



Home Energy Retrofit Incentive Campaigns Analysis Report

Prepared for BC Hydro

November 3, 2014

The 'first step' for local government and First Nation leaders
addressing energy sustainability and climate change



Connecting communities, energy and sustainability

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Executive Summary

Introduction & methodology

This report is funded by and prepared for BC Hydro. It provides an overview and analysis of local government-led or supported residential energy efficiency campaigns and is intended to help inform future program development and potential collaboration between local governments and utilities for delivery.

The report analyses the following 11 BC-based residential energy efficiency campaigns, up to the end of March 2014:

- | | | |
|------------------------------|-------------------------|-------------------------------|
| 1. Rossland Energy Diet | 5. Nelson EcoSave | 9. Cool North Shore |
| 2. Kootenay Energy Diet | 6. Energy Save New West | 10. Power Down Campbell River |
| 3. Okanagan Energy Diet | 7. City of Terrace | 11. Vancouver HELP |
| 4. East Kootenay Energy Diet | 8. Solar Colwood | |

The report is based almost entirely on primary research. It is based on interviews with representatives from the campaigns and analysis of material made available by them.

Overview of the 11 campaigns

Local government led or supported residential energy efficiency retrofit incentive campaigns frequently have the following components in order to overcome barriers to residential energy efficiency:

- A program coordinator
- Measures to reduce the costs of home energy efficiency evaluations
 - Bulk purchase of home energy efficiency D evaluations through an RFP
 - Direct financial contributions to reduce the cost of D evaluations
- Promotion of LiveSmart BC D evaluations through local marketing activities, e.g.:
 - Events
 - Community-based social marketing (CBSM)
 - Newspaper, radio, and website ads and articles
 - Other
- Follow up, including:
 - Coordination with the home energy audit company
 - Follow up calls to D evaluation participants to encourage retrofits and for tracking

D evaluations and E evaluations

To be consistent with terminology used by LiveSmart BC and NRCAN, this document refers to pre-retrofit home energy evaluations as “D” assessments, and post-retrofit home energy evaluations as “E” assessments.

The analysis was able to identify factors that contribute to successes and challenges for campaigns. However, note that the analysis cannot be used to rate the different campaigns against each other (e.g. to determine the most or least successful campaigns) because the campaigns had widely varying goals, contexts, and challenges. The campaigns did not take place on even ground.

Key findings and recommendations

Local governments and utilities can be confident that a well organised and marketed campaign can sharply increase the number of home energy retrofits over what would have otherwise taken place. Many of the

campaigns analysed in this report have been successful in achieving this. 59% of the D and 37% of the E evaluations in BC over 2013-14 are due to the campaigns analysed in this report which took place over that period, even though they only comprise 13% of BC's population. In addition, in the 2013-14 year, when comparing the campaign communities for which we have a lot of data compared to the rest of BC, the campaign communities had between 8 and 36 times the number of D evaluations per eligible home, and 2 to 16 times the number of E evaluations.

Role for municipalities with the HERO program

The HERO (Home Energy Rebate Offer) program was launched in BC in June 2014, led by BC Hydro and FortisBC. It differs from LiveSmart BC in that D and E evaluations are only a requirement for certain retrofit measures, and not for all. In addition, there are no longer any BC-wide subsidies to reduce D evaluation costs.

An ideal role for a local government would be to create a local campaign by:

1. Conducting a bulk purchase of D evaluations through an RFP to reduce the cost (whilst retaining quality as a criteria by which proposals are assessed)
2. Further subsidising the cost of D evaluations through municipal funds
3. Through the municipal electrical utility or a third party, creating or promoting a financing scheme for residential energy efficiency retrofits – but only if the interest rate is competitive in the market place and there are low barriers to participant entry
4. Creation of home energy incentives for homes that use heating oil, propane, or wood as their primary heating fuel in the community (if relevant) – as there are none through HERO
5. Establish with the utilities whether the local government can claim any of the greenhouse gas reductions as a local reduction project (this may only be possible if the local government creates incentives for heating oil or propane heated homes), and get the methodology approved by the Climate Action Secretariat
6. Create and implement a marketing plan

Municipalities should also note the other recommendations in this section. Instead of D evaluations, a campaign could instead conduct free thermal imaging scans through the Fire Department.

Marketing

The following marketing methods appear to be particularly beneficial:

1. Local government support, with a letter from the local government, Mayor, Councillor, or Director to residents, or editorial in the local newspaper, etc. And a link to the program from the local government's website
2. Earned media (e.g. newspaper articles)
3. Newspaper and radio adverts (although probably not in isolation)
4. Face-to-face interaction (although it is labour intensive)
5. Word-of-mouth (although it is difficult to create a buzz, particularly in a larger community, although door hangers on neighbours' doors & signage on energy evaluators / contractors vehicles would help)

It appears that the best results are achieved through a combination of marketing techniques, rather than reliance on any single one.

Although none of the programs specifically stated that electronic marketing such as a program website was an effective marketing tool, this should be considered an essential component of any campaign.

Campaigns should conduct marketing response analysis – when people register, ask them how they found out about the campaign, and analysis could be conducted afterwards.

Community-Based Social Marketing

Future design of energy efficiency incentive campaigns should consider ways to increase the visibility of actions, and promote the benefits and outcomes of participation. For most campaigns in 2013-14, gaining participation in the D evaluation phase of the campaign was not especially a challenge – instead it was encouraging individuals to implement the recommendations and move from receiving their report to completing a retrofit and getting an E evaluation. This is where more assertive personal contact regarding commitments that had been made or pledges for participation would be helpful. Pledges should also be made to be quite intentional (not just part of terms and conditions).

Helping people prioritise energy efficiency

Providing incentives and/or making energy efficiency fun are two obvious ways to do this.

Reducing cost of D evaluations

It is likely this has a positive impact to encouraging registrations. Some campaigns which had free or extremely low cost D evaluations still achieved relatively good conversions from D to E evaluations. Nevertheless, a budget could be stretched further by not excessively reducing the cost of D evaluations (\$50-90 is a suggested cost range, whilst offering lower cost or free evaluations for qualifying low income homes).

Rebate levels for home energy retrofit measures

At times when there are high rebate levels for home energy retrofit measures, local governments should take advantage of these and conduct an intensive campaign. This can have an impressive impact.

Capturing full campaign impact

After D evaluations, follow-up calls and/or a post-campaign survey need to be conducted to capture the full impact of a campaign. Many homes conduct retrofits without E evaluations or applying for incentives.

Timeframe, timing, and theory of urgency

There is a diversity of opinion among the campaigns on a short versus long timeframe. One way for campaigns to have a long-term campaign but still create a sense of urgency is to have short periods of time with reduced D evaluation costs or other special incentives.

Campaigns should also be cognisant of challenging timing issues, e.g. elections (may affect what marketing can be done), winter (can be hard for people to do retrofits due to the weather), or summer (people can be away or busy).

Financing

A retrofit incentive campaign should not focus on financing in isolation.

If a community is able to provide on-bill financing at a competitive interest rate and with low barriers to entry, it appears that this may provide a significant help to a retrofit campaign. The Nelson Hydro and Penticton Electrical utility on-bill financing programs had great success.

One-on-one coordinator

Having a dynamic and approachable campaign coordinator is extremely important: to be a point of contact for the campaign; and to be an “energy coach”, calling up people after their D evaluations and encouraging them towards retrofits and E evaluations.

Stakeholders

Campaigns should inform stakeholders before the campaign starts, in particular local contractors, to help them be advocates for the campaign.

Matching a campaign to a budget

There are a range of different ways to conduct a campaign based on the budget. The cheapest campaign of the 11 analysed had a budget of just a few thousand dollars.

Keeping a campaign simple for customers

The existing incentive programs can be complex and confusing, and frequently change. A campaign must try to simplify and clarify things as much as possible for the customer.

If the organisation has a negative image

If the organisation (e.g. utility) conducting the campaign has a negative image locally, this can be at least partially mitigated by finding the right partnerships, such as a local government or an environmental non-profit. In addition, energy retrofit campaigns can help to improve the image of the organisations involved.

Regional versus community-to-community approach

If a region is being targeted for a campaign, it may be more beneficial for a marketing blitz to be conducted in it one community at a time. This may help increase the number of registrations. Focussing on communities or neighbourhoods with older homes (i.e. 20+ years) would also be recommended.

Partnerships

It is important for a campaign to have the right partnerships, e.g. between the local government and all energy utilities, and financing partners.

Champions in Council and staff

The more ambitious a local government-led campaign is intended to be, the more important it is for there to be champions in both local government Council and staff.

Avoiding expensive D evaluations with thermal imaging

Instead of D evaluations which can be expensive, campaigns could try partnering with Fire Departments to provide free thermal imaging of homes. Thermal imaging is not without challenges however: it is not as comprehensive as a home energy evaluation with a blower door test; it only works when it is cold enough outside to provide a good temperature differential; and when there is a fire the Fire Department would not be able to keep its appointments. Note that a distinction should be drawn between thermal imaging provided by a Fire Department which would likely best be used as an awareness raising exercise on energy efficiency, and thermal imaging from an energy assessor who is also a trained thermographer which could be of high value for tackling certain issues.

Introduction

This report is funded by and prepared for BC Hydro. This document provides an overview and analysis of local government-led or supported residential energy efficiency campaigns and is intended to help inform future program development and potential collaboration between local governments and utilities for delivery.

This report is timely because:

- Several local government residential energy efficiency incentive campaigns have been, and are continuing to be delivered, throughout BC
- These campaigns have been promoting existing utility incentive programs and the former LiveSmart BC program
- Utilities are rolling out new programs to realize energy savings through home energy retrofits, such as the HERO (Home Energy Rebate Offer) program
- There is a high interest among local governments in continuing to deliver residential energy efficiency campaigns because:
 - They further the implementation of Community Energy and Emissions Plans and assist local governments in meeting the greenhouse gas (GHG) emissions reduction targets, policies and actions which are a legislated requirement in Official Community Plans and Regional Growth Strategies.
 - They assist in delivering on multiple community objectives beyond energy and GHG emissions reductions, including: housing affordability, quality of life, green economic development, building social capital, etc.
 - Early successes in municipalities have been documented and shared with other local governments (e.g., Rossland Energy Diet, Cool North Shore), providing a model for others to follow.

Methodology

The report analyses 11 residential energy efficiency campaigns that have taken place in BC, in an effort to:

- Document the impact that these campaigns have had;
- Identify best practices and lessons learned in campaign development and delivery, and;
- Develop recommendations to inform program and campaign development and delivery moving forward.

The report is based almost entirely on primary research. It is based on interviews with representatives from the organisations that led each campaign, and analysis of any material on those campaigns that was made available. From this information gathered, case studies were created at first, and these were sent to the representatives interviewed so that they would have a chance to review and comment on them. A small amount of secondary research on community-based social marketing was also conducted.

The people interviewed for each of the 11 campaigns are shown in the following table.

Table 1 – people interviewed for each of the 11 campaigns

Campaign	People interviewed	
	Organisation	Role
1. Rossland Energy Diet	• FortisBC Electricity*	• Campaign manager
2. Kootenay Energy Diet	• FortisBC Electricity	• Campaign manager
	• FortisBC Electricity	• Campaign coordinator
	• FortisBC Electricity	• Head of campaign marketing
3. Okanagan Energy Diet	• FortisBC Electricity	• Campaign manager
	• FortisBC Electricity	• Head of campaign marketing
	• CEA	• Community outreach & support
4. East Kootenay Energy Diet	• CEA	• Campaign director
	• CEA	• Campaign manager
5. Nelson EcoSave	• City of Nelson / Nelson Hydro (note: Nelson Hydro is part of the City of Nelson)	• Campaign manager
6. Energy Save New West	• City of New Westminster	• Campaign manager
	• Ecolighten Energy Solutions	• Campaign coordinator
7. City of Terrace	• City of Terrace	• Campaign manager
8. Solar Colwood	• City of Colwood	• Campaign initiator and City Councillor
	• City Green	• Campaign manager
9. Cool North Shore	• Cool North Shore	• Campaign manager
10. Power Down Campbell River	• City of Campbell River	• Campaign manager
11. Vancouver HELP	• City of Vancouver	• Campaign observer (other people had left the City)

* The formal name for FortisBC Electricity is FortisBC Inc., & the formal name for FortisBC Gas is FortisBC Energy Inc.

All of the campaigns listed had most of their success in energy efficiency (demand-side management) actions. One campaign (Solar Colwood) had renewable energy as its primary focus, though all of them considered renewable energy to some extent (e.g. air source heat pumps and geoexchange systems). All of the campaigns focused on the residential market, but some also included businesses.

Following the incorporation of the comments to the case studies, analysis was conducted based on the information available. Where possible, quantifiable data was used for analysis. By necessity however, a lot of analysis and conclusions have had to rely on qualitative information garnered through research and interviews. This is a limitation of the research.

Quantifiable data could not always be obtained for a variety of reasons, including:

- It had not been calculated
- It was not available in a presentable format
- It was considered private

The analysis was able to identify factors that contribute to successes and challenges for campaigns. However, note that the analysis cannot be used to rate the different campaigns against each other (e.g. to determine the most or least successful campaigns) because the campaigns had widely varying goals, contexts, and challenges. The campaigns did not take place on even ground.

Background

Community-Based Social Marketing (CBSM)

A significant part of the success of a residential energy efficiency campaign, or any campaign focused on behavioural change, is the marketing: how the campaign engages residents, and how that engagement and participation can lead to tangible changes in behaviour, and ultimately energy use.

Community-based social marketing (CBSM) utilizes approaches to communication and engagement that are rooted in social psychology. The approach challenges traditional methods of media-based communication to community and individual focused outreach. Further, it leverages information we know about psychology and behavioural change, and what triggers will change a person's behaviour to result in more sustainable actions.

Key to the successful implementation of CBSM is identifying what barriers exist to behavioural change, and determining how a desired behaviour can be encouraged. The CBSM strategy works to remove the barriers and enhance the benefits of a campaign. A comprehensive evaluation of barriers to energy efficiency was conducted by FortisBC prior to their Rossland Energy Diet and was used to inform the Kootenay, Okanagan, and East Kootenay Energy Diets.

The Energy Diets implemented marketing and communications that generally met these criteria:

- Positive
- Had an end purpose (energy conservation)
- Were locally relevant (e.g. using a community GHG emission reduction target as a goal).

In several retrofit campaigns (including Rossland, Kootenay, Okanagan, East Kootenay, and Campbell River) a pledge was required as part of the terms and conditions signed prior to participating in the campaign. The power of making an initial 'small' commitment is supported by the Self-Perception Theory. This theory, according to the CBSM approach (McKenzie-Mohr, 1959), suggests that "if we can provide opportunities for people to engage in sustainable behaviours conveniently, the very act of engaging in those behaviours will shape their attitudes." By signing a pledge, an individual alters their self-perception to believe that they are someone that would take action to be more energy efficient. It may help if commitments are voluntary to encourage follow-through. Requiring a participant to think thoughtfully about how a pledge will stretch or challenge their own behaviours is the purpose of a pledge.

Follow-up on individual pledges can be very effective. Follow-up allows coordinators to measure any behavioural changes that have taken place: Has the individual kept their pledge? Or perhaps done more? 'Call-backs' have been shown to be a very effective method of encouraging behavioural change. If the individual agrees that a call-back would be helpful to be reminded, for example, to sign-up for an energy audit or follow through with a specific retrofit, studies show that the likelihood they will carry through with the action is greatly increased. The individual will feel compelled to follow through based on their re-defined self-perception. CBSM approaches further demonstrate that written commitments are more effective than verbal, and that public recognition for a commitment enhances the follow-through.

Social norms can be a barrier to sustainable behaviour: "too little attention has been given to the significant impact that norms can have upon the adoption of sustainable behaviour" (McKenzie-Mohr, 1959). Significant changes in behaviour means that there is a new set of societal norms. Individuals are influenced by the behaviour of those perceived to be similar to themselves. Further consideration must be given to social norms

– how are participants recognized? How is inaction deterred and action celebrated? Changing a social norm is not a small undertaking, and essentially challenges the culture of a community or neighborhood. Nelson EcoSave did attempt to distribute window stickers to participants, in an attempt to bring more public awareness to those that had participated (therefore encouraging others like them to participate as well). The campaign coordinator found that very few people actually posted the sticker in their home window, and the impact of distributing those visual cues was lost. The Kootenay Energy Diet distributed door hangers to adjacent homes where an energy evaluation had been completed. Often the actions of immediate neighbours will spark interest in participation in campaigns such as an Energy Diet. The East Kootenay Energy Diet worked with Shaw Cable to film an evaluation of a local municipal Councillor, again to attempt to normalize the behaviour and demonstrate that the process is simple, straightforward and of great value.

Perhaps one of the most important CBSM tools that can be applied to Energy Diet campaigns is social diffusion – that is how a certain innovation or action spreads through social networks and connections. Social diffusion as a CBSM tool can be effective when social networks are used to encourage uptake in a new behaviour, and can be more effective than a pamphlet or other media-based promotion. Actions that are highly visible tend to have greater success in spreading through social diffusion – friends, colleagues and often neighbours will learn about the opportunity through conversation and demonstrated success. In the context of an energy diet, social diffusion can be difficult, as many of the actions are ‘invisible’, other than the day that insulation is being blown in, or windows are being replaced. The challenge is to identify ways to bring visibility to positive actions that are more difficult for the public to recognize (recycling, on the other hand is the opposite, and is very visible in a curbside collection campaign, for example). Actions will diffuse at a greater pace if they are visible, and the commitments made by individuals are public. Further, actions will diffuse more rapidly among a group of socially connected individuals rather than neighbours. Future campaigns may consider ways to identify groups of people with common interests in the community. For example, identifying an early adopter and ‘leader’ among an outdoor club, an art cooperative, etc.

Overall, the likelihood of a new sustainable behaviour or action being implemented is dependent on a number of factors (McKenzie-Mohr, 1959):

- Relative advantage (new behaviour is perceived to be better than the behaviour it replaces)
- Perceived Risk (will adopting the behaviour increase the probability of financial loss or social disapproval)
- Complexity (is it challenging)
- Compatibility (is the behaviour compatible with the values)
- Trialability (can the behaviour be trialed before making a commitment)
- Observability (is the behaviour visible to others)

Barriers to residential energy efficiency in BC

There are barriers to engaging in residential energy conservation activities in BC, despite the fact that utility customers can be highly motivated to save money, may be interested in “doing the right thing”, and may be environmentally conscious. Through interviews with the campaigns, the following key barriers to wider uptake of energy efficiency were identified.

Table 2 – barriers to residential energy efficiency identified by the 11 campaigns

Barrier	Source(s)
1. Energy efficiency is boring	Cool North Shore
2. Energy efficiency and renewable energy is not people’s top priority	Solar Colwood
3. Complexity and customer lack of knowledge on energy efficiency – a home is a complex system from an energy efficiency perspective, and customers have a lack of knowledge about how it works and what the best options are, or where to find the information they need in order to proceed.	FortisBC Energy Save New West
4. Complexity and customer lack of knowledge on incentives – the incentive situation can be complex and confusing, and customers have a lack of knowledge about how to access rebates, grants, or low interest financing.	FortisBC East Kootenay ED
5. Fear or misunderstanding of some new technologies – e.g. compact fluorescent light bulbs, heat pumps, or solar hot water panels.	FortisBC Solar Colwood
6. Relatively high upfront cost of an initial home energy evaluation – when the campaigns listed in this document were initiated, the cost of a pre-retrofit (i.e. “D”) evaluation was \$150. Customers were unwilling to pay this much money when they were not sure if the assessor would find any good retrofit projects, and when they may not be eligible for any rebates.	FortisBC Energy Save New West
7. People can be time constrained – people are often too busy to do the research that may be required on home energy efficiency, rebates, new technologies, etc. Further, the timeline between an evaluation and incentive deadline can be too tight to make major renovation decisions. In addition, the Natural Resources Canada energy evaluation reports are difficult to understand and do not provide a good roadmap for customers to follow.	Cool North Shore East Kootenay ED FortisBC
8. High upfront cost of some retrofit measures – a number of retrofit measures have a high upfront cost, e.g. certain insulation projects, new furnace, or solar hot water panels.	Solar Colwood
9. Long payback of some retrofit measures – primarily an issue with certain retrofits such as new windows and doors, geexchange systems, and solar hot water panels.	Solar Colwood
10. Too intrusive – having somebody come to the house can be intrusive for some people (this is a minor barrier compared to the others).	Cool North Shore
11. Building inspectors can be unfamiliar with new technologies – mainly an issue with solar hot water panels, but this has slowed adoption of this technology in some BC communities (in the overall context of residential energy efficiency this can be considered a minor barrier).	Solar Colwood

Strategy

To be successful, the different campaigns listed in this document needed to overcome at least some of the barriers listed in the previous table. Strategies that the campaigns used to overcome each barrier are shown in the following table:

Table 3 – strategies that the 11 campaigns used to overcome the barriers

Barrier	Strategy to overcome barrier	Campaigns listed in this document that did this
1.	Make energy efficiency fun.	Cool North Shore Power Down Campbell River
2.	Provide a package of incentives to make people interested in energy efficiency, and marketing this fact. It can also be “normalised” by having a lot of people doing projects.	All 11 campaigns
3.	Providing access to a low cost or free energy evaluation or thermal imaging scan so people can have access to impartial information on energy efficiency, and/or providing impartial information through other means (e.g. website, or helping people learn from each other).	All 11 campaigns except for Vancouver HELP
4.		
5.		
6.		
7.	Ensure the campaign is as simple as possible. Several campaigns provided an “energy coach” as well, to help people move towards implementation.	All 11 campaigns.
8.	Ensuring there is access to rebates or low interest financing.	All 11 campaigns.
9.		
10.	Respecting people’s privacy.	Cool North Shore stated they specifically tried to do this. Unlikely that any campaign was overly intrusive.
11.	Helping building inspectors become more familiar with any new technologies (e.g. solar hot water).	Solar Colwood

Benefits to residential energy efficiency campaigns

Local governments have shown significant interest in initiating or assisting with residential energy efficiency campaigns due to the many benefits that they can bring.

The key ways that a local government can benefit from a residential energy efficiency campaign are shown in the following table.

Table 4 – key ways a local government can benefit from a residential energy efficiency campaign

Benefit	Explanation
1. Local economic development	a. A campaign can generate a significant amount of work for local contractors and other businesses b. Over the long-term a campaign will save money in the community by reducing people’s energy bills
2. Community competitiveness	By reducing energy bills the community will be more competitive than other communities
3. Community resilience	By reducing energy bills the community will be more resilient if energy prices rise
4. Community vision	A retrofit campaign can help a community achieve a specific vision for the future, e.g. as may be outlined in the Official Community Plan
5. Meeting legislative commitments on tackling community greenhouse gas emissions	Through the Local Government Act Bill 27 (Section 877 and 850), local governments are required to set GHG targets, policies, and actions in their Official Community Plans and Regional Growth Strategies
6. Local reduction project – meeting Climate Action Charter commitments	The carbon emission reductions generated from a campaign can, in some cases, be used as a local offset project, helping to offset a local government’s corporate carbon footprint and therefore helping it to meet its Climate Action Charter commitments

The final benefit is of significant interest to local governments, and due to its complexity is now covered in more detail.

The carbon emission reductions generated from a campaign can be used as a local reduction project, helping to offset a local government’s corporate carbon footprint and therefore helping it to meet its Climate Action Charter commitment to be carbon neutral in its operations.

This opportunity is outlined in the *Becoming Carbon Neutral* guidebook for BC local governments, prepared by the Green Communities Committee (available on the [BC Climate Action Toolkit website](#)), and specifically contains building retrofits and fuel switching as a reduction project profile. The reduction project is considered a ‘local offset’ but is not a marketable offset as it requires no process of verification. For this reason, the terminology of the opportunity is called a ‘local reduction project’.

One key criteria in claiming reductions from a local reduction project is ‘clear ownership of the GHG emission reductions’. Because the 11 energy efficiency campaigns have used rebates and programs funded and developed by the Province of BC, BC Hydro, and FortisBC, specific permission needs to be obtained from those utilities should a local government wish to use the carbon emission reductions generated (it is otherwise assumed that the utility has ownership over the emissions resulting from their demand side management programs). FortisBC, BC Hydro, and the Community Energy Association worked with LiveSmart BC to reach a signed agreement on behalf of the Kootenay, East Kootenay and Okanagan Energy Diets to explicitly waive

ownership of the GHG emissions, allowing local governments the opportunity to claim reductions if they choose to actively promote or incent the Energy Diets.[†] The agreement was valid for retrofits conducted from April 2013 to March 2014, and was valid only for the emission reductions generated due to LiveSmart BC rebates. The agreement was not valid for rebates from standalone programs offered by BC Hydro (although these would relate to electricity reduction and would be minimal) or FortisBC (unfortunate as reductions from FortisBC Gas incentives would have been substantial). Note that LiveSmart BC rebates could not apply to homes that used a fuel other than grid electricity or natural gas as a primary heating source (e.g. homes heated with heating oil or propane were excluded).

