Zacks Small-Cap Research

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Midwest Energy Emissions (MEEC-OTCQB)

MEEC: Business updates confirm installations continue as planned.

OUTLOOK

Midwest Energy Emissions is well-positioned to benefit from the reduction of mercury emissions program of the EPA. The company has exclusive rights to SEA™ Technology for the reduction of mercury emissions by coal-fired electric generating units. The technology has been commercially deployed and provides many advantages, including low cost of operation, flexibility for optimization and preservation of fly ash marketability. Company business updates imply that the Supreme Court's ruling is not delaying the pipeline of planned installations and that the top-line is poised to accelerate significantly over the next few years.

Current Recommendation	**Buy**
Prior Recommendation	Hold
Date of Last Change	09/27/2015
Current Price (10/07/15)	$0.33
Six- Month Target Price	**$1.00**

SUMMARY DATA

52-Week High	**$1.00**
52-Week Low	**$0.21**
One-Year Return (%)	**-60.95**
Beta	**-3.52**
Average Daily Volume (shrs.)	**19,003**
Shares Outstanding (million)	**45.59**
Market Capitalization ($ mil.)	**$15.0**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**38**
Insider Ownership (%)	**52**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/M**
P/E using 2015 Estimate	**N/M**
P/E using 2016 Estimate	**N/M**

Risk Level	**Above Average**
Type of Stock	**Small-Growth**
Industry	**Pollution Control**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2013	0.06 A	0.45 A	0.92 A	0.24 A	1.67 A
2014	0.00 A	0.88 A	1.37 A	0.54 A	2.79 A
2015	0.24 A	2.70 A	2.36 E	1.61 E	6.92 E
2016					17.98 E

Earnings per Share
(EPS is operating earnings before non recurring items)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2013	-$0.03 A	-$0.03 A	-$0.02 A	-$0.06 A	-$0.14 A
2014	-$0.09 A	-$0.04 A	-$0.05 A	$0.06 A	-$0.13 A
2015	-$0.16 A	$0.01 A	-$0.04 E	-$0.04 E	-$0.23 E
2016					-$0.12 E

Zacks Projected EPS Growth Rate - Next 5 Years % **N/A**

Quarterly EPS may not equal annual EPS total due to rounding.

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KEY POINTS

- The U.S. Environmental Protection Agency's Mercury and Air Toxic Standards (MATS) have created a multi-billion dollar market for mercury remediation solutions. However, we believe that the Supreme Court decision in late June 2015 will require the reissuance of a revised version of MATS, which potentially could be slightly less stringent. The legal process may lead to utilities delaying the installation of all required emission control systems and the optimal operation of all previously installed systems.
- Midwest Energy Emissions is **well-positioned** to benefit from the full implementation of MATS in its final form.
- The company holds exclusive rights to 30 patents and patents-pending related to mercury removal processes developed by the Energy & Environmental Research Center, including SEA™ Technology.
- SEA Technology provides an operationally-effective and cost-effective mercury emissions solution that is flexible to accommodate a broad range of configurations of coal-fired power plants fueled by varying coal types.
- SEA Technology has been successfully demonstrated over 40 times at large operating power plants across the United States and Canada.
- Midwest Energy Emissions achieved its first **commercial installation** of SEA Technology in late 2011. The client, a major West Coast utility, renewed its three-year contract in May 2014.
- Thus far, the company has won five contracts with spanning 15 Electric Generating Units (EGUs)
  - a **West Coast utility** with two EGUs
  - a **major U.S. power producer** for 9 generating units
  - two separate utility **cooperatives in the Southwest**, each with one EGU
  - a large **northern Midwest utility** with two EGUs
- **Management is maintaining its current timetable for the installation of mercury emissions control systems**. Currently, six EGUs are operational, and the remaining nine units under contract are scheduled to be commissioned in 2016.
- Under the current contracts, by the end of 2016, when management expects all 15 systems to be under compliance and operational, each EGU on average should be generating approximately $2.5 million of revenue annually.
- Steady quarterly growth in deferred revenue suggests steady progress in contract implementations.
- In June 2014, Midwest Energy Emissions **opened a mixing and distribution facility** in Freestone County, Texas to support contracts in the Southwest region of the U.S.
- As the company's mercury emission control systems come online during 2015 and 2016, Midwest Energy Emissions should gain further traction within the marketplace as managements of coal-fired utilities seek more cost-effective mercury emissions solutions.
- Midwest Energy Emissions has international blue sky market opportunities. The company holds the exclusive rights to SEA Technology patents in Europe, Canada and China, and the Minamata Convention on Mercury should bolster international demand for the company's mercury remediation solutions.
- Though the enforcement of the implementation of the current form of MATS has come into question by the Supreme Court ruling, the Court's decision requires further proceedings of the Michigan et al v. EPA case by the DC Circuit Court. However, business updates confirm installations are on track; we maintain our Buy rating.

RECENT NEWS

Financial Results for Second Quarter

On August 14th, Midwest Energy Emissions filed results for the second quarter ending June 30, 2015. The company reported a **207% increase in total revenues** from $878,957 to $2**,**696,685. Equipment

sales for new installations at for projects generated revenues of $1,967,039 versus no revenues from new installations in the comparable quarter last year. Though delivered product sales declined 7.5% to $609,328 versus $659,052 in the second quarter last year, the figures are not comparable. Delivered product revenue includes product deliveries for demonstrations as well as product deliveries associated with operations at EGUs (two EGUs in the Pacific Northwest last year and the same two EGUs plus recent installations at two EGUs this year). A comment from the press release indicates that approximately $502,000 of the product sales were to customers under contract in the quarter just reported. Additional commentary by the CEO (namely, "**product sales are increasing dramatically**") reinforces that the comparison to last year's gross product sales figure is misleading (since it also included product deliveries for demonstrations). During the second quarter, the company received unrecognized advance payments of $807,638. At the end of the second quarter, deferred revenues on the balance sheet was $6,035,850, which in the future will be recognized as revenues on the income statement when equipment is delivered and commissioned at customer sites.

Total operating expenses increased 83.0% to $3.39 million versus $1.85 million in the second quarter of 2014, primarily due a 390% (or $1,422,087) increase in cost of goods sold, which was primarily associated with the cost of equipment sold to customers and recognized as revenue during the second quarter of 2015. Operating expenses increased $299,423 (or 119%) from $252,379 to $551,802 primarily attributable increased labor and technical consulting costs were incurred as the company assisted its customers with testing in preparation for compliance with MATS, along with increased salary and overhead costs associated increased operations staff. Depreciation & amortization increased 8.5% to $65.6 thousand, which attributable to the amortization of customer acquisition costs. Interest expense increased 129% to $936,116 versus $408,647 during the first quarter of 2014.

The company reported a net income of $599,365 (or $0.01 per diluted share) versus a loss of $1,380,378 (or $0.04 per diluted share) in the first quarter of 2014. The positive net income is primarily due to the gain on a change in value of warrant liability of $3,195,279, which is attributable to performing a new valuation on the warrants issued to Drexel in August 2014 that decreased the total value of the warrants to $4,280,282 from $7,475,561 at the end of the first quarter of 2015. Shares outstanding have increased 13.3% to 45,591,412 from 40,228,123 at year-end (December 31, 2014). During the quarter the company repaid $3.0 million of the $10.0 million in convertible promissory notes issued to AC Midwest Energy LLC on August 14, 2014 as part of a waiver and amendment to the original financing agreement.

General Business Updates

In a Business Update issued on September 22, 2015, management reported that revenues generated during August 2015 exceeded $1.5 million. The major driver was the installation and commissioning of the company's sixth front end-injection system. Product sales during the month were approximately $900,000. For the month, the company achieved positive operating profit and earnings before interest, taxes, depreciation and amortization (EBITDA).

In a prior update issued in August, the company announced that Canadian demonstrations had been completed successfully which included the introduction of a new line of sorbents. Previously, in May 2015, Midwest Energy Emissions announced that three injection systems had been installed in April. Management has estimated that product sales, equipment installations and consulting services will generate over $8 million in equipment sales during 2015, over $30 million in revenues in 2016 and over $110 million over the terms of existing contracts.

Amendments with Junior Note Holders

On June 15, 2015, the company announced that all holders of the unsecured 12% Convertible Promissory Notes that were issued between April 2012 and January 2013 have agreed to **extend the maturity dates by 12 months** from the original maturity dates, along with other unspecified modifications. Approximately one-third of the outstanding Notes have already been converted into common shares. The extension of the maturity provides financial flexibility to Midwest Energy Emissions

as some of their customers extended the implementation of MATS compliance by 12 months. As of June 15, 2015, less than $2.4 million of the Notes remain outstanding as a result of the conversions.

