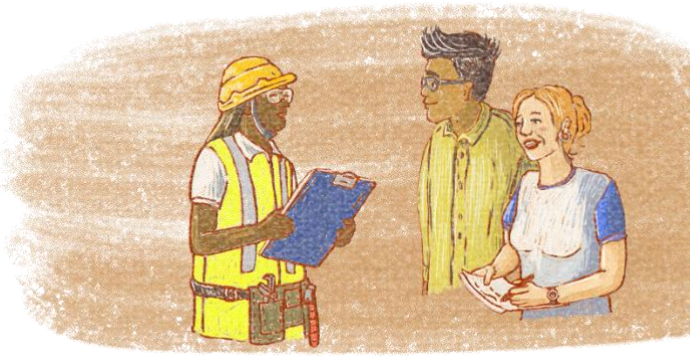
External Research Report ER103 [2025]

# Supporting bank customers to build more comfortable and efficient homes

**Sally Blackwell, Vicki Cowan and Wokje Abrahamse**

Project LR16311
Beacon Pathway, funded by the Building Research Levy



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# About This Report

**Title**

Supporting bank customers to build more comfortable and efficient homes

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**Abstract**

Beacon Pathway collaborated with ANZ Bank New Zealand Ltd. and Te Herenga Waka – Victoria University of Wellington to co-create and trial an intervention that connected ANZ home loan customers with an independent new-build performance advisor. Market conditions had a significant impact on the final number of research participants which meant it was not possible to fully evaluate the trial. Regardless, the insights gained through the co-creation and trial offer value for banks, home loan customers, advice practitioners and others in the wider housing ecosystem. Trial participants viewed the bank as a neutral third-party well-placed to connect them to personalised new-build performance advice and they considered doing so would lower the risk of the loan for both parties. A customer building-lending journey map highlighted synergies between building, lending and performance that present opportunities for banks and their customers. Conceptually, this goes further than providing information or offering a particular product (although it may include these things), it provides a framework for a bank to engage with and support customers throughout the whole process, recognising the benefits of early engagement. While there may be benefits to banks, and potentially other large institutions, of referring their customers to an independent advisor this is unlikely to be realised without a more mature advice sector.

**Reference**

Blackwell, S., Cowan, V. and Abrahamse, W. 2024**Error! No text of specified style in document.**. Supporting bank customers to build more comfortable and efficient homes. Building Levy Project LR16311. Report ADV/01 by Beacon Pathway Inc.

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# Executive summary

This project was led by Beacon Pathway, working in collaboration with ANZ Bank New Zealand Ltd. (ANZ) , two researchers from Te Herenga Waka – Victoria University of Wellington (VUW), and two independent new-build performance advisors (see 1.4).

The research partners sought to understand the impact of a bank introducing their customers to independent expert new-build performance advice – would customers revise their build decisions to achieve a higher level of performance?

Beacon's Waitākere NOW Home (Figure 1) built in 2005 showed that with considered design it was possible to build a new home on a modest budget with existing materials and technology that was warmer in the winter, cooler in summer and cheaper to run than an average home at the time. Almost two decades later, BRANZ research shows that "with very few exceptions" (Jaques & Sullivan, 2023) new detached homes do not achieve the same results. When working with customers and project partners we adopted two key principles to communicate the gap between the status quo and what the NOW Home shows is possible. In simple terms they are:

- Early considered design can result in significant improvements to performance with little if any increase in budget (e.g. by considering building size, orientation, size and placement of windows).
- Customers may make a number of informed trade-offs that will result in better performance, if they are enabled to do so.

Beacon's research, and experience working alongside the Eco Design Advisor network and Home Performance Advisor training programme over many years, tells us households need to be supported on a 'home performance journey' and that personalised advice helps households navigate their journey. Banks have strong incentives to support their customers to build more comfortable and efficient homes. For instance, banks play a critical role in financing the construction of new homes, have strategic Environmental, Social, Governance (ESG) objectives and have new obligations as Climate Reporting Entities.

This research took place between December 2022 and September 2024 and involved the following phases: discovery; intervention development; delivering the intervention trial and analysing the results; and partner reflection.

**Customer-centred approach**

In the discovery phase the project partners brought their own insights to the research challenge, which are set out in Chapter Three. From the outset, the bank's customers were put at the centre of our thinking. As a result we:

- **Planned to meet customers where they were and tried to 'smooth the path.'** Recognising that most people want to build a 'good enough' home, not necessarily the most 'sustainable' and that many people need to be taken on a journey towards a better performing home, the project team aimed to support bank customers wherever they were on that path. Acknowledging that building a home is complex and building outside the industry norm can place a heavy burden on individuals to do their own research and advocate for themselves, the bank was interested in how they could 'smooth the path' for their customers who were building.
- **Tied 'better performance' to customers' existing priorities.** Insights from behavioural science tell us that framing is important. Empathy interviews undertaken by ANZ highlighted that people building don't necessarily value 'sustainability' or understand 'performance', but most people strive for 'comfort' and will advocate for the well-being of their whānau. Throughout the project we framed the benefits of building a better performing home in terms of 'comfort and efficiency'.

Building on the discovery work, in the intervention development phase a multi-disciplinary team co-created an intervention and prepared to trial it with ANZ customers. Through a process of brainstorming solutions to design challenges, collaboration and refining ideas against agreed success criteria, the intervention development team proposed elements of an intervention. Further work, including upskilling bank staff and developing resources for the participants, was required before the intervention elements proposed in the workshops could move to trial. The intervention trial included five steps:

1. **Recruitment:** ANZ customers were invited to participate in the research via the bank's front-line Mobile Mortgage Managers.
2. **Pre-intervention interviews:** Participants were interviewed by a researcher from VUW and introduced to one of the project's new-build performance advisors.
3. **Consultations:** Participants were first emailed a project resource, *Designing Your Home for Comfort and Efficiency*, developed by Beacon. They then met with an independent new-build performance advisor to discuss their building plans. The expert provided participants with tailored advice to improve the comfort, efficiency and long-term performance of their homes. Participants had an option to meet the advisor twice and bring a member of their building team to the second consultation.
4. **Post-intervention interviews:** Participants were interviewed again by a researcher from VUW.
5. **Analysis:** Researchers from VUW distilled key findings from the interview transcripts.

The timing of the research was challenging in the sense that it coincided with a sharp economic downturn, which resulted in a much smaller pool of participants than anticipated (4 households compared with the expected 20-25). This was disappointing because we were unable to fully evaluate the trial. Regardless, the trial itself revealed insights worthy of further investigation. Principally, that:

- Trial participants felt ill-equipped for their building journey and recognised they didn't necessarily even know what questions to ask. The personalised advice participants received filled a gap in their understanding they had been unable to address through other sources.
- Trial participants thought the bank was well-positioned to connect them to an independent new-build advisor. They viewed the bank as a neutral third-party in relation to their building project and thought the bank connecting them to new-build performance advice made the build lower risk for both parties.
- The experience of some participants suggests that such advisors might also play an important 'navigator' function, helping guide people through a complex, unfamiliar process. This goes beyond an advisor's principal function of informing households' decision-making.

Other lessons and findings from the co-creation and trial offer value for banks, home loan customers, advice practitioners and others in the wider housing ecosystem. These are discussed below.

**Supporting customers with personalised advice**

One way for banks to support their customers to build more comfortable and efficient homes is with a financial incentive. ANZ has an existing sustainability focussed mortgage product for new builds, its Healthy Home Loan. Customers who achieve Homestar 6 or better are eligible for a discounted interest rate. Third-party verification of performance provides a bank with assurance of the added benefits from a home that meets the standard and signals the home's performance credentials to the market. In this project we explored the potential of personalised advice as another mechanism to support customers to build more comfortable and efficient homes.

Beacon's experience over many years is that households often need to be taken on a 'journey' from low awareness and/or existing expectations about what a comfortable and efficient home is to what it might be and how to achieve it. Personalised advice is one way to support people on that journey, enabling them to make considered design decisions and informed trade-offs that suit them, and result in a better performing home. As already noted, trial participants thought the introduction to advice should come from an impartial third party and saw the bank as a good intermediary.

Recognising this, and the bank's interest in supporting their customers on a home performance journey, the research suggests there are likely to be benefits to banks (and potentially other institutions) of being able to refer their customers on to an independent, new-build performance advisor. However this is likely to require a mature advice sector with sufficient scale, geographical coverage and appropriate training and accreditation.

The research indicates there are benefits for banks and their customers of an approach where customers adopt components of a better performing home but don't necessarily attain a particular standard (e.g. Homestar 6). We note, however, that without third-party verification of performance the benefits of the approach are harder to quantify. This may be an impediment to a bank adopting this less formalised approach. We hope that the insights from this research – especially work making the synergies between building, lending and performance explicit to all parties – will encourage innovation in this space. We further note, that while achieving a particular standard (e.g. Homestar) for a new home is not the primary purpose of providing personalised advice it may be an outcome. An approach that supports customers where they are on their home performance journey may lead to greater uptake of existing sustainability-focussed lending products.

**Synergies between building, lending and performance made explicit**

Making the synergies between building, lending and performance explicit for all parties has highlighted the potential benefits to a bank of integrating performance into its engagement with customers about a construction loan. Conceptually, this goes further than providing information or offering a particular product (although it may include these things), it provides a framework for a bank to engage and provide support to customers throughout the whole process, recognising the benefits of early engagement. Possibilities could include:

- Identifying customers who may be contemplating building in the future and engaging with them early about performance to optimise design.
- Creating an interactive building-lending journey map that sets out the roles of different parties, optimal timing for different decisions and links customers to other resources and services.
- Upskilling bank staff to have more informed conversations with customers about the benefits of considering performance early in their planning.
- Considering the benefits of improved home performance (that does not reach the threshold for external verification) in the bank's assessment of a loan application.

**Potential in existing homes**

The scope of this research was bank customers borrowing to build a new home. The focus on new-builds was defined by the 2022 Building Research Levy Prospectus. The project partners, including our funder BRANZ, recognise the potential to create benefits at a larger scale by applying the insights from this project in the existing home market as well. In particular by:

- Integrating performance into a bank's engagement with its customers related to buying or renovating existing homes.
- Referring customers to independent personalised advice (subject to its availability). This may be particularly useful for banks offering low-interest top-up mortgages in existing homes and customers who are interested in these products.

**Banks in the housing ecosystem**

The funding for this project also drove the focus on household-level change. While there is value in supporting households to improve home performance, they have little capacity to drive change across the housing ecosystem. It is worth noting, however, that when they engage with a bank they are working with an institution with considerable motivation, reach and influence to drive change at scale. A bank can provide leadership and bring parties together to identify solutions to shared challenges.

While there is much that an institution like a bank can do to enable system change, the bank itself values an enabling operating environment. Aotearoa does not have a mandatory rating scheme, like an Energy Performance Certificate, and real estate valuations do not yet account for performance measures. This disables change in the housing and finance space due to the lack of transparency for purchasers, borrowers and lenders about a home's performance or consequent benefits. An environment where the true value of a home's performance is understood by all parties – and can be verified – would help incentivise change across the system and support the uptake of sustainability-focussed finance products.

# 1 Introduction

Our homes have a job to do – they must look after us at every stage and circumstance of life: from newborn babies to grandparents; when we are well and when we are sick. This new partnership sought to pilot an approach where bank customers were supported to build homes that work well for them now and in the future.

## 1.1 Where did our journey begin?

For more than 20 years Beacon has researched what makes new homes work better for the people who live in them and the planet. In 2005, Beacon built the Waitākere NOW Home to demonstrate it was possible to achieve a significantly healthier, more thermally comfortable and more resource-efficient home than a standard build by using existing materials and techniques and with a budget in line with an average build at the time. The purpose of doing so was to exemplify to the building industry what was possible with the knowledge and technology already to hand. The NOW Home was a live research project in that the home's performance was monitored while tenanted by a family (Beacon Pathway, 2020). The results showed:

- The house maintained comfortable indoor temperatures all year round only requiring additional heating on two days.
- The house used a third less energy than a comparable household and 45% less than the house the family had previously lived in.
- The lower running costs of the house buffered the family from rising energy costs and allowed for some disposable income.
- The family used 40% less water than average compared with the surrounding area.
- The family reported a drop in their son's asthma symptoms, he hardly needed his nebuliser after living there for three months.

More recently, an update to BRANZ's longitudinal study that measures the sustainability progress of new homes (consented in Auckland, Hamilton and Christchurch) finds that almost all surveyed homes perform worse than the project's comparator, the Waitākere NOW Home (Jaques & Sullivan, 2023).

This raises a question: why is this modest demonstration home built in 2005 still setting a benchmark that homes built today are not consistently meeting, and how can we help people get similar benefits?

***Figure 1 The Waitākere NOW Home.***

Beacon's research has also focussed on the people who live in homes – asking how best to help New Zealanders build, renovate and run their homes so they get the best performance. Participants in Beacon's research projects have told us it is hard to know what to do – and when – to make their homes work better for them. For example, Beacon's early Home*Smart* renovation research taught us that households need to be supported on a 'home performance' journey that works for them (Saville-Smith, Fraser, Buckett, & Camilleri, 2010). Beacon's experience working alongside the Eco Design Advisor network and establishing the Home Performance Advisor training programme (in partnership with Community Energy Network and Toimata Foundation) has shown that personalised advice helps households navigate their home performance journey. We continue to question how we can unlock the potential for personalised advice to help New Zealanders make informed decisions about their homes.

Beacon often partners with other organisations to bring about change in homes and neighbourhoods in Aotearoa. Banks hold a big stake in the housing stock – in the period January 2024 to June 2024 there were 1.38 million home loans across 1.14 million customers (New Zealand Banking Association Te Rangapū Pēke, 2024). Significantly, banks have recently become Climate Reporting Entities, required to publish annual climate statements (Financial Markets Authority Te Mana Tāta Hokohoko, 2024). So we asked: how might banks consider the performance of homes – both in terms of their customer's health and impact on the planet – when providing mortgages to their customers who are building new homes?

BRANZ's call for proposals through the 2022 Building Research Levy offered Beacon the opportunity to bring these threads together (BRANZ Ltd, 2022). We responded to theme two of the Prospectus funding round – *Changing Behaviour* – which sought proposals for research that was co-created with stakeholders and "[trialled] interventions leading to new tools and practical solutions" to change behaviour. Recognising the potentially significant role of personalised 'home performance' advice in household decision-making related to new-builds,

and the pivotal role of personal lending in residential construction projects, our intention was to co-create and trial an intervention with a bank that brought home loan customers in contact with an independent new-build performance advisor. We hypothesised that the bank's relationship with home loan customers may provide a useful opportunity to influence customer's decision-making and improve the performance of their new-builds.

## 1.2 What is 'home performance'?

Beacon has thought about 'home performance' for many years. While this term is commonly used in building research and policy circles it is not widely used or understood elsewhere and has no agreed definition.

To enable conversations between project partners about home performance we introduced Beacon's High Standard of Sustainability (HSS) (Easton & Collins, 2007). When we talk about home performance in this report, we are referring to the degree to which a home (and its occupants) can maintain a healthy indoor environment, comfortable indoor temperatures and access energy and water services that meet their needs, in an affordable and resource efficient way and with low whole-of-life carbon emissions. This is consistent with Beacon's HSS framework (see 3.3.2).

## 1.3 What is the purpose of this research?

This project was a collaboration between Beacon Pathway (Beacon), ANZ Bank New Zealand Ltd. (ANZ), Te Herenga Waka – Victoria University of Wellington (VUW) and two experienced independent new-build performance advisors. See 1.4 for project partner details.

The project began with a simple question: what if banks introduced their customers to independent, expert new-build performance advice? Would bank customers change their build plans to achieve a higher level of performance than originally intended on the basis of the advice received? This research set out to explore that question by co-creating and trialling a 'bank-tied intervention' – an approach to connect ANZ customers who are building new homes with independent, expert new-build performance advice.

Language matters in a multidisciplinary collaborative project and three phrases we use throughout this report require some clarity.

- **Intervention:** refers to a coordinated set of activities designed to change specified behaviour patterns (Michie, Van Stralen, & West, 2011). We use intervention as a 'shorthand' here for the package of expert consultation and resources the project co-created and offered ANZ home loan customers as part of the research trial.

- **Home performance advice:** as noted above, for this project, 'home performance' means that a house is doing its job to provide a healthy environment for its occupants and has minimal environmental impact. From this perspective, 'home performance advice' will therefore enable households to take a 'whole of house' approach considering energy, water, optimal indoor conditions, waste and materials. We know good home performance advice is *independent* of products or services, is grounded in *first principles* of building science and is *personalised* to the circumstances and dreams of the household building a new home.
- **New-build performance advisors:** experts who can provide advice to support households building new homes. Home performance is complex and touches on technical issues, regulations, science, finances, individuals' agency, habits, policies, and building practices. Therefore, anyone offering home performance advice to households building new homes must be an expert. In this report we refer to such experts as new-build performance advisors.

The brief from BRANZ was to *co-create* the intervention with project stakeholders. The project team was formed in December 2022, when representatives from Beacon, VUW and ANZ came together. Each member – and the organisations they represented – contributed distinct perspectives and specialist expertise. ANZ, in particular, brought in-house human-centred design specialists to the project who supplemented the experience of others in the team who had worked collaboratively with stakeholders to achieve shared goals but were less familiar with formal co-design approaches.

Our co-creation process was informed by the principles of the Design Council's widely adopted 'Double Diamond' (Figure 2). The design principles supported the partners to create a trusted collegial project environment where we could actively challenge our assumptions, share newly discovered knowledge, reaffirm the challenge, collectively generate ideas for potential solutions, refine them before trialling in the real world and honestly reflect on our progress.

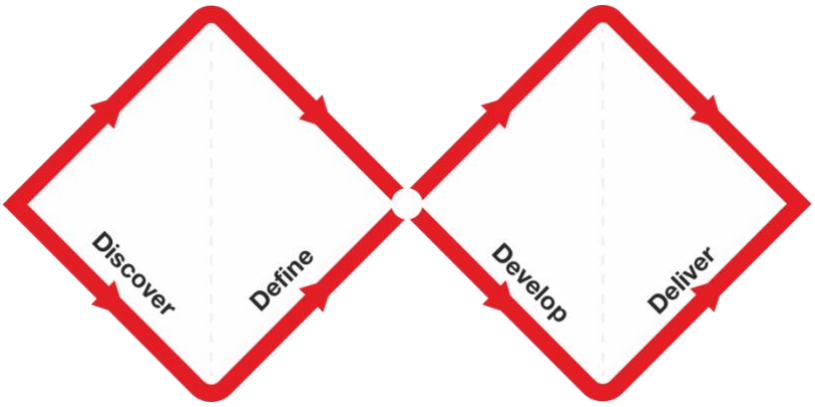


***Figure 2 The Double Diamond. Source: The Design Council.***

Early co-creation discussions focussed on how best to ensure bank customers voices informed the project. To address this ANZ undertook empathy[1] interviews with a sample of households who had recently built a home and practitioners working directly with households receiving advice. Throughout the discovery phase, the project team considered whether to adopt a comprehensive co-design approach or a more focussed approach to collaboratively shaping the intervention. Informed by findings from the discovery phase and with a pragmatic recognition of the project's scope, scale and tight timeframes, the team chose the latter.

This project tackles two of Beacon's longstanding concerns: the poor performance of homes in Aotearoa and the lack of access to practical, independent advice for New Zealanders building new homes. By embedding independent new-build performance advisors into their building journey, the intervention offered a fresh, customer-centred approach. And by partnering with ANZ, the project explored the potential for banks to take a more active role in shaping the future of housing in Aotearoa.

## 1.4 Who are the project partners?

Backed by BRANZ through the Building Research Levy this new partnership brought together partners committed to better housing for New Zealanders and exploring new ways of achieving that.

***Beacon Pathway Inc***: Beacon is a for-purpose research organisation with two decades' experience partnering with others to demonstrate how our homes and neighbourhoods can work better for everyone. Our mission is *creating homes and neighbourhoods that work well into the future and don't cost the Earth.*

Beacon connects research with practice by partnering with the people and organisations taking action. This can range from policy makers to industry practitioners, and the actions people take at home. The Beacon team works hard to ensure that research findings are available in useable forms, such as assessment tools for communities and developers or simple information to help householders better build and renovate their homes.

**ANZ Bank New Zealand Ltd:** ANZ is Aotearoa New Zealand's oldest bank, with origins stretching back to 1840. ANZ offers a full range of banking options, including Personal, Business, Institutional, Funds Management and Private Banking (ANZ New Zealand Ltd, About Us, n.d.). ANZ has a purpose to shape a world where people and communities thrive and a commitment to integrating Environment, Social and Governance (ESG) priorities into strategy

[1] Empathy interviews are a qualitative method based around a conversation. The interviewer asks open-ended questions to explore the perceptions and experiences of a participant's use of a programme, process or service (Lochmiller, 2023)

(ANZ New Zealand Ltd, Environmental, Social and Governance (ESG) Supplement, 2024). The bank has identified housing as one of its most material ESG issues. ANZ has a range of lending products that support households and businesses to lower emissions and incorporate broader sustainability considerations into their lives and businesses, including two products designed specifically for personal home loan customers. These are:

- The Good Energy Home Loan, which offers existing eligible ANZ home loan customers additional finance at 1.00 percent for three years to invest in a range of sustainability features including energy efficiency upgrades, clean transportation upgrades, renewable energy upgrades and sustainable water upgrades.
- The Healthy Home Loan package, which offers a discount off standard home loan rates for a new or existing home that has a Homestar rating of 6 or higher.

ANZ also has a construction-specific loan, Blueprint to Build, which offers discounts off standard interest rates and other benefits to people building or buying a new-build.

**Te Herenga Waka – Victoria University of Wellington (VUW):** Led by Dr Wokje Abrahamse from the School of Geography, Environment and Earth Sciences, VUW brought academic expertise to the research process. An environmental psychologist specialising in human dimensions of environmental change, she evaluates interventions (such as information campaigns and feedback provision) designed to encourage environmentally friendly behaviours (e.g., energy conservation and sustainable transport choices). Supporting this effort, VUW research assistant Nic Guerrero conducted participant interviews and carried out thematic analysis, ensuring the voices of those involved in the trial were accurately captured.

**New-build Performance Advisors:** We partnered with two independent new-build performance advisors who brought impartial, customer-focused expertise to the consultations – and offered quality, personalised advice to the bank's customers.

- ***Lisa Burrough, Dunedin City Council's Eco Design Advisor***. For the past six years, Lisa Burrough has been Dunedin City Council's Eco Design Advisor offering free, independent advice on home performance to homeowners, landlords, tenants and the building industry. The award-winning Eco Design Advisor service works closely with EECA (the Energy Efficiency and Conservation Authority), BRANZ, and leading industry players. With expertise covering a range of topics from behaviour change to new-builds; from simple retrofits to significant renovations, Lisa previously worked as a Building Energy Scientist at BRANZ and once served as Beacon's Research Team Leader for Indoor Environment Quality. A trainer for the Home Performance Advisor programme (HPA), Lisa brings deep expertise to this project, and her involvement was generously supported by Dunedin City Council.

- ***Ian Mayes, Independent consultant.*** Ian Mayes was Hamilton City Council's Eco Design Advisor for 12 years before becoming an independent consultant. He now advises private clients on home performance, both for new-builds and existing houses. A member of the team who developed the Home Performance Advisor training programme (HPA), Ian is now a trainer and led the development of HPA's Principles of New Build course. In addition, Ian contributes his expertise to several of Beacon's other research projects.

## 1.5 How to read this report – research phases and report structure

This report is a comprehensive record of a two-year collaborative research project. We have provided an 'At a glance' section at the top of chapters 2-7 with a summary of key content.

*Chapter 2* of this report describes the broader context for residential new-builds – including their performance challenges, how advice supports household decision-making and the role of banks in this sector.

The research was carried out in in these phases, each informing the next:

1. **Discovery (December 2022 - July 2023):** The partners worked collaboratively to establish the team, share perspectives, challenge assumptions and gather insights to inform the partners' co-creation of an intervention. *Chapter 3* details the work done to help us shape the intervention.
2. **Intervention development (August 2023 - November 2023):** A small focussed multidisciplinary team gathered for a short intense period of ideation workshops to co-create the intervention. The shaping of the intervention continued as ANZ's front-line staff engaged with the project and we prepared to launch the trial. This work is outlined in *Chapter 4*.
3. **Delivering the intervention trial and analysing the results (September 2023 - August 2024):** Eligible ANZ customers were invited to participate in up to two free online consultations with the independent new-build performance advisors. Pre- and post-intervention interviews conducted by a VUW research assistant assessed the advice's impact. The trial – from recruitment to findings – is detailed in *Chapter 5*.
4. **Partner reflection (July 2024 - September 2024):** The final research phase captured the project partners' reflections, offering a candid assessment of what worked and didn't and the insights they'd gained from the project. Findings from this reflective phase are presented in *Chapter 6*.

Finally, the report concludes with a discussion of the research and its findings (*Chapter 7*) and conclusions (*Chapter 8*).

# 2 Context – Enabling 'better' performance in new homes in Aotearoa

***At a glance***

- The New Zealand Building Code sets minimum performance standards for new homes – while parties can choose to exceed Building Code minimums this is not the industry norm. There is uncertainty about the long-term policy settings to improve the performance of new homes and reduce their environmental impact.
- Aotearoa does not have a mandatory measure, such as energy performance certificates, that makes building performance visible in the market. Better building performance is not currently reflected in real estate valuations and most bank lending criteria.
- Most new homes do not perform as well as Beacon Pathway's Waitākere NOW Home in terms of comfort, energy and water efficiency, and operational carbon emissions. There is a huge opportunity to improve social, environmental and health outcomes from new homes by adopting similar principles.
- Internationally there is a growing sustainable finance market designed to improve home performance. There is an emerging market for sustainability-focussed lending products in Aotearoa and opportunities for banks to explore this space further.
- Personalised home performance advice supports informed household decision-making, increases confidence to make decisions and can help people navigate a process of change over time.
- There are an increasing number of practitioners offering some form of personalised advice to households in Aotearoa. Most of this work is undertaken in existing home. There is currently a small pool of specialist new-build performance advisors.
- The literature highlights a gap in research about the value of personalised home performance advice in the new-build market and banks playing a role to connect their customers with home performance advice.