The terms of the agreement signed with LiveSmart BC stated that local governments needed to invest in the energy efficiency retrofit campaigns either financially or in-kind in order to be able to claim the GHG reductions. To take advantage of this opportunity, many local governments that participated in the Kootenay, Okanagan, and East Kootenay Energy Diets over 2013-14 chose to invest financially in the campaign by providing an additional incentive to further reduce the cost of the D evaluations. Table 6 and Table 7 show the amount local governments invested in the campaigns, and the extent to which they subsidised the D evaluations. In addition to being able to claim the GHG emission reductions achieved as a local reduction project, several communities reflected that by providing an incentive they would encourage participation in the campaigns, and therefore enjoy the other benefits of the project (e.g. local economic development) even more.

The method by which it is suggested that local governments calculate their reduction, outlined in the *Becoming Carbon Neutral* guidebook, is overly onerous for any scale of energy efficiency retrofit campaign. The method in the guidebook involves obtaining three years of energy consumption data (from bills) from each house before the retrofit has taken place, and one year of energy consumption data after the retrofit. A spreadsheet provided with the guidebook takes this data, and normalises it based on publicly available local heating degree data that the user inputs. Although the spreadsheet is easy to use, obtaining the residential energy consumption data would be extremely onerous, in particular given that some communities will have dozens of houses that have completed retrofits.

As a result, CEA worked with the Province of BC and received approval on a simplified method that could be used for energy efficiency retrofit incentive campaigns. The method, which also contains a copy of the signed agreement with LiveSmart BC, is in Appendix 1 – . To create the method CEA determined what D and E evaluation data on individual houses could be obtained from NRCan, and determined the assumptions so that the method is both simpler and provides the degree of confidence needed by the Climate Action Secretariat.

D evaluations and E evaluations

To be consistent with terminology used by LiveSmart BC and NRCan, this document refers to pre-retrofit home energy evaluations as “D” assessments, and post-retrofit home energy evaluations as “E” assessments.

[†] The agreement states that other campaigns could contact LiveSmart BC to explore the opportunity of developing their own agreement.

Overview of residential energy efficiency campaigns

Overview information on the 11 campaigns is contained in this section, including:

- What a local government led or supported campaign consists of
- The extent to which the 11 campaigns communicated with LiveSmart BC and the Provincial utilities (who provided all of the funding for LiveSmartBC rebates and program design for the 2013-14 year)
- The level of financial contributions that the local governments made towards the campaigns
- How local governments subsidised the home energy evaluations

For detailed information on the 11 campaigns, see Appendix 2 – Case studies of the energy efficiency retrofit campaigns.

Overview of local government-led or supported campaigns

Local government led or supported residential energy efficiency retrofit incentive campaigns would frequently have the following components:

- A program coordinator
- Measures to reduce the costs of home energy efficiency evaluations
 - Bulk purchase of home energy efficiency D evaluations through an RFP
 - Direct financial contributions to reduce the cost of D evaluations
- Promotion of LiveSmart BC D evaluations through local marketing activities, e.g.:
 - Events
 - Community-based social marketing
 - Newspaper, radio, and website ads and articles
 - Other
- Follow up, including:
 - Coordination with the home energy audit company
 - Follow up calls to D evaluation participants to encourage retrofits and for tracking

LiveSmart BC residential program

The LiveSmart BC residential efficiency incentive program was a cornerstone of BC residential energy efficiency from its inception in 2008, to its closing at the end of March 2014.[‡] It was successful at encouraging home energy evaluations and providing rebates, and generally raising the profile of residential energy efficiency in BC. Evaluation results and other relevant data was collected by LiveSmart (through Ministry of Energy and Mines) primarily through a data sharing agreement with Natural Resources Canada, making both of these organisations essential partners for anyone with a keen interest in reviewing or analysing data.

[‡] Note that although LiveSmart BC was funded by the Province of BC's Ministry of Energy & Mines from 2008-2013, in the final financial year of 2013-14 the Province did not provide any funding towards rebates or program design and the Provincial utilities provided all of the funding instead.

All of the 11 campaigns had at least some linkage to the LiveSmart BC residential program. Several campaigns communicated directly with LiveSmart BC staff and may have received LiveSmart input on design, or more tangible support from LiveSmart. Other campaigns were more passive in their approach and simply promoted what was available through LiveSmart BC.

Table 5 – level of communication the 11 campaigns had with LiveSmart BC and the Provincial utilities

Campaign	Level of communication with LiveSmart BC and the Provincial utilities
1. Rossland Energy Diet	Active
2. Kootenay Energy Diet	Active
3. Okanagan Energy Diet	Active
4. East Kootenay Energy Diet	Active
5. Nelson EcoSave	Active
6. Energy Save New West	Active
7. City of Terrace	Passive
8. Solar Colwood	Active
9. Cool North Shore	Passive
10. Power Down Campbell River	Passive
11. Vancouver HELP	Passive

Financial contributions by the local governments towards the campaigns

The financial contributions that local governments made towards the campaigns is shown in the table below (for some of the campaigns that had non-residential components only the residential component is shown). For further information on where the remaining money came from for each campaign, see Appendix 2 – Case studies of the energy efficiency retrofit campaigns.

Table 6 – financial contributions that local governments made towards the campaigns

Campaign	Total campaign cost*	Actual cash contribution by local government(s)	Notes
1. Rossland Energy Diet	\$85,000	\$0	Campaign funded by FortisBC and Columbia Basin Trust.
2. Kootenay Energy Diet	\$245,600	\$15,600	\$15,600 spent by a number of different local governments on reducing the cost of the D evaluations (see Table 7 for details). Money came from local government budgets. Rest of campaign funded by FortisBC, NRCan, and Columbia Basin Trust.
3. Okanagan Energy Diet	\$162,000	\$19,900	\$19,900 spent by a number of different local governments on reducing the cost of the D evaluations (see Table 7 for details). Money came from local government budgets. Rest of campaign funded by FortisBC.
4. East Kootenay Energy Diet (to end of March 2014)	\$89,000	\$8,800	\$8,800 spent by a number of different local governments on reducing the cost of D evaluations (\$6,800) and E evaluations (\$2,000), (see Table 7 for details). Money came from local government budgets. Rest of campaign funded by BC Hydro, FortisBC, Columbia Basin Trust, and Regional District of East Kootenays.

Campaign	Total campaign cost*	Actual cash contribution by local government(s)	Notes
5. Nelson EcoSave (initial 2 year pilot)	\$168,000	\$90,750	Campaign was co-funded by NRCan, Columbia Basin Trust, City of Nelson / Nelson Hydro (which is a City department), and FortisBC.
6. Energy Save New West (to end of March 2014)	\$84,000	\$12,500	Campaign was co-funded by the City, BC Hydro, and FortisBC.
7. City of Terrace	\$8,100	\$5-7,000	Fully paid for by municipality, through cash and in-kind. No other campaign costs.
8. Solar Colwood (to December 31, 2013)	\$1,209,217	\$9,941.70 (to December 31, 2014)	Costs include many other components not part of other campaigns – e.g. training, monitoring, public electric vehicle infrastructure, piloting home energy monitoring systems, developing educational resources, piloting a registered contractor network, and non-residential program components are also included. Campaign costs split among a variety of funders, with NRCan as main direct funder.
9. Cool North Shore	\$50-100,000 per year (estimated)	\$0	Municipalities provided in-kind support and helped to obtain funding for the campaign, but did not provide any cash support. Campaign co-funded by a number of organisations, including Environment Canada (EcoAction).
10. Power Down Campbell River	\$65,500	\$2,800	95% of campaign cash costs (\$52,500) paid by BC Hydro. Approximately \$10,000 of local government staff time as in-kind support.
11. Vancouver HELP	\$100,000 (estimated)	\$100,000 (estimated)	Campaign costs and cash contribution by local government are estimated. Likely that some costs not included.

* Total campaign cost is approximate and includes staff time where possible.

Overview of local government subsidies of energy evaluations

The contributions that some local governments made towards reducing the cost of evaluations may be of particular interest. The following table shows how much the local governments would contribute towards each D evaluation (and in two cases, each E evaluation as well), and the total number of contributions that the local government would commit to making. This maximum financial contribution is calculated in terms of contribution per citizen – a useful number because it provides a sense of the contribution relative to the size of the community. The final number of contributions that were ultimately made is also provided, so that the total expenditure by each local government could be calculated.

As can be seen in the table, local governments discounted energy evaluations by a widely varying degree..

Note that some local governments did not provide any subsidy, and these are not include in the table.

Table 7 – overview of local government subsidies of home energy evaluations

Local Government	Population (2011)	D evaluation cost, pre-municipal subsidy	Subsidy amount for D evaluations	Max number available	Max total financial commitment	Max total contribution per citizen	Actual no. of D subsidies provided
Okanagan Energy Diet							
Kelowna	117,312	\$60	\$25	1000	\$25,000	\$0.21	373
Keremeos	1,330	\$60	\$25	25	\$625	\$0.47	13
Osoyoos	4,845	\$60	\$10	100	\$1,000	\$0.21	53
Peachland	5,200	\$60	\$25	240	\$6,000	\$1.15	46
Penticton	32,877	\$60	\$25	400	\$10,000	\$0.30	160
Regional District Okanagan-Similkameen (unincorporated areas)	22,862	\$60	\$25	100	\$2,500	\$0.11	100
Summerland	11,280	\$60	\$25	160	\$4,000	\$0.35	83
Kootenay Energy Diet							
Castlegar	7,816	\$60	\$25	100	\$2,500	\$0.32	91
Creston	5,306	\$60	\$30	200	\$6,000	\$1.13	62
Fruitvale	2,016	\$60	\$25	20	\$500	\$0.25	20
Grand Forks	3,985	\$60	\$25	100	\$2,500	\$0.63	50
Midway	674	\$60	\$10	25	\$250	\$0.37	14
Montrose	1,030	\$60	\$10	25	\$250	\$0.24	23
Regional District Central Kootenay (unincorporated areas)	30,360	\$60	\$25	276	\$6,900	\$0.23	213
Rosland	3,556	\$60	\$25	100	\$2,500	\$0.70	61
Slocan	296	\$60	\$25	10	\$250	\$0.84	10
Trail	7,681	\$60	\$25	100	\$2,500	\$0.33	90
East Kootenay Energy Diet (2013-14 year)							
Fernie	4,448	\$90	\$50 (+ \$150 for E evaluation)	50 for each	\$10,000	\$2.25	30
Kimberley	6,652	\$90	\$50 (+ \$50 for E evaluation)	50 for each	\$5,000	\$0.75	21
Regional District East Kootenay (unincorporated areas)	15,629	\$90	\$50 (+ \$50 for E evaluation)	75 for D; 25 for E	\$5,000	\$0.32	74
Sparwood	3,667	\$90	\$50 (+ \$150 for E evaluation)	50 for each	\$10,000	\$2.73	11
Other campaigns							
New West (2013-14 year)	65,976	\$90	Varied	200	\$12,000	\$0.18	128
Terrace (2011 to March 2014)	11,486	\$150	\$100	50-70	\$5-7,000	\$0.44-0.61	50-70

Analysis

This section contains a summary of the analysis conducted. The main analysis can be found in Appendix 3 – In-depth analysis of the campaigns.

The analysis forms the basis for the recommendations.

The analysis is based on quantitative and anecdotal data. More credence should be given to the trends identified that are based on quantitative data.

Summary of Assessment Parameters & Trends

A summary of the assessment parameters used to assess the campaigns, and the trends identified, are shown in the following table.

Table 8 – parameters used to assess the campaigns, and trends identified

Parameters	How assessed	Trends identified
D & E evaluations	The number of D & E evaluations that the campaigns had per month in 2013-14, versus the rest of BC	Local governments and utilities working in partnership on retrofit campaigns can have a major impact compared to what would have otherwise occurred. 59% of the D and 37% of the E assessments in BC over 2013-14 are due to the local government-led campaigns analysed in this report which took place over that period, even though they represent only 13% of BC's population.
Overall cost of the campaigns	Campaign cost per D evaluation achieved, by campaign	<p>\$/D evaluation achieved ranges from \$118 to \$4,425. \$/E evaluation achieved ranges from \$472 to \$6,654. \$/tonne of GHG's saved per yr ranges from \$251 to \$3,636.</p> <p>Note that it is extremely difficult to compare one campaign with another because a myriad of factors can contribute towards the number of D and E evaluations and the GHG savings. Many factors could not be included, e.g. all of the campaigns took place over different time scales, some of the campaigns are in the process of ramping up, some campaigns had more challenges than others, and many campaigns had additional goals. In addition, there is some uncertainty around some of the figures such as the cost data, and particularly the estimated greenhouse gas savings which likely suffers from a variety of methodologies being employed by the different campaigns (and possibly none of the campaigns estimated the GHG savings from retrofits outside of E evaluations). Therefore, the information should not be used to decide that one campaign was more successful than another.</p>
	Campaign cost per E evaluation achieved, by campaign	
	Campaign cost per estimated tonne of GHG's saved per yr, by campaign	

Parameters	How assessed	Trends identified
		<p>Also note that the figures for \$/tonne of greenhouse gases saved per year do not equate to the cost per tonne for a local government using these campaigns as a local reduction project.</p> <p>See Appendix 1 –.</p>
<p>Conversions of D evaluations to E evaluations</p>	<p>Proportions of D evaluations converted to E evaluations, by campaign</p>	<p>For all of BC, conversions from D to E evaluations were 70-80% in LiveSmart BC years prior to 2013-14 due to higher incentive levels. In 2013-14 it dropped to 30%, and once the campaign communities are excluded it is 47%.</p> <p>In 2013-14, the campaigns had lower conversion rates than the BC average due to marketing and reduced D evaluation costs increasing the number of people having D evaluations who were more speculative about conducting a retrofit. Variations in the D to E conversion ratio between the campaigns are not easily explained based on the data available.</p> <p>The Rossland Energy Diet has the highest D to E conversion ratio of all the campaigns. This is mainly because it took place in an earlier LiveSmart BC year, when there was an exceptionally high level of incentives.</p>
	<p>Anecdotal information</p>	<p>Many campaigns said that the decrease in levels of LiveSmart BC and utility incentives had been a challenge, and reduced the conversion from D to E evaluations. Some campaigns stated that coaching people after D evaluations also appears to help people move from D to E evaluations.</p>
<p>Proportion of eligible homes to have evaluations</p>	<p>Proportions of eligible homes to have D & E evaluations, by campaign, in the 2013-14 year</p>	<p>Although the marketing and reduced cost D evaluations lower the D to E conversion ratio, the campaigns in the 2013-14 year clearly increase the number of E (and of course D) evaluations per eligible home. This means that the campaigns are increasing the number of retrofits beyond what would have otherwise taken place. For the campaigns for which there is a significant amount of data, the increase in E evaluations over business as usual (i.e. compared to the rest of BC where there were no campaigns) varies from 2 to 16 times. (For D evaluations the increase varies from 8 to 36 times.)</p> <p>The Rossland Energy Diet has the highest proportions of eligible homes receiving D and E evaluations. The Rossland Energy Diet is an excellent case study of what can be achieved in a</p>

Parameters	How assessed	Trends identified
		small community when intensive marketing is combined with a period of abnormally high incentive levels for home energy efficiency retrofit measures.
Marketing	Charts of registrations over time, compared with when marketing activities were conducted, for some communities within the wider regional campaigns	Overall, periods of most rapid registration do not correlate with one form of marketing or another, but rather seem to coincide with periods when a mix of marketing measures has raised the profile of a campaign enough. Periods of rapid registration are in some cases remarkably pronounced.
	Marketing response analysis (where registrants say they heard about the program)	<p>The Okanagan Energy Diet found that the City of Kelowna’s website was the third highest source of referrals to their website, out of the entire Okanagan.</p> <p>Energy Save New West found utility bill messaging / and program brochures (inserted into utility bills) to be a very effective marketing method.</p> <p>Solar Colwood found newspaper marketing, the launch, and being told by an expert (either an installer or Certified Energy Advisor) to be the top three most effective methods.</p>
	Anecdotal information	<p>Most effective marketing methods were said to be (in no particular order):</p> <ul style="list-style-type: none"> • Face-to-face interactions <ul style="list-style-type: none"> • Word-of-mouth • Working with or promotion by local governments, e.g. letters from the local government, Mayor / Councillor / Director to residents, editorial in local newspaper <ul style="list-style-type: none"> • Working with contractors • Engaging with community organisations <ul style="list-style-type: none"> • Social media • Youth engagement <ul style="list-style-type: none"> • Radio ads • Newspaper ads • Earned media • Community events • Door hangers on neighbours’ doors, when an energy evaluation is completed

Parameters	How assessed	Trends identified
Cost to the customer of D evaluations	<p>Charted against community penetration rate for communities within the large regional campaigns where factors such as marketing are similar</p>	<p>No significant correlation based on the data available. It is likely that other factors have drowned out the impact.</p> <p>To conduct proper analysis on the impact of the cost of D evaluations, a regional campaign for a larger number of communities would need to have widely varying D evaluation costs (e.g. \$0-150), with the same level of marketing in each community and the same incentive levels.</p> <p>Regardless, it is apparent that there are a myriad of factors that affect D evaluation penetration rates. Taking an example from the East Kootenay Energy Diet in 2013-14, Fernie and Sparwood are neighbouring communities (30km apart) of a similar size, provided identical D and E evaluation subsidies and received a very similar level of marketing. The results were that Fernie achieved a D evaluation penetration rate of 2.0%, while Sparwood achieved a low 0.8%.</p>
	<p>Anecdotal information</p>	<p>Several campaigns stated that low D evaluation costs help with registrations. Market research prior to the Rossland Energy Diet found that the high cost of D evaluations at the time (\$150 to the customer) were a barrier.</p> <p>Anecdotally, the reasons given for Fernie and Sparwood having such different D evaluation penetration rates are as follows: very different cultures in each community; social dispersion of ideas and opportunities in each community is different; and the flooding that affected Fernie just before the campaign meant a lot of people were renovating their homes and so added energy efficiency measures.</p>
<p>Maximum potential financial contribution by local government towards evaluation costs</p>	<p>Charted against community penetration rate for communities within the large regional campaigns where factors such as marketing are similar</p>	<p>No significant correlation based on the data available.</p>
<p>Retrofits without E evaluations</p>	<p>Number of homes and proportions (as a percentage of D evaluations) conducting retrofits</p>	<p>Surveys conducted as part of three campaigns demonstrated that a high proportion of homes conduct retrofits without going through E evaluations – estimated (with a high degree of uncertainty) at 11-19% of the D evaluations for the three campaigns.</p>

Parameters	How assessed	Trends identified
	without E evaluations	
	Anecdotal information	Many other campaigns anecdotally stated that they had or were having the same experience as these three campaigns.
Community size	Charted against community penetration rate for communities within the large regional campaigns where factors such as marketing are similar	There is a clear correlation between the population size and D evaluation penetration rate, in that the smaller the community, the higher the penetration rate. This trend is so strong that it mainly drowns out other factors for the three regional campaigns (Kootenay, Okanagan, and East Kootenay Energy Diets) where this was analysed. This means that it is easier to market an energy efficiency retrofit incentive campaign in smaller communities.
Timeframe, timing, & theory of urgency	Anecdotal information	<p>There was significant diversity of opinion on the optimal timeframe for a campaign, and although a short timeframe may provide a sense of urgency this could be achieved with varying incentive levels in a long-term campaign.</p> <p>Timing can be an issue: e.g. winter can be a challenging time to conduct certain retrofits in some parts of BC, in summer many people may be away or busy, and an election campaign may limit what marketing can be done.</p>
Financing	Number of homes to access financing campaigns, and as a proportion of E evaluations	<p>Three of the campaigns (Okanagan excepting Penticton, East Kootenay, and Vancouver HELP) had a surprisingly low uptake of residents using financing offered to pay for their home energy retrofits, with a range of 0-2% of E evaluations. The Kootenay Energy Diet had moderate uptake at 5-6%. The Penticton component of the Okanagan Energy Diet and Nelson EcoSave had high participation rates at ~59% and 44% respectively. Both of the successful financing programs were led by municipal utilities (although some of the participation in Nelson was through the Credit Union), and had more competitive interest rates and lower barriers to entry than the other programs. Other factors may have also contributed to their success. Note that the Penticton on-bill financing program was modelled on Nelson's.</p> <p>It also appears that the implementation of successful on-bill financing campaigns had a positive impact on the D to E conversion for Penticton and Nelson, and the proportion of eligible homes to have both D and E evaluations. There is however insufficient data available to definitively conclude this.</p>

Parameters	How assessed	Trends identified
		Financing should probably not be conducted in isolation, and this appears to be well demonstrated by the Vancouver HELP campaign.
	Anecdotal information	Based on the anecdotal experiences of the campaigns, financing (either on-bill financing or an unsecured loan from a financial institution) may be useful as an addition to a campaign to encourage people to participate. Homeowners can assume that capital cost is a barrier, but the mention of a financing option encourages them to consider the options available.
One-on-one coordinator	Anecdotal information	Several campaigns stated that a dedicated program coordinator (or team) to serve as the key point of contact for the community was essential to ensure a customer-friendly campaign. More staff time is needed when a campaign is the early stages. Coaching people after D evaluations may help people move from D to E evaluations. Several campaigns emphasised the importance of having the right person for the job – a dynamic and approachable coordinator.
Involving stakeholders, and local buy-in		Many campaigns stated that informing local stakeholders of the campaign in advance was essential. On working with contractors, when reviewing their programs in general, FortisBC Electricity have found that their most successful programs have been those where they have been working with contractors the longest.
Keeping a campaign simple for customers		Many campaigns stated that it is important for a campaign to be simple for the community, or to provide enough support to ensure people understand.
Organisation's image		The FortisBC led Kootenay and Okanagan Energy Diet campaigns anecdotally reported some difficulties due to negative impacts to FortisBC's image that took place prior to the campaigns taking place. This may have created a trust barrier.
Whether a community can become saturated	Analysis of participation rates in Rossland when it was part of the Kootenay Energy Diet, after it's exceptionally high participation rates in the Rossland Energy Diet	Even though the Rossland Energy Diet had an exceptionally high participation, when it was later part of the Kootenay Energy Diet it had one of the highest per capita participation rates of any of the Kootenay or Okanagan Energy Diet communities even though no special promotion was conducted there. Not only does this indicate that there was still a lot of energy efficiency opportunities in single family homes in that community, but it may also be an indication that the initial campaign helped to normalise energy efficiency in the community and helped to establish a cultural change.
Regional versus community-to-community approach	Anecdotal information	The regional Kootenay and Okanagan Energy Diets stated that in future more staff resources could be concentrated on just one community at a time, e.g. to split the campaign into manageable pieces, or to conduct a marketing blitz and facilitate word-of-mouth participation.

Parameters	How assessed	Trends identified
Environmentally conscious communities		Two campaigns stated that this was beneficial to having greater campaign uptake – Nelson EcoSave, and Okanagan Energy Diet (the latter with respect to the success factors for the community of Naramata).
Partnerships		Several campaigns emphasised how it is important to have the right partnerships (e.g. utility and local government partnerships).
Champions in Council and staff		One campaign (Solar Colwood) highlighted how this is necessary. Note that for another project, CEA has obtained quantitative data establishing a strong link between having champions in both Council and staff, and with communities being able to implement a large proportion of actions from their Community Energy and Emissions Plans. This perhaps points to how this is helpful for a more ambitious campaign.

Key findings and recommendations

The analysis in this report provides an understanding of what a campaign could include or exclude in order to be successful.

Based on the analysis in this report, a key learning is that local governments and utilities can be confident that a well organised and marketed campaign can sharply increase the number of home energy retrofits over what would have otherwise taken place. Many of the campaigns analysed in this report have been successful in achieving this. 59% of the D and 37% of the E evaluations in BC over 2013-14 are due to the campaigns analysed in this report which took place over that period, even though they only comprise 13% of BC's population. In addition, in the 2013-14 year, when comparing the campaign communities for which we have a lot of data compared to the rest of BC, the campaign communities had between 8 and 36 times the number of D evaluations per eligible home, and 2 to 16 times the number of E evaluations.

Role for municipalities with the HERO program

The HERO (Home Energy Rebate Offer) program was launched in BC in June 2014, led by BC Hydro and FortisBC. It differs from LiveSmart BC in that D and E evaluations are only a requirement for certain retrofit measures, and not for all. In addition, there are no longer any BC-wide subsidies to reduce D evaluation costs. As with the 2013-14 LiveSmart BC year, there are also no incentives for homes that use heating oil or propane as a primary heating fuel.

1. Conducting a bulk purchase of D evaluations through an RFP to reduce the cost (whilst retaining quality as a criteria by which proposals are assessed)
2. Further subsidising the cost of D evaluations through municipal funds
3. Through the municipal electrical utility or a third party, creating or promoting a financing scheme for residential energy efficiency retrofits – but only if the interest rate is competitive in the market place and there are low barriers to participant entry
4. Creation of home energy incentives for homes that use heating oil, propane, or wood as their primary heating fuel in the community (if relevant) – as there are none through HERO
5. Establish with the utilities whether the local government can claim any of the greenhouse gas reductions as a local reduction project (this may only be possible if the local government creates incentives for heating oil or propane heated homes) , and get the methodology approved by the Climate Action Secretariat
6. Create and implement a marketing plan

Municipalities should also note the other recommendations in this section. E.g. instead of D evaluations, a campaign could instead conduct free thermal imaging scans through the Fire Department.

