

FACT SHEET: Lithium Matters

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Why is finding lithium in Canada important?

Securing a North American supply chain

Lithium, a critical component in the modern technology and energy sectors, is mostly sourced from Australia and South America. However, the discovery and development of lithium resources in North America are vital for several reasons.

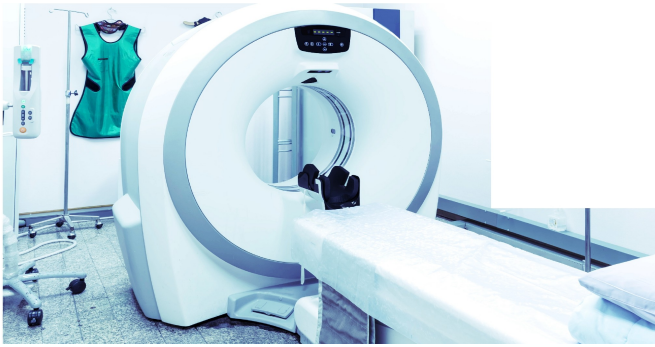


1. Firstly, it reduces dependency on foreign sources, enhancing economic and geopolitical stability. Local lithium production can lead to more resilient and shorter supply chains, crucial in times of global uncertainty.
2. Additionally, North American lithium mining adheres to stricter environmental and labor standards, potentially reducing the ecological footprint of lithium extraction.
3. Finally, the development of a local lithium industry can spur economic growth and job creation, contributing to the region's prosperity.

Achieving a Carbon-Neutral Society

Lithium is pivotal in the transition to a carbon-neutral society.

- Its high energy density makes it an ideal material for batteries in electric vehicles (EVs) and renewable energy storage systems.
- As the lightest metal, lithium-based batteries are more efficient, requiring less energy to operate, thus contributing to reduced emissions.
- The widespread adoption of EVs, powered by lithium-ion batteries, is a critical step towards reducing greenhouse gas emissions from the transportation sector.
- Similarly, lithium batteries are essential in storing energy from intermittent renewable sources like solar and wind, enabling a more reliable and sustainable energy grid.



Seven key applications for lithium

Rechargeable lithium-ion batteries are more than just power sources for our smartphones; they're vital in various aspects of modern life, from medical devices to recreational vehicles. Here's a look at their seven key applications:

Emergency Power Backup/UPS: Lithium batteries provide instant power during outages, ensuring critical devices like computers and medical equipment remain operational.

Electric and Recreational Vehicles: Offering over a decade of reliable service, these lightweight batteries power long journeys in RVs and electric vehicles, enhancing efficiency through their reduced size and weight.

Marine Applications: Ideal for boating, lithium batteries ensure safe and reliable motor starts, combining longevity with significantly less weight compared to traditional batteries.

Solar Power Storage: Perfectly matched with solar panels, lithium batteries charge quickly and efficiently, storing solar energy effectively even on days with limited sunlight.

Remote Surveillance/Alarm Systems: Their long life and low self-discharge rate make lithium batteries perfect for powering security systems in remote or temporary locations.

Mobility Equipment: For those with mobility challenges, lithium batteries in wheelchairs and stairlifts offer independence through fast charging, long life, and extended run times.

Medical Equipment: Lithium batteries are widely used in implantable medical devices such as pacemakers and implantable cardioverter defibrillators (ICDs). They are also used in devices like infusion pumps, portable oxygen concentrators, and medical carts. Surgical tools and diagnostic equipment such as CAT scan and MRI machines also benefit from lithium batteries.