



Eco Design Advisor
Customer Survey Results
Years 2014-2015

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1- Introduction:

Since 2006, the Eco Design Advisor (EDA) service has been established in several councils in New Zealand. The Eco Design Advisor (EDA) scheme was initiated by the Building Research Association of New Zealand (BRANZ) (Christie and Stoecklein, 2005). The EDA was developed in response to the need for well-targeted, independent, personalised, and expert information on environmental-building available for residents, designers/architects, builders and building industry. The Eco Design Advisor service has provided expert advice, at no charge, on how to best use energy, water and materials on home improvement, building and renovation projects, to ensure better use is made of resources. Seven centres offer a free 2-hour eco-design visit and free advice via phone or email for residents of Auckland, Hamilton City, Palmerston North City, Kapiti Coast District, Hutt City, Nelson City and Invercargill City. In addition, the service only provides free advice via phone or email in Upper Hutt City, Christchurch City, Waimakariri and Selwyn Districts (the latter three subject to earthquake building work requirement) and Wellington City.

Following the start of the EDA programme, several evaluations have examined the effectiveness of the programme. BRANZ initially evaluated the EDA programme in 2007. Beacon Pathway examined the effectiveness of the service based on evaluating the success of the programme in terms of change within homes in 2011. But the Beacon Pathway's report did not explain clearly its resource use, methodology of research and the numbers of participants in the study. To generate a better understanding of the usefulness of the programme, Beacon Pathway conducted a questionnaire-based survey on the information of people who used the programme over December 2010 – February 2011, by sending an email to invite the customers to participate in the survey through the Survey Monkey website. This survey was repeated in 2013 by BRANZ, sending out a questionnaire to the people who used the EDA programme between 2011 and 2013. Participants were invited to participate in the survey with a fortnight given for submitting their responses through Survey Monkey.

This 2015 study extends the 2013 and 2011 surveys; but, to a large extent duplicates some questions (see Appendix 1). The duplication of the questions assists comparing the outcomes of the 2015 survey with the previous surveys' results. For example, the comparative study shows the usefulness of the EDA programme remained consistently high: 98 per cent in 2011, 94 per cent in 2013, and 95 per cent in 2015. This study also provides some suggestions to improve the EDA programme, and it recommends further research and evaluation of the EDA programme in future.

2- Methodology:

The survey was sent to people who used the EDA service between 2013 and 2015 and had an email address. The EDA centres provided a data-set that included the names, email addresses, phone numbers and physical addresses of their customers. Through an invitation email, the customers were invited to participate in the survey between 6/7/15 to 27/7/15. To encourage the customers to participate in the survey, all surveys completed by the closing date 27/7/2015, went in the draw to win one of six \$50 vouchers to a home improvement store.

3- Results:

3-1- Overall Response:

A total number of 698 customers were asked to participate in the 2015 survey, and 253 responses were received. The response rate was 36 per cent, which is higher than two previous surveys – 33 per cent in 2013 and 24 per cent in 2011. The number of responses (253) is higher than the required sample size (249 responses) with 95 per cent confidence level and 5 per cent margin of error for the population size (698). Thus, the results are indicative of people who used the EDA service.

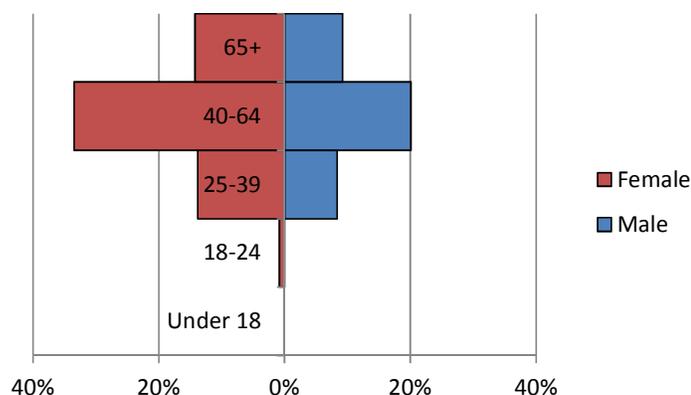
The distribution of the responses by area is as follows: Auckland = 35 per cent, Kapiti = 24 per cent, Nelson= 24 per cent, Hutt Valley = 6 per cent, Palmerston North = 6 per cent, Invercargill = 4 per cent and others = 1 per cent. The distribution of responses has changed in comparison to the last survey in 2013.

3-2- Characteristics of the Participants in the 2015 Survey:

The respondents comprised 61 per cent female, 37 per cent male and 2 per cent 'prefer not to answer'. This outcome is similar to the previous survey, in which 61 per cent female and only 39 per cent male participated in the study. Nevertheless, it is hard to make a conclusion that females are more interested in using the EDA service. The lower number of male compared with female respondents may reveal that females are more curious about how they can improve the quality of their homes, and as a result, reduce their energy and resource consumption, or that females were more likely to complete the survey.

Since people in different age groups need different types of facilities and services in their homes. The respondents were categorised in different age cohorts to understand which age groups used the EDA programme mostly. By 53 per cent of all responses, the respondents between 40 and 64 years (middle-age group) were the dominant group. Senior respondents (65+) at 23 per cent of all respondents were the second group of people who used the programme between 2013 and 2015. The respondents between 25 to 39 years were 22 per cent of all participants. Relatively young participants (18 to 24 years) were only 1 per cent of all respondents, and 1 per cent of respondents prefer not to say their age.

Graph 1 – the population pyramid of gender and age cohorts of the respondents in the 2015 survey



The respondents identified themselves as 82 per cent 'Pakeha', 7 per cent 'Maori', 5 per cent 'other', 3 per cent 'Asian', 1 per cent 'Pacific Islander', and 1 per cent 'Prefer not to answer'. In the 2013 study, European New Zealanders, by 85 per cent of all respondents, also were the highest number of the respondents. The

provision of multilingual service and information may expand the programme among residents who may not feel comfortable with and/or cannot speak English well.

Graph 2 – The Ethnicity of The Respondents in the 2015 survey

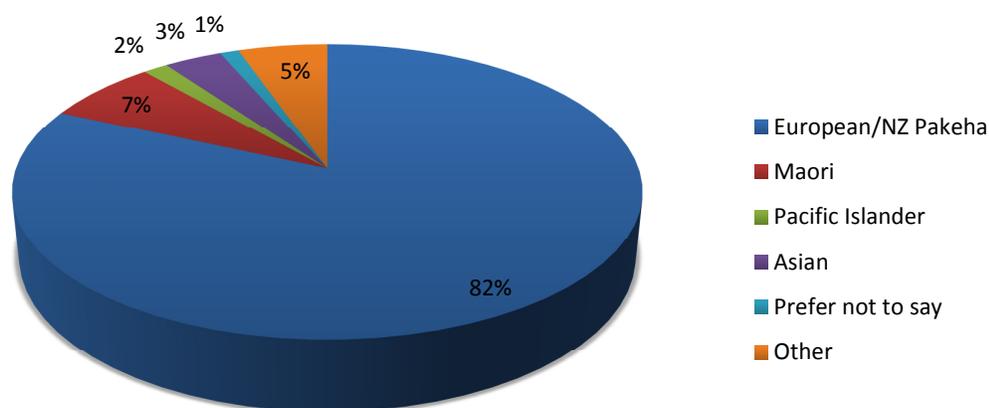


Table 1 shows the household sizes of the EDA surveys are larger than the National Household Size. The EDA respondents represent a significantly fewer number of single person households compared with the censuses. However, the number of one person households has increased by 5 per cent between the two EDA surveys in 2013 and 2015. Yet, there are a slightly fewer number of this group of households compared with the National level. There is no significant difference between the number of 'two persons' households between the EDA surveys and the censuses. But, the difference between four and five residents or more of the EDA surveys and the Censuses is significant. The difference may demonstrate that larger families are more likely to renovate/retrofit or build a new home in which people usually use the EDA services (see table 2).

