Flora Ventures

Backing Australia's Sustainable Future

We are committed to investing in early-stage startups that would revolutionize the way we generate, consume, and manage energy and resources.

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1. Project Overview

Project Overview

Flora Ventures

Focus

To contribute to Australia’s transition to a low-carbon economy and address sustainability challenges in meeting Australia’s energy needs while reducing greenhouse gas emissions.

Trend

Renewable energy and sustainability

Areas of interest

1. Market Analysis

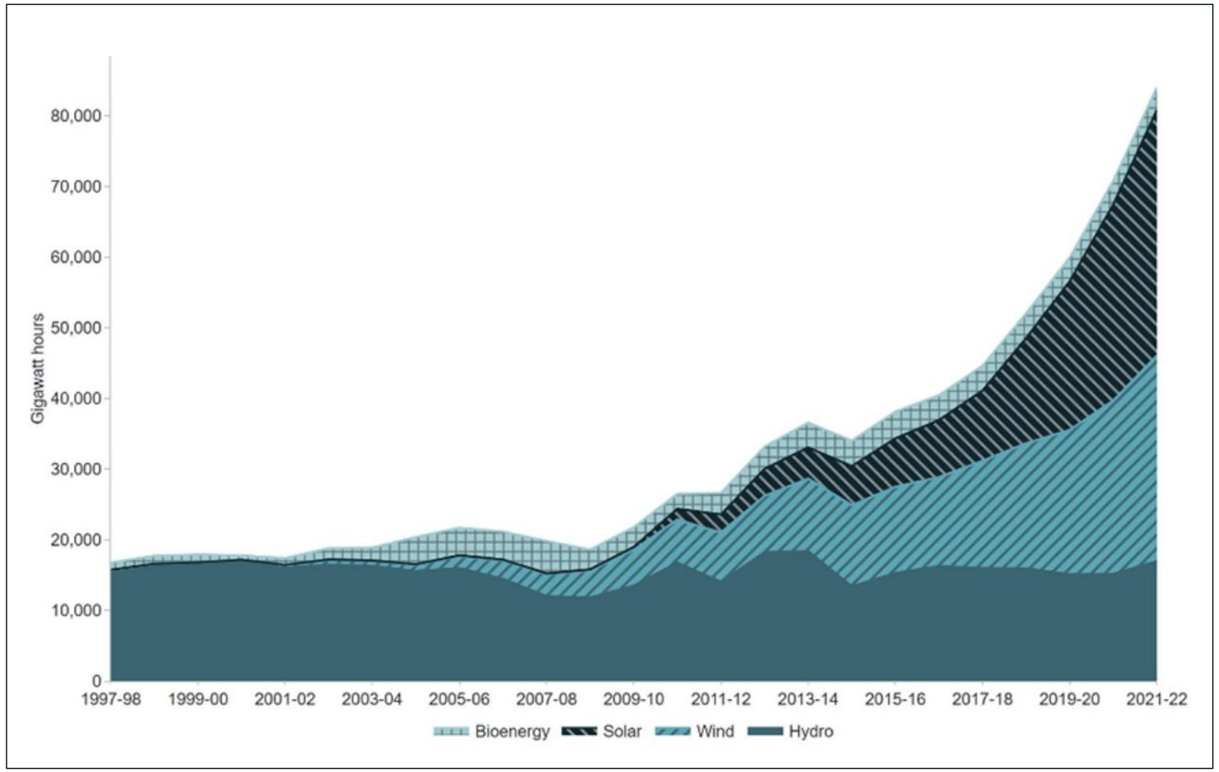
Australia's Renewable Sector has been **growing rapidly** in the last decade, particularly driven by wind & solar.

Size

- Australian renewable energy sector was valued at AU$11.44bn in 2020 and is forecasted to grow to AU$24.72bn by 2025 - **CAGR of 16.6%**.
- Deloitte's Australia CleanTech Index estimates that the 87 companies included in it have a combined market capitalisation of **AU$80 billion** (Dec 2022).
- Climate Tech companies are currently valued at **AU$4.12bn** in 2023 and have an annual revenue growth of **88%**

Type

- **32%** of Australia's total electricity generation was from renewable energy in 2022.
- Solar and Wind have been the key drivers e.g. small scale solar generation increased by **22%** per year since 2015



Showing the acceleration of Australian energy generation from renewable sources in particular solar and wind.

