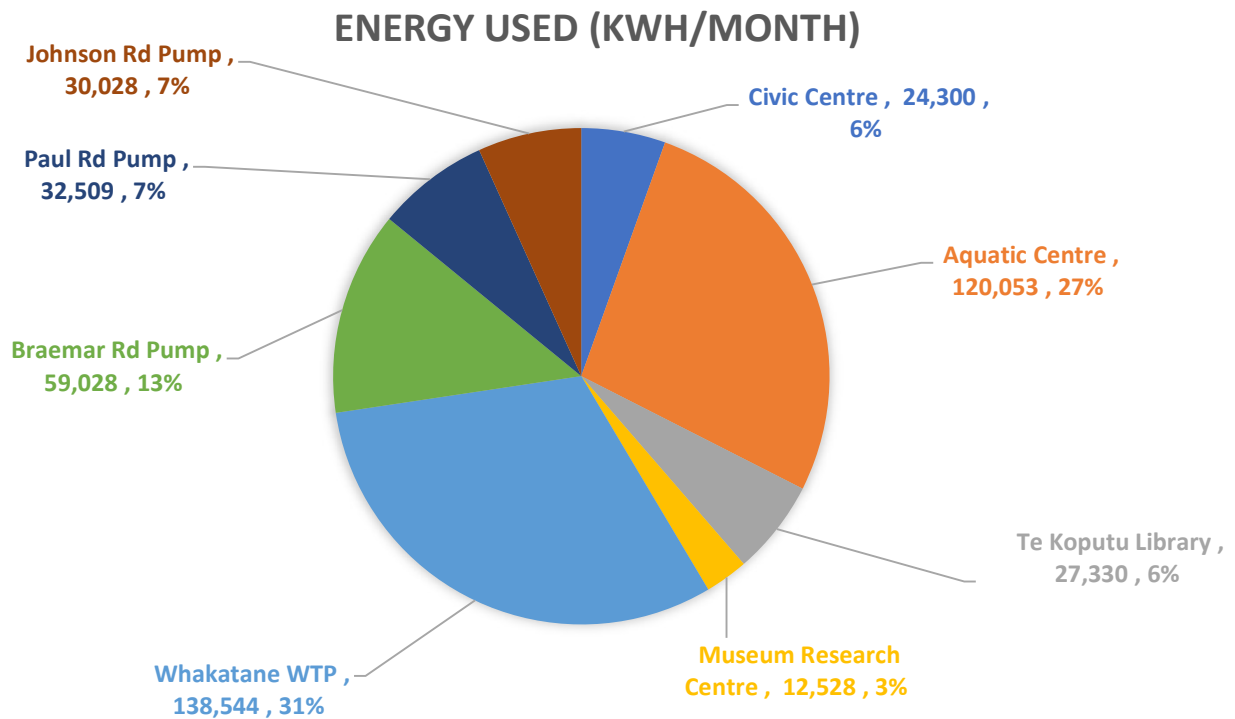


Whakatāne District Council Energy Performance Report

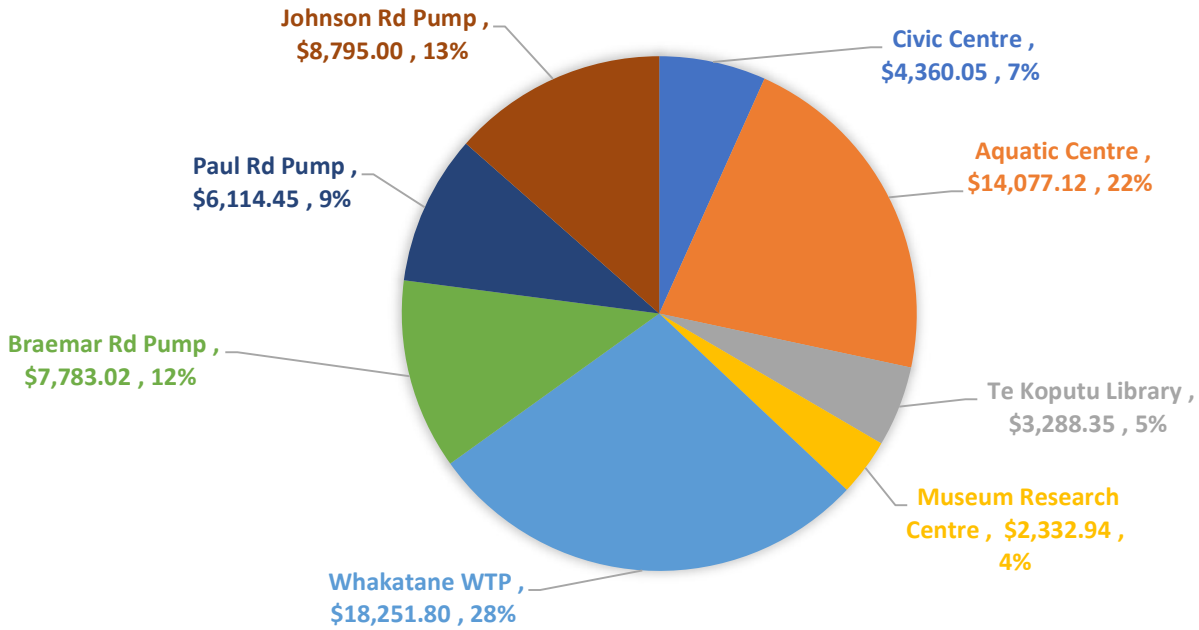
Summary

For Eight of Whakatāne District Council’s largest energy using sites:

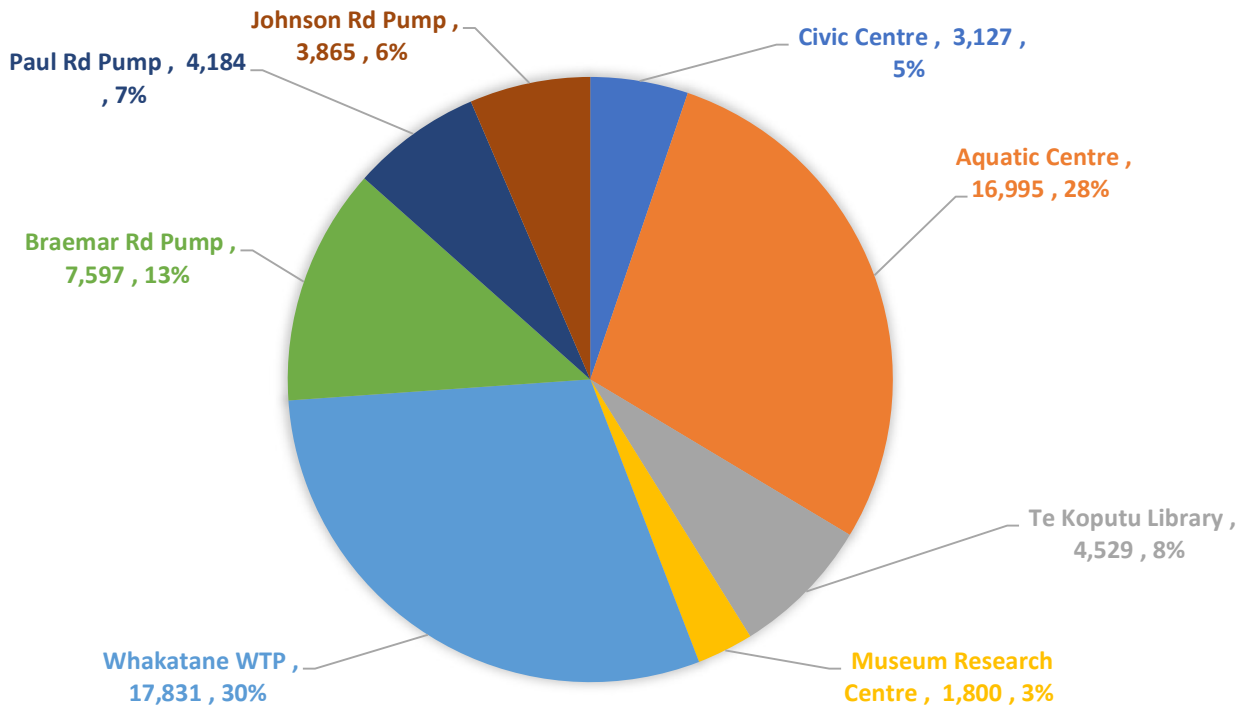
- Total energy used for the month was 444,320 kWh
- Total energy cost for the month was \$65,003
- Total carbon emissions for the month were 59,928 kgCO₂e
- Rolling 12-month energy savings total 586,339 kWh
- Rolling 12-month energy cost savings total \$41,909
- Rolling 12-month carbon savings total 125,000 kgCO₂e



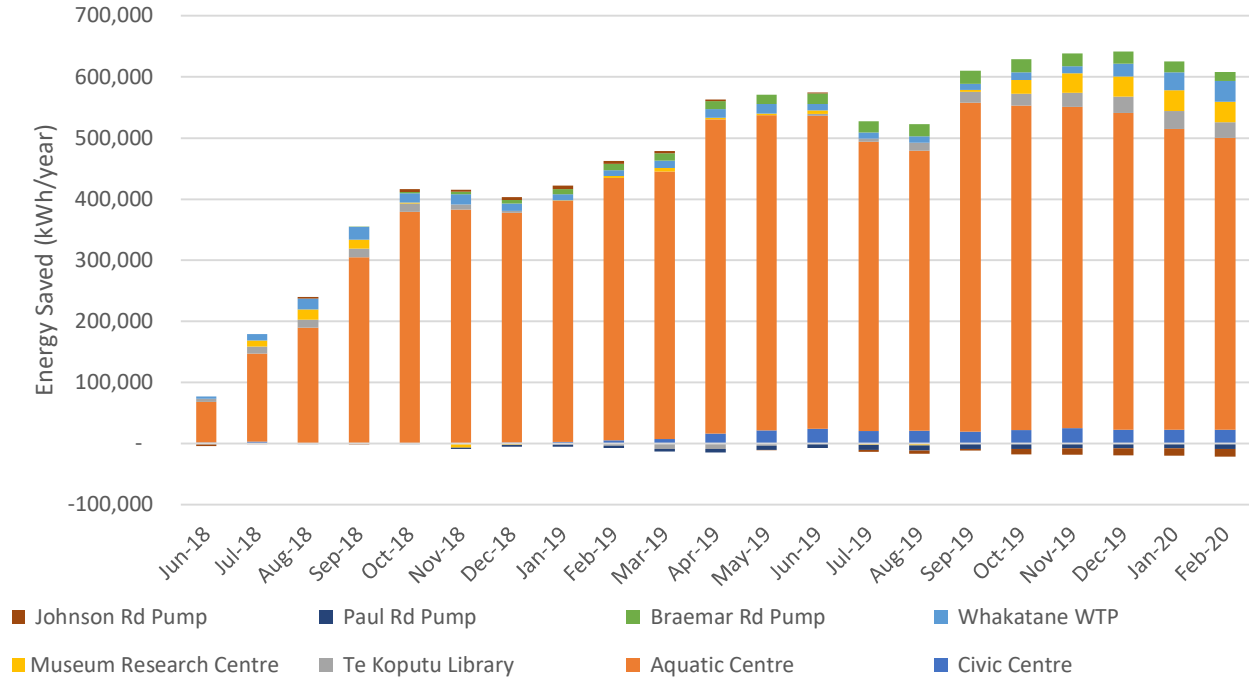
ENERGY COST (\$/MONTH)



