

Agenda | Rice Alliance Energy Venture Day | March 7, 2023

3:00 pm	Welcome Brad Burke , <i>Managing Director</i> , Rice Alliance for Technology and Entrepreneurship	
3:05 pm	Clean Energy Accelerator Class 3 Announcement Kerri Smith , <i>Executive Director</i> , Rice Alliance Clean Energy Accelerator	
	Natural Gas Innovation Fund (NGIF) Special Announcement Michael Hebert , <i>Principal</i> , NGIF Cleantech Ventures	
3:10 pm	Company Presentations	
	Carbon Capture & Monitoring	
	Jupiter Oxygen Cnergreen	Puloli
	Engines, Infrastructure, & Hardware	
	Nobel Works RadMax Technologies Luftronix	Anax Power 360Fuel
	Oilfield Technologies	
	RedShift Energy Corrolytics Impossible Sensing Energy	Aeon Blue CanaGas Osperity
	Renewables & AgTech	
	Criterion Energy Partners Uplift Solar	NTP Technologies Columbia Power Technologies (C-Power)
	Digital Solutions	
	FLOW Partners Kiana Analytics Algo8 Visionaize Feelit TurbineHub	Closure Liability Management Tierra Climate WellWorth Emission Critical DataSeer OperAid
	Materials & Hydrogen	
	H Quest Vanguard AeroShield Materials Nulyzer	Group1 Oceanways STARS Technology
	Battery & Power Storage	
	VIRV Hunt ACTion EarthEn	Piersica Quidnet Energy
5:20 pm	Awards Presentations to the Eight Most Promising Companies Felix Phillips , <i>Partner</i> , Baker Botts	
5:30 pm	Networking Reception - Anderson Family Commons & Woodson Courtyard	

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360Fuel
Houston, Texas

360Fuel's renewable energy infrastructure platform democratizes biofuel, EV supercharging, and long-duration energy storage, with solutions powered by AI that deliver both physical and digital transformation for fueling stations, their customer experience and supply chain through automation. 360Fuel extracts the most value from existing supply chain participants while disrupting legacy brands.

<http://360fuel.net>
Werlien Prosperie III | werlien@360fuel.net



Aeon Blue
Austin, Texas

Co-founded by a brother/sister team, Aeon Blue is currently developing an electrolyzer and integrated carbon capture technology that uses wind energy, saltwater, and carbon dioxide to make Aeon Blue Crude, a market competitive drop-in replacement for fossil oil that is up to 600% carbon-negative. Aeon Blue's novel patented interruptible saltwater electrolyzer works seamlessly with the wind and sun to produce green hydrogen, while their integrated CO2 cold capture technology pulls a vast amount of carbon from the atmosphere. This is all done with the same electrons: significantly reducing the cost of carbon capture while producing an extremely economical carbon-negative syngas.

<http://www.aeonbluetechologies.com>
Lark Meadow | lark@aeonbluetechologies.com



AeroShield Materials
Hyde Park, Massachusetts

While we love windows in our buildings and homes, they are thermal weakpoints. The US Department of Energy estimates 30-40% of all energy in buildings is lost through windows, equating to \$40B/yr in the US alone and 5% of all CO2 emissions. AeroShield Materials is making the world's most thermally insulating transparent inserts. Just four millimeters of our material inside a double-pane windows creates a product that is 65% more energy efficient, saving homeowners money and saving the environment. AeroShield is currently completing industry-standard performance and durability testing with the goal of launching first products in the next 1-2 years.

<https://www.aeroshield.tech/>
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INDUSTRIAL AI

Algo8
Toronto, Ontario

Algo8 is a cutting-edge startup that specializes in applying AI and machine learning technologies to industrial systems. Our flagship product, PlantBrain, is a digital twin software that provides real-time monitoring, predictive maintenance, and optimization capabilities for industrial systems such as refineries and power plants. We target industrial companies, system integrators and technology providers that serve these industries and generate revenue through service contracts, licensing and partnerships. Our team is composed of experts with a strong background in AI and machine learning, as well as extensive experience in the industrial sector, positioning us to make a significant impact in the industry.

