



# ***Survey of Markets in the Americas***

3<sup>rd</sup> National GeoExchange Business & Policy Forum

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Fairmont Royal York - Toronto

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*President & CEO*

*Canadian GeoExchange Coalition*



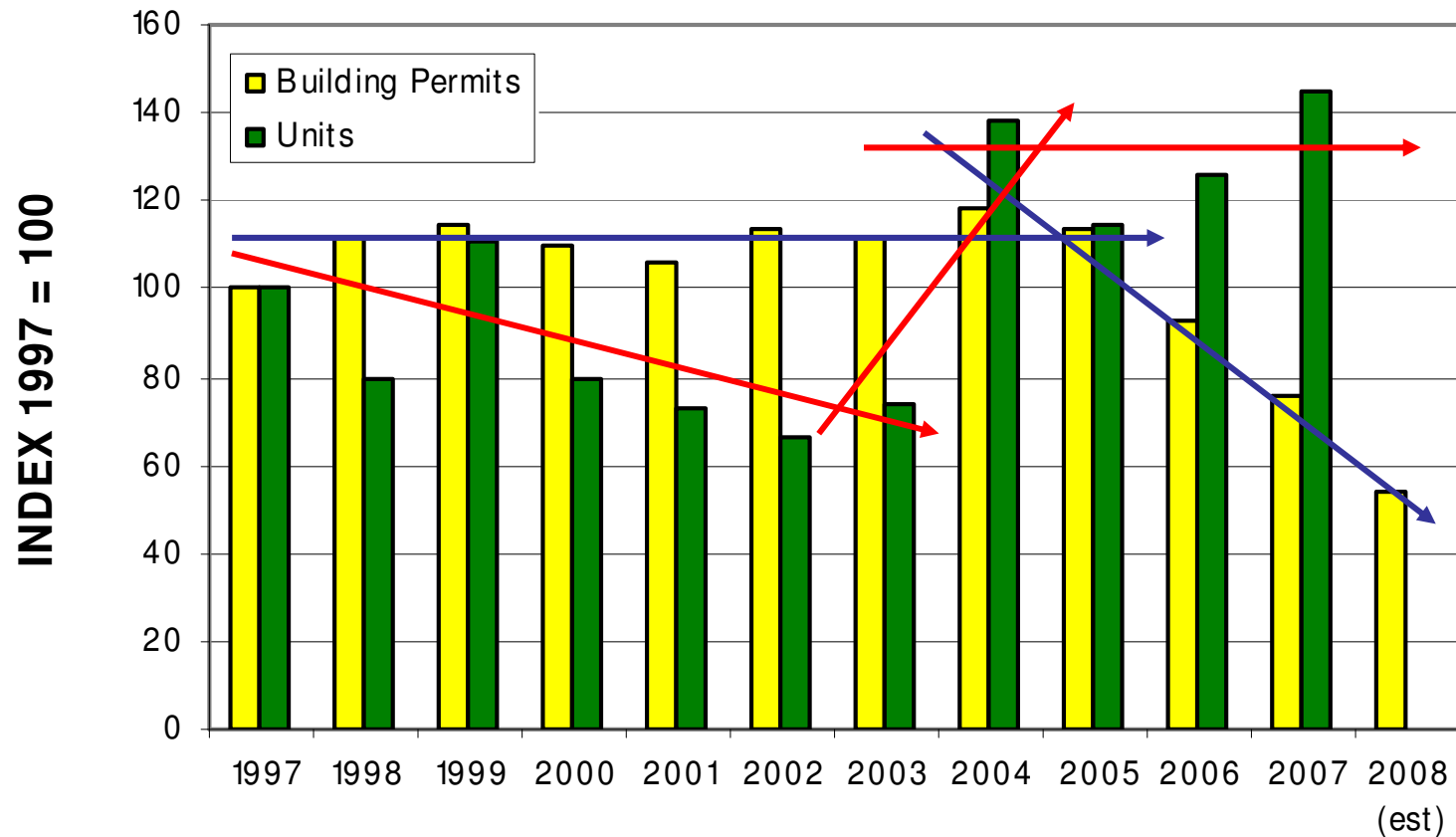
# *Presentation outline*

- GSHP shipments (residential sector) for the United States in relation to building permits
- Assessment of the Canadian GSHP markets
  - *Housing statistics and forecasts*
  - *CGC Program results*
  - *Estimation of market size and trend in Canada*



## Residential Sector

### U.S. GSHP Shipments VS Building Permits NORTHEAST

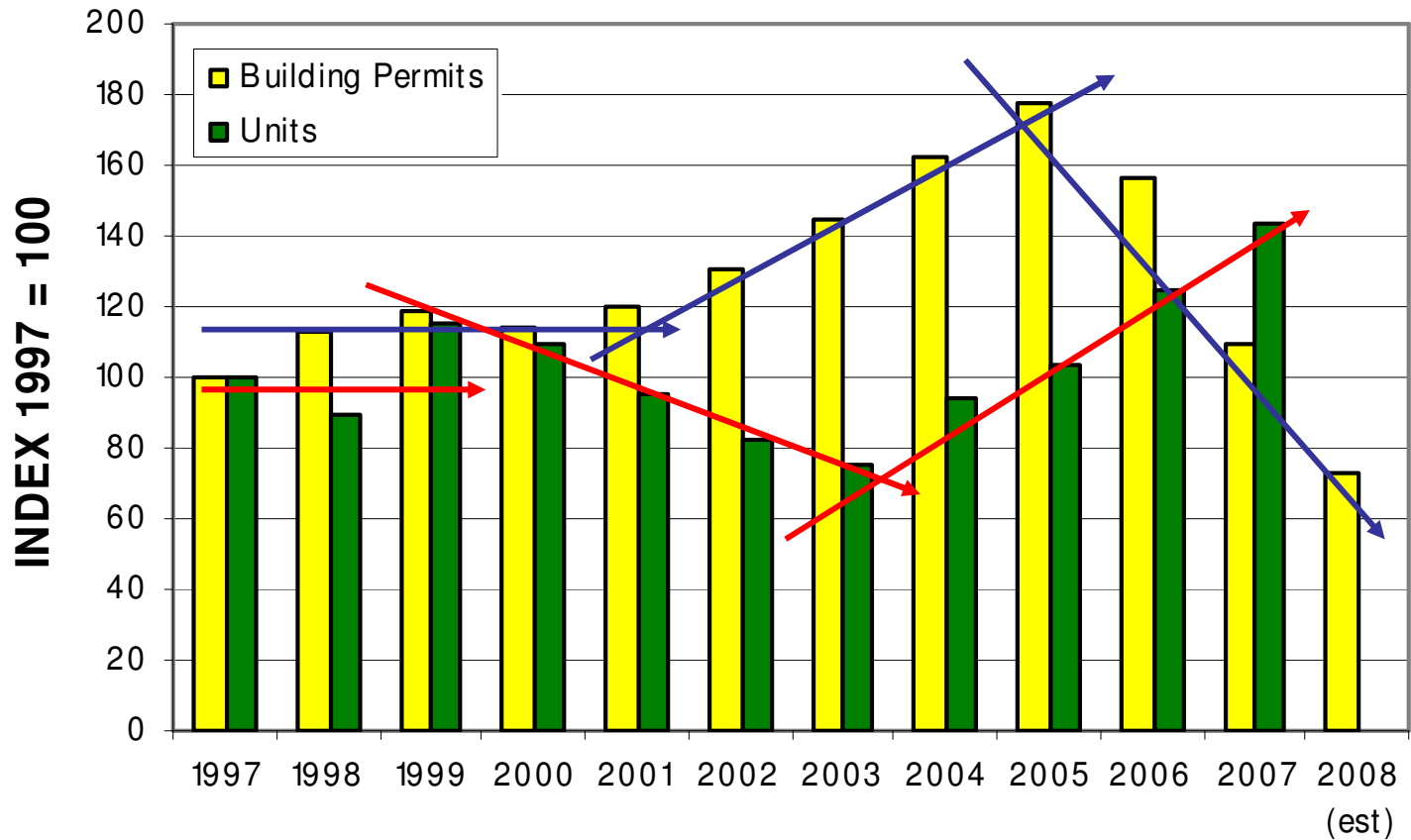


#### Sources:

- 1) [Energy Information Administration](#). *Survey of Geothermal Heat Pump Shipments*. Various years.
- 2) [Groff, Gerald](#). *Heat Pumps in North America – 2008*. Paper presented at the 9th International IEA Heat Pump Conference, 20-22 May 2008, Zurich, Switzerland
- 3) [U.S. Census Bureau](#). *Housing Units Authorized by Building Permits*. Various years.
- 4) [Canadian GeoExchange Coalition](#)