## 2.1 Policy settings for new-build performance in Aotearoa

### *2.1.1 Building Code sets minimum performance standards*

Building activity in Aotearoa is controlled by the Building Act 2004 and performance requirements are set out in the New Zealand Building Code (NZBC)[2]. The NZBC is a performance-based code, which sets legal minimums that parties can exceed. The clauses most relevant to the comfort, efficiency and health of new homes are E3 'internal moisture', G4 'ventilation', G5 'interior environment' and H1 'energy efficiency'. It has long been

[2] The New Zealand Building Code is contained in Schedule 1 of the Building Regulations 1992

recognised within the building sector that compliance with Building Code minimums does not equate to 'good' design (James, Saville-Smith, Saville-Smith, & Isaacs, 2018, p. 5) and in some cases homes built to code do not perform as well as assumed. For instance, research into the construction and insulation of external walls found a higher percentage of timber framing in new homes than is assumed in Building Code compliance calculations (Ryan, Penny, Cuming, Mayes, & Baker, 2020). This means walls in new build homes are not as effective at keeping New Zealanders as warm or healthy as regulators and industry have assumed (Ryan, Penny, Cuming, & Riley, 2021). Despite the option to build to higher-than-code performance standards, this is not the industry norm.

Market research by the Ministry of Business Innovation and Employment (MBIE) indicates some adoption of higher-than-minimum standards in new-builds (2023). In the Annual State of the Building and Construction Sector Survey: Annual monitor 2022-2023 (Ministry of Building Innovation and Employment, 2023) 48% of respondents who had recently built a new home reported installing above-code insulation, while 26% reported using triple glazed windows. This finding is consistent with those of MacGregor, Magan and Brunsdon (2019) whose survey of people undertaking refurbishments and retrofits of existing homes found that 97% selected at least one feature that exceeded the minimum, most often insulation (22%). However, widescale comprehensive improvements to the performance of new homes above the legal minimum have been slow.

### *2.1.2 Higher performance levels in new homes are not visible*

Unlike many other jurisdictions, Aotearoa has no requirements for energy performance certificates (EPCs), or similar policies, that rate a home's performance against agreed benchmarks and require a rating to be disclosed at point of sale or lease. The New Zealand Green Building Councils' (NZGBC) Homestar provides a voluntary rating tool to the market although, historically, uptake has been relatively low (Ade & Rehm, 2020). Jaques and Sullivan (2023) provide the most recent published figures of Homestar ratings and report that in 2020 188 new stand-alone (detached) homes were Homestar™ certified. A number of other voluntary certification standards also exist in Aotearoa, including Passive House, Living Building Challenge, and Net Zero Energy Building. The number of certifications for these voluntary standards in 2020 were 37, 2 and 1 respectively (Jaques & Sullivan, 2023). One of the barriers to uptake of building rating tools is the perception of increased construction cost (Ade & Rehm, 2020). The additional upfront cost of building to Homestar 6 has been estimated at 2-3% based on larger volume building schemes, while the upfront cost of building to Homestar 7 or 8 is in the range of a 5-19% increase (Bealing, 2020).

Without a mandatory rating scheme that requires disclosure of performance to buyers and sellers it is difficult to communicate how well a home performs and the associated benefits to the market. Further, building valuations do not currently account for building features that

exceed minimum performance standards (Reid, Groom, & Green, 2019). Recent changes to the International Valuation Standards Council's *International Valuation Standards* now incorporate Environmental, Social and Governance (ESG) factors. This may have an impact on real estate values over time (International Valuation Standards Council, 2021). Notwithstanding this, there is currently little market-based incentive to build a better performing home.

### *2.1.3 Long-term policy settings uncertain*

Over the past five years, central government has led a number of initiatives designed to increase the performance requirements of new homes although the future of this work programme is now unclear. For instance, in 2023 changes were introduced to Building Code Clause H1 'Energy Efficiency Provisions' to increase thermal insulation requirements in new homes to improve indoor health and comfort, reduce operational costs and generate operational carbon savings (Ministry of Building Innovation and Employment, 2023). However, the Ministry of Building Innovation and Employment (MBIE) has recently consulted on changes to Clause H1, which will reduce some minimum insulation requirements, amongst other proposals.

Other policy initiatives were driven by the government's response to the Climate Change Response (Zero Carbon) Amendment Act 2019 and actions in the first Emissions Reduction Plan and first National Adaptation Plan. Principal among these initiatives was work under MBIE's Building for Climate Change Programme (BfCC), which operated under the following vision statement:

> *The vision for Aotearoa New Zealand's building and construction sector is that by 2050:*
> - *building-related emissions are near zero, while providing healthy places to work and live for present and future generations, and*
> - *homes and buildings are resilient to the impacts of climate change and meet people's social and cultural needs* (Ministry of Business Innovation and Employment, 2023).

Focus areas included reducing operational and whole-of-life embodied carbon emissions from new buildings and exploring regulatory measures to give effect to the initiatives. The Emissions Reduction Plan also included an action (12.1.2) to "establish independent household advice, such as expanding the Eco Design Advisor service, and explore grants to support households to reduce their carbon impact" (Ministry for the Environment — Manatū Mō Te Taiao, 2022) although this work was never progressed. Since the change of government in 2023 the future of the Building for Climate Change work programme has become unclear. In 2024 the government consulted on the second emissions reductions plan (ERP2), which excluded the built environment. The final ERP2 includes a chapter on the building and construction sector, but targets vague and non-binding (New Zealand Green Building Council, 2024).

### *2.1.4 Sustainability progress of new homes in Aotearoa*

As already noted (see 1.1), since 2015 BRANZ has undertaken a series of studies to measure the sustainability of New Zealand's new detached homes over time. The longitudinal study has used the Waitākere NOW Home as its benchmark for sustainability because the house was intensely monitored, including with occupants, so its performance is well understood. The home also met a comprehensive set of high performance goals so is a robust example of what is practically achievable in Aotearoa (Jaques, 2015). Jaques and Sullivan (2023) find that "with very few exceptions" (p. 45) new detached homes use more energy for heating and cooling, have more operational $CO_2$ emissions and are less comfortable using passive means than the NOW Home.**Error! Reference source not found.** For example, the NOW Home used around a fifth of the space heating energy (5 kWh/m$^2$) than an average Auckland new-build consented in 2020 (26 kWh/m$^2$). If built as designed in Hamilton or Christchurch, the NOW Home would outperform average new builds consented in 2020 in these two cities, needing less than half of their space heating energy. This places unnecessary operating costs (heating and cooling energy) onto households, unnecessary load on reticulated energy and water supplies and contributes to New Zealand's operational carbon emissions.

New homes in Aotearoa also have high embodied carbon footprints relative to what is required for the building sector to contribute its share to the country's emission reduction targets. Chandrakumar et al (2020) calculated the lifetime carbon impact of an average new-build detached home built to New Zealand Building Code standards. They then compared that figure with the lifetime carbon emissions each future home could generate based on a proportional allocation of emissions if global emissions are to stay within 1.5 or 2 degrees of warming by 2050. The authors found that new homes exceed their carbon budgets by five times (Chandrakumar, McLaren, Dowdell, & Jaques, 2020). Another study, by Jaques and Bullen (2023), anticipate that new homes will account for almost a quarter (22%) of the cumulative carbon footprint of the housing stock between 2020 and 2050 under business-as-usual assumptions. At the same time, our homes are exposed to a range of significant risks from the effects of climate change such as extreme weather events, drought, increased fire weather and ongoing sea level rise (Ministry for the Environment — Manatū Mō Te Taiao, 2020) but are, as yet, poorly adapted to them (Ministry of Business Innovation and Employment, 2024).

## 2.2 Banks and housing

Through the provision of capital, banks and the finance industry play an important role in helping the housing sector provide better performing and lower carbon homes.

### *2.2.1 What's happening internationally?*

The significance of the relationship between banks and housing is internationally recognised. Four banks[3] in Aotearoa – together with more than 345 banks worldwide – are signatories to United Nations Environment Programme Finance Initiative's (UNEPFI) Principles for Responsible Banking. The United Nations Environment Programme Finance Initiative Report: *Banking on Green Buildings – background material to build capacities at commercial banks* (UN Environment Programme Finance Initiative & Global Alliance for Building and Construction, 2024) identifies that:

> *"The buildings sector provides a prime opportunity for banks to align with the six principles of responsible banking. The Principles for Responsible Banking were developed by a group of banks and the United Nations Environment Programme Finance Initiative (UNEP FI) in 2019 and have now been adopted by over 300 banks worldwide."*

To help banks and the real estate industry act on the UNEP's 'prime opportunity', several guidance documents have been published in recent years, which aim to standardise terminology, offer case studies and discuss verification frameworks. For example, see guides by Green Building Council of Australia & Australian Sustainable Finance Institute (2023) and a collective of organisations that own building certification systems (A-HQE GVC; BRE; GBCA; SGBC; USGBC, 2024). Their purpose is to unlock barriers to the real estate sector accessing capital through sustainable finance instruments (green loans and green bonds) to help all buildings transition to a lower carbon future. The New Zealand Green Building Council (NZGBC) also released a guidance document in August last year (2024). It sets out the steps that construction firms, banks and investors in Aotearoa can take to deliver a healthy lower carbon-built environment using NZGB's existing rating tools (Green Star for non-residential buildings and Homestar for the residential sector).

The UNEP FI report (2024) also addresses the relationship between banks and their customers. In aligning with Principle 3 – Clients and Customers – it identifies that,

> *"Banks will work with their clients and customers to support them in achieving their own sustainability goals,' banks can support the adoption of sustainable building practices by their clients and customers. Banks can provide both sustainable financial*

[3] ANZ Group Holdings Ltd, ASB Bank Ltd, Bank of New Zealand (BNZ) and Westpac Banking Corporation. Source: https://www.unepfi.org/banking/prbsignatories/

*products and technical assistance to their clients working towards greening their real estate portfolios. For example, banks can offer financial incentives to clients who invest in energy-efficient upgrades or renewable energy systems for their buildings. Banks can also provide their clients with access to information and resources on sustainable building practices."*

Internationally, the banking sector has an increasing focus on Environmental, Social and Governance (ESG) and climate-related risks and opportunities. Applying ESG criteria is now "more than essential" in the banking sector (Yébenes, 2024, p. 87). One way for banks to demonstrate their ESG credentials and respond to climate change and transition risks is through sustainable finance products, including green mortgages (Schütze, 2020). A green mortgage offers an incentive, often in the form of a preferable interest rate, for customers who can show their loan meets certain environmental criteria (Reid, Groom, & Green, 2019). As well as responding to transition risks, green mortgages offer lower financial risk to the bank due to increased energy efficiency and lower housing-related operational costs for the borrower, and a lower risk of default (World Green Building Council, n.d.). Likewise, the European Union-funded European Energy Efficient Mortgages Initiative defines an energy efficient mortgage as one where energy performance meets or exceeds agreed standards, evidence can be provided of this performance level and it is complemented by a valuation that recognises this added value (Energy Efficiency Mortgages Initiative, 2018).

### *2.2.2 What's happening in Aotearoa?*

The vast majority (85%) of bank lending in Aotearoa is provided by the four large Australian-owned banks – ANZ, Westpac, BNZ and ASB (Reserve Bank of New Zealand – Te Pūtea Matua, 2022). Home loans make up over 60 percent of bank lending, meaning home loans have an important role in their financial stability (Reserve Bank of New Zealand – Te Pūtea Matua , November 2024) and are a focal point for the banks. Lending for residential construction makes up a relatively small proportion of this total.

Banks operate in a highly regulated environment. The Financial Markets Conduct Act 2013 (FMC Act) governs the bank's activities. The Ministry for Business Innovation and Employment states that:

*"The Financial Markets Conduct Act 2013 (FMC Act) governs how financial products are offered, promoted, issued and sold, and the ongoing responsibilities of those who offer, issue, manage, supervise, deal in, and trade them. The FMC Act also regulates the provision of certain financial services (including financial advice services) and the conduct of financial institutions. (Ministry of Business Innovation and Employment, 2024)"*

The regulatory regime contains a number of parts that have a bearing on this project.

- Regulations that control the provision of financial advice – The Financial Services Amendment Act 2019 – and the Code of Professional Conduct for Financial Advice Services. The Code of Conduct sets out expectations around ethical behaviour, conduct and client care as well as parts that relate to competence, knowledge and skill.
- Credit Contracts and Consumer Finance Act 2003 (CCCFA), which requires lenders to act responsibility and transparently and ensures consumers can make informed choices before taking on debt.
- The Financial Markets (Conduct of Institutions) Amendment Act 2022 introduces a new regime that will come into effect in 2025. It will require banks (and insurers and non-bank deposit takers) to be licensed in respect of their conduct towards customers and establish and maintain fair conduct programmes.

Banks in Aotearoa report that climate and ESG present them with their "greatest risks and opportunities in the medium to long term" (KPMG; Massey University, 2023, p. 12). Increasingly, banks are being required to report against climate-related indicators, targets and transition plans. In Aotearoa, climate-related disclosures became mandatory for large financial institutions and some other large financial market participants (including insurers) with the passing of the Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act in 2021.

The Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act amended the FMC Act to make some market participants (including banks) Climate Reporting Entities (CREs). The Act requires CREs to analyse and disclose their climate impacts and emissions, and their response, annually in accordance with the New Zealand Climate Standards. The intent of the regime is encapsulated in the objective of one the climate statements (NC CS1) (Minter Ellison Rudd Watts, 2023).

> *"To enable primary users [i.e., stakeholders] to understand how climate change is currently impacting [the CRE] and how it may do so in the future. This includes the scenario analysis [the CRE] has undertaken, the climate-related risks and opportunities [the CRE] has identified, the anticipated impacts and financial impacts of these, and how [the CRE] will position itself as the global and domestic economy transitions towards a low-emissions, climate-resilient future."*

CREs are currently in the first years of preparing mandatory disclosure statements. While the regime is still relatively new and its impacts are not yet clear, some early research into the regime's effectiveness has been undertaken. Recent work from the University of Otago found climate-related risks are considered almost as important as financial risks with this expected to increase in the short term (1-5 years) (Gehricke, Walton, & Zhang, 2024). The same research

reported that including finance into investment decisions is driven by “stakeholder demand, materiality to financial performance, ethical responsibility and improving investee climate actions” (Gehricke, Walton, & Zhang, 2024, p. 4).

One way for banks globally to demonstrate their ESG credentials and respond to climate change and transition risks is through sustainable finance products, including green mortgages (Schütze, 2020). In Aotearoa the market is responding to these opportunities with sustainability-focused lending products although these may not meet the international criteria for ‘sustainable finance’ products. At present all the major Australian-owned banks and Kiwibank offer finance options to support households to transition to lower emissions /energy efficiency outcomes in Aotearoa. The most common product type is low-interest top-up loans on existing mortgages. These enable customers to get a low interest rate for energy efficiency and other sustainability-related home upgrades and efficient transport upgrades. Examples include ANZ’s Healthy Home Loan, ASB’s Better Homes Top Up, Westpac’s Greater Choices Home Loan, BNZ's Green Home Loan top-ups and Kiwibank’s Sustainable Energy Loan. ANZ’s Healthy Home Loan package is the only product at present offering a discounted interest rate for building new, or upgrading an existing home, to standards that explicitly exceed NZBC performance requirements (ANZ New Zealand Ltd, 2024). In this case, by achieving a Homestar rating of 6 or higher. Of note, The Ministry for the Environment and Toitū Tahua – the Centre for Sustainable Finance – are collaborating to develop a taxonomy for sustainable finance in Aotearoa (Ministry for the Environment — Manatū Mō Te Taiao, 2025).

## 2.3 Personalised advice to support change

Improving a home’s performance is complex because it involves dynamic interactions between different systems. For instance, the physical and material elements of a home and how they inter-relate is one system (see 3.3.2), individuals’ awareness and ability to make decisions to improve performance may occur within a household or family ‘system’, in combination with the wider social, regulatory and economic systems that influence us all. Many theoretical frameworks are used to think about how change might occur across and within these systems. One that has informed our thinking in this project is Michie, van Stralen, & West’s (2011) Behaviour Change Wheel.

### *2.3.1 Behaviour change and personalised advice*

The Behaviour Change Wheel (Michie, Van Stralen, & West, 2011) is a way of thinking about how change occurs in a wider system, see Figure 3. It recognises that the behaviour of individuals is part of an interacting system involving multiple components. It characterises behaviour change as a function of people’s capabilities, opportunities, and motivations. Behaviour change, in turn, is shaped by different interventions (e.g. information provision), and policy categories (e.g., regulation, guidelines). One intervention that has been used in

Aotearoa and internationally to support households to navigate change that leads to a better-performing home is personalised advice.

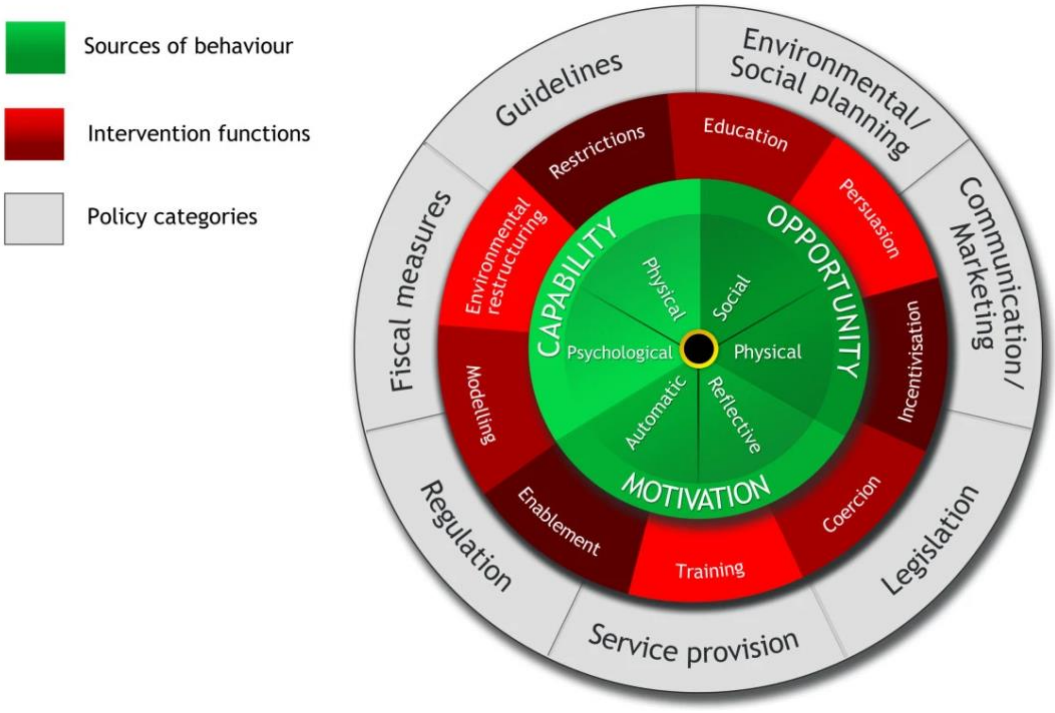


***Figure 3 The behaviour change wheel. Source: Michie, Van Stralen, & West (2011).***

Conceptually, information and advice sit along a spectrum with passive, generic information at one end and personalised solution-focussed (i.e. active) advice at the other. Examples of practices that fall on the 'advice' side of the ledger range from ad-hoc advice that may be imparted to a householder alongside another service (e.g. product sales or related services) to specialist advice services designed to support householder decision-making in relation to existing homes and new-builds. In the international literature, this type of advice is generally categorised as energy advice, where it is defined as: "Advice specific to householders' circumstances, with one or more of the following aims: achieving affordable warmth, improving energy efficiency, and reducing carbon emissions" (Darby, 2003, p. 8). It can include personalised information about energy efficiency and conservation (including costs to implement and savings) that is tailored to a particular household's energy requirements and dwelling characteristics. In addition to an assessment of the current energy efficiency levels of the home, energy advice also includes recommended actions (e.g., improvements in thermal efficiency by increasing the *R*-value of insulation). Energy advice can be delivered in person, by phone, or online. In Aotearoa, personalised advice of this kind is not necessarily framed as 'energy advice' and may have a broader scope.

### 2.3.2 The value of personalised advice

There is a significant body of international research into the effectiveness of energy advice. For instance, a recent international literature review found mixed evidence of the effectiveness of energy advice in encouraging behaviour change in households (Solà, de Ayala, Galarraga, & Esc, 2021) and several studies have found that the provision of tailored energy advice can lead to modest (5-10%) reductions in energy consumption (e.g., (Abrahamse, Steg, Vlek , & Rothengatter, 2007); (Alberini & Towe, 2015)). However, these results do not necessarily apply directly to this project.

Firstly, the advice services that are studied operate almost entirely in existing homes. There appears to be little research internationally on how energy advice might support people in their new-build journey. Research on how to increase the performance of new-builds seems to focus largely on builders and developers (and not on consumers). For example, a study by Ko and Fenner (2007) explored the drivers and barriers for adopting energy efficiency measures in new-build housing in the UK. They interviewed a range of stakeholders, including developers, builders and a housing association (but not consumers). The barriers most frequently highlighted in the study were lack of persuasive information for consumers, unrecoverable costs, and uncertainty in the planning process (e.g. a downturn in the housing market, uncertainty around obtaining permission to build).

Secondly, a primary objective of a lot of advice studied in the international literature is to reduce energy consumption. In Aotearoa, however, personalised advice is often provided to support households facing energy hardship and poor health. As a result, local advice is likely to be aimed less at reducing energy consumption and more at achieving affordable warmth or improving environmental outcomes. A number of studies in Aotearoa have assessed the value of personalised advice. They show that the advice is valued by the people who receive it, and a large number of people take action as a result.

For example, Community Energy Network[4] operated a Home Energy Advice Centre (HEAC) between 2007 and 2010. The service provided free, independent, expert energy advice through a national freephone number and in three urban centres. An evaluation of the initiative found that the vast majority (94%) of survey respondents took at least one action, and on average people undertook four actions, following the advice they received. Sixty-seven percent of people said they acted solely because of the advice (Walton, Smith, & Thomas, 2009). Likewise, an evaluation of the Electricity Retailers Association of New Zealand (ERANZ) Energy Mate scheme, which provides personalised advice (among other services) to households struggling to pay their power bills and keep warm, had similar findings. The phase two evaluation report found that 90% of households who received advice found it 'very

[4] At the time the HEAC was operating CEN was known as the Energy Efficiency Community Network (EECN)

helpful' and 85% of whānau had carried out some or all of the actions recommended by the advisor within 8 weeks. The most recent survey of the Eco Design Advisor service (undertaken for the years 2014-2015) also support these findings. It showed that 88% of respondents had made changes directly as a result of the advice and the most common changes were to installing curtains / blinds and installing insulation (Mohammadza, 2015). Interestingly, the most common feedback on how to improve the EDA service was to make more people aware of it: "Make the service better known. The information is practical, beneficial and free. Every homeowner should know about it." (Mohammadza, 2015).

As well as encouraging people to take action, the literature hints at other ways advice and advisors can support better home performance: by empowering people to take action and increasing awareness about the need to act. Another important finding of the HEAC evaluation was that the advice received made people more confident to act (68%) (Walton, Smith, & Thomas, 2009). Beacon's Home*Smart* renovation project found that people who were given a tailored renovation plan following an in-home assessment – setting out what to do and in what order – were more likely to prioritise activities that improved their home's thermal performance compared to participants in other Beacon renovation research studies who were more focussed on cosmetic renovations (Saville-Smith, Fraser, Buckett, & Camilleri, 2010). Another relevant finding from the Home*Smart* renovation project was that households found dealing with product suppliers and installers hard, seeking additional support from the project in this area.

Early results from BRANZ's second Home Energy End Use study (HEEP2) provide insight into householder's perceptions of their homes in Aotearoa. As part of the study, detailed face-to-face interviews were conducted with 423 households across the country. The vast majority (92%) of these households agreed with the statement: My home is a healthy place to live. However, the same households report that their home is colder than they would like (48%), they want their home warmer (43%), their home is damp (32%) and, 48% say their house gets mould (White, 2024). Beacon's experience of working alongside advisors over the past 15 years is that people who receive advice have a distorted view of the way their home performs or just 'don't know what they don't'. When they learn, for instance, the relationship between internal moisture and heating energy required, or why their home overheats in summer, they are often overwhelmed but eager to learn what action to take.

### *2.3.3 Advice services in Aotearoa*

Although there has been considerable growth in the advice sector over the past decade in response to new funding and initiatives[5] there is still a very limited number of suitably skilled advisors able to offer independent, expert advice to households building new homes. A range

[5] Examples include The Healthy Homes Initiative, Supporting Energy Education in Communities Fund, Energy Mate, implementing the Healthy Homes rental standards.

of practitioners currently provide some form of energy or home performance advice to households in Aotearoa. Work carried out by Beacon to scope another project suggests that there are two broad clusters of advisors currently operating in Aotearoa. For the purposes of discussion, we nominally refer to these as: the 'energy well-being' cluster and the 'better home performance' cluster although these may be refined as a result of future research.

Advisors in the 'energy well-being' cluster work predominantly in existing homes with households facing health, energy affordability and energy well-being challenges, and in rental properties. They include practitioners who undertake assessments of existing homes for a range of reasons, including: to assess the need for subsidised insulation and heating[6]; to check compliance with the Healthy Homes Standards for rental properties; or to undertake a HomeFit assessment and /or certification. In such cases the assessment may be very prescriptive and include little engagement with the householder(s) but in others ad-hoc or targeted advice may also be provided. Other practitioners in this cluster include: Te Whatu Ora-funded 'navigators' who work with whānau to improve the performance of their homes as part of the Healthy Homes Initiative; advisors funded by energy retailers responding to the Electricity Price Review and associated Consumer Care Obligations (e.g. EnergyMate); and community-based advisors such as those employed by Community Energy Network's member organisations. An important funder of advice services in this cluster is MBIE's Support for Energy Education in Communities (SEEC) programme.

The second cluster (the 'better home performance' cluster), is smaller and consists of advisors who tend to have more in-depth or technical knowledge and work in a wider range of households, including middle- and higher-income existing housing and new-builds. Advisors in this cluster include a small number of council-funded Eco Design Advisors and is also likely to include a relatively small number of HPA-certified and other advisors working as independent consultants. This cluster may also intersect with practitioners who work directly with households building new high-performance dwellings such as Homestar-accredited practitioners and Passive House and Superhome-affiliated professionals

There are currently no formal skill or qualification requirements for practitioners who offer New Zealand households home performance advice. However, the Home Performance Advisor training programme (HPA[7]) delivers several courses so practitioners learn the skills needed to offer effective advice to households. A number of funded programmes require their contracted advisors to have undergone HPA training, e.g. Eco Design Advisors, ERANZ Energy Mate and Whānau ora Health Homes Initiative.