<http://algo8.ai>
Himanshu Singh | himanshu@algo8.ai



Anax Power

Wharton, New Jersey

The 500kW Anax Turboexpander (ATE) repurposes the energy lost in the gas let-down process at pressure reducing stations (PRS) to drive a generator that is installed in parallel with the PRS. Since there is no combustion, gas transmission companies, producers, utilities, and large industrial sites can improve their return on existing infrastructure, reduce their carbon emissions, and create value through the sale of power. This system also enables these companies to offset their existing power consumption with cleaner and more cost-effective power. The technology is called a natural gas turboexpander generator, and it uses the gas' pressure, flow, and waste heat to generate 500kW of power per unit.

<http://www.anaxpower.com>

Michael Longo | mlongo@anaxpower.com



BidOut

Houston, Texas

BidOut is the leading procurement platform in the energy industry. BidOut was formed out of the basic need for one platform that streamlines the procurement process and connects service providers directly to the buyers. BidOut's mission is to put more control in the hands of the suppliers and streamline the bidding process for engineering, supply chain, and procurement on one easy-to-use platform.

<http://bidout.app>

Rodney Giles | rgiles@bidout.app



CanaGas

Leduc County, Alberta

CanaGas has developed and patented a low-cost way to liquefy and transport natural gas using large light-weight composite tanks nested inside of intermodal shipping containers. A 40-ft high-cube will safely carry 13.5 MT of gas as P-LNG (650 Mscf). Gas can be shipped by truck, train, or containership. No pipelines, no cryogenics, no special regulatory approvals required. The liquefaction process requires moderate pressure (80 to 90 Bar) and conventional chilling (-50 down to -70 C). The CAPEX cost to liquefy gas this way is 8% that of conventional LNG for the same daily production. OPEX costs are around 20% of conventional LNG. Using CanaGas transport modules, small scale biogas production is now made practical and feasible.

<http://www.t4plng.com>

Steven Campbell | scampbell@t4plng.com



Closure Liability Management

Calgary, Alberta, Canada, Alberta

Closure is a cleantech company with cloud-based SaaS for prioritizing, planning and scaling up of restoration activities. Traditional workflows are unsystematic and labour-intensive, for revenue-focused professionals. Closure's expands capacity by delivering more comprehensive analytics and programming in half the time. Worldwide, an enormous inventory of depleted sites has accumulated. It's estimated that unplugged wells emit approximately CO₂e of 2.4 T/year/well of methane and sites may be subject to land and water contamination. In the U.S., 2.5MM wells plus all associated infrastructure will require restoration over the remaining life of production. A truly generational problem.

<http://www.closurelm.com>

Les Kende | leslie@closurelm.com

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Cnergreen Calgary, Alberta

Cnergreen's mission is to help the oil industry and carbon storage industries in the energy transition. Cnergreen manufactures ArmorFoam. We tailor ArmorFoam treatments that will be injected into the client's reservoir underground. ArmorFoam reduces GHG emissions during oil recovery and unlocks pore space for more efficient CO2 storage. Any fluid (water, gas, CO2, hydrogen, steam) injected underground will suffer from the low sweep and poor access to reservoir pore space due to reservoir heterogeneity. ArmorFoam can unlock the unaccessed pore space for better resource recovery and gas storage.

<http://www.cnergreen.ca>
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Columbia Power Technologies (C-Power) Charlottesville, Virginia

C-Power's technology harnesses the power of the world's biggest and best battery – the ocean – to solve some of the biggest problems faced globally today. Our technology delivers significant value for our customers and partners by reducing the cost, complexity, insecurity, and carbon-intensity of their energy budgets. Our market opportunity stretches from our initial target of kW-scale offshore power and data communications for applications such as subsea tiebacks and remote inspection and monitoring to diesel replacement to grid-scale energy generation. Collectively, this represents over \$8 billion of serviceable market value today, growing to over \$180 billion within 10 years.

<http://cpower.co>
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Corrolytics Cleveland, Ohio

Corrolytics (founded 2020) is a technology startup company based in Cleveland, OH. Corrolytics developed a disruptive, electrochemical test kit technology that is able to detect and monitor when the growth of microbes is leading to corrosion for oil and gas assets. This technology is the only one in the market that can accurately measure and differentiate corrosion rate for both biotic and abiotic corrosion. This is important as the mitigation strategy is dependent on the types of corrosion detected. This technology is able to determine biocide efficacy and let our customers know if their mitigation strategy is working or not.

