

## Initial Report

*Investors should consider this report as only a single factor in making their investment decision.*

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

**Speculative Buy**

John Nobile  
April 14, 2021

**MEEC \$1.10 — (OTC)**

	<u>2019A</u>	<u>2020A</u>	<u>2021E</u>	<u>2022E</u>
Revenues (million)	\$11.4	\$8.2	\$20.4	\$37.0
Earnings (loss) per share	\$(0.08)	\$(0.07)	\$(0.02)	\$0.05

52-Week range	\$1.85 – \$0.05	Fiscal year ends:	December
Common shares out as of 3/31/21	83.7 million	Revenue per share (TTM)	\$0.10
Approximate float	57.3 million	Price/Sales (TTM)	11X
Market capitalization	\$92 million	Price/Sales (FY2022)E	2.5X
Tangible book value/share	\$(0.20)	Price/Earnings (TTM)	NMF
Price/tangible book value	NMF	Price/Earnings (FY2022)E	22X

*ME<sub>2</sub>C Environmental, also known as Midwest Energy Emissions Corp., headquartered in Corsicana, Texas, is an environmental services and technology company specializing in mercury emission control technologies, primarily to utility and coal-fired power plants.*

#### **Key investment considerations:**

*We are initiating coverage of ME<sub>2</sub>C Environmental with a Speculative Buy rating and twelve-month price target of \$3.00 per share.*

*We believe ME<sub>2</sub>C has taken the appropriate initiatives to ensure significant short and long-term growth.*

*The company estimates at least 40 companies have infringed on their patents related to its mercury capture (SEA) technology and started filing lawsuits against those companies in 2019. While four lawsuits have already been settled, a dozen more companies have been notified. At a 70% conversion rate of potential customers into supply/licensing contracts, the company anticipates recurring annual revenue could exceed \$100 million by 2023.*

*Near-term, ME<sub>2</sub>C is focused on helping utility customers meet emissions standards through its current technologies. Long-term, the company intends to bring new technologies to market to assure future growth. These new markets that address coal ash cleanup, wastewater remediation, and methane gas emissions from the oil and gas power industries, and improve the processing of rare earth elements, are likely to be higher-margin offerings.*

*For 2021, we project revenue more than doubling to \$20.4 million from \$8.2 million in 2020 and the net loss narrowing to \$1.5 million or \$(0.02) per share from \$5.8 million or \$(0.07) in 2020. The significant improvement is due primarily to growth in the company's product and licensing revenue stemming from patent infringement settlements.*

*For 2022, we project an 81.4% increase in revenue to \$37 million and net income of \$4.4 million or \$0.05 per share. Our forecast reflects continued growth in the company's product and licensing revenue stemming from patent infringement settlements and contribution from new environmental technologies.*

***\*Please view our disclosures on pages 16 - 18.***

### ***Recommendation and Valuation***

**We are initiating coverage of ME<sub>2</sub>C Environmental with a Speculative Buy rating and twelve-month price target of \$3.00 per share.**

We believe ME<sub>2</sub>C has taken the appropriate initiatives to ensure significant short and long-term revenue growth for its emission control technologies.

ME<sub>2</sub>C has a patent portfolio consisting of 42 active patents throughout North America, Europe and Asia, and 20 patents pending applications. The company estimates at least 40 companies (includes utilities and refined coal companies) have infringed on their patents related to its SEA technology and started filing lawsuits against those companies in July 2019.

After the first lawsuit was settled in July 2020 (which took approximately one year to settle after the initial filing in July 2019), the lawsuits are being settled at a faster pace (with three additional lawsuits being settled in a six-month period). We believe that as the number of lawsuits being settled increases, it will make it easier to settle the remaining lawsuits.

ME<sub>2</sub>C is confident that up to 200 units at coal plants are using its patented SEA technologies. At a 70% conversion rate of potential customers into supply/licensing contracts, the company anticipates recurring annual revenue could exceed \$100 million by 2023. This is based on a market of approximately \$145 million from those currently using ME<sub>2</sub>C's SEA technology.

Besides ME<sub>2</sub>C's technologies currently being used by companies as a means for them to comply with EPA emissions standards, the company is also focusing on technologies to assure future growth. In 2019, ME<sub>2</sub>C began research and development for other technologies addressing coal ash cleanup, wastewater remediation, and methane gas emissions from the oil and gas power industries. In March 2021, ME<sub>2</sub>C announced new technologies under development intended to improve the processing of rare earth elements in North America. These new markets should enable the company to generate revenue from higher margin offerings.

Shares of MEEC are currently trading at a trailing-twelve-month (ttm) P/S multiple of 11X while the pollution and treatment controls industry trades at an average of 4.6X ttm sales, excluding outliers (finviz.com). We believe the company's higher multiple compared to the industry average is due to the market's favorable perception of MEEC's growth opportunities. Applying a multiple of 7.8X (midpoint between MEEC and the industry) to our 2022 sales projection of \$0.44 per share, discounted to account for execution risks, we derive a 12-month price target of approximately \$3.00 per share.

### ***Business Overview***

ME<sub>2</sub>C Environmental, also known as Midwest Energy Emissions Corp., headquartered in Corsicana, Texas, is an environmental services and technology company specializing in mercury emission control technologies, primarily to utility and industrial coal-fired power plants. The company delivers solutions to the global coal-power industry to remove mercury from power plant emissions. ME<sub>2</sub>C Environmental developed patented technology and proprietary products that have been shown to achieve mercury removal at a significantly lower cost and with less operational impact than currently used methods, while maintaining and/or increasing unit output and preserving the marketability of fly ash. Fly ash, also known as flue ash, is a coal combustion product that is composed of the particulates (fine particles of burned fuel) that are driven out of coal-fired boilers together with the flue gases. Fly ash can be used as a prime material in many cement-based products, such as poured concrete, concrete block, and brick.

### ***Acquisition of Patent Rights***

ME<sub>2</sub>C Environmental's Sorbent Enhancement Additive (SEA) technology was originally developed by the University of North Dakota's Energy and Environmental Research Center (EERC). It was tested and refined on numerous operating coal-fired energy generating units (EGUs), with the founder of ME<sub>2</sub>C Environmental participating with the EERC on these tests since 2008. The Energy and Environmental Research Center Foundation (EERCF), obtained patents on this technology.

In January 2009, the company entered into a license agreement with EERCF and was granted an exclusive license by EERCF with respect to this technology to develop, make, use, sell, offer to sell, lease, and import the technology in any coal-fired combustion system (power plant) worldwide. Under the terms of the license agreement, ME<sub>2</sub>C Environmental was required to pay EERCF monthly license maintenance fees and annual running royalties on operational systems of the company, and had the right to purchase the patent rights.

