

# HR2420/7

# Assessing the viability of financial incentives for sustainable housing initiatives

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# **About This Report**

#### Title

Assessing the viability of financial incentives for sustainable housing initiatives

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#### **Abstract**

This report explores the viability of financial incentives that could be offered by local government authorities in order to encourage sustainable housing initiatives in the community. The report investigates what potential financial incentives could be offered, what issues they might raise for local authorities and how these issues can be addressed in practice. In particular, this paper sets out the legal framework that local authorities must consider when deciding whether to offer financial incentives, and assesses current initiatives already in place throughout New Zealand against this framework.

#### Reference

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# **Executive Summary**

This report explores the viability of financial incentives that could be offered by local authorities in order to encourage sustainable housing initiatives in the community. The report investigates what potential financial incentives could be offered, what issues they might raise for local authorities and how these issues can be addressed in practice. In particular, this paper sets out the legal framework that local authorities must consider when deciding whether to offer financial incentives, and assesses current initiatives already in place throughout New Zealand against this framework.

The analysis aims to provide guidance to local authorities who are considering putting financial incentives in place. Best-practice lessons can be drawn from current initiatives already in place around the country, to inform local authorities when deciding whether to offer financial incentives for sustainable housing initiatives.

The use of fiscal measures and other financial incentives to encourage energy efficiency and sustainability initiatives are being increasingly used around the globe. For example, in Europe many member states have introduced environmental taxes and subsidies to industry and households to encourage sustainability initiatives such as solar water heating. However, in New Zealand, local government incentives to promote housing sustainability are relatively new.

When deciding on the viability of providing an incentive for sustainable housing, or how to put such a system in place, the primary factor that councils must consider is whether their spending on the incentive is a justified use of council funds. Because the funding for such financial incentives comes from community rates, or in the case of development contributions, results in a reduction in the amount of contributions councils receive for infrastructure spending, councils must take into account how the benefits of an incentive are distributed to the community over time. These benefits should be considered across all council wellbeings.

Councils must consider section 101(3) of the Local Government Act 2002 ("LGA") when deciding how to fund activities. This framework applies to any activity or financial incentive funded by councils. Section 101(3) states that councils must consider, in relation to each activity funded, the following five considerations:

- a) The council community outcomes to which the activity primarily contributes;
- b) The distribution of the benefits between the community as a whole, any identifiable part of the community, and individuals;
- c) The period in or over which those benefits are expected to occur;
- d) The extent to which the actions or inaction of particular individuals or a group contribute to the need to undertake the activity; and
- e) The costs and benefits, including consequences for transparency and accountability, of funding the activity distinctly from other activities.



Our high level assessment of current financial incentives currently provided by local government authorities around New Zealand found a lack of consistency in approach. Councils must be fully aware of their legal obligations when considering funding sustainability decisions relating to initiatives. It is important to note that, in cases where there is no clear, justified assessment of the incentive, taking into account the framework set out in section 101(3) of the LGA, the incentive may be open to legal challenge. This may result in increased costs for local government authorities and the reworking of incentives to take section 101(3) requirements into account.

A sound basis for justifying any local government intervention is of paramount importance. Councils must identify clear policy drivers for any incentive and should consider the following when considering introducing any intervention:

- The financial incentive should be linked to a reduction in the need for council-provided infrastructure where possible;
- The need for the initiative and for local authority intervention to encourage the initiative must be clearly defined;
- The benefits of the initiative must be widespread and not limited to a particular sector of the community;
- The funding for the initiative must be clearly allocated and justified. Where promotion or marketing is required in order to encourage uptake of the initiative, it must also be allocated and justified; and
- There are particular requirements in respect of development contributions remissions and financial contributions remissions that must be taken into account. For this reason, these should be considered separate to other financial incentive options.





#### 1 Introduction

# 1.1 Purpose and scope

This report explores the viability of financial incentives that could be offered by local government authorities in order to encourage sustainable housing initiatives in the community. The report investigates what potential financial incentives could be offered, what issues they might raise for local authorities and how the issues can be addressed in practice. In particular, this paper sets out the legal framework that local authorities must consider when deciding whether to offer financial incentives, and assesses current initiatives already in place throughout New Zealand against this framework.

The analysis aims to provide guidance to local authorities that are considering putting financial incentives in place. Best practice lessons can be drawn from current initiatives already in place around the country, to inform local authorities when deciding whether to offer financial incentives for sustainable housing initiatives.

# 1.2 Report structure

The report is structured in four sections:

**Section 2** provides a contextual analysis of the policy frameworks that surround sustainable housing initiatives and the potential role that local government can play in encouraging uptake of sustainable housing initiatives.

**Section 3** looks specifically at financial incentives, providing a high level assessment of financial incentives already in place around New Zealand that have been established to encourage uptake of sustainable housing initiatives. Section 3 also sets out the legal framework for local government funding of activities that councils must consider.

**Section 4** investigates the potential barriers and challenges which councils may face when trying to put financial incentives in place for sustainable housing initiatives.

**Section 5** concludes with some key learnings that can be drawn from the analysis. These can guide councils when considering whether to put financial incentives in place for sustainable housing initiatives.



# 2 Sustainable Housing - Overview

#### 2.1 Definition

In the context of housing, 'sustainability' is about making houses more comfortable and healthy while reducing the adverse effects of housing on the environment. With this in mind, 'sustainability initiatives' are defined as those innovations related to the efficient and sustainable use of the country's resources in housing.

There is also an element of cost effectiveness inherent in the term 'sustainability'. Beacon sees sustainable housing as an avenue for making New Zealand homes warmer, healthier, cheaper to run and kinder to the environment through affordable, reliable products and technologies.

In a general sense, the benefits of sustainable housing not only accrue to the individual, in the form of improved health, standards of living and cost savings, but also benefit communities by promoting efficiency and conservation in the production, transmission and consumption of energy.

The development of sustainable housing technologies and initiatives can therefore have a significant impact both in terms of developing sustainable ways of living and in the potential to reduce the negative impacts of built infrastructure on the natural environment.

#### 2.2 National initiatives

Measures to promote energy efficiency and household sustainability performance are becoming more prominent subjects at both national and local levels. At a national level, central government has put in place a number of strategies and initiatives to encourage energy and water efficiency, conservation and usage. These strategies and initiatives provide the national context to sustainability initiatives, and can help us to understand what local government can do to leverage off these.

