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EMPower Your Heat

EMPowered Heat

Industrial process heat is going electric.

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www.acceleware.com

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Forward Looking Statements & Advisory

Certain statements in this presentation include forward-looking information (as defined in Canadian securities legislation). Such statements appear in Slide 3 (Introducing Acceleware), Slide 5 (Future Market Size), Slide 6 (Up to 2000°C), Slide 7 (EM Powered Heat is Entirely Different), Slide 9 (EM Powered Heat at Work), Slide 11 (EM Powered Heat with the Clean Tech Inverter), Slide 12 (RF XL Solution Description), Slide 13 (RF XL Solution & Where We Stand), Slide 14 (EM Powered Heat Mining Case Study), Slide 15 (Molecular Heat = Efficient Heat), Slide 16 (EM Powered Heat Commercialization), Slide 17 (Business Model), and Slide 18 (Strategic Pillars).

These statements involve numerous assumptions about future economic conditions and courses of action and are therefore subject to various risks and uncertainties. These risks and uncertainties include, but are not restricted to, the ability of Acceleware Ltd. (“Acceleware”, “AXE” or the “Corporation”) to fund its research and development (“R&D”) activities, the timing of such R&D, the likelihood that the patent applications filed by the Corporation will be granted, continued increased demand for the Corporation's products, the Corporation's ability to maintain its technological leadership in various fields, the future price and cost of producing heavy oil and bitumen, the availability of key components, the Corporation's ability to attract and retain key employees and defend itself against any future patent infringement claims, and the ability of the Corporation to extend the application of RF heating to new markets.

There can be no assurance that such statements will prove to be accurate. Actual results could differ materially from those anticipated in such statements. These and all subsequent written and oral forward-looking statements are based on the estimates and opinions of management on the dates they are made and expressly qualified in their entirety by this notice. The Corporation assumes no obligation to update forward-looking statements should circumstances, or management's estimates or opinions, change except as required by law.

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We develop highly scalable electromagnetic (EM) heating solutions for industrial process heat to economically electrify and decarbonize processes previously considered difficult to abate.

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The Problem:

15%

Industrial heat accounts for a massive 15% of global GHG emissions. The DOE defines industrial process heat as the use of thermal energy to produce, treat, or alter manufactured goods.

Electrifying Industrial Process Heating is Hard

Electrification methods are often:

expensive

difficult to scale

inefficient

$1 Trillion

Recent reports quantify the electrification of industrial heat as the next $1 Trillion market.

Bloomberg NEF

US$500 Billion by 2037

Energy transition expert and founder of Bloomberg NEF Michael Liebreich expects the market for the electrification of heat will reach $500 billion by 2037.[1]

Ambienta Research

€1 Trillion Market

Ambienta Environmental Investments' Saverio Zefelippo and Fabio Ranghino predict the Electrifying Industrial Heat market will reach €1 trillion[2].

1 Liebreich: The Next Half-Trillion-Dollar Market – Electrification of Heat

2 Ambienta Environmental Investments: Electirying Industrial Heat 2023

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Heat pumps are part of the answer but can only target small scale and lower temperature electrification of heat processes (up to 200°C for now).

Less than 200°C

EMPowered Heat can do for high-temp, high-power process heat what heat pumps do for comfort/building heat.

Even up to 2000°C

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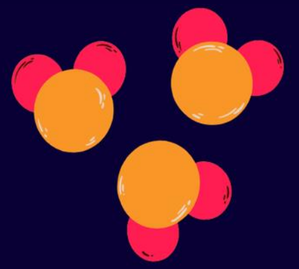
EMPowered Heat is Entirely Different

Entirely New Technology: allows for **economic** electrification of industrial process heat via electromagnetic (EM) energy for the first time, removing barriers that prevented success in large-scale electrification of heating in the past.

Delivers High Power/High Temp Heat with EM Energy: molecular level heating is scalable to high volume and high power (megawatts of heat power).

Less Expensive: At industrial scale, high temperature, or high power it can be less expensive than other electric methods.

Efficient: By coupling EM power directly to materials, the result is less waste energy.



