



**CLIMATE VENTURE
CAPITAL FUND**

Impact Report

**For the year ended
31 March 2024**

29 July 2024



Impact Report

Our goal, expressed in our Statement of Investment Policies and Objectives, is to be the Fund of Choice for climate start-ups in Aotearoa.

We strive to lead by example with climate and impact reporting for venture capital within New Zealand. For this, we have been recognised again in the Mindful Money awards. These are Aotearoa's only awards for investors who demonstrate their commitment to sustainability. In 2023, we were winners in the Best Net Zero and Climate Action Investor category and highly commended in the Best Impact Investment Fund category. This year, we won again the Best Net Zero and Climate Action Investor and were Highly Commended for Best Ethical Investor and Best Impact Investment Fund.



INVESTMENT SELECTION FOR POSITIVE IMPACT

While awards are nice to receive, our fund's and our Limited Partners' investment impact will be delivered through the companies that we invest in. Hence our strongest tool for impact is our investment selection process.

Our due diligence process explores in depth the potential for sustainable investment and growth from every opportunity before us. We go beyond negative screening to look for positive investments with an investment strategy that looks for additional, strong, and credible climate, ESG, and other impacts. These factors work together with the commercial drivers of company growth.

For every investment, we consider the magnitude, quality, and likelihood of:

- the greenhouse gas emissions reduced;
- other positive and negative social, environmental, and systemic impacts;
- the regulatory treatment of those impacts, such as the ability to generate climate-effective carbon offsets; and
- the risks to these impacts and the manageability of these risks.

To set the standard for our work, our Climate Impact Committee approves and monitors our investments. They detail how we assess the climate performance of investments and delineate the performance and risk requirements for every investment.

Key to all our investments is to ensure additionality – that our contributions will result in an increase in emissions reductions, above and beyond that which would happen without us. Only then can we credibly claim to create impact.

As such, all of our investments are in alignment with the UN's Sustainable Development Goals. We intend them to be compatible with the emissions reductions required to meet the Paris Agreement targets to combat climate change.

UNDERSTANDING AND IMPROVING CLIMATE AND BROADER ESG IMPACTS

We aim for our reporting to be as leading and effective as our investment selection. Our approach to understanding impact is customised for each potential investment that we consider. We take inspiration from the Impact Management Project's Five Dimensions of impact framework but there is yet to be a one-size-fits-all methodology.

Climate and impact report practices continue to develop for venture capital with inspiring work overseas by [Kilara Capital](#) and [Antler](#). Venture capital networks such as [ImpactVC](#) and [VentureESG](#) are showing the path to adoption of these practices.

However, the fundamental challenges to understanding the impact of early-stage investment remain: no emissions baselines for new companies, long time lags between investment and impact, and extended and hard to foresee lifetime of impacts. The main impact of disruptive innovations will be avoided impacts rather than direct impacts. These indirect and induced impacts are inherently harder to measure and verify than direct impacts. This difficulty is reflected in the two-sided advances in the venture capital impact debate since our first impact report last year.

INTRODUCING THE ESG_VC FRAMEWORK

On the practical side, the [ESG_VC](#) framework has been introduced by several large venture capital funds in the UK, US and Europe. This aims to "provide an entry to ESG scoring", and "the framework can be easily implemented from Seed to Growth stage, across companies spanning B2B and B2C sectors, resulting in a tangible ESG score and a list of key areas to address to improve ESG performance." As such, it is a workable tool that builds common ground between investors and companies.

This year, Climate VC Fund is using this tool for our portfolio-wide reporting of company ESG performance, as part of a broader initiative led by NZ Private Capital and venture capital funds including Climate VC Fund.

However, ESG_VC is only an entry point rather than a comprehensive tool. The Fund's approach to selecting and supporting investments goes beyond ESG_VC. For example, ESG_VC suggests funds should help portfolio companies develop net zero targets, whereas the Fund actively helps all our portfolio companies to create sizable net emissions reduction targets.

THE PLANETARY BOUNDARIES APPROACH

On the more ambitious side, much of the debate in Europe aims to understand the holistic impacts and trade-offs against all environmental limits. This debate is recognising the danger of narrow thinking around climate solutions, and the need to avoid overly simplistic transition narratives and investment decisions that may not result in a net good for the planet.

The [Planetary Boundaries](#) concept is a clear tool for aligning climate investments with biophysical limits. These include freshwater change, land-system changes and biosphere integrity as well as climate change. [New Zealand exceeds](#) a fair share of the global safe operating spaces for our climate emissions, freshwater impacts, nitrogen and phosphorus flows, and biodiversity damage.

