Understanding the Impact of Energy Assessments on the Value of Homes on Vancouver Island

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Executive Summary

In an effort to promote energy efficiency in the real estate sector, particularly targeting REALTORS® and builders, the Vancouver Island Real Estate Board initiated the Real Estate Energy Efficiency Program (REEP) in 2014. The program is designed to teach energy literacy to REALTORS®, with information delivered by REALTORS® and an energy advisor, so they can incorporate energy efficiency seamlessly into the sales process. From 2014 to 2015, approximately 80 home energy assessments were completed in select Vancouver Island communities as part of this program.

The project looked into these energy assessments to understand better whether rebates and incentives provide additional benefit to the homeowners in the form of higher resale values, aside from the energy cost savings that these improvements directly bring. Out of the 80 energy assessments completed, the project reviewed 65 initial reports and five final reports. While the initial energy assessments were somewhat comprehensive, and the final energy assessments were shorter but to the point, both reflect the EnerGuide® rating of the home at the time the reports were written. Aside from the rating, the estimated annual heat loss of the home are given in both reports and can shed light on where improvements were done, e.g. in the home's air and ventilation, windows, main walls, etc. Of the few final reports that were reviewed, the homes showed marginal improvements in terms of energy efficiency. It implied that for the duration between the initial and final assessments, homeowners tended to select one or two areas of the home to improve on. This is understandable considering that this is the first stage of the program and homeowners are probably still hesitant to make (and invest in) big changes following the recommendations in their energy assessment reports.

Of the 65 homes with initial energy assessments reviewed, only 14 (22%) were sold after the energy assessments were done. This could indicate that homeowners who were open to improving their home's energy efficiency (by undergoing energy assessment) did so without the intention of increasing its market value through the improvement. This is further supported by the resulting price points at which these homes were sold. When compared with the average price of a home in the same sub-area and in the same year, more than half (or eight out of 14) of these homes were sold lower than the average home price. To expand the sample, the project also looked into 500 homes that have availed of the woodstove rebate from the Regional District of Nanaimo. Out of these 500, again a small percentage (55 homes or 11%) were sold following the rebate. And of these 55 homes that were sold, close to half (44%) were sold lower than the average home price. Because of these mixed results, it is difficult to make the connection that

energy efficient homes, or those that have undergone some energy efficiency improvements, have higher resale values.

It is worth noting, however, that this is a very rough comparison exercise as home values largely depend on other factors such as size, make (including year built, newly renovated or not), and key location features such as ocean views. The energy efficient homes that were sold higher than the average price were all sold close to $0.5 million to $1 million. The listing describes these homes as having high end features and some with ocean views.

It is also important to understand how the energy efficiency feature of a home is used in the selling process. Currently, the multiple listing service (MLS) does not have a section highlighting this and is only reflected in the remarks portion of some (but not all). At the same time, it would also be helpful to know from REALTORS® whether the home's energy efficiency feature was one of the key factors that attract home buyers.

Overall, the results show that homes that have some energy efficiency improvements do not necessarily dictate a higher resale value. For one, the information currently available to home buyers do not highlight the home's energy efficiency feature. The premium on energy efficient homes can best be estimated if the said fixes are incorporated in the selling process.

Introduction

Nanaimo REALTOR® Rob Grey, with the support of the Vancouver Island real Estate Board (VIREB) started a program in 2014 to promote energy efficiency in the buying and selling of homes as part of their mandate. The Real Estate Energy Efficiency Program (REEP) is a collaboration with the City of Nanaimo, Regional District of Nanaimo, and VIREB. It is designed specifically for REALTORS® to help them incorporate energy efficiency discussions into the home sales process.

