

Commentary



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The evolution of energy security in the Indo-Pacific: Why is it important for Canada?

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For over 100 years, oil has dominated the geopolitics of energy and energy security was mainly about securing access to oil supplies. However, as climate change efforts accelerate and the energy transition unfolds, the geopolitics of energy is changing. Nowhere do these changes hold more significance than in the Indo-Pacific.

Energy security is about ensuring stable, affordable and sustainable supplies of energy. Therefore, maintaining a resilient energy system is of paramount concern to countries that are highly dependent on international markets for the energy resources and critical materials needed to sustain their economies. China, Japan, India, and South Korea are the world's largest importers of crude oil and natural gas and all but China rely on imports for 80 percent or more of their needs. Japan and South Korea in particular depend on maritime shipments of oil, natural gas, coal, uranium and other energy and mineral products to meet domestic requirements.

The Indo-Pacific region is expected to have the strongest demand for energy over the next three decades, as continued economic growth and increasing numbers of people enter the middle class and increase their energy con-

sumption. However, a range of tensions, rivalries and grievances are fuelling geopolitical competition in the region. It is in this context that energy and the critical resources that underpin its production, transformation and use are undergoing fundamental change.

Threats and risks to energy security

As the energy transition unfolds, some energy security concerns are likely to recede, some will remain and still others will shift significantly.

The concern over access to fossil fuels will persist for some time to come. Even if UN sustainable development goals are reached by 2040, the Indo-Pacific is likely to remain reliant on oil and natural gas for a significant proportion of the region's energy demand. Developing countries such as India and China have committed to net-zero emissions by later this century but have also said they will continue to rely on fossil fuels to preserve energy affordability and promote economic development. By 2050, even as renewables are expected to make up 38 percent of energy supply in the Indo-Pacific, oil is still expected to account for about 37-39 percent of global demand and natural gas for about 28-36 percent of global demand (IEA 2021).

While reliance on fossil fuels will fall over time, the need to procure alternative fuels (such as hydrogen, ammonia and biofuels) and the critical minerals needed to manufacture clean energy technologies will rise in importance. In the case of critical minerals, supplies are concentrated in a smaller number of countries than is the case for oil and natural gas. Critical mineral requirements are expected to increase by between three and six times and the combined share of critical minerals and low-carbon hydrogen in global energy trade is expected to grow to between 25 and 80 percent by 2050 (IEA 2021).

With enhanced electrification, larger and more integrated electricity grids will provide clear benefits but may be at greater risk from cyber attacks and cascading failures. Meanwhile, an expected increase in the use of nuclear power will mean increased dependence on uranium imports for many countries, and proliferation risks could increase as international power relations shift and global uncertainties persist.

In addition to fossil fuels, the supply chains for clean energy technologies, alternative fuels, uranium and critical minerals will become increasingly important to secure if strategic competition and international rivalries continue to intensify.

The geopolitics of energy security

The geopolitics of energy is evolving in the Indo-Pacific. Even as the demand for fossil fuels declines, the concentration of fossil fuel, critical mineral and clean energy technology supplies and capabilities in a few countries will likely increase. Rather than lessening energy security concerns, the energy transition introduces a broader, more complex set of risks and threats.

As demand for fossil fuels declines, high-cost producers are likely to be forced out of the market and concentration in state-owned national oil and gas companies (NOCs) will increase. NOCs currently control well over 60 percent of global oil and gas reserves and over 50 percent of global production (IEA 2020) and many receive various forms of support and favourable treatment from their governments. Many NOCs are under the control of authoritarian regimes with weak environmental, social and governance practices. Countries in the Middle East supply much of the Indo-Pacific with the majority of their crude oil and liquified natural gas (LNG), but this also happens to be a region with a long history of instability and conflict. According to International Energy Agency (IEA) estimates, the share of global oil production by low-cost producers such as those in the Organization of the Petroleum Exporting Countries (OPEC) and in Russia could increase to between 47 and 61 percent by 2050 (IEA 2021).

The concentration of energy resources in a few countries can have serious negative consequences for energy security, including increased risk from political unrest in a producing country, less cooperation from NOCs on sharing emergency reserves, and a smaller spot market that could dilute market liquidity during shortages or supply shocks (Lynch 2021). In addition, some countries such as Russia have weaponized their supply capabilities by threatening to slow or stop crucial supplies, manipulate prices or exert geopolitical leverage over import dependent countries. China has demonstrated a willingness to use its economic dominance to coerce other countries for political purposes and recently implemented a new export-control law that could be used to restrict overseas purchases of key minerals and rare earths.

Any number of events including a conflict with North Korea, a China-Taiwan military conflict or skirmishes over territorial claims could interrupt the free passage of marine traffic in the South China Sea through which over one-third of global maritime trade passes. Such events could have serious consequences for the global economy. While China could survive a prolonged marine stoppage in oil and gas shipments because it has access to emergency reserves and to pipeline gas and oil, Japan and South Korea could not. Should China gain control over all or much of the South China Sea, it would not even have to actually disrupt the flow of trade. Its de facto control over the sea would give it potential leverage over other countries that rely on the sealanes that pass through the region. Another potential flashpoint involves North Korea, which has developed nuclear weapons and ballistic missiles and continues to

threaten its neighbours Japan and South Korea.

Through geoeconomic strategies like the Belt and Road Initiative (BRI), China seeks to acquire resources for its growing economy and gain economic and political influence over its neighbours and over supply routes, including energy supplies. This is of concern to other countries in the region that rely on well-functioning, liquid global markets to secure needed supplies of energy and critical minerals.

