Research Report – Update

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

ME$_2$C Environmental

Speculative Buy

John Nobile
August 25, 2021

MEEC $0.81 — (OTC)

	2019A	2020A	2021E	2022E
Revenues (million)	$11.4	$8.2	$14.3	$29.0
Earnings (loss) per share	$(0.08)	$(0.07)	$(0.03)	$0.04

52-Week range	$1.85 – $0.26	Fiscal year ends:	December
Common shares out as of 5/17/21	89.2 million	Revenue per share (TTM)	$0.13
Approximate float	63.3 million	Price/Sales (TTM)	6.2X
Market capitalization	$71 million	Price/Sales (FY2022)E	2.4X
Tangible book value/share	$(0.13)	Price/Earnings (TTM)	NMF
Price/tangible book value	NMF	Price/Earnings (FY2022)E	20X

ME$_2$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.

Key investment considerations:

Reiterating our Speculative Buy rating on ME2C Environmental but lowering our twelve-month price target to $2.50 per share from $3.00 based on our reduced 2022 revenue projection.

We believe ME$_2$C has taken the appropriate initiatives to ensure significant short and long-term growth. Near-term, ME$_2$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 that include coal ash cleanup, wastewater remediation, methane gas emissions from the oil and gas power industries, and rare earth elements processing.

On July 15, 2021, ME$_2$C Environmental announced it secured new multi-year supply business with a coal-fired power plant located in the Midwest. The utility signed a license agreement in 2020 to provide them a non-exclusive license to ME$_2$C's patented mercury capture technology. The additional supply business has an expected multi-million-dollar revenue value annually.

For 2021, we project revenue increasing 75.3% to $14.3 million and the net loss narrowing to $(0.03) per share from $(0.07) in 2020. We previously projected revenue of $21 million and a net loss of $(0.01) per share. Our projections reflect 2Q21 results and an increase in revenue being generated from license agreements which typically add less to the top line than supply agreements, albeit at a much higher margin.

For 2022, we project revenue more than doubling to $29 million and EPS of $0.04. We previously projected revenue of $37 million and EPS of $0.05. Our revised projections are primarily due to an increase in revenue being generated from license agreements.

ME2C reported (8/16/21) 2Q21 revenue increased 20.6% to $2.3 million and the loss increased to $(0.02) per share from $(0.01) per share in 2Q20. The loss for 2Q21 included an increase in interest expense due primarily to a one-time stock conversion incentive provided to certain note holders and related accelerated interest, and a loss on change in fair value of profit share liability, which together totaled approximately (0.01) per share. We projected revenue of $4 million and a loss of $(0.01) per share.

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

Recommendation and Valuation

We are reiterating our Speculative Buy rating on ME$_2$C Environmental but lowering our twelve-month price target to $2.50 per share from $3.00 based on our reduced 2022 revenue projection.

We believe ME$_2$C has taken the appropriate initiatives to ensure significant short and long-term revenue growth for its emission control technologies.

ME$_2$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. Subsequent to the end of 2Q21, ME$_2$C issued 20 subpoenas on August 16, 2021 that were related to this ongoing patent litigation.

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.

Besides ME$_2$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$_2$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$_2$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 have traded at trailing-twelve-month (ttm) P/S multiples ranging between 10.9X and 3X over the past twelve months and currently trade at a multiple of 6.2X. The pollution and treatment controls industry trades at an average of 3.6X 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 (unchanged) to our 2022 sales projection of $0.33 per share, we derive a 12-month price target of approximately $2.50 per share.

Recent Developments

On July 15, 2021, ME2C Environmental announced it secured new multi-year supply business with a coal-fired power plant located in the Midwest. The power plant is part of the fleet of a large utility based in the Southwest region of the US.

The utility signed a license agreement in 2020 to provide them a non-exclusive license to ME2C's patented mercury capture technology and to facilitate the parties' then ongoing business relationship. The additional supply business has an expected multi-million-dollar revenue value annually.

Business Overview

ME$_2$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$_2$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_2C 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_2C 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_2C 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_2C 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_2C 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. The following is a status of these lawsuits.

- In July 2020, ME_2C 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_2C 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_2C patents for use in connection with AEP's coal-fired plants. The lawsuit against AEP was dismissed.

- In January 2021, ME_2C 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_2C 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_2C's SEA technology.