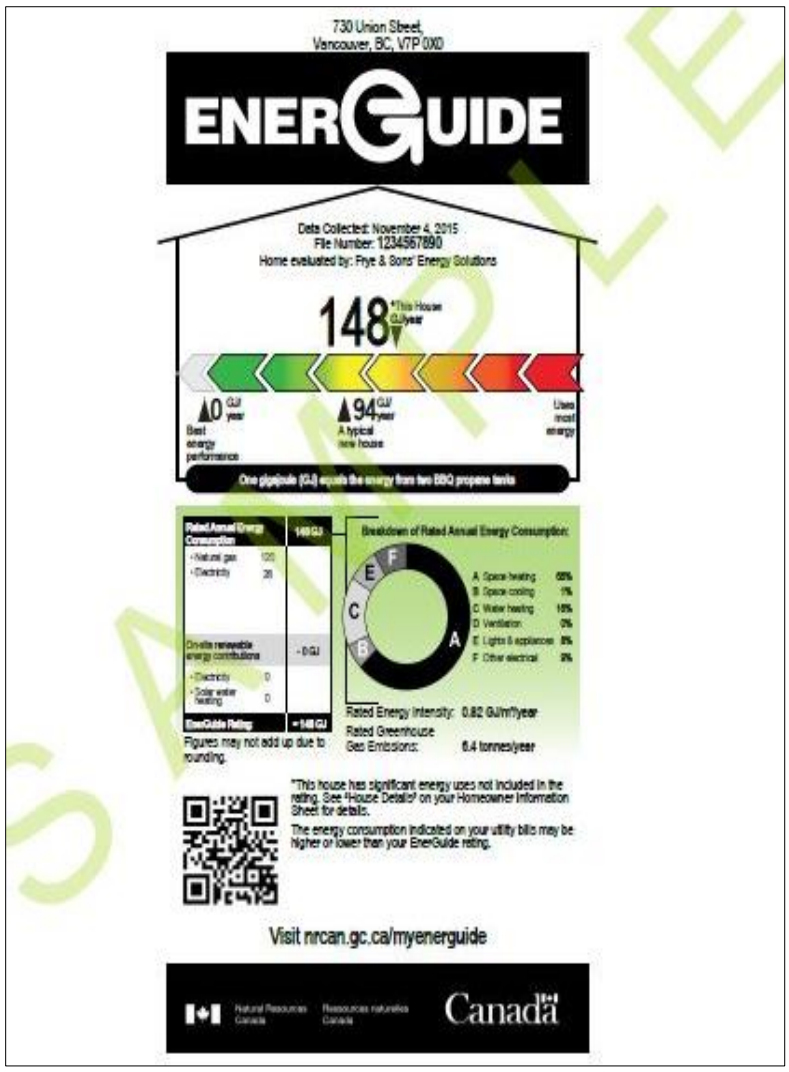
The program supports the provincial energy efficiency programs by engaging home buyers and sellers in considering home energy improvements through discussions around energy literacy. Home owners are informed about the benefits of improved energy efficiency such as greater comfort and a healthier home, impactful improvements and significant cost savings over time, and an added selling point for having an EnerGuide rating (Box 1), a government-backed energy efficiency label.

Box 1: The EnergGuide Rating

The EnerGuide rating shows the energy performance of a home at the time of evaluation. The old rating is based on a scale of 0 to 100, 0 indicating least efficient and 100 as most efficient. A zero rating represents a house with major air leakage, no insulation and high fuel consumption, while a 100 rating represents an airtight, well-insulated house where energy purchased is equal to energy generated through renewable sources (a “net-zero” home). In 2016, an updated EnerGuide scale was introduced (Figure 1) to ensure that the rating tool reflects energy efficiency construction and renovation practices. The updated system gives a consumption-based rating measured in gigajoules per year (GJ/year). The lower the number/rating, the more energy efficient the home. A zero rating represents an airtight, well-insulated house where energy purchased is equal to energy generated through renewable sources (a “net-zero” home), while a “typical new house rating” of 146 gives indicates an energy performance standard for a newly built home.

Source: Natural Resources Canada (http://www.nrcan.gc.ca/energy/efficiency/homes/20572)