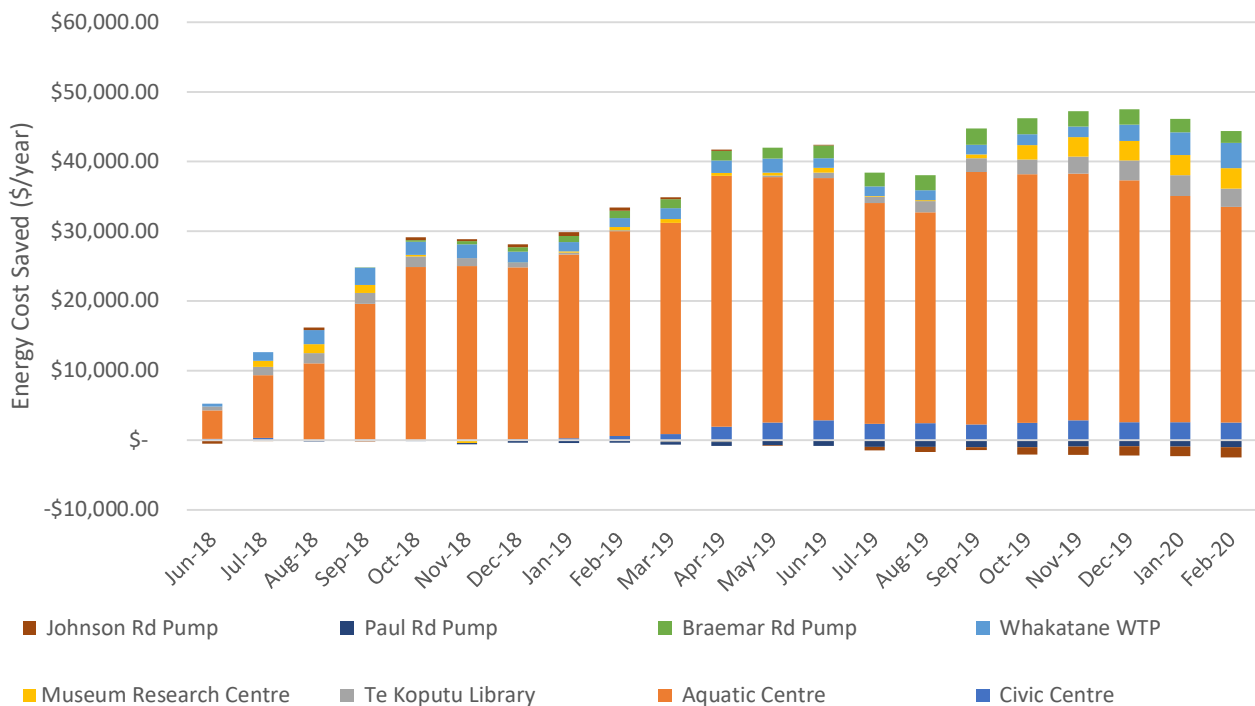
CARBON EMISSIONS (KGCO2E/MONTH)



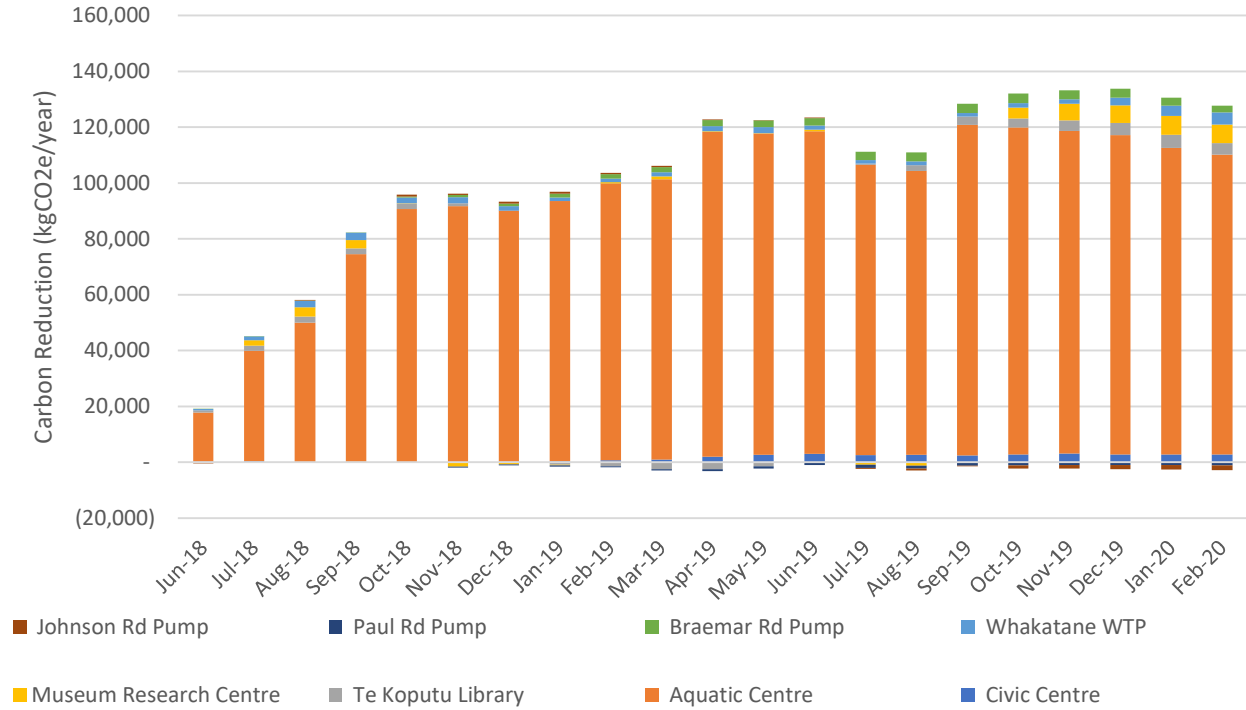
Rolling 12 month Energy Savings



Rolling 12 month Energy Cost Savings



Rolling 12 month Carbon Savings



Civic Centre

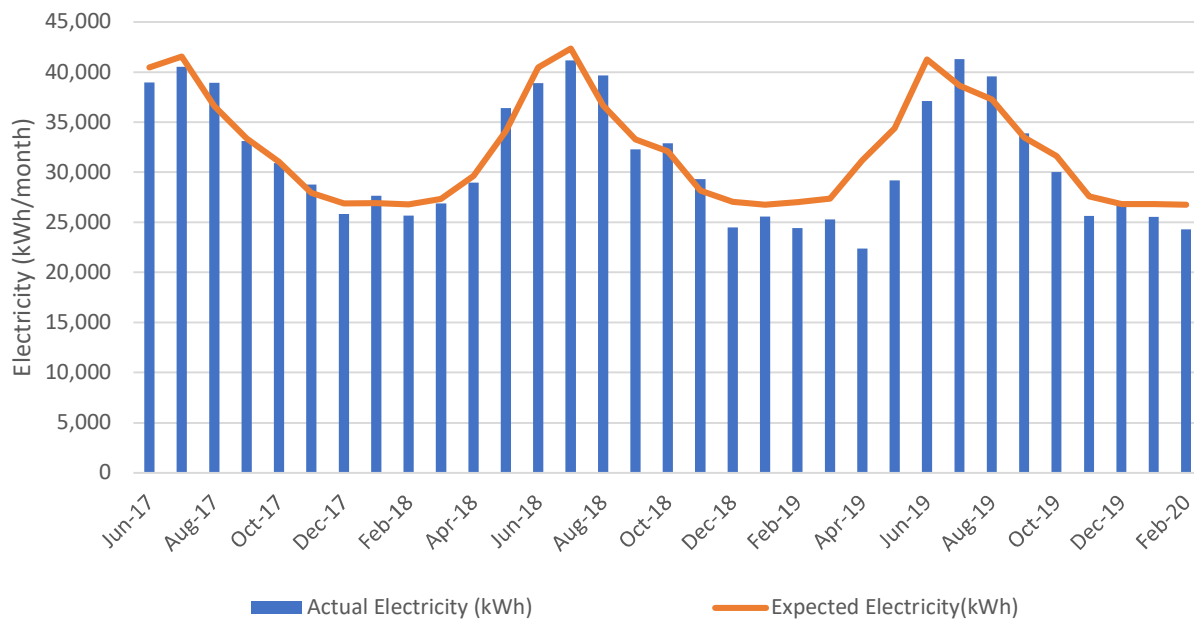
Summary

- Electricity savings for the month were 2,452kWh, a saving of 9.2%.
- Energy cost savings for the month were \$284.
- Carbon savings for the month were 316 kgCO₂e, a saving of 9.2%.
- Rolling 12-month electricity savings are 22,194 kWh, a saving of 5.8%.
- Rolling 12-month energy cost savings are \$2,540.
- Rolling 12-month carbon savings are 2,857 kgCO₂e, a saving of 5.8%.

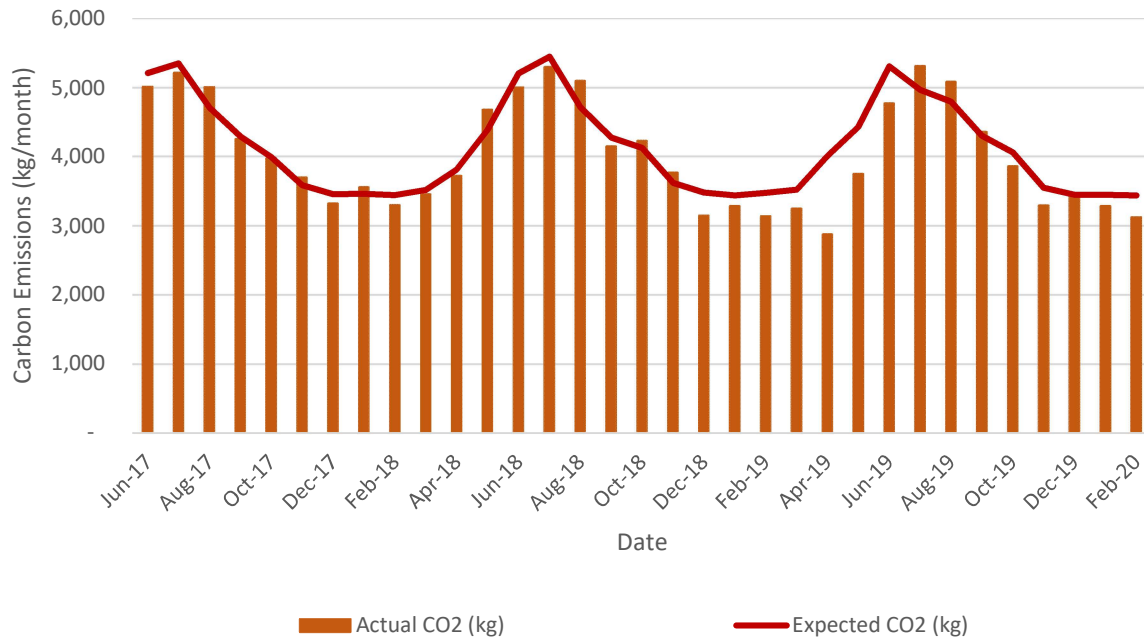
Comments

Electricity use at the Civic Centre was 2450 kWh less than expected in February 2020. Electricity savings are twice as high as January 2020. The baseline adjusts for heating degree days which is a measure of ambient temperature. Electricity use in February 2020 was approximately equal to February 2019. There was however one additional day in Feb 2020 compared to 2019.

