

Energy Efficiency in the Alberta Building Code

Briefing Note

Subject: Energy Efficiency in the Alberta Building Code

Date: January 10, 2011

Summary

- The Government of Alberta has recently abandoned its efforts to increase energy efficiency requirements in the Building Code, and is now waiting to adopt the energy efficiency requirements in the next version of the National Building Code.
 - The National Building Code is targeting an energy efficiency level equivalent to EnerGuide 80 for houses. The Government of Alberta has indicated it intends to adopt the new national code once it is updated.
 - No jurisdiction has gone from Alberta's current level of energy efficiency in the code (approximately EnerGuide 70) to EnerGuide 80 without an interim step. In fact, Nova Scotia tried and needed to revise its plans to include an interim step.
 - The Canadian Home Builders Association – Alberta has said it opposes efforts for Alberta to adopt interim energy efficiency requirements before the new National Building Code is released, and may oppose efforts to adopt the new National Building Code in Alberta if an energy efficiency level equivalent to EnerGuide 80 is required.
 - Every year adoption of a new building code is delayed costs Albertans hundreds of millions of dollars.
 - We are calling on the government to put in place a plan to help industry transition to a standard equivalent to EnerGuide 80 by 2014, so Albertans will not be spending more than they need to, to heat their homes.
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Background

- In January 2008, the Government of Alberta stated it will “[i]mplement energy efficiency standards in building codes for homes and commercial buildings” as part of *Alberta's 2008 Climate Change Strategy*.
- In 2009, the Government of Alberta held public consultations and completed two technical reports in an effort to move forward on a new building code.
- In January 2010, 621 Albertans were polled on their perspectives regarding adding energy efficiency to the provincial building code. 87% of respondents said they support the Alberta government's move to implement stronger energy efficiency standards on new homes. 86% of respondents said they would be willing to pay more for a new home with better energy efficiency.ⁱ

- Analysis from consultants,ⁱⁱ the Southern Alberta Institute of Technologyⁱⁱⁱ and the Government of Ontario^{iv} all shows that there is a positive return on investment from increasing energy efficiency standards. In fact, this is a core motivation for efforts to increase energy efficiency standards in B.C., Manitoba, Ontario, Quebec, Nova Scotia and nationally.
- For homeowners who mortgage their houses, higher energy efficiency standards result in a net savings in the first year of ownership, and every year after.
 - For example, a high-efficiency house^v will save a homeowner \$70 per month in Calgary and \$100 per month in Edmonton compared with a house built to the building code. The increased cost to build this house is approximately \$6,000, or \$35 per month.^{vi} This means that owners of high-efficiency houses have a net savings of \$35 to \$65 per month, starting in their first year of ownership. It is estimated that more than \$16,000 in savings are realized over the first 25 years of ownership for a house in Edmonton (as shown in Figure 1).