Figure 1: The Updated EnerGuide Rating and Label



Source: Natural Resource Canada

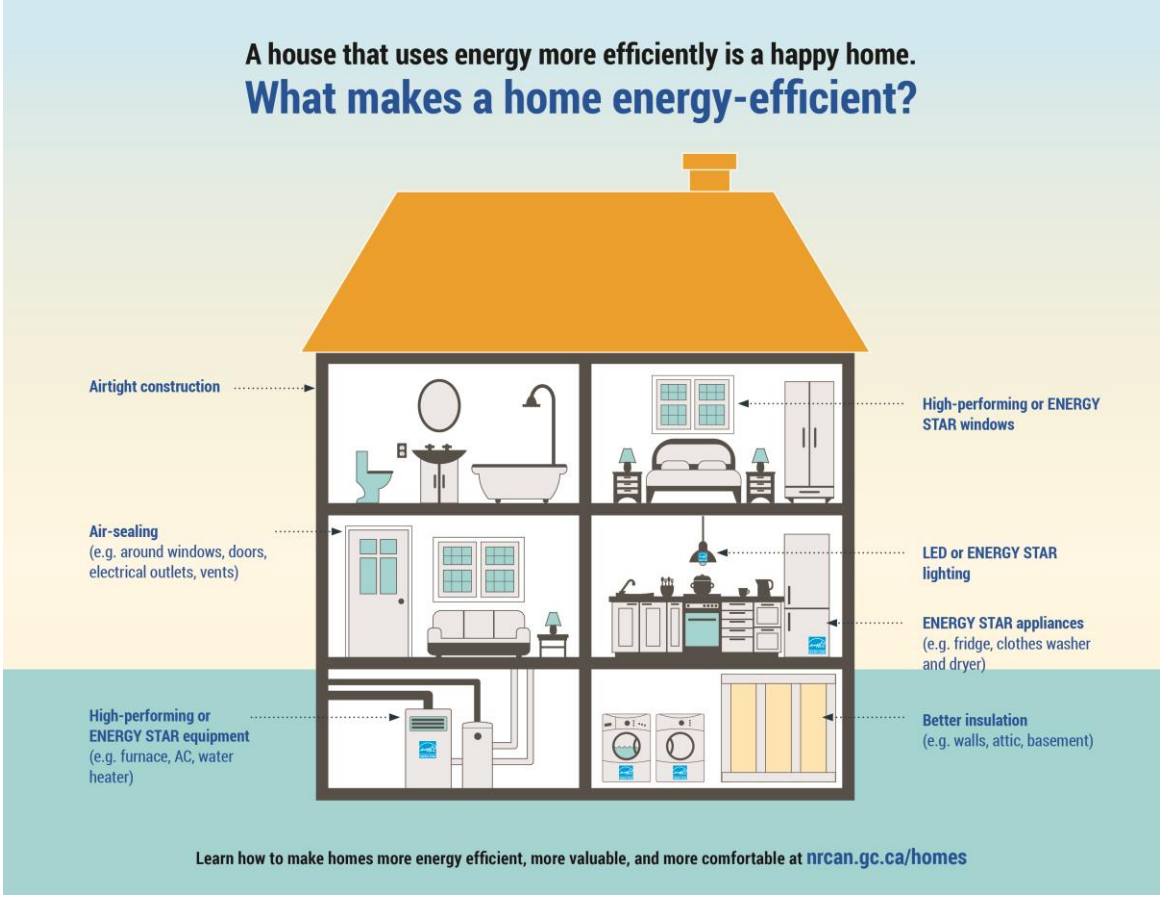
Homeowners have access to energy incentives and rebates for home energy improvements through a series of steps:[1]

a. Complete a home energy assessment with an Energy Advisor;
b. Complete some or all of the recommendations for home energy efficiency;
c. Complete a home re-evaluation by an Energy Advisor; and
d. Submit receipts and forms to avail of rebates.

[1] http://www.vireb.com/reep

A home energy assessment provides a basement-to-attic evaluation of a home by an Energy Advisor. The assessment details the home's energy performance through an EnerGuide rating, how it compares to similar homes and where energy is being wasted, and includes recommendations on how to improve the home's energy efficiency. Features of an energy efficient home is shown in Figure 2.

Figure 2: Some Features of an Energy Efficient Home



Source: Natural Resources Canada (https://www.nrcan.gc.ca/energy/efficiency/homes/20548)

BC Energy Step Code. The REEP is consistent with the Province of BC's effort to support long-term improvements in energy efficiency in the BC Building Code through the BC Energy Step Code (Figure 3). It was introduced in April 2017 to standardize the different green building standards that local governments require in the past. The goal is to make buildings net-zero energy ready by 2032. It is currently offered as an optional compliance path in the BC Building Code that local

governments may use to incentivize or require a level of energy efficiency in the new construction.[2]

Figure 3: BC Energy Step Code Pathway to 2032 (For Homes)

Source: Energy Step Code website (https://energystepcode.ca/how-it-works/)

Available incentives. In support of this initiative, homeowners can tap into several energy efficiency programs that provide incentives and rebates to home energy improvements. Examples include the Innovative Clean Energy Fund, i.e. B.C. NRCAN ISO 50001 Implementation Incentive, Oil to Heat Pump Incentive Program, BC Home Energy Coach, and High Performance Window Certification Program, and the BC Clean Energy Fund. In addition, there are programs operated by provincial crown corporations such as BC Hydro PowerSmart (Energy Star appliance rebate and home renovation rebate which includes home evaluation, draft proofing, and $1,200 insulation upgrades) and FortisBC rebates and programs (appliance maintenance, home renovations, new home construction, natural gas heating and hot water system, natural gas fireplaces, furnaces).[3] An example of these incentives is in the Appendix.

[2] BC Energy Step Code https://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/energy-efficiency/energy-step-code

[3] BC Energy Efficiency Programs https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/energy-efficiency-conservation/programs

Project Objective

The project intended to look into the results of energy assessments under the program to see whether these have an effect on the value of homes. Insights on market segmentation and strategic outreach recommendations would help in the long term goal of transforming the market towards more engagement of REALTORS® and builders in high performance homes in BC.

Methodology

To see the result of the energy assessments done under the REEP, the project compiled and analyzed available data on home energy assessments, particularly those completed in 2014-2015, and home sales of these properties that took part in the program. The main sources of data are the 2014-2015 home energy assessment reports completed under the program and the home sales data from the Vancouver Island MLS.