This systematic approach is being picked up by large asset managers and investment banks. It is being turned into a useful tool for companies to measure, communicate, and prioritise their impacts through the excellent work of the [Planetary Accounting Network](#). However, the venture capital world is rarely taking up this approach, with one notable exception being Aotearoa's [Impact Enterprise Fund](#).

Climate VC Fund's approach is compatible with the Planetary Boundaries concept as we have taken a systematic approach since our first investments. As an example, our investments this year into Hot Lime Labs and NovoLabs are technologies to increase the circularity of nutrient and biomaterial flows. They can play their part in bringing our food systems back into compatibility with these Boundaries.

Fund Manager Emissions

This year, we have introduced measurement of our operational emissions. While these are small in comparison to our portfolio companies' direct emissions and tiny with respect to their systemic impacts, it is important to us to demonstrate that we are taking responsibility for the emissions that are most under our control.

These emissions include those from operating the first Climate VC Fund, from developing our second climate fund (Climate Venture Capital Fund Extension), and a portion of 2040 Ventures general activities that support these funds.

SCOPE 1: DIRECT GHG EMISSIONS

Our Scope 1 emissions are close to zero as we own no buildings, vehicles, or production equipment. Our only emissions in this category come from the gas water heater in our Te Anau office. This accounts for 0.2% of our operating emissions.

SCOPE 2: ELECTRICITY INDIRECT GHG EMISSIONS

This category captures the electricity used for heating & cooling our buildings, and operating computers and office appliances. Five per cent of our emissions fall in this category.

SCOPE 3: OTHER INDIRECT GHG EMISSIONS (NON-CATEGORY 15)

Most of our emissions come from this category. 84% of our operating emissions are due to flights and taxis. We make video conferencing a priority, but this does not fully replace face time with clients and companies.

Beyond flights and taxis, our Scope 3 emissions cover operating vehicles (public transport, ferries, electric bicycles, motorcycles and petrol cars).

OVERALL OPERATING EMISSIONS

Table 1 presents the operating emissions for the Climate VC Fund of 8.6 tonnes.

For context, our total emissions of 8.6 tonnes are 57% of [New Zealand's average per capita emissions](#) of 15 tonnes.

FY2024	Tonnes CO ₂ e
Scope 1	0.019
Scope 2	0.460
Scope 3	8.139
Total Operational	8.619

Table 1: Our operating emissions



CERTIFICATION AND OFFSETTING OPERATIONAL EMISSIONS

Our emissions activities are measured from our expenses. We believe our data is close to complete and of good quality. We convert those activities to emissions amounts using the standard guidance from the Ministry for the Environment. Hence, we consider that our results are a fair summary of our operational emissions. Identified but minor data gaps include the amount of working from home and the engine type for taxis. Our overall results are not materially altered by errors in any assumptions that we make about these emissions.

We are taking this voluntary approach to measuring and reporting our emissions as our emissions are small. We may consider working with third parties to certify our emissions accounting should our operational emissions grow.

