



April 18, 2006

The Honourable Gary Lunn
Minister of Natural Resources
Sir William Logan Building, 21st Floor
580 Booth Street
Ottawa, Ontario, K1A 0E4

Dear Minister Lunn:

On behalf of the Canadian Home Builders' Association, I want to congratulate you on your appointment as Minister of Natural Resources. We look forward to working with you, particularly in the area of energy conservation.

Our most immediate and urgent concern is the future of the R-2000 Program.

As you are aware, we have worked with Natural Resources Canada for over two decades, delivering the R-2000 Program. By combining public and private sector resources, this partnership has achieved significant success in improving the energy performance of Canadian homes.

As the premier standard for energy efficiency and environmental performance in new homes, R-2000 has made Canada a world-leader in energy-efficiency housing technology. Importantly, it provides the technical and quality assurance base for Canada's regional home labelling initiatives, as well as a number of export initiatives. It also provides the platform for future breakthroughs toward net zero energy solutions, currently being pursued by Canada Mortgage and Housing Corporation.

I have attached the following for your interest:

- *The R-2000 Program : An Important Continuing Investment For Canada* – This briefing note presents the benefits of the R-2000 Program.
- *The Value Of The R-2000 Home Program* - This briefing note outlines the many values and benefits of the R-2000 Program.
- *Canada's Home Building Industry - Building A Greener Future* - This brochure presents the achievements of the R-2000 Program.

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In short, the R-2000 Program is indispensable to making further progress in improving the energy and environmental performance of Canadian homes.

Our principal concern at this time is that Natural Resources Canada is unable to provide any certainty about the future of R-2000. While the CHBA and R-2000 service organizations across Canada do not have contribution agreements, they are continuing to sustain R-2000 in the expectation of Federal support. As you will understand, anxiety about this situation is growing daily.

We very much hope that your government will renew its partnership with the CHBA so that this valuable initiative can continue. I would very much appreciate the opportunity to discuss the future of the R-2000 Program with you as soon as possible.

Yours truly,

A handwritten signature in black ink, appearing to read 'David Benbow', written in a cursive style.

David Benbow
President

cc. Diane Finley, Minister of Human Resources and Social Development and
Minister Responsible for CMHC

Enclosures

The R-2000 Program: An Important Continuing Investment for Canada

As the Federal Government moves forward with implementing the *Climate Change Plan for Canada*, the residential construction sector is expected to make a significant contribution to reducing our nation's emissions of greenhouse gasses. In relation to new housing, this effort will be built upon a very solid foundation – the R-2000 Program.

R-2000 represents a unique industry/government collaboration, one that has already delivered significant energy efficiency gains to Canada and to Canadian home buyers. R-2000 is recognized as a key factor in making the residential sector one of the most successful areas of the economy in reducing greenhouse gas emissions.

In the coming years, the R-2000 Program can, and must, continue to play a central role in addressing our nation's climate change goals in the residential sector.

In order for this to happen, the federal government will need to maintain and expand its commitment to R-2000, so as to ensure that the Program's infrastructure is adequate, that necessary research and technology development activities take place, and that new builders and other housing professionals continue to have the opportunity to receive R-2000 training and participate in the Program.

The importance of the R-2000 Program, and the rationale for continued public and industry investment in it, rests on a number of factors.

R-2000 is a Proven Innovation-Driver

Since its inception, the R-2000 Program has proven to be a powerful innovation-driver for the Canadian home building industry. The average new home built in Canada today incorporates a wide range of housing innovations that were pioneered by the R-2000 Program. The overall improvement in the energy efficiency of new homes in Canada, in excess of 20% since the 1980s, has been closely tied to the R-2000 Program. The technology and building techniques developed through the Program have, over time, continually diffused across the industry and come into general use.

This process of innovation and diffusion is ongoing, and holds the promise of continuous incremental performance improvement, something that will benefit all new home buyers as well as the environment.

The ongoing positive impacts of the R-2000 Program reflect the underlying structure of the initiative. The Program provides new home builders with the training, proven technology, and the technical support required to make innovation work in a competitive marketplace. This process addresses the single greatest barrier to innovation: individual builder risk.

