Building a Stronger Geo-Exchange Market in Canada

Progress in an Uncertain Environment

Geothermal: The Genius Renewable

Live at Groundwater Week in partnership with NGWA

Las Vegas, NV
December 5-7, 2023
CEUs for this workshop

Be sure to scan the QR for Tuesday, Wednesday, and Thursday workshops to get points towards your IGSHPA certification CEUs

Important Places to Check Out!

2023 Conference Survey
We would like to get your feedback on future conferences. Please use the QR code to the right for your laptop/desktop, go to https://igshpa.org/2023conferenceceusurvey to complete a survey to let us know your preferences and suggestions. Thank you for helping us build the groundwork for sustainability!

Get CEUs for Your Certification Renewals

Tuesday’s Sessions
Scan the QR code to the right. For your laptop/desktop, go to:
https://igshpa.org/2023conference-ceus-TU

Wednesday’s Sessions
Scan the QR code to the right. For your laptop/desktop, go to:
https://igshpa.org/2023conference-ceus-WED

Thursday’s Sessions
Scan the QR code to the right. For your laptop/desktop, go to:
https://igshpa.org/2023conference-ceus-TH

2023 Conference & Expo
Las Vegas, Nevada
AGENDA

1. About HRAI
2. HRAI Climate Strategy
3. The Federal Green Buildings Strategy
4. Progress to-date
5. Concerns on the Horizon
About HRAI-Canada

❖ Established in 1968

❖ 1,200 member corporations
  ▪ 90 Manufacturers; 60 Wholesalers/Distributors; 900 Contractors; 150 Associates
  ▪ 22 staff, 10 instructors, 5 regional offices, 15 chapters

❖ Services to Members and Industry
  ▪ Industry Advocacy and Government Relations – “the voice of the HVACR industry” in Canada
  ▪ Industry Training (technical design, business management)
  ▪ Communications (magazine, e-newsletter, webinars)
  ▪ Trade Show – Canadian Mechanicals and Plumbing Exposition (CMPX 2022)
  ▪ Environmental Stewardship (Refrigerant Management Canada, Thermostat Recovery Program)
  ▪ Conservation/Demand Management Program Administration (a million rebates in 10 years)
The Industry We Represent

- Space heating and cooling of buildings (by various methods)
- Domestic water heating
- Ventilation and indoor air quality (IAQ)
- Refrigeration processes
  - Industry
  - Grocery stores
  - Institutions (hospitals, schools)
  - Ice rinks
  - Various specialty applications
- Building control systems
- > $12 billion in activity per year and tens of thousands of jobs across Canada
Alliances & Affiliations

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Shifting Public Opinion on Climate
Permafrost degradation, affecting northern infrastructure

Increased pests (e.g., pine beetle), affecting forest productivity and fire activity

Reduced glacier cover, affecting western water resources and hydropower production

Reduced ice cover, affecting economic development and Indigenous ways of life

Changing animal distributions, affecting food supply

Reduced reliability of ice roads, affecting access to remote mine sites and northern communities

Incidents of drought, affecting forests and agriculture

Sea-level rise and increased coastal erosion, affecting infrastructure and heritage sites

Lower Great Lakes water levels, affecting shipping, hydropower production, and recreation

Increased temperatures, affecting human health due to heat stress and vector-borne diseases
TOP 5 ISSUES AFFECTING YOUR VOTE

- COST OF LIVING: 62%
- ACCESS TO HEALTH CARE: 47%
- HOUSING: 47%
- CLIMATE/ENVIRONMENT: 46%
- POST PANDEMIC RECOVERY: 42%
- ECONOMIC PLAN FOR FUTURE: 41%
- TAXES: 39%
- POVERTY/INEQUALITY: 36%
- SPENDING/DEFICITS: 31%
- COST/AVAILABILITY OF MEDICINES: 26%
- RECONCILIATION: 22%
- IMMIGRATION/REFUGEE POLICY: 17%
- ETHICS/ACCOUNTABILITY: 16%
- CRIME: 16%
- PIPELINES/OIL: 14%
- CHINA: 10%
- ABORTION: 7%
Want progress on climate change: 85%
Think it can be done w/o harming economy: 85%
Think we need a plan for economy of future: 85%
Believe the world will transition, we must too: 85%
Under the **Pan-Canadian Framework on Clean Growth and Climate Change**, building-related measures are expected to deliver significant GHG reductions.
Space heating is an important part of the solution to reduce GHGs in the buildings sector (water heating too)