Marketing

Campaigns should be cognisant that different marketing techniques can work at different times (e.g. mass media at beginning of campaign versus word-of-mouth later on), with different demographics, and in different communities. It appears that the best results are achieved through a combination of marketing techniques, rather than reliance on any single one.

The following appear to be particularly beneficial:

1. Local government support, with a letter from the local government, Mayor, Councillor, or Director to residents, or editorial in the local newspaper, etc. And a link to the program from the local government's website
2. Earned media (e.g. newspaper articles)
3. Newspaper and radio adverts (although probably not in isolation)
4. Face-to-face interaction (although it is labour intensive)
5. Word-of-mouth (although it is difficult to create a buzz, particularly in a larger community, although door hangers on neighbours' doors & signage on energy evaluators / contractors vehicles would help)

Although none of the programs specifically stated that electronic marketing such as a program website was an effective marketing tool, this should be considered an essential component of any campaign.

If a community has a particular publication or means of media that is popular, that should be focused on.

The least effective form of marketing was found to be physical posters and leaflets, and probably no major effort should be conducted on these unless there is a strong sense that they will work locally.

There was a division of opinion over the effectiveness of working in schools. However it should be noted that Campbell River, who found working with schools effective, was not working with them to generate registrations for D evaluations. Instead their intention was to get families interested in participating in the reality TV style energy efficiency competition.

The Campbell River approach with the reality TV style energy efficiency competition is an excellent method for gaining earned media. This may be particularly helpful if the campaign is taking place in a larger or urban community where there may be many competing messages. It is however a cost and time intensive approach.

All future campaigns should ensure they conduct marketing response analysis. When people register, ask them how they found out about the campaign, and analysis could be conducted afterwards. This will provide local information to help inform future campaigns. However note that different marketing can work at different times, and that people can hear about the program from multiple sources (& may not remember all of those).

If possible, messaging should be tested (e.g. with a focus group consisting of members of the public) before going to market. Make sure people can quickly understand what the campaign is about.

Community-Based Social Marketing

Future design of energy efficiency incentive campaigns should consider ways to increase the visibility of actions, and promote the benefits and outcomes of participation. For most campaigns in 2013-14, gaining participation in the D evaluation phase of the campaign was not especially a challenge – instead it was encouraging individuals to implement the recommendations and move from receiving their report to completing a retrofit and getting an E evaluation. This is where more assertive personal contact regarding commitments that had been made or pledges for participation would be helpful. Further guidance as to the best actions for each home would be helpful, but also requires significant human resources. This may be a method future energy efficiency incentive campaigns could explore.

Regarding pledges, future retrofit campaigns may be more effective if pledges were more intentional, not signed as part of a contract or terms and conditions document. It may be considered less 'voluntary' if signing is a pre-requisite of campaign participation. If a pledge were a separate component of a participation package,

the homeowners may be forced to contemplate and consider the pledge that is being made. Requiring a participant to think thoughtfully about how a pledge will stretch or challenge their own behaviours is the purpose of a pledge.

Helping people prioritise energy efficiency

A campaign must recognise that energy efficiency is not people's top priority, and therefore it is important to help people prioritise it. Providing incentives and/or making energy efficiency fun are two obvious ways to do this. Better explanation of the co-benefits (e.g. cost savings through reduced energy consumption) may also help to prioritise energy efficiency.

Reduced cost D evaluations

When comparing communities within the wider regional campaigns, the analysis in this report did not find an explicit link between lower cost D evaluations and increased registrations, although it is likely that there is a link. Certainly, when looking at BC as a whole in 2013-14 and all the campaigns active over that period, they achieved a significant increase in D and E evaluations over business as usual, and the two main factors that this could be attributed to are the reduced cost D evaluations and marketing (but it is not clear what the relative impact of each was).

Apart from subsidies, campaigns can also reduce the cost of D evaluations by conducting an RFP to bulk purchase them. Note that although the energy evaluations follow a similar process to reach an EnerGuide rating, there is still potential for a variation in the quality of an energy evaluation, e.g. due to the experience of the energy assessor. Therefore quality should form part of the RFP assessment criteria.

There could be some concern that having free or extremely low cost D evaluations may lead to an excessive number of people registering who are not serious about retrofits, but there does not appear to be evidence to suggest this. Some campaigns which had free or extremely low cost D evaluations still achieved relatively good conversions from D to E evaluations, when considering other factors such as low incentive levels from LiveSmart BC. Nevertheless, a budget could be stretched further by not excessively reducing the cost of D evaluations (\$50-90 is a suggested cost range, whilst offering lower cost or free evaluations for qualifying low income homes).

Rebate levels for home energy retrofit measures

At times when there are high rebate levels for home energy retrofit measures, local governments should take advantage of these and conduct an intensive campaign. The potential benefits of this approach are well demonstrated by the Rossland Energy Diet through the impressive percentage of eligible homes in the community that received D and E evaluations, while maintaining a high D to E conversion ratio.

Capturing full campaign impact

If there is interest in capturing the full impact of a campaign, follow-up calls and/or a post-campaign survey need to be conducted after D evaluations. Many homes conduct retrofits without E evaluations or applying for incentives.

Timeframe, timing, and theory of urgency

Given the diversity of opinion among the campaigns on a short versus long timeframe, one way for campaigns to have a long-term campaign but still create a sense of urgency is to have short periods of time with reduced D evaluation costs or other special incentives. If a short timeframe is selected, a campaign should be wary of requiring people to conduct retrofits over winter, as it can be challenging to conduct some retrofits.

When considering timing of a campaign it is also important to be cognisant of other events that can compete for people's time and attention, or can put people off significant retrofits, e.g. an election (may affect what marketing can be done), winter (can be hard for people to do retrofits due to the weather), or summer (people can be away or busy).

Financing

Although it may be of some use for a campaign to have financing, if this is challenging to establish then simply providing homeowners with a list of potential ways to finance retrofits may be a suitable alternative.

A retrofit incentive campaign should not focus on financing in isolation.

If a community is able to provide on-bill financing at a competitive interest rate and with low barriers to entry, it appears that this may provide a significant help to a retrofit campaign. The Nelson Hydro and Penticton Electrical utility on-bill financing programs are good examples to replicate (note that Penticton's is modelled on Nelson's), but note that they were able to offer low interest financing thanks to the low financing costs that local governments can access.

One-on-one coordinator

Having a dedicated campaign coordinator is extremely important – an approachable point of contact for the campaign. The coordinator can also act as an “energy coach”, calling up people after their D evaluations, encouraging them towards retrofits and E evaluations. It is recommended that the coordinator is dynamic and approachable.

Stakeholders

All campaigns should inform stakeholders, in particular contractors, before the campaign starts so that they can be advocates for the campaign. In small communities, contractors also need to be made aware of the coming workload. On informing contractors, sometimes they may not have time to come to meetings, and may not read emails or pamphlets. It is important to find the right way to communicate with local contractors, e.g. personal phone calls may be effective. Other stakeholders can include financial institutions and community groups such as local neighbourhood associations.

Matching a campaign to a budget

There are a range of different ways to conduct a campaign based on the budget, as the case studies show. The most ambitious is the Solar Colwood campaign, and the lowest budget campaign was Terrace's with a budget of just a few thousand dollars.

Keeping a campaign simple for customers

The existing incentive programs can be complex and confusing, and frequently change. A campaign must try to simplify and clarify things as much as possible for the customer.

If the organisation has a negative image

If the organisation (e.g. utility) conducting the campaign has a negative image locally, this can be at least partially mitigated by finding the right partnerships, such as a local government or an environmental non-profit. In addition, FortisBC Electricity stated that a lot of research has shown that conservation programs improve a utility's image, and by extension they may also help to improve a local government's image.

Regional versus community-to-community approach

If a region is being targeted for a campaign, it may be more beneficial for a marketing blitz to be conducted in it one community at a time. This may help increase the number of registrations. Focussing on communities or neighbourhoods with older homes (i.e. 20+ years) would also be recommended.

Partnerships

It is important for a campaign to have the right partnerships, e.g. between the local government and all energy utilities, and financing partners.

Champions in Council and staff

The more ambitious a local government-led campaign is intended to be, the more important it is for there to be champions in both local government Council and staff.

Avoiding expensive D evaluations with thermal imaging

From April 2014 the Province eliminated its subsidy for D evaluations, increasing their cost (without considering local government subsidies or a bulk purchase) to approximately \$300-350. It is likely that this is in excess of what people would be willing to pay, unless there was certainty they would receive a significant rebate for retrofitting a measure. Campaigns could avoid this either by providing substantial local government subsidies (in addition to conducting an RFP to bulk buy energy evaluations and reduce the initial cost), or by using an approach such as Cool North Shore's and try partnering with Fire Departments to provide free thermal imaging of homes.

Thermal imaging is not without challenges however. Cool North Shore stated that it is not as comprehensive as a home energy evaluation with a blower door test, they only work when it is cold enough outside to provide a good temperature differential (e.g. November to March for the Metro Vancouver North Shore), and when there is a fire the Fire Department would not be able to keep its appointments. Cool North Shore stated that one advantage of thermal imaging over an energy evaluation with a blower door test is the strong visual signal it sends to the homeowner, often encouraging them to take action.

City Green also noted that: *“while some Fire Departments may be able to provide thermal imaging demonstrations these should likely be viewed as an awareness raising exercise. Homeowners looking for thermal imaging services to assist with improving the energy efficiency of their homes should seek out the services of a trained energy advisors who is also a thermographer (trained to American Society for Non-destructive Testing (ASNT) Level I or II). While more expensive than a standard energy assessment, thermal imaging assessments can be of high value to homeowners to address issues with moisture, insulation, air sealing and to provide guidance for undertaking a deep energy retrofit.”*

Appendix 1 – Using a campaign as a local greenhouse gas emission reduction project

Calculating greenhouse gas reductions from a local residential energy efficiency retrofit incentive campaign, when using it as a local reduction project – alternative methodology

Introduction

As described in the Province of BC's document, *Becoming Carbon Neutral, A Guidebook for Local Governments in British Columbia*, version 2, July 2011, communities can claim the greenhouse gas emission reductions generated from Green Communities Committee (GCC) approved projects against their corporate carbon footprint. One of the approved projects is "Energy Efficient Building Retrofits and Fuel Switching", which can include a local residential energy efficiency retrofit incentive campaign. Communities claim the reductions when they conduct their Climate Action Revenue Incentive Program (CARIP) reporting.

Agreement has been obtained from the Province of BC to claim reductions generated from LiveSmartBC incented retrofits in LiveSmart's fiscal year 2013-2014, if a community supported it with either a financial or in-kind contribution (see letter from the Province in the appendix). Note that no agreement has been made with FortisBC Gas, FortisBC Electricity, or BC Hydro for retrofits they have incented outside the LiveSmart program.

These reductions can be claimed against the local government's carbon footprint in the 2013 or 2014 years, depending on the year in which the "E" (post-retrofit) assessment took place.

This document provides a simplified methodology which has been approved by the Province of BC. The original methodology provided in the GCC project profile would be overly onerous for communities to conduct when many retrofits have taken place (several years of energy bills would need to be collected and analysed for each property). The original project profile states that alternate methodologies that rely on pre- and post-project energy audits could also be used, as long as the assumptions to forecast post-retrofit energy consumption are specified and standardized – as they are in this document.

Note that this type of reduction project is considered a 'local reduction' but is not a marketable offset as it requires no process of verification. For this reason, the terminology of the opportunity is called a 'local reduction project'.

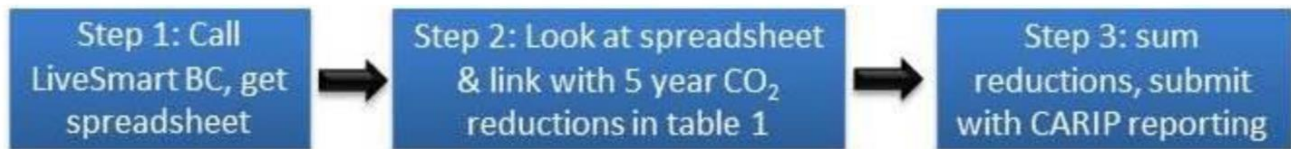
D assessments and E assessments

To be consistent with terminology used by LiveSmart BC and NRCan, this document refers to pre-retrofit home energy assessments as "D" assessments, and post-retrofit home energy assessments as "E" assessments.

Methodology

This methodology has been simplified to aid local government staff. It uses average savings from the thousands of retrofits conducted over previous years of LiveSmart BC data, rather than measuring the reduction that each home in the community has achieved by monitoring reductions in energy bills. It is reasonable to assume that the retrofits that were conducted in previous years will have similar impacts to those that are conducted now.

An overview of the methodology is shown in the following schematic:



Details of the steps are as follows:

Step 1: Gather information from LiveSmartBC on the E assessments that have taken place in the community for the relevant inventory year – this information will be received as a spreadsheet. The contact is Rylan Nowell, Technical Analyst, at the Energy Efficiency Branch of the Ministry of Energy & Mines, tel: 250-953-3756, rylan.nowell@gov.bc.ca.

Step 2: In the spreadsheet, identify the properties that use natural gas as their primary heating fuel, and look at the columns furthest to the right that refer to Federal credits. The allocation of these Federal credits shows what retrofits have taken place. Only consider the retrofits that are referred to in table 1 as these would have received LiveSmart BC incentives. Ignore all other retrofits, and ignore retrofits for homes whose primary heating fuel is electricity (because the CO₂ emission reductions from reducing electricity consumption will be negligible). Note that the Federal credits are not referring to any money that people should have received, rather they refer to theoretical Federal credits as this spreadsheet is produced by NRCan.

Take the retrofits that have been conducted for each property, and assign the 5-year CO₂ emission reductions given for each one in table 1 in the column to the furthest right. If a home has conducted multiple measures, these should be added together. Note: 5 years has been approved by the Province of BC as a reasonable time-frame, given that retrofit measures will last a long period of time, but homes are installing more energy efficient measures as business as usual.

Table 1 – energy and CO₂ savings per retrofit measure

Column in spreadsheet	Pre-retrofit primary heating fuel	Average gross savings per home		
		Natural gas (GJ/year)	CO ₂ (equivalent) (tonnes/year)	CO ₂ (equivalent) over 5 years (tonnes)
Federal attic/cathedral/flatroof credit , [may also be called insatr_credits]	Natural Gas	11.3	0.57	2.83
Federal foundation credit [may also be called insfnd_credits] and/or Federal exposed floor credit [may also be called exfl_credits] (treat these as one reduction – and IGNORE Federal foundation header credit column [may also be called insfh_credits])	Natural Gas	11.3	0.57	2.83
Federal exterior wall credit [may also be called inswll_credits]	Natural Gas	11.3	0.57	2.83
Federal air tightness credit (ONLY if the credit is \$430 – ignore for smaller credits) [may also be called asl_credits]	Natural Gas	6.5	0.33	1.63

Note that the impact of the different insulation measures is assumed to be identical, based on a summary table produced by a comprehensive analysis of the LiveSmart BC program.

Step 3: Add up the CO₂ emission reductions and submit these as part of the CARIP reporting, using them to reduce the local government’s corporate carbon footprint.

Example

The Village of Quietude was part of the Kootenay Energy Diet, and encouraged its residents to participate in the Energy Diet by subsidising the D assessments by \$10 and conducting promotional activities. In 2013, 5 E assessments were conducted, but the Village is unsure how many E assessments were conducted in 2014 before the end of March.

When conducting CARIP reporting for the 2014 year, staff from Quietude call LiveSmart BC and find out that 15 E assessments were conducted before March 31, 2014 (ignoring the 2013 E assessments). Looking at the spreadsheet, they see what houses would have received theoretical Federal credits. 1 house completed an E assessment but would not have been eligible for any Federal credits, so is ignored. 6 houses had electricity as their pre-retrofit primary heating fuel, so those are ignored. Of the 8 natural gas heated homes that would have received Federal credits, 2 of them did not conduct any retrofits that match the measures in table 1 (i.e. they did not receive any LiveSmart BC rebates). So the retrofits conducted by the remaining 6 homes are shown in table 2.

Table 2 – calculation process for the Village of Quietude’s 2014 E assessment retrofits

Retrofit type	Per home CO ₂ (equivalent) savings over 5 years (tonnes)	Number of home retrofits	Notes	Total (tonnes)
Federal attic/cathedral/flatroof credit	2.83	2	One home had insulation credits in all three categories	5.66
Federal foundation credit and/or Federal exposed floor credit (but IGNORE Federal foundation header credit column)	2.83	2		5.66
Federal exterior wall credit	2.83	1		2.83
Federal air tightness credit (ONLY if the credit is \$430 – ignore for smaller credits)	1.63	3	One additional home had completed air tightness but would only have been eligible for a \$310 credit, and so is ignored	4.89
Total	-	8	8 retrofits on 6 homes	19.04

When conducting its CARIP reporting the Village submits 19.04 tonnes as the contribution from its local reduction project, thus reducing its 2014 corporate carbon footprint.

Data sources for this document

Energy savings per retrofit data have been obtained from *Evaluation of the LiveSmart BC Efficiency Incentive Program, F2009 – F2011, Final Report*, November 2013, by BC Hydro Power Smart Evaluation.

Data for converting natural gas energy savings into CO₂ equivalent savings have been obtained from *Methodology for Reporting 2011 BC Local Government Greenhouse Gas Emissions, Version 2.0*, February 2012, by the Province of BC’s Ministry of Environment.

Appendix – letter from the Province of BC



August 14, 2013

TO: Local Governments participating in Community Based Retrofit Projects

RE: Claiming GHG Reductions for LiveSmart Supported Home Energy Retrofits

The LiveSmart BC: Efficiency Incentive Program, through partnerships with BC Hydro, FortisBC Inc. and FortisBC Energy Inc., offers subsidized energy assessments and incentives for homeowners to complete upgrades to improve their home energy efficiency. Through this program, participants may reduce their overall energy usage and greenhouse gas (GHG) emissions. We understand the LiveSmart BC program is being promoted by a number of local governments in the Kootenay and Okanagan regions.

The LiveSmart BC program confirms that as of June 2013, no partner is claiming ownership or intending to claim ownership of GHG emission reductions achieved through incentives, or support provided by the residential LiveSmart BC: Efficiency Incentive Program.

The LiveSmart BC program confirms that local governments may contribute financial or in-kind support to community-based retrofit projects, and may claim the GHG emission reductions that are realized as a result of the implementation of LiveSmart-incented retrofits within their boundaries. In order to claim these reductions as part of a local government's goal of carbon neutrality, the GHG reductions must be documented and reported as per the Green Communities Committee "Option 1B: Energy efficient building retrofits and fuel switching" protocol. LiveSmart BC will facilitate participation by community upon request by that community. Communities not participating in the community-based retrofit projects listed in Appendix A should contact the LiveSmart BC program by phone (Leah Davies at (250) 356-2230) or e-mail (Leah.Davies@gov.bc.ca) to explore the opportunity of developing an agreement to claim the GHG emission reductions resulting from their residents' participation in the LiveSmart BC program.

.../2

**Ministry of Energy and
Mines**

Electricity and Alternative Energy
Division

Mailing Address:
PO Box 9314, Stn Prov Govt
Victoria, BC V8W 9N1
(250) 952-0673 – tel
(250) 952-0258 - fax

Location:
4th Floor
1810 Blanshard Street
Victoria

The contents of this letter are effective until March 31, 2014, at which point ownership of emissions reductions achieved through the LiveSmart program will be re-evaluated.

Sincerely,



Les MacLaren
Assistant Deputy Minister
Electricity and Alternative Energy Division
Ministry of Energy and Mines

Appendix A

Community Based Retrofit Projects Approved by LiveSmart to Claim GHG Emissions Reductions that Result from Implementing LiveSmart-incented Retrofits within their Municipal Boundaries

- East Kootenay Energy Diet
- Okanagan Energy Diet*
- Kootenay Energy Diet

* Includes all communities in Okanagan/Similkameen, including municipal utilities of Penticton and Summerland

Appendix 2 – Case studies of the energy efficiency retrofit campaigns

Rosland Energy Diet August 2011 – March 2012	
Campaign costs \$85k spent on admin & marketing by FortisBC and Columbia Basin Trust. (Plus \$190k for business evaluations & incentives, and \$1,005,000 for residential incentives & lighting samples.)	Staff resources Part-time Energy Ambassador for 6 months (0.75 FTE at start, average 0.5 FTE). Plus 300 hours of FortisBC staff time – marketing and managerial support.
Approach, & how barriers to improved energy sustainability are removed The City of Rosland’s Sustainability Committee approached FortisBC for assistance to develop and implement a campaign. Campaign aimed at low-rise, single-family residential. Barriers removed by offering free D evaluations, thus easing the access to high quality information on home energy efficiency (through the evaluation). Campaign development followed community-based social marketing and other behaviour change and marketing theories including theories of scarcity, reciprocity, community norms, personal contact, pledges and financial incentives. Free energy efficiency kits were distributed to every home in the community by Girl Guides, helping to promote the campaign. Kits contained – free CFLs, HW pipe insulation, caulking, and outlet insulation. Low interest financing from the local credit union reduced the financing barrier. Intensive community-based marketing. Dedicated campaign coordinator.	
Branding & marketing Branding as “Rosland Energy Diet”, with a logo using an energy meter and measuring tape. Marketing through newspaper ads and earned media, posters, signs, leaflets, a street banner, about 1200 postcards sent (one to every house), radio interviews, website, blog, and open house events. Regular emails to participants and follow up phone calls after D evaluations. Workshops to create awareness of the campaign and on energy efficient behaviour. Plus well attended presentations to contractors and community organisations. Marketing intended to look like a local campaign, with FortisBC taking a back seat. FortisBC staff person working from City Hall.	
Partnerships & local government role Initiation of campaign and leadership from the City of Rosland’s Sustainability Committee. Campaign designed, led, and funded by FortisBC. Columbia Basin Trust funded \$20k, half the Energy Ambassador position. Home energy audits were contracted out to VerdaTech. The local branch of the Nelson and District Credit Union provided 5.5% loans for energy efficient upgrades. Contractors were told about the campaign in advance so they would promote it. The City of Rosland, including the Sustainability Committee, helped to promote the Energy Diet through its networks, including letters/invitations sent out from the Sustainability Committee and not FortisBC (although Fortis paid for them), and joint City / FortisBC press releases. City elected representatives spoke at community events. The City provided office space and supported the Energy Ambassador.	
Targets & results Targets: 250 D evaluations, 200 homes making energy efficiency upgrades and getting E evaluations, 35 small businesses with free energy efficient lighting upgrades, awareness raising to 1500 residents, engage the media. Results: 257 D evaluations (21% of low-rise homes in the city). 180 E evaluations, and 40-50 more made other improvements. About 1000 energy efficiency kits distributed. 35 small business lighting retrofits. Estimated annual savings: 2220 GJ of natural gas, 1,478,000 kWh of electricity, 338 tonnes of GHGs. Estimated \$1.6 million in local economy, 20-30 jobs created over 6 months.	Incentives Free D evaluations for homes. About 1000 energy efficiency kits delivered for free. LiveSmart BC programs included rebates from NRCan’s ecoEnergy program, the provincial government and FortisBC. Eligible small businesses received free lighting retrofits.
Successes <ul style="list-style-type: none"> • Very ambitious targets set & then met – exceeding expectations. • Raised awareness of efficiency in homes in the community. • Very popular – even a Christmas light exchange held during a blizzard had 60-70 attendees. 	Challenges <ul style="list-style-type: none"> • Some people were unwilling or challenged to conduct certain retrofits in winter. It can be difficult to change heating systems or windows and doors during cold weather.
Lessons learned <ul style="list-style-type: none"> • Local buy-in is critical, if there is time to build the relationships. This can be achieved through local governments or trusted community groups. The Rosland Energy Diet had excellent local buy-in. • Having the campaign designed to appear like a City of Rosland campaign and not a FortisBC campaign likely helped. • The campaign had a great lasting impact. Later Rosland was also in the Kootenay Energy Diet (below), & it had among the highest per capita participation of any Kootenay or Okanagan Energy Diet community although no special promotion was conducted there. • The short timeframe gave people a sense of urgency, which was beneficial for encouraging people to sign up. • No marketing response analysis done, but face-to-face interactions, word-of-mouth, and working with the City were effective. • Many people conducted retrofits that did not qualify for the LiveSmart BC program, and did not get E evaluations. These needed to be captured through follow-up contact, e.g. phone calls and analysis of utility rebate program participation. 	

