A CLEANER FUTURE

For oil sands and heavy oil production, RF XL can be the difference. That's Innovation. That's ACCELEWARE.

TSXV: AXE

JANUARY 2021
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), Slides 4 & 22 (Compelling Investment Opportunity), Slide 5 (Value Potential for Producers), Slide 6 (Drive to Commercialization), Slide 7 (Commercial-Scale Test with Broadview Energy), Slide 8 (Global Market Expansion Potential), Slide 9 (The Power of RF XL), Slide 10 (Transformative and Disruptive), Slide 11 (Where We Came From), Slide 12 (Where We Are Headed: Revenue Generation), Slides 13, 14 and 15 (RF XL Economic and Environmental Benefits), Slide 18 (Timeline to Market), Slide 25 (Industry Challenges), Slide 26 (Multiple Markets) and Slide 27 (Global Heavy Oil Market Size).

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 XL 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.
INTRODUCING ACCELEWARE ("AXE")

Acceleware’s **RF XL** is a transformative technology innovation that uses radio frequency ("RF") energy to heat and mobilize heavy oil and bitumen, resulting in **low-cost, low-carbon** production.

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**Market potential > $110 billion**\(^1\).  
Global heavy oil producers (N. America, Latin America or Middle East) can deploy RF XL to achieve low-carbon and low-cost solutions to heavy oil production challenges. RF XL offers strong economics and quick paybacks supported by seamless expansion of SAGD or rapid greenfield implementation.

**Credible Development Partners**  
Two major oil sands players including Suncor have committed $4 million of funding and technical resources for the commercial test, while GE Research has partnered for the development, prototype, testing and commercialization of revolutionary silicon carbide electronics.

**Final Step → Full-Scale Pilot**  
Design complete and extensively vetted, regulatory approval received, and majority of capital for test secured (including $10 million from federal and provincial governments). Commercial-scale test with Broadview Energy represents the final phase for RF XL development.

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\(^1\) 1% of 8 trillion bbls, AXE revenue of ~$1.40/bbl
Disruptive RF XL technology poised to capture market share from existing steam-based processes (SAGD) as demand increases for low-cost, low-carbon energy sources

- **Technology De-Risked**: Partnership with GE Research, extensive technical review by Suncor, factory and field testing complete, and commercial-scale test at Broadview Energy’s Marwayne asset to begin heating in the first half of 2021

- **Clear Line of Sight to Commercialization**: Immediately following Marwayne — potential for revenue and catalysts from partnerships, market penetration. Immediate revenue from feasibility study engagements

- **Massive Global Market Potential**: Global operators can improve economics and environmental impact with RF XL; AXE capturing only 1% of the world’s heavy oil barrels represents a market potential of >$110 billion

- **Energy Transition Applications**: RF XL can be applied to other applications such as hydrogen production, bitumen beyond production, grain drying, or anywhere electrification of heating can reduce GHGs

- **Majority of Funding in Place**: $17MM secured to date including $10.25MM grant, $4MM of committed support from Suncor and one other oil sands player, plus ~$1.4MM of annual revenue generated by existing HPC software segment

- **Strong IP Protection**: 5 patents held, 18 patents pending and 6 additional applications being prepared

- **Aligned Management and Board**: Experienced and dedicated team with proven history of value creation, commitment to environmental sustainability and ~22% insider ownership

Accelerate your clean energy future
RF XL offers clients a valuable technology and service to generate economic thermal production and enhanced field economics while reducing environmental footprint.

1. Compelling ESG opportunity
   - No fresh water required
   - GHG reduction range from 25 – 100%
   - Smaller footprint - less surface facilities required

2. Lower Overall Energy Utilization
   - Energy efficiency improvement of 40% - 60% compared to SAGD

3. Lower Capital and Operating Costs
   - 50% lower capital intensity and 40% lower operating cost vs. SAGD
DRIVE TO COMMERCIALIZATION

Achievements 2018 through 2020 further advance AXE’s drive to commercialization

2018/2019 Successes

✓ First patent granted for RF heating of heavy oil and oil sands reservoirs
✓ Created Advisory Board comprising industry veterans
✓ Secured $10.25 million in funding for commercial-scale test from SDTC and ERA and $2 million in project funding from Suncor
✓ Developed prototype silicon carbide (SiC) RF converter with GE Research and successfully completed factory and field acceptance testing
✓ Agreement to provide custom software resources and consulting for US$2.5MM, allocated to the commercial scale test funding
✓ Bolstered the management team with two key executive appointments: Laura McIntyre as VP, Engineering and Tracy Grierson as CFO