Key strategies and initiatives include:

#### **New Zealand Energy Strategy (NZES)**

The key goal of the NZES is the conservation of energy and the promotion of nationwide energy efficiency. The NZES sets out the Government's vision for a reliable and resilient energy system that aims to deliver New Zealand sustainable, low emission energy services and an action plan to make this vision a reality. One of the key ambitions of the strategy is to promote early adoption of environmentally sustainable energy technologies.



#### **National Energy Efficiency and Conservation Strategy (NEECS)**

The NEECS is a key component of the Government's response to meeting its energy, climate change, sustainability and economic transformation goals. It is a companion document to the NZES and gives effect to a number of objectives set out in the NZES. The NEECS is an action plan for increasing the uptake of energy efficiency, conservation and renewable energy programmes across the economy.

In the context of sustainable housing, the NEECS has targets for making homes more 'Energywise', for improving air quality and for reducing energy costs. Government mechanisms for achieving this include:

- Interest free loans for installing insulation and forms of clean heating;
- Insulation retrofits for low income families;
- Clean heating upgrades for low income families; and
- Encouraging the use of solar water heating systems.

The Energy Efficiency and Conservation Authority (EECA) is the main body responsible for helping to deliver the Government's extensive energy efficiency agenda. Its function is to encourage, promote and support energy efficiency, energy conservation and the use of renewable energy sources.

#### **Sustainable Water Programme of Action (WPA)**

The Government has an agreed strategy to improve the management of fresh water and protect freshwater resources into the future. The key focus for the WPA is to provide for growing demands on water resources, encourage efficient water management through increased national direction, work with local government to identify options for supporting and enhancing local decision making, and developing best practice methods.

# 2.3 The role of local government

The role that local authorities should play in encouraging or improving approaches to sustainable housing is less clear. It is generally agreed that sustainable housing and its environmental and social benefits are important and that local government has a role to play by giving effect to national level policy and local legislation. However, local authorities themselves must consider the degree to which they should play a role in sustainable housing and have the discretion to decide what initiatives are best suited to their intervention.

Local government has three main roles in relation to sustainable housing. At a practical level, local government has obligations under the Resource Management Act 1991 (RMA) and the Building Act 2004 (Building Act) to administer regulations, for example in the form of building consents. In many cases, the regulatory process does not take account of the innovative nature of many sustainability initiatives. Local government has a key role in facilitating these new initiatives within the regulatory framework.



At a broader level, local authorities must give effect to and provide consistency with the national strategies and initiatives. For example, in the context of national strategies, local authorities have been tasked with giving effect to national air quality management targets and emissions standards. Other national frameworks, such as NEECS, also encourage local government recognition that energy efficiency and conservation are part of their core responsibilities. For example, EECA has created the Energywise Councils' Partnership, a relationship between the EECA and local government, which fosters a collaborative approach to improving energy choices.

Local authorities are also required, under both the LGA and RMA, to encourage sustainable management and deal with issues that have wider effects on the built environment, for example managing wastewater and stormwater infrastructure, and waste disposal and recycling services. The RMA provides the legislative platform for action on sustainable management of natural resources, enabling local government to take a regulatory approach to developing energy efficiency. Section 5 of the RMA requires local authorities to take account of the sustainable management of natural and physical resources to provide for the social and economic wellbeing of future generations. It also requires that district plans avoid, remedy or mitigate the adverse effects of activities on the environment.

Local and national drivers can affect local authority decisions to provide incentives for sustainability initiatives. At a local level, in research carried out by Beacon, local councils themselves identified areas where they would be willing to encourage sustainability initiatives. In answer to the question, "what are the main drivers for council's promotion or encouragement of sustainable building?", primary drivers for council promotion and encouragement of sustainable building included the perceived social and environmental benefits, political support from council and the potential for long-term financial benefits.

National assessments of sustainability initiatives and their benefits can also provide some guidance to councils who are deciding whether to encourage sustainability initiatives, and which initiatives to encourage. Where there is a strong national case for policy intervention, it can provide a justification for local incentives and can link with the councils' community outcomes to which the activity contributes - a requirement under section 101(3)(a) of the LGA.



The Beacon-commissioned *National Value Case for Sustainable Housing Innovations* (National Value Case), which quantitatively assesses the overall national benefits of a range of innovations for sustainable housing, provides guidance to local authorities when considering whether to offer financial incentives for particular sustainable housing initiatives.

The National Value Case assessed the national value of bringing the majority of New Zealand's housing stock up to Beacon's HSS High Standard of Sustainability®. Innovations that had a strong national value case (based on national averages) included:

- Retrofitting ceiling insulation;
- Space heating, i.e. heat pumps and pellet fires;
- Instant gas water heating;
- Energy efficient lighting using compact fluorescent lamps;
- Low flow water use devices/ water efficiency measures;
- Water metering; and
- No in-sink waste disposal unit.

The innovations were measured against four types of benefits:

- The private economic benefits that accrue to households (e.g. lower household energy costs):
- The environmental benefits (e.g. less pollution);
- Social and other private benefits (e.g. warmer homes); and
- National resource use efficiency (e.g. less waste).

Based on these benefits, one type of initiative is found to be best suited to government policy intervention at a national and local level – initiatives that generate "a net improvement in economic efficiency, but where externalities exist in hampering their introduction". In this instance, public policy intervention can play a critical role, for example, in encouraging initiatives that result in household energy savings. However, economic efficiency is only one driver for government intervention. Where an initiative has a strong case for environmental and social improvement, there may also be a potential role for public policy in cases where the improvement comes at a net economic cost.

Where there is a national case for policy intervention, there will often also be a case for local intervention. This could provide weight to any local authority intervention aimed at encouraging sustainability initiatives. In some cases, there may also be specific local level conditions that compel local government to act. This requires a case-by-case assessment of the conditions that give rise to the local government intervention, allowing local government a level of discretion in their actions.



## 3 Financial incentives

# 3.1 Types of financial incentives

The use of fiscal measures and other financial incentives to encourage energy efficiency and sustainability initiatives are being increasingly used around the globe. For example, in Europe many member states have introduced environmental taxes and subsidies to industry and households to encourage sustainability initiatives such as solar water heating. However, at a local level, local government incentives promoting housing sustainability are relatively new.