Kootenay Energy Diet

January 2013 – March 2014

<p>Campaign costs</p> <p>\$215k, excluding incentives, spent by FortisBC, NRCan, and Columbia Basin Trust. In addition, FortisBC spent \$15k and local governments \$15.6k on reducing the costs of the D evaluations.</p>	<p>Staff resources</p> <p>Approx 2400 hours. Campaign manager – full-time 11 months. 1.5 Energy Ambassadors – 0.75 FTE for 8 months. 1 Communications Officer – at 0.2 FTE for 11 months. Plus managerial support.</p>
<p>Approach, & how barriers to improved energy sustainability are removed</p> <p>Campaign aimed at low-rise, single-family homes built prior to 2007. Barriers removed by substantially reducing the cost of D evaluations, easing access to high quality information on home energy efficiency (through the evaluation). Most local governments further reduced the cost of the D evaluations, and low income customers received free ones. Free energy efficiency products with retail value of \$60 distributed and/or installed with every evaluation – 5 free CFLs, HW pipe insulation, draft stoppers, kitchen tap aerator, and low flow shower head. Cost of evaluation often lower than value of products, encouraging evaluations. Intensive marketing to spread the word. About half the D evaluations received follow-up calls and almost all received several follow-up emails.</p>	
<p>Branding & marketing</p> <p>Branding as “Kootenay Energy Diet” (adapted from Rossland Energy Diet). Marketing through radio ads and interviews, newspaper ads and earned media, posters and brochures, door knocker leaflets for energy assessors to distribute to neighbours, sandwich board for events, social media (Twitter), website, digital packages of logo and displays for websites for use by partners (local governments and contractors), and open house events in each community. About 48 presentations to approx 960 people at local governments, open houses, contractors, community organisations; & a presence at 60 more community events (e.g. farmers markets, community events).</p>	
<p>Partnerships & local government role</p> <p>Campaign designed, led, and part-funded by FortisBC. NRCan and Columbia Basin Trust co-funded the campaign. Home energy audits were contracted out to Total Home Solutions. Local governments promoted the Energy Diet through their networks. Castlegar, Creston, Fruitvale, Grand Forks, Midway, Montrose, Regional District Central Kootenay, Rossland, Slokan, and Trail all further subsidised the cost of D evaluations by \$10-30. Local government elected representatives were also present at the Open Houses and participated in campaign. Contractors were told about the campaign in advance so they would promote it. All five Credit Unions operating in the area provided low interest financing for energy efficiency improvements, and marketed the campaign.</p>	
<p>Targets & results</p> <p>Targets: 6% of homes in the area, or 1,000 D evaluations, and have participants access the rebates and/or low interest financing.</p> <p>Results: 4.5% of homes, or 795 got D evaluations (862 if 67 from the Nelson campaign are included). 8-10 people accessed low interest financing.</p>	<p>Incentives</p> <p>Reduced cost D evaluations to just \$60, further reduced by many local governments to just \$30-50, with direct install of \$60 of free energy efficiency products. Evaluations provided access to LiveSmart BC and FortisBC incentives. Low interest (4.5%) long-amortization financing through local credit unions.</p>
<p>Successes</p> <ul style="list-style-type: none"> • Compared to the rest of BC, the Kootenay and Okanagan Energy Diets represented about 50% of the D evaluations done over the 2013-14 year, but only represented 9% of BC’s population. • 13 municipalities and 2 Regional Districts engaged, and all of them supported the campaign and helped to promote it. • Energy Diet broadly received as positive. • The campaign created a buzz. Neighbours encouraged neighbours and slowly the culture of energy efficiency upgrades and knowledge is being grown. 	<p>Challenges</p> <ul style="list-style-type: none"> • FortisBC staff had to cope with a labour dispute and changing budget environment during campaign implementation. • Some people were unwilling or challenged to conduct certain winter retrofits, e.g. heating systems, windows and doors. • Some people only had 3.5 months to go through the campaign. • Incentives available for homeowners not as high as in previous years. Negatively impacted number of E evaluations. • FortisBC Electricity’s local image had previously been negatively impacted by the labour dispute, and filing for installation of smart meters. This may have created a trust barrier. • Large geographical area increased travel times.
<p>Lessons learned</p> <ul style="list-style-type: none"> • Longer timeframe would be helpful. 6 months should be a minimum for a campaign, especially given the size of the area (22,000 km²). • People seem to need a deadline to help them move to action. One year could be a maximum timeframe for a campaign. • If there is a trust barrier, this can be partially mitigated by working through an environmental non-profit or local governments. • Future Energy Diets could concentrate more staff and resources to smaller areas (e.g. Rossland). A community blitz of having the launch and Energy Assessors in the community for a 3-4 week period would create a buzz and facilitate word-of-mouth participation. • Spend more time nurturing contractors for promotion. And in smaller communities they need warning about the coming workload. • No marketing response analysis done, but face-to-face interactions, word-of-mouth, and working with contractors and local governments were effective, although labour intensive. • Test your messaging before you go to market. Anecdotally, some people reported that it was hard to understand what the campaign was about – energy efficiency in the photo would have helped, and “energy diet” sometimes interpreted as a diet fad. • Credit Unions reported a low uptake on loan participation rates, but were pleased with the partnership with FortisBC and interested in continuing the relationship for future campaigns. Credit Unions helped people finance their upgrades using other financing options. 	

Okanagan Energy Diet

July 2013 – March 2014

<p>Campaign costs</p> <p>\$130k spent by FortisBC, excluding incentives. In addition, FortisBC spent \$12k and local governments \$19.9k on reducing the costs of the D evaluations.</p>	<p>Staff resources</p> <p>1,100 hours of FortisBC staff time (Manager, marketing, outreach staff), plus 300 hours of contractor time for outreach.</p>
<p>Approach, & how barriers to improved energy sustainability are removed</p> <p>Campaign aimed at low-rise, single-family residential. Barriers removed by substantially reducing cost of D evaluations, thus easing the access to high quality information on home energy efficiency (through the evaluation). Most disadvantaged customers received free D evaluations. Free energy efficiency products also distributed and/or installed with every D evaluation – 5 free CFLs, outlet insulation, HW pipe insulation, kitchen tap aerator, and low flow shower head. Retail value of products \$50, but cost of evaluation often lower than this – helping to encourage D evaluations. On-bill financing option helped to reduce the financing barrier. Intensive marketing to spread the word. Insufficient time and budget for follow-up calls after the D evaluations.</p>	
<p>Branding & marketing</p> <p>Branding as “Okanagan Energy Diet” (adapted from Rossland Energy Diet). Kick-off event in Kelowna to garner media attention – speeches included MP, MLA, and Mayor of Kelowna. Marketing through radio ads & interviews, newspaper ads and earned media, 2-3 brief TV clips, direct mail to high electricity users, social media (Twitter), posters and leaflets in the communities, website, digital packages of logo and displays for websites for use by partners (local governments and credit unions), door knocker leaflets for energy assessor to distribute to neighbours, and open house events in each FortisBC community. Plus approx 40 presentations to approximately 750 people at local government meetings, open houses, and contractor community organisation meetings.</p>	
<p>Partnerships & local government role</p> <p>Campaign designed, led, and funded by FortisBC. Home energy audits were contracted out to Total Home Solutions. Presentations to local governments, open houses, contractors and community organisations were contracted out to CEA. BC Hydro helped with extending the campaign into their neighbouring areas. Local governments promoted the Energy Diet through their networks. Kelowna, Keremeos, Osoyoos, Peachland, Penticton, Regional District Okanagan-Similkameen, and Summerland all further subsidised the cost of the D evaluations by \$10-25. Local government elected representatives also spoke at the Open Houses. Contractors were told about the campaign in advance so they would promote it.</p>	
<p>Targets & results</p> <p>Targets: 2,000 D evaluations, 75% of these get a retrofit and get an E evaluation, and 100 participants access FortisBC’s on-bill financing program.</p> <p>Results: ~1,103 D evaluations, and ~191 E evaluations (17% D to E conversion). 2 customers accessed FortisBC’s on-bill financing program, and 39 accessed the City of Penticton Electrical Utility’s financing program.</p>	<p>Incentives</p> <p>Reduced cost D evaluations to \$60, further reduced by many local governments to \$35-50, with \$50 of free energy efficiency products. D evaluations provided access to LiveSmart BC and utility incentives, plus LiveSmart BC Okanagan “Champion Bonus Offer” of \$750 for completion of 3 or more eligible upgrades.</p>
<p>Successes</p> <ul style="list-style-type: none"> • Compared to the rest of BC, the Kootenay and Okanagan Energy Diets represented about 50% of the D evaluations done over the 2013-14 year, but only represented 9% of BC’s population. • 11 municipalities and 2 Regional Districts engaged. • Energy Diet broadly received as positive. • Excellent participation in some areas. E.g. District of Peachland bought advertising in the local newspaper, and got an article on the story on the front page, which resulted in a high number of registrations in a very short period for that community. 	<p>Challenges</p> <ul style="list-style-type: none"> • FortisBC staff had to cope with a labour dispute and changing budget environment during campaign implementation. • Some people were unwilling or challenged to conduct certain winter retrofits, e.g. heating systems, windows and doors. • Available incentives more restricted than previous years. • Some communities conducted relatively little promotion. • Incentives available for homeowners not as high as in previous years. Negatively impacted number of E evaluations. • FortisBC Electricity’s local image had previously been negatively impacted by the residential conservation rate increasing power prices for many, the labour dispute, and filing for installation of smart meters. This may have created a trust barrier. • Large geographical area increased travel times.
<p>Lessons learned</p> <ul style="list-style-type: none"> • Longer timeframe would be helpful. • Tried to do too much in too short a period. Preferably 3 months or so for a focussed blitz in each community. • If there is a trust barrier, this can be partially mitigated by having another organisation such as a local government or environmental non-profit some of the outreach. Use of a coordinator situated within the local government may also help. • No marketing response analysis done, but face-to-face interactions, word-of-mouth, and working with contractors and local governments were effective, although labour intensive. 	

East Kootenay Energy Diet

July 2013 – present

<p>Campaign costs</p> <p>2013-14: \$80k spent by BC Hydro, FortisBC, Columbia Basin Trust, & Regional District of East Kootenays, excl. incentives. Local govts spent \$6.8k & \$2k reducing D & E evaluation costs respectively.</p>	<p>Staff resources</p> <p>1 main staff person, at 0.75 FTE July – December, and 0.25 FTE January – March. Outreach support from utilities.</p>
<p>Approach, & how barriers to improved energy sustainability are removed</p> <p>Campaign aimed at single family residential. Barriers removed by substantially reducing cost of D evaluations, thus easing the access to high quality information on home energy efficiency (through the evaluation). Low interest loans from credit unions to help remove the financing barrier, and dedicated coordinator helped by providing one-on-one support. Then intensive marketing to spread the word.</p>	
<p>Branding & marketing</p> <p>Branding as “East Kootenay Energy Diet” (adapted from Rossland Energy Diet). Manager undertook community-based social marketing training & research in advance. Kick-off BBQ in Cranbrook to garner media attention (75 people attended) – speeches included BC Minister of Energy & Mayor of Cranbrook. Marketing through newspaper ads and articles (4 press releases), radio ads (40 x 60 second spots on 4 stations), TV interviews, Facebook, e-newsletters, and website. Posters and pamphlets at Credit Unions, local government offices, hardware stores and other locations. Contractors were made aware of the campaign. Relevant organisations (e.g. environmental) were engaged to assist with marketing. Attendance at 19 events (e.g. farmers markets), at least 2 in each community.</p>	
<p>Partnerships & local government role</p> <p>BC Hydro, FortisBC, Columbia Basin Trust, and the Regional District of East Kootenays (RDEK) joint funded the campaign. CEA designed and led the campaign with help from partners. Home energy audits contracted out to City Green, having conducted an RFP for best pricing. Credit unions offered a low interest financing product for energy efficiency retrofits. Local governments promoted through their networks. Fernie, Kimberley, RDEK, and Sparwood all reduced the cost of D evaluations by \$50 and E evaluations by \$50-150.</p>	
<p>Targets & results</p> <p>Targets: 300 D evaluations, plus 150 homes conducting any kind of action. Savings per home: 3,000 kWh/yr (elec) if electrically heated, 50kWh/yr (elec) & 21 GJ/yr (nat gas) if natural gas heated.</p> <p>Results: 214 registrants, 188 D evaluations completed. 21 E evaluations (11%) provide est. savings of 10,500 kWh of elec, 441 GJ of nat gas, 22 tonnes GHGs/yr. Est. up to 10 more homes did E evaluations with other assessors, and 20 more completed actions without E evaluations. No low interest loans were applied for.</p>	<p>Incentives</p> <p>Reduced cost D evaluations to \$40-90, and reduced cost E evaluations in some communities to \$0-100. Low interest (4.5%), long-amortization financing through local credit unions. D evaluations provided access to LiveSmart BC and utility incentives, plus LiveSmart BC East Kootenay “Champion Bonus Offer” of \$1500 for completion of 3 or more eligible upgrades.</p>
<p>Successes</p> <ul style="list-style-type: none"> • Low cost campaign delivered over a wide geographic area, to a large population base. • Great uptake, particularly in rural areas, in part because there are not often incentive programs available to rural residents, and also because previous programs (e.g. LiveSmart programs) did not have broad public advertising in the East Kootenays. • Greater awareness of LiveSmart and other opportunities for residents to reduce energy expenditure. • The project provided a great opportunity for local government to allocate offset or CARIP money toward helping local residents reduce energy and emissions through the provision of incentive. 	<p>Challenges</p> <ul style="list-style-type: none"> • People only had a short timeframe to do everything. • Retrofits needed to be conducted in winter – not always ideal. • Available incentives more restricted than previous years. • Persistent confusion on the incentives and what qualifies. • LiveSmart BC did not provide rebates for homes whose primary heating type was propane or heating oil. • Some communities didn’t top up the evaluation incentive. • Some communities conducted relatively little promotion. • Capturing all retrofit data – residents may conduct energy upgrades but not conduct E evaluations because the retrofit will not qualify for a rebate.
<p>Lessons learned</p> <ul style="list-style-type: none"> • Low transition from D to E evaluations; due to short timeframe, winter retrofit issues, & rebates not matching recommendations. • After registering participants were immediately contacted to book an evaluation. This may help remove uncertainty on the process. • Marketing – Face-to-face outreach was the most effective approach, especially at fairs or markets with a utility booth alongside. Promotion by local governments (e.g. newsletters, emails, Facebook) was effective, e.g. Rural Area Director email gained 40+ registrations (out of a population of 2,635). Radio ads were very successful. Campaign Facebook page was not effective, but local government Facebook pages were as they had many more “likes”. Youth engagement (through schools) was probably the least effective. Using different media outlets allowed a broad range of residents to be engaged. • Test your messaging before you go to market. Anecdotally, some people may have found it hard to understand what the campaign was about – energy efficiency in the photo would have helped, and “energy diet” sometimes interpreted as a diet fad. • No uptake of Credit Union Loans despite marketing. People may have accessed money through existing loans or mortgages instead. • Persistent confusion on incentives despite preliminary calls and email follow-up. More post-D phone contact may help. • Home energy efficiency retrofit campaigns can change frequently and take on new complexity. Changes must be thoroughly communicated to all partners (including energy assessors & contractors) through meetings/webinar and in-writing. 	

Nelson EcoSave

April 2012 – present

<p>Campaign costs</p> <p>\$168k spent over 2 year pilot by NRCan, Columbia Basin Trust, City of Nelson, Nelson Hydro, and FortisBC on campaign, excluding incentives.</p>	<p>Staff resources</p> <p>Averaged at ¾ Full Time Equivalent over first 2 years, with wide variation (1.5 FTE at start, <0.5 FTE at other times).</p>
<p>Approach, & how barriers to improved energy sustainability are removed</p> <p>Campaign aimed at low-rise residential. Barriers removed by substantially reducing cost of D evaluations, thus easing the access to high quality information on home energy efficiency (through the evaluation). Time limited offer of \$50 evaluations, different prices at different times (theory of scarcity). On-bill financing and low interest loans helped to remove the financing barrier, and dedicated coordinator in the municipality helped by providing one-on-one support. Free energy efficiency products also distributed with every D evaluation – 5 free CFLs, outlet insulation, HW pipe insulation, kitchen tap aerator, low flow shower head, and clothes lines in the first year. Retail value of products \$50, but cost of evaluation often lower than this – helping to encourage D evaluations. And then intensive marketing to spread the word. Campaign will continue past the pilot phase.</p>	
<p>Branding & marketing</p> <p>Branding as “Nelson EcoSave”. Marketing through radio ads, radio interviews, newspaper ads and articles, informational video, City newsletter, social media, website, posters in the community. Approx 1000 attendees in total at: public information sessions, light bulb exchange, and info sessions for contractors, realtors, community organisations, & local hardware stores. Theory of scarcity used by having low cost evaluation available for just a limited time, and stepping up the price at time intervals.</p>	
<p>Partnerships & local government role</p> <p>Natural Resources Canada, Columbia Basin Trust, City of Nelson, Nelson Hydro (a City department), and FortisBC PowerSense partnered to develop and fund the campaign for the first two year pilot period (now the campaign will continue funded by Nelson Hydro). Home energy audits were contracted out to City Green, having conducted an RFP to obtain best pricing. Contractors & hardware stores were told about the campaign in advance so they would promote it. FortisBC provided free energy saving products for distribution, and were present at all events. Partnership with credit union to provide loans outside of City limits. The City’s role was designing and delivering the campaign and helping to fund it (including majority of the pilot funding), and financing the low interest loans within City limits.</p>	
<p>Targets & results</p> <p>Targets: 200 homes over 2 year pilot to register for D evaluations, 100 to complete upgrades, and 50 participants access Nelson Hydro’s on-bill financing program.</p> <p>Results: (to end of March 2014) 426 homes registered for the campaign, approx 350 got D evaluations. 107 E evaluations. 39 accessed Nelson Hydro’s on-bill financing program, and 11 homes got credit union loan. Estimated savings per yr: 5,837 GJ (elec & nat gas), 260 tonnes of GHGs.</p>	<p>Incentives</p> <ul style="list-style-type: none"> • Reduced cost energy evaluation, \$35-127.50 depending on time and location. • On-bill financing and low interest loans, both at 3.5%. • Energy efficiency products in both the 1st and 2nd years. • D evaluations provided access to LiveSmart BC and FortisBC incentives.
<p>Successes</p> <ul style="list-style-type: none"> • High percentage of community has participated. • Registration target beaten within the first 3 months of the campaign. Upgrade target met. • High awareness and interest in the campaign. Events very well attended, often standing room only. • Excellent customer feedback, and no notable complaints. • Community Engagement Award from the Northwest Public Power Association, and speaking requests frequently received. • Campaign has helped the community understand Nelson Hydro. 	<p>Challenges</p> <ul style="list-style-type: none"> • Small challenge with being a smaller community: a few people said they had to wait for insulation contractors to return calls. • Nelson Hydro customers outside of the City boundaries could not use Nelson Hydro’s on-bill financing (3.5% financing over 5 or 10 years) because the financing was provided by the City. Partnering with Nelson & District Credit Union overcame this challenge. • The energy retrofit landscape is fragmented and difficult to navigate. Hard for the campaign to make simple.
<p>Lessons learned</p> <ul style="list-style-type: none"> • Main motivator for registrations seems to be rebates and environmental reasons. Nelson is environmentally conscious – which helps. • Very important to have a people person as a coordinator when you have a campaign that involves people. • Marketing: no marketing response tracking was conducted, but probably the most effective marketing was a combination of newspaper ads, radio, media releases, and engaging those who can spread the word in the community like contractors and suppliers. • Important that key stakeholders are aware of the campaign in advance (e.g. contractors, hardware stores, community organisations). • Campaign design allowed for simple access (compared to standard utility programs that can be complex). Created a positive experience for people so they would spread a positive word of mouth, e.g. coordinator’s top priority when people called or emailed was to get back to them as fast as she could so they would not get held up. • On-bill financing was helpful to remove financial barrier, but not the main motivator for people signing up. • The initial on-bill financing limit was \$10k, but this was insufficient for the first people to register, so limit was increased to \$16k. • People outside City limits would have preferred the on-bill financing option (instead of a Credit Union loan) due to convenience. 	

Energy Save New West

July 2013 – June 2016

<p>Campaign costs \$102,500, with \$22,500 (July 2013 to March 2014) contributed by the City of New West (excluding significant in-kind City staff time).</p>	<p>Staff resources 100 hours per month from campaign coordinator (hired in September 2013), plus some City staff resources.</p>
<p>Approach, & how barriers to improved energy sustainability are removed Low-rise residential offer substantially reduces cost of D evaluations, thus easing access to high quality information on home energy efficiency. Home audits contracted out to City Green after an RFP to obtain best pricing. Time limited offer of \$0 D evaluations (theory of scarcity), followed by \$60 evaluations. Intensive marketing to spread the word. The City’s Electrical Utility may introduce on-bill financing later. Campaign targets businesses by promoting free LiveSmart BC evaluations. Residents and businesses receive post-audit coaching. Dedicated campaign coordinator provides one-on-one support. The City is working with BC Hydro and Landlord BC on a Multi-Unit Residential Building (MURB) pilot component of the project, launched in April 2014. To March 2014, residential component costs \$86.5k (\$12.5k City contribution), & business component \$16k (\$10k City contribution). City has budgeted \$17.5k for MURB pilot.</p>	
<p>Branding & marketing (to March 2014) Branded as “Energy Save New West” – logo shows low-rise home, business and multi-rise building. Slogan: “It’s Simple – Save Money. Save Energy.” Campaign launched at the Uptown Live community festival (10,000 attendees). Promotion at 12 other events with >300 attendees. Through its own electrical utility the City included a brochure in billing (32,000 distributed). Website with video content (2,102 total visits), press releases to two papers (each with a circulation of 16,000), contractor engagement and awareness, posters on 7 transit shelters, campaign brochure, social media (Twitter with 2,867 followers and Facebook with 3,467 likes), monthly e-newsletter (178 subscribers as of March 2014 with 58.2% opening it), and to businesses a direct mail out (900 letters) and cold calls.</p>	
<p>Partnerships & local government role Developed, led, managed and marketed by the City of New Westminster, with coordination contracted to Ecolighten Energy Solutions. Coordination with City’s Electric Utility for marketing, and Economic Development team for business campaign. Co-funded by the City, BC Hydro, and FortisBC. Home energy evaluations by City Green through RFP for best pricing. LiveSmartBC and Metro Vancouver provided free Business Energy Advisor (BEA) audits. Also partnered with Climate Smart, Chamber of Commerce, Business Improvement Associations (BIA) networks, etc. Next phase will see more partnerships for promotion, e.g. trade associations and local realtors.</p>	
<p>Targets & results Targets: Year 1 low-rise residential targets: 200 homes registered, 100 home energy improvements underway by June 2014, average 25% energy efficiency improvement. 3 year goal: 600 low-rise homes registered in the campaign, 350 homes undergoing an energy efficiency improvement; savings of 1,096 MWh/yr electricity, 8,705 GJ/yr nat gas, 466 t CO₂e/yr. Results: to March 31, 2014. Residential: 200 registrations, 128 D evaluations, 90 energy coach follow ups, 13 E evaluations (10% of D’s – saving 32.2 t CO₂e/yr & 685 GJ/yr of elec & natural gas) + 20 other retrofits. Business: 61 registrations, 52 evaluations.</p>	<p>Incentives Campaign covered 100% of the D evaluation costs for the first 130 homes registered (\$150 value at the time). Price for D evaluation then set at \$60. Campaign connects local residents and businesses to rebates and incentive programs offered by LiveSmart BC and utilities. Community Energy Challenge from November 2013 to March 2014 where homes making one or more energy efficiency upgrades gets entered into a draw. Grand prize of a \$3,500 Energy Star appliance package, and ten follow up prizes of \$150.</p>
<p>Successes</p> <ul style="list-style-type: none"> • Campaign on track with preliminary targets. They have shown there is interest from residents & businesses. • The energy coach approach helps to bridge the gap between initial evaluation and the retrofit. Energy coach gets participant feedback on the campaign, helps with technical questions, and guides the prioritization of energy upgrades. • A business campaign pilot showcased the potential for a well-executed neighbourhood guerilla marketing campaign targeting 120 business with direct mail, followed by BEA door-to-door engagement. 20 energy evaluations completed through this. 	<p>Challenges</p> <ul style="list-style-type: none"> • Available incentives more restricted than previous years. • Low utility rates also means energy efficiency is not a priority. • Ever-changing residential & business LiveSmart BC programs is challenging for marketing, communication, & campaign design (e.g. some brochures intended for 3 month shelf life). • Capturing all retrofit data – residents may conduct energy upgrades but not conduct E evaluations because the retrofit will not qualify for a rebate. • The energy retrofit landscape is fragmented and difficult to navigate. Hard for the campaign to make simple.
<p>Lessons learned</p> <ul style="list-style-type: none"> • Free or subsidized initial energy evaluation key to excellent D evaluation participation levels. • Very helpful to learn from the “trail blazing” campaigns, e.g. Rossland Energy Diet, Nelson EcoSave, and Power Down Campbell River. • Campaign name and brand development key to giving the campaign a local identity. • Customer service: Dedicated coordinator helps by providing one-on-one support. Good to provide customers with a seamless journey. • Post-audit follow up calls (i.e. energy coaching) are useful for encouraging progress and capturing retrofit data. • Marketing: Utility bill inserts effective – at least 40 residential registrations confirmed this as the lead source. Engagement with local community organizations (e.g. Chambers of Commerce, BIA’s, Vancity) also effective. Program has marketing response tracking. However the program recognises that a comprehensive marketing strategy is required for success. 	