SUPREME COURT RULING (Michigan et al. v. EPA)

On June 29, 2015, the U. S. Supreme Court ruled (in a 5-4 opinion) that the Environmental Protection Agency "strayed well beyond the bounds of reasonable interpretation" of "appropriate and necessary" in its promulgation of regulations concerning mercury emissions from fossil-fuel-fired power plants by not considering cost as a relevant factor. The case was remanded back to the Washington DC Circuit Court of Appeals for further proceedings that are consistent with the Supreme Court's opinion.

Management Response to the Supreme Court Ruling

On July 2, 2015, Midwest Energy Emissions provided commentary regarding the Supreme Court decision. Having left in place the US Environmental Protection Agency's authority to set regulations on mercury emissions from power plants, the Court's decision requires the EPA to revisit MATS, but using a methodology that considers the costs for compliance at an earlier stage of the process. Management believes that **it appears that the current MATS rule remains operative** until the DC Circuit Court determines otherwise. **In the meantime, the company is conducting business as usual**. Management expects utilities across North America to continue meeting the requirements of mercury emissions regulations (MATS, state and local).

Commentary on the Supreme Court Ruling

The Supreme Court's opinion neither prohibits the EPA from reducing mercury emissions from power plants nor invalidates the mercury emission standards. However, **we believe that the ruling effectively imposes a temporary delay in the full implementation of MATS.** The consensus is that the EPA will be required to review MATS and rewrite the standards. However, this time, cost-benefit analysis will be undertaken before deciding on whether and how to set limits on mercury and other toxic emissions from fossil-fuel-fired power plants. The EPA has ample resources and information to address the Supreme Court's guidance.

However, there is considerable debate among politicians, lawyers, legal professors and advocacy groups over several questions:

- Does the existing regulation (MATS) remain in place during the redrafting of mercury emission regulations, and even if so, will there be enforcement of any penalties?
- When will the revision of MATS be completed, and what will be the effective date?
- Will the implementation schedules of 35% of the power plants that have been granted a one-year extension be altered in reaction the Supreme Court's decision?

Though a preponderance of affected entities (estimated to be greater than 70%) have installed controls to comply with MATS, utilities could choose not to operate the devices as planned. Utilities are prone to reduce operating costs whenever possible. Based on the expectations of some that the revised mercury emission standards will be less stringent once cost-benefit analysis enters the process at an earlier stage, managements could choose to attain only good faith 70% to 80% reductions. The existing upgrades and retrofits of power plants are not expected to be undone; however, power plants that were granted one-year extensions may delay installations as much as possible until the extent of any potential revisions to the percentage amount of mercury emissions reduction is announced by the EPA.

The Supreme Court ruling and its ramifications (the potential for a reduction in the EPA's regulations and the uncertainty surrounding the timing of enforcement) immediately were reflected in the stock price of Midwest Energy Emissions. On July 29th, MEEC declined 53.7% from $0.54 to $0.25.

Management is currently not observing any behavioral changes by customers under contract in reaction to the Supreme Court's decision in June. In addition, the company has experienced a renewed increase in the demand for demonstrations from both existing and prospective customers generating demonstration and consulting services revenue of $120,318 during the second quarter.

Midwest Energy Emissions continues to install the infrastructure required MATS compliance. The company has 15 electric generating units (EGUs) under contract, of which four have been installed and operating in compliance. Two EGUs have been operational since 2011. Management continues to estimate that product sales, equipment installations and consulting services will generate over $8 million in equipment sales during 2015, over $30 million in revenues in 2016 and over $110 million over the terms of existing contracts.

Midwest Energy is unique in that it 1) has a singular focus (the mercury emissions control market), 2) holds exclusive rights to patented processes, 3) has achieved market penetration through the commercialization of SEA Technology and 4) is positioned to take advantage of further growth opportunities afforded by the implementation of MATS in whatever form develops from the process initiated from the Supreme Court's ruling. Midwest Energy Emissions should experience a dramatic increase in revenues over the next few years as the coal-fired plants, which have contract for Midwest Energy's SEA Technology, ramp up their mercury emissions control efforts to become MATS-compliant.

OVERVIEW

Headquartered Lewis Center, Ohio, Midwest Energy Emissions Corp. (MEEC) provides patented mercury capture solutions for coal-power plants whose mercury emissions exceed the U.S. Environmental Protection Agency's Mercury and Air Toxic Standards (MATS). **The company has successfully commercialized its Sorbent Enhancement Additive (SEA™) Technology**, which can achieve mercury removal levels that are compliant with MATS at a significantly lower cost than other methods while preserving the quality (and hence the marketability) of fly-ash, a by-product from the coal burning process. The company holds exclusive rights to 30 patents and patents-pending related to a mercury removal processes developed by the Energy & Environmental Research Center (EERC) and has a close and mutually beneficial relationship with the EERC Foundation, which aids in the commercialization EERC's research efforts. The company's holistic **cost-competitive solution** for mercury emission control is a proven, effective technology that reduces mercury emissions to MATS-compliant levels over a wide range of plant configurations and coal types.

The EPA's **MATS have created a multi-billion dollar market for mercury remediation solutions**. MATS require that all coal-fired Electric Generating Units (EGUs) larger than 25 megawatts (MW) remove approximately 90% of mercury from their emissions beginning April 16, 2015. On a plant-by plant basis, power plant operators must find an economical feasible method to upgrade existing plants in order to comply with MATS; otherwise, non-compliant plants could be forced to be decommissioned, which will affect the capacity, reliability and supply attributes of the associated electric networks.

The process of commercializing any pollution control technology or method within the utility industry is a lengthy and expensive process, which involves the migration of a technology from the laboratory to commercial-scale demonstrations and then to contract signings, installations, testing and finally commercial operations. SEA Technology has been successfully demonstrated over 40 times at large operating power plants across the United States and in Canada.

Midwest Energy Emissions is deploying what appears to be the industry's most cost-effective solution for coal power plants to comply with MATS. Management and the EERC believe that the SEA Technology process with an optimized blend of sorbents is the most efficient, cost-effective manner to capture mercury. **SEA Technology provides an approach that optimizes the mercury capture process while minimizing the cost of injected materials**. As a result, SEA Technology lessens the total amount of

sorbent injected, thereby reducing the cost of MATS compliance. **The technology is also flexible**, allowing Midwest Energy's consumable products to be formulated specifically for a coal-fired unit and its coal-fuel-type. Importantly, the process has less operational impact with minimal corrosion to the plant's equipment and preserving the marketability of fly ash, an important ancillary revenue stream for power plants.

The company's primary consumable products are **SF-10** (a front-end sorbent enhancement additive) and **SB-24** (a back-end carbon sorbent). SF-10 conditions the flue gas enhancing the ability of mercury to be removed with the company's proprietary back-end sorbent products. The company also can provide a non-carbon approach with a back-end carbon-free sorbent, **SB-26**, if a customer desires.

Management is executing its plan to sign multi-year contracts, deliver and test mercury emissions removal equipment and supply sorbent for three-year contract periods. The company has been **awarded five contracts encompassing 15 EGUs**. Management's strong marketing efforts resulted in many successful demonstrations in 2013 and 2014, which altogether exceed 40 in number since SEA Technology was invented. However, the company has many more opportunities in its sales pipeline, especially utilities that have not yet committed to a mercury remediation solution and also companies currently under contract with competitors but dissatisfied with the high cost of their current solution.

Also, Midwest Energy Emissions has **international market opportunities**. The company holds the exclusive rights to SEA Technology patents in Europe, Canada and China. SEA Technology has been successfully demonstrated for a few large utilities in Canada, where raising mercury capture regulations is being contemplated. Since 2012, a nationwide mercury reduction agreement has required a 60% reduction, which will likely be raised to an 80% reduction beginning in 2018. Individual provinces may require more strict emissions control sooner. China has promulgated emission regulations, but has yet to implement mercury reductions. In October 10, 2013, 140 nations (including the US, Canada, China, Germany, Netherland and the U.K.) signed the Minamata Convention on mercury, an international treaty that recognized mercury is a chemical of global concern and addresses the reduction of emissions of mercury and mercury compounds. Long-term, there is **blue sky potential** for international demand for the company's mercury remediation solutions.

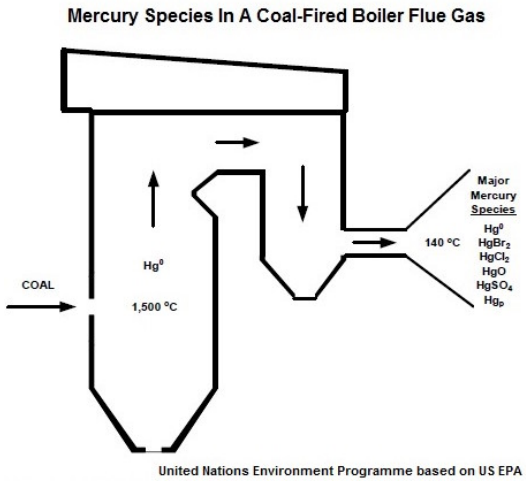
Since inception, Midwest Energy Emissions has raised approximately $17 million in capital financing, most significantly a private placement of a $10 million 4-year 12% senior secured convertible note and warrants with AC Midwest Energy, LLC (an affiliate of Alterna Capital Partners, LLC) in August 2014. Interest on the convertible note is payable in kind (PIK) in the first year, 2% cash and 10% PIK in the second year and entirely in cash thereafter. As of September 9, 2015, Alterna Capital Partners is deemed to be the beneficial owners of 29,125,656 shares of MEEC.