This paper concentrates on the use of financial incentives to encourage sustainable housing practices. However, it is important to note that financial incentives are only one area where councils can intervene to encourage sustainable housing initiatives.

Local authorities can choose to encourage housing sustainability on many levels. At an informative level, councils can encourage change by offering education, advisory services, technical assistance and in-house advice and education. Councils can also use policy to encourage change, for example, through the use of ratings systems for sustainability features and urban design initiatives. In a more proactive capacity, councils can offer flexibility within local planning provisions, fast track consents and use regulation to encourage change, for example, through bylaws and district plans.

In respect of financial incentives, there are many ways in which councils can use financial incentives to promote sustainable housing. The following list provides a cross-section of financial incentives available for council use:

- **Reducing permit fees** (Building Act). Local authorities can reduce the permit fees required for building construction. For example, local authorities could lower the cost of building consents for particular sustainable housing initiatives.
- Reducing user fees (rates) (LGA). User fees and charges cover council regulatory activities for various permits and licences, as well as charges for services such as water supply, wastewater, and solid waste disposal. Local authorities can reduce these charges where sustainable initiatives reduce the need for council activities in these areas.
- Reducing consent fee waivers (RMA and Building Act). Councils can allow applications for resource and building consent waivers in special circumstances. Particular sustainable housing initiatives could, in some cases, be considered under these criteria.
- Providing financial assistance and capacity building (e.g. loans). Local authorities can provide loans to homeowners and landlords for the installation of particular sustainable housing features on their properties.
- Providing discounts on particular products and services. Local authorities can obtain contracted purchase rates for particular approved products and services related to a particular sustainable housing initiative. For example, Environment Canterbury has done this for its Clean Heat project (refer to section 3.2).



- Providing development contribution remissions (LGA). Local authorities can offer remissions on development contributions required of developers for sustainable housing features that reduce the need for council provided infrastructure.
- Providing financial contribution remissions (RMA). Local authorities can levy financial contributions to avoid, remedy or mitigate the adverse environmental effects of a development. Remissions could be offered to developers if they take steps to remedy or mitigate the adverse environmental effects of a development (thereby reducing the need for local authorities to do so).

Local authorities, therefore, have a range of tools available to them when attempting to encourage housing sustainability. In different situations, different incentives may be more appropriate. Local authorities must keep this in mind when investigating the viability of any initiative.

A developing avenue for local authorities that wish to encourage sustainable housing initiatives on a large scale is the use of remissions on development contributions under the LGA, and financial contributions under the RMA.

Development contributions and financial contributions are charges imposed on development (subdivision and/or building) to cover wider costs associated with that development. These charges help pay for infrastructure (e.g. roads, solid waste, sewerage, water supply, stormwater) and reserves/community services.

The purpose of these contributions is to ensure that the cost of the new infrastructure and other community services arising out of new development is borne by those who create the need for, and benefit from, the additional new services.

While development contributions and financial contributions essentially pay for the same costs associated with new development, they cover different impacts. Financial contributions tend to focus on the direct marginal impact of particular developments without considering the wider cumulative impact of multiple developments on the infrastructure and community facilities of a district.

Development contributions on the other hand provide councils with a method to obtain contributions to fund infrastructure required as a result of growth. Development contributions can be imposed on developments:

- 1) If the effect of the development is to require new or additional assets to cater for increased capacity; and
- 2) If, as a consequence, the respective council incurs capital expenditure to provide for additional network and community infrastructure services and reserves.



In addition, a council may impose development contributions to pay, in full or in part, for capital expenditure already incurred by the council in anticipation of the development.

The introduction of development contributions was widely viewed as addressing the restrictive narrow focus of financial contributions. The narrow focus of financial contributions has restricted local authorities' ability to promote other social, economic and cultural policy objectives. This is the main reason for allowing local authorities to take development contributions under the LGA. It is anticipated that development contributions will allow better integration with the rest of the financial management provisions for local authorities.



# 3.2 Examples of financial incentives for sustainable housing initiatives currently in use by councils in New Zealand

In New Zealand, current examples of local government use of financial incentives to encourage sustainable housing initiatives vary.

This section sets out some current examples of financial incentives for sustainable housing initiatives already put in place by councils around New Zealand, including initiatives for both new housing and retrofit options. It provides a high-level analysis, which aims to provide a blueprint for any discussion on best practice financial incentives. It is by no means an exhaustive list.

A fuller assessment of these sustainability initiatives is set out in Appendix A.

# 3.2.1 Clean Heat War Homes Programmes: 'Pay as you Heat' – Nelson City Council

**Incentive type:** Interest free loan, discounted product installation and fee waiver.

**Goal:** To promote the sustainable management of Nelson's air resource and give effect to the Nelson regional Air Quality Plan and the National Emissions Standard.

**Subsidy:** Nelson City Council provides eligible homeowners with an interest free loan (not exceeding \$4,200) to cover the costs of replacing their household burner with a cleaner heating product such as a heat pump or flued gas heater. The loan is repaid over a ten-year period through a targeted rate on the property as part of the property's rates bill. Eligible homeowners are those who have to stop using their enclosed burner as a result of the Council's Air Quality Plan, where their burner is their main form of heating in the main living area.

**Amount:** The loan covers the assessed cost of installation of the recommended heating appliance, any necessary housing insulation, sealing or removing the existing enclosed burner, and the \$100 Nelson City Council administration fee. The maximum loan amount is \$4,200.

Level of uptake: High.



#### 3.2.2 Clean Heat Programme – Environment Canterbury

Incentive type: Subsidies or loans, and discounted product installation.

**Goal:** To encourage homeowners and landlords to change to cleaner forms of heating in order to reach the Council's target of removing 26,600 wood burners by 2013 and replace them with cleaner sources of heat. A further goal is to give effect to the Canterbury Natural Resources Regional Plan and the National Emissions Standard.

**Subsidy:** Environment Canterbury offers homeowners subsidies or loans for clean heating products and insulation with a maximum loan amount of \$4,200. Where a loan is taken, the right to a subsidy is foregone. The level of the subsidy is calculated according to the ability of the homeowner to pay. For example, lower income households might receive as much as 30 percent of the cost of the conversion. The subsidy is funded through the use of a targeted rate that is calculated at \$12 per \$100,000 of a property's value.