City of Terrace

2011 – 2013

<p>Campaign costs</p> <p>\$5-7k spent by the City on reducing costs of D evaluations. Costs for staff time as part of their jobs – minimal staff time needed.</p>	<p>Staff resources</p> <p>1 staff person worked on the project, plus invoicing. Time estimated at 1/10 of a Full Time Employee for a month, per year.</p>
<p>Approach, & how barriers to improved energy sustainability are removed</p> <p>Three year campaign, intended to be low cost and low effort for the City to implement. Campaign aimed at low-rise residential. Barriers removed by substantially reducing cost of D evaluations, thus easing the access to high quality information on home energy efficiency (through the evaluation). \$50 evaluations offered, and then marketing to spread the word. Energy auditors would charge \$50 for the evaluations, and then bill the City for the additional \$100. (Note: no RFP with an energy assessor firm to reduce the cost of the evaluations through a bulk purchase.)</p>	
<p>Branding & marketing</p> <p>No branding or name for the campaign. Marketing done during cold months, not during summer when people would be unlikely to be thinking of energy. Marketing through City website, Facebook, a simple brochure, and ads and an article in the local paper. Marketing was generally low cost, except for some radio ads that were subsidised by BC Hydro.</p>	
<p>Partnerships & local government role</p> <p>The City designed and led the campaign, and provided most of the funding for the incentives and the staff time. There was no substantial outside help except for the two energy efficiency advisor firms in the community, Hometech, and Amerispec, who did the evaluations and invoiced the City for \$100 for each one. In late 2013 BC Hydro provided approximately \$500 to help with marketing.</p>	
<p>Targets & results</p> <p>Targets: No specific target. They had a budget allocated each year for the evaluations and they had to keep within that.</p> <p>Results: There were quite a few people that had already done evaluations, but the estimate is that 50-70 took up the D evaluation incentive. Numbers of retrofits and E evaluations conducted are not being collected.</p>	<p>Incentives</p> <ul style="list-style-type: none"> • \$100 off the cost of the D evaluation.
<p>Successes</p> <ul style="list-style-type: none"> • Low cost, simple campaign that supports residents to make upgrades, and markets energy efficiency in the community. 	<p>Challenges</p> <ul style="list-style-type: none"> • Some people were frustrated because they had already done an energy retrofit before the campaign started, and were not able to retroactively get their \$100.
<p>Lessons learned</p> <ul style="list-style-type: none"> • If you only have a small budget, it's best to keep it simple. • It is possible to conduct a home energy efficiency campaign and make an impact, even if you only have a small budget. • For marketing in a small community, typically ads or articles in the local newspaper give you best impact for each dollar spent. • The City has found that when there is an uptick in real estate activity – more homes being bought and sold – can be a good time to do this kind of campaign. E.g. when a young professional buys an old home that an old couple lived in, they may well be interested in conducting an evaluation and doing some upgrades. 	

Solar Colwood

June 2011 – March 2015

<p>Campaign costs</p> <p>Total expenditure from June 2011 to December 31, 2014, is \$1,209,217. City of Colwood contributions to December 31, 2013 are \$262,508.84 for in-kind and \$9,941.70 cash.</p>	<p>Staff resources</p> <p>Very small portion of time from Engineering and Finance at the City. 1200 hours of volunteer time up to March 2014 from a key Councillor. Substantial time from paid contractors.</p>
<p>Approach, & how barriers to improved energy sustainability are removed</p> <p>Whole community change towards energy reduction and renewable energy. Technologies included: solar hot water, ductless split heat pumps, solar photovoltaics, electric vehicle (EV) charging stations, and smart home systems to monitor real time energy consumption. Barriers reduced through mass adoption, making technologies more familiar, helping people understand them, educating building inspectors (on solar), reducing costs to improve payback, and finding financing options to reduce the capital cost barrier. Dedicated campaign coordinator. Then promotion to ensure take up. Several public and commercial systems also funded through the campaign. Energy evaluations were encouraged through promotions and discounts. (Note: no RFP with an energy assessor firm to reduce the cost of the evaluations through a bulk purchase.) Free water saving kits were available for all homes, with low flow shower heads, kitchen and bathroom tap aerators. Starting April 1, 2014, the solar hot water component (only) has been rolled out to the rest of the CRD.</p>	
<p>Branding & marketing</p> <p>Branded as “Solar Colwood”. Extensive marketing conducted. 70+ media stories (potential to reach >1,000,000 viewers), newspaper and radio ads, community meetings and events (reached >1,000 residents), roadside signs (>200,000 potential views), solar home tours, door-to-door (>1,500 homes), social media (nearly 900 Facebook friends and >200 Twitter followers), e-newsletter (1,200 subscribers), website (>30,000 users), brochures and posters, and field trips for school kids to visit solar installations. Arrangement with welcome wagon so new people to the community are informed about the program & get a free kit. Marketing through a lot of other groups as well. When anybody applies for a building permit they receive campaign information.</p>	
<p>Partnerships & local government role</p> <p>The City designed and led the campaign, did a lot of outreach, and established the partnerships. A lot of work was conducted through contracts including with City Green. Many partners including NRCan who was the major funder with about \$3.2 M, Province of BC, BC Hydro, FortisBC, Royal Roads, LiveSmart BC, T’Sou-ke First Nation, Horizon Technology, SolarBC, Vancity, Camosun College, Canadian Solar Cities Project, New Car Dealers Association of BC, Capital Regional District, Westshore Chamber of Commerce, and League Assets.</p>	
<p>Targets & results</p> <p>Targets: (For end of March 2015) Originally 1000 solar hot water systems, but changed to 1000 energy saving actions including 150 solar hot water systems, 120 ductless split heat pumps, 10-11 solar photovoltaic & EV combination systems, 35 smart home monitoring systems, and 20-30 EV charging stations.</p> <p>Results: (Up to end of March 2014) 226 D evaluations for homes led to 896 actions receiving rebates (LiveSmart BC &/or Solar Colwood) inc. 35 solar hot water systems, 174 heat pumps, 7 solar photovoltaic systems, 16 EV charging stations (12 business & institutional actions included). Plus 381 water & energy savings kits distributed. ~2-3 applications to BC Hydro on-bill financing program. Savings of 16,554 GJ/yr and for GHG’s 539 t/yr.</p>	<p>Incentives</p> <p>Residential: Between \$50-150 off home energy evaluation (from \$150), up to \$3000 for solar hot water (point of sale rebate with registered installers so a customer does not have to wait for a cheque), \$500 for ductless split heat pump, \$4000 for EV charging station (with solar photovoltaic option), and free water saving kits for every home. On-bill financing with BC Hydro for solar, and low interest loans with Pacific Solar Smart Homes (solar only) and Vancity. Businesses: same as above, but no water saving kit, audits free through LiveSmart BC, up to \$4500 for solar hot water, and financing through Canada Small Business Financing Program. All evaluations link to LiveSmartBC and utility incentives.</p>
<p>Successes</p> <ul style="list-style-type: none"> • Several targets already surpassed or on track to be met. • Campaign won 4 major awards. • Community marketing – Colwood is now well-known. • Used the NRCan grant as leverage, expanding the campaign. • The campaign embarked into unknown territory, and they were able to adapt it based on what was working and wasn’t. 	<p>Challenges</p> <ul style="list-style-type: none"> • Challenging to meet certain targets, particularly solar hot water. • A small group of sceptics did not believe it was happening at no cost to the City (the campaign opened its books), believed that environmental issues were unimportant, that it was the wrong role for the City, and that the technologies didn’t work. Became an election issue, but sceptics lost & the campaign continued.
<p>Lessons learned</p> <ul style="list-style-type: none"> • It’s essential to have champions in both Council and staff. • Don't brand it as “Solar Colwood” if it's about a whole bunch of other things as well. • Getting the initial NRCan grant was essential. The City has a small tax base. • On solar hot water systems the uptake wasn’t as high as originally expected, likely due to high capital cost and long payback. Campaign changed the solar target for Colwood, and then broadened the solar aspect of the campaign, expanding it to rest of CRD. • BC Hydro solar on-bill financing didn't have the impact anticipated. Hard for people to believe it's not another debt, but reducing bills. • Marketing: based on marketing response analysis, earned media (as opposed to paid) in paper, radio, or TV was very effective, as were events and solar home tours. Staff time to put up posters not worth it compared to responses generated. Most effective marketing technique changes over time. Now that early adopters have been tapped, word-of-mouth is great. 	

Cool North Shore

2011 – present

<p>Campaign costs</p> <p>Not shared, but estimated at \$50-100k per year starting Aug 1, 2012, excluding incentives, and municipal staff & Fire Dept time.</p>	<p>Staff resources</p> <p>One Full Time Equivalent, plus summer outreach campaign. Many volunteer hours. Time from local government staff and Fire Depts.</p>
<p>Approach, & how barriers to improved energy sustainability are removed</p> <p>Cool Neighbourhoods is a grassroots, citizen-led campaign supported by the three North Shore municipalities (City & District of North Vancouver, and West Vancouver). Started with research on behavior change, energy behaviours and area demographics, Climate Cafes and other events, then replication of a grassroots campaign on Eagle Island. Cool Neighbourhoods is the facilitator, working with homeowners to reduce energy consumption, using a neighbour-to-neighbour model and keeping it fun. The campaign raises awareness on energy efficiency, and engages the local Fire Departments to do thermal imaging scans. Campaign is aimed at low-rise homes and encourages insulation, weatherproofing, furnaces & windows. Participation is through outreach with a neighbourhood leader who acts as a host for block parties / gatherings. The campaign supports the leader, with information & subsidies for the gatherings (e.g. food).</p>	
<p>Branding & marketing</p> <p>“Cool North Shore” is the non-profit organization offering “Cool Drinks” climate change awareness events and “Cool Neighbourhoods”. The campaign focuses on working in groups, making the learning and actions social and fun, and providing honest information. Marketing is through block parties, social media, articles in newspapers, website, info sheets and promotional materials, and Cool Drinks (monthly meet up with speakers etc.). People are given Cool Neighbourhood stickers for their garbage cans or to post in the window of their home. The campaign is working to create signage with municipalities to say “you are entering a Cool Neighbourhood”.</p>	
<p>Partnerships & local government role</p> <p>Partner organisations are: Environment Canada (EcoAction program), Real Estate Foundation of BC, BC Hydro, FortisBC, and the three North Shore municipalities. Contractors also volunteer their time for presentations, and are willing to provide discounts for bulk purchases (e.g. caulking services or new furnaces). Plus many volunteers who support the campaign. Partnerships with the municipalities and Fire Departments are crucial for the thermal imaging scans. The municipalities have also helped with obtaining support and funding from some partners, having politicians come to meetings and events, and helping market the campaign.</p>	
<p>Targets & results</p> <p>Targets: Bottom line is to get as many North Shore neighbourhoods to participate and achieve energy & GHG reductions as possible. EcoAction target was 1,000 homes. BC Hydro targets were: to create awareness in 2,000 people, off site impressions with 18,750, social media & email with 4,500.</p> <p>Results: 14 neighbourhoods and 315 homes participated. 1,800 direct interactions over summer outreach. On site, online, and media impressions are over 2.9 million. GHG savings of 387 t/yr.</p>	<p>Incentives</p> <p>Free basic level thermal imaging visits and connections with energy experts and contractors. Free tubes of caulking were provided through FortisBC support, and free outlet insulation so people could see how it functions and then buy some themselves. The LiveSmart BC and utility incentives were promoted for any significant upgrades.</p>
<p>Successes</p> <ul style="list-style-type: none"> • The campaign is high profile – has raised a lot of awareness. • Social media & email target greatly exceeded. • Received a United Nations Global Green City Award for the campaign on Eagle Island and partnering with local government. • A co-benefit has been building resilience by getting neighbours to meet each other. • Thermal imaging from Fire Departments is free. • Fire Depts were able to talk about fire safety as well as energy. • Spill over into non-home GHG reductions: e.g. many Eagle Island residents also converted their boat motors to electric. 	<p>Challenges</p> <ul style="list-style-type: none"> • Number of homes participating target was not met. • Funding the campaign on an ongoing basis. • Reductions in rebate levels resulted in reduced levels of interest. • You can have a block party where everyone is excited, but then nothing happens – need the right neighbourhood leader. • Thermal imaging challenges: less comprehensive than blower door test; & it only works when there's a big temperature differential, so when in cold weather, e.g. November to March. The only negative to working with Fire Departments is that when there's a fire they don't make appointments (infrequent).
<p>Lessons learned</p> <ul style="list-style-type: none"> • It is critical to have the right type of program coordinator. They need to be high energy and someone that the homeowners can identify with, preferably someone that owns their own home. • Choosing the neighbourhood leaders is also critical. Need a leader (or a household) who cares about the environment, is passionate for change, and is an extrovert who likes to have parties and people over. It can be hard to find these characteristics in one person. • There needs to be something to get people to act, e.g. sense of urgency created by saying that the rebate programs will expire soon. • After people get their initial evaluation it can take them a long time to figure out what they want to do. • Energy efficiency is not people's top priority. • If you want to create long-term change this kind of campaign is important because it is grass roots and it has the potential to continue past the time of the campaign. • The best marketing for creating awareness is participation in neighbourhood and community events, and social and print media. However the best marketing for obtaining new neighbourhood leaders is word-of-mouth, relationships, and Cool Drinks. 	

Power Down Campbell River

Jan 2013 – September 2013

<p>Campaign costs</p> <p>\$55.3k, including \$20-25k on the Energy Challenge and reducing costs of D evaluations. Figures exclude LiveSmart BC and utility incentives, and City staff time.</p>	<p>Staff resources</p> <p>1 full time COOP student for 8 months. Approx 200+ hours of City staff time to support campaign: Sustainability Manager, Communications Officer, and Finance Department.</p>
<p>Approach, & how barriers to improved energy sustainability are removed</p> <p>Power Down Campbell River had three main components: a video-based Energy Challenge, an Energy Rebate Program, and launch of local promotion of BC Hydro's low income Energy Conservation Assistance Program (ECAP). The Energy Challenge was a reality TV style video competition with 5 local families competing to reduce their family's energy use and teach the community tips on energy conservation. The Energy Rebate Program had 115 free home energy evaluations offered to single-family residences. Every rebate program participant also made a pledge of an energy saving action they would do, and these were made into postcards and mailed back to participants to remind them of their commitment. Barriers removed through education, making energy efficiency fun, and by providing free D evaluations thus easing the access to high quality information on home energy efficiency (through the evaluation). Dedicated coordinator provided one-on-one support. Campaign may be continued, depending on funding.</p>	
<p>Branding & marketing</p> <p>Branding as "Power Down Campbell River". Staff undertook community-based social marketing (CBSM) training & research in advance. The Energy Challenge was heavily promoted including through local media outlets (TV, radio, and newspaper ads and articles), posters, face-to-face interaction at booths set up during events and activities at Campbell River community centers, and websites including City's You Tube Channel and Facebook. Initial Energy Challenge promotion was used to recruit energetic and enthusiastic families to compete. The Energy Rebate program was launched at the same time. Energy block parties were also used to help spread the word about energy conservation. At parties participants went on home energy tours with an energy assessor, learning about things to look for and do.</p>	
<p>Partnerships & local government role</p> <p>The City designed & led the campaign, and funded \$2.8k through the Climate Action Revenue Incentive Program (CARIP) grant. BC Hydro was the main partner and provided \$52.5k, and runs ECAP. The Leisure Involvement for Everyone (LIFE) program through the City's Recreation Department partnered with ECAP – when low income families access LIFE they get information on ECAP.</p>	
<p>Targets & results</p> <p>Targets: 75 homes to receive free D evaluations at minimum. Campaign to raise awareness one energy efficiency.</p> <p>Results: 115 homes received free D evaluations, and waiting list continues to grow. Campaign raised a lot of awareness.</p>	<p>Incentives</p> <p>115 free D evaluations. \$100 giveaway to 18 randomly selected homes (post D evaluation), for retrofits. Energy Challenge winner received \$1500 towards a home energy retrofit, and the 5 families kept their energy monitors.</p>
<p>Successes</p> <ul style="list-style-type: none"> • The campaign raised a lot of awareness and buzz. • 75 homes registered for the free D evaluation in first 2 weeks. • From follow up calls, it's estimated that 75% of the assessed homes conducted a retrofit of some kind. Number of E evaluations not counted. • All 5 Energy Challenge families reduced their Hydro bill by at least \$100 (or about 50%) during the challenge. One family reduced it by 60%. • Created resources for on-going community education. 	<p>Challenges</p> <ul style="list-style-type: none"> • The program did not track the actions that took place as a result of the evaluations. • The campaign used a system of giving people rebate numbers for the free energy evaluation, and then letting them book their own evaluation. This did not work smoothly as some people did not follow through and book their evaluation. It was hard for the City to track how many evaluation rebates were used up. • Large amount of video footage received, long editing times.
<p>Lessons learned</p> <ul style="list-style-type: none"> • A dedicated staff coordinator was key. • Recommend to partner with all utilities. They partnered with BC Hydro due to funding opportunity, but not with FortisBC Gas. • Facebook is a useful promotional tool as it allows people to post live updates. Websites are more static and cannot be used to post as much information. Only using Facebook and not local media would miss older demographics. • The most important phase of the Energy Challenge was the initial promotion, to ensure a wide diversity of families to choose from. • The most effective promotion for the Energy Challenge was community booths, including at high schools. • Developing consistent messaging and an identifiable logo is recommended. The campaign used a light switch turning off. • The Energy Challenge dramatically increased traffic to the Sustainable Campbell River Facebook page and the City's YouTube Channel. • For the Energy Challenge, 3 judges were selected from local media. This helped with getting the Challenge well covered. • To ease challenge of booking energy evaluations, it would be better to issue an RFP and have the campaign work with just one energy auditor, and then to only issue evaluation rebate numbers once evaluations are booked. • Limit the amount of video footage people can send each week for the Energy Challenge. • The campaign built momentum, but then there was no funding to continue it and momentum was lost. If it receives more funding they will have to start again. A multi-year campaign is preferred, although it is better to have a short campaign than none at all. • People don't think about energy as much during the summer, so it's good to have a campaign that runs over other times of the year. 	

City of Vancouver HELP
November 2011 – November 2012

<p>Campaign costs \$100k – for campaign development, marketing, etc. Loan costs covered by Vancity.</p>	<p>Staff resources 1 full-time City staff person, for one year.</p>
<p>Approach, & how barriers to improved energy sustainability are removed Campaign intended to encourage home energy efficiency retrofits by providing low interest financing, thus reducing the capital cost barrier. Loans were administered through Vancity, and invoices were sent quarterly from the City. The loans were up to \$15k each, and there were specific measures that could be included. It was originally envisioned that the loans could be registered to the property title so that people could move and the next homeowner could continue paying the loan. However this was not possible, and so they became like regular loans. Then there was marketing to promote the campaign. A dedicated coordinator provided one-on-one support.</p>	
<p>Branding & marketing Branded as “HELP” – Home Energy Loan Program. Marketing included a full-time person doing presentations in work places, e.g. during lunch hours. Brochures at all Vancity branches in Vancouver, mailout to 10,000 homes, and website.</p>	
<p>Partnerships & local government role The City was the main designer of the campaign and led it. Vancity were the main partner, providing the loans and the administration for them. NRCan and BC Hydro helped with the original set up and design. Light House Sustainable Building Centre were contracted to help with promotion of the campaign.</p>	
<p>Targets & results Targets: Original target was 200 homes. Maximum number of homes was going to be 500. Results: Very low participation rates.</p>	<p>Incentives</p> <ul style="list-style-type: none"> • The 4.5% interest loan, amortized over 10 years.
<p>Successes</p> <ul style="list-style-type: none"> • Due to the promotion of HELP and other promotion by the City of Vancouver of the LiveSmart BC energy evaluations, almost 13,000 D evaluations took place in Vancouver from 2008 to 2014, and almost 80% of those did upgrades and applied for incentives. However they did not use the loan being offered. These D evaluations took place without any municipal subsidy or coordination (beyond promotion). • Learning lessons that will be useful for future energy efficiency campaigns. 	<p>Challenges</p> <ul style="list-style-type: none"> • Interest rates dropped just after the loan interest rate was negotiated – so better interest rates were available. • It was not possible to get the loans on title, so it became just an ordinary loan. • The current low cost of energy means that energy upgrades are currently a low priority for many people, and a good return on investment is hard to come by. • The campaign was launched during an election, which was unfortunate timing as they were not able to promote it as much. • The brochures in the bank were communicated more as a loan than about saving energy, which was not a very enticing message.
<p>Lessons learned</p> <ul style="list-style-type: none"> • There is a strong correlation between the level of marketing of LiveSmart BC energy evaluations conducted by the City, and the amount of uptake (although it is not possible to separate out the impact of HELP on its own from the City’s general marketing of LiveSmart BC energy evaluations). Years when the City conducted relatively extensive marketing could have 1,100 to 2,000 more energy evaluations than years when the City conducted relatively minimal marketing. Although it is extremely likely that relatively extensive marketing by the City had a strong impact, numerous other factors (such as changing incentive levels) will also have had an impact. • Loans for energy efficiency projects are not of interest (at least, when they are at relatively high interest rates, and when • It is important to consider the nature of your partners when it comes to controlling messaging. E.g. if you partner with a bank to market a loan for energy efficiency, then the bank may emphasise the loan aspect and de-emphasise the energy efficiency component. This occurred with HELP. 	

Appendix 3 – In-depth analysis of the campaigns

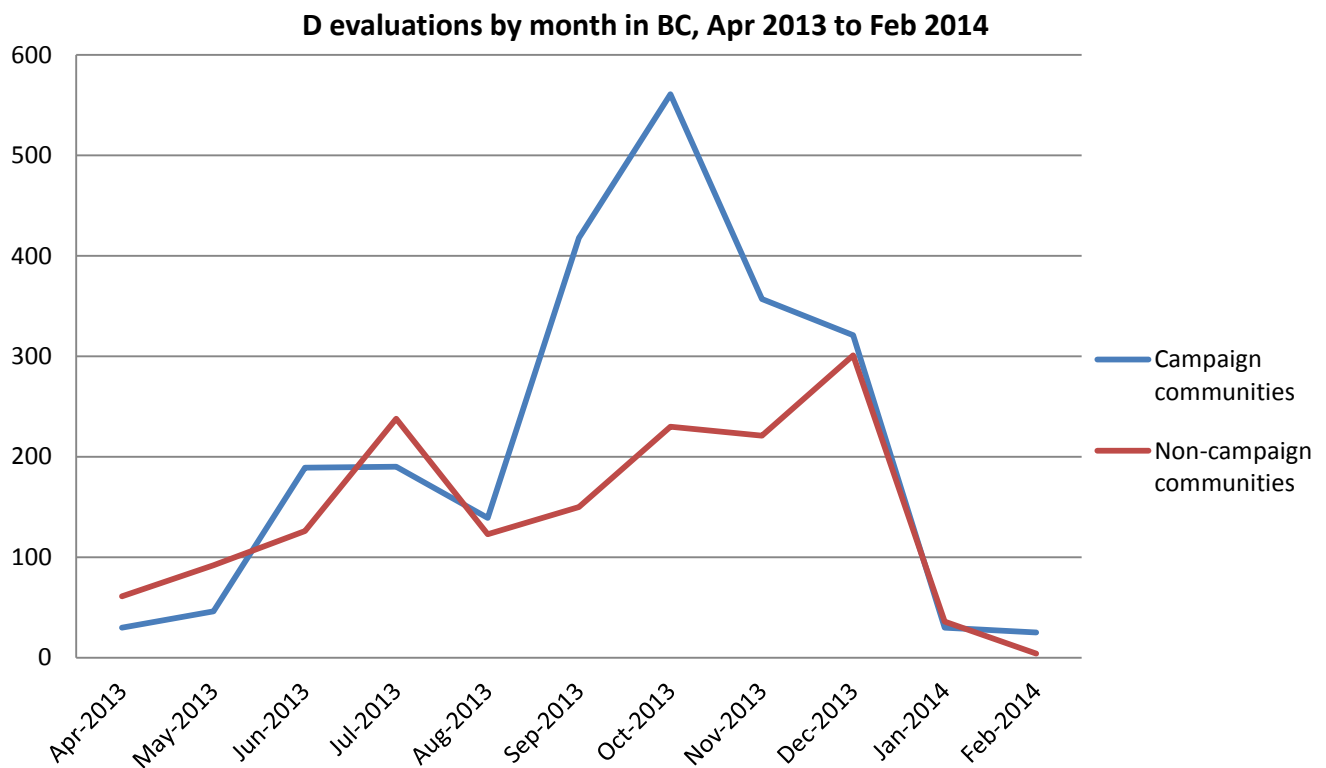
The analysis is based on quantitative and anecdotal data. More credence should be given to the trends identified that are based on quantitative data.