- Heating, on average, represents between 56-64% of energy use in homes and buildings, and among the largest sources of direct sector emissions (17%)

- Heating industry has the opportunity to make a major contribution to Canada’s carbon reduction targets by facilitating a transition to clean energy.
Under the *Pan-Canadian Framework*, building-related measures are expected to deliver significant GHG reductions through various tools, including:

- Net-zero carbon ready building codes by 2030
- Model building retrofit code by 2022
- Setting standards to the highest level economically and technically feasible for heating equipment and other key technologies
- Financial incentives (rebates, carbon tax)
- *But despite efforts, only modest progress to date!*
Sector Profile

RESIDENTIAL
16M dwellings
55% (63.3 Mt), incl. electricity

COMMERCIAL + PUBLIC
480K buildings
45% (50.8 Mt), incl. electricity

Source: CEUD 2019

AGE OF STOCK

54.1% 35.7% 10.3%
44.8% 31.6% 23.6%
Key Messages

• Emissions from the buildings sector are **trending upward** and **falling short** of the projected emission reductions from Pan-Canadian Framework (PCF) measures - partly due to the building stock growing, as well as variations in weather due to climate change.

• Approx. 78% of building sector emissions come from **space and water heating**, due to fossil fuel equipment (e.g. gas furnaces) & **low envelope efficiency levels** (e.g. air leakage).

• Increasing pressure on homes and buildings from **extreme weather** and climate change make building stock **resilience** a concern.

• **A dramatic increase in the retrofit rate** (currently around 1%) to **3-5%** and **high-performance new construction** is needed to reduce GHG emissions from Canada’s building stock.
HRAI’s Climate Leadership Plan
HRAI Chair Scott McDonald Delivers News Release at National Press Gallery
About HRAI

HRAI-Canada is the national trade association for the heating, ventilation, air conditioning and refrigeration (HVACR) industry, representing more than 1,250 member companies across Canada. Our members include manufacturers, wholesalers and contractors who collectively employ tens of thousands of skilled trade professionals and contribute more than $12B annually to the Canadian economy.

We are prepared to lead the way.

CANADIAN HVACR INDUSTRY COMBATS CLIMATE CHANGE

As the voice of the Canadian HVACR industry, HRAI commits to fighting the existential threat of rising CO2 levels, and will lead the way towards achieving Canada's target of net zero carbon emissions in buildings by 2050.

The HVACR industry has the technology and the expertise required to make this transition.

Homes and buildings currently account for 19% of Canada’s total greenhouse gas emissions. Fortunately, effective solutions are available right now to reduce or eliminate those emissions.

HRAI will work diligently to move the industry, consumers and governments toward those solutions and onto the path of zero carbon emissions.

The path will not be easy, but our industry will collaborate with governments and stakeholders to smooth the transition through:

- Clear, sustainable and achievable short-term and long-term targets for reducing carbon emissions in buildings;
- Regulations and programs that facilitate rather than impede industry participation and leadership in the battle;
- Meaningful industry input into the design and roll-out of government programs that build on the HVACR industry’s unique offerings; and
- Ongoing training and development of the HVACR workforce to ensure solutions are delivered competently and professionally.

