Te Kāhui Whaihanga New Zealand Institute of Architects

NZIA SUBMISSION

NZ Taxonomy: Construction and Buildings Criteria

Public consultation on draft criteria – Toitū Tahua Centre for Sustainable Finance

Introduction

This submission is made on behalf of Te Kāhui Whaihanga New Zealand Institute of Architects (NZIA), the professional body representing more than 4,000 architects, graduates, students and affiliated professionals across Aotearoa.

The NZIA strongly supports the intent of the proposed New Zealand Sustainable Finance Taxonomy. We believe it has significant potential to improve the performance of New Zealand's buildings, give lenders and investors greater confidence, and encourage investment in more sustainable, healthier and resilient buildings.

The scale of the challenge is significant. The built environment contributes to 37% of global CO_2 emissions and 20% of New Zealand's national emissions when operational and embodied carbon are combined.[1] Improving how we design, construct and upgrade our buildings is essential to meeting New Zealand's climate commitments.

To realise the full potential of this opportunity, the NZIA recommends that the taxonomy encourages investment across both residential and commercial buildings and supports the retrofit of existing buildings as well as new construction. The opportunity in our existing housing stock is particularly significant. BRANZ estimates that around 1.6 million New Zealand homes are cold, damp or costly to run, undermining health and productivity and adding to the cost of living. The taxonomy has an important role to play in making it easier to finance improvements to these homes at scale.

The architectural profession is committed to improving these outcomes. Architects play a central role in shaping the design, form, structure and fabric, along with the specification of materials, of our buildings. Decisions made early in the design process have a significant influence on energy efficiency, carbon emissions, resilience and long-term building performance. Well-designed, low-carbon buildings can have lower running costs, be healthier for occupants and be more resilient to climate risks, delivering long-term benefits for owners, occupants and investors.

The NZIA supports the taxonomy, but its credibility will depend on whether it measures real building outcomes without making verification so costly or complex that only large projects can participate. The criteria should move towards absolute operational and embodied-carbon limits, include housing and smaller buildings through proportionate assessment methods, reward retention and holistic retrofit, and provide direct compliance pathways alongside recognised certification schemes.

[1] thinkstep-anz (2019). Under construction: Hidden emissions and untapped potential of buildings for New Zealand's 2050 zero carbon goal. Report prepared for the New Zealand Green Building Council.

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However, credibility must be balanced with practicality. At a time when New Zealand continues to face significant housing affordability and construction cost pressures, it is important that the taxonomy builds confidence and encourages investment without adding unnecessary complexity or cost. The criteria need to be clear, proportionate and verifiable, with practical pathways that work for buildings and projects of different types and sizes.

Our submission focuses on where our members have direct expertise: whether the criteria are achievable and verifiable at design stage, whether they reward the right outcomes, and whether they work for projects of all sizes, including both new construction and improvements to existing buildings.

NZIA's 2030 building performance targets

The NZIA has set voluntary 2030 building performance targets for members' new buildings and major refurbishments. The NZIA believes these are realistic yet ambitious targets, achievable within the current capability of New Zealand architects, with continued education and upskilling supporting wider uptake. They are aligned with established industry tools and benchmarks, including Homestar, NABERSNZ, Green Star, Passivhaus, the RIBA 2030 Climate Challenge and the AIA 2030 Commitment. The targets are generally absolute for energy and carbon, and are set out in Appendix A.

Key recommendations

1. **Absolute targets:** support a staged move to absolute energy and carbon targets (per m²), starting with building types where sufficiently representative evidence exists, with relative improvement against a reference building available during the transition.
2. **Include housing:** apply embodied carbon requirements to all new residential buildings, with proportionate, low-cost ways to evidence them, and set the non-residential threshold for reduction requirements at 2,500 m².
3. **Existing buildings:** support both Transition pathways, recognise the value of retaining and upgrading existing buildings, and enable finance for both individual improvements and holistic, staged retrofits, including the design and assessment needed to deliver better long-term outcomes.
4. **Proxies and verification:** support existing certification schemes, add Passivhaus and the Living Building Challenge, and keep a direct route that does not require paid certification.
5. **Māori rights and interests:** support the intent of the clause, with clear criteria on identifying rights-holders, adequate engagement, resourcing and protection of mātauranga Māori, and guidance co-designed with Māori practitioners and Ngā Aho.
6. **Waste and resilience:** add waste generated per m² and project and site waste management plans; recognise passive design, continuous ventilation and performance modelling to address overheating.

