

Te Kāhui Whaihanga
**New Zealand Institute
of Architects**

He Korowai Tiaki: 2025 Architecture Awards Sustainability Criteria Analysis

Summarised Report
September 2026



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1. Foreword

Architecture in Aotearoa New Zealand is at a defining moment. Te Kāhui Whaihanga introduced sustainability reporting for the 2025 Awards through He Korowai Tiaki to help the profession understand current sustainable practice, and to align it with the urgent realities of a changing climate.

This inaugural ‘state of sustainability’ report is a baseline, and will be built upon over time. Many of the projects featured here were designed four or five years ago, before the He Korowai Tiaki criteria were formalised. What emerges is a profession with strong intent and growing capability, but also one that must now build the tools, habits and shared expectations needed to measure, evidence and communicate sustainable design with confidence.

The next four years are decisive, with buildings and construction accounting for nearly 40% of energy-related CO₂ emissions worldwide and around 20% of Aotearoa New Zealand’s. In a regulatory environment that is uncertain and, in places, retreating, the case for architectural leadership is stronger, not weaker, than

Thank you to every practice that contributed data in this first year. Your participation has given the profession a foundation for better decisions, stronger evidence, more effective advocacy and more confident sustainable architectural practice across Aotearoa New Zealand.

Mark Abbot
Chief Executive
Te Kāhui Whaihanga New Zealand Institute of Architects



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What sustainability information was provided

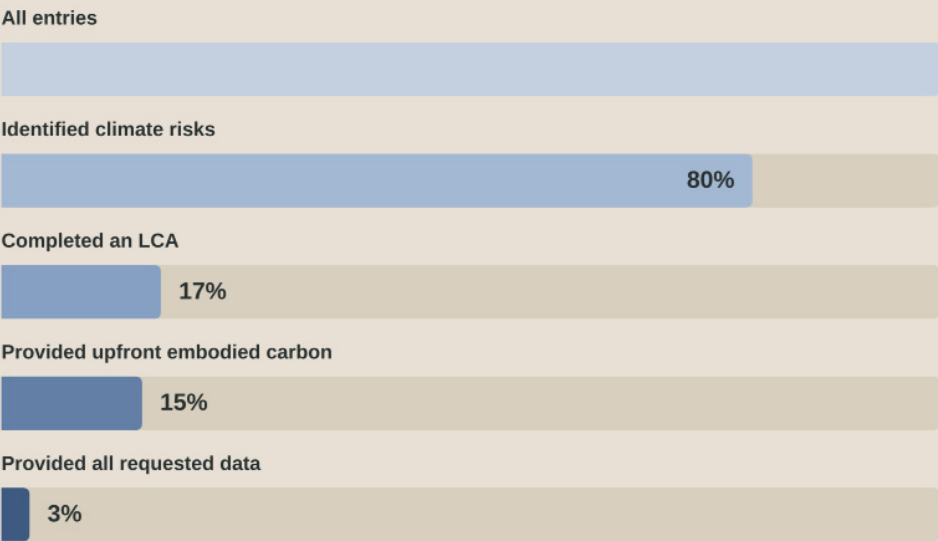


Chart one: A summary of the sustainability information entrants provided, from mandatory criteria responses through to quantitative data and supporting evidence. 100% all entries, 80% identified climate risks, 17% completed an LCA, 15% provided upfront embodied carbon data, and 3% provided all requested carbon data.

2. Key Insights for Members

The 2025 data shows a profession with strong design intent and growing sustainability capability. The opportunity now is to make more of that work visible, supporting design judgement with measurement where it is useful, documenting evidence more consistently, and learning from how projects perform in use.

The immediate opportunity for members is to make sustainability decisions earlier, document them more clearly and use each project to build capability for the next.

Headline finding	2025 signal	What this means for your practice
Climate risk	80% provided a climate risk narrative	Climate adaptation is becoming part of design thinking; the next step is to document responses more clearly and link them to measurable outcomes.
Reuse and retention	66% retained or adapted existing elements	Reuse featured strongly and where reuse occurs it should be named as a carbon strategy in submissions, client conversations and project narratives.
Carbon measurement	17% completed a Life Cycle Assessment	This shows early industry leadership by first movers of the profession; practices can start by choosing one tool and applying it consistently from the early design phase.
Energy performance	38% integrated energy modelling in the design process 12% reported predicted energy use; 6% reported actual use	This shows a strong foundation in energy modelling. The profession needs a stronger feedback loop between design assumptions, commissioning, handover and in-use performance.
Cultural engagement	15% reported a formal cultural assessment	Members need clearer guidance on when cultural assessment is relevant and how engagement with tangata whenua can be approached early and respectfully.

3. About This Report

This report summarises the first year of sustainability data collected through the He Korowai Tiaki criteria in the 2025 NZIA Regional and New Zealand Architecture Awards.

3.1 About the data

The analysis covers 356 eligible projects from 128 practices across Aotearoa New Zealand, from small residential alterations to major public buildings. Because many were designed before He Korowai Tiaki was introduced, the results are a baseline, a picture of current awards entries, not the whole profession.