In April 2017, ME<sub>2</sub>C Environmental closed on the acquisition from EERCF of all such patent rights, including all patents and patents pending, domestic and foreign, relating to the technology. A total of 42 domestic and foreign patents and patent applications were included in the acquisition. The patent rights were acquired for \$2.5 million cash and 925,000 shares of common stock. As a result of the acquisition of the patent rights, no additional monthly license maintenance fees and annual running royalties will be due or owed to EERCF.

### ***Monetization of Intellectual Property***

ME<sub>2</sub>C has a patent portfolio consisting of 42 active patents throughout North America, Europe and Asia, and 20 patents pending applications. The company estimates over 40 companies (includes utilities and refined coal companies) have infringed on their patents related to its SEA technology and started filing lawsuits against those companies in July 2019. Following is a status of these lawsuits.

- In July 2020, ME<sub>2</sub>C settled a lawsuit with Vistra Corp. one of the company's largest defendants and a long-term customer. The company entered into a multi-year license and supply agreement with Vistra, as the lawsuit was dismissed.
- In November 2020, ME<sub>2</sub>C and American Electric Power (AEP), a defendant and major US power producer, entered into an agreement providing AEP a non-exclusive license to certain ME<sub>2</sub>C patents for use in connection with AEP's coal-fired plants. The lawsuit against AEP was dismissed.
- In January 2021, ME<sub>2</sub>C announced license agreements with two additional major utilities named in the 2019 lawsuit. The agreements include the removal of any challenges to the company's patented technologies.

After the first lawsuit settlement, which took approximately one year to settle after the initial filing, the lawsuits are being settled at a faster pace. We believe that as the number of lawsuits being settled increases, it will make it easier to settle the remaining lawsuits.

ME<sub>2</sub>C estimates that up to 200 units at coal plants are using its patented SEA technologies. At a 70% conversion rate of potential customers into supply/licensing contracts, the company anticipates recurring annual revenue could exceed \$100 million by 2023. This is based on a market of approximately \$145 million from those currently using ME<sub>2</sub>C's SEA technology.

The company has the infrastructure in place to support over \$100 million in annual revenue. In 2017, ME<sub>2</sub>C completed and fully paid for its manufacturing and distribution center in Texarkana, Texas. This investment should enable the company to move forward with the monetization of its patents and handle the expected upturn in demand starting in 2021.

### ***Coal and the Environment***

Coal is an abundant fuel source that is relatively inexpensive to produce and convert to useful energy. However, producing and using coal adversely affects the environment.

Some of the principal emissions from coal combustion include mercury and other heavy metals, which have been linked to both neurological and developmental damage in humans and other animals, and fly ash and bottom ash, which are residues created when power plants burn coal.

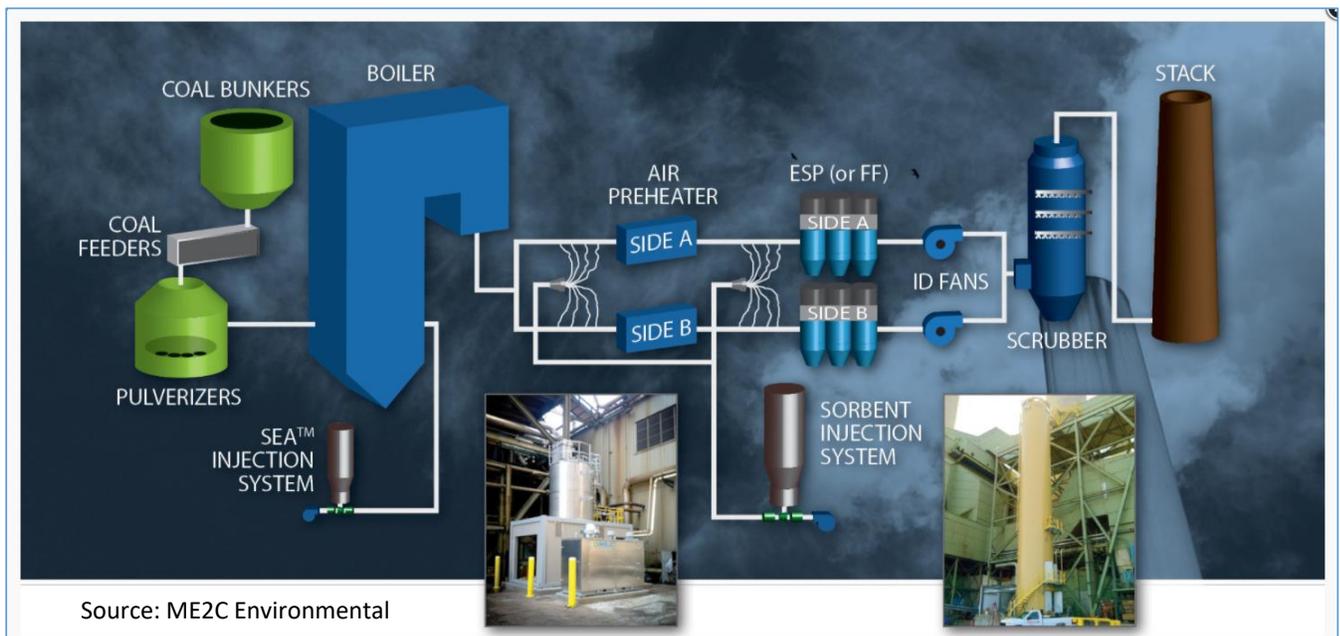
The US EPA Mercury and Air Toxics Standards (MATS) rule requires that all coal and oil-fired power plants in the US, larger than 25MWs, must limit mercury in its emissions to below certain specified levels, according to the type of coal burned. Power plants were required to begin complying with MATS in April 2015, unless they were granted a one-year extension. MATS, along with many state and provincial regulations, form the basis for mercury emission capture at coal fired plants across North America. Under MATS regulation, Electric Generating Units (EGUs) are required to remove about 90% of the mercury from their emissions.

In the past, fly ash was released into the air through the smokestack, but laws now require that most emissions of fly ash be captured by pollution control devices.

Power plants also use flue gas desulfurization equipment, also known as scrubbers, to clean sulfur from the smoke before it leaves their smokestacks.

### ***ME<sub>2</sub>C's Technology***

*Sorbent Enhancement Additive (SEA®) Technology* – The company's SEA technology provides total mercury control by its ability to capture mercury in coal-fired flue gas. This technology is specifically tailored for each application to match a customer's fuel type and boiler configuration for optimal results. ME<sub>2</sub>C's SEA technology consists of a front end sorbent (a substance which has the property of collecting molecules of another substance by absorption) injected directly into the boiler in minimal amounts combined with a back end sorbent injection solution to insure maximum mercury capture (see diagram below). This method is believed to use fewer raw materials than other mercury capture systems and cause less disruption to plant operations. The SEA process also preserves fly ash which can be sold and recycled for beneficial uses.



