

# Australia's first integrated aquatic and office precinct electrification

## We are seeking:

A \$4.7 million Federal Government investment for the electrification of WaterMarc Aquatic Centre and the above office complex, enabling the facility to run on 100% renewable energy.



This unique and innovative project will combine electrification of a multi-purpose office complex and large aquatic centre, which will be the first of its kind in Australia. This will be achieved by replacing existing gas boilers and domestic hot water units with heat pump technology accompanied by upgrades to air handling systems at the WaterMarc Aquatic Centre in Greensborough.

Banyule City Council has set a zero net emissions target for its operations by 2028, which supports the government's net zero by 2045 target. With an anticipated 37% reduction in emissions, this project represents the largest emissions reduction opportunity for Banyule. The upgraded facility will also create a healthy, pleasant environment for its community, business and government tenants and patrons.

**WaterMarc Aquatic Centre is planned to be fully electrified by 2026 to achieve net zero emissions and run on 100 per cent renewable energy.**

The centre relies on four gas boilers to maintain a constant temperature of its pool water, pool hall and office area. They consume almost 34,000,000 MJ/yr and cost around \$400,000 to operate. Electrifying the site will remove all emissions from onsite operations, and the electric replacement heat pumps will be three to five times more energy efficient than the boilers.

## Overview

10 years ago, natural gas produced six times less CO<sub>2</sub> emissions than Victorian grid electricity, and was therefore considered a far cleaner source of energy.

However, grid electricity has become 30% cleaner since then, and with the options of offsetting electricity consumption through solar system generation or green power schemes, it can produce zero net emission.

Natural gas on the other hand still produces the same amount of CO<sub>2</sub> emissions, making it a far worse power source for the future.

Banyule's electricity comes from renewable sources through the VECO program, and therefore doesn't emit any emissions at all.

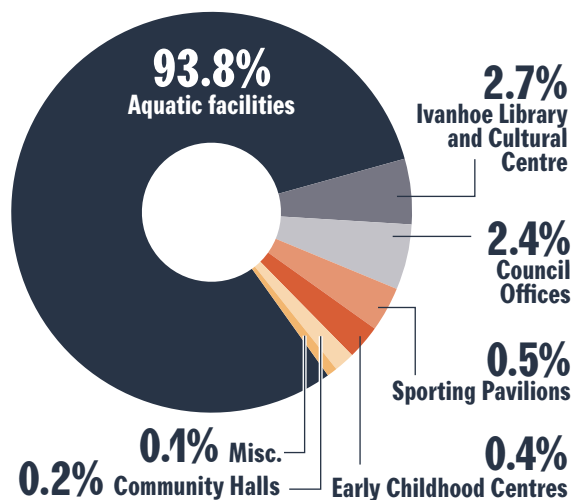
In order to achieve our net zero emission target by 2028, it is imperative that all gas consuming equipment be upgraded to efficient electrical equipment.

# Why electrification is needed at our aquatic centres

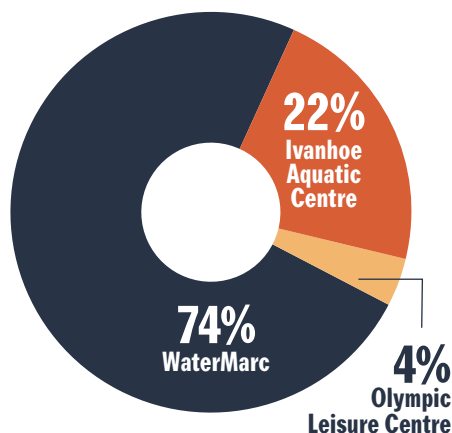
Banyule's three aquatic centres make up 93 per cent of the gas used by all Council facilities across the municipality.

Gas consumption at WaterMarc is more than triple the usage at other aquatic centres in the municipality.

## Actual gas usage at Council facilities 2022-2023



## Actual aquatic centre gas usage 2022-2023



## Environmental benefits

Banyule City Council is investing in a greener environment, and that includes the upgrade of Council's facilities for more efficient use of its energy and water use. This is a necessary aspect to achieve Council's net zero carbon target.

Our aquatic centres produce the highest amount of carbon emissions of all Council activities, accounting for 54 per cent of all emissions produced. If electrification of WaterMarc does not take place, Council will not meet its target of being carbon neutral by 2028.

**Council has already spent \$1.5million on initiatives that will reduce the current energy usage at WaterMarc.**

These include:

- Installation of pool blankets
- Installation of monitoring sensors
- Improvements to building controls
- Upgrade of pool pumps and filtration controls

- Replacement of air conditioning
- Installation of cafe auto door to reduce heat loss
- lighting controls
- Upgraded ventilation system.

These works ensure our electricity consumption is reduced to as little as possible in preparation for the transfer to full electricity. Additionally, electrification of the facility will provide environment savings for the civic and government offices above WaterMarc.

As the majority of the building's total gas usage relates to the pool water and pool hall, a precinct wide electrification would see electrification of the upstairs office spaces for an additional small cost. More than \$1.2 million would be saved than if undertaking these projects separately.

## Council's commitment to carbon neutrality

**Banyule Council is committed to achieving carbon neutrality by 2028.**

Carbon neutrality means that the net greenhouse gas emissions arising from Council operations will be zero.

This will be achieved by transitioning away from fossil fuel reliant technology (such as gas, diesel and petrol) to renewables forms of energy, reducing energy consumption and improving energy efficiency.

Council recognises that human activities such as burning fossil fuels (coal, gas, petrol and diesel) and clearing vegetation are causing global climate change.

We acknowledge that while the earth's climate has gradually changed throughout history, scientists have agreed that the substantial and very rapid changes we've seen over the past hundred years or so are caused by human activities.

Unless we take significant action now, we are on track for a rise in temperature of between 4-6°C in this short period.