The challenges of moving Canada towards a low carbon economy are not insurmountable if the HVACR industry and government partners at all levels work together towards implementing solutions.
HRAI’s Input on CGBS

Four-fold Supports Needed to Support Electrification of Heating

**Demand Side**
- Market Stimulus (grants, loans, tax credits)
- Consumer Awareness/Education (high level, to aid informed decision-making)

**Supply Side**
- Ensuring supply through supply chain management, including “on-shoring”
- Ensuring supply of workers through workforce development
1. Market $timulus

❖ We Need to Keep “Perfecting” Greener Homes
   ▪ Expanding range of products and types of measures (e.g. W2W GSHPs)
   ▪ Contractor participation criteria → quality control measures

❖ We Need New Programs Aimed at Different Markets
   ▪ Solutions for the emergency replacement market
   ▪ New incentive targeted to oil heat and low/med income (mainly Atlantic Canada)
   ▪ Add focus on commercial markets (30% tax credit for “cleantech”)
   ▪ Dedicated Geothermal program
2. Market/Industry Education

- **Federal Initiatives**
  - Better promotion of Greener Homes
  - Consumer education programs on technology options and benefits

- **Industry Initiatives (in Partnership)**
  - Working through strategic partnerships e.g. the Building Decarbonization Alliance and Efficiency Canada
  - “Heat Pump Symposium”
  - “Climate Roadshow”
  - CMPX Trade Show
3. Securing Product Supply

❖ Interest in “on-shoring” at federal and provincial levels
❖ Increasing interest from manufacturer members
❖ An ongoing discussion ...slow progress
4. Support for Workforce Development

❖ Still the biggest impediment to progress

❖ Two parallel challenges
   1. Aging workforce and insufficient apprentice intakes
   2. Need for re-skilling and training

❖ Industry will adapt -- *but not at the required pace of change*

❖ Government support is needed to *accelerate* the process
Outcomes

❖ Federal *Green Building Strategy*

- New bundle of policy measures aimed at promoting decarbonization in the buildings sector
- Consultations are complete
- But announcement and rollout delayed repeatedly → *January 2024(?)*
- Building decarbonization is “more complex than it first appears”
- *Or is government just looking for the right “political moment”*?
Outcomes

❖ **Federal Clean Technology Investment Tax Credits**

- 30% investment tax credit to include geothermal and ASHPs
- Applicable to for-profit businesses only
- Labour requirement included (or reduced to 20%)
- Credits available until 2034
- Need for industry education on how to access/promote
Outcomes

❖ **Refining/Augmenting (Replacing?) Greener Homes**

- HRAI engaged actively with NRCan on the continuous improvement of this program
- Recommendations for Greener Homes include:
  ✓ Requirement for proof of contractor competence
  ✓ Include W2W and A2W (hydronic) Heat Pumps
  ✓ Larger grants for deeper retrofits (including GSHP systems)
- Recommendations to augment Greener Homes with more targeted programs
  ✓ Homes still using oil – the Oil to Heat-pump program (OHPA)
  ✓ Emergency replacements program (with more modest rebates – but beef up GH)
  ✓ Focus on GSHP systems highlighting beneficial electrification (per Dunsky report)
Beefing up the Emphasis on GSHP
The GSHP Benefit Still Missed (or Ignored)

At low outdoor temperatures, GSHPs maintain their energy efficiency, relying on the more stable ground temperature as a thermal energy source (and sink) which remains nearly constant all year round regardless of air temperatures.

This more stable efficiency curve significantly reduces the peak electricity demand during the coldest days of winter and by extension the additional grid capacity required to electrify space heating.
Dunsky Analysis as a Platform

A study in 2019 by Canadian Gas Association: *Implications of Policy-Driven Electrification in Canada*

- Estimated costs associated with electrification of space heating at $1.3 trillion
- Assumption that primary transition would be from gas heating to ASHPs
- Study focused on impacts on electricity grid at peak and the system requirements to meet those peaks

HRAI and the OGA members noted the absence of consideration in this study of GSHPs as an option for heating and expressed a need for a fuller analysis

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The Economic Value of Ground Source Heat Pumps for Building Sector Decarbonization

Review of a recent analysis estimating the costs of electrification in Canada

Prepared for:
Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI)