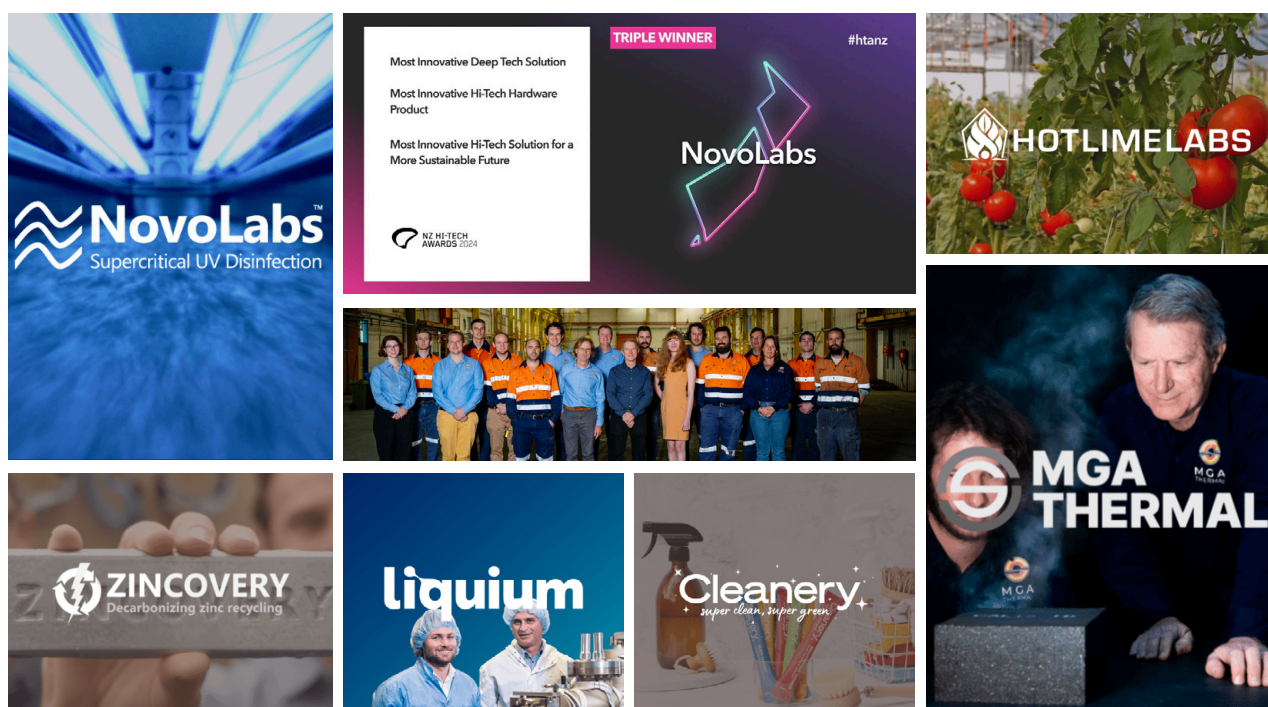
We have considered offsetting our emissions so that we can claim to be carbon neutral. However, our goal is to go beyond neutrality to deliver massive and credible emissions reductions. Our focus is on achieving that much larger target as rapidly as we can. In that context, working with our portfolio companies to hasten their emissions impact is our priority, not offsetting our small operational emissions.

We also do what we can to avoid emissions each day. Most of the wider team commute to work via bike, public transport or walking, or work from home. Lance has had almost no exposure to fossil fuel transport over the last 2.5 years, Rohan is a staunch bus advocate and user, and Jez was a very early adopter of electric motorcycling.



Portfolio Companies' Emissions

As an investment fund, most of our emissions impact will come from the companies that we support. As a specifically climate-focused investor, we want our investments to drive a huge reduction in emissions overall through the development of new products and the corresponding changes to the goods and services in use across the economy. We conceptualise and capture these changes through our financed emissions and our avoided emissions.



SCOPE 3 CATEGORY 15 – FINANCED EMISSIONS

This category covers the operating emissions of our portfolio companies. These are shared on an equity basis amongst all investors.

The six companies in the Fund's portfolio as of March 2024 are at a range of development stages, from lab-scale experiment to selling in global markets. Hence their emissions are equally diverse, as is their measurement and reporting of these emissions. Table 2 describes the emissions for each company.

Half of our portfolio companies are measuring and reporting their operating emissions. The three that are not are at an early stage in their emissions impact and we will work with them to improve their reporting as they develop.

SCOPE 4 – AVOIDED EMISSIONS, SYSTEMIC CHANGES

We expect and intend that our major emissions impact will come from avoided emissions. Our portfolio companies offer lower-carbon alternatives with the goal of disrupting existing industries and slashing the emissions that come from older technologies.

Our two new investments address these avoided emissions. Their emissions stories are complex but ultimately credible and measurable.

Hot Lime Labs is developing and delivering carbon management systems for horticultural greenhouses. Greenhouses need carbon dioxide to help plant growth and some need heating to keep plants in optimal conditions. Both inputs come from fossil fuels, often natural gas. Hot Lime Labs' system allows the use of biomass for both carbon dioxide and heat, replacing fossil fuels. Much of this biomass can come from plant wastes from the greenhouses themselves, helping to make carbon flows more circular. The outputs from their system can also include biochar, a stable form of carbon with many uses that allows for economically viable long-term carbon sequestration.

NovoLabs' treatment technology has a patented advantage for disinfecting liquids with low light transmissivity. This creates large opportunities in a wide range of diverse applications. NovoLabs beachhead market is in disinfection of industrial and municipal wastewater where it disrupts multiple existing solutions enabling a lower cost, lower energy and chemical free solution.

