



/ From the CEO

I'd like to take this opportunity to introduce you to VIVIFY.

VIVIFY's ambition is not simply to lessen the ecological challenges the world faces, but to eradicate them. We create groundbreaking technological advances while combining environmental and business benefits across multiple industries.

Our premier market is the coal-fired power industry—long considered obsolete and threatened by new regulations, rising emissions standards and global ecological pressures. Despite these trends, coal remains one of the largest and most reliable sources of baseload electricity worldwide.

The artificial intelligence revolution is reshaping the global economy and driving historic demand for power. In the United States alone electricity demand from data centers is expected to double by 2028, with AI workloads fueling much of this growth. Hyperscale AI clusters require constant, high-density baseload electricity—outages or instability are unacceptable. Renewables alone cannot provide this reliability, forcing utilities to keep coal and natural gas plants online even as environmental rules tighten.

We are embarking on an aggressive growth period, expanding from coal into diesel and natural gas emissions mitigation, while accelerating deployment of our hydrogen systems.

VIVIFY's portfolio spans from hydrogen generation to storage and combustion, positioning us as both the solution for coal today and a leader in the hydrogen economy of tomorrow.

Our mission is to provide the clean baseload energy that powers both the AI era and beyond, building a sustainable world for generations to come.

Welcome to the future.



Jason Herring, CEO

/ Featured Products

Clean Air Technology™ (CAT)

Clean Air Turbine™

Pulsar™

AC-DC Voltage and Current Doublers

Alternating Direct Current Electrolyzer

Artificial Gravity Enhance Separator

Captive Oxygen Fuel Reactor

Carbon Compound Rod

Carbon Oxygen Hydrogen Motor

Digital Electronic Water Conditioner

Electrical Turbine

Heat Exchange Turbine Generator

Hydro Electric River Oxygenator

Hydrogen Generator Battery

Hydrogen Oxygen
Combustion Alternator

Hydrogen Oxygen Generator

Hygienic Induction Cauldron

Natural Ecological Way Mitigating
System

New Internal Combustion Engine

Particle Acquisition Tower

Recycle Incinerator Generator

Solar Wind Electrolyzer

Spark Oxygen Hydrogen Injection Plug

Turbine Jet

Water Reducer

/ About VIVIFY

VIVIFY tackles the world's largest energy challenges with a brand new perspective. We combine forward-thinking technology with cutting edge science and engineering to deliver paradigm shifting clean energy solutions.

VIVIFY designs and builds revolutionary energy technologies that allow power plants to achieve near-zero emissions while producing low cost electricity, providing affordable baseload power at a fraction of the cost of conventional pollution control systems.

VIVIFY's Clean Air Technology™ (CAT) is the breakthrough that changes everything. CAT enables coal and natural gas plants to operate as near-zero emission power sources, turning legacy infrastructure into the clean, stable backbone of the AI economy. By eliminating pollutants while generating additional electricity, CAT transforms coal from an environmental liability into a strategic enabler of growth in the digital age.

At the heart of CAT is VIVIFY's patented hydrogen technology, Pulsar™—our on-demand hydrogen generator that powers the entire emissions control and carbon capture process while producing additional clean energy.

Unlike costly retrofits or replacements with wind, solar and natural gas, CAT delivers compliance at a fraction of the cost. It also extends the fuel yield and service life of legacy plants and dramatically increases their efficiency. The result? Billions in avoided capital expenses, job preservation and growth, and reliable baseload power for AI.

This is only the beginning. Beyond power generation, VIVIFY is advancing solutions for wastewater treatment, potable water restoration, habitat protection, waste-to-energy conversion and carbon capture. Our goal is to create a more balanced, sustainable and resilient world for generations to come.



/ Industry Data



35% of all electricity in the world is generated by coal.

420k

420,000 direct & indirect jobs are within the coal mining industry in the U.S.



1.3 tons of coal is used by each person in the U.S. every year.



