



ACCELERATING REGENERATION

By Charles Fraser | Green Campus Limited | October 2026

Executive Summary

Δv (pronounced Delta-V) is *Green Campus Limited's* programme to deploy high-density, liquid-cooled AI compute nodes for rental online and integrate both its financial returns and its physical inputs and outputs into working regenerative properties and projects in a way that is socially, ecologically and economically beneficial. Rather than waiting on multi-year rural grid upgrades or custom building works before generating income, we begin in established UK Tier-3 colocation to get onto the compute ladder immediately—securing enterprise power, certified liquid cooling, hardware warranties, and four-hour engineering support from day one.

Working with our own funds to start the infrastructure finance journey venture and then scaling with the help of our venture capital friends finance partners to scale our initial colocation footprint, we will use net colocation revenues to develop custom-designed eco micro-data-centres, starting with an integrated facility at *Green Campus Delta* [[delta.create.green](#)], our headquarters in the south of England, and expanding to further sites. By treating liquid-cooled servers as revenue-generating hydronic heaters paired with solar power, battery storage, pool heating and property heat reuse (thermals and controls designed in house) and zero-water deep-space radiative cooling, our goal is to build micro-data-centres that fund new green campuses while delivering a net cooling, socially constructive, and biologically regenerative impact on the planet.

1. The Commercial Model: Starting on the Compute Ladder in Colocation

High-density AI compute requires reliable three-phase power, high-capacity fibre connectivity, and precision liquid cooling. For a small developer, attempting to finance, insure and build our bespoke rural data centre infrastructure before establishing a trading track record introduces unnecessary delay. Launching our first liquid-cooled 8-GPU node inside a nearby established UK colocation facility removes that bottleneck entirely, allowing us to start trading as soon as the hardware is delivered and commissioned. The process gives us all the best possible environment to take our first steps with our OEM's installation teams and the other top UK teams, establishing a low risk pipeline for delivering bleeding edge compute for customers. We can then earn our data centre certifications on the various exchanges we will be listed on as well as developing our own ecosystem and platform for supporting quite special compute projects.

The baseline financials of this initial colocation stage are straightforward and bankable. At a market rental benchmarks our hubble single 8-GPU Vera Rubin node generates healthy gross revenue and after accounting for UK colocation hosting, metered electricity, maintenance reserves, and 36-month hardware finance repayments, the single node is modelled to deliver a return on investment healthy and resilient enough to service a 36 month equipment finance facility organised with our bank, backed with our assets. This income rises significantly once that 36 finance is retired.

We are working alongside venture capital partners to scale this colocation position across multiple nodes, while using the net cashflow generated in colocation to finance the design and construction of our own custom micro-data-centre facilities—beginning at our headquarters in the south of England.

2. Whole-Systems Engineering: Custom Δv Eco Micro-Data-Centres at Green Campus Delta

Conventional warehouse data centres are designed as isolated industrial boxes. They draw megawatts of grid power and treat the resulting thermal output as a waste liability, running energy-intensive mechanical chillers or passive dry coolers. As whole-systems designers, we start from a simpler physical truth: a liquid-cooled 8-GPU server is a quiet, 24 kW hot-water heater that generates revenue while it warms a site. Direct-to-chip cold plates capture 90% + of the server's heat directly into a closed water loop at c. 55°C.

Our Δv colocation-versus-campus comparison studies for Green Campus Delta, our headquarters in the south of England, demonstrate why transitioning from third-party colocation into custom-built on-site micro-nodes improves both unit economics and environmental performance:

Our Δv facility models a 45% to 50% reduction in monthly operating overhead: While a single node in colocation is the fastest way to begin trading, third-party facilities charge ongoing markups on rack space, power handling, and cooling. Transitioning micro-nodes onto our own site reaches a clear operational inflection point at three nodes (approximately 75 kW IT load), cutting monthly operating overhead per node by 45% to 50%.