The project was divided into two parts: (1) the review of completed REEP energy assessments and (2) examining the effect in resale value of these properties. This is to first have a better understanding of the content of the home energy assessments before delving into their possible effect on home resale values.

Part 1: Review of Completed REEP Energy Assessments

Eighty home energy assessment reports completed under REEP in 2014 and 2015 was reviewed. All data from the reports were compiled in a spreadsheet including key information such as the EnerGuide® rating, home profile, current energy consumption, and space heating analysis. These are then matched with the MLS (multiple listing service) data sheets to see whether these homes have been sold after energy efficiency improvements have been done. An important assumption here is that all homes that have undergone energy assessment were assumed to have made energy efficiency improvements following any of the recommended retrofits in the report. This is because data on actual energy efficiency improvements were not available during the study as these would come from different sources, i.e. rebates from different municipalities and incentives from Fortis BC and BC Hydro. While there are initial and final energy assessments, most of the information reviewed were from the initial energy assessments as final assessments were very few.

The resulting list of homes and related data were analyzed by zone to further see any similarities or difference among specific communities.

Part 2: Examining the Effect in Resale Value of Energy Efficient Homes

This section is focused on understanding a home values after energy assessments are completed.[4] However, the data is very limited when looking only at the 65 homes with initial energy assessment reports.

To supplement this information, this project also used the woodstove rebate data from the Regional District of Nanaimo (RDN). For this reason, this part was sub-divided into two to discuss (1) the resale values of the homes with energy assessments under REEP and (2) the resale values of the homes that availed of the woodstove rebate from RDN.

The compiled spreadsheet data from the energy assessment reports were matched with the MLS data, and then grouped and analyzed by zone. The MLS data, particularly the price points at which the properties were sold, were then compared with the data from VIREB which indicates the average price of a home in the same sub-area in the same year. The key data used here were the date of initial energy assessments, the date the property was sold, the sale price, and the average price of a home in the same sub-area in the same year.

Following this method of comparison, the woodstove rebate data from RDN were also matched with the MLS data to see which of the properties that have availed of the rebate have also been sold after this energy efficiency improvement. The resale value was again compared with the data from VIREB which indicates the average price of a home in the same sub-area in the same year. The key data used here were the date the rebate was issued, the date the property was sold, the sale price, and the average price of a home in the same sub-area in the same year.

Data limitation

The project made use of data provided by REEP (i.e. MLS data and initial and final energy assessment reports) and woodstove rebate data from Nanaimo RDN. Other data expected for this project were not accessible due to privacy regulations cited by the City of Nanaimo. This was not anticipated at the outset of the project.

[4] It is assumed here that the homes that have gone through energy assessments have actually made energy efficiency improvements in the home.

Findings

Part 1: Review of Completed REEP Energy Assessments

From 2014 to 2015, VIREB conducted about 80 energy efficiency assessments as part of its Renewable Energy Efficiency Program. Of these, only 65 initial energy efficiency assessment reports and five final assessment reports were available during this study. All assessment reports were based on the old EnerGuide® rating system where home energy efficiency is rated based on a scale of 0 to 100, 0 being least efficient and 100 as most efficient.

Table 1: List of Home Energy Assessments Reviewed

Zone	With Initial Assessment	With Final Assessment	EA Reports at hand	Sold after EA
Zone 1 - Campbell River	1	0	1	0
Zone 2 - Comox Valley	7	1	7	1
Zone 3 - Duncan	12	0	10	2
Zone 4 - Nanaimo	41	2	31	9
Zone 5 - Parksville/Qualicum	7	0	6	1
Zone 10 - Islands	12	2	10	1
Total	**80**	**5**	**65**	**14**

EA = energy assessment

Source: 2014-2015 Home Energy Assessments

Initial energy assessments: An Energy Efficiency Evaluation Report is issued to the property owner after the home evaluation done by an Energy Advisor. These reports are several pages in length and include the basic profile of the home, i.e. physical characteristics such as the house type, number of windows, heating system used, air leakage rate, and others, as well as the current EnerGuide® rating, the potential EnerGuide® rating if improvements are done, and the average EnerGuide® rating for a similar home in British Columbia. This basic profile is followed by sections as follows;

(1) home energy action checklist where recommended retrofits are listed;
(2) information on the EnergGuide rating system;
(3) current (annual) energy consumption for space heating, hot water and lights and appliances;
(4) space heating analysis indicating the percentage of potential energy savings (and energy used) and a breakdown of heat loss through building envelope;
(5) recommended energy saving measures which are often left blank; and
(6) a list of information resources.

For new builds, initial energy assessments are usually shorter, and contain only the key points such as the house's energy efficiency rating and estimated annual energy consumption. Since

new builds have to follow building code standards, the lowest energy efficiency rating given is 65. An energy efficient new house has a rating between 80 to 90, and a house requiring little or no purchased energy is rated from 91 to 100.