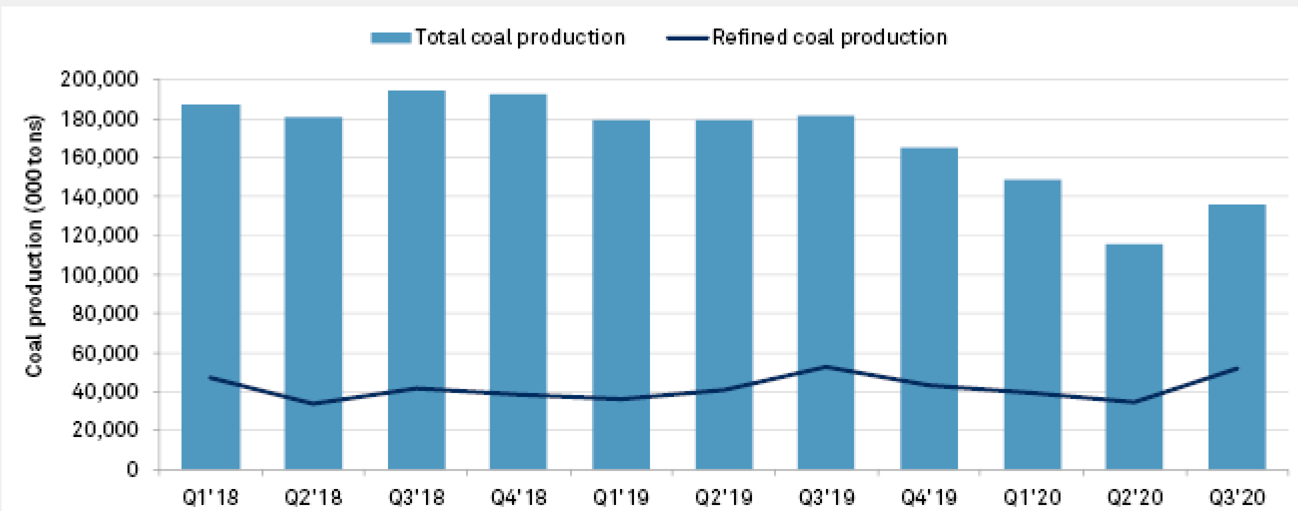
In May 2021, ME_2C Environmental announced that a US District Court Magistrate Judge issued a report and recommendation that the pending patent litigation ME_2C commenced in 2019 should be allowed to move forward against 16 key refined coal process defendants. This development adds a new layer to ME_2C's litigation actions that already include utilities.

Refined coal companies are LLCs created by Wall Street investors for the purpose of receiving significant revenue and tax credits from utilities using refined coal (coal that has been chemically treated to reduce emissions when burned). This has been shown to be a very lucrative business model as refined coal production qualifies for a tax credit under the American Jobs Creation Act of 2004.

The refined coal tax credit allows companies to build facilities, buy coal from a power generator, and sell it back after treating the fuel. S&P Global Market Intelligence[1] reported that several companies have described plans in which they plan to sell the coal back to power generators at a lower price than paid while reaping the tax benefits as refined coal facilities can be built to scale for about $4 million to $6 million. The report cited one of the companies using the tax credit showing returns of up to 500% from this business model because the development costs were so low.

According to US Energy Information Administration (EIA) data, companies mined about 400.1 million tons of coal in the US during the first nine months of 2020. Coal refining plants produced about 125.8 million tons in the same period, or an amount equal to about 31.5% of national coal production (see chart below). Annualizing the EIA's nine month production rate in 2020 would equate to refined coal production of approximately $167.7 million tons annually. With the current tax credit valued at more than $7 per ton of refined coal (S&P Global Market Intelligence), this equates to refined coal companies receiving tax credit payouts of over $1 billion annually.

US coal production and refined coal production



As of Jan. 11, 2021.
Source: U.S. Energy Information Administration

The company has the infrastructure in place to support over $100 million in annual revenue. In 2017, ME$_2$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.

1. https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/audit-of-us-coal-tax-credit-set-to-expire-in-2021-underway-by-federal-watchdog-62062796#:~:text=The%20refined%20coal%20tax%20credit%20allows%20companies%20to%20build%20facilities,reaping%20the%20tax%20credit%20benefits

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.

