NGIF CAPITAL

Maximizing Returns Through **Energy-Backed Cleantech Ventures.**

Recognized two consecutive years by the Canadian Venture Capital & Private Equity Association (CVCA)

Cleantech Ventures Fund I

PERFORMANCE REPORT 2024

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Message from the Managing Partner

At NGIF Capital, we invest with a clear purpose: accelerating technologies that enhance Canada's natural gas sector's performance, efficiency, and resilience. In 2024, low commodity prices continued to place pressure across the value chain, making it more difficult for startups to gain commercial traction and slowing adoption timelines. Yet in the face of these challenges, our portfolio companies delivered. Several have achieved critical technical milestones, secured follow-on capital, and advanced commercial deployment, demonstrating the strength of targeted, sector-aligned investment.

Capital markets offered no relief. Persistently high interest rates and broader economic uncertainty contributed to a risk-averse venture environment, making early-stage fundraising more difficult across sectors. Despite this, NGIF Capital remained active. We welcomed new innovators into the portfolio, including **Carbonova**, which closed an oversubscribed $6MM round to advance its carbon nanofiber technology, converting natural gas-derived CO_2 into high-performance materials; and **Qube Technologies** raised Series B funding to scale its continuous methane monitoring platform, helping operators reduce emissions and meet evolving regulatory commitments.

Despite a risk-averse venture environment, we saw renewed momentum around innovation that improves energy performance, cost competitiveness, and infrastructure reliability. Policy developments, such as the rollout of the Clean Technology Investment Tax Credit, reinforce the push for modernization. At the same time, geopolitical tensions and global supply chain pressures elevate the importance of energy security and reliability. At NGIF Capital, we view these dynamics not as trade-offs but as complementary drivers of

innovation, and we are committed to backing technologies that respond to both.

As we look ahead, NGIF Capital is evolving alongside our sector. Our close alignment with natural gas producers, midstream operators, and utilities gives us a unique ability to connect startups with the pilots, field demonstrations, and potential customers they need to validate performance and scale. We continue to explore opportunities to extend our investment model to support technologies that create value within the natural gas sector and across Canada's broader industrial economy. This evolution builds on the foundation that continues to set NGIF Capital apart: deep sector expertise, technical diligence, and a proven ability to translate innovation into commercial impact.

To our limited partners, founders, and collaborators, thank you for your continued trust and support. Together, we are investing purposefully and helping shape Canada's next chapter of energy innovation.

John Adams
Managing Partner, Cleantech Ventures

The NGIF Capital Story

Founded in 2021, NGIF Capital is a venture capital firm with a unique industry-backed model designed to accelerate the development and commercialization of market-validated solutions for Canada's natural gas sector. What sets NGIF Capital apart is the direct involvement of Canada's leading energy companies, bringing operational insight, strategic alignment, and commercial validation to every investment.

Today, NGIF Capital manages $50MM through its Cleantech Ventures Fund I (Fund I), with a national presence anchored by offices in Calgary, Ottawa, and Montreal. The fund is backed by a consortium of leading Canadian natural gas producers, midstream operators, and utilities, which are our limited partners. Their strategic involvement ensures our investments are aligned with industry priorities, technical relevance, and commercial applicability.

Our model offers startups more than capital: it provides strategic guidance and access to a built-in network of potential customers. Through our integrated relationship with NGIF Accelerator, we provide a full-spectrum commercialization platform.

NGIF Accelerator operates the Industry Grants program and administers the NGIF Emissions Testing Centre (ETC) program in Calgary, supporting early-stage startups with non-dilutive funding, technical validation, and commercialization support.

Since its inception, NGIF Capital has remained focused on advancing solutions that reduce emissions, improve efficiency, and enhance the environmental performance of the natural gas value chain. At the same time, we also recognize the broader applicability of many of these innovations. As we look ahead, we're expanding our reach to support scalable technologies that deliver value not only to natural gas but also to adjacent industries, including Canada's incumbent primary and secondary sectors. NGIF Capital serves as a bridge between sector-driven innovation and commercial deployment to accelerate scalable, high-impact technologies.

At NGIF Capital, we don't just fund innovation. We shape the future of energy by helping the next generation of technologies reach customers, scale, and impact.

Fund I Overview

Investment Thesis

Fund I invests in early-stage technologies that enhance the environmental and economic performance of Canada's natural gas sector. Our investment thesis is grounded in the belief that industry-aligned innovation is critical to reducing emissions, improving efficiency, and ensuring natural gas's long-term competitiveness in a changing global energy system.

We invest at the **Seed to Series A stage**, where capital and strategic guidance can have the greatest impact. Our **typical cheque size is ~$1.75MM**, and we have the flexibility to lead or follow in syndicated rounds. We seek startups with diverse teams, differentiated IP, and a clear pathway to commercial deployment.

We prioritize solutions that deliver measurable improvements across ten categories: **energy efficiency, heat and power generation, low-emissions transport, hydrogen, renewable natural gas, water management, digital transformation, value-added products, methane mitigation, and carbon capture, utilization & storage.**

NGIF Capital brings more than capital. Backed by a consortium of leading Canadian natural gas producers, midstream operators, and utilities, we offer our portfolio companies access to customers, field testing environments, and technical expertise.

Through our integrated relationship with NGIF Accelerator, we gain early visibility into emerging technologies supported by non-dilutive funding and pilot-scale validation, helping us invest with greater insight and confidence.

Meet Our Team

We are a multidisciplinary team of venture capital professionals bringing together deep domain expertise in cleantech, energy, gas operations, finance, corporate law, and business management. United by a shared mission, we work to accelerate the commercialization of innovative technologies that deliver environmental and economic value.

Over the past four years, we've demonstrated our ability to invest strategically and support early-stage companies through scale. We've built a strong co-investment network, completed 13 investments, and actively contributed to board governance and strategic guidance across our portfolio. Our collaborative approach enables us to **identify, evaluate, and support high-impact startups**, helping them scale solutions that reshape the natural gas sector and advance innovation across Canada's energy and industrial ecosystems.

