

✉ Sign Up for **FREE** Daily Energy News



☰ Menu

sed to Miss Big Targets as Obstacles Mount ▶ WEBINAR: Permanent Stabilization Solutions for Better Roads, P



By [Canada Powered by Women](#)





"If you want to change Canada's energy system, you have to understand what that system is now, and what kind of lift we're talking about," says [Shannon Joseph](#), chair of Energy for a Secure Future, a civil society initiative focused on advancing a new conversation about energy in Canada.

Canada's energy system is one of the most diverse in the world, with a mix of hydro, nuclear, oil, natural gas and renewables powering everything from homes to manufacturing facilities. Each province relies on a different mix, depending on the proximity of natural resources like water, sunshine or wind, but they all have one thing common: the need to provide every Canadian with reliable and affordable energy.

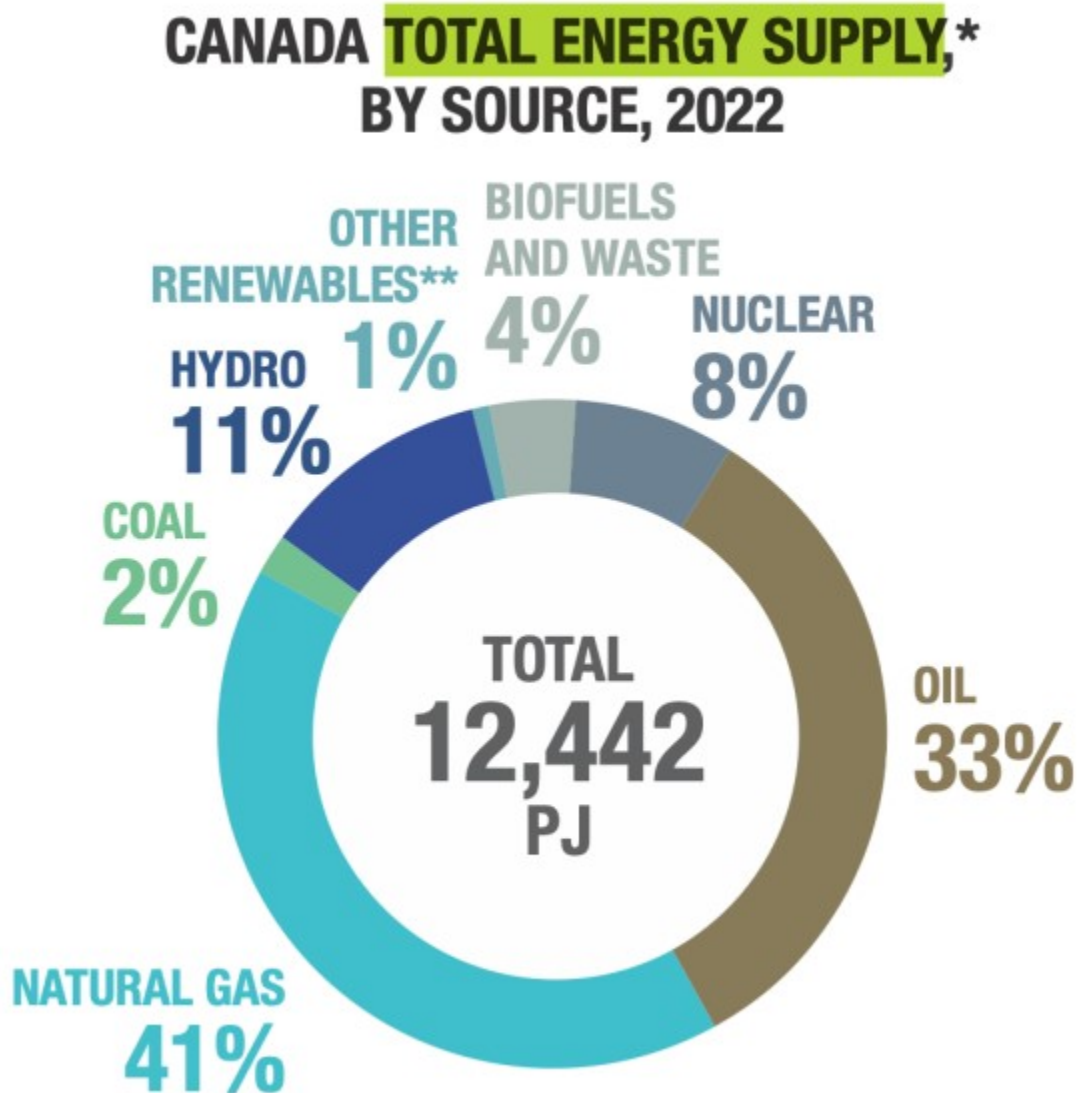
Having reliable and affordable energy means knowing the lights will turn on and the heat will kick in when you flip the switch, and you'll be able to feasibly cover the cost of your energy needs each month.

As the country moves toward its goal of net-zero emissions by 2050, changing this system will require a careful balance — one that reduces emissions without compromising affordability and reliability.

Canada's energy system relies heavily on high-density energy sources like hydrocarbons — found in fossil fuels such as oil, natural gas and coal.

According to Natural Resource Canada's [2024/25 Energy Fact Book](#), in 2022:

- Natural gas accounted for 41 per cent of Canada's total energy supply
- Oil accounted for 33 per cent
- Nuclear for 8 per cent
- Hydro for 11 per cent
- The remaining 7 per cent is comprised of other sources like coal, wind and solar



Any transformation of this system must account for the current energy landscape and its complexity, and the conversation around net-zero emissions by 2050 needs to go beyond simply eliminating fossil fuels.

"Many people don't properly acknowledge how much is done by hydrocarbons and what it would cost to replace them," Joseph adds.