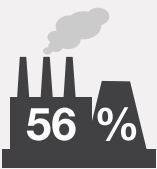
92% of the coal mined in the U.S. is used to generate electricity.



25% increase in demand on the grid by 2030, largely due to data center growth.



422 years of coal supply is left for the U.S. if the current usage rate continues.



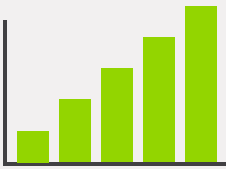
56% – The number of U.S. coal plants has dropped from 518 (2013) to 227 (2023), a 56% decline.



40% – Coal use is responsible for approximately 40% of global greenhouse gas emissions from fossil fuel use.

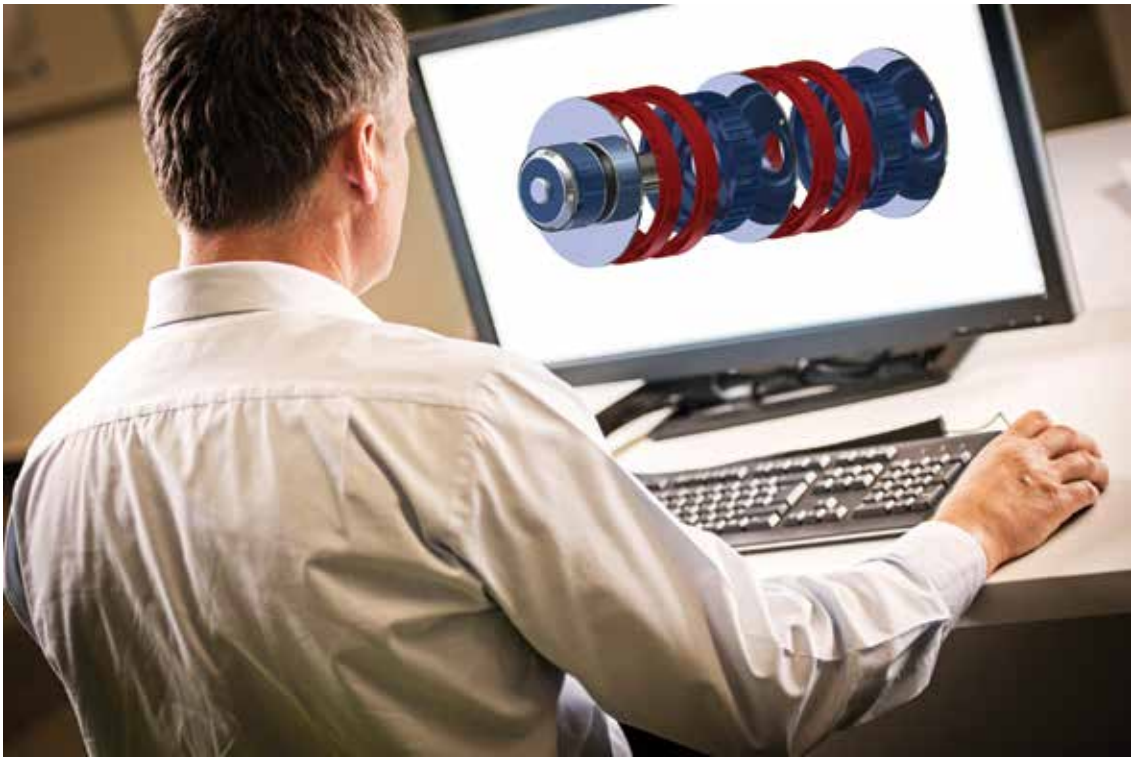
8.77b

8.77 billion tons of coal is consumed by the world annually.



3x – Energy demand from hyperscale data centers will increase 3x from 2014 to 2028.

