Atlantic Council
GLOBAL ENERGY CENTER

September 2024

North America's moment: The case for North American energy cooperation

About This Brief

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September 2024

This Atlantic Council brief serves as the first in a series of reports that evaluates the case for strategic collaboration among Mexico, Canada, and the United States on energy security, sustainability, and competitiveness. This report lays the groundwork for the prioritization of energy in the broader trilateral relationship, identifying opportunities in North America to secure the continent's energy system amid concerns over supply chain security, rising energy demand, and the imperative to meet climate goals. Case studies will follow this report to examine opportunities and challenges surrounding a trilateral strategy for Mexico, the United States, and Canada in conjunction with elections in each part of the trilateral through October 2025. In doing so, this project hopes to spark renewed cooperation among the new administrations and unlock North America's energy potential.

Introduction

Amid escalating geopolitical tensions and the economic inertia of a global energy transformation, instability looms over global trade and energy markets. Energy systems are proving to be a battleground in a world that is increasingly multipolar, restoring the primacy of energy security as a core national security concern. Simultaneously, the imperative of climate action and the continued development of clean energy technologies have presented a new landscape for competition and prosperity as the energy transition unfolds.

To navigate these shifts, trusted, resilient value chains are critical to maximizing energy security while seizing the commanding heights of a generational shift in the global economy. Already, the North American trilateral has demonstrated the resilience and gains gleaned from working together on a shared strategic vision. The economic ties previously built by the North American Free Trade Agreement (NAFTA) and the subsequent United States–Mexico–Canada Agreement (USMCA) provide a foundation for shared progress in the expansion of trade, investment, and the cross-continental job market.

The question now confronting Washington, Mexico City, and Ottawa is whether a similar signal for strategic alignment has emerged in response to volatile energy security dynamics, the challenge of charting a sustainable course for achieving climate goals, and the continued call to sustain primacy in the energy system. With strong prospects for increasing the resilience of supply chains, strengthening long-term sustainability of our energy systems, and boosting competitiveness in global energy markets, enhanced North American energy cooperation has significant potential.

The Atlantic Council Global Energy Center develops and promotes pragmatic and nonpartisan policy solutions designed to advance global energy security, enhance economic opportunity, and accelerate pathways to net-zero emissions.

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Enhancing energy security, sustainability, and competitiveness

Robust North American energy cooperation envisions a collaborative framework where the United States, Mexico, and Canada leverage their unique strengths and resources to create a resilient, sustainable, and competitive energy landscape. To guide these efforts, three common priorities emerge: energy security, environmental sustainability, and economic competitiveness.

Energy security remains a central priority for the North American trilateral partnerships. Collectively representing over 30 percent of global energy demand—with demand poised to double over the next decade—the United States, Mexico, and Canada would be wise to fortify energy security across the trilateral as well as maximize their role in supporting the energy security of their international partners. While the security of domestic natural gas and oil supply is not a concern for the United States or Canada as net exporters—with the United States averaging 4.1 million barrels per day (b/d) of crude oil[1] and 20.9 billion cubic feet per day (Bcf/d)[2] of natural gas exports (liquefied and pipeline) in 2023 and Canada exporting 3.9 million b/d[3] and 8.1 Bcf/d[4] the same year—a nascent "space race" around artificial generative intelligence (AGI) has resurfaced concerns around the scale of future energy demand. Though the United States already consumes three and a half times more power than the global average, studies anticipate US electricity demand will increase by up to 4.7 percent by 2028 due to the growing number of data centers.[5]

At the same time, Mexico is managing an unreliable energy supply that struggles to support high power demand and oversaturated electricity grids. In May 2024, more than twenty-one Mexican states faced outages amid a heat wave across the country.[6] Power demand exceeded available resources, disrupting essential services from municipal water and traffic signals to ATMs (Automated Teller Machines) and security systems.[7] Mexico relies primarily on natural gas for electricity generation, accounting for 57 percent of the mix in 2022, 69 percent of which was imported from the United States through cross-border pipelines.[8]

However, Mexico is defined by a disparity in the availability of natural gas between the north and south of the country.[9] Northern states, such as Baja California, Chihuahua, Coahuila, Nuevo León, and Tamaulipas, have developed extensive pipeline networks, storage facilities, and processing plants, largely due to their proximity to the United States and historical industrial development driven by trade agreements like NAFTA.[10] In contrast, southern states, like Oaxaca, Chiapas, and those on the Yucatán Peninsula, lack the same level of infrastructure and have historically focused more on oil production, especially in the Gulf of Mexico (see Figure 1). This limited infrastructure reduces access to natural gas electricity and leads to higher transportation costs, which can hinder development in these regions.[11] Cooperation among the trilateral members can help mitigate Mexico's energy security challenges, as Mexico's Comisión Federal de Electricidad plans to work with the United States to expand the Sur de Texas–Tuxpan Gas Pipeline to reach Veracruz and the Yucatán states.[12] This expansion should be accompanied by investments in transmission and distribution infrastructure to support the overall reliability of Mexico's power grid and enable the continued integration of diversified energy resources such as renewable energy technologies.