Applications

Pilot underway

Heavy Oil

- Thermal enhanced oil recovery – RF *XL*
- Hot water flood
- Refinery heating processes

Pilot underway

Mining

- Mineral drying
- Heap heating
- Calcining
- Thermal fracturing
- Pre-conditioning

Agriculture & Food

- Grain & seed drying
- Manure & slurry drying
- Powder drying

Clean Fuels & H_2

- Pyrolysis of methane or biomass
- Bio-fuel feedstock drying
- Process heat

Pulp & Paper

- Product drying
- Process heat

Steel

- Direct Reduction of Iron
- Calcining
- Blast furnaces
- Boilers / process heat

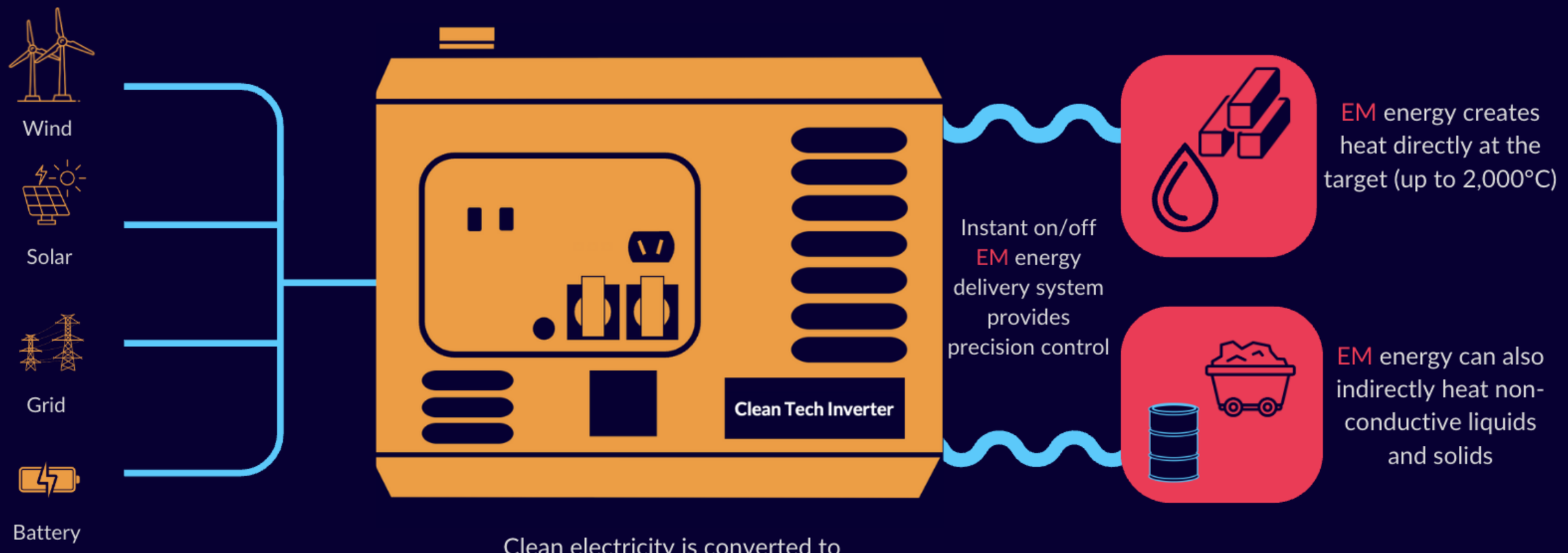
Cement

- Calcining
- Process heat
- Drying

Other

- Carbon Capture
- Pharmaceuticals
- Biomass
- Glass
- And more

EMPowered Heat at Work



Zero-carbon wind, solar, battery storage or grid power can be fed directly to the CTI

Clean electricity is converted to 98% efficient EM energy

EMPowered Heat takes advantage of electromagnetic properties found within all materials to heat molecules directly, rather than relying on multiple heat transfer paths - eliminating significant energy losses and unnecessary equipment footprint.

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Achievements

The CTI is a solid-state heat on demand technology able to deliver up to 100 MW of EM power with 98% conversion efficiency.