SEA™ TECHNOLOGY

Utilizing a patented Sorbent Enhancement Additive (SEA™) Technology, Midwest Energy Emissions is able to offer at lower-cost option to utilities so that their coal-fired units can achieve compliance with MATS while maintaining the marketability of the fly ash by-product. Developed by researchers at the EERC, the company's SEA Technology utilizes the application of sorbent enhancement additives to promote the oxidation of elemental mercury in preparation for adsorption by uniquely formulated blends of sorbent products.

Mercury is emitted from coal-fired boilers in three basic forms: elemental mercury (Hg^0), oxidized mercury (Hg^{2+}) and particulate-bound mercury (Hg_p). **Compliance with MATS requires that the <u>total</u> of all three forms of mercury be measured and reduced.** The ratio of elemental to the oxidized forms of mercury emitted from combustion is highly dependent on the type of coal that is combusted. By and large, bituminous coal-fired boilers emit primarily oxidized mercury while the majority of mercury produced by low rank coal-fired (subbituminous and lignite) boilers is elemental mercury.[i] The strongest factor for this

generalization is that the relatively high concentrations of halogens, such as chlorine and bromine, in bituminous coals results in the oxidization of elemental mercury to form oxidized mercury, primarily the mercuric halides ($HgCl_2$ and HBr_2). In contrast, both subbituminous and lignite coals not only have lower quantities of halogens, but also higher amounts of alkaline material (such as calcium and sodium) than bituminous coals. The halogens from the combustion of subbituminous coal and lignite have a tendency to react with the alkaline materials with the result that little halogen oxidizes the elemental mercury.[ii] Though in aggregate, roughly 60% of the mercury emitted by coal combustion is elemental mercury and 40% is oxidized mercury.[iii]

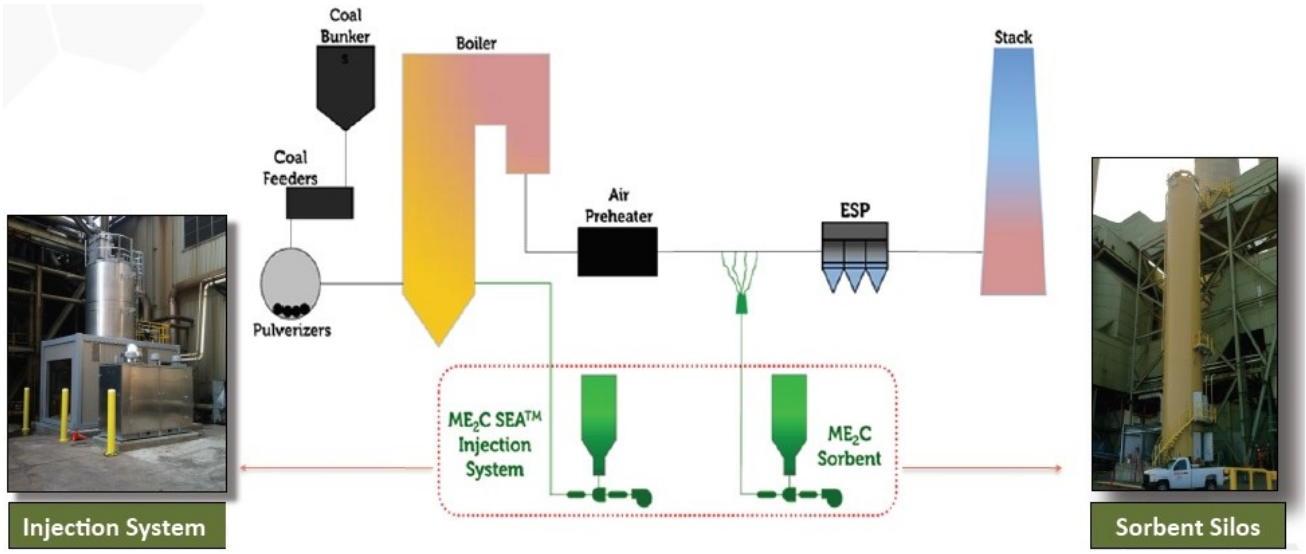


Elemental mercury is very difficult to capture and remove because, by definition, it is in its elemental form (a single atom with a neutral charge). Elemental mercury is the most difficult to remove from flue gas since it is practically insoluble in water, and hence, not typically removed by wet processes like flue gas desulfurization (FGD) systems aka scrubbers. However, **oxidized mercury** is reactive in that it more easily deposited and captured by sorbents. Through the chemical reaction by which oxidized mercury is formed, it becomes charged allowing its efficient capture by pollution control devices. It is highly soluble in water, and therefore, readily captured in wet scrubbers. **Particle-bound mercury** is condensed on the fine fly ash particles emitted by coal-fired boilers. With charged components, Hg_p sticks to surfaces and is readily removed by pollution control devices designed to remove particulates (bag houses/fabric filters, electrostatic precipitators and scrubbers) and also by activated carbon.

The use of a Brominated Activated Carbon (BAC) injection system is the most common method used today to oxidize elemental mercury, primarily since BAC is more effective than Standard Powdered Activated Carbon (PAC) for removing mercury from flue gas of boilers burning low chlorine content coal. However, the cost of operation can become uneconomical, since the injection of activated carbon sorbent is only cost-effective at capturing about 60% of the mercury emissions, at which point diminishing effectiveness is achieved by the injection of additional sorbent. For some 1,000 MW coal-fired units, the cost to achieve a 90% reduction in mercury emissions can exceed over $10 million per year.

Midwest Energy Emissions can provide a MATS-compliant process, along with custom-blended halogenated front-end sorbent enhancement additives and back-end sorbents, for an effective and cost-competitive solution for controlling emissions mercury in coal-fired units. The use of SEA Technology, namely the proprietary additives and sorbents, costs around $2.5 million annually, depending on size of the EGU, the coal being combusted and the amount of time the plant is being operated. In addition, the fly ash by-product remains marketable, which may not be the case in a BAC system. Fly ash is fine, powdery matter collected by the fabric filters and electrostatic precipitators, which is mostly utilized by the cement/concrete industry, but also for structural fills (such as embankments), the stabilization of waste materials and road bases. The sale of fly ash represents an opportunity for utilities to both increase revenues and reduce costs.

Midwest Energy Emissions provides a process that can be fine-tuned to achieve optimum efficiency, by tweaking not only the **location and method of injection** of products, but especially the **blend and reactivity** of sorbents. The company's solution for 90%+ mercury emissions reduction is a **two-step process** that can be fine-tuned to the unique configuration of the customer's EGU and the coal type being combusted. The **first step** involves the introduction of **flue gas conditioning products** that promote the conversion of elemental mercury to oxidized mercury and particulate-bound mercury, which are more easily captured in downstream devices.



SF-10, Midwest Energy's proprietary and patented sorbent enhancement additive flue gas conditioner, is **injected into the coal-fired boiler** by MEEC's injection system. The SF-10 immediately gasifies and migrates throughout furnace system promoting mercury oxidation. With a keen understanding of the complex interactions among elemental mercury, sorbent enhancement additives and flue gases, along with the role and impact that these various components of flue gas have on chemisorption, EERC designed SEA Technology to maximize the conversion of elemental mercury to oxidized mercury while minimizing the amount of injected sorbent enhancement additives. The location of front-end injection **optimizes the residence time** for these reactive conditioning products to oxidize the elemental mercury. Promoting mercury oxidation through catalytic processes and materials is a key feature of SEA Technology and only requires the use of a relatively small amount of sorbent enhancement additive. In addition, the amount of SF-10 being injected is adjusted to the unique requirements of each client's system to ensure benefit-to-cost performance.

