



### Company Overview

Hydrostor, a private company founded in 2010 and based in Toronto, Canada and Adelaide, Australia (Hydrostor Australia Pty Ltd), is a leader in Advanced Compressed Air Energy Storage (A-CAES), a technology uniquely suited to enable the transition to a cleaner, more reliable electricity grid.

Hydrostor has multiple projects in operation and under construction in Canada and Australia, including its Toronto, Goderich and South Australia A-CAES projects. The company also has numerous projects in advanced development across the United States, Australia, Canada, and Chile, including 400 MW+ of commercially bid projects and a 1.5 GW+ project pipeline with projects ranging in size up to 500 MW / 5 GWh.

Hydrostor has a proven project delivery team with experience designing and building A-CAES projects globally, as well as a seasoned senior executive team with prior experience at leading firms including Brookfield, Deloitte, Bruce Power and Siemens. The company has a team of approximately 30 full-time staff.

Hydrostor offers a complete solution including financing and warranty, working with leading EPC providers to help deliver solutions globally. Learn more at [hydrostor.ca](http://hydrostor.ca).

<b>Headquarters</b>	Toronto, Canada
<b>Australia Headquarters</b>	Adelaide, Australia
<b>Employees</b>	30 full-time staff
<b>Operating Facilities</b>	1 (Toronto, Ontario, Canada)
<b>Facilities Under Construction</b>	1 (Goderich, Ontario, Canada)
<b>Facilities Entering Construction</b>	1 (Strathalbyn, South Australia, Australia)
<b>Project Pipeline</b>	1.5 GW+ project pipeline (incl. US, Australia, Canada, Chile)

### Our Mission

*To be a globally-leading bulk energy storage provider, leveraging our proprietary technology that is low capital cost, long life, emission-free and can be flexibly sited.*

### About A-CAES

Hydrostor A-CAES delivers low-cost and long duration bulk energy storage (hundreds of MWs, 4-24+ hours) which is synchronous, emission-free, and can be located where required by the grid. The technology can also replace retired fossil fuel plants and leverage existing mining infrastructure, facilitating the modernization of these assets as part of the green energy economy. Plants have a 30+ year system life, with unlimited cycling and no replacement required.

A-CAES provides grid services that are not readily replicated by other storage technologies, giving it unique market potential. A-CAES is flexible, allowing the technology to successfully address the electricity systems needs for dispatchable capacity, true rotational inertia, renewable energy integration, grid optimization, transmission deferral, as well as a host of other benefits. The technology is also ideal for behind the meter application for mines and other large industrial users looking to lower input costs and increase efficiency.

Hydrostor A-CAES	Size (MW)	Duration (hrs)	Round-Trip Efficiency	Emissions	System Lifespan
	50 - 500+	4-24+	>60%	None	30+ years

#### How A-CAES Works:

A-CAES technology works by using electricity from the grid to run a compressor, producing heated compressed air. Heat is extracted from the air stream and stored inside a proprietary thermal store preserving the energy for use later in the cycle. Compressed air is then stored in a purpose-built underground cavity, which is kept at a constant pressure using hydrostatic head from a water column. During this charging step, compressed air displaces water out of the cavity up a water column to a surface reservoir. On discharge, water flows back into the cavity forcing air to the surface under pressure where it is re-heated using the stored heat and then expanded through a turbine to generate electricity on demand. A 3D animation describing how A-CAES works is available at [hydrostor.ca](http://hydrostor.ca).

#### A-CAES Benefits & Applications:

<b>Low-cost</b>	<b>Fossil Plant Replacement</b>
<b>Emission-free</b>	<b>Renewable Integration</b>
<b>Flexible Siting</b>	<b>Transmission Deferral</b>
<b>30+ Year System Life</b>	<b>Mines &amp; Large Industrial</b>

### Media Assets

[Logos](#)

[Images](#)

[Videos](#)

## Our Team



**Curt VanWalleghem**

*CEO*

Curtis has been CEO of Hydrostor since its inception and has led the company through technology development into commercial operations. Prior to Hydrostor, Curtis was Sr. Manager in Deloitte's Corporate Strategy Consulting Practice where he advised and consulted for some of the top energy companies globally.



**Cameron Lewis**

*Founder & CTO*

Cam has brought the ideas of Hydrostor to life in the innovative concepts and processes that founded the company. Cam has a decade and a half in the Oil and Gas equipment manufacturing industry in Alberta, working with start-ups such as Chadco Canada and Delaney Energy. Pairing his conventional energy knowledge with his experience in wind farm development in Ontario, he created the Environmental Electric Company to continually advance renewable technology to best serve the expanding market. Bringing ideas to life has been fundamental throughout his career.



**Jon Norman**

*President & COO*

Jon is a professional engineer with nearly 20 years experience in the power industry, environmental sector, management consulting and government. Jon previously held senior roles at Brookfield Asset Management, most recently as VP responsible for regulatory policy and government relations across North America for the power and utilities business. In earlier roles he served as project manager for environmental operations and held senior roles in government, where he led grid and networks policy development in Ontario as well as interjurisdictional negotiations. Jon holds an interdisciplinary master's degree in engineering and economics from the University of Toronto.



**Jordan Cole**

*EVP & CCO*

Jordan is a senior professional with 15 years of experience in the private equity space. He spent over a decade at Brookfield Asset Management expanding the company's renewable power, real estate and infrastructure global platforms. Prior to joining Hydrostor, Jordan was the Chief Investment Officer within Brookfield's district energy platform, Enwave Energy Group. He has experience in renewables and infrastructure project development, and has been involved in a number of key transactions and financings. Jordan holds both honors BBA and MBA degrees from the Schulich School of Business at York University.



**Sid Meloney**

*EVP, Engineering & Projects*

Sid is a professional engineer with 29 years of experience in the Alberta oilsands, petrochemical and natural gas midstream industries. He has extensive project experience having managed the development and execution of ~\$4 billion worth of processing, pipelines and other infrastructure projects. Sid previously held senior roles progressing to the executive level with Williams Energy, TransCanada, Nova Chemicals and Syncrude Canada. Most recently Sid owned and operated his own consulting company focusing on acquisitions, commercial management and project management advice. Sid holds a bachelor's degree of Civil Engineering from Dalhousie University.

## As seen on



## Press Releases

- 08/08/2017 [Hydrostor engages AECOM to bring its long duration bulk energy storage solution to Australia's NEM in support of Finkel blueprint](#)
- 04/12/2017 [Hydrostor A-CAES offers bulk energy storage at half the cost of competing battery technologies, on par with natural gas plants](#)