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Responses to consultation questions

1. Energy intensity performance targets

Q1. Do you prefer Option 1 (NZ frameworks), Option 2 (climate-adjusted Australian data, top 15%), or another approach, and why?

Our priority is to ensure the final approach is credible and can be applied with confidence, without adding unnecessary cost or complexity.

We recommend another approach. NZIA supports a staged move to absolute energy use intensity targets (kWh/m²/yr). Initial values should be established for building types where sufficiently representative evidence exists, such as homes and offices, published with their technical basis and reviewed as measured New Zealand performance data improves. Relative improvement against a defined reference building (Option 1) should remain available during the transition.

Absolute targets are simpler to design to, comparable across projects, verifiable against measured use, and stable when the Building Code changes. NZIA's own targets for homes and offices are absolute (Appendix A) and require all-electric buildings, consistent with the draft's new-build criterion.

NZIA does not support Option 2: the draft notes it has no clear evidence of Paris alignment, and it rests on Australian rather than NZ building data. We recognise the value of compatibility with the Australian Taxonomy for lenders operating in both markets. However, we believe this can be achieved without adopting Australian-derived performance targets, by mapping NZ-specific targets against the Australian criteria. This would support compatibility while ensuring the NZ Taxonomy reflects New Zealand's building conditions and performance requirements.

Q2a. Where should the percentage improvement target for new builds be set?

Where a percentage pathway is used, NZIA accepts the proposed ramp (31% in 2027 to 53% from 2031) as an interim measure, published alongside the absolute targets it moves toward. Each target year should name the edition of H1 the reference building is based on. Measured performance in the first years of occupation should confirm that buildings achieve what was modelled.

Q2b. What NABERSNZ rating or Green Star Performance threshold is appropriate for existing buildings?

NZIA supports the proposed 5.5-star NABERSNZ threshold for existing offices to qualify as Green. NZIA's own office target (approximately NABERSNZ 5-star) is the initial voluntary target for members' projects; the taxonomy rightly sets a higher bar to identify leading performance.

Q2c. Are there other rating tools that should be considered as proxies?

Passivhaus and the Living Building Challenge (see focus area 4).

Q3. Do you hold NZ building energy performance data?

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The NZIA is collecting building performance data from awards entries, including energy use and embodied carbon. It is early days, with two years collected, and the dataset will build over time. For example, the 2025 data collected covers 356 projects from small residential alterations to major public buildings. 17% completed a Life Cycle Assessment. 38% integrated energy modelling into the design process 12% reported predicted energy use; 6% reported actual energy use. The NZIA would welcome discussing it with the Secretariat. The NZIA also proposes to establish a database for collection of building performance data as part of our 2030 Climate Commitment.

2. Transition category for acquiring and owning existing buildings

Q1. Do you support a time-limited pathway for efficient buildings with legacy fossil fuel systems, if they decommission by a set date?

Yes. Removing gas from otherwise efficient buildings is one of the most direct ways to cut operational emissions in the existing stock. The pathway should require a committed decommissioning date with annual reporting and should not allow replacement fossil-fuel systems.

Q2. Do you support a time-limited pathway for buildings below Green energy targets, if they align by a set date?

Yes. Retaining and upgrading existing buildings avoids the significant upfront carbon of demolition and rebuild, and the taxonomy should encourage it. NZIA's 2030 targets already apply to major refurbishments, including large adaptive reuse projects. The destination for this pathway should likewise be absolute: the building reaches a set energy use per m^2.

Q3. How should transition commitments be put into practice, including sunset dates and reporting?

To ensure the Transition pathway delivers genuine improvements in building performance, NZIA recommends clear timeframes and regular reporting to demonstrate progress towards meeting the Green criteria:

- A fixed end date for the category, aligned with the 1 July 2031 end date proposed for renovation Transition criteria.
- A committed date for each building, set out in a retrofit plan.
- Annual reporting of measured energy use, for example a NABERSNZ rating, so progress is checked against actual performance.

Q4. Which building types or circumstances suit a Transition pathway, and which should be excluded?

Suited: buildings with heritage, seismic or structural constraints, and deep retrofits that retain most of the existing structure. The heritage pathway's 30% operational energy reduction could extend to buildings with evidenced seismic or structural constraints. Excluded: buildings installing new fossil-fuel systems, and buildings with no credible plan or date for reaching the target.