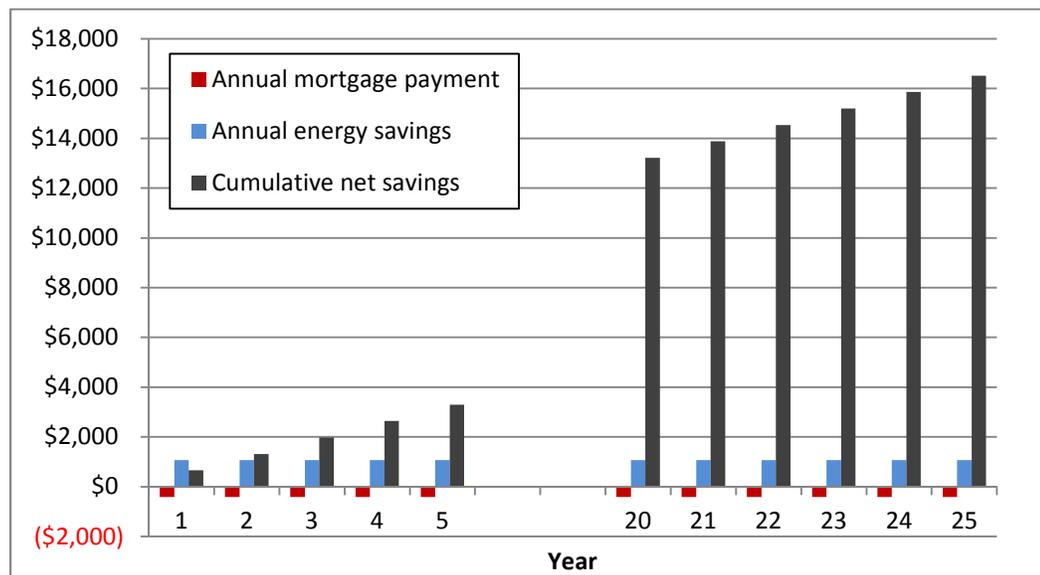


Figure 1: Annual Costs and Savings Associated with a \$6,000 Energy Efficiency Upgrade

- Some builders state they are currently charging up to \$11,000 to upgrade to an EnerGuide 80 home (this includes a premium markup), while others say their costs are as low as \$5,000 for the upgrade. At least one builder in the province has a stated goal to provide EnerGuide 80 homes at no extra cost. Experience in other jurisdictions is that the cost to the consumer for energy efficient homes declines as they become required by the building code.
- Even at the highest cost noted, an EnerGuide 80 house still has net savings for the homeowner in the first year of ownership and every year after. An interim step in the code is expected to have even greater returns on investment as the most cost effective upgrades can be installed first to reach a mid-70s EnerGuide rating. In fact, the Canadian Home Builders Association – Alberta states that most home builders are already building to this mid-70s level. An interim building code would

therefore be most effective in preparing the builders that are not building to the mid-70s EnerGuide level for a transition to the National Building Code.

- The Canadian Home Builders Association – Alberta is also concerned about the potential financial impacts to builders. As an interim code will not greatly affect those already building to a mid-70s EnerGuide level, emphasis should then be placed on training and capacity building for those builders who will be most affected by the code change. If anything, an interim code will level a currently uneven playing field for builders.
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Conclusion

- At this point, the Minister of the Environment has said that the Alberta government is not interested in moving forward with an interim building code as long as the home builders association is opposed. The government has also stated that it expects to adopt the National Building Code in 2013, which is targeting an energy efficiency level equivalent to EnerGuide 80.
 - While this will be an encouraging move, it will also be challenging. No jurisdiction has yet gone from Alberta's current level of energy efficiency in the code to EnerGuide 80 without an interim step.
 - This situation does not provide confidence that the government will indeed be able to achieve the goals that it has set for itself, and it will be Albertans who pay for any delay. Even a one-year delay in upgrading the building code is estimated to cost Albertans over a quarter of a billion dollars in higher utility bills for the first 20 years of just the buildings built next year. Two years of delay adds another quarter of a billion dollars, and so on.
 - We are calling on the government to put in place a plan to help industry transition to a standard equivalent to EnerGuide 80 by 2014, so Albertans will not be spending more than they need to, to heat their homes.
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The following organizations can be contacted for more information on why they support increased energy efficiency in the building code:

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ⁱ Oracle Poll Research. 2010. Albertans' Views on Energy Efficiency in the Province's Building Code. <http://pubs.pembina.org/reports/energy-efficiency-ab-building-code-poll.pdf>

ⁱⁱ Lio & Associates. 2010. The Impact of Higher Energy Efficiency Standards on Housing Affordability in Alberta. <http://bcap-ocean.org/resource/impact-higher-energy-efficiency-standards-housing-affordability-alberta>

ⁱⁱⁱ Silburn, D. 2009. *Recommendations for Part 9 Prescriptive Alberta Energy Efficiency Building Code Compliance Standards*. Southern Alberta Institute of Technology. Prepared for the Ministry of Municipal Affairs, Government of Alberta.

^{iv} Ontario Ministry of Municipal Affairs and Housing. 2007. Energy Efficiency in the 2006 Building Code. <http://www.mah.gov.on.ca/Page681.aspx>.

^v Built to an EnerGuide 80 level. Assumes 2,000 square feet.

^{vi} Lio & Associates. 2010. The Impact of Higher Energy Efficiency Standards on Housing Affordability in Alberta. <http://bcap-ocean.org/resource/impact-higher-energy-efficiency-standards-housing-affordability-alberta>