Table 1 – Household Size of the EDA service against the National Household Size

	2006 Census	2013 Census	2013 EDA	2015 EDA
One Person	23%	23%	14%	19%
Two Persons	34%	34%	35%	35%
Three Persons	17%	16%	17%	15%
Four Persons	15%	15%	22%	21%
Five Persons or more	7%	7%	12%	10%

The respondents comprise different household types. Couples with child(ren) is the largest types of household types by 37 per cent of respondents. The second dominant household type is couple only (no children) by 29 per cent. One-person households is 19 per cent. Other household types are not significant including two or three family households by 5 per cent, one parent with child(ren) by 5 per cent, households of unrelated people by 3 per cent, and other by 3 per cent.

3-3- Types of Projects and Property:

Table 2 reveals that the respondents largely used the EDA programme for home improvement/retrofit projects (e.g. insulation, heating, solar water heating, water tank) by 74 per cent. The second type of projects

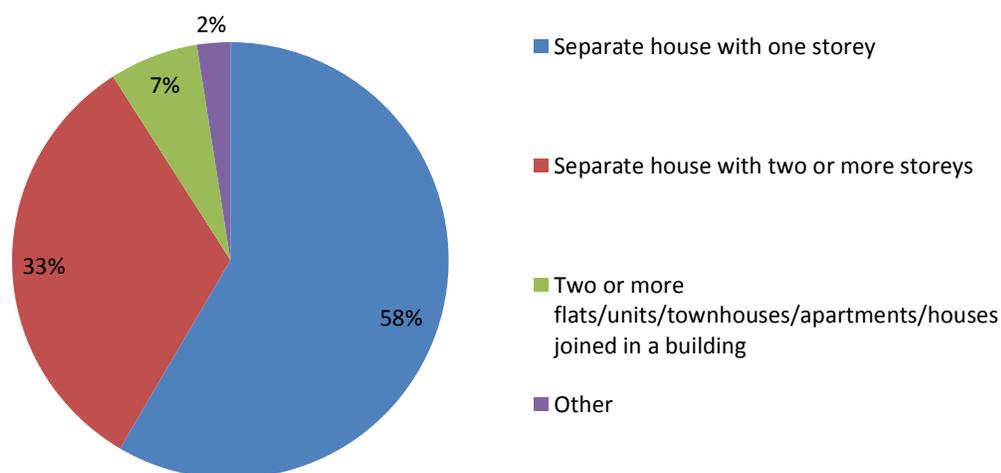
is renovation of existing buildings by 16 per cent. Building new by 10 per cent is the third type of project. Other types of project was selected by 6 per cent of respondents. 4 per cent of respondents selected the extension of an existing building. Improving existing buildings including renovation, improvement and retrofit projects are 90 per cent of projects that respondents used the EDA service for.

Table 2 – Types of Projects Undertaken by Participants in the EDA Service

Types of Projects	Percentage	Number
Home improvement/retrofit	74%	186
Renovation	16%	40
New build	10%	26
Other	6%	15
Extension	4%	11
Do not know	1%	3

The respondents were asked to describe the type of the property that they used the EDA service to improve. Graph 3 demonstrates separate houses (one and two or more storeys) is the most frequent type of properties by 92 per cent, flat/units/townhouses/apartments/houses joined dwellings were the second type by 7 per cent, and 2 per cent were other types of properties.

Graph 3 - Types of Properties Undertaken by Participants in the EDA Service



3-4- Motivations and Intentions of Participants:

The respondents were asked to indicate their primary motivations for using the EDA service. Participants were allowed to select up to three motivations for using the EDA service, so the number of responses is higher than the number of respondents. As for previous EDA surveys in 2011 and 2013, energy efficient house and warmer house, respectively by 75 per cent and 73 per cent, were the top motivations of the respondents. Energy efficient house did not change compared with the last survey in 2013. But using the EDA service to make a warmer house increased by 7 per cent. Reducing running costs was the third motivation of the respondents for using the service; however, that is down 2 per cent compared with the previous survey. 'Reduce environmental impact' – the fourth motivation for the participants – also decreased from 31 per cent in 2013 to 26 per cent in 2015.

Table 3 – Priority of Motivations for using the EDA Service

Motivations	Percentage	Number
Energy efficient house	75%	189
Warmer house	73%	184
Reduce running costs	46%	115
Reduce environmental impact	26%	65
More comfortable house	23%	59
Less damp house	23%	58
Improve my/my family's health	15%	39
Less mould in house	7%	18
Better use of space	3%	8
Greater resale value	3%	7
Easier to sell house	2%	6
More attractive house	2%	4
Other	8%	21

According to the Home Smart renovation research (2010), because of the poor standard of insulation and, subsequently, low temperatures of residential buildings of New Zealand in winter, households generally intend to address this issue as one of their priorities for improving their houses. The use of the EDA service assists households to make their homes more energy efficient and warmer. Through insulation of homes, households can significantly reduce their energy bills and running costs. Protecting the natural environment is one of the main drivers of households via using the EDA service. This motivation was more important for the respondents than several motivations, particularly even personal comfort and benefits such as gaining a more comfortable house, a less damp house, or to improve their health. As table 3 illustrates, a low number of the participants used the EDA programme for achieving higher capital gain (greater resale value) or making their houses easier to sell.

Table 4 illustrates the priority of motivations of respondents for using the EDA service in different centres. Energy efficient house has been the primary motivation of most of the respondents in four centres, and it is the second driver for two other centres. The participants from Nelson and Palmerston North indicated that a warmer house was their main motivation to use the service; an energy efficient house was the second driver for these centres. Reducing running costs is the third motivation for the respondents of Auckland, Invercargill, Kapiti and Nelson. For the participants from Hutt Valley and Invercargill, the third motivation is a less damp house. But for the respondents from Palmerston North, a more comfortable house is the third driver. The table demonstrates that the motivations do not significantly change due to the geographical locations of centres in North or South Islands. There is no significant difference between the users' motivations in Nelson and Invercargill (South Island) compared with the motivation of respondents from Auckland, Hutt Valley, Kapiti and Palmerston North to use the offered service. Thus, table 4 shows that the geographical location, as a factor, did not determine the motivation of the respondents.