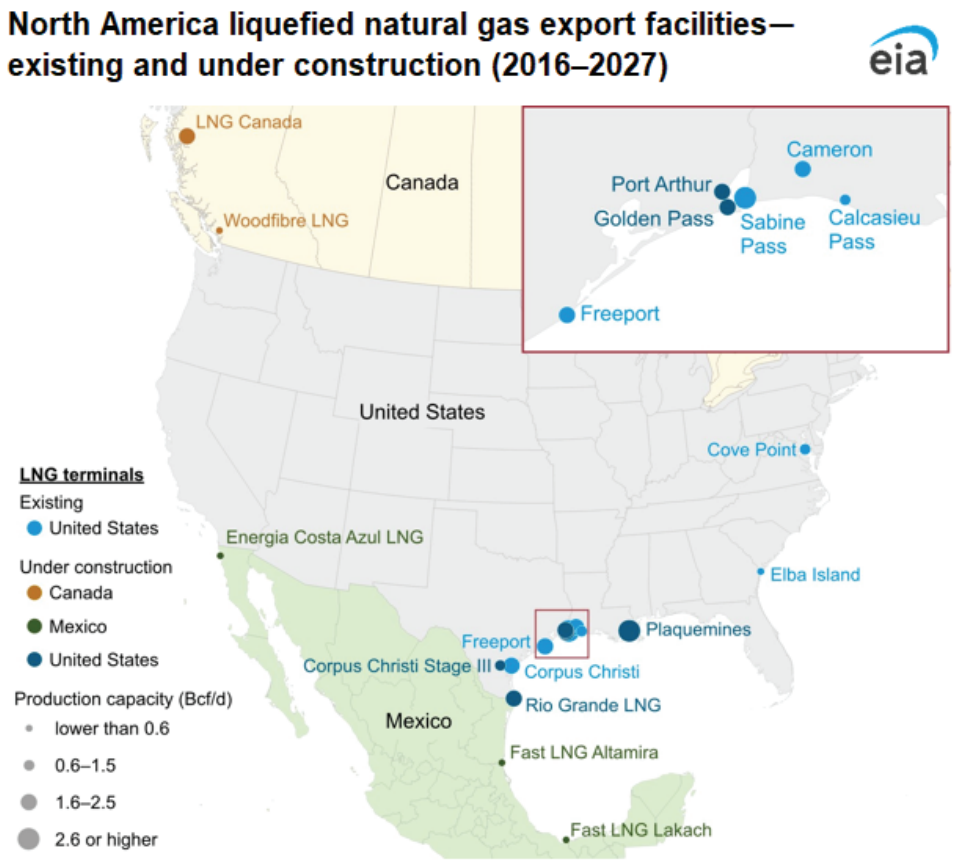

Figure 1

Source: Natural Gas Weekly Update, US Energy Information Administration, October 26, 2023, https://www.eia.gov/naturalgas/weekly/archivenew_ngwu/2023/10_26/#itn-tabs-1.

Beyond the continent, existing and developing infrastructure for exporting natural gas positions North America to support the energy security of partners in Europe and Asia, particularly as many coal-reliant countries seek to transition to cleaner sources, including liquefied natural gas (LNG), which is considered a critical fuel in the transition to net-zero.[13] As partners and allies throughout Europe strive to cut emissions while navigating the challenges of reducing reliance on Russian gas, North American LNG exports can play a critical role.

The continent's westward terminals, LNG Canada and Energía Costa Azul LNG, present a similar opportunity for the trilateral to capture the market potential for natural gas in Asia's heavy emitters. For example, Japan's LNG imports from the United States saw a 34 percent uptick in 2023 from the previous year as the island country sought to decrease its Russian imports.[14] These westward terminals also alleviate the stress on trade chokepoints such as the Panama Canal, improving the resiliency of Asian partners still eager to build on LNG-driven energy relationships.

Nevertheless, the role of LNG should be considered a mechanism to support energy security amid a transition to a net-zero energy system given the urgency of climate action and environmental **sustainability**. In this context, the United States, Mexico, and Canada have each invested in a clean energy strategy. In 2022, the United States passed the Inflation Reduction Act (IRA), which aims to reduce carbon emissions by 40 percent by 2030 and allocates over $370 billion to triple renewable energy production across 280 clean energy projects in the United States.[15] Canada recently introduced the Clean Electricity Regulations to implement new federal legislation that promises to achieve a net-zero power sector by 2050 and reduce emissions to 45 percent below 2004 levels by 2030.[16] Similarly, Mexico enacted the Energy Transition Law to regulate carbon emissions in its energy sector with the goal of generating 35 percent of its electricity from clean energy sources by the end of 2024.[17]

"As this transition unfolds, the evolution of a new resource base and clean energy–oriented economy has heralded a generational change in how nations sustain their economic competitiveness."

