GEOTHERMAL IN THE CITY

Annual Conference, December 5 - 7, 2023 – Las Vegas, NV
AGENDA

- Geothermal misconceptions
- Polarizing objectives
- Market ready solution
- What will drive change?
GEOTHERMAL MISCONCEPTIONS

- Geothermal = heat pumps
- Geothermal requires space
APPLICATIONS

• Water source heat pumps
• Heat recovery chiller – fan coils
• Heat recovery chiller – VAV
• Water source VRF
• Chilled beams
• DOAS
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BARRIERS TO ENTRY

- Risk
- Departure from the norm
- Pushback from consultants & trades
- Cost (access to traditional capital)
BARRIERS TO ENTRY

- Increased risk due to departure from “business as usual”
- Design
- Construction
- Building operation
BARRIERS TO ENTRY

- Rising construction costs
- Interest rates
- Project proformas
- Increased equity requirements
- Sustainability vs. profitability
STATUS QUO IS NO LONGER AN OPTION

BUILDING CODE CHANGES

LOCALIZED LOW-CARBON INITIATIVES

SHIFTING MARKET EXPECTATIONS
3rd Party Ownership Business Model

- What if low carbon buildings were cheaper to build and more profitable to operate?
ALL THE BENEFITS, NONE OF THE RISK

Following a utility-like model, a third-party owner will design, build, pay for, own, and operate the geothermal borefield.
MARKET READY SOLUTION

• Simplified budgeting
  • Cost certainty for 30 years

• 100% performance guarantee

• Future proofed building

• Tenant retention, tenant profile

• Capex to Opex (flowthrough to tenants)
MARKET READY SOLUTION

- Sustainability vs. profitability
- No longer mutually exclusive
WHY CHANGE?

• Not all developers want to change

WHAT WILL DRIVE CHANGE?

• Policy
DIVERSO ENERGY
SAMPLE PROJECTS

- The Exchange District
- Mississauga, ON
- 4 buildings
- 35–65 storeys
- 6 levels of underground
DIVERSO ENERGY
SAMPLE PROJECTS

- *Alba Condos*
- Mississauga, ON
- 32 storeys
- 414 units
- 300,000 sqft
- 8 levels of underground
DIVERSO ENERGY
SAMPLE PROJECTS

- 101 Spadina
- Toronto, ON
- 45 storeys
- 417 units
- 300,000 sqft of mixed use
DIVERSO ENERGY
SAMPLE PROJECTS

• 30 Westwood Gardens
• Toronto, ON
• 16 storeys, 2 buildings
• 420 units
• 320,000 sqft
• Common parkade, main floor retail