By serving as an “incubator” for leading-edge housing technology and building techniques, the R-2000 Program reduces the risk of innovation and provides an engine that drives new ideas and technology into commercial practice. In order for such innovation to continue, this engine must keep running.

R-2000 Balances Energy-Efficiency with Other Public Policy Objectives

The R-2000 Standard reflects a holistic approach to improving new home performance, one based on sound building science that views the “house as a system”. While energy efficiency is the central focus, R-2000 recognizes the important interrelationships that exist between energy performance and other key outcomes, such as indoor air quality, occupant comfort and health, material interactions, and the efficient use of resources. In relation to new housing, this approach is unique to the R-2000 Program.

In practical terms the holistic focus of the R-2000 Program, coupled with its significant quality assurance procedures, guards against the sort of unanticipated building system or component failures that can, and have, occurred when energy efficiency objectives are pursued in isolation. It also offers reassurance that the health and comfort of occupants is given proper consideration.

It is worth noting that a 2004 Health Canada/Natural Resources Canada report¹ found that occupants in R-2000 Homes reported fewer symptoms of a variety of conditions associated with poor indoor air quality than did occupants of non-R-2000 homes.

As Canada strives for further improvement in the energy efficiency of housing, the balanced and holistic methodology that is integral to the R-2000 Program will only increase in importance. It is essential that, as new homes become more and more energy efficient, Canadians feel confident that both government and industry are conducting due diligence in relation to new technology, products and building techniques. The R-2000 Program provides this assurance.

R-2000 Provides an Essential Foundation for All Current and Future Energy Efficient Housing Initiatives

While other new energy efficient labeling programs such as BuiltGreen™ represent useful tools for promoting energy efficient homes, it must be recognized that these initiatives rely on the R-2000 Program for their technical foundation. The Program must continue to fill this important role.

The R-2000 Program has also become the “gold standard” for residential construction internationally. Exported under the *SuperE™* banner, R-2000 technology is being applied in many nations. For instance, some 1,500 *SuperE* homes are being constructed in Britain currently.

¹ *Health in Occupants of Energy Efficient Homes*, Indoor Air 2004, Blackwell Publishing 2004

International interest in R-2000 reflects recognition of the same elements that make the Program so valuable within Canada: sound building science, the *house as a system* approach, solid training for builders and sound quality assurance. As other nations continue to adopt our R-2000 technology, it is vital that we ensure the Program remains strong domestically.

R-2000 can also serve as the platform upon which future Canadian housing initiatives can be built. For example, should the federal government endeavour to increase the use of residential-scale solar or wind power, or to support the commercialization of net-zero energy homes, R-2000 technology and infrastructure will be essential assets.

Action is Required

It is difficult to overstate the continuing positive impact of the R-2000 Program on the quality and environmental performance of Canadian housing. R-2000 has already made a significant contribution to meeting Canada's climate change goals, while improving the quality, comfort and healthfulness of Canadian homes. It can make a much greater contribution, in all of these areas, in the years ahead.

For this to happen, continued government support and investment will be required. This investment must ensure that the Program's infrastructure has the capacity to support builders participation in the R-2000 Program in an effective and efficient manner. It is equally important that the Program is properly promoted to both non-R-2000 home builders and to consumers, so that it may continue to grow.

Ongoing investment in critical research and development will also be needed, to ensure continuous improvement in new home energy performance, while providing assurance the new technology and building techniques are sound, safe and effective.

In summary, for two decades the R-2000 Program has had a central role in driving forward energy efficiency improvements in Canadian housing. The Program needs to continue to fill this role.

