



*Residences of Springhill, King City, Ontario*



# MULTI-SUITE & RESORT FACILITY SOLUTIONS

At TRAK International® we design dependable and rapidly installed hydronic HVAC systems in new or retrofit multi-resident facilities. Over 25 years of design and construction experience includes award-winning resorts and multi-suite buildings with market-leading energy and emission reduction. We provide a comprehensive approach to building mechanical systems including heating, ventilation, air-conditioning, waste heat utilization, automation and plumbing.

On-site combined heat and power (CHP) cogeneration can reduce electrical costs and provide high temperature water for domestic hot water, HVAC, and community amenities like restaurants, swimming pools, hot tubs, spas, and laundry. The CHP enables off-grid electricity supply, fully assuring the indoor environment for residents and guests at all times.

We arrange financing for your new build or retrofit. Our cleantech measures will reduce your facilities' operating costs and your carbon foot print. We assist customers with ongoing monitoring to ensure optimal building performance.



*The Cove Lakeside Resort, Kelowna, British Columbia*

## OPERATING COST REDUCTION

Integrated Design Centred  
Around Energy Savings can  
Lower Your Operating Costs

## DESIGN-BUILD ENGINEERING & CONSTRUCTION MANAGEMENT

Turnkey Custom Build  
Upgrade Your Facility  
Financing

## MODULAR HEAT PUMPS

Move Your Heat Efficiently

## COMBINED HEAT & POWER

Provides On-Site Power, Backup  
Power, Lowers Electricity Costs,  
and Supplies High Grade Heat

## GEOEXCHANGE & "FREE" COOLING

Provides Natural and Efficient  
Heat Exchange and Storage

## UNIFIED CONTROLS

Energy Management Control  
System Automates Your Facility

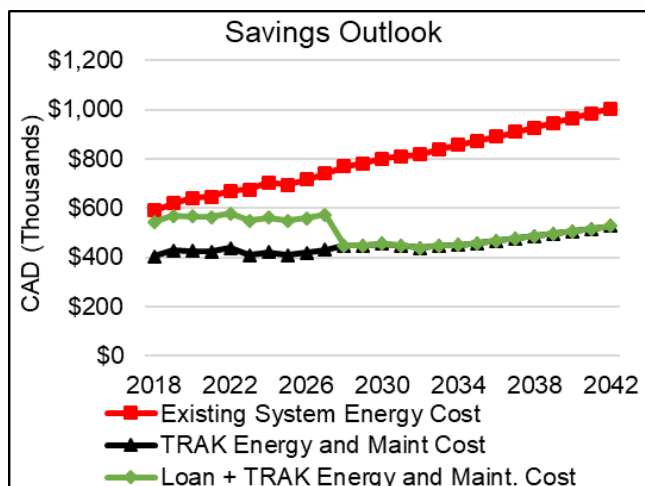
## ONGOING MONITORING & PREVENTATIVE MAINTENANCE

Watch Your Facility 24/7 to  
Ensure Systems are Operating  
Correctly and Efficiently

## ONGOING COST SAVINGS AND FINANCING

TRAK has designed and built the mechanical systems of numerous properties that continue to consume less energy than comparable buildings. Energy savings of 40-60% are most often achievable, resulting in a large reduction in ongoing operating costs.

Our team offers optional financing for new construction or to fund the additional capital expenditures of installing energy efficient systems. The operating cost savings will often pay back the loan in the first few years of operation, while having realized net savings from Day 1.



## MODULAR HEAT PUMPS

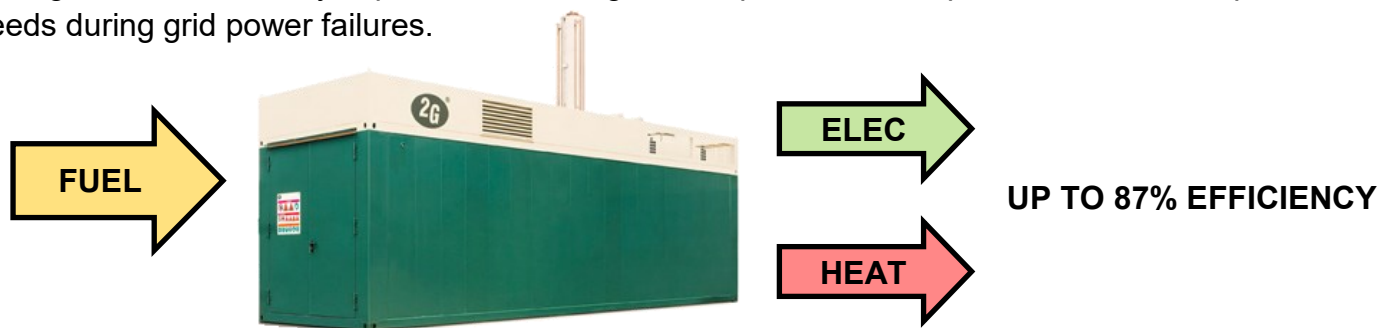


Energy is efficiently moved throughout the facility, removing heat from warm rooms and delivering the heat to cool rooms. Heat can also be distributed to domestic hot water systems, pools, snow melt, or stored in GeoExchange ground loop systems for later use. Moving heat throughout the building efficiently reduces wasted heat and energy, reducing equipment operational costs.

The Heat Pumps are designed for easy access and can be serviced by standard refrigeration technicians.

