

### December 2008- January 2009

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### Welcome and thank you

For those of you who have only recently joined the project, welcome...

... and to those of you who have been with us for a while, thanks for your commitment to the project.

Our partners are now well underway with the assessments and development of your Renovation Plans. They have been really enjoying meeting you, our homeowner participants, and appreciate your enthusiasm and interest in sustainable building.



They have told us that some of you have already been making great efforts to make your homes more sustainable, and we look forward to hearing through the project about how you have found the information we are providing.

We are well aware that, for some people, getting the funding together to do anything on their home is hard. Throughout the project we will be continuing to try and find partners who can help people out with this side of things.

As part of your Renovation Plan we do provide some information about funding sources, and we will use this newsletter to keep you updated about any more.

You may have heard recently in the media that a quarter of all households have had their health affected by their poorly performing home. This ranges from colds and flu, to asthma and other respiratory illnesses. Our research is trying to find the best ways to address exactly this problem.

As someone who is in this group I also have been busy with my own home renovation. In our last newsletter I told you about the problems with my house, and I am pleased to say that already some of the actions I have taken have made a big difference to how my home is performing.

If you need to contact me, email me at: [loise@beaconpathway.co.nz](mailto:loise@beaconpathway.co.nz) or phone me at: (06) 867 4458

Kind regards

*Lois*

### Update on the HomeSmart Renovations project

We have had a great response from people about being involved in the project, with around 300 people indicating they are interested in participating so far.

We are trying to recruit 750 people in total, so if you know someone who is planning to renovate their home in the first half of 2009, then feel free to spread the word! We'll be recruiting through to March 2009



## What's underway?

### HomeSmart Renovation Assessments

Between now and the end of February 2009, home assessments are being undertaken by trained assessors from our partner organisations (Community Energy Action, EcoMatters Environment Trust, Energy Options and EnergySmart).

They are undertaking assessments at the rate of about 15-20 a week. If you have returned your first homeowner survey but haven't been contacted by an assessor to make a booking, then you should hear from them soon.

If you haven't completed the first survey (sent to you in response to your registration with the project), then you do need to do so before we can refer you to an assessor.

### HomeSmart Renovation Plans

After you have had your assessment, you will receive your Renovation Plan, as well as a Home Owner Kit with a manual on operating homes to achieve good performance, and information about project management of home renovations.

If you have any questions about the recommendations on your Renovation Plan or about how to prioritise your renovation, please contact your assessor. Their contact details are on the front of the Renovation Plan.

### Temperature and humidity monitoring

We've begun recording the temperature in many homes using loggers – our thanks to the people who have agreed to have them in their homes. For those who have agreed to have loggers but have not yet received them, they should be arriving any day via mail.

The loggers will be changed every six months so that we can download the data on how your home is performing. This is a key part

of quantifying the improvements possible from sustainable renovation.

### Swapping the loggers

The process for swapping the loggers is quite simple – BRANZ, one of the companies contracted by Beacon to carry out monitoring, will send out the loggers with a prepaid post envelope. New loggers (temperature and/or humidity) will be sent out when they are due to be exchanged, which is every six months at this stage.

All you need to do is:

- swap them over (putting them back in exactly the same places unless advised to do otherwise)
- write the exact time and date of the swap-over on the labels provided
- stick them to the old loggers. To avoid any confusion, we suggest you stick the labels on the old ones before swapping them around!

### Water meters

In areas where water metering is not required, we would like some people to allow us to install a water meter. This will help us understand national patterns of water use.

Installation will not cost you anything and we will tell you how to read the meter. You may get a call from Nikki Buckett (BRANZ) to ask you whether you would like to participate in this part of the research programme.

### Follow-up phone survey

Once you have received your Renovation Plan, you may be contacted for a follow-up phone survey. This is to get feedback on how useful the information in the Renovation Plan and Home Owner Kit is to you, and whether it has changed your intentions for your renovations. We'll email you first to organise a good time for the phone survey.



## Your questions answered ...

### ***Are subsidies or assistance available for people participating in the project?***

We will provide, as part of the Renovation Plan, advice on government assistance or subsidies which might be available to you to undertake actions such as insulation, solar hot water systems, efficient heating and other energy and water efficiency measures.

Some of these subsidies are administered by our partners - the people who are doing your in-house assessments. It's your choice whether you want to take up any of these subsidies, and if you want to contract our partners to put these in place for you.

Recent changes have occurred to the amounts of assistance and list of providers who can assist with energy efficiency upgrades. If you are planning to apply for a grant or loan, then you can check the updated list of subsidies and providers by calling EECA on 0800 749 782 or by looking on the Energywise website at: [www.energywise.govt.nz/funding-available/index.html](http://www.energywise.govt.nz/funding-available/index.html)

If you have not yet received your Renovation Plan, then the version you do receive will have been updated with the latest subsidy information.