It is also important to note that answering the sustainability criteria was mandatory for entries, but providing quantitative data or supporting evidence remained voluntary. This means the dataset reflects both confirmed responses and areas where entrants chose not to provide detail.

Some findings come from small samples – predicted and actual energy use, embodied carbon and cultural assessment especially – and are best read as signals for future learning, not definitive conclusions.

4. He Korowai Tiaki: The Framework

He Korowai Tiaki organises sustainability around four interconnected dimensions grounded in kaitiakitanga (guardianship) and rangatiratanga (responsibility) to support better project narratives, stronger evidence and more integrated design thinking. Together, these four dimensions define how sustainability is included and integrated within the wider awards programme:

Kaitiakitanga, Protection of Papatūānuku and Ecological Systems

Kaitiakitanga calls on architects to act as guardians of the natural world, identifying and responding to climate risks, protecting and regenerating ecological systems, and managing water and land with care for future generations.

Whakapapa of Building Materials and Processes

Whakapapa traces where materials come from, what they carry and what they leave behind. It focuses on embodied carbon, life cycle assessment and circular-economy principles that keep materials in use and out of landfill, including the retention and reuse of existing structures.

Pūnaha Pūngao: Energy Systems and Operational Performance

Pūnaha Pūngao asks how buildings conserve, use and produce energy across their lifetime, through energy modelling, electrification, on-site renewable generation and the thermal performance that determines whether a building performs as intended.

Enhancing the Mauri and Wellbeing of People and Culture

Mauri Ora is the life force that sustains health, connection and wellbeing. It asks how design promotes community wellbeing and inclusivity, supports tamariki and rangatahi, and honours the relationships between people and place through engagement with tangata whenua.

5. Entries by Category

356 projects. 128 practices. Together, the entries provide a useful snapshot of awards participation across regions, project types and practice contexts.