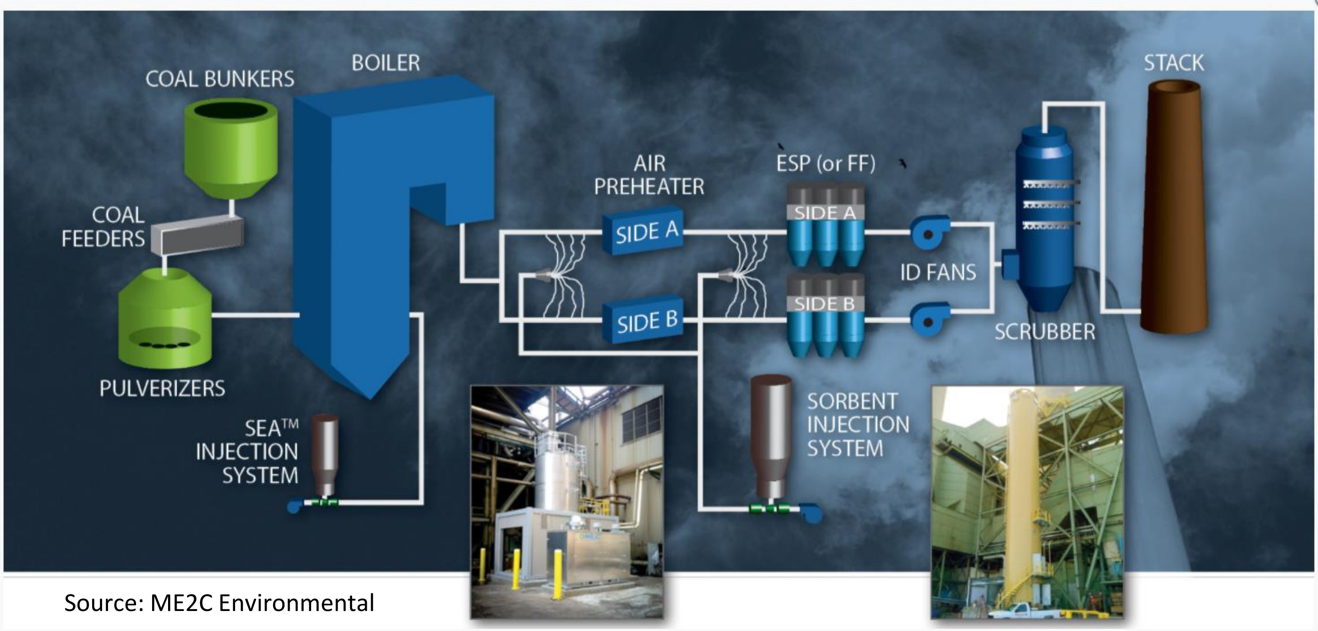
The US EPA Mercury and Air Toxics Standards (MATS) rule requires that all coal and oil-fired power plants in the US, larger than 25MWs, must limit mercury in its emissions to below certain specified levels, according to the type of coal burned. Power plants were required to begin complying with MATS 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$_2$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$_2$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 at top of next page). 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.



Source: ME2C Environmental

Customized Emissions Services – In an effort to achieve optimal results, ME$_2$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, as well as 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.