The impact of holding a campaign

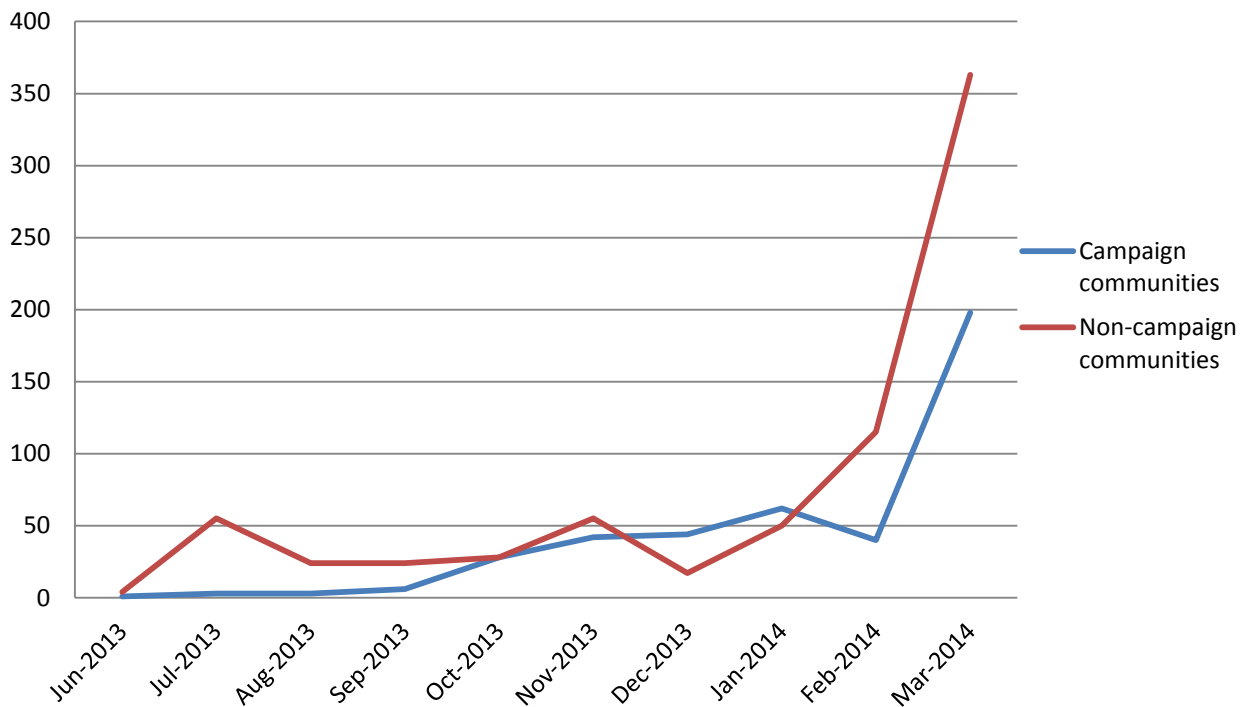
Quantitative data

The following charts provide an understanding of the impact of local governments and utilities holding more intensive retrofit campaigns. The charts use data of all the D and E evaluations that took place in BC from the 1st of April 2013, to the 31st of March 2014. They compare the D and E evaluations that have taken place in some of the campaign communities, compared to the rest of BC. The campaigns included under the “campaign communities” are the Kootenay Energy Diet, Okanagan Energy Diet, East Kootenay Energy Diet, Nelson EcoSave, Energy Save New West, Terrace, Solar Colwood, and Power Down Campbell River. The combined population of the communities affected by these campaigns is 554,703, compared to a BC population of 4,400,057 (2011 Stats Can) (i.e. they comprise 13% of BC’s population).

The charts show how many D and E evaluations took place on a monthly basis in campaign communities versus non-campaign communities.



E evaluations by month in BC, Jun 2013 to Mar 2014



Source data courtesy of FortisBC Electricity.

As can be seen, local governments and utilities working on retrofit campaigns can have a major impact compared to what would have otherwise occurred. Overall, 59% of the D evaluations and 37% of the E evaluations in BC took place in these campaign communities, although they only comprise 13% of BC's population.

Total costs of the campaigns

Quantitative data

The following table compares the different retrofit campaigns, and calculates a cost per D and E evaluation and cost per tonne of GHG's saved. When analysing the table, note that it is extremely difficult to compare one campaign with another because a myriad of factors can contribute towards the number of D and E evaluations and the GHG savings. Many factors could not be included, e.g. all of the campaigns took place over different time scales, some of the campaigns are in the process of ramping up, some campaigns had more challenges than others, and many campaigns had additional goals. In addition, there is some uncertainty around some of the figures such as the cost data, and particularly the estimated greenhouse gas savings which likely suffers from a variety of methodologies being employed by the different campaigns (and possibly none of the campaigns estimated GHG savings from retrofits outside of E evaluations with the exception of Solar Colwood). Therefore, this table is provided for informational purposes, and should not be used to decide that one campaign was more successful than another.

Table 9 – comparison of total costs of the campaigns, and costs per D & E evaluations recorded up to March 31, 2014

Campaign	Number of communities involved	Approx cost (residential component, including staff time)	D evaluations		E evaluations (to end of March 2014)		Estimated annual GHG savings		Notes
			Number	\$/D	Number	\$/E	Tonnes	\$/tonne	
Rossland Energy Diet	1 community	\$85k	257	\$331	180	\$472	338	\$251	Costs exclude lighting samples
Kootenay Energy Diet	13 communities + RDCK & RDKB electoral areas	\$215k	862	\$249	166	\$1,295	Not known.		67 Nelson EcoSave registrations included in the registrations, due to campaign overlap
Okanagan Energy Diet	11 communities + RDOS & RDCO electoral areas	\$130k	1103	\$118	191	\$681	Not known.		
East Kootenay Energy Diet (to end of March 2014)	6 communities + RDEK electoral areas	\$80k	188	\$426	21	\$3,810	22	\$3,636	Many registrations were not able to progress to D evaluations. & up to 10 more E evaluations took place without official assessor
Nelson EcoSave (initial 2 year pilot)	1 community, plus nearby rural areas served by Nelson Hydro	\$168k	350	\$480	107	\$1,570	260	\$646	Many registrations in progress to D evaluations. Some campaign overlap with Kootenay Energy Diet - not clear if those costs included in Nelson costs
Energy Save New West (to end of	1 community	\$86.5k	128	\$676	13	\$6,654	32	\$2,703	Excludes City staff time and MURB component.

Campaign	Number of communities involved	Approx cost (residential component, including staff time)	D evaluations		E evaluations (to end of March 2014)		Estimated annual GHG savings		Notes
			Number	\$/D	Number	\$/E	Tonnes	\$/tonne	
March 2014)									More D evaluations in progress
Terrace	1 community	\$8.1k	60	\$135	Information on E evaluations pre-April 2013 unavailable. Estimate for City staff time included in costs				
Power Down Campbell River	1 community	\$65.5k	115	\$570	Information on E evaluations pre-April 2013 unavailable. Estimate for City staff time included in costs. Campaign included a highly significant component unrelated to D evaluations				
Solar Colwood	1 community	\$1M	226	\$4,425	Not known.	539	\$1,855	Costs include many components not part of other campaigns – see case study	
Cool North Shore	3 communities	\$50-100k per year (estimated, from Aug 1, 2012)	n/a			387	\$258-517 (estimated)	Costs are confidential so estimated. Campaign had thermal imaging, not evaluations.	
City of Vancouver HELP	1 community	\$100k	No estimate for staff time included. Significant other costs may not be included in this. Many D evaluations occurred in Vancouver at this time, but it is unclear how much HELP marketing activities contributed to those, as other marketing activities were being conducted by the City at the same time						

Note that the figures for \$/tonne of greenhouse gases saved per year do not equate to the cost per tonne for a local government using these campaigns as a local reduction project. For a local reduction project calculation some greenhouse gas emissions included in the figures in the previous table may need to be excluded, a different methodology may need to, and note that the current approved methodology for calculation (see Appendix 1 –) allows local governments to claim the reductions over 5 years and not just 1. In addition, note that local governments typically only contribute a small portion of the funds towards a residential energy efficiency campaign although they may be able to claim some of the reductions generated, and the campaign helps them and other partners like utilities to meet other goals as well (e.g. see the “Benefits to residential energy efficiency campaigns” section).

D evaluation conversions to E evaluations, and proportions of eligible homes to have evaluations

Quantitative data

According to FortisBC Electricity, in a private document LiveSmart BC has identified a strong quantitative link between incentive levels and participation in programs, and also conversions from D to E evaluations. Prior to the 2013-14 year, LiveSmart BC’s traditional conversion from D to E evaluations was 70-80%.

The conversions for campaigns for which data are available are shown in the following table. Note that additional E evaluations may have taken place for each of these campaigns after March 2014, as the homes could be eligible for the HERO program.

The proportions of eligible homes to have D and E evaluations are also calculated, and can also be compared to the BC average, and to the BC average once the campaign communities are excluded.

Table 10 – D evaluation conversions to E evaluations, and proportions of eligible homes to have evaluations, by campaign

Residential energy efficiency campaign	Evaluations			% of eligible houses to have evaluations		Notes
	D	E	% conversion, D to E	D	E	
Rosland Energy Diet	257	180	70%	20.98%	14.69%	Campaign took place from August 2011 to March 2012, when higher LiveSmart BC incentives were available.
Nelson EcoSave (2 year pilot program)	~350	107	31%	12.32%	3.77%	From April 2012 to end of March 2014. Inclusion of an earlier LiveSmart BC year gives a higher conversion rate. Note some of these evaluations also claimed by Kootenay Energy Diet.
2013-14 data only						
Kootenay Energy Diet	~862	~166	19%	2.80%	0.54%	Campaign took place in 2013-14 only. Note some of these evaluations also claimed by Nelson.
Okanagan Energy Diet	~1,103	~191	17%	1.26%	0.22%	Campaign took place in 2013-14 only.
Okanagan Energy Diet – Penticton only	~270	~66	24%	2.84%	0.69%	Campaign took place in 2013-14 only. Data separated out for Penticton Electrical utility to determine effect of successful City-led financing program.
East Kootenay Energy Diet	188	21	11%	0.97%	0.11%	Campaign started in 2013-14, and will continue. High proportion of D evaluations with heating oil / propane as primary heating fuel, and therefore ineligible for LiveSmart BC rebates. Campaign timing also challenging with retrofits needing to be conducted over harsh winter period. & up to 10 more E evaluations took place without official assessor
Nelson EcoSave, 2013-14 only (last year of pilot)	~112	~23	21%	3.94%	0.81%	Data for 2013-14 year only shown for comparison with the rest of the Nelson pilot, and comparison with other 2013-14 data in this table. Note some of these evaluations also claimed by Kootenay Energy Diet.
Energy Save New	128	13	10%	2.09%	0.21%	Campaign started in 2013-14, and data is only for that period.

Residential energy efficiency campaign	Evaluations			% of eligible houses to have evaluations		Notes
	D	E	% conversion, D to E	D	E	
West						Campaign in process of ramping up.
Terrace	8	3	38%	0.23%	0.09%	Data only available for 2013-14 year. Small data size skews conversion rate. Note that this was an extremely low cost campaign.
Campbell River	81	12	15%	0.83%	0.12%	Data for this campaign is only available for 2013-14 year, although some evaluations likely took place earlier in 2013.
Solar Colwood	7	1	14%	0.17%	0.02%	Data only available for 2013-14 year. Many evaluations took place in earlier years. Small data size skews conversion rate. Note that campaign was focussed on many other components than just encouraging D / E evaluations.
All of BC, 2013-14, excluding campaigns above	1,576	735	47%	0.11%	0.05%	Because the campaigns are such a significant percentage of the total, it is interesting to understand what occurred in the rest of BC.
All of BC, 2013-14	3,889	1,157	30%	0.24%	0.07%	

Note that for each of these campaigns many retrofits also take place without an E evaluation.

Regarding the D to E conversion rate – each of the 2013-14 campaigns which had a significant number of evaluations had a lower D to E conversion rate than the BC average. This indicates that reducing the cost of D evaluations encourages registrations from people who are more speculative about conducting a retrofit. There is however a significant variation among the 2013-14 campaigns and the D to E conversion rate, which is not explained by the cost of D evaluations alone. For example, the Kootenay and Okanagan Energy Diets often had D evaluations that cost more than East Kootenay Energy Diet D evaluations, and yet the East Kootenay Energy Diet had a lower D to E conversion rate. Energy Save New West had a similar conversion rate to East Kootenay, and Solar Colwood had a slightly higher rate, even though both of these campaigns provided large numbers of free D evaluations. (The D to E conversion rates for Terrace and Solar Colwood should be ignored due to the low amount of data.)

Regarding the figures for the percentage of eligible houses to have D and E evaluations – they are interesting because they prove that although the D to E conversion rate is lower for the campaign communities than for the rest of BC, in many cases the number of E evaluations is sharply higher than the rest of BC. This means that the campaigns are being successful in encouraging retrofits that would not have otherwise happened. In 2013-14, campaigns for which this is clear are the Kootenay, Okanagan, and East Kootenay Energy Diets, Energy Save New West, and Campbell River (the figure for Terrace may not be statistically significant). For the campaigns for which there is a significant amount of data, the increase in E evaluations over business as usual (i.e. compared to the rest of BC where there were no campaigns) varies from 2 to 16 times. (For D evaluations the increase varies from 8 to 36 times.) This is a key result because it shows that these campaigns are being successful in what they are aiming to do.

The Rossland Energy Diet is the most impressive campaign overall for both the D to E conversion rate, and the proportion of eligible homes receiving D and E evaluations. The Rossland Energy Diet is an excellent case study of what can be achieved in a small community when intensive marketing is combined with a period of abnormally high incentive levels for home energy efficiency retrofit measures.

Separating data for Penticton and the 2013-14 year of Nelson EcoSave helps to determine what impact a successful financing campaign can have. This is discussed in the financing section.

Anecdotal information

Many campaigns said that the decrease in levels of LiveSmart BC and utility incentives had been a challenge, and reduced the conversion from D to E evaluations. Some campaigns stated that coaching people after D evaluations also appears to help people move from D to E evaluations.

City Green – informal analysis

Informal analysis from City Green has found that:

“Home energy improvement experience across North America strongly indicates that evaluation subsidies alone, without adequate rebates or other program elements, do not result in a significant percentage of evaluations converting into home energy upgrades. However, the BC experience in the years of peak participation in the LiveSmartBC Efficiency Incentive Program demonstrates that when high evaluation subsidies (\$150) are combined with high financial rebates for a large number of home energy improvement products (and high levels of program awareness and contractor engagement), conversion rates (between D and E) of over 75% and energy savings between 15-28% can be achieved.”

Marketing for D evaluation registrations

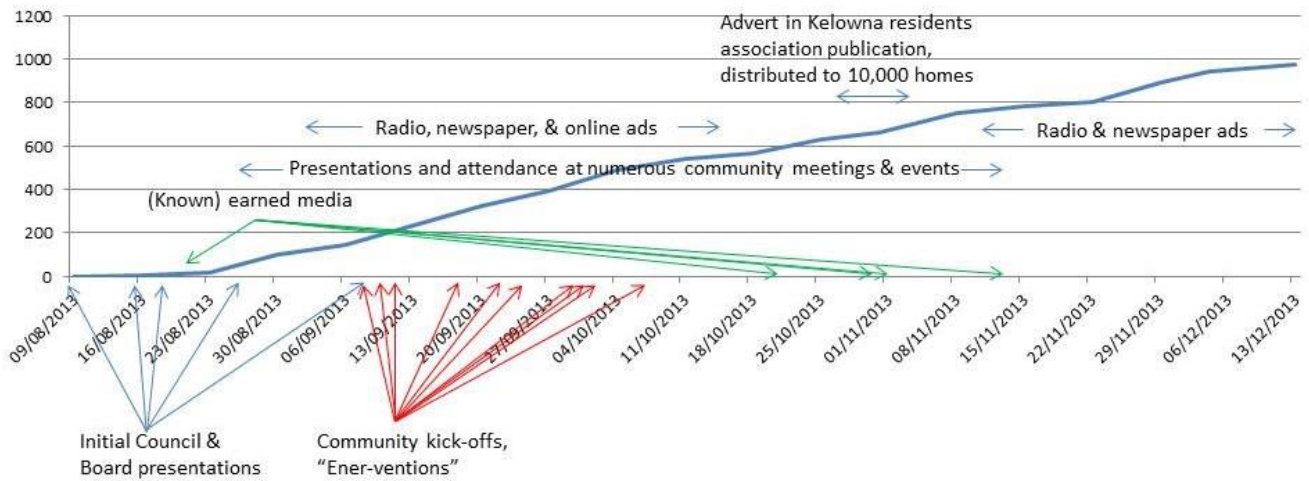
Quantitative data

The following charts show the number of registrations for D evaluations against time and forms of marketing for different campaigns.

Okanagan Energy Diet

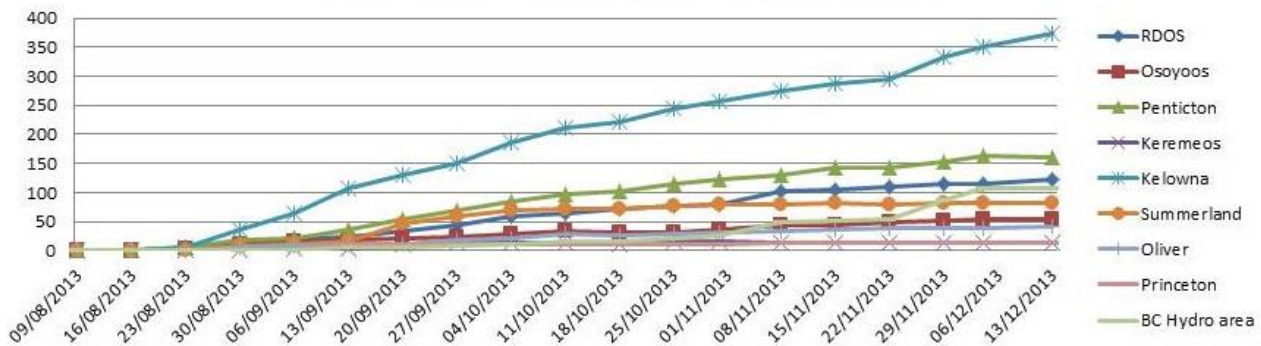
Registrations by date for the Okanagan Energy Diet as a whole, are shown in the chart below. Due to the simple trend line moving upwards, the number of communities and amount of marketing involved, it is difficult to identify many useful trends from the chart. The slow start to the campaign is perhaps of interest, but relatively little marketing had been conducted prior to that.

Okanagan Energy Diet (OED) – registrations by date



Registrations for the Okanagan Energy Diet, split up by community, are shown below. It is difficult to properly analyse individual community trends from the chart, but the chart does give a sense of how many registrations there were with the different communities, and some periods of rapid registration and levelling off can be seen in some communities.

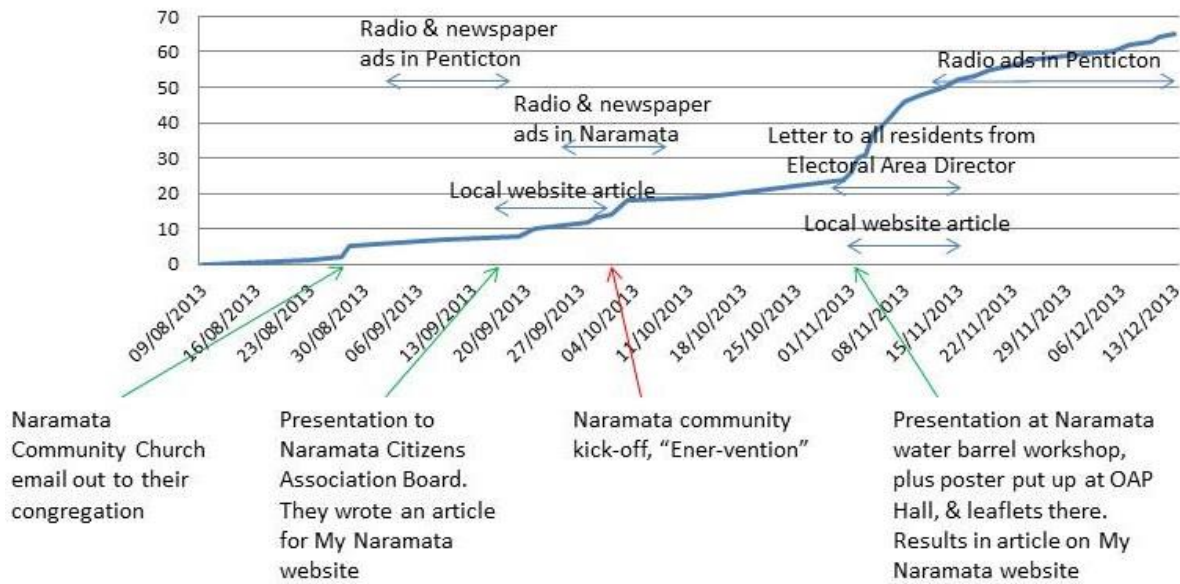
OED – registrations by date & community



Because it is difficult to separate out trends from individual communities in the chart above, several communities have been selected so that their trends can be analysed in more detail.

Naramata is an unincorporated community that is part of the RDOS in the previous chart, i.e. it is in an electoral area of the Regional District of Okanagan-Similkameen. Naramata had impressive penetration given the size of the community. Naramata's population is estimated at about 2,000 people, and the Energy Diet penetration is estimated at 8% with 65 D evaluations. As a Regional District unincorporated area, D evaluations in the community were being subsidised by the Regional District by \$25, reducing the cost to \$35. Anecdotally, Naramata has been described by local people (including a staff member at the Regional District) as having a higher level of environmental awareness than many other communities in the Energy Diet area, and of being more pro-active. People that live in the community also commented that a buzz was created by early adopters talking about the campaign, including the editor of the My Naramata website (a popular community website).

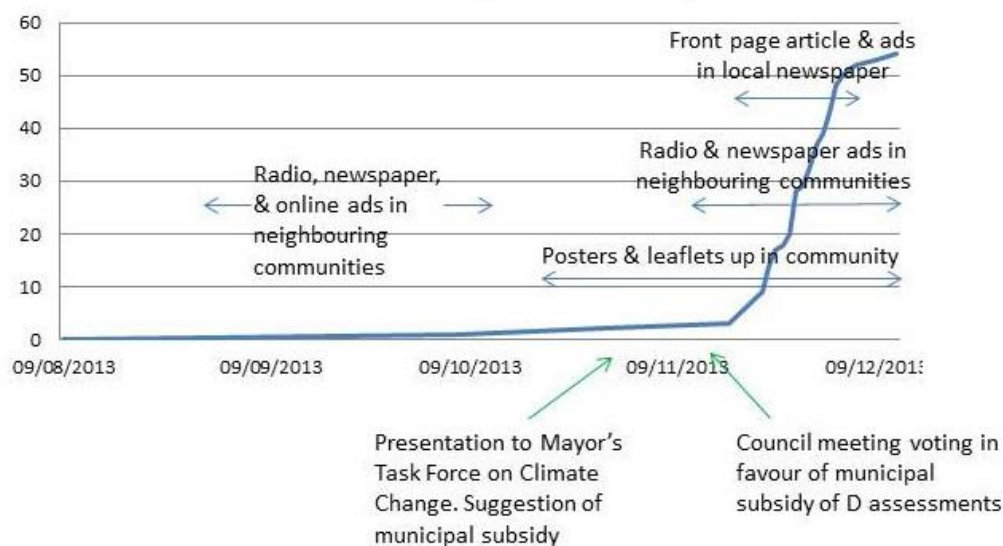
OED – Naramata – registrations by date



The most distinctive episode of rapid registration in the Naramata chart starts around the November 1, following a presentation at the Naramata water barrel workshop which was followed by an article on the workshop on the My Naramata website, and coincided with a letter sent out to all residents from the Electoral Area Director. The number of registrations more than doubled in a short period. Prior to this, there were some other minor periods of rapid registration, that appear to be linked to the community kick-off event and community radio and newspaper ads, another website article, and an email by Naramata Community Church to its congregation. It is interesting that the local radio and newspaper ads, and the ads in the neighbouring community of Penticton, had a much smaller impact than the combination of events at the beginning of November.

Peachland was one of the communities within the BC Hydro area, and comprised almost exactly half of all of the BC Hydro registrations. This is despite the fact that Peachland with a population of 5,200 is much smaller than all of the other BC Hydro communities that were included, e.g. West Kelowna (pop 30,892), Lake Country (pop 11,708), and Vernon (pop 38,150). Although the other communities were notified (as in the case of West Kelowna and Lake Country) or were attempted to be notified of the Energy Diet (as in the case of Vernon), Peachland was the only one to conduct considerable local promotion. Peachland achieved a moderately impressive penetration rate of 2.5% of eligible homes with 54 D evaluations, in only a short space of time.

