TSXV: MEEC OTCQB: MEEC

# ME<sub>2</sub>C Environmental

# ENVIRONMENTAL TECHNOLOGIES FOR THE FUTURE







### ME₂C Environmental

# **Legal Disclosure**

This presentation contains "forward-looking statements" as defined in Section 21E of the Securities Exchange Act of 1934, as amended, that are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and reflect our current expectations regarding our future growth, results of operations, cash flows, performance and business prospects, and opportunities, as well as assumptions made by, and information currently available to, our management. We have tried to identify forward-looking statements by using words such as "anticipate, "believe," "plan," "expect," "intend," "will," and similar expressions, but these words are not the exclusive means of identifying forward-looking statements.

These statements are based on information currently available to us and are subject to various risks, uncertainties, and other factors, including, but not limited to, risks discussed in the Company's filings with the SEC and those discussed under the caption "Risk Factors" in the Company's 2022 Form 10-K. These risks could cause our actual growth, results of operations, financial condition, cash flows, performance and business prospects and opportunities to differ materially from those expressed in, or implied by, these statements. Except as expressly required by the federal securities laws, we undertake no obligation to update such factors or to publicly announce the results of any of the forward-looking statements contained herein to reflect future events, developments, or changed circumstances or for any other reason. Investors are cautioned that all forward-looking statement involve risks and uncertainties, including those detailed in ME<sub>2</sub>C's filings with the Securities and Exchange Commission.

This presentation also contains estimates and other statistical data made by independent parties and by the Company relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Neither the Company nor any other person makes any representation as to the accuracy or completeness of such data or undertakes any obligation to update such data after the date of this presentation. In addition, the Company's potential market share, projections, assumptions, and estimates of the Company's future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk due to a variety of factors. These and other factors could cause results or outcomes to differ materially from those expressed in the estimates made by the Company.

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# **Environmental Technology Experts: Proven Leaders in the Science of Chemisorption**



Sorbent technologies capture contaminants from a variety of applications at a **lower cost**, with less product, and lower environmental footprint than alternative technologies

- Patented SEA® Sorbent Technology for Mercury Emissions Capture
- New Near-Term Technologies for Water
   Remediation EPA's "forever chemicals", PFOA,
   PFOS
- New Sorbent Technologies in R&D for Rare Earth Element Extractions, Wastewater & Coal Ash Remediation



Industry Awards









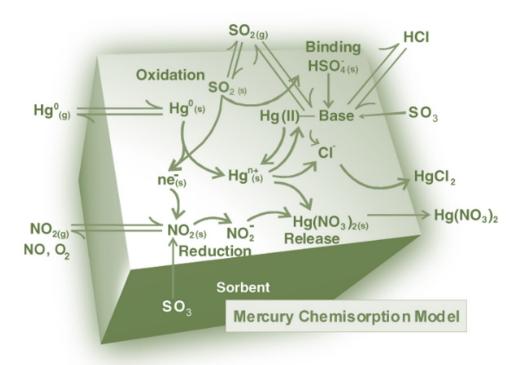












# **Company Leadership**



**Richard MacPherson** 

President, CEO, Director

- $ME_2C$  founder who successfully led the early development and commercialization of the firm's  $SEA^{\otimes}$  technologies.
- Over 25+ years in Executive Management roles across Canada and the U.S. for various industries, including communications, industrial production, and internet marketing firms.



#### John Pavlish

Senior VP, Chief Technology Officer

- 25+ years in mercury emission capture technology.
- Inventor of multiple patented mercury control technologies with commercial applications.
- Industry experience Energy & Environmental Research Center, Director of Center for Air and Toxic Metals, and Black & Veatch Unit Leader.



**James Trettel** 

Vice President of Operations

- Mechanical Engineer and material handling expert.
- Senior project management background with expertise in coal utilities and supply chain.



**Fiona Fitzmaurice** 

Chief Financial Officer

• Strong financial management with publicly listed companies in the exploration sector, including private placements, prospectus, flow-through financing, and corporate audits.

ME₂C Environmental

• Chartered accountant with 15+ years of experience in accounting and financial controls for companies listed on the TSXV and other major exchanges

# **Board of Directors**



#### **Chris Greenberg**

Chairman

- Highly experienced at building and operating successful businesses.
- 20-year track record of effective strategic planning, business development, and project management.
- Special aptitude to successfully analyze an organization's critical business requirements and develop innovative and cost-effective solutions for enhancing competitiveness, increasing revenues, and improving customer service offerings.