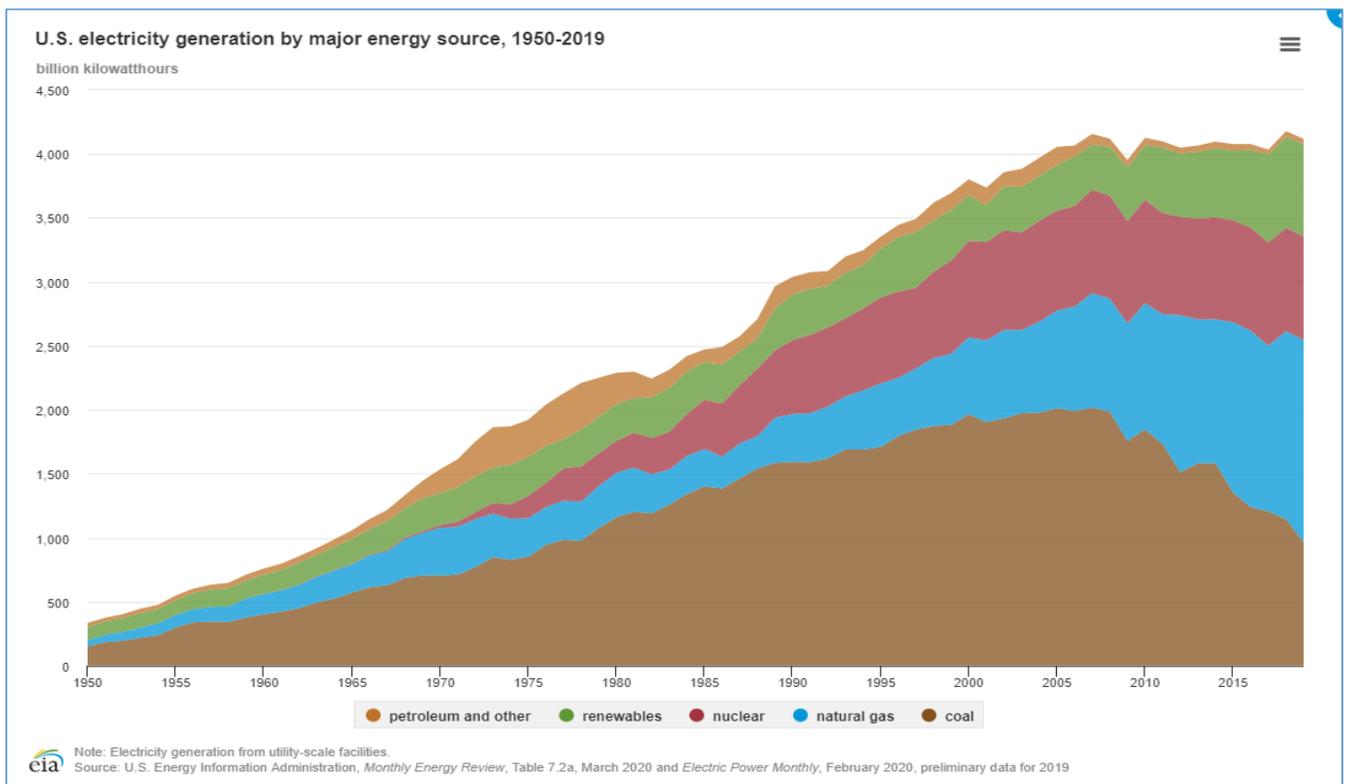
Customized Emissions Services – In an effort to achieve optimal results, ME<sub>2</sub>C brings its mercury emission analytics to the field as opposed to collecting samples for laboratory analysis. This enables the company to offer its customers an assessment of existing systems and suggested improvements, an assessment and guidance of mercury capture and emissions, the optimal design of the injection strategy and appropriate equipment layout and installation. The company is also able to offer sorbent optimization using flow modeling for a customized, low-cost plan for each unit, emission testing for mercury and other trace metals with its mobile laboratory, and ongoing research toward improved technology for mercury capture as well as enabling rapid-response scientific support for emission or combustion issues as operations and regulations change.

**Markets Served**

North America is currently the largest market for the company’s technologies. In the US, ME<sub>2</sub>C’s success depends, in part, on the demonstrations performed with utility customers and the resulting contract awards to meet the MATS requirements and the company’s operational performance with energy generating units under contract.

Electricity Generation - The three major categories of energy for electricity generation are fossil fuels (coal, natural gas, and petroleum), nuclear energy, and renewable energy sources with fossil fuels being the largest component. According to the latest statistics from the Energy Information Administration (EIA), natural gas was the largest source (about 38%) of US electricity generation in 2019 and coal was the second-largest energy source (about 23%). Nearly all coal-fired power plants use steam turbines.

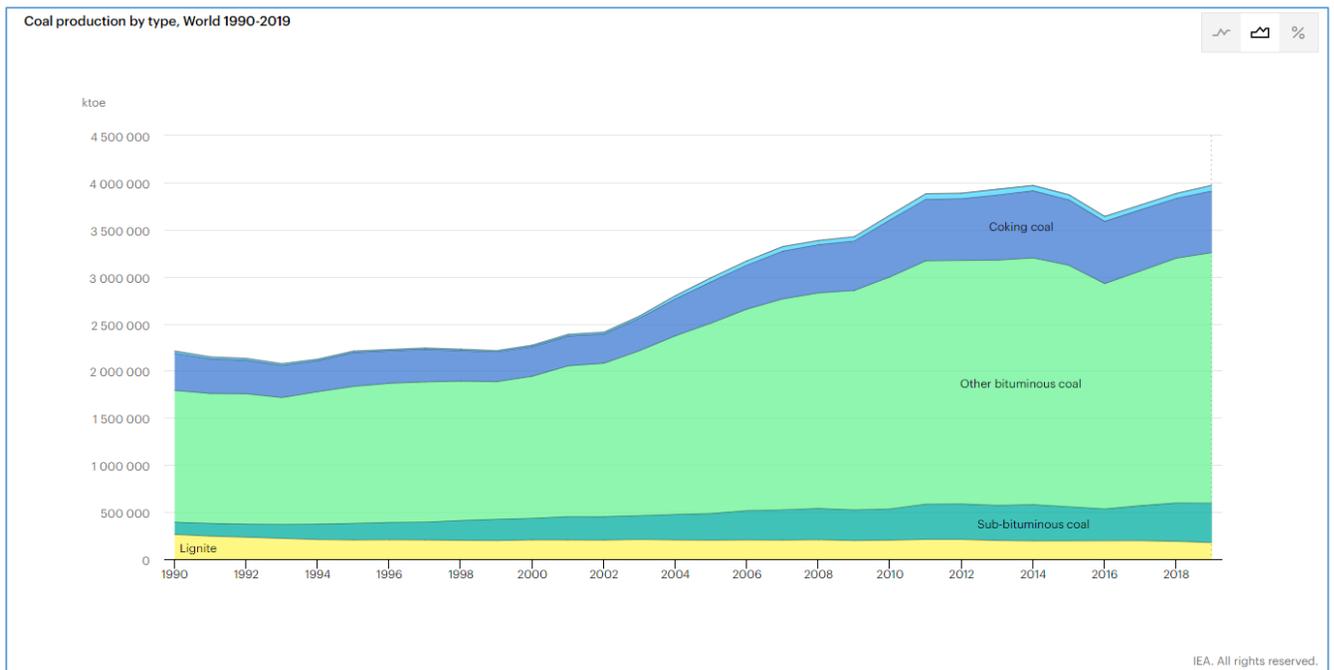
While renewable and nuclear energy sources have remained relatively stable over the past decade, coal and natural gas energy sources have steadily declined (see chart below).