<http://www.corrolytics.com>
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Criterion Energy Partners Houston, Texas

Hard to abate sectors need to operate continuously, be resilient and have predictable costs all while reducing scope 1 & 2 emissions. The Criterion Geothermal System™ is a co-located solution for commercial and industrial consumers offering clean and reliable 24/7 baseload power. In tandem with the power, Criterion's Industrial DirectConnect™ technology will be integrated into large manufacturing operations to provide clean heat to help achieve decarbonization goals. Geothermal is everywhere but it has been geographically constrained. Through our developed system utilizing proven technologies like horizontal wells, multi-stage completions, reservoir stimulation and Binary Organic Rankine Cycle Turbines geothermal can be deployed in new markets today.

<http://www.criterionep.com>
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Houston, Texas

DataSeer automates extraction of data trapped on paper or images and digitizes it in a structured high-fidelity way, allowing for export out of the tool in a structured format like CSV or CAD-like drawing formats. We also offer API integrations into data pipelines or applications for large-scale data extraction. Our cloud-based SaaS tool can be used to support the entire lifecycle of a process facility in expansion of existing facilities, acquisition of a preowned process facility for retrofitting, operations & maintenance, and decommissioning. Our customers choose DataSeer because they want to accelerate what is a mostly manual process of data extraction and to add value to their existing product portfolio offerings. They get a more efficient & collaborative way of working, while increasing margins.

<https://www.dataseer.digital>
Jo-Anne Ting | jting@dataseer.digital



EarthEn

Chandler, Arizona

EarthEn is developing flexible & future-proof long duration energy storage solutions that use CO2 in a closed loop to store 4-100+ hours of energy at a low cost & highly scalable manner. Our SaaS tools leverage AI/ML & our storage assets to optimize peak demand pricing & use predictive analysis to enable grid resiliency by ensuring our storage assets come online to prevent grid power loss. Our novel thermo-mechanical storage solution is patented and we're working with agencies like EPRI & strategic national labs to scale our systems up in EPRI's Charlotte, NC labs later this year. Our storage solutions blow current storage solutions out of the water across dimensions like cost, scalability, flexibility, future potential, carbon sequestration, size & safety.

<https://www.earthen.energy/>
Manas Pathak | manas@earthen.energy



Emission Critical

Houston, Texas

Emission Critical is on a mission to enable and expand the low-carbon economy, and is combining the latest advances in software, lifecycle analysis and climate science to accelerate climate ambitions of the hard-to-abate energy sector. We provide an integrated SaaS Carbon Emissions Platform that tracks product carbon footprints, analyzes abatement opportunities and streamlines climate disclosures. Customers can quickly integrate climate into their operations, project evaluation and procurement decision processes by pricing carbon and allocating emissions to products and/or services. Empower your sustainability and commercial teams by delivering transparency with a single trail of fully auditable, and traceable carbon emission profile for every product/service.

<http://emissioncritical.io>
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Feelit

Houston, Texas

Feelit developed an adhesive AI nano-sensor that provides real-time asset health monitoring. Unlike traditional solutions, Feelit is non-intrusive, so it doesn't require invasive installation and comes with built-in AI that alerts operators in real-time to any abnormalities. Feelit's asset monitoring solution delivers proprietary data analytics, which can easily integrate into the existing user interface and IoT systems with a quick ROI. This end-to-end agile sensing and analytics solution combining hardware and software provides actionable insights that optimize the usage of the monitored assets in real-time.

<http://feelit.tech>
Shoshi Kaganovsky | shoshi@feelit.tech



FLOW Partners

Chapel Hill, North Carolina

FLOW solves the Energy investor's problem of understanding asset performance by combining big data analytics, software, and proven hedge fund processes. FLOW has built proprietary transient b-factor well forecasting and a range of customer apps. Our impact ranges from predicting gathering pad volumes to basin-wide production forecasts. Customers use our tools and research to invest in public securities, determine long-range fixed asset strategy, and to make macroeconomic calls.

<http://www.flowoilwell.com>
Tom Loughrey | tom@flowoilwell.com



Enhancing Geothermal Energy

Geothermal Wells

Lindale, Texas

Geothermal Wells LLC (GTW) with its subsurface & power plant technology partners deliver >5MW of electrical power and/or direct industrial heat 24/7/365 with 99.9% reliability from 'ANY' subsurface (350-390 deg F) geothermal resources. GTW is a startup company. A few of GTW's future long term client base include: US Department of Defense, US DOE Projects, Industrial Paper Mills, Food Processing Plants, Textile, Metallurgical & Ceramic Mfg.