/ Our Chief Engineer



VIVIFY’s Chief Engineer is an industry leading expert with nearly 40 years of experience in aerospace. Serving as a senior engineer with some of the industry’s top defense contractors, he has been a leader in technical innovation with dozens of classified and unclassified patents crucial to the success of the U.S. space program and missile defense systems.

During his career, he was an essential part of NASA’s successful return to space flight after the Challenger disaster, creating a solution that stopped the hydrogen cryo-pumping tragedy. Additionally, he received Lockheed Martin’s coveted “Inventor of the Year Award” for his development of a groundbreaking, patented design for valves fused in advanced rocket systems.

Since his retirement from Lockheed Martin he has focused his efforts on advancing on-demand hydrogen technology, developing a multitude of innovative devices to generate and apply hydrogen technology.

Our Chief Engineer and his team have allowed VIVIFY to secure dozens of patents related to hydrogen. He is the sole inventor of Clean Air Technology™ and Pulsar™, and was instrumental in creating the Terminal High Altitude Area Defense program for the U.S. missile defense systems.

/ Bringing Technology To Life



SOLVING THE WORLD’S ENERGY CHALLENGES

VIVIFY is tackling the largest energy challenges facing the world with a brand new perspective. We combine forward-thinking technology with cutting edge science and engineering to create paradigm shifting clean energy solutions.



DEVELOPING TRANSFORMATIONAL TECHNOLOGIES

VIVIFY creates, designs, and builds revolutionary energy technologies that allow power plants to achieve near-zero emissions while producing low cost electricity—providing affordable green energy today—all at a fraction of the cost of conventional pollution control systems.

/ Ecological & Economic Impact

Global energy markets are at an inflection point: grid reliability and emissions reduction are colliding with the explosive growth of artificial intelligence.

Closures of U.S. coal-fired power plants continue to accelerate as utilities respond to tightening environmental regulations and rising competition from renewables. The United States Energy Information Administration (EIA) data shows that coal’s share of electricity generation fell to 15% in 2024 and could continue to decline long-term. This shift threatens thousands of jobs, billions in stranded assets, and grid reliability at a time when electricity demand is soaring.

The driver of that demand is clear: the artificial intelligence revolution. Hyperscale data centers are expected to double U.S. electricity consumption by 2028, creating unprecedented pressure on the grid. Renewable sources cannot supply the stable, high-density baseload power that AI workloads require, forcing utilities to keep coal and natural gas plants online despite tightening carbon regulations.

Globally, coal remains dominant—accounting for more than 60% of China’s electricity and nearly 35% of power generation worldwide. While coal is shrinking in the U.S. and Europe, it is still central to global energy security. Without new solutions, aging coal infrastructure faces either expensive retrofits (estimated at \$180 billion in the U.S. alone) or early retirement, both of which destabilize grids and raise costs for consumers.

VIVIFY’s Clean Air Technology™ offers a third path: *cleaning, not closing*. CAT enables coal-fired, diesel and natural gas power plants to achieve near-zero emissions while simultaneously generating additional electricity. Hazardous air pollutants can be reduced by up to 99%, ambient air quality can be improved, and plant efficiency is increased instead of reduced.

Unlike conventional carbon capture systems, CAT requires no costly retrofits or extended downtime, it integrates seamlessly into existing infrastructure. Communities built around coal would see a resurgence of jobs - not just in mining, but in engineering, construction, operations, and the ripple effect of revitalized local economies. Energy prices would stabilize, industries would flourish under dependable baseload power, and the United States would maintain global leadership by showing that innovation, not abandonment, is the path to a clean, prosperous future.

VIVIFY ensures that nations no longer face a false choice between clean energy and reliable power—we deliver both.

/ Featured Product - Clean Air Technology™

VIVIFY's Clean Air Technology™ (CAT) is a modular system that not only purifies exhaust, but also generates additional electricity in the process. Each CAT unit can operate independently or be paired with other modules to meet different environmental, industrial, and power generation requirements.