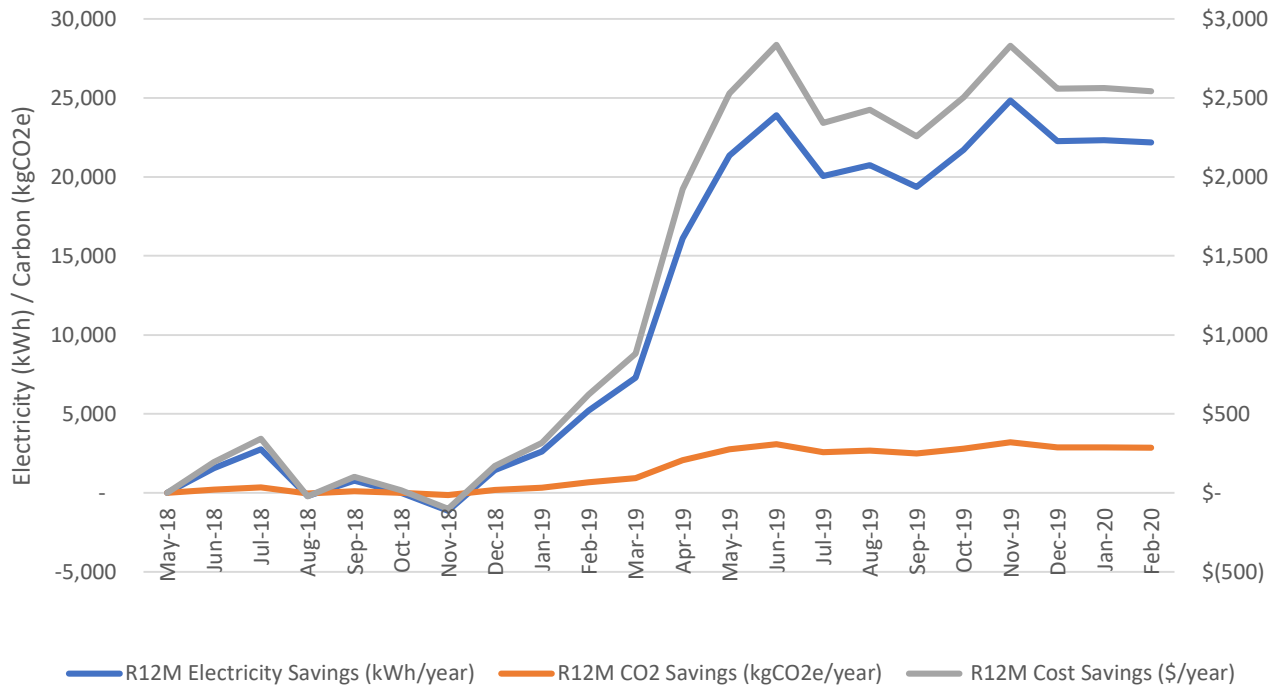
Civic Centre Actual versus Expected Electricity



Civic Centre Actual versus Expected CO2



Civic Centre Cumulative Rolling 12 Month Savings



Aquatic Centre

Summary

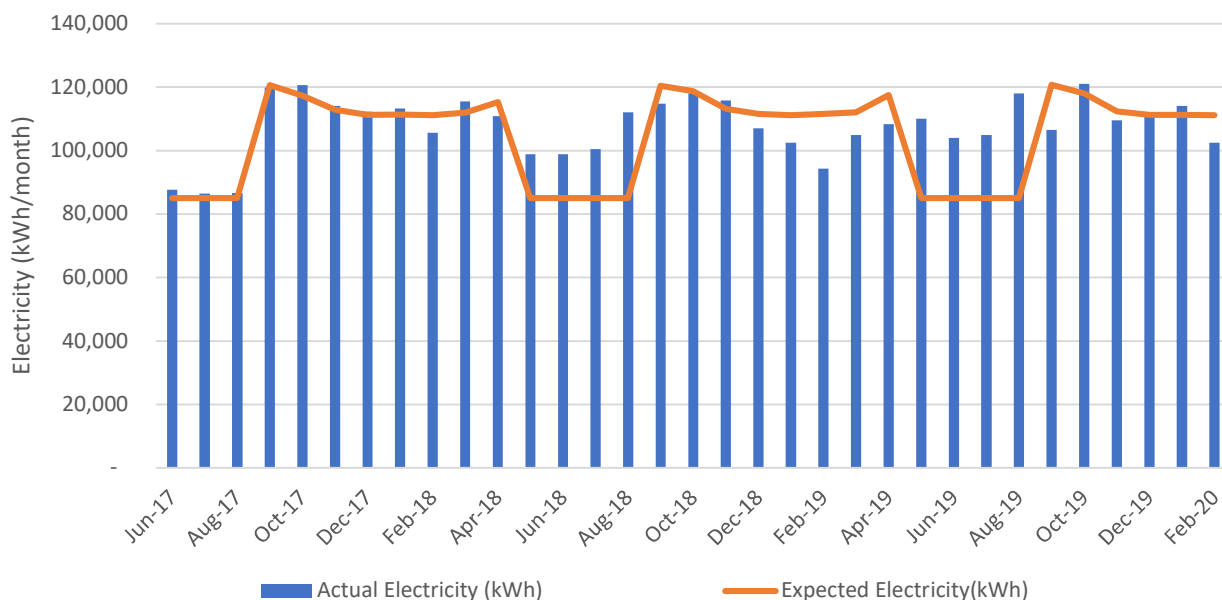
- Electricity savings for the month were 8,625kWh, a saving of 7.8%.
- Natural gas savings for the month were 10,725 kWh, a saving of 38%
- Energy cost savings for the month were \$1,523.
- Carbon savings for the month were 3,469 kgCO₂e, a saving of 17%.
- Rolling 12-month electricity savings are -61,173 kWh, an extra 4.9%.
- Rolling 12-month natural gas savings are 539,222 kWh, a saving of 52.9%
- Rolling 12-month energy cost savings are \$30,992.
- Rolling 12-month carbon savings are 107,327 kgCO₂e, a saving of 28.2%.

Comments

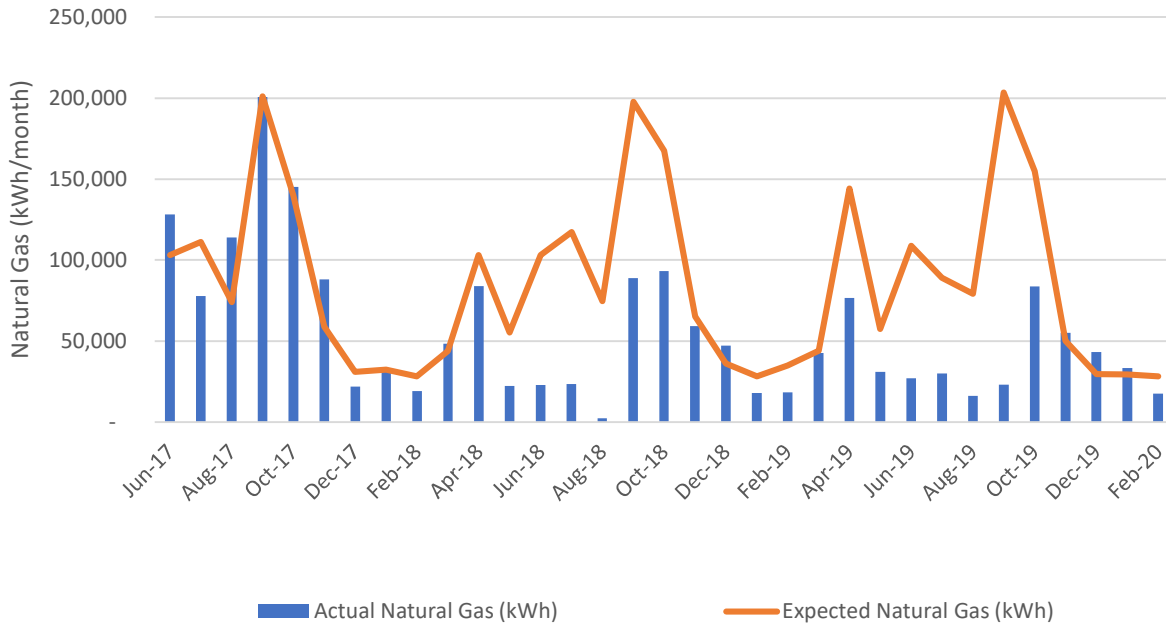
On Feb 19 at 19:30, the TOU meter went offline for the aquatic centre. Electricity use at the Aquatic Centre is estimated for the month, based on the period before the meter went offline. Electricity usage will be updated when accurate information is provided from the supplier. February has historically been a month that has shown electricity use below baseline, this trend continues in 2020.

Natural Gas use in February 2020 is approximately half of baseline. It is noted however that February has historically been a month where gas use has been below the baseline. The baseline adjusts for heating degree days (ambient temperature). Gas use in Feb 2020 was lower than in Feb 2019 despite one extra day. Gas use was highest on Feb 24 and 25th, and also spiked on February 13th and 17th.

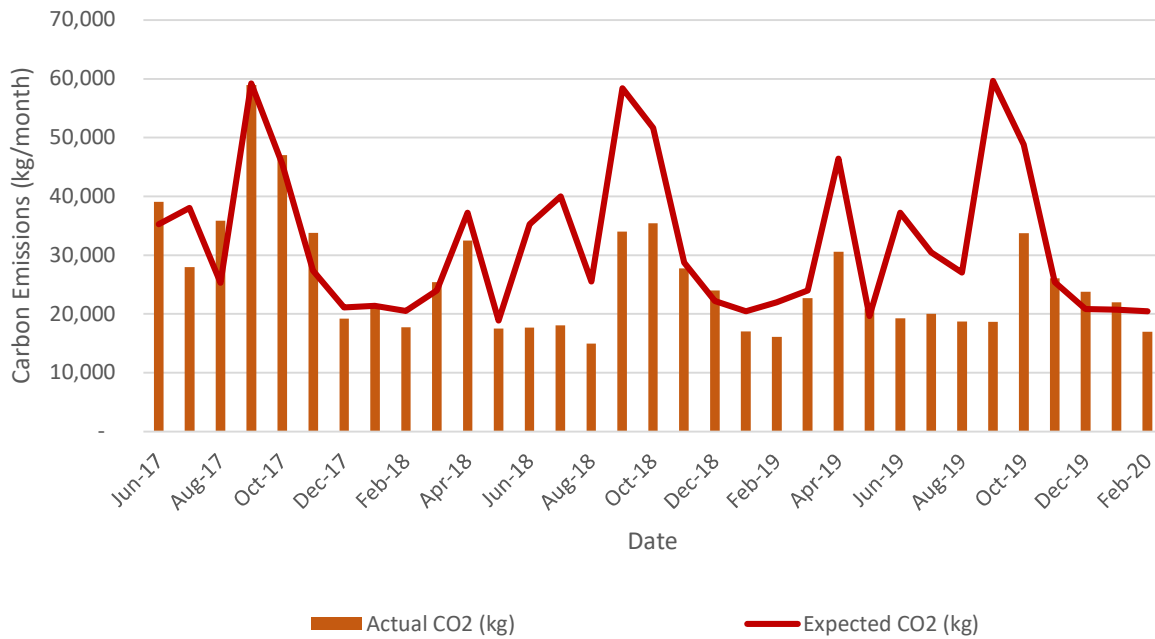
Aquatic Centre Actual versus Expected Electricity