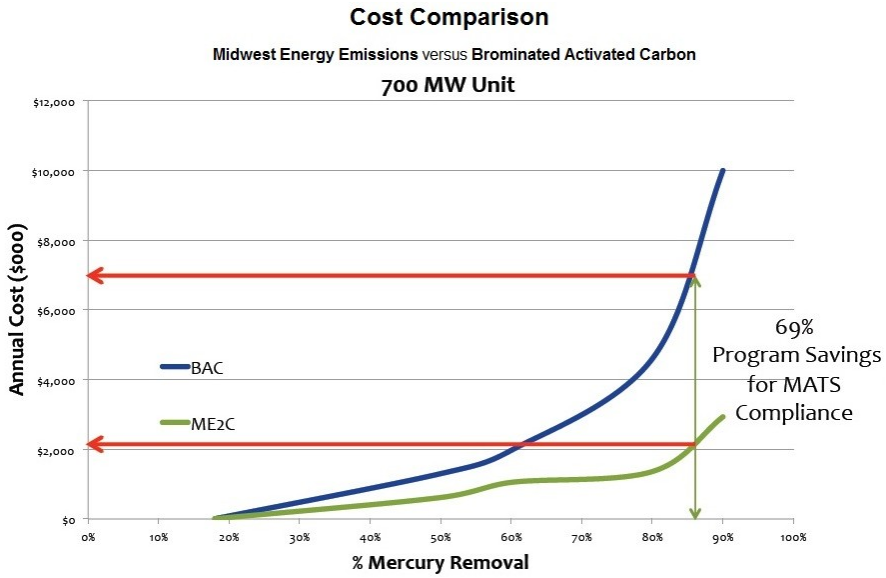
The cost of installing the **front-end injection system** is roughly $500,000; however, Midwest Energy Emissions sells its front-end and back-end products for the duration of the contract, which normally costs the utility approximately $2.5 million annually per EGU. Typically, the lower operating costs can provide a 4-to-5 month payback on the front-end capital equipment when compared to current costs of operating a Brominated Activated Carbon system.

SEA Technology's **back-end injection system** is located up-stream (prior) to the particulate matter (PM) equipment, principally bag-house and electrostatic precipitator. Midwest Energy offers a variety of products for introduction into the mercury-contaminated flue gas stream, with the most-used product being SB-24. The fine sorbent particles of the sorbent are injected through a flue gas duct, where the now more reactive, oxidized mercury contacts the sorbent and attaches to its surface so it can be collected. The pregnant sorbent is removed from the flue gas stream, along with the fly ash, in the bag-house or electrostatic precipitator. The cost of the back-end system is in the $1.0-$1.5 million range, but an injection silo must be installed in all cases when MATS-compliance cannot be achieved. This back-end injection system is common to almost any mercury collection technology in the industry, and not unique to SEA.

SB-24 is the mainstream sorbent product of Midwest Energy Emissions and designed to provide active capture sites for mercury absorption. The proprietary blend performs well across all known boiler configurations and most coal types without impacting fly ash quality. SB-24 is the company's most effective and least cost-per-pound sorbent.

The SEA Technology process has been proven to be effective over a broad range of coal types and configurations of coal-fired power plants. Midwest Energy provides an approach that optimizes the mercury capture process while minimizing the cost of injected sorbents. The optimal combination is determined through extended parametric testing of various combinations of front- and back-end products to determine the arrangement that exhibits optimum mercury removal rate at the minimal consumption of sorbent material. Depending on the existing air pollution control equipment and the type of coal being burned, the SEA Technology system can also be tailored on-the-fly through adjustable sorbent enhancement additive and sorbent feed rates. As a result, SEA Technology lessens the total amount of sorbent injected thereby reducing the cost of MATS compliance.

A **case study** was performed in which mercury removal and costs were monitored through parametric testing of the use of both SEA Technology proprietary sorbents and Brominated Activated Carbon at the same 700 MW EGU powered by subbituminous coal. The results (depicted in the graph below) clearly indicate that Midwest energy's SEA Technology is vastly superior to BAC in terms of cost and effectiveness.



Attaining 80%+ mercury reduction levels at low rank coal- EGUs by injecting Powdered Activated Carbon or Brominated Activated Carbon has proven to be challenging and, in most cases, uneconomical. The higher volumes of injectant not only can increase annual injectant costs to the $5 million to $20 million range, but also potentially can creates severe operational issues, including corrosion of the plant's equipment and the degradation of the fly ash by-product, which renders it unsuitable for sale.

COMMERCIALIZATION OF SEA TECHNOLOGY

Lead times for the selection of mercury emissions control solutions are long, with power producers requiring demonstrations in order to evaluate and assess the effectiveness and costs of competing pollution control systems. Since SEA Technology is both operationally effective and cost-effective, management anticipates that demonstrations will often yield commercial contracts.

Midwest Energy's initial client was a **West Coast utility** with the contract being signed in late 2010. The utility had parametrically tested various mercury emission control systems at **one** of its two 730-MW

Electric Generating Units (EGUs) located at a power plant in the Pacific Northwest. Midwest Energy's method of employing SEA Technology achieved a mercury capture rate that exceeded the required MATS compliance limit at the lowest cost. State mercury emissions regulations and grass roots pressure required the early implementation of the reduction of mercury emissions. The company's system was commissioned into operation in September 2011, and compliance operation began in December 2011. The company attained a significant milestone with this **first commercial installation** of SEA Technology. A **second system** was also installed at the utility's other 730-MW EGU. The systems are used when the EGUs are in operation, usually during peak demand periods of the year.

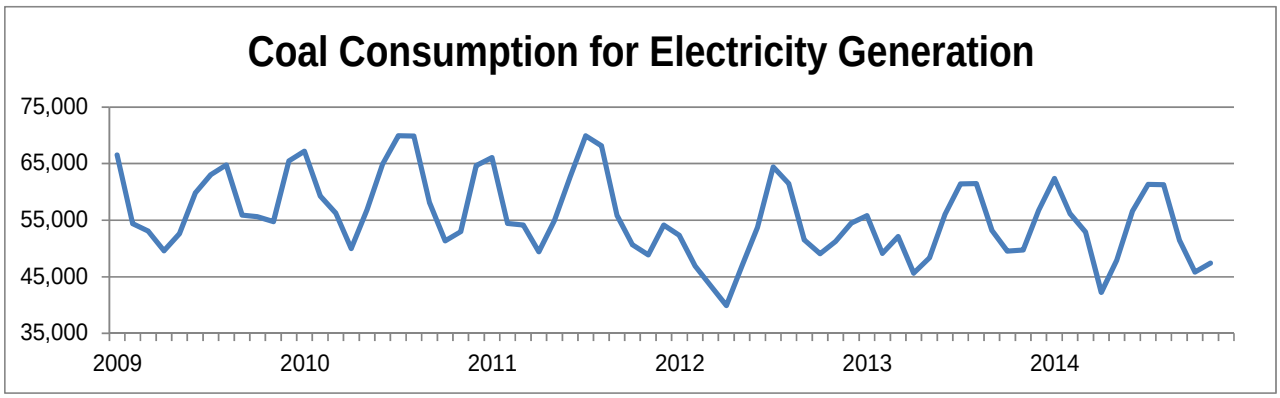
In August 2012, a major **Southwestern U.S. power producer** contracted Midwest Energy Emissions to perform a demonstration of the company's mercury removal technology at one of the power producer's generating units. After the initial demonstration in the fall, the power producer contracted for additional demonstrations on three of the larger generating units at different plant sites for the spring of 2013.

By the spring of 2013, Midwest Energy Emissions had performed 23 demonstrations of the SEA Technology in North America. In April 2013, a major **U.S. electric utility in the Midwest** contracted for a demonstration in early-summer. The Southwestern and Midwestern utilities then requested additional demonstrations, which were completed in late-summer.

By the end of 2013, Midwest Energy Emissions had conducted **31 demonstrations** of its patented SEA Technology on the power generating units of potential customers. The demonstrations were carried out across many coal types and the majority of utility system designs. In addition, management attended trade shows including participation at the EERC Air Quality Conference during October 2013 in Arlington, Virginia. Midwest Energy's CEO Alan Kelley served as Session Chair for "Hg Control – Sorbent Injection" and Marc Sylvester, VP of Sales, made a presentation entitled "MATS Compliance Programs for Mercury with Various PM Equipped Units." The company's participation cultivated interest with potential clients who were planning for compliance with mercury emissions regulations.

As a result of the management's marketing efforts since 2012 and subsequent demonstrations during 2013, 11 coal-fired electricity generation units came under contract during the first quarter of 2014, bringing the total to 13 at that time. The first commitment was from a **major U.S. power producer** for **9 generating units**, which are expected to come online in early 2016. Management estimates that by 2016 the relationship will be generating approximately $30 million annually, with initial revenues beginning in 2014. The second contract announced was for a **single EGU** with a large coal-power **cooperative in the Southwest US** The installation of the SEA system, which included a newly-designed mercury-control feeder system, occurred in 2014. The company estimates that the sorbent supply contract will generate $2 million of revenues annually beginning in early 2015. The third commitment was a contract with a large utility **cooperative in the Southwest US** for a single EGU. The system installation should generate revenues of $ 2.4 million in 2015, and the three-year supply contract should generate revenues of $4 million per year annually beginning in early 2016.

