

# EMPowered Heat

Industrial process heat is going electric.

**December 2025**  
[www.acceleware.com](http://www.acceleware.com)



**Acceleware is the leading global provider of radio frequency (RF) process heat solutions– improving the economics and production outcomes for industrial heating applications and heavy oil extraction.**

***Our focus is to commercialize our technology to generate near term sustainable cash flow.***

- Our process heat technology is poised to drive meaningful revenue growth.
- 3 industries: enhanced oil recovery, critical minerals, and carbon capture.
- \$1.0M private placement Summer 2025 allows AXE to:
  - Secure rights to heavy oil lands to deploy RF XL 2.0, produce oil in 2026
  - Advance our mineral dryer to revenue generation in 2026
  - Advance our amine regeneration tech to full system demo Q1 2026
- Non-dilutive funds from industry and government will be augmented with additional capital as required to complete deployment of RF XL 2.0 and progress mining and amine applications.

# EMPowered Heat: The CTI

*An Electromagnetic Industrial Power-to-Heat Converter (Clean Tech Inverter)*

- Delivers RF energy directly to molecules that need heating - eliminates most heat transfer energy losses
- Converts electricity to RF energy with unprecedented 98% energy efficiency
- Can rapidly and efficiently heat large volumes of material
- Low capital cost, 25-year lifespan can support continuous operation





# EMPowered Heat: Value Add

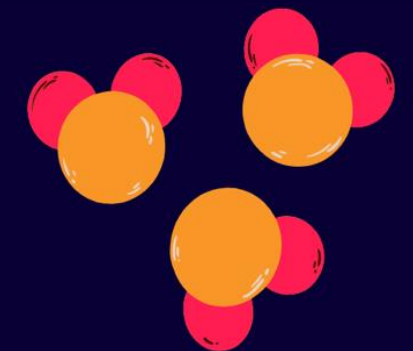
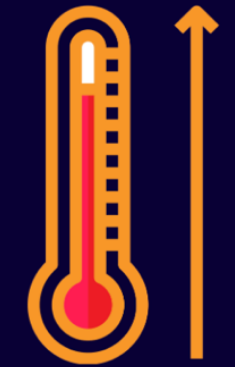
*Will reduce operating costs and increase production*

**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.



**We use significantly less energy to achieve the same or better industrial heat outcomes, reducing cost, increasing production/yield for bottom line impact**





# Focus on Three Target Markets

## Applications



~\$32B USD TAM

Heavy Oil - Thermal EOR

### MORE BARRELS, FASTER

*Ready to Demonstrate What's Next for Heavy Oil Recovery.*

- Lowers capex/opex, energy use
- Cuts water use
- Increase recovery factor/production
- Unlock bypassed reservoirs

Seeking a farm in/asset purchase for commercial demonstration and revenue generation. Major partners interested.



~\$10B USD TAM

Mining – Mineral Processing

### CRITICAL MINERALS PROCESSING –LOWER COST THAN COMBUSTION

*“...Only Tech To Cut Energy Input” (client quote)*

- Less energy input - estimated 75%
- Lower cost - estimated 25-75%
- Huge energy cost savings in high nat. gas price environments (EU, etc.)

Projects underway with BHP, Nutrien, and Mosaic Co. for potash drying plus new projects for drying and heap leach heating in Australia and Latin America.



~\$8.8B USD TAM

Amine Regen – CO<sub>2</sub> & H<sub>2</sub>S

### AMINE REGENERATION - LOW COST CARBON CAPTURE

*Less Energy + Reduced Amine Degradation*

- Estimated 75-85% less energy inputs
- Reduces amine degradation
- Advantages apply to the dominant CO<sub>2</sub> and H<sub>2</sub>S stripping technology.

Seeking demonstration and commercialization partners to generate revenue.