## Residential Sector

### U.S. GSHP Shipments VS Building Permits SOUTH

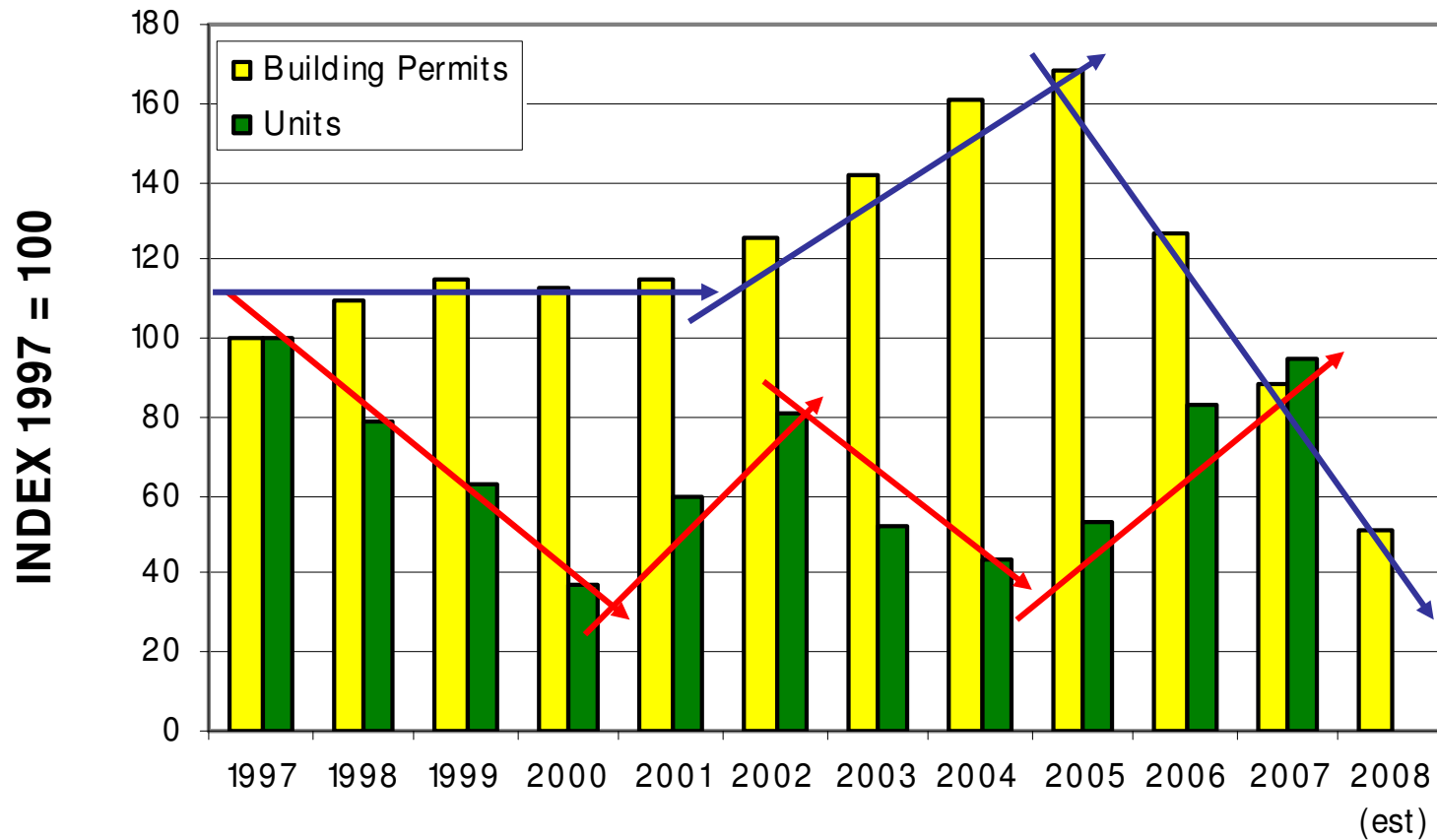


#### Sources:

- 1) [Energy Information Administration](#). *Survey of Geothermal Heat Pump Shipments*. Various years.
- 2) [Groff, Gerald](#). *Heat Pumps in North America – 2008*. Paper presented at the 9th International IEA Heat Pump Conference, 20-22 May 2008, Zurich, Switzerland
- 3) [U.S. Census Bureau](#). *Housing Units Authorized by Building Permits*. Various years.
- 4) [Canadian GeoExchange Coalition](#)

## Residential Sector

### U.S. GSHP Shipments VS Building Permits WEST

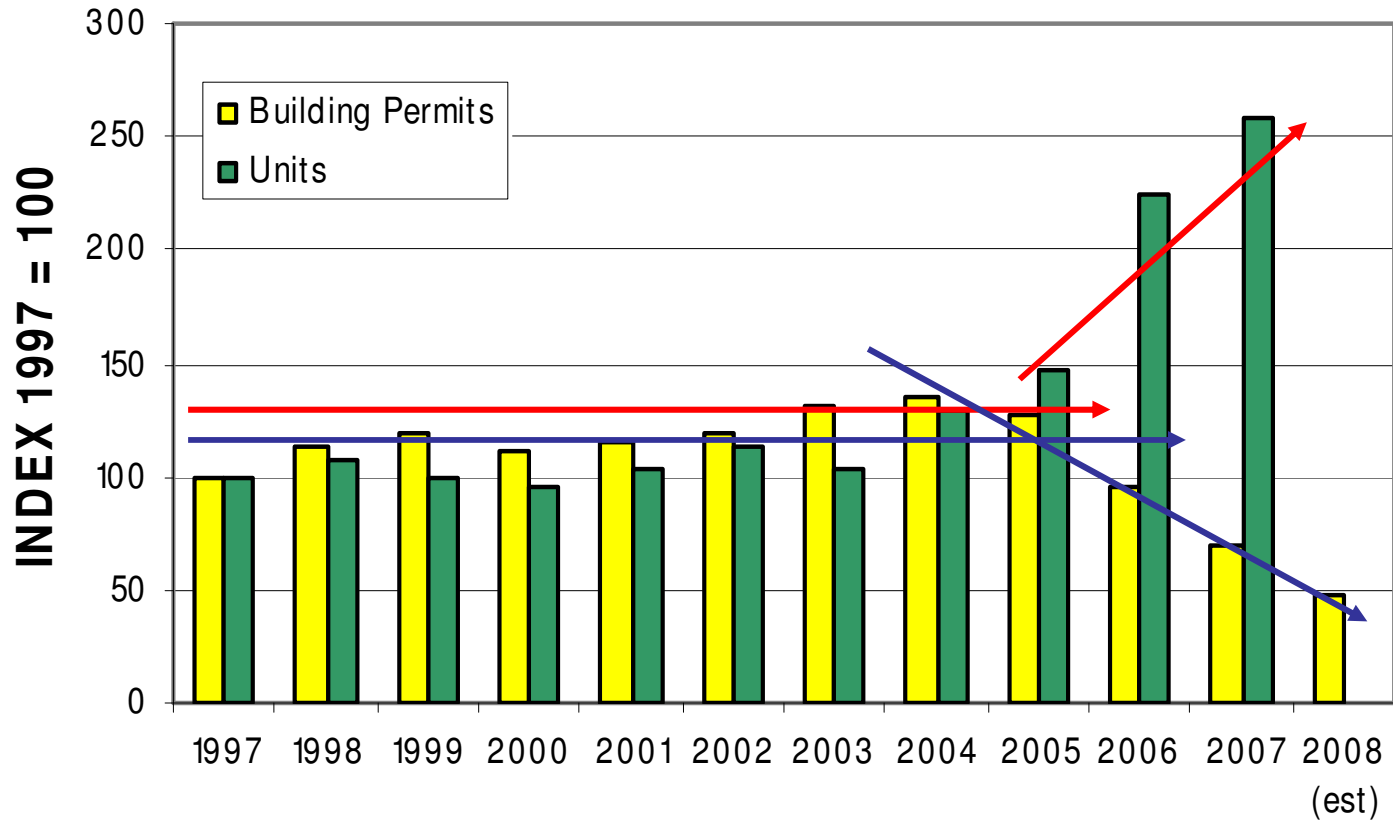


#### Sources:

- 1) [Energy Information Administration](#). *Survey of Geothermal Heat Pump Shipments*. Various years.
- 2) [Groff, Gerald](#). *Heat Pumps in North America – 2008*. Paper presented at the 9th International IEA Heat Pump Conference, 20-22 May 2008, Zurich, Switzerland
- 3) [U.S. Census Bureau](#). *Housing Units Authorized by Building Permits*. Various years.
- 4) [Canadian GeoExchange Coalition](#)