THE VALUE OF THE R-2000 HOME PROGRAM



THE CHBA PERSPECTIVE

R-2000 Values and Benefits

1. The federal government is committed to using voluntary, market-driven approaches to achieve public policy objectives. The R-2000 HOME Program is an excellent example of this commitment in action.
2. The R-2000 HOME Program is also an excellent example of the principle of public/private partnership in action. The program delivers significant benefits to industry while serving the public interest.
3. The R-2000 Home Program provides Canada's residential construction industry with the opportunity to play a leadership role through its National Association – CHBA with respect to housing quality.
4. A wide range of housing industry investments in the R-2000 HOME Program, from builder training to use of new technologies and products, serves to maximize the federal government's investment in the R-2000 HOME Program.
5. The R-2000 HOME Program stimulates considerable private sector investment in the development of the goods and services required to support construction of R-2000 homes.
6. The R-2000 Home Program provides new home builders with the opportunity to achieve professional recognition which, in turn, benefits consumers.
7. The R-2000 HOME Program strengthens the home building industry by providing new home builders with the opportunity to advance their professional capabilities and equipping them to meet their customers' needs more effectively while differentiating themselves in the marketplace.
8. The R-2000 Home Program affords new home builders a leadership position with respect to leading-edge technology and its introduction into new home construction.
9. The Quality Assurance provided by the R-2000 HOME Program has growing value to Canadian new home buyers.
10. The R-2000 HOME Program provides home buyers with the assurance of a national, independently verified standard of new home quality.
11. The R-2000 HOME Program offers a vehicle for other levels of government and non-governmental organizations to invest in and support a program designed to improve the quality of housing and achieve environmental objectives.
12. The R-2000 HOME Program accelerates the commercial use of new products and technologies.
13. The R-2000 HOME Program provides home builders with an increased capacity to respond to consumers' increasingly complex housing needs.

14. The R-2000 HOME Program contributes significantly to Canada's housing industry becoming a world leader in the areas of sustainable housing and communities.
15. The R-2000 Home Program places Canada's housing industry in a strong position to support and contribute to Canada's international environmental commitments, e.g. Kyoto Protocol.
16. A large portion of new home buyers equate the R-2000 name with a better design, construction and Quality Assurance.
17. The R-2000 HOME Program evolves over time, providing a basis for further development, innovation and value in the future.
18. Today's R-2000 homes will continue to deliver energy efficiency and environmental dividends through the next century.
19. Home builders are applying R-2000 technology in the home renovation field, multiplying the benefits of the program, including the renovation and re-certification of R-2000 homes.
20. R-2000 technology is being applied to the full spectrum of new housing, in all price ranges and for buyers with diverse needs.
21. The R-2000 HOME Program has been introduced into Canada's stock of social housing, providing benefits to occupants and long-term reduction of operating costs to social housing providers.
22. The development of R-2000 inspection and Quality Assurance procedures has spawned a new service industry that strengthens Canada's housing system.
23. The R-2000 HOME Program's emphasis on design evaluation, builder training and independent Quality Assurance contributes to the effectiveness and efficiency of municipal inspection services.
24. Through supporting increased technical competence among home builders, the R-2000 Program is reducing the cost of new home warranty services and other consumer protection measures.
25. The R-2000 HOME Program continues to earn third-party endorsement from government and industry agencies, delivering increased consumer credibility to R-2000 builders.
26. The R-2000 HOME Program gives home builders the technical tools and practical confidence to adopt product innovations more rapidly.
27. Through the R-2000 HOME Program, the residential construction industry has delivered more voluntary energy efficiency gains than other industrial sectors. It serves as an example of what can be accomplished through such industry/government collaboration.
28. The federal government continues to achieve greater energy efficiency and environmental benefits, at a lower cost, through the R-2000 HOME Program than it could have through mandated measures.
29. The R-2000 HOME Program provides a vehicle for improved cooperation and coordination among federal government departments and agencies—increasing efficiency and cost effectiveness.
30. The R-2000 HOME Program provides an example of a practical, voluntary and industry-led energy efficiency program that works.
31. The R-2000 HOME Program provides the basis for a national education and training program of immense value to one of Canada's largest domestic industries.
32. The R-2000 HOME Program led to changes in how mortgage lenders calculate buyer eligibility, increasing

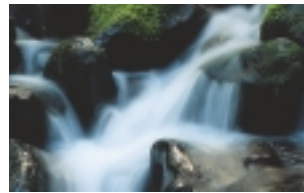
the number of Canadians who qualify to purchase a new home.