**Amount:** The programme offers financial subsidies and interest free loans. These amount to:

- \$3.50/m<sup>2</sup> for ceiling or under floor heating;
- \$500 towards a Clean Heat Project approved appliance e.g. an electric heat pump;
- \$300 towards an electric night storage appliance; and
- \$100 towards sealing or removing an existing fireplace.

**Uptake:** High. Assessments of the project have recorded successful levels of uptake with the project reaching the 12,000 homes mark in August 2007.

#### 3.2.3 Rainwater Tanks Rebates – Rodney District Council

**Incentive type: Rebate.** 

**Goal:** To encourage the sustainable use of water by encouraging homeowners in urban areas of Rodney to use rainwater tanks. A further goal is to reduce average demand on the area's reticulated water supplies and act as a storm water control device to reduce demand on Council-provided storm water infrastructure.

**Subsidy:** Rodney District Council offers a rebate of \$500 towards the cost of installing a Council-approved private rainwater tank and payment of any consent costs associated with plumbing the tank into the home. The water tank must be approved and the scheme is limited to the first 20 applicants per financial year.

Amount: \$500 rebate.

**Uptake:** Low – medium.



#### 3.2.4 Solar Heating Fee Waiver – Environment Waikato

Incentive type: Consent fee waiver.

**Goal:** To minimise the adverse environmental effects of energy production, transmission and consumption and promote efficient energy use in the Waikato region.

**Subsidy:** Building consent fees of \$215 are waived for those people wishing to install solar heating systems.

Amount: Consent fee waiver of \$215.

**Uptake:** Low. No demonstrable increase in applications for solar hot water systems.

#### 3.2.5 Rainwater tank rebates – Auckland City Council

**Incentive type:** Development contributions remission.

**Goal:** To encourage the wise and sustainable reuse of water resource, encourage water conservation and re-use and reduce the discharge load on public storm water system.

**Subsidy:** Developers are entitled to a \$1,000 remission on their development contribution paid to the council for approved installation of rainwater tanks.

**Amount:** \$1,000.

Uptake: Low.

# 3.2.6 Tool for Urban Sustainability Code of Practice (TUSC), Remissions Tool - Waitakere City Council

**Incentive type:** Development contribution and financial contribution remissions.

**Goal:** To achieve cost effective sustainable urban development and improve sustainable management of urban residential buildings, subdivisions and neighbourhoods by raising awareness and understanding of sustainability issues.

**Subsidy:** The remissions tool is part of a web-based rating system that measures the extent to which a new building or other infrastructure minimises demand on Council-provided infrastructure. It is specifically designed for Waitakere City Council's Development Contributions policy. It enables developers to obtain a rebate on their development contributions if a development can demonstrate a number of sustainability features, measured by the web-based tool. The remission is granted based upon the TUSC rating achieved when using the tool.



**Amount:** The maximum remission is \$2,000 per household environmental unit (unit of demand used for calculating development contributions for non-residential land).

**Uptake:** Low. The tool is currently being reviewed to assess why take-up has not been as high as the Council had hoped. This will include an assessment of the level of incentive required to improve desirability within the development community to utilise the tool.

# 3.3 Other examples and opportunities

One particular area for councils to look at is the value case for reducing domestic water demand. If it was possible to reduce demand through a programme of incentivising end users to change behaviours, there could be significant financial savings for councils through a reduction in spend and savings from deferring the need to invest in significant new capital projects.

For example, Waitakere City Council has estimated that by reducing domestic water use per person by 25% by 2026 (and by 40% by 2050) the council will be able to meet the needs of the future population without increasing supply. Such savings would translate into significant financial savings to the council.

South Africa's Rand Water Board initiated a successful example of such a programme in 1999 in townships located in South Africa's Rand Water supply area. The project began with a detailed house-by-house investigation of domestic leaks. This was followed by a detailed and comprehensive communication and awareness campaign. This included posters, pamphlets, road shows, community theatre, workshops for the community and presentations at schools.

The issues addressed in the communication and awareness campaign included information about the project, the value of water, the value chain of potable water, the need to conserve water, the need to pay for water, and how to make minor repairs to plumbing installations. Bulk district meters were installed in the water reticulation system and repairs were carried out to all plumbing on the consumer side of meters, excluding effluent pipes. Leaking or broken toilet cisterns were replaced with water efficient dual flush cisterns.

The Rand Water Board project's key objectives were met. The overall water consumption was reduced from 47ML/day in 1995 to 27.5ML/day in 1999. This represented a drop in consumption of 41.5%. The average consumption per household dropped from an estimated 45kL/month to 25kL/month.

The direct financial savings to the local authority where estimated at R20 million (NZ\$3.2 million) per year if savings for the operating costs of treating the wastewater were included.



The South African project directly benefited consumers by reducing water bills. This, in turn, increased the affordability of water for the consumers, and therefore reduced the likelihood of people defaulting on their water bills. Overall, the project contributed substantially to the sustainability of water services in this area, ensuring the long-term viability and predictability of water provision.

## 3.4 Legal framework for financial incentives

When deciding on the viability of providing an incentive for sustainable housing, or how to put such a system in place, the primary factor that councils must consider is whether their spending on the incentive is a justified use of council funds. Because the funding for such financial incentives comes from community rates (or, in the case of development contributions, results in a reduction in the amount of contributions councils receive for infrastructure spending) councils must take into account how the benefits of an incentive are distributed to the community over time. These benefits should be considered across all council wellbeings.

The requirements are set out in section 101(3) of the LGA.

#### Section 101(3) Local Government Act 2002

Councils must consider section 101(3) of the LGA when deciding how to fund activities. This framework applies to any activity or financial incentive that councils fund.

Section 101(3) states that councils must consider, in relation to each activity funded, the following five considerations:

- I. The council community outcomes to which the activity primarily contributes;
- II. The distribution of the benefits between the community as a whole, any identifiable part of the community, and individuals;
- III. The period in or over which those benefits are expected to occur;
- IV. The extent to which the actions or inaction of particular individuals or a group contribute to the need to undertake the activity; and
- V. The costs and benefits, including consequences for transparency and accountability, of funding the activity distinctly from other activities.

In addition, section 101(3) states that councils must consider the overall impact of any allocation of liability for revenue needs on the current and future social, economic, environmental, and cultural well being of the community.

As a financial incentives system for any sustainable housing initiative is assumed to come at a cost to councils, section 101(3) is of paramount importance when councils are considering the viability of any such incentive.