Of the 65 reviewed initial energy assessments, EnerGuide® ratings varied widely from 54 to 87. But when clustered by zone, their average ratings were more concentrated between 70 to 74, while potential ratings with recommended energy efficiency improvements would raise the level to an average of 84 by zone (Table 2).

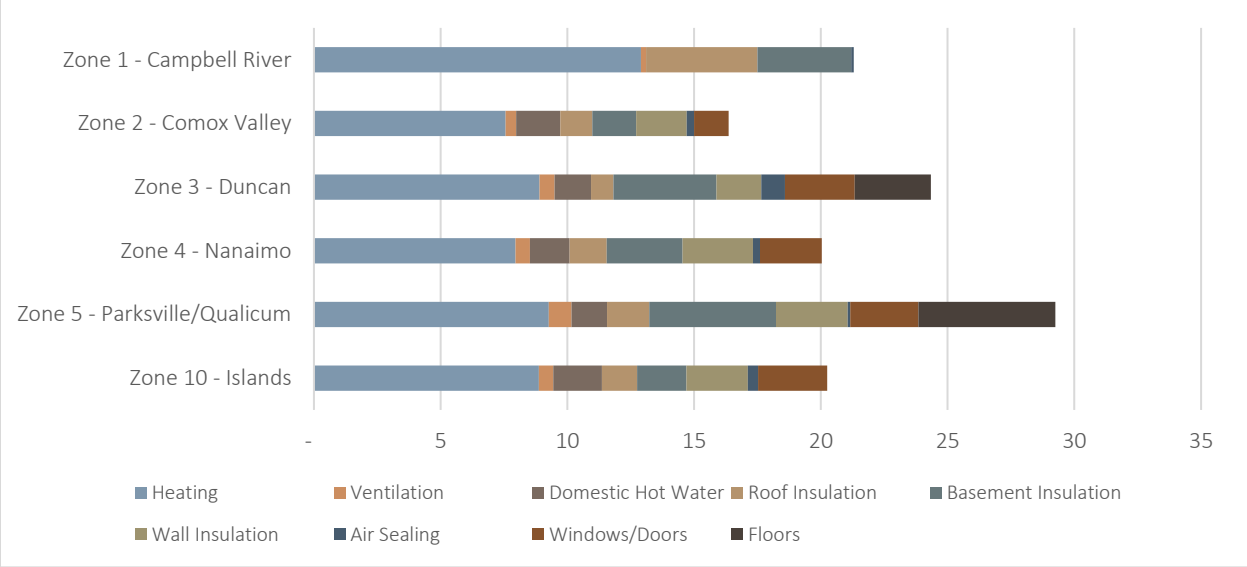
Table 2: Average EnerGuide® Rating based on Initial Energy Assessments, by Zone

Zone	EnerGuide® Rating	Potential Rating
Zone 1 - Campbell River	70	85
Zone 2 - Comox Valley	74	84
Zone 3 - Duncan	74	84
Zone 4 - Nanaimo	73	84
Zone 5 - Parksville/Qualicum	70	84
Zone 10 - Islands	72	84

Source: 2014-2015 Home Energy Assessments

Recommended retrofits were mostly focused on the heating system where potential energy savings is highest (Figure 2). Majority of the home energy assessments reviewed were of single detached homes and a few row houses. Depending on the type and size of the home, energy savings also tend to be higher in making windows and doors more energy efficient, improving basement insulation, and floors particularly for Duncan and Parksville/Qualicum homes.

Figure 4: Average Potential Rating Improvement of Homes, by Zone



Many of these homes (78%) have been listed in the MLS from as early as 1998, but only 14 homes were sold after having gone through the initial energy assessment. Observations on the price difference between these homes and the average home price in their respective areas will be discussed in the second part of this section.

Final energy assessments. Compared to the initial assessments, the final assessment is shorter, containing two key data: the current (improved) rating and the estimated annual heat loss of the home. Other information include a comparison with the average energy efficiency rating of a typical house in Canada, standard operating conditions of a typical home, energy savings tips (usually left blank), and some notes on information sources that might be helpful such as related energy efficiency publications from NRCAN, hiring a contractor, insulation, humidification, and others. Energy efficiency improvements for the home can be inferred based on the improved rating and the current estimated annual heat loss. The final assessments reviewed here generally showed marginal improvements in the final EnerGuide® rating, except for one home in Gabriola Island that showed no change in both the rating and estimated annual heat loss. Higher EnerGuide® ratings in the final assessments seemed to have resulted from the improvements done in one or two areas of the home (e.g. windows, air leakage and ventilation, and others) to minimize heat loss.