Source:https://www.energy.gov.au/energy-data/australian-energy-statistics/electricity-generation#:~:text=Renewables%20contributed%2032%25%20of%20total,%25)%20and%20hydro%20(6%25).

Customer landscape in the renewable sector is **diverse**, and there are a number of challenges emerging ventures need to solve for them.

What **challenges** need to be addressed by emerging ventures?

- Improve the **efficiency** of renewable energy in terms of costs, scalability & energy production - for large scale industry and small scale households.
- **Enhance energy storage solutions** to manage the irregular flow from renewable energy.
- Improve the ability of individuals / households / communities to **make and manage their own energy resources**.
- **Reduce and remove greenhouse** gas emissions.

Types of Customers

Industrial and Commercial sectors. Manufacturing, transport and commercial services are the most energy intensive industries in Australia as of 2021-22.

Households. Households followed manufacturing as the second biggest energy consumer.

Regionally, Tasmania has the highest renewable energy consumption as of 2022.

Customer Perception

Overwhelming, Australians support the energy transition and there is government impetus & policy to driving this currently.

- ➔ 77% of Australians believe that climate change is occurring in 2023
- ➔ 68% of Australians want to see the phase-out of coal power stations in the next 20 years
- ➔ The Australian parliament passed legislation to reduce carbon emissions by 43% by 2023 and net zero by 2050.
- ➔ Government has pledged to invest US$13.3bn to modernise the country’s electricity network

The transition to net zero economy will continue to create many growth opportunities for startups, but this is not without its challenges.

Market Outlook

The transition to net zero economy bolstered by government support and growing market demand has and will continue to create **many growth opportunities for start-ups in** the space whether that be in creating new technology, business models etc. This can be backed by numbers - defying recent market slump 3 times as many climate tech start-ups have been founded in the last 5 years compared with the previous 13. Over the next 12 months there is over **$1.5bn planned capital** to be raised. Renewable energy sector has a CAGR (compound annual growth rate) of 16.6%.

However, this is not without its challenges. There are a number of **barriers to entry** for new entrants in the renewable energy and sustainability space, these can include:

- ➔ **High capital costs** in technology, equipment and infrastructure
- ➔ **Regulatory and policy frameworks** e.g licences, permits etc.
- ➔ **Economies of scale of incumbents**

There a 3 notable trends within the Australian Renewable sector - decentralised energy generation, AI & energy storage.

Decentralised Energy Generation

Increase in **small-scale units** of energy generation which includes solar, smart meters, battery storage etc. Australia has one of the highest numbers of household solar in the world with more than 3m houses with rooftop solar panels.

AI

Growing interest in the **use of AI** within the sector, namely for predictions of wind patterns/solar irradiance, predictive maintenance in renewable energy infrastructure, AI powered sorting systems in waste management etc.

Energy Storage

As renewable energy generation increases energy storage will be critical to **balance demand and supply** (store while generating more if supply is greater than demand). The total energy storage demand is expected to exceed 6,000 MW by 2025.

While most sectors experienced a decline in investment 2021-22, climate tech saw an **increase** with continuous year on year growth in deal size.

Total value of deals increased from $57M in 2019 to $564M in 2023. There was a 9.9x increase in VC investment from 2019 to 2022 showing interest and resilience in the sector as well as the presence of dedicated climate VCs in the market to continue to invest.