<http://www.geothermalwellsllc.com>
Mike Chambers | mike@geothermalwellsllc.com

Group1.ai

Group1

Austin, Texas

As we transition away from fossil fuels, and EV adoption accelerates, demand for high-quality batteries is spiking. Lithium shortages are starting to emerge and will continue. Founded in 2021 and based in Austin, Group1 focuses on the commercialization of potassium-ion batteries (KiBs). The core technology was invented in the laboratory of 2019 Nobel laureate UT-Austin Professor JB Goodenough, co-inventor of the lithium-ion battery. Group1's product, Kristonite™, is a low-cost, high-capacity cathode material for KiBs that contains no critical minerals such as cobalt, nickel, and lithium. It is a "drop-in" replacement for lithium-ion battery (LiB) cathode material and is compatible with existing LiB manufacturing infrastructure. Group1 is the first company to practically enable high-power and long-cycling KiBs.

<http://www.group1.ai>
Alexander Girau | alex@group1.ai



H Quest Vanguard

Pittsburgh, Pennsylvania

H Quest Vanguard, Inc.'s has developed an electrically powered chemical conversion platform that leverages Microwave Plasma Pyrolysis to liberate zero-CO2 hydrogen from natural gas using only 25% of energy required by electrolysis, while co-producing a high-value carbon or petrochemical co-product. The small scale, modular system can be deployed in a range of legacy facilities for all use cases, allowing the customer to use low-cost hydrogen to decarbonize without major capital expenditures or hazardous hydrogen transportation. Monetization of the high-quality co-product allows H Quest to deliver hydrogen 10x cheaper than that commercially available today.

<https://www.h-quest.com/>
George Skoptsov | gls@h-quest.com

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Hunt ACTion Dallas, Texas

Hunt's ACTion utilizes innovative cathode manufacturing approaches to produce higher performance, low-cost, and durable cathode materials that enable existing and next-generation cathode chemistries to drop-in to better and cheaper batteries for high energy density applications including electric vehicles. ACTion offers a coated single crystal approach that can be chemistry agnostic and reduce manufacturing cost by nature of its technology.

<http://huntenergyenterprises.com>
Jin Lim | Jlim@huntenergy.com



Hybrid Automation Derry, New Hampshire

For decades, oil and gas producers have used methane from wellheads to power pneumatic actuators. The result is toxic methane vented directly to atmosphere whenever the actuator is stroked. Biden Executive Order 13990 authorizes the EPA to eliminate methane venting to atmosphere from gas-powered pneumatic actuators. Our technology allows existing methane powered actuators to be closed loop, meaning zero venting to atmosphere. Producers capitalize on keeping actuators and valves in place, avoiding costly pipeline closures to replace existing infrastructure with expensive retrofit equipment. Proven reliability with 200,000 consecutive cycles and zero failures while providing tangible results toward ESG goals.

<http://www.hybrid-automation.com>
Bob Connal | hybridautomation1@gmail.com



Impossible Sensing Energy Calgary, Alberta

We work with our customers in the oil & gas industry to identify critical data and measurement gaps and introduce industry-first solutions to close those gaps. Our solutions build on pioneering optical sensing technologies developed for advanced space exploration that deliver unprecedented sensitivity and reliability. We are an affiliate of Impossible Sensing, a US-based firm that creates leading-edge technologies to find life and resources on every planet and ocean in the solar system. At is.energy, we turn these innovations into solutions for producers to deliver cleaner oil and gas while capturing economic benefits.

<https://isenergy.ca/>
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Ionada Carbon Solutions Houston, Texas

Ionada is Supported by NGIF Industry Grants and the Halliburton Labs Clean Energy Accelerator Program. Our pilot system proves Ionada's technology can remove up to 99% of the carbon dioxide emissions for the energy, marine, and e-fuels. Ionada's modular systems are up to 50% smaller and 30% lower operating cost than competitive conventional carbon capture systems. Our smaller size, lower CAPEX and OPEX has generated strong interest from clients in the industrial, oil and gas and marine sectors. We customers interested in collaborating with us to develop a pilot system for their facilities. We are seeking our Series A funding to complete a demonstration system and move forward with commercial deployment.

