
INTRODUCTORY FLIER

Transforming Energy and Transportation in Australasia

Innovative technology which enables 3 essential transformations...

1. Fully-modular energy storage - facilitating huge growth in decentralised energy.
2. Affordable-clean vehicle models - tailored for consumers & commercial uptake.
3. Australasian manufacture - keeping the wealth local and providing employment.

Scalable from low to high capacity and duration, energy dense in location, very clean lifecycle.

INNOVATION VERSUS REPLICATION

- Overcoming the energy storage hurdle and lack of clean vehicle choices.

Mass energy storage is essential in the transition from fossil fuel to renewables electricity. Transition to renewables is at two levels: central utility electricity and grid transmission; and decentral user.

Wherever there is renewables electricity being generated there is a need for storage to manage the intermittency, whether to do so centrally via the utility or decentrally via the users. The functions that storage plays are quite diverse, including electricity quality, backup resilience, demand management, etc.

At its core storage is essential to achieve efficiency from renewables generation, - both centrally and decentrally.

Storage technologies tend to be purpose specific, and less suited elsewhere. For example pumped hydro and large scale compressed air are long duration and slower response. Big battery is fast response and shorter duration. All are at locational points in the grid. Smaller batteries are less economically scalable.

DECENTRALISED STORAGE

Centralised utility storage does not provide a thriving environment for maximising the use of decentralised renewable resources. Rooftop solar, industries, communities, microgrids, virtual power plants, solar farms – they are all decentral and need locational energy assets that can scale economically.

Lagging in this huge decentralised energy future is the storage to match the growth in the renewables. This requires affordable and modularly scalable capacity and duration decentrally near the generation. As can be seen simply by looking at statistics, this is lacking. Current technologies are Band-Aids.

Till now. This energy storage hurdle we overcome.

ELECTRIFYING TRANSPORT

Decarbonising transport hurdles are more obvious to most.

- There are too few models for everyone to go electric (from consumer to commercial).
- The models are over-everything (overdesigned, overweight, oversize, overcostly).
- The models relying on production and disposal with higher lifecycle embedded carbon.

These hurdles we overcome. Please read on.

REVOLUTIONARY MARKET IMPACT

- Overwhelming interest from tested areas of commerce, industry, and individuals.

We have taken, and explained, our following three value propositions to energy and transport users very broadly and received overwhelming prima facie interest and offers of project participation:

- 1. Leveraging Decentralised Energy:** Removing the energy storage limitations that are globally holding back decentralisation of energy generation, usage, and sharing.
- 2. Facilitating Regionalised Transport:** Removing the limitations of models and minimising unappealing and concerning characteristics limiting transport electrification globally.
- 3. Enabling Distributed Manufacture:** Creating a product construction and production technology that enables manufacture to be regional, cutting carbon, and creating local business, wealth and employment.

OUR ENABLING TECHNOLOGY

- A few powerful and enabling differentiating technology characteristics

The details of the technology are presented in available documentation, as are the applications in the field for both energy and transport. Below a few points are highlighted that touch on the more technical.

Mechanical: The modular compressed air energy storage uses no chemicals and only air and heat plus its energy source. The low temperature air engine is designed for low maintenance and high reliability.

Scalable: Very uniquely the storage system is fully modular (scalable), and separately manages the capacity (kW, MW) to the duration (kWh, MWh) - being functions of the air engine versus the air tanks respectively.

Density: As in traditional service stations the tanks can be placed underground, so there can be high energy for little space. This is very useful for shared storage farms alongside solar farms.

Efficient: In the air system, the air energy and heat interact. So heat or cooling generated by compressing or expanding air can be used, creating further high efficiency. Lighter weight adds vehicle range, and refill can be very fast.

Affordable: The lack of chemicals, battery, and the production process means greater affordability.

HIGHLIGHTS FOR OUR MARKETS

- Some satisfactions that our customers and regions can expect.