Prepared by:
dunsky

Heating Electrification: Policies to Drive Ground-Source Heat Pump Adoption

Prepared for:
Heating, Refrigeration and Air Conditioning Institute of Canada

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Table 1. Description of Electricity Generation Assumptions in the Original Study’s Aggressive Electrification Scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Electric Generation Assumptions Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewables-Only (Scenario 1)</td>
<td>Wind, solar, and battery storage replace all fossil fuel generation by 2050 so that 100% of generation is carbon-free by the end of the study period</td>
</tr>
<tr>
<td>Renewables &amp; Existing Gas (Scenario 2)</td>
<td>All new power generation capacity is wind, solar, and battery storage, but existing natural gas &amp; oil power generation is maintained so that most generation is carbon-free by the end of the study period</td>
</tr>
<tr>
<td>Market-Based Generation (Scenario 3)</td>
<td>All power generation expansion uses the most economic options representing a business-as-usual scenario where policymakers do not pursue additional decarbonization in the electricity sector</td>
</tr>
</tbody>
</table>

Note: Electricity system assumptions description adapted from Table 2 of the original study (page 7).
**Table 2. Description of the Original Study’s Cost Components**

<table>
<thead>
<tr>
<th>Cost Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Costs</td>
<td>The reduction in customer bills from the reduction in fossil fuel consumption.</td>
</tr>
<tr>
<td>Electrical Energy Costs</td>
<td>The increase in customer bills from the increase in electricity purchases.</td>
</tr>
<tr>
<td>Incremental Equipment Costs</td>
<td>The additional costs of the electric technology relative to the conventional fossil fuel option.</td>
</tr>
<tr>
<td>Power Generation Costs</td>
<td>The increase in costs associated with the power generation required to serve the additional electric load.</td>
</tr>
<tr>
<td>Transmission Costs</td>
<td>The increase in costs associated with building out transmission infrastructure required to connect additional power generation to the grid.</td>
</tr>
</tbody>
</table>

**Note:** The study also estimates costs associated with renewable natural gas, which is explored in the original study’s Scenario 4 and not addressed in this report because of its inapplicability to GSHPs.
Figure 2. Cumulative Incremental Costs from 2020 to 2050 as Reported in Original Study ($Billions)

Fuel Costs: -$1,162B
- $1,018B
- $1,162B

Electrical Energy Costs: $435B
- $829B
- $851B

Incremental Equipment Costs: $597B
- $227B
- $217B

Power Generation Costs: $101B
- $989B
- $989B

Transmission Costs: $1537B

Total Costs: $1,369B

Cost Components:
- Renewables-Only (Scenario 1)
- Renewables & Existing Gas (Scenario 2)
- Market-Based Generation (Scenario 3)
Figure 3. Estimate of Cost Savings Under GSHP Market Adoption Scenarios Relative to Original Study’s ASHP-Only Cost Estimates

Renewables-Only (Scenario 1)

Renewables and Existing Gas (Scenario 2)

Market-Based Generation (Scenario 3)

Cost Savings ($Billion)

30% 20% 10%

30% 20% 10%

30% 20% 10%

$148B $99B $49B

$143B $95B $48B

$77B $52B $26B

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Figure 5. Cumulative Costs from 2020 to 2050 by Cost Component Under Renewables-Only Generation Scenario (Scenario 1) Assuming 100% of Buildings Electrify with ASHPs vs. 100% GSHPs ($Billions)

- Fuel costs remain the same as the same amount of fuel consumption is avoided. $1,162B
- Incremental equipment costs increase as GSHPs are generally more expensive than ASHPs. $435B
- Electrical energy costs increase as GSHPs reduce electricity consumption. $1,078B
- Power generation and transmission costs decrease as GSHPs reduce peak load impacts. $584B

Incremental Equipment Costs: $435B
Electrical Energy Costs: $881B
Power Generation and Transmission Costs: $584B