[6] EECA's Warmer Kiwi Homes programme subsidises insulation and heating in homes built before 2008 where the owner has a Community Services Card or meets other income-related criteria.

[7] HPA training was established through a partnership between Beacon Pathway, Community Energy Network and Toimata Foundation in 2012. It responded to a gap in the availability of professional development for advice practitioners based in the fundamentals of building science and good practice. HPA Ltd is now a separate entity owned by Beacon Pathway Incorporated and Community Energy Network.

#### 2.3.3.1 Eco Design Advisor Service

Within the 'better home performance' cluster, the Eco Design Advisors stand out as the only practitioners with the specialist knowledge and position to provide independent advice to households building new homes. The Eco Design Advisors service was initiated by BRANZ in 2006, with support from the Building Research Levy, the Foundation for Research, Science and Technology, local government (Waitākere City, Hamilton City and Kāpiti Coast District Councils) and the Ministry for the Environment. The service was designed to address three obstacles to sustainable design, identified in research by Christie and Stoecklein (2005). They found that during the homebuilding process there was:

- No stage when homebuilders were prompted to make decisions regarding sustainability.
- A lack of specific technical information and advice to support sustainable decision-making.
- A lack of industry expertise (e.g. among designers and tradespeople) and a general reluctance to implement sustainability features.

The pilot scheme positioned an Eco Design Advisor (EDA) in local councils, often in the Building Control division, enabling people building homes to access free, independent, expert sustainable-building advice. While the EDAs primary function was to provide advice to people building homes it is worth noting the role was originally intended to do more than this – in particular, to facilitate between client, designer and tradespeople and to network between sector stakeholder and sustainability resources (e.g. latest building research). Following the pilot it was hoped that an EDA would be positioned in every council in Aotearoa. While the number of EDAs has waxed and waned over the years, there are currently EDAs in six councils – Dunedin City, Christchurch City, Hutt City, New Plymouth District, Tauranga City and Auckland. A scan of the international literature suggests that the EDA service is unique internationally in providing independent, expert advice to homebuilders from a first-principles basis. That is, they do not rely on a particular framework or methodology to provide an assessment and advice; they rely on their specialist skills and expertise

### *2.3.4 Banks connecting customers with advice*

There is no evidence in the literature of banks operating in the space of connecting their customers to advice about energy efficiency or home performance. The literature in this area is focussed largely on finance products, such as green loans and low-carbon energy finance (Steffen, Egli, & Schmidt, 2020). Banks are seen as advisors about mortgages and how to get a (green) loan – not as a provider of energy advice. One study compared state investment banks (SIBs) in Australia, the UK, and Germany (Geddes, Schmidt, & Steffen, 2018). The researchers found that in addition to providing capital provision and de-risking, SIBs take a broader role in

facilitating private investments into low-carbon investments (e.g., creating trust for low-carbon projects, taking a first-mover role to help low-carbon projects gain momentum).

## 2.4 Research opportunity

This chapter sets out some of the relevant context within which the research project was framed. The policy settings for new build performance in Aotearoa are less stringent compared to other comparable jurisdictions. This includes, among other things, that there is no requirement for the performance of new homes to be disclosed at the point of sale or lease (e.g. EPCs). This lack of transparency to the market, combined with valuation practices that do not yet account for higher levels of performance, contribute to weak incentives for people building new to achieve performance that exceeds regulatory minimums.

We presented the Waitākere NOW Home as an example of an 'ordinary' home that was significantly more comfortable and resource efficient that an average build at the time because of the considered approach to designing the home. BRANZ research shows that almost 20 years later most new (detached) homes are not as resource efficient or comfortable as the NOW Home. Bridging the gap between the status quo and what is achievable with considered design is a challenge and an opportunity.

We presented the Michie et al (2011) Behaviour Change Wheel as one theoretical model to think about the way influencing householder decisions (i.e. behaviour) can be a lever to create change, within a much wider set of change levers (e.g. regulatory and market incentives). Providing expert, personalised advice is one approach that has been used effectively to support households to make informed decisions to improve home performance. A small number of expert new-build advisors operate in Aotearoa and can provide personalised advice to empower people to make decisions that will result in a better-performing home.

Banks have strong incentives to support their customers to build homes that are healthier, more efficient to operate and lower carbon. In line with international trends towards sustainable finance products, banks in Aotearoa are exploring sustainability-focussed lending products. ANZ bank was curious to understand whether connecting their new build customers with expert new-build performance advisors would be an effective change lever. Aware of the value of personalised advice to new home builders, Beacon was curious about whether a bank was a useful connection-point to people building homes. A search of the international literature found no evidence of banks connecting their customers with personalised advice. And the literature on the effectiveness of energy advice showed little reference to advice related to the construction of new homes. This combination of factors and research findings highlight the opportunity to carry out research exploring the value of expert new-build performance advice to a bank and its customers.

# 3 Developing project insights to shape the intervention

**At a glance**

- Most bank customers are not aiming for the 'best', or most sustainable, home but all those interviewed wanted a 'comfortable' home. Even customers with a sustainability focus do not necessarily see benefit in striving for high levels of sustainability or achieving external certification.
- ANZ's empathy interviews found that building sustainably places a heavy burden on individuals to research solutions and advocate for them. Few people have the time, money, capability and commitment to do this.
- ANZ saw potential value in connecting customers with advice that could make it easier for them to understand and identify 'sustainable solutions' and associated trade-offs when building. There is an opportunity to tie sustainability to customers' existing goals – especially comfort and family well-being.
- Project partners wanted to understand the types of decisions bank customers could make that would help them achieve a 'comfortable' or 'sustainable enough' home but not necessarily achieve external certification. Beacon's HSS was used as a framework for project partners to understand the types of decisions people could make and their impact on performance.
- Project partners were interested in the relationship between decisions, time, cost and performance. A building decision map Beacon developed for the project illustrated,
    - **Early design decisions are powerful:** the greatest opportunity to make low or no cost decisions that will improve a new home's performance is at the concept design stage.
    - **Understand trade-off decisions:** some decisions that improve performance will require some kind of trade-off. Focus on designing elements that are harder to change later – like window placement and insulation – and consider funding these by deferring investments in areas that can be upgraded over time (e.g., bathroom fixtures) or by making other trade-offs (such as opting for a slightly smaller home).
    - **Future-proofing:** consider design options so a newly built home is PV/EV ready, to reduce cost and disruption of any future retrofitting investments in renewable energy.

The collaborators on the project – Beacon Pathway, ANZ and VUW – worked together to identify information requirements for the development of the intervention. This step was crucial, as each partner brought different insights into the problem. Drawing on ANZ's human-centred design expertise, we began with curiosity and an open mind, exploring the problem through a series of open-ended 'discovery questions.'

## 3.1 Initial discovery

The team developed a set of discovery questions to better understand the problem and the needs of stakeholders. The primary discovery question was:

> *How might we intervene in a client's new-build journey to provide home performance advice that empowers them to make decisions that result in a higher level of home performance in the final constructed dwelling?*

The team also considered these broader discovery questions:

- What does a typical building journey look like? At what stages do people get home performance advice, and from whom?
- What is the best way to support people in their decision-making? What does effective support look like, and when is the right moment to intervene?
- What decisions impact home performance, and when during the journey can they be made? How does timing influence both cost and outcome?
- What are we aiming for in 'better home performance'? How do we define it, and what measures are already in place?
- Beyond favourable home loan rates, what other tools or incentives could help new home builders reach higher performance? How might these shape an effective intervention?
- What financial journey do new home builders go through? At what point do they typically meet with a mortgage broker or ANZ home loan expert / personal banker? What's required for a mortgage (e.g., building consent, building contract) and when else might banks connect with new home builders? And what financial tools does ANZ have to support better building choices?

Each partner took the lead on different aspects of the discovery process, some directly tackling specific questions, with other questions emerging later in response to the team's initial findings.

## 3.2 Insights from ANZ

### *3.2.1 Empathy interviews*

ANZ conducted empathy interviews[8] with 11 households who had built new homes within the past three years, aiming to better understand the new-build landscape from a customer's perspective. The interviews featured eight couples and three individuals, including those who had built with sustainability in mind, as well as those who did not have this focus. ANZ also interviewed the project's two new-build advisors to get their views on the building industry, the kinds of client they typically see, and the support needed for more sustainable builds. Specialist construction mortgage managers at the bank also shared insights on the lending environment and the factors that either encourage or hinder sustainable new-builds. Although this research was conducted independently of the project, its findings fed directly into shaping the intervention.

The ANZ discovery team contributed the following insights from their analysis of the empathy interview process.

1. Most customers are not aiming for the 'best', or most sustainable, home but **all those interviewed wanted a comfortable home**. Sustainability doesn't often feature in conversations bank staff have with their customers. Even customers with a sustainability focus do not necessarily see benefit in striving for high levels of sustainability, even when a discounted interest rate is offered.
2. Building sustainably often depends on the individual having the time and capacity to invest in exploring options and making informed decisions. With variable sustainability expertise across New Zealand's building industry, customers sometimes find themselves researching products, learning about sustainable practices, and even 'coaching' tradespeople on why these solutions matter or how to implement them. **This puts a heavy burden on those who want to build outside the norm** – few people have the confidence or resources (i.e. time, money, focus) to take this on.
3. Homeowners often saw the building professionals they hire as the 'experts' and lack the awareness and confidence to request alternative options or persist when they face resistance. However, **even those hesitant to advocate for themselves with professionals felt empowered to when it benefited their family.**
4. The bank has a unique opportunity to influence customers at the decision-making phase, due to the close relationship it has with borrowers planning new-builds.

[8] Empathy interviews are a qualitative method based around a conversation. The interviewer asks open-ended questions to explore the perceptions and experiences of a participant's use of a programme, process or service (Lochmiller, 2023)

5. The bank is cautious about providing advice to clients because the provision of financial advice is highly regulated but recognise an opportunity in **connecting customers with advice that makes it easier for them to understand and identify sustainable solutions and associated trade-offs.**
6. New-build advisors sit outside decision-making conversations between customers and their building team. This limits their influence on the build and may be a barrier to supporting customers to achieve their goals.
7. While the bank can explore ways to empower individual households to make changes on a case-by-case basis, the greatest opportunities to drive widescale change rests with those actors who have the ability to mandate change across the industry.

ANZ's research also identified some opportunities for designing an intervention that would meet the project's goals:

- **Focusing on those who are empowered to advocate for themselves even if sustainability isn't on their radar**. By connecting sustainable practices to their personal goals, such as ensuring comfort or meeting whānau needs – the bank can help these customers understand the trade-offs involved in their decisions before they need to make them.
- **Targeting those who approach the bank early for a construction loan**. ANZ's research found that some aspiring home builders come to the bank earlier than expected to find out how much they can borrow. Typically, these customers want to build a bespoke home, already own a property, have assets, and are just starting to think about building – a prime window of opportunity for the bank to engage them on home performance.

## 3.3 Insights from Beacon Pathway

### *3.3.1 New-build ecosystem review*

Beacon undertook a high-level review of the new-build performance landscape to position the project intervention in the context of a wider ecosystem. This percep review helped the multidisciplinary team consider policies, standards and market tools relevant to building new homes in Aotearoa as well as the types of information and advice available to customers. These discussions let the team test our thinking about the intervention and reinforced that the aim was to support bank customers wherever they may be in their building / performance journey rather than for them to attain a particular benchmark or standard.

Drawing on this, the project team was keen to understand the component parts of good new-build performance and for these to form part of the inputs for the intervention development. This approach serves two purposes: first, to identify decisions that could potentially qualify customers for particular products or services (e.g., a preferential interest rate), and second, to

understand when in the building journey these choices are most cost-effective and impactful. To support this, Beacon adapted its HSS framework for this project (see Figure 4 and below) and developed an illustrative Building Decision Map (see 3.3.3).

### 3.3.2 *Understanding new-build performance: the High Standard of Sustainability (HSS) framework*

To enable conversations between project partners about home performance we introduced Beacon's High Standard of Sustainability (HSS) (Easton & Collins, 2007) as a framework to think about the different components of performance and the principle of a house as a system. The HSS was designed to capture Beacon's 'whole-of-house' approach (Easton & Howell, 2008) and the arrows in Figure 4 reflect the inter-relationships between five key aspects of performance: indoor environment quality, energy, water, waste and materials. The HSS framework recognises the collective impact of the five performance areas on the health of occupants, resource efficiency and the environmental and climate impact of a home. For instance, the approach shows that underheating is not a valid way to reduce energy use as it compromises occupant health.

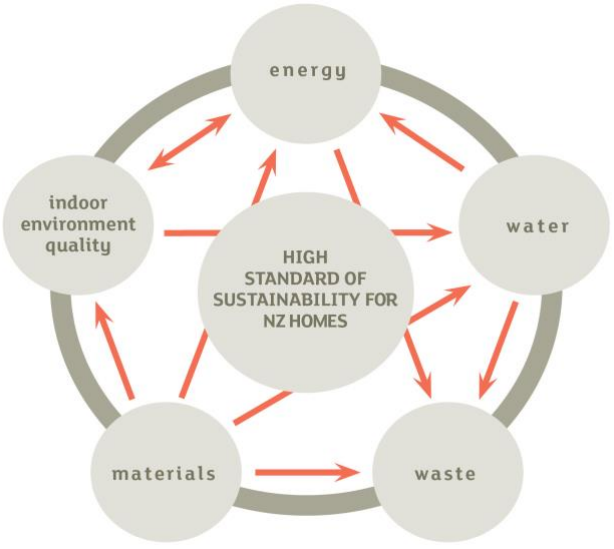


***Figure 4 Beacon's High Standard of Sustainability – five key performance areas.***

The aim of the HSS energy performance area is to reduce household demand for reticulated energy nationwide. Similarly, for water HSS seeks to limit household demand for reticulated water – an issue important to most councils. The aim of healthy indoor environments is to ensure that everyone can live in a home with healthy temperatures, free from dampness, mould and pollutants. For waste, the goal is to reduce both construction waste and household

waste. The materials focus centres on minimising the use of materials with high embodied energy or potential health risks. Finally, the HSS framework embodies the impact of Aotearoa's housing stock on climate change across all these areas. Beacon's research into each of the HSS performance areas and application of the HSS to new-build and retrofit demonstration projects laid the technical groundwork for the development of the first version of Homestar in 2011[9].

For this project, we developed illustrative examples of decisions bank customers might consider in each HSS performance area to enhance their new home's performance. For instance, designing homes using passive solar design principles, installing efficient heating and hot water systems, opting for a high *R*-value thermal envelope, and considering renewable energy sources for water-heating (e.g. avoiding gas hot water) are choices that could significantly reduce a household's reliance on reticulated energy.

We also highlighted the benefits of these decisions within each performance area, such as improved health for residents living in dry, comfortably warm homes; household savings on utility bills (like energy and water); reduced strain on infrastructure (including the national grid, stormwater systems and council-supplied potable water); and a lower overall environmental impact, particularly in terms of climate effects.

### *3.3.3 Building decision map*

Partners identified the relationship between decisions, timing, cost and performance as crucial to developing an effective intervention. To explore these connections, Beacon created an illustrative map, drawing on a team member's own experience purchasing land, designing, consenting and building a high-performance home between 2019 and 2023. This map was then refined in an online session with the project's new-build performance advisors and a representative of ANZ's Customer Experience team. See Figure 5 for a simplified version of the map we used in the project: this uses the decisions someone might make about windows at different points in the design and build process to illustrate the impact of timing on cost and performance[10].

The map illustrates a one-off build with plans developed by an architectural designer, where the decision-makers (homeowner / borrower) have the freedom to make choices impacting the build's performance at each stage – a level of agency considered relevant by the project team for the trial. It was suggested that creating a similar map for customers building with a volume home builder could offer valuable insights and potentially have broader applications.

[9] Homestar version 1 was developed in 2011 through a collaboration between Beacon Pathway, BRANZ and NZGBC. The Homestar tool has developed significantly since then and is owned by NZGBC.

[10] The detailed version of this map was shared in an online whiteboard, which does not convert well to a Word document, so we have simplified the figure for this report.

The map underscores how important it is to consider the full range of costs involved in not only building, but owning a home: upfront expenses, ongoing costs (like utility bills and maintenance), replacement costs and non-monetary impacts such as health. It also illustrates a general principle: customers can revise plans throughout the process – even up to construction and, theoretically, beyond – but the costs of changes tend to increase over time. The timing and impact of any change will vary by situation; in some cases, a late adjustment may be worth the added investment.

The map outlines several guiding principles to support customer decision-making:

- **Early design decisions are powerful:** the greatest opportunity to make low or no cost decisions that will improve a new home's performance is at the concept design stage.
- **Understand trade-off decisions:** some decisions that improve performance will require some kind of trade-off. Focus on designing elements that are harder to change later – like window placement and insulation – and consider funding these by deferring investments in areas that can be upgraded over time (e.g., bathroom fixtures) or by making other trade-offs (such as opting for a slightly smaller home).
- **Future-proofing:** consider design options so a newly built home is PV/EV ready, to reduce cost and disruption of any future retrofitting investments in renewable energy.

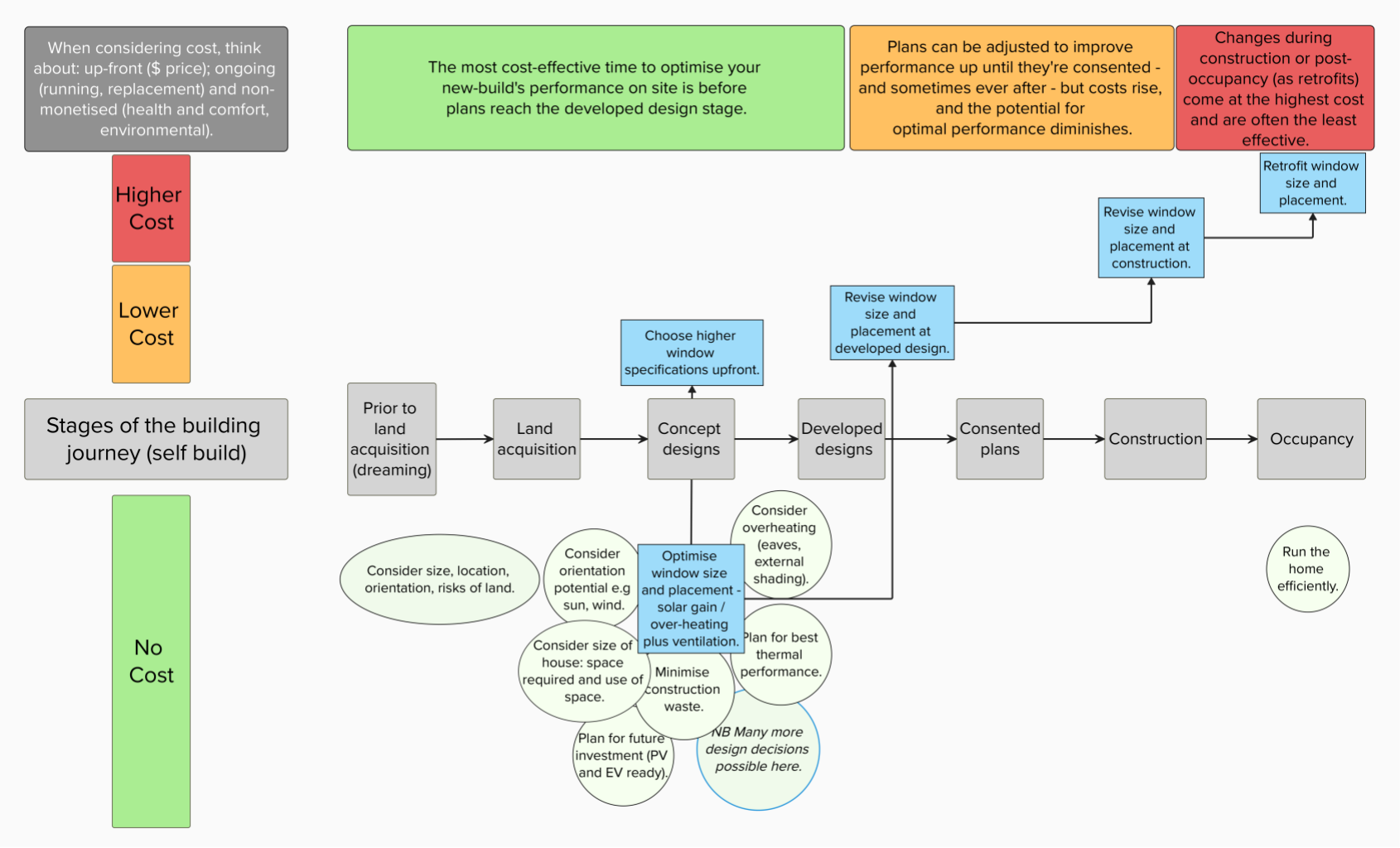


***Figure 5 A building decision map showing relationship between time, new-build decisions, cost and impact on performance.***

## 3.4 Insights from VUW

### *3.4.1 VUW – insights for first intervention development workshop*

The researchers from VUW provided insights from the literature on intervention studies related to household energy use and evaluation.

- Most academic research that uses intervention studies focus on changing energy-use behaviour in existing homes; few explore how to encourage efficient new-builds. This project therefore represents an opportunity to trial a 'behaviour change' intervention in a novel context.
- Personalised information is much more effective at influencing people's decision-making than generic one-size-fits-all advice.
- Building a new home is very complex, trust and the role of other people (social networks) will influence decision-making of bank customers.
- Framing matters – sustainability isn't necessarily people's top priority and can be off-putting to some. The literature shows that aligning with people's values lifts engagement and uptake.
- Evaluation: While there won't be a control group, we can still measure before-and-after changes. Qualitative insights can reveal rich, in-depth personal stories, though quantitative data offers stronger evidence for an intervention's effectiveness. With a smaller sample, careful consideration is needed around the conclusions we can confidently draw.

# 4 Developing the intervention and designing the trial

**At a glance**

- From August 2023 the project team moved into an 'intervention development' phase. While there was already agreement between the project partners that linking ANZ customers with independent new-build performance advisors would sit at the core of the intervention, the actual approach taken in the intervention, how to engage with customers effectively and how to assess the value of the trial were not clear from the outset.
- The process of bringing the project partners together, with a collective focus and a shared set of insights to the research challenges, to co-create the intervention was a critical part of the research process. Frontline bank staff were brought into the project team to support running the trial.
- Project partners agreed the intervention should make the process of building easier for customers by making their building and lending 'journey' clearer, setting out the roles and responsibilities of their building team, and providing them with advice personalised to their situation and priorities.
- We ensured participants would receive consistent messages from the project. Beacon worked with front-line bank staff so they could have informed conversations with customers about the opportunity to improve their home's performance. Once recruited, participants were sent a written resource to support their conversations with the project's new-build home performance experts.
- The project's written resource, *Designing your Home for Comfort and Efficiency,* offered participants the chance to engage with the project's synthesis of new-build information in their own time. It framed 'home performance' around comfort and efficiency and introduced participants to the building and lending journey from dreaming to living in their new home.
- The session with the new-build performance advisors offered participants personalised expert advice. The option for participants to bring members of their build team to a session with the independent expert was a key part of the intervention design to support customers to navigate their journey.
- The approved trial recruited home loan customers through the ANZ East Coast team of Mobile Mortgage Managers. Participants had a pre-intervention interview with the research assistant from VUW. The intervention included up to two 1–2-hour online consultations with one of the project's independent new-build performance advisors. The bank customer's participation concluded with a post-intervention interview with the research assistant from VUW.

From August 2023 the project team moved into an 'intervention development' phase. The purpose of this was to propose all the elements of the intervention for the project to trial. While there was already agreement between the project partners that linking ANZ customers with independent new-build performance advisors would sit at the core of the intervention, the actual approach taken in the intervention, how to engage with customers effectively and how to assess the value of the trial were not clear from the outset. The process of bringing the project partners together, with a collective focus and a shared set of insights to the research challenges, to co-create the intervention was a critical part of the research process.

Through a process of collaboration, brainstorming and refining ideas against agreed success criteria the intervention development team proposed elements of an intervention. Further work was required before the intervention elements proposed in the co-creation workshops could move to trial. Planning for the trial brought one region of ANZ's front-line team – Mobile Mortgage Managers – into the project and their input further refined the intervention. Beacon held capability-building sessions for the Mobile Mortgage Managers, supported ANZ planning for the trial and Beacon developed a participant resource (*Designing Your Home for Comfort and Efficiency*) to support the personalised advice sessions. The trial was approved and launched in November 2023.

## 4.1 Intervention development workshops

In August 2023, Beacon and ANZ led two collaborative workshops to shape the intervention for the trial. The first workshop shared insights from the discovery phase, ensuring the project team had access to the same foundational knowledge and could collectively reflect on the material. The second workshop, drew together a small team who built on these insights, shifting to 'ideation' – brainstorming ideas to co-create in intervention.

Subject matter experts from the various project partners brought their skills, experiences and perspectives to these sessions. Thirteen project team members joined the first workshop online while a smaller group of eight met in Wellington two days later. The workshops drew on expertise in:

- Residential new-build performance and research.
- Advising households about their home's performance.
- Behaviour change research.
- Improving bank customer experience.
- Understanding banking products.
- Working directly with home loan customers.
- Bank processes to support the implementation of a trial.
- Environment, Social and Governance (ESG) considerations in banking.

### *4.1.1 Building a shared understanding and framing the design challenge*

The first workshop, held online, marked the first time a broader group from the project partners had come together. The goal was to ensure that all team members had a shared understanding of the insights to guide the work ahead. The session set the context for the research, with partners presenting their insights from the 'discovery' process (described earlier see 3), the research aim and co-creation plan to the wider group, informing a collective reflection and discussion.

Participants used an online whiteboard to reflect on the following questions:

- Why do we need an intervention?
- When is the intervention needed, and with whom?
- What stood out to you, or made you feel excited or concerned?
- What must we keep in mind as we design an intervention?