John Adams

Managing Partner

Experience: *31 years of experience in cleantech, management, venture capital, and finance. John is a board member at Clean Resource Innovation Network (CRIN) and Tidewater Renewables (TSX: LCFS).*

Education: *B.Sc. Environmental Science (University of Toronto), Venture Capital Executive Education Program (University of California, Berkeley), ICD. D certification (in progress).*

Akhil Abat

Partner

Experience: *16 years of experience in gas plant operations, venture capital, and strategic innovation. Akhil is a board member/observer on several Cleantech Ventures portfolio companies.*

Education: *B.Tech. Chemical Engineering (Kurukshetra University), MBA (Cornell University).*

Abdul Qadir

Director, Finance

Experience: *19 years of experience in audit, financial controls, and risk management at KPMG, EY, TRG, and Jazz. Abdul is also a member of CFO Committee of the Canadian Venture Capital & Private Equity Association.*

Education: *MBA (University of London), Chartered Professional Accountant (CPA), and Associate Chartered Certified Accountant (UK).*

Isaac da Silva Aboo

Principal

Experience: *9 years of experience, including corporate law in the Emerging and High Growth Companies group at Osler, Hoskin & Harcourt LLP, venture capital investing and holding board observer seats on several Cleantech Ventures portfolio companies.*

Education: *B.Mgmt. (Dalhousie University), JD (University of Ottawa).*

Haley Jabusch

Analyst

Experience: 10 years of experience supporting startups, focusing on cleantech innovation and early-stage investing. Multidisciplinary background in chemistry, geology, and finance.

Education: *B.Sc. Environmental Chemistry and B.Sc. Applied and Environmental Geology (University of Calgary), MBA Finance (Haskayne).*

Fund I Limited Partners

Company	Geography	Supply chain	Description
TOURMALINE	Canada	Upstream	As Canada's largest natural gas producer, Tourmaline is focused on long-term growth through exploration, development, production, and acquisition in the Western Canadian Sedimentary Basin. They are committed to reducing emissions and have a strategy for systematic cost reduction.
ARC RESOURCES LTD.	Canada	Upstream	ARC Resources is a leading energy company with the largest responsibly produced and certified production base in Canada, located in the Montney region of Alberta and northeast British Columbia.
BIRCHCLIFF ENERGY	Canada	Upstream	An intermediate oil and natural gas company concentrated in the Montney/Doig Resource Play in Alberta, emphasizing ESG initiatives and operational focus on the Peace River Arch area.
TC Energy	North America	Midstream	An energy infrastructure company operating pipelines, power generation, and gas storage facilities across North America with a strategic approach towards earnings growth and financial discipline.
ATCO	Canada	Downstream	ATCO is a Canadian multinational corporation specializing in energy, logistics, and engineering services. Founded in 1947 and headquartered in Calgary, Alberta, ATCO operates in various sectors, including electricity generation and distribution, natural gas production and distribution, and construction.
FORTIS BC	Canada	Downstream	A key energy provider in British Columbia, FortisBC delivers renewable energy, natural gas, electricity, and propane to over 1.2MM customers. The company is committed to a lower-carbon energy future and operates several hydroelectric plants on the Kootenay River.
TriSummit UTILITIES	Canada	Downstream	TriSummit Utilities operates as a stable utility and renewable power business, owning and managing assets that generate low-risk, stable earnings and cash flow. Their portfolio includes regulated natural gas distribution utilities and long-term contracted renewable power assets, contributing to a diversified energy mix in Canada.

ESG Impact

ESG Impact Overview

Environmental, Social, and Governance (ESG) considerations remain relevant for many investors. Given that many of our portfolio companies are in the early stages of commercialization, their internal ESG programs may still be in the process of development. However, the direct environmental benefits many of our investees might deliver — through emissions reductions, enhanced water stewardship, and energy efficiency gains — can be significant. To profile these, we have evolved our reporting to show how our portfolio companies might contribute to environmental improvements at scale.

We're pleased to share the following portfolio-wide insights gathered through our 2024 ESG data collection process. To protect company confidentiality, all responses have been aggregated and presented without attribution. This dataset encompasses all portfolio companies from Fund I as of the end of 2024.

Environment

NGIF Capital was built on the conviction that environmental performance and venture returns are not only compatible — they're mutually reinforcing. Our investments target early-stage technologies that deliver measurable environmental outcomes: reduced methane and CO_2 emissions, enhanced water stewardship, and more efficient resource utilization.

This isn't just environmental compliance — it's environmental enablement. With deep sector alignment and active industry partnerships, we're uniquely positioned to scale the tools that improve energy efficiency and reduce emissions while generating attractive, risk-adjusted returns.

Several Fund I portfolio companies are directly enabling measurable environmental improvements across the industrial value chain. These companies don't simply set environmental targets — they deliver technologies that help large operators achieve theirs. **Ekona Power**'s methane pyrolysis process produces hydrogen with up to 90% lower greenhouse gas emissions than conventional steam methane reforming methods. **Westgen Technologies** reduces methane venting at remote oil and gas sites by replacing gas-driven pneumatic systems with hybrid-power solutions. **CarboNet Nanotechnologies** enhances industrial water treatment by improving contaminant removal, reducing chemical use, and enabling greater water reuse. **Carbonova** transforms carbon dioxide and methane into high-performance carbon nanofibers for use in concrete, plastics, and textiles, creating valuable end products while diverting greenhouse gases from the atmosphere.

These solutions reflect NGIF Capital's focus on capital-efficient technologies that deliver practical, scalable environmental performance across Canada's energy and industrial sectors.

