

Environmental Solutions. Redefined.

ARPA-E REMEDY 2023 Annual Meeting

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About Us

Conifer Systems designs, manufactures, installs and services state-ofthe-art emissions control systems. We have delivered 500+ environmental solutions since 2004, helping companies across all industries to achieve their environmental goals.

Conifer Systems is a wholly-owned subsidiary of Archaea Energy, which was acquired by bp in December 2022. We design and manufacture environmental solutions in Houston, Texas.





Standardized DFTO Offerings for Landfill Applications

- Pre-engineered DFTO solutions with waste heat recovery
- Landfill production flow rates from 3,200 to 9,600 SCFM
- Lower cost and shorter lead-time vs. custom engineered solutions





Standardized RTO Offerings for VAM Applications

- Pre-engineered 2-can and 3-can RTO solutions
- Flow rates from 2,500 to 60,000 SCFM
- Lower cost and shorter lead-time vs. custom engineered solutions





Aeros MineOx

Aeros MineOx meets the needs of mining operations and highlights stewardship initiatives by lowering carbon footprints, destroying fugitive emissions, and creating carbon credit opportunities. This specialized Regenerative Thermal Oxidizer (RTO) system was developed for large volumes and varying methane concentrations while being scalable to suit individual facility needs.

Robust

Aeros MineOx is strong and resilient in design to ensure reliable performance in both harsh conditions and remote environments.

Scalable

Conifer's high-efficiency RTOs are arranged in a parallel, scalable configuration to form the backbone of the Aeros MineOx solution to destroy fugitive emissions in larger volume applications.

Efficient

Aeros MineOx can destroy up to 98% of fugitive emissions, making it the ideal solution to achieve carbon reduction targets while maximizing project returns.



Key Aeros MineOx Features

MONOLITHIC POPPET AND DEWPOINT CONTROL SYSTEM (PATENT APPLICATIONS PENDING)

- The Aeros MineOx Monolithic Poppet is fully assembled Aeros MineOx diverts hot gas from the RTO combustion and tested during manufacturing, significantly reducing installation cost and time without adding significant cost to manufacturing
 - chamber to the inlet source ducting to prevent condensation formation, providing flow assurance and reducing corrosion for high humidity VAM applications
 - Supplemental Fuel Injection ensures sufficient hot gas is available to be diverted at lower VAM concentrations







Key Aeros MineOx Features

HOT GAS BYPASS (HGB) AND CEMS TECHNOLOGY

- An HGB feature maintains combustion chamber operating temperatures between 1400 to 1800 deg F at higher VAM concentrations
- The HGB damper is designed for continuous operation at 1900 deg F and is installed beyond the radiant heating zone to ensure years of reliable operation



- We offer the CEMTEK Tunable Diode Laser (TDL) system to confirm methane destruction
 - Gas sampling not required (no heated sample lines)
 - Approved Zero & Span Calibration (self-calibrating)
 - Extremely Fast (<1 second) response time
 - Operates in high dust/moisture applications
- Integrates with Aeros Controls to provide seamless data storage and information transfer to site DCS





Launcher Detector



Reflector Optics



Key Aeros MineOx Features

AEROS CONTROLS BY ALTRONIC

- Built on the Altronic DE-4000 Safety Shutdown and Control System
 - Designed and manufactured in Ohio, USA
 - Scalable solution built around modern Ethernet communications
 - Lua scripting engine to support custom algorithms and logic
 - Open source, IoT (no special software to purchase)
 - Auto-start functionality
- Class I, Division 2, Groups C and D Rating
- Designed for severe service environments
 - HMI temperature rating from -22°F to +175°F
 - Controller and Terminal Module (RIO) temperature rating from 40°F to +185°F
- Field devices wired to RIO panels and networked via Ethernet to reduce electrical hook-up scope (saves on cost and schedule)
- Customizable web-based dashboards
- 12-week lead time vs. typical current market availability of 48+ weeks





Recent VAM Project Win - Solvay Project Vulcan (Green River, Wyoming)

- Largest VAM project in the USA
- Infrastructure designed to accommodate 20% future growth
- Project awarded November 2022, fabrication commenced February 2023, commissioning scheduled to begin March 2024







Archaea Energy RNG and LFGTE Development

- RNG company focused on the end-to-end development of facilities to transform waste emissions into low carbon fuel, with a primary focus on landfill gas (LFG) as feedstock
- Industry-leading RNG platform, with 13 RNG facilities and 33 landfill gas to electric facilities (LFGTE)
- Extensive, high-quality project backlog of 88 projects including optimizations of existing RNG assets and new build projects
- Technology-driven approach paired with gas processing expertise advances operational excellence, faster project timelines, and lower development costs



46 RNG and landfill gas to electric (LFGTE) facilities across the U.S.



Archaea Energy RNG Facility





Traditional Behavioral Cycle within Regulated Markets



Why are We Excited about the VAM Market?

The structure of the market in general provides companies an opportunity to realize stewardship-based initiatives



There is real opportunity to build mutually-beneficial relationships and strategic partnerships

There is a marketplace of like-minded companies who are aligned towards achieving the same goals There are developers who can fund these opportunities so companies can continue to fund more traditional EBITDA growth initiatives

We become world leaders in the destruction of fugitive emissions We do more than just destroy fugitive emissions, capitalizing on waste heat recovery and heat-to-power opportunities



We achieve greater destruction efficiencies, transition from natural gas burners to high-output electric heaters and reduce CAPEX and OPEX



There is a desire to develop new technologies that drive performance improvements



What Challenges do We Need to Address?



Why are We the Right Strategic Partner for the VAM Market?

We have the right solution

- Fugitive emission destruction is in our DNA, 95% of our revenue comes from destroying methane
- We are a US-based company with manufacturing operations in Houston, Texas
- Our modular solution is easy to transport and install and can be redeployed to maximize long-term asset value
- We offer long-term service plans and extended warranty programs to extend equipment life, maximize equipment uptime and reduce operational costs

We support the development of new technologies that push the performance envelope

- We want to partner with like-minded companies who are passionate about what they do but may need assistance commercializing their development
- We manufacture our own systems, so we have the expertise to bring new technologies to life
- We are well capitalized and can sponsor or fund developments
- We can be the vehicle to take these new technologies to market



Why are We the Right Strategic Partner for the VAM Market?

We can execute under any commercial strategy and are ready to push this market forward

- We can supply the RTO technology
- We can deliver a turn-key, installed VAM system
- We can operate and maintain the VAM system
- We can fund and develop a VAM solution

We are externally focused and driven to be a strategic execution partner

- We value mutually-beneficial relationships
- Our Management Team has decades of fabrication, manufacturing, construction and abatement experience
- We are passionate about building environmental solutions that help customers achieve stewardship-driven goals
- We know the best projects start and finish on time without commercial change orders
- We accurately scope the solution at bid stage and do what we said we would do during project execution
- We identify workarounds to address challenges and keep the project on track and on budget



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