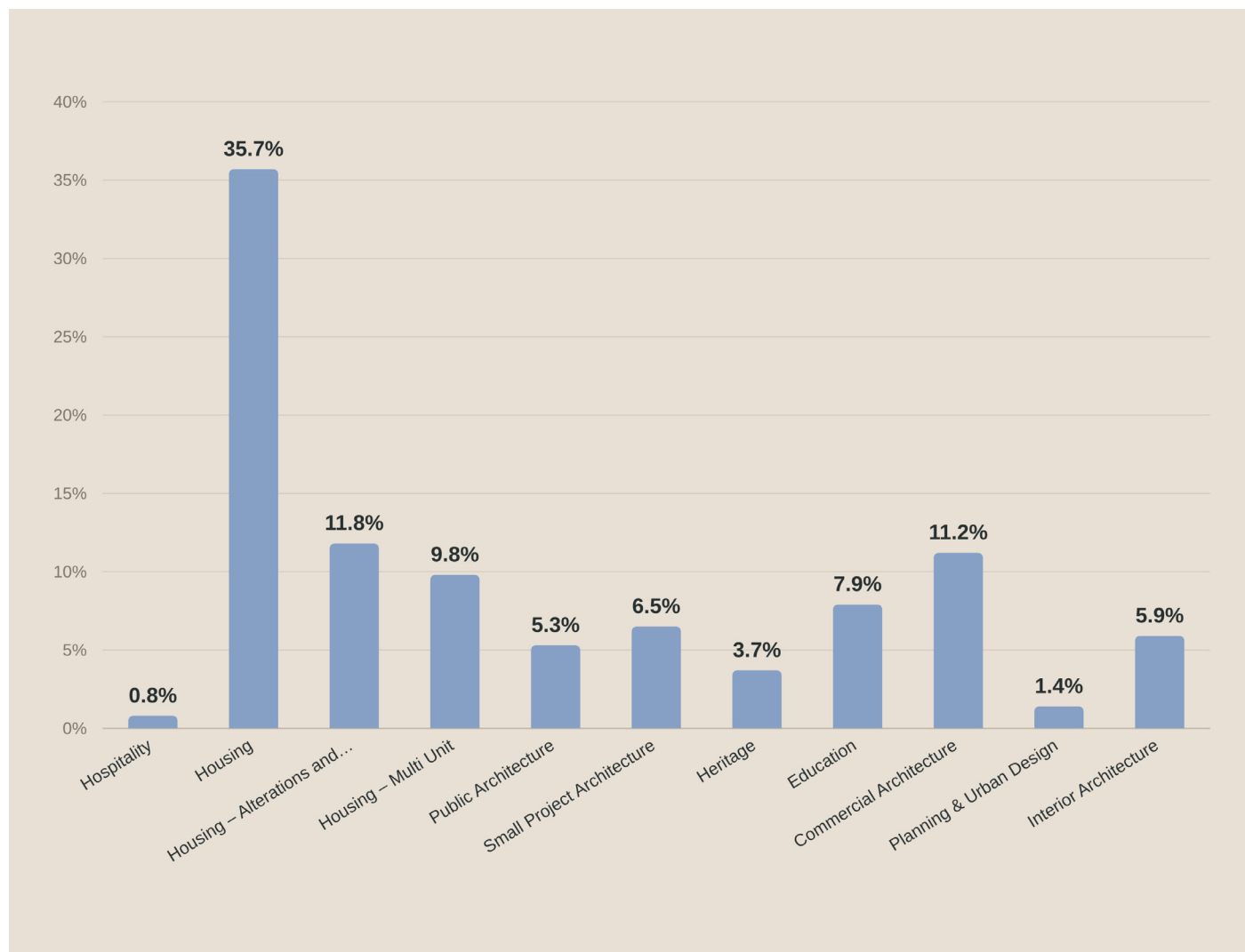


Chart two: The five largest project categories were: Housing 35.7%, Housing Alterations and Additions 11.8%, Commercial Architecture 11.2%, Housing Multi Unit 9.8%, and Education 7.9%.

The median project area was 343 sqm (the 1,915 sqm average is skewed by a few large public and commercial projects) and the median project cost was \$1.8 million. Most projects (87%) were designed for a 50–90 year lifespan.

6. Kaitiakitanga, Climate Resilience and Ecological Stewardship

6.1 Climate risk is now part of mainstream design thinking

For architects in Aotearoa New Zealand, climate risk is a reality, and the 2025 data shows that kaitiakitanga, the duty of guardianship of Papatūānuku, is becoming an active design consideration in awards entries. **80%** of all projects provided a climate risk mitigation narrative.

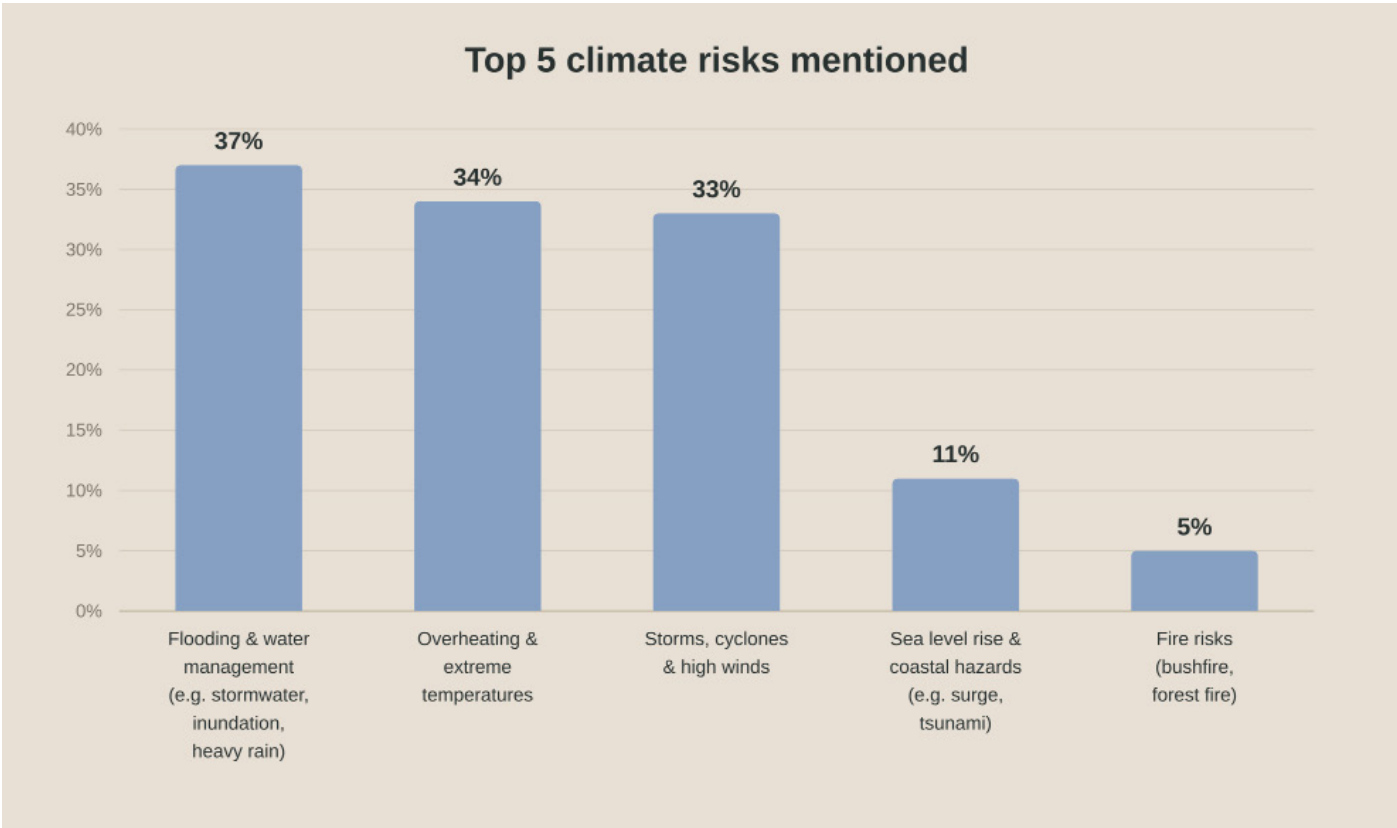


Chart three: The top five climate risks across entries.