## Residential Sector

### U.S. GSHP Shipments VS Building Permits MIDWEST

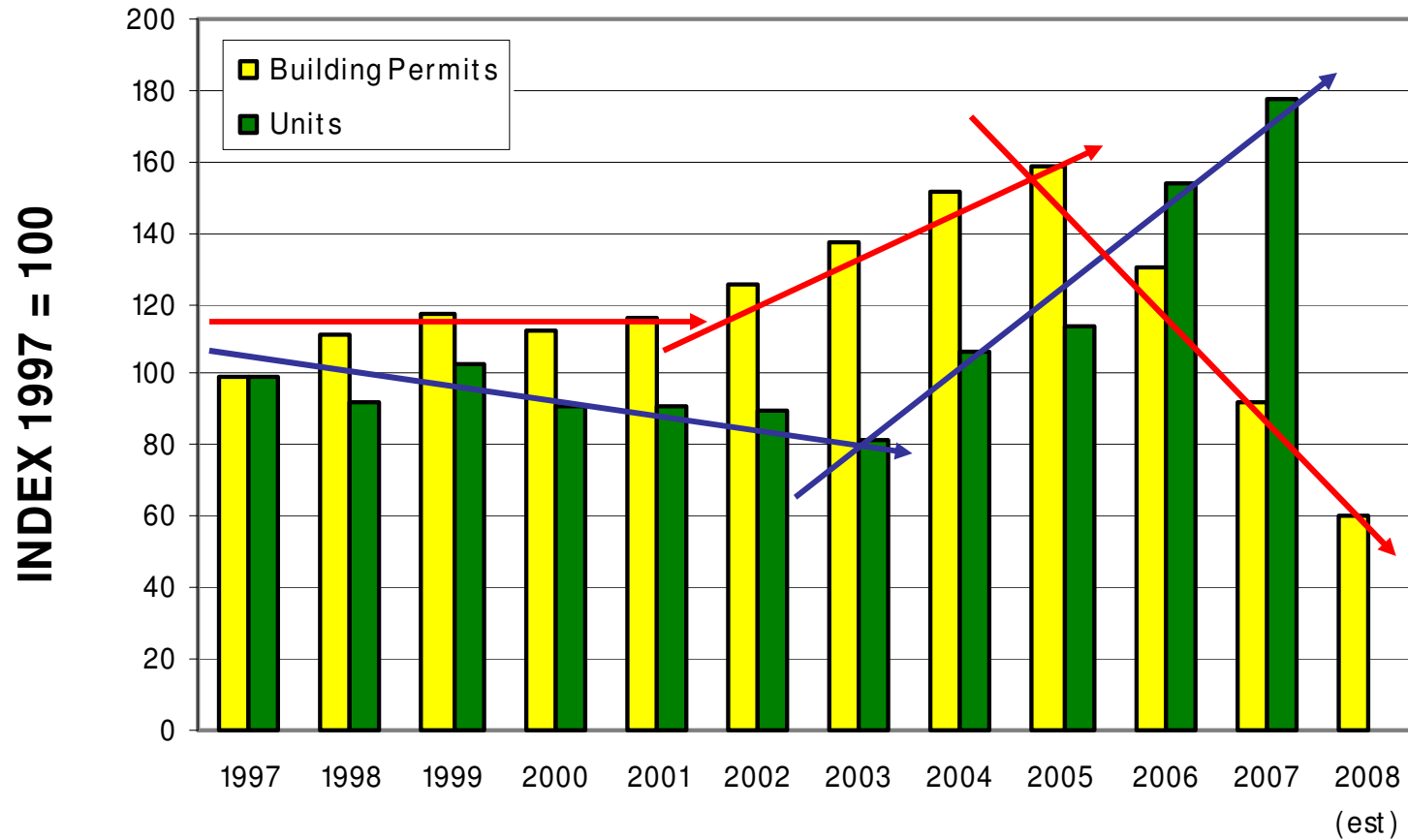


#### Sources:

- 1) [Energy Information Administration](#). *Survey of Geothermal Heat Pump Shipments*. Various years.
- 2) [Groff, Gerald](#). *Heat Pumps in North America – 2008*. Paper presented at the 9th International IEA Heat Pump Conference, 20-22 May 2008, Zurich, Switzerland
- 3) [U.S. Census Bureau](#). *Housing Units Authorized by Building Permits*. Various years.
- 4) [Canadian GeoExchange Coalition](#)

## Residential Sector

### U.S. GSHP Shipments VS Building Permits TOTAL



Sources:

- 1) [Energy Information Administration](#). *Survey of Geothermal Heat Pump Shipments*. Various years.
- 2) [Groff, Gerald](#). *Heat Pumps in North America – 2008*. Paper presented at the 9th International IEA Heat Pump Conference, 20-22 May 2008, Zurich, Switzerland
- 3) [U.S. Census Bureau](#). *Housing Units Authorized by Building Permits*. Various years.
- 4) [Canadian GeoExchange Coalition](#)

## *Conclusion – United States*

- From 1997 to 2003, the U.S. GSHP residential industry witnessed a downward trend in shipments (Index in 2003 was at 80 and 100 in 1997)
- In general, since 1997, an increase in building permits was matched by an increase in GSHP unit shipments
- Building permits have shown a dramatic downward trend since 2005
- GSHP shipments have followed a positive trend since 2003
- However, we observe a serious inverse correlation between the two measures between 2005 and 2008... *for the entire country*



## *Conclusion – United States*

- Regional figures are sending mixed messages.
- The relative weight of the U.S. Midwest creates a bias (the region represents roughly  $\frac{1}{2}$  the total shipments)
- The U.S. West shipments have been below the 1997 index since 1998
- Shipments in the Northeast appear to be relatively constant over the past 4 years – no clear evidence of growth and constant decline between 1997 and 2003 (over 20 %).
- We observe a strong GSHP growth in the Midwest and the South since 2003 – we also observe a major disconnect between the shipments of GSHP and building permits



# *Market Situation – Canada*

- Lack of historical and relevant market information
- Our best estimate would show 5 or 6 thousand installations per year
- Probably over 40,000 so far
- Growing at 25-50 % per year over the past 2 or three years
- All published numbers are rough estimations often based on weak and incomplete sources
- Survey conducted by CGC in 2006 showed lack will to share market information
- New survey to be conducted in January 2009 – please participate (best way to get better policies and better programs)

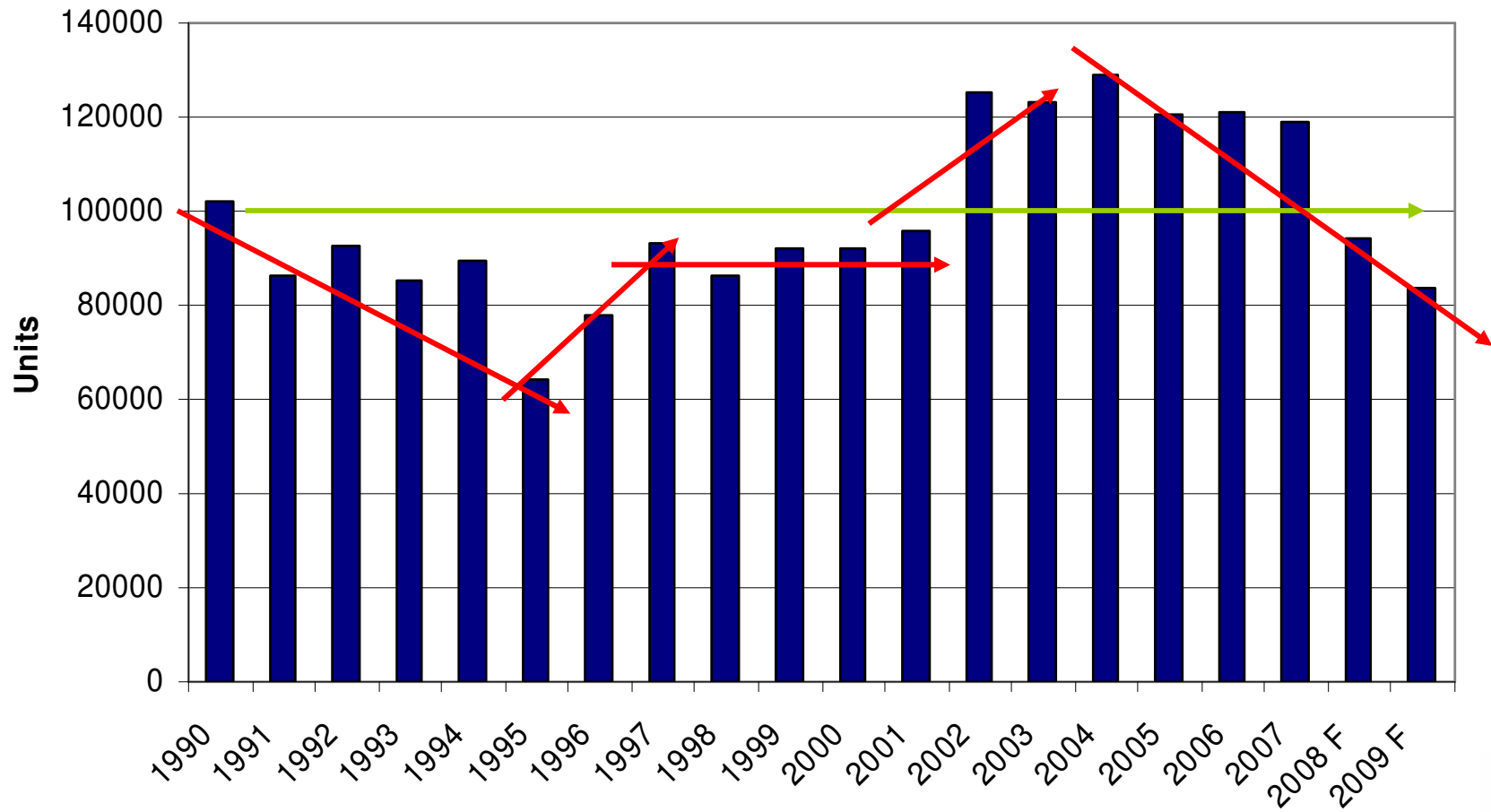


# *Factors affecting the GSHP industry – Canada*

- Housing market shows downward trends
- The retrofit market (fuel switching – mainly) appears to be very strong
- Exchange rate
  - On January 4, 2008, the Canadian dollar was at par with the US\$
  - On November 12, it was down to US\$ 0,8133
- Industry bottlenecks on the supply side – skills shortage (noticeable in the drilling industry across Canada)
- Energy prices & volatility of those prices
- ecoENERGY and provincial programs