Together, the group shared insights and identified some design challenges[11] for the upcoming intervention development workshop, as follows:

- **The building sector's 'business as usual' does not consistently deliver new homes that perform as well as they could.** This is an additional challenge for bank customers to navigate as they are relying on a system that does not design for better performance as standard practice.
- **Navigating the new-build journey is challenging for many bank customers.** Those aiming to build sustainably 'often' bear the burden of self-advocacy and research. Many struggle to push back against their build teams and are reluctant to 'rock the boat'.
- **Customers are more likely to advocate for 'comfort' and for the well-being of their whānau.** This creates an opportunity to connect 'sustainability' with what matters most to them.
- **There are widespread misconceptions about the cost of better-performing homes.** There are opportunities to improve performance at little to no cost if decisions are taken earlier.
- **The bank holds an ongoing, high-trust relationship with its customers.**
- **An intervention – the earlier the better – would be valuable for both customers and project partners.**

[11] A design challenge is a problem that needs to be solved through the co-creation process.

In defining the scope of the intervention, this group concluded that:

- It would focus on ANZ customers exploring financial options for building a new home.
- The greatest opportunity rests with engaging customers early in their building journey – ideally, during the 'dreaming phase', though later in the concept design phase can be still worthwhile. If the new-build design is already developed, then late changes are still worth exploring.
- The intervention must help customers navigate and make sense of the noise.
- It should take into consideration other members of the customer's building team.

### *4.1.2 Intervention development workshop*

Two days after the online workshop, eight members of the project team gathered in Wellington as the newly minted 'intervention development team'. Jointly facilitated by Beacon and ANZ, the session followed a structured process: we collectively developed intervention success criteria, we narrowed the focus of the design challenge to two key areas, two groups worked to brainstorm solutions, and ultimately, we shaped the foundation of the proposed intervention.

The team agreed on success criteria that would ensure the intervention would be practical, achievable and deliver meaningful outcomes. A successful intervention would:

- Fit within the project's scope, including time, resources, and the partner's capacity and capability to deliver.
- Generate insights of value beyond the project partners, contributing to a broader 'public good'.
- Provide technically sound new-build advice that is personalised to the customer and likely to lead to meaningful change if adopted.
- Be informed by best practice and designed to enable effective evaluation.

To help narrow our focus, a member of the ANZ team had framed the initial design challenges from the online session as 'How Might We' (HMW)[12] statements for this workshop. The team clustered the statements into focus areas that the intervention could address and then settled on two HMW statements to shape the foundation of the proposed intervention. They were:

1. *How might we* give people the confidence to make good decisions across the build journey that result in a healthy home?
2. *How might we* include the building team in a customer solution?

[12] HMW statements are considered an active way of framing insights as opportunities.

The team split into two groups to each address one of the HMW statements. Each group had representatives of each of the partners – Beacon, VUW and ANZ – along with an independent new-build performance advisor. The groups worked independently to brainstorm their solutions to the design challenge. Figure 6 illustrates the workings of the two groups.

***Figure 6 Images from the Intervention Development Workshop.***

These ideas were generated by the group considering the *how we might give people the confidence to make good decisions across the build journey that result in a healthy home?*

- Frame the opportunity around comfort.
- Don't assume knowledge alone builds confidence. A customer's confidence will evolve through the building journey and customers need confidence to make decisions, navigate relationships with experts and manage the building process.
- Tailor advice to wherever the customer is in their journey – an intervention might drip-feed support at key milestones.
- Support customers by connecting them to people who have built before, showing how different decisions affect the comfort of a new-build, tailoring webinars targeted to different market segments as a way to engage customers early in the building process.
- Collaborate with developers who might also be business customers at the bank.
- Highlight how home efficiency impacts risk for all parties – banks, customers, and builders alike.
- Explore how the bank could incorporate operational efficiency into credit assessments.

- Provide customers with evidence and incentives to encourage better building decisions.

These ideas came from the group working on *How might we include the building team in a customer solution?*

- Include these people in the building team: the customer, Mobile Mortgage Manager, new-build performance advisor, architect / designer, volume home builder, draftsperson, builder, engineer, site manager and sub-contractors.
- Support customers understanding of their building team by mapping their roles and responsibilities along the build process.
- Offer bank webinars to introduce customers to technical information and promote better relationships with their building project team.
- Develop the capacity of the building team by inviting them to their customer's consultations with new-build performance advisors.
- Consider ways the bank could support customers, such as connecting them with a network of trusted expertise and informed support, showcasing 'good performance' exemplars, offering compelling case studies, including videos that allow customers to 'experience' a high-performance home.
- Recognise advice is valuable across the whole build journey – from dreaming to occupying a home – and encompasses both new-builds and existing homes.
- Recognise Aotearoa needs a more mature advice sector.

Each group considered the success criteria for the intervention and trial implementation from multiple perspectives. See Table 1 for a summary of each group's deliberation – the key components of their intervention and likely steps to implement.

*Table 1 Brainstorming two key design challenges to shape the final intervention*

| Key components of an intervention | Steps to implementation |
|---|---|
| *How might we give people the confidence to make good decisions for a healthy home* | |
| ■ Provide advice both one-to-one and one-to-many (including building team members).<br>■ Connect customers to an advisor and other 'experts', including those with personal building experience.<br>■ Provide multiple ways for customers to engage as webinars and through Mobile Mortgage Managers (MMM).<br>■ Frame better performance as a way to de-risk a build for all parties involved in the build.<br>■ Focus on build journey up to the pre-approval stage for a construction loan. Consider including major renovations.<br>■ Ensure Mobile Mortgage Managers have the knowledge and tools they need. | ■ Secure necessary approvals and ethics sign-offs for this approach.<br>■ Engage and upskill Mobile Mortgage Managers.<br>■ Create a checklist to guide home performance conversations. |
| *How might we include the building team in a customer solution?* | |
| ■ Include new-build customers and their building teams.<br>■ Provide independent principle-based advice. Avoid product endorsements.<br>■ Engage with customers as early as possible in the build.<br>■ Develop tailored materials, adapting existing resources about good performance principles for this project.<br>■ Incorporate the financial (borrowing) aspects of the building journey.<br>■ Highlight the 'truth' about new-builds: new homes don't always perform well.<br>■ Utilise the banks existing channels to reach customers.<br>■ Present a clear building-lending journey map. | ■ Create materials, including a visual map of the building-lending journey.<br>■ Communicate principles of good new-build performance, highlighting low-to-no cost decisions and trade-offs.<br>■ Provide training for the intervention team and Mobile Mortgage Managers.<br>■ Consider pre-build webinars, starting with foundational principles and offering pathways to personalised advice as needed. |

### 4.1.3 Recommended elements for the proposed intervention

Insights from the intervention development were shared with the wider project team, including senior managers at ANZ. Following these discussions, the project team agreed on a single intervention comprising the following elements for approval, implementation and trial:

- Recruit customers through Mobile Mortgage Managers.
- Engage with customers as early in their build journey as possible.
- Provide one-on-one personalised advice through one or two online sessions with an independent new-build performance advisor, with the option to include a member of the build team in the second session.
- Offer customers more than one way to engage with the material by creating a written resource to be read alongside the home performance advice session: focus on new-build principles and the benefits of early decisions to enhance comfort and efficiency.
- Create a visual 'building and lending' journey map to guide participants.
- Clarify the roles and responsibilities of the building and financing teams for customers.
- Build on partners' existing systems to run the trial efficiently.

## 4.2 Preparing to implement a trial

Further work was required before the intervention elements proposed in the co-creation workshops could move to trial. This included engaging and upskilling the bank's frontline team who would be responsible for recruiting participants, supporting the bank in securing internal approval to proceed, preparing materials for participants to use, and gaining research ethics approval. This process also helped to refine the proposed intervention ahead of the trial.

### 4.2.1 Supporting bank planning for the trial – working with the Mobile Mortgage Managers

The bank identified an opportunity to begin the trial through their Mobile Mortgage Managers (MMMs) in the East Coast region. The MMM's strong customer relationships were seen as an effective way to promote the free, independent home performance advice sessions and recruit participants for the research.

Once the bank gained approval to run a trial through the East Coast MMMs, two members of that team joined the regular project partner meetings. At ANZ's request, Beacon held two online sessions with the East Coast team. The first, on 6 September 2023, introduced the team to the project, while also seeking their feedback on the proposed intervention. The MMMs insights were invaluable and helped confirm the boundaries of the intervention.

From this session, we defined eligibility criteria for home loan customers, and Beacon sought approval from BRANZ to include customers undertaking major retrofits under certain conditions. This represented a shift in scope from focussing solely on new-build customers.

The second online session, held on 1 November 2023, delved deeper into the project. Its objective was to finalise the implementation plan, ensure our systems were aligned, and articulate the value of the research offering to home loan customers. We wanted to equip the MMMs with the knowledge needed to have informed conversations with their customers during recruitment.

The session included an interactive discussion of key principles which included:

- **The relationship between homes and our health.** Beacon provided examples of the poor housing-related housing statistics in Aotearoa (e.g. respiratory illness). We discussed how improving home performance of new-builds will directly affect the health of occupants now and into the future.
- **New-build homes don't always perform well.** We introduced some of the research findings outlined in 2.1.4 above to illustrate to the MMM's that homes built in Aotearoa could be more efficient and comfortable than they are.
- **Considered design early on can be powerful.** We gave examples of the kinds of design decisions new-home customers could make at little-to-no extra cost but that have an impact on how a home performs. For example, window size and placement, fewer corners in a design, orientation to the sun.
- **Understanding trade-off decisions**. We talked about the value of making an upfront investment, such as increasing the specification of windows, that can yield long term benefits. The meeting discussed the value of customers understanding these trade-offs when building a new home.

### *4.2.2 Participant resource: Designing Your Home for Comfort and Efficiency*

The intervention development team saw value in offering customers additional ways to engage with the principles behind the advice sessions. To complement the consultations with the advisor, we created a booklet titled *Designing Your Home for Comfort and Efficiency.* This booklet was sent to participants after their pre-intervention interview.

A well-performing home was framed around two key concepts: comfort and efficiency. This approach drew on discovery phase insights and intervention development discussions: we knew that most people who build – even those not explicitly motivated by 'sustainability' – prioritise comfort and the well-being of their whānau. Moreover, efficiency highlighted the financial and environmental benefits of a better-performing home.

The booklet also featured a 'journey map' which brought together the building and lending aspects of the new-build process (as identified in the intervention workshops). The building-lending map outlined key decision points, the stages in the building process, financial milestones and the various professionals that customers would interact with – such as

builders, designers and lawyers. Its objective (Figure 7) was to highlight the importance of starting conversations early with the bank and the build team, while illustrating the interconnected nature of decisions throughout the journey.

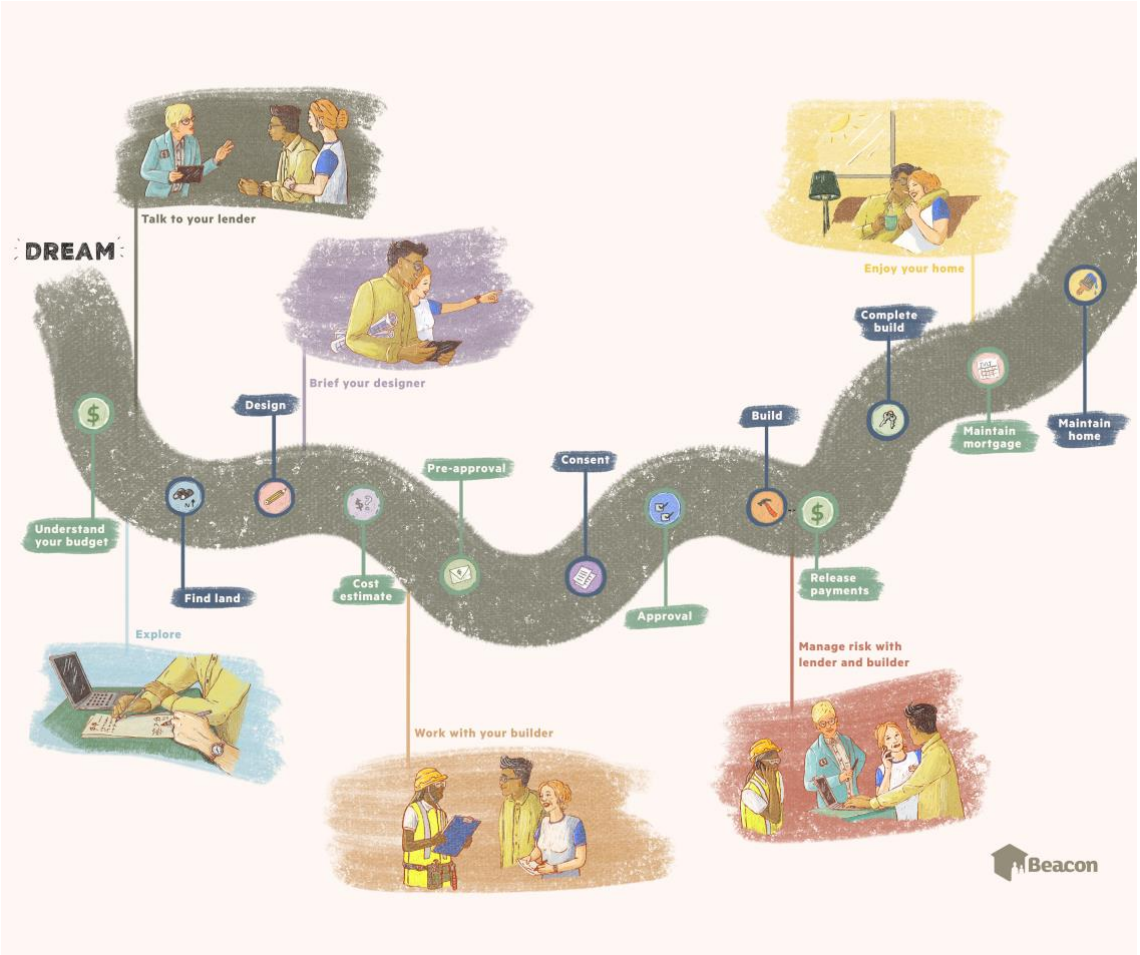


***Figure 7 Building-lending journey map. Source: project resource Designing Your Home for Comfort and Efficiency.***

The booklet offered an introduction to the new-build journey, framing it as a series of decisions and actions across four stages – plan, prepare, build and maintain. The key message: the early planning stage is where homeowners are best placed to influence their home's long-term quality and efficiency.

We shared observations informed by practical experience which included:

- The building code establishes minimum performance standards.
- Early design decisions have the most impact on comfort, efficiency and cost.
- Every home comes with two price tags: the cost of the upfront build, then the ongoing operation and maintenance costs.

- Applying building science principles ensures smarter and more effective choices.

We provided introductory information for new home builders to consider when buying land. Topics included location, sunshine hours, natural hazards, resource consent requirements, geotechnical challenges, slope and access. We also outlined essential design principles for participants to consider when making early decisions about their homes. These included site orientation, window placement, external shading, thermal mass, house size and layout, futureproofing, efficient plumbing and waste systems, and materials selection.


While early design decisions can improve performance at little or no cost, the new-build process also provides opportunities to invest upfront for long-term benefits. To illustrate this, the booklet examined trade-offs like insulation levels, windows, heating, lighting, appliances and hot water systems – choices that can deliver significant advantages over time.

Another section focused on the collaborative relationships new-build customers develop with their project team, including designers, builders, and lenders. A final section, titled 'Living in Comfort' highlighted features of a home that contribute to the 'second price tag' – the ongoing costs of operating and maintaining a home.

To support participants in their discussions with advisors, we included a comfort and efficiency checklist. Originally created by the Eco Design Advisor network, this resource was generously shared with us, we repurposed it to suit the needs of participants in the project.

## 4.3 Approved trial

The process of preparing for the trial (as detailed above) allowed us to refine the intervention elements developed during the workshops. The three research partners collaborated to ensure to ensure participant data and privacy were handled appropriately during the trial (see Appendix 10). This work resulted in the final approved trial design which included five consecutive steps:

1. **Recruitment:** ANZ customers were invited to participate in the research via the bank's front-line Mobile Mortgage Managers.
2. **Pre-intervention interviews:** Participants were interviewed by a researcher from VUW and introduced to one of the project's new-build performance advisors.

3. **Consultations:** Participants were first emailed a project resource, *Designing Your Home for Comfort and Efficiency*, developed by Beacon. They then met with an independent new-build performance advisor to discuss their building plans. The expert provided participants with tailored advice to improve the comfort, efficiency and long-term performance of their homes. Participants had an option to meet the advisor twice and bring a member of their building team to the second consultation.
4. **Post-intervention interviews:** Participants were interviewed again by a researcher from VUW.
5. **Analysis:** Researchers from VUW distilled key findings from the interview transcripts.

### *4.3.1 Participant recruitment*

The East Coast regional team of Mobile Mortgage Managers (MMMs) applied the project's eligibility criteria, outlined in Table 2, to identify suitable bank customers.

***Table 2 Bank customers eligibility criteria for participation in the research.***

| | |
|---|---|
| **New-builds** | 1. ANZ customers, or potential customers, planning to borrow to build a new home.<br>2. Customers at any stage up to and including pre-approval (i.e., people who still have scope to change their plans). |
| **Major renovations** | 1. ANZ customers, or potential customers, planning to borrow for major renovations,<br>**AND**<br>2. They have expressed an intention to enhance the comfort and efficiency of their home as part of the project,<br>**OR**<br>3. They are planning significant changes to the layout and / or size of the building,<br>**AND**<br>4. Beacon has reviewed the case (while maintaining confidentiality) and confirmed there is opportunity to improve the home's comfort and efficiency through an advisor consultation. |

The bank obtained the customer's consent to share their details with the research assistant from VUW for participation in the research (see Appendix 10.2 for ANZ's information sheet).

### *4.3.2 Pre and post interviews*

The research assistant from VUW contacted participants and took them through an informed consent process (see Appendix 10.3 for the project information sheet and consent form). They conducted a pre-intervention interview as an online recorded session, lasting approximately 30-45 minutes (interview questions are provided in Appendix 10.4).

After the first interview, the research assistant connected the participant with one of the project's independent new-build performance advisors. They also emailed the participant the project's written resource, *Designing Your Home for Comfort and Efficiency*, and sent koha ($50 gift card) to acknowledge their contribution to the research.

The advisors and participants arranged a time for their online advice session, which was not recorded. The intervention allowed for a potential follow-up session and the option for participants to include other members of their build team, such as their builder, if they wished. Once the consultation was completed, the advisor notified the research assistant, prompting the post-intervention interview. The post-intervention interview with the research assistant followed the same process as the pre-intervention interview: an online recorded session with another gift card provided in recognition of their time.

# 5 The intervention trial

**At a glance**

- A sharp decline in market activity, which coincided with the launch of the trial, had a significant impact on participant recruitment. The project team responded to low recruitment by expanding the geographic coverage of the trial (adding Waikato) and holding an ANZ-hosted recruitment webinar.
- A small number of participants were recruited and received personalised advice from independent new-build performance advisors on their build projects.
- Four themes emerged from the analysis of the participant interviews:
    1. The new-build project. Participants all mentioned cost as a reason to build new as well as getting a home that met their needs and was comfortable.
    2. Information and advice landscape. Participants used multiple sources of information. It was hard to know what information they needed – you don't know what you don't know. It was difficult to engage with building teams.
    3. The intervention. The advice filled a gap in participants understanding they had been unable to address through other sources. They discussed building principles, working with their building team and indicated they would make decisions based on the advice they received.
    4. The bank as a neutral third-party. All participants thought the introduction to advice should come from an impartial third party and saw the bank as a good intermediary.

ANZ's team of Mobile Mortgage Managers and VUW researchers led the trial, with independent new-build performance advisors contributing their expertise during customer consultations. The trial process included participant recruitment, pre- and post-intervention interviews conducted by the research assistant, the intervention itself (i.e. providing participants with written information and consultations with new-build performance advisors), and analysis of the research interviews by the research assistant.

## 5.1 Recruitment

The original plan was to recruit participants through the East Coast regional team of Mobile Mortgage Managers, engaging both their existing pipeline of home loan customers and new clients. The trial launched in November 2023, but unfortunately its timing coincided with a stark downtown in the personal mortgage lending market and wider economy.

The project partners responded to the low recruitment in two ways. First, a second regional team – Waikato – was brought into the trial. Beacon ran capacity-building sessions with the Waikato Home Loan team on 18 March 2024. Second, ANZ brought their customer engagement team into the project, hoping to boost recruitment through a webinar.

On 30 April 2024, Beacon and a project-inducted Mobile Mortgage Manager co-hosted a webinar titled 'Building a Comfortable and Efficient Home.' The webinar had 90 registrations with 45 people logging in. Of these, 27 webinar participants consented to follow-up calls which the MMM team conducted. Despite these efforts, only a small number of customers agreed to participate in the research.

## 5.2 Consultations with independent new-build performance advisors

Participants were offered up to two 1–2-hour online sessions with one of the projects independent new-build performance advisors: Lisa Burrough, Dunedin City Council Eco Design Advisor and Ian Mayes, independent home performance consultant and former Hamilton City Council Eco Design Advisor (see 1.4). Advisors were assigned to participants based on availability. Participants could invite a member of their building team to the second session, although none chose to do so.

During the sessions, the advisors offered a mix of general principles-based advice on the one hand, as well as specific guidance tailored to participants' circumstances. The generic advice focussed on passive solar design and good practice for building comfortable and efficient homes – aligning with the principles outlined in the project booklet *Designing Your Home for Comfort and Efficiency* (see 4.2.2). Tailored advice was provided in response to each participants' unique situation which included reviewing building plans or advising on land purchases and building intentions.

## 5.3 Trial participants

All participants were planning to build new homes and had agreed to be contacted by ANZ after the online recruitment webinar. In total, five participants from four different households were recruited for the research.

Participants were offered up to two consultations with the independent advisor and were encouraged to include a member of their building team such as the builder or architect. While all participants initially opted for two consultations, time constraints meant that only two participants completed both consultations within the timeframe of the project.

To protect privacy, all participants have been given pseudonyms. Below, we provide a brief introduction to each participant, and outline where they were in their build journey at the time of their interviews and their goals for their new home.

**Arata and Frank** appear to have relatively little experience with the new-build process and have decided to work with a volume homebuilder. Nevertheless, they are confident they will be able to adjust through the building journey to suit their needs. Their primary objective is to build a home that is warm and dry, though they are also mindful of keeping costs down. As Frank put it: “Yeah, so dry and warm. But like without it, you know, costing us a bunch of money to do so.”

**Marion,** also new to the building process, has decided to work with a volume home builder. Comfort was a major consideration for her: “I want something that you know is warm,” she said. “Like, I want to walk in and feel warmth”.

**Norman** intends to build off-grid with a kitset home and has chosen to work with an independent builder. An experienced project manager, Norman feels confident managing the build himself and hiring subcontractors as needed. He has received indicative costings from a builder but plans to take on some of the work personally. His goal is also a warm and dry home, as he explained: “Yeah, so to me, it's just something that holds the heat, collects it through the day. Yeah, something that's dry so we don't get mould and that sort of thing. Yeah, that’s kind of pretty much what we’re really expecting.”

**Elizabeth** has prior experience with the new-build process and has chosen to work with an independent home builder. She plans to build a home that is above code and has invested considerable time researching how to do this. Her priorities are moisture and temperature management rather than maximising energy efficiency. “So, the home that I want is basically bulletproof in terms of its moisture management, which is temperature management,” she says. “Energy efficiency, less so important to me. I'm not aiming for the last 20-30% of energy efficiency in the name of either more cost or compromises in other areas, but certainly simplicity to maintain and clean inside and out. Yeah, the ability to be impeccable in terms of temperature and moisture management… Simplicity. Dependability. I think that's my things, yeah.”

## 5.4 Analytical approach

All interviews were audio recorded and then transcribed in full. To protect participant confidentiality, the names of people, brands, companies, and locations have been removed. Once the interviews were transcribed, the segments of data relevant to the research aim were highlighted and labelled, a process known as coding. These codes were then grouped into broader themes, which were carefully reviewed and refined to ensure they accurately

captured the essence of the interviews. The key themes were analysed using thematic analysis with the software programme NVivo, a widely used qualitative data analysis tool.

Thematic analysis is a method for identifying, analysing, and reporting patterns (or themes) within qualitative data (Braun & Clarke, 2006). It is particularly well-suited for comparing different perspectives within a specific context – in this case, how bank customers engaged with personalised home performance advice (Cassell & Symon, 2004).

An inductive or 'bottom-up' approach was adopted (Frith & Gleeson, 2024) allowing themes to emerge naturally from the interview data. This approach ensured the analysis remained grounded in the participants' experiences and perspectives. Unlike a deductive method, which begins with a pre-established template of themes or codes, an inductive approach allowed for flexibility and responsiveness. This was particularly important given the novelty of the research; while we had some preconceived ideas of what could emerge from the data, the analysis remained open to insights arising directly from the data.

Four key themes emerged out of the coding phase that reveal the participants' motivations, challenges and interactions throughout the new-build journey. These themes explore their reasons for building, the advice they received and their perceptions of the bank's role. Table 3 below breaks down each theme, highlighting what mattered most to participants and how they engaged with the intervention.

***Table 3 Interview themes and codes.***

| Theme | Codes |
|---|---|
| The New-build Project | Captures the overall build journey, including participants' rationale for building, their priorities for the project, their prior experience, and the barriers they've encountered so far. |
| The Information and Advice Landscape | Explores the availability – or lack – of advice and information on building materials, products and practices. |
| The Intervention | Focuses on the advice participants received, exploring its usefulness, their likelihood of implementing it, and how their understanding of comfort and efficiency shifted after the intervention. |
| The Bank as a Neutral Third Party | Stresses the importance of advice being from an independent, neutral party – and the bank's role in the process (and how it is perceived by participants). |

## 5.5 Themes emerging from the research interviews

All the participants enjoyed their experience with the advisor and felt like they walked away with a better understanding of how to build a new home, calling it “valuable” (Norman and Marion) and saying they’d “learned a lot” (Frank, Elizabeth).

### *5.5.1 The new-build project*

Participants expressed various reasons why they chose to build a new home rather than buy an existing one. The most common reason was cost – not just the high cost of existing housing, but also the perceived value in building something tailored to their needs. For some, building offered the chance to create a home that suited their lifestyle needs, whether than meant living in a healthy home or being closer to whānau. Despite acknowledging that building new is daunting, Marion believed it would save her money compared to buying what’s currently available on the market.