Direct hydronic heat reuse across the campus: At Green Campus Delta, the 55°C to 65°C water leaving the compute racks can be plumbed through plate heat exchangers into insulated thermal buffers serving domestic hot water, underfloor building heating, outdoor swimming pools, spa facilities, and year-round productive glasshouses—offsetting £18,000 to £31,500+ per year in purchased heating energy and adding c. £120,000 a year in retreat rental revenue for the improved facilities that are in much greater demand.

Solar generation and sodium-ion battery buffering: Coupling our testbed Δv micro-data-centre at Green Campus Delta with on-site solar PV arrays and non-flammable stationary sodium-ion battery storage allows the facility to absorb daytime renewable generation and arbitrage lower-cost overnight grid tariffs, reducing net electricity costs while providing grid-supportive storage.

Deployment stage	Site & architecture	Key financial & thermodynamic outcome
Stage 1: UK Colocation	1x 8-GPU liquid-cooled node in Tier-3 UK colocation, scaling with VC backing	Immediate market entry with 4-hour engineering SLA; £47,830/month gross revenue and £16,601/month net cashflow after hardware repayments at US\$11.00/GPU-hour (99% paid occupancy).
Stage 2: Green Campus Delta HQ (1 Node)	Single 22–25 kW liquid-cooled micro-node integrated at our HQ in the south of England	Eliminates third-party colocation rack markups; captures 55°C–65°C liquid heat for site buildings, pools, and spa facilities, saving £18,000+/year in heating energy.
Stage 2: Green Campus Delta HQ (3 Nodes)	Three liquid-cooled micro-nodes (~75 kW IT load) with solar PV and sodium-ion battery storage	Reaches economic inflection point: cuts monthly operating overhead per node by 45%–50% and offsets £31,500+/year in campus, pool, spa, and glasshouse heating.
Stage 3: Wider Campus Network	Custom eco micro-data-centres across future green campuses and partner projects	Integrates solar + battery buffering, subsurface root-zone thermal and moisture management, and zero-water deep-space radiative cooling for net planetary cooling.

3. Designing for Net Planetary Cooling and Biological Regeneration

Beyond our headquarters in the south of England, we are developing custom eco micro-data-centre designs for additional properties in our portfolio and making applications to local council for district heating Δv sites specifically through our network in the Sahara developing the largest desert reclamation and soil building projects in the region using cubic KM of water a year.

Where surplus heat must be rejected, our future designs integrate passive daytime radiative cooling meta-materials. Using specialised optical surfaces that reflect incoming solar irradiance while emitting thermal radiation strictly within the atmosphere's 8 to 13 micrometre transparency window, these panels beam leftover heat straight through the open desert sky into the 3 Kelvin (-270°C) cold sink of deep space. Instead of warming the local microclimate or evaporating water, unwanted heat leaves the Earth's atmosphere entirely.

The desert is attractive to us for these net planetary cooling possibilities but also because of the opportunities to couple with the vast irrigation projects where we can make the cooling phenomena more efficient as global warming accelerates as enjoy really digging into the design of massive biodynamic polyculture design. When the world is running away from the deserts because of global warming, we feel that these climates actually provided everything we need, from power, to water sequestration and an opportunity to demonstrate our mycorrhizal inoculants, biostimulants and thus create a very powerful and practical model for planetary cooling.

4. Reinvesting Compute Revenues to Establish Green Campuses

Integrating AI compute is a natural extension of how *Green Campus Limited* operates. We develop ecologically regenerative assets across multiple sectors—clean energy, biological agriculture, high-efficiency marine propulsion, and non-toxic plant-based materials—and we conduct and publish applied research alongside those deployments as we build them.

Our trajectory has grown step by step: from our first Green Camp at Arundel Forest forest garden, through an expanding portfolio of properties and ecological testbeds in which GPU rental was a part of the operations in the early Bitcoin and Ethereum days, to Green Campus Delta (a.k.a Delta Vegan Retreat) in the south of England.