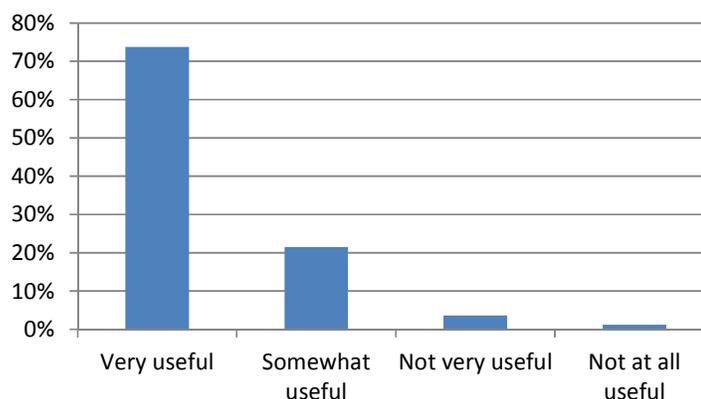
Table 4 – Priority of Motivations for using the EDA Service in different centres

Answer Options	What part of the country is the property?					
	Auckland	Hutt Valley	Invercargill	Kapiti	Nelson	Palmerston North
Warmer house	22%	23%	25%	24%	27%	23%
More comfortable house	7%	5%	0%	6%	11%	14%
Energy efficient house	25%	25%	28%	29%	23%	18%
Improve my/my family's health	5%	7%	6%	2%	5%	9%
Less damp house	6%	14%	13%	5%	8%	9%
Less mould in house	3%	5%	0%	1%	1%	4%
Greater resale value	0%	0%	0%	2%	1%	0%
Easier to sell house	1%	0%	3%	1%	1%	0%
More attractive house	0%	0%	0%	0%	1%	0%
Reduce running costs	16%	11%	13%	16%	16%	11%
Reduce environmental impact	11%	5%	6%	10%	6%	9%
Better use of space	1%	2%	3%	1%	0%	2%
Other	4%	5%	3%	2%	2%	2%

3-5- Usefulness of the EDA service and the information material:

The questionnaire asked the participants to what extent they find the EDA service useful in helping to make decisions about the required changes to improve their projects. Graph 4 shows that the respondents mostly found the service very useful and useful by 95 per cent. Only 4 per cent of respondents believed that the service was not very useful. Few participants in the survey (1 per cent) indicated that the service was not useful at all. The high level of customer satisfaction is significant and encouraging for the EDA advisors. The previous surveys in 2011 and 2013 demonstrated that the customers were highly satisfied with the advice provided the service, respectively 98 per cent and 94 per cent.

Graph 4 – Usefulness of Advice from the EDA service



Some examples of the comments on this question are as follows:

“Very impressed by the practicality and sensibility of all the advisor's suggestions. Also very good presentation relevant to our region”

“[The service] was a fantastic one to one service with excellent information”

“The service provided was excellent, a pleasant experience. The gentleman did a thorough survey of our house and provided extensive information about how we could reduce the amount of moisture. ... There are other minor things we may attend to in the future, based on the advice given. I recommended the service to our neighbour and she, too, found the service very valuable and plans to implement some of the recommendations provided.”

The respondents were asked what specific pieces of advice were the most useful. The respondents could tick as many as required. The 2013 survey also included the same question. The following table demonstrates the top six most useful recommendations in 2013 and 2015.

Table 5 – The top six most useful advice and recommendations in 2013 and 2015

The most useful advice	2015	2013
Curtains and blinds	60%	46%
Ceiling and/or underfloor insulation	58%	53%
Home heating	50%	41%
Ventilation/ causes of mould/moisture	44%	29%
Draught proofing doors and windows	40%	30%
Double/ secondary glazing	37%	24%

The useful advice rates increased significantly for most options. The usefulness of ventilation/causes of mould/moisture was the highest increase by 15 per cent between the two consequent surveys in 2013 and 2015. Curtains and blinds, by 14 per cent increasing usefulness, became the most useful advice in the 2015 survey, replacing ceiling and/or underfloor insulation in 2013. Home heating remained as the third most useful advice in both the 2013 and 2015 surveys. Nevertheless, answers to this question are not distributed evenly around the centres. The following table illustrates the three most useful pieces of advice in each centre.

Table 6 – The Three most Useful Pieces of Advice in the six centres in the 2015 survey

Centres	First useful advice	Second useful advice	Third useful advice
Auckland	Ceiling and/or underfloor insulation 55%	Home Heating 50%	Curtains and blinds 44%
Hutt Valley	Ceiling and/or underfloor insulation 64%	Double/secondary glazing 46%	Curtains and blinds, Home Heating 40%
Invercargill	Ceiling and/or underfloor insulation , and Curtains and blinds 70%	Ventilation/causes of mould/moisture, and Home Heating 60%	Draught proofing doors and windows 40%
Kapiti	Curtains and blinds 64%	Draught proofing doors and windows 53%	Ventilation/causes of mould/moisture 50%
Nelson	Curtains and blinds 81%	Ceiling and/or underfloor insulation 73%	Home Heating 61%
Palmerston North	Curtains and blinds 93%	Ceiling and/or underfloor insulation 73%	Draught proofing doors and windows 66%

In addition to the selected responses, many of the respondents added additional comments to explain what they found useful, but they could not find it among the options. Some of the additional comments are 'Tank Water', 'Sewerage options' and 'Solar protection'. Most added responses can be categorised into the offered topics.

The participants were also asked to what extent they found the information and materials such as factsheets and brochures provided by the EDAs during the service assisted them to make decisions to improve their projects. Table 5 demonstrates that most of the respondents believed that the information and materials were very useful to make decisions. Only 3 respondents from Hutt Valley believed that the provided materials were not very useful or not useful at all.

Table 7 – Usefulness of the Information and Materials offered by the EDA centres

Answer Options	Auckland	Hutt Valley	Invercargill	Kapiti	Nelson	Palmerston North
Very useful	61%	53%	40%	55%	69%	73%
Somewhat useful	37%	27%	60%	40%	29%	27%
Not very useful	2%	13%	0%	3%	2%	0%
Not at all useful	0%	7%	0%	2%	0%	0%

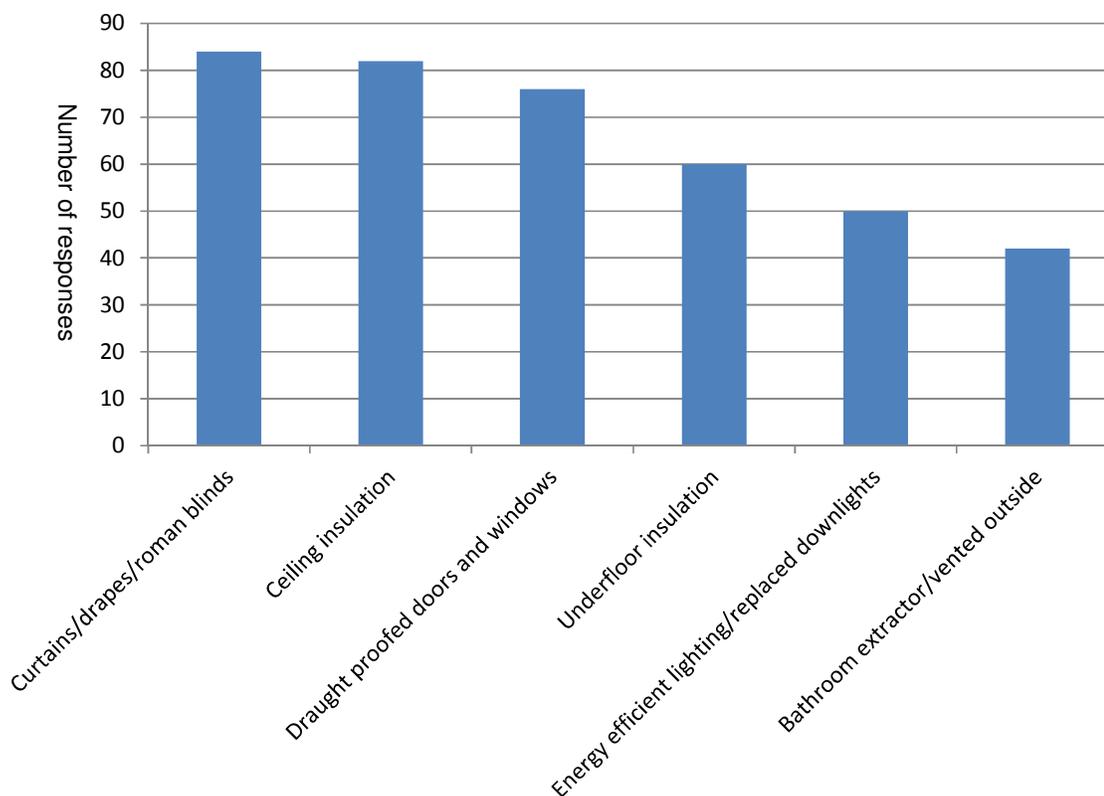
In general, the respondents were mostly satisfied with the EDA service, including the advice and recommendations as well as the information and materials. Thus, the EDA service can be found to be a good example of providing an invaluable service for the customers.