Coal - In 2020, the International Energy Agency (IEA) estimates that global coal demand will have experienced its largest drop since WWII, falling 5% from 2019 levels. Except for China, industrial output has been severely subdued by the COVID-19 pandemic. Measures to slow the transmission of COVID-19, notably in the first half of 2020, resulted in an unusual drop in electricity demand. This in turn significantly affected the use of coal for power generation.

Global coal consumption is estimated to have fallen by 7%, or over 500 million tons, between 2018 and 2020. A decline of this size over a two-year period is unprecedented in IEA records, which go back as far as 1971. Based on the assumption of a global economic recovery in 2021, the IEA expects both electricity demand and industrial output to increase and forecasts a rebound in global coal demand of 2.6%, led by China, India, and Southeast Asia. Higher natural gas prices and electricity demand are set to slow the structural decline of coal use in the European Union and the United States, which both might see their coal consumption grow for the first time in nearly a decade. However, coal's partial recovery is set to fade after 2021 with demand flattening by 2025.

Over the last two decades, global coal production has steadily increased (see chart below). Coal supplies over one-third of global electricity generation and plays a crucial role in industries such as iron and steel. Despite legitimate concerns about air pollution and greenhouse gas emissions, the IEA states that coal use is likely to continue to be significant in the future in the absence of concerted government policy. For coal to have a place as a cleaner energy source in the decades to come, efforts are needed by government and industry to develop and deploy less polluting and more efficient technologies.



Although North America is currently the largest market for ME<sub>2</sub>C's technologies, efforts to reduce mercury pollution in the European Union could result in a significant market for the company. In May 2017, the European Union and seven of its member states ratified the Minamata Convention on Mercury, which triggered its entry into force with implementation starting in 2021. The Minamata Convention on Mercury is a global treaty to protect human health and the environment from the adverse effects of mercury.

### **Competition**

The industry the company operates in is highly competitive. Major competitors in the US and Canada include companies such as Advanced Emissions Solutions, Inc., Albemarle Corporation, Cabot Corporation, Calgon Carbon Corporation, Carbonxt, Inc., Environmental Energy Services Inc., and Nalco Company. These companies employ large sales staff and are well positioned in the market. ME<sub>2</sub>C's ability to compete successfully depends in part upon its ability to offer superior technology, including a superior team of sales and technical staff. If the company is unable to maintain its competitive position, it could lose market share which would likely adversely impact its financial results.

### ***Strategy / Future Growth Opportunities***

ME<sub>2</sub>C remains focused on positioning itself for short and long-term growth through execution at customer sites and continual operational improvement. ME<sub>2</sub>C continues to make refinements to all of its key products and has a number of initiatives which should drive revenue growth.

In the US, ME<sub>2</sub>C continues to seek new utility customers for its technology in order for them to meet the MATS requirements, as well as maintaining contractual arrangements with its current customers. In 2019, ME<sub>2</sub>C began research and development for other technologies addressing coal ash cleanup, wastewater remediation, and methane gas emissions from the oil and gas power industries. New offerings to these markets should drive higher margin revenue over the coming years.

One such initiative announced in February 2021 to drive higher margin revenue growth is the development of a proprietary new methane gas emissions control technology. The company is preparing for near-term pilot scale testing to validate the technology.

The methane emissions control technology has been under development by MEEC's in-house team of chemists over the past 18 months. According to the International Energy Agency, methane gas emissions are a leading cause of global warming, with the energy sector in particular being one of the largest contributors.

From a comparative study ME<sub>2</sub>C conducted, assuming a market value of ~\$60 per metric ton of CO<sub>2</sub>, the company believes the 178 million metric tons of methane released annually equates to a potential \$10 billion market in the US.

Methane emissions are becoming a central point of the Biden Administration's effort to curb greenhouse gas emissions. An executive order on "Tackling the Climate Crisis at Home and Abroad", signed on January 27, 2021 by President Biden, calls for federal agencies to provide monetary resources, along with other efforts to assist coal, oil and gas, and power plant communities, to achieve substantial reductions of methane emissions from the oil and gas sector as quickly as possible.

Another initiative to drive growth is the company's development of technologies in the rare earth market. In March 2021, ME<sub>2</sub>C announced new technologies under development intended to improve the processing of rare earth elements (REEs) in North America. The US Department of Energy reported the global market for REEs was valued at approximately \$13.2 billion in 2019 with annual growth expectations of 10.7% from 2020 to 2026. Rare earth elements are commonly used in automobile catalysts and petroleum refining catalysts, televisions, magnets, batteries, and medical devices.

The technologies under development for the REE market are focused on the extraction process of obtaining rare earth elements abundantly available from coal mining and the coal-fired power industry, along with general mining operations. The company is focused on improving the cost of extracting rare earth minerals along with improving the environmental footprint of extracting those rare earth elements. ME<sub>2</sub>C anticipates that its new sorbent technology could dramatically improve rare earth element production in North America at a lower production cost.

The company is entering the pilot testing phase for its new environmental technologies and anticipates commercialization in early 2022

### ***Economic Outlook***

In April 2021, the International Monetary Fund (IMF) revised its global economic growth estimates to an increase of 6% for 2021 and 4.4% for 2022. In January 2021, the IMF predicted GDP growth of 5.5% for 2021 and 4.2% for 2022. The 2021 upward revision primarily reflects additional fiscal policy support in a few large economies and an anticipated vaccine-powered recovery in 2H21.

