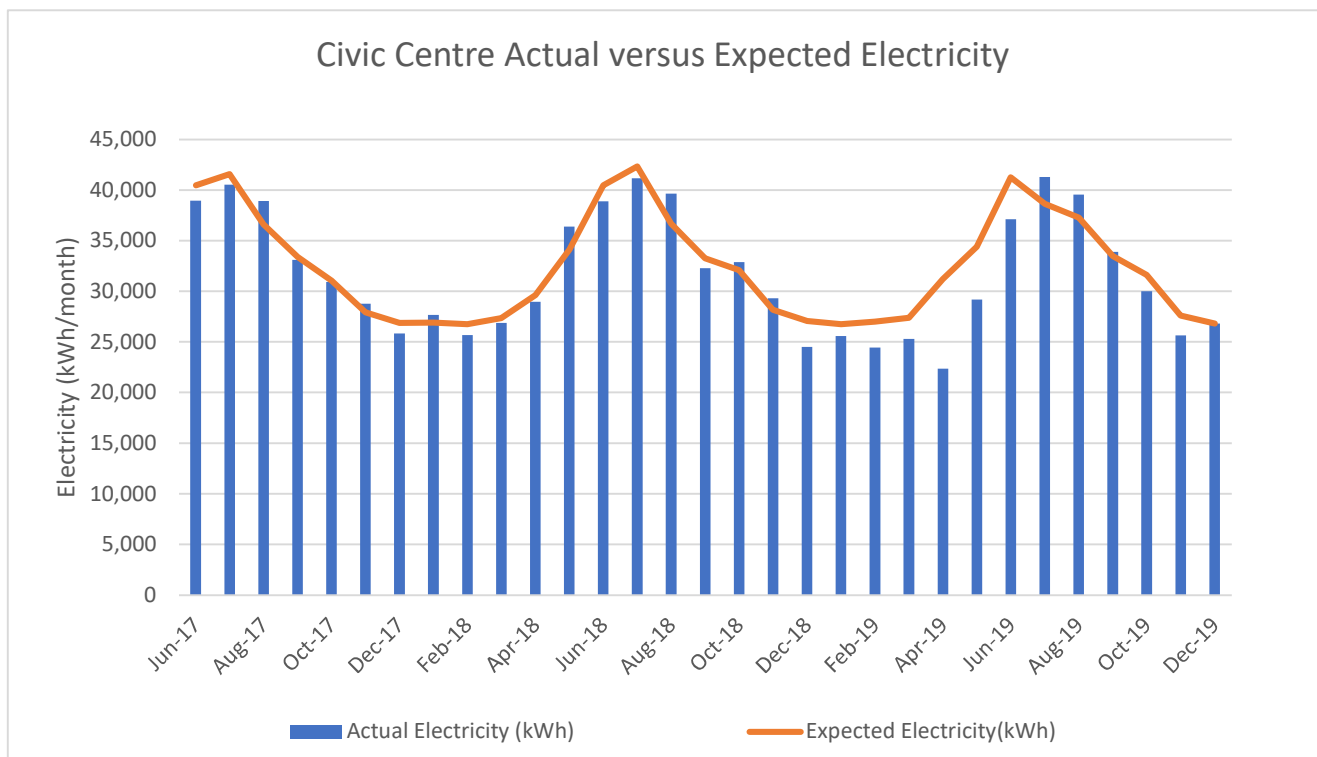
Civic Centre

Summary

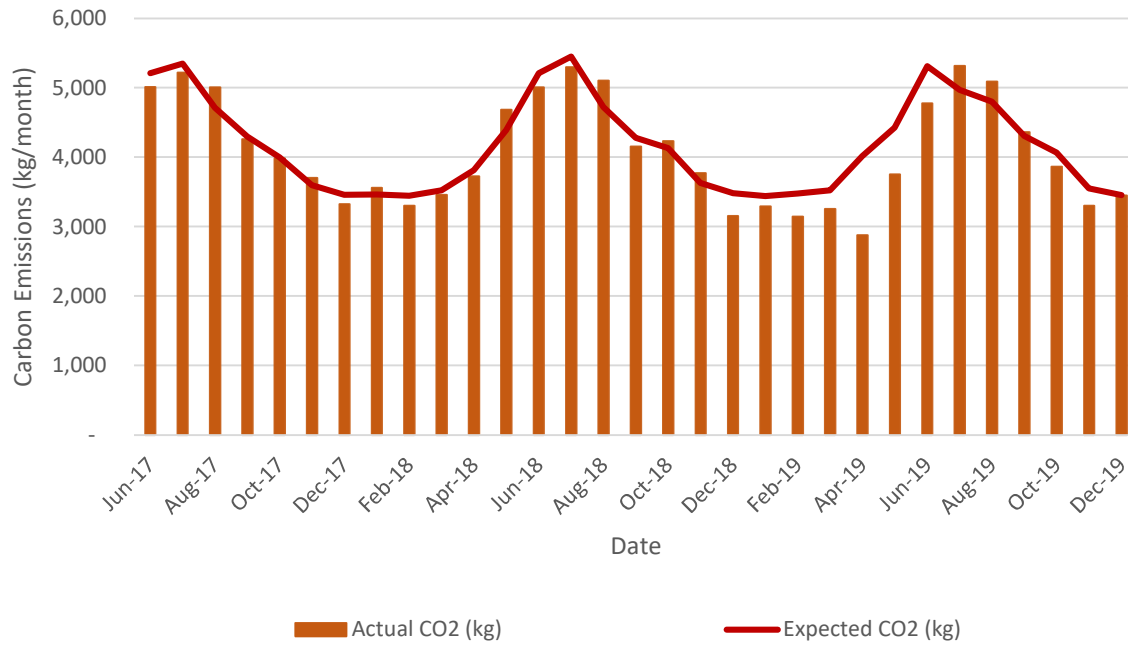
- Electricity savings for the month were 3kWh, a saving of 0%.
- Energy cost savings for the month were \$0.
- Carbon savings for the month were 0 kgCO₂e, a saving of 0%.
- Rolling 12-month electricity savings are 22,260 kWh, a saving of 5.8%.
- Rolling 12-month energy cost savings are \$2,559.
- Rolling 12-month carbon savings are 2,865 kgCO₂e, a saving of 5.8%.

Comments

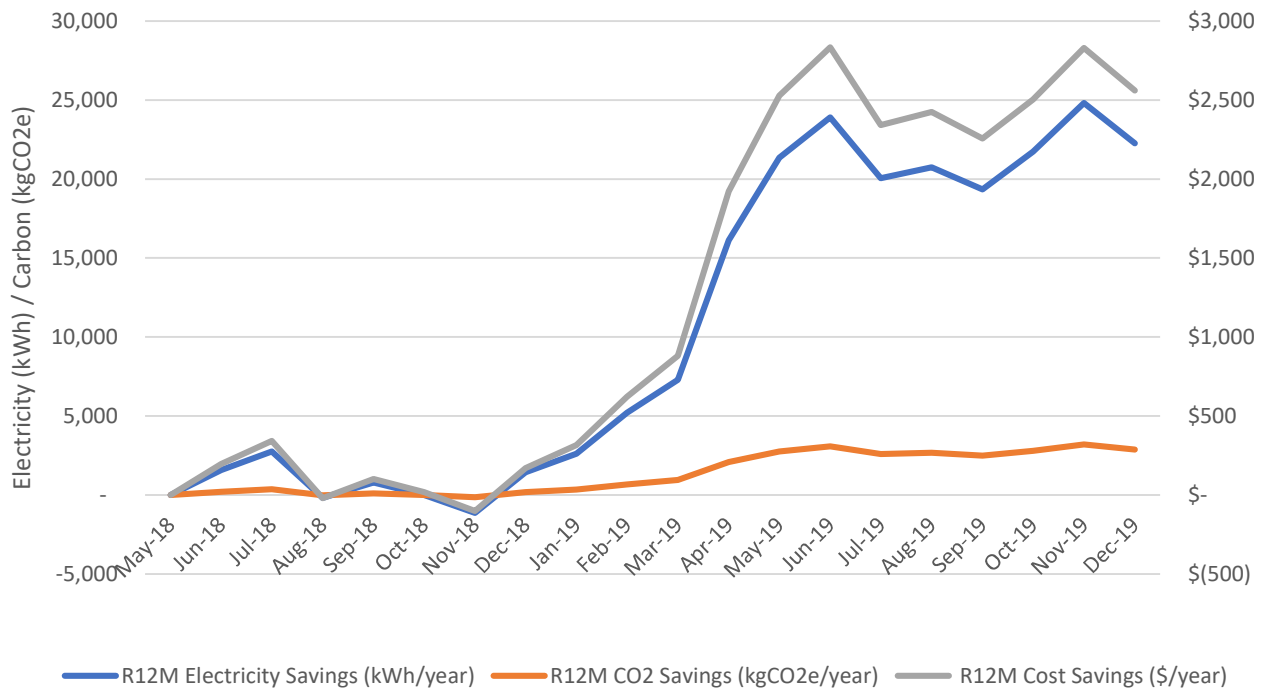
Electricity use at the Civic Centre was as expected in December 2019, differing from the baseline by just 3kWh for the month. The baseline adjusts for heating degree days which is a measure of ambient temperature. Electricity use in December 2019 was higher than in December 2018, despite similar expected electricity for these months. December has historically been a month where the Civic Centre has seen some electricity savings; this could be the result of the Christmas break. Savings were not present in Dec 2019.