Councils may have difficulty meeting some of the requirements of section 101(3). In particular, difficulty may be experienced meeting the requirement in section 101(3)(b) which states that councils must consider the distribution of the benefits of the initiative between the community as a whole, as well as any identifiable part of the community, and individuals. Many of the measurable benefits of sustainability initiatives often accrue to the individual as opposed to the community. For example, in the case of solar hot water, the measurable benefits of reduced water heating costs are experienced by the individual, whereas the other benefits experienced by the wider community, such as promoting energy consumption, conservation in energy production, transmission and consumption, are considerably more difficult to measure. These measurement issues may make it difficult to justify offering a financial incentive for the sustainability initiative from community rates. Nevertheless, where there is a strong link between the initiative and its benefits to the wider community, section 101(3) (b) requirements can be met.

#### 3.4.1 Neil Construction Ltd v North Shore City Council

The case of *Neil Construction Ltd v North Shore City Council* [2001] highlighted the importance of section 101(3) of the LGA within the context of requiring development contributions. Under the LGA, councils are also able to require financial development contributions from developers in order to fund the cost of new infrastructure to meet the additional demand created by growth. When requiring these development contributions, councils must take into account the five considerations listed in section 101(3).

In *Neil Construction Ltd v North Shore City Council*, the High Court emphasised that councils must consider the five factors in the section when allocating costs between sectors of the community. The Court stated that section 101(3) is a "critical filter" by which "funding sources in respect of each activity must be considered and determined". In addition, the Court held that councils must satisfy themselves as to the overall impact of each funding source determination on the four wellbeings.

Section 101(3) is therefore critical when councils are considering development contribution remissions for a sustainable housing initiative. The reasons for offering the remission must be clearly stated and the justification must take into account the impact on individuals, the council, and the community.



#### 3.4.2 Development Contribution Remissions

Remissions on development contributions must be considered separately from other financial incentives. This is because of the specific use for development contributions. Councils are able to create a development contributions policy under the LGA to help recover some of the costs of growth associated with increasing the capacity of their city's infrastructure. The revenue from these contributions is spent on projects that provide additional capacity to meet the demands on growth. For example, development contributions are used to fund infrastructure for storm water, community facilities, open space and transport.

Because the levying of a development contribution must be directly related to the growth of the community, development contribution remissions require additional quantitative analysis over and above the qualitative justifications required under section 101(3) of the LGA. Where development contributions remission is offered for a sustainability initiative, the initiative itself must mitigate the need for additional council provided infrastructure as a result of growth. While it is not impossible to establish such a link, the standard required is higher than that of other financial incentives and may therefore be more difficult to meet.

It is also important to note that, while development contributions are levied on specific developments, the revenue from these is spread across infrastructure projects throughout the community, not solely in an isolated area. Therefore, where the benefits of a sustainability initiative accrue primarily to an individual, as opposed to the community as a whole, this will not be sufficient to justify offering a development contribution remission.

However, where the benefits of the sustainability initiative can be shown to mitigate the costs and effects of growth in the community, a remission may be justified. An example where such a remission is within these bounds is the Auckland City Council scheme, which provides remissions on development contributions when a developer installs rainwater tank on the property. In this case, the justification is that the rainwater tank reduces the demand on the council to provide storm water infrastructure by reducing the discharge load on the public storm water system.



#### 3.4.3 Financial Contribution Remissions

Remissions on financial contributions are also an area separate from other financial incentives. Under section 108 of the RMA, councils are able to collect financial contributions from developers to avoid, remedy or mitigate the adverse environmental effects of a development. Expenditure of such funds can only be done within the purposes for which they were collected. For example, contributions may be made to provide funds to protect or restore water quality, to contribute land for the purpose of mitigating the adverse effects of land use activities or discharges on water quality, to provide measures to mitigate or remedy the adverse effects of discharges of storm water and associated contaminants, or to undertake investigations of historic sites.

Therefore, remissions on financial contributions or a waiver of the requirement for financial contributions will only be justified where the sustainability initiative mitigates the adverse environmental effects of the particular development.



# 4 Barriers and challenges

#### 4.1 Barriers

There are challenges that councils must overcome in order to introduce financial incentives for sustainability initiatives, many of which have already been experienced and documented by councils with financial incentives already in place. Some of these barriers are set out below.

#### 4.1.1 Acceptance Barriers

As financial incentives systems for sustainable housing predominantly come at a cost to ratepayers, challenges to the distribution of benefits of the system are to be expected. For example, the Clean Heat Canterbury Project documented 'acceptance' barriers when the project was first established.

#### Concerns were centred on:

- Perceptions of uncertainty in scientific analysis for the initiative;
- The emotive and economic impacts of the project on home environments in the community; and
- The perceived inequity that all ratepayers must subsidise a few households.

Environment Canterbury's justification for the initiative was twofold. First, it argued that a targeted rate was the price the community must pay to achieve a healthy air quality and that because the whole community benefits, every household must make a contribution.

Second, Environment Canterbury argued that the rate was intended to mitigate the social impact of clean air requirements, allowing those households who have difficulty complying with new clean air requirements to receive assistance from their local community, and that a uniform levy would disproportionately disadvantage lower income households.

These issues experienced by Environment Canterbury highlight the importance of sound justification when providing incentives for sustainable housing initiatives, and the need for a clear and transparent assessment of the distribution of the benefits of the initiative. While councils have a level of discretion when weighing up the public good of a sustainable initiative against the sectors of the community that are required to pay for it, it is important to link the initiative to the benefits it distributes.



#### 4.1.2 Legal Barriers

As discussed in section 3.3 above, councils may encounter different legal barriers depending on the type of financial incentive they wish to offer. The main barriers are grouped into three categories below:

- 1) **Development contribution remissions:** Councils may experience difficulty in showing that the sustainability initiative mitigates the infrastructure requirements that councils must meet as a result of growth.
- 2) Financial contribution remissions: Councils may experience difficulty in showing that the sustainability initiative mitigates the adverse environmental effects of the particular development.
- 3) Other financial incentives: Difficulty may be experienced in meeting the requirement of section 101(3)(b) of the LGA that councils must consider the distribution of the benefits of the initiative between the community as a whole, as well as any identifiable part of the community, and individuals.

