

Heartland Water Technology



Investment Roundtable – Projected 2018-2020 Resiliency & Water Tech Investing



Overview

Founded in 2008, Heartland Water Technology (“HT”) has patented and commercialized novel technology for treating difficult-to-treat industrial waste waters

The Heartland Concentrator is a direct contact evaporator that sets new benchmarks for reliability, ease of use and cost to treat

Proven technology with tier 1 customers in key applications



Proven Applications

Landfill Leachate
Flu Gas Desulfurization
Produced Water
Enhanced Pond Evaporation



Proven Application for O&G Frac Water



Owl's Nest Pilot Facility

2008 – 2010



Cherry Flats Compressor Station

2012-Present



Proven Solution for Produced Water

- Thermal energy from 100% well-head gas and 100% compressor exhaust proven.
- ZLD solids to conventional landfill (meeting TCLP, Paint Filter and RAD requirements).
- Produced custom tailored heavy brine for drilling.

US Produced Water

- Low oil prices shining light on water management.
- Slow down in drilling bringing forward the produced water management cost.
- Increased regulatory focus on deep well injections – wells are harder to permit, and are being closed.
- Need for close proximity (well head) volume reduction.
- Earthquakes from Deep Well Injection could challenge continued use of saltwater disposal wells



All Heartland Concentrators are full Skidded and Ready for Rapid Deployment

1. Minimize field installation complexity – often in remote areas
2. Factory-tested to ensure seamless start-up and commissioning
3. Lower total cost-of-delivery

Trends in financing

- Distinct shift from distribution to Infrastructure projects
- Move to Equipment and digital technology focus rather than chemical treatment
- Increasing use of lease and BOO over capital buys
- Long term investment in
 - Recurring revenue generation
 - Hard assets
- More capital available ...few serious projects
- Clearly a solution providers market



Industry trends

- The seriousness on water reuse is industry selective
- Oil and Gas continues to be speculative
 - Awareness on produce water reuse, isn't translating quickly as a sustainable, feasible business model
 - Volumes and fresh water cost, continue to dictate the commercial attractiveness of produce water reuse
- Industrial Waste Water
 - Zero Liquid Discharge becoming a norm in many industries
 - Power and food are leading the market in ZLD
- Water scarce geographies lead the ZLD initiative



Definition of a good project

- Has existing and / or emerging market need that will last over time
- Offers comprehensive, competitive and differentiated solution to the problem
- Delivers tangible value to its customers
- Also, aims at achieving a profitable return that ensures
 - timely payment of interest and principal,
 - attractive return on the invested capital
 - positive and consistent cash flows.