# Financing Plan:

- Stage 1:** \$1.0 Million private placement completed summer 2025.
- Stage 2:** Securing non-dilutive financial support from industry and government funders for the deployment of RF XL 2.0 on a farm-in asset, complete next stage prototypes for minerals and carbon capture.
- Stage 3:** Securing additional equity investment as needed to produce oil with RF XL 2.0.

## Q4 Objectives:

- Obtain one or more farm-in or joint venture agreements for assets that closely match RF XL 2.0.
- Begin deploying RF XL 2.0 at a farm-in site, ensuring that more than 50% of the deployment costs are financed by non-dilutive industry and government funds, with the remainder covered by equity financing.
- Progress the commercialization of the potash dryer, fully backed by non-dilutive industry contributions.
- Finalize the pilot deployment of amine regeneration technology in a 1 tonne/day demonstration system through a collaboration, with approximately 50% of the funding sourced from non-dilutive channels.

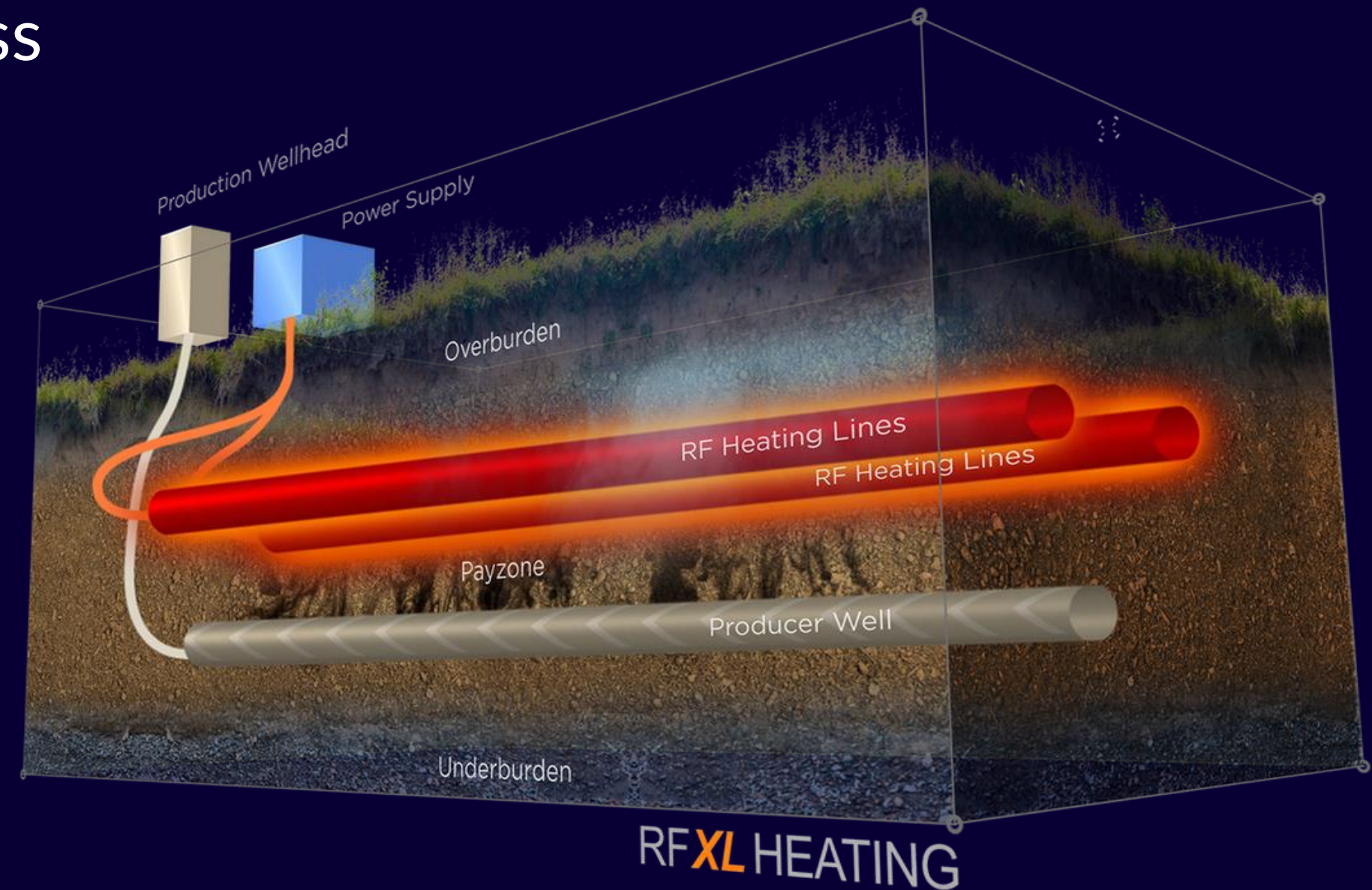




# RF XL 2.0: More barrels faster, cheaper

*Rolling out RF XL 2.0 based on learnings from RF XL 1.0 Pilot.*

- ✓ advances RF XL to commercial readiness
- ✓ solves issues from RF XL 1.0 pilot
- ✓ reduces capital cost
- ✓ easier to install
- ✓ can be re-deployed



**Expanded opportunity, cheaper AND cleaner barrels. THAT is RF XL.**



# RF XL 2.0: More barrels faster, cheaper

## Lloydminster Heavy Oil

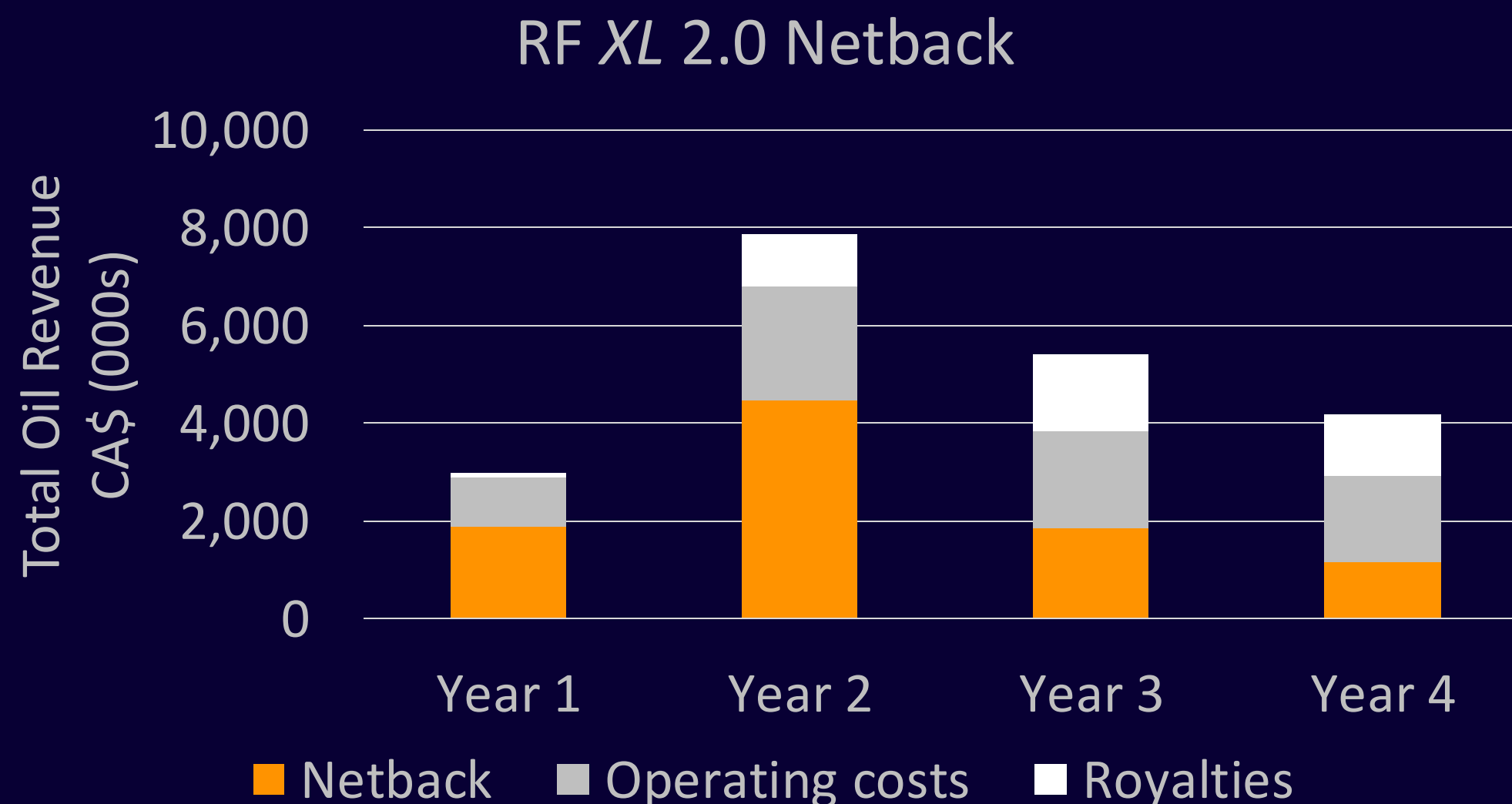
*RF XL 2.0 is ideally suited to profitably produce significant volumes of heavy oil from bypassed reservoirs in the Lloydminster region.*