33. The federal government, home builders, other industry partners and consumers all invest in the R-2000 Program and all receive a high level of value for their investment.
34. Each purchase of an R-2000 home represents an unparalleled voluntary consumer investment in energy efficiency.
35. The R-2000 HOME Program supports an increase in the quality and durability of Canada's housing stock, increasing the value of this key national asset.
36. The R-2000 HOME Program provides governments with a cost-effective alternative to regulatory measures.
37. R-2000 home certification enhances the potential resale value of homes, further benefiting owners.
38. The R-2000 Home Program enhances knowledge of the "House as a System", thereby supporting continuous improvements to the technical performance of new homes in such areas as indoor air quality.
39. The R-2000 HOME Program results in new homes that earn praise from their owners in terms of comfort, energy efficiency, indoor air quality and overall quality-of-life.
40. The R-2000 HOME Program stimulates awareness within the housing industry and government that a healthier indoor environment sustains a healthier population.
41. Through building awareness of the link between indoor environmental quality and human health, the R-2000 HOME Program will return incalculable savings in medical costs and increased productivity.
42. The R-2000 HOME Program provides a technical basis for developing housing for people with special needs and health concerns.
43. The R-2000 HOME Program leads to additional private-sector housing innovation initiatives such as EnviroHome, multiplying the effect of public investments in the program.
44. The R-2000 HOME Program results in the development of entire new industries such as the manufacture of heat recovery ventilation equipment.
45. The R-2000 Home Program offers related sectors the opportunity to advance their professional capacities, e.g. salespeople.
46. The R-2000 HOME Program has produced a growing cadre of innovative home builders who continue to have a profound affect on the evolution of industry practices.
47. The R-2000 HOME Program, in conjunction with other initiatives such as CMHC's Healthy Housing and Flex Housing activities, is creating a critical mass of knowledge among both builders and consumers about how homes should be designed and built.
48. The R-2000 Home Program supports information dissemination to consumers, and provides new home builders with enhanced marketing opportunities to market their expertise to potential home purchasers, eg. demonstration initiatives and activities.
49. The R-2000 HOME Program stimulates greater cooperation between federal government agencies active in the housing area thereby increasing the effectiveness of R-2000 Program expenditures.
50. The concept of performance-based design and construction criteria, introduced in the housing industry by the R-2000 HOME Program, will significantly reduce the cost of housing regulation.

51. In large measure, Canada's world-leadership in the housing field is a direct result of the R-2000 HOME Program.
52. The R-2000 HOME Program plays a pivotal role in introducing advanced technology, such as computer-based performance modelling, to the housing industry.
53. The R-2000 HOME Program provides a basis for mitigating the liability exposure to builders that could otherwise come with the introduction of new or innovative technology.
54. R-2000 technology plays an important role in developing Canada's housing export capabilities and in gaining international markets for these exports.
55. The R-2000 HOME Program is a truly national initiative; it is delivered to home builders and home buyers in all parts of Canada.
56. All Canadian home buyers, in all areas of the country, benefit from the housing advances made possible by the R-2000 HOME Program.
57. The R-2000 HOME Program gives home builders the knowledge, tools and confidence to develop innovative products in a competitive marketplace.
58. The achievements of the R-2000 HOME Program are a source of immense pride to the home building industry.
59. The R-2000 HOME Program has helped the home building industry to develop into a vibrant, competitive and highly adaptive industrial sector.
60. The R-2000 HOME Program provides the most successful example of a national initiative that harnesses entrepreneurial energy to serve an important public interest.
61. The R-2000 Builders Manual, which serves as the basis for R-2000 builder training, has earned an international reputation, and market, as the best publication of its kind. Similarly, the HOT2000 computer program is being used by builders and designed throughout the world.
62. The investment that has been made to develop R-2000 training and technology has had a large and positive impact on the home building industry. This investment will continue to yield dividends, in terms of economic activity and improved housing, for decades to come.