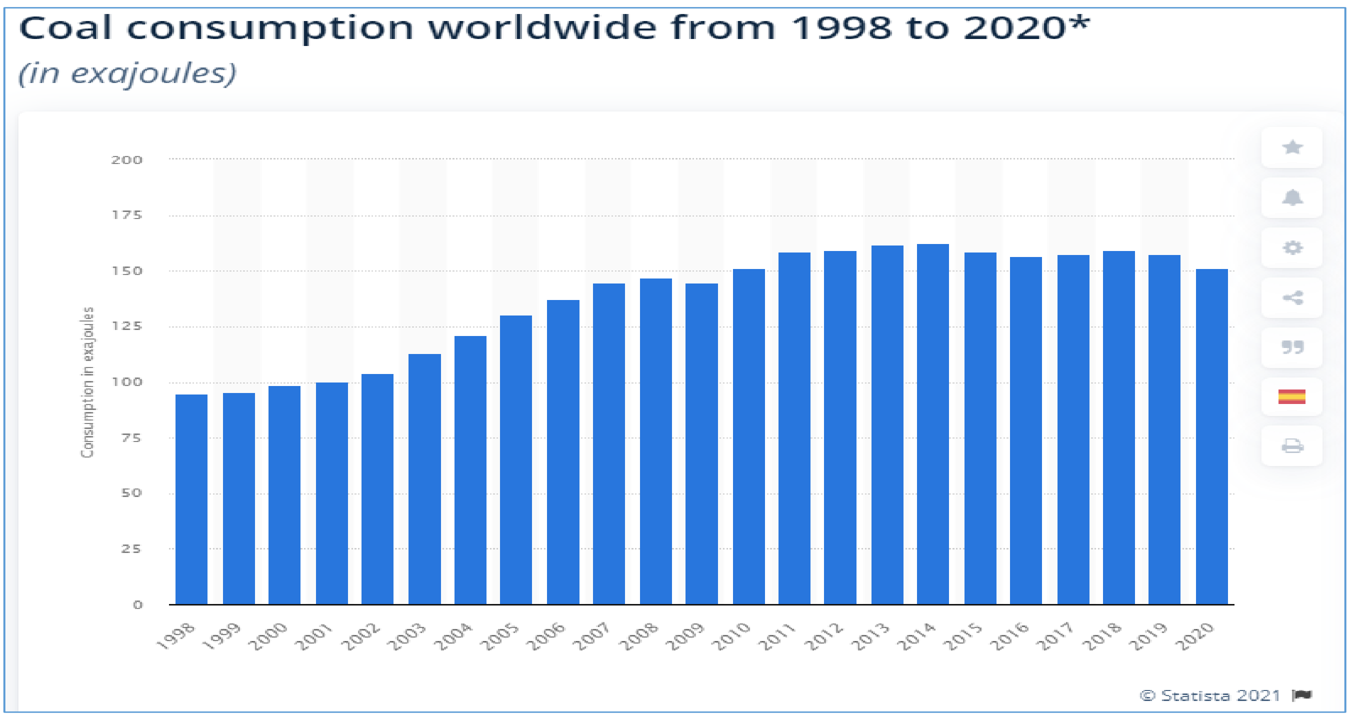
Markets Served

North America is currently the largest market for the company's technologies. In the US, ME$_2$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.

<u>*Electricity Generation*</u> - 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.

<u>*Coal*</u> - 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 fell 4% in 2020 (see chart below), its steepest drop since World War II, but the decline was concentrated mostly in the early months of the year. By the end of 2020, demand had surged above pre-COVID-19 levels, driven by growth in Asia and cold weather in December.



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.

Although North America is currently the largest market for ME_2C'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_2C'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_2C remains focused on positioning itself for short and long-term growth through execution at customer sites and continual operational improvement. While the company continues to seek new utility customers for its technology in order for them to meet the MATS requirements, ME_2C continues to make refinements to all of its key products and has a number of initiatives which should drive revenue growth.

In an effort to drive higher margin revenue growth, the company announced in February 2021 the development of a proprietary new methane gas emissions control technology. ME_2C 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_2C conducted, assuming a market value of ~$60 per metric ton of CO2, 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, 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_2C 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 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_2C anticipates that its new sorbent technology could dramatically improve rare earth element production in North America at a lower production cost.

In July 2021, The Environmental Protection Agency (EPA) announced plans to implement more stringent limits on wastewater pollution from coal power plants. The agency issued a statement saying that it would initiate the rulemaking process to reduce coal-fired power plant pollution that can contain toxic metals including mercury, arsenic, and selenium. The EPA plans to issue a proposed rule for public comment in the fall of 2022. In the meantime, a 2015 rule setting federal limits on the levels of toxic metals in wastewater that can be discharged from power plants and a 2020 rule revising requirements for flue gas desulfurization wastewater and bottom ash transport water will remain in place.

ME2C says its technology for REE extraction will be beneficial not only in the cleanup of the soil and wastewater, but in the extraction of the REE from the coal ash. In June 2021, ME2C announced that it was to begin testing on its REE technology with Penn State University's College of Earth & Mineral Sciences and that the testing should continue through the end of September 2021.

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

Economic Outlook

In July 2021, the International Monetary Fund (IMF) revised its global economic growth estimates to an increase of 6% for 2021 and 4.9% for 2022. While the IMF's growth projection for 2021 is unchanged from its earlier projection (April 2021), the 2022 projection is up from 4.4%. The 2022 upward revision primarily reflects additional fiscal policy support in advanced economies in 2H21 and improved health metrics across the group.

The IMF revised its economic growth estimate for the US to an increase of 7% for 2021 and 4.9% for 2022. In April 2021, the IMF projected US economic growth of 6.4% for 2021 and 3.5% for 2022.

The advance estimate of US GDP growth (released on July 29, 2021) showed the US economy increased at an annual rate of 6.5% in 2Q21, up from the 6.3% increase reported in 1Q21. The 2Q21 US GDP estimate primarily reflects increases in consumer spending, business investment, exports, and state and local government spending, partially offset by decreases in inventory investment, housing investment, and federal government spending.

Projections

2021 Forecast - We project revenue increasing 75.3% to $14.3 million from $8.2 million in 2020 and the net loss narrowing to $2.6 million or $(0.03) per share from $5.8 million or $(0.07) in 2020. We previously projected revenue of $21 million and a net loss of $907,000 or $(0.01) per share. Our revised projections reflect 2Q21 results and an increase in revenue being generated from license agreements, which typically add less to the top line than supply agreements, albeit at a much higher margin.