So, instead of fully transitioning away from certain fuel sources, what would a transformation of the energy system look like?

Energy transformation: A balanced approach

An energy transformation prioritizes diversification, supporting the use of multiple energy sources — including fossil fuels — to maintain a reliable and affordable energy system while still reducing emissions.

Our [research](#) shows that engaged women see a mix of energy sources as important to shaping Canada's future while maintaining a prosperous economy. More than half want to see a cleaner and more diverse energy mix that includes fossil fuels, pointing to energy policies that balance the importance of economic prosperity, energy security — which is affordability and reliability and secure access to energy — and the environment.

We also know that 75 per cent of engaged women support investment in technology and innovation to reduce emissions because the environment is fundamentally important to them too. [Carbon capture and storage](#) is just one technological advancement both Canada and the U.S. are deploying to reduce emissions without compromising on energy security.

Transformation also acknowledges the limitations of replacing fossil fuels. For example, Canada doesn't currently have enough electricity to power the entire passenger transportation sector, let alone [aviation and maritime transport](#), with only renewable energy — fossil fuel sources need to continue to play a role.

Managing growth

The global population is [projected](#) to grow to 9.7 billion by 2050, and reports on corresponding growth in energy demand are conflicting.

The International Energy Agency's [2023 World Energy Outlook](#) states, "The momentum behind clean energy transitions is now sufficient for global demand for coal, oil and natural gas to all reach a high point before 2030.

"However, Goldman Sachs published a [report](#) in June projecting an increase in oil usage through the next decade, due in part to demand from emerging markets.

SPONSORED AD



APPLY TODAY

careers@mostardirectional.com

If this is the case, transforming the energy system to support this growing demand while reducing emissions will require massive investment. So, what does Canada, and the world, need?

A thoughtful, balanced approach that maintains energy security, supports economic prosperity and considers the environment — something [Dr. Scott Tinker](#), director of the Bureau of Economic Geology and chairman of Switch Energy Alliance, refers to as the "radical middle."

"Energy security underpins economic security, which in turns lets you invest in the environment and obtain climate security," says [Tinker](#). "If you start by focusing on low emissions, you will not get energy that is affordable or reliable. You need to focus on the 'radical middle' of this particular triangle."

We know that [59 per cent](#) of engaged women already perceive energy to be unaffordable, so maintaining a practical energy mix is important for economic prosperity and ensuring we're not increasing the financial burden on Canadian families.

What is the role of fossil fuels in energy transformation?

Fossil fuels and renewables are often viewed as opposing forces, but they can be complementary when it comes to achieving Canada's 2050 net-zero goals.

The renewable energy sector has made considerable progress in recent years in terms of capacity and affordability, but reliability remains a challenge for the simple fact that the sun doesn't always shine and the wind doesn't always blow.

This intermittency presents a challenge to energy reliability — something we all count on every day — which is why sources like natural gas are needed to avoid shortages and outages, particularly during periods of peak energy demand like extreme weather events.

In addition to providing reliable energy, it may come as a surprise to learn that fossil fuels also facilitate the production and establishment of technologies that contribute to emissions reduction.

Take wind turbines, solar panels and hydro dams, for example. All these technologies require steel, glass and cement — products that are built from materials and manufacturing processes that use or are derived from fossil fuels.

Fossil fuels are also integral to the construction and function of non-emitting energy sources such as nuclear plants, which are fueled by uranium ore.

A balanced energy transformation recognizes the relationship between fossil fuels and the technologies that enable emissions reduction, fostering an energy mix that brings Canada closer to its 2050 net-zero goals while ensuring the continued production of reliable and affordable energy to meet growing demands.





Canada's global role

A critical aspect often missing from Canada's energy debate is the global perspective. As a nation rich in energy resources, Canada has an opportunity to supply energy sources such as liquefied natural gas (LNG) to emerging economies to replace high-emitting energy sources like wood and coal. Today, countries with high populations such as China and India get the majority of their electricity from coal — [61 per cent](#) and [72 per cent](#), respectively.

In this context, Canadian LNG provides an affordable and reliable energy alternative to nations struggling with energy security and quality of life that can significantly reduce emissions on a global scale.

"We have the kinds of resources that could make a huge dent in emissions in countries much larger than us, that play a much bigger role in this issue," Joseph says.

Canada's energy transformation must include this international dimension to bolster global climate efforts, which will also boost Canada's economic prosperity.

A path forward



The path to transforming Canada's energy system is complex.

Innovation, collaboration and practicality that leverages the strengths of Canada's existing infrastructure will be essential to reducing emissions while continuing to meet both domestic and global energy demands.

"We have the resources, the expertise, and the responsibility to get this right," Joseph says. "It's time to take a big-picture approach, one that looks at Canada's role on the global stage while ensuring that everyday Canadians have the energy they need, at a price they can

afford.”

Share This:

 Discount on Western Canada Select Heavy Crude Widens to End the Week
Reflecting on the 2024 Lloydminster Heavy Oil Show: A Celebration of Community
and Innovation – A Conversation With Two Premiers – Deidra Garyk 

More News Articles

- COMMENTARY: The Injustice of Climate Reparations – Alex Epstein
- Alberta Premier Danielle Smith to Attend Embassy Trump Inauguration Party
- Hydrogen Wildcatters Are Betting Big on Kansas to Strike It Rich
- What Will Be the Future of the Keystone XL Pipeline Under President Trump?

GET ENERGYNOW’S DAILY EMAIL FOR FREE

Fields marked with an * are required

Email *	First Name *	Last Name *	Company *	Job Title *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Recaptcha

SUBSCRIBE

FEATURED COMPANY



We Are Pleased To Feature **Peterson Instruments** On EnergyNow This Week.

CLICK HERE TO LEARN MORE

FEATURED VIDEO