The IMF revised its economic growth estimate for the US to an increase of 6.4% for 2021 and 3.5% for 2022. In January 2021, the IMF projected US economic growth of 5.1% for 2021 and 2.5% for 2022.

The third estimate of US GDP growth (released on March 25, 2021) showed the US economy increased at an annual rate of 4.3% in 4Q20, down from the 33.4% increase reported in 3Q20. The 4Q20 US GDP estimate primarily reflects increases in exports, business investment, consumer spending, housing investment and inventory investment, partially offset by a decrease in government spending.

### ***Projections***

2021 Forecast - We project revenue more than doubling to \$20.4 million from \$8.2 million in 2020 and the net loss narrowing to \$1.5 million or \$(0.02) per share from \$5.8 million or \$(0.07) in 2020. The significant improvement in results is primarily due to growth in the company's product and licensing revenue stemming from patent infringement settlements with an approximate 50/50 revenue split between product and license revenue.

We project gross profit increasing to approximately \$8 million from \$2.7 million with gross margins of 39.1% versus 33.3% in 2020. SG&A expenses are projected to increase to \$7 million from \$5.9 million to support revenue growth. We project interest expense decreasing to \$2.4 million from \$2.7 million as the company pays down debt. No taxes are likely to be recorded due to the company's large amount of net operating loss carryforwards of approximately \$33.4 million federal and \$4.2 million state as of December 31, 2020.

In 2021, we project \$2.7 million cash provided by operations primarily from cash earnings. We project the cash generated from operations and cash used in financing of \$1.7 million from the pay down of debt should result in a \$1 million increase in cash to \$1.6 million at the end of 2021.

2022 Forecast - We project an 81.4% increase in revenue to \$37 million from \$20.4 projected for 2020 and net income of \$4.4 million or \$0.05 per share versus an estimated loss of \$1.5 million or \$(0.02) in 2021. The improvement in results is primarily due to continued growth in the company's product and licensing revenue stemming from patent infringement settlements and contribution from the company's new environmental technologies.

We project gross profit increasing to \$14.8 million from \$8 million in 2021 with gross margins of 40% versus 39.1% in 2021. SG&A expenses are projected to increase to \$9 million from \$7 million to support revenue growth. We project interest expense decreasing to \$1.4 million from \$2.4 million as the company continues to pay down debt.

In 2022, we project \$8 million cash provided by operations primarily from cash earnings. We project the cash generated from operations and cash used in financing of \$8 million from the pay down of debt should result in a \$35,000 decrease in cash to \$1.6 million at the end of 2022.

### ***2020 Financial Results***

2020 – Revenue decreased 28.5% to \$8.2 million and the net loss narrowed to \$5.8 million or \$(0.07) per share from \$6.1 million or \$(0.08) per share in 2019. The decrease in revenue was primarily due to reduced energy generation in coal fired power plants principally due to renewables and low natural gas prices.

Gross profit decreased 11.8% to \$2.7 million from \$3.1 million due primarily to lower sales partly offset by gross margins improving to 33.3% from 27%. SG&A expenses decreased to \$5.9 million from \$6.4 million due to less travel as a result of the COVID-19 pandemic, and less business development and outside consulting expenses.

Interest expense and letter of credit fees increased to \$2.7 million from \$2.4 million.

Liquidity – As of December 31, 2020, MEEC had \$591,000 cash, a current ratio of 0.7X, \$14.6 million of total debt (less than 1% is short-term) and a shareholder’s deficit of \$13.2 million.

In 2020, the company’s \$1.2 million cash used in operations was primarily from its cash burn. Partly offsetting cash used in operations was a net \$288,000 increase in debt and \$43,000 cash received from the sale of equipment. Cash decreased by \$908,000 to \$591,000 as of December 31, 2020.

MEEC’s debt consists primarily of an unsecured note payable with an outstanding balance of \$9.9 million, and convertible notes payable with an outstanding balance of \$4.1 million. The \$9.9 million unsecured note payable matures on August 25, 2022, has a zero cash interest rate, and an unamortized remaining balance of its discount of approximately \$3.3 million as of December 31, 2020.

The company’s \$4.1 million of convertible notes payable consists of \$990,000 of secured convertible promissory notes which mature on August 25, 2022, bear interest at an annual rate of 10%, and are convertible into shares of MEEC common stock at \$0.50 per share. MEEC’s convertible debt also consists of \$860,000 of unsecured promissory notes which mature beginning June 15, 2023 through October 31, 2023, bear interest at an annual rate of 12%, and are convertible into shares of MEEC common stock at \$0.50 per share. The company’s convertible debt also includes \$2.6 million of unsecured promissory notes which mature beginning on June 18, 2024 through October 23, 2024, bear interest at an annual rate of 12%, and are convertible into shares of MEEC common stock at \$0.50 per share.

In connection with the unsecured note payable, the company shall also pay a profit share. The profit share liability totaled approximately \$2.3 million as of December 31, 2020. The discounted cash flow model assumptions used to calculate the profit share liability included an estimated term of sixteen years with \$100,000 to \$350,000 paid quarterly after the first three years at an annual market interest rate of 21%. The profit share liability will be marked to market every quarter utilizing management’s estimates.

## ***Management***

***Richard MacPherson, President, Chief Executive Officer, Director*** – MacPherson serves as President and CEO of MEEC since 2016. He founded ME<sub>2</sub>C Environmental in 2008 to commercialize the Energy & Environmental Research Center (EERC)’s Sorbent Enhancement Additive (SEA) technologies. Under MacPherson’s direction, these SEA products and processes were launched across the coal-fired utility markets in the US and Canada starting in 2008. Negotiated the full SEA patent portfolio acquisition from the EERC in May 2017. In 2018, he initiated and concluded a strategic licensing partnership with Cabot Corporation’s European division, which involves the exportation of MEEC’s patented, US-developed SEA mercury emissions capture technologies across Europe. He is an active member of the International Clean Air Committee (ICAC), Southern States Energy Board (SSEB), PRB Coal Users Group, and Edison Electric Institute.

***John Pavlish, Senior Vice President, Chief Technology Officer*** – Pavlish has over 20 years of mercury-related experience and is regarded as an international expert. He is an inventor of a number of patented mercury control technologies and has years of experience in the development and testing of these technologies for commercial applications. Pavlish is a professional engineer, a member of the American Society of Mechanical Engineers, and a member of the Air & Waste Management Association. He serves on numerous professional and technical committees and is a US Representative on the Mercury Emissions from Coal International Experts Working Group on Reducing Emissions from Coal and a member of the United Nations Environment Programme Global Mercury Partnership, Reduction of Mercury Releases from Coal Combustion. Pavlish has published over 200 papers, articles, and reports on various mercury-related topics and issues.