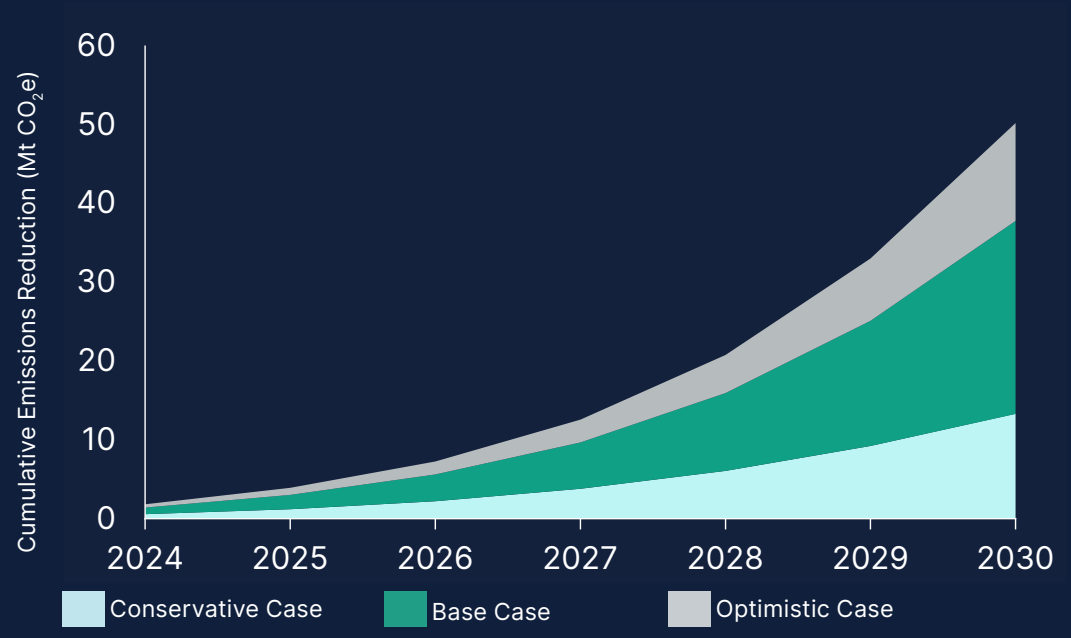
Results

ENVIRONMENT

GHG Emissions Reduction Impact Across the Portfolio:

Our GHG accounting framework is designed to quantify the emissions reduction potential of Fund I portfolio companies over a given time period. Reductions are estimated using a life-cycle model that captures emissions sources, sinks, and reservoirs associated with production, transportation, and end-use activities.

The figures below represent the cumulative emissions reduction impact projected from 2024 to 2030 for 13 companies. These projections are third-party verified and updated periodically as new market deployment data becomes available.



Conservative Case

13.3 Mt CO_2e

Base Case: 37.8 Mt CO_2e

Optimistic Case: 50.2 Mt CO_2e

Social & Governance

SOCIAL

NGIF Capital's social metrics highlight how our portfolio companies are growing their teams and engaging their people. As of year-end 2024, Fund I companies collectively supported 381 full-time equivalent (FTE) jobs, up from 360 the year before.

The portfolio spans a range of company sizes and stages — from pre-commercial startups with as few as three full-time employees to more established companies with over 50. This diversity reinforces the importance of proportionality in ESG reporting, particularly in how we interpret workforce and engagement metrics across the fund. In 2024, five of 13 portfolio companies conducted an employee survey, with a strong average response rate of 86%, indicating healthy participation and interest in shaping workplace culture.

As these companies grow, NGIF Capital remains focused on fostering inclusive, responsive, and resilient organizations, with a focus on workforce development and internal feedback.

GOVERNANCE

NGIF Capital emphasizes strong oversight, risk awareness, and the adoption of foundational policies across early-stage ventures. In 2024, 77% of portfolio companies had at least one independent board member, a key marker of governance maturity and investor readiness. Through active engagement at the board and advisory levels, NGIF Capital continues to support the development of governance structures that are fit for purpose, tailored to each company's growth stage and sector context.

Results

SOCIAL

381
TOTAL JOBS SUPPORTED

5
COMPANIES IMPLEMENTING AN EMPLOYEE SURVEY

86%
RESPONSE RATE OF COMPANY EMPLOYEE SURVEYS

GOVERNENCE

10
COMPANIES WITH INDEPENDENT BOARD REPRESENTATION

2
COMPANIES WITH AN ESG POLICY

3
COMPANIES WITH A RISK MANAGEMENT POLICY

2
COMPANIES THAT CONDUCTED SUPPLY CHAIN RISK ASSESSMENTS

7
COMPANIES WITH A CYBERSECURITY POLICY

5
COMPANIES WITH A DATA PRIVACY POLICY

The Future of Energy

FUND I PORTFOLIO COMPANIES

Fund I Portfolio

The Fund I portfolio is comprised of high-impact companies that are building market-facing, economically viable solutions for the energy industry.

Our investments must meet a triple bottom line: improved environmental performance, a return for our investors, and contributing to producing and distributing cleaner natural gas and low-cost renewable gases.

Fund I Portfolio

THERMOLIFT

Fuel-Flexible Thermal Heat Pump Delivering Heating, Cooling, and Hot Water

ThermoLift's high-efficiency, single-unit thermal heat pump uses the Hofbauer Cycle to deliver heating, cooling, and hot water, cutting building energy costs and GHG emissions while running on natural gas, RNG, or hydrogen.

PROBLEM

Heating, ventilation, and air conditioning (HVAC) systems account for a substantial portion of energy use and GHG emissions in buildings. Today's solutions are typically delivered through separate systems, each with infrastructure and energy demands, limiting progress on energy efficiency and emissions reduction.

SOLUTION

ThermoLift offers a turnkey solution that replaces three conventional appliances—furnace, water heater, and air conditioner—with a single high-efficiency system. This significantly reduces building energy costs and GHG emissions while leveraging existing gas infrastructure for scalable, low-cost deployment.

2024 PROGRESS

- **Product Performance:** In Q4 2024, Thermolift achieved its efficiency target of 1.3+ COP (coefficient of performance) in its in-house testing facility. This performance will be validated at GTI's laboratory in Q2 2025.
- **Safety Certification:** In Q1 2025, ThermoLift received ETL safety certification from Intertek, enabling deployment of its thermal heat pump in occupied homes and businesses.
- **Demonstration Deployments:** In early 2025, ThermoLift began deploying demo units through contracts with Enbridge, SaskEnergy, ATCO (NGIF), and ConEdison. Initial units are commissioning with further deployment planned through Q2 and Q3 2025, marking a shift from late-stage validation to early market entry.