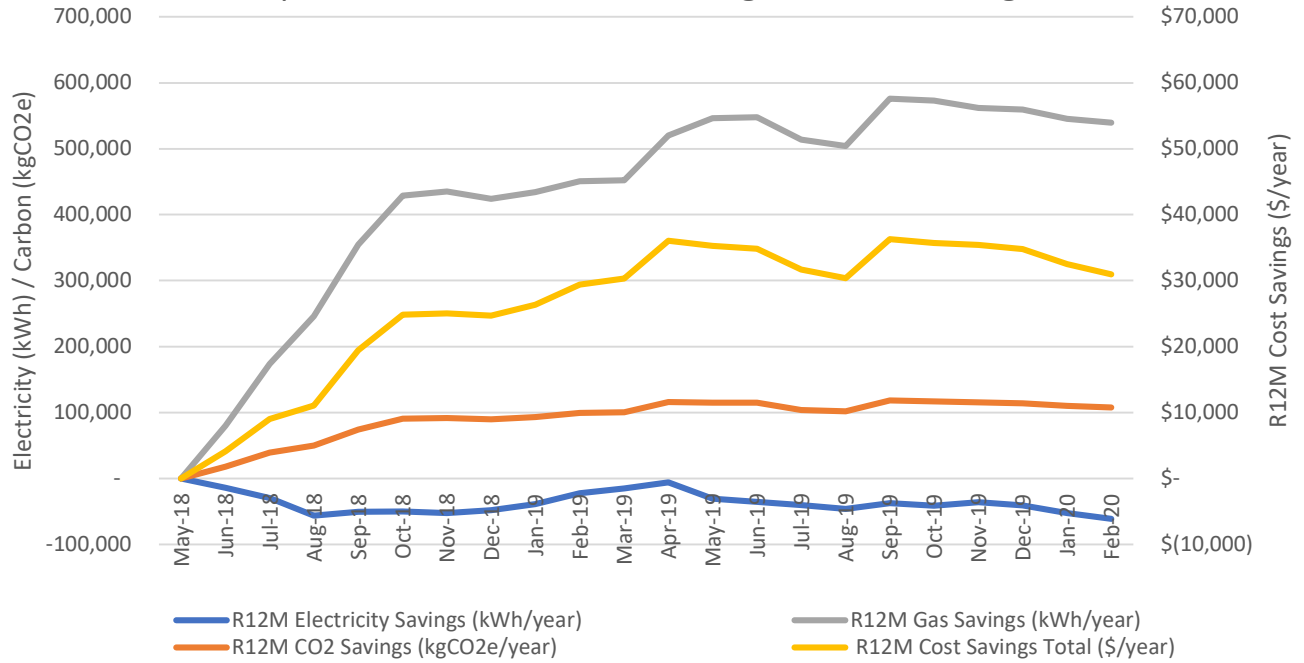
Aquatic Centre Actual versus Expected Natural Gas



Aquatic Centre Actual versus Expected CO2



Aquatic Centre Cumulative Rolling 12 Month Savings



Te Koputu Library

Summary

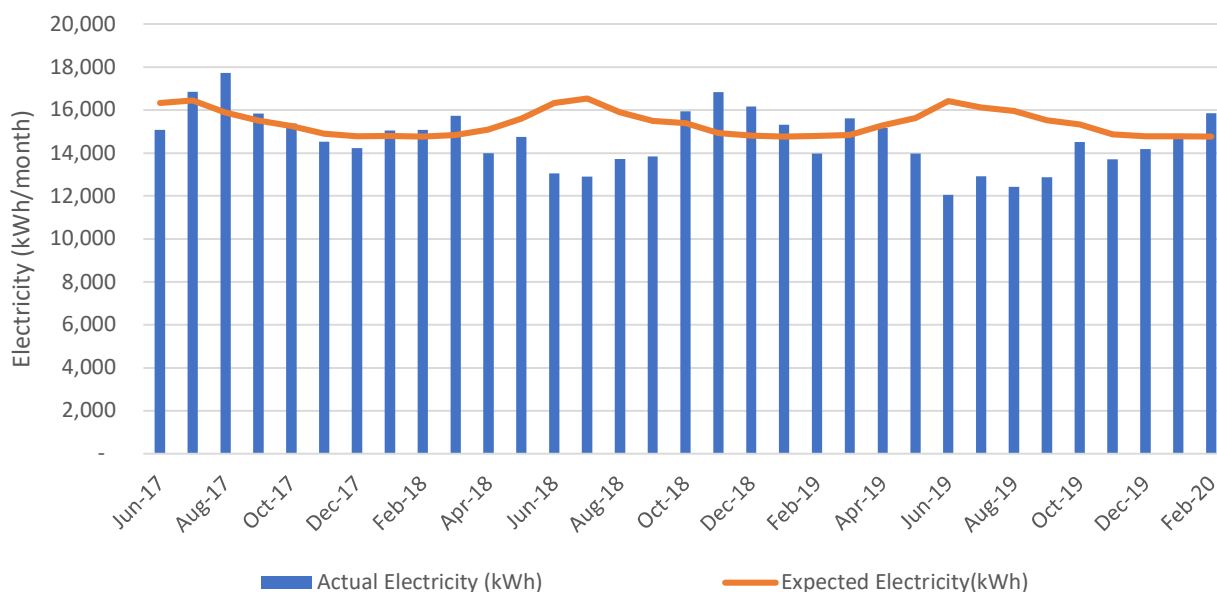
- Electricity savings for the month were -1,082kWh, an extra 7.3%.
- Natural gas savings for the month were -4,957 kWh, an extra 76%
- Energy cost savings for the month were -\$489, which is an increase.
- Carbon savings for the month were -1,210 kgCO₂e, an extra 36.4%.
- Rolling 12-month electricity savings are 16,327 kWh, a saving of 8.9%
- Rolling 12-month natural gas savings are 8,976 kWh, a saving of 7.6%
- Rolling 12-month energy cost savings are \$2,628.
- Rolling 12-month carbon savings are 4,100 kgCO₂e, a saving of 8.3%.

Comments

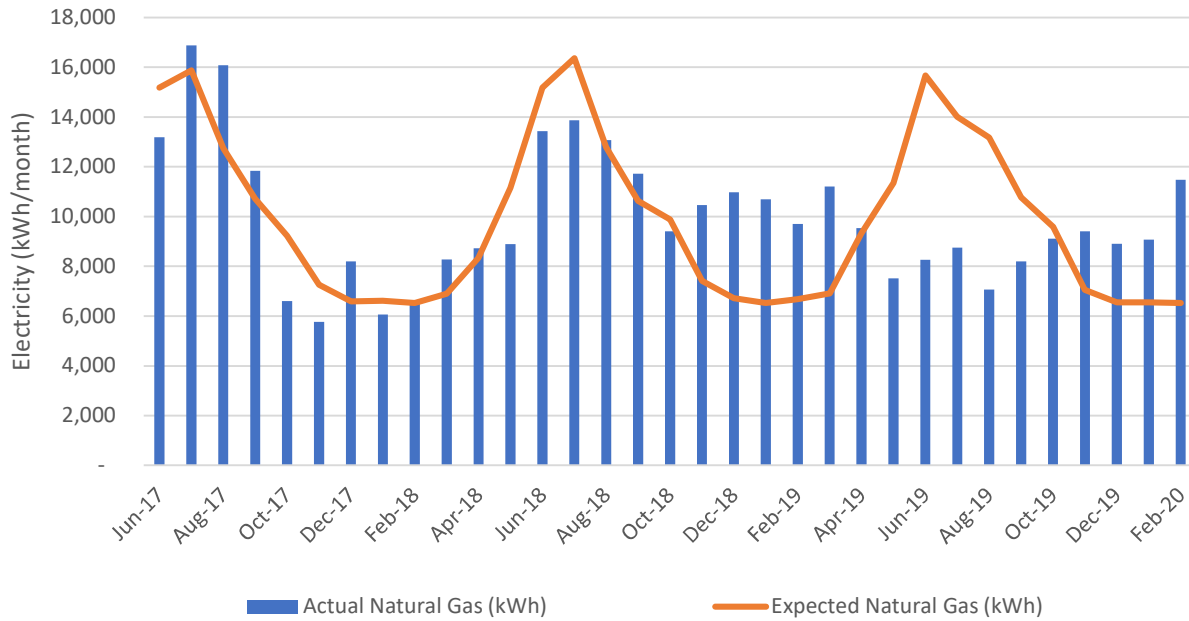
Electricity use at the Library was 7.3% above baseline. Electricity use had been lower than expected for the previous 10 months at the Library and this is the first month to break that trend. A seasonal reversal trend with electricity use continues, electricity use is at its highest in summer, whereas this used to occur in the winter.

Gas use at the library was 76% higher than expected in February 2020. This has also seen a reversal of seasonal trends, with gas use at its highest in summer months; this is due to dehumidification and reheat. February was warmer than usual, with zero degree heating days. Gas use was lower in Feb 2019 compared to Feb 2020, however both are above baseline.

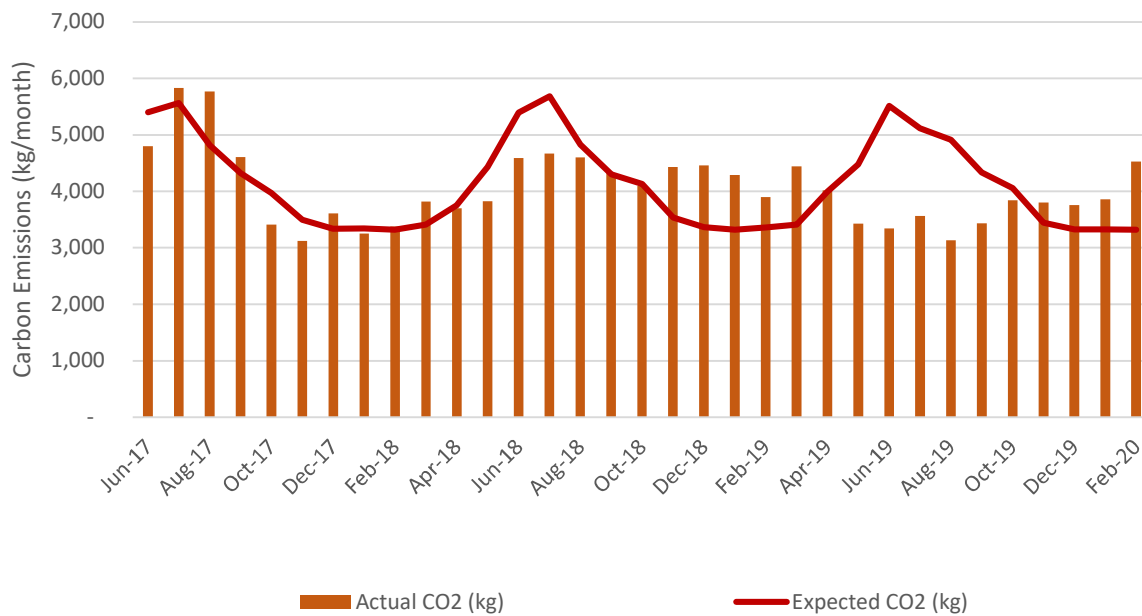
Te Koputu Library Actual versus Expected Electricity



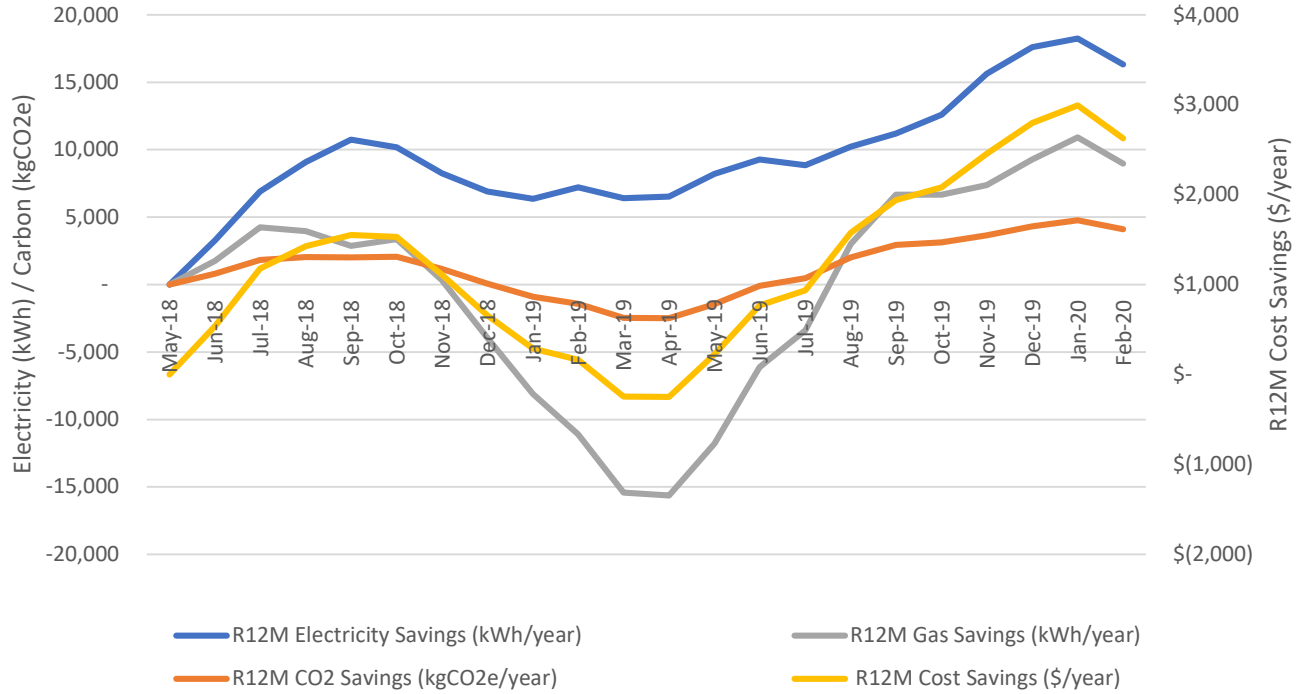
Te Koputu Library Actual versus Expected Natural Gas