Civic Centre Actual versus Expected CO2



Civic Centre Cumulative Rolling 12 Month Savings



Aquatic Centre

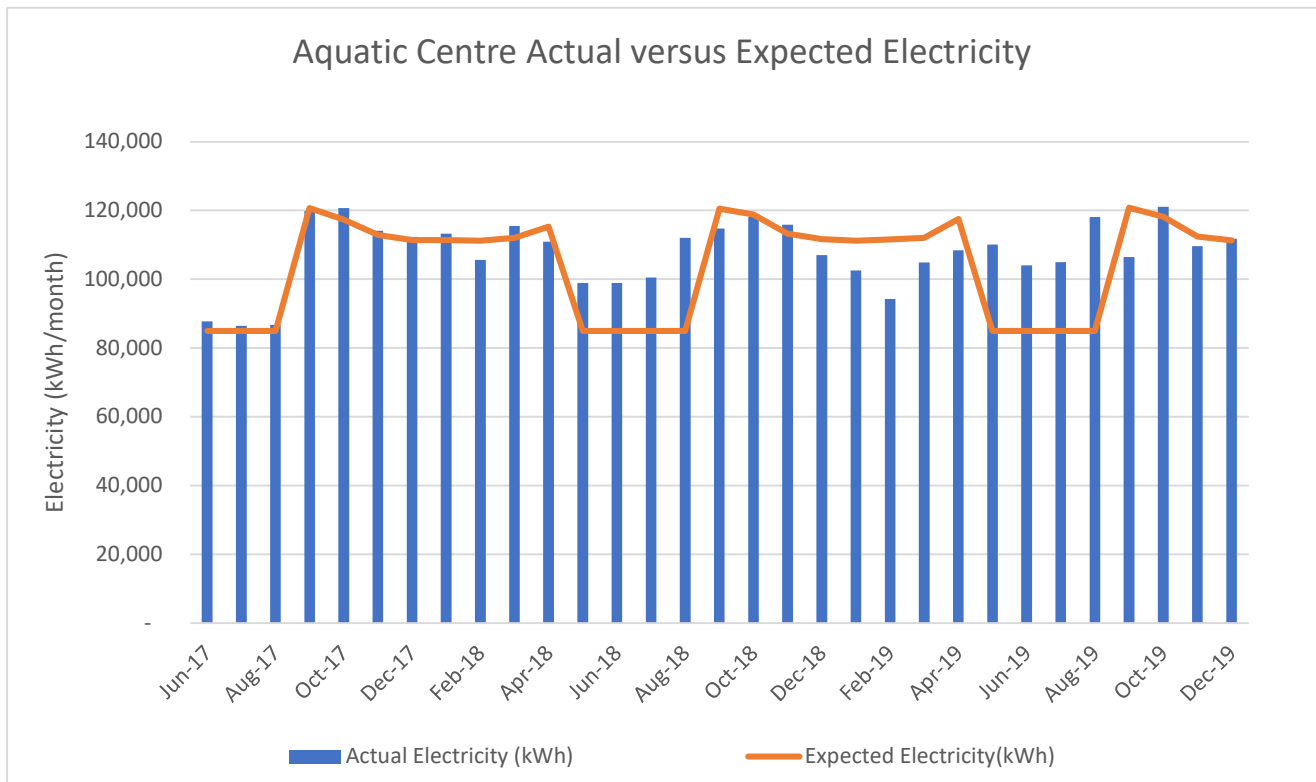
Summary

- Electricity savings for the month were -464kWh, an extra 0.4%.
- Natural gas savings for the month were -13,525 kWh, an extra 45.4%
- Energy cost savings for the month were -\$45, which is an increase.
- Carbon savings for the month were -2,958 kgCO₂e, an extra 14.2%.
- Rolling 12-month electricity savings are -40,962 kWh, an extra 3.3%.
- Rolling 12-month natural gas savings are 559,544 kWh, a saving of 54.6%
- Rolling 12-month energy cost savings are \$39,332.
- Rolling 12-month carbon savings are 114,334 kgCO₂e, a saving of 29.9%.

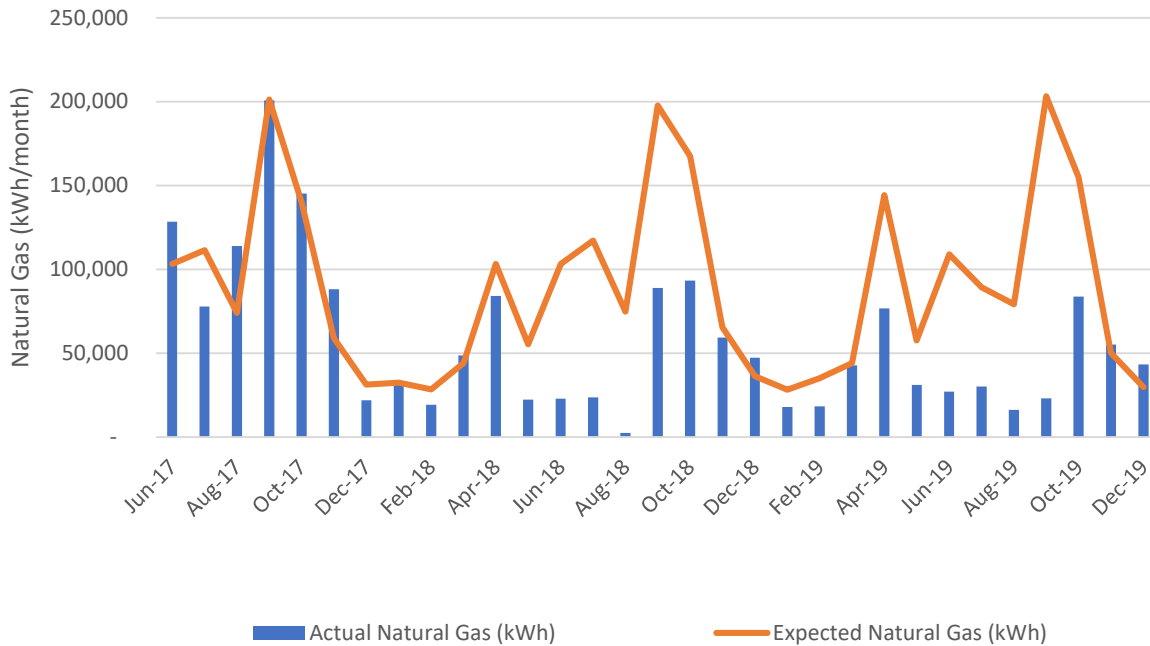
Comments

Electricity use at the Aquatic Centre in December 2019 was very similar to the baseline. Electricity use was 464kWh higher than expected which is an increase of just 0.4%. Total Electricity for the month was similar to December 2017, however it was approximately 5,000kWh higher than December 2018.