2020 Successes

✓ Successful high-power field test of a prototype RF converter with GE Research demonstrated a 75% increase over previous maximum power levels, efficiencies over 97% and the converter’s ability to perform under a variety of operating conditions.
✓ Continued IP development with four additional patents awarded related to RF XL technology, and a total of 24 patents pending or under development
✓ Secured commercial-scale test partner in Broadview Energy and site at Marwayne, AB; plans to commence construction Q4 2020, heating in 1H/21
✓ Received regulatory approval of experimental scheme at Marwayne from Alberta Energy Regulator
✓ Partnered with Saa Dene Group (co-founded by Jim Boucher) to create Acceleware | Kisâstwêw to raise the profile, adoption, and value of Acceleware technologies
✓ Added Heath Williamson, Heavy Oil veteran to management team as VP Corporate Development
✓ Secured second oil sands partner, providing $2 million in financial support and technical expertise

~$17MM  Secured to date for the commercial scale test (required capital estimated at $16-$20MM)
COMMERCIAL-SCALE TEST WITH BROADVIEW ENERGY

Significant milestone in Acceleware’s commercialization of RF XL clean-tech innovation, Broadview’s Marwayne test site supports accelerated timelines and expanded global market potential.

FEATURES & BENEFITS

- Site offers all-weather access, existing roads and well sites, and proximity to key services and trades.
- Compelling heavy oil operating environment with expedited path to commercialization.
- Immediate access and ability to target the GP formation anywhere within the Marwayne asset.
- Option to conduct subsequent test at a 2nd location at Marwayne asset within 5 years of spud date of 1st well.
- Ownership + economic benefit from all hydrocarbon produced in both tests (subject to GORR for Broadview).
- AER approval in hand.

Test site characteristics anticipated to demonstrate RF XL can successfully heat reservoirs at depths consistent with both heavy oil & oil sands reservoirs.

Test results expected to be analogous to (relevant for) conventional heavy oil operators in AB & SK plus developers of heavy oil in Mid East, CA, ASIA & Lat Am.

Positive test results will open up much larger addressable market for RF XL clean technology upon commercialization.
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Near-Term Target Regions:

**California**
- Solar powered RF XL projects can offer net carbon neutral production and support strong environmental performance with compelling economics

**Latin America & Middle East**
- Cold production for heavy; SAGD has not been used so no barrier to entry
- International markets often have stronger economics and tend to be more open to new technologies
- Limited access to natural gas needed to conduct thermal heavy oil production; opportunity to use solar in these markets

**Saskatchewan**
- Business-friendly regime + lower regulatory burden relative to other provinces
- Government incentives to deploy new technologies further improve economics

**GLOBAL MARKET EXPANSION POTENTIAL**

RF XL technology applicable to heavy oil deposits globally, which represent an addressable market of over **8 trillion barrels** of oil and meaningful revenue potential

**AXE currently in discussions with global producers for partnership or feasibility study opportunities**
THE POWER OF RF XL

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

RELIABLE HEAT WITH CLEANER PRODUCTION

- With RF XL, electromagnetic energy is used to generate heat
- Water present within the reservoir is converted to steam, mobilizing the bitumen and enabling it to flow to the producing well
- RF XL process involves drilling two RF heating lines into the target zone and connecting to a power source at surface
- Unlike SAGD, RF XL no steam is injected into the target zone, eliminating the need for water source wells, treatment equipment and steam generators, with much less fluid handling
- In addition to operating and capital cost savings, RF XL can immediately reduce greenhouse gas (GHG) emissions vs SAGD or other steam-based heavy oil or bitumen extraction processes
RF XL is an efficient, cleaner and more economically profitable alternative to SAGD

**ADVANTAGES OF RF XL**

- Lower capital and operating costs = higher margin
  - $<200MM (10,000 bbl/d plant), and capital intensity
    (F&D) below $18,000/bbl/d,
    ~$12.20/bbl operating costs
- Improved energy efficiency with 97% of “useful heat” retained
- No steam plant construction = quicker time to first production
- Smaller environmental footprint with less land usage, fewer GHG emissions and no water/steam usage
- Simple, inexpensive and easy to deploy or integrate with existing operations