**Richard MacPherson** 

President, CEO, Director

- $ME_2C$  founder who successfully led the early development and commercialization of the firm's  $SEA^{\circledast}$  technologies.
- Over 25+ years in Executive Management roles across Canada and the
   U.S. for various industries, including communications, industrial production, and internet marketing firms.



David M. Kaye

Director

- David is an attorney with the law firm of Kaye Cooper Kay & Rosenberg, LLP, New Jersey since the firm inception in Feb. 1996.
- Mr. Kaye specializes in business, corporate and securities manners.
- Mr. Kaye serves as ME<sub>2</sub>C's General Counsel and Corporate Secretary.



**Troy Grant** 

Director

- CEO & Founder of Elcora Advance Materials Corp, an integrated battery material company with international operations
- Director of several other publicly listed companies and is actively involved in the Audit Committees of each, including Elcora Advanced Materials Corp. (TSXV: ERA), i3 Interactive Inc. (CSE: BETS), Auxly Cannabis Group Inc. (TSX: XLY), and Cleantech Power Corp.

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# **Snapshot of Corporate Structure**

OTCQB: MEEC TSXV: MEEC

Shares Outstanding	94M
Insider Participation	32%
Four-Member Board of Directors: Actively Involved in Company Management & Operations	Founder/CEO, single largest individual shareholder
	Chairman, second largest individual shareholder
	General Counsel and shareholder
Operational Capital Needs	Cash-flow positive operationally with no need for capital raise
Long-term Projected Profitability	<ul> <li>50% Top line revenue growth since 2020</li> <li>80% Gross Margins on Licensing</li> <li>30-40% Gross Margins on Supply Contracts</li> </ul>
Stock buyback option with Alterna Capital	<ul><li>Approximately 7.0M shares at \$.50</li><li>Current Debt 13.0M</li></ul>

# Pillars of Environmental Sustainability & Growth Opportunities OME<sub>2</sub>C Environmental





Core **Technologies** 

\$150 Million **US Market** 

#### **Mercury Emissions - SEA®**

- Developed in early-2000s, 1st US Contract in 2011
- \$60 Million+ spent on R&D with over 40 Active Patents
- European & Asian Markets 3-10X Larger than US market outreach currently in progress



**Portfolio** 

**Protecting** Intellectual **Property** 

#### **Patent Enforcement Action**

- Numerous Utilities have recognized the strength of ME<sub>2</sub>C's patents through license/supply agreements
- Settlements reached with Arthur J. Gallagher, DTE and entities, and Alistar; license agreement negotiated with a settled defendant
- Trial date with remaining CERT defendants continues in early 2024



New **Technologies** 

\$18.2 Billion **US Market** 

#### Potable Water Treatment (GAC Technology)

- US Market valued at \*\$2.2 billion
- Granulated Activated Carbon (GAC) plant, specialized product in development
- Forthcoming U.S. EPA Regulations in 2025

#### **Rare Earth Element Extraction**

- Testing with Renown Academic & Commercial Labs Since 2020
- Approach centered on extraction and remediation

### ME<sub>2</sub>C Environmental

# **Mercury Emissions Reduction**

- ME<sub>2</sub>C's SEA® technologies are believed to be in use at over 40% of the U.S. coal-fired power plant sector - which we are now capitalizing on through our litigation approach of enforcement
- Coal-fired power is a stable 21% of power output cementing the need for mercury emissions controls and ME<sub>2</sub>C
- $ME_2C$ 's Technology is in use by roughly more than 40% of the industry (=40% market share); however, our direct licensees and supply customers equates to only ~20% of the industry.

ME<sub>2</sub>C's current market share ~20%. Expect that number to increase as more IPP's adopt the company's technology.