- Acceleware is building a portfolio of farm-in agreements for ideal showcase reservoirs.
- Approximately 275 billion post-CHOPs 'bypassed' barrels in Canada, plus 500–900 billion barrels globally (excluding Venezuela).
- Lloydminster heavy oil is an ideal pilot location.
- Recently signed a distribution agreement with Scovan.

**Oil production from RF XL 2.0 demo project will generate cash in 2026, new RF XL system sales via Scovan starting in 2027.**

# RF XL 2.0 Farm-in Economics (Saskatchewan)

	EMPowered Heat
Opex and Transport (/bbl)	\$ 21.90
Capex (millions)	\$ 5.00
Oil EUR (000s bbls)	375
Cap efficiency (\$ / bbl/d year 1)	\$ 21,900
NPV10 (\$millions BT)	\$ 2.10
IRR (BT)	>77%
Cash Breakeven (months)	20.0



More barrels, quicker payout

# Potash Drying Energy and Cost Case Study

## Traditional Combustion Based Dryers



## EMPowered Heat Dryers





# Mining: Potash & Critical Mineral Drying

*Acceleware's project with IMII (BHP, Nutrien, Mosaic) has demonstrated potash drying energy reductions of 75%.*

- Successfully finished three testing and development stages.
- Estimated reduced energy input by 75% at commercial scale (>1 t/hour).
- EM Powered Heat dryer efficiently dries potash fines, enhancing production.
- Upcoming development phase will support commercial fines dryers.
- Conducting a feasibility study with a leading iron ore miner.
- Third application in negotiation.