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Jupiter Oxygen Des Plaines, Illinois

Jupiter Oxygen Corporation is a pure-play oxy-combustion carbon capture technology company focused on providing low-carbon solutions to power and hard-to-decarbonize industrial sectors. Our patented and trade secret-protected solutions have been perfected over 20+ years of commercial use in aluminum recycling. Over the last five years, we have invested heavily in R&D related to the toughest problem facing our civilization: clean energy generation. Our TRL 7 Blue Energy™ technology allows fossil fuel-burning generation plants to cut carbon emissions by 97% while eliminating capital and operating expenses related to NOx controls.

<http://www.jupiteroxygen.com>
Steven Krinsky | skrinsky@jupiteroxygen.com



Kanin Energy Houston, Texas

Kanin Energy brings a fresh perspective to waste heat to power projects by leveraging deep expertise in carbon markets, project finance, and energy policy. Its innovative third-party financing model and turnkey development approach enables industrial partners to quickly monetize waste heat while significantly mitigating risks of deployment. Never has it been this easy for industry to decarbonize operations with cash-flow positive projects.

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Kiana Analytics Sunnyvale, California

Kiana leverages existing infrastructure sensors such as Wi-Fi, Bluetooth, Ultra-wideband, Security cameras to capture mobile and IoT device broadcasts to detect the presence of assets, visitors, and employees. Large volumes of real-time data are collected from each device to provide behavior analytics and insights, create the location and presence-based alerts, and dynamically manage asset, visitor, and workflows. We deliver tangible and proven VALUE IN DAYS: - increase speed to action, insight, and reaction, drive traceability, accountability, and quality, and control and reduce operational risk. Businesses worldwide use Kiana's data to strengthen on-site security and improve employee health and safety.

<http://www.kiana.io>
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Luftronix

Franklin Lakes, New Jersey

Luftronix creates fully autonomous inspection solutions by collecting data with high-precision drones to ensure sub-millimeter precision measurements and guarantee coverage of the inspected surface - enabled by the patented navigation system that allows precision movement in 3D space by optical means without the need for GPS. Luftronix inspection stations consist of one or more drones, communication equipment, navigation instruments, flight planning tools, a flight operations station and analytics tools. Automating inspections in enclosed spaces or complex geometries like pipe racks, drilling rigs, storage tanks or pressure vessels allows Luftronix customers to minimize the inspection part of a turnaround & reduce workplace safety risks due to a drastically reduced need to provide access for humans to hazardous locations.

<http://www.luftronix.com>
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MorSolar

Georgetown, Texas

Our Solar cells can make - 22% more power. Our Solar cells can eliminate a process step equal to 30% of the current manufacturing cost. Our solar cell will make power 40% longer during daylight. Our solar cells can be made in any semiconductor fab on earth - eliminating China AND eliminating the capital need for a new manufacturing facility built in the USA. Our cell has been engineered, tested (via TCAD simulation) and we even have a USA semiconductor fab ready to make it. Our background is 15 years of DOD research in radiation Hardened electronics and 12 patents. Now I need \$5 million in Round A money to make the prototype. In 8-10 months WE can become the new technology standard for a \$200b/yr market. A simple press statement on our prototypes performance will quintuple the value of your investment.

<https://www.morsolar.com>

Joshua Morris | joshua@morsolar.com



Nobel Works

Tucson, Arizona

Nobel Works is developing rotating detonation engine (RDE) technologies to improve fuel efficiency by 25% versus typical combustion and reduce harmful carbon emissions. The application of this novel technology introduces a capture opportunity within a \$13.5 trillion worldwide energy market and the prospect of disrupting numerous industrial sectors. Formed by Raytheon management and engineers, the company is focused on rapidly developing the RDE power generation purposes. With the ability to create and control detonation waves in their current engine systems, Nobel seeks to raise venture capital in order to scale this innovative technology.

<http://www.nobel-works.com>

James Villarreal | james@nobel-works.com



NTP Technologies

Midlothian, Virginia

NTP uses proprietary non thermal technology to produce nitrates (NO₃) onsite and on demand as a substitute for synthetic nitrogen fertilizers. Inputs are air (N₂ and O₂) and renewable energy to produce a zero carbon, organic, salt free, cost effective alternative. Synthetic nitrogen fertilizer is a \$160B worldwide market and produces 1.5-3% of our GHG and 2-3% of the natural gas produced. Our initial target market is the Future Farmer (hydroponic, vertical farms, indoor farms) with our second market being groundskeepers (golf course, colleges and universities, municipalities, and athletic complexes). Our technology is proprietary and we have filed 4 additional provisional patents.