- **MGA Thermal** secured AU$8.25m from a number of investors Melt Ventures, Main Sequence, NZ Climate Venture Capital fund, Varley Holdings, Pollination Group and Understorey Ventures
  - Thermal energy storage technology
- **Endua** secured AU$11.8m in pre-seed funding from Queensland Investment Corporation (QIC), Melt Ventures and 77 Partners
  - Hydrogen generation and energy storage technologies, focused on off-grid and remote industries like agriculture etc.
- **Avarni** secured $2.5m in funding led by Main Sequence Ventures
  - Carbon accounting software platform
- **Pathzero** secured $8.6m from Carthona capital, Clyde Bank Holdings and Antler
  - Online platform that helps companies exchange and analyse carbon information securely
- **BT Imaging** acquired by Aurora Solar Technologies for 63m in common shares and over US$1.2m in cash
  - BT Imaging develops luminescence-imaging systems for the PV maufacuturing industry
- **Goterra** raised $10m in a bridging round in summer 2023.
  - Use insects to convert organic waste to fertiliser.

There are 3 key start-ups to note in Australia - Brighte, Power Ledger and 5B.

- **Product -** Sustainable energy tech platform designed to provide financing solutions and home energy services, making sustainable energy affordable and accessible for all. In 2021, Brighte introduced a gen-tailing model, allowing consumers to both generate and retail energy, promoting inclusivity and active participation in the sustainable energy landscape.
- **Scale/Customers -** Approved finance exceeding $600 million for approximately 75,000 households in Australia.
- **Funding -** Secured AU$100 million in Series C funding, led by Grok Ventures and Airetree Ventures.
- **Founder -** Katherine McConnell - extensive financial background
- **Revenue -** Annual revenue of AU$18.7 million, with an impressive 912% revenue growth over the past 3 years, positioning it as one of Australia's fastest-growing technology companies.
- **Employee Count -** 129
- **Competitive Landscape-** Top out of 4 competitors

- **Product -** Block-chain based energy trading platform that allows consumers/producers to track and trade surplus renewable energy generated at residential or commercial developments.
- **Customers -** 6+ million customers and operate over 12 different countries
- **Funding -** Funding over 4 rounds from 19 investors
- **Revenue/Growth -** Estimated to be $11.4m per year. Annual year growth of 340.36% over the last 7 years.
- **Employee Count-** 88
- **Awards -** Won a World Summit Award for promoting distributed energy in Uttar, India
- **New Products -** Launched TraceX where you can trade environmental attribute certificates

- **Product -** Renewable energy start-up leading the way in solar technology. Developed solar panels that can be unfolded and rapidly deployed at scale and low cost. 5B technology generates 1.6x more power per hectare than conventional technology.
- **Scale -** Technology been deployed across 100 sites worldwide
- **Funding -** Raised in Series B funding AU$20m from the venture arm of BP plc
- **Revenue -** Annual revenue estimated to be AU$51.1m
- **Employee Count -** 186
- **Big Projects -** In early 2023 landed one of its biggest projects to be the PV technology provider of one of the largest battery metal mines in the world so that it can operate at times 100% on renewable.

3. Pitch Deck Analysis

Start-up Selection - 1) Endua

Brisbane-based renewable energy storage startup, Endua, specialises in developing standalone hydrogen power banks.

- **Problem Addressed -** Targets the challenge of long-term storage for intermittent renewable energy sources like solar and wind, aiming to overcome limitations and environmental concerns associated with current solutions (back-up from fossil powered generators or batteries).
- **Product Differentiation -** Utilises electrolysis, working in collaboration with CSIRO (Commonwealth Scientific and Industrial Research Organisation)
- **Partnerships -** Ampol, CSIRO, and Main Sequence to strengthen expertise and industry presence.
- **Market Opportunity -** Substantial annual spending on diesel for electricity in remote areas and the Australian federal government has made some large investments in the green hydrogen sector.
- **Traction -** Secured Ampol as a major client, with plans for testing and commercialising Endua's technology. Ampol's leading role in energy distribution provides access to a sizable B2B market, particularly targeting the off-grid diesel generator sector.
- **Leadership Team -** Headed by CEO Paul Sernia who has extensive experience in energy and manufacturing, and Chief Scientist Dr. Sarbjit Giddey, a key figure in hydrogen technology.

Evaluation

This start-up is very strong. A very promising sign are its existing partners and backers, namely CSIRO (Australian government agency) and Ampol, one of the largest energy distributors and retailers in the country. This shows a number of things, 1) the founder has good industry connections useful for raising more capital/scaling up, 2) Ampol being a customer sees a strong use case for the product and, 3) working with Ampol means the product will be designed with direct customer feedback/input.