***Jami Satterthwaite, Chief Accounting Officer, Principal Accounting Officer*** – Satterthwaite serves as Chief Accounting Officer and Principal Accounting Officer since 2019. She is a CPA with experience in accounting system customization, consultation, and training, process design and implementation, research, consultation, and compliance for federal and state tax issues, budget development, management, and corporate presentation. Earned a degree in Accounting.

**Risks**

In our view, these are the principal risks underlying the stock.

Regulation issues – The company’s business focus is mercury removal from power plant emissions, which is driven primarily by regulation. The US EPA Mercury and Air Toxics Standards (MATS) rule requires that all coal and oil-fired power plants in the US, larger than 25MWs, must limit mercury in its emissions to below certain specified levels, according to the type of coal burned. Power plants were required to begin complying with MATS in April 2015, unless they were granted a one-year extension.

The MATS regulation has been subject to numerous legal challenges over the years, and in April 2020, the EPA issued a final rule which leaves the MATS rule in place. The EPA’s final action will almost certainly be challenged in the courts, some of which has already begun, both by those who favor retention of MATS (such as the electric utility industry) and by those who oppose it (such as certain coal interests and deregulatory groups). This litigation could extend uncertainty over the status of MATS for a number of years. Any significant changes in mercury emission regulation could have a major impact on the company.

Going concern issues - As of December 31, 2020, the company had an accumulated deficit of \$63 million, a working capital deficit of \$984,000, and a net loss of \$5.8 million and cash used by operating activities of \$1.2 million for the year ended December 31, 2020. These factors raise substantial doubt about the company’s ability to continue as a going concern. However, these concerns could be alleviated if operations turn profitable in future periods.

Technological obsolescence - The market into which the company sells its products and services is characterized by periodic technological change, as well as evolving industry standards and regulations. Unless MEEC is able to enhance, improve and/or modify existing products in a timely manner or to develop and introduce new products that incorporate new technologies or conform with evolving industry standards and regulations, its products and services may be rendered less marketable.

Competition – The industry the company operates in is highly competitive. If MEEC is unable to compete effectively with its competitors, its financial results could be adversely affected.

Dependence on key customers – The company’s customers are concentrated, so the loss of one or more key customers or a material reduction in business performed for them could cause MEEC to experience a decline in net sales.

Natural gas price and weather factors – The company’s mercury-emissions control technologies are used by coal-fired power plants primarily in the US. When natural gas prices remain low for an extended period of time or drop substantially, power suppliers will likely rely more upon gas-fired units rather than coal plants in meeting their power needs. In addition, mild winter months in the US will also result in a reduction of power demand which will also be expected to negatively impact the company’s operations.

Pandemic concerns - The ongoing COVID-19 pandemic has adversely impacted various businesses throughout the world. This pandemic could result in disruptions to the company’s business including the availability of raw materials, equipment, the workforce, or to business relationships. Any such disruptions could have a material adverse effect on the company’s financial results.

Material weakness in internal controls – As of December 31, 2020, the company’s disclosure controls and procedures were not effective as a result of material weaknesses in its internal control over financial reporting. The material weaknesses were due to a lack of personnel commensurate with the company’s reporting requirements and insufficient written documentation or training of our internal control policies and procedures which provide staff with guidance or framework for accounting and disclosing financial transactions.

Liquidity risk - Shares of MEEC have risks common to those of the microcap segment of the market. Often these risks cause microcap stocks to trade at discounts to their peers. The most common of these risks is liquidity risk, which is typically caused by small trading floats and very low trading volume and can lead to large spreads and high volatility in stock price. There are 57.3 million shares in the float and the average daily volume is approximately 410,000 shares.

Miscellaneous risk - The company's financial results and equity values are subject to other risks and uncertainties including competition, operations, financial markets, regulatory risk, and/or other events. These risks may cause actual results to differ from expected results.

ME<sub>2</sub>C Environmental

Consolidated Balance Sheets  
(in thousands \$)

	2018A	2019A	2020A	2021E	2022E
Cash	585	1,499	591	1,640	1,605
Accounts receivable	1,642	1,223	1,116	2,267	4,111
Inventory	509	514	560	1,035	1,850
Prepaid expenses and other	137	316	107	107	107
Customer acquisition costs	34	-	-	-	-
<b>Total current assets</b>	<b>2,907</b>	<b>3,552</b>	<b>2,374</b>	<b>5,049</b>	<b>7,673</b>
Property and equipment, net	2,398	2,082	1,887	1,834	1,816
Right of use asset	-	1,107	796	485	174
Intellectual property	2,734	2,532	2,319	2,114	1,909
<b>Total assets</b>	<b>8,039</b>	<b>9,273</b>	<b>7,376</b>	<b>9,482</b>	<b>11,572</b>
Accounts payable and accrued expenses	1,858	1,677	1,612	3,278	5,858
Equipment notes payable	63	53	29	29	29
Operating lease liability	-	383	408	408	408
Note payable	-	-	35	35	35
Convertible notes payable	-	990	-	-	-
Accrued interest	97	226	259	259	259
Customer credits	167	167	167	167	167
Accrued salaries	556	357	849	849	849
<b>Total current liabilities</b>	<b>2,741</b>	<b>3,853</b>	<b>3,359</b>	<b>5,025</b>	<b>7,605</b>
Equipment notes payable	104	22	1	1	1
Operating lease liability	-	807	395	395	395
Note payable	-	-	299	299	299
Convertible notes payable	1,761	2,951	4,055	595	305
Profit share liability	-	2,329	2,305	2,305	2,305
Secured note payable	272	272	272	272	272
Unsecured note payable	11,782	7,912	9,894	11,754	5,454
<b>Total liabilities</b>	<b>16,660</b>	<b>18,146</b>	<b>20,580</b>	<b>20,646</b>	<b>16,636</b>
<b>Total stockholders' equity (deficit)</b>	<b>(8,621)</b>	<b>(8,873)</b>	<b>(13,204)</b>	<b>(11,164)</b>	<b>(5,064)</b>
<b>Total liabilities &amp; stockholders' equity (deficit)</b>	<b>8,039</b>	<b>9,273</b>	<b>7,376</b>	<b>9,482</b>	<b>11,572</b>

\*2021 includes approximately \$1.8 million additional paid-in-capital upon the conversion of conv. debt

Source: Company filings and Taglich Brothers' estimates

ME<sub>2</sub>C Environmental

Income Statements for the Fiscal Years Ended  
(in thousands \$)