We project gross profit increasing to approximately $5.9 million from $2.7 million with gross margins of 41.4% versus 33.3% in 2020. SG&A expenses are projected to remain flat at $5.9 million. We project interest expense increasing to $3 million from $2.7 million due primarily to stock conversion incentives provided to certain notes and accelerated interest expense upon conversion of notes. Minimal taxes are expected 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 $1.6 million cash provided by operations from $2.1 million in cash earnings and a $438,000 increase in working capital. We project the cash generated from operations should cover net cash used in financing of $904,000 primarily from the pay down of debt. Cash should increase $710,000 to $1.3 million at the end of 2021.

2022 Forecast - We project revenue more than doubling to $29 million from $14.3 million projected for 2021 and net income of $3.3 million or $0.04 per share versus an estimated loss of $2.9 million or $(0.03) in 2021. We previously projected revenue of $37 million and net income of $4.1 million or $0.05 per share. Our projections reflect a shift in the sales mix towards license agreements.

We project gross profit increasing to $11.6 million from $5.9 million projected in 2021 with gross margins of 40%. SG&A expenses are projected to increase to $7 million from $5.9 million to support revenue growth. We project interest expense decreasing to $1.3 million from $3 million as the company continues to pay down debt along with the elimination of over $4 million of convertible debt in 2020 due to conversion into common stock.

In 2022, we project $6.4 million cash provided by operations from $7.4 million in cash earnings and a $1 million increase in working capital. The increased in working capital should come primarily from an increase in receivables. We project the cash generated from operations should cover cash used in financing of $6 million from the pay down of debt, resulting in a $351,000 increase in cash to $1.7 million at the end of 2022.

2Q and 1H21 Financial Results

2Q21 - Revenue increased 20.6% to $2.3 million with a net loss of $1.7 million or $(0.02) per share versus a loss of $904,000 or $(0.01) per share in 2Q20. The net loss for 2Q21 included an increase in interest expense due primarily to a one-time stock conversion incentive provided to certain note holders and related accelerated interest which together totaled $521,000, and a loss on change in fair value of profit share liability of $505,000. We projected revenue of $4 million and a net loss of $870,000 or $(0.01) per share.

Revenue growth was primarily due to increased sorbent product sales. Gross profit increased 57.1% to $781,000 from $497,000 due primarily to higher sales and gross margins improving to 34.4% from 26.4%. SG&A expenses increased to $1.3 million from $1.1 million due to an increase in legal fees.

Interest expense and letter of credit fees increased to $1.1 million from $650,000.

1H21 – Revenue increased 76.6% to $5.3 million with a net loss of $2.1 million or $(0.03) per share versus a loss of $2.7 million or $(0.03) per share in 1H20.

Revenue growth was primarily due to increased sorbent product sales. Gross profit more than tripled to $2.3 million from $684,000 due primarily to higher sales and gross margins improving to 43.7% from 22.8%. SG&A expenses increased to $2.7 million from $2.3 million due to an increase in legal fees.

Interest expense and letter of credit fees increased to $1.8 million from $1.3 million.

Income Statement
(in thousands $)

	6M21	6M20
Revenue	5,297	3,000
Cost of sales	2,981	2,316
Gross profit	2,316	684
SG&A	2,713	2,306
Interest expense and letter of credit fees	1,795	1,314
(Gain) loss on change in fair value of profit share	250	(252)
Gain on sale of equipment / debt extinguishment	(299)	(6)
Income (loss) before taxes	(2,143)	(2,678)
Income tax	(5)	-
Net income / (Loss)	(2,148)	(2,678)
EPS	(0.03)	(0.03)
Shares Outstanding	82,321	77,742
Margin Analysis		
Gross margin	43.7%	22.8%
SG&A	51.2%	76.9%
Year / Year Growth		
Total Revenues	76.6%	

Source: Company filings

Liquidity – As of June30, 2021, MEEC had $1.7 million cash, a current ratio of 1.1X, $11.5 million of total debt (less than 1% is short-term) and a shareholder's deficit of $9.3 million.

In 1H21, the company generated $502,000 cash from operations from $219,000 cash loss and a $721,000 decrease in working capital. The decrease in working capital was primarily due to an increase in payables and accruals. Cash from financing of $596,000 was primarily due to an increase in debt and proceeds from the exercise of options and warrants. Cash increased by $1.1 million to $1.7 million as of June 30, 2021.

MEEC's debt consists primarily of an unsecured note payable with AC Midwest with an outstanding balance of $10.9 million. The unsecured note payable matures on August 25, 2022, has a zero cash interest rate, and an unamortized remaining balance of its discount of approximately $2.1 million as of June 30, 2021.