**REALITIES OF STEAM-BASED PROCESSES**

- High capital & operating costs with initial investment of
  - $>400MM (10,000 bbl/d plant) and elevated F&D at
    $>48,000/bbl/d plus high operating costs
- 70% of useful heat retained with SAGD due to heat loss across the cycle
- Significant lag time to production estimated at > 4 years to first barrel
- High GHG emissions with significant water usage plus high land use and challenging reclamation obligations
Acceware’s electromagnetic software has been used by cutting-edge companies such as Blackberry, Samsung, LG, Nikon, Merck, Boeing and Lockheed Martin

WHERE WE CAME FROM

2005 Electro-Magnetic Solver SW Released

2010 AXE RF Heating Studies for Major / Super-Major Oil Co’s

2014 AxHeat Software Launched

2014 / 2015 AXE Modular RF Tank Tests & Patent Filing

2017 RF XL 1:20 Scale Field Demo

2016 GE Partnership Announced & Initial RF XL Patent Filed

2017 RF XL 1:20 Scale Field Demo

2018 AXE RF XL Commercial Scale Pilot Test with Broadview Energy

Q4 2020 RF XL Widely Available

Technology Readiness Level

TRL 1/2: Concept Formulated

TRL 5: Component Validation

TRL 6: 1:20 Scale Demo

TRL 7: Full Scale Pilot

TRL 9: Technology Proven

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WHERE WE ARE HEADED: REVENUE GENERATION

Modular and mobile RF systems offer clients either a sale or lease option for RF XL with pricing based on power capacity plus annual maintenance.

- Based on a 10,000 bbl/d operation, AXE could generate $124MM in equipment sales ($70MM at startup) and $0.7MM in annual recurring service sales ($20MM over life of project)
  - Economics scale linearly for projects from 1,000 bls/d to 100,000 bbls/d
- Services include:
  - RF XL installation
  - Equipment maintenance (remote monitoring for minimal down time)
  - Optimization of system (AXE will monitor grid prices to manage power levels)
- Machine learning being applied over time, leading to continued growth in the value of AXE analytics, giving operators better results year-after-year

AXE business model is to sell equipment and related services to producers:

<table>
<thead>
<tr>
<th></th>
<th>Producer Investment</th>
<th>AXE Equipment Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Capital (C$MM)</td>
<td>$186.3</td>
<td>$69.2</td>
</tr>
<tr>
<td>Sustaining Capital (C$MM)</td>
<td>$217.0</td>
<td>$54.7</td>
</tr>
<tr>
<td>Total Capital (C$MM)</td>
<td>$403.0</td>
<td>$123.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Producer Opex</th>
<th>AXE Service Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Opex (C$MM)</td>
<td>$44.5</td>
<td>$0.7</td>
</tr>
<tr>
<td>Total Opex, Life of Project (C$MM)</td>
<td>$1,335.9</td>
<td>$19.7</td>
</tr>
<tr>
<td>Per bbl (C$/bbl)</td>
<td>$12.20</td>
<td>$0.18</td>
</tr>
</tbody>
</table>

Total AXE Revenue

<table>
<thead>
<tr>
<th></th>
<th>Equipment</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue (C$MM)</td>
<td>$123.9</td>
<td>$19.7</td>
</tr>
<tr>
<td>AXE revenue per bbl (C$/bbl)</td>
<td>$1.13</td>
<td>$0.18</td>
</tr>
</tbody>
</table>

- On a per bbl basis, RF XL new equipment revenue is equivalent to $1.13/bbl of oil produced with an additional $0.18/bbl recurring service revenue.
RF XL ECONOMIC BENEFITS VS SAGD

Significant benefit for producers seeking reduced costs with improved environmental performance

**LOWER CAPITAL COSTS**
Capital Intensity Comparison ($/barrel/day)

- **RF XL**
  - Well Capital (RF XL)
  - Non-Power/Fuel (RF XL)
  - Central Facility & Heating
- **SAGD**
  - Well Capital (SAGD)
  - Non-Power/Fuel (SAGD)
  - Power/Fuel

**LOWER OPERATING COSTS**
Operating Cost ($/barrel)

- **RF XL**
  - Non-Power/Fuel (RF XL)
  - Central Facility & Heating
- **SAGD**
  - Non-Power/Fuel (SAGD)
  - Power/Fuel

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RF XL ENVIRONMENTAL BENEFITS VS SAGD

REDUCED GHG EMISSIONS

- Up to 100%
- 70+% reduction
- 56% reduction
- 50% reduction
- 25% reduction

RF XL GHG Emissions Reduction Potential (% vs SAGD)