### ***Do you have recommendations on the best products and materials to use?***

You may have notice that your Renovation Plan doesn't include recommended brands, products or materials to use. Our research hasn't extended to testing different brands of the same product, so we're not in a position to endorse one brand over another. We've also found that, in most instances, the most important issue for good performance is sizing products correctly (e.g. the right size heater for the space) and getting the installation right. The best product in the

world will perform badly if it's not installed correctly.

The Home Owner Manual (which you should have received as part of your Home Owner Kit) provides information on what to consider when choosing your products or materials. For example, with insulation, we believe that the most important thing is to get good thick insulation which is installed well, and that the type you use doesn't make a lot of difference to performance. Your Home Owner Manual will help to interpret the advice in the Renovation Plan so be sure to read it.

Consumer New Zealand does a range of product testing and can provide some information ([www.consumer.org.nz](http://www.consumer.org.nz)). Using products that your tradesman/installer is familiar with is also a good idea – they're more likely to install them correctly if they are used to using them.

### ***How do I know what products are environmentally-friendly?***

Some people have asked about the environmental friendliness of different products. Unfortunately this is an area where there are a lot of "self claims" and little reliable information.

The **Environmental Choice** certification scheme ([www.enviro-choice.org.nz](http://www.enviro-choice.org.nz)) is a rigorous and world-recognised environmental accreditation and we would recommend people use Environmental Choice certified products.

EECA also administers the **Energy Star** programme ([www.energystar.govt.nz](http://www.energystar.govt.nz)) and Energy Star rated products will be the most efficient in their class.

Many product groups don't as yet have any certified products. In these instances we suggest you consider the performance of the product and the quality of installation as the most important issues.



### ***Will my home be monitored?***

Not all homes are being monitored in this research project. Power and water bills are providing information for all homes, but only a sample of homes will have temperature and humidity loggers installed. To ensure the research is robust, this sample is being selected randomly within each of the areas of the project.

### ***I've received some equipment in the mail – what do I do?***

You will receive your temperature and humidity loggers by mail. They will come with instructions on where to place them.

If you have any problems with the loggers, contact Nikki Buckett (BRANZ), Ph 04 238 1324

### ***Who will want to visit?***

The only time we need to visit your home is for the HomeSmart Renovation Assessment. Our assessors, from one of our renovation partners, will spend an hour or so at your home, asking a few questions and then looking at the different aspects of your home.

Other than that, you should only be contacted by phone, mail or email.

### ***I'm still waiting for my home assessment – why is it taking so long?***

The first question is whether you've filled in your survey. If you haven't, fill it in now and send it off.

Once we have your survey, we send your details off to the renovation partner in your area. We do this in batches though, so that they are not overwhelmed by demand.

### ***Why did the assessment ask some of the same questions as the survey?***

If you have already had your assessment, you may have noticed the same questions in both the assessment and survey. You'll be

asked some similar questions again in the follow-up phone survey.

It is important for the research project not only to collect information but to track changes over time. We need to ask some questions several times to see what steps, if any, you've taken as the result of our advice, and then to track any changes in your home's performance.

### ***Why doesn't the Renovation Plan include costings?***

The HomeSmart Renovation project is all about research into what works best to make your home work well. The Renovation Plan is our advice, based on all the research we've already done, on what steps you should take to improve your home.

We're not a commercial company and we're not selling anything or endorsing any products. Although the Renovation Plan gives information on relative differences in costs, it is not a quote, and our assessors are not trained quantity surveyors.

We've also found that costs vary considerably by location – it's much cheaper, for example, to install a polythene vapour barrier in Gisborne than it is in Auckland. Costs also vary depending on the complexities of your particular house – few houses face exactly the same issues.

We agree that costs are an important factor in deciding what to do when. However it is outside the reach of this project to include them.

### ***What should I do first? How do I prioritise my renovations?***

Your Renovation Plan has been structured so that changes suggested as part of package one are the highest priority. However each house is different, so if in doubt go back to your assessor to discuss priorities.



### ***How do I contact my assessor?***

The contact details for your assessor should be on the front of your Renovation Plan. We've also put all the contact details for the four partners who are doing the assessments on the last page of this newsletter.

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## **Top Tips: Summer Cooling in Your Home**

One of the most effective ways of cooling your home in summer is to leave windows open overnight. Try and take advantage of the natural drafts flowing through your house – by leaving open higher windows, and ones on the opposite sides of the house. If you are concerned about security, then there are easy to install security stays available from your local hardware store.



***These examples of passive stack ventilation (letting hot air escape through high windows) were all seen in innovative houses visited in a recent tour of the UK.***

### **Shade**

Another way to avoid overheating is to minimise the amount of late afternoon sun falling on your windows. Ideally you should not have large areas of western facing glass, but if you already do, then shading these areas (with an awning or deciduous trees) to block out late afternoon sun is a good idea. For every square metre of glass that the sun falls on, a kilowatt of heat is generated per hour – that's like running a heater all the time.