While it is not impossible to overcome these barriers, in order to ensure a robust approach, councils must carefully justify their actions against the legal frameworks set out in the LGA and RMA when establishing new financial incentives for sustainable initiatives. A lack of consideration for these legal frameworks may leave councils open to legal challenge, resulting in legal costs, and the eventual requirement that the policy or incentive be reworked to take these frameworks into account, as demonstrated in the case of Neil Construction Ltd vs North Shore City Council.

It is important for councils ensure that any assessment of funding intended to support sustainability incentives explicitly takes section 101(3) of the LGA into account. To overlook this would potentially leave a local authority open to legal challenge.

#### 4.1.3 Lack of Uptake

Many councils with financial incentive systems already in place have identified difficulty in securing uptake from their consumers. For example, Waitakere City Council is reviewing its development contributions remission scheme to assess why uptake has been low, and in particular whether the financial incentive is sufficient by itself. Auckland City Council has also found uptake of their rainwater tanks rebate low, and Environment Waikato has found no demonstrable increase in applications for solar hot water systems.

It is important to note that such incentives can be technical and costly to put in place, and without adequate uptake, such effort may be redundant. Therefore, it is important to ensure that the financial incentive offered not only meets the sustainable goals of the initiative, but also corresponds to a need within the community.



Two main limitations to uptake can be assumed:

- Where the threshold of the financial incentive is not high enough in monetary terms, it will be no real incentive to homeowners or developers to use the sustainability initiative.
- Where there is a lack of knowledge of the incentive in the community, potential users of the incentive may not be aware of its existence. Avenues for addressing these limitations are discussed below.

# 4.2 Addressing the barriers

While offering financial incentives may go part of the way to encouraging the use of sustainable housing practices, greater uptake may not be a direct result of the incentive. Rather, any financial incentive must operate within a wider context of promotion and local and national policy frameworks. This indicates that local authorities must not only provide for the initiative itself, but must be aware that success of the initiative may well depend on informing the public and marketing the benefits of the initiative. This must form part of any fund allocation at the outset of the project.

A review of overseas initiatives such as tax incentives, subsidies and information sources to increase the uptake of solar water heating found that there are a number of market development initiatives being undertaken around the world and these are having "beneficial results in assisting the uptake of solar hot water systems". However, the review also found that there was no single factor that influenced the uptake of solar water heating. Rather the cumulative benefits of a series of supportive measures resulted in success. Nevertheless, the study identified the essential components, which "combine to help create an environment in which renewable energy exploitation can succeed".

These key components included:

- Significant support from governments,
- Fiscal measures are often necessary to stimulate the market,
- Improving building regulations to stimulate uptake of solar water heating, and
- Information and promotion programmes.

From this, we can draw three main options for addressing barriers to sustainability incentives that may be applicable to the New Zealand context:



#### 4.2.1 Promotion, marketing and open information channels

Without information about the particular incentive, potential consumers may be unaware of the existence and/ or benefits of the initiative.

The Clean Heat Project in Canterbury provides a beneficial example where an increase in available information about the project, promotion and marketing led to demonstrable increase in the uptake of the incentive. A slow start was observed by Environment Canterbury Energy Forum, with increased levels of uptake following promotions explaining what the project was trying to achieve, the need to meet the National Environmental standards, and the benefits of clean heat including improved air quality and warm homes. As a result, "uptake of conversions under the Clean Heat Project was higher than expected due to increasing public awareness and acceptance". Community leadership and enthusiasm was also an identified factor in encouraging uptake in relation to clean heat programmes in both Nelson and Canterbury.

#### 4.2.2 Increasing the threshold of the incentive in monetary terms

Where the financial incentive is low, it will do little to encourage or motivate people to use the sustainability measure. Therefore, an assessment of the monetary level of the incentive is required, looking at whether it is high enough to encourage people to use the initiative, or whether the money would be better spent on other forms of incentive.

# 4.2.3 Aligning local government incentives with central government incentives and frameworks

Offering incentives at a local level that leverage off central government initiatives can add strength to a sustainability initiative. Alignment will lead to greater national level consistency, thereby opening the opportunity to greater benefits on a wider scale. For example, Nelson City Council now receives ENERGYWISE<sup>TM</sup> subsidies from EECA towards the costs of borrowing associated with the 'Pay as you heat' scheme. Environment Canterbury is also working with EECA to align its Clean Heat programme to include subsidised loans and grants under the government's ENERGYWISE<sup>TM</sup> funding programme. Areas such as solar water heating may also benefit from alignment between central and local government initiatives.



# 5 Key learnings and conclusions

# 5.1 Key learnings

Using section 101(3) of the LGA as a guideline for financial incentives systems, the following key learnings can be drawn from initiatives already in place around the country. These can provide guidance for councils considering whether to offer financial incentives for sustainable housing initiatives.

- There is a strong argument for local government intervention where a sustainability initiative reduces council infrastructure provision requirements. This is due to the direct economic saving to local authorities and their respective communities.
- In the absence of an economic justification for the sustainability initiative, there may be a role for local government intervention where the initiative has a strong case for environmental and social improvement.
- Areas where there is a strong national case for policy intervention may provide a good basis for local policy intervention. However, the absence of a national case for policy intervention does not preclude local government intervention.
- Where there are clear policy drivers, or legislation underpinning the provision of the incentive, this provides a sound base justification for local authority intervention.
- Initiatives with clearly defined boundaries and which cover specific sustainable initiatives are easier to justify from a legal and policy perspective and add clarity to the initiative.
- Councils must clearly define where the need for the initiative arises. This can help to justify local government intervention to promote the initiative and can also assist in matching the right type of initiative with the problem.
- Where possible, the benefits of the initiative should be widespread and not limited to a particular sector of the community.
- Funding for the incentive must be clearly allocated and justified. Where funding for promotion or marketing is required in order to encourage uptake of the initiative, this must also be allocated.
- Information, promotion, and marketing are key to a successful initiative.
- When considering offering a remission on development contributions, the remission will only be justified where the initiative mitigates the requirement for council provided infrastructure to meet the effects of growth.
- When considering offering a remission on financial contributions, the remission will only be justified where the initiative mitigates the adverse environmental effects of the particular development.



#### 5.2 Overall conclusions

Our initial assumption was that offering financial incentives for sustainable housing initiatives would present significant challenges for local authorities. This is because resource savings arising from the proposed initiatives would likely accrue to individuals as opposed to significantly reducing the infrastructure and service provision burden faced by councils.