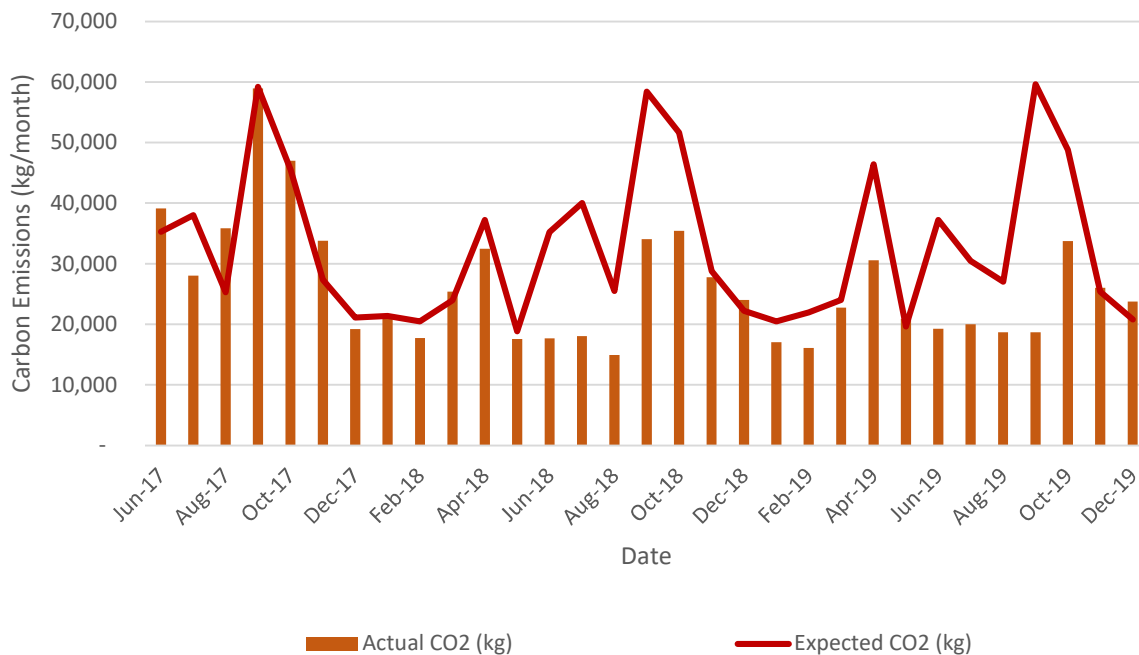
Natural Gas use in December 2019 decreased compared to November, however it was higher than the baseline, which adjusts for heating degree days (ambient temperature). Gas use was highest on Dec 18th, and also spiked on Dec 26th.

