

LOCAL GOVERNMENT INCENTIVES TO PROMOTE SUSTAINABLE BUILDING

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ABSTRACT

Beacon Pathway Limited has been researching the role and impact of local government and sustainable building. Sustainable building responds directly to Council responsibilities under the LGA and RMA, and can help to deliver a range of Council objectives, such as healthier, more resource efficient communities.

Council policies, rules and especially processes have a clear influence over building choices. When rules are not written to provide for sustainable building choices, it can discourage people from making sustainable building choices. In particular people don't want the added risk, time and cost associated with consent requirements and needing to prove that more sustainable solutions fit with the Council context and administrative requirements.

Even when Council policies and plans don't prevent sustainable building, they often don't do much to encourage it. Often, this comes down to issues with Council processes – ensuring staff are supported and able to respond to sustainable building proposals. This situation is however changing, with more Councils considering more direct approaches to encourage improvements. Most Councils interviewed by Beacon see themselves as at the beginning of the journey, with only small initiatives so far underway.

In order to assist local government deliver on their mandate, and help their communities develop more sustainably, Beacon has put together a *Policy Options Report* on ways to remove barriers and incentivise sustainable building. This paper outlines the key aspects identified through the research into developing the report whereby local Government is able to take an effective proactive approach to supporting sustainable building.

KEYWORDS

Local government policy; sustainable building;

INTRODUCTION

Beacon Pathway's research suggests that many people would find it easier to build and retrofit their homes sustainably if council policies, plans and processes were more supportive of sustainable design (Easton et al., 2006). Where sustainable building approaches are different to conventional building practices, policies and plans may make it hard for people to make the more sustainable choice. Even when policies are neutral or supportive of sustainable building, Beacon's research has identified that council administrative processes can be a disincentive (Trenouth and Mead, 2007).

Yet, if councils provide the right signals and advice at the right time, they can have a positive influence on decisions made by homeowners. Beacon's assessment of existing council policies and programmes suggests that councils which want to successfully promote more sustainable homes in their districts *can* make it easier for homeowners to build and retrofit more sustainable homes.

To support councils to overcome the barriers within their policies and processes, Beacon has undertaken a research project, *Best Practice Policy Approaches for Local Government*. The objective of the project was 'to develop best practice local government policy mechanisms which will support the greater uptake of sustainable new and renovation of homes; and to confirm that these are effective in supporting and promoting these outcomes at a local level' (Howell and Birchfield, 2008). This has resulted in the identification of a range of policy interventions, collected together for local government officers in the report, *Sustainable Homes: Policy Options for Local Government* (Howell and Birchfield, 2010). The report provides detailed assessment of the initiatives that councils could develop, identifying the scope, pros and cons, and existing examples of the different methods¹.

RESEARCH METHOD

The research undertaken in order to prepare the *Policy Options* report incorporated four main components:

1. Interviews with officers from 17 territorial local authorities. The research team approached the twenty largest city and district councils in New Zealand, plus several smaller councils who were known to be actively promoting sustainable building in their districts. Officers from 17 councils agreed to take part in structured interviews, responding to a series of questions designed to gauge councils' interest in promoting more sustainable building and to identify the range of initiatives already in place.
2. An international literature review (Warnock, 2007), describing regulatory and policy tools used by local authorities to promote sustainable buildings.
3. A desktop review of existing examples policy interventions already in place, following the leads provided in the officer interviews. The review was clustered into eight key policy areas. The emphasis on existing policy was driven by feedback from council officers, highlighting the need for initiatives to be practical, readily applicable, already tested, and therefore not likely to be subject to a high risk of legal challenge.
4. Six workshops with council officers in regional hubs throughout New Zealand, to present the research as it was developed and to gain feedback.

¹ Creating homes and neighbourhoods that are more sustainable will require interventions at all different scales, and from different sets of stakeholders. The focus of the *Policy Options Report* is on what can be achieved by councils to support efforts at the house and site level. Although they are just as important, the report does not cover actions by other bodies, or consider wider neighbourhood, district, or city-scale interventions.

