

Which energy storage projects are advancing in Canada?

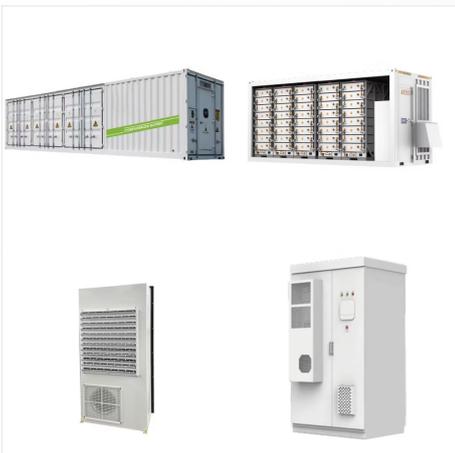
In addition to BESS projects, there are also many Long Duration Energy Storage (LDES) technology-based projects advancing in Canada such as compressed air, pumped hydro and other non-lithium ion battery chemistries. Energy Storage Canada is the only national voice for energy storage in Canada today.

How many MW of energy storage projects are there in Canada?

"At Energy Storage Canada we're excited to see the IESO's announcement of more than 700 MW of energy storage projects as the next step in Canada's largest energy storage procurement to date," said Justin Rangooni, Executive Director, Energy Storage Canada.

Is energy storage a key path to net zero in Canada?

A 2022 report commissioned by Energy Storage Canada, *Energy Storage: A Key Pathway to Net Zero in Canada*, found that energy storage will play a critical role in Canada's path to net zero. The report identified the need for a minimum of 8 to 12 GW of installed capacity for Canada to reach its 2035 goal of a net zero electricity grid.

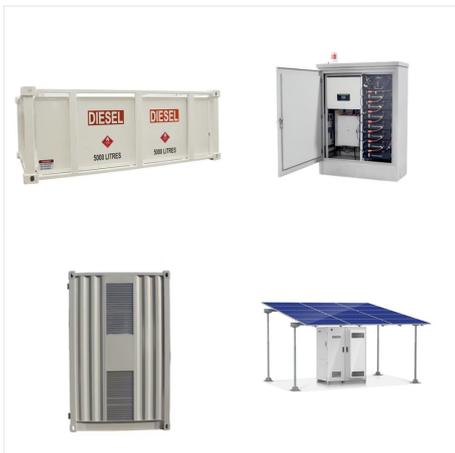


These projects complement the recent agreement for the 250 MW Oneida Energy Storage Facility and conclude the first of two stages within the procurement. Storage facilities charge up during off-peak hours, taking advantage of Ontario's clean energy supply mix, and inject energy back into the grid when it is needed most.

# HECATE ENERGY STORAGE ONTARIO



The Powin Energy Stratford Battery Energy Storage System is an 8,800kW energy storage project located in Stratford, Ontario, Canada. Powin Energy is partnering with Hecate Energy to build, deliver, and install projects with a total capacity of 12.8 MW/52.8 MWh at two sites in Ontario. The projects will be split across two sites in Kitchener



CHICAGO, SEPT. 15, 2022 ??? Hecate Grid, an independent power producer focused on developing, building, owning and operating stand-alone energy storage projects in the United States, has announced the successful completion of two landmark achievements in the development of its Humidor Battery Energy Storage System (BESS) Project, a utility-scale ???



Hecate Grid Hecate Grid is a leading energy storage IPP that develops, owns and operates standalone storage projects in the U.S. The platform is a portfolio company of InfraRed Capital, an infrastructure investment with over \$14 billion in assets under management. An early-mover in Energy Storage, launched in September 2018, Hecate Grid has leveraged deep [???

# HECATE ENERGY STORAGE ONTARIO



Hecate Energy is progressing through the permitting stages for a proposed 310 MW/1.24 GWh Contemporary Amperex Technology Co. Limited (CATL) battery energy storage project in Haverhill, Massachusetts. That may not affect the project's capacity as technological advances in energy storage density would likely compensate any spatial



Energy storage is essential for the transition to a sustainable, carbon-free world. As one of the leading global energy platform providers, we're at the forefront of the clean energy revolution. We offer fully integrated utility-scale battery energy storage systems to accelerate the shift to clean energy alternatives.



ViZn Energy Systems on Aug. 18 announced that it has won a contract from renewable energy project developer Hecate Energy to deliver a 2MW/6MWh zinc-iron redox flow battery system that is to be used to provide ancillary services for Ontario's Independent Electricity System Operator (OIESO).