> *When I’ve been looking for what I want, it’s really expensive to buy ready-made whereas, looking at building, I can actually build cheaper than I can buy. Which is crazy. But I think also building new against when I was looking at buying ready-made, everything seems to be really old, and they need stuff [done] and they don’t have the double glazing and you know…That’s what I think with building [new], I’m going to get all those new… the requirements for being warm and the insulation and stuff like that. (Marion)*

While cost is a significant factor in participants’ decision-making behind wanting to build new, it is not the sole driver. Participants emphasised that building new allows them to achieve better value for their money. Additionally, the desire to meet specific needs, such as wanting to live in a warm, healthy home, the location, and comfort all play a crucial role in the decision-making process:

> *Obviously having really good temperature control is one of the things that’s really important to us for the house. (Frank)*

> *Warmth, comfort, got all the modern things. (Marion)*

For Norman, the focus was on finding the right land:

> *We’re quite sort of the opinion that you can renovate your house, but you usually can’t renovate your land. […] We’re more about the land itself and the location, I suppose. (Norman)*

Marion, like Arata and Frank, is relying on a volume home builder to guide her through the process:

> *Yeah, it is, you're kind of just putting your trust in them, you know, they're saying they're supplying the service and basically, you're trusting in them that they do. I don't think I'd build, like I wouldn't want to be project managing my own house like because I just wouldn't have a clue what I'm doing. (Marion)*

Arata and Frank decided to work with a reputable volume home builder rather than navigating the complexities of finding an independent builder and architect. As newcomers to the building process, they were cautious after hearing stories about unreliable builders. For them, partnering with an experienced and established company offered reassurance and a greater chance of success.

> *Once we've done the initial design of it, we've got the bones of the house built basically, you know. [Once we know] where all the walls are going to the best of our knowledge, like we can still definitely move things around later on in the design, even while the house is being built, we're told, well, that's not preferable, but once the structure of the house is outlined then we start the actual design process. […] so we'll have meetings with the kitchen designer, with electricians, with interior design and yeah, just like everyone. Every single aspect of the house, we have a say in, so we'll be in meetings to talk about all that. (Frank)*

Elizabeth, by contrast, plans to work with an independent builder after a bad experience with a volume home builder. Her original new-build plans were abandoned because of a budget blowout. But this earlier setback, combined with her determination to build above code, has given Elizabeth the confidence to take charge of the project herself.

> *We are not going with the volume home builder, and we did try, yes, we had a false start with the volume home builder, well, not a false start. Well we signed a contract and then we all agreed that the contract was probably not right for either of us, and that was on the basis that yes we do want, for example, even just to say to them, I don't want [brand name removed] in my house, they're just like you're crazy lady and as soon as they start telling me I'm a crazy lady that I'm like, well, you're not my guy, are you? Not in the first week? So, we did go dip our toe into that water. (Elizabeth)*

Norman's background in project management has given him the confidence to oversee the new-build himself:

> *So we're actually looking at kitset [home] and I would manage the build myself and just get subbies and because, well, I'm a project manager anyway. I don't typically do buildings, but generally civil projects, but it's much the same, and it'll hurt less*

*financially. Some tasks I can take on myself as well I suppose. It lets you balance those things and manage the cost.*

The participants were acutely aware that the building journey would be fraught with challenges and obstacles. Elizabeth, who had previously worked with a volume home builder, identified one major hurdle: handling conflicting views among the members of your building team:

> *The interaction between the architect and the builder was difficult. In terms of us getting some clear answers. The unwillingness or the lack of yeah, the level of willingness that the architect was willing to go into to help us understand the costs of the design that was emerging …yeah, so we've learned a huge amount. It was like stumbling around in a dark room trying to work out where people are standing really. (Elizabeth)*

Norman identified financial uncertainties as a major hurdle:

> *Yeah, I suppose it's that that whole uncertainty around loaning I think has been the biggest challenge for me to get my head around and then like it's even just like the bank has been good and the way you know I just talk and ring them and discuss the rules around the lending and then you can make a plan around there, but I mean, I sort of, problem solve for projects like that all the time that are just too hard for a lot of people […] and I can understand why people shy away from it. (Norman)*

### *5.5.2 The information and advice landscape*

Participants sought information from a variety of sources to prepare for their building journey. Arata and Frank shared their experience at a home and garden show, which they felt was mostly businesses "just trying to sell things to you". Visiting a volume home builder's show home, however, proved far more helpful. Frank appreciated the builder's approach of providing information about products without the hard sell, allowing them to do their research at their own pace.

Elizabeth leaned on her architect for insight into the building process, while deepening her understanding by reading a book on building a healthy home:

> *We've used a book, you know, we've got a book about how to build a healthy home and have really spent hours educating ourselves about that. So, in a way we engaged the architect partly because we got them through the Asthma Foundation thing? …that's the avenue that I chose my architect through. And now we've just chosen another one off the same list, yeah. (Elizabeth)*

All participants acknowledged the difficulty of knowing what information you need at the start of a new-build project. Given they were interviewed at an early stage, it's likely they had only just, started identifying reputable sources of information:

> *Yeah. I guess it probably at this stage [it's] one of those cases, I don't know because I don't know. Like until I know a little bit more down the process, you know as something comes along and I'm like oh I need to know about that. (Marion)*

> *It's more like if you don't ask the question, you're not going to just be given information. So, if you don't know the question to ask, then you're not going to get the information that that you need. (Frank)*

Elizabeth echoed what others had shared, highlighting the difficulty of finding clear and accessible information:

> *It didn't feel available, especially not on the process side of things like who's in charge of what, especially between the architect and the builder, being able to get advice, clear advice about things, and we know how to do it now, and we've learned enough to be able to assess that advice, but without the ability to assess the advice that was really tricky. The material side of things because there is an international slipstream, I guess, of materials where if you actually apply yourself, you can go and find out. But it is confusing. And then to actually bring that to the interface of the builder, which I didn't get to, I can imagine that it would turn into a **** show. (Elizabeth)*

Elizabeth highlighted the confusion around sourcing materials and the challenge of dealing with builders who may not be interested in meeting specific standards or using particular products. She expressed considerable frustration at the lack of accessible information and the difficulty in clearly communicating her needs to builders.

Participants often found themselves struggling to first find and then use information effectively during their building journeys. Marion and Arata described how their information-gathering often felt reactive, with specific needs emerging only as new challenges arose. This uncertainty added stress and complexity to an already fraught process. Elizabeth's experience underscored how critical clear, expert guidance can be, as the lack of detailed and accessible information left many struggling to make well-informed decisions.

### *5.5.3 The intervention*

After their consultation with the independent advisors, participants were re-interviewed to reflect on their experience and the usefulness of the advice provided. They were asked to recall any advice or information they had received. In most cases, the guidance focussed on technical aspects, including building practices, materials and technologies.

*Yeah, we learned a lot about, like the thermodynamic aspects of like each part of our home like as we're building it, so things like, you know, the ways in which our windows affect the home, the ways in which the insulation affects the home… like how different insulation works in different areas of the house, as well as the impact that the slab that the foundation has for warming the home as well. […] But we didn't know any of this obviously before talking with the advisor, it's not really things that like we thought about, like we understood we need north facing glazing so that we have like you know lots of sun warmth coming into our home but like that was the extent of the knowledge that we had. (Frank)*

Before meeting with the independent advisors, many participants had some understanding of basic concepts like north-facing glazing to harness the sun's energy. The consultation significantly expanded this knowledge. For Frank and Arata, it introduced thermodynamic principles to optimise their home's energy efficiency and comfort. For Marion, the sessions were an opportunity to critically assess the plans she'd received from her volume home builder.

*Yeah, it was just good having an outside person looking at that as not, you know, they're not the builder. They're not trying to just sell you a product. They're actually trying to… make your home warmer and more economical and all that sort of stuff and a bit cooler in the summer too. (Marion)*

In this excerpt, Marion talks about how her new-build performance advisor helped her notice details in the house plans, like the small eaves – something she wouldn't have considered on her own. The independent perspective ensured her home design was better optimised for both comfort and energy efficiency, addressing aspects she might have overlooked. Through her discussions with the advisor, Marion's perspective shifted to a deeper focus on how her home could function more effectively. For instance, while aesthetically pleasing, certain window designs could compromise thermal comfort. Marion highlighted the importance of creating a home that balances visual appeal with practicality and purpose.

A meticulous notetaker, Elizabeth was able to recall a significant amount of technical information from both her first and second consultations.

*So, I have a specific interest in moisture control and water tightness, and we talked a lot about that [and] about where the current code might not be quite good enough for someone with my high level of interest in those areas. We discussed specifics [of] like, roof, walls, windows, foundations; kind of four categories and ran through where [the advisor] thought there's opportunities to do over and above the code, and then opportunities for smart design, which is not to do with the code but just to do with common sense. We discussed really interesting things like how much wood is in a wall*

*that creates areas that can't be insulated. And the more corners you put in, obviously, the more wood gets used structurally. We discussed, you know, basics like not putting windows, big windows in the South facing area. We discussed some product choices or the nature of some, like what type of windows you might choose for example or and we discussed things like whether to use GIB because I'm not keen to use GIB and the advisor was very much on board with the things that I've learned around what I'm after in a house and…was very supportive of what I've learned and was able to build on that and add to that. (Elizabeth)*

Elizabeth's conversation with the advisor spanned a range of topics, including opportunities to exceed code requirements, practical design decisions to enhance energy efficiency and comfort, the impact of structural timber on wall insulation, and how building design influences material use. She also explored foundational design principles, such as like avoiding large south-facing windows, alongside product choices like different types of windows and materials with specific properties. The advisor affirmed Elizabeth's preferences offered additional insights that underscored value of personalised advice in creating comfortable and energy-efficient homes.

From the outset of her building journey, Elizabeth has been determined to build above code. Her discussions with the independent advisor filled in knowledge gaps and, during the second session, she sought precise guidance on what steps were needed to ensure her above-code build went as smoothly as possible.

*In the second session, yeah, we talked a bit more about parties involved …we covered like [the] parties involved in the build process. Relationships, holding people to account, where in the process certain decisions should be made, who's best to advise or make those decisions, and pull things together. We discussed things like the kind of decisions that get made on site compared to being made in the plans, ways to mitigate, well, just to set really clear expectations that if I'm looking for something over and above what a builder might be used to delivering to make sure you know to set those expectations from the start, we talked about finding the right people for the project and ideas of what kind of intro or wording. What kind of you know, baseline question I could use to introduce what I'm looking for and understand whether they are interested in that kind of thing. (Elizabeth)*

In the second session, Elizabeth and the advisor delved into the roles and responsibilities of everyone in the building team, focusing on relationships, accountability and decision-making. They discussed when and by whom certain decisions should be made, as well as how to coordinate these efforts effectively. The conversation highlighted how on-site decisions might differ from those made during the planning stage: this reiterated the importance of setting clear expectations from the start, especially when aiming for higher-than-standard outcomes.

They also explored strategies for finding the right people for the project, including how to introduce her requirements and assessing whether potential collaborators aligned with her goals. This discussion underscored the value of personalised advice in navigating the complexities of building a high-performance home.

Elizabeth's concern with relationships and accountability may have stemmed from her previous experience with a build project that unravelled. By addressing these challenges, the advisor offered practical guidance to help her manage her new project with confidence.

For Elizabeth, the consultations helped round out her understanding of good design principles, but also provided validation. As already noted, Elizabeth often felt that builders either dismissed her requests or failed to take them seriously. Even when they appeared receptive, she lacked the expertise to judge whether their work aligned with her building priorities. The advisor's insights helped bridge this gap, equipping her with the tools and confidence to advocate for her vision more effectively.

> *I think, what has changed is the amount of fear or the amount of responsibility that I felt to be the person who could bring these parties together. And now I know that there is [the advisor] or someone like [the advisor] who understands my world. I guess it was only me in [and] a book up until this point and me trying to convince other people that no, it is actually that important for me. And so, I feel less alone, and…feel more sure that I can get what I need out of the process, and that's just massive. …I know a lot more now about how to get that out of the process where before I didn't, and yes, definitely a change in my thinking about which kinds of people to engage to support me, but in terms of what kind of build and what we're looking for, just more, more details. No fundamental shift in what I was thinking in that regard, just more information to actually help me to get what I want. (Elizabeth)*

While Elizabeth's vision for the build – her dream – remains unchanged, she now has more detailed knowledge and confidence to make the most out of her building journey. The guidance from the independent advisor equipped her with the tools to manage her project more effectively. This highlights the difference that timely, tailored, personalised advice can have in empowering people to make informed decisions about their new-build.

For Norman, the independent advisor's insights shed light on the nuances of insulation and window choices, critical elements of energy-efficient homes.

> *Yeah, so [the advisor] was talking about like a lot of the different types of insulations and problems that they have in terms of like construction, which is pretty valuable stuff to like know about and know where to look and that sort of thing. Things like the*

*problem areas in terms of insulation when it's installed, I guess. The low E Glass and stuff like that, which I just knew nothing about which [was] interesting… I just thought that double glazing was double glazing. That was quite cool. And yeah, the amount of heat loss you lose through the non-thermally broken windows was interesting. (Norman)*

Other participants also highlighted specific advice or recommendations they planned to incorporate into their build. For instance, Arata and Frank intend to increase the *R*-value of their walls to enhance comfort and energy efficiency.

*Like one of the things we really want to see done is the insulation to do with the external walls of the house… by the time that everything is up and running, the R-value of our walls should be 2.0 I believe […] which will keep our house warmer. (Frank)*

Norman valued the guidance on assessing both at the properties of his materials and their wider health and environmental impacts.

*So that was pretty cool, to know some of that stuff. (Norman)*

Elizabeth, by contrast, sought to apply broader conceptual insights to her building journey, drawing on the advice from the new-build performance advisor. When asked what she hoped to implement, she explained,

*A huge amount, almost all, well, all of it, I think. So, in terms of the shape of the house, the layout, we discussed single story, double storey, square houses, rectangular houses, courtyards and shapes. So yeah, it's actually just a really good thing to have this early because then we can apply it. [The advisor] also recommended, for example, that we go for soil testing in advance. So, we put in an offer conditional on soil testing, which we haven't been doing. So, we'll consider doing that. So, I'll tee up some engineers and find out about doing that prior to confirming a sale date. So yeah, I would say all of it, and not all of it will be applicable because we won't have the situation where everything can be [used]. (Elizabeth)*

The main obstacle to implementing the advice was cost. For some participants, budget constraints made it difficult to act on all the recommendations.

*There's going to be a major change that impacts the cost of the build a lot. It's a kitset, I can probably move internal walls and few different products around without costing too much, but yeah, to make major changes. It's a massive impact to cost. (Norman)*

*Like there's a bunch of things that, you know, obviously we'd love to do but like, we can't afford to do it, but it's stuff that we might be wanting to do somewhere down the line that that can still be done. (Frank)*

*Yeah, I guess as long as it doesn't cost too much more because I don't have a huge budget. (Marion)*

However, Elizabeth, hopes to offset costs by opting for a smaller home.

*Yeah, we discussed cost a lot and discussed the ways, the priorities basically…we discussed the priority of easy to maintain versus, well no, moisture versus energy efficiency and things like that. So, to me, to be honest, we will build a smaller house that contains these features, so our cost savings will come elsewhere. (Elizabeth)*

### *5.5.4 The bank as a neutral third-party*

When asked how they felt about the bank connecting them to the advisors, participants told us they saw the bank as a neutral third-party in offering access to informed, independent advice. They unanimously agreed that such guidance should come from an impartial source – and saw the bank as an independent and trusted intermediary.

*Someone would definitely need to recommend that you take up a service like that and it would probably have to be like a neutral third party who, like has no stake in it. So, like the bank basically, it's like we don't, they don't particularly care how our house is built or what not. But like the builders don't want extra work to do so they're probably not going to offer it. (Frank)*

*I think that it makes everything lower risk, simpler, more transparent. You know that everybody knows a bit more about what's actually coming up because you got someone here who knows the process and knows it. All of it. (Elizabeth)*

*It's their investment as much as it is our yeah, I suppose the banks got a stake in the whole thing, so the better product that we build the better their security is. And generally, our bank has actually been really great with everything, so yeah. It was quite cool because you don't really know where else to look. (Norman)*

Two participants specifically mentioned they wouldn't approach the council for advice. One saw the council primarily as a consent-issuing body, not as a repository of good energy advice (with resources such as Eco Design Advisors). Another felt by the time they engaged with the council it would be too late in the process to make meaningful changes.

*I think you want someone neutral to the situation…if I didn't know anything and I went to the bank to get a loan and I said this is what I want to do and my bank person said*

*hey, I recommend you talk to [an independent new-build performance advisor]. They can help, you know, help you build a warmer, more sustainable home or whatever it is. Yeah, it'd be cool because I wouldn't go to the Council to do it. I wouldn't think of going to the Council. Unless when you put your consent in, that's when the Council would contact you. But yeah, it probably is more the bank, to be honest. (Marion)*

*I think that if it was the Council, it would be too late in the process. Usually, you've got a design and then you lodge it to the council and stuff so at that point, you've probably either committed or you've got your heart set on a certain design and stuff. Yeah, I think it probably needs to be earlier, like in the budgeting or planning stages. […] I think the earlier you can talk about some of those aspects, the easier it is to work into your design. (Norman)*

# 6 Partner reflection on the research project

**At a glance**

- Bank staff, including front-line Mobile Mortgage Managers, reiterated that they expected the offer of personalised advice to resonate well with customers. The biggest impediment to uptake of the offer was the downturn in the market.
- The customer building-lending journey map was identified as a valuable output of this research.
- At the project retrospective the team noted that banks had the agency and capacity to *enable* change. Advisors have the agency and capacity to *shape* householder decisions. This was acknowledged as critical support for customers.
- The bank recognised the value of this collaborative project across their business, specifically highlighting the capacity-building of their front-line team.
- Beacon's interviews with bank staff helped to:
  - identify synergies between the building and finance aspects of a customer's journey.
  - suggest potential ways the bank could start conversations with individual customers about building more comfortable and efficient homes and how they might support a customer's building journey.
  - identify the way the bank might engage more broadly in the 'housing ecosystem' to support change.

After the intervention trial, the partners paused to reflect on the project – an essential 'next step' in any co-creation process. Testing, reviewing and refining create the conditions for smarter, more thoughtful innovation: taking the time to evaluate what worked, what didn't, and what we might do differently helps define next steps. Given the limited number of research participants – our reflections focussed on four key questions:

- What worked well – and what didn't?
- What could we do differently next time?
- What did we learn from working together?
- What insights we can take away and share?

To answer these, Beacon gathered feedback in three ways:

- **Seeking frontline feedback:** We asked the Mobile Mortgage Managers (MMM) team a series of questions about their experience of the project (see Appendix 11, for the project questions).

- **Holding an online project retrospective session:** The full project team came together to share their reflections (details in 6.2).
- **Conducting one-on-one interviews with ANZ staff:** We spoke with three ANZ staff who were involved in the project at different stages (see 6.3).

## 6.1 Recruitment insights from the Mortgage Mobile Managers

Approximately 15 Mortgage Mobile Managers (MMMs) from two regional teams – East Coast and Waikato – took part in the trial. During the planning stages, the MMMs anticipated enough interest to reach our target sample of 20-25 participants. However, sharp downturn in the residential building market reduced the number of conversations the MMM's had with customers.

Even so, the MMMs managed to speak with around 30 bank customers, offering a referral for free, independent advice consultations. These customers fell into three broad groups: people building new, others undertaking major renovations, and those still in the early 'dreaming' stage of their build.

Across their conversations, a clear theme emerged: customers were focused on cost. Questions about price, timing and the potential impact of advice on their plans dominated the discussions. Customers wanted to know what the advice would cover, how it might fit in their timelines, and – crucially – how it might affect their budgets.

The MMMs shared several insights about customers they spoke with who had ultimately declined the offer. For those actively building, the primary reason was timing: most were too far along in their process to make changes without risking significant delays or incurring additional costs. Plans were either finalised or already consented, leaving little room for adjustment.

For customers in the 'dreaming' stage – including those without land – the hesitation stemmed from uncertainty. They doubted the advice could be tailored to their still-evolving situation. The MMM's reported that during the recruitment period they had not been approached by customers who had land and were contemplating building – a group that may have been more amenable to guidance at this stage.

The MMMs often work with customers looking to improve the comfort and efficiency of their homes with ANZ's Good Energy Home Loan. Drawing on their experience, the MMMs observed, that in a different market environment, the offer of expert advice as trialled in this project would likely resonate with their customers. In particular, MMMs felt advice that extended beyond the products tied to the bank's lending criteria would be welcomed by their customers.

Feedback on the recruitment webinar was that attendees had hoped for more specific, practical examples of how they could adapt their plans during the session itself, rather than an introduction to a project about advice. Nevertheless, the webinar proved successful in generating participant leads for the project.

## 6.2 Insights from the project team's retrospective

Beacon invited the full project team to an online retrospective meeting held at the beginning of August 2024. This gathered ANZ staff who had been part of establishing the project, the intervention development team, the trial team and project sponsor, together with the two independent new-build performance advisors and the two VUW researchers. Participants contributed via an online whiteboard: their comments are anonymised.

### *6.2.1 What went well?*

One team member noted: “It was great to work on a project that can make a difference to people's lives and their health.” To encourage reflections we asked the team three questions: What should we celebrate? What did you learn? Where did we make progress?

How was the partnership? Team members from all organisations valued the partnership. For instance:

- “Great collaboration across ANZ and external teams”
- “All worked seamlessly together for great customer outcomes"
- "It was brilliant to share knowledge and learn how the processes work on both sides”
- "Even with a small participant pool, as a team, we've achieved a lot.”

Others commended the breadth of expertise and depth of cross-sector collaboration, suggesting it was central to the project’s success.

The engagement of ANZ's MMM's within the project was highlighted. They were "super-enthusiastic about the project and leaned into the trial." The project's knowledge-sharing and capability building of the MMM's in preparation for the trial was valued by the bank.

What did team members learn from this project? They valued the findings from ANZ's empathy interviews, particularly around "power imbalances…, individual confidence… and [the importance] of framing and language." Another observed that the “dreaming phase” is ideal for intervention, though challenging for recruitment. When it came to home performance advice, one team member said simply: “early intervention is best.” Others reflected on the bank’s evolving appreciation for the home performance advice sector and the transformative

potential of high-quality, independent guidance – an edge that could empower their customers to build better performing homes.

Overlaying the building and lending journey stood out as a significant achievement, offering valuable insights into the interplay between the two. Several team members singled out the project booklet written for participants – *Designing Your Home for Comfort and Efficiency* – as a standout resource, with one asking: "what else can we do with it?" Others suggested it could be a great resource for other projects.

### *6.2.2 What didn't go so well?*

The retrospective did not shy away from identifying areas where the project did not deliver. Low recruitment numbers emerged as the most common concern. One team member captured the frustration:

> *Can't shake the instinct that if we had run this at a different stage in the economic cycle, we would have had more uptake.*

Many pointed to the economic downturn where "interest rates went up and new-builds went down."

Recruitment challenges were a recurring theme. Converting customers interest into participation proved difficult. "It was hard to get the participants engaged and excited about the opportunity" said one, suggesting that a lack of knowledge might have been a factor. Customers, it seemed, required considerable convincing from the MMMs. Cost pressures loomed large: the cost of building may "mean people aim lower rather than dreaming," one person observed. Timing and the potential cost of updating plans also deterred some.

Several team members suggested what might have helped: starting the promotion earlier and using more compelling customer stories (e.g. more case studies and anecdotes that showcased some real-world examples of comfortable, efficient homes).

Beyond recruitment, other challenges surfaced. Partners were often at different stages of understanding, leading to uneven progress. The project itself got off to a slow start, with delayed milestones. Securing internal bank buy-in was another issue. As one participant noted, the bank was not quick to understand the value this research could provide.

Some wondered if the project might have had greater traction if it had launched later – once the bank's climate-related disclosures work had gained more momentum internally. Others flagged systemic issues, such as lack of supportive regulation or policy setting to reinforce the intervention's goals.

A few team members questioned whether the project's focus was aimed correctly. One questioned if "the point of intervention was 'on point'." Another noted that BRANZ's focus on new-builds under the levy prospectus limited opportunities within the existing homes market. Others noted missed opportunities to engage other ecosystem players, like group home builders, tradespeople and councils. And one team member thought the project's approach was very traditional, noting the lack of digital tools or channels. A larger question hovered over it all: "Is the market mindset there yet?"

The trial's limited scale inevitably left gaps in the findings. Team members cited missed opportunities to explore how the bank might use insights from a full trial, conduct a robust evaluation of home performance advice, and better understand how to shift customer mindsets.

### *6.2.3 What ideas do you have?*

What might a future intervention focus on? Team members suggested including renovations as part of the interventions, targeting volume home builders and their customers, or engaging people earlier in their journey through webinars and videos. A recurring theme centred around "catching customers when they are saving." One team member proposing using internal product journey maps to highlight where interventions would most likely resonate – "light touches" at these points, perhaps a referral to an independent new-build performance advisor, could help build understanding of the benefits of advice and sustainable homes.

Could advice be reframed to be more accessible and effective? For instance, one team member noted that customers were unaware the building code is just a minimum standard, with "lots of room for (cost-effective) improvements to comfort." Making "customer education readily available" was a recurring theme, with ideas ranging from cheat sheets and, videos, to information across multiple channels. One person recommended a more flexible approach – allowing customers to dip in and out of the process when it suits them.

What about the potential still waiting to be unlocked? One team member was unequivocal: "New Zealand knows enough to advise households about performance at the start of the journey." Others pointed to major renovations as an untapped opportunity. The housing advice sector has potential noted one. The role of banks as a trusted intermediary came up repeatedly: the bank can have great influence, noted one, and "is already seen as a trusted advisor". Another noted that "initial customer research identified other opportunities for the bank that we haven't explored." And there were other ideas in the intervention workshops that hadn't been followed up. "Can we revisit some of these?"

How could customers be better supported? A simple question that was neatly expanded upon by one team member: "What would it take for the bank to be confident in referring customers

(new-build, existing, buying land etc) to an expert advisor?" One answer was to make better use of existing resources both within and outside the bank. "It would be good to have bank branches build relationships with the EDAs (Eco Design Advisors) in their area," said one. Expert knowledge was key. Said another: "Ensuring the customer is aware of potential cost savings benefits which ties into loan payback period and affordability."