FINDINGS: THE ROLE OF COUNCILS IN PROMOTING SUSTAINABLE HOMES

Councils interact with homes throughout the life cycle of development, from subdivision to occupation and even through to demolition. There is a good legislative basis for councils to promote more sustainable building choices (including the Local Government Act 2002, Resource Management Act 1991, and Waste Minimisation Act 2008). There are a range of tools that councils could employ to this end. Opportunities exist in council strategies, regulation, design guidance, economic tools, community education, and — importantly — in councils' own administrative practices.

For councils, a strong value case can be made for being involved in promoting more sustainable homes in their regions, districts, and cities. Sustainable homes promote the health, economic efficiency, and environmental well-being of communities (Clark, 2007). They can reduce demand for infrastructure and services provided by councils (Lawton et al., 2008). Building and renovating sustainable homes can also offer significant employment opportunities. For every 1,000 houses that are retrofitted, 151 full-time equivalent jobs are required on-site, and a total of 392 full-time equivalent jobs would be required to provide the necessary products and services (Beacon Pathway Limited, 2009).

In interviews, council officers have identified that there is strong interest in sustainable building within councils. However, many officers felt that their councils are only at the beginning of the journey. Currently, there are limited resources, knowledge gaps, and a generally piecemeal approach to policy initiatives to support sustainable residential building (Howell and Birchfield, 2008).

The desktop research undertaken to prepare the *Policy Options* report has identified that, although there is no single, simple mechanism for councils to implement, councils can capitalise on the numerous small opportunities that exist across all aspects of their operations to develop a comprehensive and effective approach to encouraging more sustainable homes. Building on the policies and programmes that are already in place in different councils, there is considerable scope to strengthen and extend the range of initiatives that councils offer.

THE STRUCTURE OF THE POLICY OPTIONS REPORT

The *Policy Options Report* is presented in four parts (see Table 1). Parts I to III are intended to equip council officers and politicians with the knowledge they need to make informed choices about how sustainable homes perform and how they can support more sustainable building in their districts and regions. The material is drawn from Beacon's research base, and tailored to a local government audience.

Part I sets out the context for local government action, including a summary of Beacon's value case for sustainable homes (Clark, 2007). Part II introduces Beacon's HSS High Standard of Sustainability® as a framework for promoting homes that are more sustainable in their energy, water, and materials use, waste generation and their indoor environment quality (Beacon Pathway Ltd, 2008). This section includes simple lists of features that councils could encourage within homes in order to promote sustainable

outcomes. To help councils assess the scale of the challenge they face, this section also provides a breakdown of the age of housing in New Zealand, by territorial authority boundaries (Page and Fung, 2008), and analysis of the renovation potential of different housing typologies (Ryan et al., 2009).

Part III turns to the issues of how local government can promote sustainable homes. It sets out how councils interact with homes, presented over the life cycle of a home, and also identifies the multiple legislative bases for council action.

Finally, Part IV provides an extensive catalogue of options for action, ranging from high level strategies to specific tools (the clusters of initiatives are listed in the fourth column of Table 1). In order to provide practical, applicable information, the report has focused on collecting evidence of existing examples, already in use somewhere within New Zealand. Many councils are already doing something to promote more sustainable housing. However, efforts tend to be fragmented and piecemeal, with much to be gained from councils sharing their initiatives and experiences with one another for wide uptake.

Part I: Understand the context	Part II: Define the Outcomes	Part III: Establish the basis for action	Part IV: Evaluate the options for action
<ul style="list-style-type: none"> ■ The need for sustainable homes ■ Future challenges ■ The value of sustainable homes 	<ul style="list-style-type: none"> ■ What makes a sustainable home? ■ Beacon’s HSS High Standard of Sustainability® ■ 2008 benchmarks and examples of methods ■ Research in action: new and retrofitted homes ■ Getting specific: the potential of different housing typologies 	<ul style="list-style-type: none"> ■ Local government: a door or a wall? ■ How local government interacts with homes ■ Legislative basis for action 	<ul style="list-style-type: none"> ■ Strategic policy signals ■ RMA policies and plans ■ Development standards and guidelines ■ Building Code administration ■ Bylaws ■ Economic tools ■ Community education ■ Council administrative practices

Table 1 Framework of the *Policy Options Report*

RANGE OF POTENTIAL COUNCIL INITIATIVES

The following tables provide a sample of the information contained within Part IV of the report. For convenience, they have been grouped into eight clusters of initiatives (see Table 2).