For example, it can eliminate the need for chemical pretreatments saving operators the costs and emissions of those chemicals. In one case study, treated liquid was to be returned to land but the chemical pretreatment needed to make a legacy UV system work had the side effect of stripping out the phosphorous. This locked it up into a gelatinous sludge requiring landfilling. NovoLabs treatment, by comparison, was shown to provide effective disinfection without any needs for chemical pretreatment. This makes the effluent safe and allows both the water and phosphorous to be recycled to productive soil thus avoiding the emissions from mining mineral fertilisers.

Emissions are avoided once companies have their products in market. Cleanery now has growing sales volume, selling products that avoid the purchase of higher emissions products, hence their avoided emissions are rising. Cleanery's avoided emissions make for the majority of our Fund's climate impact so far.

FY2024		COMPANY EMISSIONS				CLIMATE VC FUND
Tonnes CO ₂ e	Gross Emissions	Offsets Purchased	Net Emissions	Avoided Emissions	Total Emissions Impact	Equity-Weighted Impact
MGA Thermal	464	0	464	0	464	23.2
Cleanery	145	174	-29	-724	-753	-113
Liquium	n/a	4	n/a	0	n/a	n/a
Zincovery	66	33	33	0	33	1.1
Hot Lime Labs	26	0	26	-14	12	0.3
NovoLabs	n/a	0	n/a	-52	n/a	n/a
Total	701	211	494	-790	-244	-88

Table 2: Our portfolio company emissions (Scope 3 Category 15 & Scope 4). A negative number indicates an emission saving or reduction.

Notes: MGA Thermal's reporting period is the year to June 2023. Our equity-weighted impact depends upon our shareholding which is dependent on the terms of the convertible SAFE notes.

Hot Lime Labs' gross emissions include Scope 1 & 2, not Scope 3.



EMISSIONS MEASUREMENT & CERTIFICATION – PORTFOLIO

At this stage in the development of the Fund, we take as given the Scope 1-3 emissions data provided by our portfolio companies. As those companies grow and their emissions become more material, we expect that we will require independent verification and certification of those emissions.

Companies may also certify their emissions as necessary and valuable for their customers, markets, and supply chains. For example, Cleanery now certifies their emissions reporting as part of their B Corp status. This demonstrates to supermarket buyers that Cleanery's products will help those supermarkets to achieve their own decarbonisation targets.

To capture Scope 4 emissions impacts, Climate VC Fund makes use of the IRIS+ metrics. These are chosen to fit with each portfolio company's impact pathway. For example, NovoLabs' emissions impact comes from the reduction in use by their customers of clarifying chemicals or reduction in their energy consumption.

Hence the suitable IRIS+ metrics for NovoLabs are:

- Greenhouse Gas Emissions Avoided (PI2764); and
- Greenhouse Gas Emissions of Product Replaced (PD2243)

We will continue to develop these metrics as our portfolio companies mature.

OVERALL FUND EMISSIONS IMPACT TO DATE

Our goal for the Climate VC Fund is to create emissions savings overall. We are well on that path.

Our net position is estimated as:

- Operational emissions of +8.6 tonnes;
- Equity-weighted portfolio emissions of +20 tonnes (noting incomplete reporting for this category);
- Equity-weighted avoided emissions of -112 tonnes;
- Resulting in a net emissions reduction of -83 tonnes

This early picture is not complete as only half our portfolio companies are reporting their operating emissions. We would not expect substantial avoided emissions reductions yet at the early stage of most of our companies. Nevertheless, this progress demonstrates that we are on the path to delivering overall emissions reductions.

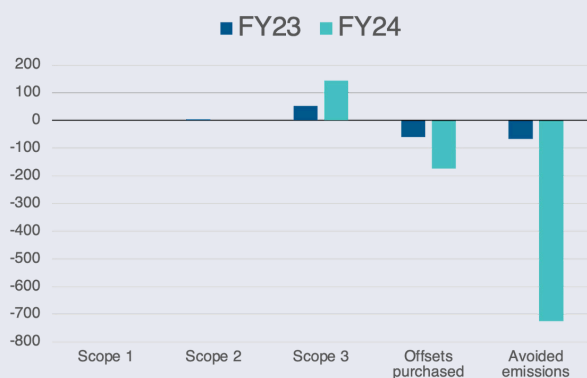


Figure 1: Cleanery emissions, tonnes CO₂e.