LOCATION
Novi, Michigan

INITIAL INVESTMENT DATE
May 2021

ROUND
Series A

CO-INVESTORS
Euclidean Capital

Fund I Portfolio

IONOMR INNOVATIONS

Next-Generation Ion-Exchange Membranes

Ionomr Innovations (Ionomr) develops advanced ion-exchange membranes and polymer materials critical for electrochemical systems, including hydrogen production, fuel cells, and carbon capture & utilization.

PROBLEM

Many current electrochemical systems rely on expensive, supply-constrained materials and fluorinated compounds, which limit cost competitiveness, hinder scalability and raise environmental concerns.

SOLUTION

Ionomr's proprietary Aemion™ and Pemion™ membranes offer exceptional durability and performance without relying on rare metals or fluorinated compounds. This reduces costs, simplifies supply chains, and enables scalable hydrogen production, energy storage, and carbon capture & utilization.

2024 PROGRESS

- **Commercial Launch:** Launched an iridium- and PFAS-free catalyst-coated version of its Aemion™ membrane for electrolyzers. This membrane is expected to significantly reduce electrolyzer systems' capital expenditure (CAPEX), supporting more competitive hydrogen production.
- **Manufacturing:** Opened a 22,000 ft^2 manufacturing facility in Boston to scale production of PFAS-free ion–exchange materials. This site is expected to create 40 new jobs over three years and support global growth.
- **Financing and Awards:** Secured US $7MM in non-dilutive funding from the U.S. Department of Energy to scale membrane manufacturing and earned the 2024 Governor General's Innovation Award for advances in electrochemical technologies.
- **Recognition:** Named to the Global Cleantech 100 list for the third consecutive year, underscoring its continued leadership in the sector.

LOCATION
Vancouver, British Columbia
Boston, Massachusetts

INITIAL INVESTMENT DATE
October 2021

ROUND
Series A

CO-INVESTORS
Shell Ventures, Finindus, Chevron Technology Ventures, Pallasite Ventures, N.V. Bekaert, Asahi Kasei, Samsung Ventures, SAIC Capital and others

Fund I Portfolio

GALATEA TECHNOLOGIES

Digitizing & Optimizing Fluid Logistics

Galatea Technologies is a software company that is transforming fluid logistics in the oil and gas sector. Its digital platform automates waste tracking, compliance, and dispatch, helping producers and haulers reduce costs, streamline operations, and unlock new value from underused infrastructure.

PROBLEM

North American oil and gas producers spend about $41BN annually on waste transportation and disposal. Each facility only accepts certain waste types, which causes unpredictability, long wait times, and increased hauling distances—leading to higher costs and greater environmental impact.

SOLUTION

Galatea's platform digitizes and automates waste management, providing real-time data and analytics to optimize logistics. This streamlines workflows, cuts operational costs, ensures compliance, and improves environmental performance. Producers can also market unused disposal capacity, creating new revenue streams.

2024 PROGRESS

- **Financing:** Secured $2.7MM in Seed+ funding from Staircase Ventures, Ascent Energy Ventures, and NGIF Capital to accelerate U.S. expansion, bringing total funding to over $7MM.
- **Market Expansion:** Expanded into Texas and now serves over 50% of Canadian oil and gas producers, 600 trucking companies, and hundreds of disposal facilities.
- **Operationsal Scale:** Platform use has brokered the equivalent of over 100 laps around the globe in waste hauling, reflecting significant operational scale.
- **Industry Recognition:** Won the People's Choice Award at the 20th annual Energy Tech Venture Forum, hosted by the Rice Alliance for Technology and Entrepreneurship.

LOCATION
Calgary, Alberta

INITIAL INVESTMENT DATE
October 2021

ROUND
Seed

CO-INVESTORS
Staircase Ventures and Ascent Energy Ventures

Fund I Portfolio

IONADA

Compact Carbon Capture for Small and Mid-Sized Emitters

Ionada develops and markets advanced carbon capture systems using patented membrane contactor technology, specifically designed for small and medium-sized emitters. Their modular, space- and capital-efficient solutions are tailored for sectors such as oil and gas, marine, and industrial facilities.

PROBLEM

With Canada's carbon price rising to $170/ton by 2030, small and mid-sized emitters, responsible for 85% of emissions, face growing financial and regulatory pressures.

SOLUTION

Ionada's modular and highly efficient systems require as little as 50% of the space and 30% of the power of conventional solutions. Designed for emitters producing <200,000 tons of CO_2 annually, these systems are ideal for remote well sites, compressor stations, processing facilities, and marine vessels.

2024 PROGRESS

- **Financing and Growth:** Closed Series A investment led by Archrock, with Yinson Production and Dorian LPG participation that enabled construction of a commercial demonstration facility. Expanded R&D capabilities with a new center in Markham, Ontario, to accelerate technology advancement and foster collaborations with industry and academia
- **Strategic Partnerships:** Completed a landmark feasibility study with a leading oil company, demonstrating successful integration and capturing >20% CO_2 emissions, with potential for higher rates as carbon off-take infrastructure expands.
- **Stakeholder Engagement:** Selected to present at the 2024 Oil & Gas Cleantech Challenge in Denver and invited to participate at ADIPEC 2024 in Abu Dhabi.