Te Koputu Library Actual versus Expected CO2



Te Koputu Library Cumulative Rolling 12 Month Savings



Museum Research Centre

Summary

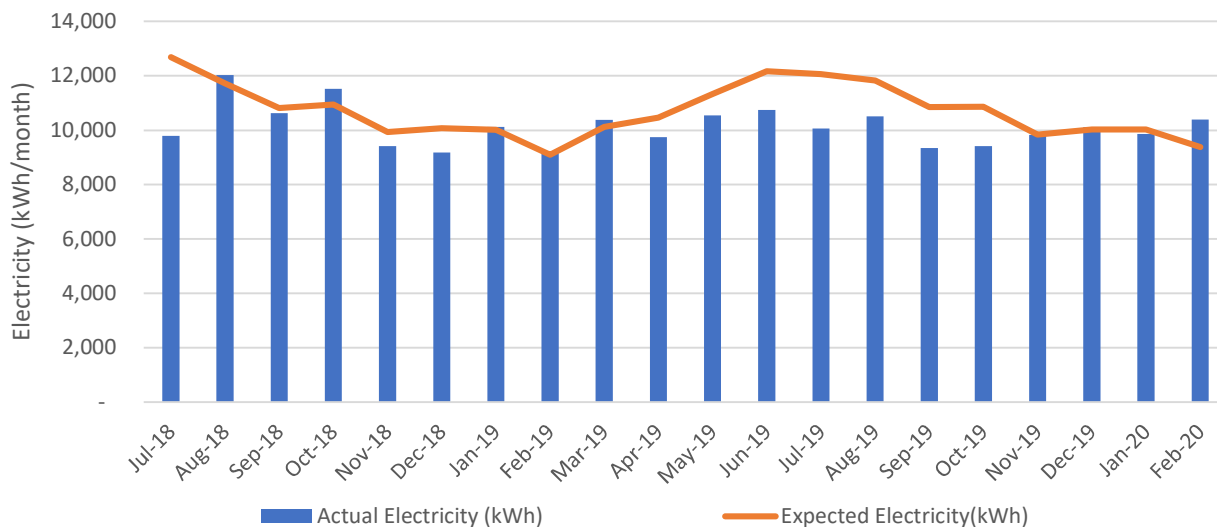
- Electricity savings for the month were -1,019kWh, an extra 10.9%.
- Natural gas savings for the month were 3,879 kWh, a saving of 64.5%
- Energy cost savings for the month were \$173.
- Carbon savings for the month were 710 kgCO₂e, a saving of 28.3%.
- Rolling 12-month electricity savings are 8,002 kWh, a saving of 6.2%
- Rolling 12-month natural gas savings are 26,185 kWh, a saving of 33.9%
- Rolling 12-month energy cost savings are \$2,882.
- Rolling 12-month carbon savings are 6,707 kgCO₂e, a saving of 20.1%.

Comments

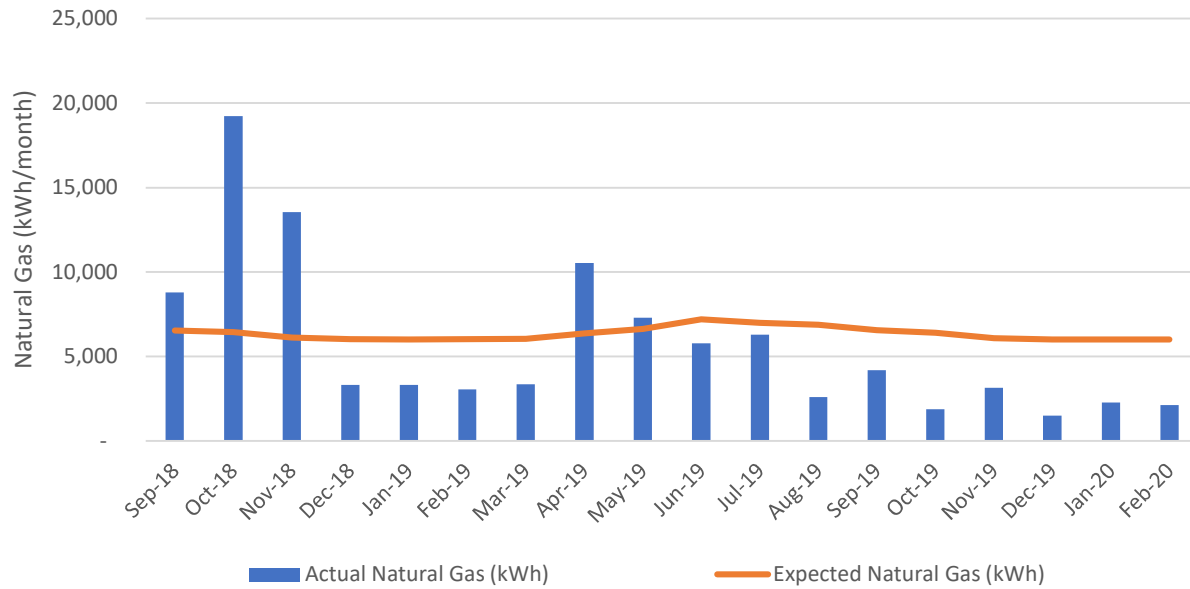
Last month, the Museum and Research Centre was added to the reporting. The correlation between heating degree days, electricity use, and gas use is low; this is because energy use does not change much from month to month, suggesting it is largely independent of temperature.

Electricity use at the Museum and Research Centre was approx 11% above baseline for February 2020 and was slightly higher than February 2019. Gas use for the month was significantly below baseline. Total energy savings for the month were \$173. Rolling 12 month savings started to increase since September 2019, February 2020 continues to follow that trend. Current 12 month energy savings are approximately \$2,900.

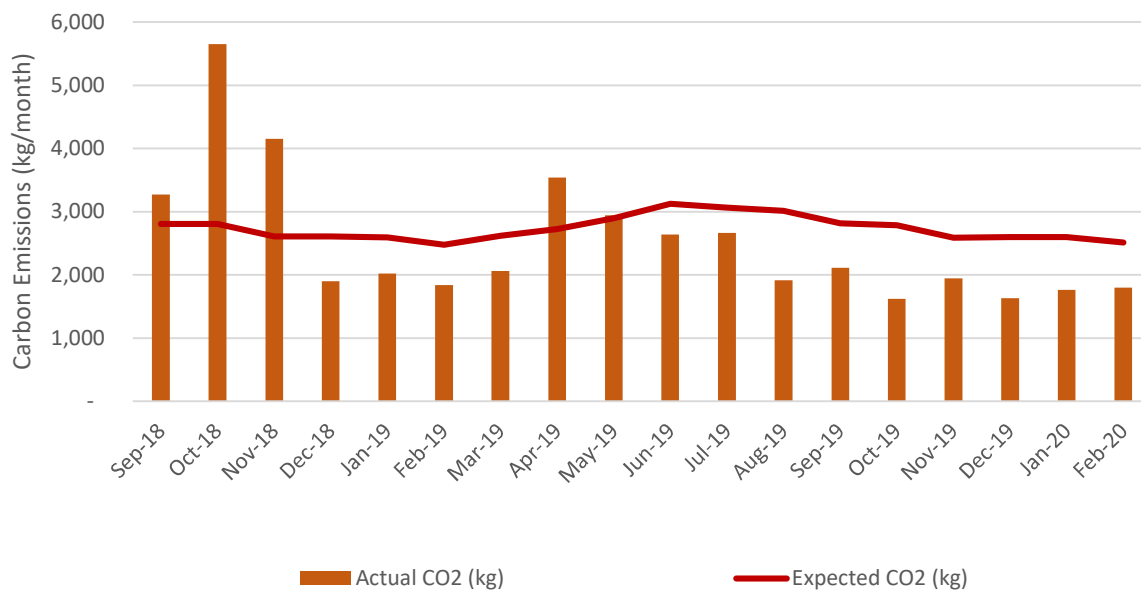
Museum Research Centre Actual versus Expected Electricity



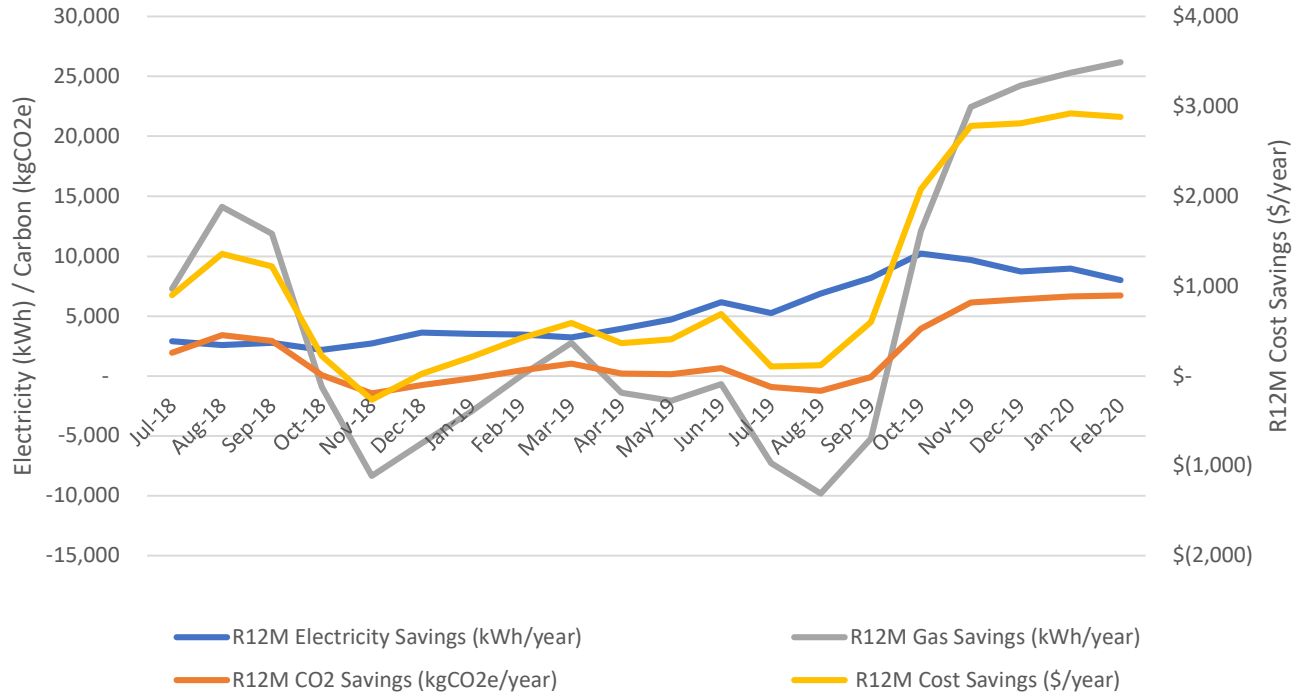
Museum Research Centre Actual versus Expected Natural Gas