3-6- Changes Made as a Result of the Advice:

To understand the effectiveness of the EDA service, respondents were asked whether they made changes based on the given advice. Of the 250 participants who responded to this question, 88 per cent indicated that they undertook some changes. The effectiveness of the EDA service has increased compared with 82 per cent effectiveness of the service in 2013. The high effectiveness of the EDA programme is encouraging.

Respondents were asked what changes that they made and what changes they will make as a result of the advice. Graph 5 demonstrates the six prevalent changes made by the respondents based on the EDA consultations between 2013 and 2015. The responses in the 2015 survey are compared with the previous surveys. In the previous surveys in 2011 and 2013, the top ranked changes made were quite similar to the 2015 survey. In 2015, curtains/drapes/roman blinds, by 40 per cent, was the highest ranked change made by participants. Ceiling insulation had become the second ranked change, decreasing from 48 per cent in 2013 to 38 per cent in 2015. A total of 36 per cent of participants indicated that they draught proofed doors and windows as the third most frequent change made based on the EDA advice; however, curtains/drapes/roman blinds, at 38 per cent was ranked third in 2013.

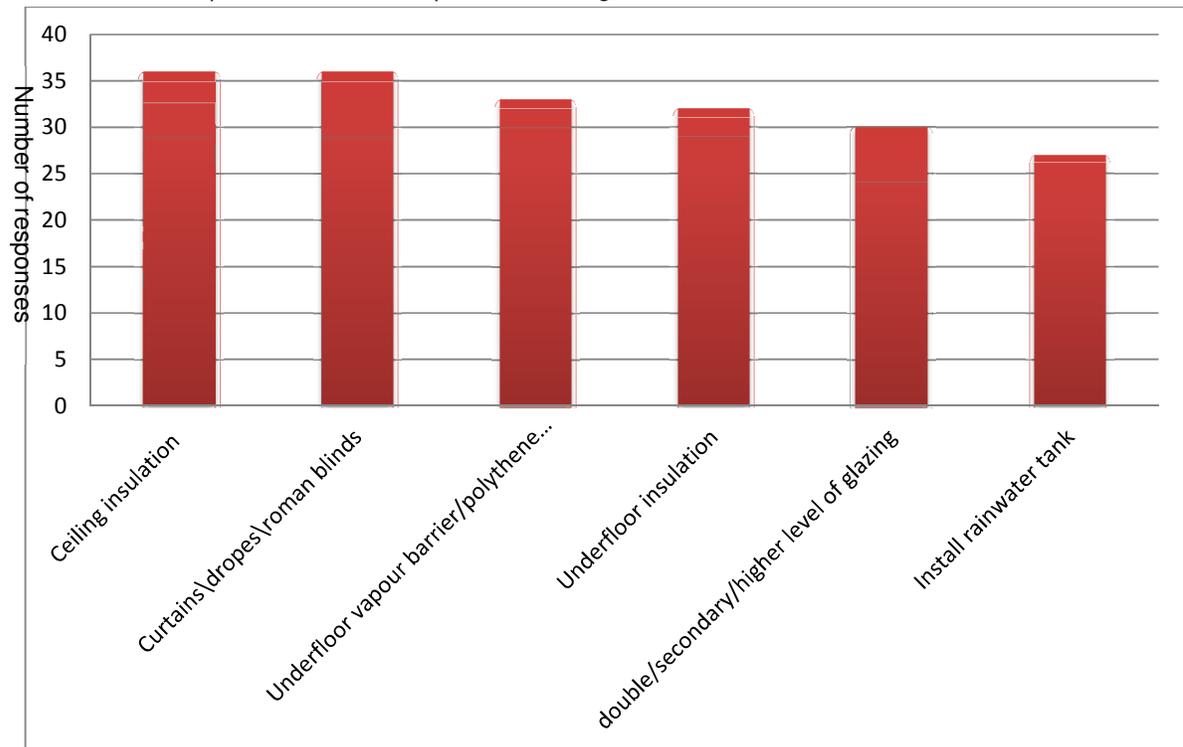
Graph 5 – the six prevalent changes made as a result of the advice in 2015



Government subsidy programmes such as 'Warm Up New Zealand: Healthy Homes', supported by the Energy Efficiency Conservation Authority (EECA), has motivated the customers to deploy the required changes to improve the quality of their residential buildings. For example, 'Warm Up New Zealand: Heat Smart' conducted between 2009 and 2013, significantly improved the quality of residential buildings around the country. The EDA service, by introducing the government programmes, has assisted its customers to take the required steps to access the funding that they needed to implement the changes.

The respondents also indicated the changes they intended to make in future based on the EDA advice. There were similarities and differences between the changes intended to make and the changes made. Ceiling insulation and curtains/drapes/roman blinds were equally (36 people) the highest ranked changes that the respondents wanted to do based on the advice. There were some changes that were not in the list of changes made that some respondents still intended to do, such as installing a grey-water system. In addition, there were some changes that respondents did not install and had no plan to do so in future, such as taking up advice on materials/waste/landscaping, efficient hot water/renewable energy. Further investigations are required to understand the reasons for not using such advice.

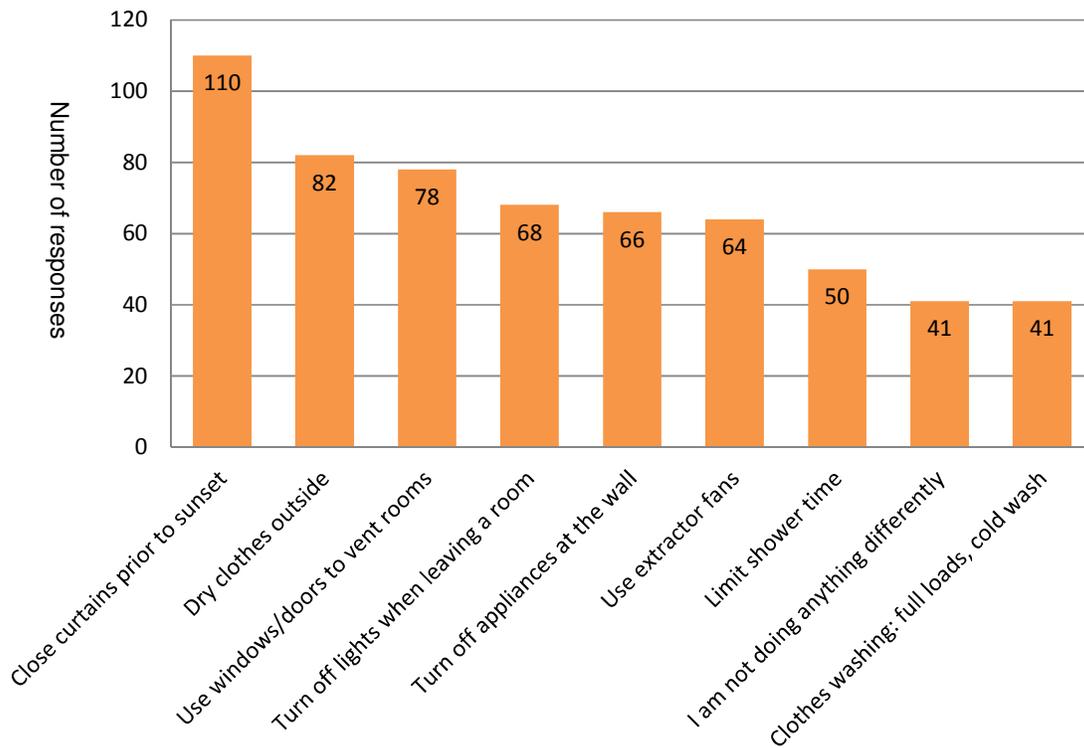
Graph 6 – The six most prevalent changes intended to make based on the advice