# HECATE ENERGY STORAGE ONTARIO



Contract awards in Ontario for its expedited energy capacity procurement have been announced, with 739MW of successful battery storage bids. Hagersville Battery Energy Storage Park, a 300MW, 4-hour duration (1,200MWh) project in Ontario's Haldimand County and Tilbury Battery Storage Project, which will be a 80MW/320MWh system in the



. DOE to Enter into Realty Negotiations for Massive Solar Project at Hanford Site. The U.S. Department of Energy will enter into realty negotiations with Hecate Energy LLC for a solar project capable of delivering up to one-gigawatt of clean energy within an 8,000-acre area of DOE owned land at the Hanford Site in Washington State.



Hecate Energy's battery energy storage projects include a 13,000-kilowatt lithium-ion battery energy storage system in Toronto, Ontario, Canada with 53,000 KWH of storage capacity. The project was announced in 2014 and commissioned in ???

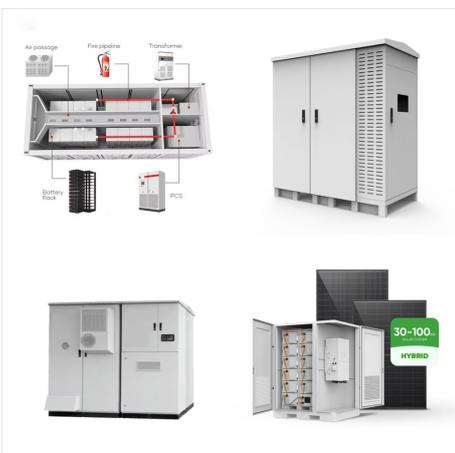
# HECATE ENERGY STORAGE ONTARIO



Hecate Grid is proposing to construct the Swiftsure Project, a new, up to 650 MW, Battery Energy Storage System (BESS) on Staten Island. The Project will work with the FDNY and DOB on a site specific design that meets the highest standards for safety and security and will be built with equipment that has been pre-approved by FDNY.



About Hecate Energy Headquartered in Chicago, Illinois, Hecate Energy is a developer of solar, wind, and energy storage projects. Founded in 2012 by a team of energy industry veterans who have worked together for more than 25 years, Hecate Energy has developed thousands of megawatts of clean energy projects across North America.



and energy storage solutions, Hecate Energy is driven by a mission to develop, own, and operate power-generating facilities in the United States and select international markets. In total Hecate Energy has entered into PPAs or is in final negotiations for PPAs totaling over 432 MW-ac of solar power and 118 MWh of energy storage. 3

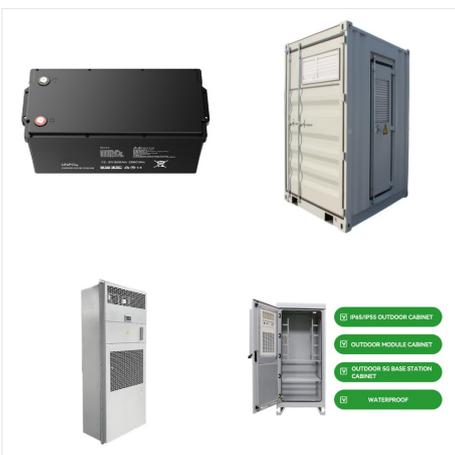
# HECATE ENERGY STORAGE ONTARIO



The successful parties, Hecate Energy Ontario Storage VII, LP and Saturn Power Inc., will provide a combined 55 MW of regulation service, an important grid-balancing function that corrects for short-term changes in electricity use that might affect the reliability of ???



Leading energy storage provider Powin Energy will be building and installing six energy storage projects at two sites in Ontario, Canada with a total capacity of 12.8MW/52.8MWh. The projects will constitute the largest energy storage rollout in Canada upon completion and are expected to be online by the end of September 2017.



The Toronto-Hecate Energy-IESO Energy Storage Procurement Phase 1 is a 13,000kW lithium-ion battery energy storage project located in Toronto, Ontario, Canada. The rated storage capacity of the project is 53,000kWh.

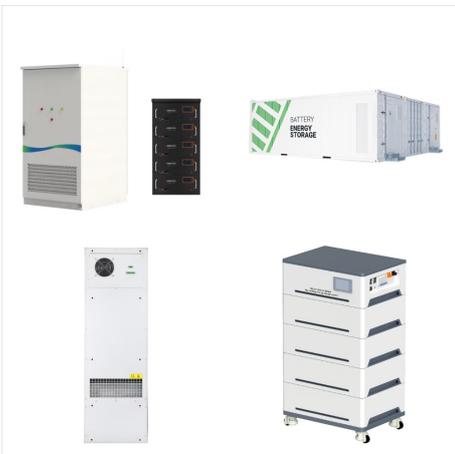
# HECATE ENERGY STORAGE ONTARIO



Hecate Energy has developed over 47 solar and energy storage projects exceeding 11.1 GW that are now owned and operated by utilities, independent power producers, and financial investors. Arroyo Storage: Cheyenne County, CO USA: Storage: In Development: 250: Beacon 1: Mojave, CA USA: Solar: Operating: 56: Beacon 3: Mojave, CA USA: Solar



SANTA ANA, Calif., Oct. 4, 2021 ??? Hecate Grid, a developer, owner and operator of cutting-edge utility-scale energy storage solutions, is excited to announce that it marked the completion of its Johanna Energy Storage System (ESS) with a ribbon-cutting ceremony at the project site in Santa Ana on Sept. 30.