In connection with the unsecured note payable, the company shall also pay a profit share. The profit share liability totaled approximately $2.6 million as of June 30, 2021. 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 starting in February 2024 at an annual market interest rate of 21%. The profit share liability will be marked to market every quarter utilizing management's estimates.

During 2021, ME2C eliminated over $4 million of convertible debt leaving an outstanding balance of $20,000. The convertible notes bear interest at an annual rate of 10% and are convertible into shares of common stock at $0.50 per share.

On June 1, 2021, ME2C entered into a debt repayment and exchange agreement with AC Midwest, which will repay all existing secured and unsecured debt obligations presently held by AC Midwest. Pursuant to the agreement, the company shall at closing repay the principal balance outstanding of $272,000 on the AC Midwest secured note in cash, together with any other amounts due and owing under such note, and repay the outstanding debt under the AC Midwest unsecured note by paying and issuing a combination of cash and shares of common stock which AC Midwest has agreed to accept in full and complete repayment of the obligations thereunder.

At closing, and with regard to the AC Midwest unsecured note, the company shall pay AC Midwest approximately $6.6 million in cash representing 50% of the aggregate outstanding principal balance of such note, and issue shares of common stock to AC Midwest in exchange for the remaining 50% of the aggregate outstanding principal balance.

With regard to the Profit Share, at closing the company shall pay AC Midwest approximately $2.3 million in cash and issue shares of common stock for $4 million. The closing is subject to various conditions including but not limited to the completion of an offering of equity securities resulting in net proceeds of at least $12 million by December 31, 2021. In the event that the closing does not occur by December 31, 2021, either party may terminate the Debt Repayment Agreement and the existing notes with AC Midwest will continue in their current forms.

Risks

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

<u>*Regulation issues*</u> – 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.

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 June 30, 2021, 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 63.3 million shares in the float and the average daily volume is approximately 143,000 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.

Consolidated Balance Sheets
(in thousands $)

	2018A	2019A	2020A	6/21A	**2021E**	**2022E**
Cash	585	1,499	591	1,689	**1,301**	**1,653**
Accounts receivable	1,642	1,223	1,116	1,112	**1,390**	**2,417**
Inventory	509	514	560	544	**599**	**916**
Prepaid expenses and other	137	316	107	488	**488**	**488**
Customer acquisition costs	34	-	-	-	**-**	**-**
Total current assets	2,907	3,552	2,374	3,833	**3,778**	**5,473**
Security deposits	-	-	-	10	**10**	**10**
Property and equipment, net	2,398	2,082	1,887	1,843	**1,834**	**1,816**
Right of use asset	-	1,107	796	595	**485**	**174**
Intellectual property	2,734	2,532	2,319	2,217	**2,114**	**1,909**
Total assets	**8,039**	**9,273**	**7,376**	**8,498**	**8,221**	**9,382**
Accounts payable and accrued expenses	1,858	1,677	1,612	2,253	**2,444**	**4,592**
Equipment notes payable	63	53	29	14	**14**	**14**
Operating lease liability	-	383	408	409	**409**	**409**
Note payable	-	-	35	25	**25**	**25**
Convertible notes payable	-	990	-	-	**-**	**-**
Acrrued interest	97	226	259	2	**2**	**2**
Customer credits	167	167	167	167	**167**	**167**
Accrued salaries	556	357	849	747	**747**	**747**
Total current liabilities	2,741	3,853	3,359	3,617	**3,808**	**5,956**
Equipment notes payable	104	22	1	-	**-**	**-**
Operating lease liability	-	807	395	192	**192**	**192**
Note payable	-	-	299	275	**275**	**275**
Convertible notes payable	1,761	2,951	4,055	20	**20**	**20**
Profit share liability	-	2,329	2,305	2,555	**2,555**	**2,555**
Secured note payable	272	272	272	272	**272**	**272**
Unsecured note payable	11,782	7,912	9,894	10,874	**9,374**	**3,374**
Total liabilities	**16,660**	**18,146**	**20,580**	**17,805**	**16,496**	**12,644**
Total stockholders' equity (deficit)	**(8,621)**	**(8,873)**	**(13,204)**	**(9,307)**	**(8,275)**	**(3,262)**
Total liabilities & stockholders' equity (deficit)	**8,039**	**9,273**	**7,376**	**8,498**	**8,221**	**9,382**

*2021 includes approximately $5.7 million additional paid-in-capital
Source: Company filings and Taglich Brothers' estimates

