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Advising Greentech companies to help maximize growth

Startup to Watch in 2025

Source: Trellis and VERGE

A “low” way of removing CO_2

- Arbon utilizes Humidity-Swing-DAC technology at the gigaton level.
- According to the company, the key to the technology are the 6 LOWs:
  - Low cost
  - Low energy
  - Low temperature operations
  - Low maintenance
  - Low degradation over time
  - Low carbon footprint
- The technology basically works like this:
  - Air flows through the company’s dry material which absorbs the and CO_2.
  - The materials are then moistened with humidity - and without heat - to release the carbon which is then captured.
  - The carbon can be transformed into various forms and repurposed for sustainable fuels, cement manufacturing, etc.

Like any early-stage company, Arbon has a long way to go to commercialization, but if successful, they will potentially change the carbon removal landscape.

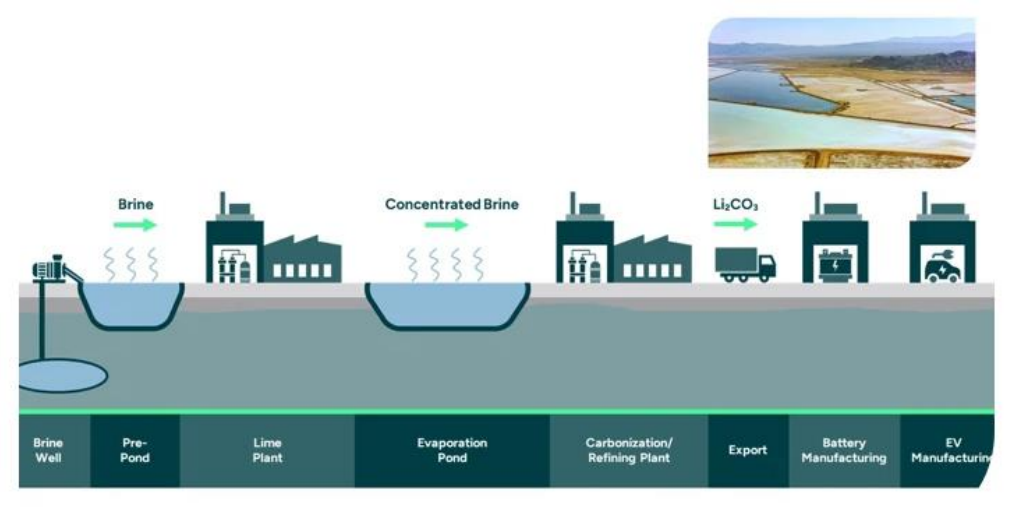
I’m a major proponent of carbon capture/removal technologies.

There is no way we are going to stop emitting carbon fast enough, so the next best solution is to figure out how to remove it from the air.

Current methods are too expensive and don’t easily scale. Arbon is one of many companies trying to change that dynamic.

ElectraLith
Sustainable Lithium

Waterless lithium extraction?



An example of a current extraction process

For a multitude of reasons, I'm not a fan of lithium-ion battery technology.

One of those reasons is the environmental impact of mining it. Specifically, lithium extraction requires huge amounts of water.

ElectraLith believes they have an answer.

- Spun out of Monash University, this early-stage startup is backed by RioTinto and venture capitalist ip Group.
- With its patented DLER (direct lithium extraction and refining) technology, it positions itself as offering the next generation of lithium extraction.
- It employs a single step process that use zero water and emits zero carbon.

Although I believe lithium-ion technology will ultimately be replaced with better solutions, it could take decades. Until then, ElectraLith may eliminate one of the biggest issues associated with lithium.

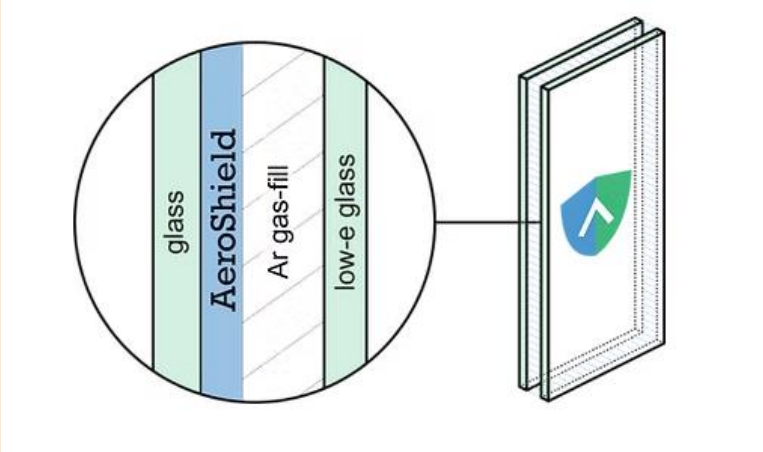
AeroShield

An area that deserves more focus is efficiency.

Solar and wind technologies alone aren't going to cut it. They require massive infrastructure upgrades which haven't begun in earnest and will take decades to complete.

On the flip side, with a little effort, society can reduce the amount of energy it uses and wastes.

Clearly efficient windows



- AeroShiled claims that 30-40% of the energy that is put into buildings is lost through windows. That represents $200 billion and 5% of CO_2 emissions.
- The company has developed a super-insulating, transparent, silica aerogel that it says can be easily dropped into double-pane window manufacturing.
- Aerogels are among the lightest and most thermal insulating materials ever created, but they have one problem: they have always been blue.
- AeroShield has figured out how to make aerogels transparent and claims just 4 mm inside a double pane window makes the window 65% more efficient.
- The company has received a $14 million Department of Energy grant.

This is a long-term play with major headwinds to get window manufacturers to adopt its technology. However, it is precisely technologies like AeroShield that the world needs to begin adopting to realize a more energy-efficient future.

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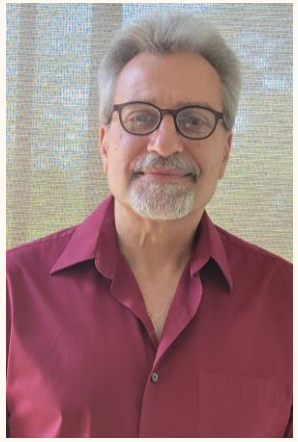

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Unbiased and Unfiltered

- An honest assessment of the climate change effort.
- I cover what's working – but more important - the issues/roadblocks that the industry would prefer to ignore.
- A must-read for anyone with a desire to understand what's really going on with renewable energy and climate change.

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