<http://www.ntptechnologies.com>

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Nulyzer

Santa Clara, California

Nulyzer develops advanced electrolysis technology to solve the most critical challenges for green hydrogen production. Our technologies significantly reduce precious metal catalyst usage, lower stack cost and improve hydrogen generation efficiency. Besides, we improve electrolyzer manufacturing, making it much easier and faster, and therefore can further reduce the cost. We have experienced team and top tier advisory board, who can ensure successful implementation of our business plan, and accelerate the path towards green hydrogen economy.

<https://nulyzer.com/>

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Oceanways

London, United Kingdom

Oceanways™ is the world's first zero-emission cargo submarine fleet and we begin with green hydrogen transport underwater with low upfront cost and flexibility. We call these virtual pipelines.

<https://www.oceanways.co/>
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OperAid

Atlanta, Georgia

Most industrial accidents follow distinct patterns. OperAid software improves Process Safety Management by identifying and mitigating patterns that lead to industrial accidents. By integrating digitization with work verification and human insight, the software prevents field mistakes and generates leading real-time metrics. Using IIoTs, OperAid verifies field equipment and ensures Technicians follow all workflows. Soon, the software can analyze data patterns from various sources to extract critical information to prevent future similar incidents. This approach to Process Safety Management would lead to fewer accidents, reduced costs, and improved efficiency.

<https://operaidsoft.com/>
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Osperity

Houston, Texas

Our technologies and platform allow industrial operations the ability to manage remote industrial operations visually by exception through our AI enabled Computer Vision on a variety of use cases. Along with the management by exception capabilities, automated visual inspections can be set up and delivered to the clients for their remote assets as required by the end user. Our applications / use cases are truly an enterprise solution, our users span an organization from HSE, Operations, Finance, Security and Regulatory to mention some. Our system is camera agnostic so we can connect to existing hardware in the field and deliver the capabilities via corporate network, LTE or Starlink.

<http://osperity.com>
Paul Ritchie | pritchie@osperity.com



Perceptive Sensor Technologies

Tucson, Arizona

Perceptive Sensor Technologies (PST) provides the only non-intrusive inspection hardware and software solution that can rapidly identify, monitor, & track the liquid contents inside pipes, tanks, vessels, or containers. Perceptive has developed & commercialized this unique technology for the industrial and commercial sectors. This technology provides continuous real-time information at the facility level, cloud-based analytics on infrastructure, event detection, incident prevention, and critical information for operational decisions as well as regulatory compliance reporting. PST has developed two products from this technology. Transmix ID is an IIOT device that identifies flowing liquids in a pipe in real time & Tank ID that alerts users of overfills in large AST tanks.

<http://www.perceptivesensors.com>
Jim Paladino | jpaladino@perceptivesensors.com

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Photon Vault

San Ramon, California

The Photon Vault has revolutionized grid-scale energy storage. Renewable energy penetration is causing increasing electricity price volatility in wholesale markets. The Photon Vault is a patented thermal energy storage system, designed to address this increasing volatility. More than 50% cheaper than Lithium-Ion batteries for short duration storage, 80% cheaper for long duration, and an incredible 95% cheaper for 100hr+ cases such as municipal resilience and the protection of critical infrastructure and services. No exotic or rare materials. No constraints on supply chains. The Photon Vault is designed to be competitive today, in real-world markets, without subsidies, making it uniquely competitive throughout the world, regardless of policy supports.

<http://www.photonvault.com>

Kent McCormick | kmccormick@photonvault.com



Piersica

Piersica

Tallahassee, Florida

Piersica is a battery tech startup developing a safe, clean solid-state battery with > 2x the energy of commodity Li-ion. Piersica's technology team is creating new materials and utilizing revolutionary technologies to create high-performance batteries for current and future uses. Piersica is developing safe and clean batteries with higher voltage, greater storage capacity, and faster-charging capabilities for a wide variety of existing and future applications.