Additional comment: financing holistic retrofits

Improving New Zealand's existing building stock presents a significant opportunity, particularly for residential properties. However, affordability remains a major barrier, and homeowners need access to practical financing options that suit different budgets and circumstances. The taxonomy should support both individual improvements and more comprehensive retrofits, including those undertaken in stages over time.

The draft's Residential and Small Commercial Upgrades measure automatically qualifies individual measures such as heat pumps, glazing, insulation and rooftop solar. NZIA supports this as a simple and accessible entry point for homeowners and lenders. However, individual measures installed in isolation can underperform or create new problems: a heat pump in a poorly insulated home, or a more airtight home without adequate ventilation, which raises moisture and mould risk.

NZIA recommends the taxonomy also recognises and encourages holistic, whole-building retrofits, including staged improvements guided by an overall retrofit plan. This approach can help homeowners prioritise improvements according to their budgets, while ensuring individual upgrades work together to deliver better long-term outcomes. A coordinated approach would typically reduce energy demand first (insulation, airtightness, glazing and shading), then provide continuous ventilation, efficient electric heating and hot water, and renewable energy.

Both routes should remain open to finance. Individual upgrades should continue to qualify automatically, so owners can finance single improvements as their budgets allow. For holistic retrofit finance, eligibility should require the proposed measures to be based on a whole-building assessment appropriate to the project's scale, but should not require owners to complete all measures at once.

To encourage this approach, eligible costs for holistic retrofits should also include the design and assessment that make them work:

- energy modelling to set the retrofit's performance target and sequence
- measurement of the carbon embodied in the works
- a retrofit plan prepared by a qualified practitioner, which could allow owners to draw finance in stages as works proceed

Recognising these costs, and providing additional incentives for well-planned, whole-building improvements, could encourage better outcomes without restricting access to finance for smaller, individual upgrades. It would also give lenders greater confidence that their investment will deliver lower running costs and healthier, more resilient buildings.

NZIA also recommends adding continuous ventilation with heat recovery, airtightness improvements, and external shading to the list of qualifying upgrades.

3. Refrigerant global warming potential (GWP)

Q2–Q5. Preferred option, thresholds, sunrise date, alternatives, review triggers and market support

NZIA has no technical position on specific GWP thresholds. As all-electric buildings depend on heat pumps, refrigerant requirements should be phased to support electrification rather than slow it, with long-lead timelines, starting with larger systems where alternatives are more available.

4. Proxies

Q1. Which proxies should be added, removed or applied differently, and why?

For the taxonomy to be effective, it needs to give lenders and investors confidence that buildings meet credible sustainability standards, while ensuring that demonstrating compliance is straightforward, practical and affordable for projects of all sizes.

The NZIA supports established certification schemes as proxies, including Green Star, Homestar and NABERSNZ, and recommends adding Passivhaus and the Living Building Challenge. Both are independently certified, widely recognised and set absolute performance requirements: Passivhaus through fixed energy limits (for example, space heating demand of no more than 15 kWh/m²/yr), and the Living Building Challenge through net positive energy measured over 12 months of operation. Passivhaus is increasingly common in NZ practice, and NZ has four Living Building Challenge projects: Ngā Mokopuna, Te Kura Whare, Pā Reo and the Arup offices.

Taxonomy compliance must not depend only on paying for certification. Alongside proxies, a direct route should remain available, using recognised calculation methods and tools such as ECCHO, PHPP and approved whole-of-life carbon methodologies, with an independent review appropriate to the project's scale. Evidence requirements should be proportionate for small projects, and a standard reporting format would make this route easy for lenders to verify.

Q2. What additional or different safeguards should the Proxy Inclusion Guidance include?

- When a rating tool changes its thresholds, the Secretariat should check the new version still meets the taxonomy criteria before accepting it.
- Proxies should rest on independent verification, not self-declared claims.
- Where a proxy is based on design-stage modelling, measured performance should follow within an agreed period.

5. Māori rights and interests

Q1–Q3. Scope, evidencing and engagement requirements, and guidance

The NZIA supports the intent of the clause and the requirement for evidence rather than self-declaration. The final criteria should clearly identify:

- how the appropriate mana whenua authority or rights-holder is to be identified, recognising that this cannot be determined solely by the applicant
- what constitutes adequate engagement and evidence, while avoiding a checklist approach that treats consultation as approval
- how the reasonable costs of mana whenua participation and specialist cultural advice can be included as eligible project or finance costs
- how commercially sensitive and mātauranga Māori information will be protected.