	2018A	2019A	2020A	2021E	2022E
Revenue	12,296	11,417	8,158	20,400	37,000
Cost of sales	9,148	8,335	5,440	12,420	22,200
Gross profit	3,148	3,082	2,718	7,980	14,800
SG&A	5,895	6,429	5,936	7,000	9,000
Interest expense and letter of credit fees	2,004	2,391	2,658	2,440	1,400
Loss on debt restructuring	44	-	-	-	-
(Gain) loss on change in fair value of profit share	-	375	(24)	-	-
Gain on sale of equipment	-	(30)	(36)	-	-
Income (loss) before taxes	(4,795)	(6,083)	(5,816)	(1,460)	4,400
Income tax	(22)	(14)	(10)	-	-
Net income / (Loss)	(4,817)	(6,097)	(5,826)	(1,460)	4,400
EPS	(0.06)	(0.08)	(0.07)	(0.02)	0.05
Shares Outstanding	76,138	76,535	77,819	82,986	83,715
<u>Margin Analysis</u>					
Gross margin	25.6%	27.0%	33.3%	39.1%	40.0%
SG&A	47.9%	56.3%	72.8%	34.3%	24.3%
<u>Year / Year Growth</u>					
Total Revenues		(7.1)%	(28.5)%	150.1%	81.4%

Source: Company filings and Taglich Brothers' estimates

ME<sub>2</sub>C Environmental

Quarterly Income Statements 2020A - 2022E  
(in thousands \$)

	3/20A	6/20A	9/20A	12/20A	2020A	3/21E	6/21E	9/21E	12/21E	2021E	3/22E	6/22E	9/22E	12/22E	2022E
Revenue	1,117	1,883	2,812	2,346	8,158	2,400	4,000	6,000	8,000	20,400	8,500	9,000	9,500	10,000	37,000
Cost of sales	931	1,386	1,882	1,241	5,440	1,620	2,400	3,600	4,800	12,420	5,100	5,400	5,700	6,000	22,200
Gross profit	186	497	930	1,105	2,718	780	1,600	2,400	3,200	7,980	3,400	3,600	3,800	4,000	14,800
SG&A	1,172	1,133	1,271	2,360	5,936	1,300	1,800	1,900	2,000	7,000	2,100	2,200	2,300	2,400	9,000
Interest expense and letter of credit fees	664	650	672	672	2,658	670	630	590	550	2,440	500	400	300	200	1,400
(Gain) loss on change in fair value of profit share	124	(376)	112	116	(24)	-	-	-	-	-	-	-	-	-	-
Gain on sale of equipment	-	(6)	-	(30)	(36)	-	-	-	-	-	-	-	-	-	-
Income (loss) before taxes	(1,774)	(904)	(1,125)	(2,013)	(5,816)	(1,190)	(830)	(90)	650	(1,460)	800	1,000	1,200	1,400	4,400
Income tax	-	-	-	(10)	(10)	-	-	-	-	-	-	-	-	-	-
Net income / (Loss)	(1,774)	(904)	(1,125)	(2,023)	(5,826)	(1,190)	(830)	(90)	650	(1,460)	800	1,000	1,200	1,400	4,400
EPS	(0.02)	(0.01)	(0.01)	(0.03)	(0.07)	(0.01)	(0.01)	(0.00)	0.01	(0.02)	0.01	0.01	0.01	0.02	0.05
Shares Outstanding	77,737	77,748	77,748	77,819	77,819	80,800	83,715	83,715	83,715	82,986	83,715	83,715	83,715	83,715	83,715
<u>Margin Analysis</u>															
Gross margin	16.7%	26.4%	33.1%	24.6%	33.3%	32.5%	40.0%	40.0%	40.0%	39.1%	40.0%	40.0%	40.0%	40.0%	40.0%
SG&A	104.9%	60.2%	45.2%	100.6%	72.8%	54.2%	45.0%	31.7%	25.0%	34.3%	24.7%	24.4%	24.2%	24.0%	24.3%
<u>Year / Year Growth</u>															
Total Revenues					(28.5)%	114.9%	112.4%	113.4%	241.0%	150.1%	254.2%	125.0%	58.3%	25.0%	81.4%

Source: Company filings and Taglich Brothers' estimates

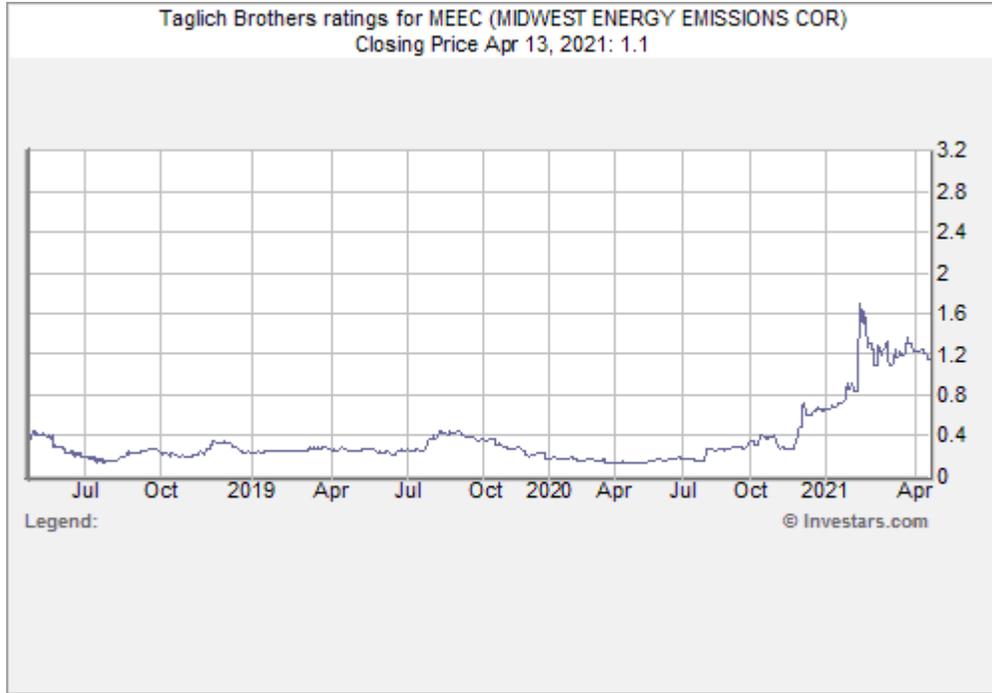
ME<sub>2</sub>C Environmental

Statement of Cash Flows for the Periods Ended  
(in thousands \$)

