

Net Zero Background



2006: NRCan and CMHC

CMHC Equilibrium Sustainable Housing Demonstration Initiative 2006 – 2012

- 12 completed houses including Minto's Inspiration
- 11 monitored for actual energy performance
 - All less than 50 GJ
 - 7 less than 25 GJ
 - 3 less than 5 GJ (effectively Net Zero)

Equilibrium
HEALTHY HOUSING
FOR A HEALTHY ENVIRONMENT

Echo Haven — Calgary, AB



2013: NRCan

R-2000 Net Zero Energy Pilot 2013 - 2016

- 23 net zero energy homes built by 6 builders in 3 provinces
- 5 Homes built in Kanata by Minto (Arcadia II shown)
- All houses certified R-2000 and labelled with a zero gigajoule rating under ERS Version 15
- Technologies limited to pre-engineered products and systems



Canadian Home Builders' Association

2015-2016: Net Zero Pilot Phase

2017: CHBA Home Labelling Program

- **Net Zero** and **Net Zero Ready** labels
- Performance based
- 33+ builders in 7 provinces
- Ontario: 3 labels in 2017, 43 in 2018, now more than 265 across Canada
- CHBA now expanding to renovated homes and mid-rise MURBs

envirocentre



THIS LABEL IS FOR THE FOLLOWING HOME:

BUILDER/RENOVATOR:

ENERGY ADVISOR:

SERVICE ORGANIZATION:

CHBANZH ID#:

DATE APPROVED:

This label indicates that this home is recognized by the Canadian Home Builders' Association (CHBA) based on the attestations by the builder, its Net Zero Qualified Service Organization and a Net Zero Qualified Energy Advisor, that the home has met CHBA's Net Zero Home Program Technical Requirements, including the energy performance rating according to the Government of Canada's EnerGuide Rating System. More information is available at www.NetZeroHome.com

2019: FCM Study

Municipal Tools for Catalyzing Net-Zero Energy Development

- 40 cities surveyed
- 8 sites evaluated
- Design and technology strategies
- Proposed incentives



FCM/GMF FEASIBILITY STUDY:
MUNICIPAL TOOLS FOR CATALYZING NET-ZERO
ENERGY DEVELOPMENT
FINAL REPORT



Global Perspectives on Net Zero

- Widespread research on Net Zero in many countries
- USA: 5000 homes built since 2013
- California: All new homes must now (2020) have at least 2 kW of PV installed
- City of Copenhagen: Net Zero GHGs by 2025 (already 44% reductions since 2005)
- Canada: 30% below 2005 levels by 2030
- Net Zero GHGs by 2050: Denmark, Norway, UK, Canada