Three risks dominate: flooding and water management (37%), overheating (34%), and storm events (33%). These are not only future threats. They reflect the current sites our members are building on today and the realities their clients are already experiencing.

Many responses are practical and familiar, raising floor levels, adding eaves and louvres, improving shading and specifying durable cladding. The next step is to connect these protective moves with more integrated approaches to water, biodiversity and long-term site resilience.

One area warrants attention: asked whether their project protects and regenerates indigenous flora and fauna and supports site hydrology, **70%** of entrants selected ‘not applicable.’ As the criteria mature, we will explore whether this reflects genuine project context or an opportunity to embed ecological thinking more widely.

Practice takeaway: When describing climate risk, name the specific hazard, explain the design response and, where possible, show how the response supports wider site systems rather than only protecting the building.

6.2 Reuse is a common theme

66% of projects retained and/or adapted existing site elements, building fabrics or materials.

Aotearoa New Zealand architects have a long tradition of renovation, retrofit and heritage work. The 2025 data shows this instinct becoming an explicit carbon strategy: by adapting existing structures, preserving mature trees or retaining soils, members avoid significant carbon debt before a single new material is specified.

Awards Project Spotlight

1.0 Kaitiakitanga, Protection of Papatūānuku and Ecological Systems



Project: Punangairi Visitor Centre

Public Architecture 2025 New Zealand Architecture Award Winner

Architect: Sheppard & Rout Architects

Cultural Lead: Danny Kamo

Photographer: Jason Mann

Punangairi is a visitor centre set within one of the most environmentally sensitive landscapes on the West Coast. It weaves around existing nikau and landforms, touching the ground lightly; a raised floor guards against flooding, deep eaves and natural ventilation limit heat gain, and stormwater is managed

A year-long ecological study, covering lizards, kiwi, bats and the endangered Westland petrel shaped the design before construction. The building was moved to reveal a doline the old facility had obscured, a native green roof now provides habitat, shielded lighting protects the petrels and fritted glazing reduces bird strike. Design decisions were developed with Ngāti Waewae.

7. Whakapapa of Materials – Embodied Carbon and Material Specification

7.1 NZIA practices are early adopters in Life Cycle Assessments

In the first year of mandatory sustainability criteria, **17% of projects completed a Life Cycle Assessment**. This is a meaningful and positive starting point. It shows that a cohort of NZIA practices is already leading the profession into embodied carbon measurement, using evidence to inform design decisions even without legislative requirements or national benchmarks.

Practice takeaway: If you already measure embodied carbon, share the lessons and keep refining the process. If not, choose one tool, apply it consistently, and start building confidence now.

15% of all projects provided upfront embodied carbon figures; in housing, the figure was **10%**.

For projects reporting upfront embodied carbon, the median was 250 kgCO₂e/m², an encouraging early signal, though not yet broad or consistent enough to draw firm conclusions.

One Click LCA and BRANZ LCAQuick were the most commonly reported tools; future reporting should track tool use so members can gauge comparability.

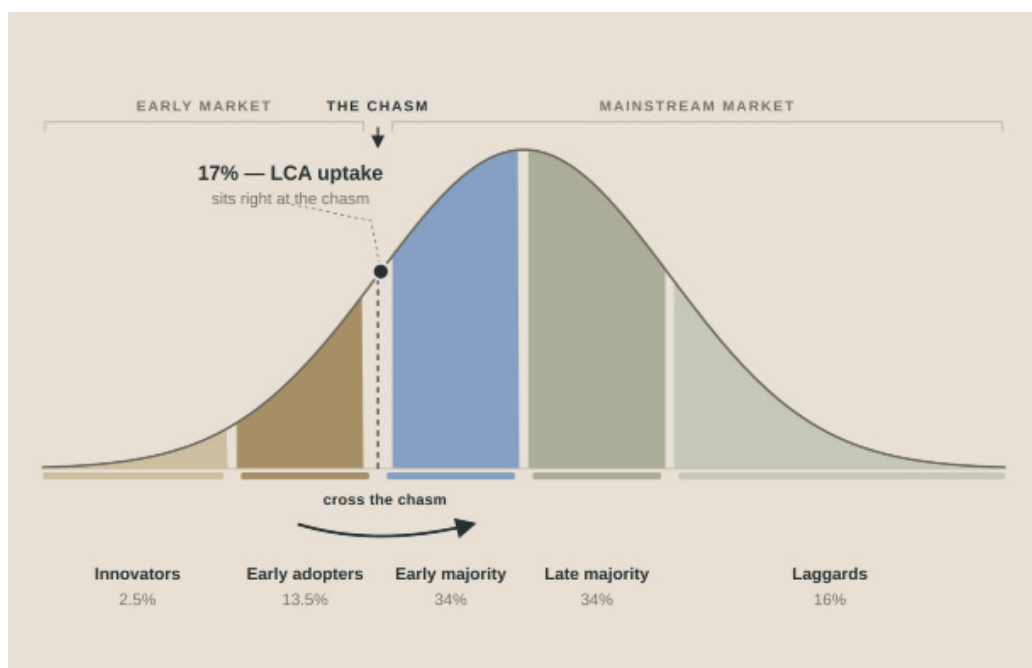


Chart four: Adoption pathway based on the Rogers diffusion of innovations curve, showing LCA and embodied carbon measurement moving from innovators and early adopters toward the early majority. The task now is to cross the gap between leading practice and mainstream uptake by making measurement accessible and repeatable across more project types.