From Green Campus Delta, we are now working to establish a wider network of green campuses through our existing Ecovillage Design approach. By reinstating a bleeding edge compute node as part of the thermal and economic architecture of our organisation we can become competitive again, building a disciplined, cash-generative compute business and network of jobs and customers in our ecosystem of people working to serve mother nature. We see this as more than just a commercial engine whose net revenues can be continually reinvested into acquiring land, but as an intelligence that is growing with us through the work we conduct in this growing network of nodes and symbiotic projects that build on each-other's value and create meaningful ecosystem regeneration, preservation and climate change mitigation.

We feel finding ecologically and economically viable investment vehicles like Green Campuses is a duty to our families as the future is very uncertain and defining safe ways through this important time is key.

5. Research Sectors, University Collaborations, and Target Workloads

The research sectors in which we have already engaged, funded trials, and contributed to academic publishing alongside university departments and research institutes represent the exact kinds of compute workloads we hope to attract and support:

Alternative Carbon and Land-Use Accounting: Building on debates and academic roundtables we have convened at the University of Oxford, we have worked extensively on Carbon Opportunity Cost (COC) accounting—using high-resolution satellite observation and geospatial modelling to quantify the full carbon drawdown and biodiversity potential of rewilding agricultural land.

Mycorrhizal Inoculants and Living Soils: Working with agricultural university departments and commercial farms, we have conducted and published field trials on arbuscular mycorrhizal fungal inoculants and marine kelp biostimulants—examining how fungal symbioses unlock bound soil phosphorus, sequester recalcitrant soil carbon, improve water retention, and boost crop yields and nutrition without synthetic chemical inputs.

Marine Propulsion and Hydrodynamics: In the marine sector, we work towards closed-loop toroidal propellers and clean electric propulsion, where computational fluid dynamics (CFD) and acoustic modelling show dramatic reductions in tip-vortex cavitation, underwater noise pollution, and propulsion energy demand.

Plant-Based Structural Biocomposites: Alongside composite research centres, we have tested 100% plant-based structural bio-resins reinforced with natural flax and wood fibres to replace petrochemical epoxies and styrenes in marine and architectural structures—a field increasingly driven by GPU-accelerated molecular and mechanical simulation.

Research sector	Computational & GPU workload	Real-world regenerative outcome
Alternative Carbon Accounting (Oxford roundtables & debates)	High-resolution satellite earth observation and geospatial Carbon Opportunity Cost (COC) modelling	Accurate accounting of land-use carbon storage, reforestation potential, and watershed recovery.
Living Soils & Mycorrhizal Inoculants (University crop trials)	Rhizosphere nutrient-transfer modelling, soil-carbon dynamics, and multi-season agronomic analysis	Unlocks bound soil phosphorus, builds soil carbon and moisture retention, and increases food nutrition.
Toroidal Marine Propulsion & Clean Vessels	GPU-accelerated Computational Fluid Dynamics (CFD) and underwater hydro-acoustic simulation	Eliminates blade-tip cavitation, reduces underwater noise for marine life, and cuts propulsion energy use.
Plant-Based Structural Biocomposites	Atomic foundation models, polymer cross-linking simulation, and finite-element structural testing	Replaces toxic petrochemical epoxies and fibreglass with non-toxic bio-resins and natural plant fibres.

6. Market Realism: Commodity Compute with a Sincere Purpose

While we hope our university and research connections will bring scientists, climate modellers, and engineers directly to our nodes, we are under no illusions about our scale. We know that we are minnows in the global compute market, just as we are minnows in the wider climate, agricultural, and marine industries. We do not claim to have a secret algorithm or hyperscale reach. We will however keep developing our own research and convening conferences on topics we feel are most expedient to the service of all life and evaluating, supporting and incubating solutions and investment opportunities therein.

Our realistic commercial model is simply to offer reliable, competitively priced commodity compute on the open exchange while welcoming direct rental customers, learning everything we can from the industry, and keeping our overheads lean. A customer renting our GPUs gets the exact same enterprise silicon they would rent anywhere else, with the difference that the revenue and the physical heat are engineered from the ground up to build regenerative campuses and serve life on Earth.

We welcome you to join us on this journey. To register your interest head to:

accelerate.create.green