Another great sign is that the CEO and founder has successfully scaled another technology company globally - this shows business expertise, potential industry connections and also experience in the challenges/hurdles that need to be undertaken. The Chief Scientist is also a specialist in the hydrogen energy field.

Finally, in terms of market size within Australia itself there is a strong trend towards renewable energy particularly hydrogen. This is being supported and driven forward by the government itself who are investing $4bn to accelerate the green hydrogen sector. While this is a $bn industry within Australia itself it is also a challenge faced globally which is a good indicator for international expansion.

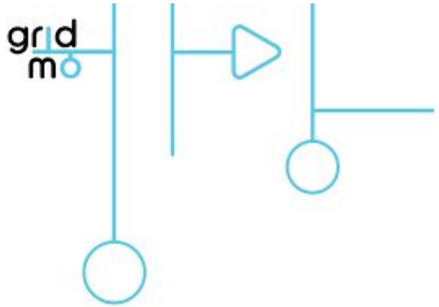
Perhaps what is missing here and I have a question about is:

(Metrics/Product) What is the feedback from pilot customers themselves around usage, implementation, comparison with alternatives etc? These insights would give a better indication of potential for traction and scalability.

Start-up Selection: 2) Gridmo

Revolutionising how electricity generation is integrated into the grid. Their mission is to streamline grid connections, particularly for renewable energy projects in Australia, and combat the increasing complexity of the power grid.

- **Problem Addressed -** The modern grid, with its diverse and intermittent renewable energy sources, faces challenges in grid connection and compliance. Traditional methods for grid connections are time-consuming and costly, often taking years for a single project.
- **Product -** gridmo offers a B2B SaaS platform, a standardised, low-code web application designed to expedite power generation connections to the grid. The platform simplifies and streamlines modelling requirements, promoting collaborative work.
- **Product Differentiation -** gridmo connects various tools and provides local engineers with a customised solution.
- **Market Opportunity -** With Australia's rapid growth in renewable energy sources and a backlog of generators awaiting grid connection, gridmo addresses a significant market need. The situation is similar globally, indicating a large potential market.
- **Traction -** In the first 6 months after launching gridmo onboarded five companies.
  Team - Stephens and Vermeer are experienced power systems engineers with a history of working on renewable generation projects in Australia. They have shared values, industry experience and previously worked together.



Evaluation

Another strong start-up with a clear and compelling problem statement detailing the impact of the current challenges around connections on time, costs and Australia's use of renewable energy. A very positive sign is that both founders are engineers themselves and have dealt with and faced the issues they are trying to solve. This means they have a good understanding of the problem and therefore are in the best position to build a solution that ultimately fixes it and provides customer satisfaction.

From a market sizing perspective, they have clearly outlined the market opportunity within Australia - there will be just under 200GW of generators that will need to get connected, as well as the broader opportunities worldwide especially the US. In addition, their product solves a problem in a market that is expanding with the rise of decentralised energy generation especially in Australia. The founder's ambitions of connecting more than 10GW by 2028 shows their desire to capture this opportunity, also important.

In terms of the team, as mentioned earlier both founders come from specialist backgrounds within the product space (and with that industry connections) and have strong relationships going back years.

Perhaps what is missing here and I have a question about is: **(Team) Do the founders have any experience in founding a start-up and scaling a business? Or strong networks to support them with this?**

While, there is clearly customer traction as they onboarded 5 customers in their first 6 months and built over $1m in pipeline. Similar to Endua, **(Metrics/Product) What is the feedback from pilot customers themselves around usage, implementation, comparison with alternatives etc?**

Start-up Selection: 3) Kapture

Developing a unique carbon capture technology tailored for diesel generators. This technology addresses the significant environmental impact of diesel generators, which are widely used globally for reliable power in unstable or remote areas.