### **Curtains**

If you can't shade from the outside, then the next best option is to install thick thermal curtains or blinds – as well as keeping your home warm in winter, if you draw them in the late afternoon they help to stop the sun getting in and overheating your house.

### **Fans or heat pumps**

If you still feel that you need to cool your house, then the most energy efficient option is to use fans – either ceiling mounted or portable fans you can move around the house as needed. If you have a heat pump try and restrain yourself from using it as an air conditioner – but if you do, make sure your doors and windows are closed, and only use it to cool spaces you are using.



## From too hot to too cold ... my own home renovation

You heard last time about the problems my family faced in our renovated bungalow – cold in winter, overheating in summer, damp, chewing up energy and poorly ventilated. Since then we have taken big steps to improve the situation.



### No. 1 priority: insulation

The first thing we did was start to address the insulation. You will see from your Renovation Plan that this is generally regarded as the first step anyone should take to improve the performance of their home. We were fortunate (as many of you will be) in being eligible for an Energywise interest free loan from EECA, being delivered by our local community energy organisation, Energy Options.

Energy Options re-laid the existing, very thin batts in our ceiling and topped these up with an R3.6 blanket of insulation. At the same time they installed a great new underfloor insulation system – thick rigid batts – and, importantly for us with our dampness problems, a polythene vapour barrier on top of the ground to stop moisture rising up.

### No. 2 priority: getting rid of moisture

You might remember that drainage was also a big issue for us. We have also had a drainlayer in to fix our stormwater system

and clear an overflowing drain, so that water is no longer being directed to and ponding under our house.

### Immediate results

The difference these steps – getting some heavy insulation and removing some moisture sources - have had on our house has been incredible. My temperature and humidity sensors tell me a very good story about the improvements, particularly in the living areas and my kids' bedrooms. And we certainly can feel the difference! Our living spaces now regularly meet World Health Organisation minimum temperatures and, while on the coldest nights I have been still running the heaters in the kids' bedrooms, they are actually heating the rooms now.

I have also noticed how differently the wood burner performs. Despite its huge size, on a frosty night it felt as if it was struggling to produce any heat. Post-insulation, getting the fire roaring means that the house heats up much more quickly, and stays that way for much longer.

### Some DIY extras

At the same time as these big improvements were made, we have also been doing some of the small, cheaper things that even I, with very basic DIY skills, am able to do. I have draught-stopped all our wooden windows and external doors – after 80 years there are quite a few gaps that needed to be filled. We have also lagged the pipes coming from our hot water cylinder, making a big difference to the heat losses there.

### More to be done

There's still a lot more to do on my Renovation Plan – I'm planning to address overheating and water efficiency over the summer.

*Lois*



## Who is involved ...

### ... doing the research?

**Beacon Pathway** – we're a research consortium dedicated to improving New Zealand's houses. Government funding matches funds from our shareholders.

**Contact: Lois Easton**  
**Phone 06 867 4458**  
[Loise@beaconpathway.co.nz](mailto:Loise@beaconpathway.co.nz)

**CRESA** – the Centre for Research and Social Assessment - is co-ordinating the monitoring and will be contacting you for surveys, homeowner agreements and monitoring.

**BRANZ** – the Building Research Association of New Zealand - will be undertaking the actual monitoring and analysis of how the homes perform.

**Contact: Nikki Buckett**  
**Phone 04 238 1324**  
[nikkibuckett@branz.co.nz](mailto:nikkibuckett@branz.co.nz)

### ... doing the assessments and renovation plans?



**Community Energy Action** will do the Christchurch assessments. A charitable trust based in Christchurch, CEA is a leading installer of affordable insulation and offers a range of other home energy services

**Phone 03 374 5698**  
[info@cea.co.nz](mailto:info@cea.co.nz)



**EcoMatters Environment Trust** is doing the Auckland assessments. EcoMatters is a charitable trust focused on sustainability initiatives including advice on energy and water efficiency, and waste reduction.

**Phone 09 826 4276**  
[info@ecomatters.org.nz](mailto:info@ecomatters.org.nz)



**Energy Options** is a community owned organisation which is doing the Rotorua/ Taupo/ Marlborough assessments. They specialise in the retrofitting of insulation, renewable clean heating and solar energy solutions.

**Phone 0800 151 561**  
[info@energyoptions.org.nz](mailto:info@energyoptions.org.nz)



**EnergySmart** is undertaking the assessments in Wellington, Nelson, Dunedin and Invercargill. EnergySmart is a leading provider of energy efficient measures to New Zealand households across the country.

**Phone 0800 777 111**  
[info@energysmart.co.nz](mailto:info@energysmart.co.nz)