+ $137B
- $137B
- $495B
Figure 4. Estimated Cost Savings Under GSHP Theoretical Max Potential Adoption Scenario Relative to Original Study’s ASHP-Only Cost Estimates

Note: The range of savings represent uncertainty regarding the assumed generation power mix.
Figure 1. Estimate of Cost Savings Under GSHP Market Adoption Scenarios Relative to Original Study’s ASHP-Only Cost Estimates (Renewables-Only Generation Scenario)

Market Adoption Scenarios

Cost Savings ($Billion)

- 30%: $148B
- 20%: $99B
- 10%: $49B

Hypothetical Max Potential

Cost Savings ($Billion)

- 100%: $495B

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Conclusions

❖ GSHPs can significantly reduce the costs of widespread electrification in Canada
  
  o The avoided costs of electrification are substantial and scaleable
  
  o The avoided costs (savings to the grid) add up to $40,000 per installed system (after accounting for user costs)

❖ Benefits of GSHPs are highest in colder climates

❖ There is a significant mis-alignment between who benefits and who pays that must be addressed by policy
Report 2
Analysis of Barriers to Adoption

- High first cost
- Cost competitiveness of fossil fuels
- Competitiveness against other heating technologies
- Lack of consumer awareness
- Lack of industry awareness
Scan for Suitable Solutions

Exploration of solutions adopted in key jurisdictions

- Austria
- Germany
- Sweden
- Canada
- New York State
Scan for Suitable Solutions

Assessment of applicable and potentially effective policies

1. Regulatory financial support
   - Tax credits; Upfront incentives; Peak demand incentives/penalties; GSHP-specific power rates; GSHP financing

2. Building Code
   - National building code; Provincial codes; Green building standards

3. Emissions Pricing
   - Carbon pricing; RNG mandates

4. Drilling Regulations
   - Permit by rule policies; streamlined right-of-way access
Results of Analysis

- Tax Credits: Federal
- GSHP Financing
- Recurring Incentive
- Upfront Incentive
- GSHP Power Rate

Key Policies
- Carbon Pricing
- Permit by Rule
- Streamlined ROW Access
- RNG Mandate

Secondary Policies
- National Energy Code
- Green Building Standards
- Provincial Building Code

Increasing Ease of Implementation vs. Increasing Impact

- Regulatory Financial Support
- Building Code Updates
- Emission Pricing
- Drilling regulation
<table>
<thead>
<tr>
<th>Policy</th>
<th>Implementers</th>
<th>Timeline and Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Short (next 3 years)</td>
</tr>
<tr>
<td>GSHP-specific power rates</td>
<td></td>
<td>+ + +</td>
</tr>
<tr>
<td>Recurring peak demand incentives or penalties</td>
<td></td>
<td>+ + +</td>
</tr>
<tr>
<td>Federal tax credits</td>
<td></td>
<td>+ + +</td>
</tr>
<tr>
<td>Provincial tax credits</td>
<td></td>
<td>+ + +</td>
</tr>
<tr>
<td>Upfront incentives</td>
<td></td>
<td>+ + +</td>
</tr>
<tr>
<td>GSHP financing</td>
<td></td>
<td>+ + +</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Federal Government</th>
<th>P T</th>
<th>Provincial/Territorial Government</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Utilities</td>
</tr>
</tbody>
</table>
Dissemination of Findings

❖ HRAI and the OGA are sharing the findings with key agencies across the country (federal government, provincial agencies, utilities)

❖ More than a 30 productive meetings to date and system planners are starting to take note and see the need for a multi-pronged approach to electrification that includes all relevant options (*but painfully slow!*)

❖ More action needed at the provincial/utility level

❖ As markets open up, need for training and quality control (in collaboration with IGSHPA)
New Challenges (Opportunities?)
New Players in the HVACR and Geo Space

❖ Enbridge Gas Partnership on Greener Homes Program
  ▪ Home Efficiency Rebate Plus (HER+)
  ▪ Enbridge is now (since Jan 23) the Ontario partner and front end for NRCan Greener Homes decarbonization program
  ▪ Building on established Home Efficiency Rebate program
  ▪ Approved for three years by OEB under new DSM Framework
  ▪ Is it a ratepayer-funded “smokescreen?”
Introducing Home Efficiency Rebate Plus: Now up to $10,000 back!