Canada's Home Building Industry

Building a Greener Future

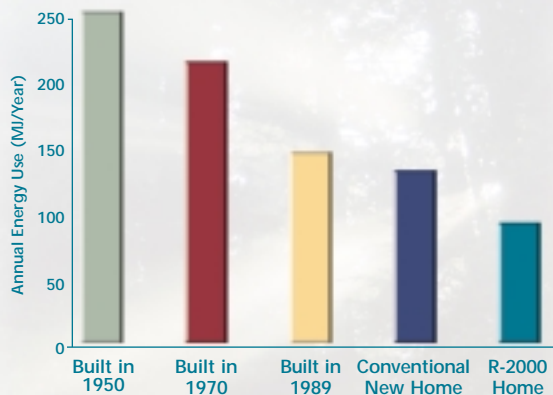


Canada is blessed with an extraordinary natural environment—something Canadians want to protect and preserve for future generations. In communities across our country, Canada's professional home builders are helping to make this happen.

Over the last three decades, our industry has worked to make Canadian homes among the most energy efficient in the world. Our industry is committed to protecting the environment and proud of what it has already achieved.

Canada's home builders are taking action to address environmental concerns like climate change and the preservation of forest resources. Our environmental commitment will guide us into the future, as we continue to provide Canadians with high-quality homes and communities that are great to live in.

Typical Annual Energy Consumption of a Natural Gas Heated House Located in Ottawa



Source: Natural Resources Canada

Taking the Lead on Climate Change

As Canada works to reduce climate change, today's new homes lead the way.

The home building industry and government researchers began to develop a more energy-efficient home building system in the 1970s, when world energy prices soared.

The result was the R-2000 Standard, a way of building that delivers exceptional energy efficiency and a healthy indoor environment.

R-2000 technology has earned recognition around the world and represents an important Canadian environmental achievement.

Many of the technical features pioneered in R-2000 homes are now built into every new home, resulting in a significant improvement in the energy efficiency of all new homes. Today, the average new home uses about 40% less energy than a similar home built in the 1970s, while an R-2000 home requires even less energy.

The Greening of Older Homes

The majority of Canadian homes were built before the introduction of energy-efficient building practices. As a result, improving the performance of existing homes can provide very significant environmental benefits.

Canada's professional renovators are making this happen.

And the good news for homeowners doesn't end there. Improved environmental performance can also mean increased comfort and better indoor air quality.

Professional renovators know how to apply R-2000 technology when renovating older homes. This can include improvements like high-performance windows and doors, high-efficiency heating systems, whole-house ventilation systems and finishing materials that don't release harmful chemicals into the air.

A Healthier Environment and a Healthier Home

Protecting the environment doesn't require any compromises when it comes to the comfort, safety and financial well-being of Canadian homeowners.

As Canada works to meet our Kyoto commitment to reduce greenhouse gas emissions, the residential housing industry is doing its part. Carbon dioxide emissions from Canadian homes are already projected to be lower than 1990 levels by the end of this decade. The environment wins, and so do Canadian families.

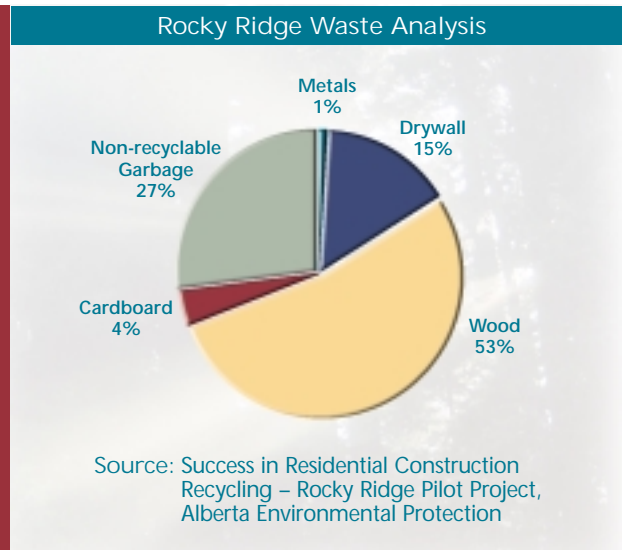
That's the type of environmental achievement we can all support.

Recycling Construction Wastes

On average, building a new home results in approximately 2.5 tonnes of waste and scrap material, most of which ends up in landfill sites. Across Canada, new home builders and renovators are working to cut construction waste. A successful pilot project in Calgary demonstrates how effective these efforts can be.

In 1997, the Calgary Region Home Builders' Association teamed up with developer Marquis Communities and a waste disposal company to test waste reduction practices in a major Calgary housing development.