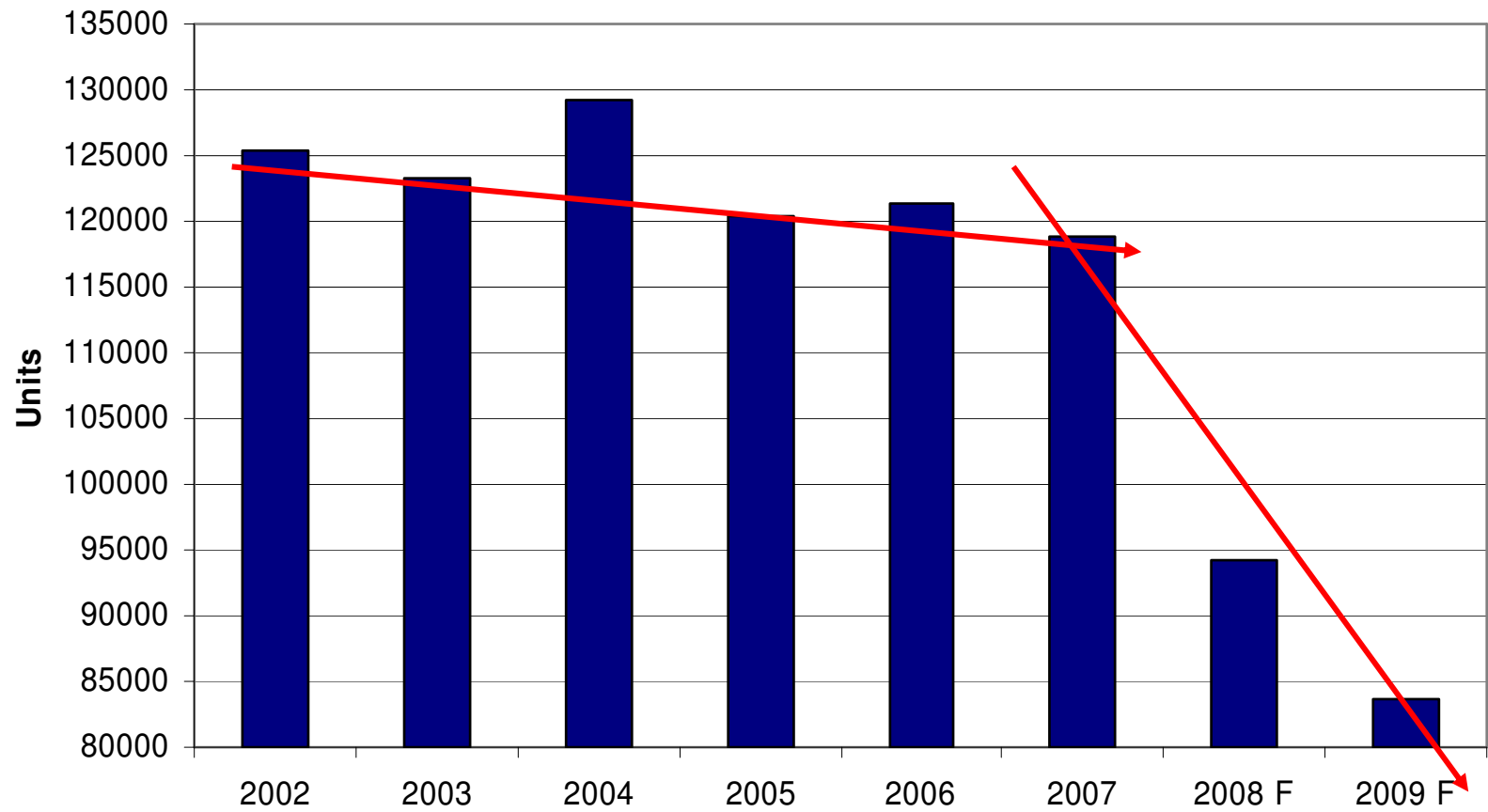


## Total Single Detached Housing Starts - Canada



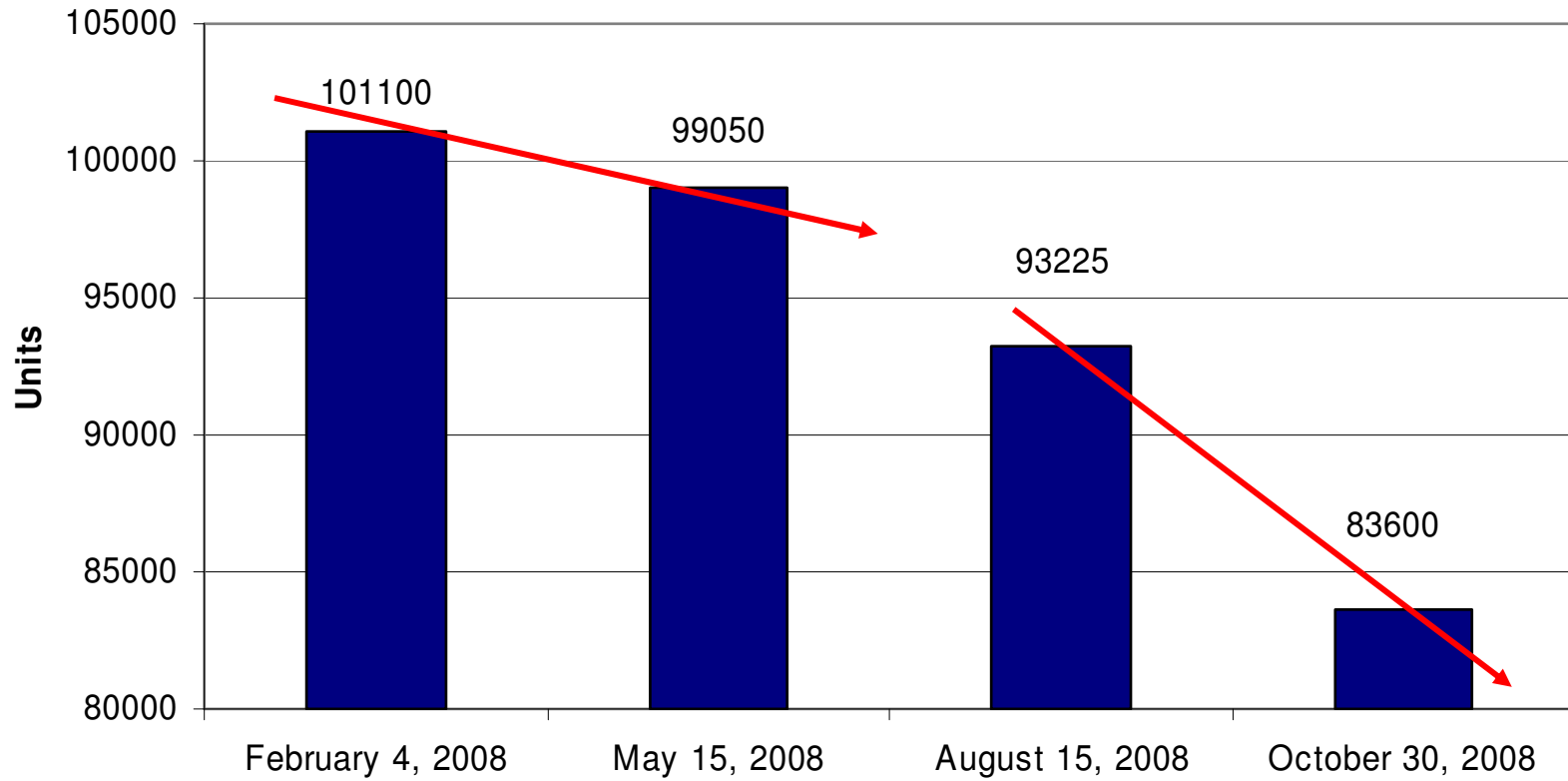
Sources: Canadian Mortgage and Housing Corporation