Seasonal Consumption of Coal for Domestic Electricity Generation



In May 2014, the company's initial customer, located on the West Coast, **extended the contract for its two coal-fired electric generating units** for additional three years. The contract extension serves as an indicator of the customer's level of satisfaction with Midwest Energy's Sorbent Enhancement Additive solution. Obviously, the operational performance of SEA Technology has more than met the utility's expectations. The supply contract is expected to generate approximately $3 million in revenues per year starting when MATS takes effect in the second quarter of 2015. To date, revenues derived by supplying sorbent to the customer has been less than the $3 million potential due to lower reduction rates required by state regulations and the seasonal operation of the two EGUs, which are used to satisfy peak demand periods in the summer and winter.

In June 10, 2014, Midwest Energy Emissions **opened a mixing and distribution facility** in Freestone County, Texas. The 7,000 sq. ft. facility will support its customers' mercury-capture projects in the Southwest region of the U.S. Also, in the first half of 2014, Midwest Energy Emissions designed a **new mercury-control feeder system** that can operate in both enclosed and outdoor environments. Also, the space required for system operations was reduced. In July, the company delivered the first of its newly-designed mercury control feeder systems to a major utility customer. Four demonstrations were performed at the sites of potential customers during 2014. In November 2014, a large coal-power producing **electric utility in the upper Midwest** contracted for the company's mercury emissions control systems on a **dual-unit power plant**, bringing the total to 15 EGUs. Management anticipates additional contract awards during 2015.

During 2014, Midwest Energy Emissions generated $2.79 million in revenues, of which $2.45 million was derived from product sales used in operating and testing SEA Technology systems. As of December 31, 2014, the company recorded $5.81 million as deferred revenues representing advance payments received for system installations, which will be recognized as revenues once the equipment is delivered and commissioned.

As the company's mercury emission control systems come online at the additional 13 EGUs during 2015 and 2016, management expects to gain further traction within the marketplace beyond its current 1.7% market share.

On April 2, 2015, Midwest Energy Emissions announced the launch of its proprietary **Mobile Emissions-Analysis Lab**. Having completed field-testing, the mobile lab can gather on-site mercury measurements to better understand each power plant's specific operations, which are unique to each EGU's configuration and type of coal being combusted. The lab is also able to measure and monitor other gas components (such as CO2, CO, SO2, O2 and NOx) and Midwest Energy's injected products.

Management has provided some guidance as to the expectation of anticipated revenues to be generated from the installation of mercury emission control systems and from the sale of sorbent thereafter. These estimations have been incorporated into our income statement model.

- Revenues from system installations are anticipated to be $8 million in 2015.
- Management anticipates that Midwest Energy Emissions will become free cash flow positive in 2016, when it is expected that all 15 EGU's will have begun full MATS compliance activities.
- By the end of 2016, all 15 systems will have been installed and be operational. On average, each EGU should be generating approximately $2.5 million of revenue annually.

EPA's MERCURY AND AIR TOXIC STANDARDS (MATS)

The first Federal legislation pertaining to air pollution was the Air Pollution Control Act of 1955, which provided funds for air pollution research. Subsequently, the Clean Air Act of 1963 established a federal program to monitor and control air pollution. However, the Clean Air Act Amendments of 1970 required federal and state air pollution regulation and expanded enforcement authority. The Environmental

Protection Agency (EPA) was established to research and monitor the environment, and also to set standards and enforce those standards in order to protect the environment. The Act was again amended in 1977.

The adoption of the **Clean Air Act Amendments of 1990** not only further expanded the scope of air pollution regulation and increased the EPA's authority, but also specifically targeted acid rain, ozone depletion and toxic air pollution. Prior to 1990, only seven air pollutants[iv] were monitored and controlled by the EPA. However, The 1990 Amendments under Section 112(b)(1) identified 189 hazardous air pollutants and set into motion the process of establishing emission standards and enforcing emission limitations by requiring the installation of controls or by changing production processes.

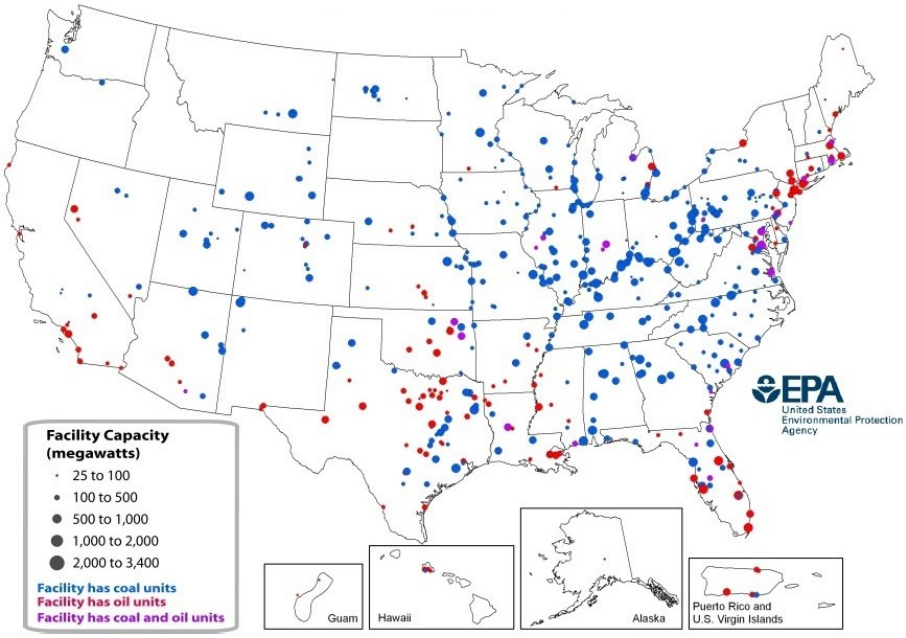
Charged by Congress with protecting the nation's land, air, and water resources, the EPA mandated national emission standards for hazardous air pollutants from coal- and oil-fired steam producing units used in the generation of electricity. Subsequent regulations have established annual allowable emission limitations for most of the major atmospheric pollutants. One of the more familiar provisions is the Acid Rain Reduction Program through Title IV of the Clean Air Act Amendments of 1990, which focuses on sulfur dioxide (SO_2) and nitrogen oxides (NO_X).

The Clean Air Act of 1990 created the framework to form the initiatives that target Mercury emission reductions. The EPA regulates **Mercury (Hg)** under Section 112, which specifically lists Mercury compounds as hazardous air pollutants. Mercury is a Persistent Bio-accumulative Toxic (PBT) due to this metal's inability to degrade. Since Mercury is generated from the heating process of steam boilers in fossil fuel-fired electric generation units, the EPA was charged to investigate electric utility steam generating units in Section 112(n)(1)(A) and specifically to study mercury emissions from those units in Section 112(n)(1)(B).

On December 16, 2011, the EPA issued **Mercury and Air Toxics Standards (MATS)** for new and existing coal- and oil-fired power plants that generate electricity for sale and distribution to the public through the national electric grid. The standards are intended to reduce certain toxic air pollutants (and especially Mercury) emitted from all major fossil fuel-fired units located at U.S. power plants with a capacity of 25 megawatts (MW) or more, including those owned by electric utilities, industrial concerns, the Federal government, municipalities and cooperatives that provide electricity for commercial, industrial and residential uses. **The regulation targets a 90% reduction of specific air toxins, including Mercury**. MATS are estimated to prevent up to 11,000 premature deaths, 130,000 asthma attacks and 5,700 emergency room visits each year.[v]

MATS were published in the Federal Register on February 16, 2012 and became effective 60 days after publication (April 16, 2012).[vi] Existing sources of Toxic Air Pollutants are allowed 3 years from the effective date to come into compliance with the final applicable emission standards. However, if an existing source is unable to comply within 3 years (April 16, 2015), the governing permitting authority (usually the state or local air agency) can grant up to a 1 year extension (i.e. to April 16, 2016) on a case-by-case basis, if the additional time is necessary for the installation of pollution controls needed to comply with the emission limits. This option for a 1 year extension pursuant to Section 112(i)(3)(B) is expected to be broadly available. Management estimates that over half of the utility industry's EGUs were granted the one-year extension for compliance. In rare circumstances, the EPA will make available an additional 5th year to achieve compliance using an Administrative Order granted under section 113(a) of the Clean Air Act Amendment of 1990, provided a particular power plant's operation is critical for reliability.[vii] Initially, the EPA estimated that MATS apply to approximately 1,400 coal- and oil-fired electric generating units (EGUs) at about 600 power plants. The U.S. Energy Information Administration (EIA) estimates that due to the high cost of MATS compliance and other factors, approximately 24% of U.S. coal-fired generation capacity is expected to shut down through retirements by 2016.[viii] Therefore, management is targeting a projected marketplace of between **800 and 850 coal-fired EGUs** as candidates for the use of its SEA Technology.