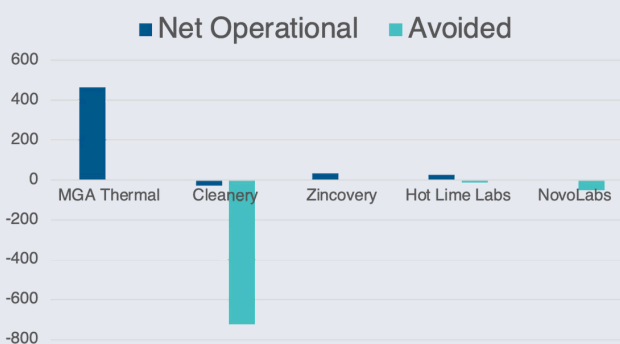


Figure 2: Net emissions from portfolio companies, tonnes CO₂e in FY2024.

ESG_VC Measurement and Reporting

This year we are using the ESG_VC tool to track and compare ESG performance for our portfolio companies. We are proud to report that in our first year of using the tool, all our portfolio companies have completed their ESG_VC reporting.

Attribute Score out of	Environment /32	Social /44	Governance /34
MGA Thermal ¹	11	28	20
Cleanery	28	31	29
Liquium	2	11	8
Zincovery	11	14	15
Hot Lime Labs	13	24	19
NovoLabs	9	12	6

Table 3: Our portfolio companies' ESG scoring

Scores are strongly influenced by the maturity of each company. We are happy that all companies are taking a constructive approach to ESG.

The ESG expectations of portfolio company sectors and customers are another strong driver of performance. Delivering household goods, Cleanery is our most scrutinised company. Strong ESG performance gives them a clear competitive advantage. It is reassuring to see their commitment is recognised with excellent scores.

Two of our portfolio companies used ESG_VC last year. Both show improvements in most of their scoring this year:

- Cleanery from 27/30/29 to 28/31/29
- Zincovery from 9/11/21 to 11/14/15. This is not a material decrease in performance. The difference is due to the firm taking a stricter interpretation of some of the Governance questions as they become more familiar with the ESG_VC process.

Each company has plans to improve their impact performance. This should be reflected in higher scores next year.

We are confident that the strong ESG performance demonstrates that our investment approach is delivering holistic benefits and not focusing on the narrow target of emissions reductions to the detriment of other goals.

¹ MGA Thermal's reporting period runs July-June to match the Australian financial year. Their data in this report covers 1 July 2022 to 30 June 2023.

Theory of Change

The Fund's theory of change is as follows:

- That the Fund can identify capital-constrained and commercially viable early-stage companies which provide opportunities to deliver both emissions reductions and financial returns to the Fund's investors;
- That the Fund can mobilise, direct, and support investment into these firms;
- That investment by the Fund into these firms will increase their chance of success and accelerate their growth;
- That this will in turn help to meet demand for emissions reductions from emitters of greenhouse gases; and
- That this will over time create above-market returns to investors.

We consider that the Fund's progress at this early stage is validating our approach.

Sector Benchmarking

We note with pleasure the uptake of impact reporting by other domestic venture funds. Of note, funds that are making climate and ESG a priority include:

- The [Impact Enterprise Fund](#) using the Planetary Boundaries concept and estimating sequestered carbon in their Impact Report;
- [Motion Capital's](#) commitment to decarbonisation;
- [Purpose Capital Impact Fund's](#) alignment with the Global Impact Investing Network principles and making use of the IRIS+ metrics in their Impact Report;
- [GD1's](#) solid impact report, certification of their operating emissions through Toitū, achieving B Corp status, and aligning their work with the UNPRI principles; and
- [NZ Private Capital's](#) work to introduce ESG_VC to other New Zealand venture capital funds.

Conclusion

Are we meeting our aim of being the Fund of Choice for climate start-ups? We think so.

Our impact successes this year are the companies that we support, their growth to scale, their growing impacts, and their commitment to a better world. We can say this with confidence due to our continued improvement in our impact reporting.