Guidance should be co-designed with Māori practitioners and representative bodies, including Ngā Aho, rather than prepared and subsequently consulted on.

6. Data centres

Q1–Q2. Preferred option and suitability of the protective criteria

Option 1. Large data centres operate continuously, rely on backup generation and can affect neighbouring communities through noise and particulate pollution. The proposed criteria cover grid support, renewable electricity, cooling water and climate risk, but not effects on neighbours. We recommend adding acoustic performance requirements that address continuous low-frequency noise beyond the site boundary, limits on fossil-fuelled backup generation including routine testing, and siting requirements relative to homes, schools and healthcare, and measurement of particulates and air pollution.

7. Size threshold for embodied carbon

Q1. What gross floor area threshold is appropriate for embodied carbon requirements? Please give justification and evidence.

NZIA believes embodied carbon requirements should extend beyond large commercial buildings and include residential and smaller commercial buildings. Decisions made early in the design process, particularly around building form, materials and construction methods, have a significant influence on embodied carbon emissions. Applying these requirements more broadly would create an opportunity to encourage lower-carbon construction across a much greater proportion of New Zealand's building activity.

A 5,000 m² threshold would leave almost all new homes and many smaller commercial buildings without any embodied carbon test. This represents a significant missed opportunity, particularly given the scale of residential mortgage lending in New Zealand.

Residential mortgages account for a large share of NZ bank lending, creating a significant opportunity to encourage investment in more sustainable homes. Banks are already taking steps to support more energy-efficient housing through their lending products. A credible, consistent and practical NZ Taxonomy could build on this progress, giving lenders greater confidence to expand sustainable finance offerings.

Including embodied carbon requirements for typical new homes would allow the taxonomy to recognise and encourage lower-carbon construction across a much wider part of the residential market. This would complement the taxonomy's separate pathways for financing improvements to existing homes, ensuring that sustainable finance can support both new construction and retrofits.

However, the requirements must be proportionate to the size and complexity of a project. NZIA recommends a practical approach that includes residential and smaller commercial buildings without adding unnecessary cost or complexity:

- **Residential:** embodied carbon requirements should apply to all new residential buildings, with a residential-specific benchmark rather than the "Other" category, but the evidence requirements should be proportionate. Small and standardised residential projects should be able to use a simplified typology, elemental calculator or deemed-to-comply pathway. Larger or atypical projects should provide a project-specific assessment.
- **Non-residential:** NZIA recommends a 2,500 m² threshold for reduction requirements. Projects below that threshold should measure and report upfront carbon using a simplified method, without initially being required to achieve a specified reduction. Reporting would build the NZ dataset the draft says is missing.

NZIA's residential target of less than 156 $kgCO_2e/m^2$ for modules A1–A5 provides an example of an absolute limit that the profession considers achievable by 2030. (NZIA's office target covers the whole life cycle, so it is not directly comparable with the draft's upfront-only scope.)

MBIE's Building for Climate Change programme proposed absolute embodied carbon caps for new buildings. With those requirements not yet in regulation, taxonomy is one of the few national signals on embodied carbon. The criteria should stay consistent with the MBIE whole-of-life methodology and any future regulatory caps. NZIA also recommends:

- reviewing the business-as-usual baselines before 2029, which the draft itself says are likely unrepresentative.
- absolute upper limits alongside the percentage reductions while baselines are fixed.
- recognising retention of existing buildings, since demolition and rebuild currently carries no penalty.
- signalling when the use and end-of-life stages (modules B and C) will be added.

Q2. What NZ data could show the share of buildings, activity or emissions captured at different thresholds?

The NZIA is collecting building performance data (see focus area 1, Q3), although this dataset is still developing. Further work would be needed to establish whether it can provide useful information on the share of buildings, construction activity or embodied emissions captured at different thresholds.

The NZIA recommends testing potential thresholds against New Zealand building consent and floor-area data, alongside available embodied carbon assessments. This would help establish how much of New Zealand's construction activity would be covered by different thresholds and support a practical, evidence-based approach to setting the requirements. The NZIA would welcome further discussion with the Secretariat about any relevant data it can contribute.

8. Waste diversion

Q1. Is 40% by weight an appropriate national minimum?

Yes, as a minimum for now, with a published schedule that raises it over time. Construction and demolition produce 40–50% of Aotearoa's landfill waste, and around 70% when soil is included.

