

About energy storage

Canada energy storage facts

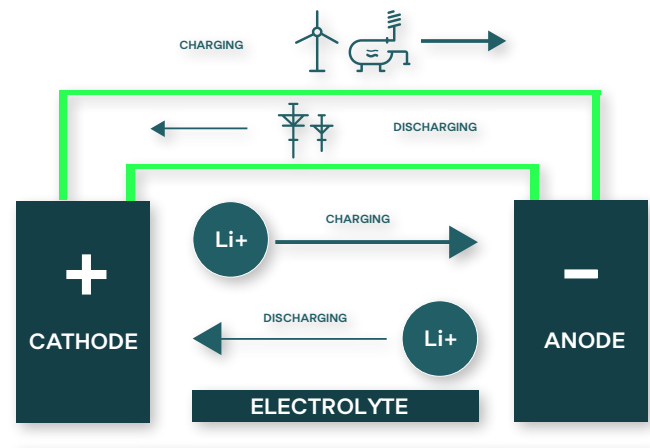
Energy storage enhances reliability, reduces costs, and increases grid resilience. Approximately **8-12 gigawatts of energy storage** generation would optimally support the net-zero transition of the Canadian electricity supply mix by 2035.¹

How is energy storage useful?


-  Reduces outages and enhances resilience
-  Decreases costs and saves money
-  Bolsters a sustainable electrical grid
-  Supports local economies

How does energy storage work?

The most common electrochemical storage method is the **lithium-ion battery**. These are similar to the batteries that power your cell phones, laptops, or electric vehicles.



What is a lithium-ion cell?

 The battery is comprised of a positive cathode, a negative anode, a separator, an electrolyte, and positive and negative current collectors. When the battery is being charged by a power source, such as wind or solar power, lithium-ions move from the cathode, through the electrolyte and to the negative anode, storing energy for future use. When discharging power, lithium-ions are released by the anode and received by the cathode.

Energy storage systems are fuel-neutral. This means that they can capture and dispense electricity from oil, gas, coal, nuclear, geothermal, and EDP Renewables' wind and solar energy projects.

Energy storage will contribute to powering Canada's journey to net-zero by 2050.¹

Canada's energy transition

By the numbers



45% increase

Overall, the wind, solar, and energy storage sectors grew by **45%** in the past five years. ¹



More than 8% of electricity demand

More than **8% of Canada's 2023 electricity demand** was met by wind and solar energy. ¹



Ranked 9th in the world

Canada ranked **9th in the world** for installed wind energy capacity at the end of 2023. ²



24+ GW of clean energy

More than **24 GW** of installed utility-scale wind and solar. ¹



192% increase

Energy storage capacity grew **192%** in the past five years. ¹



95% increase

Solar energy capacity grew **95%** in the past five years. ¹

About us

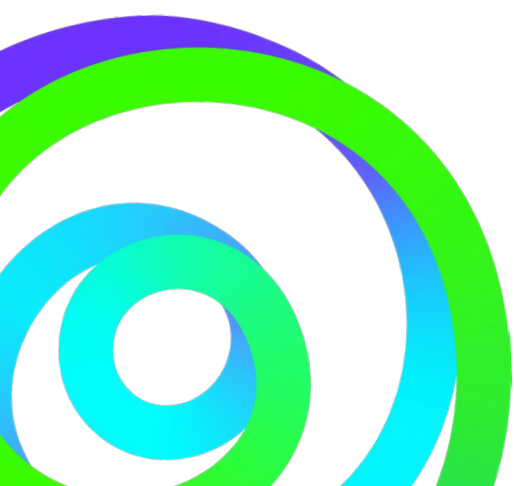
EDP Renewables North America LLC (EDPR NA), its affiliates, and its subsidiaries develop, construct, own, and operate wind farms, solar parks, and energy storage systems throughout North America. Headquartered in Houston, Texas, with 61 wind farms, 26 solar parks, and eight regional offices across North America, EDPR NA has developed more than 12,000 megawatts (MW) and operates more than 11,400 MW of onshore utility-scale renewable energy projects. With more than 1,000 employees, EDPR NA's highly qualified team has a proven capacity to execute projects across the continent.

EDPR NA is a wholly owned subsidiary of EDP Renewables (Euronext: EDPR), a global leader in the renewable energy sector. EDPR is the world's fourth-largest producer of wind and solar energy and is present in 28 markets in Europe, North America, South America, and Asia-Pacific. With headquarters in Madrid and leading regional offices in Houston, São Paulo, and Singapore, EDPR has a sound development portfolio of top-level assets and market-leading operating capacity in renewable energies. Particularly worthy of note are onshore wind, distributed and utility-scale solar, offshore wind (OW – through a 50/50 joint venture), and technologies to complement renewables such as storage and green hydrogen.

EDPR's employee-centered policies have received recognition such as Top Workplace 2023 in the USA, Top Employer 2023 in Europe (Spain, Italy, France, Romania, Greece, Portugal, and Poland) Colombia, and Brazil, and are also included in the Bloomberg Gender-Equality Index.

EDPR is a division of EDP (Euronext: EDP), a leader in the energy transition with a focus on decarbonization. Besides its strong presence in renewables (with EDPR and hydro operations), EDP has an integrated utility presence in Portugal, Spain, and Brazil including electricity networks, client solutions, and energy management. EDP – EDPR's main shareholder – has been listed on the Dow Jones Sustainability Index for 14 consecutive years, recently being named the most sustainable electricity company on the Index.

For more information, visit www.edprnorthamerica.com.



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1. Canadian Renewable Energy Association, CanREA's 2050 Vision Report, 2025.
2. IRENA Renewable Electricity Capacity and Generation Statistics, 2023.