This year we:

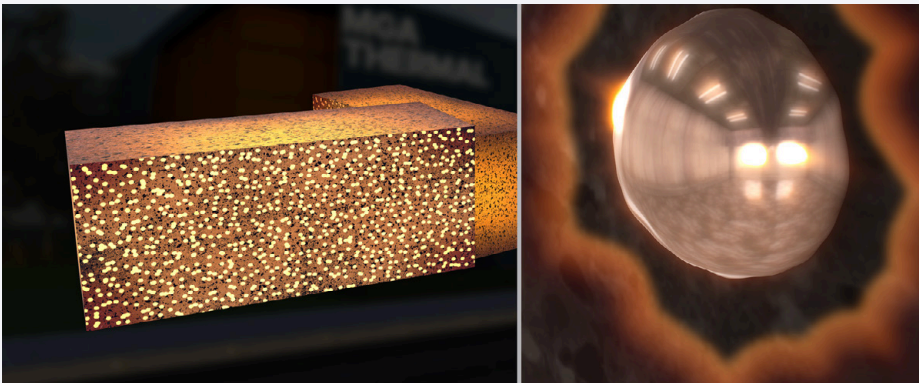
- Measured and reported our own emissions;
- Reported on the emissions from our portfolio (Scope 3 Category 15) and the systemic emissions impacts resulting from our portfolio (Scope 4); and
- Introduced the ESG_VC tool to track the ESG performance of all our portfolio companies.

We intend to continue to set the pace for impact-driven venture investment and reporting in Aotearoa.



Making 24/7 renewables a reality through a revolutionary form of thermal energy storage.

mgathermal.com



Emissions Mitigation Driver	FY2024 Emissions Mitigated	Emissions Impact Measurement Stage
Number & capacity of thermal storage blocks in use	None expected or delivered	- Initial emissions analysis well advanced - Discussion ongoing with potential customers about the calculation of Scope 4 avoided emissions.

PROGRESS TO DATE

MGA Thermal's key market is dependable process heat powered by renewable electricity. This will allow large process heat users to transition away from fossil fuels.

The company is commissioning their demonstration plant and production facilities. They cannot yet claim any avoided emissions from customers but once their customer units are operating, they will be able to make a fair claim to be replacing the generation from the power plants with the highest variable operating costs in the system". They will be removing coal and gas generation from the grid, so their avoided emissions will be credible to estimate and likely very substantial.

This year, they have begun measuring and reporting their operational emissions. As a manufacturing company, these are the highest emissions in our portfolio. Those emissions remain small in comparison to their potential avoided emissions.

The company has made a thorough commitment to being a best-in-class employer with management taking a very strong approach to ethics and diversity. This is reflected in their excellent ESG_VC scores.

SUSTAINABLE DEVELOPMENT GOALS

KEY GOALS

13

CLIMATE ACTION

7

AFFORDABLE AND CLEAN ENERGY

SUPPORTING GOALS

9

INDUSTRY, INNOVATION AND INFRASTRUCTURE

11

SUSTAINABLE CITIES AND COMMUNITIES

12

RESPONSIBLE CONSUMPTION AND PRODUCTION



Low waste cleaning & personal care products in powdered form. Wave goodbye to single- use plastic bottles.

cleaneryonline.com



Emissions Mitigation Driver	Emissions Mitigated		Emissions Impact Measurement Stage
	FY2024	Since Inception	
Refills Used FY2024: 900,000 Since inception: 1,100,000	-724 tonnes emissions avoided - Net -29 tonnes operational with offsets -753 tonnes total emissions reduction	-900 tonnes total emissions reduction	- Footprint mapped & operational emissions measured - Emissions avoidance estimated with updated LCA - High quality offsets purchased for 120% of emissions, making Cleanery a carbon positive business

PROGRESS TO DATE

In FY2024, Cleanery expanded its sales materially, driving an increase in Scope 3 emissions. Accordingly, the company's operational total emissions increased from +80 tonnes in FY2023 to +146 tonnes in FY2024. Cleanery purchases offsets for 120% of their operational emissions making for net operational emissions of -29 tonnes.

Cleanery’s specific carbon consumption (Kg CO₂ per Kg packaged material) has reduced by 61% compared to the previous financial year. This is for three reasons. Firstly, the carbon footprint for its manufacturing equipment was fully accounted for in FY2023, and thus in FY2024 there are no Scope 3 emissions from this source. Secondly, the company’s increased scale means emissions from its fixed costs and staff are spread across more units sold. Thirdly, as sales have grown there is less need to airfreight early orders to customers.

Although Cleanery’s geographical mix of sales is now tilting towards the US, this was a fairly small proportion of revenues in FY2024. While this proportion will increase in future, this will not materially increase the company’s emissions, as sachets are so lightweight that transport emissions are very modest.

As the company scales up, the emissions avoided through its customers not having to use competing products scales up too. The company’s updated life cycle analysis continues to show that its products are ~99% lower in emissions than traditional cleaners, depending on what product consumers would otherwise have used and how many times they refill their bottles. Cleanery conservatively estimate these avoided emissions at -724 tonnes.