## COMBINED HEAT AND POWER INTEGRATION

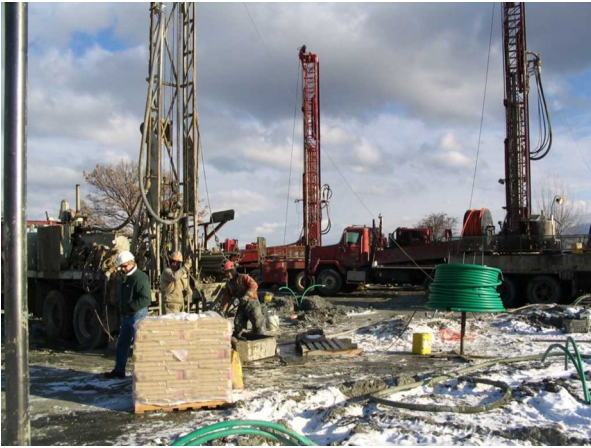
If best suited, most or all of the facility's electricity load remaining after efficiency upgrades can be produced on-site by a natural gas Combined Heat and Power (CHP) cogeneration plant. The CHP plant generates electricity in parallel with the grid, and provides all or part of the heat and power needs during grid power failures.



Heat from the CHP adds to the heat collected by the Heat Pumps. This free, high temperature heat by-product is used to provide instantaneous and abundant domestic hot water in addition to suite, make-up air, and garage heating. It can also be used for other facility features such as swimming pools, spas, snow melt, laundry/kitchens and various activity areas. The CHP and Heat Pumps work hand-in-hand to cost efficiently assure power and ideal facility conditions.



# GEOEXCHANGE



Vertical boreholes of the GeoExchange field go down to depths of 500 ft (~150 m).

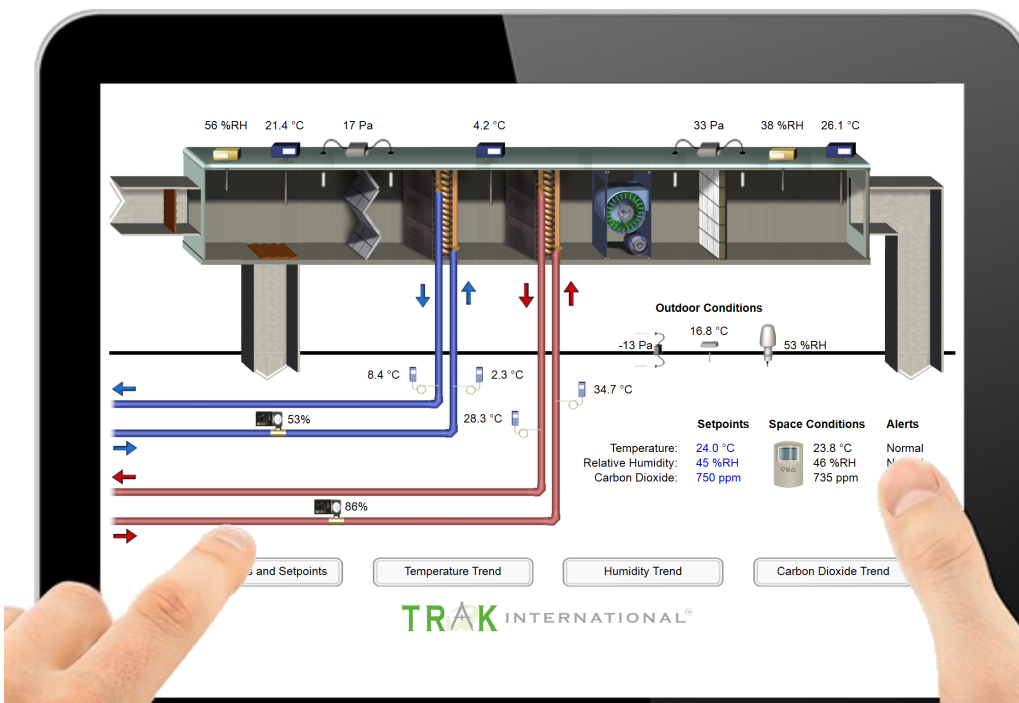
The steady temperature of the ground relative to outdoor air enhances the efficiency of the Heat Pumps, helping to level the energy load. In the summer, heat is removed from the building and when not used for other features can be stored in the ground for daily or seasonal heat recovery. This efficient storage and use of heat generates significant savings throughout the year.

## HEAT REJECTION AND FREE COOLING

Surplus heat can also be rejected at a water conserving dual purpose Dry Cooler. The Dry Cooler(s) can also be used for “free” heating and cooling, displacing Heat Pump compressor work.



## TRAK ENERGY MANAGEMENT CONTROL SYSTEM



The facility operation is coordinated and optimized by an industrial-quality energy management and control system.

TRAK's controls keep the mechanical and electrical systems operating cohesively, maximizing energy savings.

# CONTACT INFORMATION

**If you think we may be of assistance, our  
Professional Engineers and specialists would be  
pleased to meet with you.**

## **MAIN OFFICE**

5-1050 Leathead Road

Kelowna, BC V1X 2K1

Telephone: (250) 491-8460

Email: [info@trakge.com](mailto:info@trakge.com)

Website: [www.trakge.com](http://www.trakge.com)

## **ONTARIO OFFICES**

Thunder Bay

Burlington

Kitchener

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