7.2 Healthy materials have a strong showing

One of the most consistently high metrics across all categories was the specification of non-toxic materials to improve indoor air quality and reduce off-gassing: **78.4%** of all projects prioritised this. This figure was high across housing, commercial and public architecture alike. Healthy interiors are a direct expression of Mauri Ora in the built environment.

This figure is self-reported, and the entry form does not currently ask how 'non-toxic' was determined. Some entrants may be working from a defined standard, such as a Red List assessment, while others may be making a general judgement based on product literature. As this metric matures, a useful next step would be to ask what research or standard underpinned each response, and to give more weight to entries that can point to independent verification or accreditation, such as Declare labels or red list checks, rather than a self-assessed yes.

Awards Project Spotlight

2.0 Whakapapa of Building Materials and Processes



Ngā Mokopuna, Te Herenga Waka—Victoria University of Wellington

2025 New Zealand Architecture Award, 2025 Wellington Architecture Award, and 2025 Ted McCoy Award in the Education Category.

Architect: Tennent Brown Architects

Cultural lead: Professor Rawinia Higgins

Photographer: Jason Mann

Ngā Mokopuna's life cycle assessment shows what full-scope measurement reveals. Completed in eTool (ISO 14044/14040, EN 15978), it covers nearly every life cycle stage, well beyond what most projects report.

Modelled upfront embodied carbon (A1–A5) was $-132.3 \text{ kgCO}_2\text{e/m}^2$, a 127% reduction on business-as-usual; across the full life cycle (A–D) it was $419 \text{ kgCO}_2\text{e/m}^2$ (Modules A–D), still a 55% reduction.

This came from a mass-timber superstructure (CLT, LVL and timber piles) in place of steel and concrete, low-carbon EPD concrete only where timber wasn't viable, and the reuse of existing and salvaged materials.

Ngā Mokopuna is a tertiary education building built to Living Building Challenge Full Certification, one of only 38 fully certified globally.

8. Pūnaha Pūngao: Energy Systems and Operational Performance

8.1 Energy performance: residential leads, commercial shows a performance gap

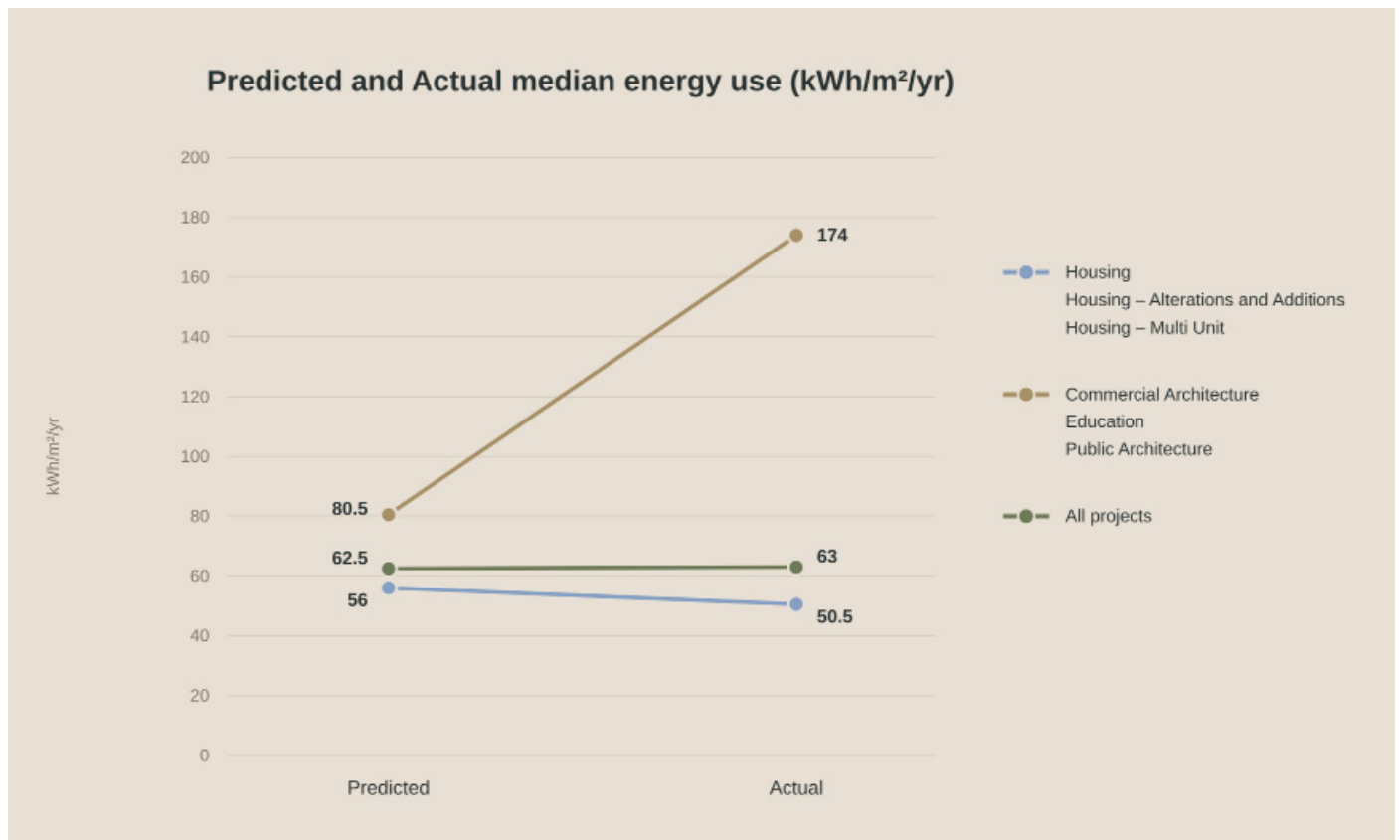
Understanding how buildings use energy – and how closely actual performance matches predictions – is central here. With only 12% of projects providing predicted energy figures and 6% actual usage, the dataset is still developing.