Location of Coal and Oil Power Plants



Mercury is an element and is the only metal that is a liquid at room temperature. In elemental form and oxidation states, Mercury is extremely toxic to the human central nervous system and affects the areas associated with the sensory, visual, auditory and coordinating functions. This neurotoxin is particularly damaging to developing fetuses and children, inhibiting the normal progress of the nervous system resulting in developing delayed or abnormal motor and verbal skills. In most cases, the effects of Mercury poisoning are irreversible.

Emissions of airborne inorganic Mercury are mostly the result of fossil-fuel combustion (biomass burning). The EPA's Mercury Study Report to Congress in 1997 determined that the burning of coal for electric utility boilers constituted the largest source category for atmospheric mercury.[ix] Eventually the airborne Mercury is deposited to the ground, from where it may be transported into oceans, lakes, rivers, streams and wetlands. Sulfate-reducing bacteria found in the anaerobic (oxygen-absent) conditions of muddy sediments ingest inorganic Mercury, and through metabolic processes, convert it to methylmercury (CH_3Hg), a particularly toxic form of Mercury. Through the process of bioaccumulation, whereby organisms ingest contaminants more rapidly than they can be eliminated, methylmercury stockpiles in in fish, marine mammals and aquatic invertebrates, contaminating the aquatic food chain. Consumption of fish, shellfish and crustaceans is the major source of human methylmercury exposure. For example, a recent study found that the concentration of mercury in yellow fin tuna caught near Hawaii increased at least 3.8% per year between 1998 and 2008.[x]

The electric power sector is especially concerned about the Mercury and Air Toxics Standards since not only are the pollution control **requirements stringent**, but also **compliance is power plant-specific**. Therefore, emissions-trading is not a compliance option. In addition, there is a **statutory-constrained compliance deadline**.

ENERGY & ENVIRONMENTAL RESEARCH CENTER (EERC)

The **Energy & Environmental Research Center** (EERC) is a nonprofit branch of the University of North Dakota. Founded in 1951 as the Robertson Lignite Research Laboratory, EERC **conducts energy and environmental research**, primarily in the fields of pollution prevention and environmental cleanup technologies within nine Centers of Excellence:

- Oil and gas
- Emission Control Technologies
- Water Management
- Coal Utilization Technologies
- Climate Change & Carbon Capture and Storage
- Renewable Energy and Biomass Utilization
- Alternative Fuels
- Environmental Chemistry and Reclamation
- Hydrogen Technology

Under these Centers, research has been conducted in clean coal technologies, carbon capture & sequestration, air toxics & fine particulate control, mercury measurement & control, zero-emissions coal conversion, biomass technologies, energy & water sustainability, renewable energy, water management strategies, flood prevention, waste utilization, energy-efficient technologies, hydrogen & fuel cells, global climate change and contaminant cleanup. Since 1987, the EERC has had more than 1,285 clients in all 50 states and 52 countries. Currently, EERC has 216 active contracts.

To better commercialize the technologies developed by EERC, the Energy & Environmental Research Center Foundation (or **EERC Foundation**) was founded and incorporated in 1992 as an independent 501(c)3 nonprofit corporation. The EERC Foundation acts as EERC's designated technology commercialization organization, supporting the transition from the creation of technologies developed at EERC to their commercialization. Currently, the **EERC Foundation** oversees the commercialization activities of the technologies held under 40 issued patents and 60 pending patents. The Foundation has established variety of business arrangements with entrepreneurial start-ups to a large multinational corporation, usually through licensing and equity agreements. Featured partners include Fujian Longking Co., Ltd. (a Shanghai Stock Exchange listed manufacturer of air pollution control equipment, namely electrostatic precipitators and flue gas desulfurization units), InEnergy, Inc (a provider of energy technology evaluation services) and Midwest Energy Emissions Corp.

Since the early 1990s, the EERC has developed a number of mercury control technologies and has received patents at least 15. The EERC Foundation provides installation and technical support during the commissioning and start-up of commercial deployments, along with ongoing optimization assistance, when needed, to ensure optimum performance. After almost two decades of research and demonstrations, the EERC Foundation licensed the SEA Technology to Richard Mac Pherson, founder and CEO of Midwest Energy Emissions on January 15, 2009 for $100,000. Known as the "**Exclusive Patent and Know-How License Agreement Including Transfer of Ownership**," Midwest Energy Emissions was granted an exclusive license to develop, make, use, sell, lease and import the technology in coal-fired combustion systems worldwide.

On December 19, 2013, Midwest Energy Emissions and the EERC Foundation entered into **Amendment No. 4**, through which the EERC Foundation established an equity ownership in Midwest Energy Emissions and Midwest Energy Emissions received exclusive rights to an expanded portfolio of 12 patents and 15 patent applications that span numerous technologies of mercury emissions control, primarily in the United States, and also in Canada, Europe and China.

In addition, fee schedules for license maintenance and royalties were restructured. Beginning in January 1, 2014, license maintenance fees were raised from $50,000 quarterly to $25,000 monthly. Royalties became $100 per one megawatt (MW) of electronic nameplate capacity and $100 per three MW per hour at systems utilizing licensed products and/or processes. As a result of the amendment to the patent license, a one-time additional license maintenance fee of $875,000 ($825,000 in stock and $50,000 in cash) was incurred in the fourth quarter of 2013.

Midwest Energy Emissions is required to pay the EERC Foundation 35% of all sub-license income received by the company (excluding royalties on sales by sub-licensees) until the company pays for the assignment of the patents. Running royalties and sub-license income are payable annually in January. Thus far, neither running royalties nor sub-license income have become payable.

Amendment No. 5 (effective August 14, 2014 and coincident with the $10 million loan/note agreement) modestly increased the number of shares required in the terms by which Midwest Energy Emissions can receive for the assignment of the patent rights. Now, at the option of the company, Midwest Energy Emissions can be assigned the patent rights for a **payment of $2.5 million** and the **issuance 925,000 shares** (647,500 to the EERC Foundation and 277,500 to the inventors of the technology). Previously under Amendment No. 4, the number of shares was 875,000.

During 2015, the EERC Foundation (EERCF) was granted two new patents for emissions control: U.S. Patent 9,011,805 (issued on April 21st) and Europe Patent #1931449 (March 25th). **Now Midwest Energy Emissions has 21 patents under its exclusive patent-licensing agreement with the EERCF** and an additional 8 patents pending.

RISKS

- The industry addressing the reduction of mercury emissions is a market driven by governmental regulation. Any reduction in the EPA's regulations concerning mercury emissions or the timing of enforcement would significantly impact the demand for the company's products and services.
  - On June 29, 2015, the U. S. Supreme Court ruled that the EPA did not consider cost as a relevant factor when promulgating MATS. The case was remanded back to the Washington DC Circuit Court of Appeals for further proceedings that are consistent with the Supreme Court's opinion. The decision significantly impacted the stock of Midwest Energy Emissions.
- Midwest Energy Emissions has approximately $2.4 million of convertible debt maturing in 2016. Therefore, the company's operations must start generating significant cash flow or management must find a funding source to meet the company's debt obligations or successfully negotiate an alternative resolution.
- Investors should be aware of the potential dilution from options, warrants and convertible debt as the company becomes profitable. The fully diluted share count is approximately 69,300,000 versus 45,591,412 shares outstanding as of June 30, 2015.

VALUATION

The valuation methodology for pollution control/environmental remediation companies usually is based on the use of EV-to-EBITDA (Enterprise Value/Earnings Before Interest, Taxes, Depreciation and Amortization) reflecting the industry's characteristics of profitability and cash flow generation. However, if a company is experiencing negative profitability, either due to adverse fundamental circumstances or being in the early phases of the company's life cycle, **the applicable valuation metric becomes Price-to-Sales (P/S)**.

Finding comparable companies to Midwest Energy Emissions is challenging. The company is unique in that it has a singular focus (the mercury emissions control market), holds exclusive rights to patented processes, has achieved market penetration through the commercialization of SEA Technology and is positioned to take advantage of further growth opportunities afforded by the implementation of MATS. Many companies involved in the air pollution control industry range from companies that provide commodity chemicals and/or equipment to divisions of large, diversified companies where emission controls is just a small part of total operations. These types of companies are generally valued in the

lower-to-middle portions of the valuation continuum rather than in the higher-end of the spectrum where highly-focused companies with patented treatment processes tend to trade.

