



	<p>The circular economy concept is gaining ground in Canada. In contrast to the traditional linear "take-make-use-dispose" model, a circular economy promotes continuous resource use through strategies such as recycling, reusing, and remanufacturing. The goal is to extend the lifespan of products and materials, keeping them within the economy for as long as possible. This approach aims to conserve resources, reduce pollution, and create a more sustainable and resilient economic system. With a focus on sustainable practices, collaborative efforts between various sectors are driving innovative solutions for product longevity and minimized environmental impact. This shift towards a circular economy aligns with Canada's commitment to waste reduction, resource conservation, and long-term economic resilience.</p>
	<p>Critical minerals such as lithium, cobalt, nickel, and various rare earth materials are required for the production of renewable energy and related technologies. Critical minerals are used in batteries, permanent magnets, solar panels, wind turbines, and most modern technology, such as smart phones. Responsibly and sustainably sourcing and extracting these materials are increasingly important as the world moves towards renewable energy sources.</p>
	<p>Geothermal energy in Canada shows promising potential as a renewable resource. By tapping into the Earth's heat, this form of energy can both generate power and provide heating. Particularly in British Columbia, active geology offers opportunities for geothermal development, aiding electricity generation and direct heating projects. While still in its early stages, geothermal is a potential avenue for reducing carbon emissions and ensuring a greener future for Canada and the world.</p>
	<p>Nuclear energy has been used for many years. Public perception surrounding this energy source is mixed, and there have been highly publicized examples of things going wrong. However, it is a reliable and safe energy source, given the right precautions and technology. Smaller, more modular nuclear plants would allow for power generation in remote areas with less infrastructure, but these smaller units are less efficient and produce more waste per unit of power generated than the larger, more permanent installations. In both cases, there remains a significant challenge in safely and ethically disposing of waste produced during the power production process.</p>
	<p>Variable renewable energy (VRE) sources are non-dispatchable sources that fluctuate, such as wind and solar power. Both wind and solar are generating an increasing share of power over time, as both become increasingly cost-competitive energy sources. However, integrating large amounts of non-dispatchable generation into the power grid requires a different approach to ensuring reliability. Improvements in energy storage, load balancing through increased use of dispatchable power sources such as geothermal energy, demand response, and interconnection across larger regions through new grid infrastructure are at the forefront of advancing utilization of VRE sources.</p>