## Total Single Detached Housing Starts - Canada



Sources: Canadian Mortgage and Housing Corporation

## Total Single Detached Housing Starts - Canada Forecasts for 2009



CMHC Forecasts - Different Dates

Sources: Canadian Mortgage and Housing Corporation

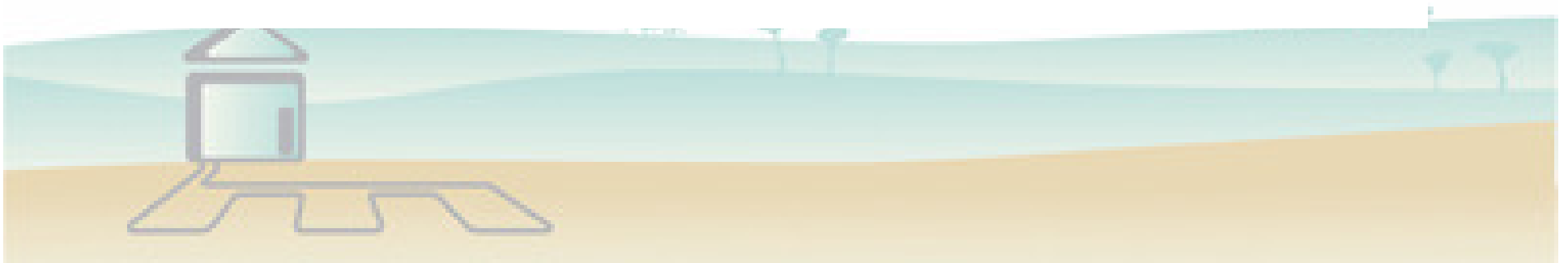
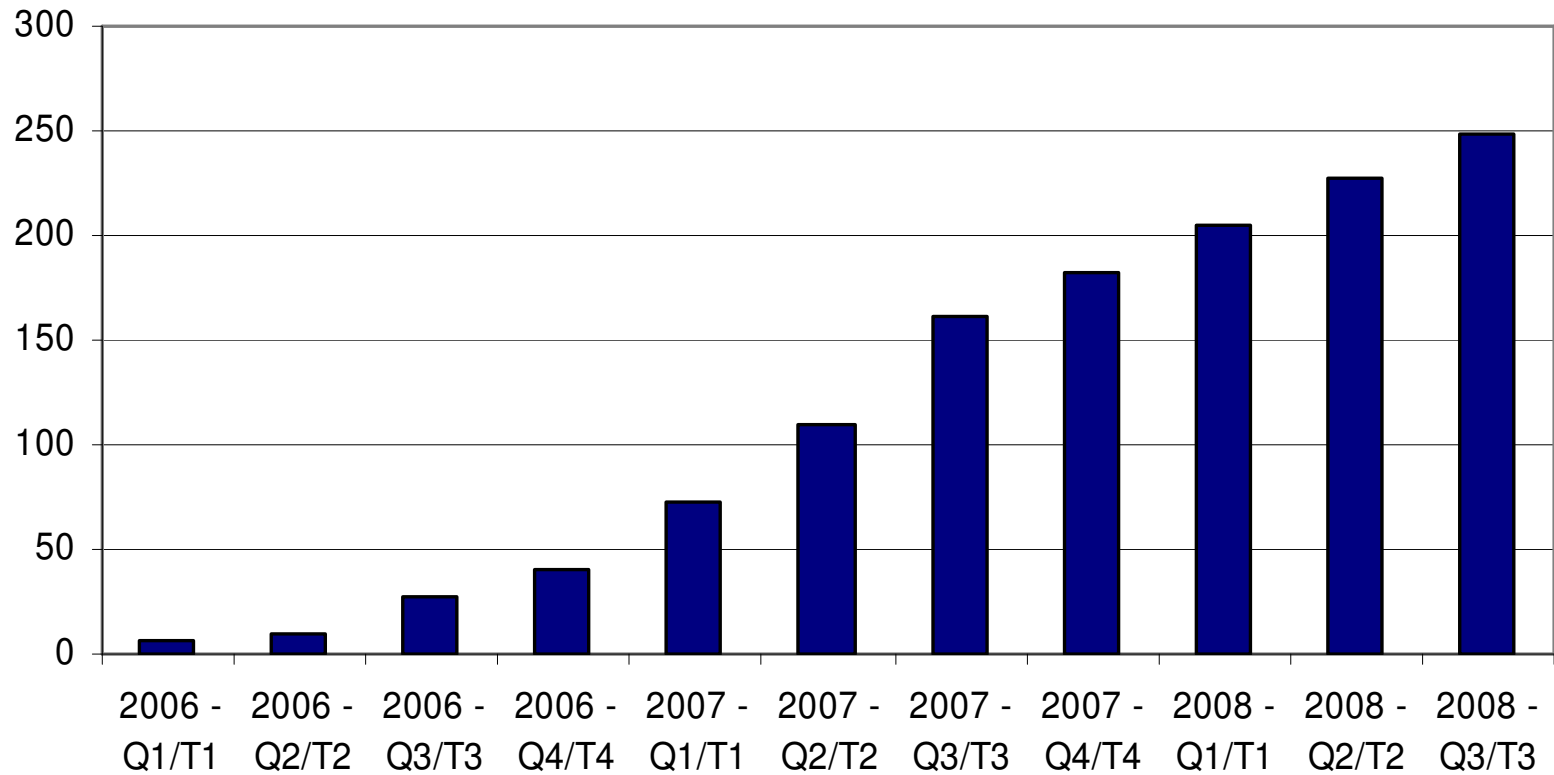
# Conclusion – Canada

- How to grow your businesses in difficult times ?
  - ✓ Tighten your relationship with your suppliers
  - ✓ Distinguish yourself from competition
    - Be part of the *CGC Global GeoExchange Quality Program*
      - *Seek CGC accreditation for your staff*
      - *Seek CGC qualification for you company*
    - Offer financing options to your customers (*TD Canada Trust*)
    - Use the marketing tools offered by the CGC and utilities
      - *Weather Channel Marketing Campaign*
      - *Buyers' Guide*
      - *Etc.*