SMALLER FOOTPRINT ➔ LARGE IMPROVEMENTS

- No external water required
- Land use reduced by up to 67%
- No solvent injection or solvent recovery

- RF XL components at the well pad are largely mobile - can be easily removed and redeployed to other production sites
- Well understood and very commonly used technology in daily applications, including disinfestation for soils and food disinfection
- RF XL can meet or exceed all regulatory and safety requirements, including Alberta Energy Regulator (AER), International Commission on Non-Ionizing Radiation Protection (ICNIRP) and Alberta Environment and Parks (AEP)
RF XL ECONOMICS FOR E&P COMPANIES

Deploying capital more efficiently than SAGD

<table>
<thead>
<tr>
<th>Performance Metrics</th>
<th>RF XL Heavy Oil*</th>
<th>RF XL Oil Sands</th>
<th>SAGD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial capital intensity (bbl/day)</td>
<td>$15,977</td>
<td>$18,000</td>
<td>&gt;$30,000</td>
</tr>
<tr>
<td>Operating costs ($/bbl)</td>
<td>$8.50</td>
<td>$12.20</td>
<td>&gt;$15.00</td>
</tr>
<tr>
<td>IRR</td>
<td>111%</td>
<td>49%</td>
<td>-</td>
</tr>
<tr>
<td>NPV @ 10%</td>
<td>$699M</td>
<td>$349M</td>
<td>-</td>
</tr>
<tr>
<td>Energy Intensity (GJ/m³ bitumen)</td>
<td>2.0</td>
<td>3.7</td>
<td>~7.8</td>
</tr>
</tbody>
</table>

* Includes post-CHOPS

- Economics reflect a 10,000 bbl/d operation
- RF XL generates a significantly higher return on investment (ROI metrics based on long term WTI price of US$60 / bbl)
ACCELEWARE’S INNOVATORS

Management has experience spanning all key functions within public and private companies while Board brings deep governance experience and Advisory Board provides key technical and financial acumen

Leadership Team

Geoff Clark, BSc, MBA
Michal Okoniewski, PhD
Mike Tourigny, BComm, MBA
Laura McIntyre, PEng
Tracy Grierson, CPA, CA
Heath Williamson, B.Sc, P.Eng.

Chief Executive Officer
Chief Scientific Officer & Co-Founder
VP Commercialization, RF Heating
VP Engineering
Chief Financial Officer
VP Corporate Development

Board of Directors

Bohdan Romaniuk, MA, LLB
Dennis Nerland, BSc, MA, LLB, ICD.D
Peter Neweduk, MD
Jens Horstmann, MS
Caralyn Bennett, B.Sc, P.Eng.
Geoff Clark, BSc, MBA
Michal Okoniewski, PhD

Lawyer, Economist, & Business Executive; Independent Director & Board Chair
Partner of Nerland Lindsey LLP; Independent Director
Physician & Businessman; Independent Director
Investment Fund Manager; Independent Director
Executive VP & Chief Strategy Officer of GLJ, Independent Director
Chief Executive Officer
Chief Scientific Officer

Advisory Board

Cal Coulter
Former Director of Subsurface Technology for Suncor
Managing Director of Resource Merchant Capital

Chad Robinson
Former VP Thermal, Athabasca Oil Corporation

Don Verdonck
President, Actions Matter

Jeff Reading

John Howard
Former VP, Production East, CNRL

Suncor
Athabasca Oil Corporation
Resource Merchant Capital

Actions Matter, Inc.

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**AXE TRADING & CAPITAL STRUCTURE**

**Trading Information**
- **Symbol**: TSXV: AXE
- **Shares outstanding (basic)**: 105.7 million
- **Shares outstanding (diluted)**: 107.0 million
- **Recent price**: $0.22

**Capital Structure**
- **Market capitalization**: $23.2 million
- **Net debt (Sept 30/20)**: $0.1 million
- **Management ownership**: 19%
- **Key institutional shareholders**
  - NVIDIA: 4%
  - Resource Merchant Capital: 9%

**Significant management ownership strongly aligns with shareholders’ interests**
**First heating at Marwayne commercial test site expected in 1H 2021**