- **Problem Addressed -** Diesel generators, crucial for backup power, notably contribute to CO2 emissions and air pollution.
- **Product -** Kapture's technology is a low-cost, user-friendly filter that captures CO2 emissions from diesel generators. Uniquely, it can be retrofitted to generators of any size, and its by-product can be directly used in soil, offering an environmentally sound disposal method.
- **Traction** - The Victorian Government and Johns Lyng Group are early adopters for trial purposes, with promising prospects for broader implementation. Kapture is also in talks with Plug and Play Ventures in the US for further investment.
- **Market Opportunity -** Diesel generators are used across various sectors, from mining to hospitality, making Kapture's technology relevant and potentially impactful on a global scale.
- **Team -** Bagri (the founder) has experience in hospitality and angel investing.

Evaluation

Also strong. The founder, Bagri, has demonstrated a large market opportunity both globally and within Australia. The focus on diesel generators that are the no. 1 source of back up power and emit twice as much CO2 as the grid shows the size of the problem and therefore the market in which the solution can be sold into.

With the size of the market, Bagri has also outlined how the product differentiates from other solutions that currently exist. As well as capturing carbon, Kapture technology deals with the challenges of waste. The filters allow users to discard it into the soil and store it permanently which is both scalable and affordable - good indication around the potential business model/customer acquisition.

In addition, there is clearly customer traction as the Victorian Government in collaboration with the Johns Lyng Group have come on board to trial the product as the first customers. In particular, Johns Lyng Group has a strong network of corporates they work with which is useful in 2 ways 1) opens doors to future potential paying customers and 2) provides a pool of users to get feedback from as the product develops in its early stages.

Similar to the other start-ups, **(Metrics/Product) What is the feedback from pilot customers themselves around usage, implementation, comparison with alternatives etc?**

Finally in terms of the team, Bagri shows a strong business background and experience in building/scaling ventures and angel investments. A question would be **(Team) Does the founder have any experience of the problem itself or a strong network with any understanding of it e.g working in energy/with diesel generators or technical expertise in the product itself?**

Start-up Recommendation: Endua

All 3 are very strong start-ups with strong pitch decks. If I were to rank the start-ups it would be 1) Endua, 2) gridmo, and 3) Kapture, the team and current partnerships of Endua (as outlined in the earlier slide) tipped the scale.

4. Due Diligence & Recommendations

Sun Cable failed due to a **misalignment of key stakeholders**, showing the importance of researching into the team before investing.

Sun-cable is a cleantech start-up that was looking to develop giant solar farms in inland Australia to export clean energy to Darwin and also Singapore with a submarine power cable.

It raised AU$210m in Series B capital. Grok Ventures led the funding round with Squadron energy.

Was valued at $25bn.

Why did it fail?

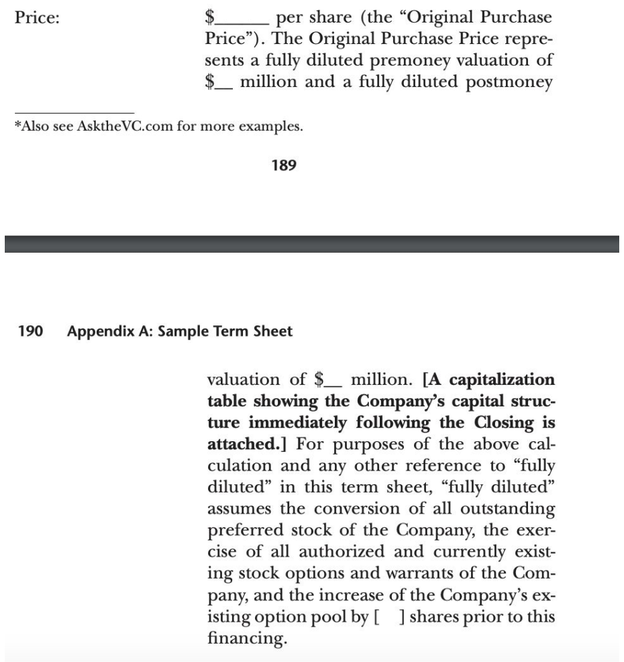
Sun Cable primarily failed due to **disagreements among its major stakeholders** (Mike Cannon-Brookes and Andrew Forest) regarding the future direction and funding structure of the company. The company entered voluntary administration in 2023.