✓ Continue acting professional – best long term move

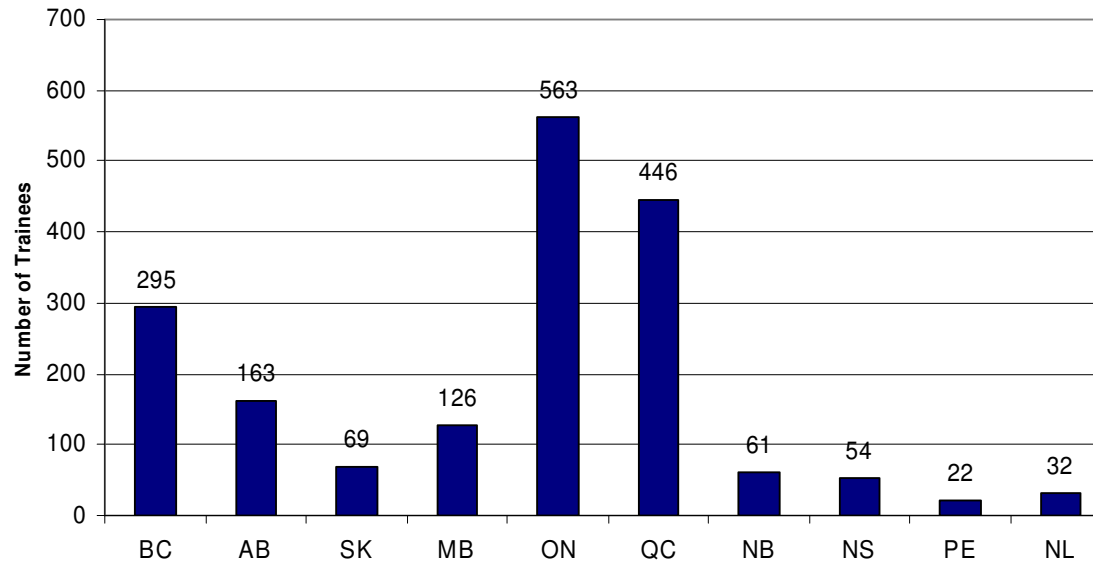


## CGC Membership / *Membres de la CCÉG*

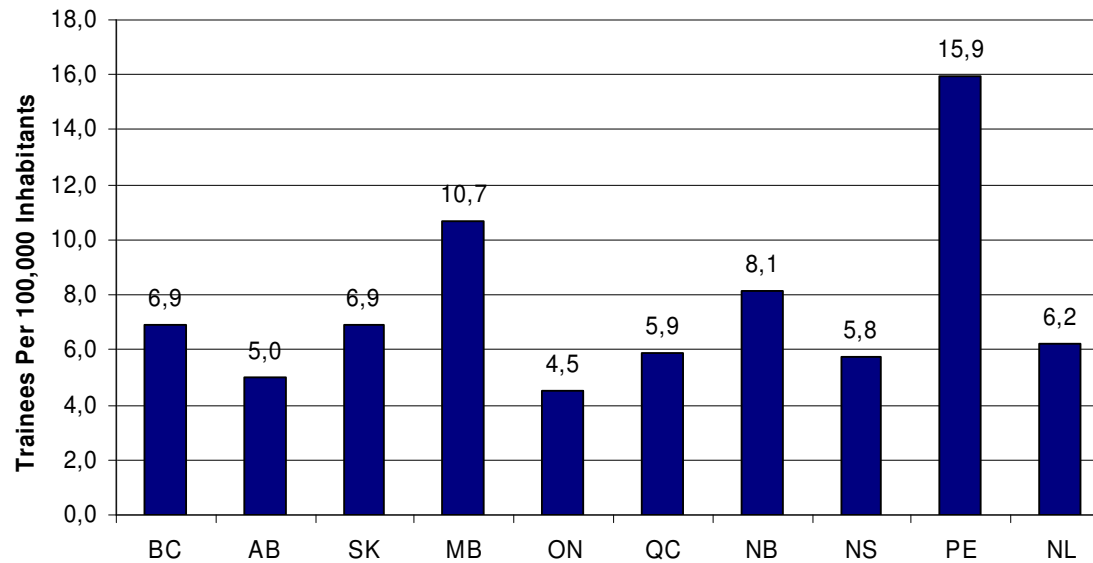


# 1831

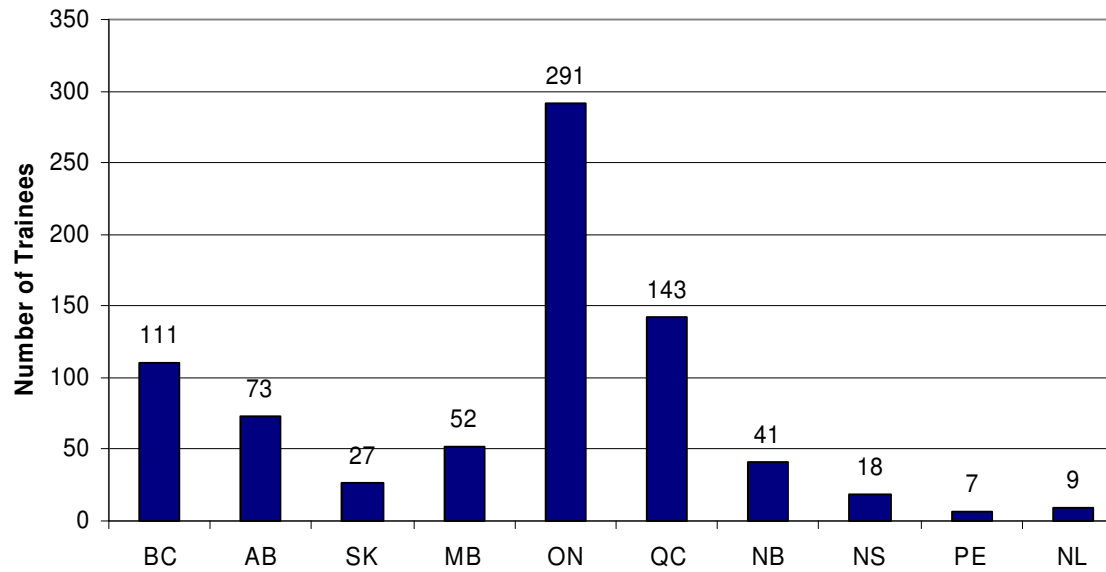
## CGC Installers' Course and Workshop



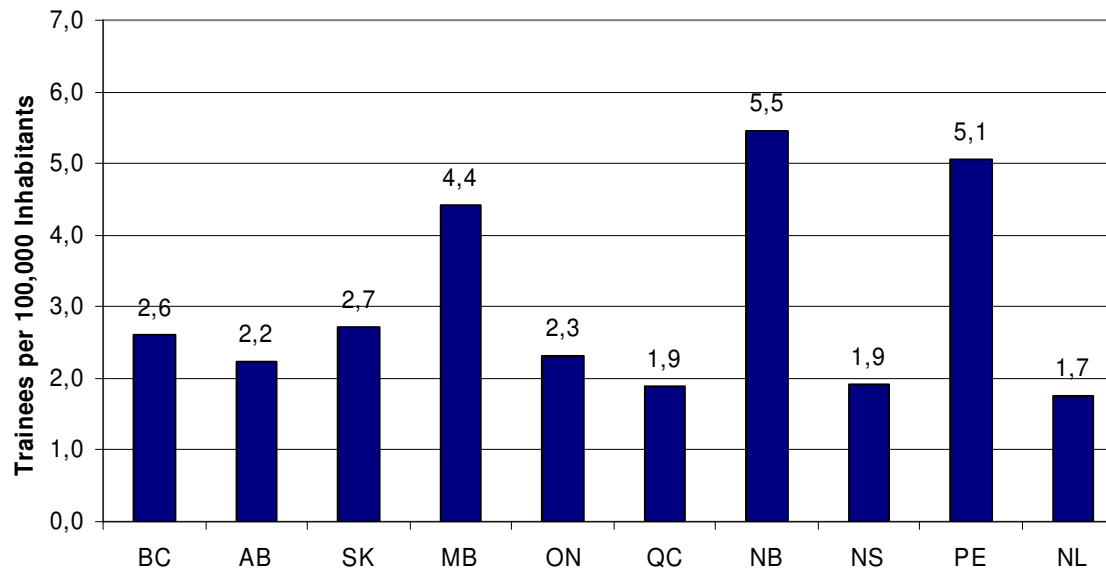
## Trained Installers Per Capita



## CGC Residential Designers' Course

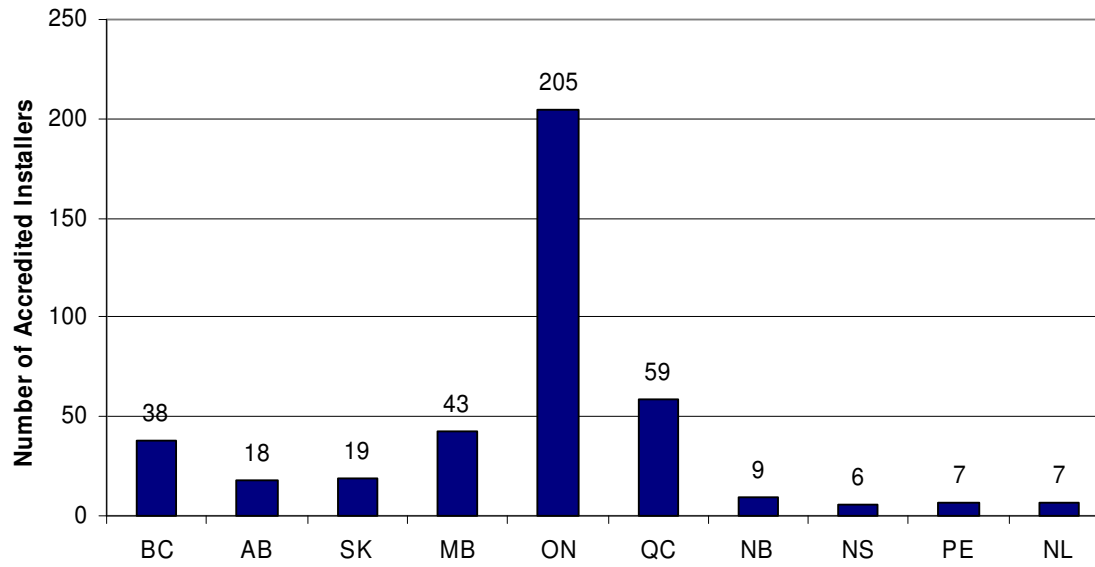