3-7- Changes to Behaviour as a Result of the Advice:

The 2015 survey attempted to understand to what extent the EDA advice has changed the behaviour of the respondents and their everyday life. Eco Design Advisors provided advice on how the occupants use and maintain the home. In addition, the advisors explained for the customers many of the benefits of well-designed and maintained homes, as well as improvements and changes that can be undone by uninformed and uneducated use of the home. The outcomes of the 2015 survey revealed that this advice and information was well-received and mostly implemented by the respondents. This outcome is so encouraging in comparison with the outcome of the 2013 survey. Some behavioural changes have increased remarkably. For example, the number of respondents closing curtains prior to sunset increased from 70 in 2013 to 110 in 2015.

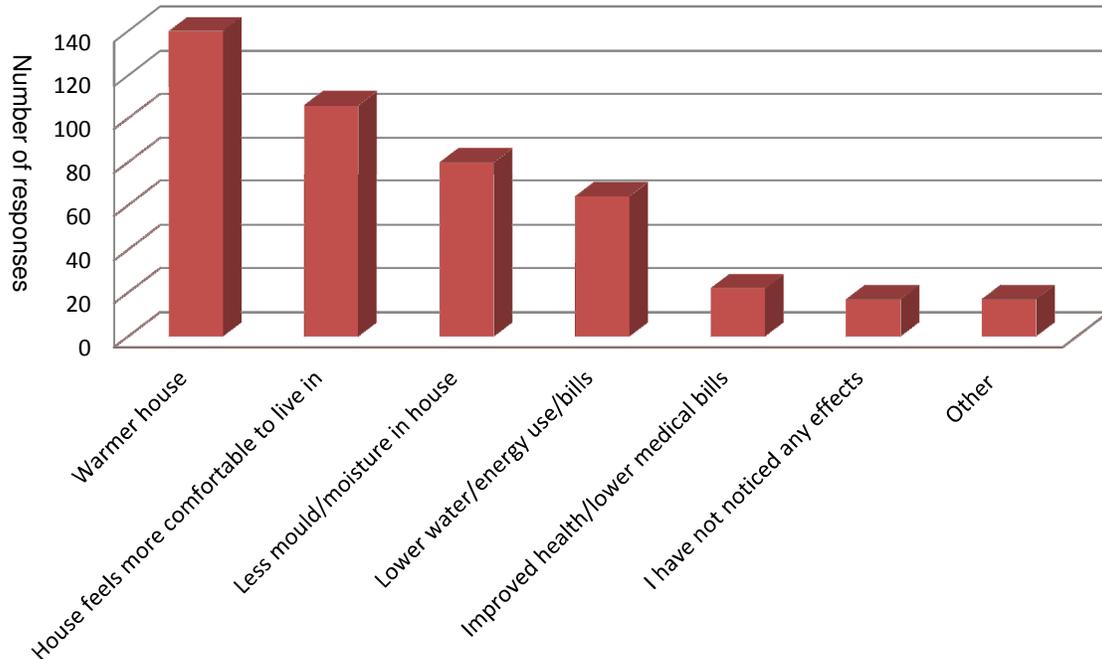
Graph 7 – The nine behavioural changes as the results of advice



3-8- Benefits Received as a Result of the Advice:

The respondents were asked about the level of the benefits that they attained based on the EDA advice. The outcomes revealed that the perceived benefits of good design and changes for the respondents were substantive and not limited to using resources, including energy and water, more efficiently. The advice positively impacted on the health and the quality of life of respondents. Like the 2013 survey, the respondents perceived that a warmer house, at 58 per cent, was the most positive effect that they noticed after the implementation of the required changes. A large number of the respondents believed that the changes made their houses more comfortable. Nonetheless, 7 per cent of the respondents indicated that they did not notice any effects as a result of conducting the changes.

Graph 8 – The seven top benefits received as a result of advice



7 per cent of respondents wrote other positive effects, outside the questionnaire options. Some examples of the comments are as follows:

“Liveable ... dry and warmer home ... good sunlight and fresh air ... reflecting upon health and lifestyle.”

“House is also quieter since we put in the extra insulation”.

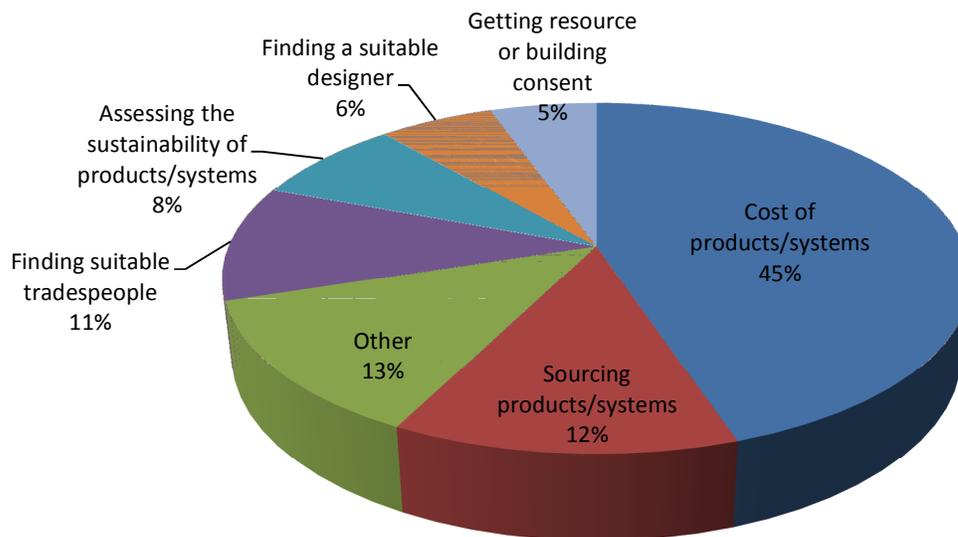
“Less noise in upstairs bedroom due to second curtain acting a bit like double glazing”.

3-9- Obstacles to Implementing Advice:

To identify obstacles and impediments to implementing the advice, the respondents were asked “what obstacles (if any) did you encounter in making the improvements?” More than one choice was allowed. A total of 81 out of 247 respondents (37 per cent) who answered this question indicated that they did not confront any obstacles in implementing the advice. This was significantly higher (up 15 per cent) than the previous survey in 2013.

Since the first survey in 2011, the cost of products/systems has always been the main obstacle for the respondents to make the suggested changes. More crucially, from the respondents’ perspectives, this obstacle has grown significantly from 26 per cent in 2011 to 45 per cent in 2015. The withdrawal of the government subsidy programme for general income households may be one of the reasons for this increase in the number of respondents who indicated cost as the main obstacle for making the suggested changes.