**Potash drying can generate revenues in 2026 then expand into drying / processing other critical minerals.**



# Mining: Heap Leach Heating

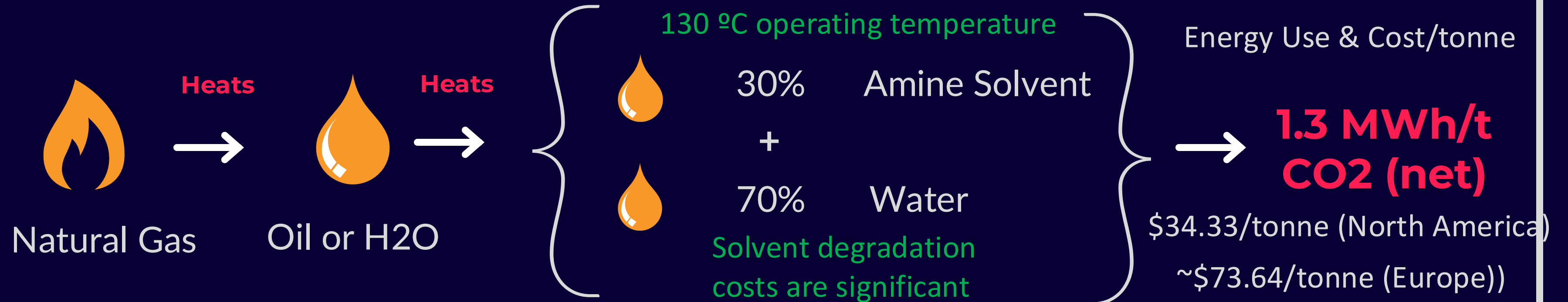
*Acceleware has started a new project with a major global mining company to explore the use of EM Powered Heat to increase yield from the heap leach mining process through elevated temperatures.*

- RF XL technology for heavy oil recovery is directly applicable.
- Over 200 active heap leach sites worldwide produce gold, copper, silver, and nickel.
- Copper production from heap leaching is valued at approximately US\$41B annually.
- Rising copper demand and lower ore quality drive efforts to boost yields at current and new facilities.
- Elevated heap temperatures may double or triple yields compared to ambient conditions.

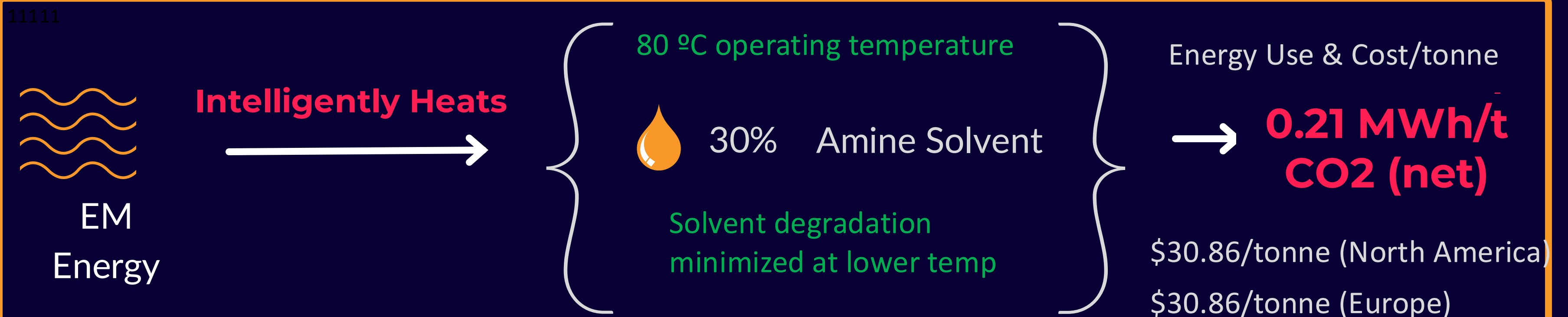
**Heap heating with RF energy could more than double production from new or existing facilities to meet rising demand for copper**

# Amine Regeneration Energy and Cost Case Study

## Amine-based Carbon Capture - Combustion Heat



## EMPowered Amine-based Carbon Capture





# Financial Overview

## Trading Information (Oct 2025)

Symbol  
Shares Outstanding  
Recent Price

TSXV: AXE  
130.4 million  
\$0.09

## Capital Structure (Oct 2025)

Market Capitalization  
Net debt (long-term debt less cash)  
Insider ownership  
Key institutional investors

\$10.4 million  
\$2.0 million  
14%  
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

# The Team: Proven Track Record

We have a strong and dedicated team.