LOCATION
Mississauga, Ontario
Houston, Texas
Calgary, Alberta

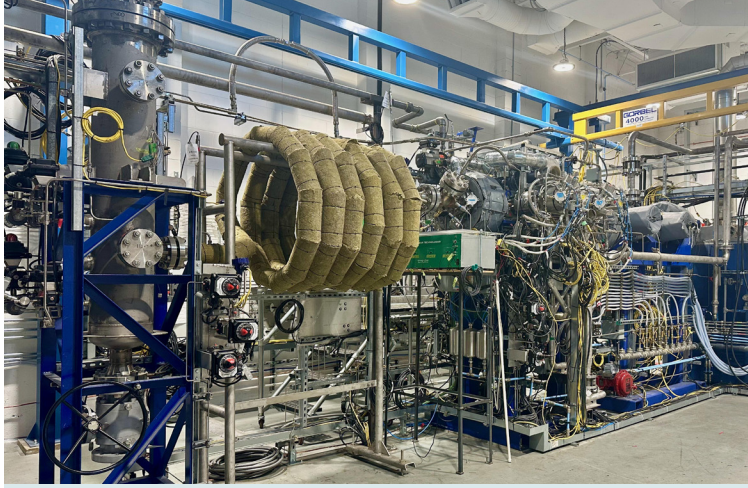
INITIAL INVESTMENT DATE
November 2021

ROUND
Seed

CO-INVESTORS
Halliburton Labs, Archrock, Yinson, and Dorian LPG

Fund I Portfolio

EKONA POWER



Hydrogen Production through Innovative Methane Pyrolysis

Ekona Power (Ekona) is advancing its XCaliber Reactor, a proprietary thermal methane pyrolysis technology. This novel process converts natural gas into low-cost, low-emission hydrogen and solid carbon, without needing water, renewable electricity, or carbon capture infrastructure.

PROBLEM

Traditional hydrogen production methods, such as steam methane reforming (SMR), are energy-intensive and generate significant CO_2 emissions. With rising carbon prices and pressing demand to reduce industrial emissions, there is a growing need for more efficient hydrogen production technologies.

SOLUTION

Ekona's xCaliber technology produces hydrogen with up to 90% fewer CO_2 emissions than traditional SMR, while preserving the cost advantages and supply reliability of natural gas. Its modular reactor design enables seamless integration into industrial operations.

2024 PROGRESS

- **Field Demonstration:** Following the successful validation of its 200-kilogram-per-day pilot plant in Burnaby in late 2023, Ekona advanced commercialization efforts in 2024 by initiating construction of a 1/2-tonne-per-day demonstration plant at ARC Resources' Gold Creek facility, with commissioning expected in 2026 and evaluation in 2027.

- **Financing & Technology Development:** Secured $1MM from Natural Resources Canada and Alberta Innovates to expand the Burnaby site and further develop its xCaliber™ reactor.

LOCATION
Vancouver, British Columbia

INITIAL INVESTMENT DATE
January 2022

ROUND
Series A

CO-INVESTORS
Baker Hughes, Mitsui, ConocoPhillips, TransAlta, Continental Resources, BDC Capital, and others

Fund I Portfolio

KINITICS AUTOMATION

Spring-Loaded Electric Valve Actuator - Replacing Pneumatic Systems

Kinitics Automation (Kinitics) is an innovator in motion control solutions, specializing in Shape Memory Alloy technology. The company's products perform critical functions for valve operation, pumping, positioning, and clamping across various applications, including oil and gas, automotive, aerospace, and advanced manufacturing.

PROBLEM

Traditional pneumatic actuators in the oil and gas sector vent methane; however, with increasing regulatory pressures to reduce emissions, there's growing demand for reliable, zero-emission alternatives at remote sites.

SOLUTION

Kinitics' KVA38 spring-loaded electric valve actuator replaces traditional methane venting pneumatics with a reliable, low-maintenance, and fail-safe operation. Certified for use in North America, KVA38 ensures safe operation during power or signal loss and is built to withstand extreme conditions, making it ideal for both new and retrofit installations.

2024 PROGRESS

- **Commercial Launch:** Launched its KVA38 actuator in September 2024, marking its shift from product development to market entry.
- **Field Validation:** Demonstrated it's actuator through the NGIF ETC Program, with field hosting by Tourmaline Oil at a wellsite in Alberta and lab hosting by UCalgary. Over 160 days of continuous operation across three process control applications, the demonstration achieved an annual reduction of 91 tonnes of CO_2e emissions.
- **Financing and Strategic Partnerships:** Closed a Seed financing round and announced a distribution partnership with CVS Controls Ltd.
- **Industry Engagement:** Featured in publications and events such as the 2025 Methane Leadership Summit and PTAC's Technology Information Session.

LOCATION
Vancouver, British Columbia

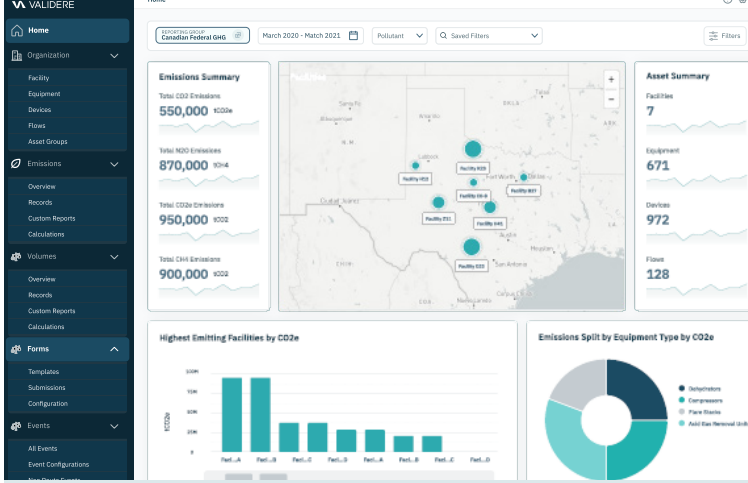
INITIAL INVESTMENT DATE
January 2022

ROUND
Pre-Seed

CO-INVESTORS
N/A

Fund I Portfolio

VALIDERE



Digitally Transforming Emissions Intelligence, Compliance, & Reductions

Validere's software platform centralizes and standardizes operations and emissions data across the oil and gas value chain. The platform supports regulatory compliance, enables certification of responsibly sourced gas, and transforms operational data into verified, auditable insights that drive both sustainability and commercial value.

PROBLEM

Oil and gas operators face increasing regulatory and market pressure to demonstrate emissions performance, but data is often fragmented and complex to audit. This makes accurate reporting difficult, hinders emissions reductions, and limits responsibly sourced gas certification.

SOLUTION

Validere's platform centralizes operational and emissions data to automate reporting, enable real-time insights, support third-party certification, and improve transparency across the supply chain.