Following a high level analysis of current financial initiatives by local authorities in New Zealand, it seems that some councils have considered the wider social and environmental benefits and general sustainability benefits to the community to be adequate justification for intervention.

While some might consider this a tenuous link, the potentially significant positive impacts on general standards of living, community health and the wider sustainability benefits may be enough to justify such policy intervention.

In addition, other practical considerations such as the potential uptake of the initiative, how the benefits are distributed among the community over time, and the level of need for the initiative that is evident within the community, are paramount for transparent council decision making processes. At the very least, this paper indicates that local government approaches to date have been piecemeal in approach. A lack of such clearly defined limits, justification, and clarity as to where funding for the initiative will come from, is likely to impact on the success of any given initiative.

Furthermore, an assessment of what sectors create the need for the initiative at initial stages can help councils find the right type of initiative for the right type of problem. Local authorities have a range of options available to them when trying to encourage uptake of sustainable initiatives, financial incentives being only one of these options. When considering how to encourage uptake or incentivise the use of sustainable housing initiatives, local authorities should consider all these options, rather than opting to offer financial incentives as a first option. The lack of uptake indicated in many of the reviewed initiatives show the importance of targeting the right problem with the right solution.



# 6 Appendix A

For each project, the analysis looked at:

- An overview of the project, including what the initiative aims to achieve
- Who the incentive is provided to i.e. homeowners or developers
- The type of incentive offered, for example, development contribution, rates remission, nilfee consents, fast track consents, funding, or grants
- Who receives the benefits of the incentive?
- What sectors of the community, council, or government create the need for the incentive?
- The council justification for the expenditure
- How the system has been set up
- What uptake of the incentive has been like to date?

The analysis is set out in the following table.



1. Name of Incentive	Clean Heat Warm Homes Programme: 'Pay as you heat' - Nelson
2. Overview of Incentive	The Nelson Regional Air Quality Plan promotes the sustainable management of Nelson's air resource.  The Clean Heat Warm Homes Programme puts the plan into effect. The programme provides financial assistance up to \$4200 to homeowners who have to stop using their enclosed burner as a result of the Council's air quality plan. Homeowners are eligible where: Their burner has to be phased out by the Council's Air Quality Plan Their burner is the main form of heating in the main living area
2. Incentive provided to Homeowners or developers?	Homeowners
3. Type of incentive (e.g. development contribution/ remission/ nil-fee consents/ fast track consents/ funding/ grants etc)	An interest free loan not exceeding \$4200.
4. Who receives benefits of incentive/ initiative?	Benefits to the individual: The resident receives individual benefits of improved health and standard of living. There may also be financial benefits to the individual as a result of more efficient heating such as savings in household energy costs.  Benefits to the community: The community experiences benefits of better air quality
5. What sectors of the community/ council/ government create the need for the incentive?	The need for the incentive is largely driven by nationally set policy i.e. the national emissions standards.
6. Council justification for expenditure?	The Council has obligations under the Resource Management Act 1991 to facilitate sustainable management of natural and physical resources to provide for the social and economic wellbeing of future generations. National emissions standards under the National Energy Efficiency and Conservation Strategy. The Nelson Regional Air Quality Plan puts some of its obligations into effect.
7. How system set up?	The programme provides a range of heaters at competitive prices from suppliers accredited to the Clean Heat-Warm Homes programme. Apply for the loan, choose the heater and then all the work is done by the council approved supplier. Nelson City Council replaces the homeowner's current enclosed burner with a heat pump or flued gas heater, or pellet burner, or council authorised wood burner, and upgrades insulation in the property. The loan is then paid back, interest free, over a ten-year period. This is done through a targeted rate on the property as part of the property's rates bill.
8. Uptake?	High



1. Name of Incentive	Clean Heat Programme - Environment Canterbury, Christchurch
2. Overview of Incentive	The programme offers financial assistance to homeowners and landlords to encourage them to change to cleaner forms of heating. The Council aims to reach a target of removing 26,600 wood burners by 2013 and replacing them with cleaner sources of heat. The assistance comes in the form of subsidies or loans, for clean heating and insulation.
2. Incentive provided to homeowners or developers?	Homeowners
3. Type of incentive (e.g. development contribution/ remission/ nil-fee consents/ fast track consents/ funding/ grants etc)	The programme offers financial subsidies and interest free loans with a maximum loan amount of \$4200.  These amount to: \$3.50/m2 for ceiling or under floor heating. \$500 towards a clean heat project approved appliance e.g. an electric heat pump. \$300 towards an electric night storage appliance. \$100 towards sealing or removal of an existing fireplace.
4. Who receives benefits of incentive/ initiative?	Benefits to the individual: Better health and a better standard of living.  Benefits to the community: Note that approximately 70% of contributing ratepayers derive no direct benefit other than cleaner air, because they remain ineligible under the conditions of funding. Note that these people nevertheless face difficulties as a result of poor building energy performance. However, better air quality can have impact on community health, and standard of living.  The programme also raises community awareness of the negative effects of pollution and accepts the role the community plays in the use of domestic solid fuel heating.  Benefits to council and local industry: If the region does not meet the National emissions standards by 2013, this will limit the Council's ability to issue new resource consents for discharge into the air after 2013. This could have great impact on local industry growth.
5. What sectors of the community/ council/ government create the need for the incentive?	The need for the incentive is largely driven by nationally set policy i.e. the National emissions standards.
6. Council justification for expenditure?	The programme was set up as a response to the high levels of air pollution in Canterbury originating from the burning of open fires.  The Council has obligations under the Resource Management Act and the National emissions standards, which will become binding in 2013. These obligations have resulted in the proposed Canterbury Natural Resources Regional Plan.



7. How system set up?	The level of subsidy is calculated according to the ability of the homeowner to pay. For example, a community services cardholder may apply for a fully subsidised retrofit. Lower income households might receive as much as 30% of the cost, while landlords can receive a subsidy of 40%.  Council must approve the alternative-heating appliance to be 'clean heat'. Examples include heat pumps, pellet burners or flued gas heater.  If a loan is taken out (maximum loan is \$4,200), the right to a subsidy is foregone.  The subsidy is funded through the use of a targeted rate that is calculated at \$12 per \$100,000 of a property's value per year.
8. Uptake?	High. In August 2007, the project reached the 12,000 homes mark. This is the highest level of uptake of any of the initiatives detailed in this table.