RF *XL* Heavy Oil Pilot

Commercial-scale pilot started heating in 2022. $30M project with support from Suncor, Cenovus, 3rd major oil sands operator, ERA, AI, CRIN, and SDTC. RF XL longest duration RF subsurface test at highest power levels in history.

Mining - IMII

EMPowered potash ore drying pilot project with IMII members BHP, Nutrien, and Mosaic started Q3 2023 – 1 t/hr dryer in Q2 2024 and plan to scale to 10 t/hr in 2025. Mineral proof of concept dryer completed in 2017.

IP Portfolio

Extensive and growing portfolio of patents, filings and trade secrets protect the core technology (CTI) as well as each of the energy delivery methods designed for specific applications.

Mineral Dryer 500 kW

2017 Successful field test of mineral dryer technology – validated ability to dry at TRL 4 using high power.

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EMPowered Heat with the Clean Tech Inverter

Cracking the code on EM energy for Industrial Process Heat is an Electrification Game-Changer

CTI

Currently under full-scale pilot in Acceleware's RF XL enhanced oil recovery project

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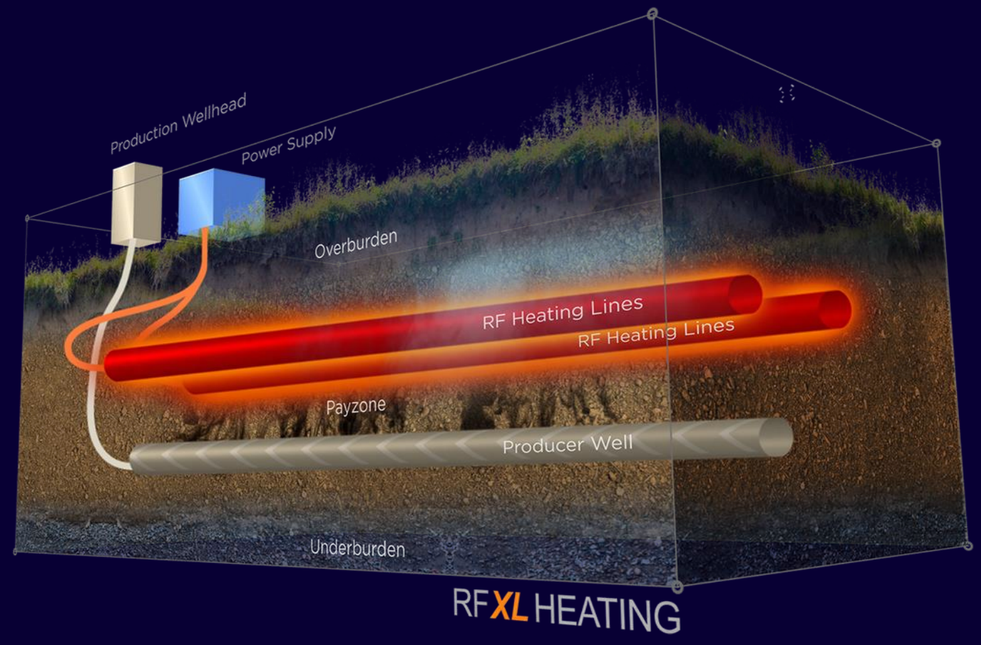
RF *XL* Solution Description

RF XL reduces energy consumption required to mobilize heavy oil and bitumen.
A world first, allowing for near zero emissions heavy oil production at low cost.

RF *XL* - Low Cost, Low GHG Production:

- RF *XL* design involves drilling two RF *XL* heating lines into target zone and connecting to Clean Tech Inverter power source at surface (blue box depicted).
- By using traditional oilfield tubulars as “lossy transmission lines”, RF *XL* converts radio frequency energy into heat that propagates through the reservoir.
- Water present in the reservoir is converted to steam, **eliminating the need for fresh water**. **Equivalent SOR of 1.3-1.5 vs. 2.5-3.0 for SAGD.**
- **Heavy oil or bitumen is produced** using an industry standard producer well situated 5m below the heating lines.
- In addition to operating and capital cost savings, RF *XL* can **immediately reduce greenhouse gas (GHG) emissions 50 – 100%** vs steam processes.