## Trained Designers Per Capita



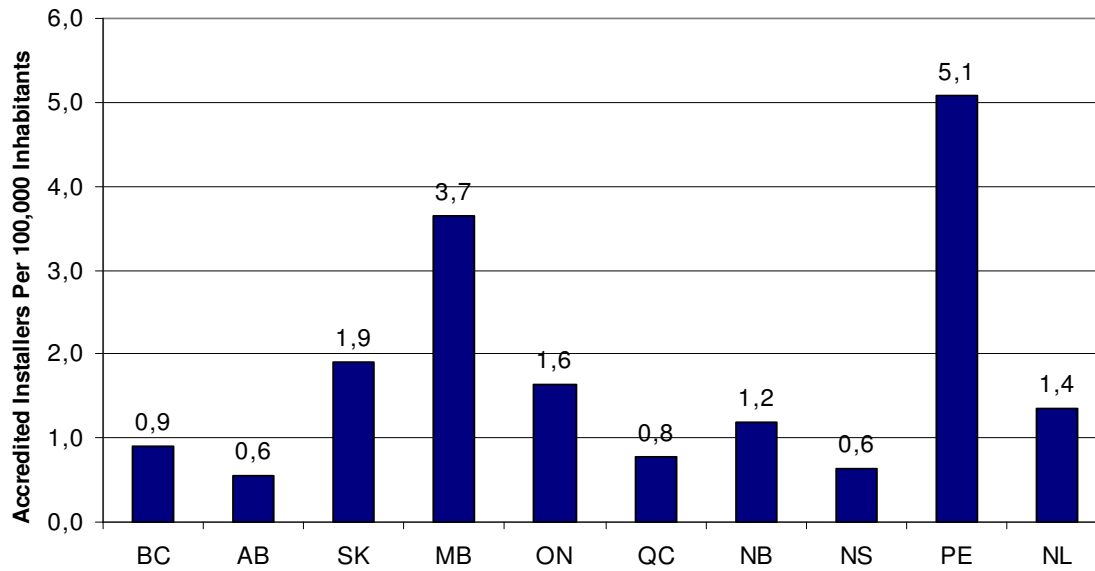
# 411

### CGC Accredited Installers



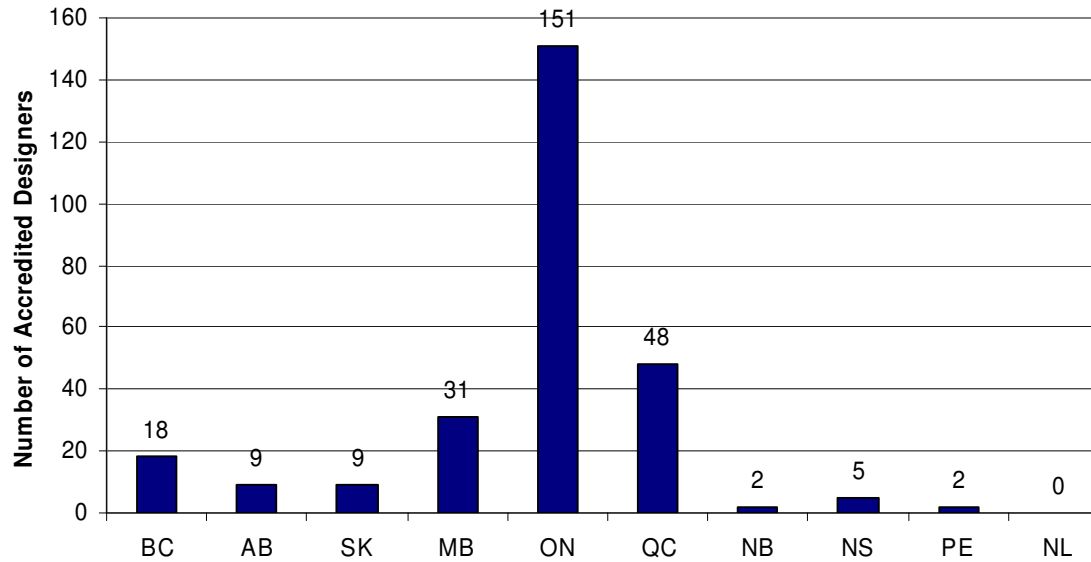
411

### CGC Accredited Installers Per Capita

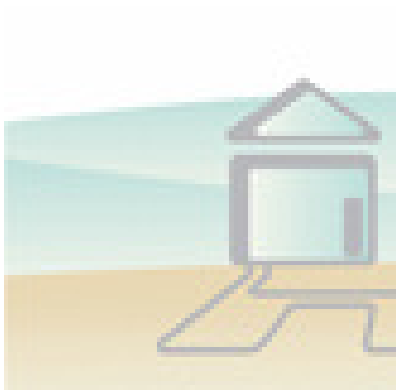
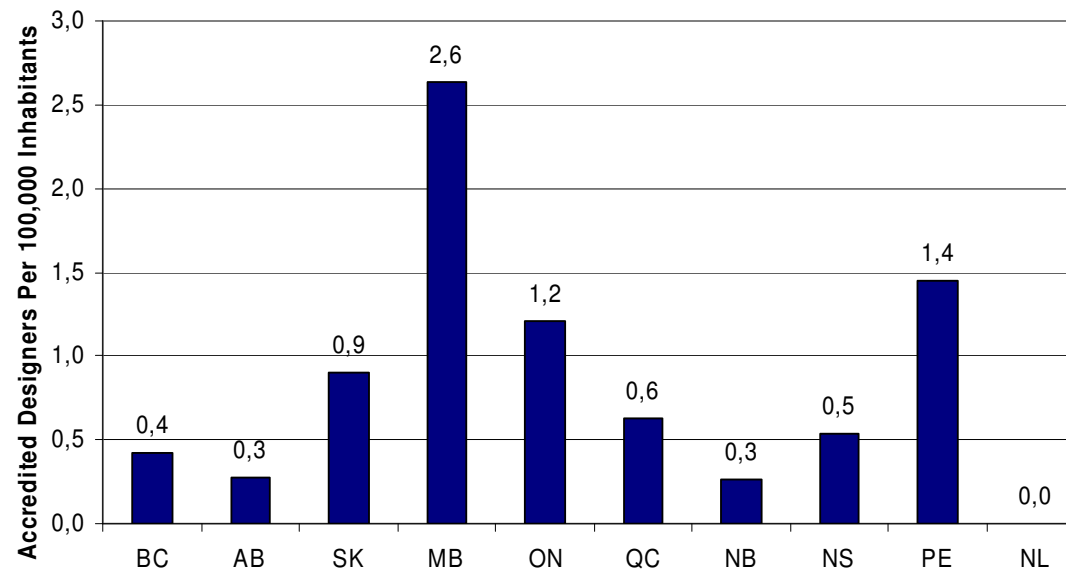


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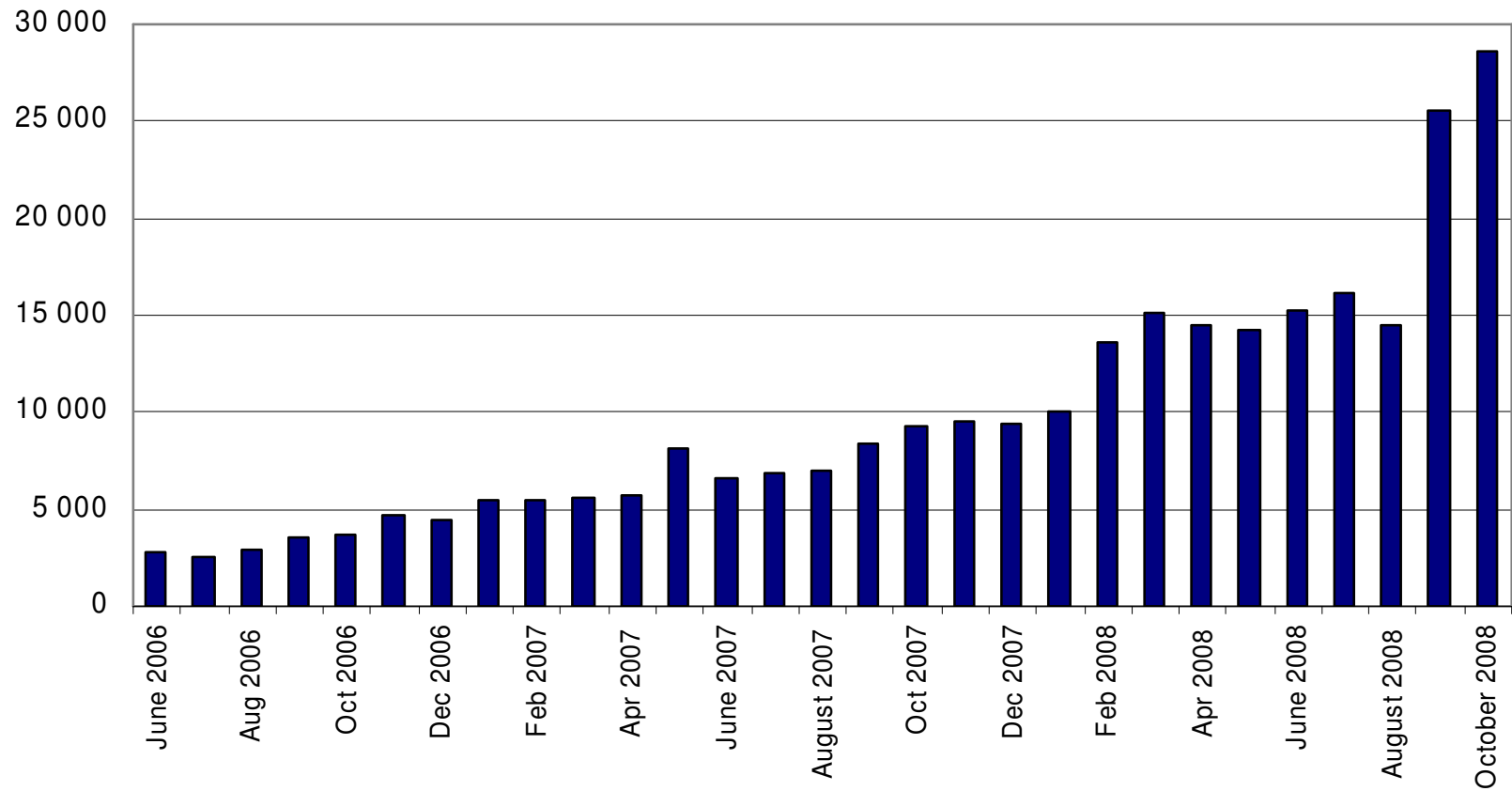
CGC Accredited Residential Designers