A diversion percentage measures what happens to waste, not how much is produced. The NZIA recommends also reporting waste generated per floor area (kg/m²), which rewards designing waste out rather than only diverting it; the NZIA is developing guidance for designing out waste that uses this metric. Reporting by material stream should sit alongside the weight target, as weight alone favours heavy streams such as concrete and fill. Most construction waste is decided at design stage, so the criteria should require a site waste management plan for new construction and renovation.

Q2. Is there data supporting a regional threshold?

NZIA has no data to offer. Rather than lowering the threshold where recovery infrastructure is limited, regional constraints should be documented, reported and reviewed.

Q3. Should any proxies be used to determine compliance?

NZIA recommends recognising a design-stage waste minimisation plan, including design for disassembly and adaptability, as an important part of demonstrating how waste will be reduced. These should be supported by proportionate reporting of actual waste diversion, using established industry reporting frameworks or recognised proxies to avoid unnecessary duplication and cost.

9. Biodiversity and ecosystem protection

General input on the land-use restrictions and timber sourcing

The NZIA supports the land-use restrictions and the timber sourcing requirement. Steering development away from productive land, high-value habitats and forest favours the reuse of existing buildings and urban sites over greenfield development. Over time, the taxonomy should reward net positive biodiversity outcomes, not only avoid harm.

FSC and PEFC certification should be recognised where the applicable scheme, chain-of-custody requirements and evidence meet the taxonomy's sustainability safeguards. The taxonomy should recognise forestry practices that enhance biodiversity, including sustainably managed native forestry, mixed-species planting and continuous-cover forestry, alongside plantation timber, and support the long-term diversification of Aotearoa's timber supply. The taxonomy should also encourage locally grown, rapidly renewable bio-based materials such as timber, wool, straw, hemp and harakeke. Research, development and commercialisation of bio-based and natural construction materials should be recognised under the Research, Development and Innovation activity, so they can attract green finance.

Adaptation and resilience whitelist

General feedback on whether the measures suit the sector and what should be added.

NZIA supports the whitelist, particularly the measures that address overheating: homes that stay at a safe temperature during a power outage, external shading, low solar-gain glazing and ceiling fans. Overheating is a growing risk in Aotearoa, and NZIA's position is that overheating requirements should be part of the Building Code. NZIA's 2030 targets include overheating limits for homes and offices (Appendix A). We recommend the whitelist also recognise:

- passive design measures that reduce overheating, such as cross-ventilation, night cooling and thermal mass
- continuous ventilation, such as mechanical ventilation with heat recovery, which supports healthy indoor air year-round and maintains air quality when windows must stay closed during heatwaves, wildfire smoke or poor outdoor air.
- adjustable external shading, such as external blinds, alongside fixed shading
- building performance modelling, using future climate projections, as a way to show that heat, ventilation and moisture measures work together for the specific building and site.

We also recommend consistent climate assumptions and clear definitions across the measures, so designers can apply them with confidence.

Conclusion

NZIA supports the NZ Taxonomy as an important opportunity to direct more investment into healthier, lower-carbon and more resilient buildings. To realise this potential, its criteria should work for both residential and commercial buildings, support new construction and improvements to existing buildings, and remain clear, proportionate and affordable to apply.

Practical pathways for individual upgrades and staged, whole-building retrofits will be particularly important in helping improve New Zealand's existing housing stock at scale.

NZIA welcomes ongoing engagement and can provide further detailed input on specific technical provisions as the criteria are finalised.

Appendix A: NZIA 2030 building performance targets

Voluntary targets for members' new buildings and major refurbishments, endorsed by the NZIA Board in June 2026. NZIA believes these are realistic yet ambitious targets, achievable within the current capability of New Zealand architects and aligned with established industry tools and benchmarks.

Metric	Residential (low-rise, NZS 3604)	Non-residential (offices)
Operational energy	<60 kWh/m²/yr (aligned with Homestar 7-star; excludes appliances and plug loads)	<75 kWh/m²/yr base build (approximately NABERSNZ 5-star)
100% electric	All-electric services, no fossil fuels; PV-ready roof	All-electric services, no fossil fuels; PV-ready roof

Embodied carbon	<156 $kgCO_2e/m^2$ (modules A1–A5)	<750 $kgCO_2e/m^2$ (modules A–C, MBIE or NZGBC methodology)
Potable water	<132 L/person/day	≥40% reduction from baseline
Overheating	Not above 25°C for more than 5% of the year	<1% of occupied hours above 28°C

Source: NZIA 2030 Kaitiakitanga Climate Commitment targets, September 2026.