



PRESS RELEASE



Canadian Mortgage News - National Archive 2007

Backgrounder — EQUilibrium Healthy Housing Initiative

OTTAWA, Ontario, February 13, 2007 — Canada Mortgage and Housing Corporation (CMHC) is leading the EQUilibrium (EQ) housing initiative. Key stakeholders include other federal departments, members of Canada's housing and renewable energy industry, homebuilders and developers, utilities, manufacturers, architects, and other housing experts. Through the EQUilibrium initiative, CMHC's goal is to mobilize partners to advance new sustainable-housing solutions for healthy communities and a clean-energy future.

EQUilibrium housing combines energy-efficient design with renewable energy systems to minimize energy consumption and reduce environmental impact. Although EQUilibrium housing is a recent initiative, the foundations for it were originally laid more than 60 years ago when CMHC was created. CMHC's record of innovative housing initiatives started in the post-war period, and includes housing design, urban renewal and neighbourhood improvement, housing rehabilitation and renovation, and sewage treatment assistance.

More recently, in the early 1990s, CMHC organized the national Healthy Housing™ design competition, which led to demonstration homes being built in Vancouver and Toronto. The cornerstone design principles of Healthy Housing™ are occupant comfort, energy efficiency, resource conservation, environmental impact, and affordability. Features of the Healthy House™ include passive solar design, solar panels that capture solar energy to power the home, and cisterns to collect rainwater for non-potable uses such as flushing toilets and gardening.

Building on the legacy of CMHC's Healthy Housing™ initiative, EQUilibrium will integrate many innovative "green" residential building technologies and, eventually, community development principles in a unique, comprehensive way to significantly improve the performance of housing.

EcoCité-Sodero — Verdun, Québec

The "Abondance Montréal" will be built in Verdun, QC. The project is a triplex using a design that, among other things, will draw energy from several sources including a GeoExchange heat pump system, photovoltaic panels, and solar thermal vacuum tubes. It features toilets that run on captured rainwater. The triplex will boast a total of 84 solar panels. The suites have been designed in great detail to maximize solar penetration — for example, the refrigerator is located in a spot where it does not cast a shadow on the kitchen counter.

Cheryl Gladu
514-514-0191
c.gladu@ecocite.ca

Alouette Homes — Eastman, Québec

The Alouette Homes EQUilibrium Initiative home will be built in Eastman, QC. Its design couples readily-available renewable energy technologies with energy-efficient construction techniques. The design focuses on using factory

Canadian Mortgage News - Backgrounder — EQUilibrium Healthy Housing Initiative

pre-engineered modular sections to reduce environmental impact at a rural building site. The home will be connected to the electrical grid using a net-metering system, allowing the eventual owner to "sell" excess electricity generated by the home's photovoltaic system to the grid. Space heating will be provided by a combination of innovative strategies. The rural setting means all the home's water systems are completely self-contained.

Bradley Berneche
President, Les Maisons Alouette
450-539-3100
brad.berneche@alouettehomes.com

Team Montréal Zero — Hudson, Québec

"EQUilibrium #1" is a single-family, detached house to be located in Hudson, QC. The proposed house will have a very air-tight and well-insulated building envelope. It will rely heavily on passive heating and cooling techniques to achieve its EQUilibrium target. In order to ensure air quality, careful consideration will be given to design and construction techniques that protect and enhance the indoor environment. A large portion of the site will remain undisturbed and act as a natural wildlife habitat.

Sevag Pogharian
514-935-5210
sevag@spd.ca

Ampas Architect — Toronto, Ontario

Ampas' "Sustainable Urbanism Initiative" proposal is comprised of three townhouses located in Toronto's downtown Annex area. The townhouses will incorporate energy-efficient features such as spectrally selective window glazing. They will also showcase ground source heat pumps powered by electricity generated through photovoltaic cells covering the roof of each unit. The fact that the townhouses will be located in a part of town well-served by transit highlights two sustainable urban design imperatives — reducing dependence on the automobile, and efficient use of existing infrastructure.

Lou Ampas
416-504-0026
ampas@ampas.ca

Minto — Ottawa, Ontario

The "Minto Manotick House" will be located in the south-end of Ottawa. One of the most important features of the house is the high level of insulation in the building envelope including double-wall construction with strategically located triple-pane windows. The design incorporates several innovations, one of which is an "all-off" switch — it not only turns off all lights, but all computers, cable boxes, amplifiers, etc. When the homeowners leave their home, they can be confident that a minimal amount of energy is being used.

