GreenStart Partners

New Zealand Ventures for a Green Future

VC Analyst – EntryLevel 2023

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Project Overview: Action Plan

- Look up upcoming Energy Sustainability events / workshops and make it a priority to attend to expand network. Research speakers / attendees and try to connect beforehand
- Conduct Market / Customer Research and look into case studies of startups in the similar industries (learn from past mistakes, look out for trends)
- Identify key players and leaders in the Energy Sustainability Space. Expand my network.
- Don’t hesitate to update and amend my prior thoughts and plans based on new research results / understandings of trends and markets. Improvise and adjust accordingly!
- After networking, researching and attending key events, work on developing a compelling presentation for potential investors, firms and startups in the Energy Sustainability industry.

Factors to consider

- What are the things I need to know in order to build a good deal flow?

Look out for key players in NZ Energy Sustainability Space through networking and research, particularly through VC Firms, associations, key players and startups.

- Who should I reach out to for advice or support? And how can I reach out to them?

Reconnect with past colleagues and key figures in the Energy Sustainability Industry, as well as reach out to current colleagues and industry leaders. Contact VC firms and industry associations and leaders specifically in the Energy Sustainability space.

- What is the quickest version of this idea I can create this week?

Formulate a plan as to the best way to reach out to leaders in the Energy Sustainability industry, as well a list of key players/firms. Think outside the box as to how to connect with them (perhaps don't limit yourself to LinkedIn).

Mission 2.4 (Green Energy in NZ)

Market Analysis

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Market Size and Customer Analysis

- Market Size

Globally, the renewable energy market size was estimated at $970 billion USD as of 2022, and is projected to hit $2182 billion by 2032. Over 80% of NZ's electricity supply is powered by renewable energy, well above the OECD average of 35%, however total energy consumption from renewables stands at only 30%. NZ has laid out objectives aiming to generate 100% electricity supply from renewables by 2030, and 50% of all total energy consumption by 2035, and go completely carbon neutral by 2050.

- Customer Analysis

Customers in the NZ renewable energy market sector range from SME's, large corporations, government organizations/institutions and individuals/households. The target market is extensive and these customers are adopting the shift to renewable energy for factors ranging from ethical concerns, costs, as well as efficiency and sustainability.

- Customer Perceptions

There is growing demand in New Zealand to make the transition to a carbon-free economy, particularly as its emissions on a per capita basis ranks highly. There are also unique geographical advantages that New Zealand can fully utilize in the renewable energy sector, such as geothermal and wind power. The government of New Zealand has set ambitious targets and has backed this with funds such as Energy Transition Accelerators and Energy Graduate Supports.

Market Outlook and Trends

- Market Outlook

Globally the renewable energy market is set to have a CAGR of 8.5% between 2022 and 2032. Between 2020-2030, New Zealand's wind power market is expected to grow at a CAGR of 5%, NZ Hydropower is expected to grow at a CAGR of 38%, NZ Onshore Wind Power at a CAGR of 8%, and NZ Geothermal power at a CAGR of 1%.

- Recent Trends

Artificial Intelligence

As the renewable energy sector looks to provide a consistent and optimized flow of energy, Artificial Intelligence / Big Data will play a key role in decisions to enable better efficiency and predict upcoming usage.

Offshore Wind

New Zealand's investment in wind power has previously focused on onshore wind farms. There is now early interest in offshore wind farms e.g Taranaki Offshore Wind Project.

Energy Storage

There are emerging investors and projects in developing renewable energy storage technologies, as well as Distributed Energy Storage Systems (DESS), helping providers to store energy which would otherwise be wasted.

Mission 2.1 (Energy Sustainability)

Deal Flow

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- Deal Activity
  - solarZero: Funded by First Sentier Investors, Natixis Investment Managers and NZGIF ($170M NZD)

Created to help accelerate distributed solar power in New Zealand – first issuance by a NZ based financial institution to secure Climate Bonds Initiative certification.

- SolarCity NZ Limited: Funded by Penccarow Private Equity ($5M NZD).

NZ's only all-in-one solar power company. Most Kiwi-made panels installed on homes and businesses.