In relation to reselling homes, this review noted that eight homes undertook energy assessment a few months *after* the purchase of a home. This could mean that there is a general interest for home buyers to make their homes more energy efficient or make home improvements that include improving energy efficiency. Although not that many, this can still indicate an interest for more energy efficient homes. There is definitely an opportunity for the home sellers to tap on buyers' potential preference for energy efficient homes by getting the energy assessment and improvements before listing the property. Such improvements can be covered by rebates currently offered by the province through BC Hydro and Fortis BC.

Part 2: Examining the Effect in Resale Value of Energy Efficient Homes

Part two examines the resale value of homes that have undergone energy efficiency improvements compared to the average resale value of homes in the same sub-area. This is to find out whether there is a premium given to energy efficient homes that can be evident when they are put on sale.

Resale of Homes with Energy Assessments done through VIREB

Since out of the 65 initial energy assessments reviewed only 14 properties have been sold after the assessment date, this section will focus on the resale value of these 14 homes.

Table 3 below shows the resale price of these 14 homes and the average home price in their respective sub-area, based on the MLS data. The results are mixed as more than half (or eight out of 14) of the properties were sold below the average home price. Possible explanations for this could be:

a. Home sizes are not the same. The average home size in the sub-area may be smaller or bigger than the actual home sold.
b. Time lapse since the energy assessment. Some homes were sold one to two years after the energy assessment took place, hence it is difficult to relate the energy efficiency with the home's resale value as more recent factors may have stronger influence on the home's value.
c. Age and make of home. This could also contribute to the price of the home, i.e. a home in need of more repairs will probably have a lower asking price than a home that is relatively new or refurbished. At the same time, a home that has gone through energy efficiency improvement/s does not automatically mean it was fully renovated. Many of these homes were also relatively older, built in the 1990s (one built in 1959), compared to the other homes in the group which were built in the 2000s.

Three homes that sold above $500,000 were notably sold far higher than the average home price (with differences of $1.1 million, $0.8 million, and $0.3 million). This indicates that these homes were sold at a premium because of improvements. However, the listings in the MLS do not mention energy efficiency in the remarks portion, although one of the properties was advertised as having high end appliances. The key selling features of all three properties seem to be their high end features and ocean views. Because of this, it is difficult to relate energy efficiency as having contributed to the premium.

Table 3: Price Comparison of the 14 Homes that Sold after Energy Assessment and Average Price of Homes in the Sub-Area

EA Year	Initial EnerGuide® Rating	Percent Improvement	Improved EnerGuide® Rating	Year Sold	Price Sold (CAD)	Average Price (CAD)	Price Difference (CAD)
Zone 10 – Gabriola Island							
2015	75	32%	85	2017	325,000	408,362	(83,362)
Zone 2 – Courtenay City							
2014	65	49%	84	2016	420,000	413,478	6,522
Zone 3 - Ladysmith							
2014	81	27%	86	2015	249,000	360,361	(111,361)
Zone 3 - Duncan							
2015	82	17%	86	2016	1,505,000	389,947	1,115,053
Zone 4 – Central Nanaimo							
2014	73	42%	86	2017	425,000	394,547	30,453
2014	71	39%	82	2018	400,000	550,803	(150,803)
Zone 4 – Departure Bay							
2014	75	36%	85	2016	400,000	487,480	(87,480)
Zone 4 – Diver Lake							
2015	79	31%	87	2016	371,200	385,353	(14,153)
Zone 4 – North Jingle Pot							
2014	83	20%	87	2015	790,000	509,879	280,121
Zone 4 – North Nanaimo							
2014	63	48%	80	2016	450,000	595,782	(145,782)
Zone 4 – University District							
2015	75		80	2015	405,720	358,140	47,580
Zone 4 – Uplands							
2014	73	30%	83	2016	375,000	390,239	(15,239)
Zone 4 – Upper Lantzville							
2015	81	16%	85	2016	1,230,000	464,365	765,635
Zone 5 - Parksville/Qualicum							
2014	75	43%	86	2015	285,000	354,217	(69,217)

CAD = Canadian Dollar

Sources: 2014-2015 Home Energy Assessments, MLS, and VIREB

Resale of Homes Sold After Receiving a Woodstove Rebate

To expand the observation on resale values of energy efficient homes in Vancouver Island, the project also looked into homes that benefited from woodstove rebates from the Regional District of Nanaimo (Table 4 shows the price comparison). Out of about 500 homes that have received the woodstove rebate from 2011 to 2015, 55 homes were sold following the rebate. The results are again mixed, with close to half (44%) of the homes sold lower than the average home price in their respective sub-areas. This is likely due to the same reasons given.

Similar to the observation in the previous group of 14 homes, properties that are sold close to $500,000 and above tend to be sold at a premium, perhaps due to renovations and high end features of the property. It is difficult, however, to link this premium with the improved energy efficiency in the homes due to the rebates received. Aside from the price, when the list of properties are split into sub-areas, it is noticeable that energy efficient homes in Cedar and Errington/Coombs/Hilliers areas are generally sold higher than the average homes. Homes in the latter area were sold with $155,000 to more than $400,000 price difference. It should also be noted that these areas are generally rural compared to the City of Nanaimo.