# **Our History:**







## 2008-2016

- ME<sub>2</sub>C founded by Richard MacPherson, CEO, in 2008, **SEA Tech tested with DOE and numerous utilities across the U.S.**
- ME<sub>2</sub>C gains first customer in 2011; U.S. EPA MATS regulation incites company growth **revenue reaches \$32M in 2016**

# 2017 2018 2019 2020-'21 2022

- **Starting revenue of \$32M**, ME<sub>2</sub>C acquires full patent right of the SEA technology
- U.S. coal-fired industry adopts ME<sub>2</sub>C's technology outside of patents
- Revenues drop to \$12.3M; Industry-wide infringement of SEA® technologies continues
- Completed
   \$4M+ patent
   fortification to
   fight infringement
- Reorganized debt, expenses reduced by \$2M annually
- \$2.6M raised covers future IP costs, legal fees
- Lawsuit against
   (4) major utilities
   and refined coal
   entities underway

- Monetization of IP underway with a series of licensing agreements
- Rev increased due to IP efforts to \$13.2M in
  2021 leading to 50% annual growth rate
- Development of new technologies focused on REE extraction, coal ash and wastewater remediation
- Since 2020, (8) business agreements reached (license or supply) with major U.S. utilities
- Core business growth rate continues at a 50% YoY rate of recurring revenue from IP enforcement

from IP enforcement successes and increased demand from coal-fired power

 Profitable with positive cash flow, year-end revenues
 \$21.6M+

#### New TSXV Listing, Canadian market expansion

2023

- Solid revenues, strong cash on hand (\$2.5M) for O3
- Settlements with major defendants,
   AJG, DTE, and entities;
   Alistar reached
- Progress continues in REE extraction, wastewater and coal ash remediation, and international markets
- New BACT technology for water treatment underway

#### IP Trial with CERT defendants scheduled for late Feb 2024

2024

- Outreach begins to U.S. Utilities operating SEA tech not under license with ME<sub>2</sub>C
- Water treatment technology development ramps up ahead of EPA regulations
- ME<sub>2</sub>C preps for significant commercial growth



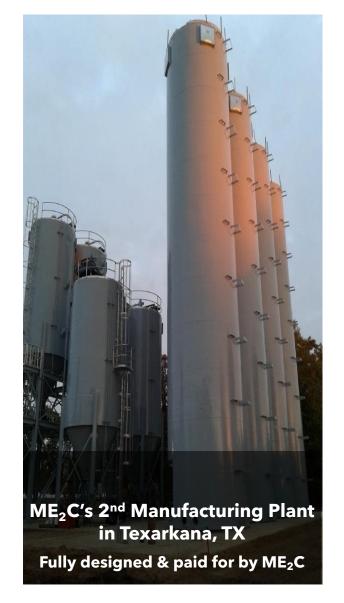
# **Existing Infrastructure Can Support \$100M+ in ARR**

This modern facility is completely paid for and owned by ME<sub>2</sub>C will support increased supply demands for core mercury emissions sorbent as well as production of new sorbent for REE extraction

# ME<sub>2</sub>C can exceed \$100 million in annual revenues without any additional investments in infrastructure

Our REE Extraction Technology materials will be developed and produced from these facilities under tight manufacturing processes and provided to the industry as required under license agreements

All overseas material supply will be carried out in the Country of Origin under ME<sub>2</sub>C supervision





# **International Expansion Opportunities**

**International expansion** will follow an IP/Trademark approach to generate new markets through a Licensing/Royalty Program

**Top Targeted Countries**: Eastern Europe, Poland | Southeast Asia, AMS | Turkey | Taiwan

#### **Association of Southeast Asian Nations (ASEAN) Member States (AMS)**

- Brunei Darussalam
- Cambodia
- Indonesia
- Lao PDR
- Malaysia

- Myanmar
- Philippines
- Singapore
- Thailand
- Vietnam



- AMS are making efforts to move towards more efficient coal-fired power plants technologies through the Clean Coal Technology (CCT) Programme Area under the <u>ASEAN Plan of Action for Energy Cooperation (APAEC)</u>.
- Indonesia will nearly double its coal-fired power generation in coming years (coal power to increase by 33%)
- All overseas material supply will be carried out in the Country of Origin under ME<sub>2</sub>C supervision

# **Protecting Patent Portfolio**



# Refined Coal Operators have relied on ME<sub>2</sub>C's patented technologies to generate billions of dollars in tax credit value - and are now beginning to pay for it.