Thermal modelling was undertaken for 38% of entries, and was far more common in commercial, education and public projects (67%) than in smaller categories (13%).

62.5 vs 63.0 kWh/m²/yr: median predicted and actual energy use were closely aligned across all reporting projects.

Residential projects showed close alignment between predicted and actual energy use; larger commercial, education and public projects showed a wider gap, with actual use often exceeding predictions. This reflects operating hours, commissioning and user behaviour as much as design, and shows why early modelling, careful handover and post-occupancy review matter.

Practice takeaway: Use energy modelling early enough to influence orientation, form, fabric and services; this is what reduces overheating and operational energy. Capture in-use lessons after occupation so the next project benefits.



8.2 Electric is becoming the norm, but renewable generation is not

The shift away from fossil fuels is well underway: over half of all projects (53%) are 100% electric, rising to 78% in commercial, education and public architecture. Housing is on a different pathway (41% fully electric), reflecting client preferences, cost and continued gas use for cooking and heating.

53% of projects are 100% electric.

15% of projects have on-site renewable energy generation.

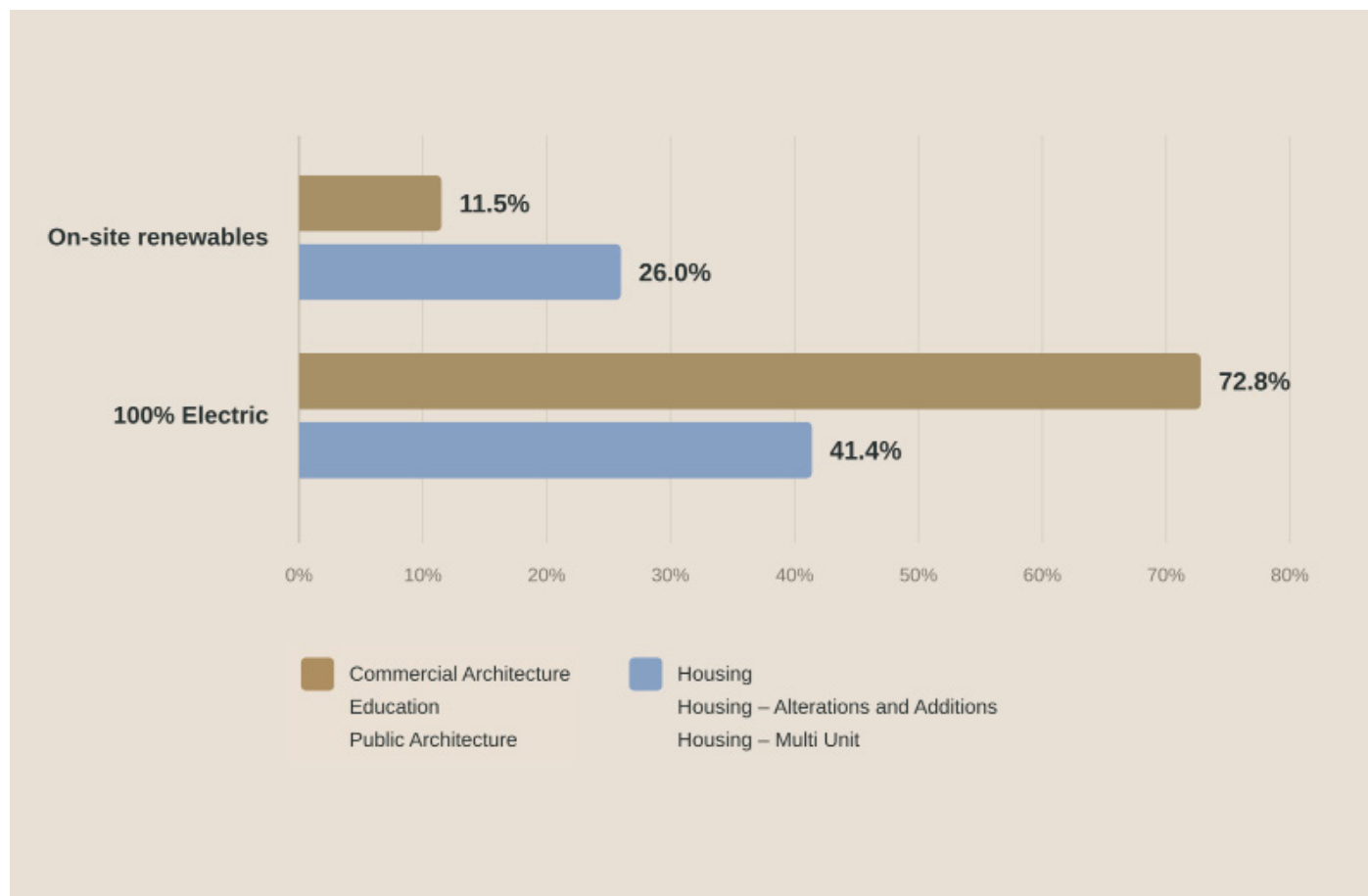


Chart six: Only 15% of projects included solar PV or other renewables, with the highest uptake in housing (26%) rather than larger builds. As the grid decarbonises, the priority is ensuring buildings are solar-ready, oriented and structured to support generation when the economics make sense.

Awards Project Spotlight

3.0 Pūnaha Pūngao: Energy Systems and Operational Performance



Martins Farmhouse

2025 Western Architecture Award Winner, Housing Category

Architect: Energy Architecture

Collaborators: eZED Engineer, Black Pine Architects – Project Architect, David Brown Building; Pat Mawson (strawbale building and natural plasters), Sustainable Engineering Ltd – Passivhaus certifier.

Photographer: Andy Spain

This small strawbale home shows what energy modelling can achieve. It was modelled at design stage to use 50 kWh/m²/yr in total: 15 for space heating, 0 for cooling, and 35 for hot water, lighting and other loads.

50 vs 53 kWh/m²/yr: predicted and actual energy use, measured against a treated floor area of 119 sqm after a full year of occupation.

Actual use came in at 53 kWh/m²/yr after a year of occupancy, close enough to confirm the design assumptions held. The house achieved Passivhaus Classic certification (airtightness 0.3 ACH against a 0.6 requirement), is 100% electric and is wired solar-ready for PV.

9. Mauri Ora – Wellbeing of People and Culture

9.1 Public and education projects show strong wellbeing narratives