For each of the clusters of potential Council initiatives, the report identifies a range of different policies or tools where more sustainable housing choices could be promoted, sets out a summary of what is possible, and provides more extensive commentary and examples.

Cluster of Potential Initiatives	Examples of initiatives (policies and tools)
Council strategies and plans (NB these rely on other methods for direct effect on house)	Long Term Council Community Plan, Water and Sanitary Services Assessment, Waste Management

	and Minimisation Plan, Other issue-based strategies
Resource Management Act Policies and Plans	Regional Policy Statement, Regional Plans, District Plans - land use, District Plans - subdivision
Development Standards and Guidelines	Codes of Practice, Design Guidelines
Building Code Administration (NB councils have administration role only)	Building Code Administration
Bylaws	Bylaws
Economic tools (linked to council strategies and plans)	Development contributions remissions, Financial contributions, Fee reductions and waivers, One-off grants and subsidies, Loans, Raising funds - targeted rates, Raising funds - co-funding, Rates remissions, Rates postponement
Community education	Community education
Council administrative practices	Council administrative practices

Table 2 Examples of Initiatives within each Cluster

For quick reference, the report offers a summary of what is possible for each example of policies and tools. It identifies:

- When in the housing life cycle the initiative has an effect
- The areas of the HSS High Standard of Sustainability® that are most likely to be effectively addressed
- The potential scale of effect, that is:
 - whether it generates a deep change or a minor one in the context of the key performance areas of the HSS High Standard of Sustainability ®; and
 - whether that change is likely to take place broadly (e.g. across the whole of the region/district's houses) or be limited to a much smaller pool (e.g. a few houses).

For example, including information on water efficiency in council mail-outs (e.g. with rates bills) will have a broad reach, but will potentially only effect a minor change. Providing loans to homeowners to install more efficient water and energy technologies could effect a deep change, but only for a limited number of homes.

Table 3 provides the information relating to a selection of the policies and tools contained within the report, for illustrative purposes.

Initiative	House life cycle stage where initiative has an effect	HSS® areas most likely to be addressed	Potential scale of effect	Notes
District Plans - land use	New build, significant renovations	Energy Water	<ul style="list-style-type: none"> ■ Deep change ■ Limited reach 	Important step to remove development control barriers for sustainable devices. Potential to require more where there are significant local issues. Good opportunities with medium density housing controls.
District Plans - subdivision	Subdivision (and consequently new build)	Energy Water	<ul style="list-style-type: none"> ■ Deep change ■ Limited reach 	Critical step to ensure potential sustainability of site and subsequent development is preserved. Scope will be affected by nature of subdivision (greenfields, infill). Potential to improve solar orientation, on-site water management.
Fee reductions and waivers	New build, significant renovations	Energy Water	<ul style="list-style-type: none"> ■ Minor change ■ Limited reach 	Relatively low-cost initiative, signals council support. Low uptake to date, incentives may be too low.
Loans	Significant renovations	Indoor Environment Quality (air quality) Energy Water	<ul style="list-style-type: none"> ■ Deep change ■ Broad reach 	House-by-house situation — can be time consuming but leads to effective change. Potential for wider eligibility criteria than grants and subsidies.
Rates remissions	New build, significant renovations, occupancy	Water	<ul style="list-style-type: none"> ■ Minor change ■ Limited reach 	Remitting rates to recognise on-site efficiencies could influence design and renovation choices.

Table 3: Selected Summary of the Potential of Council Initiatives

More detail about each of the potential initiatives is provided in the report, including the scope for action, the pros and cons of taking action, and any legislative basis for action. Key provisions of existing examples are then described. For example, Table 4 reproduces the discussion of bylaws from the report.