1. Name of Incentive	Rainwater tank rebates – Rodney
2. Overview of Incentive	Homeowners in urban areas of Rodney are entitled to a rebate on the cost of installation of a council-approved private rainwater tank.
2. Incentive provided to homeowners or developers?	Homeowners
3. Type of incentive (e.g. development contribution/ remission/ nil-fee consents/ fast track consents/ funding/ grants etc)	The amount of the rebate is \$500 per home plus payment of any consent costs associated with plumbing the tank into the home.
4. Who receives benefits of incentive/ initiative?	Benefits to the individual: Reduced water costs.  Benefits to the Council and community: Reduced demand on storm water infrastructure. Increased environmental .protection
5. What sectors of the community/ council/ government create the need for the incentive?	Current demand on Water infrastructure in Rodney is high. This scheme could potentially alleviate this pressure
6. Council justification for expenditure?	Rainwater tanks are already a common method of water supply for homes in the Rodney district. This initiative aims to encourage those in urban areas to follow the trend. Tanks will help in the urban areas with reticulated water supplies. It may also act as a storm water control device by providing some temporary storage of runoff from the roof. The initiative encourages sustainable use of water, reducing average water demand and increasing environmental protection. Rainwater tanks can also help to reduce localised flooding, erosion of streams, and sedimentation of rivers and estuaries. The tanks mimic the way natural environments behave in slowing down the discharge of roof water, and mitigate the effects of increasing urban development.
7. How system set up?	Council pays any consent costs related to the installation of the tank, and offers a \$500 rebate, for an approved water tank of sufficient size. The scheme is limited to the first 20 applicants per financial year. Approval is at council's discretion.  Preference is given to retro-fit and to problem catchments.
8. Uptake?	Low



1. Name of Incentive	Solar heating fee waiver – Environment Waikato
2. Overview of Incentive	Building consent fees (normally \$215) are waived for those people wishing to install solar heating systems.
2. Incentive provided to Homeowners or developers?	Homeowners and developers.
3. Type of incentive (e.g. development contribution/ remission/ nil-fee consents/ fast track consents/ funding/ grants etc)	Consent fee waiver
4. Who receives benefits of incentive/ initiative?	Benefits to the individual: Reduced cost of water heating: Hot water overall accounts for around \$800 of an average yearly household energy bill. A well designed water heating system can save up to 75% of this.  Benefits to the community: Minimising the adverse effects of energy consumption and promotes efficiency and conservation in the production, transmission and consumption of energy.
5. What sectors of the community/ council/ government create the need for the incentive?	The initiative is largely driven by regional policy. The Waikato regional policy statement has efficient energy use in the Waikato region as one of its stated objectives. Another aim is to minimise the adverse environmental effects of energy consumption e.g. production of greenhouse gases when burning fossil fuels.
6. Council justification for expenditure?	Council wishes to be a leader in the area of encouraging community energy and efficiency within local government.  Improving the social and economic well being of the community.  The project supports the Council's Local Action Plan that addresses the Community's Greenhouse Emissions.
7. How system set up?	Building consent fees for the installation of a solar hot water system are waived.  Application must be made to the council.
8. Uptake?	Low. No demonstrable increase in applications for solar hot water systems



1. Name of Incentive	Rainwater tank rebates – Auckland City Council
2. Overview of Incentive	Developers are entitled to a rebate on their development contribution paid to the council for approved installation of rainwater tanks.
2. Incentive provided to Homeowners or developers?	Developers.
3. Type of incentive (e.g. development contribution/ remission/ nil-fee consents/ fast track consents/ funding/ grants etc)	A development contributions remission of \$1,000 is given to the developer. This remission is taken off the development contribution the developer would usually be required to pay.
4. Who receives benefits of incentive/ initiative?	Benefits to the individual: The individual gains financial savings on Metro water and wastewater charges.  Benefits to the community: Reduction of discharge load on public storm water system.  Benefits to the developer: Lowering the costs of development.
5. What sectors of the community/ council/ government create the need for the incentive?	A council driven initiative to take pressure off the public storm water infrastructure
6. Council justification for expenditure?	The initiative will take pressure off the public storm water infrastructure by: Encouraging the wise and sustainable reuse of water resource. Encouraging water conservation and re-use. Reducing the discharge load on public storm water system.
7. How system set up?	The applicant must first pay development contribution and is notified at the time of a possible rebate for a compliant rainwater tank.  It must be signed off by the Council and then the applicant receives the rebate.
8. Uptake?	Low.



1. Name of Incentive	Tool for Urban Sustainability Code of Practice, Remissions tool – Waitakere City Council
2. Overview of Incentive	The remissions tool is part of a web-based rating system that measures the extent to which a new building or other infrastructure minimises demand on council provided infrastructure. It is specifically designed for Waitakere City Council's Development Contributions policy.  The tool enables developers to obtain a rebate on their development contributions if a development can demonstrate a number of sustainability features, measured by the web-based tool. The remission is granted based upon the TUSC rating achieved when using the tool.
2. Incentive provided to Homeowners or developers?	Developers.
3. Type of incentive (e.g. development contribution/ remission/ nil-fee consents/ fast track consents/ funding/ grants etc)	A development contributions remission is given to the developer.  The maximum remission is \$2000 per Household Environmental Unit (unit of demand used for calculating development contributions for non-residential land).
4. Who receives benefits of incentive/ initiative?	Benefits to individual homeowners: Reduction in the lifecycle costs of the infrastructure.  Benefits to the community: General sustainability benefits to the community.  Reduced Resource Management Act compliance costs for developers, councils and the community.  Benefits to the developer: Lowering the costs of development.
5. What sectors of the community/ council/ government create the need for the incentive?	Drivers for the initiative: Efficient infrastructure management. The Ministry for the Environment Programme of Action for Sustainable Development call for improved provision of infrastructure services. General sustainability goals.
6. Council justification for expenditure?	To improve sustainable management by raising awareness and understanding of sustainability issues.  Meeting council's sustainability objectives.
7. How system set up?	A web based process and ratings system. The developer's adherence to these initiatives is then checked during planning, construction and on completion of the project. Once the initiative is approved, the development contributions remission becomes available.
8. Uptake?	Low. The tool is currently being reviewed to assess why take up has not been as high as the council had hoped. This will include an assessment of the level of incentive required to improve desirability within the development community to utilise the tool.



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