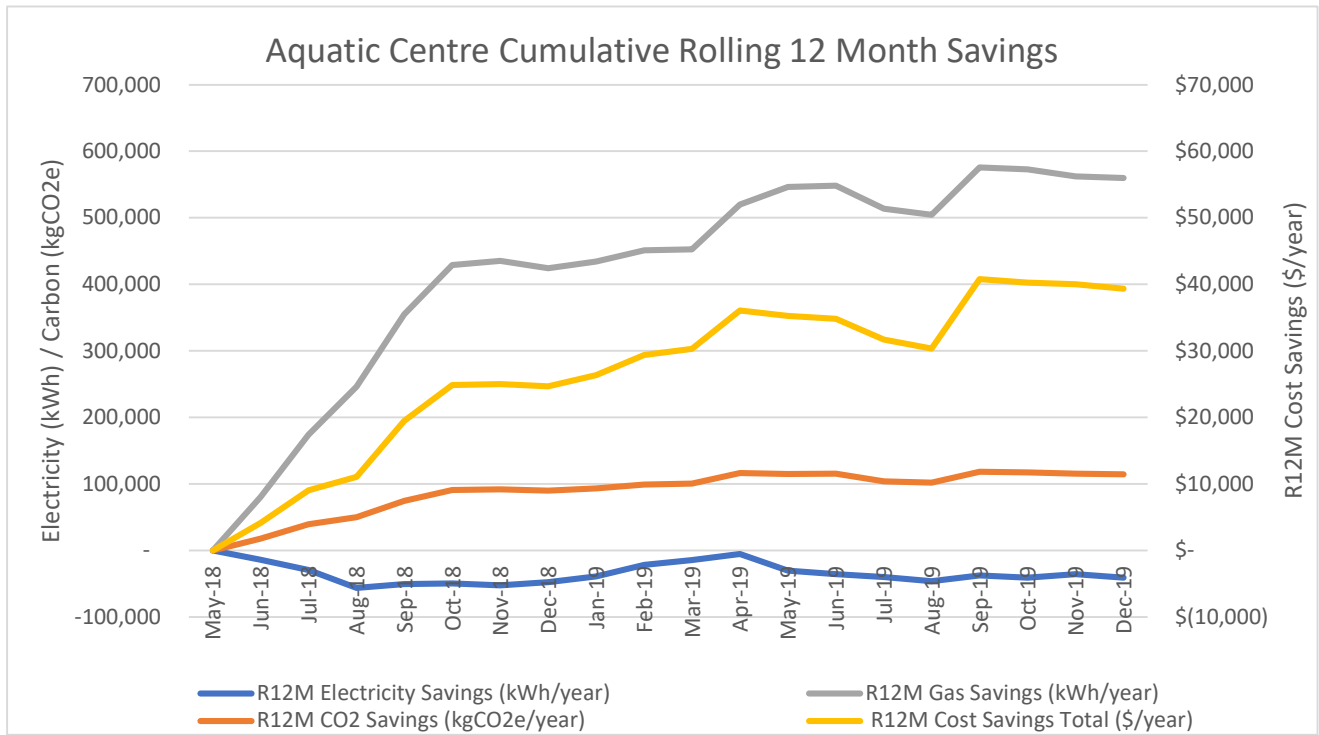


Aquatic Centre Actual versus Expected Natural Gas



Aquatic Centre Actual versus Expected CO2





Te Koputu Library

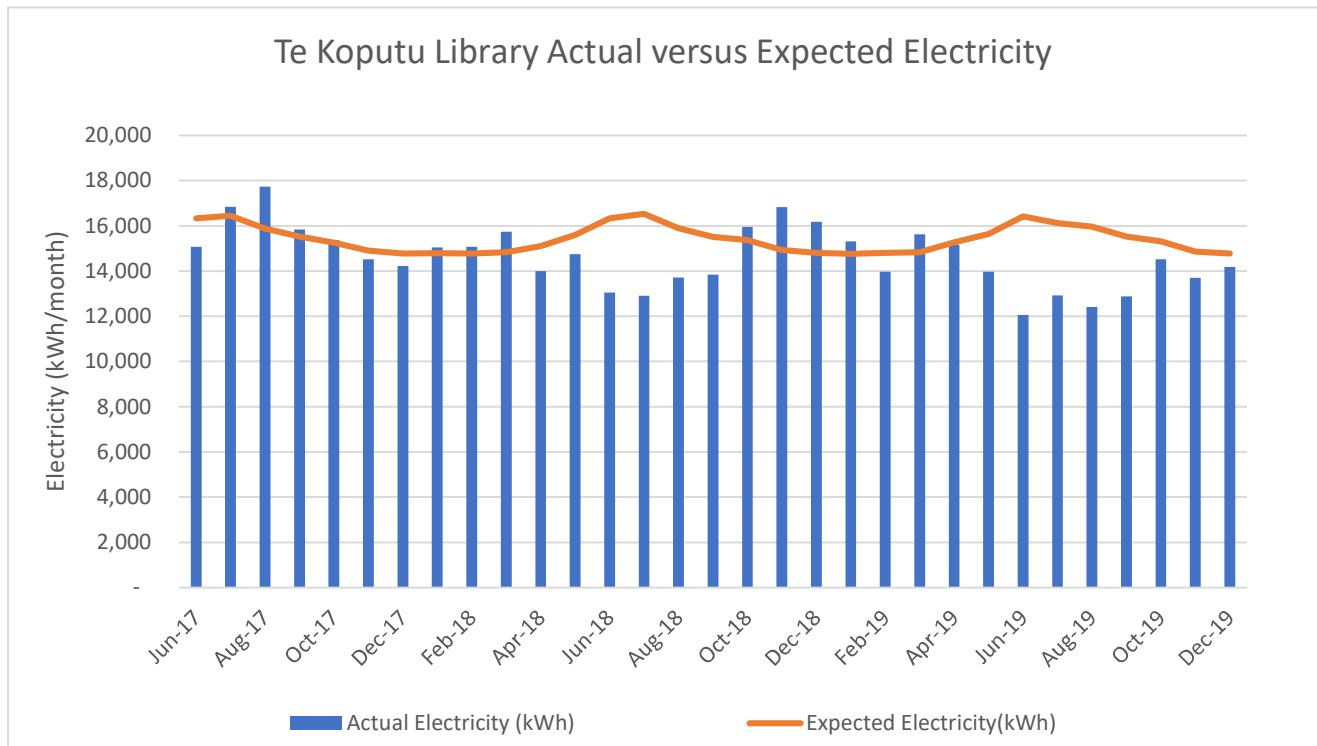
Summary

- Electricity savings for the month were 592kWh, a saving of 4%.
- Natural gas savings for the month were -2,353 kWh, an extra 35.9%
- Energy cost savings for the month were \$63.
- Carbon savings for the month were -430 kgCO₂e, an extra 12.9%.
- Rolling 12-month electricity savings are 17,605 kWh, a saving of 9.6%
- Rolling 12-month natural gas savings are 9,273 kWh, a saving of 7.9%
- Rolling 12-month energy cost savings are \$2,798.
- Rolling 12-month carbon savings are 4,329 kgCO₂e, a saving of 8.8%.

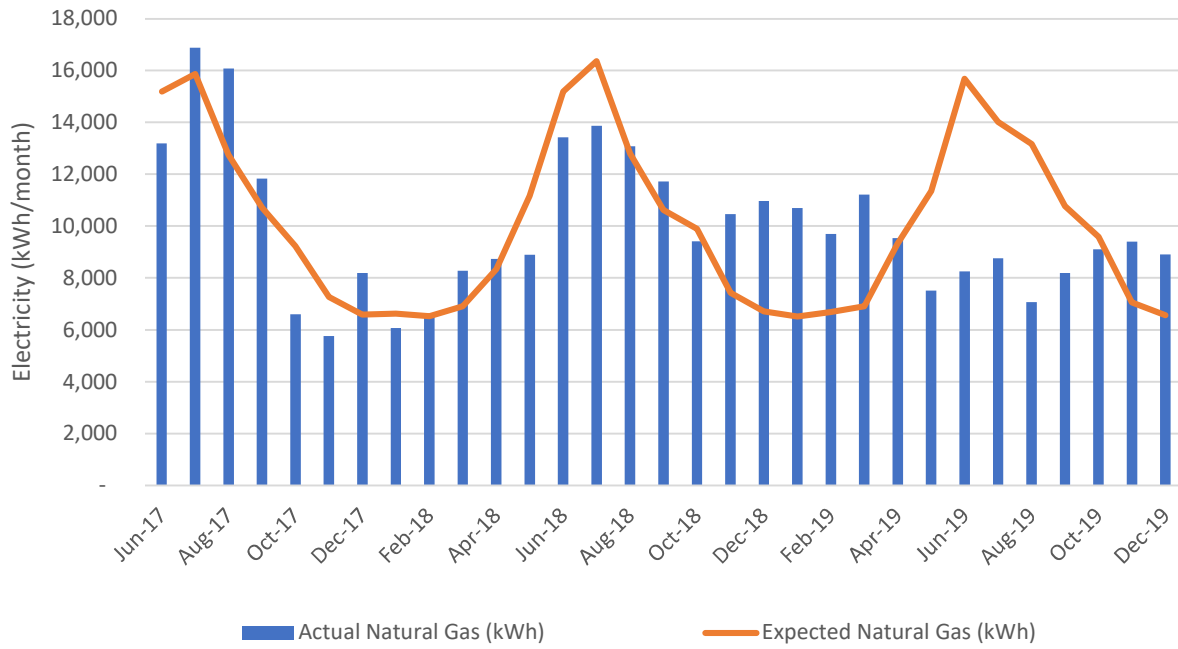
Comments

Electricity use at the Library was 592kWh less than expected for the month, a saving of 4.0%. Electricity use has been lower than expected for the last 9 months at the Library. There has also been a reversal of the seasonal trend, with electricity use at its highest in summer, whereas this used to occur in the winter.

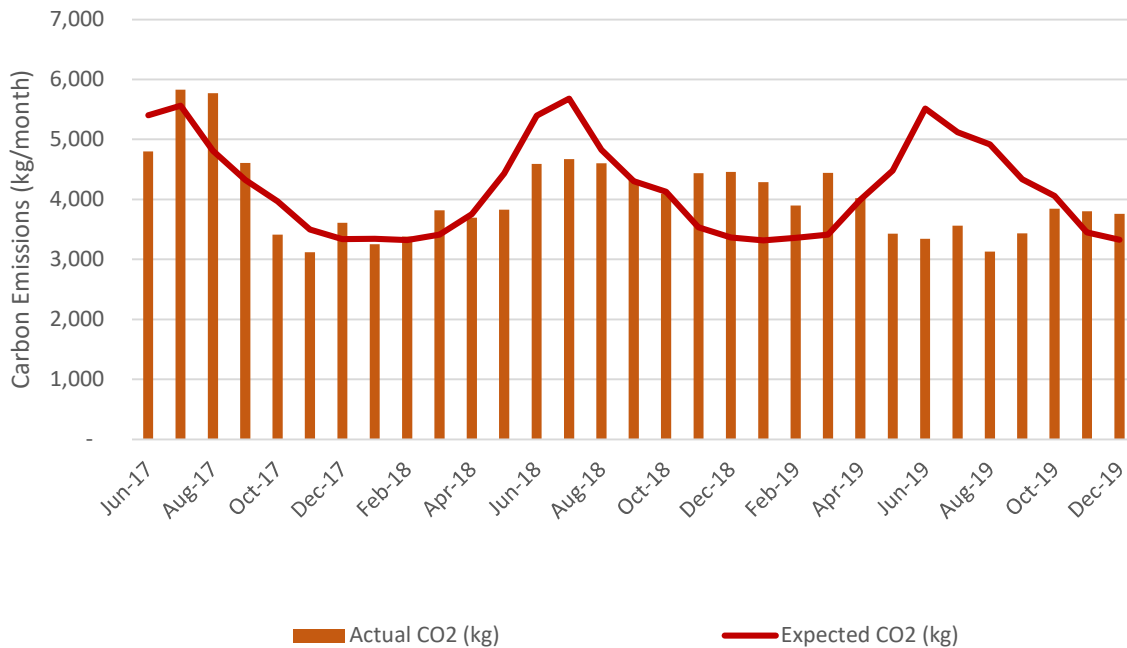
Gas use at the library was higher than expected in December 2019. This has also seen a reversal of seasonal trends, with gas use at its highest in summer months. Gas is being used in summer months to re-heat air that was cooled to try and meet humidity requirements. The system is not working effectively and is using excess energy.