Enhanced rebates through a new partnership with Enbridge Gas and the Government of Canada's Greener Homes Grant.

Enbridge Gas and the Canada's Greener Homes Grant have partnered to provide rebates towards eligible retrofits such as home insulation, windows and doors, heat pumps and renewable energy systems. The new, co-ordinated Home Efficiency Rebate Plus program will help more Ontarians save energy at home. This is great news for residents across the province, including current Enbridge Gas customers who use natural gas to heat their homes and will benefit from enhanced rebates up to $10,000. Participants can also offset the cost of their EnerGuide home evaluation with an additional rebate of $600.

Before you start any renovation work, you must complete a home energy assessment with a Registered Energy Advisor. Answer a few short questions to find a Registered Energy Advisor in your area. See how this program works.

Already enrolled in Home Efficiency Rebate or the Canada's Greener Homes Grant? Here's what to do next.
How the program works

1. **Step 1**
   Call and schedule an initial home energy assessment with a licensed Registered Energy Advisor. A list will be provided to you upon completion of the questionnaire / HER+ webpage.

2. **Step 2**
   They’ll provide a custom report with recommended upgrades.

3. **Step 3**
   Complete at least one eligible upgrade.

4. **Step 4**
   Schedule a follow-up home energy assessment.

5. **Step 5**
   Receive your rebate cheque, including up to $600 for the assessments.

More Ontarians now qualify

Grant funding through the Canada Greener Homes Grant is being offered across the country to all eligible Canadians. The co-delivery of this program through the HER+ in Ontario will allow eligible homeowners to access the benefits of both programs through a single application and streamlined process regardless of their home heating fuel type.

Type of homes that will qualify:

- **Enbridge Gas customers**
  Enbridge Gas customers who own and live as a primary resident in their home.

- **Enbridge Gas customers, with tenants (landlord-owned)**
  Enbridge Gas customers who own a home where they are not the primary resident.

- **Non-Enbridge Gas customers**
  Rebates for homeowners who do not heat their home with Enbridge Gas.

- **Off-grid communities**
  Communities not currently connected to the North American electrical grid nor to the piped natural gas network, living in a permanent or long-term (five years or more) settlement with at least 10 dwellings.

- **Multi-residential buildings**
  Owners in some low-rise and mixed-use properties are eligible for rebates. See details.
Save with rebates for these high-impact upgrades

**Home energy assessments**
Up to $600
The first step to determine which upgrades are right for your home.

**Air sealing**
Up to $1,300
Eliminate drafts, improve air quality and save energy with draft proofing.

**Space and water heating**
Up to $7,800
*ENERGY STAR® certified hot water heat pumps use up to 70 percent less energy. Ground source, air source and domestic hot water heat pumps qualify.*

**Solar panels**
Up to $5,000
Generate your own power and reduce dependence on the grid. Solar panels and batteries qualify.

**Home insulation**
Up to $10,000
Improve comfort, reduce energy costs and prevent moisture damage with attic, foundation, wall and exposed floor insulation.

**Windows and doors**
Up to $325 for each
High-performance windows prevent condensation and eliminate drafts.

**Smart thermostats**
Up to $125
Boost comfort and reduce costs by saving energy automatically.

**Weatherproofing**
Up to $1,850
Protect your home from climate change events, such as fires and floods.
New Players in the HVACR and Geo Space

❖ Enbridge Sustain

❖ Launched December 2022 (in planning since...?)
❖ “Energy-as-a-service” – a new business model/paradigm (new to this market)
Cleaner energy within reach

Turnkey energy solutions to help **builders**, **homeowners** and **businesses** fight climate change and support net-zero emissions.