These mutually held targets are already leading to collaboration. Government leaders across the trilateral have initiated plans to decarbonize the continent's hard-to-abate sectors through the development of low-carbon energy sources.[18] In addition to the United States' Hydrogen Hubs Program, which allocates up to $7 billion to deploy seven hydrogen hubs across the country, the United States and Mexico have established the Hydrogen Interagency Task Force, a bilateral effort to advance clean hydrogen across North America.[19] Beyond hydrogen-focused initiatives, the United States and Canada have renewed the bilateral Energy Transformation Task Force, an agreement to promote the deployment of resilient nuclear supply chains between the two countries.[20]

Across other sources of clean electricity such as solar and wind, North America has substantial renewables resources. As Mexico, in particular, seeks to accelerate the deployment of clean technology to displace coal and biomass use, the United States and Canada are best equipped to support this effort as two of the top producers of renewable energy, accounting for 16.8 percent and 1.2 percent of global market share, respectively.[21] Investments in developing Mexico's thousands of gigawatts in solar and wind potential would significantly enhance the stability of its grid while reducing emissions and fostering economic growth across the trilateral. However, this requires the expansion of transmission lines, grid capabilities, and electrification across the continent. In some cases, the groundwork for this has already been laid. In 2023, Canada supplied over 90 percent of the United States' electricity imports across thirty-five transmission lines, 60 percent of which was generated through hydro sources.[22] On the other hand, electricity trade between the United States and Mexico is relatively low, with US electricity exports to Mexico constituting less than 0.01 percent of total US energy use.[23] This disparity between fossil fuel trade and electricity trade leaves the door open for the build-out of an integrated grid system that would enable the trade of stored or dispatched electricity across the trilateral.

As this transition unfolds, the evolution of a new resource base and clean energy–oriented economy has heralded a generational change in how nations sustain their **economic competitiveness.** This reaches beyond the energy system, as a secure and reliable energy supply is directly linked to a country's ability to compete in global markets—stable and affordable energy supplies are essential for industrial production, technological innovation, and economic growth across sectors. This transformation, and the North American trilateral's opportunity to maximize conditions that would maintain a strategic edge, can be understood in two key ways.

First, China's dominance across the clean technology value chain, spanning the processing of critical minerals, the manufacturing of solar cells, and the production of lithium-ion batteries for electricity storage and electric vehicles (EVs), has raised concerns about Beijing's disproportionate influence over global clean energy markets, particularly as China has established a strong presence in Mexico. Chinese light vehicles sold in Mexico increased by over 50 percent in 2023, and BYD, a Chinese auto manufacturer, has proposed locating a new manufacturing plant in Durango, Jalisco, or Nuevo Leon.[24] With this concern, the United States has taken a carrot-and-stick approach to relocate and secure supply chains in a way that creates jobs in the new energy

economy but also embraces the localized economies of scale that benefit new and emerging industries. To enhance the **economic competitiveness** of its private sector and partner countries to counter China, the IRA includes a 10 percent tax credit bonus—the "carrot"—on top of the existing production tax credit or investment tax credit for renewables and clean energy projects that meet domestic content standards. More recently, the Joe Biden administration announced a hike in tariffs on Chinese imports of EVs, lithium-ion batteries, and solar cells—the "stick."[25]

Through these US efforts, Canada and Mexico receive preferential treatment to cultivate a North American supply chain of clean technologies. For example, the IRA provides consumer tax credits of up to $7,500 for the purchase of a new clean vehicle assembled in the United States, Canada, or Mexico and mandates that a certain percentage of battery components and critical minerals be sourced from North America or free-trade-agreement countries, setting a standard of 50 percent and 40 percent, respectively, in 2023, with both increasing annually by 10 percent through 2027.[26]

Electric vehicles prove a powerful example of how a "trilateral-shored" supply chain can be highly effective, particularly in the face of China's efforts to dominate global EV markets through aggressive trade practices. Mexico's cost-effective manufacturing sector coupled with favorable trade conditions under the USMCA make it an attractive location for EV assembly and component production, with major companies like General Motors, Ford, and Tesla already operating plants there. Canada, rich in critical minerals—boasting a supply of twenty-nine of thirty-one critical minerals on its national list—enhances its competitive edge in the EV battery value chain through broad technical expertise. The United States excels in innovation of advanced EV technologies, with leading automotive and tech companies driving developments in autonomous systems, high-efficiency batteries, and smart charging infrastructure. Developing an electric vehicle supply chain insulated from Chinese influence would both strengthen the trilateral relationship and encourage global competitiveness in the EV value chain.