The conversation also turned to lending policies. One team member thought there might be an opportunity: "Make it normal, not a project. If lending money to introduce a new house to the housing stock, it's going to be a good house – for health, energy, carbon, environment". Another expressed this view even more bluntly: "Changing lending policy to ensure we only support new-builds to sustainable standards." A third summoned a magic wand and asked: "Could lending policy reflect the lifetime value of a better performing home as opposed to just upfront costs? I think this is done in some other jurisdictions."

There were some questions that the group left open. What do customers truly need one pondered – "is it advice or something else?" Understanding “what else” would help us add to the building-lending journey wrote another. And why did some customers fail to see value in the trial? "Is there an ingrained resistance to 'sustainability', wondered one, “because it is perceived as a 'nice-to-have' or too expensive?"

### *6.2.4 What can we take away?*

In the final session, the team reflected on the most valuable insights from the project – and how we might create impact from this work and share some of the lessons we’d learnt.

"The huge untapped potential for scaling this work", was a key takeaway for one team member. "Most people do not understand about comfortable and efficient builds." Another highlighted the importance of building awareness – of helping customers understand the benefit of seeking advice that’ll help them when building their home and living in it in the future.
Connecting the build journey and the lending journey stood out as a highlight. One noted the "great insights" this approach provided, demonstrating how customers can achieve good performance without additional cost (and how this could empower customers to make informed trade-off decisions). Early conversations and multiple engagement points were seen as crucial to guiding customers effectively.

Yet the complexity of the landscape remained a concern. One team member observed that customers are often left to navigate a challenging ecosystem on their own: they wondered if there is a "limit to empowering customers". Another was critical of a status quo that sees builders, trades, designers and architects interpose throughout the build journey: they need to "get out of the way of customers advocating for themselves", they argued and instead support

customers in making good decisions. The power imbalance between customers and industry professionals was also noted.

Gaps in policy, regulation and industry practices presented another challenge. "We need to be proactive in our approach in the absence of sound minimum best practices," noted one. Another argued for stronger regulation around new home builds, noting that poor homes will be with us for generations and impacts upon us all (e.g., climate change).

Collaboration emerged as a strength of the project: "there is a lot of genuine willingness and excitement to create meaningful change" noted one.

To create greater impact from this project, one enthusiastic team member urged: "Promotion, promotion, promotion via as many channels as possible!"

The role of 'middle actors'[13] – banks, advisors and others – was seen as critical. "Middle actors have a role to play," noted one, "but are dispersed. All need to lean into this to promote learnings, educate and empower." Another pointed to the bank's unique position: banks had the agency and capacity to *enable* change, while advisors have agency and capacity to *shape* householder decisions. "Middle actors," they concluded, "can work together."

The Eco Design Advisor (EDA) network was also flagged as an under-utilised resource: "the EDA service should be promoted more consistently across NZ as a service that people can access." The bank's ability to get customers early in their journey was seen as a potential boon for the EDA service. However, it was also noted that that the EDAs need to be better-resourced and much more numerous if they were to shift the dial. But every little nudge is worthwhile "any support to empower individuals to advocate for themselves and arm themselves with knowledge will help."

Finally, participants explored ways to share lessons and bring about an enduring impact. Suggestions included taking the project's insights directly to stakeholders through meaningful conversations – and championing practical resources like the new-build booklet and the building-lending journey map. These tools, along with a comprehensive knowledge transfer plan under Beacon's BRANZ-funded project, have the potential to encourage more collaboration across our sectors.

[13] Parag & Janda (2014) introduce the concept of 'middle actors' in socio-technical change. The authors propose that middle actors have a role in driving change that is neither from the 'top down' (e.g. government) or the 'bottom up' (e.g. households) but from the middle. Middle actors are characterised by having their own agency and capacity to drive change and do so for their own reasons beyond policy push or market pull.

## 6.3 Insights from Beacon's interviews with bank partners

Following the online project retrospective session, Beacon held semi-structured interviews with three ANZ staff who had participated in the project at different times. Their expertise covered customer-centred design, product development and ESG. The interviews allowed for deeper reflection on the value of personalised home performance advice, the bank's relationship with home loan customers, the bank's role in the housing sector, and other project insights. Each of the interviewees offered a personal perspective of the project as part of the reflection process: they consented to the interviews and their contributions are anonymised. So, while informed by their role at the bank, none of the material should be read as though they were speaking on behalf of ANZ.

This reflection process provided insights in three areas.

1. It helped identify synergies between the building and finance aspects of a customer's journey.
2. It suggested potential ways the bank could start conversations with individual customers about building more comfortable and efficient homes and how they might support a customer's building journey.
3. It revealed the way the bank might engage more broadly in the 'housing ecosystem' to support change.

### *6.3.1 Building and finance journey synergies*

Our banking partner's reflection on the project helped us identify synergies between the journey people undertake when building a new home and their financial journey.

**Customers want personalisation.**

All interviewees noted that bank customers expect personalised advice. While the provision of financial advice is tightly regulated, and banks are balancing who is giving what types of advice, customers expect personalisation. One said, "the approach that you came up with here around that personalised (home performance) advice fits really well with the direction the bank is already going in". Another said,

> *I think there is definitely a place for personalised advice for a customer, and it's all around that continuity of care and things like that, as well and being supported in that journey and it does need support because there's so much information out there.*

**Timing of design decisions to optimise home performance at lowest cost.**
The project's resources were framed around two types of building decisions that can be considered in relation to cost: design decisions and trade-off decisions (see 3.3.3 and 4.2.2). Enabling bank customers to make early building design decisions was central to the design of the project's intervention and its importance to customer outcomes was acknowledged by all three interviewees.

Several points emerged from the discussions around the right time to engage with bank customers about their build. One interviewee defined a "sweet spot" where a customer's plans for their home are tangible enough for building advice to be more relevant to them and so more likely to be taken up. While this project's intervention was designed for customers as they approached a Mobile Mortgage Manager about a home loan, interviewees thought that earlier could be better. One interviewee said,

> *We work with customers when they're saving as setting a savings goal and working towards saving for a house. And I think that's possibly a great intervention point to start talking about it.*

**Trade-off decisions are complex**
The second type of building decision the project resources identified are trade-offs, where a customer may decide to pay more upfront on the basis it will be of benefit to them in the long term. Some of these benefits, such as whānau health and well-being (e.g. less time unwell) or environmental benefits (e.g. lower energy demand, using materials with lower impact / carbon) are not necessarily financial benefits to the customer. Home performance advice can help customers navigate the benefits of trade-off decisions.

One interviewee said the bank hears their customers talk about walking a line. She reported customers say their homes need to be, "good enough, I don't need perfect I just need it to be good enough. When it hits that point then I will know I have invested enough, and I don't need to keep going."

"The bank responds to figures and numbers, understanding cost-benefits" said one interviewee. She went on to say that people are constantly thinking how much they can invest up front and highlighted the trade-off with future ongoing costs. She described the future benefit as "fuzzy and less certain" than what customers have in front of them right now. In this discussion, the interviewee also raised research she's aware of that is relevant to customers making decisions that have a future impact. She explained the research found that people see their future selves as a different person, so "that future person is not me, they will have to deal with those problems."

One interviewee noted that an individual homeowner is faced with some really confronting trade-offs during the build process and given increases in interest rates and prices, cost becomes a big driver. The challenge for customers to pay more as they are building was acknowledged: one interview said, "we can't assume all customers have money to invest upfront." Another interviewee noted when customers come to the bank to take up lending, they are trying to understand the financial aspects of the loan and so are very price sensitive. She felt that for customers to make better decisions, they need to understand "what their efforts will potentially equate to in financial terms." She said showing a customer the benefit of decisions that pay off in both short and long term earlier in the process would help, reiterating earlier discussions on the importance of early engagement.

**A customer's building journey offers multiple engagement points**

As already noted, the project partners valued the development of the combined building and lending customer journey map (see 6.2.1). This was picked up again in these interviews. One interviewee specifically recognised the synergy between building and financing, saying,

> *We saw there were some really nice synergies between the trade-offs and decisions an individual is making as part of drawing up their plans, or considering where to buy land and all those sorts of things where there are correlating intervention points with your bank. So I think that was a really interesting insight to find out of that research.*

The bank could also create new intervention points with a customer as a result of providing personalised home performance advice. Recognising the customer's journey has many points of intervention and extends beyond the initial build, one interviewee considered a role the bank might play in offering products and services related to comfort and efficiency over time, for example supporting a homeowner's investment in solar and EVs. Looking forward she could see value in the bank understanding the various intervention points and gave an example of following up with customers some years after their build.

> *We could contact them and say, how's it going? You know, when we talked to you earlier and you got that individual advice, we know you were thinking about solar. We are a couple of years down the track, and we see you're making your payments. Do you want to consider this?*

### *6.3.2 Bank conversations with their customers about their homes*

Reflecting on individual bank customers being the focus of this project led to several discussions on the challenges people face when building a new home and how the bank might support individual customers. These reflections are not about personalised home performance advice. Rather they illustrate some of the ways banks could start conversations with their customers about the value of designing a more comfortable and efficient home, navigating their build journey and who might support their decision-making along the way.

All interviewees acknowledged the build process is very complex for customers to navigate on their own. One observed that the build journey seemed "more difficult than it needs to be", and felt customers need someone to "support them through that process so it's not too arduous." She felt the bank could consider who they might connect their customers with "to make the process a lot less difficult." Another interviewee acknowledged that customers feel a power imbalance on their home building journey. One interviewee felt reducing the number of "roadblocks in the minds of the customers" to building more sustainably would remove some of the complexity. She thought customers need answers to questions like: what is in this for me, why would I do this, why would I go through what I assume to be these extra steps?

Recognising that key drivers for customers were comfort and cost, one interviewee said, *"probably the best thing a bank could do is offer a price premium for someone who builds a more efficient home."* Beyond offering a price incentive, she identified two more ways the bank could support customers: make it easy to build a new home and help to demonstrate the benefits of comfort and cost savings to customers.

Creating an environment where bank customers recognise the value of independent home performance advice came up in all the interviews. Banks could create some space for customers to explore the building-lending journey information, one interviewee suggested. She then wondered how this might be embedded into bank processes. Another interviewee recognised the significance of the bank's impact on what a customer's build looks like. She felt if the bank shows that comfortable and efficient homes are important to them as an institution, this will help customers understand its importance. While the home loan market is based on price (i.e. customers chose banks based on interest rates) one interviewee felt if a bank could demonstrate added value, this might attract new customers.

The interviewees reiterated comments made in the team retrospective (see 6.2.1) about the value of the project to the bank. The project prompted many internal conversations said one interviewee, which had raised awareness (of home performance). She highlighted lenders' engagement with their customers and said, "I think that we've raised that level of awareness and I think that's really important." Similarly, another interviewee reflected on the project capability training of the Mobile Mortgage Managers, saying,

> *I think it was also really valuable for ANZ in terms of our bankers, and the ability for them to learn as we went through the pilot. And I still am thinking about how we expand that learning and make it part of what we do every day.*

This type of knowledge might be relevant to the competencies of relationship managers in the bank and support ESG competencies, she said.

The project's experience of participant recruitment prompted reflections on how the bank might best to engage customers along the build journey. Interviewees suggested the bank could provide customers with multiple ways to engage with information about designing homes for comfort and efficiency through marketing channels, videos, webinars so they can access new information in different ways and at a time that works for them.

### *6.3.3 The bank in the broader housing ecosystem*

These interviews provide a banking perspective on what this project set out to do and the thinking it prompted for our banking partner. This helped us understand what banks might do to support building more comfortable and efficient homes in Aotearoa New Zealand. The idea of a 'housing ecosystem' emerged from the retrospective and firmed up in these interviews.

Each of the interviews involved discussion on individual bank customers and their (in)ability to drive change and the need for a supportive 'ecosystem'. This project focussed on one part of a broader 'housing ecosystem' in which an array of different actors (e.g. businesses, government, households) perform a range of functions in relation to homes including: design, build, renovate, purchase, rent, sell, fund, insure, regulate, research, advise and live in them. However, people borrowing to build homes were at the centre of this research trial, and one interviewee recalled findings from the discovery stage of this project, where ANZ conducted empathy interviews with a small sample of customers to support the co-creation process, see 3.2.1**Error! Reference source not found.**. She said:

> *I think we clearly found that our customers felt they had the least ability to lead change, the lowest levels of knowledge already. We were probably expecting more of them than many of them were able to give.*

She remembered that the project team had discussed that we were working on a systemic issue, but we had all recognised that our scope was to target the decision-making of one group, individual customers, through advice provision. In terms of talking to bank customers about building more comfortable and efficient homes, she said that ideally there would be a systems approach so it wouldn't just be your bank talking to you about building for comfort and efficiency, but also your builder, draughtsperson and architect etc.

Thinking beyond the individual home loan customer, all interviewees noted that the bank's customers would include many members of the value chain , e.g. homeowners, group home builders, electricians, investors, developers, financiers. The bank takes a relationship management approach with its larger customers that is "in-depth and sophisticated" with more time to discuss and unpack issues. These offer alternative ways for the bank to engage with the home performance issues raised in this project.

The concept of the housing ecosystem carried into the interviews when more strategic perspectives on the bank and housing were discussed. As part of this, everyone acknowledged the enormous significance of the bank becoming a climate reporting entity. All interviewees agreed that regulation was a major driver for the bank, and one said regulation is the fastest driver of change in their industry.

One interviewee explained how reporting on emissions is helping the quantification necessary for the bank to support a movement towards lending for sustainable buildings. It is complex, she said, "as the bank is working with future costs and must also consider the impact of not making the change." That thinking is underway as part of measuring financial emissions and in time the bank will have a better understanding. Quantification is important internally too; she went on to explain: all stakeholders need to be aware of what the change means financially and quantifying for individual customers as well.

Discussion in the retrospectives raised the importance of existing homes to the bank: several of the team suggesting this was a bigger opportunity than this project's focus on new homes. Existing homes came up again in these interviews, particularly the importance of the bank supporting retrofit of the existing housing stock to reduce risks from climate impacts. One interviewee felt if the bank was funding these types of solutions, they'd be de-risking their portfolio, i.e. have less exposure to hazards homes may face in the future.

Another interviewee talked about de-risking the bank's investment in new homes as part of the benefits coming from bank customers building more sustainable homes. She also included lower running costs and good long-term customer relationships.

The bank has working relationships with other sectors who have a shared stake in housing finance and risk. The importance of the bank's residential portfolio to maintaining revenue for the bank and the significance of climate risk was noted by one interviewee. She identified the connection between the banking and insurance sectors as a driver for bank action in the housing sector. She noted this is an issue facing all banks and insurance companies and provides a good example where industry peers are starting to collaborate to explore decisions that would set everyone up for success. She could see value of the bank tying housing and insurance together, so they'd be addressing both simultaneously. She referenced the Reserve Bank of New Zealand – Te Pūtea Matua (RBNZ) identifying insurance retreat as a key risk to the market stability and therefore the economy (Reserve Bank of New Zealand – Te Pūtea Matua , 2024).

All interviewees said the bank has a huge advocacy role within industry, with their market peers and at policy setting level. The bank has a unique and influential role across housing (and other issues), said one interviewee, and with its "size and influence could act." She explained

the bank already works closely with other industry bodies but felt there was potential to get "more pointed" and the bank could act as a convenor to bring people together around housing, saying,

> *The built environment is the key place that we create revenue, and it's a key strategic focus. So we absolutely could do more.*

When considering the housing ecosystem, one interviewee said,

> *The bank could absolutely play a proactive role in facilitating that ecosystem.*

Another interviewee identified that transformative partnerships and ecosystems are a key driver for the bigger change needed for more sustainable homes. She felt that these approaches would bring the bank together with others who support the momentum, and each partner can benefit from being part of the model she said. She said she thought this project was a good example of an ecosystem approach where the bank could explore issues in collaboration with external partners.

The bank has heard from its stakeholders and customers that as a big business and employer in Aotearoa they are expected to be 'walking the talk'. This social licence to operate is a key external driver for the bank to engage in sustainable housing confirmed one interviewee. She said:

> *We know there is an expectation of our customers to take part of this wider system within our communities when it comes to sustainability.*

Another interviewee noted the value of customers feeling supported when building homes and seeing that the bank was engaged and said:

> *That they [customers], from a reputational point of view, know that we have a part to play in this to support them and this is how we are doing it.*

Reputation is a driver for the bank to actively engage in sustainable housing, confirmed another:

> *Absolutely, we are expected to play that role in New Zealand's economy, I think. It's not just about profit, we need to be about people and planet as well*

The importance of the ecosystem to provide the bank with external support emerged from the interviews. Standardised frameworks at a national scale are valuable for the bank said one interviewee as "the bank is not here to be an expert (on housing)." Rather the bank needs to be able to "point to some sort of external verification framework" that a home meets a standard. Another highlighted New Zealand's lack of Energy Performance Certificates (EPCs)

and reflected on the low awareness (amongst banks and customers) of how housing issues are playing out in different markets around the world. The relationship between the bank and the New Zealand Green Building Council (NZGBC) was recognised in the interviews in terms of the role NZGBC plays in advocating for sustainable housing and the bank's reliance on NZGBC's Homestar for their Healthy Home Loan package.

Relying on external parties to provide home performance advice came up in the discussions. When considering where the bank's home loan customers could access building advice, one interviewee felt having a national network of advisors able to offer personalised building advice would help. She flagged the importance of any network having national reach, meeting certain standards of competency and being certified.

# 7 Discussion

**At a glance**

- Trial participants felt ill-equipped for their building journey and recognised they didn't necessarily even know what questions to ask. The personalised advice participants received filled a gap in their understanding they had been unable to address through other sources.
- Participants saw the bank as a neutral third-party in relation to their building project and thought the bank connecting them to new-build performance advice made the build lower risk for both parties. There may be an opportunity for banks, and potentially other institutions, to refer their customers to an independent advisor in certain circumstances. However, the pool of specialist new-build performance advisors in Aotearoa is currently limited.
- The bank valued understanding the potential to improve the performance of their customer's new builds – without necessarily significantly increasing cost – through early considered design and informed trade-offs. Bridging the gap between the status quo and what is possible presents opportunities for banks to take up.
- Integrating home performance into the bank's engagement with customers about their building project from the outset is a novel concept that emerged from this project. Conceptually, this goes further than providing information or offering a particular product, it provides a framework for the bank to engage and provide support to customers throughout the whole building process, recognising the benefits to both parties of early engagement.
- Customers who are well supported in their building-lending journey, whatever the starting point, may be more likely to take up existing banking products that require third-party verification, i.e. a Homestar rating. Additionally (or alternatively) there may be opportunities in the new-build lending market for products (or other approaches) that reward customers for making decisions that improve aspects of home performance but do not meet the threshold for third-party verification.
- Individual households are poorly positioned to drive change across the housing ecosystem, but this research shows that when they engage with a bank they are working with an institution with considerable resources, motivation, reach and influence to drive change at scale: both at the individual household level and in relation to others within the ecosystem. This is a potentially powerful partnership.

## 7.1 External factors were significant to the project

The operating environment within which the project took place has had a significant impact on it in a number of ways. This includes providing the right context for the bank to engage in

collaborative, exploratory research and the way in which the research findings may be interpreted and applied. Climate disclosure obligations and ESG objectives create strong incentives for banks to consider ways to address climate-related risks and explore inherent opportunities. Exploring ways to build on their experience with existing sustainability-focussed banking products was another motivator for the bank to collaborate with Beacon in the project. ANZ customers expect a tailored approach to the products and services they source from the bank and personalised home performance advice fits well into this model. Meeting customer expectations and broader public expectations about the way banks operate (i.e. maintaining their social licence to operate), combined with a desire to retain and attract new customers also set the scene for the partnership.

Changes to economic conditions over the course of the project also had a significant impact on the project. When this project was envisaged in October 2022, Aotearoa was experiencing a period of historic growth in the residential property market including in residential construction. Statistics New Zealand reported a record number of residential building consents – 51,015 homes – for the year ending May 2022 (Statistics New Zealand - Tatauranga Aotearoa, 2024). Figure 8 plots the trend in new-dwellings consented in the last decade: the 2022 peak is clear.

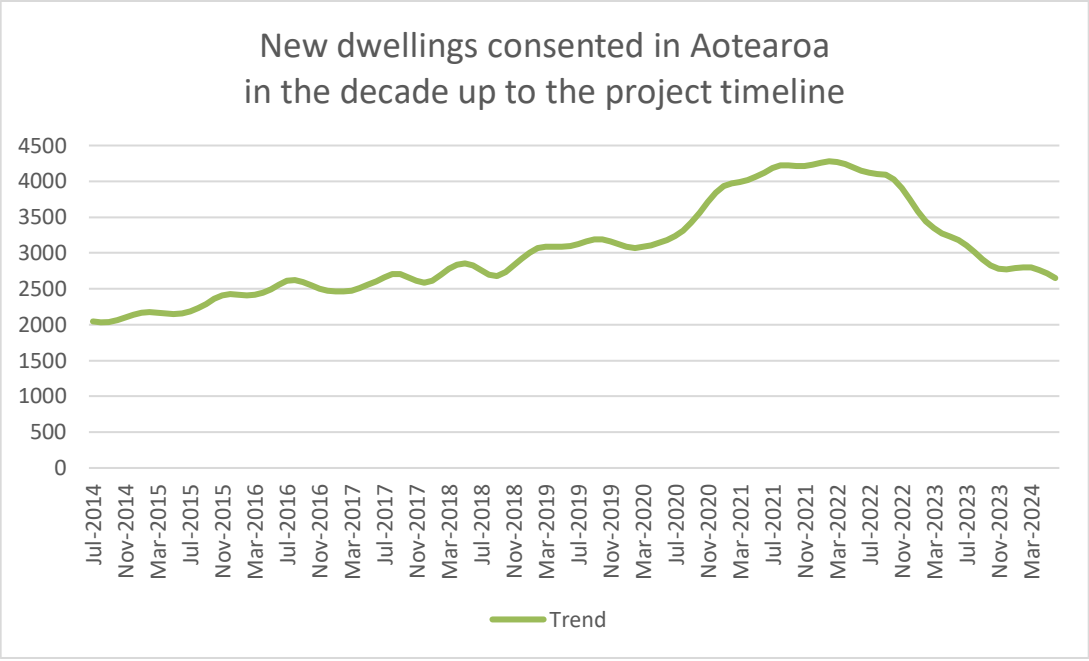


***Figure 8 Trend in new dwellings consented in Aotearoa each month for the decade July 2014 - June 2024. Source: Statistics New Zealand – Tatauranga Aotearoa.***

Figure 9 shows new home consent figures for the year ending June 2024, which covers the project's recruitment period. The drop off after the trial launched – to the right of the vertical line – is clear. The graph plots figures for the projects two recruitment regions – Waikato and Bay of Plenty – separately from the remainder of the national figures. It was reported that the Reserve Bank of New Zealand figures for new mortgages in June 2024 was the smallest total for a June month since RBNZ started issuing currently monthly mortgage data in 2015.

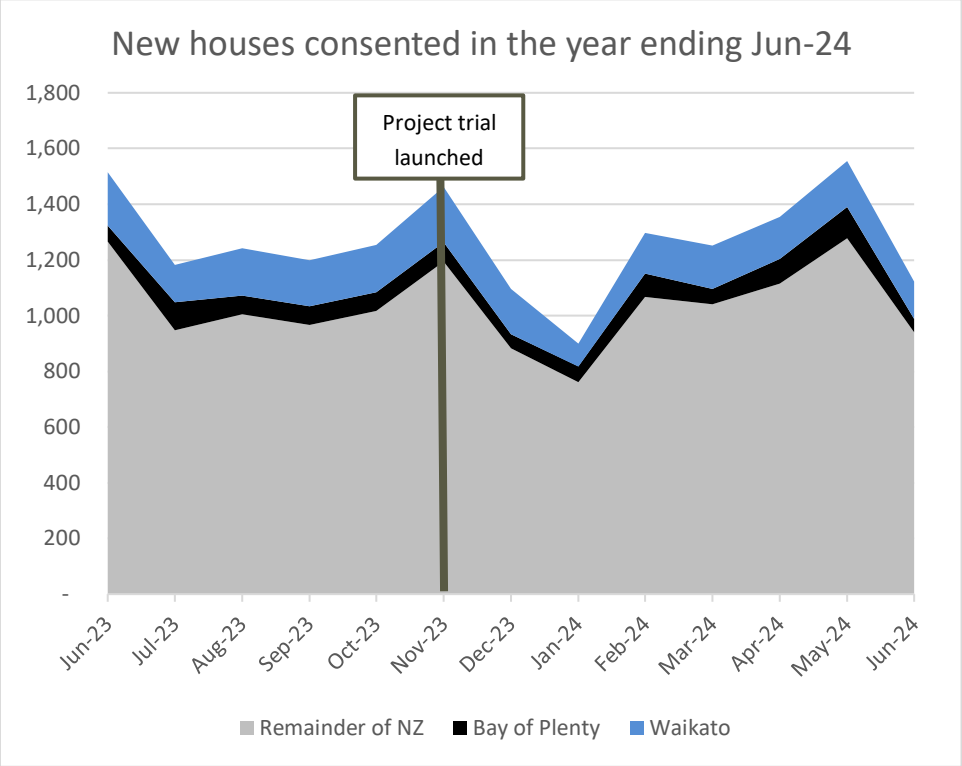


***Figure 9 Monthly building consents issued for houses for the year ended June 2024 – distinguishing the project's two recruitment regions from the overall national picture. Source: [Statistics New Zealand - Tatauranga Aotearoa](#).***

Insights from the partners' project reflection confirmed that the value of personalised advice to their customer base was clear and the change in market conditions was the biggest factor in the low recruitment numbers. Given historic trends leading up to the intervention development the assumption of a pipeline of customers to recruit to the trial appeared robust. The project partners had not anticipated the sharp drop-off in activity that coincided with the launch of the trial.

## 7.2 Insights from trial participants

The final number of households recruited to the trial was four (compared with a target of 20-25). This outcome was disappointing to the project partners because we were unable to fully evaluate the trial. While it is not possible to draw generalisable conclusions from the participants' responses in the trial, several useful insights emerged that warrant further exploration: by ANZ or other banks and in future research.