Graph 9 – Obstacles to implementing the advice



The respondents were allowed to write about other obstacles that were not among the list. 32 respondents to this question (13 per cent) indicated other obstacles. Following are some these:

“Landlord not being co-operative”,

“Renting and relying on my landowner for some of these types of changes”,

“It is not easy to identify the best use of money to improve the house”,

“Still trying to work out finer details of options suggested”.

As mentioned above, some respondents indicated that their landlords did not collaborate to make the suggested changes. According to the respondents, the advice not only reduced the consumption of resources and energy; but they also created a healthier place to live. The implementation of some compulsory standards for residential buildings seems necessary to enforce landowners to conduct the required changes to generate better accommodations for their renters and to decrease resource and energy consumption. In addition, the respondents said, the government should contribute to making the changes by subsidising the “rental housing quality improvement programmes”. One of the respondents indicated:

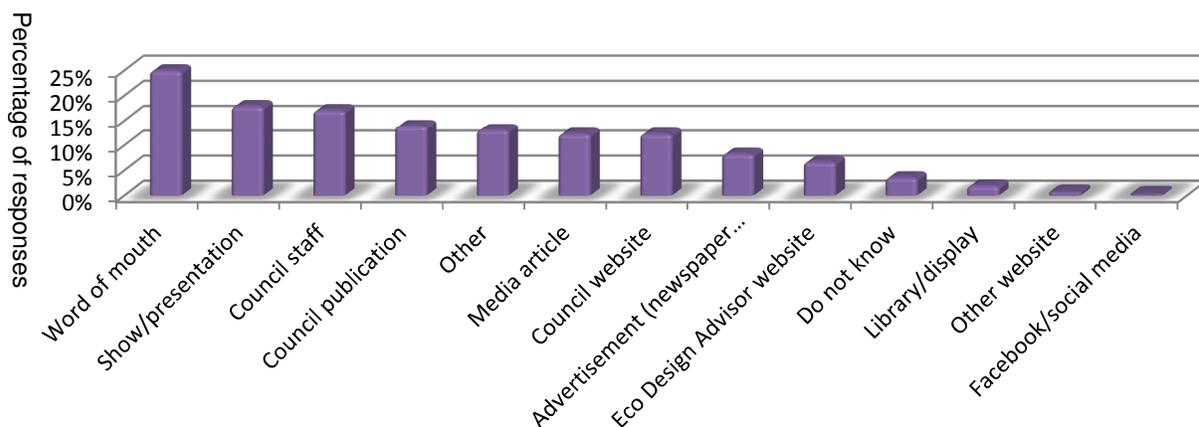
“Possibly require all landlords to have a visit and ensure their properties meet some certain standards”.

3 -10 - Finding Out About the Service:

To expand the service and increase the number of customers making use of the service, it is important to know how customers collect information and find about it. The councils involved were successful in promoting and advertising the EDA service. 43 per cent of respondents to this question said that they were informed about the service through councils’ staff, publications and websites. Nonetheless, this is slightly

down from 2011 when more than half of respondents were informed about the service through council channels.

Graph 10 – How the participants were informed about the EDA service



63 out of 252 respondents who answered the question indicated that they were informed about the service through word of mouth as the main resource of information about the EDA service. This reinforces the growing reputation of the service and the satisfaction of its customers. Only 8 per cent of respondents were informed by advertising, so the EDA advisors should use other marketing techniques to promote the service. A large number of people increasingly use online social networking services such as Facebook and Twitter to collect information. The survey demonstrates that only 1 respondent was informed about the programme via social media, so the EDA advisors should deploy the capacity of social networks to advertise their services. One of the respondents asked *“Is there a Facebook page? I find a lot of my friends have no idea about the service, but then there are a few things the council provides that no-one has any idea about e.g. rates rebates etc.”*

3 -11- Improvements to the Programme:

The respondents provided a wide range of suggestions and comments about how the programme could be improved and promoted. The suggestions and comments can be split into two main categories; promoting the service and improving the service.

Similar to previous surveys in 2011 and 2013, the participants in the 2015 survey also indicated that the EDA service and programme should be promoted more widely and effectively. Following are some of the suggestions:

“Info sharing through different cultural avenues/platforms will be great”.

“Make the service better known. The information is practical, beneficial and free. Every home owner should know about it”.

“Promote it! This is a fabulous service, but I don’t think many people know about it. I only stumbled across it by chance”.

"Maybe ads in local paper, or at mall in a stall".

"Possibly give a flyer to all real estate agents, or home visits, knock on doors or flyer, basically market the service more. After we used the service we haven't seen it advertised/marketed anywhere".

"Perhaps some more publicity/editorials in the NZ Herald, or offering to go into larger work places to do a short presentation to groups of staff?".

The respondents indicated some suggestions to improve the programme. The suggestions included a rating system to rank residential buildings based on the changes made and the facilities provided.

Some respondents believed the implementation of a rating system by the EDA service would associate with some capital gain for the people who made the changes. Thus, they argued that the rating system will promote the service. More crucially, it will assist to attract landlords to collaborate in conducting the suggested changes. As mentioned above, landlords occasionally do not participate in making changes because of their associated costs. If the rating adds value to their properties that cover their initial costs, the recommendations will be more attractive to this group of people. Following are some of the respondents' suggestions:

"The challenge is that it is not a product like gold plated taps that makes others envious. A house built or changed as a result of eco advice needs to advertise the fact and make it a desirable feature - perhaps gold, silver or bronze stars on the letter box depending on the overall uptake and performance."

"This service is not widely known about. So maybe some promotion. Possibly require all landlords to have a visit and ensure their properties meet some certain standards (we are both a landlord and a tenant)".

Some of the respondents suggested that the EDA programme should also include architects and builders who develop residential buildings. The respondents believed that architects and builders do not know about the programme and how it can help to improve the quality of residential buildings. More importantly, these professionals can promote the programme.

"Encouraging builders by informing them about courses in Green building practices".

"Let architects and design businesses know so they can be pro-active and pass information on. You may be doing this but none of our contacts mentioned your service".

3-12- General comments on the service:

The respondents mostly supported the EDA programme in their comments. The comments revealed that the respondents from the different areas are happy with the quality of the programme as well as the attitude of the Eco Design Advisors. Following is a small selection of the respondents' comments.

"The Kapiti Coast District Council Eco Design Advisor was really informative and thorough. We learnt a lot! Our son's health has benefited from Richard's advice. Very happy with service provided".

“I think it is a fantastic service & we have recommended it to many family & friends. Eion was wonderful & had some great suggestions which we have implemented.”