The Rocky Ridge Pilot Project was a resounding success, reducing construction waste by 73% and earning the Mayor's Environmental Achievement Award from the City of Calgary. The project involved large-scale separation of recyclable wood, drywall, cardboard and metal waste from non-recyclable garbage. After completion of 191 homes, a total of 628,429 kg of waste was diverted from landfill—some 285 truck loads!



ENVIROHOME

Pointing the Way to the Future

The CHBA's EnviroHome Initiative, supported by TD Canada Trust, recognizes homes that are "better for you, better for your community and better for the environment". Each year, only a select few new home projects across Canada are awarded the EnviroHome designation.

EnviroHome projects showcase the most innovative home building technology available today, incorporating R-2000 technology plus many other environmental features.

Here are two recent examples of what EnviroHome builders can achieve.

The Teixeira EnviroHome, located near Perth, Ontario, features insulated concrete form (ICF) construction, in-floor radiant heating, a high-efficiency oil boiler, and an active solar hot water system.

This 1,932 sq. ft. bungalow uses about 60% less energy than a similar new home built to conventional standards while providing improved year-around comfort and superior indoor air quality.

EnviroHome 2000, near Kentville, Nova Scotia, incorporates a number of active, renewable energy systems including solar hot water panels and roof-mounted photo-voltaic panels that produce



Teixeira EnviroHome, Teixeira Construction Ltd.

electricity directly from sunlight, with excess power sold to the utility company.

Advanced wood framing and extensive use of building materials with recycled content are also featured in this 1,900 sq. ft. bungalow-style home. Barrier-free design increases accessibility and ease of use.

For on-line information about EnviroHome projects and builders, visit www.envirohome.chba.ca.



EnviroHome 2000, Crowell Constuction Ltd.

Want a home that's better for the environment? Here's what to ask for . . .

If you're **buying a new home**, ask your professional new home builder about these energy-saving and environmental features.

- Built and certified to the R-2000 Standard.
- High-efficiency (90%+) gas or oil furnace.
- High-efficiency heat pump, if you use electricity for space heat.
- An automatic set-back thermostat.
- High-efficiency water heater.
- Extra insulation in the basement, above grade walls and attic areas.
- A Heat or Energy Recovery Ventilator system (HRV or ERV).
- Appliances with an Energy Star® rating.
- High-performance windows.
- Placement of windows for the most passive solar heat during winter months.
- Roof overhangs and/or deciduous tree plantings to block out solar heating during the summer.

If you're **renovating your existing home**, talk to your professional renovator about what you can do to reduce environmental impacts, cut energy costs and increase your comfort.

- Arrange for an EnerGuide for Houses™ inspection of your home to identify your best energy efficiency investments.
- Upgrade wall, basement and attic insulation.
- When replacing your furnace, choose a new high-efficiency (90%+) model.
- Install an automatic set-back thermostat.
- Air seal your home to reduce air leakage.
- Replace older appliances with models carrying the Energy Star® rating.
- When adding ventilation, use a Heat or Energy Recovery Ventilator system (HRV or ERV).
- When replacing or adding windows, select high-performance models.

Where to Get More Information

There is a wealth of great information about your home and the environment available on-line from these sources:

The Canadian Home Builders' Association

Home Renovation
New Homes
R-2000 homes
EnviroHome
Hiring a contractor

www.chba.ca
www.myhomereno.com
www.NewHomesMonth.com
www.r2000home.com
www.envirohome.chba.ca
www.hiringacontractor.com

Canada Mortgage and Housing Corporation

(information on Healthy Housing™, home buying, renovation and other consumer topics)

www.cmhc-schl.gc.ca

Natural Resources Canada

Office of Energy Efficiency
The R-2000 Program
EnerGuide™
Energy Star®
EnerGuide for Houses™

www.nrcan.gc.ca
www.oee.nrcan.gc.ca
www.oee.nrcan.gc.ca/r-2000
www.oee.nrcan.gc.ca/energiguide
www.oee.nrcan.gc.ca/energystar
www.oee.nrcan.gc.ca/houses-maisons



**Canadian
Home Builders'
Association**