Similar North American advantages can be found across other clean technology sectors. For instance, Mexico's cost-effective production capabilities are conducive to establishing solar panel manufacturing plants at a reduced cost. Canada's abundant raw materials (including rare earth minerals) supply critical components for wind turbines, batteries, and solar cells while its strong regulatory environment supports the development of high-quality, durable infrastructure for electricity transmission. The United States is equipped to support enhanced transmission at scale with a competitive advantage in smart grid technologies and their inputs such as advanced AGI software and hardware solutions for energy management, better enabling the distribution, storage, and utilization of renewable electricity.

A pivotal second point is the use of the trilateral's low-emission industrial activities as a comparative advantage in an emerging lower-emission trade system. As the trilateral begins to invest in clean energy supply chains and reduce the emissions of major upstream industries like natural gas, steel manufacturing, petrochemicals, concrete, and cement, the net-zero advantages of these products are becoming a platform for leverage into other trade routes as the role of emissions in trade comes into focus for both sustainability and economic competitiveness. Europe, for example, has begun to crack down on indirect emissions and carbon intensity through trade with the United States–European Union Global Arrangement on Sustainable Steel and Aluminum and the upcoming European Carbon Border Adjustment Mechanism, both of which explicitly address issues of carbon leakage and implicitly build momentum toward trade frameworks that place a political or market premium on the emissions intensity of goods. Using the North American trilateral in anticipation of this trend could yield significant economic benefits in sharpening North America's competitive edge in global supply chains while advancing the sustainability agenda of each country.[27]

Cultivating a North American energy system

Despite the strong trade relationship among the United States, Mexico, and Canada, work remains to seize the potential of a North American energy strategy. Doing so hinges on overcoming regulatory variability that could otherwise hinder the investments necessary to further catalyze energy development in each "bucket" of a trilateral strategy, and support integration and market efficiency through the **harmonization of priorities, policies, and standards**. The United States, Canada, and Mexico each have distinct regulatory environments that reflect their unique economic and political contexts. Realization of a cohesive North American energy strategy would require an improved mechanism for priority sharing and strategic planning that could begin addressing common regulatory issues across critical areas such as clean technologies and cross-border trade.

> Canada, Mexico, and the United States each have the potential to benefit domestically from a North American energy strategy that boosts energy security, advances sustainability measures, and lowers energy costs.

Streamlining licensing and permitting processes across the three countries is essential to achieving these goals. Mexico's recent energy reforms favoring state-owned enterprises over private and foreign investors further highlight the complexities resulting from differing permitting and licensing processes. US and Canadian companies argue that Mexico's policies violate the USMCA by limiting market access and creating an uneven playing field. USMCA prohibits each member of the trilateral from treating goods, investors, or companies from the other USMCA countries less favorably than their domestic counterparts across all sectors, including energy. This situation underscores the importance of establishing a unified permitting framework and implementing fast-track approval mechanisms to foster energy cooperation across the continent.

Achieving regulatory alignment and streamlined processes are critical steps toward **promoting market integration and mitigating fragmentation** in the North American energy sector. Facilitating cross-border energy trade through aligned regulations and streamlined processes would enhance market integration and ensure the efficient flow of energy resources across the continent. This includes developing robust infrastructure for electricity transmission, natural gas pipelines, and renewable energy projects that span multiple jurisdictions. By removing barriers to cross-border trade, the trilateral members can create a resilient, interconnected energy market.

Conclusion

As North America looks to navigate ongoing geopolitical instability and economic shocks, the importance of strategic alignment in the energy sector becomes clear. With their unique global positions and rich resource bases, Canada, Mexico, and the United States each have the potential to benefit domestically from a North American energy strategy that boosts energy security, advances sustainability measures, and lowers energy costs. More importantly, consolidating a North American energy partnership would strengthen competitiveness and security in an increasingly multipolar global system.

Despite a strong trade and policy foundation through the USMCA, a barrier to entry remains. Without alignment on net-zero targets, regulatory frameworks, and investment goals, a coherent energy strategy slips out of reach and leaves opportunities on the table. Expanding an integrated clean energy grid and increasing conventional energy trade will require close collaboration on permitting and regulatory frameworks, and strategic alignment on USMCA policies is essential to building out a North American critical mineral supply chain. Further, without the proper funding mechanisms in place, achieving North American energy independence and climate goals becomes increasingly difficult. A lack of synergy across North American energy processes has the potential to inhibit energy security, economic development, and global competitiveness. Moving forward, the United States, Mexico, and Canada must engage federal and local governments, the private sector, and nongovernmental organizations to leverage their trade and resource bases to develop a clear energy strategy, founded in transnational cooperation and partnerships.

The Atlantic Council Global Energy Center thanks TC Energy for its support of this brief.

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