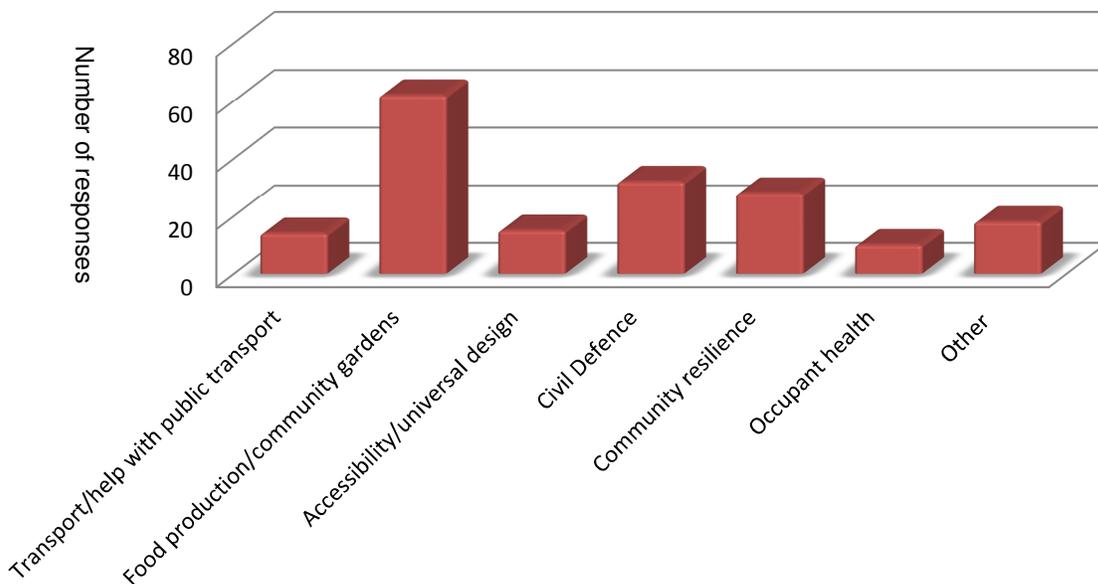
“Please continue this service, and expand it as necessary and suitable. It is brilliant, and both Adriana Fontan and Nelson Lebo have been and are priceless assets to Palmerston North”.

“Richard Popenhagen of [the] Nelson C[ity] C[ouncil] was our advisor. His knowledge and professional advice was a huge help to us”.

4- Suggestions to improve the EDA programme

While, the 2015 survey demonstrates that the respondents mostly found the programme very useful, some respondents indicated that the programme should cover other issues such as food production and civil defence. Graph 11 illustrates the respondents’ comments on the issues that can be added to the programme.

Graph 11 – The respondents’ comments on the further topics that should be added to the programme



The topics mentioned are diverse and general; so perhaps the advisors cannot cover both the technical issues to improve the quality of buildings and address these issues in a relatively short visit (2 hours), or through email, or phone calls. More importantly, responding to some topics such as civil defence and transportation requires different technical skills, more time and resources. In this regard, the diversification of the duty of advisors may adversely impact on the quality of the programme, and the initial objectives of the programme that was aimed at providing high quality advice to residents and the building industry.

To increase the impacts of the programme, there are some suggestions and recommendations:

- Since the respondents were mostly European-descent residents (Pakeha), the programme should provide the information and brochures in different languages to attract other people who may not be familiar with, or comfortable with English.

- Since the EDA programme is free of charge for its users, it will be most beneficial for low-income households who mostly live in low quality buildings. The programme should be advertised in disadvantaged urban areas.
- The advisors may provide further information about financial support for customers. This information may assist the customers to implement the advice and recommendations.
- Some respondents felt that they wanted to make the changes, but could not find a person or company to do so. It is important for the independence of the service that the advisors not promote and advertise private companies. As an alternative, the EDA website could offer some information about available services in the regions.
- A large number of the respondents were house-owners. With the number of renters rising as a consequence of housing inflation, it seems important the programme also focus on the quality of rented buildings. Ranking houses based on their facilities may encourage landlords to do the required changes to achieve higher capital gain via doing the changes and subsequently improve the rank of their houses.
- However, advertising the programme in multimedia such as newspapers and TV programmes is expensive. The deployment of social media, as free-to-use services, may assist users to know about the programme. For example, the EDA service has used Facebook page to attract people to the service. Yet, the capacity of online social networking has been not fully used to promote the service. Perhaps the establishment of local EDA Facebook pages will assist to attract further people around the country.
- The questionnaire should include a question about household income. This question will assist to gain a better understanding of the characteristics of the users. This understanding will inform the required policies to promote the service among residents.

5- Recommendations for Further Research:

This report suggests further investigations to improve the usefulness and effectiveness of the EDA programme.

- ❖ Face-to-face interviews with the people who used the service but did not conduct the required changes will assist to identify the impediments to the implementation of the recommendations.
- ❖ Conducting another survey in disadvantaged areas is required to understand to what extent the EDA programme is known among disadvantaged residents who mostly live in low-quality buildings.
- ❖ Conducting research on the impacts of government subsidy and finance assistance programmes, such as 'Warm Up New Zealand: Healthy Homes', will be useful to convince the decision makers whether to continue the government's programme.
- ❖ Researchers will investigate to what extent the conducted changes based on the EDA programme and the government subsidy programme influence the health and quality of life of residents.

The outcomes of the suggested research projects will assist to expand the EDA programme particularly among low-income groups.

6- References:

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EECA. (2015). Warm Up New Zealand: Heat Smart. <https://www.eeca.govt.nz/news-and-events/media-releases/warm-up-new-zealand-heat-smart-to-focus-on-insulation/>

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Saville-Smith, K., Fraser, R, Buckett, N and Camilleri, M. (2010). "HomeSmart Renovations: Householder Actions and Responses to Dwelling Performance". Report HR2420/13 for Beacon Pathway Limited. Available online at: www.beaconpathway.co.nz

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Satisfaction Survey: The Eco Design Advisor Service

In the last year or so, you received free and independent advice from the Eco Design Advisors at your local Council. We are really interested to know how useful the advice was for you and how effective the advice was in helping you to make changes to your home.

We would be grateful if you can take 15 minutes to complete this short survey. Your feedback will help us improve the service.

All surveys completed by the closing date **27 July, 2015** will go in the draw to win one of six \$50 vouchers to a home improvement store.

Results will be reported in summary only and individual contact details will be kept confidential.

About the Eco Design Advisor Service

Questions 1 to 14 are designed to collect information regarding the advice you received on your project from the Eco Design Advisor Service.

1- How did you find out about the Eco Design Advisor service?

(Please tick as many as apply).

- | | |
|--|---|
| <input type="checkbox"/> Council staff | <input type="checkbox"/> Eco Design Advisor website |
| <input type="checkbox"/> Council publication | <input type="checkbox"/> Facebook/social media |
| <input type="checkbox"/> Media article | <input type="checkbox"/> Other website |
| <input type="checkbox"/> Word of mouth | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Advertisement (newspaper or magazine) | <hr/> |
| <input type="checkbox"/> Library/display | <input type="checkbox"/> Do not know |
| <input type="checkbox"/> Show/presentation | |
| <input type="checkbox"/> Council website | |

7-

Comments? _____

8- Of the topics you discussed with the advisor, which were the most useful?

(Tick as many as required)

- | | |
|---|--|
| <input type="checkbox"/> Solar orientation | <input type="checkbox"/> Home heating |
| <input type="checkbox"/> Design/layout | <input type="checkbox"/> Water heating |
| <input type="checkbox"/> Choosing materials | <input type="checkbox"/> Renewable energy |
| <input type="checkbox"/> Waste reduction | <input type="checkbox"/> Energy/water efficiency |
| <input type="checkbox"/> Landscape design | <input type="checkbox"/> Energy efficient lighting |
| <input type="checkbox"/> Wall insulation | <input type="checkbox"/> Rainwater/greywater reuse |
| <input type="checkbox"/> Ceiling and/or underfloor insulation | <input type="checkbox"/> Government subsidy |
| <input type="checkbox"/> Avoiding/replacing downlights | <input type="checkbox"/> Council incentive scheme |
| <input type="checkbox"/> Draught proofing doors and windows | <input type="checkbox"/> Health related |
| <input type="checkbox"/> Double/secondary glazing | <input type="checkbox"/> Home rating |
| <input type="checkbox"/> Curtains and blinds | <input type="checkbox"/> Other, please specify _____ |
| <input type="checkbox"/> Ventilation/causes of mould/moisture | <input type="checkbox"/> Do not know |

9- Did you make or do you intend to make any changes as a result of the advice?