A better, cleaner and more cost-effective way to produce bitumen and heavy oil resources

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RF *XL* Solution & Where We Stand

***After $32 million and 13 years of extensive R&D, we are very near* RF *XL* commercialization.**

First Phase of Marwayne heating has been completed.

Second Phase Marwayne heating can advance development of RF *XL* to TRL 9, at a cost of $5.0 million (over a third of this funding has been secured to date).

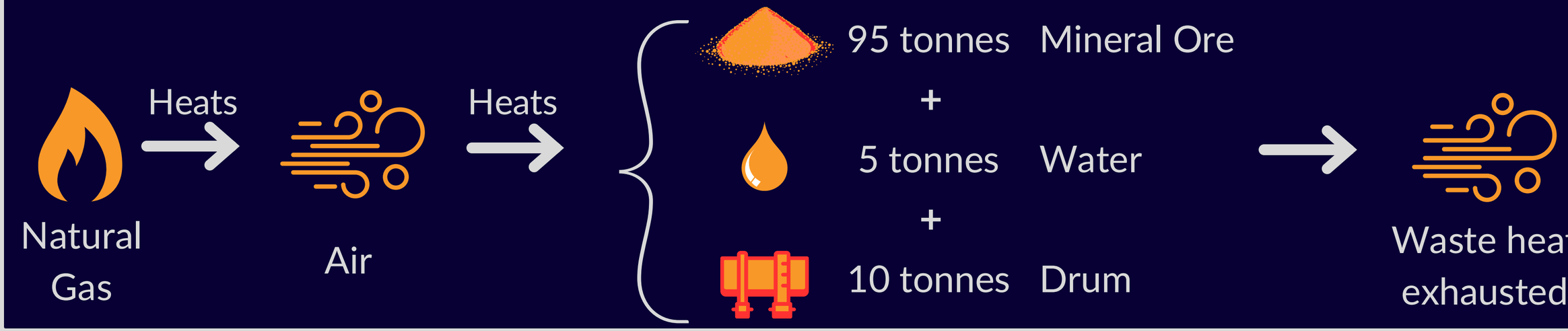
For heavy oil and bitumen production RF *XL* can deliver:

- Lower cost: (opex and capex)
- Electrification:
  - zero scope 1 (50% GHG reductions even when powered by today's grid).
  - potentially zero scope 2 when powered by renewables.
- More oil: Access to >250 billion barrels of Canadian OOIP in thin pay, post CHOPS and thinner cap rock reservoirs, previously inaccessible for thermal recovery.

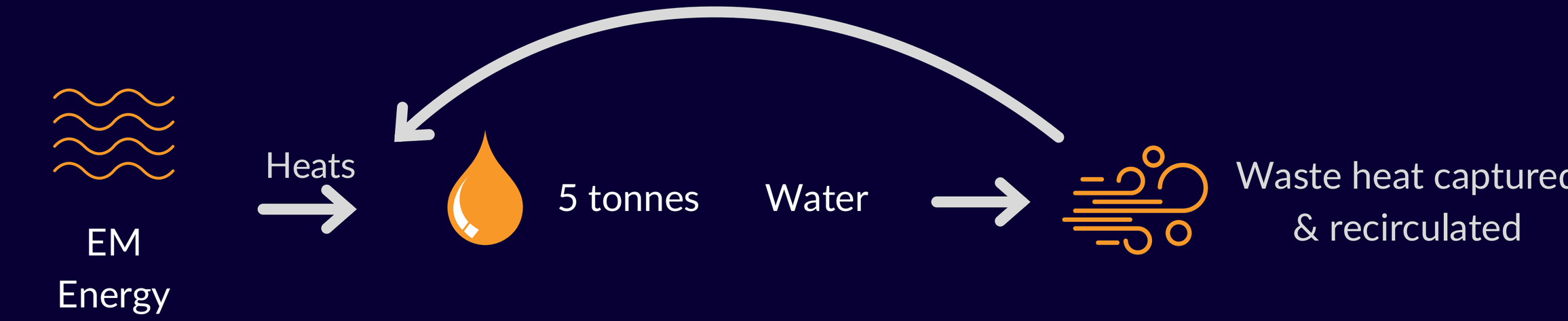
Expanded opportunity, cheaper AND cleaner barrels. THAT is RF *XL*.
We're almost there.