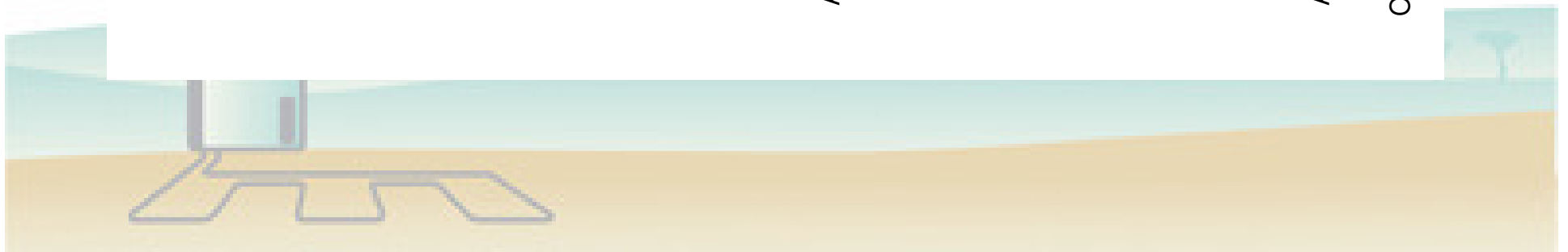
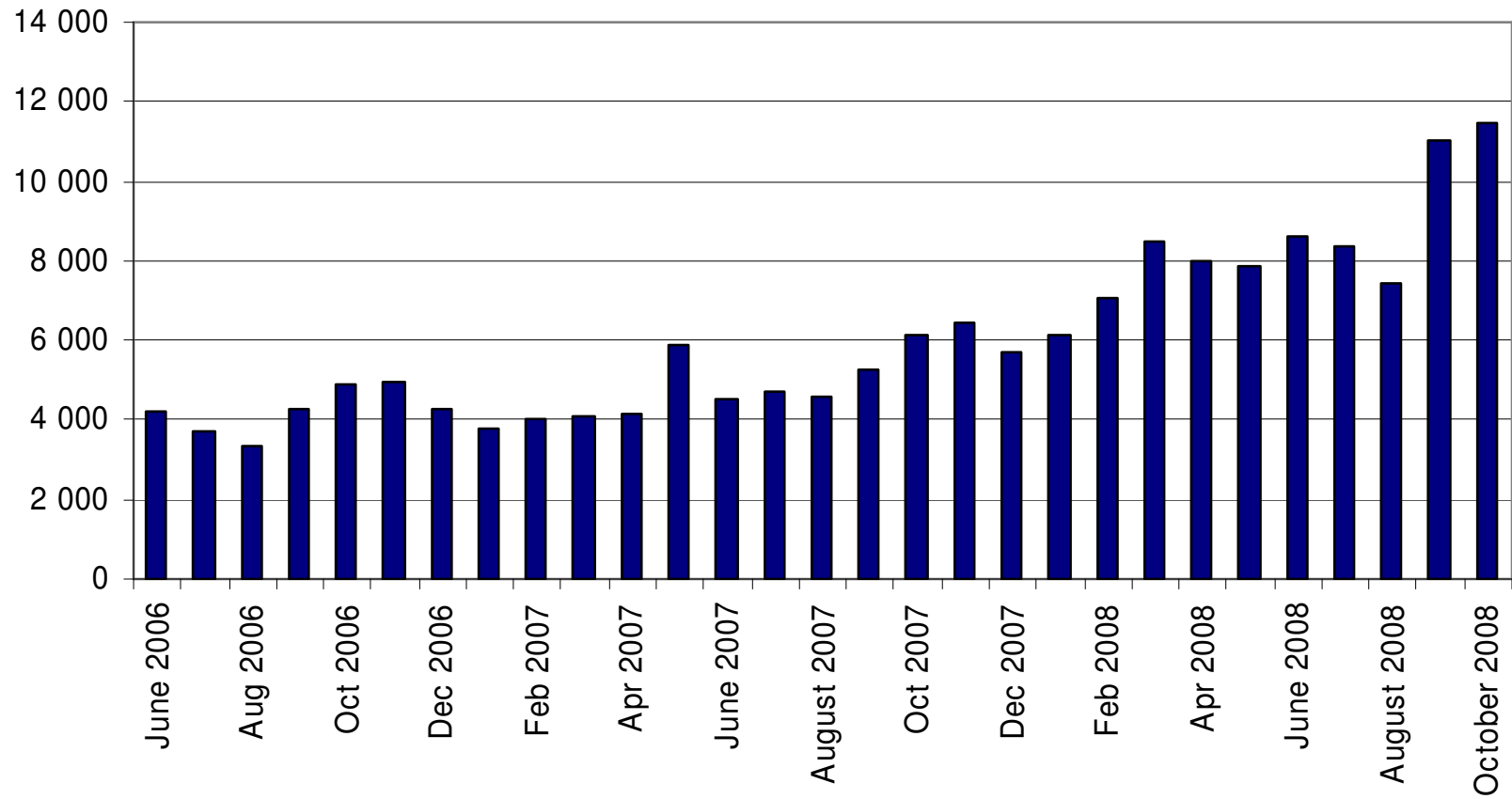
CGC Accredited Residential Designers Per Capita



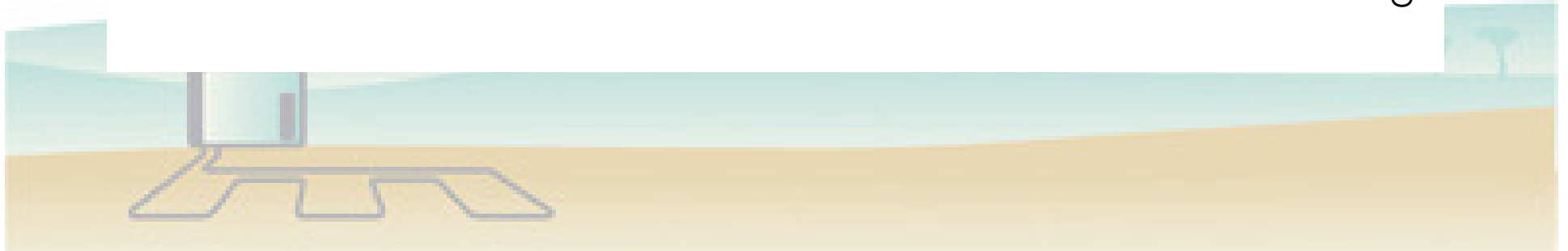
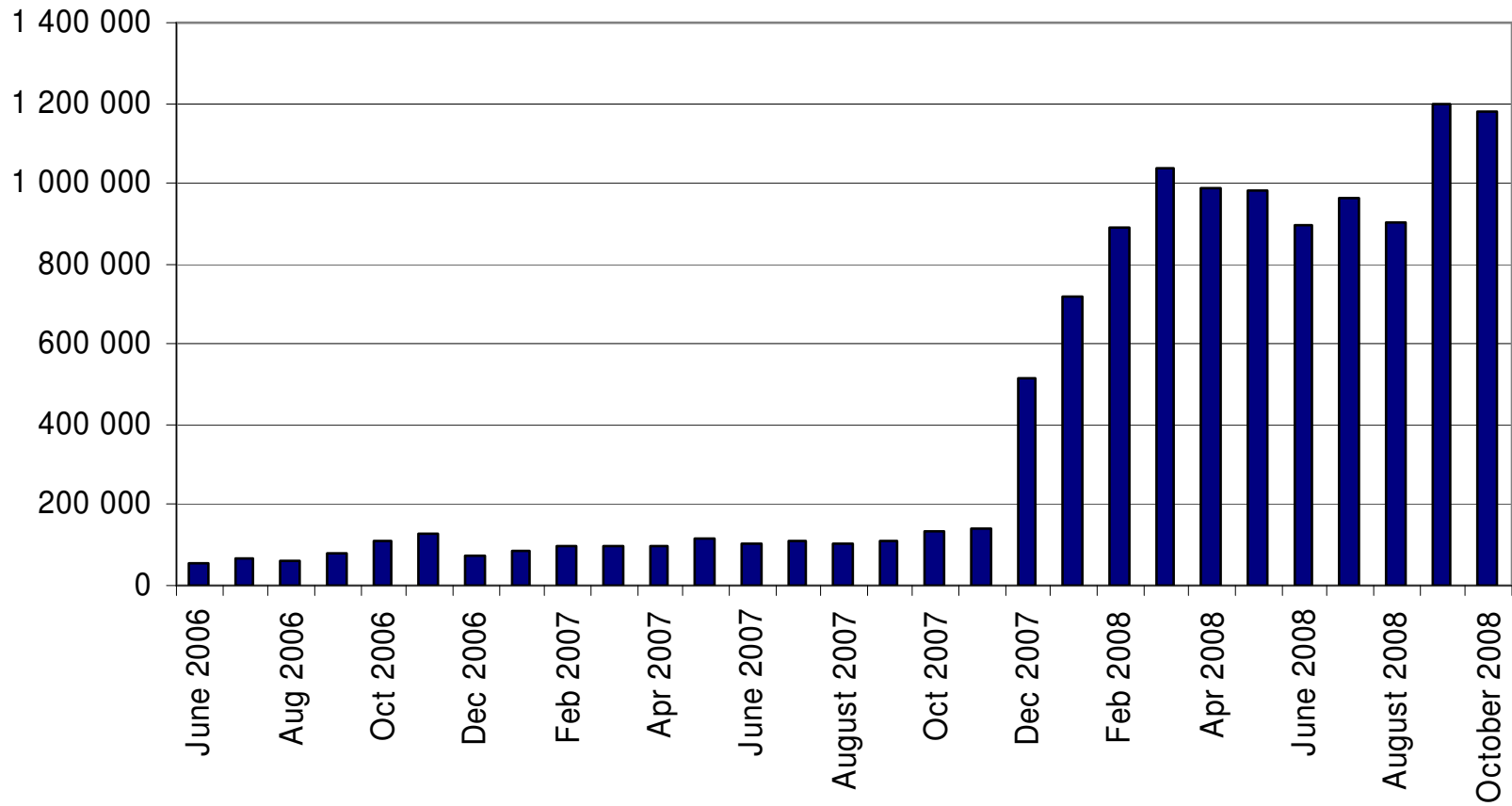
## www.geo-exchange.ca - Visits



## www.geo-exchange.ca - Unique visitors



# www.geo-exchange.ca - Hits



## *In summary - Canada*

- **1831 trainees – Installers’ Course**
- *...of which 411 are CGC Accredited Installer*
  
- **772 trainees – Residential Designers’ Course**
- *...of which 275 are CGC Accredited Residential Designer*
  
- **513 CGC System Certificates issued for existing homes**
- *... more than 250 other projects in process*
  
- **76 CGC System Certificates issued for new homes**
- *... about 20 other projects in process*