HYDROGEN TURBINE UNIT

Functions as a standalone clean power generator, removing pollutants from exhaust while converting waste heat into usable electricity. It can integrate directly with coal, natural gas, or industrial facilities.

STEAM TURBINE UNIT

Works alongside the Hydrogen Turbine, using captured heat and external exhaust to produce high-efficiency steam power — boosting total plant output instead of reducing it.

PNEUMATIC LIFT TOWERS

Delivers additional electricity while filtering and capturing CO₂ and other compounds. Enclosed designs create cascade operations that maximize power generation and refine emissions further.

MICROORGANISM INTEGRATION

Hosts microorganisms that actively convert CO₂ into oxygen and carbon compounds, adding a biological layer of emissions reduction.

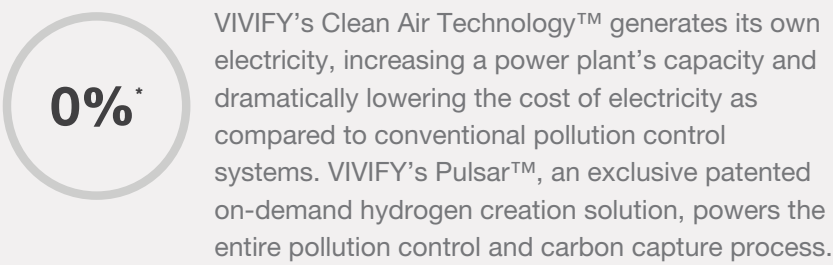
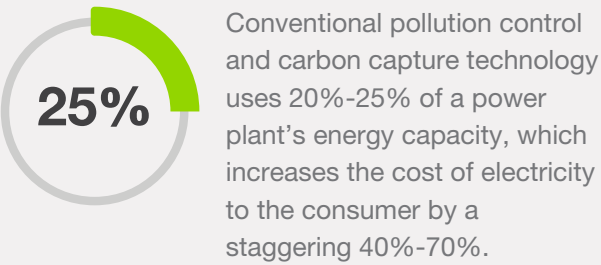
CIRCULAR ECONOMY APPLICATIONS

Produces resources streams that support greenhouse crop growth, aquaponics, and livestock feed production — turning byproducts into revenue.

Unlike conventional carbon capture, CAT increases plant efficiency instead of draining it — transforming legacy coal, diesel, and natural gas plants into near-zero emission power sources while producing additional energy and economic value.