- CarbonScape: Funded by Amperex Technology and Stora Enso ($18M NZD)

Develops propriety cutting-edge, energy efficient technologies that transform biomass into high value carbon products e.g batteries

Key Players

- Solarcity – $4.41M of funding (Investors – Pencarrow Private Equity)

Remote Monitoring Software for Solar Systems. 137 employees. $12.5 million revenue

- Vertus Energy - $862 m of funding (Investors – Plug and Play Tech, Startmate and Others)

Biogas Generation Technology, waste conversion, carbon capture. 2-10 employees. $1-5 million revenue

- Loadstone Energy - Latest Deal Amount - $250 M

Operator of a scale solar generation project intended to harness the sun's energy to power New Zealand's zero-carbon future. 16 employees

Mission 2.4(Green Energy)

Pitch Deck Evaluations

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Pitch Deck No 1:ubiquitous energy

Oneliner: ubiquitous energy describes themselves as the world-leader in transparent solar technology, working towards a goal of helping solve climate change by creating truly transparent renewable energy for every surface across the globe

Market: No apparent Market Research conducted in ubiquitous energy's pitch book.

Product and Problem
Problem: High cost of fitting and manufacturing, residential/commercial energy wastage
Product: Only fully transparent solar technology that generates electricity from non-visible light.
Differentiation: Generates onsite electricity with no aesthetic tradeoffs.

Team:
- **Founders:** Miles Barr, Richard Lunt, Vladimir Bulovic.
- Relevant Experience: All founders featured on MIT's TR 35, Bulovic Director of MIT nano.tech.

Metrics: Lack of metrics with regards to traction and revenue.
- Customer Feedback: Best in class window performance, improved tenant experience = higher rents.

https://drive.google.com/file/d/1ygy87-Ys9Bo5WhJqfoQqXf3Uhhp2BAQ3/view

Pitch Deck No 2: Dandelion energy

Oneliner: “To become the Tesla for heating and cooling”; reduce heat pump installation and running costs.

Market:
Market Size: Existing (Retrofit): Natural Gas - 33 million homes across 32 states where Geo is cost competitive) + New: 430,000 new homes per year.

Product and Problem
Problem: Existing Heat Pumps consume power expensively, consumers concerned about heating performance
Product: Low cost home geothermal. Ground Loops absorb heat from underground. Energy is distributed more efficiently and households save from day one.

Team:
- **Founders:** Kathy Hannun
- Relevant Experience: Prior exposure and knowledge of energy transition systems.

Metrics: Lack of metrics with regards to traction and revenue.
- Customer Feedback: No 1 rated contractor in State of NY, Home Advisors state that bill reduction has been immediate and significant.

https://drive.google.com/file/d/12Gyi-6xCTpvnC5FqQEp-cTdQA9cMIWPA/view

Pitch Deck No 3: World Fund

Oneliner: Capturing the 5 trillion euro climate tech opportunity in Europe. Europe's biggest climate tech VC Firm.

Market:
Market Size: 5.9 Trillion Euro Revenue, committed to Net-Zero, that needs to be served. "The next 1,000 Unicorns will be in climate tech"

Product and Problem
Problem: A lack of venture funding for that transformation to create a 5 trillion euro market. The highest decarbonization values are not matched by deployed VC.
Product: A focus on accelerating Europe's climate tech leadership. A diverse team with a green track record of investments at 9 x MOIC, specifically targeting companies looking to transform energy sources and emissions.

Team:

- **Founders:** Daria Saharova, Danijel Višević, Craig Douglas, Christian Kroll and Tim Schumacher

- Relevant Experience: Craig Douglas has prior exposure to the Energy Tech Sector – principal at VC SET Ventures, Investment Advisory Board member to the Cleantech group.

Metrics: 50 million euros in funding, 350 million euros with assets under management. 5 million impressions monthly on twitter, 1,650 inbound deals since launch.

https://drive.google.com/file/d/1JSPcKrlCi3XyKy8JXdYdj6h-_IrUjNnW/view

Overall Pitch Deck Evaluation

- **Ubiquitous energy**

The product that Ubiquitous has on offer appears to be unique in the form of transparent solar energy, without the need for aesthetic tradeoffs. This appears to give their product a promising edge. The lack of market research and any form of metrics e.g revenue, customer traction is a concern.

- **Dandelion Energy**

Promising heat pump technology that details in length how their Ground Loops capture geothermal energy and significantly reduce energy wastage and costs. Extensive market research delivered and excellent customer feedback captured. Improvements would include more metrics, as well as detailing any key competitors (if any).

- **World Fund**

Great pitch deck that detailed the issues with the lack of VC firms specifically targeting companies wanting to partake in energy transformation – already detailing why they have the edge over their competitors. Detailed metrics, customer traction and market research, as well as a step-by-step guide through their investment decision-making processes, as well as a solid team. Improvement would be how to ensure their long-term sustainability if other VC firms rise.