Introduction	Local councils are empowered to make bylaws under a number of statutes, mainly to manage nuisance and public health and safety. Most relevant to sustainable homes are the powers under the Local Government Act 2002 and the Health Act 1956. This section concentrates on those provisions that could help to promote more sustainable homes.
Scope	There is scope to establish bylaws to address water and waste issues in particular, where council has a direct role in the provision of infrastructure and services.
Pros	The process for developing and introducing bylaws is relatively quick and straightforward. Bylaws offer opportunities to establish city-wide standards and practices that have a direct effect on household sustainability (for example, water metering and recycling).
Cons	Bylaws create an additional layer of regulation and enforcement, and should only be used where other methods are not appropriate. Bylaws cannot require buildings to achieve performance criteria additional to, or more restrictive than those specified in the Building Act 2004, or Building Code.

Table 4 Assessment of Bylaws in the Report

The section then goes on to detail the legislative basis for bylaws (in the Local Government Act 2002 and the Health Act 1956), including discussion of the tests that must be met. It then provides examples of bylaws relating to water efficiency (from Nelson City Council, North Shore City Council, Auckland City Council, and Queenstown Lakes District Council) and waste (from Christchurch City Council).

KEY FINDINGS

Through interviews, desktop analysis of policies and plans, and workshops, Beacon has identified the following key findings as to how councils can most effectively support more sustainable homes in their regions, districts and cities:

Secure a mandate for change

There is a clearer mandate for council action on issues where the community expects council leadership. This expectation can be developed where:

1. There is **an identifiable community-wide issue** to be managed (e.g. water shortages, poor air quality, energy security of supply, health). Many New Zealand communities face such issues, but are not necessarily aware of the situation, or the potential long-term costs. By clearly and consistently communicating issues through their publications and their engagement with communities, councils can help to build a groundswell of understanding and desire for change.

2. There is a **regulatory requirement to act**. Increasingly clear national-level direction provides a stronger basis for councils to develop policies and programmes that promote more sustainable homes. Examples include the Waste Minimisation Act 2008, National Environmental Standard for Air Quality, and the National Policy Statement for Renewable Electricity Generation.
3. **Council manages assets and provides services** such as water supply and waste collection. Regular reviews of levels of service and future demand are opportunities to introduce demand management tools as part of providing efficient and cost-effective infrastructure and services.
4. **Council owns housing stock** and can undertake upgrades as part of being a good landlord. This is also a way of demonstrating to the community exactly what is possible, and stimulating local economic development in the sustainable building sector.
5. Council can develop **partnerships with other agencies** to meet shared goals and leverage greater benefits from their investment.

Develop a package of tools

By capitalising on the numerous small opportunities that exist across all aspects of council operations, councils can develop a comprehensive and effective approach to encouraging more sustainable homes. For example, Clean Heat Programmes are included in LTCCPs, regional strategies and plans, and are supported by economic tools and community education efforts. Packages can be staged over time; pilot programmes, economic tools and community education are important steps to prepare the ground for any regulatory changes.

Some initiatives within the package of tools will be needed to remove barriers such as regulatory constraints within district plans. Other initiatives will be focused on promoting more sustainable choices through supportive policy signals and consent assessment criteria, economic incentives, education and advice.

Support whole-of-house solutions

As determined in Beacon's retrofit research, a whole-of-house approach to creating sustainable homes is the most effective (Easton and Howell, 2008). It allows for positive interdependencies between the different features of homes, particularly between energy efficiency, water consumption and indoor environment quality, where improvements in one area can lead to compromises and under-performance in other areas.

Councils can support this finding by broadening their approach to promoting more sustainable homes to consider the full range of key performance areas (energy, water, indoor environment quality, materials, and waste). They can also help by connecting various initiatives that may already be in place across different units of council, so that prospective developers and renovators receive a comprehensive response to their proposals.

In terms of the HSS High Standard of Sustainability® key performance areas, the most notable areas of council action to date are water, energy and indoor environment quality (as justified by air quality requirements and health/well-being concerns). There is also considerable scope for addressing waste,

through councils' waste minimisation and management plans. Initiatives to address materials choices remain scarce.