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

	2018A	2019A	2020A	**2021E**	**2022E**
Revenue	12,296	11,417	8,158	**14,298**	**29,000**
Cost of sales	9,148	8,335	5,440	**8,381**	**17,400**
Gross profit	3,148	3,082	2,718	**5,917**	**11,600**
SG&A	5,895	6,429	5,936	**5,914**	**7,000**
Interest expense and letter of credit fees	2,004	2,391	2,658	**2,961**	**1,290**
(Gain) loss on change in fair value of profit share	-	375	(24)	**249**	**-**
Gain on sale of equipment / debt extinguishment	-	(30)	(36)	**(299)**	**-**
Income (loss) before taxes	(4,795)	(6,083)	(5,816)	**(2,908)**	**3,310**
Income tax	(22)	(14)	(10)	**(4)**	**-**
Net income / (Loss)	(4,817)	(6,097)	(5,826)	**(2,912)**	**3,310**
EPS	(0.06)	(0.08)	(0.07)	**(0.03)**	**0.04**
Shares Outstanding	76,138	76,535	77,819	**85,050**	**89,000**
Margin Analysis					
Gross margin	25.6%	27.0%	33.3%	**41.4%**	**40.0%**
SG&A	47.9%	56.3%	72.8%	**41.4%**	**24.1%**
Year / Year Growth					
Total Revenues		(7.1)%	(28.5)%	**75.3%**	**102.8%**

Source: Company filings and Taglich Brothers' estimates

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

	3/20A	6/20A	9/20A	12/20A	2020A	3/21A	6/21A	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	3,027	2,271	5,000	4,000	**14,298**	6,500	7,000	7,500	8,000	**29,000**
Cost of sales	931	1,386	1,882	1,241	5,440	1,491	1,490	3,000	2,400	**8,381**	3,900	4,200	4,500	4,800	**17,400**
Gross profit	186	497	930	1,105	2,718	1,536	781	2,000	1,600	**5,917**	2,600	2,800	3,000	3,200	**11,600**
SG&A	1,172	1,133	1,271	2,360	5,936	1,453	1,261	1,600	1,600	**5,914**	1,600	1,700	1,800	1,900	**7,000**
Interest expense and letter of credit fees	664	650	672	672	2,658	676	1,120	630	535	**2,961**	450	360	280	200	**1,290**
(Gain) loss on change in fair value of profit share	124	(376)	112	116	(24)	121	128	-	-	**249**	-	-	-	-	**-**
Gain on sale of equipment / debt extinguishment	-	(6)	-	(30)	(36)	(299)	-	-	-	**(299)**	-	-	-	-	**-**
Income (loss) before taxes	(1,774)	(904)	(1,125)	(2,013)	(5,816)	(415)	(1,728)	(230)	(535)	**(2,908)**	550	740	920	1,100	**3,310**
Income tax	-	-	-	(10)	(10)	(3)	(1)	-	-	**(4)**	-	-	-	-	**-**
Net income / (Loss)	(1,774)	(904)	(1,125)	(2,023)	(5,826)	(418)	(1,729)	(230)	(535)	**(2,912)**	550	740	920	1,100	**3,310**
EPS	(0.02)	(0.01)	(0.01)	(0.03)	(0.07)	(0.01)	(0.02)	(0.00)	(0.01)	**(0.03)**	0.01	0.01	0.01	0.01	**0.04**
Shares Outstanding	77,737	77,748	77,748	77,819	77,819	80,410	84,190	86,600	89,000	**85,050**	89,000	89,000	89,000	89,000	**89,000**
Margin Analysis															
Gross margin	16.7%	26.4%	33.1%	24.6%	33.3%	50.7%	34.4%	40.0%	40.0%	**41.4%**	40.0%	40.0%	40.0%	40.0%	**40.0%**
SG&A	104.9%	60.2%	45.2%	100.6%	72.8%	48.0%	55.5%	32.0%	40.0%	**41.4%**	24.6%	24.3%	24.0%	23.8%	**24.1%**
Year / Year Growth															
Total Revenues					(28.5)%	171.0%	20.6%	77.8%	70.5%	**75.3%**	114.7%	208.2%	50.0%	100.0%	**102.8%**

Source: Company filings and Taglich Brothers' estimates

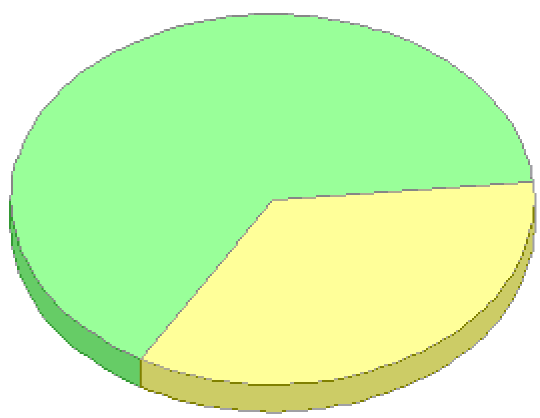
Statement of Cash Flows for the Periods Ended
(in thousands $)

