Commercialising Decentralised Compressed Air Energy Storage & Clean Vehicles

Dear reader,

Our business, the Air Future - MDI partnership, is undertaking the Australasian mass commercialisation of the world leading MDI compressed air energy storage and transport, via local manufacture and employment across regional Australia, New Zealand and Pacific Islands.

This innovative commercialisation showcase is the world's first mass rollout, leading to further global replication and adaptation. It is transitioning the technology from the MDI development laboratories in Europe to the Air Future established markets within Australasia. MDI are now focused alongside us on field applications for the burgeoning market demand.

During a comprehensive development period resulting in never before achieved climate abatement capabilities, the United Nations presented MDI the "Empowering the Future we Want" award, Tata Motors consulted during the development, Veolia commissioned waste vehicles now operating on the road, and the World Expo commissioned six Air Trains which ferried visitors around the huge Dubai campus.

In addition clean vehicle models were built, a unique Air Lab laboratory was established to develop decentralised energy storage and scale, and market collaboration has established beyond doubt the huge global opportunity. Now is the ideal time for mass commercialisation of this much needed technology.

Why this technology? The simple answer.

The climate industry expresses that full electrification is the solution to greenhouse gas abatement, and that ultimately it will require 300% the energy provided today. Renewable energy now enables energy to be generated both centrally and decentrally. In both cases they need energy storage because of the intermittency. Central energy however also requires distribution via grid, and is not locational.

Decentralised energy is locational, such as rooftop and microgrids, and similarly to centralised energy, requires scalable capacity, long duration, and affordability. And most importantly reliability, safety, and resilience. No current technologies provide this locationally without compromise of scalability, duration and affordability. Our modular compressed air and thermal energy storage is the only locational solution for decentralised energy, as decentralised energy ultimately moves to provide up to 50% of all energy.

Once this technology is demonstrated, its applications across transport clean vehicles and regional distributed manufacturing become immediately straightforward.

Finding our support. An invitation

Whilst MDI has had a development team of around 30, plus significant partners, and we have many supportive shareholders, our joint commercialising partnership commenced as basically a small Australasian business with a huge opportunity to serve the region commercially, environmentally, and via employment. We reach out and welcome support from communities, industries, and the financial world.

Within our website are documents that explain our capability and advantages across decentralised energy storage, cleaner transport models, regional manufacture and employment, and commercialisation projects. We hope to generate excitement and conviction and invite Australasia and the World to participate with us to help create a cleaner environment and provide affordable and exciting products.

John Mennega, CEO
Air Future Group

TECHNOLOGY transfer for MANUFACTURE, & developments for MARKETS & CUSTOMERS

We like to speak of these various steps in terms of projects, of which there are five, generally functioning in parallel. Their current activities are as follows (for convenience we will call them 1-5):

1. MDI/AF Collaboration: Integration of technology & markets into Australasian showcase platform.

> **STATUS** – MDI is transferring technology & manufacturing documents & processes.

2. Manufacture: Technology transfer & Australasian manufacture & applications assembly.

> **STATUS** – We are sharing information and negotiating with outsourced manufacturers

3. MARKETS: Managing the distribution relations for the multiple industry markets.

> **STATUS** – We continue in contacts with channels for product applications and pilots.

4. CUSTOMERS: The diversity of markets enables design and industries to explore solutions and experiences via demonstrations and pilots. So the home storage system will be different to industrial or microgrid. And vehicles for consumers different to commercial or industrial.

> **STATUS** – In parallel with "markets" above, we also liaise directly with potential customers.

5. REGIONS: Showcasing enables replication and adaptation across regions & countries.

> **STATUS** – Whilst regional replication needs something to replicate, they can also initiate.

There is actually a 6th project which is monetising the value of the technology, its commercialisation, and the collaborating businesses MDI and AFG. We cannot address this project in isolation of potential cornerstone investors assisting us in achieving the Australasian showcase and global replication goals.

Which leads to the last focus which, whilst not a project as such, is treated as one. This is the partners, resources, funders, and sponsors to enable our journey to progressively happen - locally and globally.

More on all that in later Newsletters...

In ending this Newsletter let's remind ourselves of a few huge benefits of our technology's innovations.

1. Affordability: Without expensive chemicals mining, no large batteries, no global distribution costs, local manufacture, highly economically scalable, and easy tailoring, affordable is a key benchmark.

2. Efficiency: Compressed air energy and heat energy can work together for electricity, heating, and cooling. Heat energy can be applied internally adding efficiency or for customer heating and cooling.

3. Space: Efficient space utilisation means high energy density. Our energy capacity via the air engine (kW) is a separate system to the energy duration via the tanks (kWh). These can be placed underground.

4. Resilience: No grid delivering power from afar can guarantee resilience from weather (i.e. backouts). We are decentralised as rooftop solar, industrial or microgrids & VPPs. Local storage enables resilience.

5. Duration: The modularity of the compressed air system means that capacity and duration can be separately managed and aggregated. Decentralised scale and duration are an essential in the air system.

6. Maintenance: The far cleaner air energy storage system has been designed for low maintenance and high reliability ideally suited for communities. The engine runs low heat and low stress via design.

Reference documents are available on request:

Business Flier; Energy Document; Transport Document; Brochures; And on our website at: **https://www.airfuture.co.nz/documents**