Museum Research Centre Actual versus Expected CO2



Museum Research Centre Cumulative Rolling 12 Month Savings



Whakatāne Water Treatment Plant

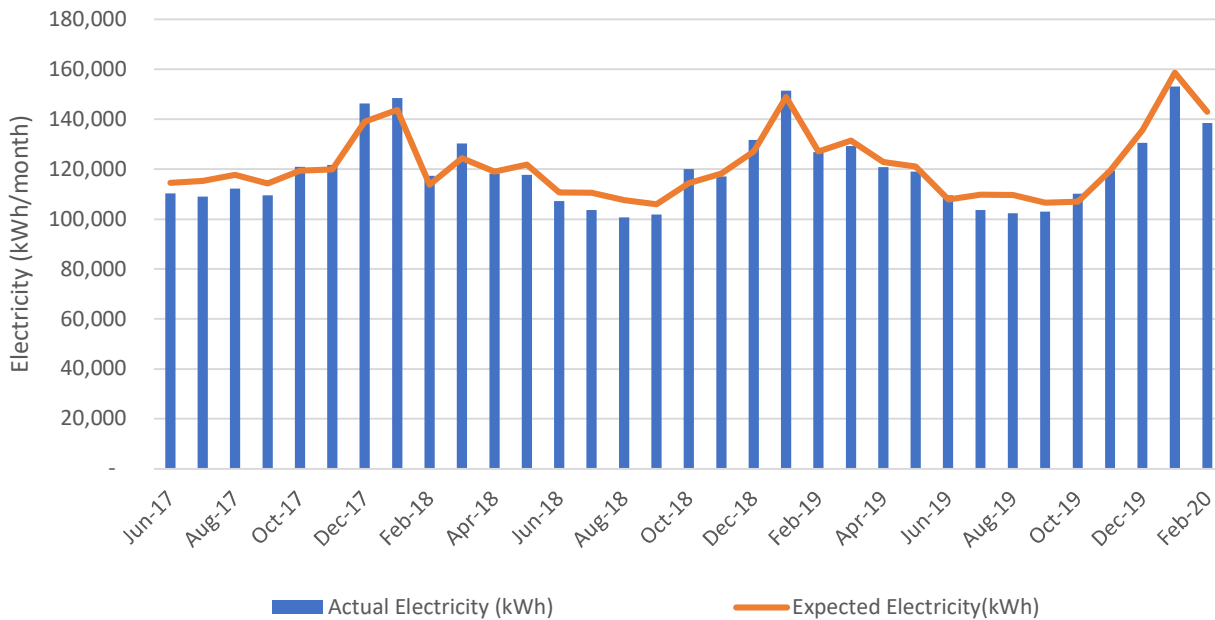
Summary

- Electricity savings for the month were 4,453kWh, a saving of 3.1%.
- Energy cost savings for the month were \$460.
- Carbon savings for the month were 573 kgCO₂e, a saving of 3.1%.
- Rolling 12-month electricity savings are 33,316 kWh, a saving of 2.3%.
- Rolling 12-month energy cost savings are \$3,667.
- Rolling 12-month carbon savings are 4,288 kgCO₂e, a saving of 2.3%.

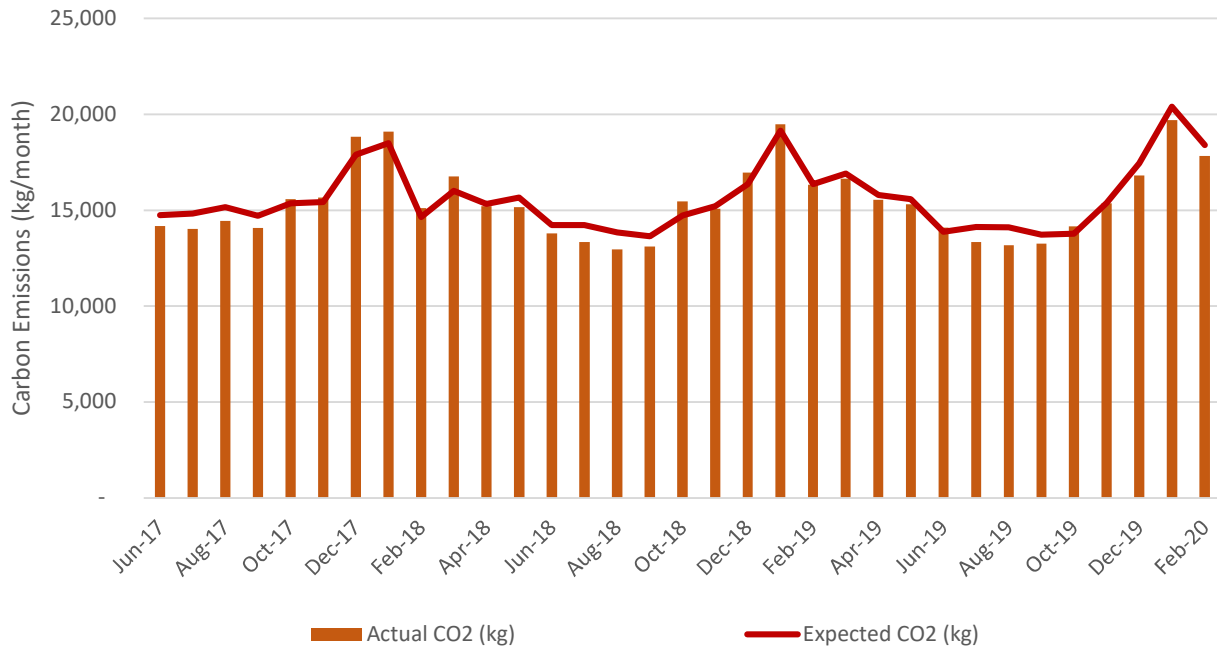
Comments

Electricity use was less than expected at the water treatment plant for February 2020. The baseline adjusts for water supplied. Electricity use has increased in absolute terms, compared to 2019, for both January and February due to higher water volumes supplied; however, this year a savings was achieved. Months of high demand have historically been accompanied by a decrease in efficiency, however this has not been the case in recent months.

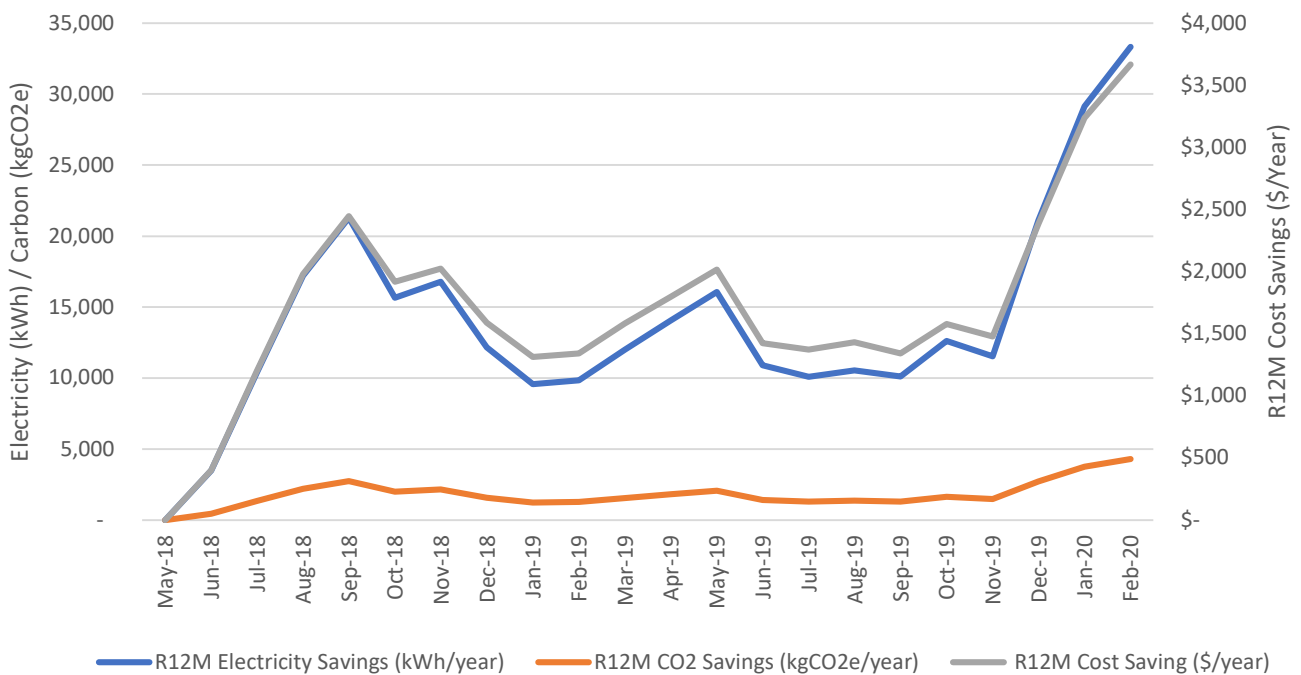
Water Treatment Plant Actual versus Expected Electricity



Water Treatment Plant Actual versus Expected CO2



Whakatane Water Treatment Plant Cumulative Rolling 12 Month Savings



Braemar Rd Pump Station

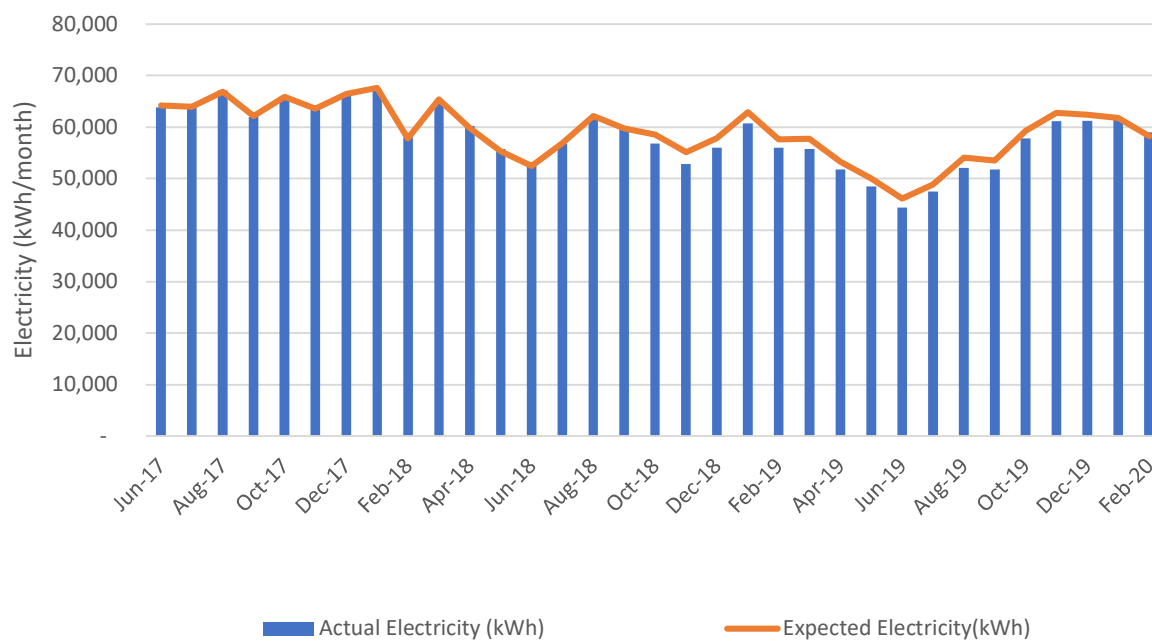
Summary

- Electricity savings for the month were -783kWh, an extra 1.3%.
- Energy cost savings for the month were -\$82, which is an increase.
- Carbon savings for the month were -70 kgCO₂e, an extra 1.3%.
- Rolling 12-month electricity savings are 15,170 kWh, a saving of 2.3%.
- Rolling 12-month energy cost savings are \$1,672.
- Rolling 12-month carbon savings are 2,517 kgCO₂e, a saving of 2.3%.