	2018A	2019A	2020A	6M21A	**2021E**	**2022E**
Net income (loss)	(4,817)	(6,097)	(5,826)	(2,148)	**(2,912)**	**3,310**
Stock-based compensation	491	1,810	1,710	256	**1,700**	**1,700**
Amortization of discount of notes payable	678	1,753	1,974	1,315	**2,530**	**1,600**
Amortization of debt issuance costs	102	102	122	61	**120**	**120**
Amortization of right to use assets	-	378	311	200	**400**	**400**
Amortization of customer acquisition costs	138	34	-	-	**-**	**-**
Amortization of patent rights	201	201	214	102	**204**	**204**
Depreciation expense	457	315	189	44	**59**	**18**
Loss on debt exchange	44	-	-	-	**-**	**-**
(Gain) loss on change in fair value of profit share	-	374	(24)	250	**250**	**-**
(Gain) loss on sale of equipment / foregiveness of debt	6	(30)	(36)	(299)	**(299)**	**-**
Cash earnings (loss)	(2,700)	(1,160)	(1,366)	(219)	**2,052**	**7,352**
Changes in assets and liabilities						
Accounts receivable	1,289	419	107	4	**(274)**	**(1,027)**
Inventory	150	(4)	(46)	16	**(39)**	**(317)**
Prepaid expenses and other	74	35	(6)	2	**2**	**-**
Security deposits	-	-	-	2	**2**	**-**
Accounts payable and accrued liabilities	63	(426)	(65)	898	**432**	**647**
Deferred compensation	556	(198)	492	-	**(102)**	**-**
Accrued interest	20	129	33	-	**(257)**	**-**
Operating lease liability	-	(372)	(388)	(201)	**(202)**	**(304)**
Deferred revenue and customer credits	(517)	-	-	-	**-**	**-**
(Increase) decrease in working capital	1,635	(417)	127	721	**(438)**	**(1,001)**
Net cash provided by (used in) operations	**(1,065)**	**(1,577)**	**(1,239)**	**502**	**1,614**	**6,351**
Cash received from sale of equipment	-	30	43	-	**-**	**-**
Purchase of property and equipment	(132)	-	-	-	**-**	**-**
Net cash used in investing	**(132)**	**30**	**43**	**-**	**-**	**-**
Payments on debt	(936)	(139)	(211)	(51)	**(1,551)**	**(6,000)**
Proceeds from exercise of warrants	-	-	-	247	**247**	**-**
Proceeds from the issuance of stock options	-	-	-	101	**101**	**-**
Proceeds from the issuance of debt	300	2,600	499	299	**299**	**-**
Net cash provided by (used in) financing	**(636)**	**2,461**	**288**	**596**	**(904)**	**(6,000)**
Net change in cash	**(1,833)**	**914**	**(908)**	**1,098**	**710**	**351**
Cash - beginning of period	**2,418**	**585**	**1,499**	**591**	**591**	**1,301**
Cash - end of period	**585**	**1,499**	**591**	**1,689**	**1,301**	**1,653**

Source: Company filings and Taglich Brothers' estimates

Price Chart

Taglich Brothers' Current Ratings Distribution



Investment Banking Services for Companies Covered in the Past 12 Months		
Rating	#	%
Buy	**2**	**11**
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.

General Disclosures

The information and statistical data contained herein have been obtained from sources, which we believe to be reliable but in no way are warranted by us as to accuracy or completeness. We do not undertake to advise you as to changes in figures or our views. This is not a solicitation of any order to buy or sell. Taglich Brothers, Inc. is fully disclosed with its clearing firm, Pershing, LLC, is not a market maker and does not sell to or buy from customers on a principal basis. The above statement is the opinion of Taglich Brothers, Inc. and is not a guarantee that the target price for the stock will be met or that predicted business results for the company will occur. There may be instances when fundamental, technical and quantitative opinions contained in this report are not in concert. We, our affiliates, any officer, director or stockholder or any member of their families may from time to time purchase or sell any of the above-mentioned or related securities. Analysts and members of the Research Department are prohibited from buying or selling securities issued by the companies that Taglich Brothers, Inc. has a research relationship with, except if ownership of such securities was prior to the start of such relationship, then an Analyst or member of the Research Department may sell such securities after obtaining expressed written permission from Compliance.

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.

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.