Andrew Pride
Vice President
416-596-3445
apride@minto.com

William Ritcey
Director, Architecture and Design
613-782-2489

britcey@minto.com

Now House™ — Toronto, Ontario

Now House™ will take an existing post-World War II house in Toronto and retrofit it to meet EQUilibrium's goals. Insulation upgrades, new windows, Energy Star appliances, wastewater heat recovery, and solar panels are some of the ways the house's energy usage footprint and greenhouse gas emissions will be reduced. The larger goal of this plan is to demonstrate how homeowners and their local contractors can improve energy efficiency of older housing with a few simple but innovative modifications.

Lorraine Gauthier
416-534-6609
lorraine@workworthdoing.com

Avalon Master Builder — Red Deer, Alberta

"Discovery III" is the name of Avalon Master Builder's EQUilibrium submission. This grid-tied solar home, to be built in Red Deer, AB, will produce as much energy as it uses annually. It will also feature a grey-water recycling system to reduce the home's reliance on the municipal water system. To boost the home's overall resource efficiency, its innovative wall and window systems will reduce space-heating requirements. The home will also use solar systems to preheat air and water. The design builds on Avalon's ongoing work to deliver resource-efficient homes to customers.

Ryan Scott
CEO
403-809-1495
ryan@avalonmasterbuilder.com

Canadian Housing Energy Sustainable Solutions (CHESS) — Red Deer, Alberta

CHESS' "EQUilibrium Concept Home" is customized for Central Alberta's climate - specifically, that of Red Deer, AB. It pays close attention to the issue of resource efficiency. Not only will 65 per cent of the construction waste generated by the home be recycled, but many of the materials used to build it can be re-used when the home is eventually demolished. The home is also intended to evolve with the owner's needs. For example, an optional second floor can be developed to accommodate a growing family. Later in life, the main floor can easily be adapted to be barrier-free.

Gayle Wood
Design Manager, Laebon Homes
403-314-6683
gwood@laebon.com

Echo-Logic Land Corporation — Calgary, Alberta

Echo-Logic describes its "Echo Haven" project as "the next step" in the demonstration of energy-efficient, healthy, low-impact housing on a community scale. The project covers the construction of 25 community homes in Calgary with other features such as a greenhouse and a community building with guest accommodation and work-at-home office. The design of the homes will demonstrate healthy and durable materials, rain water harvesting, composting or low-flush toilets and site-sensitive orientation to maximize both solar exposure and integration with surrounding nature.

David Spencer
Development Manager
403-716-8206

david.spencer@stantec.com

Habitat Studio & Workshop Ltd. — Edmonton, Alberta

The goal of Habitat's "Riverdale" project is to prove that it is possible to build houses that foster a high quality of life while also reducing greenhouse gas production and environmental impact. "Riverdale" involves the construction of an EQuilibrium-compliant energy duplex, which will produce as much energy as it consumes through a combination of use of rigorous energy conservation, energy efficiency measures and the use of renewable energy sources. The materials used to build the home will include regionally-produced lumber and recycled newspaper. "Riverdale" will be located in downtown Edmonton.

Gordon Howell
780-484-0476
ghowell@hme.ca

Nexus Solar Corporation — North Battleford, Saskatchewan

The Nexus Solar and Battlefords Tribal Council project "YIPI!" will be located in North Battleford, SK. (YIPI! stands for Yellowhead Innovation Park Inc.) The project will take advantage of Saskatchewan's sunny climate for solar power. Its healthy features include the use of low-toxicity construction materials. Nexus has also incorporated innovative refrigeration and clothes drying technologies into the YIPI! Project, as well as factory-built construction that will ensure consistently high quality, affordability, and easy on-line ordering. To help increase consumer awareness of EQuilibrium design objectives, Nexus will locate the project next to a major highway.

Teresa Jeannine Paul
President
306-373-5960
jpaul@nexussolar.com

Winnipeg Housing Rehabilitation Corporation — Winnipeg, Manitoba

The Corporation's "Urban Ecology" design will build a semi-detached, environmentally-friendly development in an inner-city Winnipeg neighbourhood. The two units in the development will be fully adapted to Winnipeg's climate. This will require, for example, the units to have a combination of flat and pitched roofs so the photovoltaic system powering them can be snow-free in winter. The team is confident that high-efficiency appliances, low-flow fixtures and sustainable building materials present in the design make "Urban Ecology" an attractive and successful EQuilibrium demonstration project.

Stephanie Noga
204-949-2892
snoga@whrc.ca