This section asked how buildings sustain and strengthen the life force of the communities they serve. These questions were compulsory for Commercial, Education, Public Architecture, Planning and Urban Design, and Housing Multi-unit entries.

Formal cultural assessment was reported by 15% of all projects, while 67% of entrants selected 'not applicable'. This is one of the clearest areas where future guidance will be useful. The high "not applicable" response may reflect a range of project contexts,

but it also suggests that members would benefit from clearer expectations about when cultural assessment is relevant and how early engagement with tangata whenua can support stronger design outcomes.

Practice takeaway: Treat cultural engagement as part of understanding place. Where formal assessment is not relevant, briefly explain why; where it is relevant, begin early enough for engagement to influence the design process.

Mauri Ora — themes in wellbeing narratives

Five themes emerged consistently among projects that addressed this dimension.

Connection to the natural world

Green roofs, revitalised streams, native planting and the visual and physical relationship between building and land.

Community & social connection

'Third spaces' — foyers, plazas and shared gardens that support connection between people of all ages.

Tamariki & rangatahi

Dedicated spaces that empower young people through safety, creativity and inspiration.

90% of education projects

addressed this theme

Health & mauri ora

Biophilic design, high-quality indoor air and contemplative spaces that support mental health and physical wellbeing.

Delight & the senses

Sculptural forms, colour, light and views that evoke curiosity and joy.

Chart seven: These themes show how members are connecting sustainability with lived experiences.

Awards Project Spotlight

4.0 Enhancing the Mauri and Wellbeing of People and Culture



AUT Tukutuku

2025 New Zealand Architect Award winner, Education Category

Architect: Jasmax

Photographer: Jasmax

Universities worldwide are working to bring students back to campus, where time on campus supports wellbeing, mental health and academic performance. At AUT's North Shore Campus, Tukutuku brings student services, social spaces, a café and library alongside teaching areas as one learning ecosystem, and has drawn students back since opening.

Timber structure and finishes bring biophilic warmth to every space, and a restrained palette creates a calm environment designed with neurodiverse students in mind. Indirect lighting and acoustically separated rooms add sensory comfort, and a dedicated Whānau Room gives Māori students space to connect. The name Tukutuku, gifted by Ngāti Pāoa, references lattice panels symbolising connection between people, place and purpose.