Final Recommendation – Amongst these 3, World Fund stands out as the best based on their vision, target market, and the team. They also seem to understand the core issue of a lack of venture funding for energy transformation and are one step ahead of their competitors.

All Pitchdecks could have benefitted from more metrics and clearer illustrations of their long-term business strategy.

Case Study: Aquion Energy Bankruptcy

Aquion Energy was a startup that developed and sold batteries for renewable projects and power grids. Aquion went to lengths to avoid using raw materials. It relied on manufactured, repurposed equipment.

Aquion failed to raise funding in March 2017, filing for bankruptcy, cutting 80% staff and halting production.

Why did it fail?

Several other venture-backed storage startups had also failed at around the same time - the key issue was that without cheap ways of storing excess energy generated from intermitted sources, e.g wind, sun, there were limits to how much renewable sources of power could contribute to grid's overall electricity generation.

Other issues included:

- Slow developing market for advanced grid storage - technology involved is young and expensive
- Price in lithium-ion batteries dropped far faster than expected, offsetting benefits of alternative energy storage.

Case Study: Due Diligence Recommendations

- Assess metrics of other key players e.g how are your competitors dealing with a technology that is fairly new against a traditional market (lithium-ion v alternative storage)
- Evaluate the market and ensure a clearer understanding of the long-term drop in costs that may occur in your traditional market space.
- Understand better the customer traction of your new technology space – what are the barriers for potential customers to make the switch to alternative energy storage means?

Term Sheet Analysis: Pay-to-Play

This section details the pay-to-play details of a proposed Series A funding (of NEWCO.COM). Its main purpose is to stipulate that investors need to commit to making further investments in order to maintain their original stake, or voting rights.

In this specific term sheet, there are several versions which generally state that at a time of a Qualified Financing Event, failure of an Investor with shares of Series A preferred to purchase the pro-rated portion, will have their shares converted into Common Stock.

Pay-to-Play can be beneficial for startups as it it offers a safety mechanism for future funding, serving as an incentive to investors to honour agreements. This is particularly handy if there are future “down-rounds”, e.g stock price decline. This would likely be regarded negatively by investors however, who may not want to continue with the provision and have their stock converted.

Pay-to-Play:	**[*Version 1:* In the event of a Qualified Financing (as defined below), shares of Series A Preferred held by any Investor which is offered the right to participate but does not participate fully in such financing by purchasing at least its pro rata portion as calculated above under “Right of First Refusal” below will be converted into Common Stock.]**

Term Sheet Analysis: Antidilution Provisions

This section details what Antidilution Provisions are in place for the Investor(s). In this case, the investment is subject to a full-ratchet Antidilution Provision, the most protective for investors.

Put simply, an investor will be fully compensated in case of a dilution caused by future financing rounds.

For startups, Antidilution Provisions can increase the attractiveness of their company as an investment, providing future investors with an increased form of protection. Antidilution Provisions can be costly however for a startup, if the need arises to compensate the investor in some form.

Antidilution Provisions:	The conversion price of the Series A Preferred will be subject to a [full ratchet/weighted average] adjustment to reduce dilution in the event that the Company issues additional equity securities (other than shares (i) reserved as employee shares described under "Employee Pool" below; (ii) shares issued for consideration other than cash pursuant to a merger, consolidation, acquisition, or similar business combination approved by the Board; (iii) shares issued pursuant to any equipment loan or leasing arrangement, real property leasing arrangement, or debt financing from a bank or similar financial institution approved by the Board; and (iv) shares with respect to which the holders of a majority of the outstanding Series A Preferred waive their antidilution rights) at a purchase price less than the applicable conversion price. In the event of an issuance of stock involving tranches or other multiple closings, the antidilution adjustment shall be calculated as if all stock was issued at the first closing. The conversion price will [also] be subject to proportional adjustment for stock splits, stock dividends, combinations, recapitalizations, and the like.

Term Sheet Analysis: Liquidation Preference

Liquidation Preference:	In the event of any liquidation or winding up of the Company, the holders of the Series A Preferred shall be entitled to receive in preference to the holders of the Common Stock a per share amount equal to **[2x]** the Original Purchase Price plus any declared but unpaid dividends (the "Liquidation Preference").

This section dictates the order and amount that investors will get paid when there is an exit event. Effectively, it gives an investor preferential payouts in the event that the company is sold, typically before common stockholders can cash in.

It can provide a form of protection for Investors in receiving more of their investment back, if the returned amount is not enough to repay all existing stockholders (completely).

Thank you!