



From SFU startup to 'Global Cleantech 100' star

Project category



**Battery +
energy
storage**

CICE funding amount

\$1,600,000

Project value

\$6,182,648

Impact by the numbers

445 tonnes

CO₂ emissions saved for every MWh of Moment Energy storage deployed

145 million

EVs on roads by 2030

\$4,000

Current cost of recycling a single EV battery

10MWh

Capacity of Moment Energy's planned BESS deployments from 2024 to 2025

When four Simon Fraser University students co-founded [Moment Energy](#) in 2020, the [Global Cleantech 100](#) list included future “unicorns” – companies with valuations exceeding \$1 billion – such as the Farmers Business Network, Redwood Materials, Spiber, and WeRide. →

“CICE provides Moment Energy with subject matter experts who are indispensable when it comes to aligning our vision with reality, and who are tremendously supportive when an innovator prepares to take that next big step, and that gives us the confidence to put our own ideas out there.”

- Chris Benson, Vice-President of Projects & Partnerships | Moment Energy



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Fast-forward less than four years, and the Coquitlam-based company has already landed on the list twice (in 2023 and 2024). And for good reason: Since signing supply agreements with Nissan North America in 2020 and Mercedes-Benz Energy in 2022 – and after receiving a pair of vital investments from the B.C. Centre for Innovation and Clean Energy (CICE) – Moment Energy has gone on to become the first and only North American innovator, and the second globally, to achieve the UL 1974 certification needed to integrate repurposed electric vehicle (EV) batteries into battery energy storage systems (BESS).

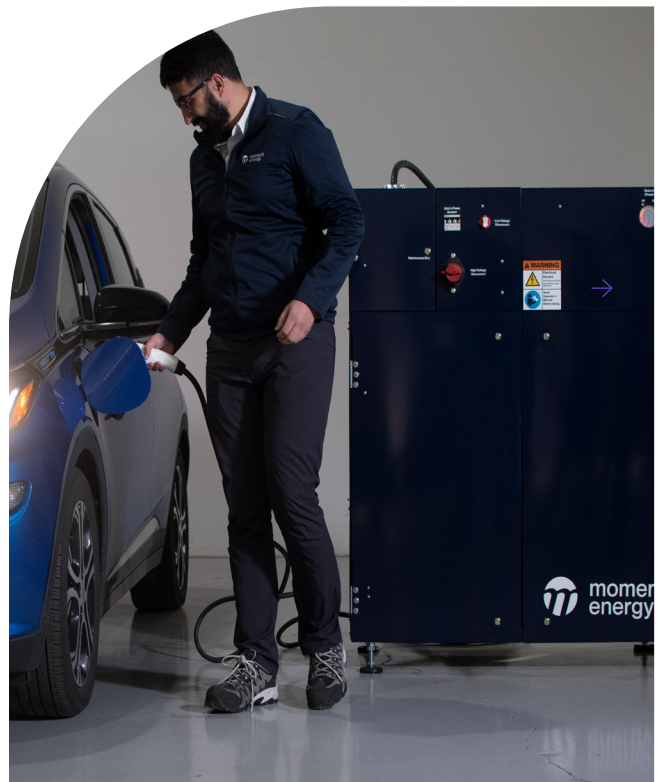
Rise of a 'robust circular economy'

Using CICE support to meet this key safety standard “paves the way for our Flora system to fuel a robust circular economy,” says Chris Benson, Moment Energy’s Vice-President of Projects & Partnerships. On the supply side, he explains, automotive manufacturers are forging partnerships with developers of “second-life” BESS tech that enables sustainable repurposing of EV batteries. Indeed, Moment Energy is currently engaged in supply-chain discussions with as many as 10 potential partners while it earns the Canadian Standards Association (CSA) and National Electric Code (NEC) certifications that will allow it to connect its BESS to electrical grids.

“Automakers are already sending us their R&D batteries so we can support their second-life strategies,” Benson says. “By 2030, when 950

gigawatt-hours of batteries are ready to be repurposed, we’ll be able to hit the ground running and sell BESS using second-life batteries across multiple markets with a diverse range of needs.”

These markets include utilities, microgrids, off-grid locations, and commercial and industrial customers that will use Moment Energy’s Flora system to improve grid reliability, power EV charging stations, reduce demand charges, and replace fossil fuel consumption with renewable energy that saves an estimated 445 tonnes of CO₂ emissions per year for every megawatt hour (MWh) of energy storage deployed. →



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Vancouver International Airport, for instance, is deploying Moment Energy's Flora BESS to fast-charge its EV fleet, especially in areas lacking electrical infrastructure or experiencing excessive peak-demand loads. The deployment is part of the B.C. government's Integrated Marketplace program, which is creating jobs and giving companies across the province a competitive edge in cleantech.

Then there's Saskatchewan Renewable Energy Solutions, which is in the process of identifying projects that can benefit from Moment Energy's BESS products.

Hydro Ottawa, meanwhile, has partnered with Moment Energy and BluWave-ai to add intelligent distributed energy resource management system (DERMS) capabilities to its distribution grid. "We have close to 30 MWh of orders waiting on the CSA and NEC certifications," Benson says, adding that one utility company recently asked to buy all 10 MWh of Moment Energy's post-certification and 2025 deployment capacity.

Scaling and diversifying with CICE support

Whether used to develop and commercialize products or to catalyze investments, strategic alliances, and market expansion, CICE's investments "have allowed Moment Energy to hire and train talented Canadians who have the skills to improve upon the tech we already have in place, which in turn accelerates our ability to deploy, scale up, certify, and commercialize our innovation," Benson says. "What sets us apart

from other second-life BESS companies is that we have seven operating deployments validating our products, yet we're still only scratching the surface of where they can be used."

One potential area for expansion involves developing a BESS that isn't hindered by extreme weather. This is the focus of Moment Energy's Containerized All-Weather Solution (CAWS) project, which is developing and certifying a waterproof system that provides Flora-calibre functionality in environments where the mercury climbs as high as 45°C or dips as low as -25°C.

Beyond investments, CICE connects Moment Energy with "subject matter experts who are indispensable when it comes to aligning our vision with reality, and who are tremendously supportive when an innovator prepares to take that next big step," Benson says. "That gives us the confidence to put our own ideas out there."

These are the same experts who see the stunning potential of a global renewable energy storage market that is projected to experience compound annual growth of 25 percent through 2030, when it will be valued at \$140 billion. At the same time, the 11 million electric cars on the road today are projected to increase to 145 million by 2030, and with EV battery recycling costing automakers \$4,000 apiece, repurposing is an appealing alternative — one that could one day give rise to another B.C.- born unicorn. □