For example, competing mercury emission control technologies are largely being commercialized by subsidiaries of large, diversified firms where mercury emission remediation is a small part of the total company. For example, TOXECON™ is being brought to market by Hamon Research-Cottrell, a subsidiary of Hamon & Cie International SA (aka Hamon Group), a publicly-traded Belgium-based engineering, procurement and contracting company (HAMO.BR) while Mer-Cure™ is being offered by US Power Plant Laboratories and URS Group, both subsidiaries of Alstom SA (ALO.PA and ALSMY OTC Pink), a publicly-traded France-based power generation, power transmission and rail infrastructure company. Also, the Air Pollution Control business unit of FMC Environmental Solutions, a division of FMC Corp. (FMC: NYSE), offers methods of mercury emission control as an adjunct to its use of hydrogen peroxide- and sodium bicarbonate-based methods to prevent or remediate contamination of air by power utility and manufacturing industries. FMC Corp. is a diversified chemical company. Mitsubishi Hitachi Power Systems, a merger of thermal power generation businesses of Mitsubishi Heavy Industries, Ltd. (7011) and Hitachi, Ltd. (HTHIF), is dedicated to the engineering, design and service of SCR systems for the control of NOx and SO2, and its SCR system solutions also have mercury oxidation capabilities.

Industry Comparables	**Pr Chg YTD**	**P/E CFY**	**EPS Gr 5Yr Est**	**Gross Margin**	**Price/ Book**	**Price/ Sales**	**Price/ CF**	**EV/ EBITDA**
MIDWEST ENERGY EMISSIONS	-46.2	N/M	N/M	N/M	N/M	3.1	N/M	N/M
Industry Mean	-7.2	20.2	16.8	37.7	2.5	1.5	14.4	11.2
Industry Median	-1.8	20.5	13.6	31.8	2.8	1.6	12.1	10.5
S&P 500	-3.8	16.5	10.8	N/A	5.6	3.4	14.9	N/A
ALBEMARLE CORP.	-20.8	12.3	16.2	31.5	1.6	1.8	8.5	15.6
CALGON CARBON	-17.6	17.9	7.0	34.6	2.2	1.6	11.4	8.5
CECO ENVIRONMENTAL	-45.3	8.7	18.0	32.2	1.2	0.7	6.1	8.3
IDEX CORP.	-3.9	21.0	14.7	45.8	4.0	2.8	16.2	12.4
FUEL-TECH INC.	-44.1	N/M	25.0	44.5	0.7	0.7	18.3	N/M
Recent Industry Acquisition		**Acquiror**						
CYTEC INDUSTRIES INC.		Solvay SA	16.0	30.0	3.6	2.6	14.4	19.7

We believe that the **valuation comparables** of Midwest Energy Emissions should Albemarle (ALB), Calgon Carbon (CCC), CECO Environmental (CECE), Cytec Industries (CYT), IDEX (IEX) and Fuel-Tech (FTEK). For example, Calgon Carbon supplies value-added catalyst chemicals while CECO Environmental provides engineering, manufacturing and construction services and Fuel-Tech offers boiler optimization and air pollution control solutions. Also, comparable pollution control and value-added specialty chemical companies have comparable business models to Midwest Energy Emissions and achieve higher-than-average gross margins, generally in the 30% range, which is management's targeted margin when the company's current contracts are fully functional some time in 2016.

The appropriate valuation methodology for Midwest Energy Emissions is based on price-to-sales (P/S) due the character of the company's enterprise, namely a small-capitalization company, currently with negative profitability, but with an expected sales profile that should grow and expand as the company's SEA Technology processes are deployed within the coal-fired utility industry and the company's patent-protected sorbent is sold into the operating customer base. Ultimately, the growing revenue stream should manifest itself into positive EBITDA and later, positive earnings when the break-even point is surpassed.

Comparable companies trade in a P/S valuation range between 2.8 and 0.7. Also, as a reference, Cytec Industries is in the process of being acquired by Solvay SA at 2.6 times TTM revenues. Utilizing the top decile P/S ratio of 2.5 on projected 2016 sales of $17.98 million, our **share price target is $1.00**.

We are optimistic the ultimate success of Midwest Energy Emissions though the Supreme Court's decision may somewhat delay the timetable. The company should experience a dramatic increase in revenues over the next few years as the coal-fired plants, which have contract for Midwest Energy's SEA Technology, ramp up their mercury emissions control efforts to become compliant with the EPA's mercury emissions reduction regulations.

BALANCE SHEET

Midwest Energy Emissions Corp.					
Year ending December 31st	12/31/2011	12/31/2012	12/31/2013	12/31/2014	6/30/2015
ASSETS					
Cash and cash equivalents	99,713	189,367	509,605	7,212,114	958,063
Accounts receivable	206,545	274,464	383,859	410,950	663,892
Inventory	30,622	37,993	-	5,784,905	6,382,078
Prepaid expenses and other assets	33,234	68,598	63,132	140,559	133,784
Total Current Assets	**370,114**	**570,422**	**956,596**	**13,548,528**	**8,137,817**
Property and Equipment, net	1,566,697	343,584	173,072	255,330	872,654
License, net	82,353	76,471	70,589	64,707	61,765
Prepaid expenses and other assets	43,019	36,281	23,539	13,799	8,929
Customer acquisition costs	-	-	-	1,156,521	1,947,594
Debt issuance costs, net	-	125,534	700,011	2,285,696	1,037,412
TOTAL ASSETS	**2,062,183**	**1,152,292**	**1,923,807**	**17,324,581**	**12,066,171**
Liabilities and Stockholders' Equity					
Accounts payable and accrued expenses	420,360	529,947	275,145	688,730	410,902
Accrued legal and consulting fees	656,507	220,159	365,348	86,304	65,824
Accrued salaries and benefits			377,213	399,487	433,585
Deferred revenue	-	-	-	5,808,301	6,035,850
Convertible notes payable	-	-	-	3,080,376	1,247,719
Customer credits	-	-	-	936,500	936,500
Other current liabilities			261,036	250,000	0
Accrued interest - related party			247,696	0	0
Advances payable - related party	951,034	951,034	4,167	0	0
Convertible note payable - discontinued ops.	50,000	50,000	50,000	0	0
Notes payable	150,000	150,000	300,000	0	0
Current liabilities of discontinued operations	379,521	262,032	-	0	0
Note payable - related party of disc. ops.	169,984	169,984	-	0	0
Total Current Liabilities	**2,777,406**	**2,333,156**	**1,880,605**	**11,249,698**	**9,130,380**
Convertible notes payable	-	2,570,199	4,675,673	4,724,598	5,037,996
Warrant liability	-	-	-	5,597,011	4,280,282
Accrued interest	-	134,975	273,877	337,999	160,659
TOTAL LIABILITIES	**2,777,406**	**5,038,330**	**6,830,155**	**21,909,306**	**18,609,317**
Common stock	32,679	33,240	35,299	40,228	45,591
Additional paid-in-capital	9,251,529	9,958,202	13,789,473	19,113,724	23,118,107
Accumulated deficit	(9,999,431)	(13,877,480)	(18,731,120)	(23,738,677)	(29,706,844)
Total Stockholders' Equity	**(715,223)**	**(3,886,038)**	**(4,906,348)**	**(4,584,725)**	**(6,543,146)**
TOTAL LIABILITIES & STOCKHOLDERS' EQUITY	**2,062,183**	**1,152,292**	**1,923,807**	**17,324,581**	**12,066,171**
Shares outstanding	32,678,650	33,239,878	35,299,429	40,228,123	45,591,412

PROJECTED INCOME STATEMENT

Midwest Energy Emissions Corp.