<http://www.piersica.com>

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Pressure Corp

Pressure Corp

Houston, Texas

Pressure Corp provides industrial facilities and the distributors and operators of natural gas and hydrogen pipelines the ability to monetize their waste pressure by transforming this resource into turnkey clean energy. We leverage proven turboexpander generator technologies for our waste pressure power system and third-party capital to eliminate the technical and financial risk for host facilities. Pressure Corp enables our host customers to focus on their core business while adding to their bottom line and achieve a critical Environmental, Social, and Corporate Governance (ESG) objective - reducing emissions.

<https://www.pressurecorp.com/>

John Happ | jhapp@pressurecorp.com



Puloli

San Francisco, California

Puloli, an end-to-end turn-key IoT solutions provider for energy industries using its own private 5G-IoT network, offers 3rd party, independent, highly scalable, basin-wide continuous methane monitoring subscription service to upstream and midstream companies. State of the art methane sensors are integrated with edge compute, IoT network, and cloud compute to deliver next generation of detection, estimation, and source identification features that enable RSG/RSO certification, leak detection & repair, and regulatory compliance for EPA and SEC Scope 1 metrics.

<http://www.puloli.com>

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Quidnet Energy
Houston, Texas

Quidnet Energy's technology is an adaptation of centuries-old gravity-powered "pumped storage," but without reliance on elevated terrain and complex civil works, thus enabling widescale deployment of pumped storage at a fraction of the cost. Quidnet is led by a purpose-built team of power and O&G developers, and has completed pilots in real-world environments across diverse geographies (including Texas, Ohio, New York and Alberta, Canada). The company secured a 15-year deployment contract with CPS Energy (largest US municipal utility), and was recently awarded \$10M in the US Department of Energy SCALEUP competition, the only energy storage company to win that award.

<http://www.quidnetenergy.com>
Joe Zhou | jzhou@quidnetenergy.com



RadMax Technologies
Spokane, Washington

RadMax Technologies is a small research and product development company creating smaller, lighter and more energy-efficient devices for "green power" engine, compressor, pump and gas expander applications based on patented positive displacement axial sliding vane technology. Primary areas of focus include generation of green electricity at natural gas production, distribution and end use pressure reduction points; improved air conditioning / refrigeration cycle efficiency; improved steam cycle power generation efficiency; efficient power generation from geothermal energy and bio-waste products; and the development of an efficient and low carbon footprint hybrid cycle engine for hybrid-electric transportation and power generation applications.

<http://radmaxtech.com>
Lynn Petersen | lpetersen@radmaxtech.com



RedShift Energy
Corpus Christi, Texas

RedShift Energy, Inc. is developing, patenting, and commercializing its refinery scale carbon-free hydrogen production process. Hydrogen sulfide (H₂S) is the feedstock for this plasma-based process. H₂S is a dangerous by-product of the refining and gas-separation processes and is not a source of hydrogen today. During oil desulfurization, hydrogen produced from hydrocarbons with associated carbon dioxide emission is converted to hydrogen sulfide. Each refinery has a sulfur recovery unit that converts H₂S to sulfur and steam. Plasma dissociation of H₂S using electricity from renewable sources enables recycling of hydrogen at refineries and to produce carbon-free hydrogen at gas separation plants.

<http://www.rsenrg.com>
Howard Nelson | howard@rsenrg.com



Senslytics
Oklahoma City, Oklahoma

Senslytics' patented hybrid AI platform provides reliable interpretations where 'big data' is not available. This data light approach creates dependable projections in real time because it is based on multiple views of a situation rather than correlations of large data sets. Senslytics has been proven in wireline formation testing to determine the contamination level of reservoir fluid and mudgas logging to derive near ground truth quality estimates of gas-oil ratio and net pay. The technology is broadly applicable and uniquely equipped to identify outliers, like pipeline ruptures caused by corrosion, where there is a significant delay between cause and effect.

<http://senslytics.ai>
Blake Bixler | blake.bixler@senslytics.com

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STARS
Technology Corporation

STARS Technology
Richland, Washington

STARS, an OEM provider of microchannel process technology, is commercializing advanced, microchannel chemical process technology previously developed at the Pacific Northwest National Laboratory (PNNL) for the US Department of Energy and NASA. STARS' award-winning and patented microchannel reactors and heat exchangers are compact, process-intensive, mass-producible, and energy- and carbon-efficient, enabling affordable solutions to problems where distributed processing and economies of hardware mass production provide economic advantages. An initial demonstration of STARS' first commercial-scale, Clean H2 Generator is underway in California.