EMPowered Heat: Mining Case Study

Traditional Combustion Dryers – Heat and Dry 110 Tonnes



Vs EMPowered Heat Dryers – Heat and Dry 5 Tonnes



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Molecular Heat = Efficient Heat

- Delivers EM energy intelligently by coupling power to heated materials at the molecular level.
- Precisely controls the power level and could improve yield.
- Highly tolerant to EM interference/noise.
- Can operate on intermittent power and instant on/off capability, avoiding peak time operation and allowing 100% renewable power sources without battery storage requirements

No wasted energy transferring heat from one place to another.
No wasted energy distributing heat throughout the material mass.

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EMPowered Heat Commercialization

EM Powered Heat & CTI	TRL 4	TRL 6	TRL 8	TRL 9
RF XL	TRL 2	TRL 4	TRL 7	TRL 8
Drying	TRL 4			TRL 6

Development time for new applications is dramatically reduced now that our core CTI technology is proven and commercial ready.

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Business Model: System Sales & Support

	Value Proposition vs. Status Quo		AXE Revenue and GM			Serviceable Market
RF XL (per well)	% CAPEX Saving	50%	Initial Sale	$2.9M	50% Gross Margin	AB / ROW wells / year 497 / 994
	% OPEX Saving	40%	Recurring Revenue	$250K		
Dryers (per MW)	% GHG reduction	50%	Initial Sale	$1.1M	50% Gross Margin	Global Market $3.5B/yr
	% OPEX Saving	20%-60%	Recurring Revenue	$60K		

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Strategic Pillars

Novel decarbonization technology targeting $1 trillion opportunity with strong IP portfolio.

- TRL 9 CTI – the core technology behind **EM Powered Heat** is ready to commercialize.
- Partnerships and pilot projects with global industry leaders to commercialize heating platforms with significant global demand:
  - Oil Sector: Suncor, Cenovus, Others
  - Mining: BHP, Nutrien, Mosaic Co. (potash).
  - This creates a massive (~ 1 Trillion dollar) energy transition opportunity for the efficient and cost effective decarbonization of industrial heat.
- Mineral dryer and RF XL (EM Heavy Oil production) targeted for TRL 9 in 2025.

15% Industrial Heat % of Global Emissions

Global Demand Driver

$1 trillion Total Addressable Market

Massive Emerging Market

62 Patents Granted / In Progress

Strong & Growing IP Portfolio

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Financial Overview

Trading Information (June 2024)

Symbol	TSXV: AXE
Shares Outstanding	118.3 million
Diluted Shares Outstanding	134.3 million
Recent Price	$0.12

Capital Structure (June 2024)

Market Capitalization	$13.0 million
Net debt (long-term debt less cash)	$2.0 million
Insider ownership	14%
Key institutional investors	14%

Invested in R&D since inception **$50M**	Including $30M invested in the RF XL Pilot
Capital raised since going public **$21M**	Private placement of shares, units, debentures and since 2006
Government Grants Awarded To Date **$20M**	For RF XL commercial scale prototype and subsequent field testing
Industry contribution to development **$14M**	For technology evaluation and development of the CTI and pilots

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The Team: Proven Track Record

Leadership

Geoff Clark, BSc, MBA
Chief Executive Officer

Michal Okoniewski, PhD
Chief Scientific Officer & Co-Founder

Mike Tourigny ,BComm, MBA
Chief Operating Officer

Kate Tourigny
VP Decarbonization

Our team is in it for the long term, with average tenure of 13 years and growing for management and a decade and growing for contractors and employees alike.

The leadership team has over 150 years combined experience in tech development and commercialization, as does the tech team, which has published hundreds of academic papers. To date we have filed 62 patents with 26 granted.

Our collective skill set is highly complimentary, resulting in the right people to develop the technology and the right people to scale the business.

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