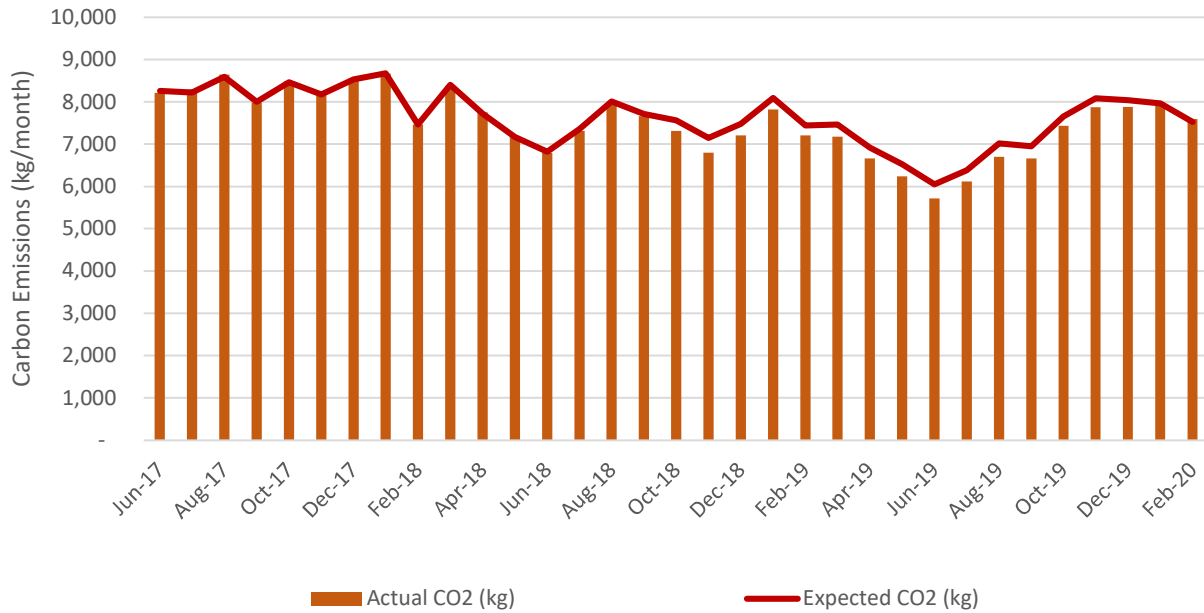
Comments

Braemar Rd used an extra 1.3% of electricity in February 2020, which is different than the past trend of using approx. 2-3% less electricity than expected. Savings in the last 12 months savings are still 2.3%. Typically, the 2-3% energy saving trend was met by electricity use above baseline for Johnson Rd. This month, electricity use has been above baseline for Braemar Rd, Johnson Rd and Paul Rd.

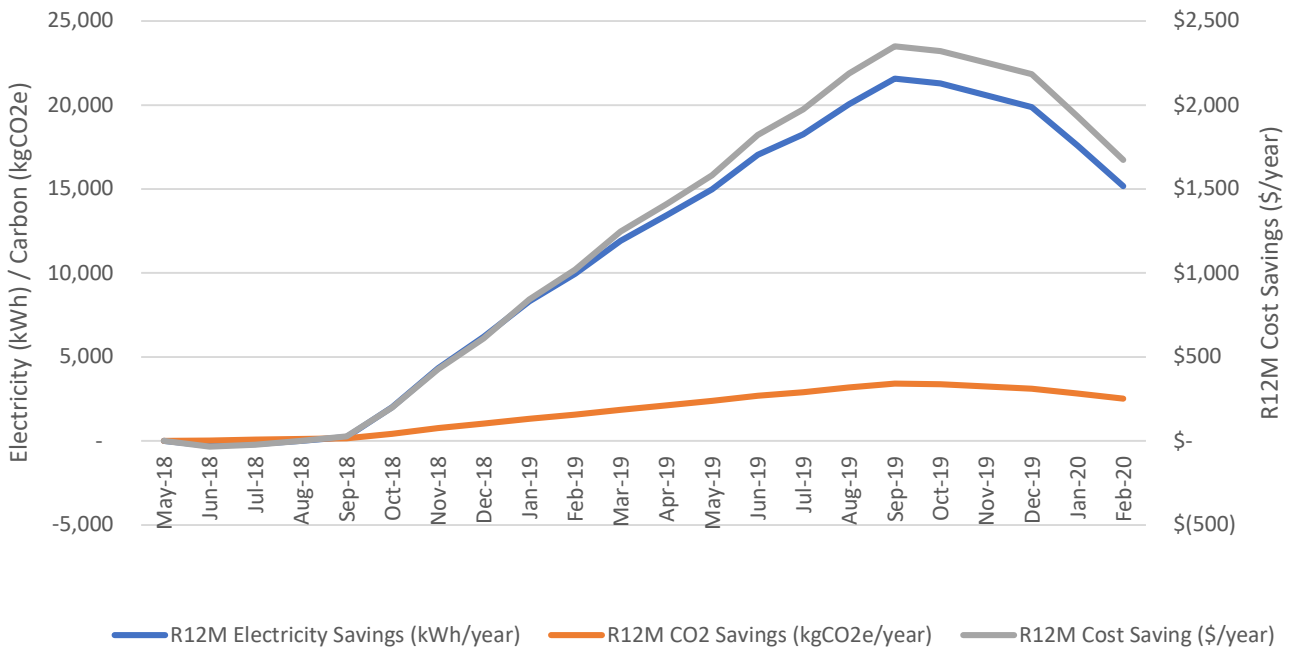
Braemar Rd Actual versus Expected Electricity



Braemar Rd Actual versus Expected CO2



Braemar Rd Pumps Cumulative Rolling 12 Month Savings



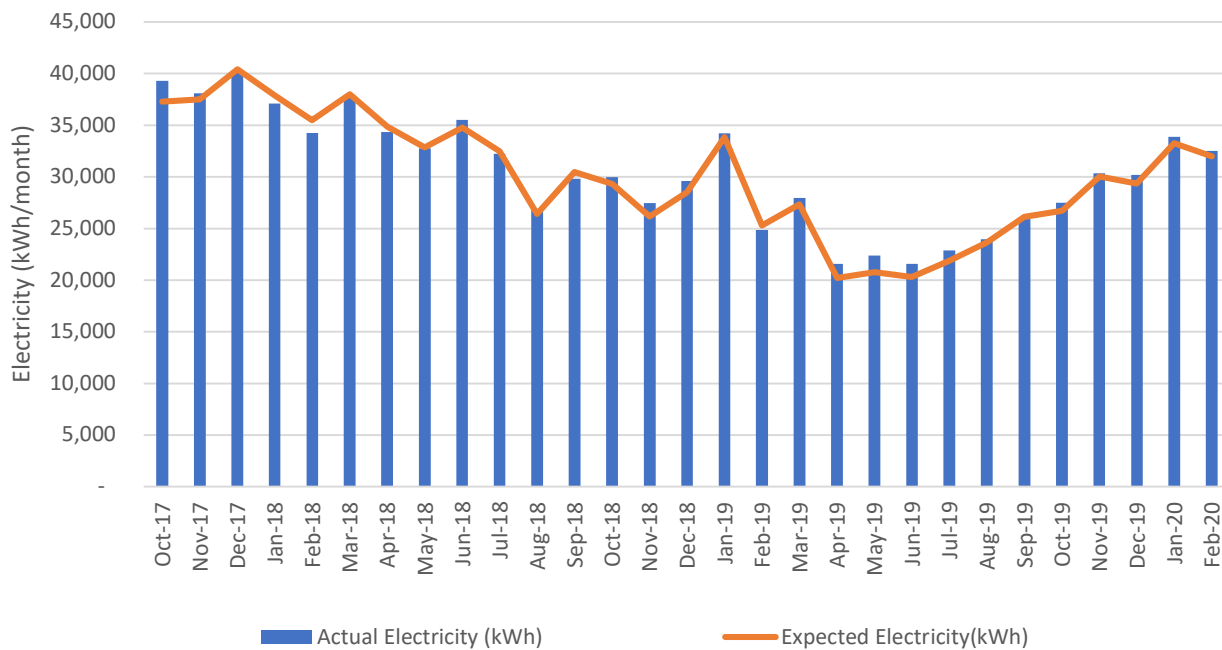
Paul Rd Pump Station

- Electricity savings for the month were -533kWh, an extra 1.7%.
- Energy cost savings for the month were -\$57, which is an increase.
- Carbon savings for the month were -68 kgCO₂e, an extra 1.7%.
- Rolling 12-month electricity savings are -8,991 kWh, an extra 2.9%.
- Rolling 12-month energy cost savings are -\$1,022, which is an increase.
- Rolling 12-month carbon savings are -1,151 kgCO₂e, an extra 2.9%.

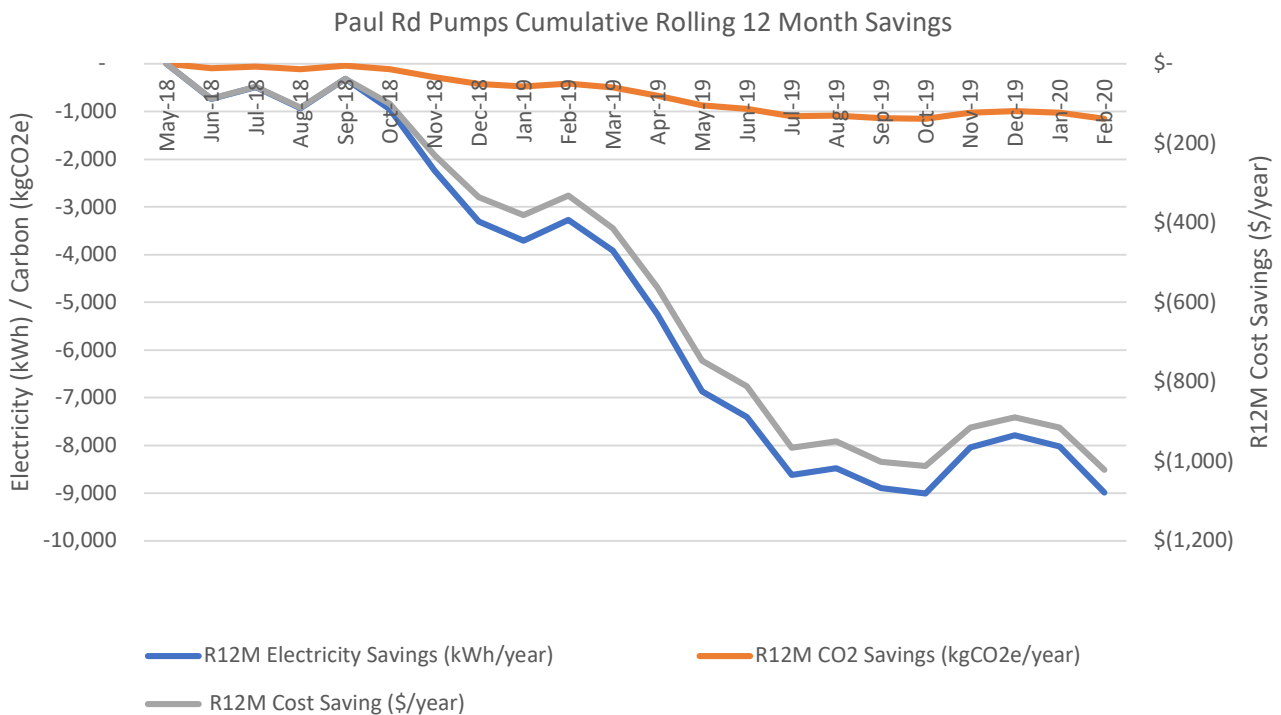
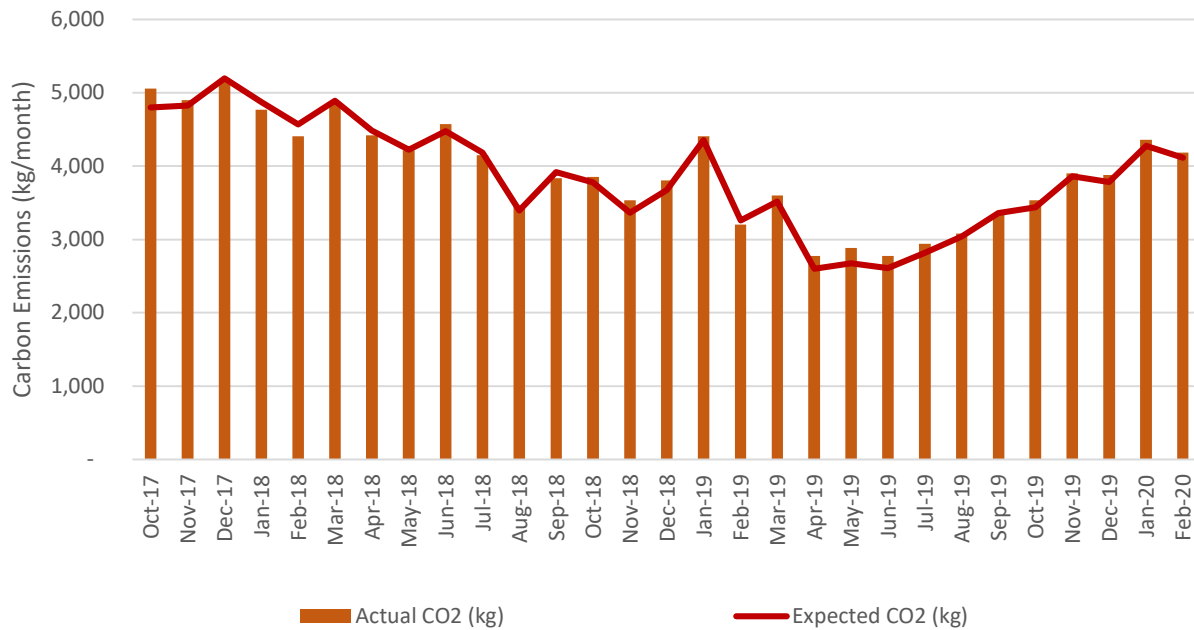
Comments