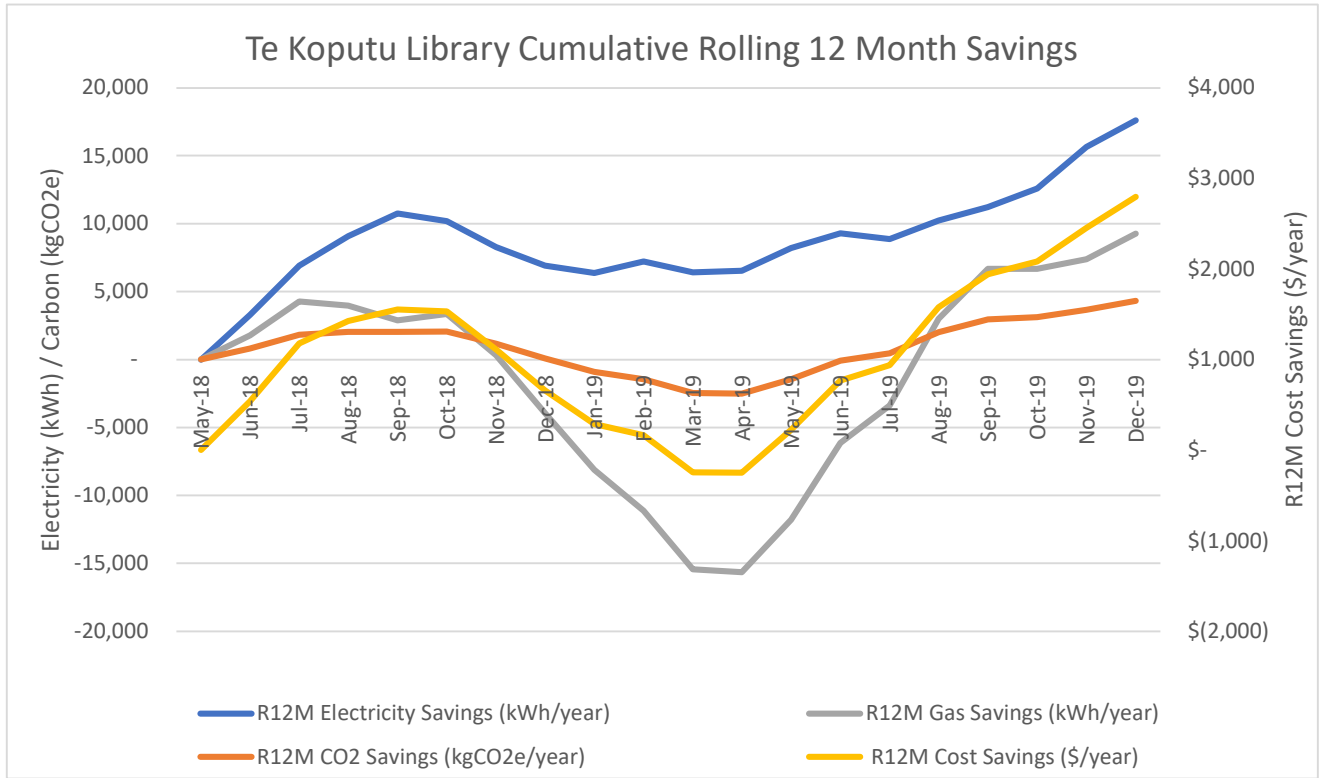


Te Koputu Library Actual versus Expected Natural Gas



Te Koputu Library Actual versus Expected CO2





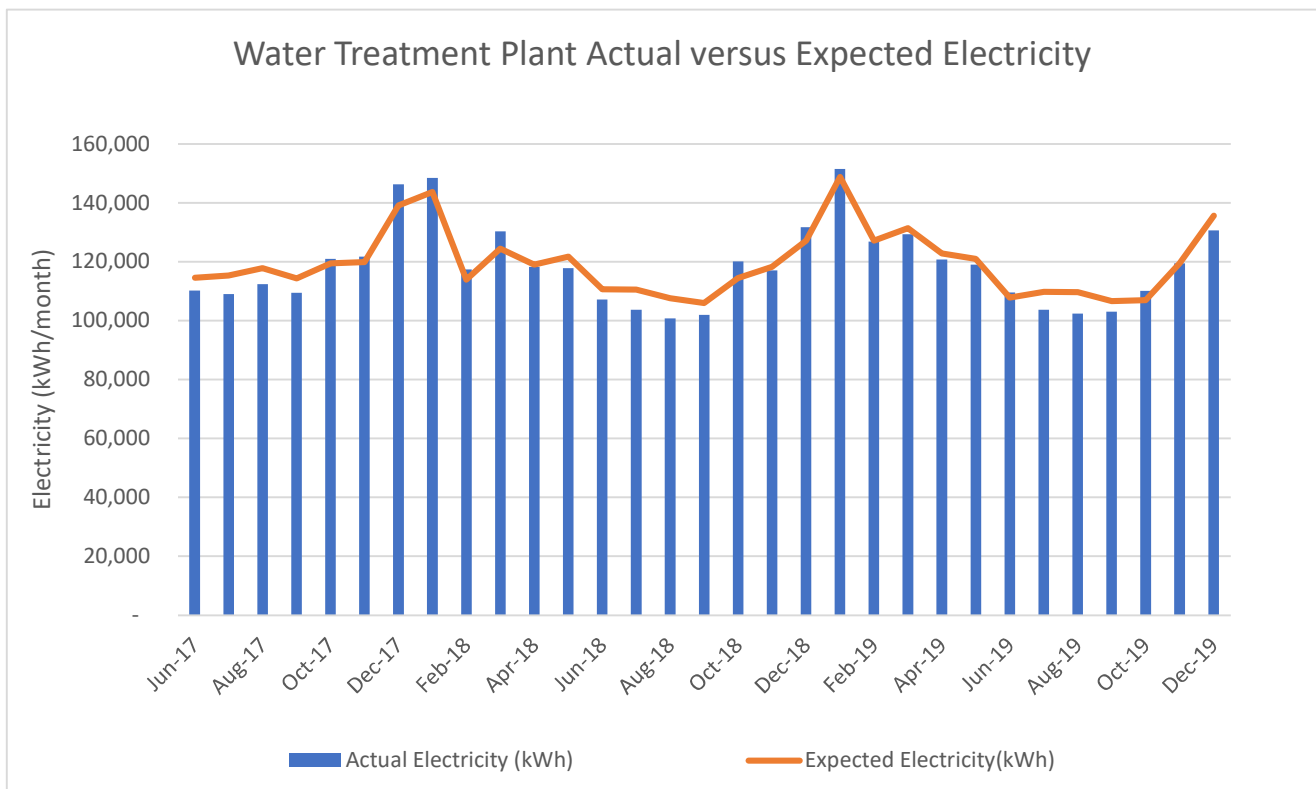
Whakatāne Water Treatment Plant

Summary

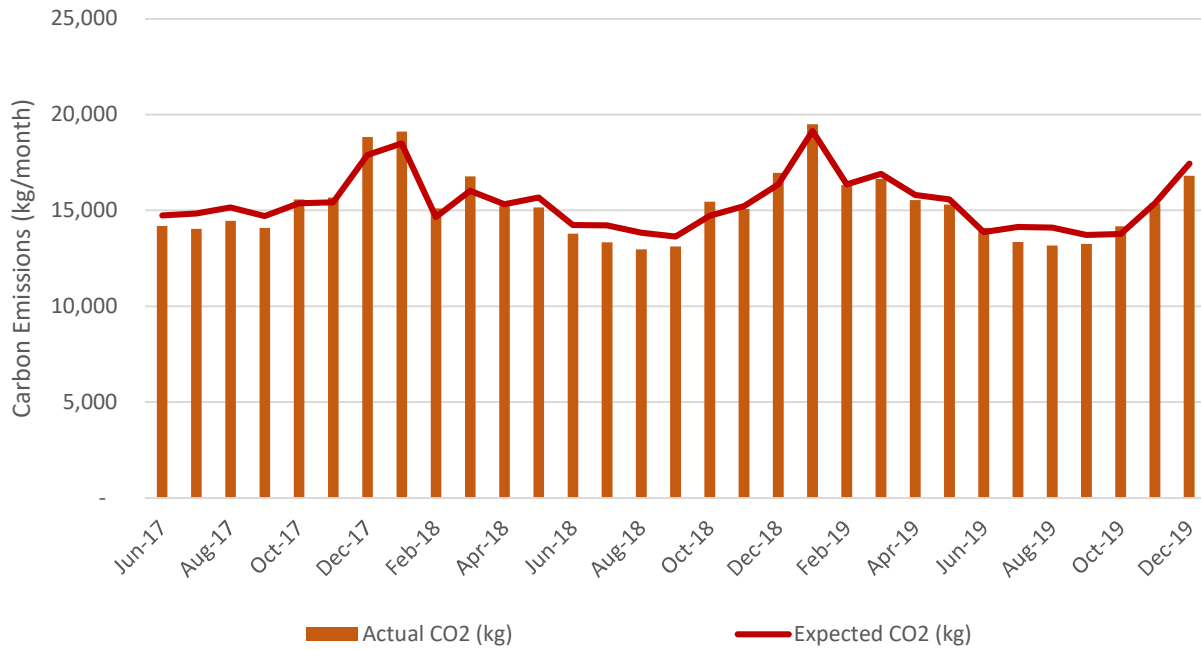
- Electricity savings for the month were 4,961kWh, a saving of 3.7%.
- Energy cost savings for the month were \$472.
- Carbon savings for the month were 638 kgCO₂e, a saving of 3.7%.
- Rolling 12-month electricity savings are 21,117 kWh, a saving of 1.5%.
- Rolling 12-month energy cost savings are \$2,385.
- Rolling 12-month carbon savings are 2,718 kgCO₂e, a saving of 1.5%.