OED – Peachland – registrations by date

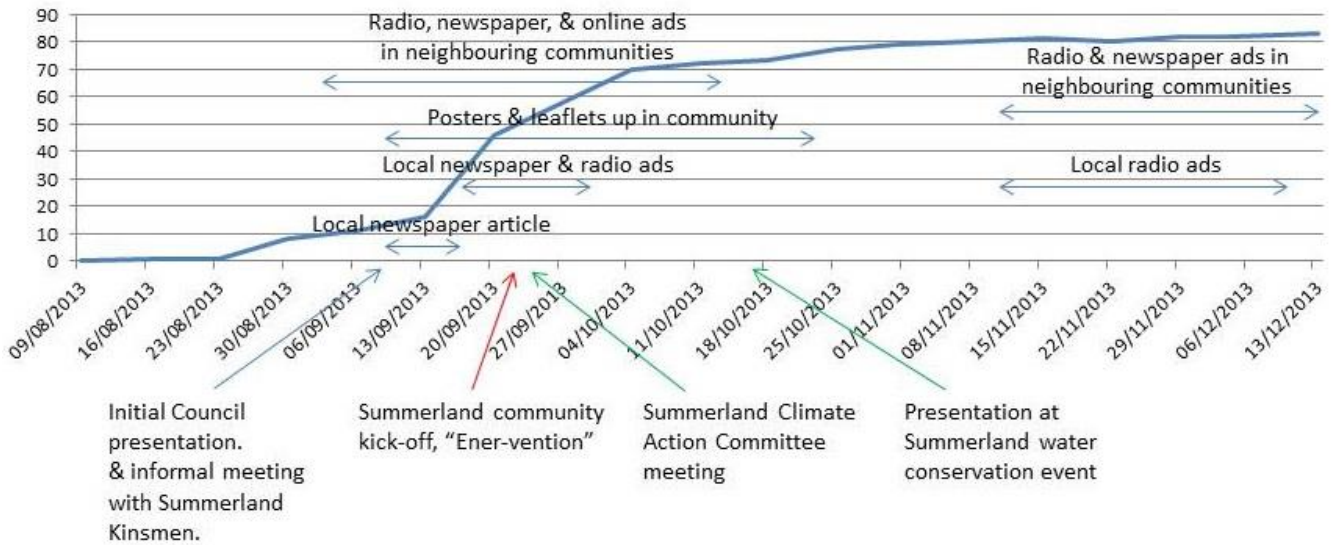


The BC Hydro communities were treated differently to the FortisBC communities in the Energy Diet. This is because the Energy Diet was led by FortisBC, but FortisBC was concerned about marketing spillover in neighbouring BC Hydro communities. Midway through the campaign BC Hydro agreed to pay for subsidised energy audits for any registrations in neighbouring communities, but was not able to provide any funds towards marketing. The Community Energy Association made attempts to contact local government staff in all of the BC Hydro communities to alert them of the opportunity available.

Because of this utility boundary issue, Peachland had a much slower start than the other communities, but once Council agreed to subsidise the D evaluations and BC Hydro funding for newspaper advertising was found, over three weeks the District was able to advertise in the local newspaper, run an editorial by the Mayor, and using its contacts have a front page article. This led to a very impressive number of registrations in a very short period of time. Interestingly, the early radio and newspaper ads in neighbouring communities had almost no effect, and the posters and leaflets put up in the community had at best a minor effect prior to the information in the newspaper.

The following chart shows registrations by date for Summerland – a community in the FortisBC Electricity area with a population of 11,280. Summerland participated in the Energy Diet from the beginning of the campaign. It achieved a moderately impressive penetration rate of 2.1% of eligible homes, with 83 D evaluations. As can be seen in the following chart, a combination of early factors led to early rapid registrations in the community. But without a significant amount of additional activity, the number of registrations levelled off. This is despite the fact that local radio ads were run in the last few weeks in Summerland, and radio and newspaper ads took place in neighbouring communities. A presentation on the Energy Diet to 17 people at a water conservation event in Summerland also appeared to generate comparatively few registrations.

OED – Summerland – registrations by date



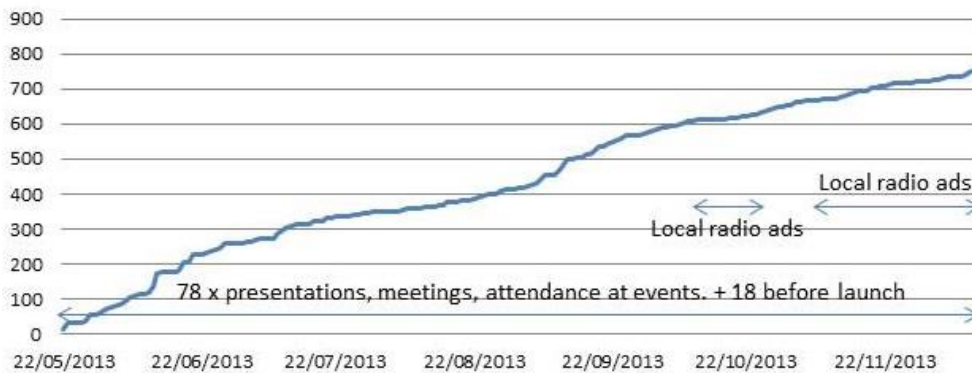
FortisBC Electricity also stated that the third highest source of referrals to the Okanagan Energy Diet webpage (out of the entire Okanagan) was the City of Kelowna website, and that each of these referrals resulted in a long site visit.

Other quantitative data shows that some online advertising for the Okanagan Energy Diet was found to be less effective than hoped for. Advertising done on one website (Castanet – a popular website in the area) generated 2,356,612 impressions, 1,149 clicks, with a Click-Through Rate (CTR) of 0.05% (apparently below the industry benchmark of 0.09%). The cost for achieving this was approximately \$4,000. It took place over a 4-5 week period, starting at the beginning of September.

Kootenay Energy Diet

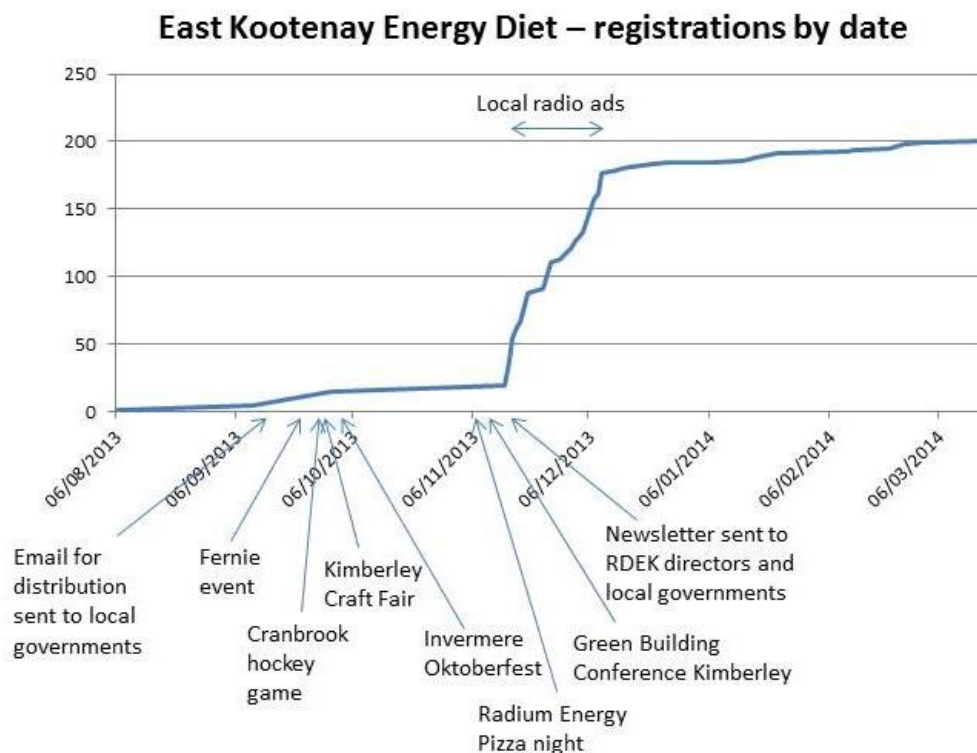
Registrations by date for the Kootenay Energy Diet as a whole, are shown in the chart below. Due to the simple trend line moving upwards, the number of communities and amount of marketing involved, it is difficult to identify useful trends from the chart.

Kootenay Energy Diet – registrations by date



East Kootenay Energy Diet

Registrations by date for the Kootenay Energy Diet as a whole, are shown in the chart below. Despite the number of communities involved, there is a clear correlation.



Much of the marketing for the East Kootenay Energy Diet appeared to have relatively little effect, but there was a very large impact when the local governments sent out newsletter information about the campaign, and the radio ads took place. It is unclear whether the impact of the newsletters and radio ads would have been as great if the other marketing had not also taken place. The previous Naramata and Summerland charts showed that local radio ads could have relatively little effect if done in isolation.

Energy Save New West

Energy Save New West conducted residential marketing response tracking for a 3 month campaign window, from January 1 2014 to March 31 2014. This is summarised in the following table. To date Energy Save New West have found utility bill inserts and program brochure to be extremely effective.

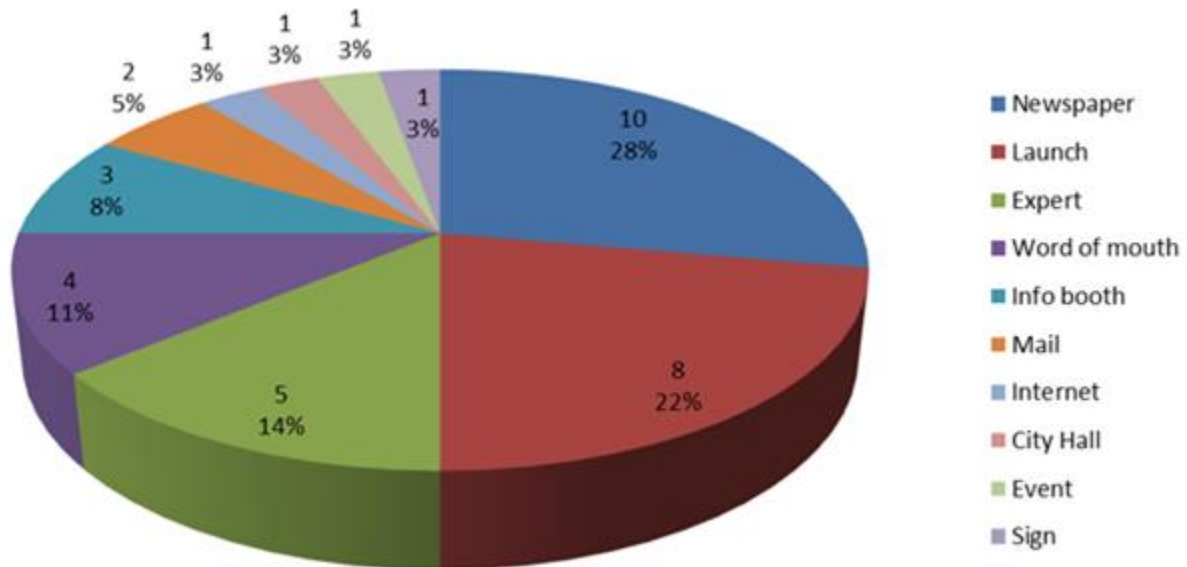
Table 11 – Energy Save New West residential marketing response analysis, for January 1 2014 – March 31 2014

Activity	Component	Residential registrations
Direct response	Utility Bill / Program Brochure	48
Indirect	Display Ad	4
	Transit Shelter Ad	1
Online	Website	3
	Social Media	1
TOTAL		57

Despite this, Energy Save New West believes that a comprehensive marketing strategy, harnessing a combination of direct, indirect, and online activities is critical for success. Therefore, the results should not be used to assess the marketing methods as successful or not on their own, but rather as the results of an integrated approach.

Solar Colwood

Solar Colwood conducted marketing response tracking which is shown in the following chart. It shows where people who installed solar hot water systems first heard about the program.



Source: Solar Colwood

Note: “expert” means either an installer or a Certified Energy Advisor.

Earned media in newspapers, on radio, or on TV were very effective, as were solar home tours. The campaign found that staff time to put up posters was not worth it compared to the responses generated.

The campaign also found that the most effective marketing techniques changed over time. Early adopters can be engaged through marketing in newspapers, radio, TV, and roadside signs. Once those people have been tapped then word-of-mouth is extremely effective, which is partly being achieved through solar home tours.

Anecdotal information

The following table shows which campaigns found different marketing techniques the most or least helpful. Note that communities were merely asked which marketing techniques were found to be most helpful, but were not provided the names of any types of marketing. Note that communities were not asked which were the least effective forms of marketing, but several provided that information.

Table 12 – anecdotal information from the campaigns on the most and least effective marketing techniques

Method	Campaigns commenting on it	Comments
Most effective		
Face-to-face interactions	Rosland Kootenay Okanagan East Kootenay	East Kootenay Diet stated this was especially effective at fairs or markets with a utility booth (e.g. BC Hydro or FortisBC) alongside.
Word-of-mouth	Rosland Kootenay Okanagan East Kootenay Cool North Shore	Cool North Shore stated this was a great way to obtain new “neighbourhood leaders”. For the other campaigns this was a good way to obtain D evaluation registrations. Power Down Campbell River stated that a great way to promote the “Energy Challenge” was community booths.
Working with the local government, or promotion by local governments	Rosland Kootenay Okanagan East Kootenay	The 6 campaigns run by local governments would not list this as by their nature they would already be doing it. East Kootenay Energy Diet stated that promotion by local governments (e.g. newsletters, emails, Facebook) was effective, e.g. an email from a Rural Area Director gained 40+ registrations over a weekend (out of a population of 2,635 in that rural area).
Working with contractors	Kootenay Okanagan Nelson	
Engaging with community organisations	Nelson	
Social media	East Kootenay Cool North Shore	East Kootenay Energy Diet stated that local government Facebook pages were effective (particularly compared to the campaign’s Facebook page – see below), because they had many more “likes”. Cool North Shore stated this is a great way to create awareness. Power Down Campbell River stated that Facebook is a useful promotional tool as it allows people to post live updates. Websites are more static and cannot be used to post as much information.
Youth engagement	Campbell River	Power Down Campbell River stated that a great way to promote the “Energy Challenge” was a community booth at High Schools.
Radio ads	East Kootenay Nelson	
Newspaper ads	Nelson Terrace	Terrace stated this may be the most effective form of marketing in small community, for impact per dollar spent.
Earned media	Nelson Colwood Cool North Shore	They all stated that this is a great way to create awareness.

	Energy Save New West	
Community events	Cool North Shore	Cool North Shore stated this was a great way to obtain new “neighbourhood leaders”.
Door hangers on neighbours’ doors when energy evaluation completed	Kootenay Okanagan	FortisBC Electricity stated that these were low-cost and worked quite well.
Least effective		
Social media	East Kootenay Cool North Shore	East Kootenay Energy Diet stated that a Facebook page for the campaign was not effective.
Youth engagement	East Kootenay	East Kootenay Energy Diet stated this was probably the least effective.
Window clings	Rossland	FortisBC Electricity stated that window clings to help identify participants of the Rossland Energy Diet were only put up by a few people.

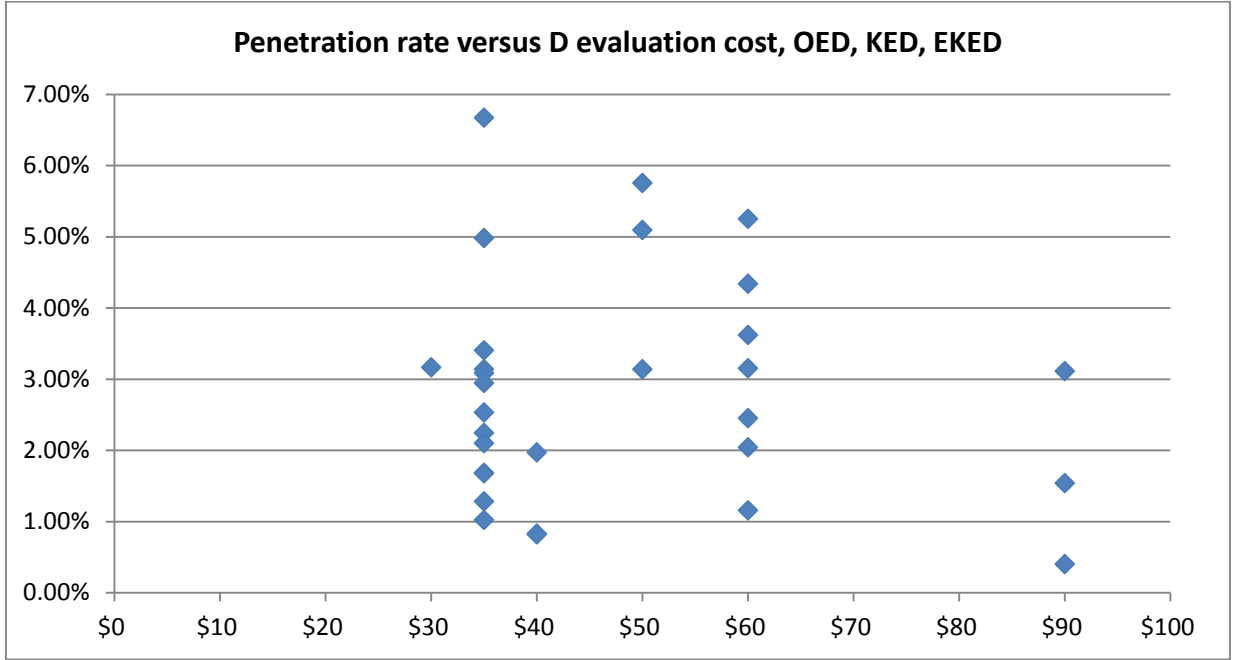
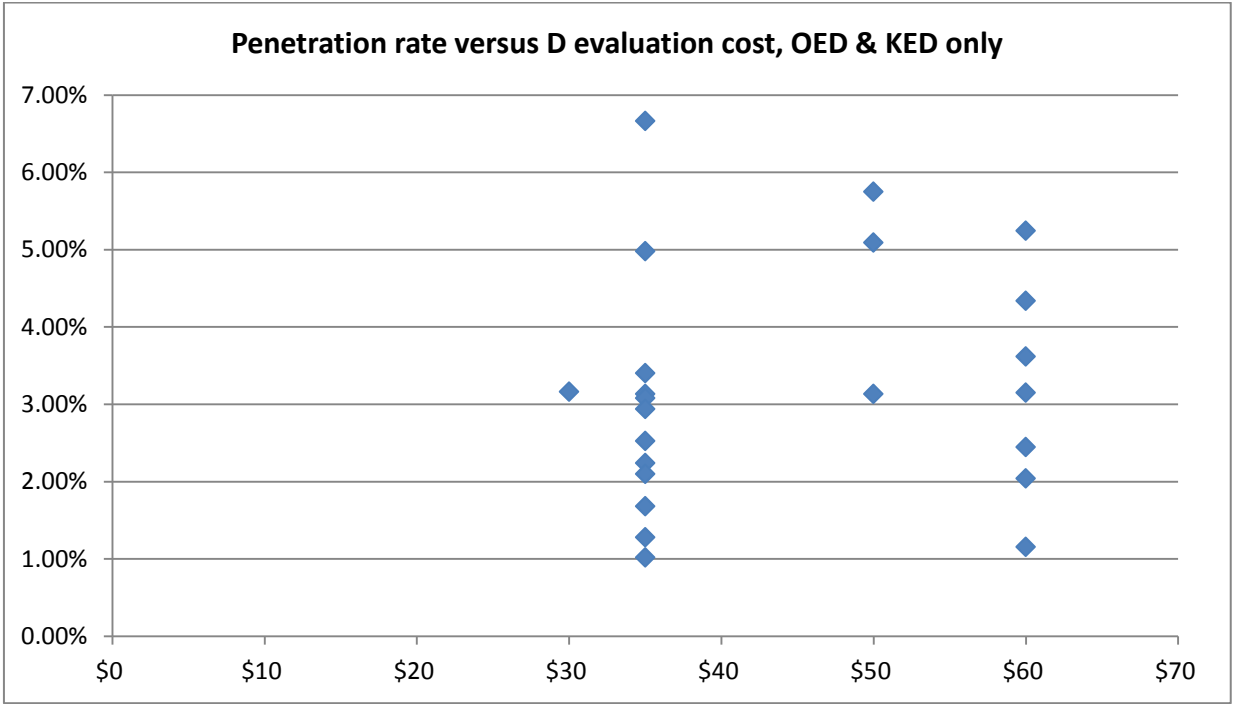
Other general comments:

- FortisBC Electricity stated that although they did not have the time to do this, research from the USA shows that signage on energy evaluators and/or contractors’ vehicles to promote programs works very well.
- East Kootenay Energy Diet stated that a campaign should use different media outlets to allow a broad range of residents to be engaged. A campaign should also test its messaging before it goes to market. Some people seemed to find it hard to understand what the Energy Diet was about – energy efficiency in the photo would have helped. “Energy diet” was sometimes interpreted as a diet fad, specifically because the logo was a scale.
- Nelson EcoSave stated that the most effective form of marketing was probably a combination of newspaper ads, radio, media releases, and engaging those who can spread the word in the community like contractors and suppliers.
- Power Down Campbell River stated that only using Facebook and not local media would miss older demographics.

Cost of D evaluations

Quantitative data

The following charts show that there is no significant correlation between the penetration rate and the cost of the D evaluation, for D evaluations in the \$30-90 range, for the Okanagan, Kootenay, and East Kootenay Energy Diets (OED, KED, and EKED). There is a potential downwards trend with \$90 evaluations for the East Kootenay Energy Diet communities, but more data is needed to confirm this trend.



This is a non-intuitive result, as a strong correlation between price of D evaluation and the proportion of a community to take up the offer could be expected. This lack of correlation may only hold for D evaluation costs in this range (\$30-90), and perhaps community size has a greater impact (see following sub-section) than the impact of the D evaluation cost.

To conduct proper analysis on the impact of the cost of D evaluations, a regional campaign for a larger number of communities would need to have widely varying D evaluation costs (e.g. \$0-150 or a greater range), with the same level of marketing in each community and the same incentive levels.

Regardless, it is apparent that there are a myriad of factors that affect penetration rates. Taking as an example Fernie and Sparwood that are neighbouring communities (30km apart) of a similar size, and that provided

identical D and E evaluation subsidies and received a very similar level of marketing: Fernie achieved a penetration rate of 2.0%, while Sparwood achieved a low 0.8%.

Anecdotal information

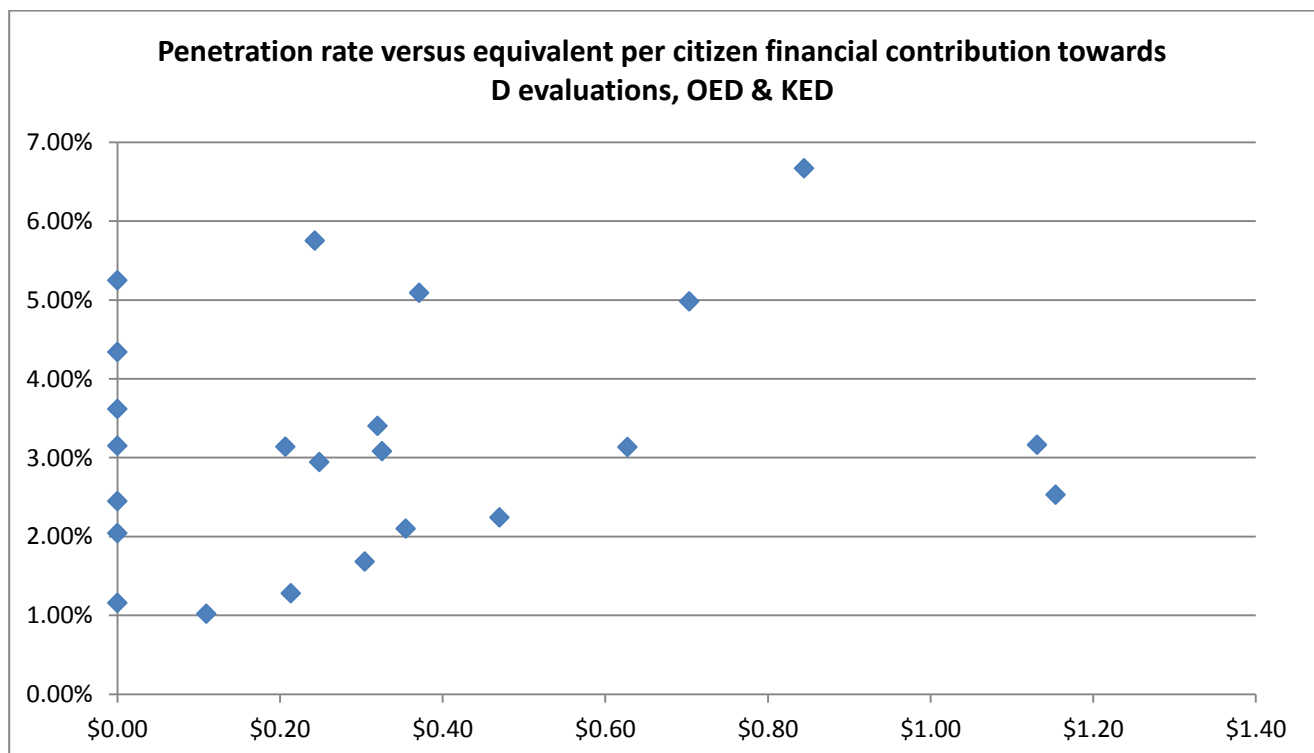
Several campaigns stated that low D evaluation costs help with registrations. Market research prior to the Rossland Energy Diet found that the high cost of D evaluations at the time (\$150 to the customer) were a barrier. Nelson EcoSave have had D evaluations at a variety of costs (\$35-127.50 depending on time and location), and have stated that there was a reduction in uptake while costs were higher but registrations were still steady, however this also coincided with a period of reduced marketing. Nelson EcoSave also noticed that during that period, D evaluations almost always converted to E evaluations. In the opinion of the Nelson EcoSave coordinator, reduced cost D evaluations are beneficial because it encourages not just those who know they will conduct a retrofit, but the curious who will take a look at their homes, get an EnerGuide rating, and probably do some air sealing at a minimum.

