

CHBA's Position on Residential Energy Efficiency and Climate Change

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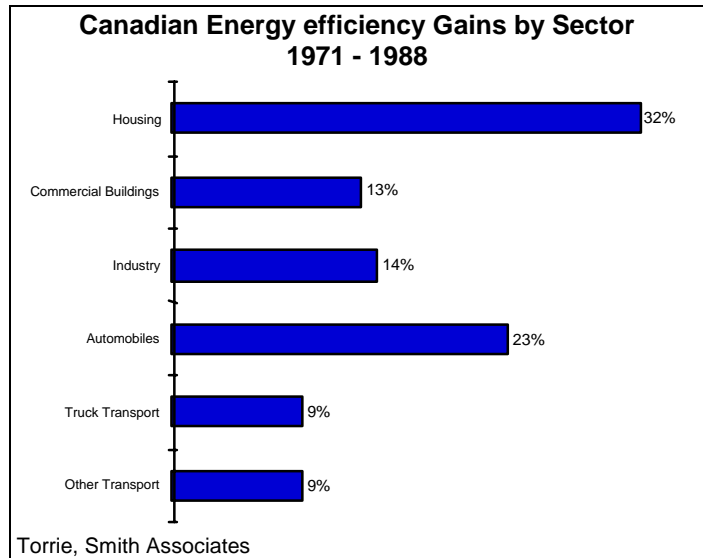
- For many years, CHBA has had a clear and well-defined policy on matters related to the health of the environment, including the importance of increased energy efficiency and reduced emissions of greenhouse gasses.
- The home building industry recognizes the importance of attainable Canadian targets for reducing greenhouse gasses. The industry also recognizes that increased energy efficiency within the housing sector can help to meet such targets.
- The policies adopted by the federal and provincial governments to attain further residential energy efficiency improvements are of critical interest to the industry. **The industry believes that government must base its policy on a clear and accurate understanding of extent of past energy efficiency gains in housing and how these gains came about.**

Key Points

- ◆ CHBA supports the goal of reducing greenhouse gas emissions.
- ◆ For many years, the CHBA has actively promoted voluntary environmental action by industry members.
- ◆ The housing sector has achieved more significant energy efficiency improvements in new products than any other sector of the economy.
- ◆ This has been achieved through voluntary, market-driven mechanisms rather than regulation.
- ◆ This has been achieved in spite of significant decreases in the real cost of energy.

Background:

- Canada's past greenhouse gas emission targets have not been met.
- Over the past two decades, the various sectors of the economy have achieved very different levels of energy efficiency improvement. The housing sector has achieved the greatest overall improvement (Figure One). In large part, this has come about through voluntary market-driven initiatives to improve design and building practices.



- Government has stated its intention to take additional actions that will ensure Canada's Kyoto greenhouse gas reduction targets are met.
- CHBA is concerned that there is a poor understanding of the level of energy efficiency improvement the housing sector has delivered to date, how these gains have been made and what opportunities exist for achieving further gains on a progressive and cost-effective basis, while remaining consistent with other public policy objectives such as housing affordability..
- The home building industry is committed to continuing to work in partnership with government to achieve environmental objectives. The CHBA believes that it has the knowledge and tools with which to develop, with government, effective energy efficiency initiatives.

Key Points

- ◆ The R-2000 Program, a voluntary, market-driven initiative supported by the home building industry, is a success story.
- ◆ It is imperative to recognize and understand this success before considering new measures that will affect the housing sector.
- ◆ CHBA is willing and able to work in partnership with government to develop additional voluntary environmental measures that are market driven.

CHBA's Position

- Canada's failure to control greenhouse gas emissions to date is a matter of record. There are a wide range of factors underlying this situation. The degree of success or failure that has been achieved varies among sectors of the economy and among regions of the country. Understanding where Canada has succeeded and failed in its efforts to reduce greenhouse gas emissions is fundamental to developing effective approaches.
- Each sector of the economy faces unique challenges in relation to increased energy efficiency. There is no single strategy which can be applied to all sectors with equal impact or an equal likelihood of positive results. Voluntary measures may provide the most effective approach in one sector, price mechanisms may be needed in another, while regulatory measures may be justified in yet others.
- Poorly planned approaches to reducing greenhouse gas emissions which are not based on a sound understanding of the economy or the functioning of markets face considerable risk of failure, while also posing a threat to other social and economic priorities; for example, housing affordability.
- Any analysis of the greenhouse gas emission contributions from housing requires care. Canada's housing is not technologically homogenous. Our nearly 10 million homes represent a wide range of materials, techniques and technologies employed over many decades.
- Canada's housing stock also represents the single most important pool of private wealth. Private homes are Canadian's largest financial investment and greatest asset. Any actions intended to alter the technological characteristics of this asset need to be undertaken with great care, on the basis of sound research.
- Over the last 15 years, the home building industry has collaborated with government to develop the world's leading energy-efficient wood-frame housing system—the R-2000 Standard. This voluntary market-driven initiative has had a profound, positive impact on the way in which all new homes are built today.

