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# Green Home Appraising



## – A Developing Market Segment

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In August 2017, the Canadian Government's **Build Smart – Canada's Buildings Strategy** was released.

This strategy will lead to changes in the building code which will require all new homes to be 'net zero ready' by 2030. Along with changing consumer attitudes and financial institutions looking to develop 'Green Mortgages,' this points to the requirement for Appraisal Institute of Canada (AIC) Members to develop the skills to value these homes.

It will likely be similar to valuing other residential properties using the Direct Comparison Approach (DCA), but, until the market matures and there are other 'green homes' for comparables, how do we approach this valuation challenge?

Some would say that the lack of market data would indicate that there is no market and these properties should be treated the same as other residences. However, if we produce an appraisal report, which shows no value difference from current code-compliant homes, we are in danger of violating the *Canadian Uniform Standards of Professional Appraisal Practice (CUSPAP)*. Section 5.2.1 states, "It is unethical for a Member to develop, use or permit others to use, for any purpose, any report which the Member knows, or ought to know, is defective, erroneous, and/or misleading." 5.2.2 further adds, "A misleading report can be caused by omission or commission and may result from a single large error or a series of small errors

that, when taken in aggregate lead to a report that is deemed to be misleading." As appraisers, we need to be able to justify and support our adjustments, but we also must have a basis for not making an adjustment (saying that an adjustment is not warranted).

It has been suggested that a basic multiplier could be developed and applied to green homes. For example, if the cost of construction is 5% higher, the value found by the DCA would be adjusted upward by 5% to account for this difference. This method is very limiting in that it takes a 'one size fits all' approach and does not take into consideration the different levels of energy efficiency and variations in 'degrees of greenness.'

I recently received an assignment to value a green home in Winnipeg which required the development of a reasonable approach. Following developments in energy efficiency is one of my hobbies, so I was comfortable with that side of the assignment. But what about a methodology, as I wanted to ensure competencies? AIC-Manitoba recently held a continuing education seminar on valuing green homes, which I had attended, so I dove into the recommended readings, researched the topic, and presented a paper (which outlined a proposed approach) that was circulated to a number of designated Members for their feedback. This paper became the foundation for this article.



## “Instead of developing green mortgages, the industry should consider moving to mortgage qualification based on principal, interest, taxes, and energy (PITE) costs.”

Without going through all the methods considered, the desired result was to develop an adjustment to be placed as a line item in the DCA chart for energy efficiency. This process was made much easier, as the homeowner had recently completed a study which quantified the total cost of home ownership. It was completed by SRP Canada (Sustainable Renewal Planning Inc.) using the SEE*FAR*® (Sustainable Energy Efficiency Facility Asset Reporting) program which showed that the energy cost savings over a current code-compliant home was currently \$2,000 per year.

This number is much easier to work with than an energy rating of ‘X’ compared to a base home with a rating of ‘Y’ as provided by some of the current programs. Knowing the actual savings, the Net Present Value (NPV) of this ‘cash flow’ was \$9,580, based on a five-year period using a discount rate of 2.2% (the approximate rate of a five-year GIC). Even though the savings go beyond a five-year period, most people will want to recapture the cost of these savings in a shorter time frame. There is great information in the article *Valuing Solar Energy Part 2* by Nathalie Roy-Patenaude, AACI, P.App, which can be found in Volume 60, Book 2, 2016 of *Canadian Property Valuation*.

This approach seemed reasonable, but did it make sense and was it supportable?

In researching other areas with more mature green home markets (all studies completed in the United States),

the evidence revealed that green homes sell for a premium of 2%-6% over standard code-compliant homes. With no Canadian data, a premium near the lower end of the range at 3% was used. This premium was applied to the average selling price of a home in Winnipeg, which the Canadian Real Estate Association identifies as \$327,959. The 3% equals \$9,850 (rounded), which is similar to the NPV of the cost savings shown earlier.

A review was also undertaken of the cost for an energy efficient home. The average increase in cost of construction for a green home compared to standard code-compliant home is \$15 per square foot in Manitoba. Using an average of 1,600 square feet, the cost would be \$24,000. Rounding the NPV (from above) to \$9,600 is equal to 40% of the cost. This is supportive, as many features or amenities (i.e., decks, patios, fences, etc.) show a market value increase of approximately 50% of the cost. This economic obsolescence is a normal feature of the market, and with green technology still not having as broad of an acceptance in the marketplace, a higher obsolescence rate of 60% is reasonable.

There are a few issues which will need to be addressed as the trend to green housing continues to develop. A few examples are:

- MLS systems will need to supply energy use amounts for homes;
- the current energy cost (on a quarterly basis) will need to be

provided by provincial statistic departments; and

- to account for different size homes, the energy consumption will need to be analyzed on a per square foot basis.

This approach is manageable and supportable, and can be used in the interim, however, the use of DC with other green homes is preferable.

If you use this method, make sure that you have an Extraordinary Assumption regarding the fact that the value is based on general market averages and that, if the specific market varies from the data used, the value found within the report may be impacted.

The Community Preservation Corporation’s Handbook, *Underwriting Energy Efficiency: A Lender Handbook*, details studies which show that energy efficient homes have lower default rates and reduced risk.

Instead of developing green mortgages, the industry should consider moving to mortgage qualification based on principal, interest, taxes, and energy (PITE) costs.

As this shift in housing develops, it will be interesting to observe how the market responds to the coming changes. As always, the question is: Are you going to be ready to appraise green homes when the assignment comes? The method outlined in this article is just a starting point, and it will need to be adapted or even changed as more market data becomes available. ■