2024 PROGRESS

- **Enhanced Compliance:** Updated the platform to align with the EPA's 2024 reporting revisions including revised global warming potentials (GWPs) and expanded coverage for new emissions sources.
- **Product Development:** Launched a custom form builder and transparent emissions calculations to support audit readiness and improve data reliability. Mobile app upgrades such as autosave, real-time calculations, and stronger data validation help to reduce errors and boost field productivity. New features include LDAR permit tracking and third-party detection programs. Platform-wide updates now deliver more accurate real-time analytics to support compliance, decision-making and operational efficiency.

LOCATION

Houston, Texas
Calgary, Alberta
Toronto, Ontario

INITIAL INVESTMENT DATE

January 2022

ROUND

Series B

CO-INVESTORS

Blackrock, Mercuria, Wing VC, Greylock Partners, and others

Fund I Portfolio

WESTGEN TECHNOLOGIES

Remote Power Solutions Enabling Near-Zero Methane Emissions at Wellsites

Westgen Technologies (Westgen) specializes in remote power generation solutions for the oil and gas industry. Their flagship product, the Engineered Power on Demand (EPOD) system, integrates natural gas generators, solar panels, and batteries to provide reliable, low-emission power for off-grid applications. EPOD systems supply compressed air to pneumatic devices, replacing traditional fuel gas and significantly reducing methane emissions.

PROBLEM

Methane venting from pneumatic devices is a known contributor to emissions in upstream oil and gas operations. Traditional systems use pressurized natural gas to operate control devices, which leads to routine methane release during operations. Addressing these emissions is essential for meeting regulatory expectations and advancing environmental performance.

SOLUTION

Westgen's EPOD system offers a turnkey solution by providing compressed air to pneumatic devices, effectively eliminating methane venting with demonstrated reductions of over 99.5%. The EPOD's modular design enables seamless integration at both new and existing well sites, facilitating compliance with regulations and reducing emissions.

2024 PROGRESS

- **Strategic Refocus:** 2024 marked a restructuring for Westgen, with a change in leadership and a re-focus on their original remote power generation and air compression product lines.
- **Financials:** The renewed focus enabled substantial cost reductions and improved margins, positioning the company for more sustainable growth.
- **Sales:** Westgen exited 2024 with a significantly healthier sales backlog and a much lower cost base, creating a stronger financial foundation heading into 2025.

LOCATION
Calgary, Alberta

INITIAL INVESTMENT DATE
August 2022

ROUND
Series A

CO-INVESTORS
ARC Financial and Idea Well Capital Partners

Fund I Portfolio

ARIX TECHNOLOGIES

Robotic Pipeline Integrity Inspection and Predictive Analytics

ARIX Technologies (ARIX) develops semi-autonomous robotic inspection systems and AI-driven analytics to detect and predict corrosion under insulation (CUI) in industrial piping. Their robots navigate vertical piping and field obstacles while capturing high-resolution data. The integrated software platform translates this data into actionable insights, enabling proactive maintenance and improved asset reliability.

PROBLEM

Traditional CUI inspections are labour-intensive, time-consuming, and often require scaffolding or confined-space entry, posing safety risks and yielding incomplete data. These constraints limit inspection frequency and elevate the risk of undetected corrosion and unplanned downtime.

SOLUTION

ARIX's robotic systems automate inspections, reducing the need for scaffolding and minimizing human exposure to hazards. They perform inspections up to 15 times faster than conventional methods with a 99% detection rate for critical corrosion.

2024 PROGRESS

- **Strategic Partnerships & Financing:** ARIX Technologies expanded its global reach, validated its inspection performance with major clients, and secured follow-on financing.
- **Global Partner Program:** Launched a partner network for non-destructive testing firms and industrial service providers, enabling wider adoption.
- **Field Validation:** In partnership with Petromax, demonstrated seven-times faster inspections and 37% cost savings versus traditional methods, achieving over 85% coverage without scaffolding.
- **Industry Recognition:** Named a 2024 Energy Technology Pioneer by Darcy Partners, and 2024 Houston Innovation Awards Finalist for Energy Transition and AI/Data Science.

LOCATION
Houston, Texas

INITIAL INVESTMENT DATE
August 2022

ROUND
Series A

CO-INVESTORS
AllyCorp, Benson Capital Partners, EVOK, and others

Fund I Portfolio

LELANTOS

Ultra-Low Power Gas Sensors

Lelantos is developing next-generation gas sensors, primarily focusing on continuous methane monitoring in the oil and gas sector. Their innovative sensors utilize thin-film piezoelectric resonators integrated onto CMOS chips. This results in highly sensitive, selective, low-cost, ultra-low-power devices for large-scale, IoT-enabled deployments.

PROBLEM

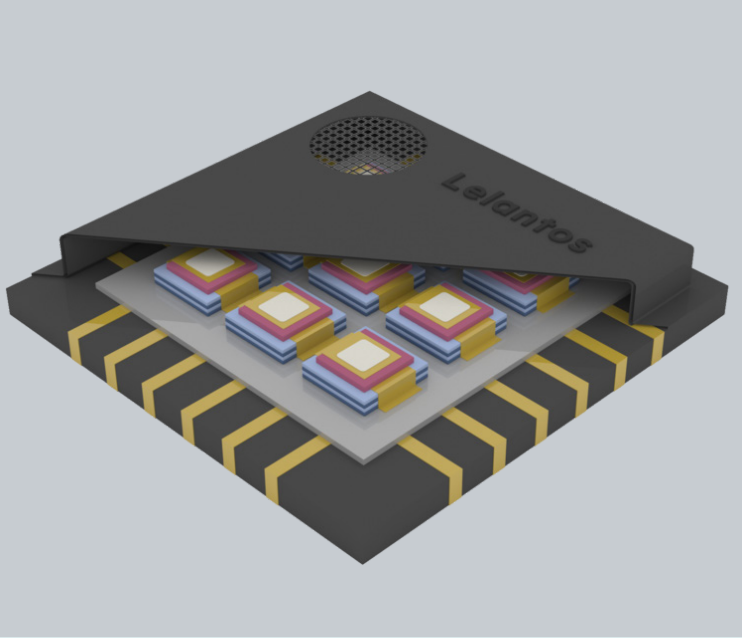
Traditional gas sensors are bulky, expensive, and consume significant power, making them impractical for continuous monitoring in remote or distributed environments. This limits effective methane leak detection across natural gas infrastructure.