Powin Energy Corporation is partnering with Hecate Energy to build, deliver, and install projects with a total capacity of 12.8MW/52.8MWh at two sites in Ontario, Canada. Powin's modular Stack140 ??? powered by their exclusive bp-OS battery management software ??? will be the building block for each storage system.

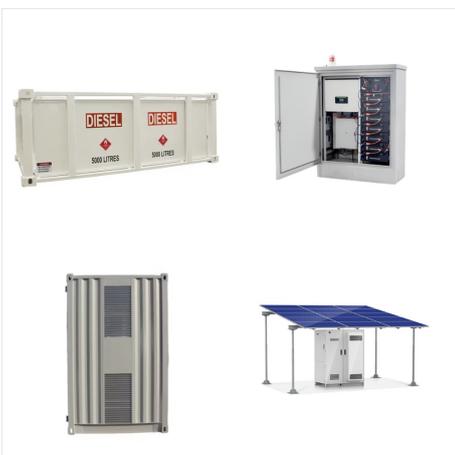
# HECATE ENERGY STORAGE ONTARIO



The Kitchener Wilmot Hydro Battery Storage Project is one of the largest battery energy storage projects in Canada, and includes 66 Powin Energy Stack140 systems housed inside six purpose built storage containers and connected to inverters from Schneider. The project is contracted with the Ontario Independent Electricity System Operator (IESO) as part of IESO's long-term ???



FOR IMMEDIATE RELEASE. 16 May 2023 . Today the Independent Electricity System Operator (IESO) announced seven new energy storage projects in Ontario for a total of 739 MW of capacity.. The announcement is part of the province's ongoing procurement for 2500 MW of energy storage to support the decarbonization and electrification of Ontario's grid, which was ???



Repsol has signed an agreement to acquire 40% of Hecate Energy, a U.S.-based PV solar and battery storage project developer. This transaction is Repsol's first foray into the U.S. renewables market. It complements the company's capabilities and portfolio and adds a solid platform with strong growth potential. Hecate Energy has a portfolio of more than 40 GW of renewable and ???

# HECATE ENERGY STORAGE ONTARIO



Hecate Energy's battery energy storage projects include a 13,000-kilowatt lithium-ion battery energy storage system in Toronto, Ontario, Canada with 53,000 KWH of storage capacity. The project was announced in 2014 and commissioned in 2016.



Hecate Energy Ontario Storage II, LP Electricity Storage Licence ES-2017-0103 3 10  
Communication 10.1 The Licensee shall designate a person that will act as a primary contact with the Board on matters related to this Licence. The Licensee shall ???

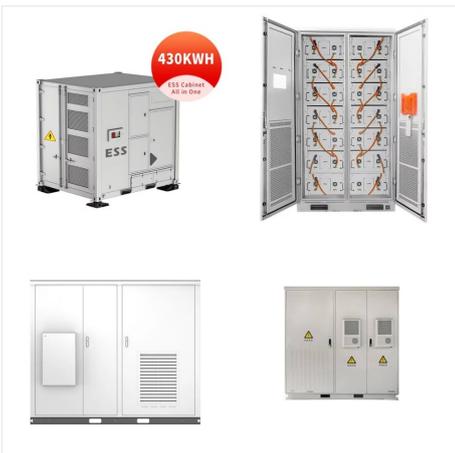


Thermal energy storage involves getting water heaters and other electrical heating loads -- as well as air conditioners, refrigerators and electric-based cooling loads -- to alter their

# HECATE ENERGY STORAGE ONTARIO



The company says the six projects, split across two sites in Kitchener and Stratford, Ontario, comprise the largest rollout of energy storage in Canada and were expected to be online by ???



Empowering Electric Cooperatives and Public Power With Flexible, Modular Battery Energy Storage Solutions Hecate Grid for Co-ops and Public Power Municipal Utilities ??? Electric Cooperatives ??? Public Utility Districts ??? Community Choice Aggregators Strengthen your system with Hecate Grid's battery energy storage systems (BESS) and unlock the benefits of cost ???



Independent Electricity System Operator announces 739 MW of energy storage projects to support reliability and sustainability goals. May 16, 2023 ??? Toronto, ON ??? Today, the Independent Electricity System Operator (IESO) announced it is moving forward with the procurement of seven new energy storage projects to provide 739 MW of capacity