- Filed IP Patent Infringement suit in 2019 based on unauthorized use of ME<sub>2</sub>C technology, alleges that the refined coal Defendants have caused significant business harm to ME<sub>2</sub>C and obtained significant value from their use of its technology
- Settlements with Arthur J. Gallagher & Co (AJG), DTE, and entities, as well as Alistar (one of the CERT defendants) were reached in mid-November prior to the November 13 court date. A license agreement for \$1/ton of infringing coal was reached with one of the settled entities setting significant market value for potential forthcoming license agreements
- The trial with remaining CERT defendants continues in late February 2024





# **Water Treatment Technologies: Activated Carbons**

New production of granulated activated carbon (GAC) recognized as a BACT (Best Available Control Technology) for removing contaminants, "Forever Chemicals", PFOA, PFOS from water.

All municipalities will have to upgrade their water treatment facilities to meet the new pending EPA PFAS regulations

- **Extension Of Current Core Business -** expertise in activated carbons, chemisorption supports tech development
- Environmentally-friendly, highly effective material for potable water remediation

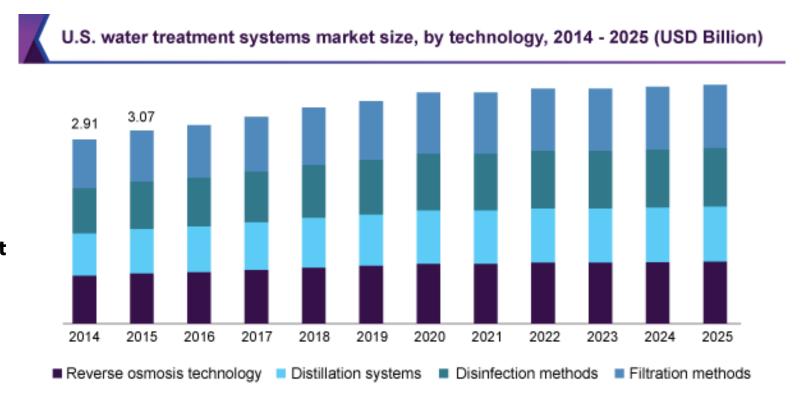




### **Water Treatment Market Poised for Growth**

ME<sub>2</sub>C to gain significant market position through our <u>unique expertise</u> - supported by strategic partnerships, acquisitions, and new-to-market technology

- Potable water market primed for entrants, innovative technologies limited key players in field, no predominant tech leader
- Present market pricing for activated carbon presents an opportunity for attractive profit margins
- U.S. potable water market valued at \$2.2 Billion, expected to grow at a CAGR of 7.5% through 2030
- U.S. Activated carbon market is ~\$1.25M annually





# **Extracting Rare Earth Minerals from Coal Waste**

# ME<sub>2</sub>C intends to bring a cost-effective, environmentally sound REE extraction process to market that would be useful in multiple applications related to mineral mining & coal ash utilization

- Department of Energy has reported a global market for REEs valued at ~\$13.2 billion in 2019 with a growth expectation of 10.7% annually between 2020 to 2026
- The expansion of wind and solar electrical generation and the push for electric vehicles will further increase the demand for REEs
- ME<sub>2</sub>C continues to improve and test different leaching techniques to extract REEs from coal ash to maximize the concentration of REEs in solution, which allows for cost effective removal of REEs
- Recent tests have shown extractions as high as 80%, compared to previous tests at 10-20%, were achieved at optimized conditions and at higher pH levels than previously tested



The IEA estimates that the rare earth market could reach up to \$400 billion (globally).

• Coal Ash Remediation: \$560 Billion Annually

• Soil Remediation: \$1 Billion Annually

• Wastewater Remediation: \$22 Million

Acid Mine Drainage: \$8-10 Million



# **Significant Shareholder Value**

- Strong Financials continued profitability, strong cash position, significant commercial growth expected
- Core business base is solid & growing; U.S. EPA emissions regulations tighten
- IP Validation achieved through settlements reached with major defendants; litigation continues with remaining defendants, outreach across U.S. coal-fired market to increase business partnerships
- International "Total Pollution Control" Position for Expansion of Core Technologies
- New environmental remediation technologies underway- REE extraction, wastewater treatment; near-term
  expansion into growing water treatment business

### **Contact Information**



### **Corporate Office**

#### **Manufacturing & Production Distribution Center**

1810 Jester Drive

Main: 614 505 6115

Corsicana, TX 75109

www.me2cenvironmental.com

#### **R&D Offices**

Grand Forks, ND

# Richard MacPherson President & CEO

Office: 614 505 6115 x-1005

Mobile: 512 888 3815

rmacpherson@me2cenvironmental.com