### *7.2.1 Participants felt ill-equipped for the building process and struggled to access the advice they needed*

Participant's responses underscored that building a new home is a difficult and complex process. This confirms earlier research, insights from ANZ's empathy interviews and what commonsense suggests. A new insight from this research is that at the start of the building process people felt ill-equipped for their building journey. Prior to the intervention, participants had sought information and advice about their new-build from a range of sources, which were useful to varying degrees. This is consistent with findings in ANZ's empathy interviews that people who wanted to build sustainably often had to do their own research, sometimes going as far as showing their tradespeople YouTube videos that told them how to install products that went beyond business as usual, see 3.2.1. Generally, there was a lack of accessible information that made it hard for participants to make informed choices and their comments reflected a sense of feeling uninformed and uninitiated to the building process. This finding is consistent with other research and the gap that BRANZ acted to address in 2006 with the initiation of the Eco Design Advisor service. While the operating environment has changed considerably since then, including with the development of a voluntary market rating tool and incremental improvements to the Building Code, there appears to still be a gap for people building a home to access tailored advice from a trusted source that enables their decision-making.

All the participants mentioned that they felt it was hard to know what information they would need at the outset of the project and recognised they did not necessarily even know the questions to ask. This sense of 'not knowing' related to decisions about products and technical aspects, as well as the building process and navigating relationships within the building team. This reflects Beacon's experience working alongside the home performance advice sector and as a shareholder of HPA Ltd. So often, householders' level of awareness of what might be possible to improve their home and how to achieve it is low. The process of working with the bank and highlighting the opportunities to improve a home at little cost through early considered design was hugely valuable.

### 7.2.2 Advice well-received

All the participants enjoyed their experience with the advisor and felt like they walked away with a better understanding of how to build a new home. The participants also had good recall of the advice they received and said they would make some changes as a result, the most common being to increase insulation *R*-values. All of the participants saw cost as a barrier to improving comfort and efficiency and for three of the four households this was a constraint.

The advisors' focussed on providing advice that was grounded in 'first principles', so that participants could then apply it in a range of contexts, and advice that would enable them to make informed trade-off decisions specific to their project. One participant was so positive about the advice she received, and it held so much value that she said she would build a smaller home in order to adopt the advisor's suggestions. Households value personalised advice – this is seen time and again in research from Aotearoa, see 2.3.2 – but it is hard to access. There are currently only a handful of suitably-qualified practitioners in Aotearoa who can provide personalised advice in new-builds. The number who are positioned to do so independently from offering another good or service is even smaller. Future work by Beacon will investigate the scale of the home performance advice sector in Aotearoa across new and existing homes.

### 7.2.3 Advisors as navigators

The responses of one participant in particular highlights another function a new-build performance advisor can potentially fulfil, which is that of a 'navigator'. All the participants expected the process of building to be fraught and full of challenges, but one was particularly concerned to understand the building process itself, the roles of different parties, their inter-relationships and managing them to get a good outcome. Her sessions with the advisor gave her a sense of having someone there to support her and instilled confidence that she would achieve her objectives from the build. The intervention was designed to support this – participants were offered written material about the build process and roles of their team and had the option to invite their team to one of the sessions, although none took up the offer. This concept of a 'navigator' is not new. Under Te Whatu Ora's Healthy Homes Initiative community navigators[14] work with households and whānau with low incomes and high health needs to navigate access to services that will help create a warmer, drier, healthier home (e.g. installing insulation, ventilation). They also provide aspects of home performance advice to enable households to act, including behavioural changes (e.g. only drying clothes outdoors) that will lead to a healthier home. Identifying and testing ways to help customers navigate their building more easily, including by providing a connection to an advisor, warrant further exploration by the project partners.

[14] Community navigators like these, sit within the 'energy well-being' cluster of advice practitioners discussed in Chapter 2.

### 7.2.4 *Bank seen as a neutral third-party*

The participants had clear views about accessing home performance advice via the bank. All the participants felt that advice should be provided by an independent third party and they saw the bank being in a neutral position. They valued that the bank did not have an interest in selling them anything related to the build and several of the participants noted that they thought the bank enabling their customers to access home performance advice made the build lower risk for both parties. Some participants noted that they didn't know that services such as council-based Eco Design Advisors existed. They felt that someone would need to tell them about it and a bank could do this. Through surveys, past EDA customers offered feedback that the best way to improve the service would be to promote it more widely. There may be a useful synergy between banks (and potentially other stakeholders) who could act as intermediaries between their customers and a suitably-qualified advisor. There is a precedent for this in the electricity sector where electricity retailers refer customers who are experiencing energy hardship and struggling to pay their power bills to an advisor via Community Energy Network members. These referrals are to households in existing homes with low incomes. A similar model could be applied to customers in new-builds, and equally, across the wider existing housing stock.

## 7.3 Encouraging and enabling good bank customer decision-making

One of Beacon's key messages throughout the project – to potential participants and in our engagement with the bank's staff – has been that there are two types of decisions people can make that will result in a better performing home. One is design decisions (e.g. building orientation, window size and placement, building geometry) that if made early enough are likely to have little if any impact on build cost but will have a significant impact on performance and operational costs. The other is trade-off decisions; these might include trading-off one element of the build (e.g. house size, quality of kitchen) for another (e.g. higher insulation *R*-values, better window performance) to achieve better performance and / or trading off the amount of upfront debt against the longer-term benefits (e.g. lower energy / water bills, improved health and comfort) over the lifetime of the house / loan.

A financial trade-off decision of this kind is relevant to both a borrower and their lender – for instance, a customer may seek a larger loan but anticipate lower operational costs – and there are potentially benefits for both parties if each of them understand the 'value' of better performance. In this context, 'value' includes monetary value (cost and benefits) and the less-calculable but equally real value of increased comfort and well-being for current and future occupants of the home.

When making lending decisions, the bank balances a number of considerations including the estimated market value of the completed home, customers' deposit and ability to repay the

lending. Currently benefits from improving home performance are not factored into the decision. Instead, ANZ's Healthy Home Loan ties the benefit of a higher-performing new-build to a lower interest rate using the voluntary rating tool, Homestar, as external verification of the anticipated benefits. Internationally, green mortgages reflect the value to the bank from a loan that is lower risk in terms of default and climate reporting, as well as the benefits from customer retention, market share and ESG objectives, see 2.2.1. ANZ and several other banks also finance sustainability outcomes in existing homes through their top-up mortgage products, see 2.2.2. Under the top-up mortgage model, there are criteria around the types of products people can purchase with the loan, but no external verification or certification of the resulting performance is required.

Supporting customers on a home performance journey – as explored in this project – may be a step that enables the uptake of existing sustainability-focussed lending projects, such as ANZ's Healthy Home Loan. Or it may highlight opportunities in the new-build lending market for products (or other approaches) that reward customers who adopt one or more components of a better-performing home but are unable, or insufficiently motivated, to attain Homestar certification.

### *7.3.1 Quantifying benefits and market valuations*

Bank staff were clear that a price premium is one of the best things they can offer a customer to help them build a more comfortable and efficient home. In saying this, they noted that there were challenges around this. Quantifying the benefits to the bank and the customer of investing more in a home upfront is challenging in terms of data, communications and customers' resources. Bank staff noted that when customers engage with the bank about a new-build mortgage it is in relation to the financial aspects of the loan so they are very price sensitive and not every customer can pay more upfront. Future costs and benefits can become 'fuzzy' in light of the immediate cost and often people just want a 'good enough' home. Quantifying the benefits of investing in discrete elements of a better performing new home (e.g. higher insulation *R*-values, higher-performing windows) in isolation is not straight-forward. Currently, Homestar is the only established means by which the market can verify and reward better performing homes

At present the valuation of a home does not reflect elements of performance that exceed building code minimums and banks do not include these features in lending criteria because they assume they are accounted for in valuations (Reid, Groom, & Green, 2019). The same research highlighted that, in Aotearoa, there are issues of size and scale in the home loan market for banks to develop specific green mortgage products. We note that the market in Aotearoa has matured markedly since that report was written. For instance, the number of banks offering sustainability-focussed mortgage products has grown from two to five, see 2.2.2. Other notable developments include new resources to support the development of

sustainable finance such as the New Zealand Green Building Councils recently published *Guidance on a green building ratings for sustainable finance* (2024) and work being undertaken by the Ministry for the Environment and Toitū Tahua – the Centre for Sustainable Finance – to develop a taxonomy for sustainable finance (Ministry for the Environmment — Manatū Mō Te Taiao, 2025). Such developments indicate that the finance sector is gearing for further growth in sustainability-focussed finance products in Aotearoa, which may enable new opportunities to build on the insights from this project.

### *7.3.2 Timing is key: engagement challenges and opportunities*

Another insight from the project is that it is challenging for the bank to engage with customers about home performance during the window of time they can make lowest-cost design decisions to improve performance and / or when they are open to receiving advice. For some of the customers the MMMs spoke with, the offer to take part in the research and receive advice was too late in their building journey. They already had consented plans and any changes would have added cost and caused delays. Other customers did not yet have land and were not convinced that the advice they would receive by participating in the research would be specific-enough or valuable to them at that point in their project.

The question of when and how to engage with customers about home performance was a key consideration in the intervention development workshops (see 4.1) because the project team recognised that timing might be a challenge. Ideas from the workshops included:

- Creating a visual building-lending journey map that overlaid home performance with other aspects of the building project and offered multiple ways (e.g. online, through bank staff, links to other parties) and points for customers to engage with it.
- Developing webinars communicating key project messages to engage people before they were thinking about building.
- Developing resources that enabled customers to engage with the information in multiple ways and at multiple times.

These ideas were taken forward to varying degrees through the trial. For instance, the visual building-lending journey map was developed and included in the project resource *Designing Your Home for Comfort and Efficiency*. In the context of the intervention development workshops, where blue sky thinking was encouraged, an interactive map that laid out the whole building-lending journey and connected customers to a range of resources and people at different stages in the process had been imagined. However, the project team agreed to develop a 'minimal viable product' version of the map for the trial.

During the partners' reflection on the project, the bank indicated that there may be other ways to engage with their customers about comfort and efficiency earlier in the process or at other points when they would be open to change. These included: using indicators of when customers might be saving to build or buy a home, using internal customer journey maps to trial other ways to engage, and potentially following up later on advice a customer had received earlier. These responses indicate there may be many ways that a bank can engage its customers around their new-build at times that allow them to optimise decisions around performance.

### *7.3.3 Synergies between borrowing, building and home performance*

A bank brings a financial risk lens to a building project but beyond certain product offerings does not contemplate home performance. This project has highlighted synergies between different aspects of a building project – finance, construction and home performance – that warrant further exploration. For instance:

- The relationship between banks and their home-loan customers is significant and banks are well positioned to support customers on their new-build journey.
- Bank customers expect a personalised approach.
- Participants felt ill-informed and ill-equipped to navigate their building project.
- There is value to both parties of thinking about performance early.

For customers, making the synergies more explicit could provide:

- An understanding of the building process from the outset and how finance, building and performance inter-relate, therefore lowering risk and uncertainty.
- An understanding that considered design decisions made early in their build journey can result in a home that optimises comfort and efficiency ('home performance') without requiring major budget implications.
- An opportunity to make informed trade-off decisions to achieve long-term benefits.

Several retail banks in Aotearoa, including ANZ, offer guides to building or renovating to support customers undertaking a building project. The novel concept that has emerged from this project is to integrate home performance into the bank's engagement with customers about building projects. Conceptually, this goes further than providing information or offering a particular product, it provides a framework for the bank to engage and provide support to customers throughout the whole process, recognising the benefits of early engagement. This could be in the form of:

- identifying customers who may be contemplating building in the future and engaging with them early about performance to optimise design

- creating an interactive building-lending journey map that sets out the roles of different parties, optimal timing for different decisions and links customers to other resources and services
- upskilling bank staff to have more informed conversations with customers about the benefits of considering performance early in their planning
- considering the benefits of improved home performance (that does not reach the threshold for external verification) in the bank's assessment of a loan application.

While this project was particularly focussed on new-builds, the potential to apply this approach to existing home lending is even greater. A high percentage of mortgage lending is on existing homes and existing homes present the largest opportunity to improve comfort and efficiency. There are also more low interest loan products targeted at improving existing homes and this framework approach would dove-tail with these.

Many people building a new home assume it will be comfortable and efficient to operate, however research shows this isn't necessarily the case. Because of their long-term relationship with customers, customer-centred approach, scale and reach, a bank is in a powerful position to support their customers along a journey to recognising the opportunity and the benefits of achieving a more comfortable and efficient home. This could involve, among other things, referring their customers on to an independent new-build performance advisor and it may lead them to an external rating system, such as Homestar, or to an existing mortgage product.

## 7.4 Banks in the housing ecosystem

### *7.4.1 Individual bank customers connected with a powerful system actor*

This project was initiated by Beacon in response to BRANZ's call for proposals in the 2022 Building Research Levy Prospectus, which was specifically focussed on consumer behaviour change in relation to residential new-builds. From the outset, the project partners recognised that individual households have limited capacity to drive change within a complex system. Therefore, personalised support is often needed, and this research explored ways to provide it.

Individual households may have little capacity to drive change across the housing ecosystem, but this research has shown that when they engage with a bank they are working with an institution with considerable resources, motivation, reach and influence to drive change at scale: both at the individual household level and in relation to others within the ecosystem. The project retrospective and interviews with bank staff highlighted some of the ways the bank might be positioned to drive ecosystem change.

- Throughout the project the bank's relationship with other types of customers, such as volume home builders, developers and tradespeople, was discussed as another mechanism the bank might have to create change. Staff noted that ANZ has strategic

goals to support businesses to become more sustainable and may have scope to influence along the building value chain through relationship management, products and services and by connecting them with other customers already demonstrating sustainable practices.

- The bank can take a leadership or advocacy role within industry, with their market peers and at a policy setting level. One area where particular synergies were noted is in the insurance sector. The banking and insurance sectors have a common interest in a low carbon housing sector resilient to climate risks.
- Banks are highly regulated, and regulation is the fastest driver of change to their behaviour. Work the bank has done to adapt to the climate-related financial disclosures legislation is a recent example of this.
- Banks also need to maintain their social licence to operate and the high-trust relationship they have with customers. Leading by example and 'walking the talk' is another way banks can influence system-level change.

### *7.4.2 An enabling environment for banks and their customers*

While there is much that an institution like a bank can do to enable system change, the bank itself values an enabling operating environment. As discussed previously, Aotearoa does not have a mandatory rating scheme, like an Energy Performance Certificate, and real estate valuations do not yet account for performance measures. This disables change in the housing and finance space due to the lack of transparency for purchasers, borrowers and lenders about a home's performance or consequent benefits. An environment where the true value of a home's performance is understood by all parties, and can be verified, would help incentivise change across the system and support the uptake of sustainability-focussed finance products.

An important insight from this project is that there is significant value to the bank – in terms of customer care and de-risking their loan portfolio – of their customer's having access to an independent new-build performance advisor. There could be considerable benefit to the bank if it had access to a network of qualified advisors who could help their customers navigate financial trade-offs related to better home performance (e.g. borrowing more upfront to reduce lifetime operational costs). This could be in the form of making recommendations that the bank might accept or support customers towards existing products and rating tools.

At present, the home performance advice sector is still emergent and not well-understood. A range of experienced advisors currently operate in different capacities and using different approaches in both new and existing homes, see 2.3.2**Error! Reference source not found.**. For advice in new homes there are currently Eco Design Advisors in six councils nationwide as well as a small pool of independent consultants. While some of these consultants (e.g. architects, Homestar assessors) will provide advice in their professional capacities, this is likely to be secondary to the provision of impartial advice or acting as a building 'navigator'. The Home

Performance Advisor training programme provides training for advisors working in existing homes but does not yet extend to 'new-build' advisors. While there is training for assessors / advisors in relation to particular methodologies (such as Homestar or Passive House) there is not currently an agreed industry standard setting out the skills and competencies for a new-build performance 'advisor'. The BRANZ-affiliated Eco Design Advisor service is the closest example of this kind of service.

This project has identified that there may be an opportunity for banks, and potentially other institutions, to refer their customers to an independent new-build performance advisor in certain circumstances. However, it is unlikely such an opportunity could be realised until the advice sector is more mature: specifically that there are more advisors covering a broader geographic area, they operate with a sustainable funding / business model, there are agreed training and accreditation levels and a professional body.

# 8 Conclusion

The timing of the research was challenging in the sense that it coincided with a sharp economic downturn, which resulted in a much smaller pool of participants in the trial than anticipated (4 households compared with the expected 20-25). This was disappointing because we were unable to fully evaluate the trial. In another sense, the project's timing was opportune. Myriad factors, such as new climate-related disclosures obligations and ESG objectives, meant ANZ was open to embarking on an exploratory research journey with us. The insights gained through the co-creation and trial offer value for banks, home loan customers, advice practitioners and others in the wider housing ecosystem.

## 8.1 Supporting customers with personalised advice

Banks have strong incentives to support their customers building more comfortable and efficient homes. One way of doing this is through providing financial incentives. ANZ has an existing sustainability-focussed mortgage product for new builds, its Healthy Home Loan. Customers who achieve Homestar 6 or better are eligible for a discounted interest rate. Third-party verification of performance provides a bank with assurance of the added benefits from a home that meets the standard and signals the home's performance credentials to the market. In this project we explored the potential of personalised advice as another mechanism to support customers to build more comfortable and efficient homes.

Beacon's experience over many years is that households often need to be taken on a 'journey' from low awareness and/or existing expectations about what a comfortable and efficient home is to what it might be and how to achieve it. Personalised advice is one way to support people on that journey, enabling them to make decisions and informed trade-offs that suit them, and result in a better performing home. This research has highlighted that:

- Trial participants thought the bank was well-positioned to connect them to an independent new-build advisor. They viewed the bank as a neutral third-party in relation to their building project and thought the bank connecting them to new-build performance advice made the build lower risk for both parties.
- There are benefits to a bank (and potentially other institutions) of being able to refer their customers on to an independent, new-build performance advisor. However this is likely to require a mature advice sector with sufficient scale, geographical coverage and appropriate training and accreditation.

There are benefits for banks and their customers of an approach where customers adopt components of a better performing home but don't necessarily attain a particular standard (e.g. Homestar 6). We note, however, that without third-party verification of performance the benefits of the approach are harder to quantify. This may be an impediment to a bank

adopting a less formalised approach. We hope that the insights from this research – especially work making the synergies between building, lending and performance explicit to all parties –- will encourage innovation in this space. We further note, that while achieving a particular standard (e.g. Homestar 6) for a new home is not the primary purpose of providing personalised advice it may be an outcome. An approach that supports customers where they are on their home performance journey may lead to greater uptake of existing sustainability-focussed lending products.

## 8.2 Synergies between building, lending and home performance made explicit

Making the synergies between building, lending and performance explicit for all parties has highlighted the potential benefits to a bank of integrating performance into its engagement with customers about a construction loan. Conceptually, this goes further than providing information or offering a particular product (although it may include these things), it provides a framework for a bank to engage and provide support to customers throughout the whole process, recognising the benefits of earlier engagement. These insights provide scope for a bank to think differently about how performance is included in its engagement with customers and its assessment of risk associated with a loan. Possibilities could include:

- identifying customers who may be contemplating building in the future and engaging with them early about performance to optimise design
- creating an interactive building-lending journey map that sets out the roles of different parties, optimal timing for different decisions and links customers to other resources and services
- upskilling bank staff to have more informed conversations with customers about the benefits of considering performance early in their planning
- considering the benefits of improved home performance (that does not reach the threshold for external verification) in the bank's assessment of a loan application.

## 8.3 Potential in existing homes

The scope of this research was bank customers borrowing to build a new home. The focus on new-builds was defined by the 2022 Building Research Levy Prospectus. The project partners, including our funder BRANZ, recognise the potential to create benefits at a larger scale by applying the insights from this project in the existing home market as well. In particular by:

- Integrating performance into a bank's engagement with its customers related to buying or renovating existing homes

- Referring customers to independent personalised advice subject to its availability. This may be particularly useful for banks offering low-interest top-up mortgages in existing homes and customers who are interested in these products

## 8.4 Banks in the housing ecosystem

The funding for this project also drove the focus on household-level change. While there is value in supporting households to improve home performance, they have little capacity to drive change across the housing ecosystem. It is worth noting, however, that when they engage with a bank they are working with an institution with considerable resources, motivation, reach and influence to drive change at scale. A bank can provide leadership and bring parties together to identify solutions to shared challenges.

While there is much that an institution like a bank can do to enable system change, the bank itself values an enabling operating environment. Aotearoa does not have a mandatory rating scheme, like an Energy Performance Certificate, and real estate valuations do not yet account for performance measures. This disables change in the housing and finance space due to the lack of transparency for purchasers, borrowers and lenders about a home's performance or consequent benefits. An environment where the true value of a home's performance is understood by all parties, and can be verified, would help incentivise change across the system and support the uptake of sustainability-focussed finance products.

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# 9 References


Abrahamse, W., Steg, L., Vlek , C., & Rothengatter, T. (2007). The effect of tailored information, goal setting, and tailored feedback on household energy use, energy-related behaviours, and behavioual antecedents. *Journal of Environment Pshchology, 27*(4), 265-276.

Ade, R., & Rehm, M. (2020). Summertime comparative evaluation of indoor temperature and comfort in Auckland New Zealand: a survey of green certified, code and older homes. *Building Research and Information* , 336-251.

A-HQE GVC; BRE; GBCA; SGBC; USGBC. (2024). *Financing Transformation: A Guide to Green Buildings for Green Bonds and Green Loans.*

Alberini, A., & Towe, C. (2015). Information v. Energy Efficiency Incentives: Evidence from Residential Electricity Consumption in Maryland. *Energy Economics, 52*, S30-S40. Retrieved from https://doi.org/10.1016/j.eneco.2015.08.013

ANZ New Zealand Ltd. (2024, November 4). *ANZ Healthy Home Loan package*. Retrieved from ANZ: https://www.anz.co.nz/personal/home-loans-mortgages/loan-types/healthy-homes/

ANZ New Zealand Ltd. (2024). *Environmental, Social and Governance (ESG) Supplement.* Auckland: ANZ Ltd.

ANZ New Zealand Ltd. (n.d.). *About Us*. Retrieved from ANZ New Zealand: https://www.anz.co.nz/about-us/our-company/anz-new-zealand/

Beacon Pathway. (2020). *The Waitākere NOW Home: A case study in home performance.* Auckland: Beacon Pathway. Retrieved from Beacon Pathway: https://beaconpathway.co.nz/new-homes/the-waitakere-now-home/

Bealing, M. (2020). *Building Beyond Minimum Requirements: a literature review.* Porirua: BRANZ.

BRANZ Ltd. (2022). *Building Research Levy Prospectus.* Judgeford: BRANZ.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 77-101. doi:https://doi.org/10.1191/1478088706qp063oa

Cassell, C., & Symon, G. (2004). *An Essential Guide to Qualitative Methods in Organizational Research.* Sage Publications Ltd. doi:10.4135/9781446280119

Chandrakumar, C., McLaren, S. J., Dowdell, D., & Jaques, R. (2020). A science-based approach to setting climate targets for buildings: The case of a New Zealand detached house. *Building and Environment*, 106560.

Christie, L., & Stoecklein, A. (2005). *Sustainable Design Decisions: Processes, influences, values of the homebuilder.* Wellington: Architectural Science Association.

Darby, S. (2003). Making sense of energy advice. *ECEEE Summer Study proceedings - Time to turn down energy demand*, (pp. 1217-1226).

Easton, L., & Collins, N. (2007). Beacon's high standard for sustainability - implications for the sustainable development of the residential built environment. *Paper presented at the New Zealand Society for Sustainability Engineering and Science.* Auckland.

Easton, L., & Howell, M. (2008). A high standard of sustainability for New Zealand homes. *SB08 World Sustainable Building Conference.* Melbourne, Australia.

Energy Efficiency Mortgages Initiative. (2018). *Definition of an energy efficient mortgage.* Energy Efficient Mortgages Initiative.

Financial Markets Authority Te Mana Tāta Hokohoko. (2024). *Climate Reporting Entities (CREs)*. Retrieved from https://www.fma.govt.nz/business/services/climate-reporting-entities/

Frith, H., & Gleeson, K. (2024). Clothing and embodiment: men managing body image and appearance. *Psychology of Men & Masculinity, 5*(1), 40-48.

Geddes, A., Schmidt, T., & Steffen, B. (2018). The multiple roles of state investment banks in low-carbon energy finance: An analysis of Australia, the UK and Germany. *Energy policy*, 158-170.

Gehricke, S., Walton, S., & Zhang, R. (2024). *Effectiveness evaluation of the Aotearoa New Zealand climate-related disclosure framework. Interim report - evaluation methodology design and baseline assessment.* Dunedin: University of Otago.

Green Building Council of Australia & Australian Sustainable Finance Institute. (2023). *Sustainable Finance Guide. Unlocking the value: a practical guide to sustainable finance in the Australian real estate sector.* Barangaroo: Green Building Council of Australia.

International Valuation Standards Council. (2021). *Perspectives paper: ESG and real estate valuation.* International Valuation Standards Council.

James, B., Saville-Smith, N., Saville-Smith, K., & Isaacs, N. (2018). *Doing better in residential buildings: Going beyond the code in energy and accessibility performance.* Judgeford: BRANZ Ltd.

Jaques, R. (2015). *Measuring our sustainability progress: Benchmarking New Zealand's new detached residential housing stock.* Judgeford: BRANZ.

Jaques, R., & Bullen, L. (2023). *Housing stock strategies responding to New Zealand's 2050 carbon target.* Judgeford: BRANZ.

Jaques, R., & Sullivan, J. (2023). *Measuring our sustainability progress: New Zealand's new detached residential housing stock (second update).* Judgeford: BRANZ Ltd.

Ko, J., & Fenner, R. (2007). Adoption of energy efficiency innovations in new UK housing. *Proceedings of the Institution of Civil Engineers-Energy*, (pp. 160(4), 151-163).

KPMG; Massey University. (2023). *Financial Institutions Performance Survey: Banks - Review of 2023.* Wellington: KPMG; Massey University.

Lochmiller, C. R. (2023). Using Empathy Interviews and Qualitative Evidence to Improve Human Resource Development Practice and Theory. *Human Resource Development Review, 22(1)*, 84-103. doi:https://doi.org/10.1177/15344843221135672

MacGregor, C., Magan, C., & Brunsdon, N. (2019). *A consumer survey of attitudes to exceeding minimum standards for refurbishments and retrofits.* Judgeford: BRANZ.

Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation Science, 6*, 1-12. Retrieved from https://doi.org/10.1186/1748-5908-6-42

Ministry for the Environment — Manatū Mō Te Taiao. (2020). *National Climate Change Risk Assessment for Aotearoa New Zealand: Main report - Arotakenga Tūraru mō te Huringa Āhuarangi o.* Wellington: Ministry for the Environment.