Ensure district-wide systems reinforce sustainable housing choices

Provisions that apply to whole districts or neighbourhoods, such as bylaws and asset management practices can directly shape what happens at the house level, including design choices for new building and significant renovations. For example, water metering and volumetric charging will encourage installation of more efficient water devices and appliances (Lawton et al., 2008).

Recognise indirect opportunities

Often, the opportunities to promote sustainable homes will emerge as a result of other council priorities and actions. For example, improving indoor environment quality can be achieved as a consequence of wider air quality programmes. The rainwater harvested through stormwater attenuation measures can contribute to efficiencies in domestic potable water use. Programmes to stimulate local economic development could be targeted to improving homes.

Bridge the implementation gap

Policies are an important signal of a council's priorities and intentions. However, as found in interviews with council officers, policies that "promote", "support", or "encourage" sustainable home building choices can be viewed as soft and generally inconsequential. The challenge for councils lies in specifying and delivering effective methods to achieve those policies. The examples of effective council initiatives identified in the *Policy Options* report are where policies have been actively implemented through an array of regulatory, economic, and educational methods. Policies are tied to action through the LTCCP process, and – perhaps more importantly – through the efforts of officers across council units.

Build officer capabilities

Council officers need to understand and be receptive to sustainable building options (Easton, 2006). Without this, any new policies and methods risk languishing on paper, and prospective sustainable home developers and renovators could be frustrated by the lack of a consistent council position.

Making this change requires work across council units and professions, and skills in translating between the different professions' "languages" and priorities. Offering in-house training, continuing professional development, practice notes and using collaborative processes for reviewing consent applications are all opportunities to improve officers' expertise as it relates to sustainable building.

Recognise the 'long game'

Successful packages of tools can take time to introduce and to take effect. For example, Kapiti Coast District Council's Water Demand Management Plan Change (Plan Change 75) comes five years after the issue was signalled in the District's Sustainable Water Management Strategy (Kapiti Coast District Council, 2007). Even then, only a small proportion of a district's houses are likely to be directly affected each year, whether through consent processes, education or economic support.

Extend the available tools

Looking at the various council initiatives that are currently being used, it is clear that there is scope to extend the available tools:

1. Economic tools could be more effectively applied, particularly in terms of:
 - a. ease of uptake – better promotion, clear eligibility criteria, simplified application processes
 - b. the scope of what could be funded – for example, extending to whole-of-house retrofits
 - c. the mechanisms for funding – for example, greater use of targeted rates and possibly rates remissions and postponement mechanisms
2. Some initiatives, such as more sustainable **codes of practice and design guidelines, could be standardised** for application throughout New Zealand. Particularly for smaller councils with fewer resources, it is useful to be able to ‘cut and paste’ provisions (e.g. from New Zealand Standards). However, most examples of standards do not provide for sustainable building choices in any depth.
3. **Proven initiatives could be adopted by other councils.** This includes water metering, the Clean Heat Programme, healthy housing retrofit programmes, and one-to-one advisory services such as the Eco Design Advisors. In these cases, there has been a discernable improvement in sustainability performance as a result of the initiatives’ introduction (Christie and Matthews, 2007; Gaudin and O’Connell, 2007).
4. **Regulation should always be a choice of last resort.** There are legislative constraints as to how much can be achieved through regulatory methods such as rules in regional and district plans and bylaws. As identified in officer interviews, a lack of national standards and guidance (e.g. on the relationship between the Building Act and the Resource Management Act) has most likely contributed to the low level of promotion of sustainable building through regulatory mechanisms. Councils can continue to advocate to government for **greater national guidance and support**.
5. **The body of knowledge needs to be extended.** Examples of council initiatives already in practice are thinly spread across the country, although this appears to be changing with the latest round of policy reviews. Council officers identified that opportunities to share experiences across councils would be valuable.

CONCLUSION

Interviews with council officers and desktop assessment of council policies and programmes has identified that there is a considerable range of initiatives to promote more sustainable homes already in operation in councils across New Zealand. However, efforts are piecemeal, with no council adopting a wide range of initiatives. The *Policy Options* report prepared by Beacon Pathway is intended to assist councils to understand the range of options that they could adopt, and some of the key considerations that will support them to successfully implement them.

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