Comments

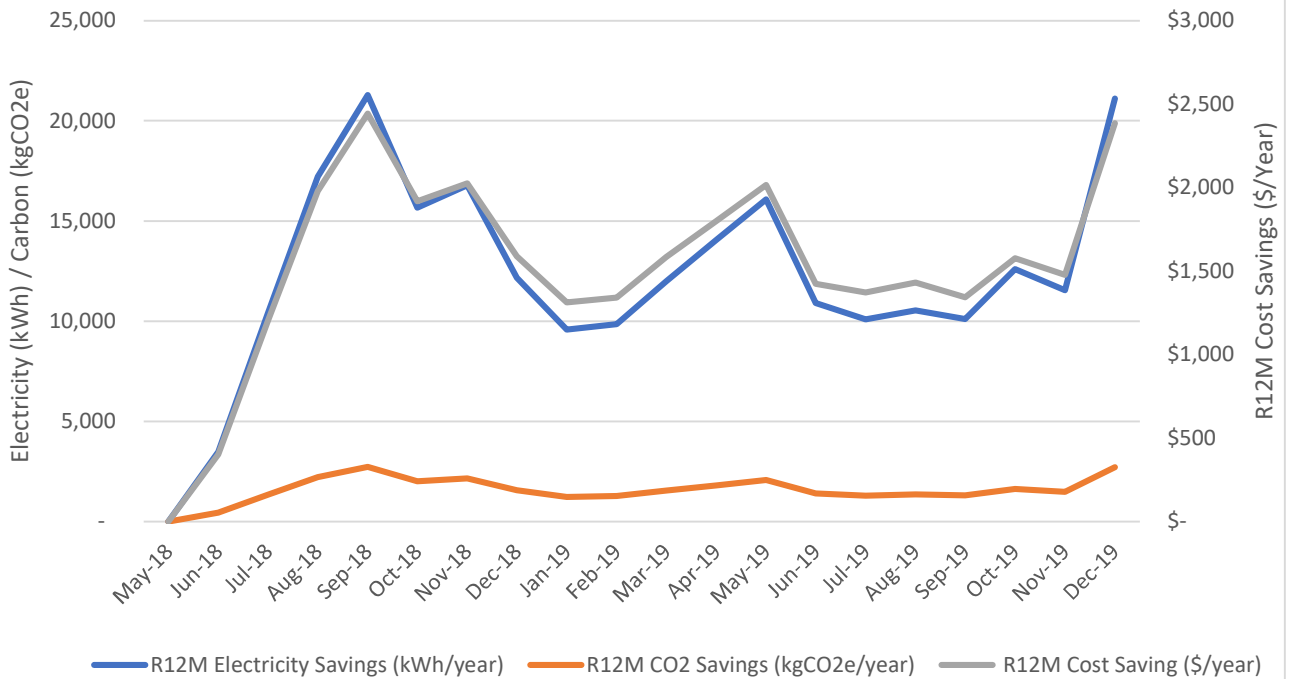
Electricity use was 3.7% less than expected at the water treatment plant in December 2019. The baseline adjusts for water supplied, and December has historically been a high demand month. Months of high demand have typically been accompanied by a decrease in efficiency, seemingly the result of a second high lift pump being less efficient than the main duty high lift pump. In December 2019 the demand increase has not seen this same reduction in efficiency, and instead a saving has been achieved.