<table>
<thead>
<tr>
<th>Milestones</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021+</th>
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<tbody>
<tr>
<td>GE Generator Design, Assembly &amp; Testing</td>
<td></td>
<td></td>
<td></td>
<td>Milestone 1</td>
</tr>
<tr>
<td>Engineering &amp; Simulations</td>
<td>Milestone 1</td>
<td></td>
<td></td>
<td>Milestone 2</td>
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<tr>
<td>Drilling &amp; Completion</td>
<td>Milestone 2</td>
<td></td>
<td></td>
<td>Milestone 3</td>
</tr>
<tr>
<td>Heating Test</td>
<td>Milestone 3</td>
<td></td>
<td></td>
<td>Milestone 4</td>
</tr>
<tr>
<td>Analysis &amp; Reporting</td>
<td></td>
<td></td>
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<tr>
<td>Extended Heating Test</td>
<td></td>
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</tr>
<tr>
<td>Multi-Well Test</td>
<td></td>
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<tr>
<td>RF XL General Availability</td>
<td></td>
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</tbody>
</table>

- **Milestone 1**: Completed engineering, 1/4 scale test, electronics field test and majority of funding secured – commercial scale test to proceed at Broadview’s Marwayne site
- **Milestone 2**: Multi-well test and commercialization of RF XL with widespread availability

**1** Engineering , design , and testing phase
**2** Electronics construction , drilling, and surface preparation phase
**3** Heating test phase, and completion of commercialization test
**4** Multi-well test and commercialization of RF XL with widespread availability

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HIGH-PERFORMANCE COMPUTING PLATFORM: SEISMIC IMAGING

Existing Business Supports High-Impact Potential of RF

- **AxFWI**: a flexible, modular platform producing fast and accurate results for detailed sub-surface imaging through Full Waveform Inversion, an advanced method of improving velocity models by iteratively matching the modeled data with the recorded data.

- **AxRTM**: an advanced, Reverse Time Migration method for seismic depth imaging that fully-respects the two-way acoustic wave equation, thus improving imaging in areas where complex geology violates certain assumptions. It has a modular architecture supporting a variety of integrator-specific functionality, and currently supports both optimized multi-core CPU and NVIDIA GPU hardware.

- **AxWAVE**: enables a fast and accurate simulation of 2D and 3D seismic energy in an acoustic medium, using the same finite-difference two-way wave propagation engine that powers AxRTM. It is optimized for modern high-performance computing platforms including NVIDIA GPUs, multi-core CPUs, and Intel Xeon Phi Coprocessors.

### HPC Platform
- $1.4$ million annual revenue (2019); cash-flow positive
- Growth potential as oil prices stabilize and rise
- Cloud-based

### Strong Partnerships & Blue Chip Clients

- Exxon
- emgs
- woodside
- Chevron
- Repsol
- BP
- Shell
- Spectrum
- Total
- ENI
- Occidental
- EG
- Petrobras
ENVIROMENTAL, SOCIAL & GOVERNANCE

ESG commitment contributes to long-term sustainability

- Innovator of transformative clean-tech enhanced oil recovery technology
- Environmental
  - Contributes to reduced GHG emission intensity
  - Reduced land disturbance
  - Eliminates water usage
- Social
  - 33% female executives on leadership team & 14% on Board
  - Acceleware supports and encourages diversity
  - Acceleware | Kisâstwêw Indigenous partnership
- Governance
  - Majority independent board of directors
  - Committed to transparency
OUR VALUES: A CENTRAL PART OF ACCELEWARE

We are a results-oriented team driven by a collective goal to revolutionize the heavy oil upstream sector with responsible, clean, and economically competitive recovery technologies.

**Passionate**
- Passionate about the democratization of clean energy
  - Clean energy requires transformative solutions
  - Economically viable solutions will drive greater global access to energy

**Accelerating**
- Accelerating progress, together
  - Team-based, value-driven, hands-on
  - Value diversity and equality of people and ideas

**Results**
- Results driven innovation
  - Prioritize value-driven work
  - Surpass the expectations of customers, shareholders, and employees

**Thinking**
- Thinking outside the box
  - Pursuit of both technically robust and elegant solutions
  - Hands-on approach
COMPELLING INVESTMENT OPPORTUNITY

Disruptive RF XL technology poised to capture market share from existing steam-based processes (SAGD) as demand increases for low-cost, low-carbon energy sources

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Thank you for your time

Acceleware's drive for meaningful development, leadership in electromagnetic modeling, combined with our team's deep expertise in applied RF antenna design, have resulted in an innovation that can radically reduce the environmental impact of heavy oil and oil sands production around the world.