- 1. Empowering Communities to Address their Challenges:**
- Solutions for Australasia's unique needs whilst promoting renewable energy adoption.
- 2. Resilience and Reliability:**
- Enhancing energy security where it counts with the users.
- 3. Collaborating for success:**
- Collaborating with all other technologies to holistically optimise supply and demand.
- 4. Decentralised Manufacturing:**
- Creating jobs, supporting local economies, and building a secure supply chain.

All that's left is to do it. Please read on.

OUR PROJECTS

- A logical path facilitating easy tailoring and mass replication

The four core platforms to bring our services to the markets are the regional establishment of production, tailoring, delivery, and support. Thereafter it's replicability and adaptability – regionally and globally.

This field perspective translates into project focus in four areas:

Manufacturing: Initially outsourcing prior to dedicated factories. Selected discussions are commencing for costing and smaller runs for market projects.

Energy: The markets are extremely diverse and there are many parties seeking participation in field entry projects.

Transport: Initial projects will likely be with existing designs rather than bespoke designs.

Regional: Subject to markets and expressions of interest and support for the above, can quickly replicate across Australasian regions, as that is the nature of the technology.

OUR INVITATION

- Join us in shaping the future

At a time when the world is wrestling with the too-slow rate of decarbonisation, and with hugely capital expensive and uncertain solutions into the future, we are presenting a massive aggregation opportunity.

Invest, partner, or support our vision for a sustainable and resilient Australasia.

After years of bringing the MDI branded technology to fruition, and matching it to the Australasian region as a foundation showcase, we can proudly present some very compelling propositions for support.

- **Development:** The MDI brand development is globally unique, and an enormous partnered effort.
- **Commercialisation:** By matching the technology to the diverse markets it can quickly be monetised.
- **Australasia:** Australasia (Australia, New Zealand, and the Pacific Islands) presents a unique proposition.
- **Global:** An Australasian showcase will present as a platform for global adaptation and replication.
- **Diverse:** The regional business model reflects not only in markets but in regional funding.
- **Investible:** Low capital, regional funding, and speedy progressive milestones create low risk.
- **Industrial:** An opportunity to create regional business which will increase in value in line with markets.

This introductory Flier is intended to provide a snapshot of the business with the aim of generating expressions of interest, and accordingly we have included contact details in the footer, and invite further discussion. In addition further information is available via Energy & Transport full documents, slide presentations, and brochures. More detailed information on the technology and manufacture is available to commercialisation partners.

PICTURES OVERLEAF

The technology has been developed, as has its applications, though both will always continue. The technology's mass commercialisation has not commenced, which is the subject of this Flier. The pictures overleaf share some of the development journey, and proofs of milestones.

TECHNOLOGY DEVELOPMENT JOURNEY IN PICTURES



AirPod 1.0/2.0: AirPod 1.0 was the first vehicle to develop the compressed air storage into mobility. Consulting from large corporations lead to the version 2.0 and the commercial trio.



GreenAir: The golf buggy was the familiar product built to promote the utility capability of its many different versions as per the brochure. The flexibility makes it extremely versatile.



AirVolution: This waste vehicle, commissioned by Veolia, and operating on the roads, proved the ease with which the technology could scale into larger vehicles.



AirTrain: The scaling was very apparent with the AirTrain, of which six were commissioned by the World Expo in Dubai in 2022 to ferry the millions of visitors around their huge campus.



ModulAir: This product has been designed, but not previously built. It is based on the AirTrain, and is the industrial level applications at the larger end such as airports.



AirLab: The energy storage is tailored in the field, so the developmental Air Laboratory served to replicate the field. Overall technology development involved six separate laboratories.



Storage Units: The ability to scale storage is a combination of capacity via the engines' operational flexibility, and the tanks and their storage duration. Herein the technology is unique.



United Nations: MDI were invited to New York where they received an award from the United Nations then Secretary Moon entitled "Empowering the Future we Want".



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