10. Sustainability and Award Recognition: A Pattern to Track

Award-winning projects were more likely than non-winners to report several sustainability measures. This is a pattern worth tracking: projects recognised for design excellence often also show stronger sustainability practice.

22 percentage points: award winners were more likely to be 100% electric than non-winners (60% vs 38%).

The largest difference was in the retention and reuse of existing materials and building fabric: 67% of winners reported this, compared with 44% of non-winners. Winners were also more likely to report utilising thermal modelling (41% vs 27%), on-site water capture and management (54% vs 35%), and specification of non-toxic materials (83% vs 54%).

For members, the message is that sustainability should be framed as part of design quality: clear evidence of reuse, energy performance, water management, healthy materials and cultural engagement strengthens a project’s story as well as its performance.

11. The 2025 Sustainability Scorecard

Strengths to build on	Support needs to address
Material reuse – 66% of projects retained existing building fabric, materials or site elements, showing that reuse is a strength.	Carbon measurement – 17% of projects completed an LCA and 15% reported upfront embodied carbon. Members need practical guidance and education that work across project types and budgets. The task now is to cross the gap between leading practice and mainstream uptake by making measurement practical and repeatable across more project types.
Electrification – 53% of all projects were fully electric, rising to 78% in commercial, education and public architecture.	Housing transition – housing shows different constraints around electrification and carbon reporting, pointing to the need for more education and client-facing resources.
Healthy interiors – 78% of projects specified non-toxic materials to improve indoor air quality, one of the most consistently high metrics across all categories.	Post-occupancy learning and the performance gap – predicted and actual energy use data is still limited. Measuring and reporting must become standard practice and consistent review after occupation will help practices refine future design assumptions.
Wellbeing narratives – public and education projects show strong thinking around community, health, tamariki and rangatahi, delight and connection to nature.	Cultural engagement – formal cultural assessment was reported by 15% of projects. Members need clearer guidance on relevance, timing and engagement pathways.
Climate awareness – 80% of projects provided a climate risk narrative, showing a good awareness of site-based climate challenges.	Renewable readiness – only 15% of projects included on-site renewable generation, suggesting value in designing buildings to be solar-ready even where systems are not installed immediately.

12. What This Means for Your Practice

The 2025 findings do not suggest that every practice needs to do everything at once. They point to practical next steps that can be scaled to different project types, budgets and practice sizes.

- **Treat material reuse as a carbon strategy, not just a design choice.** If you keep a wall, floor, roof structure or trees, make it central to the project's sustainability narrative.
- **Adopt and standardise your measurement tools.** Choose an LCA tool and energy-modelling approach that suit your work, and embed them early enough to shape design, not after the key decisions are made.
- **Close the performance gap through post-occupancy review.** Especially on commercial, education and public projects, track actual performance and feed it back into your modelling assumptions.
- **Electrify, and think beyond electrification.** Where a project still uses gas, explore a path to full electrification; and design buildings to be solar-ready even where PV isn't in the current scope.
- **Approach cultural engagement as part of understanding place.** Where engagement with tangata whenua is relevant, begin early enough to influence design; where it is not, explain the project context clearly.
- **Think of Mauri Ora as a design brief.** A building that creates delight, supports health, fosters community and strengthens connection to people and place is doing real sustainability work. The five 2025 themes offer a practical framework for every project.

Information sources:

Data in this report is drawn from 356 eligible entries to the 2025 Te Kāhui Whaihanga Regional and New Zealand Architecture Awards, submitted by 128 architecture practices. Six Enduring Architecture entries are excluded as they were not required to provide sustainability data. Therefore, this report provides a picture of a small but important section of our members' work.

13. Where We Go From Here: Te Kāhui Whaihanga's Commitment

1. Make the criteria clearer and easier to use

The 2025 criteria were a first iteration. For 2026 they have been refined and moved onto a new awards platform for a cleaner dataset and simpler entry, with a focus on clearer expectations and less administrative burden.

Over time, we expect to introduce a roadmap for incremental change, working progressively toward more routine reporting of operational energy, potable water, upfront embodied carbon and, ultimately, whole-of-life carbon.

2. Build capability across different practice contexts

The data shows where members want support: embodied carbon (especially in housing), energy modelling, post-occupancy review, cultural assessment and renewable readiness. We will keep developing education and practical resources for different practice sizes and project types.

3. Report annually and improve the evidence base

The next analysis report will be published in Q4 2026, drawing on data from the 2026 Awards cycle. Annual reporting will allow members to see change over time and help identify which interventions are having the greatest impact.

4. Keep the transition practical and inclusive

Support must work for practices of all sizes, a small residential practice, a large commercial studio and a public-sector team each face a different pathway. The goal is to help every member make more informed decisions and build capability project by project.

The full 2025 Sustainability Criteria Analysis Report, including underlying data, statistical analysis and category breakdowns, is published alongside this member-facing summary. [Read more here](#) or scan the QR code.