SUSTAINABLE DEVELOPMENT GOALS

KEY GOALS

13 CLIMATE ACTION

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

SUPPORTING GOALS

8 DECENT WORK AND ECONOMIC GROWTH

11 SUSTAINABLE CITIES AND COMMUNITIES



Clean liquid fuel for heavy industry, revolutionising the ammonia production process.



Emissions Mitigation Driver	FY2024 Emissions Mitigated	Emissions Impact Measurement Stage
Tonnes of low emissions ammonia produced	Negligible - their ammonia production is under a kilogram per day	Determining the emissions impact of their process is a key part of their development roadmap as they optimise their catalysts

PROGRESS TO DATE

Liquium’s new catalysts can be a drop-in replacement for the existing Haber-Bosch process used to manufacture ammonia. Their effectiveness should allow ammonia production with lower energy inputs. This may halve the emissions from a carbon-intensive process that is responsible for 2% of global emissions.

Ammonia is currently used for fertiliser and chemical manufacture and has growing potential as a low-carbon marine fuel. The use of Liquium’s catalyst should directly reduce emissions from the production of ammonia.

The company has almost completed the milestones set when Climate VC Fund invested in their 2022 round. Their production so far is at lab scale. They are raising a new round which would see them increase ammonia production by several orders of magnitude.

We do not expect significant emissions reductions until they reach the full operational scale. This will take many years. However, given the size of the ammonia industry, their potential emissions reductions are vast.

SUSTAINABLE DEVELOPMENT GOALS

KEY GOALS

13 CLIMATE ACTION

7 AFFORDABLE AND CLEAN ENERGY

SUPPORTING GOALS

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES



The worlds most sustainable and profitable recycled zinc.



Emissions Mitigation Driver	FY2024 Emissions Mitigated	Emissions Impact Measurement Stage
Tonnes of zinc recovered	Negligible – zinc production is under one tonne	• Measuring operational emissions • Investigating how to measure avoided emissions

PROGRESS TO DATE

Zinccovery’s process produces zinc from waste with up to 95% lower emissions than the current Best Available Technology. Their process replaces coal with electricity so the ultimate reduction in emissions depends upon the carbon intensity of that electricity. For US electricity generation, Zinccovery’s process will have 70% lower emissions. This advantage will increase as electricity decarbonises.

Zinccovery’s wider impact may go beyond simply lower emissions from each tonne of zinc recovered. Only 45% of zinc-laden furnace dust is recycled. Zinccovery’s economically competitive process should increase this amount, which should directly reduce mining of primary zinc. The lower cost zinc that results should result in more steel being galvanised, reducing emissions from the steel industry by affordably extending the life of steel. The impacts of these indirect effects are yet to be proven but may become very large indeed.

Zinccovery’s pilot plant has produced ~300kg of zinc. This production is already displacing some mined zinc. However, the pilot plant is not representative of the commercial-scale production, so we have not chosen to include this displacement in our accounting for avoided emissions. The company is on track to build their first commercial-scale plant in Australia, which aims to produce 1,000 tonnes per year. At this point, their avoided emissions will become substantial.

Zinccovery’s potential for massive emissions reductions has been recognised this year with their nomination for the 2024 Earthshot Prize and their inclusion on the APAC Cleantech 25 group.

SUSTAINABLE DEVELOPMENT GOALS

KEY GOALS



SUPPORTING GOALS





Green CO₂ for greenhouse horticulture.

hotlimelabs.com



Emissions Mitigation Driver	FY2024 Emissions Mitigated	Emissions Impact Measurement Stage
• Tonnes of CO₂ delivered to greenhouses • Joules of heat² delivered • Tonnes of CO₂ sequestered into soil	-15 tonnes emissions avoided through CO ₂ delivered to greenhouses	Currently in planning stage

PROGRESS TO DATE

Hot Lime Labs allows horticultural greenhouse growers to stop using fossil fuels for the heat and carbon dioxide that their plants need. Instead, the fossil CO₂ is replaced by the greenhouses’ own biomass waste and locally sourced forestry waste.

Their first full-scale demonstration unit has begun operation at an 11.5-hectare greenhouse near Taupō. The unit is being optimised with the goal of producing three tonnes of carbon dioxide per day. At full production, this unit would halve the amount of fossil carbon dioxide used for that site. Once in operation, the units are expected to have a long lifetime, delivering emissions savings over many decades.