/ VIVIFY's Clean Air Technology™

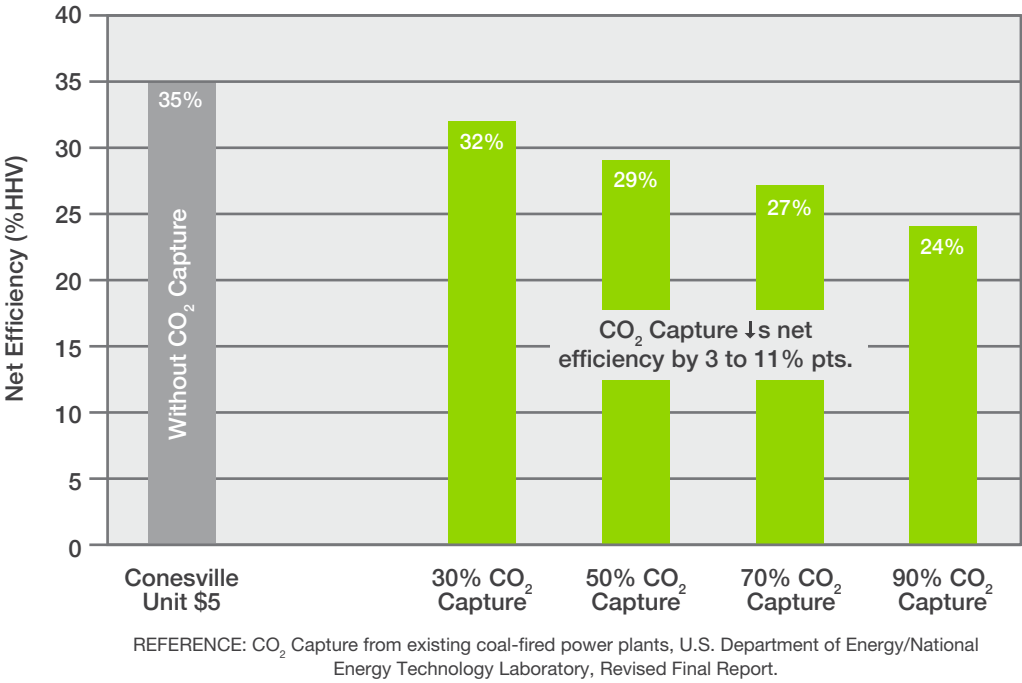


*NOTE: 0.001% of a plant's capacity may be required for ancillary processes.

/ Zero Parasitic Load

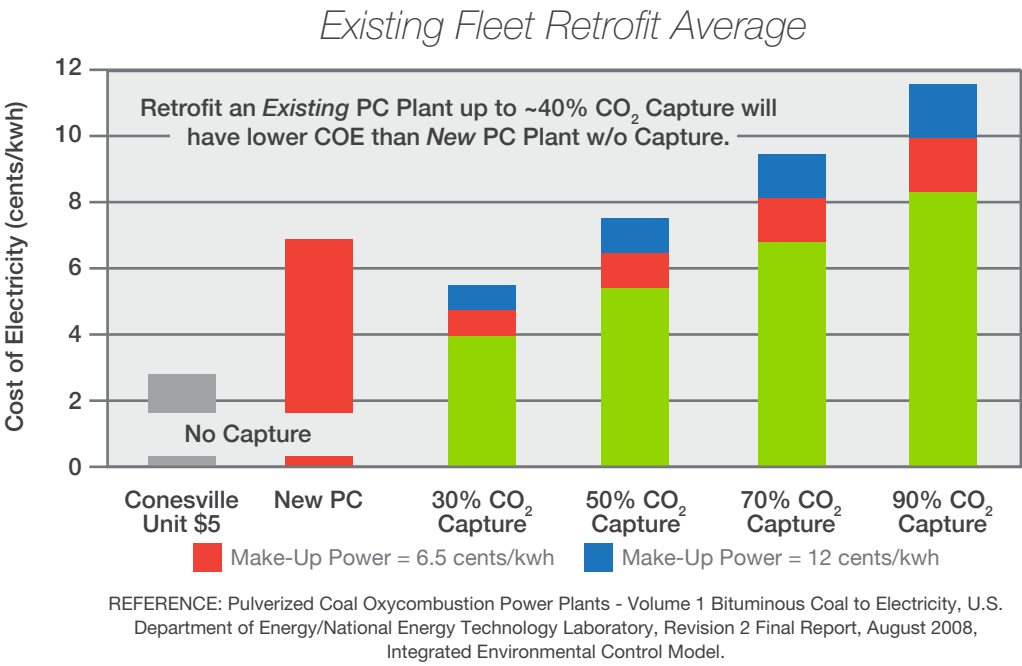
PULVERIZED COAL PLANT EFFICIENCY

VIVIFY's Clean Air Technology™ (CAT) has zero* parasitic load. Unlike conventional emissions control and carbon capture technology, CAT does not reduce plant efficiency.



COST OF ELECTRICITY FOR PULVERIZED COAL

Conventional technologies have significant parasitic loads, which reduce the net efficiency of a plant and increases the cost to produce electricity and in turn the cost of electricity to the consumer.



Information provided in this brochure was deemed current and accurate at time of publishing. VIVIFY cannot be held responsible for accidental or unintentional errors or omissions. Additional sources available upon request.



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