<http://www.starsh2.com>

Robert Wegeng | robert.wegeng@starsh2.com

TERRASTOR

TerraStor Energy
Fort Worth, Texas

TerraStor enables electrical grids to achieve 100% renewable penetration by developing grid-scale, long-duration energy storage systems. We deploy advanced compressed air energy storage (ACAES) technology to create giant mechanical batteries, utilizing free and abundant air and natural geology for a clean, simple, and economic storage solution.

<http://terrastor.co>

Matthew Ciardiello | matt@terrastor.co



Tierra Climate
Houston, Texas

Tierra Climate is a two-sided marketplace that offers sustainability-minded corporates carbon offsets linked to newbuild energy storage. In essence, corporations compensate energy storage facilities for carbon 'as-abated, which would be traded in a liquid marketplace. In addition to the marketplace, Tierra Climate offers energy storage operators a battery optimization software that maximizes value across both power and emissions.

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TurbineHub
Avon, Colorado

TurbineHub is a company that specializes in providing a comprehensive solution for the wind energy industry. The company has developed a unique software that integrates over 250 data layers with a wind energy-focused economic model. This integration enables users to generate superior deal generation and asset level returns. The economic model is built to analyze different scenarios, taking into account various factors such as costs, revenues, and risks, which allows wind energy developers to make data-driven decisions. The combination of the economic model and data layers provides a holistic view of the wind energy market, enabling developers to identify new opportunities, optimize costs, and maximize returns.

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Uplift Solar
Las Vegas, Nevada

Our thin electronic boosts energy output and increases safety in solar panels, and is the missing ingredient to allow OEMs who make building-skin solar such as shingles and facades to finally be competitive with traditional solar products, and reduce overall costs. Building on an existing portable solar product (for marine and transport markets), we will extend our technology platform to support architectural solar, traditional solar markets, and eventually energy storage technologies.

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VIRV
Denver, Colorado

Construction sites throughout the US and globally have a dependency problem with temporary power. This dependency comes at a financial, environmental, health and safety cost. Today's solutions are antiquated, unreliable and inefficient. VIRV is developing battery-based power systems with scalable capacity, that provide the convenience of a static power source coupled with the flexibility of a distributed power solution. Through its distributed power product, RoamPak, housed within its scalable, mobile, static power system, GenPak, VIRV is disrupting the off-grid power market. VIRV's technology is enabling users to have disruptive, clean power, providing for the first time, a true competitor to the old fossil fired power systems used everyday by millions of people to earn a living.

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Visionaize
San Jose, California

Visionaize helps complex industrial facilities operate more safely and efficiently with our Operational 3D Digital Twin software, replicates real-world complex industrial assets and generates an immersive 3D digital model. We also help improve worker safety by allowing many tasks to be performed remotely and minimizing the time humans spend in hazardous environments through more efficient planning and execution of critical inspection and maintenance activities. Major industrial organizations like Saudi Aramco, Shell, Onatrio Power Generation and others have seen great ROI and we have partnered with GE Digital, AWS, Accenture, PWC and other large companies to expand our footprint in Energy including Renewables, Nuclear and Manufacturing industries.

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WellWorth
Houston, Texas

Granular well-level reserves data is too bulky for Excel, therefore, finance teams source aggregated data from engineering teams to build corporate models. Scenario analysis (e.g. price, costs, risking, drilling schedule etc.) requires weeks of to-and-fro between the two teams. WellWorth works with well-level data and helps finance teams: 1) perform asset valuation, 2) evaluate prospective deals standalone, or roll them up into a portfolio corporate model, 3) model corporate items like G&A, hedges, RBL, debt, equity etc. This integrated workflow lets customers flex asset-level and corporate-level assumptions, and see the effect on full-cycle economics and capital requirements, within minutes.

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Wootz

Cleveland, Texas

Wootz was founded in 2018 to bring carbon nanotube supermaterials to market. Our core technology is a scalable manufacturing process that produces aligned carbon nanotube materials with tunable multifunctional properties at cost-competitive prices. Created for the 21st century, our carbon nanotube supermaterials eliminate the need for costly form vs. function material tradeoffs across a wide range of applications.

<http://wootznano.com>

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