

Amohia Ake

Base building: ★★★★★



Waikato's new benchmark for energy efficiency

Tainui Group Holdings' Amohia Ake building in Hamilton has set a new standard for energy efficiency in Waikato. Achieving a prestigious 6 Star NABERSNZ rating, the highest possible and the region's first, this building exemplifies excellence in sustainable building practices. This case study explores the journey and strategies employed by Tainui Group Holdings, ACC, and their consulting engineers at Beca to achieve this remarkable milestone.

Building owner: Tainui Group Holdings Limited

Tenants: ACC

Address: 159 Collingwood Street, Hamilton

Final rating: 6 star NABERSNZ Base Building

Floor area: 8,537m²

Assessors: Richard Forbes, Beca

Project Background

Amohia Ake, the new ACC Centre developed by Tainui Group Holdings, is located on Collingwood Street in Hamilton. The building was designed to consolidate two ACC offices into a single, collaborative space, enhancing efficiency and sustainability. The project began over five years ago, with a focus on creating an intergenerational investment that aligns with the iwi's commitment to kaitiakitanga (guardianship).

“Achieving this 6 star rating for Amohia Ake is in line with the commitment of our iwi to kaitiakitanga both in terms of sustainable development practices and the performance of the finished buildings,” says Richard Jefferies, Acting CEO at Tainui Group Holdings

“We're proud to play our part in creating high-performing, energy-efficient buildings that benefit both our tenants and the wider community.”

Sustainability Goals and Strategies

From the outset, sustainability and energy efficiency were integral to the project's vision. Key strategies included:

- **Natural Light and Building Adaptability:** The building was designed to maximise natural light and ensure adaptability for future tenants. This approach not only enhances the working environment but also reduces energy consumption.
- **Resilience and Flexibility:** The structure was built in three separate sections connected horizontally and vertically, allowing for flexibility and resilience. A viscous damper system, the first of its kind in New Zealand, was installed to protect the building from earthquakes.
- **Energy Efficiency:** Solar panels were installed, and the building management system (BMS) was optimised to reduce energy consumption. The building's high-performance envelope minimises heating and cooling demand, while low-energy systems further reduce consumption.

Working closely with Beca, the original build had a strong emphasis on performance.

"Having a fully-electric building with no gas or fossil fuel used for heating or hot water, coupled with 243 solar panels installed on the roof played a major part in the building's high rating. Its high-performance building envelope minimises heating and cooling demand, while low-energy systems further reduce consumption," says Ben Masters, Beca Sustainable Buildings Team Lead

Post-occupancy tuning played a crucial role in achieving the 6 Star NABERSNZ rating. By fine-tuning the building management system over a year, going through both summer and winter, the team was able to optimise energy use and achieve nearly 80% less energy consumption compared to a typical New Zealand office building.

"To get a NABERSNZ certification, was a choice we made to have the building assessed because of TGH's commitment to sustainability, it made sense for us to complete this with NZGBC and because we know that energy consumption is proportional to cost. The lower your energy consumption, the lower your costs, and the better it is for the environment. It's really common sense in many cases," says Tainui Group Holdings GM of Property, Karl Retief.



Bobby Shen NZGBC Business Development Manager – Existing Buildings (left) presents the NABERSNZ certificate to Richard Jefferies, Tainui Group Holdings Acting CEO

While the NABERSNZ rating covers the base building operation, Tainui Group Holdings is working closely with tenants ACC to support their efficiency efforts.

"We installed check meters so we can monitor tenant's performance. If a tenant uses too much energy, we can see that through the check meter and inform them that their energy consumption is high. While they are responsible for their own costs, it gives us the ability to educate them about energy use," Karl Retief says.

With more than 800 staff based at the building, Stewart McRobie, ACC Deputy Chief Executive Corporate and Finance says ACC is delighted to benefit from such a high standard of energy efficiency.

"We look forward to continuing our partnership with Tainui Group Holdings and contributing to a more sustainable future.

"The building's advanced design helps ACC to reduce its environmental impact through lower greenhouse gas emissions while also lowering our energy costs. Ultimately this helps us to support the wellbeing of whānau and communities across Aotearoa New Zealand."

Conclusion

The success of Amohia Ake demonstrates what can be achieved when efficiency and sustainability are prioritised. The building not only sets a new standard for energy efficiency in Waikato but also serves as a model for future developments. The collaboration between Tainui Group Holdings, ACC, and Beca highlights the importance of a holistic approach to sustainable building practices, ensuring long-term benefits for tenants, the community, and the environment.