Water Treatment Plant Actual versus Expected CO2



Whakatane Water Treatment Plant Cumulative Rolling 12 Month Savings



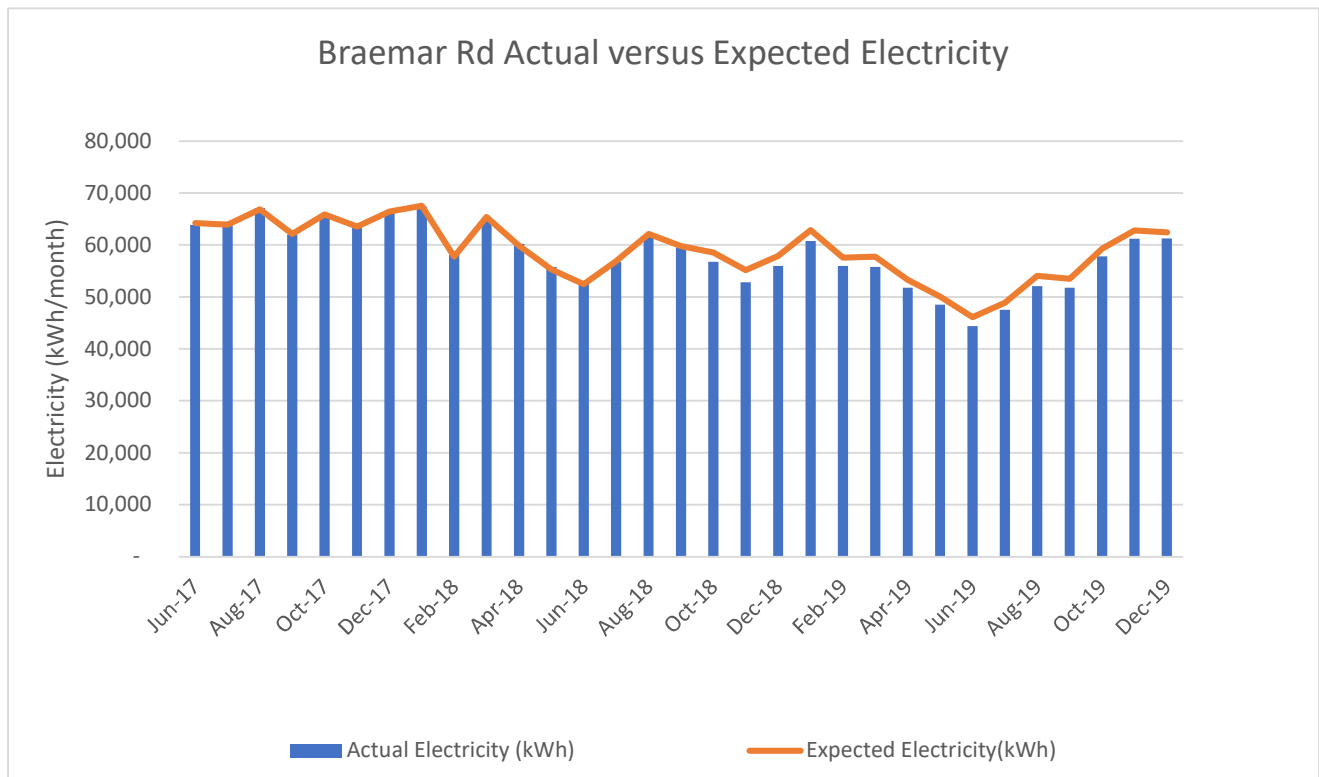
Braemar Rd Pump Station

Summary

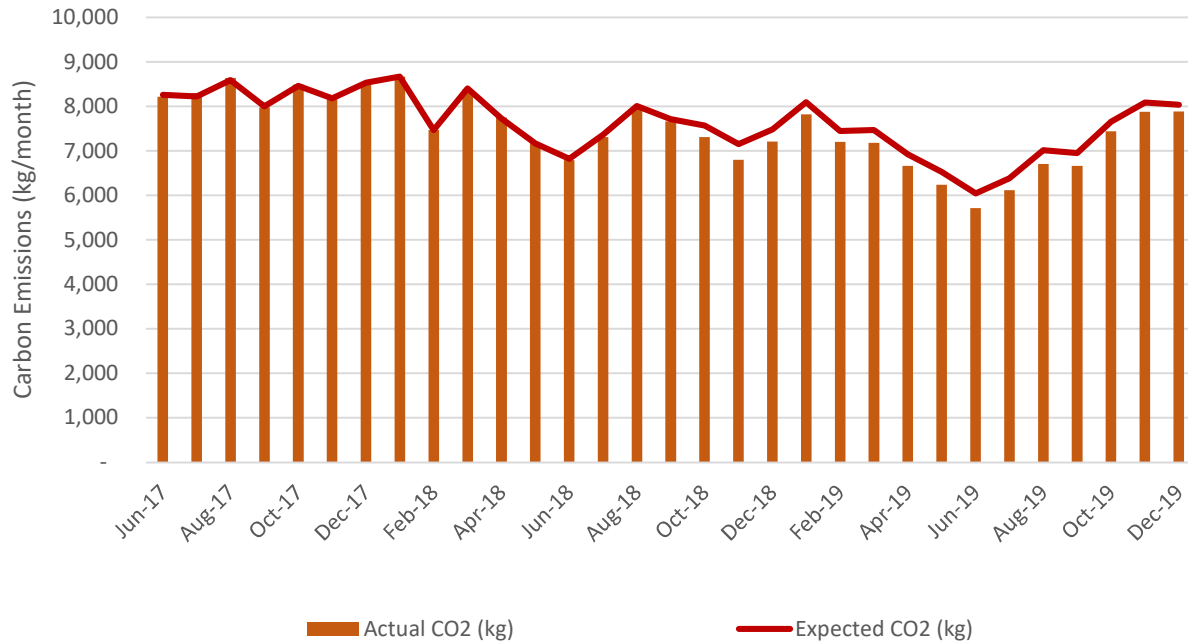
- Electricity savings for the month were 1,167kWh, a saving of 1.9%.
- Energy cost savings for the month were \$115.
- Carbon savings for the month were 155 kgCO₂e, a saving of 1.9%.
- Rolling 12-month electricity savings are 19,872 kWh, a saving of 3%.
- Rolling 12-month energy cost savings are \$2,183.
- Rolling 12-month carbon savings are 3,119 kgCO₂e, a saving of 3%.

Comments

Braemar Rd continues to use approx. 2-3% less electricity than expected each month. In December 2019 this saving was 1.9%, and in the last 12 months savings are 3.0%. This saving has corresponded to an increase in electricity used by Johnson Rd, which has increased costs overall.

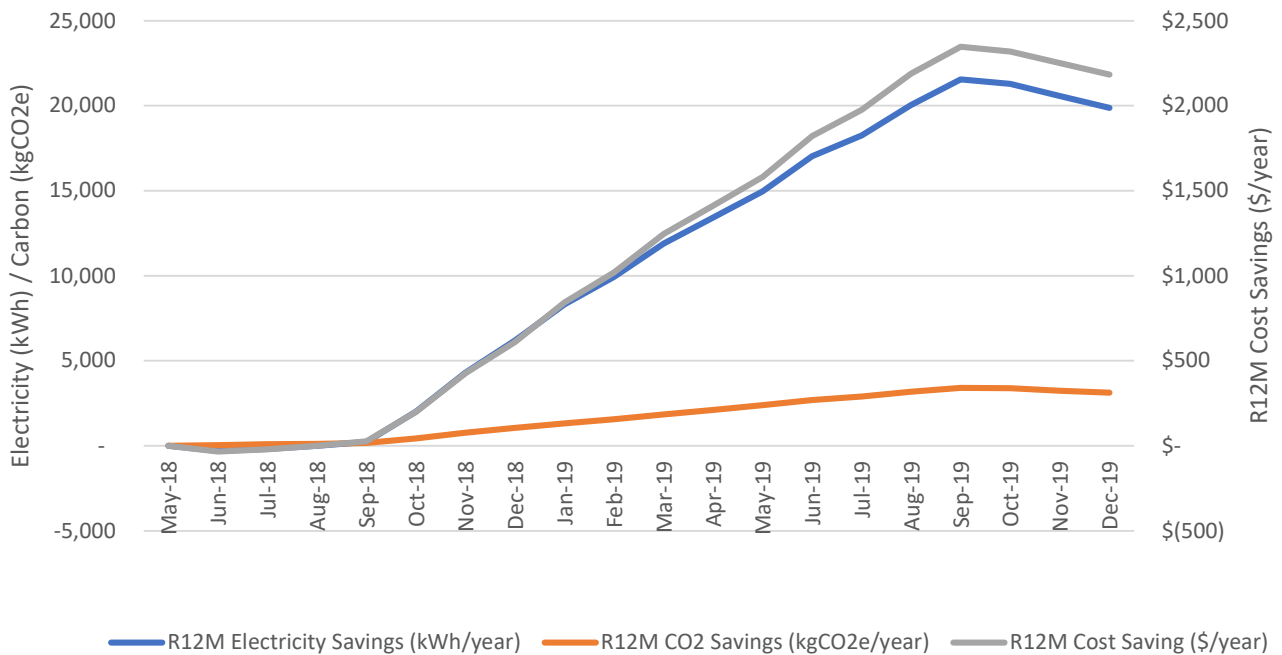


Braemar Rd Actual versus Expected CO2



Actual CO2 (kg) Expected CO2 (kg)

Braemar Rd Pumps Cumulative Rolling 12 Month Savings



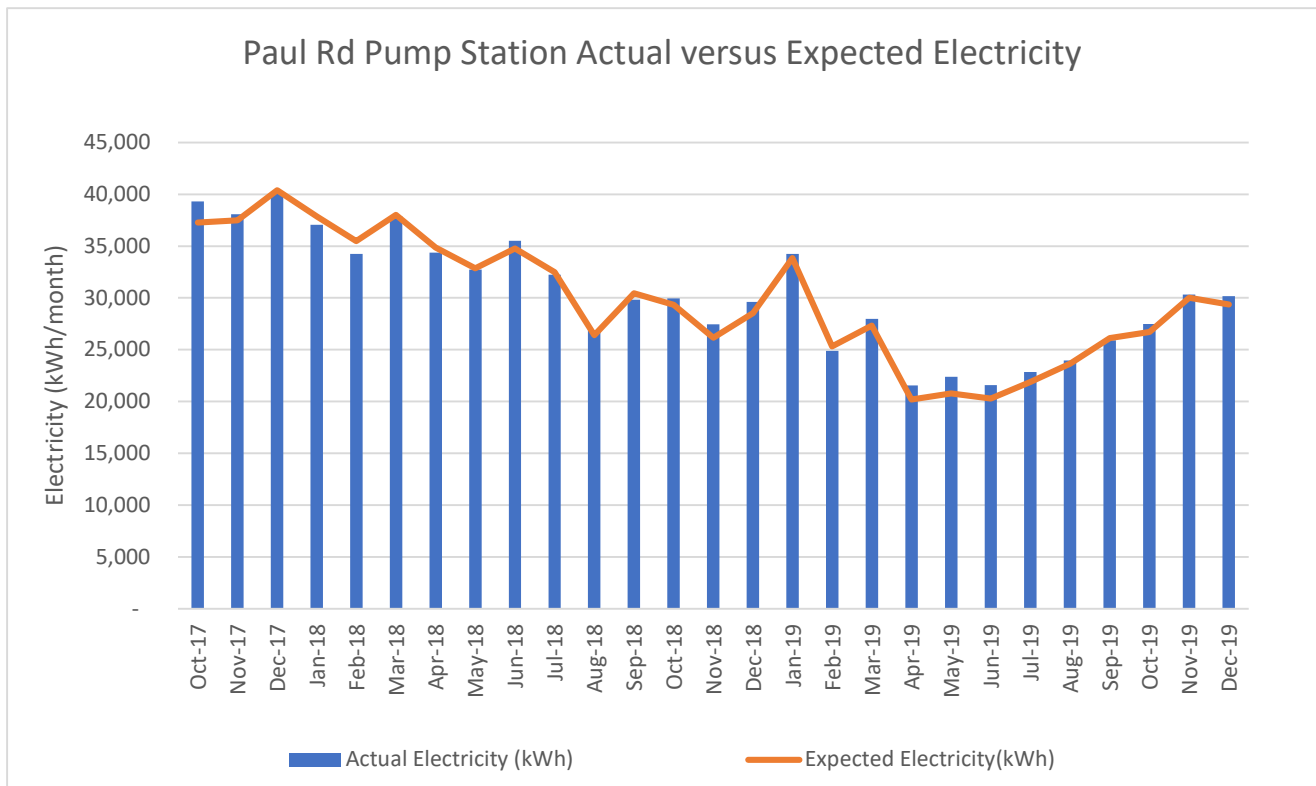
R12M Electricity Savings (kWh/year) R12M CO2 Savings (kgCO2e/year) R12M Cost Saving (\$/year)