Table 4: Price Comparison of Homes that Sold After Woodstove Rebate

ZONE	Year Sold	Price Sold (CAD)	Average Price (CAD)	**Price Difference (CAD)**	Number of Times Sold Since Rebate
Zone 10 - Islands - Decourcy Island					
1	2017	665,000	408,362	256,638	1
Zone 10 - Islands - Gabriola Island					
2	2013	225,000	tbd	tbd	1
3	2015	149,000	266,571	(117,571)	1
4	2016	263,000	310,162	(47,162)	1
5	2017	1,380,000	408,362	971,638	1
6	2018	590,000	381,707	208,293	1
7	2014	237,500	258,077	(20,577)	1
8	2016	244,500	310,162	(65,662)	2
9	2017	1,230,000	408,362	821,638	2
10	2017	700,000	408,362	291,638	1
11	2017	468,000	408,362	59,638	2
12	2017	393,500	408,362	(14,862)	1
13	2018	350,000	381,707	(31,707)	1
14	2018	260,000	381,707	(121,707)	1
Zone 4 - Nanaimo - Cedar					
15	2014	369,000	357,291	11,709	2
16	2015	535,000	355,999	179,001	2
17	2015	449,000	355,999	93,001	3
18	2016	461,000	389,155	71,845	2
19	2016	995,000	389,155	605,845	1
20	2017	388,000	480,538	(92,538)	1
Zone 4 - Nanaimo - Extension					
21	2015	30,000	322,128	(292,128)	1
22	2017	330,000	427,273	(97,273)	1
23	2018	830,000	550,803	279,197	1
Zone 4 - Nanaimo - Lower Lantzville					
24	2011	297,000	362,867	(65,867)	1
25	2016	410,000	518,018	(108,018)	2
26	2017	725,000	615,871	109,129	1
Zone 4 - Nanaimo - Old City					
27	2017	495,000	389,870	105,130	1
Zone 4 - Nanaimo - Upper Lantzville					
28	2015	459,000	460,952	(1,952)	1
29	2016	634,000	464,365	169,635	1

Table 4: Price Comparison of Homes that Sold After Woodstove Rebate (continued)

ZONE	Year Sold	Price Sold (CAD)	Average Price (CAD)	Price Difference (CAD)	Number of Times Sold Since Rebate
Zone 5 - Parksville/Qualicum - Bowser/Deep Bay					
30	2016	360,000	420,629	(60,629)	2
31	2016	410,000	420,629	(10,629)	1
32	2017	429,000	511,684	(82,684)	3
Zone 5 - Parksville/Qualicum - Errington/Coombs/Hilliers					
33	2014	640,000	346,816	293,184	1
34	2015	374,500	369,990	(57,990)	2
35	2016	830,000	409,218	420,782	1
36	2016	615,000	409,218	205,782	1
37	2017	445,000	497,610	(52,610)	1
38	2017	750,000	497,610	252,390	1
39	2018	725,000	620,366	104,634	1
40	2018	739,500	620,366	119,134	2
41	2018	808,000	620,366	187,634	1
Zone 5 - Parksville/Qualicum - French Creek					
42	2016	840,000	462,252	377,748	1
43	2016	375,000	462,252	(87,252)	1
44	2017	445,000	554,398	(109,398)	1
45	2017	417,000	554,398	(137,398)	2
46	2017	555,000	554,398	602	1
Zone 5 - Parksville/Qualicum - Nanoose					
47	2015	1,035,000	448,938	586,062	1
48	2016	414,000	518,756	(104,756)	1
49	2016	495,000	518,756	(23,756)	2
50	2016	536,000	518,756	17,244	1
51	2017	1,187,900	605,284	582,616	1
Zone 5 - Parksville/Qualicum - Parksville					
52	2012	482,500	327,066	155,434	1
Zone 5 - Parksville/Qualicum - Qualicum Beach					
53	2015	210,000	433,161	(223,161)	1
Zone 5 - Parksville/Qualicum - Qualicum North					
54	2014	382,000	354,892	27,108	1
55	2016	495,000	479,433	15,567	1

Sources: Regional District of Nanaimo, MLS, and VIREB

Overall, even though the price differences are mixed, it is noticeable that when energy efficient homes are sold at close to the $500,000 and above range, they tend to be sold higher than the average home prices in their sub-area.