A new era of energy innovation is here

We're committed to delivering sustainable energy solutions that are safe, reliable and resilient.
Renewable energy from the earth

Choose one of the most efficient heating and cooling technologies available

Contact us

Revolutionizing energy efficiency

Stay ahead of the curve with geothermal energy

We can help you build in sustainability and resilience with this leading-edge technology. Up to 360% expected efficiencies for heating than other fuel sources, this innovative solution will achieve net-zero emissions and reduce energy costs.
Clean energy from the sun

Choose solar to generate your own power while reducing emissions

Boost resilience year round with solar energy

Reduce dependence on the electricity grid

Take advantage of a clean, renewable energy source to generate electricity with no upfront cost. We make it easy, with custom solutions and end-to-end service.
A two-in-one system with endless benefits

Choose hybrid heating to optimize energy efficiency and a lower carbon footprint

Smarter heating and cooling

Keep costs low by applying the right energy mix

Innovative technology, such as hybrid heating, helps homeowners and businesses take steps towards reducing emissions and fighting climate change in Ontario.
New Players in the HVACR and Geo Space

❖ **Enbridge Sustain**

❖ Launched December 2022 (in planning since...?)

❖ “Energy-as-a-service” – a new business model/paradigm (new to this market)

❖ The Promise:

  ▪ Working with trusted partners, Enbridge Sustain manages end-to-end delivery including design, installation, maintenance, and energy reporting, **at no upfront cost to customers**

  ▪ Customers will enjoy peace of mind and pay a **convenient and affordable monthly fee** over a contracted period that varies based on the technology
New Veterans Dr. project going green with geothermal technology

'We are always looking for ways to offer affordable, comfortable, lower carbon footprint homes to our customers,' says developer

Nikki Cole
May 2, 2023 11:00 AM
Initial Concerns

- An unregulated business affiliated with the regulated utility
- Uncertain legal status within the utility (and potential for subsidies)
- Competitor or ally to industry participants? ES needs “partners”
- Re-establishment of utility rentals → potential monopoly
- Ability to leverage very powerful connection to homebuilders/developers
- Enbridge wants to own the customer relationship
- Power of the brand in all markets (RNC, RR, ICI)
- A “Wolf in Sheep’s Clothing?”
Industry Concerns

❖ An Unregulated Business within the Regulated Utility

- Potential for financial subsidies from regulated distribution business
- Potential for customer information sharing (almost impossible to monitor)
- Not an “unregulated affiliate” – therefore not subject to complaint under the Affiliate Relationships Code of Conduct (ARC)
- Reporting requirements are minimal (it appears) – there was no mention of Enbridge Sustain in the five-year Enbridge Gas rates proceeding that is currently before the Ontario Energy Board (why was this hidden?)
- At this point, unclear how OEB can regulate on this
Industry Concerns

❖ Promises of Industry Collaboration

- A Competitor or Ally to contractors?
- Enbridge says it will work in collaboration with industry...
- BUT Enbridge also wants to **own** the customer relationship
- Contractors may end up as sub-contractors or labour brokers, with no ability to compete for customers (Enbridge becomes the only customer)
- No appetite in industry to return to the “Authorized Dealer Network” days of the 1970s/80s/90s – “we thought we had resolved this matter once and for all”
- Industry mistrust is high
Industry Concerns

❖ Leveraging the Utility Brand

- Ability to leverage very powerful, widely recognized, brand
- Power of the brand works in all markets for these products (residential new construction, residential retrofit, ICI), but especially RNC (builders)
- As a utility, Enbridge enjoys a long-established and trusted connection to homebuilders/developers – door is wide open for building on relationships
- Unique ability to leverage NRCan partnership on Greener Homes and DSM programs like “Savings by Design” to position Enbridge Sustain as solution provider
- Perception among many that utility acts in the public interest → high trust level
- But company is *for-profit* and commercially motivated to grow business
Industry Concerns