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Advisors
Legal counsel - Nerland Lindsey
Auditors - MNP LLP
Transfer Agent - Computershare
APPENDIX & SUPPLEMENTAL DETAILS
In current environment of capital cost restrictions, increased focus on ESG and ongoing transportation capacity constraints, RF XL provides a compelling solution for operators and a path to low-carbon prosperity.

**LOWEST COST**

- **Improved efficiency** with no heat loss
- **40% lower capital costs** than SAGD, with surface infrastructure 1/3rd the size of SAGD equivalent, and **lower operating costs** due to decreased energy, labour and service costs
- **Better quality barrels** could be accessed by identifying, developing and producing reservoirs or parts of a reservoir that will yield the best economic and environmental performance

**BITE-SIZED CAPABILITIES**

- **Develop pad-by-pad** – economically viable on a much smaller scale (750 to 3,000 bbls/d vs 10,000 boe/d minimum for SAGD)
- **Accessible by smaller producers** – prevents valuable barrels from being stranded, stimulates jobs and the economy

**LOW-CARBON FUTURE GROWTH**

- Once proven at Marwayne, Acceleware can pursue the use of RF XL to produce low-carbon or zero carbon products from oil deposits including carbon fibre, asphalt, vanadium, and other valuable minerals. With renewable power sources, RF XL can provide zero emissions production of these products.
- **RF XL supports the greening of the grid**, by providing significant demand for baseload (off-peak) power which could accelerate the completion of renewable power projects given the financial incentive such base-load provides.
The drive for lower emissions and lower operating cost will impact many markets where combustion of fossil fuels has dominated – including industrial heating. RF XL converter technology is tested, operational, and offers extremely efficient conversion of electricity to heat for a wide range of industrial uses.

**HYDROGEN**

*Steam reforming* is the dominant production method but burns gas = emissions and higher costs.

*Leading research shows EM energy* can produce $\text{H}_2$ from feedstocks like bitumen, diesel, biomass, and recycled plastics. These processes are promising but need a commercial scale, high efficiency EM converter to achieve viable product costs per kg $\text{H}_2$.

**RF XL is ready** with >98% efficiency and power up to 2 MW – a commercial solution for $\text{H}_2$.

**GRAIN AND SEED DRYING**

Grain and Seed Drying can be one of the most expensive steps in the farming process, and is one that results in GHG emissions through the combustion of natural gas, propane or diesel to heat and dry grain and seeds.

RF XL offers a scalable heating platform that can more efficiently remove moisture from crops, decreasing the cost to the farmer, reducing emissions, and increasing yield and quality of the grain produced.

**MINING AND MORE**

RF XL was originally designed to deliver heat to a very large volume of material as efficiently as possible. This capability can be applied to processes like leach mining or other extraction processes that are dependent on heat. While RF XL could be used to provide clean mining or refining processes, it can also be applied to soil remediation to remove contaminants from soil or even food products.
GLOBAL HEAVY OIL APPLICATIONS

RF XL can be deployed across numerous reservoirs around the world

RF XL represents an ideal technology for global heavy oil producers:

- Expansion to existing SAGD project, allowing increased production with reduced emissions intensity
- New greenfield project to eliminate steam plants and fresh water
- Deep or very thin reservoirs where steam is not viable
- Cracked / fractured reservoirs as steam is lost through the fracture system
- Shallow reservoirs with or without a cap rock
- Developed reservoirs with up to 90% of oil still in place

Global heavy oil deposits represent an addressable market of >8 trillion barrels of oil:

<table>
<thead>
<tr>
<th>Selected Area/Play¹</th>
<th>Resource</th>
<th>Original Oil in Place (billions of bbls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta: Athabasca Oil Sands</td>
<td>Bitumen</td>
<td>1,600</td>
</tr>
<tr>
<td>Alberta &amp; Saskatchewan: Post-CHPS</td>
<td>Heavy Oil</td>
<td>250</td>
</tr>
<tr>
<td>Saskatchewan: Thin Pay</td>
<td>Heavy Oil</td>
<td>25</td>
</tr>
<tr>
<td>Venezuela: Orinoco Belt</td>
<td>Extra Heavy Oil</td>
<td>1,200</td>
</tr>
<tr>
<td>Middle East</td>
<td>Heavy oil</td>
<td>500-900</td>
</tr>
<tr>
<td>Rest of world</td>
<td></td>
<td>4,500-5,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>8,000+</strong></td>
</tr>
</tbody>
</table>

¹ Selected Area/Play