Anecdotally, the reasons given for Fernie and Sparwood having such different D evaluation penetration rates are as follows: very different cultures in each community; social dispersion of ideas and opportunities in each community is different; and the flooding that affected Fernie just before the campaign meant a lot of people were renovating their homes and so added energy efficiency measures.

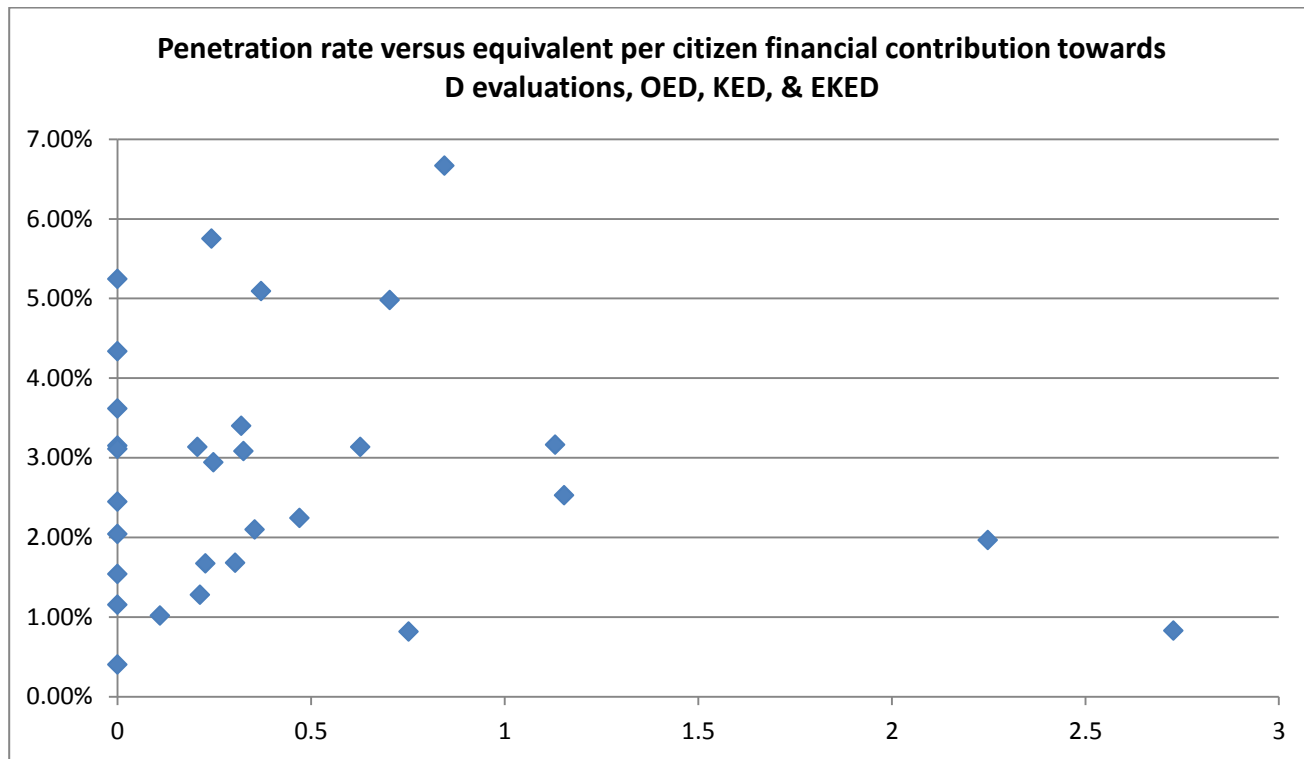
Local government contributions towards D evaluations

Quantitative data

As with D evaluation costs, there is a similar non-intuitive result when the per capita financial contribution of local governments is plotted against the penetration rate. The limited correlation that there appears to be is likely impacted by population, because the smaller communities that provided subsidies were far more likely to be providing a greater per capita contribution.



The correlation is less distinct when EKED communities are included, which can potentially be attributed to differences in levels of marketing.



Retrofits without E evaluations

Quantitative data

Surveys conducted as part of three campaigns demonstrated that a high proportion of homes conduct retrofits without going through E evaluations. These are shown in the following table. This data was not available for the other campaigns.

Table 13 – the number and proportion of homes conducting retrofits without an E evaluation, for three campaigns

Residential energy efficiency campaign	D evaluations	E evaluations		Estimates for retrofits without E evaluations		Estimate for total retrofits	
		Number	As a % of D evaluations	Number	As a % of D evaluations	Number	As a % of D evaluations
Rossland Energy Diet	257	180	70%	40-50	16-19%	220-230	86-89%
East Kootenay Energy Diet (to end of March 2014)	185	21	11%	20	11%	41	22%
Energy Save New West (to end of March 2014)	128	13	10%	20	16%	33	26%

Note that there is a relatively high degree of uncertainty around the estimates for the retrofits without E evaluations.

The Rossland Energy Diet took place during a period with high incentive levels, while the East Kootenay Energy Diet and Energy Save New West took place when incentive levels were much lower. It is therefore reasonable to expect a significant proportion of retrofits without E evaluations in any home retrofit campaign similar to the ones analysed in this report.

For the East Kootenay Energy Diet and Energy Save New West, homeowners gave the following reasons as to why they were not conducting E evaluations:

- No incentives available for their chosen retrofit
- Rebate amount would not offset the cost of the evaluation
- Short timeframe in which to conduct retrofits
- Would have had to conduct a challenging retrofit during winter
- Using propane or heating oil as primary heating fuel so not eligible for any retrofit incentives, and therefore did not proceed due to the high cost of implementing the recommendations
- Additional upgrades to be completed, so E evaluation had not been scheduled

The Energy Save New West campaign provided a good example of an interviewed participant that conducted a major retrofit without conducting an E evaluation. The participant retrofitted their furnace, domestic hot water system, windows, and conducted minor air sealing. Under the rebate program at the time (2013-14) only the air sealing would have been eligible for a rebate, and so it was not worthwhile for the participant to obtain an E evaluation.

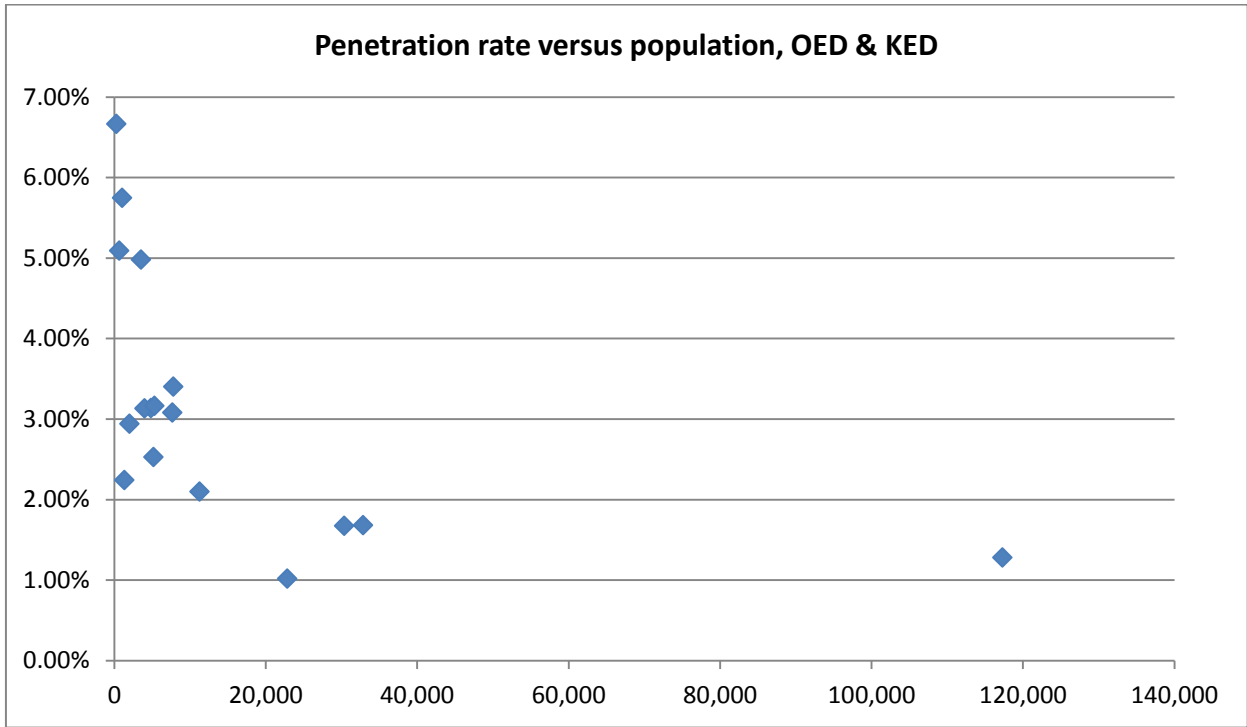
Anecdotal information

Many other campaigns anecdotally stated that they had or were having the same experience as these campaigns.

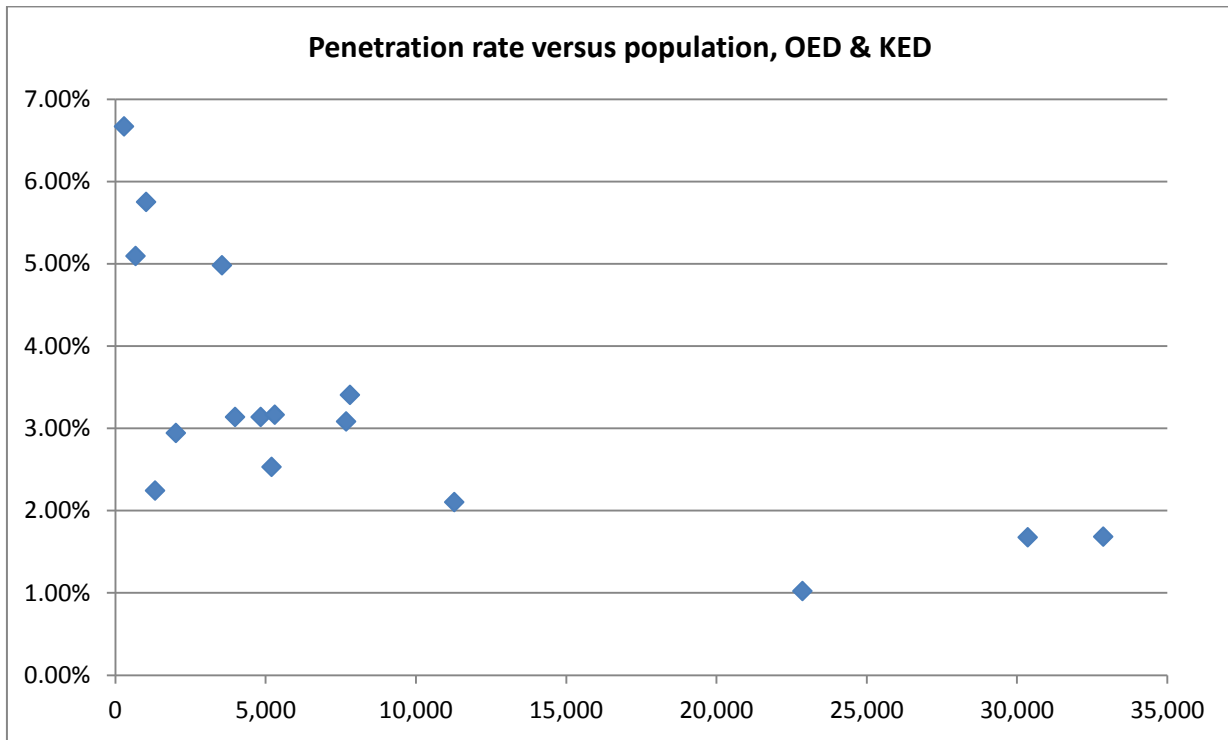
Community size

Quantitative data

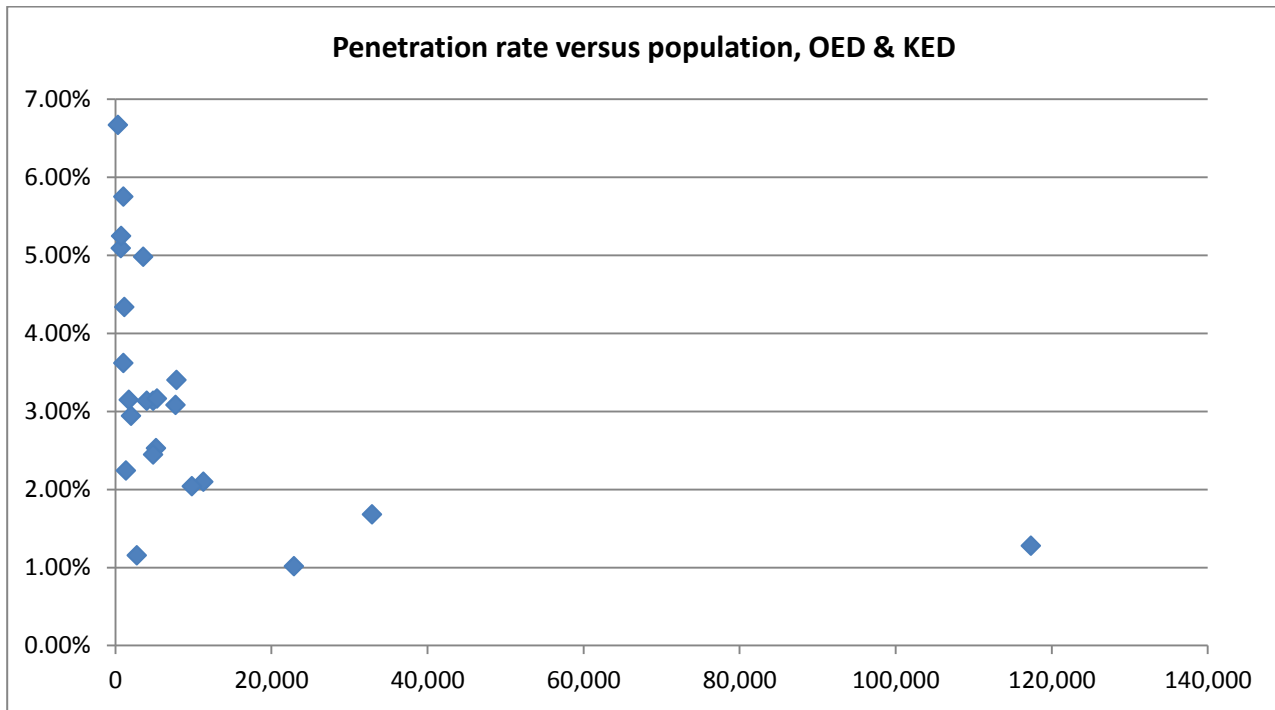
The following graphs plot the community penetration of D evaluations as a proportion of eligible homes in each community, against the population of each community. This is done only for the communities that provided subsidies that were part of the Kootenay and Okanagan Energy Diets. The reason only these communities have been selected, is because they all provided subsidies, and because a similar amount of marketing was conducted in each community. The graphs show a clear correlation between the population size and the penetration, implying that it is easier to market an energy efficiency retrofit incentive campaign in smaller communities.



This correlation is still quite clear even when the large outlying community (Kelowna) is removed.



If communities that did not provide any subsidy are included, the trend is very similar.



Timeframe, timing & winter retrofits, and theory of urgency

Anecdotal information

There was significant diversity of opinion on the optimal timeframe for a campaign. Several campaigns stated that a short time-frame would be beneficial for a marketing blitz, create a buzz in a community, and/or to give people a sense of urgency. Several campaigns are long-term however (e.g. Nelson, New West, Terrace), and noted no difficulties in this approach. One short-term campaign (Campbell River) stated that a long-term campaign would have been more beneficial, and that given they have stopped the momentum has been lost, and may be difficult to regain.

City Green also commented that contractors have identified the short-term nature of many of the campaigns as being their biggest weakness. Contractors cannot plan their businesses around short term campaigns. Some contractors have stated that smaller incentives over a longer time period would allow them to invest more of their own resources in outreach and marketing of the campaigns.

Despite the fact that a short timeframe could help give a sense of urgency, timing can also be an issue. Several campaigns (particularly those with cold winters, e.g. Rossland, Kootenay, and East Kootenay) stated that people can find it challenging to conduct certain retrofits during the winter, and could not complete the necessary upgrades by the end-date of the LiveSmart incentive program (March 31). One campaign (Vancouver) stated that taking place during an election campaign was particularly challenging, as it limited marketing that could be done. One campaign stated that summer is challenging, as people can be away or busy.

Financing

Quantitative data

For the campaigns that had financing, uptake is shown in the following table:

Table 14 – the uptake of financing in six campaigns

Residential energy efficiency campaign	D evaluations	E evaluations	Financing		Organisation(s) providing financing
			Number	As a % of E evaluations	
Kootenay Energy Diet	~862	~166	8-10	~5-6%	Local Credit Unions
Okanagan Energy Diet, excluding Penticton	~833	~125	2	~2%	FortisBC Electricity
Okanagan Energy Diet, Penticton only	~270	~66	39	~59%	The City of Penticton electrical utility
East Kootenay Energy Diet (to end of March 2014)	185	21	0	0%	Local Credit Unions
Nelson EcoSave (initial 2 year pilot)	~350	107	47	44%	City of Nelson electrical utility Nelson Hydro (35 homes), and local Credit Union (12 homes)
Vancouver HELP	Not possible to separate campaign impacts from other promotion City of Vancouver was conducting.		“very few”	n/a	Vancity

Three of the campaigns had a surprisingly low uptake of financing, the Kootenay Energy Diet had a moderate uptake, while the Penticton component of the Okanagan Energy Diet and Nelson EcoSave had high participation rates. Based on the information available, the reasons for this cannot be definitively determined, but the financing available in those circumstances was at a lower rate of interest than in the other campaigns (3.5% versus 4.5%), and the eligibility criteria was also less onerous. In addition, the financing programs were also clearly local, although that also would have been the case for the financing with the Kootenay, East Kootenay, and Vancouver campaigns.

It appears, based on the Penticton and Nelson 2013-14 information in Table 10, that the implementation of successful on-bill financing campaigns had a positive impact on the D to E conversion, and the proportion of eligible homes to have both D and E evaluations. There is however insufficient data available to definitively conclude this.

Note that some homes may have obtained financing for a retrofit without obtaining an E evaluation. This is known not to be the case for Penticton, as one of the eligibility criteria was to have conducted an E evaluation.

Financing should probably not be conducted in isolation, and this appears to be well demonstrated by the Vancouver HELP campaign. (Nevertheless the marketing of HELP together with other marketing conducted by the City appears to have encouraged a high number of D evaluations in Vancouver.)

Anecdotal information

Based on the anecdotal experiences of the campaigns, financing (either on-bill financing or an unsecured loan from a financial institution) may be useful as an addition to a campaign to encourage people to participate.

Homeowners can assume that capital cost is a barrier, but the mention of a financing option encourages them to consider the options available.

FortisBC Electricity commented that most of the people participating in the Kootenay and Okanagan Energy Diets were 50+ middle-class homeowners, who would likely have cheaper financing options than the 4.5% that was often available to them. This may have accounted for the lack of uptake.

The City of Penticton Electrical Utility commented that their on-bill financing program probably had significantly greater uptake than the utility-led ones because they had lower barriers to entry, and a more competitive interest rate. Despite the lower barriers to entry, loan applicants to the City's program have still only had an ~30% success rate to date (up to August 2014 – with some people still going through the system). This implies a much lower application success rate for the utility-led financing programs. Note that Penticton's on-bill financing program was modelled on Nelson's.

For Nelson EcoSave, people that lived outside of City limits would not have been eligible for the on-bill financing program even though they were Nelson Hydro customers. These customers had to use the Credit Union loan option. Anecdotally, many of them would have preferred the on-bill financing option due to convenience. Nevertheless, some people within City limits still used the Credit Union loan instead.

The Kootenay Energy Diet reported that despite the low take up, the Credit Unions were pleased with the partnership with FortisBC and are interested in continuing the relationship for future campaigns. Reportedly, there were some instances where they helped people finance their upgrades using other financing options. This explains the lack of certainty in determining how many people used the financing option.

None of the campaigns suggested that financing should be conducted in isolation.

City Green – informal analysis

Informal analysis from City Green found the following challenges with BC financing programs:

- Interest rates uncompetitive
- Loans not always available for all types of energy upgrades (e.g. for Vancouver's HELP program loans were not available for windows, although window upgrades are a door opener and a market driver)
- Low / no contractor buy-in, or low / no attempt to market to contractors
- Entry barriers (e.g. if somebody had been late with a utility bill this could make them ineligible for a loan)
- Right target market: who finds financing a barrier for home energy upgrades?

And found the following reasons which may explain the success of Nelson's financing program:

- Social context and building types in Nelson are conducive to this type of financing scheme
- Provision of one-on-one support through a dedicated coordinator
- Loans available for all energy upgrade options
- Buy-in from contractors, the local government, and Nelson Hydro
- Interest rate more competitive than the other financing programs (3.5% versus 4.5%)
- Loans are pre-approved (they are not based on credit history, credit checks, or late utility bills)
- Multi-year program

One-on-one coordinator

Anecdotal information

Several campaigns stated that a one-on-one coordinator (or team) was essential to ensure a customer friendly campaign. For smaller campaigns it may be possible for this to be a small part of a staff person's job (e.g. Terrace). The case studies in Appendix 2 – Case studies of the energy efficiency retrofit campaigns, can give a sense of the amount of staff time required based on a variety of factors. More staff time is needed when a campaign is in the early stages. Coaching people after D evaluations may help people move from D to E evaluations. Several campaigns emphasised the importance of having the right person for the job – a dynamic and approachable coordinator.

Involving stakeholders, and local buy-in

Anecdotal information

Many campaigns stated that informing local stakeholders of the campaign in advance was essential.

Two campaigns (Kootenay and Nelson) stated that contractors can have difficulty in managing the workload in small communities, and so in particular warning them in advance is important.

Many campaigns that were not led by local governments stated that local buy-in, e.g. from the local government, is essential.

On working with contractors, when reviewing their programs in general, FortisBC Electricity have found that their most successful programs have been those where they have been working with contractors the longest.

Keeping a campaign simple for customers

Anecdotal information

Many campaigns stated that it is important for a campaign to be simple for the community, or to provide enough support to ensure people understand. The existing incentive programs are confusing, complex, and frequently change. It can be challenging for a campaign to keep things simple.

Organisation's image

Anecdotal information

The FortisBC led Kootenay and Okanagan Energy Diet campaigns anecdotally reported some difficulties due to negative impacts to FortisBC's image. This may have created a trust barrier. In the East Kootenay, on the other hand, having Columbia Basin Trust involved as a funding partner created a positive image for some participants.

Whether a community can become saturated

Quantitative data

Even though the Rossland Energy Diet had an exceptionally high participation, when it was later part of the Kootenay Energy Diet it had one of the higher per capita participation rates of any of the Kootenay or Okanagan Energy Diet communities even though no special promotion was conducted there. Not only does this indicate that there was still a lot of energy efficiency opportunities in single family homes in that community, but it may also be an indication that the initial campaign helped to normalise energy efficiency in the community and helped to establish a cultural change.

Regional versus community-to-community approach

Anecdotal data

The regional Kootenay and Okanagan Energy Diets both stated that in future more staff resources could be concentrated on just one community at a time, e.g. to split the campaign into manageable pieces, or to conduct a marketing blitz and facilitate word-of-mouth participation. The previous charts showing registrations by date indicate that this marketing blitz approach may be extremely beneficial at getting registrations. In the East Kootenay, a large geographical area made it difficult for the coordinator to offer significant face-to-face opportunities, although events were attended at least twice in each community. A local 'liaison' or student outreach coordinator may have helped to provide even more exposure across the East Kootenay.

Environmentally conscious communities

Anecdotal data

Two campaigns stated that this was beneficial to having greater campaign uptake – Nelson EcoSave, and Okanagan Energy Diet (the latter with respect to the success factors for the community of Naramata).

Partnerships

Anecdotal data

Several campaigns emphasised how it is important to have the right partnerships (e.g. utility and local government partnerships). However Vancouver HELP also suggested that it is important to consider your partners when considering the message, e.g. working with Vancity meant that in their brochures the loan was emphasised over the energy efficiency.

Champions in Council and staff

Anecdotal data

One campaign (Solar Colwood) highlighted how this is necessary. Note that for another project, CEA has obtained quantitative data establishing a strong link between having champions in both Council and staff, and with communities being able to implement a large proportion of actions from their Community Energy and Emissions Plans. This perhaps points to how this is helpful for a more ambitious campaign.