Income Statement

Period ending	2011 12/31/2011	2012 12/31/2012	2013 12/31/2013	2014 12/31/2014	2015 E 12/31/2015	2016 E 12/31/2016	2017 E 12/31/2017
Revenues	**458,080**	**788,072**	**1,668,472**	**2,794,206**	**6,917,472**	**17,976,500**	**38,364,000**
Costs and operating expenses:							
Cost of goods sold	443,925	233,120	370,635	1,483,379	4,358,162	8,359,274	11,509,200
Operating expenses	255,026	263,143	886,949	904,914	2,026,655	6,228,644	15,345,600
License maintenance fees	150,000	200,000	1,075,000	300,000	300,000	300,000	300,000
Marketing and development	764,046	413,816	338,379	0	0	0	0
Selling, general & administrative expenses	3,878,087	1,655,114	1,622,657	2,208,546	2,185,024	2,403,526	2,691,949
Depreciation and amortization	23,250	417,735	176,394	387,123	434,394	400,000	400,000
Professional fees	805,852	782,121	565,851	678,725	583,489	622,288	525,000
Stock-based compensation	N/A	N/A	855,256	3,318,759	874,134	1,005,254	1,256,568
Impairment of fixed assets	-	800,000	-	-	-	-	-
Impairment of goodwill	3,555,304	-	-	-	-	-	-
Total operating expenses	**9,875,490**	**4,765,049**	**5,891,121**	**9,281,446**	**10,761,858**	**19,318,986**	**32,028,317**
Operating gain (loss)	**(9,417,410)**	**(3,976,977)**	**(4,222,649)**	**(6,487,240)**	**(3,844,386)**	**(1,342,486)**	**6,335,683**
Other income (expense):							
Interest (expense)	(54,257)	(261,534)	(711,647)	(2,724,506)	(6,358,472)	(2,500,000)	(2,611,647)
Gain (loss) on disposal of fixed assets	-	(19,504)	-	-	-	-	-
Gain (loss) on forgiveness of liabilities	-	280,000	80,656	0	-	-	-
Change in value of warrant liability	-	-	-	4,204,189	1,316,729	0	0
Debt conversion costs	-	-	-	-	(961,843)	0	0
State income taxes	-	-	-	-	(56,450)	0	0
Other income (expense)	-	-	-	-	-	-	-
Total other income (expense)	**(54,257)**	**(1,038)**	**(630,991)**	**1,479,683**	**(6,060,036)**	**(2,500,000)**	**(2,611,647)**
Net Gain (Loss) from Continuing Ops.	**(9,471,667)**	**(3,978,015)**	**(4,853,640)**	**(5,007,557)**	**(9,904,422)**	**(3,842,486)**	**3,724,036**
Net gain (loss) from discontinued ops.	(25,449)	99,966	-	-			
Net Income (Loss)	**(9,497,116)**	**(3,878,049)**	**(4,853,640)**	**(5,007,557)**	**(9,904,422)**	**(3,842,486)**	**3,724,036**
Net loss per share:							
Basic and diluted loss per share	**(0.32)**	**(0.12)**	**(0.14)**	**(0.13)**	**(0.23)**	**(0.08)**	**0.05**
Wgted avg. shares - basic & diluted	29,331,788	33,136,492	34,283,631	39,140,243	43,458,026	46,934,668	69,300,000

Midwest Energy Emissions Corp.

Income Statement		1Q	2Q	3Q	4Q	
	2013	2014	2014	2014	2014	2014
Period ending	12/31/2013	3/31/2014	6/30/2014	9/30/2014	12/31/2014	12/31/2014
Revenues:						
Product sales	668,532	0	659,052	1,280,043	511,956	2,451,051
Demonstration and consulting services	999,940	0	219,905	93,250	30,000	343,155
Total revenues	**1,668,472**	**0**	**878,957**	**1,373,293**	**541,956**	**2,794,206**
Costs and operating expenses:						
Cost of goods sold	370,635	0	365,118	829,662	288,599	1,483,379
Operating expenses	886,949	20,287	252,379	469,370	162,878	904,914
License maintenance fees	1,075,000	75,000	75,000	75,000	75,000	300,000
Marketing and development	338,379	62,943	N/A	N/A	N/A	0
Selling, general & administrative expenses	1,622,657	480,793	504,761	487,015	673,034	2,208,546
Depreciation and amortization	176,394	43,507	91,676	190,778	61,162	387,123
Professional fees	565,851	232,852	109,725	120,066	216,082	678,725
Stock-based compensation	855,256	2,188,675	452,029	468,269	209,786	3,318,759
Impairment of fixed assets	-	-	-	-	-	-
Impairment of goodwill	-	-	-	-	-	-
Total operating expenses	**5,891,121**	**3,104,057**	**1,850,688**	**2,640,160**	**1,686,541**	**9,281,446**
Operating gain (loss)	**(4,222,649)**	**(3,104,057)**	**(971,731)**	**(1,266,867)**	**(1,144,585)**	**(6,487,240)**
Other income (expense):						
Interest (expense)	(711,647)	(298,209)	(408,647)	(714,852)	(725,000)	(2,724,506)
Gain (loss) on disposal of fixed assets	-	-	-	-	-	-
Gain (loss) on forgiveness of liabilities	80,656	0	0	0	0	0
Change in value of warrant liability	-	-	-	-	4,204,189	4,204,189
Other income (expense)	-	-	-	-	-	-
Total other income (expense)	**(630,991)**	**(298,209)**	**(408,647)**	**(714,852)**	**3,479,189**	**1,479,683**
Net Gain (Loss) from Continuing Ops.	**(4,853,640)**	**(3,402,266)**	**(1,380,378)**	**(1,981,719)**	**2,334,604**	**(5,007,557)**
Net gain (loss) from discontinued ops.	-					-
Net Income (Loss)	**(4,853,640)**	**(3,402,266)**	**(1,380,378)**	**(1,981,719)**	**2,334,604**	**(5,007,557)**
Net loss per share:						
Basic and diluted loss per share	**(0.14)**	**(0.09)**	**(0.04)**	**(0.05)**	**0.06**	**(0.13)**
Wgted avg. shares - basic & diluted	34,283,631	37,318,502	39,014,401	39,973,907	40,101,015	39,140,243

Income Statement		1Q	2Q	3Q E	4Q E	Year Est.
	2014	2015	2015	2015	2015	2015
Period ending	12/31/2014	3/31/2015	6/30/2015	9/30/2015	12/31/2015	12/31/2015
Revenues:						
Product sales	2,451,051	243,344	609,328	1,190,440	476,119	2,519,231
Equipment sales	0	0	1,967,039	1,121,725	1,121,725	4,210,488
Demonstration and consulting services	343,155	N/A	120,318	51,020	16,414	187,753
Total revenues	**2,794,206**	**243,344**	**2,696,685**	**2,363,185**	**1,614,258**	**6,917,472**
Costs and operating expenses:						
Cost of goods sold	1,483,379	149,689	1,787,205	1,438,589	982,679	4,358,162
Operating expenses	904,914	347,170	551,802	670,009	457,674	2,026,655
License maintenance fees	300,000	75,000	75,000	75,000	75,000	300,000
Marketing and development	0	N/A	N/A	N/A	N/A	0
Selling, general & administrative expenses	2,208,546	556,255	549,535	542,896	536,338	2,185,024
Depreciation and amortization	387,123	65,588	99,463	133,338	136,005	434,394
Professional fees	678,725	170,245	118,244	125,000	170,000	583,489
Stock-based compensation	3,318,759	125,528	205,661	246,793	296,152	874,134
Impairment of fixed assets	-	-	-	-	-	-
Impairment of goodwill	-	-	-	-	-	-
Total operating expenses	**9,281,446**	**1,489,475**	**3,386,910**	**3,231,625**	**2,653,847**	**10,761,858**
Operating gain (loss)	**(6,487,240)**	**(1,246,131)**	**(690,225)**	**(868,440)**	**(1,039,590)**	**(3,844,386)**
Other income (expense):						
Interest (expense)	(2,724,506)	(3,422,356)	(936,116)	(1,000,000)	(1,000,000)	(6,358,472)
Gain (loss) on disposal of fixed assets	-	-	-	-	-	-
Gain (loss) on forgiveness of liabilities	0	0	0	0	0	0
Change in value of warrant liability	4,204,189	(1,878,550)	3,195,279	-	-	1,316,729
Debt conversion costs	-	-	(961,843)	0	0	(961,843)
State income taxes	0	(20,495)	(7,730)	(14,113)	(14,113)	(56,450)
Other income (expense)	-	-	-	-	-	-
Total other income (expense)	**1,479,683**	**(5,321,401)**	**1,289,590**	**(1,014,113)**	**(1,014,113)**	**(6,060,036)**
Net Gain (Loss) from Continuing Ops.	**(5,007,557)**	**(6,567,532)**	**599,365**	**(1,882,553)**	**(2,053,702)**	**(9,904,422)**
Net gain (loss) from discontinued ops.	-					-
Net Income (Loss)	**(5,007,557)**	**(6,567,532)**	**599,365**	**(1,882,553)**	**(2,053,702)**	**(9,904,422)**
Net loss per share:						
Basic and diluted loss per share	**(0.13)**	**(0.16)**	**0.01**	**(0.04)**	**(0.04)**	**(0.23)**
Wgted avg. shares - basic & diluted	39,140,243	40,414,884	41,322,566	45,591,412	46,503,240	43,458,026

HISTORICAL ZACKS RECOMMENDATIONS



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Sell/Underperform: The analyst expects the company will underperform the broader U.S. Equity market over the next one to two quarters.

The current distribution is as follows: Buy/Outperform- 25.9%, Hold/Neutral- 53.2%, Sell/Underperform – 17.7%. Data is as of midnight on the business day immediately prior to this publication.

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[i] Control of Mercury Emissions from Coal-fired Electric Utility Boilers, U.S. Environmental Protection Agency, March 2004.
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[v] EPA FACT SHEET: Mercury and Air Toxics Standards, Benefits and Costs of Cleaning Up Toxic Air Pollution from Power Plants, December 21, 2011.
[vi] Federal Register, Vol. 77, No. 32, February 16, 2012, pages 9407 and 9446.
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[viii] Closures threaten 24 percent of US coal-fired electric power plants, March 29, 2014.
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