SOLUTION

Lelantos' MEMS-based sensors are compact, affordable, and require minimal power, making them ideal for widespread, battery-powered, wireless monitoring. Their technology enables persistent leak detection, enhances safety, reduces environmental impact, and supports regulatory compliance in challenging and distributed settings.

2024 PROGRESS

- **Financing and Strategic Partnership:** In 2024, Lelantos received Phase I funding from the NSF Convergence Accelerator program to advance its next-generation gas sensors. In partnership with Bigelow Laboratory for Ocean Sciences, this project is focused on developing IoT-compatible environmental monitoring solutions for methane and other gases.
- **Technology Development:** The NSF award supports Lelantos' work to produce proof-of-concept devices that demonstrate superior performance, scalability, and integration for IoT environmental monitoring applications.



LOCATION
New York, New York

INITIAL INVESTMENT DATE
April 2023

ROUND
Seed

CO-INVESTORS
N/A

Fund I Portfolio

CARBONET NANOTECHNOLOGIES

Industrial Water Treatment Chemistry

CarboNet Nanotechnologies (CarboNet) is improving industrial water treatment with its commercial NanoNet™ platform - a programmable chemistry that removes contaminants from complex wastewater streams. CarboNet's flocculants and coagulants are actively deployed in the field, helping industrial operators recycle and process water more effectively, reduce chemical dependancy and lower costs.

PROBLEM

Traditional water treatment methods often use high volumes of chemicals including polyacrylamide (PAM), which raises costs, adds operational complexity, and limits opportunities for water reuse. PAM is also a fossil-based material that is harmful to humans and animals.

SOLUTION

The NanoNet™ platform delivers high-efficiency water treatment chemistries with superior performance and a lower environmental footprint. Its flagship SimpleFloc™ product line cuts PAM usage by up to 90% and reduces costs by up to 50%, enabling greater water reuse and simplifying downstream operations.

2024 PROGRESS

- **Commercial Expansion:** In 2024, CarboNet expanded its commercial footprint and product portfolio, solidifying its position as a leading provider of produced water treatment solutions in the Permian Basin. The company is also gaining momentum across the food, beverage, construction, and municipal sectors.

- **Product Innovation:** CarboNet is expanding its product line with new concentrated and dry chemical formulations. CarboNet secured $1.7MM in federal funding to advance the commercialization of BioFloc, its biodegradable flocculant. It also launched SimplePrime, a new line of inorganic coagulants.

LOCATION
Vancouver, British Columbia

INITIAL INVESTMENT DATE
May 2023

ROUND
Series A

CO-INVESTORS
N/A

Fund I Portfolio

CARBONOVA

Transforming CO_2 and Methane into High-Performance Carbon Nanofibers

Carbonova is developing a proprietary, carbon-negative technology that converts CO_2 and methane into high-performance carbon nanofibers (CNFs) for use in lithium-ion batteries, concrete, and plastic composites.

PROBLEM

Batteries: Manufacturers seek greater energy density, extended cycle life, and reduce reliance on energy-intensive materials. **Concrete:** The need to reduce emissions from cement production is driving demand for additives that strengthen concrete while enabling lower cement content. **Plastics:** The sector faces pressure to reduce environment impact and integrate recycled content in packaging and engineered components.

SOLUTION

Batteries: Carbonova's CNFs enhance electrical conductivity, energy density, and mechanical integrity of electrodes. **Concrete:** CNFs improve compressive strength by up to 30% and enable partial cement replacement, helping reduce one of the world's largest sources of industrial CO_2 emissions. **Plastics:** CNFs reinforce recycled polymers, improving strength and durability while supporting the shift toward circular, low-emission materials.

2024 PROGRESS

- **Pilot Success:** Completed pilot-scale demonstrations and initiated engineering design and regulatory applications for a commercial demonstration facility in Alberta.
- **Financing:** Raised $6MM in an oversubscribed SAFE round led by Kolon Industries and NGIF Capital, and secured non-dilutive funding from SDTC and NRC-IRAP.
- **Strategic Partnership:** Global leaders like Holcim, Sika and Kolon are evaluating Carbonova's CNFs for use in a variety of applications.

LOCATION
Calgary, Alberta

INITIAL INVESTMENT DATE
March 2024

ROUND
Seed

CO-INVESTORS
Kolon Industries

Fund I Portfolio

QUBE TECHNOLOGIES

Continuous and Low-Cost Emissions Monitoring

Qube Technologies (Qube) provides continuous, low-cost emissions monitoring solutions for oil and gas operations. Using stationary sensors and advanced analytics, Qube enables producers to detect, quantify, and respond to emissions in near real-time, supporting regulatory compliance, operational efficiency, and ESG transparency.

PROBLEM

Oil and gas companies face increasing pressure to monitor and reduce methane emissions, driven by regulatory requirements, investor expectations, and evolving carbon markets. Traditional leak detection methods are periodic and labor-intensive, often missing short-term leaks.

SOLUTION

Qube offers a cost-effective, autonomous sensor network that provides continuous monitoring at the site level. Its platform combines robust hardware with edge computing and cloud-based analytics to deliver real-time alerts, quantification, and emissions reporting. This enables operators to detect and respond to leaks faster, reduce emissions, and demonstrate measurable environmental performance to regulators and stakeholders.

2024 PROGRESS

- **Growth:** Expanded across North America and into South America and the Middle East, securing multi-year contracts and growing customer base.
- **Product Development:** Expanded real-time methane monitoring and compliance solutions to support evolving EPA and AER regulations. Launched software updates with enhanced alarm notifications, uptime tracking, and emissions visualization.
- **Technical Validation:** Operated the Controlled Release Test Facility (CRTF) near Calgary to validate field performance in partnership with government programs and industry groups.