Paul Rd Pump Station

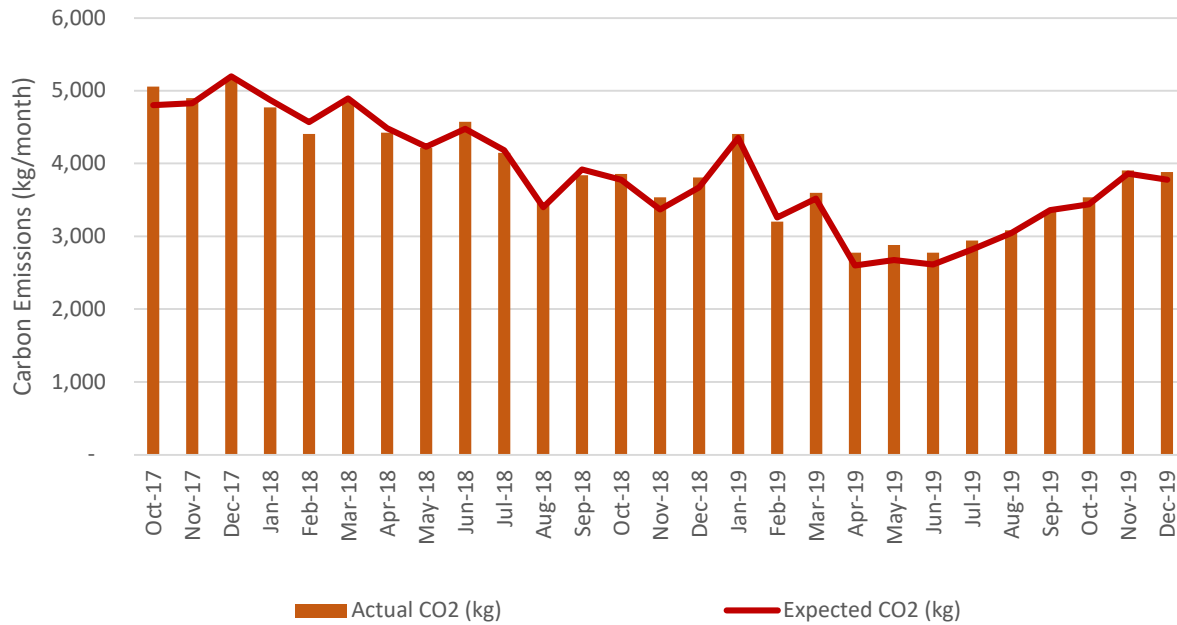
- Electricity savings for the month were -806kWh, an extra 2.7%.
- Energy cost savings for the month were -\$80, which is an increase.
- Carbon savings for the month were -103 kgCO₂e, an extra 2.7%.
- Rolling 12-month electricity savings are -7,787 kWh, an extra 2.5%.
- Rolling 12-month energy cost savings are -\$890, which is an increase.
- Rolling 12-month carbon savings are -996 kgCO₂e, an extra 2.5%.

Comments

Electricity used by the Paul Rd pump station in Dec 2019 was 2.7% higher than expected for the month. The baseline adjusts for the volume of water supplied by the pump station. This increased electricity used in December is consistent with a rolling 12 month increase of 2.5% which has occurred most months since Oct 2018.



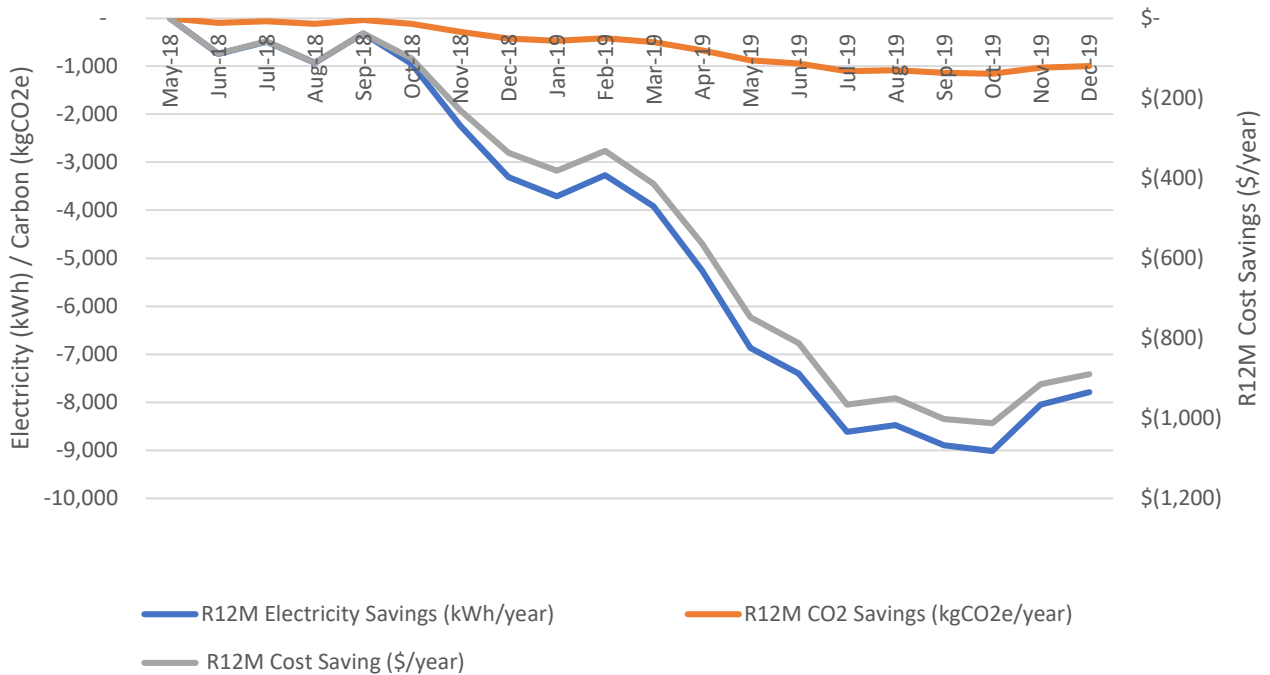
Paul Rd Pump Station Actual versus Expected CO2



Actual CO2 (kg)

Expected CO2 (kg)

Paul Rd Pumps Cumulative Rolling 12 Month Savings



R12M Electricity Savings (kWh/year)

R12M CO2 Savings (kgCO2e/year)

R12M Cost Saving (\$/year)

R12M Cost Savings (\$/year)