Research to avoid this?

Prior to investment, I would recommend assessing the experience and track record of the startup's management team as well as whether they share a common vision and understanding for the company’s objectives and outcomes.

5. Term Sheet Analysis

Valuation



Price: $_____ per share (the "Original Purchase Price"). The Original Purchase Price represents a fully diluted premoney valuation of $__ million and a fully diluted postmoney

*Also see AsktheVC.com for more examples.

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190 Appendix A: Sample Term Sheet

valuation of $__ million. **[A capitalization table showing the Company's capital structure immediately following the Closing is attached.]** For purposes of the above calculation and any other reference to "fully diluted" in this term sheet, "fully diluted" assumes the conversion of all outstanding preferred stock of the Company, the exercise of all authorized and currently existing stock options and warrants of the Company, and the increase of the Company's existing option pool by [ ] shares prior to this financing.

Valuation determines a company's worth.

Pre-money valuation refers to the value of a company before it receives the latest round of investment. Calculated based on performance, market potential, growth rate etc.

Post-money valuation is the value of the company after the investment has been made. It's calculated by adding the amount of new equity investment to the pre-money valuation.

Rights & Obligations

Investors conduct due diligence to determine valuation and founder ensures valuation is fair.

Investors might negotiate **anti-dilution rights** to protect the value of their investment in case of a future equity raise at a lower valuation. They may also veto rights on future fundraising rounds, which can impact valuation indirectly.

Founders have to provide **full transparency** about their business during the valuation process including any issues that could impact the valuation. They are also obligated to try achieve the milestones which were part of the valuation discussion.

Relationship between parties

Influences **equity distribution -** how much equity an investor will receive in exchange for their investment. A higher pre-money valuation benefits the entrepreneur by reducing equity dilution, while a lower valuation favours the investor with a larger equity stake. Post-money valuation can also shape expectations for the company's performance.

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").

Amount of money an investor receives in the event the company liquidates.

2x would mean that the VC gets 2x the amount of money they put into the company back in a liquidity event.

Rights & Obligations

The liquidation preference gives investors the right to get paid **before common stockholders** in a liquidity event. The multiple is the amount of money an investor receives (negotiated by investor). If liquidation preferences came with participating rights the investor would get paid their preference and the share in remaining assets.

Founders have the right to **negotiate the terms of the liquidation preference**. They aim to keep the multiple as **low as possible** to maximise their own returns. Preferences should also align with growth and exit strategy of the founder.

Relationship between parties

Founders should be cautious about liquidation preferences over 1x. If the company liquidates, the investor receives a far higher proportion which could leave the founder with nothing/little depending on the amount sold for etc...

Drag-Along Rights

information and inventions agreement.

[Drag-Along Agreement: The holders of the (Founders/Common Stock) Series A Preferred shall enter into a drag-along agreement whereby if a majority of the holders of Series A Preferred agree to a sale or liquidation of the Company, the holders of the remaining Series A Preferred (and Common Stock) shall consent to and raise no objections to such sale.]

Rights that give the majority investors the right to force minority investors to join in the sale of a company.

Rights & Obligations

If a majority of Series A Preferred Stockholders decides on a sale of the Company, the rest of the Series A Preferred and Common Stockholders must agree to this decision without raising objections. Investors also often have significant influence in negotiating the terms of the sale.

If a drag-along is triggered and because founders are usually stockholders they are obligated to participate in the sale even if they object. They do, however, have the right to expect a fair sale process and can also negotiate the conditions under which a drag-along can be executed.

Relationship between parties

- **Control -** Gives majority Series A Preferred stockholders the power to enforce a company sale
- **Protects Majority Investors -** Safeguard the interests of majority investors so that they can exit without minority stakeholders blocking.
- **Tension -** Minority stockholders might feel pressured into decisions they don't fully support causing tension.
- **Investment Attractiveness -** It can make an investment more attractive to investors who don’t want to be blocked by minority stockholders.


Thank you.