Electricity used by the Paul Rd pump station in February 2020 was 1.7% higher than expected for the month. The baseline adjusts for the volume of water supplied by the pump station. This increased electricity used for February 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 Electricity



Paul Rd Pump Station Actual versus Expected CO2



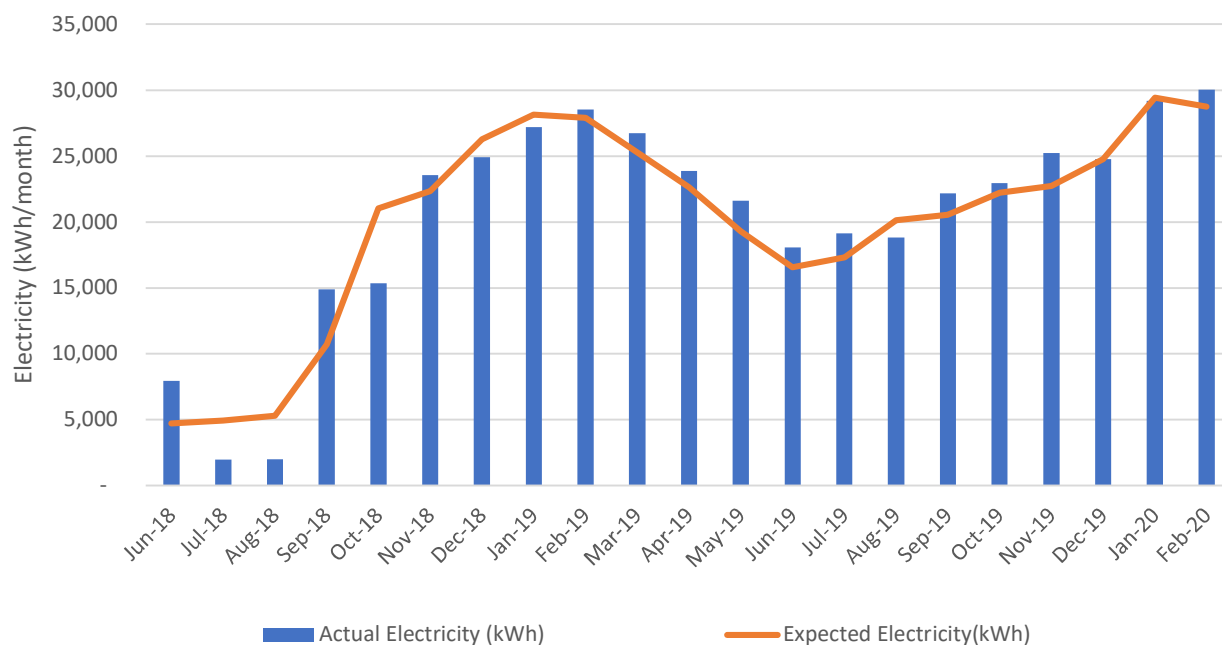
Johnson Rd Pump Station

- Electricity savings for the month were -1,293kWh, an extra 4.5%.
- Energy cost savings for the month were -\$139, which is an increase.
- Carbon savings for the month were -165 kgCO₂e, an extra 4.5%.
- Rolling 12-month electricity savings are -12,892 kWh, an extra 4.8%.
- Rolling 12-month energy cost savings are -\$1,452, which is an increase.
- Rolling 12-month carbon savings are -1,645 kgCO₂e, an extra 4.8%.

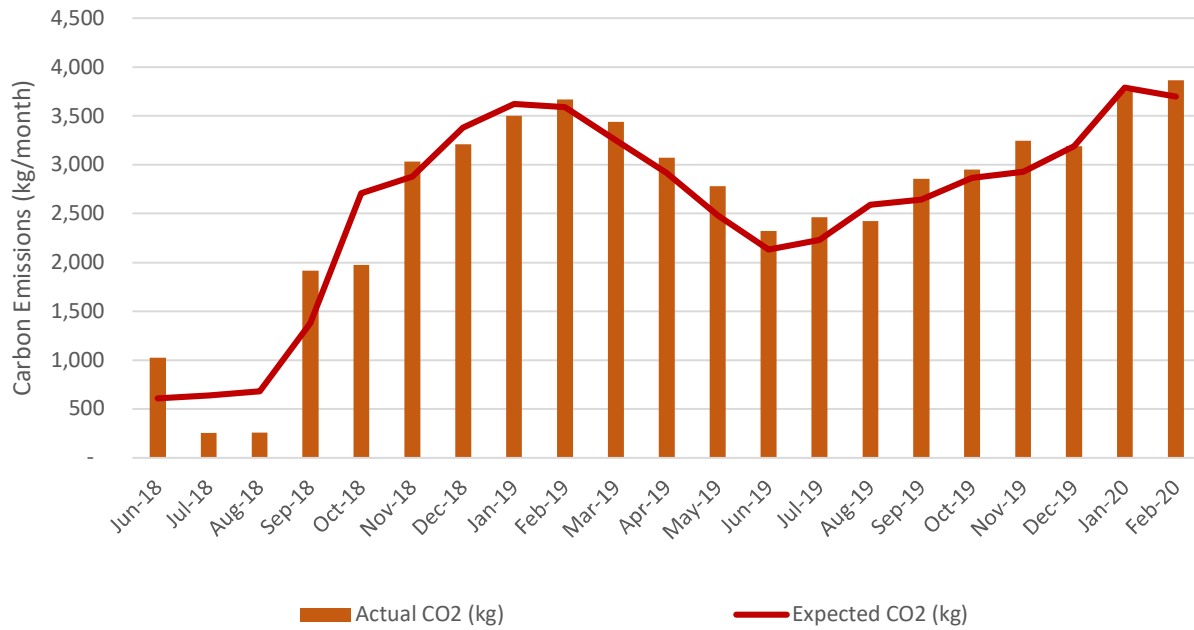
Comments

Electricity used by the Johnson Rd pump station in February 2020 was 4.5% higher than expected for the month. The electricity savings are consistent with the previous trend of above baseline use since Feb 2019. The rolling 12-month electricity use is 4.8% higher than baseline. The baseline adjusts for the volume of water supplied by the pump station. This is the first time both Braemar Rd and Johnson Rd have used more electricity than expected.

Johnson Rd Pump Station Actual versus Expected Electricity



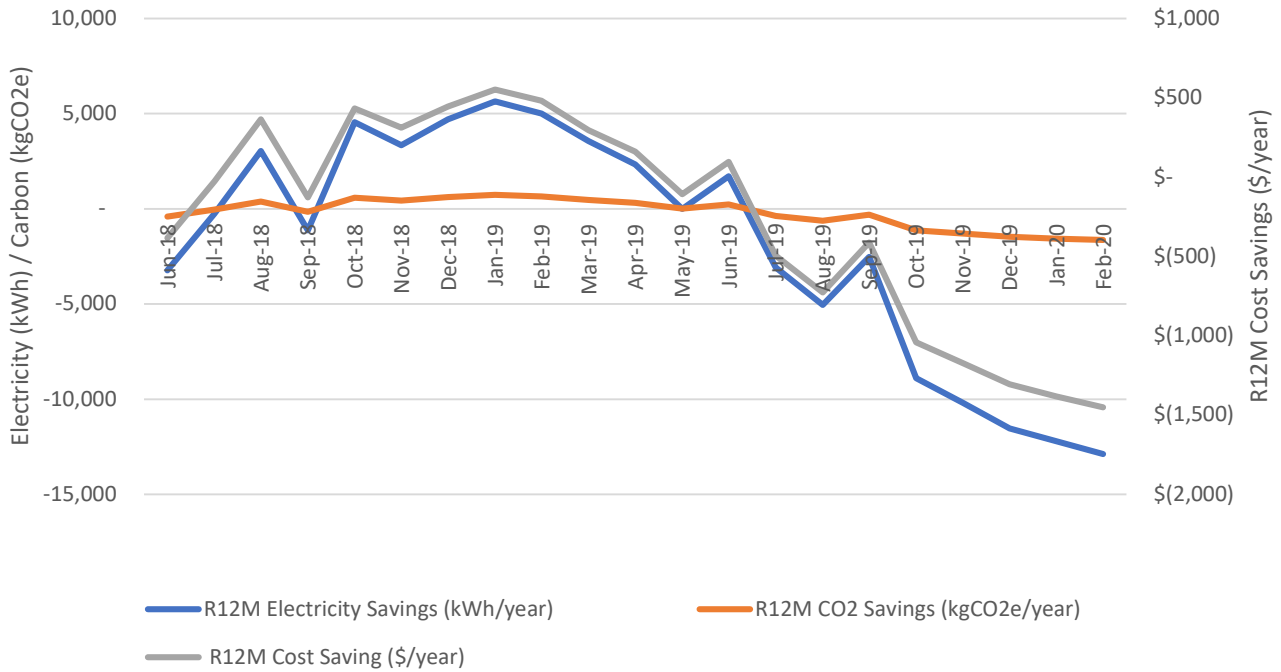
Johnson Rd Pump Station Actual versus Expected CO2



Actual CO2 (kg)

Expected CO2 (kg)

Johnson Rd Pumps Cumulative Rolling 12 Month Savings



R12M Electricity Savings (kWh/year)

R12M CO2 Savings (kgCO2e/year)

R12M Cost Saving (\$/year)