Ministry for the Environment — Manatū Mō Te Taiao. (2022). *Te hau mārohi ki anamata. Towards a productive, sustainable and inclusive economy. Aotearoa New Zealand's first emissions reduction plan.* Wellington: Ministry for the Environment.

Ministry for the Environment — Manatū Mō Te Taiao. (2025, January). *Sustainable finance taxonomy for New Zealand*. Retrieved from https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/meeting-the-costs-of-our-climate-action/sustainable-finance-taxonomy-for-new-zealand/

Ministry for the Environmment — Manatū Mō Te Taiao. (2025, January). *Sustainable finance taxonomy for New Zealand*. Retrieved from Meeting the costs of our climate action: https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/meeting-the-costs-of-our-climate-action/sustainable-finance-taxonomy-for-new-zealand/

Ministry of Building Innovation and Employment. (2023). *Annual state of the building and construction sector surveys: Annual monitor 2022-2023.* Wellington: Ministry of Business Innovation and Employment. Retrieved from Ministry of Business Innovation and Employment: https://www.mbie.govt.nz/dmsdocument/28163-summary-report-state-of-the-building-and-construction-sector-annual-monitor-2022-2023

Ministry of Building Innovation and Employment. (2023, April 17). *H1 Energy Efficiency updates reach implementation milestone*. Retrieved from Building Performance: https://www.building.govt.nz/about-building-performance/all-news-and-updates/h1-energy-efficiency-updates-reach-implementation-milestone

Ministry of Business Innovation and Employment. (2023, December 21). *Climate Change Work Programme: Background*. Retrieved from Building Performance: https://www.building.govt.nz/getting-started/climate-change-work-programme/background

Ministry of Business Innovation and Employment. (2024, October 11). *Adaptation: building climate resilience*. Retrieved from Building Performance: https://www.building.govt.nz/getting-started/climate-change-work-programme/adaptation#jumpto-climate-resilient-buildings

Ministry of Business Innovation and Employment. (2024, April 22). *Financial Markets Conduct Act*. Retrieved from Ministry of Business Innovation and Employment:

https://www.mbie.govt.nz/business-and-employment/business/financial-markets-regulation/financial-markets-conduct-act

Minter Ellison Rudd Watts. (2023, April 19). *New Zealand leads with mandatory climated-related disclosures*. Retrieved from Minter Ellison Rudd Watts: https://www.minterellison.co.nz/insights/new-zealand-leads-with-mandatory-climate-related-d

Mohammadza, M. (2015). *Eco Design Advisor, Customer Survey Results, Years 2014-2015. .* Auckland: The Research and Evaluation Unit (RIMU) – Auckland Council.

New Zealand Banking Association Te Rangapū Pēke. (2024). *Retail banking insights: June 2024.* Retrieved from Banking Stats: https://www.nzba.org.nz/banking-information/banking-stats/retail-banking-insights-june-2024/

New Zealand Green Building Council. (2024, December 11). *Emissions Reduction Plan falls short on climate action from buildings.* Retrieved from NZGBC: https://nzgbc.org.nz/news-and-media/emissions-reduction-plan-falls-short-on-climate-action-from-buildings

New Zealand Green Building Council. (2024). *Guidance on green building ratings for sustainable finance: supporting a net zero carbon future.* Auckland: NZGBC.

Parag, Y., & Janda, K. B. (2014). More than filler: Middle actors and socio-technical change in the energy system from the "middle-out". *Energy Research & Social Science, 3*, 102-112. doi:10.1016/j.erss.2014.07.011

Reid, A., Groom, M., & Green, S. (2019). *Green mortgages: Financial incentives to design and build high-performance homes.* Judgeford: BRANZ.

Reserve Bank of New Zealand – Te Pūtea Matua . (2024, April 2024). *Publications.* Retrieved from Insurance availability and risk-based pricing: https://www.rbnz.govt.nz/hub/publications/financial-stability-report/2024/may-2024/fsr-may-24-special-topic-2

Reserve Bank of New Zealand – Te Pūtea Matua . (November 2024). Update on the housing market. In C. Lilly, *Financial Stability Report.* Wellington: Reserve Bank of New Zealand.

Reserve Bank of New Zealand – Te Pūtea Matua. (2022, May 18). *The banking sector*. Retrieved from Reserve Bank of New Zealand: https://www.rbnz.govt.nz/financial-stability/about-the-new-zealand-financial-system/the-banking-sector

Ryan, V., Penny, G., Cuming, J., & Riley, M. (2021). *Thermal Bridging in External Walls: Stage Two.* Judgeford: BRANZ.

Ryan, V., Penny, G., Cuming, J., Mayes, I., & Baker, G. (2020). *Measuring the Extent of Thermal Bridging in External Timber-Framed Walls in New Zealand.* Judgeford: BRANZ.

Saville-Smith, K., Fraser, R., Buckett, N., & Camilleri, M. (2010). *HomeSmart Renovations: Householder Actions and Responses to Dwelling Performance.* Auckland: Beacon Pathway.

Schütze, F. (2020). *Discussion papers - transition risks and opportunities in residential mortgages.* Berlin: Deutsches Institut für Wirtschaftsforschung.

Solà, M., de Ayala, A., Galarraga, I., & Esc. (2021). Promoting energy efficiency at household level: a literature review. *Energy Efficiency, 14*(1). Retrieved from https://doi.org/10.1007/s12053-020-09918-9

Statistics New Zealand - Tatauranga Aotearoa. (2024, July 02). *Annual number of homes consented down 23 percent*. Retrieved from StatsNZ News: https://www.stats.govt.nz/news/annual-number-of-homes-consented-down-23-percent/

Steffen, B., Egli, F., & Schmidt, T. (2020). The role of public banks in catalyzing private renewable energy finance. In *Renewable Energy Finance: Funding the Future of Energy* (pp. 197-215). London: World Scientific.

UN Environment Programme Finance Initiative, & Global Alliance for Building and Construction. (2024). *Banking on Green Buildings. Background material to build capacities at commercial banks.* Geneva: UNEP FI.

Walton, D., Smith, K., & Thomas, J. (2009). *Home Energy Advice Centre Evaluation Survey: Final report.* Auckland: Opus International Consultants Ltd. A report prepared for the Energy Efficiency Community Network.

White, V. (2024). Household Energy End-use Project 2. *Eco Design Advisor Conference.* Wellington: BRANZ.

World Green Building Council. (n.d.). *What are green mortgages and how will they revolutionise home energy efficiency?* Retrieved from World Green Building Council: https://worldgbc.org/article/what-are-green-mortgages-how-will-they-revolutionise-home-energy-efficiency/

Yébenes, M. O. (2024). Climate change, ESG criteria and recent regulation: challenges and opportunities. *Eurasian Economic Review*, 87-120.

# 10 Appendix: Project ethics material

## 10.1 Managing ethical considerations within the partnership

The three research partners collaborated to ensure to ensure participant data and privacy were handled appropriately during the trial. ANZ customers were provided with a project information sheet and an ANZ consent form. By signing, they consented to ANZ sharing their contact details with VUW researchers.

As the VUW team was responsible for evaluating the trial, they obtained ethics approval from the university's Human Ethics Committee. Meanwhile, Beacon sought separate ethics approval for the project activities up to and including the co-creation and evaluation of the intervention.

Confidentiality was a central consideration in this research. To address this, all information collected from trial participants (i.e. bank customers) was kept strictly confidential, accessible only to the VUW research team. Beacon Pathway and ANZ received findings in a 'de-identified' format, such as pseudonymised interview quotes and the researcher's written analysis for this report. These measures safeguarded participant privacy while maintaining the integrity of the research.

Another ethical consideration was the concern customers might feel obligated to take part in the research, thinking it might enhance their chances of securing a mortgage from ANZ. To address this, the VUW participant information sheet (see Appendix 10.3) made it clear that the bank would not know which customers chose to take part. It also explicitly stated that participation in the study would have no bearing on their relationship with the ANZ or their access to funding.

## 10.2 ANZ information sheet for bank customer consent

### Building a comfortable and efficient home:
### Access support from a Home Performance Advisor

We know that building a new home from scratch or renovating your existing one can be a great way to get the home you've always wanted but there's a lot of information to get across. Every home and household has different needs and the best way to work out what is right for you is to do independent research.

That's why ANZ is partnering with Beacon Pathway Incorporated and Victoria University of Wellington on a research project to test new ways to improve the comfort and efficiency of homes in Aotearoa New Zealand.

Beacon Pathway is a research organisation with specialist knowledge in what makes homes and neighbourhoods perform well for the people who live in them and the planet.

**As part of the research, we are offering you the opportunity to meet online with an independent home performance advisor to discuss your build plans.**

The consultations will focus on your plans for your home and things to consider that could improve its comfort and efficiency. It doesn't matter whether you are only dreaming of a new home or if you have developed designs. The consultation will be tailored to your situation.

If you choose to take up this offer, you will have the opportunity to attend two personalised consultations (approximately three hours of time) to discuss your build plans.

Because this is a research project, your participation would mean agreeing to an online interview with researchers from Victoria University of Wellington before and after the consultations. This allows the researchers to understand how useful the consultations have been to support our customers to make decisions that lead to building homes that are more comfortable and efficient. Your information will be anonymised in the final research publication. The project offers a koha/ donation in recognition of your contribution of time.

This research is funded by BRANZ through the Building Research Levy.

If you are interested in participating in this project, ANZ will, with your authorisation below, pass your name and personal contact details below on to Victoria University for the purpose of contacting you directly to outline the research that they are conducting, what it would involve for you and make you aware of how the research information collected from you will be used, shared and protected by them. Victoria University will delete your information no later than one year after the research is completed. Please note the decision to participate in the research is entirely voluntary and you have the ability to opt-out of the research at any time.

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I consent to my details below being passed on to Victoria University and being contacted by Victoria University of Wellington for the purposes of this project. I understand that the decision to participate in the research being run by Victoria University is voluntary and that I can opt out of the research at any time.

Customer name
Customer email address
Customer phone number
Customer signature

## 10.3 Victoria University of Wellington – Te Herenga Waka research information sheet and consent form


### Understanding how personalised advice can support the decision-making of New Zealanders building new homes

### INFORMATION SHEET FOR PARTICIPANTS

#### Kia ora and welcome,

You are invited to take part in this research. Please read this information before deciding to take part. If you decide to participate, thank you. If you decide not to participate, thank you for considering this request.

#### Ko wai mātou / Who are we?

We are Wokje ['Vokia'] Abrahamse and Nic Guerrero. Wokje is an academic staff member in the Environmental Studies programme and Nic is a research assistant at Te Herenga Waka - Victoria University of Wellington. This interview has been developed to help inform a research project that we are undertaking in collaboration with ANZ and Beacon Pathway Incorporated.

#### He aha te whāinga mō tēnei rangahau / What is the aim of the project?

This interview aims to understand how people navigate the process of building a new home. It doesn't matter whether you are only dreaming of a new home, or you have developed designs. We are interested to hear your views. Taking part in this research involves several steps.

1. This **initial interview**, which will take approximately 1 hour.
2. Following this interview, Nic will send you a **booklet** about what helps makes a comfortable and efficient home, written by home performance advisors. You may choose to read the booklet before you meet with the home performance advisor, or choose to read it later.
3. You will have the opportunity to meet with an independent home performance advisor. This **online consultation** will take up to 1.5 hours. You will have the option of a second online consultation if you think it would be useful. The home performance advisor sessions will be free. More information about the home performance advisors can be found on p. 4 of this document.
4. **Follow up interview –** About one week after the final consultation with the home performance advisors, you will be invited to participate in a 20-30 minute follow-up interview.

We will use insights gained from these interviews to examine how personalised advice on how to achieve a comfortable and efficient home shapes people's decisions as they are developing their new-build plans.

This research has been approved by the Te Herenga Waka – Victoria University of Wellington Human Ethics Committee application reference number: 0000031277.

## Ka pēhea tō āwhina mai / How can you help?

You are invited to take part because you are either thinking about, or in the planning stages of building a new home. As part of the interview, we will ask you questions about what enables you to make decisions about various aspects of the new-build process, such as comfort, health, and energy efficiency of your new home. The initial interview and the follow-up interview will take about 45 minutes to an hour. We will audio record the interview with your permission and write it up later. You can choose not to answer any question or stop the interview at any time, without giving a reason. You can withdraw from the study by contacting us at any time before April 30, 2024. If you withdraw, the information you provided will be destroyed or returned to you.

In recognition of your time and contribution, you will receive a $50 Prezzy Card for participating in the initial interview, and a second $50 Prezzy Card for participating in the follow-up interview.

## Ka ahatia ngā kōrero ka tukuna mai / What will happen to the information you give?

This research is confidential. This means that the researchers named below will be aware of your identity, but when we do our analyses, the research data will be combined. This means that your identity will not be revealed in any reports, presentations, or public documentation. We will not report any information about you that could identify you (e.g., where you live).

Only Nic and Wokje will read the notes or transcript of the interview. We may share the interview transcripts with our research collaborators at Beacon Pathway, and the transcripts will be de-identified. This means we will remove your name and any other information that might identify you from the transcript before sharing it with Beacon. We will not share the transcripts or notes with ANZ. The data will be kept securely and destroyed on November 1, 2026.

The expert advice that was shared with you as part of the online consultation may be shared with Wokje and Nic. Knowing what advice you received will help us in selecting the questions we will ask in the follow-up interview.

Your participation in this research will not in any way influence your relationship with ANZ or your access to ANZ funding. ANZ will not know you are a participant in the study (unless you choose to tell ANZ).

## He aha ngā hua o te rangahau / What will the project produce?

The information from this research will be used to help us evaluate the effectiveness of personalised eco-design advice. The findings of this research will be written up in a report to ANZ and Beacon Pathway. The research team (Beacon and VUW) may present the outcomes of the research in academic publications or at academic conferences. The research report and any academic publications that are produced from this research will be posted on Wokje's website: https://people.wgtn.ac.nz/wokje.abrahamse

## Ki te whakaae mai koe, he aha ō mōtika hei kaitautoko i tēnei rangahau / If you accept this invitation, what are your rights as a research participant?

You do not have to accept this invitation if you don't want to. If you do decide to participate, you have the right to:

- choose not to answer any question;
- ask for the recorder to be turned off at any time during the interview;
- withdraw from the study before April 30, 2024;
- ask any questions about the study at any time;
- receive a copy of your interview recording;
- read over and comment on a written summary of your interview;
- access any reports of this research Wokje's website (or request a copy directly by emailing Wokje)

## Mehemea ngā pātai, he raruraru rānei, me whakapā ki a wai / If you have any questions or problems, who can you contact?

If you have any questions, either now or in the future, please feel free to contact:

**Name:** Wokje Abrahamse
**Role:** Senior Lecturer in Environmental Studies
**School:** Geography, Environment & Earth Sciences
**Phone: 04 463 5217**
**e-mail:** wokje.abrahamse@vuw.ac.nz

**Research Assistant:** Nicolas Guerrero
**e-mail:** nic.guerrero@vuw.ac.nz

## He kōrero whakamārama mō HEC / Human Ethics Committee information

If you have any concerns about the ethical conduct of the research you may contact the Te Herenga Waka—Victoria University of Wellington HEC Convenor, Associate Professor Rhonda Shaw, by emailing: hec@vuw.ac.nz.

## Introducing the Home Performance Advisors

The independent home performance advisors are Lisa Burrough and Ian Mayes. They were selected by Beacon Pathway to be part of the project team because of their experience working in the housing sector, in building research and with households giving advice about homes (new and existing).

Lisa Burrough is employed by Dunedin City Council as an Eco Design Advisor (EDA). EDAs are employed by local councils to provide independent, expert, free advice to households in the council's area to improve the performance of new and existing homes.

Ian Mayes was an EDA at Hamilton City Council for 12 years and now works as an independent contractor on a range of housing related projects.

Ian and Lisa are both trainers in the Home Performance Advisor Training Programme, which trains and certifies advisors to give households advice based on key principles (e.g., thermal envelope), and their advice is independent of sales and services.

# Understanding how personalised advice can support the decision-making of New Zealanders building new homes

**CONSENT TO INTERVIEW**

This consent form will be held for five years.

Researchers: Nicolas Guerrero and Wokje Abrahamse, School of Geography, Environment and Earth Sciences, Te Herenga Waka—Victoria University of Wellington.

- I have read the Information Sheet and the project has been explained to me. My questions have been answered to my satisfaction. I understand that I can ask further questions at any time.
- I agree to take part in an audio recorded interview via Zoom.

I understand that:

- I may withdraw from this study at any point before April 30, 2024, and any information that I have provided will be returned to me or destroyed.
- The identifiable information I have provided will be destroyed on April 30, 2024.
- Any information I provide will be kept confidential to the researcher and supervisor.
- The findings may be used in an academic publication and/or academic conferences.
- The interview recordings will be kept confidential to the researcher and the supervisor.
- My name will not be used in reports and utmost care will be taken not to disclose any information that would identify me.
- The advice that was given to me as part of the online consultation may be shared with the researchers named above.
- I would like a copy of the recording of my interview: Yes o No o
- I would like a summary of my interview: Yes o No o

Signature of participant: _____

Name of participant: _____

Date: _____

Postal address for the Prezzy Card to be sent: _____

Email address: _____

## 10.4 Victoria University of Wellington – Te Herenga Waka Evaluation interview questions

### Understanding how personalised advice can support the decision-making of New Zealanders building new homes

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**Pre-intervention interview**

Thank you for agreeing to do this interview. My name is Nic and I'm from Victoria University of Wellington – Te Herenga Waka. This research project focuses on people who are building or thinking about building a new home or who are doing a major renovation on their existing home. We're trying to understand more about how personalised advice from an independent home performance advisor can support people in making decisions during their building journey.

The advisors are specialists in home performance and have no affiliation with the bank or any suppliers of products or services. They will provide you with tailored information and advice relevant to your project. They will not recommend particular products or services but will support you to work through your own decision-making process.

To begin, can I check that you received the information sheet and consent form. Did you have any questions about either of these? Did you sign the consent form?

As a reminder, the audio from this interview will be recorded. Your information will be kept confidential, and any information that may identify you will be removed or edited. You can decide to withdraw from this study at any point between now and April 30, 2024 and your data will be destroyed.

You don't have to answer any questions that you don't want to answer. After the interview, I will post the prezzy card to you.

Now I'm going to take you through some questions about your building and renovation journey:

1. **To start with, can you tell me a bit about yourself and your building project?** *Where are you in your building journey? Do you have land / house designs? Do you have any agreements in place – e.g., with a builder?*

2. **What are your reasons for building/renovating?** *Why have you decided to build [renovate] rather than buy an existing home? What do you most want out of your new home/renovation? What are your priorities and goals for your home/renovation?*

3. **Can you tell me about any past experiences you have had building a new house or undertaken major renovations?** *What worked? What didn't work? What would you do differently?*

4. **Where are you planning to build**? *Urban, suburban, rural? Why are you planning to build there? [only applicable if building]*

5. **What stage are you at with regards to financing this project?** *Do you have pre-approval, approval etc or are you still gathering information?*

6. **What are the next steps for your project?**
   *Possible prompts:*
   - *Submitting plans to council*
   - *Finding a builder etc.*

7. **Have there been any challenges in your building journey so far?** *Can you please tell me about these?*

Now I am going to ask you some questions about information to support your project and your project team

8. **Who is / will be part of your project team?**
   *Possible prompts:*
   - *Are you working with a designer or architect?*
   - *Are you working with a company that will provide land plus plans / building services?*

*9.* **Where and how have you gathered information to help make decisions about this project so far?**
   *Possible prompts:*
   - *designers, architects, builders, council, group home builders, lenders, family etc*
   - *experiencing other homes – e.g., show homes, homes of friends or family*

10. **Can you tell me how easy it was to find what you were looking for?** *Can you provide a couple of examples?*

11. **Which of these sources of information have been the most useful?** *What made it so useful?*

12. **Is there any information you haven't been able to access that you believe would be useful to you?**

Now I'm going to ask you some questions about comfort and efficiency in homes.

13. **Can you please tell me what a comfortable and efficient home means to you?** *How important is comfort and efficiency in your building project?*
14. **Can you provide a couple of examples of things that you think would make a new home more comfortable and efficient?**

15. **Are you planning to incorporate any of these things into your new home?** *Why / why not?*

16. **Is there anything else you would like to tell us that we haven't covered?…**

Thank you so much for giving me some of your time today to share your experience with me.

In terms of next steps, I will pass your contact information onto one of the home performance advisors and they will be in touch to arrange a time for you to meet with them online.

Your prezzy card will be posted to [CHECK ADDRESS] as soon as possible. The code to unlock the prezzy card will be emailed to you [CHECK EMAIL ADDRESS].

Finally, I will email you a new-build booklet which explains more about building / renovating your home. You may find it helpful to read this before your session with the home performance advisor.

Do you have any final questions about the research project or today's interview?

**Post-intervention interview**

Thank you for agreeing to participate in this follow-up interview. My name is Nic and I'm from Victoria University of Wellington – Te Herenga Waka. This research project, as you may remember, focuses on people who are building or thinking about building a new home or doing a major renovation on their existing home. We're trying to understand more about how personalised advice from an independent home performance advisor can support people in making decisions during their building journey. Today's interview will be focused on the session you had with [NAME].

As a reminder, the audio from this interview is going to be recorded just like last time. Your information will be kept confidential, and any identifiable information will be removed or edited. You can decide to withdraw from this study at any point between now and April 30, 2024 and your data will be destroyed.

You don't have to answer any questions that you don't want to answer. After the interview I will post the prezzy card to you.

Are you OK to proceed?

1. **Could you tell what has happened on your build since we last met?** *What stage of the building journey are you at currently? Have you achieved any major milestones?*

Now, I would like to talk to you about the consultation and the personalised advice you received.

2. **Can you please tell me how many times you met or interacted with the home performance advisor and how this took place?** *Did you talk on the phone, online call only, email follow up etc. Did you take anyone else with you to the second consultation?*

3. **Overall, how did you find the experience of the consultation(s)?** What worked well? What didn't work well? *Overall, did you find the consultations useful? What was it like meeting with the home performance advisor as well as a member of your building team (if applicable)?*

4. **Can you describe any specific advice that you found helpful?** (It would be useful to go through each one separately)
    - 4.1 Are you planning to incorporate this advice into your project and why? Do you have an example?
    - 4.2 What other help might you need to make it happen?

- Prompts – More information, expert advice, discussions with lender, quotes, choosing supportive team (designer, builder, lender)

4.3 What do you see as potential barriers to you including this in your plans?

- Prompts – finance, capability of team, point in build journey, type of builder (group home vs independent)

<u>If participants mention more than 1 most helpful advice, repeat last three questions with all helpful advice</u>

5. **Is there anything else you are planning to do because of the advice your received?**

6. **Can you tell me what you have done since the consultation(s)?** *Have you spoken with family, the bank, or people in your building team? Have you tried to*

7. **Can you tell me about what advice you received that was least helpful for you and why?** *Possible prompts: Understanding, timing, practicality/applicability, affordability?*

   Now I'm going to ask you some questions about comfort and efficiency in homes. Some of these questions may sound familiar.

8. **Thinking about what you want from your new home/renovation, has your perspective changed since consultation?** *Have specific goals or priorities changed? If so, how have they changed?*

9. **Has your understanding of what a comfortable and efficient home changed?** *Why / why not? How important is comfort and efficiency in your building project?*

10. **Can you provide a couple of examples of things that you think would make a new home more comfortable and efficient?**

11. **What are the main challenges you are facing in achieving a more comfortable and efficient home?** *Can you tell me what would make it easier for you to achieve a more comfortable and efficient home?*

12. **Would it be useful to have more of this type of advice throughout your project and why?** *Would you be prepared to pay for it?*

13. **How do you feel about the bank connecting you to independent home performance advisors?** *Was it useful to have access to home performance advice as part of your relationship with the bank?*

14. **Do you have any ideas of ways we could improve the consultation?** *Is there anything that would have improved the experience for you?*

15. **Would you recommend the experience to someone else?** *Why, why not?*

16. **Finally, is there anything else you'd like to tell us?**

Thank you so much for giving me some of your time today to share your experience with me.

Your prezzy card will be posted to [CHECK ADDRESS] as soon as possible. The code to unlock the prezzy card will be emailed to [CHECK EMAIL ADDRESS].

Do you have any final questions about the research project or today's follow-up interview?

# 11 Appendix: Beacon questions for Mobile Mortgage Manager reflection

**Mobile Mortgage Managers – feedback on Beacon – ANZ research pilot**

Beacon, Victoria University of Wellington and ANZ have been partnering to carry out research designed to help bank customers make good decisions about their residential building projects (new and major retrofits). The three partners designed an intervention and intended to trial it with 20 home loan customers, however, only 4 participants were recruited.

We are seeking feedback to better understand the reasons for a low participation rate. We would like to understand whether the issues were related solely to the macro-economic climate or whether there are things we could have done differently that might have led to a higher level of participation. We welcome your feedback so we can incorporate what we learn into future projects.

As a reminder, the trial had the following key elements:

- Customers were introduced to the offer via their MMM.
- Beacon held two online workshops with MMMs (East Coast & Waikato North teams) to provide background to the project and outline the value to customers.
- A second recruitment method involved introducing the project via an ANZ webinar
- Bank customers consented to take part by agreeing that ANZ could pass their details to VUW researchers.
- Customers engaged with researchers for the first of two evaluation interviews and received their first koha
- The offer to Home Loan customers was the opportunity to understand how to design for comfort and efficiency. The following resources were on offer
  - written booklet outlining the lending and building journey and key principles underpinning comfort and efficiency
  - up to two expert consultations (online) with a home performance advisor who could provide personalised advice on the customer's project (new-build or renovation). Customers were able to bring a member of their project team to the second consultation.
- Customers had a second engagement (interview) with the research assistant from VUW and received second koha.

**Questions for Mobile Mortgage Managers**

1. How many customers did you talk to about the research pilot (an approximate number is fine – helpful if collated by region)? What kinds of questions did customers raise?
2. What were the main reasons that customers may not have wanted to participate?
3. What was your experience in talking to customers about the research pilot? Did you find you had all the information you needed to engage with customers? Was there anything that made you question the value of the research pilot to your clients?
4. What could Beacon or ANZ have done differently to increase participation?
5. If we were designing this type of offer for ANZ home loan customers in the future what would you recommend we do differently?