LOCATION
Calgary, Alberta

INITIAL INVESTMENT DATE
March 2024

ROUND
Series B

CO-INVESTORS
Riverbend Energy Group, TC Energy, and Bain & Company Future Back Ventures (FBV)

Looking Forward

What's Next?

As we look ahead, NGIF Capital is evolving alongside a natural gas sector re-energized by the imperatives of energy security, emissions performance, and long-term competitiveness. In 2025 and beyond, we see an opportunity, and a responsibility, to scale the solutions that deliver meaningful impact across these priorities.

Amid global shifts in energy supply and demand reshaping energy markets, there is a growing recognition that Canada's natural gas sector, paired with the right technology, has a pivotal role to play in delivering secure, low-emission energy. NGIF Capital is uniquely positioned at the intersection of these needs. As a strategic investor closely aligned with industry, we understand the technical constraints, commercial priorities, and deployment challenges innovators must overcome, and we are mobilizing capital to help them succeed.

Building on the momentum of Fund I, NGIF Capital continues to expand its investment focus on technologies that enhance energy reliability, environmental performance, and long-term competitiveness. In parallel, we are exploring opportunities to apply our proven investment model in other sector-specific contexts, particularly within Canada's primary and secondary industries, where innovation can unlock meaningful economic and environmental impact.

Our mission remains clear: accelerating the commercialization of innovative technologies that reduce emissions, improve operational efficiency, and enhance energy security, reliability, and resiliency, focusing on Canada's natural gas value chain. We're proud of our progress, but we know the work is just beginning. We're not only supporting innovation, we're helping shape the next chapter of Canada's energy and industrial story.

Thank You

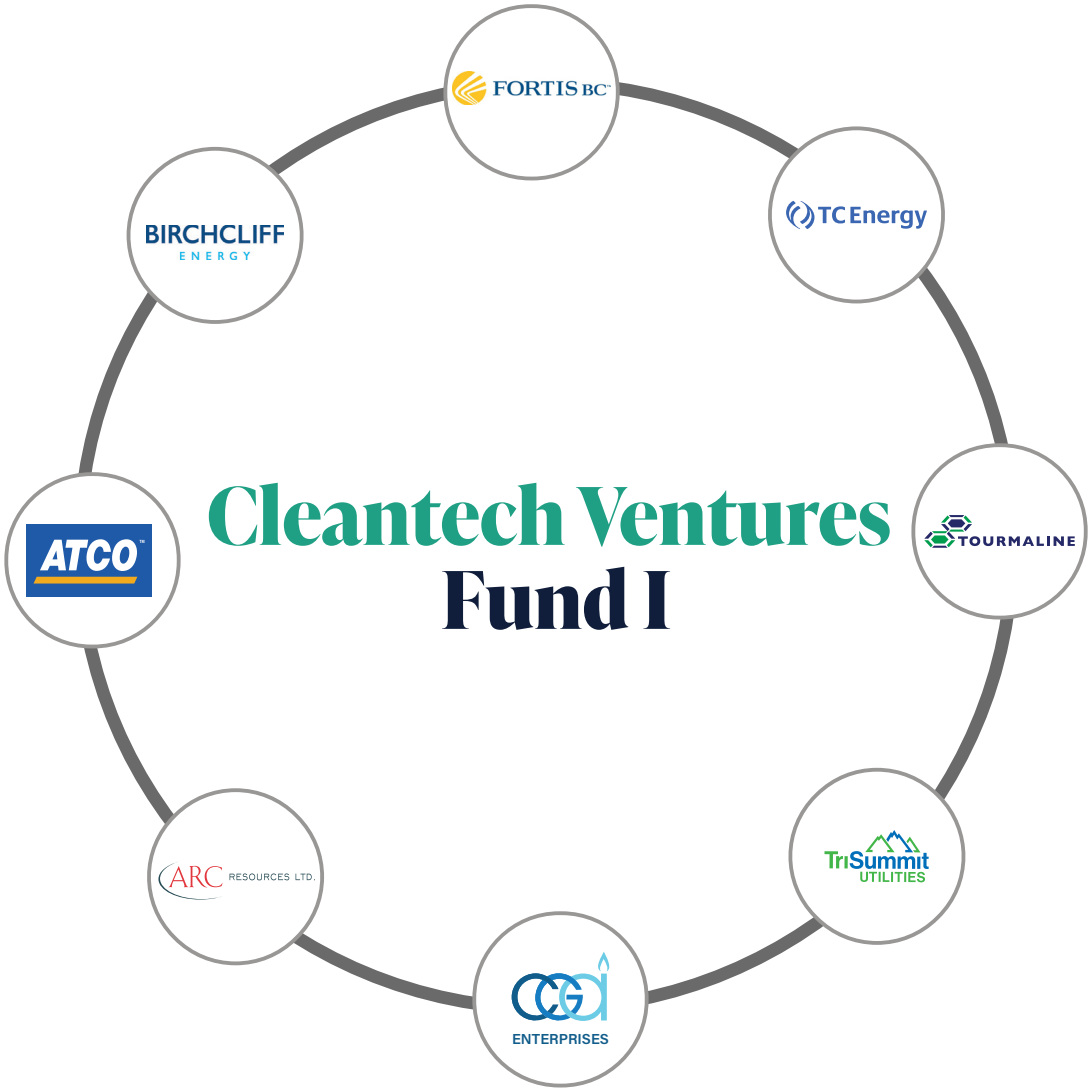
To our Fund I investors, thank you for your continued trust and partnership. Your commitment has enabled us to deploy capital with purpose and confidence.

We're equally grateful to our collaborators, service providers, and consultants who help us deliver with precision and integrity. Your expertise strengthens everything we do.

To the startups — both within our portfolio and beyond — thank you for your tireless work, bold ideas, and resilience. You are the engine of innovation, and it is a privilege to support your journey. Your progress is a testament to what's possible when ambition meets execution.

Together, we are building something meaningful — **a stronger, cleaner, and more resilient energy future.**

If you have any questions or want to connect, please email **info@ngif.ca**.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Fund I
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Questions?

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