(Tick one only)

- Yes
- No (go to question 12)
- Do not know (go to question 12)
- Not Applicable (go to question 12)

10- What did you do and what will you do a result of the advice?

	I did as a result of the advice <i>(Tick as many as required)</i>	I will do as result of the advice <i>(Tick as many as required)</i>
Thermal Efficiency/ Passive Design		
<i>Installed more/higher level of ceiling insulation</i>		
<i>Installed more/higher level of underfloor insulation</i>		
<i>Installed more/higher level of wall insulation</i>		
<i>Draught proofed doors and windows</i>		
<i>Installed lined curtains/drapes/roman blinds</i>		
<i>Installed double/secondary/higher level of glazing</i>		
<i>Changed plans for new house/extension to collect more sunlight</i>		
<i>Changed design/layout of new house/renovation for better thermal efficiency</i>		
Moisture reduction/ventilation		
<i>Installed underfloor vapour barrier/polythene groundsheet</i>		
<i>Vented dryer to the outside/purchased condenser dryer</i>		
<i>Provided a covered clothesline</i>		
<i>Installed bathroom extractor/vented outside</i>		
<i>Installed rangehood/vented outside</i>		
<i>Installed other ventilation improvement (e.g. burglary-stays on windows)</i>		
Efficient low emission heating		
<i>Installed low emission woodburner/pellet burner</i>		
<i>Installed heat pump</i>		
<i>Installed flued gas burner</i>		
<i>Reduced use of/replaced unflued gas heater</i>		
<i>Installed other efficient heating system (e.g. central heating)</i>		
Efficient hot water/renewable energy		
<i>Installed new hot water cylinder/cylinder wrap/pipe lagging</i>		
<i>Installed solar hot water system</i>		
<i>Installed heat pump hot water system</i>		
<i>Installed other efficient hot water system (e.g. instant gas, wetback)</i>		
<i>Installed renewable energy system (e.g. PV)</i>		
Energy and water efficient appliances and fittings		
<i>Installed energy efficient lighting/replaced downlights</i>		
<i>Purchased energy efficient appliances</i>		
<i>Purchased water efficient toilet/shower head/flow restrictor</i>		

<i>Installed rainwater tank</i>		
<i>Installed greywater system</i>		
Materials/waste/landscaping		
<i>Chose low-VOC/more renewable materials</i>		
<i>Reduced construction waste</i>		
<i>Maximised permeable surfaces on landscaping/ stormwater management feature</i>		
Funding assistance		
<i>Accessed Government subsidy</i>		
<i>Accessed Council incentive scheme (please name):.....</i>		
Other improvement (please specify):.....		

11- What obstacles (if any) did you encounter in making the improvements?

(Tick as many as required)

- | | |
|---|--|
| <input type="checkbox"/> No obstacles | <input type="checkbox"/> Other (please specify)
_____ |
| <input type="checkbox"/> Finding a suitable designer | <input type="checkbox"/> Do not know |
| <input type="checkbox"/> Sourcing products/systems | <input type="checkbox"/> Not applicable |
| <input type="checkbox"/> Finding suitable tradespeople | |
| <input type="checkbox"/> Cost of more sustainable products/systems | |
| <input type="checkbox"/> Getting resource or building consent | |
| <input type="checkbox"/> Assessing the sustainability of products/systems | |

12- Comments?

13- Did you not proceed with a change to the house you had previously intended as a result of the advice?

- Yes (please specify): _____
- No
- Not applicable

14- What are you/your tenants *doing* differently as a result of the advice?

(Tick as many as required)

- | | |
|---|---|
| <input type="checkbox"/> Close curtains prior to sunset | <input type="checkbox"/> Added timer to bathroom fan/towel rail |
| <input type="checkbox"/> Dry clothes outside | <input type="checkbox"/> Move bed away from under window |
| <input type="checkbox"/> Clothes washing: full loads, cold wash | <input type="checkbox"/> Don't heat unused rooms |
| <input type="checkbox"/> Turn off appliances at the wall | <input type="checkbox"/> Recycle and compost my food waste |
| <input type="checkbox"/> Turn off lights when leaving a room | <input type="checkbox"/> I'm not doing anything differently |
| <input type="checkbox"/> Turn off extra freezer or fridge | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Use windows/doors to vent rooms | _____ |
| <input type="checkbox"/> Limit shower time | <input type="checkbox"/> Do not know |
| <input type="checkbox"/> Use extractor fans | <input type="checkbox"/> Not applicable |

15- What effects have you/your tenants noticed?

(Tick as many as required)

- | | |
|--|---|
| <input type="checkbox"/> Warmer house | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> House feels more comfortable to live in | _____ |
| <input type="checkbox"/> Less mould/moisture in house | <input type="checkbox"/> I have not noticed any effects |
| <input type="checkbox"/> Improved health/lower medical bills | <input type="checkbox"/> Do not know |
| <input type="checkbox"/> Lower water/energy use/bills | <input type="checkbox"/> Not applicable |

16- What further topics would you have liked advice on?

(Tick as many as required)

- | | |
|---|---|
| <input type="checkbox"/> Transport/help with public transport | <input type="checkbox"/> Community resilience |
| <input type="checkbox"/> Food production/community gardens | <input type="checkbox"/> Occupant health |
| <input type="checkbox"/> Accessibility/universal design | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Civil Defence | _____ |
| | <input type="checkbox"/> Do not know |

17- Do you have any other comments, or suggestions for how we could improve or better promote the Eco Design Advisor service to others?

.....

.....

About you and the property

Questions 19-26 are designed to collect demographic information to help us understand who is using our service and to assist us with promoting this service to others.

18- Is/was the property about which you received project advice on:

(Tick one only)

- Your own home
 - A rental property you own
 - A property you rent
 - Other (please specify)
-

19- What part of the country is the property?

(Tick one only)

- | | |
|---------------------------------------|---|
| <input type="checkbox"/> Auckland | <input type="checkbox"/> Palmerston North |
| <input type="checkbox"/> Hutt Valley | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Invercargill | <hr/> |
| <input type="checkbox"/> Kapiti | |
| <input type="checkbox"/> Nelson | |

20- Which best describes the property?

(Tick one only)

- Separate house with one storey
- Separate house with two or more storeys
- Two or more flats/units/townhouses/apartments/houses joined in a building
- Other (please specify) _____

21- How many people permanently live in the property?

(Tick one only)

- Number of people _____
- Do not know

22- What best describes the household in the property?

(Tick one only)

One-person household

Two or three family household

Couple only

Household of unrelated people

Couple with child(ren)

Other, (please specify)

One parent with child(ren)

Do not know

23- What age group are you (i.e. the survey respondent) in?

(Tick one only)

Under 18

65+

18-24

Prefer not to say

25-39

40-64

24- What gender best describes you?

(Tick one only)

Male

Female

Prefer not to answer

25- What ethnicity best describes you?

(Tick as many as apply)

European/NZ Pakeha

Maori

Pacific Islander

Asian

Other (please specify)

Prefer not to say

Thank you for your time and for using the Eco Design Advisor service. If you would like to go into the draw for one of six \$50 vouchers to a home improvement store, please fill out the following address details. We would like to promote the service, so if you are not willing to be interviewed, tick the box below. Either way, we'll enter you in the draw!

Name: _____

Street address: _____

Town: _____

Phone: _____

Email: _____

I do not wish to take part in media promotion of the Eco Design Advisor service.

We would love to hear from you if you have any other questions. You can contact us through your Council or you can find our individual contact details on the website:

<http://www.ecodesignadvisor.org.nz>