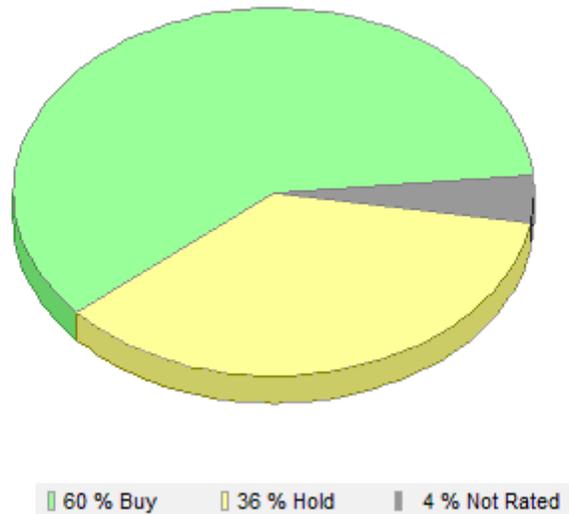
	2018A	2019A	2020A	2021E	2022E
Net income (loss)	(4,817)	(6,097)	(5,826)	(1,460)	4,400
Stock-based compensation	491	1,810	1,710	1,700	1,700
Amortization of discount of notes payable	678	1,753	1,974	1,974	1,514
Amortization of debt issuance costs	102	102	122	122	122
Amortization of right to use assets	-	378	311	311	311
Amortization of customer acquisition costs	138	34	-	-	-
Amortization of patent rights	201	201	214	205	205
Depreciation expense	457	315	189	59	18
Loss on debt exchange	44	-	-	-	-
Loss on change in fair value of profit share	-	374	(24)	-	-
(Gain) loss on sale of equipment	6	(30)	(36)	-	-
Cash earnings (loss)	(2,700)	(1,160)	(1,366)	2,911	8,270
<i>Changes in assets and liabilities</i>					
Accounts receivable	1,289	419	107	(1,151)	(1,844)
Inventory	150	(4)	(46)	(475)	(815)
Prepaid expenses and other	74	35	(6)	(202)	(236)
Accounts payable and accrued liabilities	63	(426)	(65)	1,666	2,581
Deferred compensation	556	(198)	492	-	-
Accrued interest	20	129	33	-	-
Operating lease liability	-	(372)	(388)	-	-
Deferred revenue and customer credits	(517)	-	-	-	-
(Increase) decrease in working capital	1,635	(417)	127	(162)	(315)
<b>Net cash provided by (used in) operations</b>	<b>(1,065)</b>	<b>(1,577)</b>	<b>(1,239)</b>	<b>2,749</b>	<b>7,955</b>
Cash received from sale of equipment	-	30	43	-	-
Purchase of property and equipment	(132)	-	-	-	-
<b>Net cash used in investing</b>	<b>(132)</b>	<b>30</b>	<b>43</b>	<b>-</b>	<b>-</b>
Payments on debt	(936)	(139)	(211)	(1,700)	(7,990)
Proceeds from the issuance of debt	300	2,600	499	-	-
<b>Net cash provided by (used in) financing</b>	<b>(636)</b>	<b>2,461</b>	<b>288</b>	<b>(1,700)</b>	<b>(7,990)</b>
<b>Net change in cash</b>	<b>(1,833)</b>	<b>914</b>	<b>(908)</b>	<b>1,049</b>	<b>(35)</b>
<b>Cash - beginning of period</b>	<b>2,418</b>	<b>585</b>	<b>1,499</b>	<b>591</b>	<b>1,640</b>
<b>Cash - end of period</b>	<b>585</b>	<b>1,499</b>	<b>591</b>	<b>1,640</b>	<b>1,605</b>

Source: Company filings and Taglich Brothers' estimates

**Price Chart**



**Taglich Brothers' Current Ratings Distribution**



<b>Investment Banking Services for Companies Covered in the Past 12 Months</b>		
Rating	#	%
Buy	3	16
Hold		
Sell		
Not Rated		

### **Important Disclosures**

As of the date of this report, we, our affiliates, any officer, director or stockholder, or any member of their families do not have a position in the stock of the company mentioned in this report. Taglich Brothers, Inc. does not currently have an Investment Banking relationship with the company mentioned in this report and was not a manager or co-manager of any offering for the company within the last three years.

All research issued by Taglich Brothers, Inc. is based on public information. The company paid a monetary fee of \$4,500 (USD) in March 2021 for the creation and dissemination of research reports for the first three months. After the first three months from initial publication (August 2021), the company will pay a monthly monetary fee of \$1,500 (USD) to Taglich Brothers, Inc., for a minimum of twelve months for the creation and dissemination of research reports.

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### **Analyst Certification**

**I, John Nobile, the research analyst of this report, hereby certify that the views expressed in this report accurately reflect my personal views about the subject securities and issuers; and that no part of my compensation was, is, or will be, directly, or indirectly, related to the specific recommendations or views contained in this report.**

Public companies mentioned in this report:

Advanced Emissions Solutions, Inc. (NASDAQ: ADES)  
Albemarle Corporation (NYSE: ALB)  
Cabot Corporation (NYSE: CBT)

### **Meaning of Ratings**

**Buy** – The growth prospects, degree of investment risk, and valuation make the stock attractive relative to the general market or comparable stocks.

**Speculative Buy** – Long term prospects of the company are promising but investment risk is significantly higher than it is in our BUY-rated stocks. Risk-reward considerations justify purchase mainly by high risk-tolerant accounts. In the short run, the stock may be subject to high volatility and could continue to trade at a discount to its market.

**Neutral** – Based on our outlook the stock is adequately valued. If investment risks are within acceptable parameters, this equity could remain a holding if already owned.

**Sell** – Based on our outlook the stock is significantly overvalued. A weak company or sector outlook and a high degree of investment risk make it likely that the stock will underperform relative to the general market.

**Discontinued** – Research coverage discontinued due to the acquisition of the company, termination of research services (includes non-payment for such services), diminished investor interest, or departure of the analyst.

### **Some notable Risks within the Microcap Market**

**Stocks in the Microcap segment of the market have many risks that are not as prevalent in Large-cap, Blue Chips or even Small-cap stocks. Often it is these risks that cause Microcap stocks to trade at discounts to their peers. The most common of these risks is liquidity risk, which is typically caused by small trading floats and very low trading volume which can lead to large spreads and high volatility in stock price. In addition, Microcaps tend to have significant company specific risks that contribute to lower valuations. Investors need to be aware of the higher probability of financial default and higher degree of financial distress inherent in the microcap segment of the market.**

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From time to time our analysts may choose to withhold or suspend a rating on a company. We continue to publish informational reports on such companies; however, they have no ratings or price targets. In general, we will not rate any company that has too much business or financial uncertainty for our analysts to form an investment conclusion, or that is currently in the process of being acquired.