The technology can also produce biochar at a very competitive cost. The biochar can be used as a soil conditioner and is being evaluated as an animal feed additive. Both provides affordable long-term carbon sequestration. This use has been certified as eligible for Puro.Earth’s CO₂ Removal Certificates.

The company is pushing to develop and deliver units for the domestic market. NZ’s horticultural industry could make use of tens of units. This would validate the technology and ease the path to much larger European sales and the correspondingly much larger impact.

The company is in discussions with large international businesses to use Hot Lime’s core technology to enable and decarbonise their industrial processes. The emissions potential of this is uncertain but may be very large.

SUSTAINABLE DEVELOPMENT GOALS

KEY GOALS



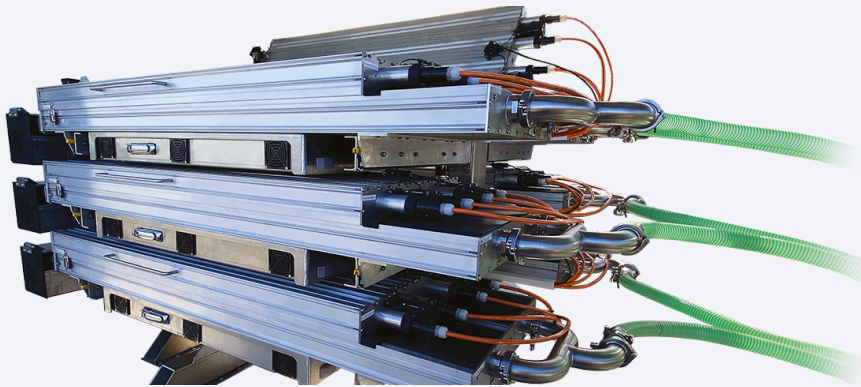
SUPPORTING GOALS





Supercritical UV Disinfection - a world-first solution for treating liquids with UVT as low as <1% in a single pass.

novolabs.co.nz



Emissions Mitigation Driver	FY2024 Emissions Mitigated	Emissions Impact Measurement Stage
Cubic metres of wastewater treated	-52 tonnes emissions avoided as emissions from customer sites are reduced as they avoid the use of clarifying chemicals and lower their energy consumption	• Planning to measure operational emissions • Climate impact measurement strategy adopted • Working with customers to calculate avoided emissions

PROGRESS TO DATE

NovoLabs' lower carbon and chemical free water treatment allows their customers to avoid using clarifying chemicals and reduce their energy use. This results in their customers (water treatment plants and food processors) being able to lower their emissions and meet environmental targets for wastewater. The technology also allows nutrients in the wastewater to be safely returned to agricultural land, reducing the need for mineral fertilisers and thus the emissions from their mining.

NovoLabs is working with potential customers to understand the impact of NovoLabs' units on overall emissions. The climate impact for each NovoLabs installation will depend upon the specific features of each customer. These features will be captured in a Project Carbon Footprint Document for each installation. This will allow the calculation of emissions savings for each installation in comparison to alternative approaches.

Emissions impacts are expected to ramp up as NovoLabs sells more units and higher-capacity units. Once installed, these units should have very long lifetimes, locking in emissions reductions.

SUSTAINABLE DEVELOPMENT GOALS

KEY GOALS



SUPPORTING GOALS



Contact

Partners



Dr. Jez Weston

Partner
+64 21 444 897
jez@2040ventures.com



Lance Wiggs

Partner & Co-founder
+64 21 526 239
lance@2040ventures.com



Rohan MacMahon

Partner
+64 21 410 861
rohan@2040ventures.com



Operations Team



Chris Humphreys

Limited Partner contact
+64 27 622 7803
chris@2040ventures.com



Angela James

Primary contact
+64 27 331 8030
angela@2040ventures.com



Tom Culley

Partner
+64 21 656 387
tom@2040ventures.com



Climate Impact Committee



Lucie Greenwood



Dr Jodi York



Nicolette Boele



Dr Shaun Hendy



Dr Jez Weston



Limited Partners Advisory Committee

Mandy Simpson (Chair)

LPAC-chair@climatevcfund.com

+64 21 148 1407



Web & Social Media



climatevcfund.com



linkedin.com/company/climate-vc-fund/



[@ClimateVC](https://twitter.com/ClimateVC)





**CLIMATE VENTURE
CAPITAL FUND**

Climate Venture Capital Fund
is managed by
2040 Ventures Limited
Level 6, 2 Kitchener Street
Auckland 1010

admin@2040ventures.com

+64 21 410 861