Summary

Looking at the sample of 65 homes with initial energy assessments reviewed, and the 500 homes that have availed of the woodstove rebate from the Regional District of Nanaimo, only a small percentage, 22% and 11%, respectively, were sold after some energy efficiency improvements were done to the home. This could indicate that homeowners who were open to improving their home's energy efficiency (by undergoing energy assessment) did so without the intention of increasing its market value through the improvement. This is further supported by the resulting price points at which these homes were sold: about half of the homes in both groups were sold at a lower price compared to the average home price in the same sub-area in the same year. Because of these mixed results, it is difficult to make the connection that homes that have undergone some energy efficiency improvements have higher resale values.

However, it is also important to point out that in the sample of 65 homes, it was noted that eight homes undertook energy assessment a few months *after* the purchase of a home. This could imply some home buyers' interest to make their homes more energy efficient, thus posing an opportunity for home sellers to tap on to this preference by accessing home energy improvement rebates before selling.

Overall, the results show that homes that have some energy efficiency improvements do not necessarily dictate a higher resale value. Home values largely depend on other factors such as size, make (including year built, newly renovated or not), and key location features. Also, the information currently available to home buyers do not highlight the home's energy efficiency feature: the MLS does not have a section highlighting this. It would also be helpful to know from REALTORS® whether the home's energy efficiency feature was one of the key factors that attract home buyers.

Recommendations

There is a growing awareness among real estate stakeholders about the value of having more energy efficient homes. However, based on the data reviewed here, it seems unclear how much the home energy efficiency feature is valued by home sellers and buyers. Home sellers do not seem to capitalize on the potential premium of energy efficient homes while home buyers show interest in making their homes more energy efficient soon after the purchase. There seems to be a window of opportunity somewhere in between for both parties to make the most of what is currently available in terms of improving home energy efficiency. The following recommendations hope to address this:

1. *Modify MLS to include EnerGuide® rating*. Energy assessment ratings (EnerGuide®) and key energy efficiency features should have a section in the MLS for all users to be reminded that the home carries with it some additional cost savings and comfort features, on top of the usual location feature and high end furnishing that usually entice buyers to pay for a premium.

2. *Improve data tracking*. To evaluate the effectiveness of these early efforts towards making buildings in BC net zero ready by 2032, it would be very helpful if data tracking can be done at the provincial level to take account of all the rebates and incentives offered by different parties, preferably at the household level.[5] Having this information would give a better picture of the costs associated with improving energy efficiency from the provincial and municipal governments' side, the home owners', as well as potential increase in the homes' market values.

3. *Understand home buyers' preferences*. To see whether home energy efficiency is a key factor in acquiring a home, the ongoing VIREB Buyer's Survey (available online) could include a few questions on this.

[5] Similar to the report Capacity Scan for the Energy Step Code in Select BC Communities (2017) prepared by the BC Housing, Research and Corporate Planning for BC Hydro Power smart.

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Appendix: Examples of Rebates and Incentives

For Kootenays, as of March 2018

REEP Real Estate Energy Efficiency Program

Current Rebates VIREB.com/REEP

Home Renovation Rebate Program
Offered through BC Hydro and FortisBC

* Insulation: up to $1,200 (installation by a licensed contractor).
* Ductless heat pump: $800
* Draftproofing: up to $500.

A $750 bonus offer for making three or more eligible upgrades including;

*Insulation (insulation installed in multiple locations can count as multiple upgrades)
* Draftproofing
* ENERGY STAR® windows and doors
* High-efficiency heating system
* ENERGY STAR water heater
* ENERGY STAR heat recovery ventilator (HRV)

Some rebates require an energy assessment from a qualified Energy Advisor prior to work beginning.

Oil to Heat Pump
Up to $1700 Oil to Heat Pump Conversion

To learn more, about the Oil to Heat Pump Incentive Program, visit oiltoheatpump.ca.

Check with your local municipality for rebates on building permits for new construction!

FortisBC Rebates
$300 off Natural Gas Fireplace Rebate

Convert from wood, propane or oil to gas and receive:
$1300 rebate for natural gas heating system
$1700 rebate for installing BOTH a natural gas space heating system AND natural gas water heating system, or a qualifying combination space and water heating system.

Rebates regardless of heating type:
$700 rebate for installing a qualifying natural gas direct vent wall furnace.
$1100 rebate for installing BOTH a qualifying natural gas direct vent wall furnace AND natural gas water heating system.

*PLUS: up to $1,000 through the Natural Gas Water Heater rebate program if you install an eligible high efficiency natural gas water heater.

Fortis BC offers Heat Pump loans for up to $6,500 at 1.9% fixed interest rate, over ten years.

Mortgage Insurance Rebates
* CMHC Green Home Program - 15% - 25% refund of financing fees visit cmhc-schl.gc.ca
* Genworth Canada- 15% - 25% refund of financing fees visit genworth.ca

Mortgage/Renovation Financing
* RBC Energy Saver Loan
* VanCity Home Energy Loan

Source: Vancouver Island Real Estate Board, Real Estate Energy Efficiency Program