Average tenure of 13 years and growing for management and a decade and growing for contractors and employees alike.

Over 150 years of experience in technology development and commercialization, to date we have filed 62 patents with 26 granted.

We have the right people to develop the technology and to scale the business.



# The Team: Leadership

Over 150 years of experience in technology development and commercialization



**Geoff Clark**  
CEO

Geoff Clark leads innovation in electromagnetic technologies to electrify industrial heating for heavy oil, critical minerals, and carbon capture. With decades of leadership in technology and sustainability, he drives profitable low-emissions solutions. A Clean50 Award recipient, Geoff holds engineering and MBA degrees from Canadian universities.



**Dr. Michal Okoniewski**  
CSO & Co-Founder

Dr. Michal Okoniewski is a global expert in computational electrodynamics and RF engineering. With 35+ years of experience, numerous patents, and a Nature publication, his innovations have transformed electromagnetics and now advance industrial decarbonization. He is an IEEE Fellow and professor at the University of Calgary.



**Kate Tourigny**  
VP, Decarbonization

Kate Tourigny focuses on advancing cost-effective, energy-saving technologies for Canada's energy sector. A strategic and results-driven leader, she builds strong collaborations to drive innovation and impact. Kate holds a degree from the University of Victoria and is dedicated to accelerating the clean energy transition.



**Mike Tourigny**  
COO

Mike Tourigny has 30+ years of international experience in energy, utilities, and technology. Formerly in oil and gas, he later drove commercialization of disruptive innovations before joining Acceleware in 2013. With expertise in scaling businesses, Mike leads the commercialization of electrified industrial heating. He holds MBA and Commerce degrees.



# The Team: Board of Directors

## Pete Samtez (Executive Chair)

*Business Professional*

Mr. Sametz, P.Eng., ICD.D, brings extensive executive and board experience in the energy sector, guiding companies from startup to intermediate growth. A leader in innovation and advocate for environmental responsibility, he has served as director of four public companies and remains active with APEGA, industry organizations, and community initiatives.

## Jim Boucher

*Chair, President and Co-Founder, Saa Dene Group of Companies*

Jim Boucher, Co-founder and President of Saa Dene Group, is a respected Indigenous leader, entrepreneur, and philanthropist. Former Chief of the Fort McKay First Nation for over 30 years, he advanced rights and prosperity through energy development. Jim is a recipient of Canada's top leadership awards and the Alberta Order of Excellence.

## Merle Johnson

*Business Executive*

Mr. Johnson, P.Eng., MBA, ICD.D, served as CEO of Connacher Oil and Gas until his 2024 retirement, becoming its longest-serving executive. His career includes leadership roles at EnCana and IMC Global, where potash solution mining inspired SAGD. He is a member of the Métis Nation of Alberta.

## Caralyn Bennett

*Executive Vice President and Chief Strategy Officer at GLJ*

Caralyn Bennett, P.Eng., has extensive leadership and board experience across Canada's energy sector. Former President of the Canadian Heavy Oil Association and EVP & CSO of GLJ Ltd., she currently serves on multiple boards and advisory committees. Caralyn holds a Geological Engineering degree from the University of Waterloo.

## Geoff Clark

*Chief Executive Officer*

## Dr. Michal Okoniewski

*Chief Scientific Officer & Co-Founder*

# Forward Looking Statements & Advisory

Certain statements in this presentation include forward-looking information (as defined in Canadian securities legislation). Such statements appear in Slide 2-4 (Introducing Acceleware, Benefits of technology), Slide 6-7 (Financing and Objectives), Slide 8-10 (Benefits of RF XL including Farm-In Economics), Slide 11-13 (Benefits and Economics in Mining), Slide 14 (Benefits and Economics of RF Amine Regeneration),

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.

# EMPowered Heat

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**December 2025**