Energy security and the “Free and Open Indo-Pacific”

With growing geopolitical risks from the rise of China, territorial disputes in the South China Sea and the absence of a comprehensive regional security architecture, the “Free and Open Indo-Pacific” (FOIP) concept advanced by Japan has been recognized by a number of nations, including Canada, as timely and important to stability and security in the region.

Energy plays a key role in FOIP. For the US, the exceptionally high-level of energy import dependence among allies such as Japan, South Korea and the Philippines and their exposure to potential supply disruptions create risks not only for them but also to US security alliances with these countries.

For its part, Japan has stated its desire to play a leading role in initiatives to enhance energy security among Indo-Pacific countries, viewing it as a way to improve its own energy security situation. As a result, it also seeks to build “comprehensive resource diplomacy” with energy consuming countries in the region. This includes promoting a competitive and liquid energy marketplace, multilateral cooperation on energy and adherence to international rules and practices (Japanese Ministry of Economy, Trade and Industry 2018, 2021).

Under the Trump administration, the US viewed its energy resource strength in oil and LNG exports as a springboard to help the Indo-Pacific reduce its reliance on imports from the Middle East, strengthen its energy security, and act as a counter to China’s growing influence through the BRI. Recognizing the Indo-Pacific’s dominance in global energy demand and the impact this will have on shaping international relationships, energy plays a central economic role in the US version of FOIP. Energy resources were seen as key to the US commitment to strengthening energy security in the region by providing the means to help it reduce reliance on autocratic regimes for its energy needs. In this vein, the US and Japan agreed to finance and construct power plants and natural gas import facilities throughout the Indo-Pacific region (Ladislaw and Tsafos 2019).

Under the Biden administration, the US has reiterated its commitment to

FOIP and is working to strengthen its relations with all the other members of the “Quad” (a grouping that includes the US, Australia, Japan, and India) in support of FOIP. However, the energy aspects of FOIP appear to be under review and its future direction is still unclear. While there is more emphasis on climate change initiatives, the administration appears to be taking a more tentative approach to development finance for fossil fuels, which is likely to continue post-COP26. At least for now, an active role in promoting US LNG exports appears to have been dropped. This leaves Japan with the greater burden of promoting regional energy security and could jeopardize some LNG infrastructure proposals in the region, especially in Southeast Asia.

Energy cooperation in the Indo-Pacific

When it comes to energy, many countries in the Indo-Pacific tend to pursue independent policies within a highly competitive economic and geopolitical environment. These countries view energy security as integral to their national security concerns.

Countries in the Indo-Pacific region have not traditionally pursued extensive energy cooperation initiatives with each other. Many countries, particularly those in East and Southeast Asia, are island nations or isolated diplomatically or geographically. The region has no major regional electricity grids, limited electricity trading and few international pipeline interconnections, except in the case of China. Through its Belt and Road Initiative, China has invested in and built natural gas and oil pipeline connections with Central Asia and Russia.

While major trade agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and Regional Comprehensive Economic Partnership (RCEP) have recently been formalized, they do not contain significant energy initiatives and regional approaches to energy security are lacking. Only the Association of Southeast Asian Nations (ASEAN) has an energy cooperation initiative with the “ASEAN Plan of Action for Energy Cooperation,” which includes plans for an ASEAN power grid. But this plan is limited in both scope and actual results. For all these reasons, “energy diplomacy” and forging close bilateral relations with supplier countries is of vital importance to the foreign policy of many countries in the Indo-Pacific.

Conclusion

The Indo-Pacific region will be the most dynamic centre of economic growth this century but also one of the most geopolitically contentious, with energy playing an important role. Over the course of the energy transition, given the increasing diversity in energy sources and energy utilization and the greater

need for securing supply chains, the dynamics of political and economic relations will transform patterns of cooperation and conflict among countries as the energy mix shifts and new patterns of market power and dependence emerge.

Canada has an opportunity to play an important strategic role in leveraging its energy and critical mineral resources to deepen its trade, diplomatic and security interests in the Indo-Pacific. Energy security and FOIP are recognized in the six “shared priorities” document Canada and Japan agreed to in early 2021 and this could provide the foundation for deeper energy and security relations between the two countries. As one of the largest free market sources of global energy resources not controlled by state-owned enterprises and with high environmental, social and governance standards, Canada can contribute to global and regional energy security by cooperating with allies and partners to supply the energy and critical mineral resources they will need.

About the author



Jeff Kucharski is a strategic thinker, policy entrepreneur and academic. He is currently an Adjunct Professor at Royal Roads University in Victoria, B.C and a Senior Fellow at the Macdonald-Laurier Institute. Before retiring from the public service in 2012, he was an Assistant Deputy Minister in the Alberta Department of Energy responsible for international energy policy, strategic planning and intergovernmental relations. Dr. Kucharski spent almost half his working career in Japan in various roles including as Managing Director of the Government of Alberta's trade office in Tokyo and as Consul and Senior Trade Commissioner in Nagoya, Japan on secondment to the Federal Department of Foreign Affairs and International Trade.

Prof. Kucharski is a regular speaker and presenter on energy and trade related issues. His academic research interests include international trade, energy policy, energy trade, and the geopolitics of the international energy business. He holds a Doctor of Energy Science degree from the Graduate School of Energy Science, Department of Socio-environmental Energy Science, Kyoto University in Japan and MBA and B.Com degrees from the University of Alberta.

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