❖ **Tendency to Monopoly**

- This action follows on the dissolution of Enbridge *Open Bill Agreement* that was intended to level the playing field (why eliminate the program?)
- Re-establishment of utility rentals may lead to potential monopoly, as happened with water heaters and other “ancillary businesses” in the 1970s/80s/90s
- Understandable appeal of value proposition (and an easy sell) to homebuilders
- Memory of water heater rentals (50+ years ago) – which rapidly led to almost 100% market share within 10-15 years
- Utility ownership of heating systems locks out competition for life!
Industry Concerns

❖ Need for Action

- Under industry and ratepayer pressure, OEB acted in the 1990s to separate out water heater rentals (and other ancillary businesses) from the regulated monopoly -- and the industry and ratepayers benefitted

- “We’ve seen this movie before…”

- There is strong precedent at OEB that this type of utility activity should not be permitted (also in other provinces)

- But -- until recently -- OEB was completely unaware of this new business activity

- Government leaders are aware but appear unconcerned about implications
Options for Industry Action

❖ Do nothing → “wait and see” (*not acceptable*)
Options for Industry Action

❖ Regulatory/legal approach

▪ Ontario Energy Board Rate Hearing
▪ OEB Affiliate Relationships Code (ARC) Complaint – *but not set up as an affiliate*
▪ Lawyer’s letter to OEB – requesting help/interpretation/action (*underway*)
▪ More potential opportunities await at the OEB
▪ Rate subsidies traditionally prohibited by OEB, but might be welcomed as a policy(?)
▪ Raise concerns with Federal Competition Bureau (*underway*)
Options for Industry Action

❖ Political options
  ▪ Direct appeal to Government of Ontario (Minister Todd Smith, MPPs)
Todd Smith, Ontario Minister of Energy
Engaged with HRAI and the industry (shown at CMPX trade show and HRAI Skills Competition)
Join us for a luncheon with the Minister of Energy, our local MPP Todd Smith for a Provincial Budget Breakdown and updates from the Province.

Presentation by MPP Todd Smith will be followed by a Q&A which will be your opportunity to ask questions directly to a member of the Provincial legislature.

...also friendly to Enbridge (frequent sponsor and regularly engaged with Minister)
Options for Industry Action

❖ Political options

- Direct appeal to Government of Ontario (Minister Smith, MPPs)
- Also engaging with Ministers of Small Business (Assoc. Min. Nina Tangri) and Public and Business Service Delivery (Min. Todd McCarthy) and others
- Consider letter-writing to MPPs or more substantial forms of partisan appeal (i.e. $$)?
- *Emphasize impacts on small business owners and their customers, and the erosion of an open, competitive market*
- But note that perceptions among MPPs of the residential HVAC industry are tainted by actions of a handful of unethical companies (door-to-door vendors)
Options for Industry Action

❖ Direct dialogue with Enbridge
  ▪ Search for “win-wins” or urge a reconsideration building on our positive relationship
  ▪ Is there an opportunity for collaboration that works for contractors?
  ▪ This option must be explored, while other options are pursued
  ▪ But many in industry are mistrustful -- industry has been misled before
Options for Industry Action

❖ Beat them in the Marketplace
   ▪ The market-based solution: build new business models that will be more attractive to end users (perhaps via a consortium?)
   ▪ Who will lead? Who will underwrite?
   ▪ This will be very difficult, due to market dominance (and head start) of Enbridge
Summary of Actions Taken

❖ Initial Engagement with OEB
❖ Appeal to the federal Competition Bureau
❖ Open dialogue with Enbridge
❖ Political awareness raising (Ministerial and grassroots)
❖ Mobilize industry awareness and support
❖ Fundraising → building a war chest
New Challenges
Ground is Shifting for Governments

- Federal commitment to the “price on carbon” (a.k.a. carbon tax), is wavering
- Impending “cancellation” of Greener Homes Program (3/24)
- Slow implementation of CTITCs – and with restrictions
- Government in waiting doesn’t currently have a plan
- Provinces are stepping up (QE, ON, MB, BC)
- More work to be done!
Thank You!

For more information:

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