Key Points

- ◆ The diffusion of technology and building practices developed through the R-2000 Program has made every new home built in Canada far more energy efficient.
- ◆ The level of increased energy efficiency achieved in new homes is driven by market initiatives, not regulations.
- ◆ Canada's R-2000 wood-frame construction system is recognized as the best in the world and has contributed to significant export growth by the housing industry.

- Research conducted for NRCan shows that about 8,000 certified R-2000 Homes have been built in Canada. Furthermore, the uptake of R-2000 design and construction techniques into the remaining new stock has resulted in significant indirect energy savings— estimated at 80 times the direct savings through 1995.

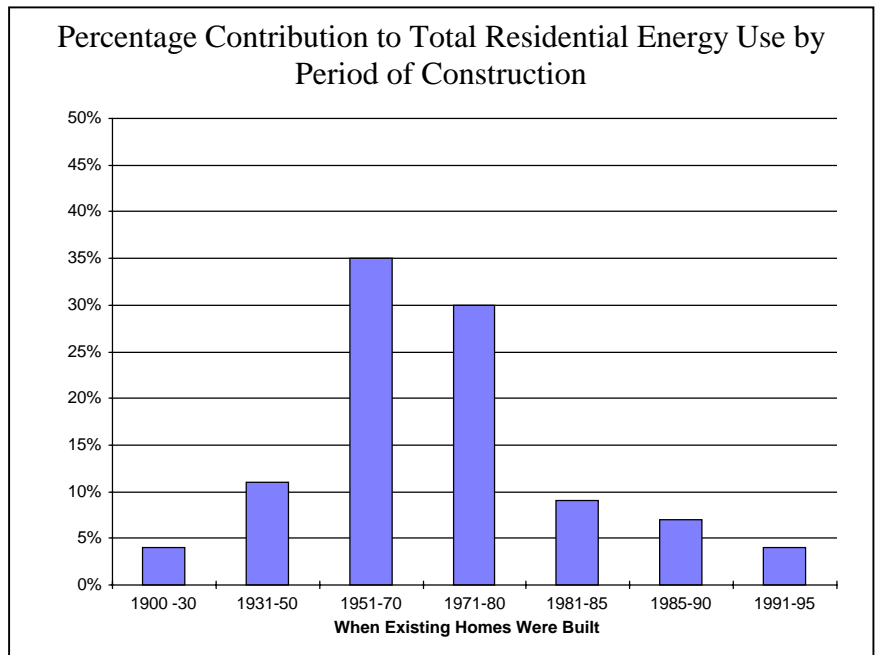
- NRCan research also shows that, of the total net energy efficiency increase within all new residential units, about 48% resulted from improved design and construction practices beyond the requirements of applicable building codes. This extra margin of efficiency reflects the success of new home builders in selling the benefits of non-codified energy efficiency levels.

- Some organizations concerned with climate change suggest that codification of the R-2000 Standard, or the adoption of an “enhanced” National Energy Code for Houses by provinces, would help improve the energy efficiency of the housing sector. This is not true. At best, this action would result in marginal additional energy savings in those houses built in the future. It could not deliver a net reduction of energy used in the housing sector for many decades.

Key Points

- ◆ Further incremental gains in the energy efficiency of new homes will take place as a natural result of market forces already at play.
- ◆ Codifying of the R-2000 Standard would result in insignificant additional energy savings beyond those that will already be made. Codification would jeopardize a voluntary market-driven process that has proved to be highly effective.

- Further, the imposition of regulations would effectively eliminate the commercial motivation to market the benefits of energy efficiency, while adding to government costs for enforcement – assuming that government will choose to enforce such regulations.



- Currently, Canada adds some 150,000+ new homes to its housing stock each year. The existing base stock numbers nearly 10 million homes, most of which were constructed prior to the development of R-2000 technology and building practices.

The net energy requirements of this pre-R-2000 stock are responsible for the bulk of energy use and greenhouse gas emissions from private homes. Improving the energy efficiency of this existing housing stock is the only method by which net energy use in housing can be reduced in a meaningful way.

- Home renovator-members of the CHBA are already applying many of the energy efficiency techniques developed through the R-2000 Program to existing homes.
- Research conducted by CMHC determined that professional renovators have significantly higher knowledge levels in matters related to energy efficiency than do non-professionals.
- Much can be done to achieve significant energy efficiency gains in existing homes if the lessons learned through the R-2000 Program are applied.
- Support for professional renovators, technical research and training, the use of EnerGuide for Houses, increased consumer education concerning the quality-of-life advantages of energy efficient renovations will significantly accelerate energy efficiency improvements on existing homes.
- It is clear that measures to increase energy efficiency in the residential sector must focus on the existing housing stock, particularly those homes built before 1980. This is where the largest efficiency gains can be made at the lowest incremental cost.

Key Points

- ◆ The bulk of residential energy use is linked to existing homes constructed prior to 1982. As a result, any net decrease in energy use in housing will need to focus on existing homes.
- ◆ There is a great deal more that can be accomplished in relation to existing housing through voluntary, market-driven approaches similar to the R-2000 Program.

